

# Electrical Circuit Diagrams

SERIAL NUMBER:

70485

SET No.

17230 W/A

ELECTRICAL DIAGRAM SET No.

Set No.: 17230WA

Drawn by: M. Hayakawa

Machine type: SLANT 30 ATC H/C

Checked by:

Machine No.: S/A, 70485

Date: 12/9 '86

Approved by:

Line voltage	380	V	NC equipment	MAZATROL-T3		ROM No.	4-264C12
Input power requirements	44.43	KVA	Spindle motor	AC DC 22.5 KW		Option	Coolant 15KW

Elementary Diagram List					
1	1720147100	21	1720147131	41	
2		22	132	42	
3		23	133	43	
4		24	134	44	
5	1720147111	25	135	45	
6	112	26	136	46	
7	113	27		47	
8	114	28		48	
9	115	29		49	
10	116	30	1720147151	50	
11		31	152	51	
12		32	153	52	
13		33		53	
14		34		54	
15	1720147121	35		55	
16	122	36		56	
17	123	37		57	
18	124	38		58	
19		39		59	
20		40		60	

Set No. 17230WA

YAMAZAKI MAZAK CORPORATION

Set No.: 17230WA

Machine No.: S/A, 70485

Page: 2/6

Control Circuit Diagram  
Parts List

Control Circuit Diagram Parts List					
1	1720147300	31		61	Remarks
2		32		62	
3		33		63	
4		34		64	
5		35		65	
6		36		66	
7		37		67	
8		38		68	
9		39		69	
10	1720147301	40		70	
11		41		71	
12	302	42		72	
13	303	43		73	
14	304	44		74	
15	305	45		75	
16	306	46		76	
17		47		77	
18		48		78	
19		49		79	
20	1720147310B	50		80	
21	311	51		81	
22	312A	52		82	
23	313	53		83	
24	314A	54		84	
25	315A	55		85	
26	316	56		86	
27	317A	57		87	
28	318A	58		88	
29	319A	59		89	
30		60		90	

Set No. 17230WA

YAMAZAKI MAZAK CORPORATION

Control Circuit Diagram  
Parts List

											Remarks
1	17201474001	31	1720147420A	61	1720147450						
2		32	421	62	451						
3		33	422	63	452						
4		34	423	64							
5		35	424	65	454A						
6		36		66	455						
7		37	426A	67							
8		38	427	68							
9		39	428A	69	458						
10	1720147401	40	429A	70	459A						
11		41	430	71	460						
12		42		72	461A						
13		43	432	73	462						
14		44	433A	74	463B						
15		45		75							
17		46	435A	76	465						
17		47	436A	77	466						
(18)	1723047407A	48	437	78	467						
19	1720147408	49	438A	79	468						
20		50	439	80							
21		51	440	81							
22		52	441	82							
23		53	442	83							
24		54	443A	84							
25		55		85							
26		56		86							
27		57		87							
28		58		88							
29		59		89							
30		60	1720147449	90							

Set No. 172 30WA

YAMAZAKI MAZAK CORPORATION

Control Circuit Diagram  
Parts List

											Remarks
1	1720147500A	31	1720147530	61							
2		32	531	62							
3		33	502A	63							
4		34	503	64							
5		35	504	65							
6		36		66							
7		37		67							
8		38		68							
9		39	508	69							
10		40		70							
11		41	510A	71							
12		42	511A	72							
13		43	512	73							
14		44	513	74							
15		45	514A	75							
17		46	515A	76							
17		47	516A	77							
18		48	517	78							
19		49	518A	79							
20		50	519A	80							
21		51	520A	81							
22		52	521A	82							
23		53	522A	83							
24		54	523A	84							
25		55	524A	85							
26		56	525B	86							
27		57	526	87							
28		58	527	88							
29		59	528	89							
30		60		90							

Set No. 172 30WA

YAMAZAKI MAZAK CORPORATION

Control Circuit Diagram  
Parts List

1	1720147800Y	31		61		Remarks
2		32		62		
3		33		63		
4		34		64		
5		35		65		
6		36		66		
7		37		67		
8		38		68		
9		39		69		
10	1720147800Y	40		70		
11		41		71		
12		42		72		
13		43		73		
14		44		74		
15		45		75		
17		46		76		
17		47		77		
18		48		78		
19		49		79		
20		50		80		
21		51		81		
22		52		82		
23		53		83		
24		54		84		
25		55		85		
26		56		86		
27		57		87		
28		58		88		
29		59		89		
30		60		90		

Control Circuit Diagram  
Parts List

1		31	717210R0100	61	717220R0100	Remarks
2		32	0200	62	0200	
3		33	0300	63	0300	
4	717201R0100	34		64		
5	0200	35		65		
6	0300	36	717211R0100	66	717221R0100	
7		37	0200	67	0200	
8		38		68	0300	
9	717205R0100	39		69	0400	
10	0200	40	717212R0100	70	0500	
11		41	0200	71	0600	
12		42		72	0700	
13	717206R0100	43		73	0800	
14	0200	44	717213R0100	74	0900	
15		45	0200	75		
17		46		76		
17	717207R0100	47		77	717225R0100	
18	0200	48	717214R0100	78	0200	
19	0300	49	0200	79		
20		50		80		
21		51		81	7172290100	
22	717208R0100	52	717216R0100	82		
23	0200	53	0200	83		
24		54	0300	84		
25		55	0400	85		
26	717209R0100	56		86		
27	0200	57		87		
28		58	717217R0100	88		
29		59	0200	89		
30		60		90		

# ELEMENTARY DIAGRAM LIST

SHEET	TITLE	DRAWING NO.
111	M CODE LIST MAZATROL T2/T3	
112	DO.	
113	DO.	
114	DO.	
115	DO.	
116	DO.	
121	LS TABLE	
122	PRS TABLE	
123	SOL TABLE	
124	LED TABLE	
131	THE METHOD OF USING ALARM TABLE	
132	ALARM TABLE (1)	
133	DO. (2)	
134	DO. (3)	
135	DO. (4)	
136	DO. (5)	
151	OPTION PARAMETER	
152	DO.	
153	DO.	

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DRN. BY Y. SUZUKI  
DATE 1985.7.6  
CHK'D BY Y. KURO  
DATE



TITLE  
ELEMENTARY DIAGRAM

CONTROL MAZATROL  
DRAWING NO. 1720147100  
SHEET 1 OF 1  
SIZE 3

SHEET 100  
INDEX NUMBER

INDEX NUMBER  
SHEET

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DATE: 85.7.6  
DRAWN BY: Y. SAKAKI  
CHK'D BY: K. ITO

**Mazak**  
Mazak Machine Corporation

CONTROL: MAZATROL

DRAWING NO. 1720147111

SIZE 3

SET 1 / 1

INDEX NUMBER

M CODE	COMMENT	REMARK
00	PROGRAM STOP	
01	OPTIONAL STOP	
02	END OF PROGRAM	EIA CODE ONLY
03	SPINDLE FORWARD	↻ CW
04	SPINDLE REVERSE	↻ CCW
05	SPINDLE STOP	
06	CHUCK OPEN	
07	CHUCK CLOSE	
08	COOLANT ON	
09	COOLANT OFF	
10	TAIL BODY JOINT OFF	
11	TAIL BODY JOINT ON	
12	MILL MODE OFF	FANUC & T1 ONLY
13	TOOL ROTATION FORWARD	do.
14	TOOL ROTATION REVERSE	do.
15	TOOL ROTATION STOP	do.
16	ORIENT COMMAND 0°	SPINDLE ORIENT
17	ORIENT COMMAND 120°	do
18	ORIENT COMMAND 240°	do
19	ORIENT COMMAND	do
20	ROBOT SERVICE	
21	do	
22	do	
23	do	
24	do	
25	do	
26	do	
27	do	
28	do	
29	do	
30	RESET & REWIND	EIA CODE ONLY
31	TAIL STOCK FORWARD	
32	TAIL STOCK REVERSE	
33	CHUCK PRESSURE LOW	
34	CHUCK PRESSURE HIGH	
35		
36	GEAR SHIFT NEUTRAL	EIA CODE ONLY
37	GEAR SHIFT "L"	do.
38	GEAR SHIFT "M"	do.
39	GEAR SHIFT "H"	do.
40	GEAR SHIFT NEUTRAL	do.
41	GEAR SHIFT "L"	do.
42	GEAR SHIFT "M"	do.
43	GEAR SHIFT "H"	do.
44	GEAR SHIFT "HH"	do.
45		
46	ONE WAY ROTATION	
47	M46 CANCEL	
48	PARTS CATCHER FORWARD	
49	PARTS CATCHER REVERSE	

DRAWING NO.  
SHEET \_\_\_\_ OF \_\_\_\_

INDEX NUMBER	SHEET	LINE
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LINE	COMMENT	REMARK
50		
51	ERROR DETECT OFF	
52	ERROR DETECT ON	
53	CHAMFERING OFF	EIA CODE ONLY
54	CHAMFERING ON	do.
55	PIECE COUNT	
56	FRONT COVER OPEN	
57	FRONT COVER CLOSE	
58	AIR BLOW	
59	PROGRAM END READY	
60	MILL MODE "N" GEAR	EIA & T1 ONLY
61	MILL MODE "L" GEAR	do.
62	MILL MODE "H" GEAR	do.
63	TOOL CHANGE AUX. ATC	FANUC & T1 ONLY
64	TOOL LOAD ATC	do.
65	TOOL UNLOAD ATC	do.
66	SPINDLE CLAMP C-AXIS	do.
67	SPINDLE BRAKE C-AXIS	do.
68	CYCLE BARFEEDER CALL 1	
69	CYCLE BARFEEDER CALL 2	
70	SPINDLE OVER LOAD INVALID	
71	SPINDLE OVER LOAD VALID	
72		
73		
74		
75		
76	AUTO JAW UNLOAD	EIA & T1 ONLY
77	AUTO JAW LOAD	EIA & T1 ONLY
78	WORK REST OPEN DOG VALID	
79	WORK REST OPEN DOG INVALID	
80		
81		
82		
83		
84		
85		
86	WORK REST 1 UNCLAMP	
87	WORK REST 1 CLAMP	
88	WORK REST 2 UNCLAMP	
89	WORK REST 2 CLAMP	
90		
91		
92		
93		
94		
95		
96		
97		
98	EIA→EIA サジメの 呼出 あり	
99	EIA→EIA サジメの あり 無し	

DRN. BY Y. SUGIYAMA  
 DATE 85.7.6  
 CHK'D BY Y. KATO  
 DATE

**Mazak**  
 MAZAK INDUSTRIAL CORPORATION

TITLE  
 M CODE LIST  
 MAZATROL T2/T3

CONTROL  
 MAZATROL  
 DRAWING NO. L720147112  
 SHEET 3 OF 3

SHEET 112 LINE  
 INDEX NUMBER

INDEX NUMBER  
SHEET  
LINE

DATE: 05.7.8  
CHKD BY: YHTD  
DATE

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
M CODE LIST  
MAZATROL T2/T3

CONTROL  
DRAWING NO. 1720147113  
SHEET 3

SHEET 113  
INDEX NUMBER

M CODE	COMMENT			REMARK
100	MES. DIA START			
101	MES. DIA END			
102	MES. STEP START			
103	MES. STEP END			
104	MES. GRV START			
105	MES. GRV END			
106	MES. WIDE START			
107	MES. WIDE END			
108	MES. DIS START			
109	MES. DIS END			
110	MES. TOL START			
111	MES. TOL END			
112	MES. EXT START			
113	MES. EXT END			
114	MES. ZRF START			
115	MES. ZRF END			
116				
117				
118				
119				
120				
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122				
123				
124				
125				
126				
127				
128				
129				
130				
131	ROBOT SERVICE FMS			
132	do.			
133	do.			
134	do.			
135	do.			
136	do.			
137	do.			
138	do.			
139	do.			
140	do.			
141	do.			
142	do.			
143	do.			
144	do.			
145	do.			
146	do.			
147	do.			
148	do.			
149	do.			

DRAWING NO.  
SHEET \_\_\_\_ OF \_\_\_\_



INDEX NUMBER SHEET LINE

DATE 185.7.6  
 DWN. BY T. SHERMAN  
 CHK'D BY V. A. D.

**Mazak**  
 MAZAK INC. MAZAK CORPORATION

TITLE  
 M CODE LIST  
 MAZATROL 72/13

CONTROL  
 MAZATROL  
 DRAWING NO. 1720147114  
 3

SHEET 174 LINE

LINE	COMMENT	REMARKS
01		
02		
03	150 R&BRT SERVICE FMS	
04	151 do.	
05	152 do.	
06	153 do.	
07	154 do.	
08	155 do.	
09	156 do.	
10	157 do.	
11	158 do.	
12	159 do.	
13	160 do.	
14	161 do.	
15	162 do.	
16	163 do.	
17	164 do.	
18	165 do.	
19	166 do.	
20	167 do.	
21	168 do.	
22	169 do.	
23	170 do.	
24	171 do.	
25	172 do.	
26	173 do.	
27	174 do.	
28	175 do.	
29	176 do.	
30	177 do.	
31	178 do.	
32	179 do.	
33	180	
34	181 JAW NO. 1	AJC CYCLE
35	182 do. 2	do.
36	183 do. 3	do.
37	184 do. 4	do.
38	185 do. 5	do.
39	186 do. 6	do.
40	187 do. 7	do.
41	188 do. 8	do.
42	189 do. 9	do.
43	190 do. 10	do.
44	191 do. 11	do.
45	192 do. 12	do.
46	193 do. 13	do.
47	194 do. 14	do.
48	195 do. 15.	do.
49	196	
50	197	
51	198 EIA → MAZATROL CALL REPEAT ON	
52	199 EIA → MAZATROL CALL REPEAT OFF	

DRAWING NO. \_\_\_\_\_  
 SHEET \_\_\_\_\_ OF \_\_\_\_\_

INDEX NUMBER

SHEET

LINE

DATE BY  
85.7.6 YASUZUKI

CHEK'D BY  
KAD

DATE

**Mazak**  
Mitsubishi Mazak Corporation

TITLE  
M CODE LIST

MAZATROL T2/T3

CONTROL  
MAZATROL

DRAWING NO.  
1720147115

SHEET 1 OF 3

SHEET 115

INDEX NUMBER

M CODE	COMMENT	REMARKS
200	POINT CUTTING	MILL CYCLE
201	LINE CUTTING (SGL MILL)	do.
202	MILL MODE OFF	
203	MILL TURRET FORWARD	G
204	MILL TURRET REVERSE	G
205	MILL TURRET STOP	
206		
207		
208		
209		
210	SPINDLE CLAMP	MILL CYCLE
211	SPINDLE BRAKE	do.
212	SPINDLE FREE	do.
213		
214		
215		
216	LUBE TURRET SLECT	
217	LUBE TURRET RET.	
218	LUBRICATION	
219	MILL ORIENT	
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DRAWING NO.

SHEET OF

INDEX NUMBER	SHEET	LINER
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SHEET 116		LINER
INDEX NUMBER		

	COMMENT		REMARKS
250	TOOL LOAD (ATC)		ATC CYCLE
251	ATC CYCLE (ATC)		do
252	TOOL UNLOAD (ATC)		do
253	COM. TOOL INDEX		MEGA TURN
254	RET. TOOL INDEX		do.
255	MILL HEAD INDEX		do.
256	INDEX FIN CHECK		do.
257	TURN. TOOL CLAMP		do.
258	TURN. TOOL UNCLAMP		do.
259	MILL TOOL CLAMP		do.
260	MILL TOOL UNCLAMP		do.
261	MAGAGINE COVER OPEN		
262	MAGAGINE COVER CLOSE		
263			
264			
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DRA. BY: KASUHIKI  
 DATE: 19.7.6  
 CHG. BY: KATO  
 DATE:



TITLE  
 M CODE LIST  
 MAZATROL 12/13

CONTROL  
 DRAWING NO.  
 1720147116  
 SHEET OF

DRAWING NO.  
 SHEET. OF.

LS TABLE

LS. NO	NAME	USED CONTACT	LINE NO	NOTE
1	GEAR NEWTRAL POSITION	N.O.	+24N. 401	(C AXIS ONLY)
2	GEAR LOW POSITION	N.O.	+24N. 402	
3	GEAR MIDDLE POSITION	N.O.	+24N. 403	
4	GEAR HIGH POSITION	N.O.	+24N. 404	(ST-30N ONLY)
	STROKE END OVER TRAVEL +Z			
16	TAIL JOINT LS ON	N.O.	+24N. 416	
47	MAGAZINE REVERSE END	N.O.	+24N. 447	
48	MAGAZINE FORWARD END	N.O.	+24N. 448	
12	TAIL SLEEVE FORWARD END	N.O.	+24N. 412	
11	TAIL SLEEVE REVERSE END	N.O.	+24N. 411	
	TURRET INDEX REAR			
	STROKE END OVER TRAVEL +Z			
	X AXIS HOME POSITION			
24	STROKE END OVER TRAVEL +X		+24N. 424	
25	STROKE END OVER TRAVEL -X		+24N. 425	
	Z AXIS HOME POSITION			
26	STROKE END OVER TRAVEL +Z		+24N. 426	
27	STROKE END OVER TRAVEL -Z		+24N. 427	
74	PARTS CATCHER FORWARD	N.O.	+24N. 474	(OPTION)
75	PARTS CATCHER REVERSE	N.O.	+24N. 475	(OPTION)
72	COVER CLOSE END	N.O.	+24N. 472	(OPTION)
21	DECELERATION X	N.C.	+24N. 421	
22	DECELERATION Z	N.C.	+24N. 422	
	DOOR LS			
	CHUCK OPEN END			
	CHUCK CLOSE END			
76	FRONT DOOR OPEN END	N.O.	+24N. 476	(OPTION)
77	FRONT DOOR CLOSE END	N.O.	+24N. 477	(OPTION)
126	SPINDLE CLAMP 0°	N.O.	+24N. 526	
127	do 1°	N.O.	+24N. 527	
128	do 2°	N.O.	+24N. 528	
123	SPINDLE UNCLAMP 0°	N.C.	+24N. 523	
124	do 1°	N.C.	+24N. 524	
125	do 2°	N.C.	+24N. 525	
	TURRET GEAR TURRET MODE LS			
	NEWTRAL			
	MILLING MODE L			
	do H			
85	TOOL DETECTOR ON	N.C.	P24, 485	

INDEX NUMBER SHEET LINE

DATE 85.7.6  
CHK'D BY KMD  
DATE

DRN. BY T. S. WEN  
DATE 85.7.6  
CHK'D BY KMD  
DATE

**Mazak**  
MAZAK CORPORATION

TITLE  
LS TABLE

CONTROL  
HAZARD  
DRAWING NO. 1720147121  
SHEET 3 OF 3

SHEET 121 INDEX NUMBER

DRAWING NO.  
SHEET \_\_\_\_ OF \_\_\_\_

INDEX NUMBER

SHEET

LINE

PRS TABLE

PRS NO.	NAME	USED CONTACT	LINE NO	NOTE
31	TOOL POSITION 1	N.O.	+24N. 431	
32	TOOL POSITION 2	N.O.	+24N. 432	
33	TOOL POSITION 3	N.O.	+24N. 433	
34	TOOL POSITION 4	N.O.	+24N. 434	
28	TOOL CHANGE INTER LOCK	N.C.	+24N. 428	
	TURRET CLAMP FRONT			
	TURRET UNCLAMP FRONT			
43	TOOL INDEX POSITION	N.O.	+24N. 443	
	TURRET INDEX REAR (In)			
	TURRET CLAMP REAR			
	TURRET UNCLAMP REAR			
63	CHUCK OPEN END	N.O.	+24N. 463	
64	CHUCK CLOSE END	N.O.	+24N. 464	
	PALLET ON STAND 1			
	PALLET ON STAND 2			
23	DECELERATION C	N.C.	+24N. 423	(OPTION)
113	TOOL CLAMP CONFIRMATION	N.D	+24N. 513	
78	TOOL DETECTOR FORWARD END.	N.O	+24N. 478	(OPTION)
79	TOOL DETECTOR REVERSE END	N.O	+24N. 479	(OPTION)

CHK'D BY KATO  
DATE 85.7.6  
DNE BY YAMAZAKI



MAZAKI MAZAK CORPORATION

PRIS TABLE

CONTROL MAZATROL  
DRAWING NO. 1720147122  
SHEET 3 OF 3

SIZE 3

SHEET 122

INDEX NUMBER

DRAWING NO.

SHEET. \_\_\_\_\_ OF \_\_\_\_\_

INDEX NUMBER

SOL TABLE

LET LINE

A 87.2.3 H TAKE

SOL NO.	NAME	LINE NO	NOTE
	TURRET UNCLAMP		
	TURRET SLOW DOWN		
	TURRET INDEX		
44	CHUCK UNCLAMP	644, 0B	
45	CHUCK CLAMP	645, 0B	
28	TOOL HOLDED CLAMP	628, 0B	
61	CHUCK AIR BLOW	661, 0B	(OPTION)
	TOOL ROTATION FORWARD		
	TOOL ROTATION REVERSE		
41A	MAGAZINE FORWARD	641A, 0B	
41B	MAGAZINE REVERSE	641B, 0B	
42A	MAGAZINE CW	642A, 0B	
42B	MAGAZINE CCW	642B, 0B	
	TOOL ROTATION		
	TURRET UNCLAMP (REAR)		
	TURRET INDEX (REAR)		
	COOLANT LOWER SELECT		
	COOLANT UPPER SELECT		
	TOOL SPEED UP		
	TOOL SPEED DOWN		
	TOOL SPEED HIGH AREA		
20	SPINDLE GEAR SHIFT 0	620, 0B	(C AXIS ONLY)
21	do 1	621, 0B	
22	do 2	622, 0B	
23	do 3	623, 0B	(ST-30N ONLY)
35	C AXIS CLAMP PIN RETRACT	635, 0B	(OPTION)
68	C AXIS GEAR ON	668, 0B	(OPTION)
69	C AXIS GEAR OFF/PIN 0	669, 0B	(OPTION)
70	C AXIS CLAMP / PIN 1	670, 0B	(OPTION)
36	C AXIS BRAKE / PIN 2	636, 0B	(OPTION)
26	TAIL BODY JOINT	626, 0B	
24A	TAIL SLEEVE FORWARD	624A, 0B	
24B	TAIL SLEEVE REVERSE	624B, 0B	
46	WORK REST 1	646, 0B	(OPTION)
47	WORK REST 2	647, 0B	(OPTION)
	SPINDLE ORIENT 0 CLAMP		
	SPINDLE ORIENT 1 CLAMP		
	SPINDLE ORIENT 2 CLAMP		
54A	FRONT DOOR OPEN	654A, 0B	(OPTION)
54B	FRONT DOOR CLOSE	654B, 0B	(OPTION)
66	SHANK AIR BLOW	666, 0B	
67	TOOL IN AIR BLOW	667, 0B	
12	COOLANT SOL ON	612, 0B	
11	MICRO MIST LUBE	611, 0B	
54C	FRONT DOOR 3	654C, 0B	
65	DETECTOR AIR BLOW	665, 0B	(OPTION)
73A	PARTS CATCHER FORWARD	673A, 0B	(OPTION)
73B	PARTS CATCHER REVERSE	673B, 0B	(OPTION)

DRN. BY SUZUKI  
DATE 85.7.6  
CHK'D BY YKD



TITLE  
SOL TABLE

CONTROL  
DRAWING NO. 1720147123A  
OF 3

SHEET 123 LINE INDEX NUMBER

DRAWING NO.  
SHEET. \_\_\_\_\_ OF. \_\_\_\_\_

## LED TABLE

LED NO.	NAME	COLOER	LINE NO.	NOTE
01				
02				
03	GEAR NEWTRAL POSITION			
04	GEAR LOW POSITION			
05	GEAR MIDDLE POSITION			
06	GEAR HIGH POSITION			
07	DC MOTOR FAILURE			
08	LUBE FAILURE HEAR STOCK			
09	LUBE FAILURE SLIDE WAY			
10	ZERO POSITION X			
11	ZERO POSITION Z			
12				
13	TAIL BODY JOINT LS ON			
14	TAIL BODY JOINT INDICATOR			
15				
16				
17	61 C AXIS BRAKE	G	OL, 561	(C AXIS ONLY)
18	74 JAW CHANGE	G	OL, 224	(OPTION)
19	CYCLE START			
20	FEED HOLD			
21	NC FAULT INDICATE			
22	MEMDRY PROTECT			
23	TOOL SPEED INDICATOR 1			
24	do 2			
25	do 3			
26	do 4			
27	do 5			
28	do 6			
29	do 7			
30	do 8			
31	CHUCK STROKE END INDICATE			
32	56 SPINDLE ORIENT FIN	G	OL, 356	(OPTION)
33	62 SPINDLE UNCLAMP INDICATOR	G	OL, 562	(MILL ONLY)
34	63 SPINDLE CLAMP INDICATOR	G	OL, 563	(MILL ONLY)
35	ON LINE LAMP			
36	TOOL LIFE INDICATOR			
37	TURRET GEAR NEWTRAL			
38	TURRET GEAR LOW			
39	TURRET GEAR HIGH			
40	51 UNCHUCK END	G	OL, 570	(OPTION)
41	52 CHUCK CLOSE CONFIRMATION	G	OL, 571	(OPTION)
42	MISS CHUCK			
43	54 FRONT DOOR OPEN END	G	OL, 476	(OPTION)
44	55 FRONT DOOR CLOSE END	G	OL, 477	(OPTION)
45	SPINDLE ORIENT FINISH			
46	HYDRAULIC PRESSURE DOWN			
47	AIR PRESSURE DOWN			
48	59 TAIL SLEEVE FORWARD END	G	OL, 412	(OPTION)
49	60 TAIL SLEEVE REVERSE END	G	OL, 411	(OPTION)
50	35 AUTO POWER OFF	R	G24, 297	(OPTION)
51	TURRET MODE POSITION			
52	PROGRAM RESTART			

F: F6T M: MAZATROL

INDEX NUMBER	SHEET	LINE
DATE: 85-7-6 CHK'D BY: KATS DRN. BY: Y. SUGIYAMA		
<b>Mazak</b> MAZAK CORPORATION		
TITLE: LED TABLE		
CONTROL	DRAWING NO.	SHEET
MAZATROL	1720147124	3
INDEX NUMBER	SHEET	OF

DRAWING NO.	SHEET _____ OF _____
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ALARM TABLE

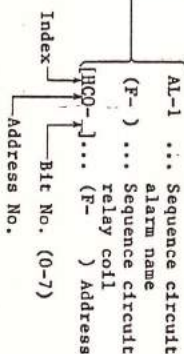
1. Use of Alarm Table

An alarm message in comprising alarm No. and comment will appear in the lower left-hand portion of the CRT screen. The machine alarm Nos. range from 20 to 2.

In the first two columns on the left of the table are the No. and name of each alarm. Following these is the No. and address column used for alarm diagnosis. Here, the upper AL-xx is a sequence circuit alarm name. The Fxx beneath it identifies the relay coil in the sequence circuit, while the Hxx-x at the bottom of the group is an address used for diagnosis. The next column labelled Contents gives the activity triggered by the alarm condition. Next is the machine status. The last column shows the SEQ No., signal symbol for P.C.I/O and address of the sensor detecting the alarm. The bit (1 or 0) representing the normal status is given in the last column to the right.

Alarm No.	Alarm Name	<SQ Alarm No.> (SQ coil No.) [Bit address]	Contents	Machine Status	Alarm SQ No.
200	THERMAL TRIP	<AL-1> (FO) [HCO-0]	Thermal relay on electric control panel tripped	Emergency stop	

Displayed in the lower left-hand portion of the CRT screen.



- Clear procedure:
- Switch the power on again.
  - Put the RESET key to ON after eliminating cause of the alarm.
  - Put the RESET key to ON.
  - Put the CLEAR key to ON.

(X) ..... Sensor  
 (X) ..... Symbol signal on P.C. sequence circuit  
 [H-0] ..... (X) Address  
 Indicates [H-0]; 1 is normal status.

2. Checking the Diagnosis Picture

Use the **PICTURE SELECT** and **DIAGNOSIS** keys to select the diagnosis picture.

Using the **←** **→** **↑** **↓** cursor keys to put the cursor at "H" in the upper left-hand portion of the screen.

Enter the address No. for H with the alphabet keys and ten keys. Then, push the **INPUT** key.

For HCO-1, push the **C**, **0** and **INPUT** keys. The signal status will appear at the H position as a "0" or "1". "0" indicates that the signal is off and "1" indicates that the signal is on.

Example:

Because "0" is given to HCO-1, the signal is off. "1" is given to HCO-0, so the signal is on.

I/O CHECK	H
7654 3210	
HCO 0000 0001	0
C1 0000 0000	1
C2 0000 0000	0
C3 0000 0000	0

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DRN. BY YABUOKI  
 DATE 05.7.6  
 CHK'D BY KATO  
 DATE



TITLE  
 THE METHOD OF USING  
 ALARM TABLE

CONTROL MAZATROL  
 DRAWING NO. 1720147/31  
 SHEET 3 OF 3

DRAWING NO. \_\_\_\_\_  
 SHEET \_\_\_\_\_ OF \_\_\_\_\_



Alarm Name	Bit Address	Contents	Machine Status	Clearing
200 THERMAL TRIP	HCO-0	Thermal relay for hydraulic unit head lubricating oil feed motor inside electric control panel has tripped.	Emergency stop	B
201 NFB TRIP	HCO-1	No-fuse circuit breaker or circuit protector inside electric control panel has tripped.	Emergency stop	B
202 HYDRAULIC PRESSURE DOWN	HCO-2	Hydraulic oil pressure has been low for more than 3 seconds.	Emergency stop	B
203 AIR PRESSURE DOWN	HCO-3	Air pressure has been low for more than 3 seconds.	Emergency stop	B
204 SPRINDLE CONTROLLER MALFUNCTION	HCO-4	Alarm has occurred in spindle controller.	Emergency stop	A
205 MILLING CONTROL MALFUNCTION	HCO-5	Alarm has occurred in mill spindle controller.	Emergency stop	A
206 OPEN FRONT DOOR (EMERGE. STOP)	HCO-6	Cutting tool cover was opened with doors interlocked in automatique mode.	Emergency stop	C
207 EXT EMERGENCY STOP	HCO-7	External emergency stop input signal has been turned off.	Emergency stop	B

Alarm Name	Bit Address	Contents	Machine Status	Clearing
216 SPINDLE START MISOPERATION	HC2-0	I. Alarm results if spindle start command (M3, M4, START SW) is given in any of the following conditions: (1) Chuck open signal from external device is on. (2) External spindle interlock signal is off. (3) Door interlock limit SW is on when door interlocking is effective. (4) Door ID signal is off in manual mode. (5) Chuck close confirmation signal is on when bar feed mode is off. (6) M command for measurement has been executed. (7) Spindle rotation OK signal does not come from automatique jaw changer. II. Alarm No. 216 occurs when head lubrication alarm is given.	Reset	C
217 MILLING START MISOPERATION	HC2-1		Reset	C
218 AXIS MOVE MISOPERATION	HC2-2	Mega: When the cross rail is unclamped, the axis move command has been given or cycle start push button has been pushed.	Reset	C

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SHEET	LINE
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DRN. BY **YAMAZAKI**  
 DATE **12.7.6**  
 CHK'D BY **YMTD**  
 DATE



TITLE  
**ALARM TABLE (1)**

CONTROL **MAZATROL**  
 DRAWING NO. **1720147/132**  
 SHEET **3** OF **3**

DRAWING NO.  
 SHEET **3** OF **3**

Alarm Name	Bit Address	Contents	Machine Status	Clearing
219 INVALID ATC PARAMETER	HC2-3	Incorrect setting of ATC type select parameter (Op6). 1st bit: V/H type ATC 2nd bit: Standby magazine type ATC 3rd bit: RAM type ATC 6th bit: Vertical lathe specifications	Reset	A
220 TOOL SET MISOPERATION	HC2-4	(1) More than two parameters are entered in each of the 1st, 2nd and 3rd bits. (2) 3rd bit is set but not the 6th bit.		
221 ORIENT INHIBIT MILSPINDLE	HC2-5	Mill spindle orient command is given when the milling tool mounting turret is moved to the V position. (For machines equipped with the ST 40N ATC only)	Reset	C
232 SLIDEMAY LUBRICATION ALARM	HC4-0	Sliding surface lubricating oil pressure too low for more than 180 seconds.	Single block	C
233 HEAD LUBRICATION ALARM	HC4-1	Head lubricating oil pressure too low for more than 3 seconds. (All machines except vertical lathes)	Single block ↓ Reset	B
234 TABLE LUBRICATION ALARM	HC4-2	Same as alarm No. 233.	Single block ↓ Reset	

Alarm Name	Bit Address	Contents	Machine Status	Clearing
235 TOOL INDEX LS MALFUNCTION	HC4-3	(1) Clamping confirmed but indexing confirmation signal did not come on. (2) Tool change command given but indexing confirmation signal did not come on in seconds.	Reset	C
236 TOOL POSITION LS MALFUNCTION	HC4-4		Reset	B
237 TOOL CLAMP LS MALFUNCTION	HC4-5	(1) Clamp confirmation signal went off during axis movement in automatic operation. (2) Clamp confirmation signal was not given within seconds of giving the clamp command.	(1) Feed hold (2) Reset	B
238 TOOL UNCLAMP LS MALFUNCTION	HC4-6	Unclamp confirmation signal does not come on within seconds of giving the unclamp command.	Reset	B
239 TOOL SELECT ALARM	HC4-7		Reset	B
240 COOLING FAN MALFUNCTION	HC5-0	Cooling fan rotation sensor on the electric control panel has triggered an alarm.	Single block	B
241 THERMAL TRIP	HC5-1	Cooling/chip conveyor motor thermal relay has tripped.	Single block	B

INDEX NUMBER	LINE	DATE	CHK'D BY	DATE	TITLE	CONTROL	DRAWING NO.	SHEET	OF
	01	95.7.6	YKMD		ALARM TABLE (2)	MATROTOL	1720147/33	3	
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DRAWING NO. \_\_\_\_\_  
SHEET \_\_\_\_\_ OF \_\_\_\_\_

Alarm Name	Bit Address	Contents	Machine Status	Clearing
242 FRONT DOOR LS MALFUNCTION	HC5-2	(1) Front door open and close confirmation signals are both on. (2) Neither open or close confirmation signal came on within seconds of giving the front door open or close command.	Single block	B
243 TAILBODY LS MALFUNCTION	HC5-3	Tail body forward end and reverse end confirmation signals are both on.	Single block	B
244 TAIL SPINDLE LS MALFUNCTION	HC5-4	(1) Tail spindle forward end and reverse end confirmation signals are both on. (2) Tail spindle forward end signal came on and went off during automatic operation.	(1) Single block (2) Feed hold	B
245 TAIL SPINDLE SM. POS. ERROR	HC5-5	Tail spindle key switch was not moved to the STOP position when automatic tailing is performed using the M command.	Feed hold	D
246 CHUCK LS MALFUNCTION	HC5-6	Spindle open and closed confirmation signals are both on.	Feed hold	D
247 CHUCK SYSTEM MALFUNCTION	HC5-7	Chuck closed end confirmation signal came on after the spindle open and closed confirmation.	Feed hold	B
249 SPINDLE ORIENT MALFUNCTION	HC6-1	Orientation not completed within seconds of giving the spindle orient command.	Reset	C

Alarm Name	Bit Address	Contents	Machine Status	Clearing
250 MILLING SPINDLE ORIENT MALF	HC6-2	Orientation not completed within seconds of giving the mill spindle orient command.	Reset	C
251 ORIENT PIN LS MALFUNCTION	HC6-3		Reset	B
252 SPINDLE GEAR LS/SHIFT MALF	HC6-4	(1) More than two gear position confirmation signals are on. (2) Gear identification signal did not come on within at least seconds of giving the gear shift command.	Reset	B
253 MILLING GEAR LS/SHIFT MALF	HC6-5	(1) More than two mill gear position confirmation signals are on. (2) Gear identification signal did not come on within at least seconds of giving the gear shift command.	Reset	B
254 MEASURING AMPLIFIER MALF	HC6-6	Measuring amplifier did not send the READY signal.	Reset	B
255 EXTERNAL CONTROL MALFUNCTION	HC6-7	Alarm triggered by the external control panel.	Feed hold	B,D
256 PALLET CHANGE MALFUNCTION	HC7-0			
257 C-AXIS OR SHIFT LS MALFUNCTION	HC7-1	Position confirmation IS did not come on during C-axis connection or release.		B

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INDEX NUMBER	LINE

DATE	05-7-6
CHK'D BY	KATO
DATE	
 MAZAK MACHINE CORPORATION	
TITLE ALARM TABLE (3)	
CONTROL	MAZATROL
DRAWING NO.	1720147134
SHEET	OF
SIZE	3

DRAWING NO.	
SHEET	OF

Alarm Name	Bit Address	Contents	Machine Status	Clearing
258 NC PCB THERMAL SENSOR MALF	HC7-2	Temperature sensor on NC unit printed circuit board operated.	Single block	B
259 TAIL LUBRICATION ALARM	HC7-3		Single block	C,D
260 ATC MALFUNCTION	HC7-4			
270 START COND. ERR. (DOOR OPEN)	HC8-6	Cycle start SW was pushed with the front cover open.	Continuing operation	D
271 START COND. ERR. (TUR UNCLAMP)	HC8-7	Cycle start SW was pushed with the turret unclamped (clamp confirmation signal off).	Continuing operation	D
272 START COND. ERR. (EXT RESET)	HC9-1	Cycle start SW was pushed with the external reset signal on.	Reset	B
273 START COND. ERR. (EXT FEED HOLD)	HC9-2	Cycle start SW was pushed with the external feed hold signal on.	Reset	D
274 START COND. ERR. (PAL UNCLAMP)	HC9-3	Cycle start SW was pushed when the pallet was unclamped. (For Mega Turn)	Continuing operation	D
280 CROSS RAIL OVERLOAD	HCA-0	Raising and lowering the cross rail is prevented by the mechanical lock. Alarm occurs if the cross rail clamp current flows for more than 5 seconds after the cross rail has stopped.		C

Alarm Name	Bit Address	Contents	Machine Status	Clearing
281 HOME RETURN NOT COMPLETE	HCA-1	After switching the power or emergency stop on, the rapid feed mode is selected before all axes have returned to the zero point.		
282 OPEN FRONT DOOR (FEED HOLD)	HCA-2			

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INDEX NUMBER	LINE

DWN. BY Y. SUGIYAMA  
 DATE 85.7.6  
 CHK'D BY KATD  
 DATE



TITLE  
 ALARM TABLE (4)

CONTROL MAZATROL  
 DRAWING NO. 1720147/35  
 SHEET 3 OF

DRAWING NO.  
 SHEET OF

BIT	Setting	PC Symbol	Sequence Address
OP1 0	0: Without chuck stroke confirmation sensor 1: With chuck stroke confirmation sensor (with mischucking sensor)	Y1D0	SENS. P H11A-0
1	0: 6M and 7M functions are not valid (will not work). 1: 6M and 7M functions are valid.	Y1D1	6M7M. P H11A-1
2	0: Rotary response to foot switch group (chucking condition changes each time a switch is actuated.) 1: Momentary response to foot switch group (Standard: Unchucking occurs only when a switch is pressed.)	Y1D2	MOMENT. P H11A-2
3	0: Continuous unchucking to fully-unchucked position 1: Unchucking occurs only when foot switch is pressed.	Y1D3	UCHCK. P H11A-3
4	0: Hydraulic pressure chuck, standard air chuck (Cylinder type) 1: Air containment type chuck (Front-mounted air chuck)	Y1D4	AIR. P H11A-4
5	0: 1:	Y1D5	H11A-5
6	0: 1:	Y1D6	H11A-6
7	0: Chucking and unchucking occur only when spindle is stopped. 1: Chucking and unchucking occur although spindle is rotating. If bar feeder ON switch is pushed.	Y1D7	ROLBF. P H11A-7

BIT	Setting	PC Symbol	Sequence Address
OP2 0	0: Not valid 1: Specifications without spindle gear shift (single range)	Y1D8	GRI. P H11B-0
1	0: Not valid 1: Specifications with two-range spindle gear shift	Y1D9	GR2. P H11B-1
2	0: Not valid 1: Specifications with three-range spindle gear shift	Y1D A	GR3. P H11B-2
3	0: Specifications with spindle gear shift neutral position 1: Specifications without spindle gear shift neutral position	Y1D B	H11B-3
4	0: DC SPINDLE ORIENT DATA 1: AC SPINDLE ORIENT DATA	Y1D C	H11B-4
5	0: 1:	Y1D D	H11B-5
6	0: SPINDLE GEAR NORMAL TYPE 1: SPINDLE GEAR 104 TYPE	Y1D E	G11B-6
7	0: NOT VALID 1: OPTIONAL STOP PATOGLIGHT ON	Y1D F	H11B-7

DRAWING NO.

SHEET. OF.

INDEX NUMBER

LINE 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

SHEET

INDEX NUMBER

 DRN. BY Y. SUZUKI  
 DATE 85.7.6  
 CHK'D BY Y. ITO


 MAZAK CORPORATION

 TITLE  
 OPTION PARAMETER

 CONTROL MAZATROL  
 DRAWING NO. 1720147/51

SIZE 3

SHEET

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BIT	Setting	PC Symbol	Sequence Address
OP3 0	0: Automatic tail body type 1: Joint tail body type	Y1E0	TEAL. P H11C-0
1	0: Not valid 1: Specifications with AJC (Misshocking sensor not valid)	Y1E1	AJC. P H11C-1
2	0: Specifications without overtravel limit switch (Only soft OT is valid.) 1: Specifications with overtravel limit switch	Y1E2	DTLS. P H11C-2
3	0: Not valid 1: Specifications for FLEX (Input of robot command state is valid.)	Y1E3	ROBOT. P H11C-3
4	0: Not valid 1: Not valid	Y1E4	H11C-4
5	0: Not valid 1: Not valid	Y1E5	H11C-5
6	0: Not valid 1: Not valid	Y1E6	H11C-6
7	0: Not valid 1: Not valid	Y1E7	H11C-7

BIT	Setting	PC Symbol	Sequence Address
OP4 0	0: Not valid 1: With rear turret	Y1E8	T20. P H11D-0
1	0: Not valid 1: Gear shift standard spindle	Y1E9	GFSTD. P H11D-1
2	0: Not valid 1: Gear shift standard spindle	Y1EA	GF104. P H11D-2
3	0: Not valid 1: Not valid	Y1EB	H11D-3
4	0: Not valid 1: Not valid	Y1EC	H11D-4
5	0: Not valid 1: Not valid	Y1ED	H11D-5
6	0: Not valid 1: Not valid	Y1EE	H11D-6
7	0: Not valid 1: Not valid	Y1EF	H11D-7
OP5 0	0: Not valid 1: Test mode valid	Y1F0	ATCRST. P H11E-0
1	0: NOT VALID 1: ERROR DETECT POWOR ON OFF	Y1F1	H11E-1

DRN. BY TSUBUKI  
DATE 85.7.6  
CHK'D BY KATO



TITLE  
OPTION PARAMETER

CONT. NO. MAZATROL  
DRAWING NO. 1720147152  
SIZE 2

DRAWING NO.  
SHEET. OF.

BIT	Setting	PC Symbol	Sequence Address
2	0: NOT VALID 1: START SUB SW USE	Y1F2	H11E-2
3	0: 1:	Y1F3	H11E-3
4	0: Not valid 1: Tools for MEGA TURN P: 11-15, 21-25, 31-35, 41-45, 51-55	Y1F4	H11E-4
5	0: Not valid 1: Tools for QT-10 or QT-20 (conventional): 11-14, 21-24, 31-34, 41-44	Y1F5	H11E-5
6	0: Not valid 1: Tools for ST-40N, ST-40N M/C, ST-50, ST-60, ST-60 M/C and ST-80: 1-10, 21-25	Y1F6	H11E-6
7	0: Not valid 1: ST-25,30: 1-8, 21-24, M4, M5, PM: 1-8, 21-26	Y1F7	H11E-7
OP6	0: X- and Z-axis coaxial feed with JOG button is inhibited. 1: X- and Z-axis coaxial feed with JOG button is valid.	Y1F8	XZ JOG. P H11F-0
1	0: Not valid 1: Specifications for V/H tool change type ATC (ST-40N ATC M/C)	Y1F9	V/HATC. P H11F-1
2	0: Not valid 1: Specifications for standby magazine type ATC (ST-25N)	Y1FA	SUBATC. P H11F-2

BIT	Setting	PC Symbol	Sequence Address
OP6	0: Not valid 1: Specifications for moving-axis type ATC (MEGA TURN)	Y1FB	AXSATC. P H11F-3
4	0: Without milling function 1: With milling function	Y1FC	MILL. P H11F-4
5	0: 1-degree orientation specifications 1: C-axis specifications	Y1FD	C-AXIS. P H11F-5
6	0: Not valid 1: Specifications for vertical lathe (MEGA TURN)	Y1FE	V-LATH. P H11F-6
7	0: 1:	Y1FF	H 11F-7

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INDEX NUMBER	

DWN. BY	DATE	CHK'D BY
Y. SUZUKI	85.7.6	YKTO
Mazak		
OPTION PARAMETER		
CONTROL	DRAWING NO.	SIZE
MAZATROL	1720147153	3
SHEET	OF	

DRAWING NO.	
SHEET	OF

# ELEMENTARY DIAGRAM LIST

SHEET	TITLE	DRAWING NO.
301	CONNECTION DIAGRAM	
302	CABLE DETAIL DIAGRAM	
303	DO.	
304	DO.	
305	DO.	
306	DO.	
310	HEAD SOL. TB23	
311	HEAD SENSER TB24	
312	MAGAZINE X AXIS TB21	
313	MAGAZINE X TACO/RESO. TB22	
314	CHIP CONVEYOR / COOLANT PUMP	
315	AIR KIT / HYDRAULIC PUMP	
316	TAIL	
317	PART POSITION DIAGRAM ON MACHINE	
318	DO.	
319	DO.	

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DNW. BY M. SUEZUKI  
DATE '85.7.5  
CHKD BY KYD



TITLE  
ELEMENTARY DIAGRAM

CONTROL  
DRAWING NO. 1720147 300.

SIZE  
**3**

INDEX NUMBER



INDEX NUMBER SHEET 301

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DATE 85.7.5  
CHK'D BY KATD  
DWN. BY SAZUKI

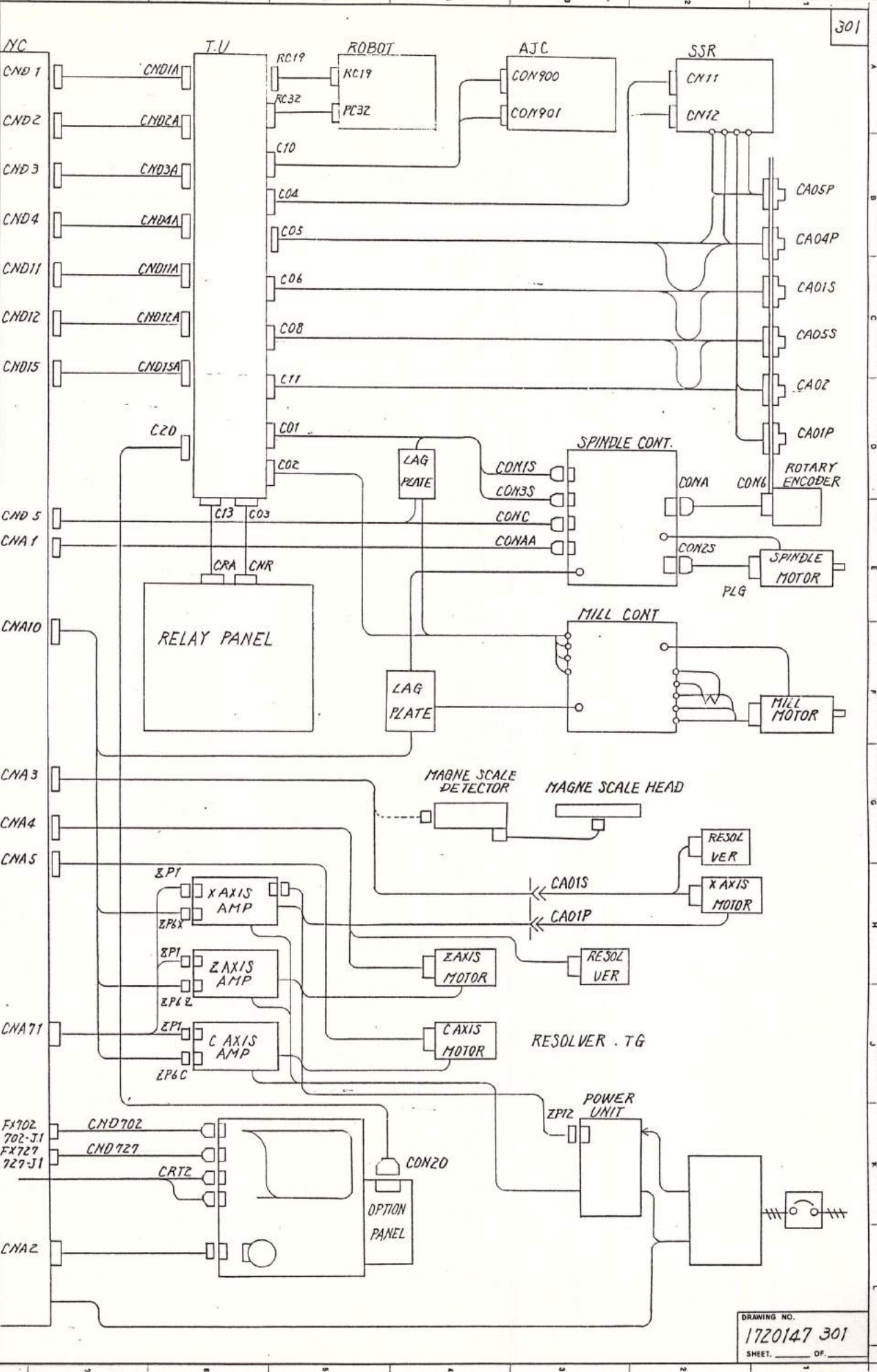
**Mazak**  
Mitsubishi Electric Corporation

TITLE  
CONNECTION  
DIAGRAM

CONTROL MAZATR0L  
DRAWING NO. 1720147 301  
SIZE 3

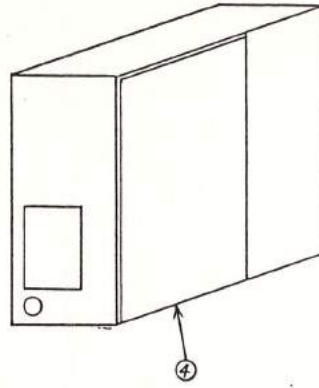
INDEX NUMBER

301



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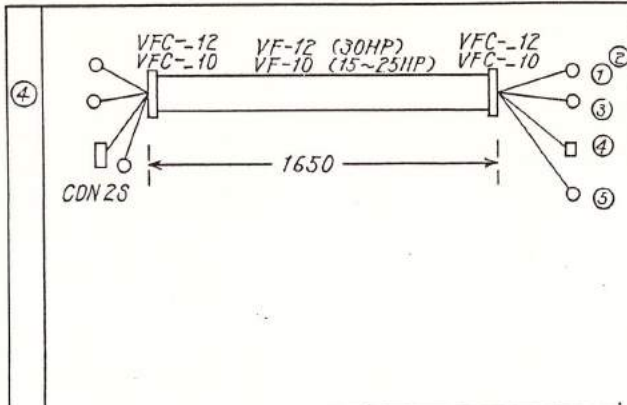
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27	DRN. BY ISUZUKI	
28	DATE 85.7.5	
29	CHK'D BY KKTG	
30	DATE	
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32	<b>Mazak</b> YAMAZENI MAZAK CORPORATION	
33		
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39	TITLE	
40	CABLE DETAIL DIAGRAM	
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47	CONTROL	
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INDEX NUMBER		



①  
② ~ ⑦

<p>①</p>	<p>[TRANSFORMER] JAPAN</p> <p>① R1.S1.T1 [SPINDLE] LV 38<sup>5%</sup> BLACK</p> <p>② R1.S1.T1 [CB-2] LV 8<sup>5%</sup> [TB] BLACK</p> <p>③ U1.V1.W1 [RECTIFIER UNIT] LV 5.5<sup>5%</sup> BLACK</p> <p>④ XA.XB [ / ] LV 2<sup>5%</sup> RED</p> <p>⑤ OHT1.OHT2 [ / ] 1KIV 0.5<sup>5%</sup> RED</p> <p>⑥ OA.OB [TB] LV 3.5<sup>5%</sup> RED</p> <p>⑦ JA.OB [TB] IRRAX 0.75<sup>5%</sup> RED</p> <p>⑧ G [EARTH BAR] LV 22<sup>5%</sup> GREEN</p>	
<p>②</p>	<p>[HYD. PUMP UNIT]</p> <p>① U2.V2.W2 1KIV 2<sup>5%</sup> BLACK</p> <p>② G 1KIV 2<sup>5%</sup> GREEN</p> <p>③ Z4 531 VSF 0.75<sup>5%</sup> BLUE</p>	
<p>③</p>	<p>[TAIL STOCK]</p> <p>① 624A OB [SOL 24A] } IRRAX 0.75<sup>5%</sup> RED</p> <p>② 624B OB [SOL 24B] }</p> <p>③ 26 OB [SOL 26] }</p> <p>④ 412 +24N [LS 12] } IRRAX 0.75<sup>5%</sup> BLUE</p> <p>⑤ 411 +24N [LS 11] }</p> <p>⑥ SP6 SP7 SPARE</p>	

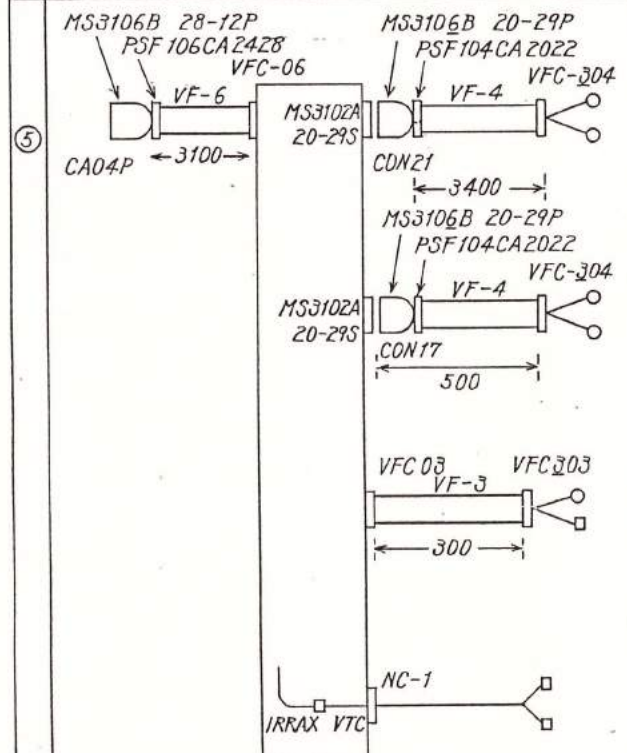
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[SPINDLE MOTOR]

- ① U.V.W
- ② G
- ③ MS1, MS2
- ④ COM-P15C  
AGA-N15C  
PA-RA  
PB-RB
- ⑤ OHS1, OHS2

U.V.W G0  
LY 22<sup>58</sup> 5.5<sup>58</sup> (15~20HP)  
38<sup>58</sup> 14<sup>58</sup> (25~30HP)  
BLACK GREEN  
  
1KIV 2<sup>58</sup> BLACK  
TWIST PAIR SHIELD  
  
IRRAX 0.75<sup>58</sup> BLUE



[CHIP CONVEYER]

- U6 V6 W6
- G
- U61 V61 W61

1KIV 2<sup>58</sup> BLACK  
1KIV 2<sup>58</sup> GREEN  
IRRAX 0.5<sup>58</sup> BLACK

[COOLANT]

- U4 V4 W4
- G

1KIV 2<sup>58</sup> BLACK  
1KIV 2<sup>58</sup> GREEN

[SLIDE WAY LUBE]

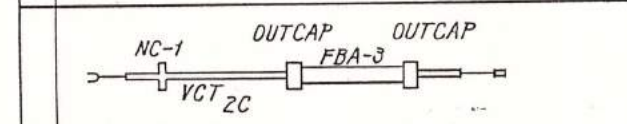
- 10 OB
- 533 G24 [PSW33]
- 534 G24 [PSW34]

IRRAX 1.25<sup>58</sup> BLACK  
IRRAX 0.75<sup>58</sup> BLUE  
IRRAX 0.75<sup>58</sup> BLUE

[COOLANT SOL.]

- 612 OB [SOL 12]
- SP8 SP9 SP10 [SPARE]

IRRAX VCT0.75<sup>58</sup>  
0.75<sup>58</sup> BLUE  
IRRAX 0.75<sup>58</sup> BLUE



[SHOW LIGHT]

- 21 OB

VCT 0.75<sup>58</sup> 2C

DATE 95.7.5  
CHK'D BY KATO  
DATE 95.7.5  
CHK'D BY KATO  
DATE 95.7.5  
CHK'D BY KATO

**Mazak**  
MAZAKI MACHINE CORPORATION

TITLE  
CABLE DETAIL DIAGRAM

CONTROL  
MAZATROL

DRAWING NO.  
1720147303

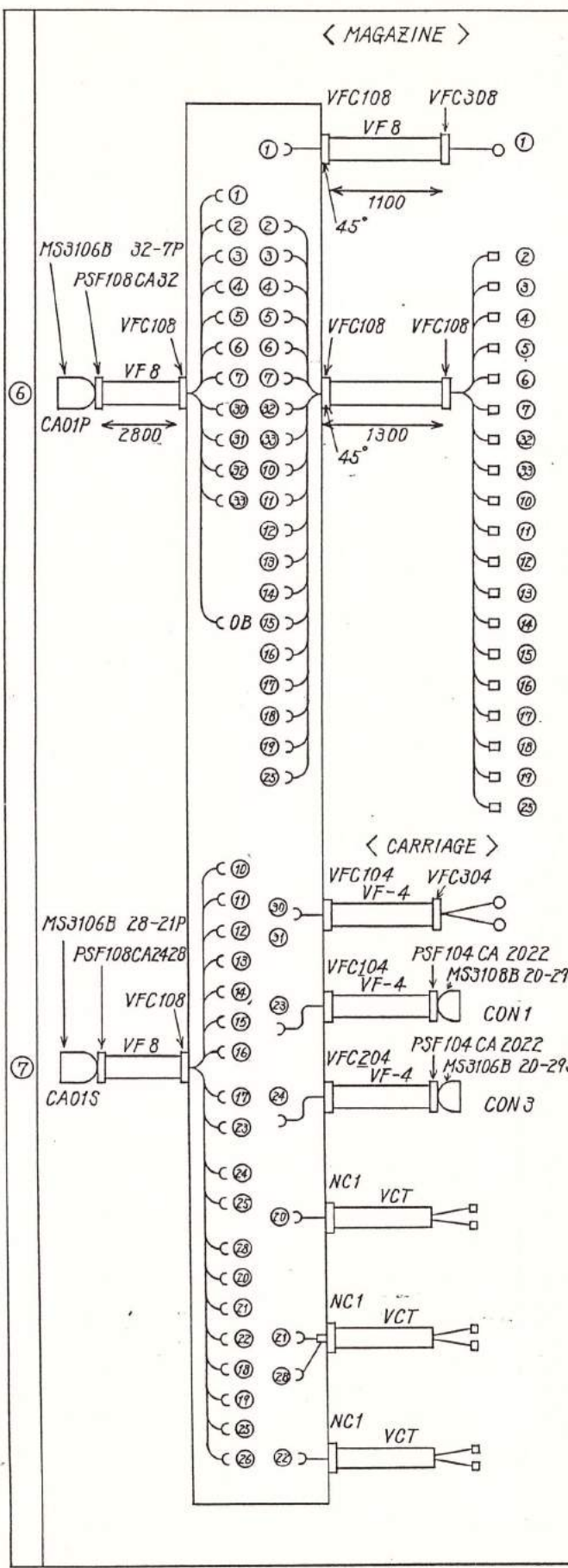
SHEET 3 OF 3

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SHEET 303 LINE  
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[MILL MOTOR]

- ① UTT. VIT. WIT  
G
- ② 641A, OB [SOL41A]
- ③ 641B, OB [SOL41B]
- ④ 642A, OB [SOL42A]
- ⑤ 642B, OB [SOL42B]
- ⑥ 628, OB [SOL 28]
- ⑦ 666, OB [SOL 66]
- ⑧ SP 4 [SOL 66A]
- ⑨ SP 5 } SPARE
- ⑩ 431, +24N OL [PRS20]
- ⑪ 432, +24N DL [PRS21]
- ⑫ 433, +24N OL [PRS22]
- ⑬ 434, +24N OL [PRS23]
- ⑭ 443, +24N OL [PRS13]
- ⑮ 513, +24N OL [PRS15]
- ⑯ 448, +24N [LS-19]
- ⑰ 447, +24N [LS-20]
- ⑱ 536, +24N [SPARE]
- ⑲ SP 1
- ⑳ SP 2

- LV 5.5<sup>S</sup> BLACK
- LV 2<sup>S</sup> GREEN
- IRRAX 0.75<sup>S</sup> RED
- IRRAX 0.75<sup>S</sup> BLUE

[X AXIS SERVO MOTOR]

- ⑳ G1X G2X
- ㉑ AX BX

- 1KV 0.75<sup>S</sup> BLUE
- LV 5.5<sup>S</sup> BLACK

[X AXIS TACOGENERATOR]

- ㉒ SEE SHEET NO 518

- TWIST PAIR SHIELD

[X AXIS RESOLVER]

- ㉓ SEE SHEET NO 518

- TWIST PAIR SHIELD

[DECELERATION X]

- ㉔ 421 +24N [LS15]

- IRRAX 0.75<sup>S</sup> BLUE - VCT 0.75<sup>S</sup> 2C

[DECELERATION Z]

- ㉕ 422 +24N [LS21]

- DO - VCT 0.75<sup>S</sup>

[Z POSITION OK]

- ㉖ 428 +24N OL [PRS27]

- 5C

[TAIL BODY JOINT]

- ㉗ 416 +24N [LS-7]
- ㉘ SP 3 [SPARE]

- DO - VCT 0.75<sup>S</sup> 2C

DRN. BY Y. SUZUKI  
DATE 85.7.5  
CHK'D BY KATO  
DATE

**Mazak**  
MAZAK MACHINE CORPORATION

TITLE  
CABLE DETAIL DIAGRAM

CONTROL HAZATROL  
DRAWING NO. 1720147304  
SHEET 3 OF 5

SIZE 3

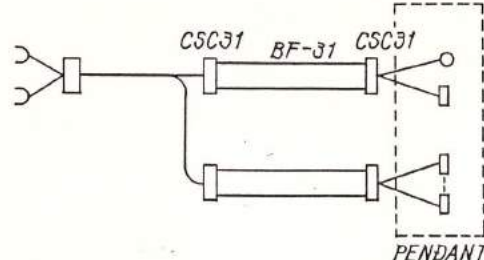

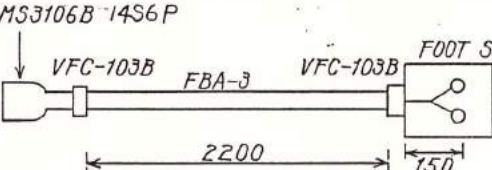
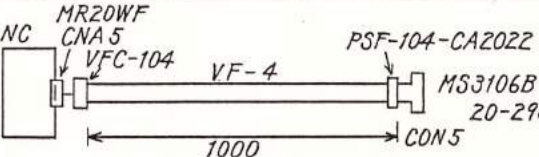
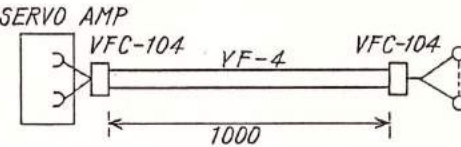
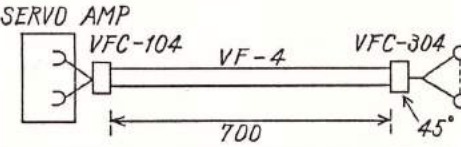
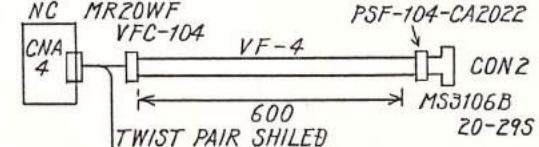
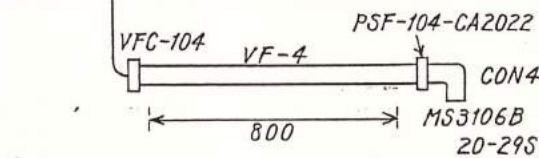
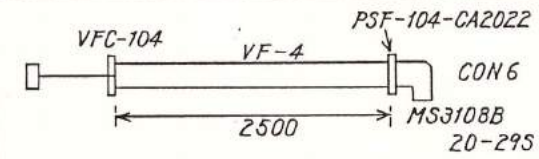
SHEET 304 LINE

INDEX NUMBER

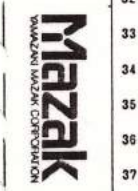
INDEX NUMBER	LINE
SHEET 305	
DATE '87.2.2	HITAKE
DATE '85.7.5	Y. SHIBATA
CHK'D BY YAKI	
DATE	
Mazak Mitsubishi Mazak Corporation	
TITLE	
CABLE DETAIL DIAGRAM	
CONTROL	
DRAWING NO. 1720147305A	
SHEET 3	OF 3
SIZE	
SHEET 305	LINE
INDEX NUMBER	

CABLE DESCRIPTION	SIGNAL	REMARK
① MS3106B 28-21PX MS3057-16A CA05P	(A) [CHUCK SOL] 644, 645, 0B	IRRAX 0.75 <sup>58</sup> RED
	(B) [GEAR SHIFT SOL] 620, 621, 622, 623, 0B	
	(C) C AXIS (OPTION) [GEAR SHIFT SOL] 668, 669, 670, 636, 0B 130, 624	(C AXIS) (SPEC)
	(D) [FRONT DOOR 3] 654C, 0B	(C AXIS) (SPEC)
	(E) [SPINDLE CLAMP PIN SOL] 669, 670, 636, 0B	(1 <sup>2</sup> -SPEC)
	(F) [FRONT DOOR OPEN/CLOSE SOL] 654A, 654B, 0B	
② MS3106B 28-21PY MS3057-16A CA05S	(A) [CHUCK PRS] (OPTION) 463, 464, +24N, 0L	IRRAX 0.75 <sup>58</sup> BLUE
	(B) [GEAR SHIFT LS] 401, 402, 403, 404, +24N	
	(C) [C AXIS GEAR SHIFT LS] 523, 524, +24N	(C AXIS) (SPEC)
	(D) [DECELERATION C PRS] 423, +24N, 0L	(C AXIS) (SPEC)
	(E) [C AXIS SHIFT POSITION] 525, 526, +24N, 0L	(C AXIS) (SPEC)
	(F) [SPINDLE CLAMP LS] 523, 524, 525, +24N 526, 527, 528, +24N	(1 <sup>2</sup> -SPEC)
	(G) [COVER CLOSE CONFIRMATION] 472, +24N	
	(H) [FRONT DOOR OPEN/CLOSE LS] 476, 477, +24N	

DRAWING NO. 1720147305A  
SHEET. OF.

	CABLE DESCRIPTION	SIGNAL	REMARK
③	 <p>PENDANT</p>	<p>[PENDANT]</p> <p>CNA 2-1 CND 702 CND 727 CNP1 CF51 CND7 CF13 CNP 71</p> <p>120 G24 [POWER OFF LED] 562, 563, 561 OL 1295, 1296, 564, +24N, OL SP21 SP22 SP23 SP24 SP25</p>	<p>12/13 CNA2-1, CND702 CND727, CNP71</p> <p>T3 (T4 HARD) CND7 CF13 12/13 CNP1 CF55 12/13</p>
④	 <p>8m</p>	<p>[WORK LIGHT]</p> <p>Z1 OB</p>	
⑤	 <p>2200</p>	<p>[FOOT SW]</p> <p>SINGLE 1232, +24N DOUBLE +24N, 1247, 1248</p>	<p>VSF 0.75<sup>58</sup> BLUE</p>
⑥	 <p>1000</p>	<p>[C AXIS TAC. RES.]</p> <p>SEE SHEET NO 523</p>	
⑦	 <p>1000</p>	<p>[C AXIS SERVO MOTOR]</p> <p>A.B. -5.5<sup>58</sup> BLACK LV G1.G2 -0.75<sup>58</sup> BLUE IRRAX</p>	
⑧	 <p>700</p>	<p>[Z AXIS SERVO MOTOR]</p> <p>A.B. 5.5<sup>58</sup> BLACK LV G1.G2 0.75<sup>58</sup> BLUE IRRAX</p>	
⑨	 <p>600</p> <p>TWIST PAIR SHILED</p>	<p>[Z AXIS TAC]</p> <p>SEE SHEET NO 523</p>	
⑩	 <p>800</p>	<p>[Z AXIS RES.]</p> <p>SEE SHEET NO 523</p>	
⑪	 <p>2500</p>	<p>[POSITION CODER]</p> <p>SEE SHEET NO 523</p>	

DATE 85.7.5  
CHKD BY VMD



TITLE  
CABLE DETAIL DIAGRAM

CONTROL NO. MAZATROL  
DRAWING NO. 1720147306

SHEET 3 OF 3

INDEX NUMBER  
 SHEET LINE  
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88.8.28  
 86.2.8  
 '87.2.3  
 H-TAKE  
 Y-8  
 Y-8  
 H-TAKE

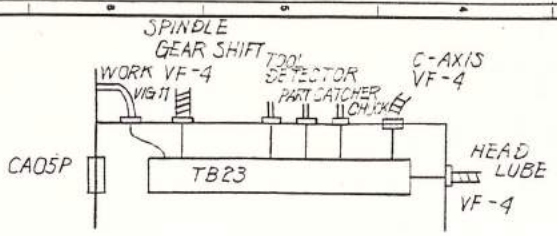
DIN. BY: KAWAZAKI  
 DATE: 10.7.5  
 CHK'D BY: KATD  
 DATE:

Mazak  
 YAMAZAKI MAZAK CORPORATION

TITLE  
 HEAD SOL.  
 TB23

CONTROL: MAMAKOL  
 DRAWING NO. 1720147 310C  
 SHEET 3 OF 3

INDEX NUMBER  
 SHEET LINE

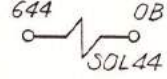


CA05P TB23  
 MS3105B-2821PX

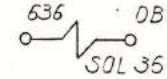
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L	669
M	670
N	636
P	OB
R	21
S	OB
T	646
U	647
V	OB
W	
X	
Z	10
a	OB
b	673A
c	673B
d	OB
e	SP11
f	SP12
g	SP13
h	675A
i	675B
j	OB
m	OB
n	U31
p	V31
r	W31
s	G

644
645
OB
620
621
OB
622
623
OB
130
668
OB
669
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SP14
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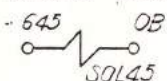
CHUCK UNCLAMP



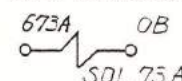
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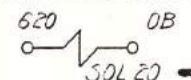
CHUCK CLAMP



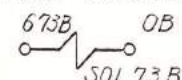
PART CATCHER FORWARD



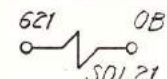
SPINDLE GEAR SHIFT(N)



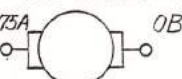
PART CATCHER REVERSE



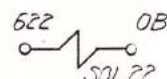
SPINDLE GEAR SHIFT(L)



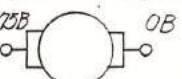
TOOL DETECTOR ARM FORWARD



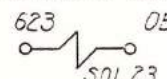
SPINDLE GEAR SHIFT(M)



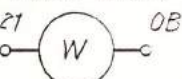
TOOL DETECTOR ARM REVERSE



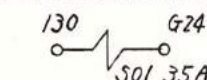
SPINDLE GEAR SHIFT(H)



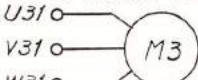
WORK LIGHT



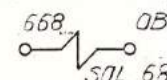
C AXIS MOTOR BRAKE



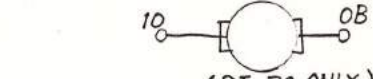
HEAD LUBE MOTOR



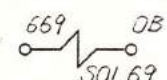
C AXIS GEAR ON



FAN

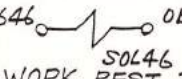


C AXIS GEAR OFF / ORIENT 0°

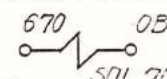


(ST-30 ONLY)  
 SPARE WIRE RES 1.25Ω  
 SP11 }  
 SP12 }  
 SP13 }  
 SP14 }

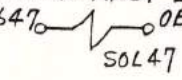
WORK REST 1 SOL



C AXIS CLAMP / ORIENT 1°

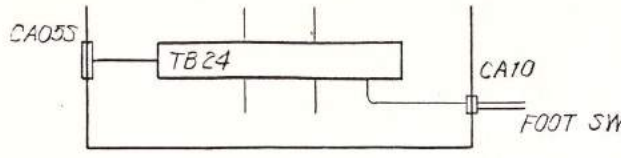


WORK REST 2 SOL



20g Green / Yellow  
 FASTEN TO CHASIS GND

DRAWING NO.  
 SHEET OF

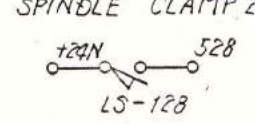
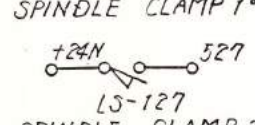
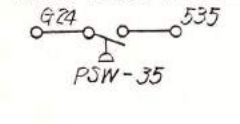
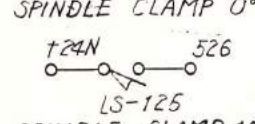
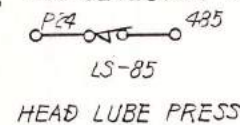
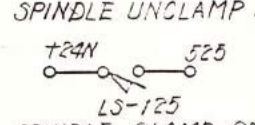
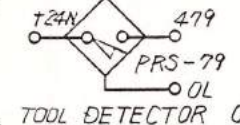
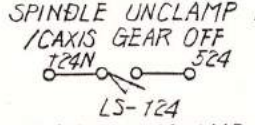
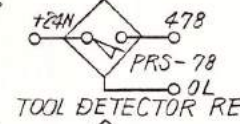
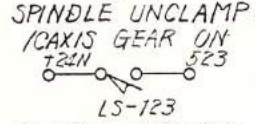
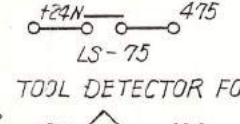
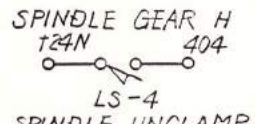
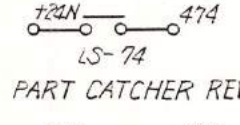
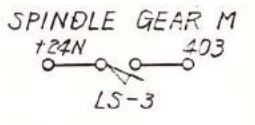
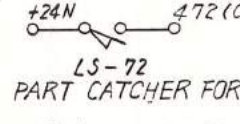
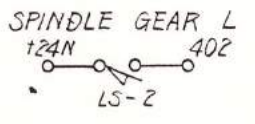
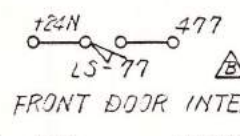
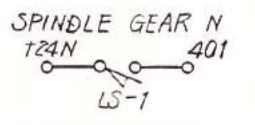
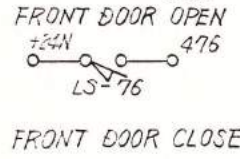
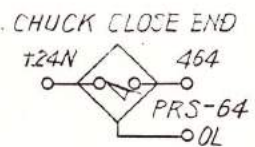
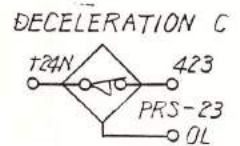
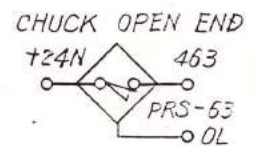


CA05S MS3105B-2821P  
TB24

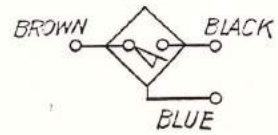
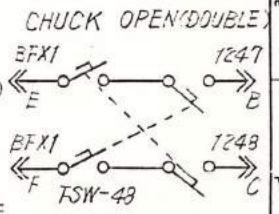
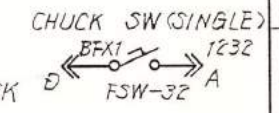
CA11 MS3102A-1456S  
MS3105B-1456P

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G	403
H	404
J	+24N
K	523
L	524
M	+24N
N	525
P	526
R	+24N
S	527
T	528
U	+24N
V	OL
W	423
X	+24N
Z	OL
a	476
b	477
c	472
d	474
e	475
f	P24
g	1232
h	1247
j	1248
k	BFX1
m	478
n	479
p	485
r	535
s	G24

463
464
+24N
OL
401
402
403
+24N
404
523
524
+24N
525
526
+24N
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+24N
OL
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472
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474
475
+24N
1232
1247
1248
BFX1
478
479
+24N
OL
485
535
G24
P24



PIA NO	LINE NO
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F	BFX1

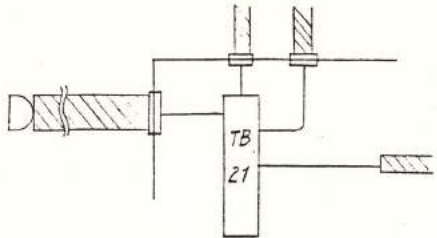




INDEX NUMBER  
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 SHEET 3 OF 3

86.4.21 Y. Kugakubo CA01P-H.I.J, a, b, c, d, e, f for NEW ATC CONT.  
 '87.2.3 H-I TAKE NEW ATC USE

DATE 85.7.5  
 CHK'D BY KMD  
 DRA. BY Y. KUGAKUBO  
 DATE 85.7.5  
 CHK'D BY KMD  
**Mazak**  
 MAZAKI MAZAK CORPORATION  
 TITLE  
 MAGAZINE X AXIS  
 TB21  
 CONTROL MAZATROL  
 DRAWING NO. 1720147 312B  
 SIZE 3



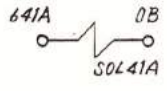
CA01P MS3106B-3207P  
 TB 21 CTL 15X20P

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E	628	484
F	666	
G	667	
H	<del>OB</del>	
I	<del>OB</del>	
J	<del>OB</del>	
K	OB	641A
L	OB	OB
M	OB	641B
N	OB	642A
O	AX	OB
P	UIT	642B
		628
R	VIT	OB
S	WIT	666
T	G	667
U		OB
V	BX	OB
W	654	G
X	OB	
Y	SP20	
Z	SP21	
a		
b		
c		
d	<del>SP1</del>	
e	<del>SP2</del>	
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h	484	
j	G1X	
k	G2X	

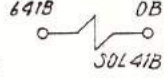
CA01S  
 NEW ATC USE

NEW ATC USE

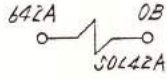
MAGAZINE FORWARD



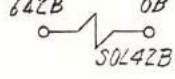
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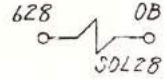
MAGAZINE CW



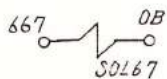
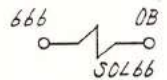
MAGAZINE CCW



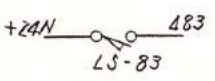
TOOL CLAMP



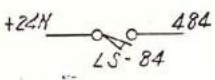
SHANK AIR BLOW/ TOOL IN AIR BLOW



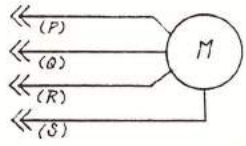
WORK REST DOG 1



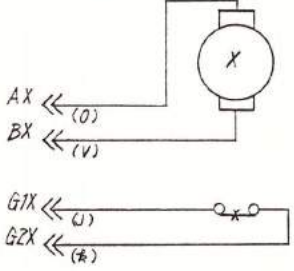
WORK REST DOG 2



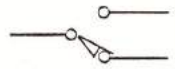
MILL MOTOR



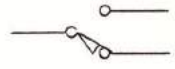
X SERVO MOTOR



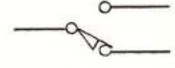
OVER TRAVEL +X



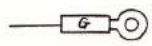
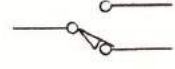
OVER TRAVEL -X



OVER TRAVEL +Z



OVER TRAVEL -Z



2sg Green/Yellow  
 FASTEN TO CHASIS GND

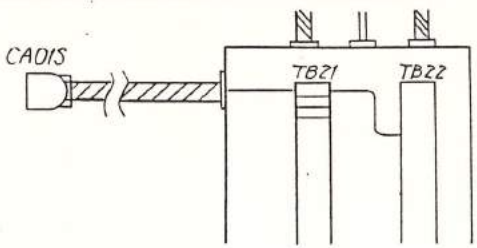
DRAWING NO.  
 SHEET OF

INDEX NUMBER SHEET LINE

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DIN. BY T. SAKAI  
DATE 85.7.5  
CHK'D BY KAO

**Mazak**  
MAGAZINE X TACO  
X RESO  
DRAWING NO. 1720147 313  
CONTROL MAZATROL  
SHEET 3 OF 3

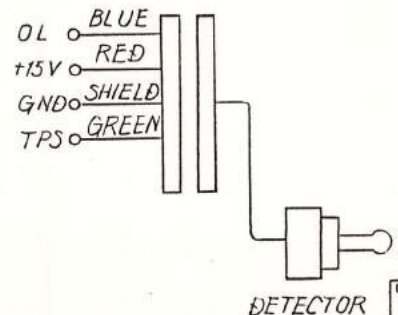
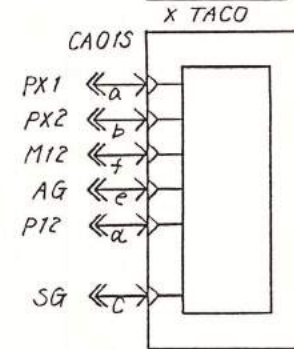
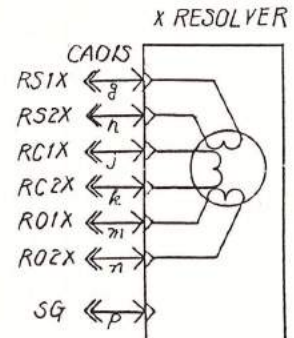
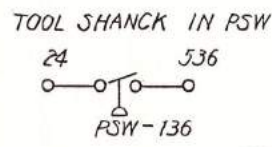
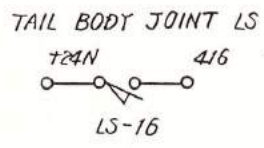
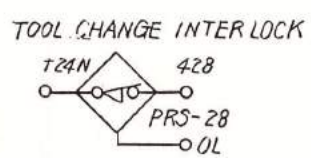
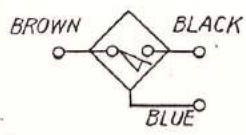
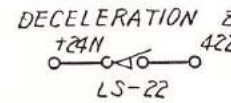
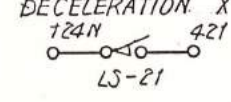
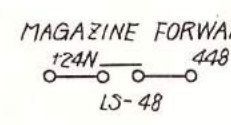
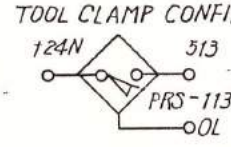
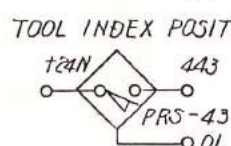
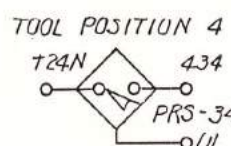
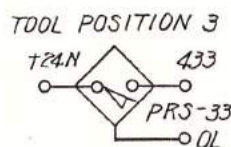
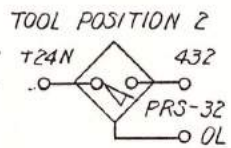
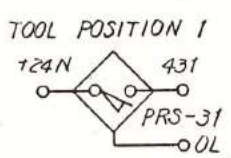


CA01S TB22  
MS3106B-28-21P

PIN NO.	LINE NO.	T24N
A	T24N	OL
B	T24N	431
C	OL	432
D	OL	433
E	24	434
F	G24	443
G	431	T24N
H	432	OL
J	433	513
K	434	448
L	443	T24N
M	513	447
N	448	421
P	447	T24N
R	421	422
S	422	24
T	428	G24
U	416	428
V	536	416
W	TPS	T24N
X	GND	536
Z	+15V	SP1
a	PX1	SP2
b	PX2	SP3
c	SG	
d	PI2	
e	AG	
f	M12	
g	RS1X	
h	RS2X	
j	RC1X	
k	RC2X	
m	RO1X	
n	RO2X	
p	SG	
r	AG	
s	OL	

TB21

TPS
GND
+15V
OL
483
484



CON. 3  
MS3106B 20-285

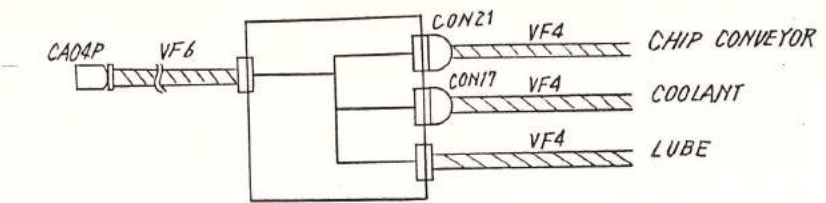
PIN NO.	LINE NO.
A	RS1X
B	RS2X
C	
D	
E	
F	RC1X
G	RC2X
H	RO1X
J	RO2X
K	
L	
M	
N	SG
P	
R	
S	
T	

CON 1  
MS3108B20-295

PIN NO.	LINE NO.
A	
B	
C	
D	
E	
F	
G	
H	
J	
K	PX1
L	PX2
M	
N	SG
P	PI2
R	AG
S	M12
T	

DRAWING NO. \_\_\_\_\_  
SHEET. \_\_\_\_\_ OF. \_\_\_\_\_

INDEX NUMBER	SHEET	LINE
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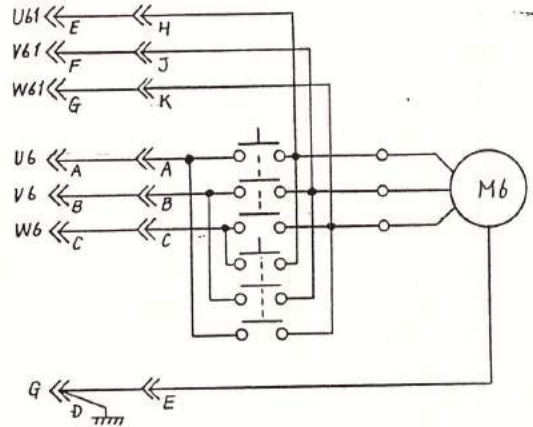


CA04P  
MS3106B28-12

CHIP CONVEYOR  
CA04P CON21

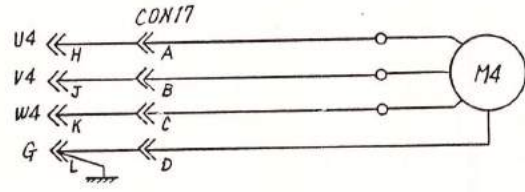
CON21  
MS3102A 20-29S  
MS3108B 20-29P

PIN NO.	LINE NO.
A	U6
B	V6
C	W6
D	G
E	U61
F	V61
G	W61
H	U4
J	V4
K	W4
L	G
M	10
N	OB
P	612
R	OB
S	646
T	647
U	OB
V	SP8
W	SP9
X	SP10
Z	G24
Q	534
b	G24
d	533

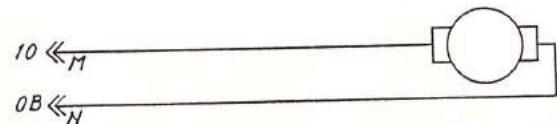


PIN NO.	LINE NO.
A	U6
B	V6
C	W6
D	
E	G
F	
G	
H	U61
J	V61
K	W61
L	
M	
N	
P	
R	
S	
T	

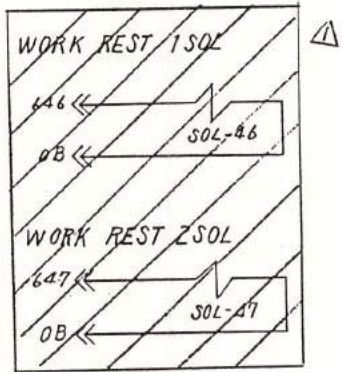
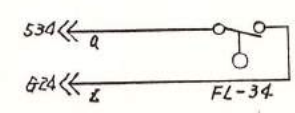
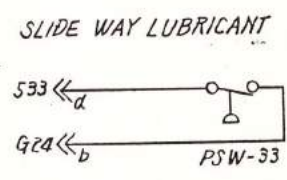
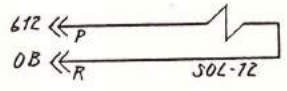
COOLANT PUMP



SLIDE WAY LUBRICANT PUMP MOTOR



COOLANT



SP8 } SPARE WIRE  
SP9 } BLUE  
SP10 } 0.558

CON17  
MS3102A 20-29S  
MS3108B 20-29P

PIN NO.	LINE NO.
A	U4
B	V4
C	W4
D	G
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S	
T	

ZSg Green/Yellow



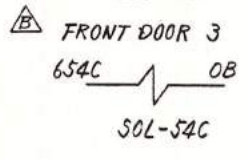
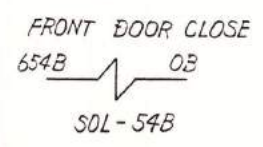
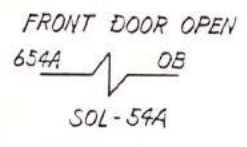
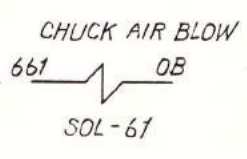
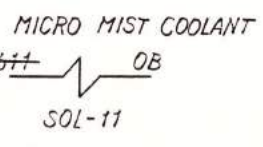
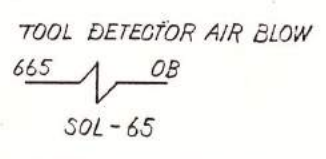
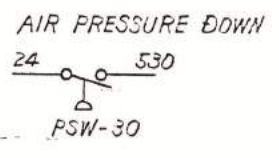
CHIP CONVEYOR  
COOLANT PUMP

CONTROL MAZATROL  
DRAWING NO. 1720147 314A  
SHEET 3 OF 3

INDEX NUMBER	LINE
SHEET	LINE
A 85.8.28	D1
B 87.2.2	D2
H-TAKE	D3
Y.8	D4
	D5
	D6
	D7
	D8
	D9
	D10
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	D52
INDEX NUMBER	LINE

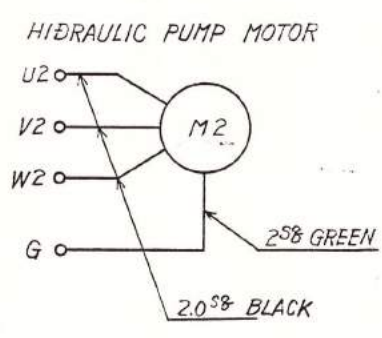
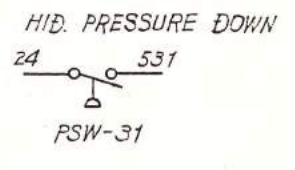
CA08  
MS3106B 20-29P

PIN NO.	LINE NO.
A	530
B	24
C	654C
D	
E	
F	
G	
H	
J	OB
K	OB
L	OB
M	OB
N	665
P	611
R	661
S	654B
T	654A



CON16  
MS3106B 20-29P

PIN NO.	LINE NO.
A	U2
B	V2
C	W2
D	G
E	
F	
G	
H	24
J	531
K	
L	
M	
N	
P	
R	
S	
T	



DSN. BY Y. SUZUKI  
 DATE 85.7.5  
 CHK'D BY KATO  
 DATE  
 MZAK  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 AIR KIT  
 HYDRAULIC PUMP  
 CONTROL MAZATROL  
 DRAWING NO. 1720147315  
 SHEET 3 OF 3  
 B SIZE  
 SHEET 3 OF 3

DRAWING NO.  
SHEET. OF.

INDEX NUMBER

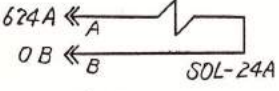
SHEET LINE

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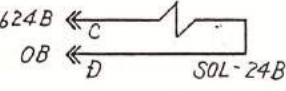
CA02  
MS3106B 20-29P

PIN NO.	LINE NO.
A	624A
B	OB
C	624B
D	OB
E	626
F	OB
G	
H	
J	
K	
L	+24N
M	412
N	+24N
P	411
R	+24N
S	SP6
T	SP7

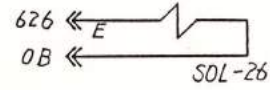
TAIL SLEEVE FORWARD



TAIL SLEEVE REVERSE



TAIL BODY JOINT

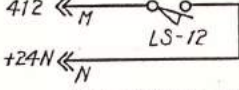


DRN. BY Y. SUZUKI  
 DATE '85.7.5  
 CHK'D BY KATO

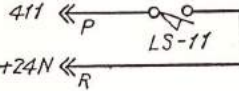


TITLE  
TAIL

TAIL SLEEVE FORWARD



TAIL SLEEVE REVERSE

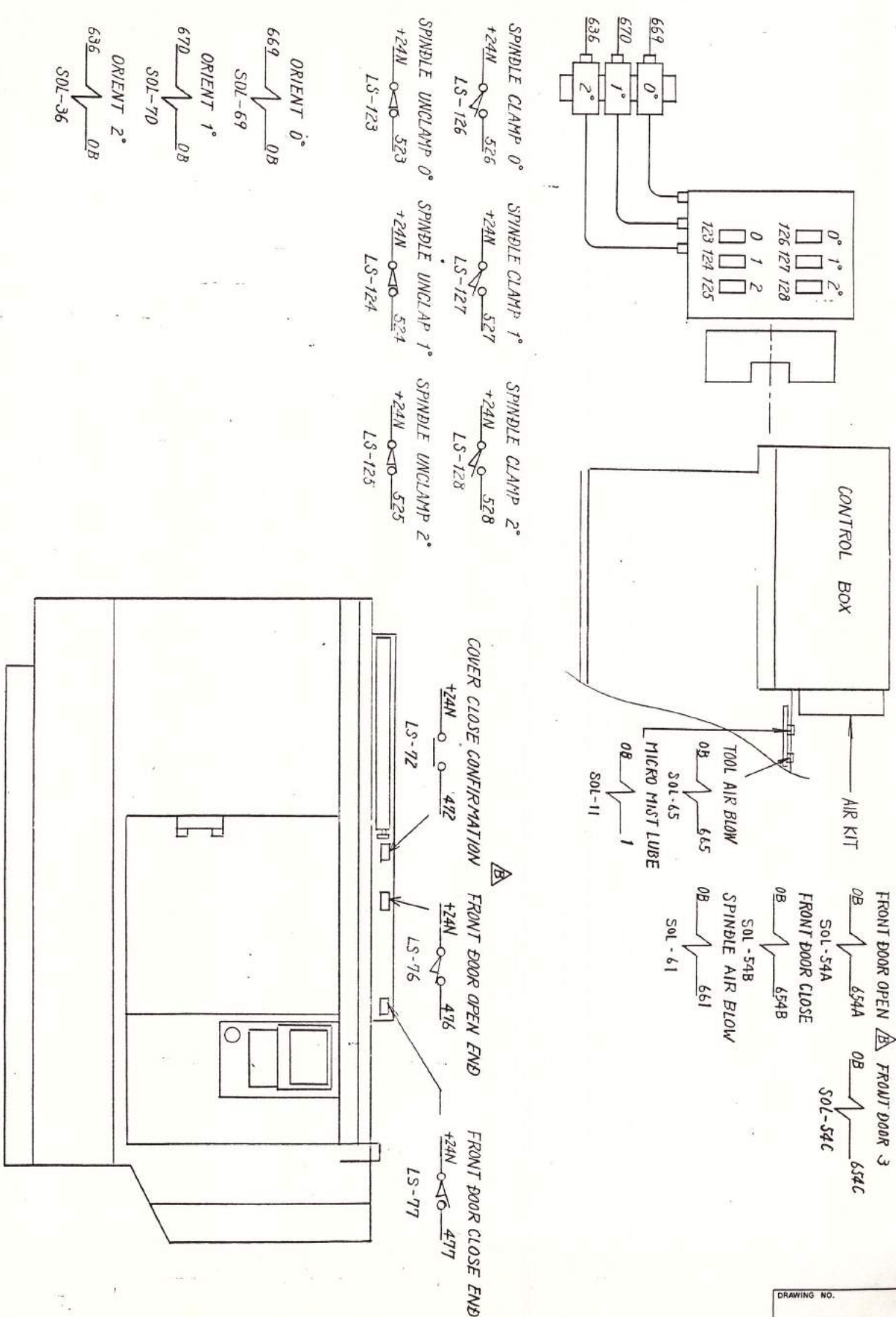


CONTROL MAZATROL  
 DRAWING NO. 1120147 316  
 SHEET 3 OF 3

DRAWING NO.  
 SHEET. \_\_\_\_\_ OF \_\_\_\_\_

INDEX NUMBER	LINE
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SHEET	LINE
INDEX NUMBER	

PR.2.2 H TAKE



DRN. BY Y. SUZUKI  
 DATE 8-7-5  
 CHK. D BY YMD  
 DATE

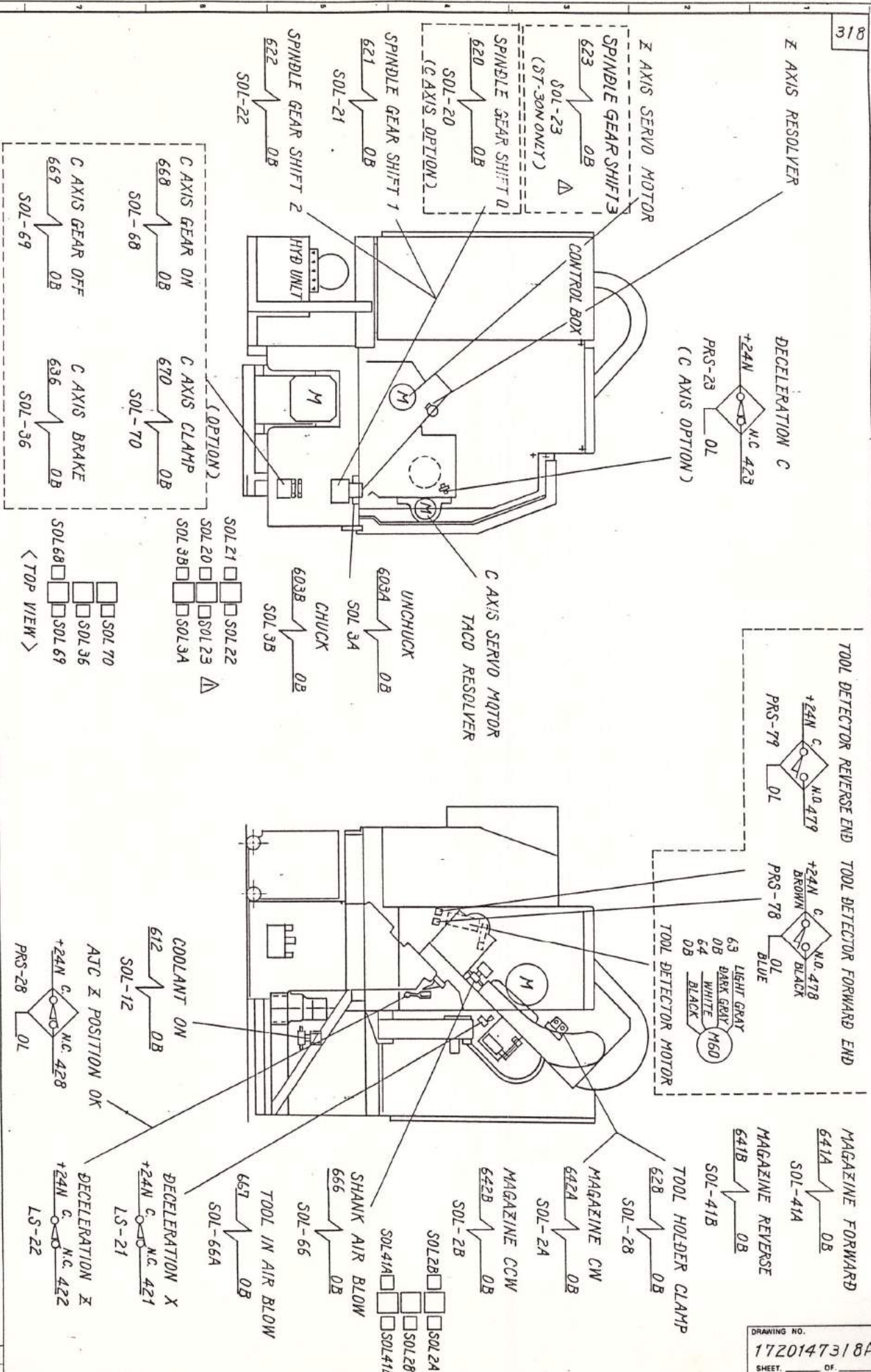
**Mazak**  
 YAMAZAKI MAZAK CORPORATION

TITLE  
 PARTS POSITION  
 DIAGRAM  
 ON MACHINE

DRAWING NO. 1720147 317B  
 SHEET. OF. 3

CONTROL HAERITROL  
 SIZE 3

DRAWING NO. \_\_\_\_\_  
SHEET. \_\_\_\_\_ OF. \_\_\_\_\_



INDEX NUMBER	LINE
SHEET 318	01
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INDEX NUMBER	LINE
SHEET 318	01

DATE 85.9.14 BY Y.J.P

< TOP VIEW >

DRN. BY ISHIZUKI  
DATE 85.7.5  
CHK'D BY KATO

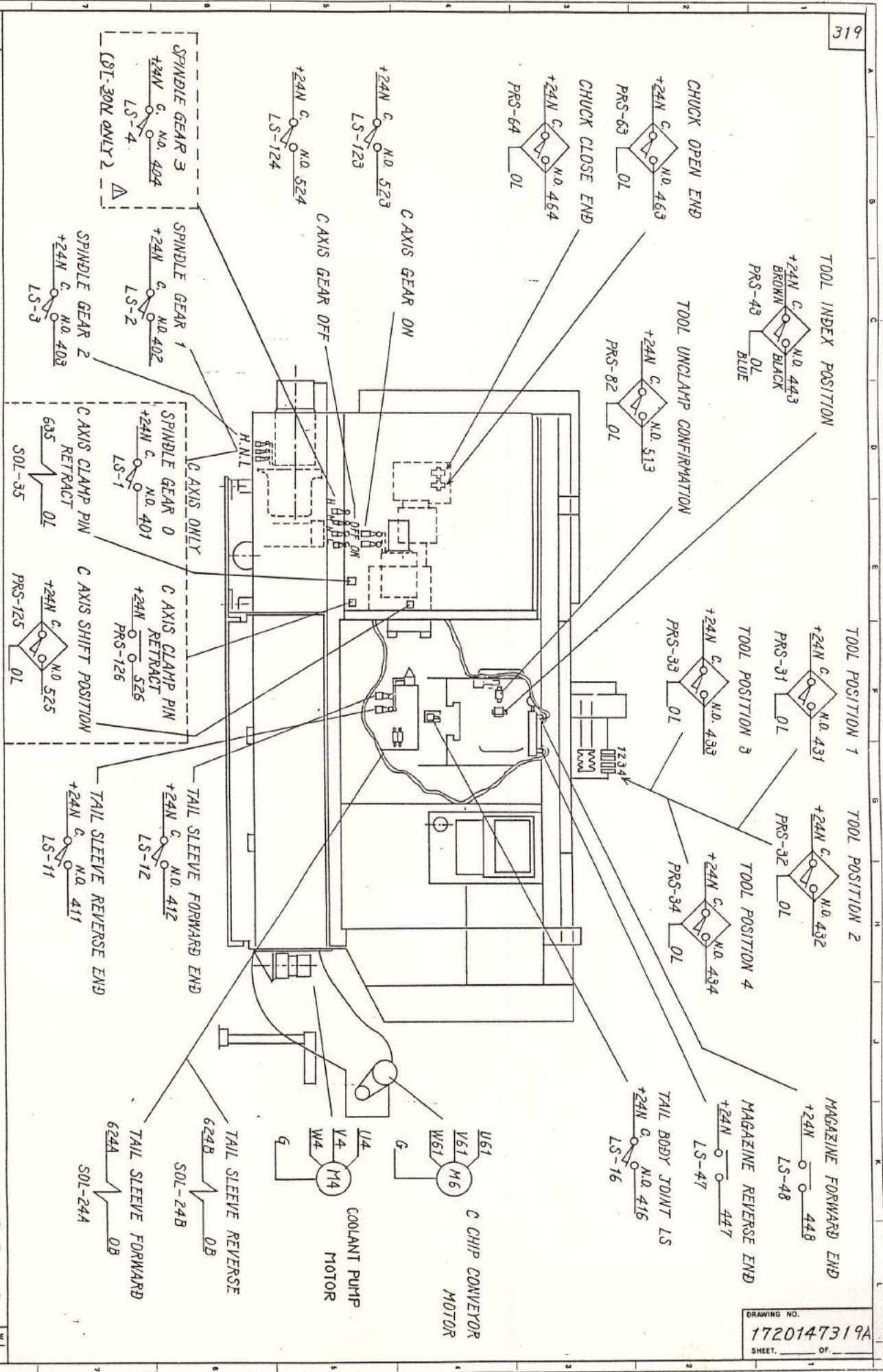


TITLE  
PARTS POSITION  
DIAGRAM  
ON MACHINE

CONTROL MAZATROL  
DRAWING NO. 1720147318A  
SHEET 3 OF 3

DRAWING NO. 1720147318A  
SHEET 3 OF 3

INDEX NUMBER	SHEET 539	LINE
DATE 85.9.14 BY S.V.		
DATE 85.7.5 CHK'D BY Y.M.D.		
<b>Mazak</b> <small>MAZAKI MAZAK CORPORATION</small>		
TITLE <b>PARTS POSITION DIAGRAM ON MACHINE</b>		
CONTROL	DRAWING NO.	SHEET
HAZATROL	1720147319A	01
SIZE		
3		
SHEET 319	INDEX NUMBER	LINE



DRAWING NO.  
 1720147319A  
 SHEET OF



# ELEMENTARY DIAGRAM LIST

SHEET	TITLE	DRAWING NO.
401 1/2	TRANSFORMER, SERVO, & SPINDLE MOTOR CIRCUIT (JAPAN)	
2/2	DO. (EXPORT)	
402 1/2	SPINDLE CONTROLLER FR-SE	
2/2	DO.	
403	DO.	
404	MILL MOTOR	
405	SPINDLE ANALOG SIGNAL FROM NC	
407	3 PHASE MOTOR CIRCUIT	
408	AC CIRCUIT	
409	DO.	
410	SOL CIRCUIT	
411	RELAY CIRCUIT	
412	DO.	
414	PC INPUT	
415	DO.	
416	DO.	
417	DO.	
418	DO.	
419	DO.	
420	DO.	
421	DO.	
422	DO.	
423	DO.	
424	DO.	
426	PC OUTPUT	
427	DO.	

DRN. BY Y. SUZUKI  
 DATE '85.7.5  
 CHK'D BY KAKO



TITLE  
 ELEMENTARY DIAGRAM

CONTROL  
 DRAWING NO. 1720147400  
 SHEET 1 OF 6

SIZE  
 3

HEET LINE  
 INDEX NUMBER

# ELEMENTARY DIAGRAM LIST

SHEET	TITLE	DRAWING NO.
428	PC OUTPUT	
429	DO.	
430	DO.	
432	PC OUTPUT	
433	DO.	
435	SSR BOARD	
436	DO.	
437	OPTION PANEL	
438	LOAD METOR CIRCUIT	
439	SERVO MOTOR	
440	DO.	
441	SERVO & MAGNECAIL CIRCUIT	
442	WORK MEASURE CIRCUIT	
443	TOOL MEASURE CIRCUIT	
449	AUTO POWER OFF	
450	NC POWER	
451	DNC CONNECTION (A-TYPE)	
452	CPU LINK PALLET 1/F	
454	IPM 400 OUTPUT (AJC)	
455	IPM 400 INPUT (AJC)	
458	ROBOT CONTROL BOX	
459	DO.	

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LINE

DRN BY Y. SUZUKI  
DATE '85.7.5  
CHK'D BY KATB



TITLE  
ELEMENTARY DIAGRAM

CONTROL MAZATROL  
DRAWING NO. 1720147400  
SHEET 2 OF 6

SIZE 3

INDEX NUMBER



# ELEMENTARY DIAGRAM LIST

SHEET	TITLE	DRAWING NO.
500	CONTROL BOX LAYOUT	
502	PARTS ARRANGMENT ON PANEL	
503	CONNECTOR UNIT LAYOUT	
504	TERMINAL LAYOUT	
508	TERMINAL LAYOUT CARRIAGE BOX.	
510	T.U. CONNECTOR TABLE	
511	DO.	
512	DO.	
513	DO.	
514	DO.	
515	DO.	
516	DO.	
517	DO.	
518	DO.	
519	DO.	
520	DO.	
521	DO.	
522	DO.	
523	CONNECTOR TABLE	
524	DO.	
525	CANNON CONNECTOR CONNECTION	
526	DO.	
527	DO.	
528	DO.	

DRN. BY Y. SUZUKI  
 DATE '85. 7. 5  
 CHKD BY KATO



ELEMENTARY DIAGRAM

TITLE

CONTROL MAZATROL

DRAWING NO.

1720147400

SIZE

3

EET

LINE

INDEX NUMBER



# ELEMENTARY DIAGRAM LIST

SHEET	TITLE	DRAWING NO.
801	SEQUENCE LADDER DIAGRAM LIST	
8	SEQUENCE LADDER DIAGRAM LIST	

LINE	
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36	
LINE	
INDEX NUMBER	

DRN BY: Y. SUZUKI	DATE: 85.7.5
CHK'D BY: KATO	

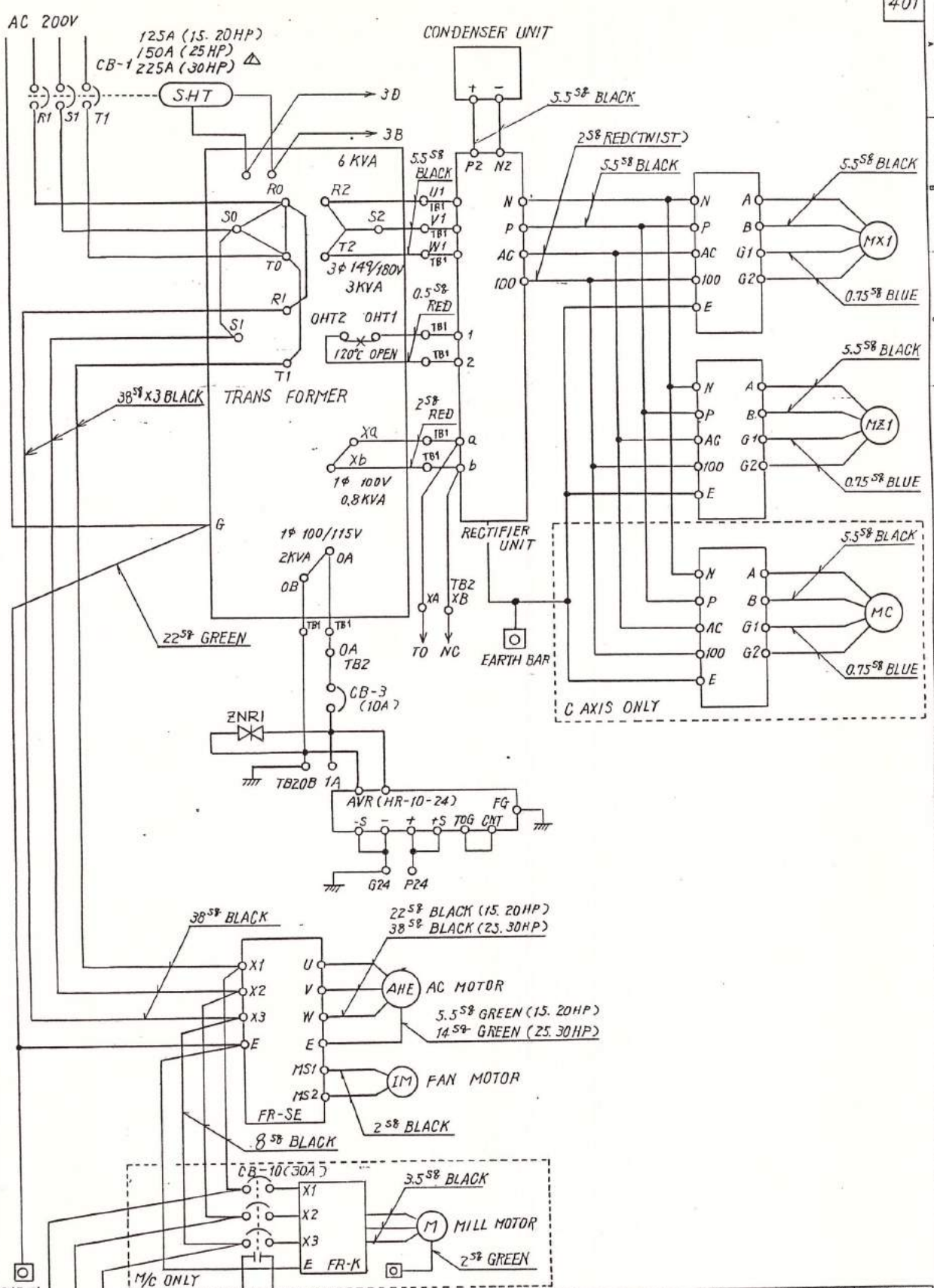
  

<b>Mazak</b> <small>YAMAZAKI MAZAK CORPORATION</small>	TITLE ELEMENTARY DIAGRAM
---	-----------------------------

CONTROL: MAZATROL	DRAWING NO.: 1720147400
SHEET: 6	SIZE: 3

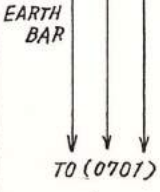
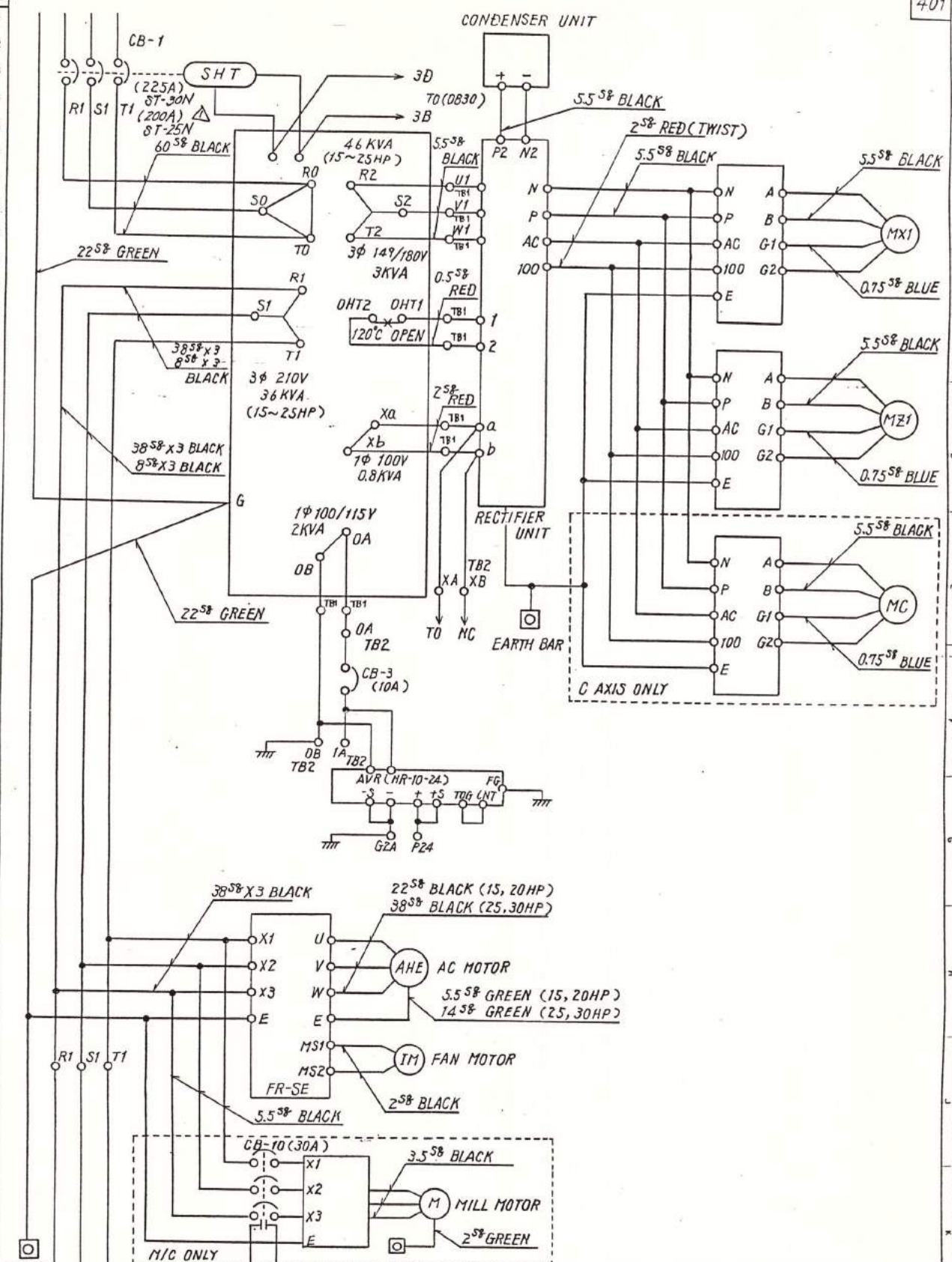
INDEX NUMBER  
SHEET 401 1/2  
LINE  
DATE 185.8.28  
CHK'D BY KATZ  
DATE 85.6.7  
DWN. BY TOSHIKI  
Mazak  
TITLE  
TRANSFORMER, SERVO,  
& SPINDLE MOTOR CIRCUIT  
(JAPAN)  
CONTROL MAZATROL  
DRAWING NO. 1720147401 1/2  
SHEET 3 OF  
SHEET 401 1/2  
INDEX NUMBER



	SERVO MOTOR			TRANSISTER AMP			CONDENSER UNIT	RECTIFIER UNIT
	X	Z	C	X	Z	C		
	11U-81-12	11D-101-12	11D-81-12	11A 31	11A 41	11A 31	CU30	DU30
CONTINUANCE CURRENT	6.3A/20001P/M	10.3A/10001P/M	6.3A/20001P/M					
MAX CURRENT	45A	45A	45A					
MAX SPEED	20001P/M	15001P/M	20001P/M					
CAPACITY	1.5 KVA	2.2 KVA	1.5 KVA					

EARTH BAR  
 TO (0701)  
 TO (11 21)  
 M/C ONLY  
 5.5<sup>58</sup> BLACK  
 154  
 155

DRAWING NO.  
1720147401A 1/2  
SHEET OF



	SERVO MOTOR			TRANSISTOR AMP			CONDENSER	RECTIFIER
	X	Z	C	X	Z	C	UNIT	UNIT
	HD-81-12	HD-101-12	HD-81-12	TRA 31	TRA 41	TRA 31	CU 30	DU 30
CONTINUANCE CURRENT	6.3A/2000rpm	10.7A/1000rpm	6.3A/3000rpm					
MAY CURRENT	45A	45A	45A					
MAX SPEED	2000rpm	1500rpm	2000rpm					
CAPACITY	1.5 KVA	2.2 KVA	1.5 KVA					

DRAWING NO.  
1720147401A2/2  
SHEET. OF.

DWN BY KAZUHIKI  
 DATE 05.6.7  
 CHK'D BY KATO  
 DATE  
**Mazak**  
 MAZAKI MAZAK CORPORATION  
 TITLE  
 TRANSFORMER, SERVO,  
 & SPINDLE MOTOR CIRCUIT  
 (EXPORT)  
 CONTROL  
 MAZATROL  
 DRAWING NO.  
 1720147401A2/2  
 SHEET. OF.  
 3  
 SHEET 401 2/2  
 INDEX NUMBER



INDEX NUMBER  
EET 402 1/2 LINE

DATE 85.6.7  
CHKD BY YKTD

DRN. BY YSURIKI

YAMAZAKI MAZAK CORPORATION

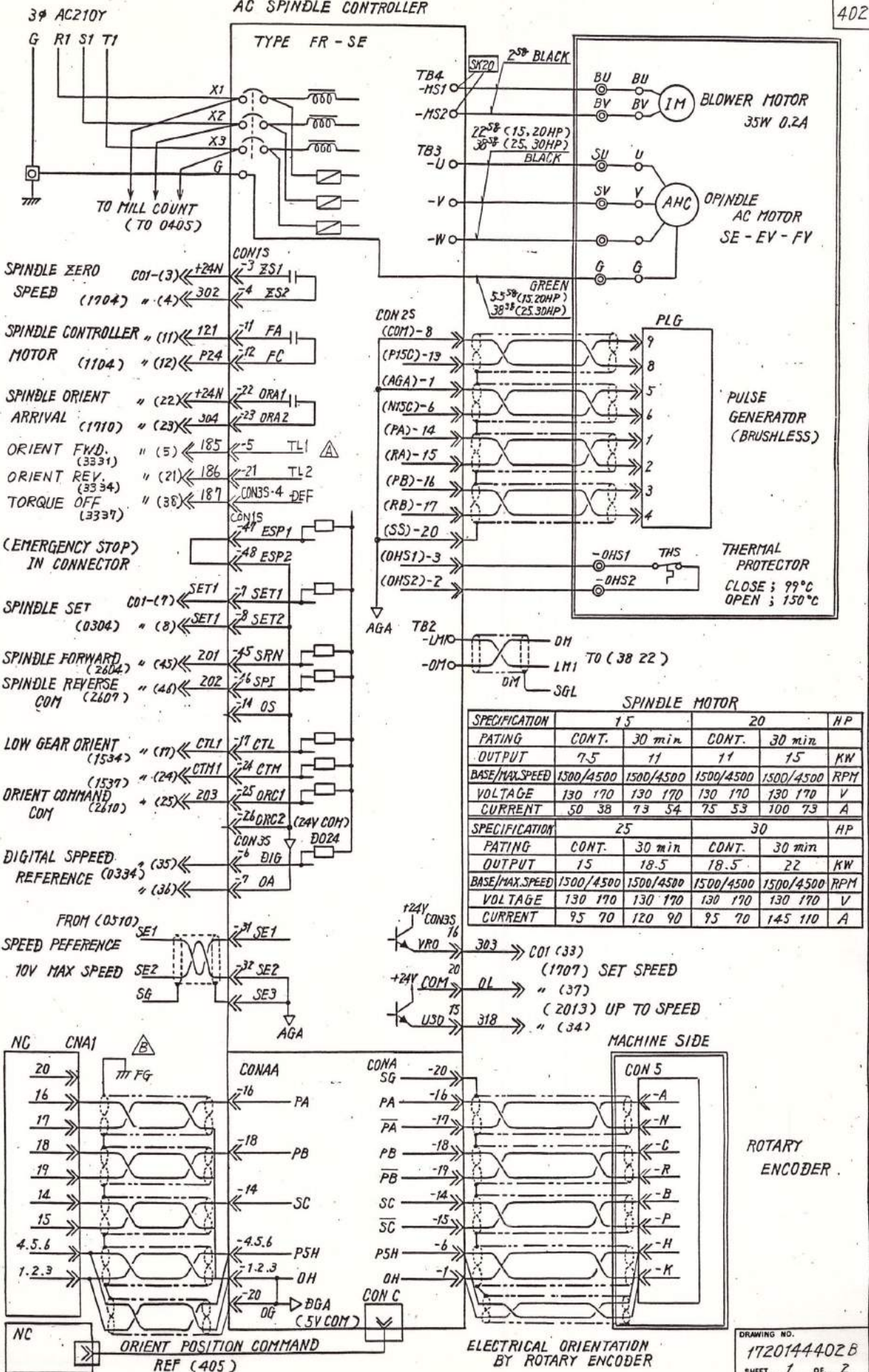
**Mazak**

TITLE  
SPINDLE CONTROLLER  
FR-SE 1/2

CONTROL MAZAKROL  
DRAWING NO. 1720144402B  
SHEET 1 OF 2

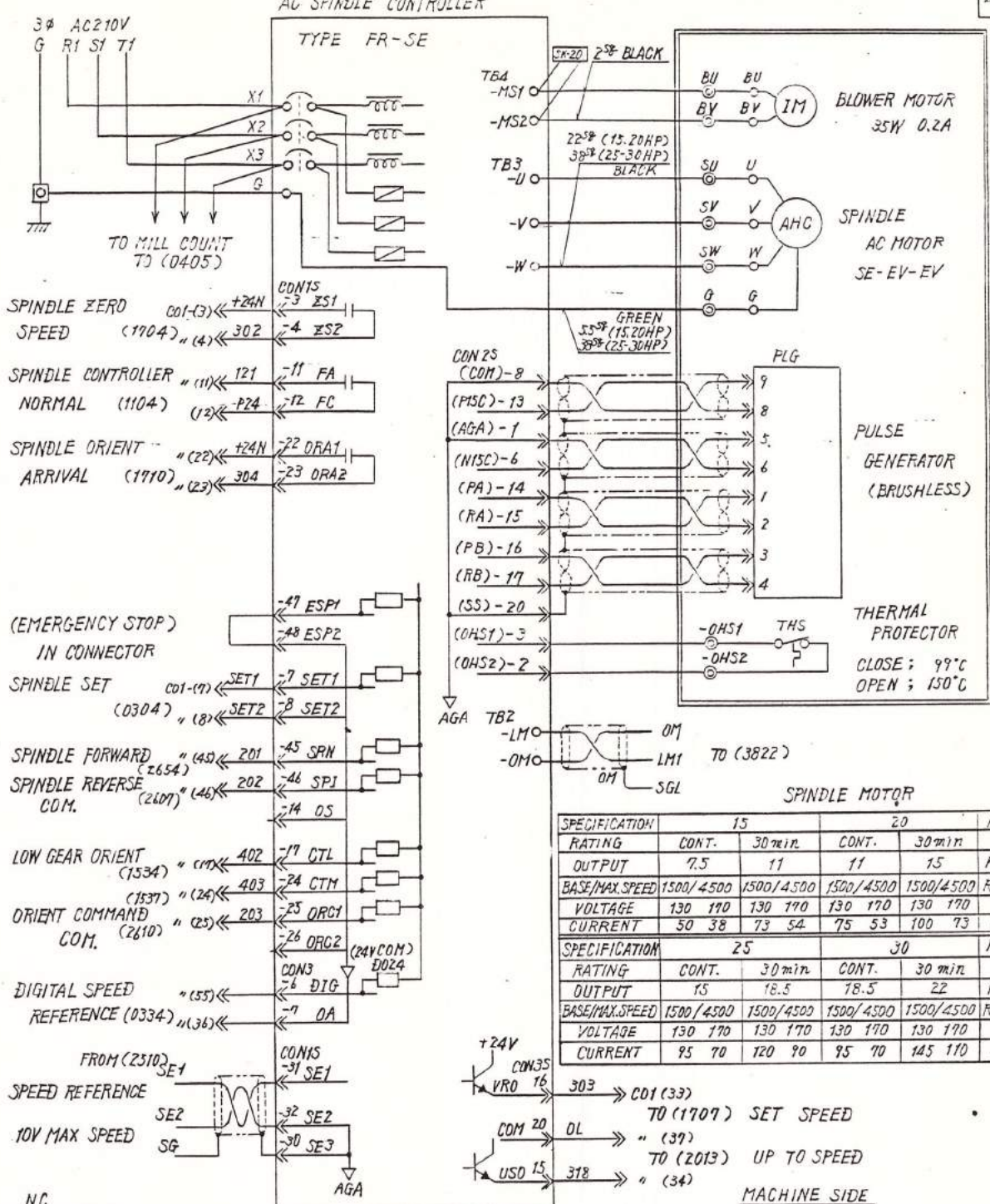
SIZE 3

SHEET 402 1/2 LINE



DRAWING NO. 1720144402B  
SHEET 1 OF 2

87129 HTAKE SHIELD

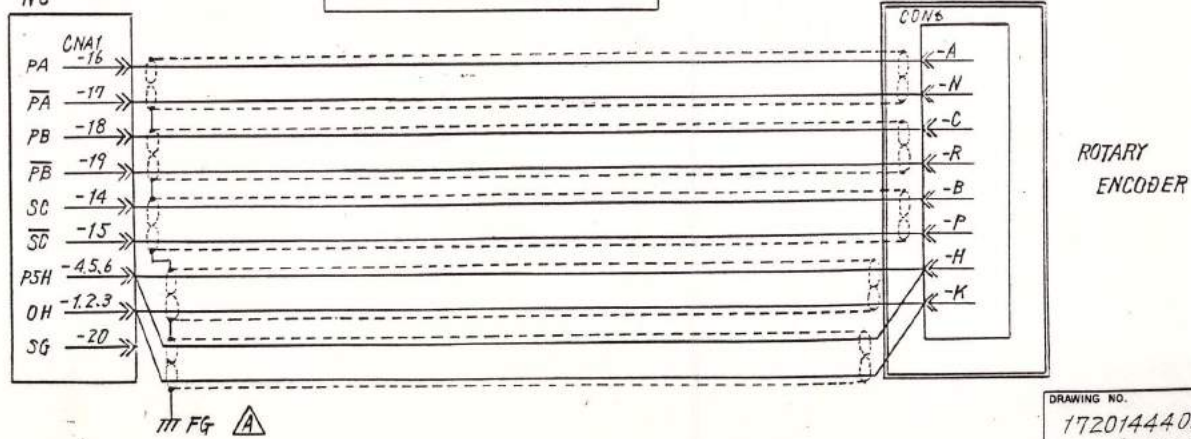


**SPINDLE MOTOR**

SPECIFICATION	15		20		HP
	RATING	CONT.	30 min.	CONT.	
OUTPUT	7.5		11	11	15
BASE/MAX. SPEED	1500/4500		1500/4500	1500/4500	1500/4500
VOLTAGE	130 170		130 170	130 170	130 170
CURRENT	50 38		73 54	75 53	100 73

SPECIFICATION	25		30		HP
	RATING	CONT.	30 min.	CONT.	
OUTPUT	15		18.5	18.5	22
BASE/MAX. SPEED	1500/4500		1500/4500	1500/4500	1500/4500
VOLTAGE	130 170		130 170	130 170	130 170
CURRENT	95 70		120 90	95 70	145 110



DESIGNED BY Y. NISHIKI  
 DATE 85.6.7  
 CHECKED BY K. ITO  
 DATE



TITLE  
 SPINDLE CONTROLLER  
 FR-SE 2/2

CONTROL  
 MAZATROL  
 DRAWING NO.  
 172014402A  
 SHEET 2 OF 2  
 SIZE  
 3

INDEX NUMBER  
SHEET 403 LINE

186.2.17 Y.8

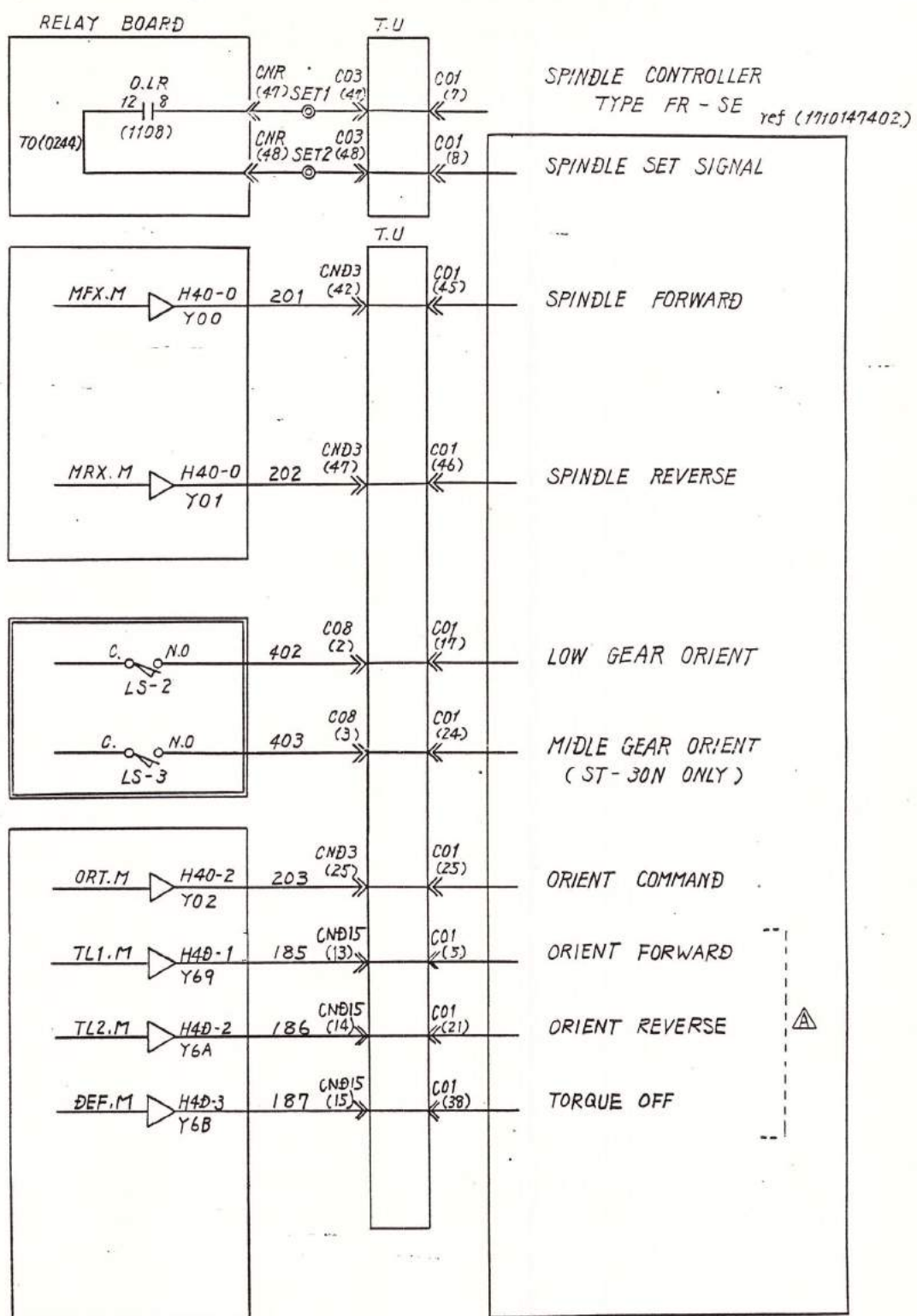
DATE 85.6.7  
CHK'D BY KATO  
DIN. BY TSUBUKI

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
SPINDLE CONTROLLER  
FR - SE

CONTROL  
DRAWING NO. 1720144403A  
SHEET 3 OF 3

SHEET 403 LINE



INDEX NUMBER  
SHEET 404 LINE

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85.9.4 Y.S. for FR-K3-37K

DATE 85.6.11  
CHK'D BY V.K.O.

**Mazak**  
MAZAK MACHINE CORPORATION

TITLE  
MILL MOTOR

CONTROL MAZATROL

DRAWING NO. 1720147 404A  
SHEET 3 OF 3

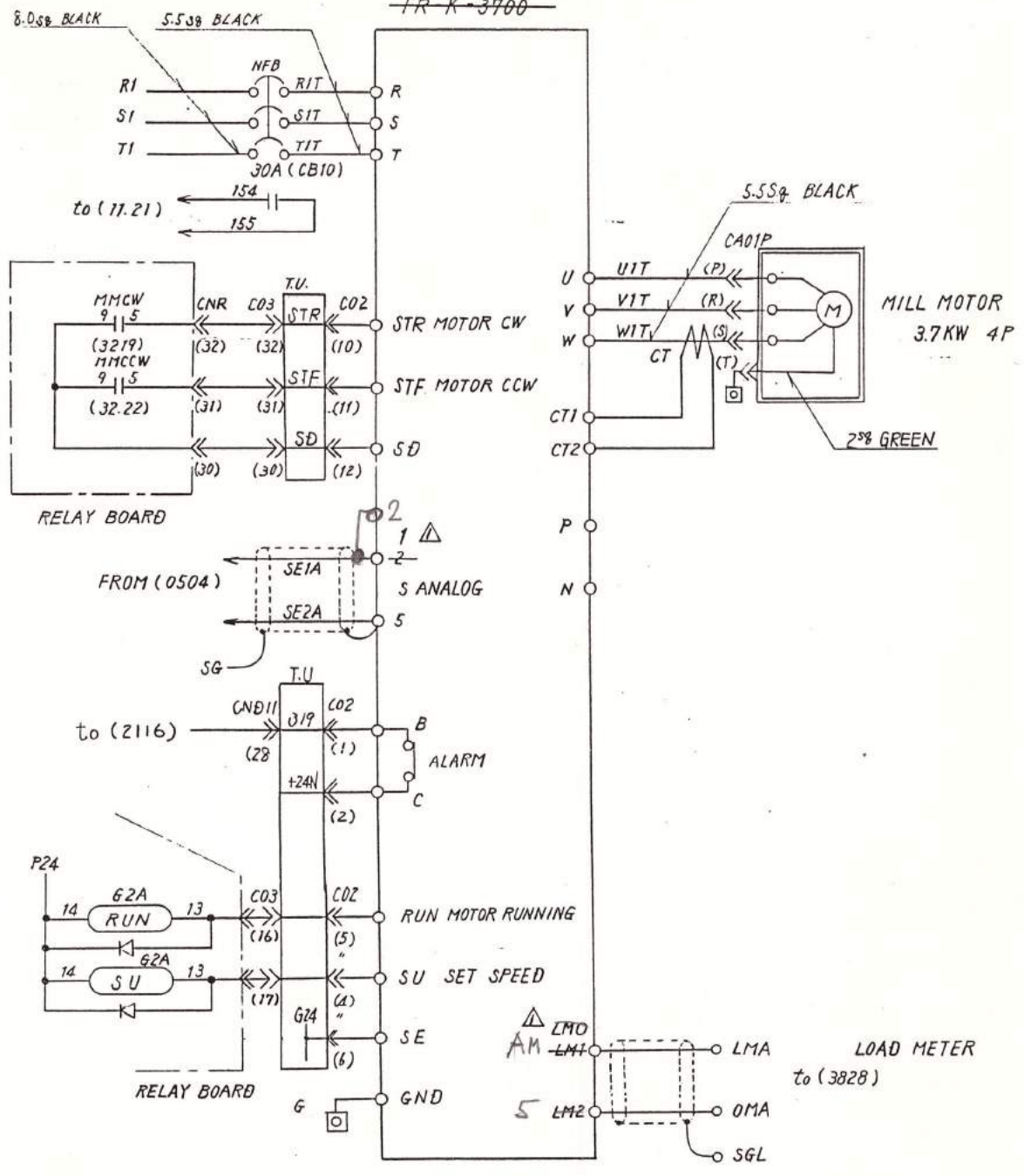
SHEET 404 LINE

INDEX NUMBER

404

FR-A500

~~FR-K3-37K~~  $\Delta$   
~~FR-K-3700~~



DRAWING NO.  
1720147 404A  
SHEET. OF.

INDEX NUMBER  
SHEET 405 LINE

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Δ 185.9.4  
S.P. for FR-K3-37K

DATE 85.6.11  
CHK'D BY KATO  
DATE

DESIGNED BY Y. SUZUKI  
DRAWING NO. 1720147 405A  
SHEET OF

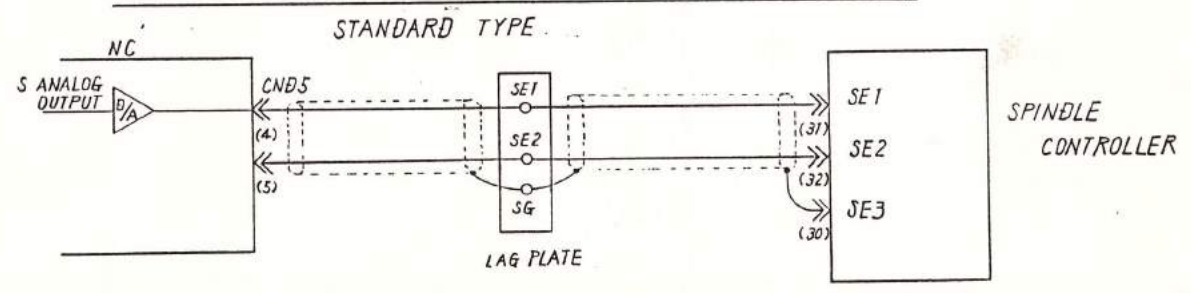
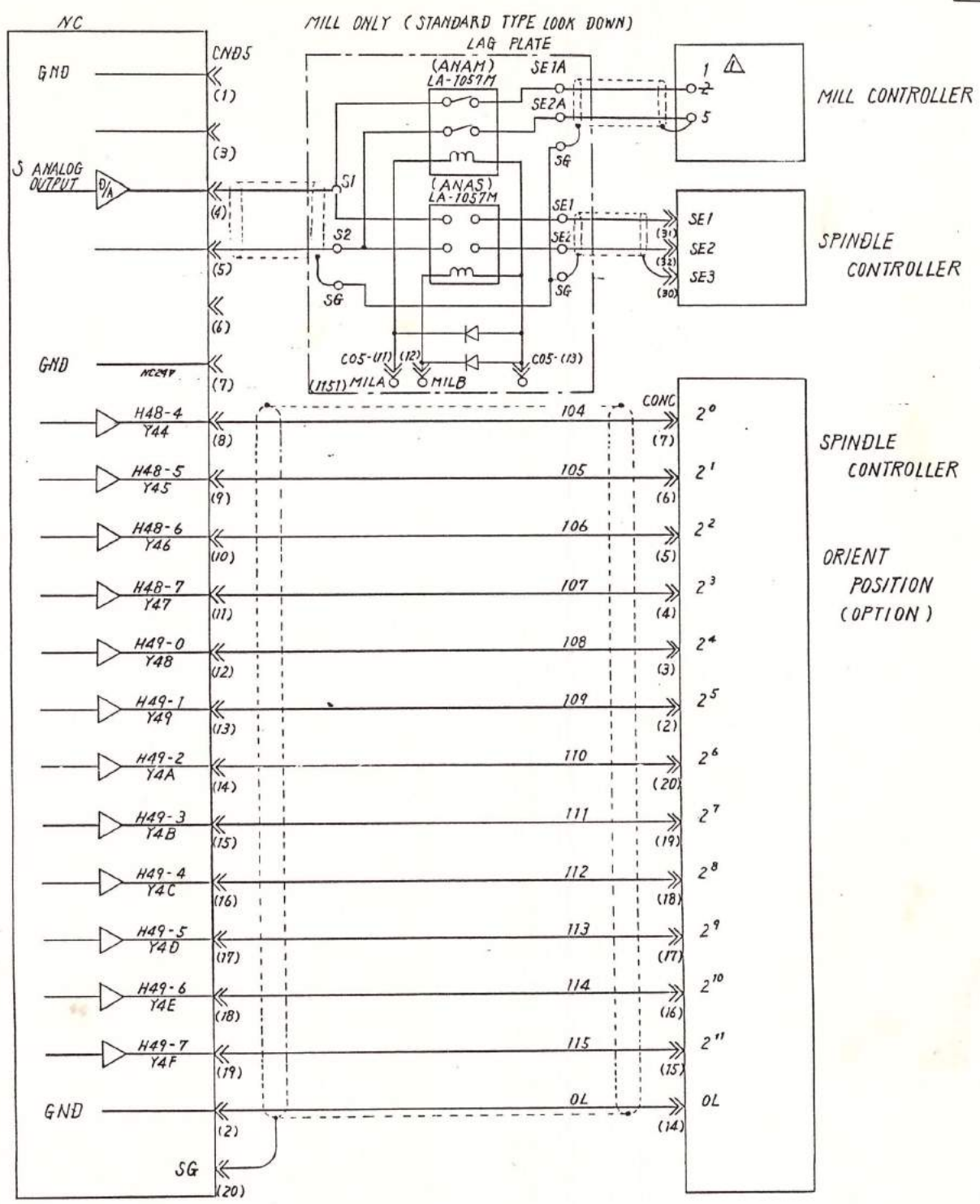
**Mazak**  
MAZAK CORPORATION

TITLE  
SPINDLE ANALOG  
SIGNAL FROM NC

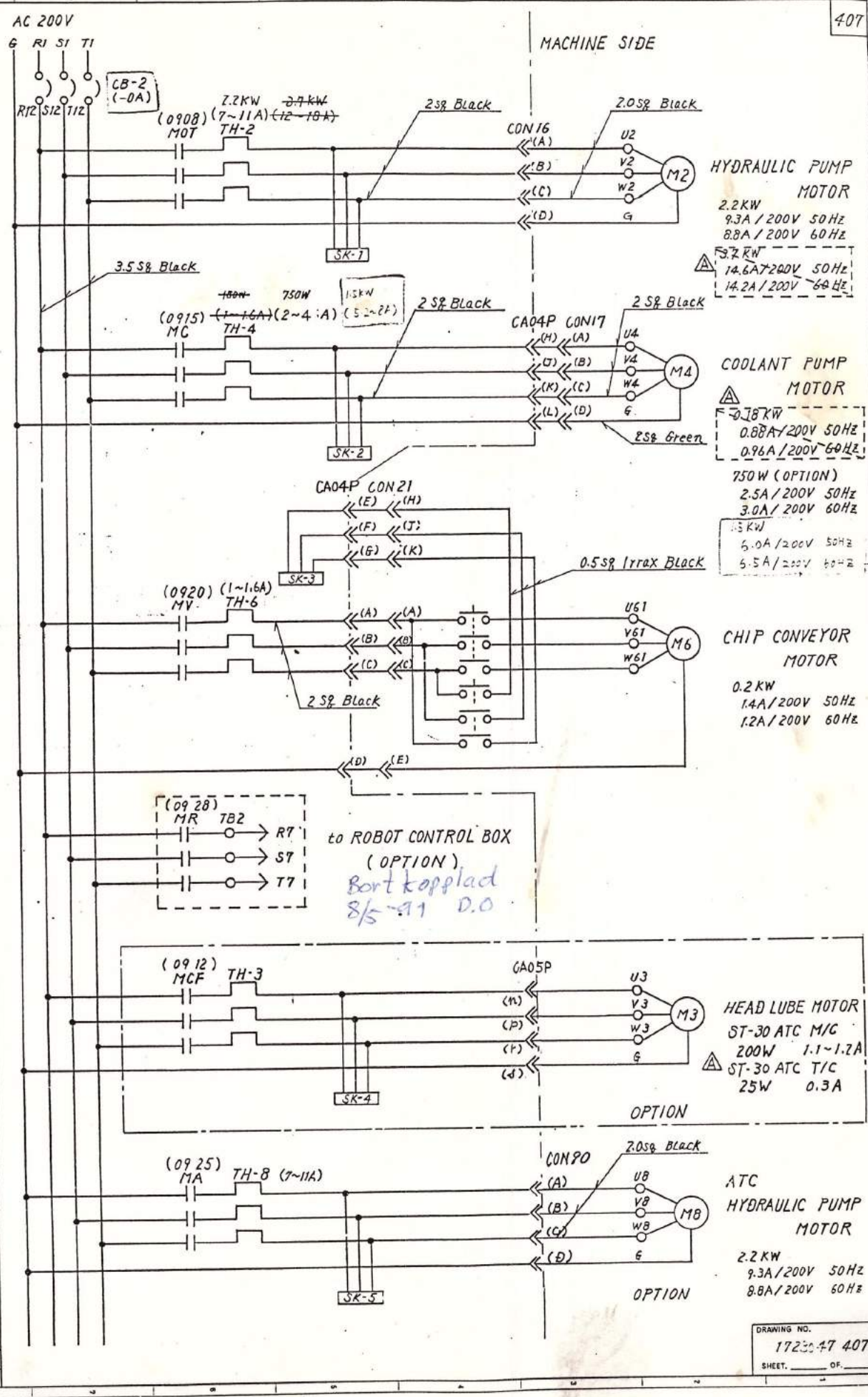
CONTROL  
MAGNETROL

SIZE  
3

SHEET 405 LINE  
INDEX NUMBER



INDEX NUMBER	LINE
SHEET 407	01
DATE 86.2.17 S.8	02
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INDEX NUMBER	LINE



3 PHASE MOTOR  
CIRCUIT

CONTROL MAZATROL  
DRAWING NO. 1723047 407A  
SHEET 407 OF 3

DRAWING NO. 1723047 407A  
SHEET. OF.

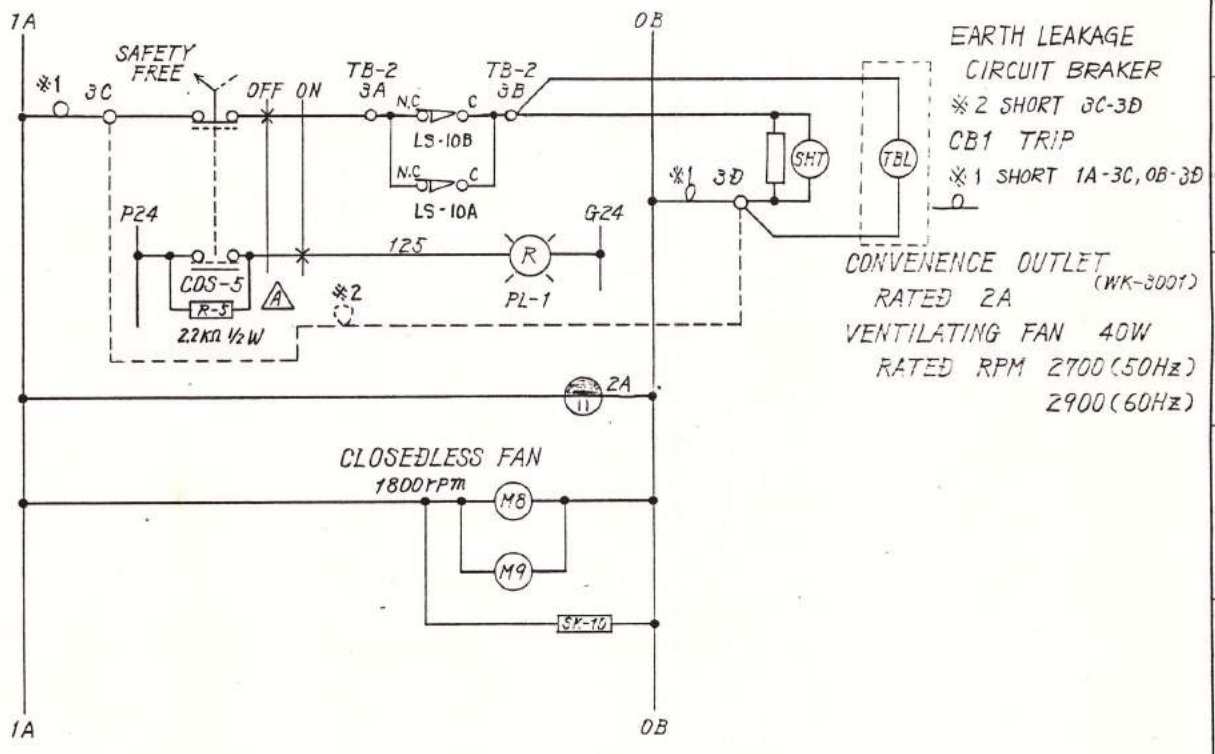
INDEX NUMBER SHEET 408 LINE

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DATE 83.6.13  
CHK'D BY KATO  
DATE  
DRN. BY YAMAZAKI  
TITLE  
ELEMENTARY DIAGRAM  
AC. CIRCUIT  
CONTROL  
MAZAKROL  
DRAWING NO.  
1720147408A  
SHEET  
OF  
SIZE  
3

SHEET 408 LINE  
INDEX NUMBER

408



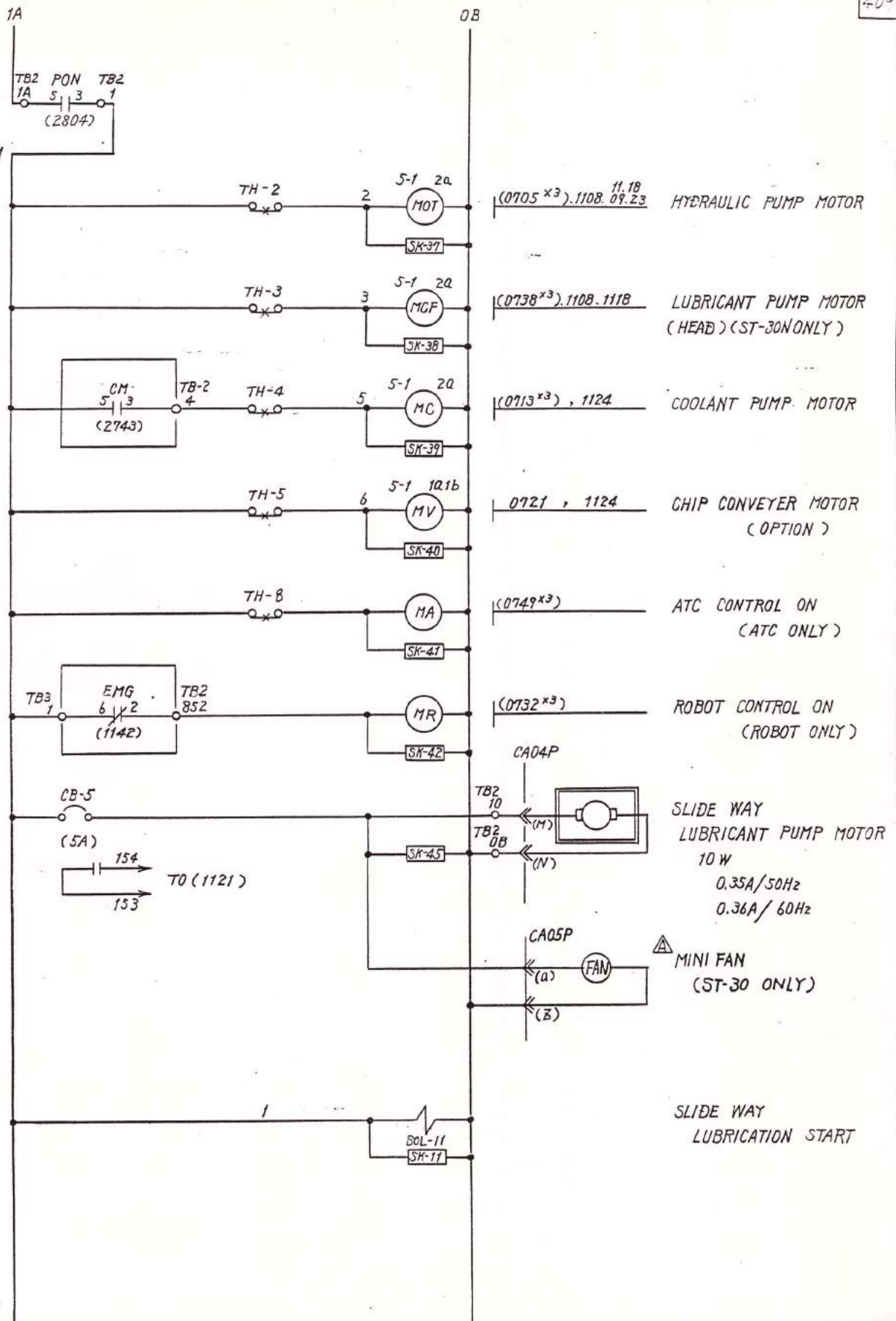
EARTH LEAKAGE  
CIRCUIT BRAKER  
\*2 SHORT 3C-3D  
CB1 TRIP  
\*1 SHORT 1A-3C, 0B-3D

CONVENIENCE OUTLET  
RATED 2A (WK-300T)

VENTILATING FAN 40W  
RATED RPM 2700 (50Hz)  
2900 (60Hz)

DRAWING NO.  
1720147408A  
SHEET. OF.

INDEX NUMBER	LINE
SHEET 409	01
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INDEX NUMBER	LINE
SHEET 409	



HYDRAULIC PUMP MOTOR

LUBRICANT PUMP MOTOR (HEAD) (ST-30 ONLY)

COOLANT PUMP MOTOR

CHIP CONVEYER MOTOR (OPTION)

ATC CONTROL ON (ATC ONLY)

ROBOT CONTROL ON (ROBOT ONLY)

SLIDE WAY LUBRICANT PUMP MOTOR 10 W 0.35A/50Hz 0.36A/60Hz

MINI FAN (ST-30 ONLY)

SLIDE WAY LUBRICATION START

DATE 8.11.80  
 CHK'D BY VANTO  
 DWN. BY Y. SAKAKI  
 186.2.17

**Mazak**  
 YAMAZAKI MAZAK CORPORATION

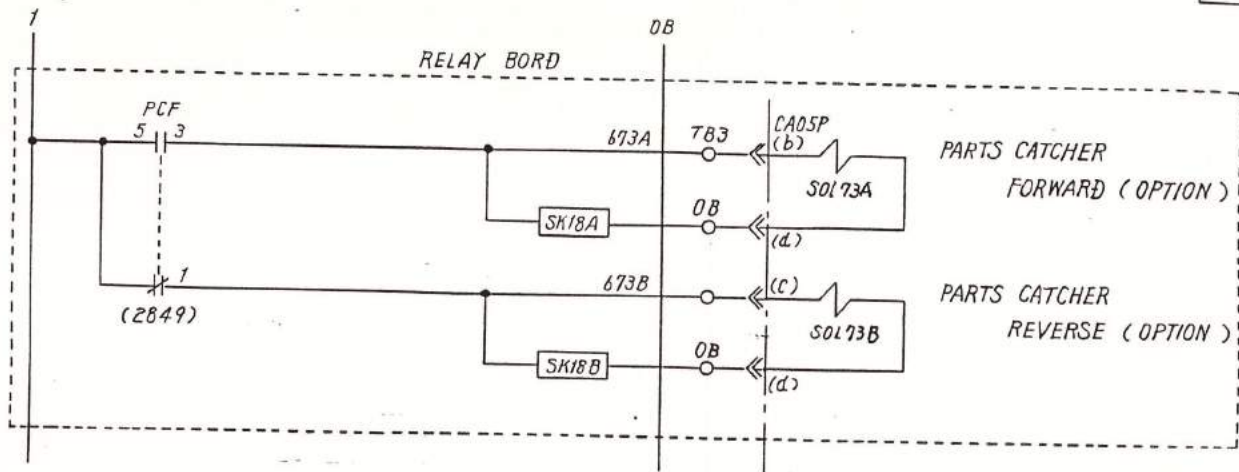
TITLE  
 EL EMENTARY DIAGRAM  
 AC CIRCUIT

CONTROL MAZATROL  
 DRAWING NO. 1720147409A  
 SHEET 3 OF 3

DRAWING NO. 1720147409A  
 SHEET 3 OF 3



INDEX NUMBER	410
SHEET	410
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SHEET	410
INDEX NUMBER	



PARTS CATCHER FORWARD (OPTION)

PARTS CATCHER REVERSE (OPTION)

DRN. BY Y. MIZUKI  
 DATE 05.6.73  
 CHK'D BY Y. ITO  
 DATE



TITLE  
 SOL CIRCUIT

CONTROL MAZATROL  
 DRAWING NO. 1720147410  
 SHEET 3 OF 3

DRAWING NO. 1720147410  
 SHEET. \_\_\_\_\_ OF \_\_\_\_\_

INDEX NUMBER  
SHEET 411 LINE

DATE 85.8.28 Y.8

DRN. BY KAZUKI  
DATE 85.6.13  
CHK'D BY KATO

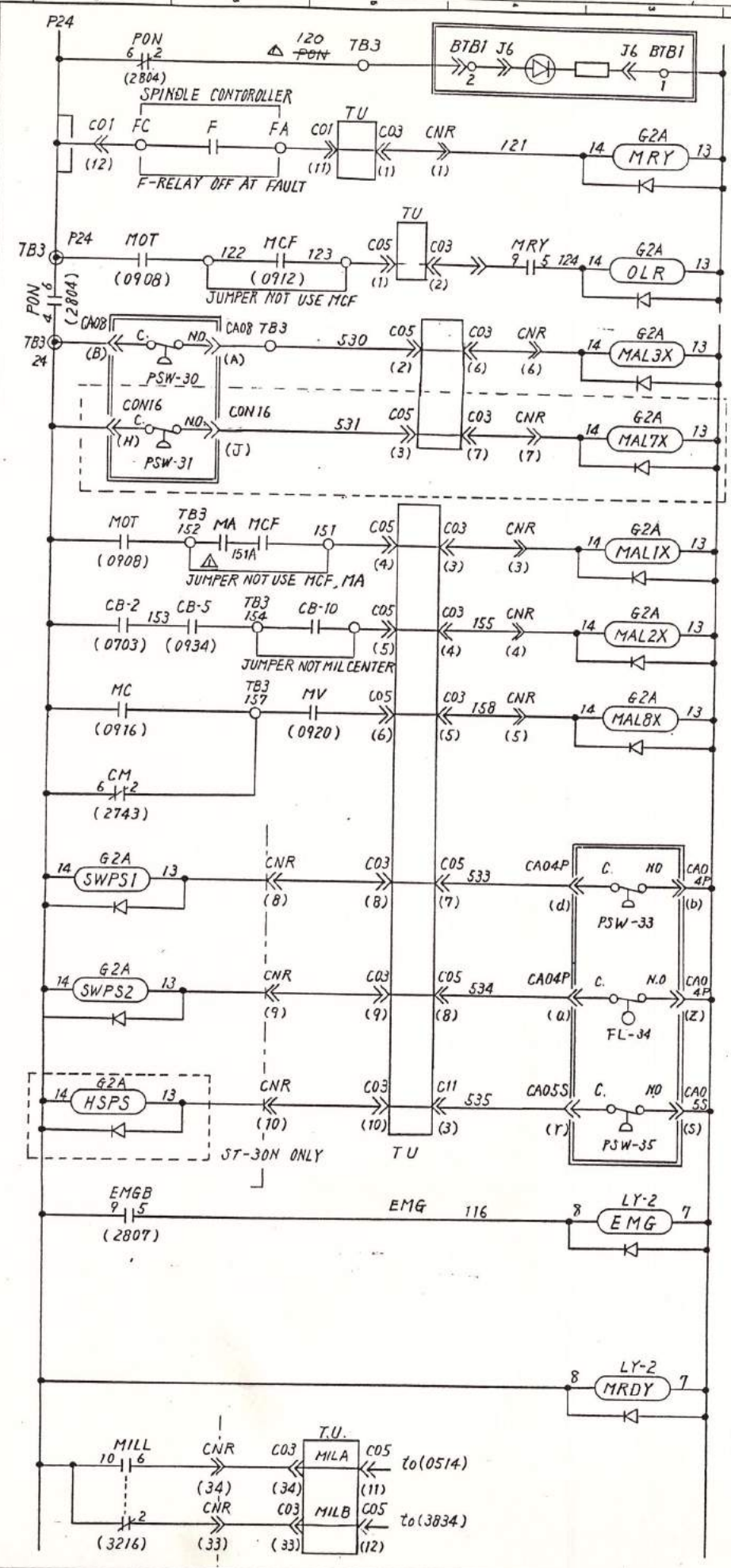
**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
RELAY CIRCUIT

CONTROL MAZATROL  
DRAWING NO. 1720147 411A  
SIZE 3

SHEET 411 LINE

INDEX NUMBER



411

NC POWER OFF (PENDANT)

AC MOTOR READY  
DB 1737

MACHINE READY  
1713 5811 0505

AIR PRESSURE DOWN  
1722

HYD. PRESSURE DOWN (OPTION)  
1734

MACHINE ALARM AT MALIX RELAY OFF (THERMAL RELAY TRIP)  
1716

MACHINE ALARM AT MAL2X RELAY OFF (NOFUSE BREAKER TRIP)  
1719

MACHINE ALARM AT MALBX RELAY OFF (THERMAL RELAY TRIP)  
1807

SLIDE WAY LUBRICATION PRESSURE  
1725

SLIDE WAY LUBRICATION FLOW SW  
1916

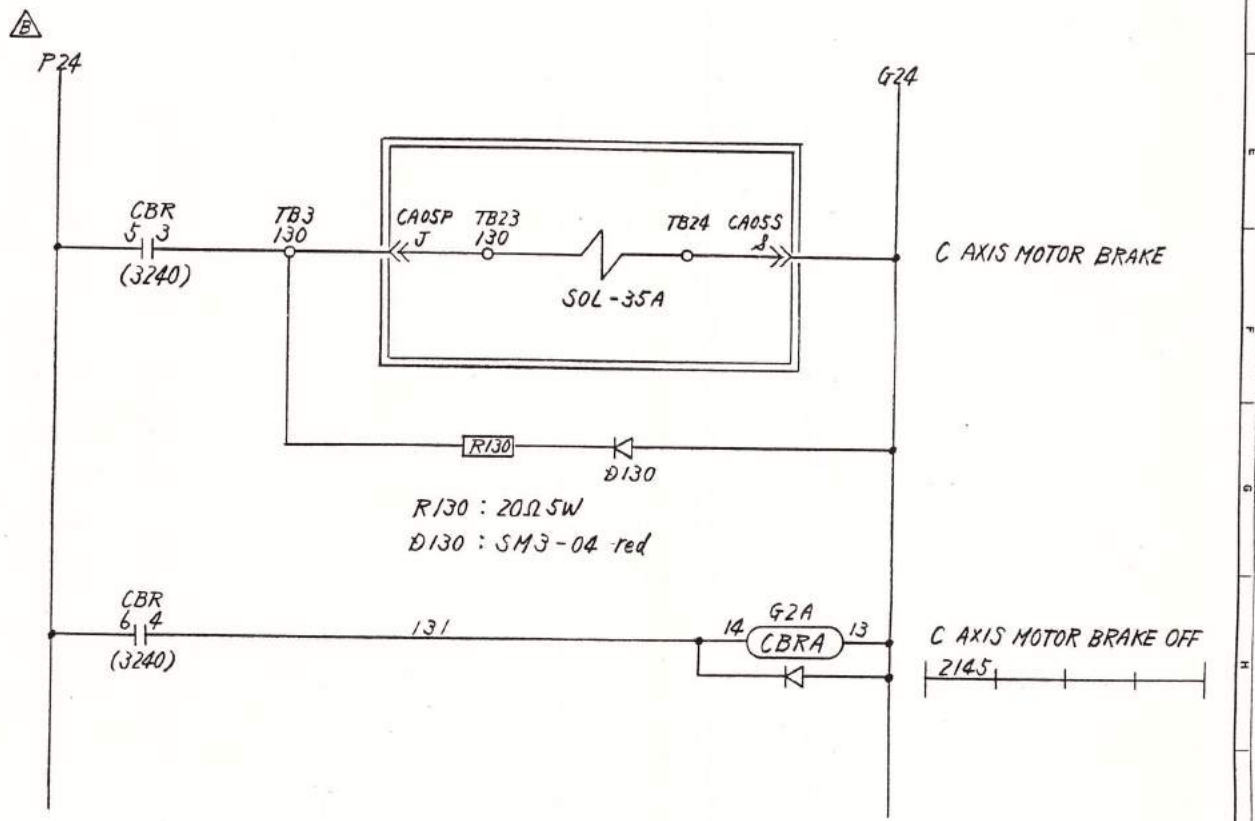
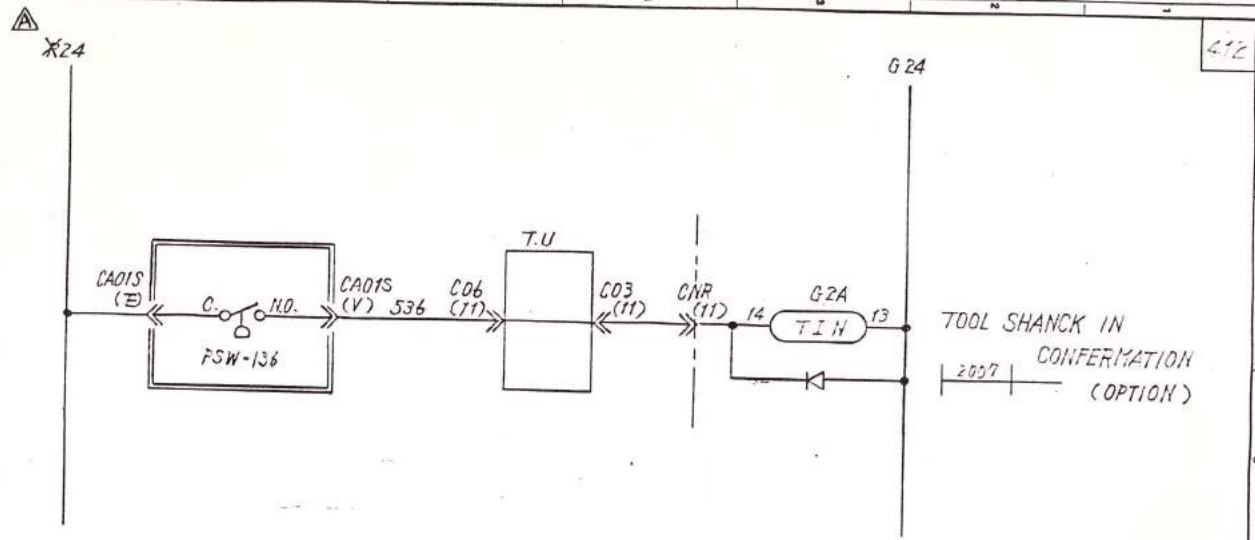
HEAD STOCK LUBRICATION PRESSURE  
1728

EMERGENCY STOP (OPTION)  
0928

NC MACHINE READY CPU LINC (OPTION)  
5147

DRAWING NO.  
1720147 411A  
SHEET. OF.

INDEX NUMBER	LINE
HEET 412	01
85.8.29	02
87.1.29	03
H TAKE	04
C AXIS	05
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SHEET 412	LINE
INDEX NUMBER	



**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
RELAY CIRCUIT

CONTROL  
DRAWING NO. MAZATROL  
1720146412B  
SHEET 3 OF

DRAWING NO. 1720146412B  
SHEET OF

INDEX NUMBER  
SHEET 414

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DATE 6-13  
CHK'D BY KATZ  
DATE 6-13  
CHK'D BY KATZ

DESIGN BY T. MIZUKI  
DATE 6-13  
CHK'D BY KATZ

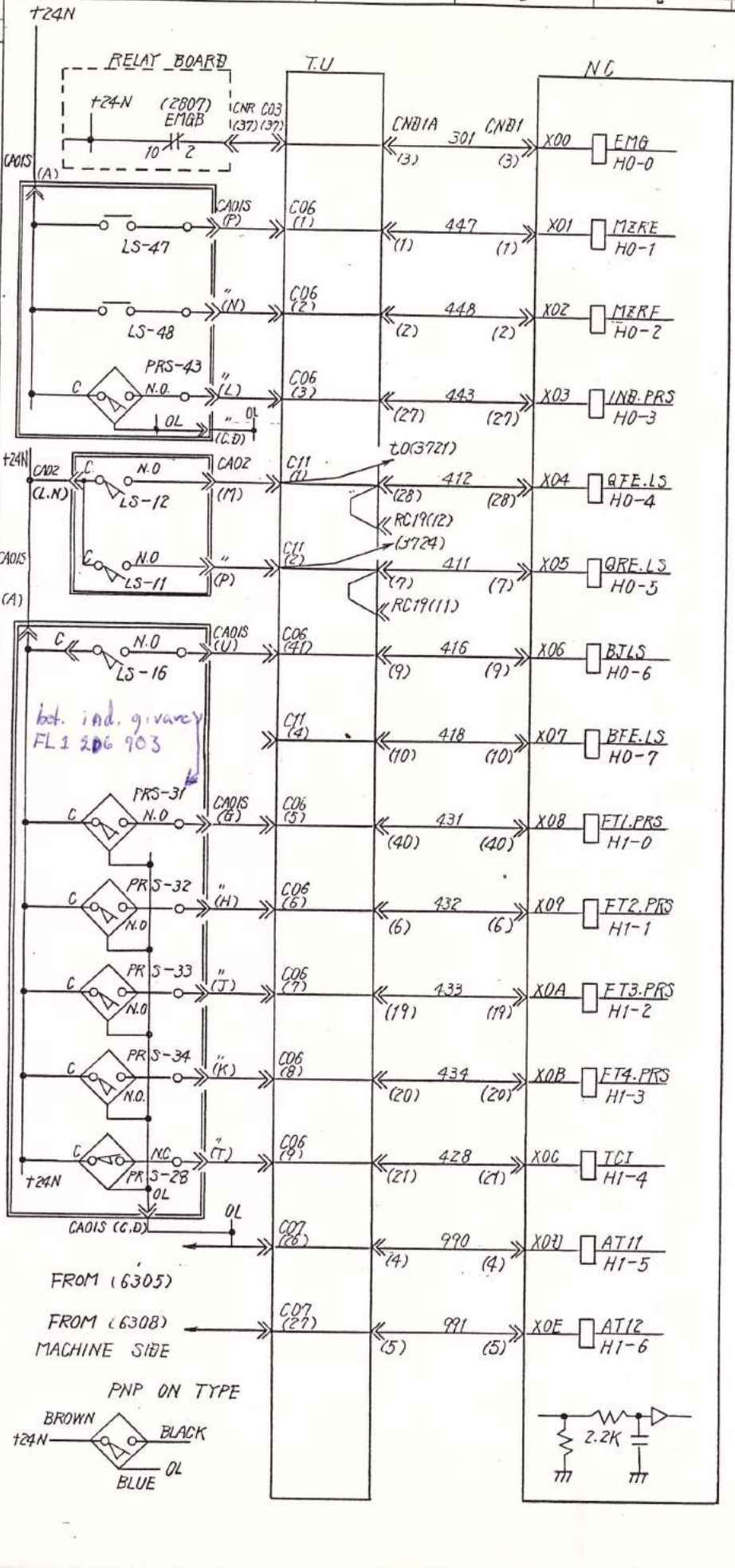
**Mazak**  
YAMAZAKI MACHINERY CORPORATION

PC INPUT

TITLE  
CONTROL MAZATR0L

DRAWING NO. 1720147 414  
SHEET 3 OF 3

SIZE  
SHEET 414  
INDEX NUMBER



414

EMG HO-0 EMERGENCY STOP

MZRF HO-1 MAGAZINE REVERSE END

MZRF HO-2 MAGAZINE FORWARD END

INB.PRS HO-3 TOOL INBOX POSITION

QFE.LS HO-4 TAIL SLEEVE FORWARD END

QRF.LS HO-5 TAIL SLEEVE REVERSE END

BTL.S HO-6 TAIL BODY JOINT LS

BFE.LS HO-7 TAIL BODY FORWARD END

FTL.PRS H1-0 TOOL POSITION 1

FT2.PRS H1-1 TOOL POSITION 2

FT3.PRS H1-2 TOOL POSITION 3

FT4.PRS H1-3 TOOL POSITION 4

TCI H1-4 TOOL CHANGE INTER LOCK

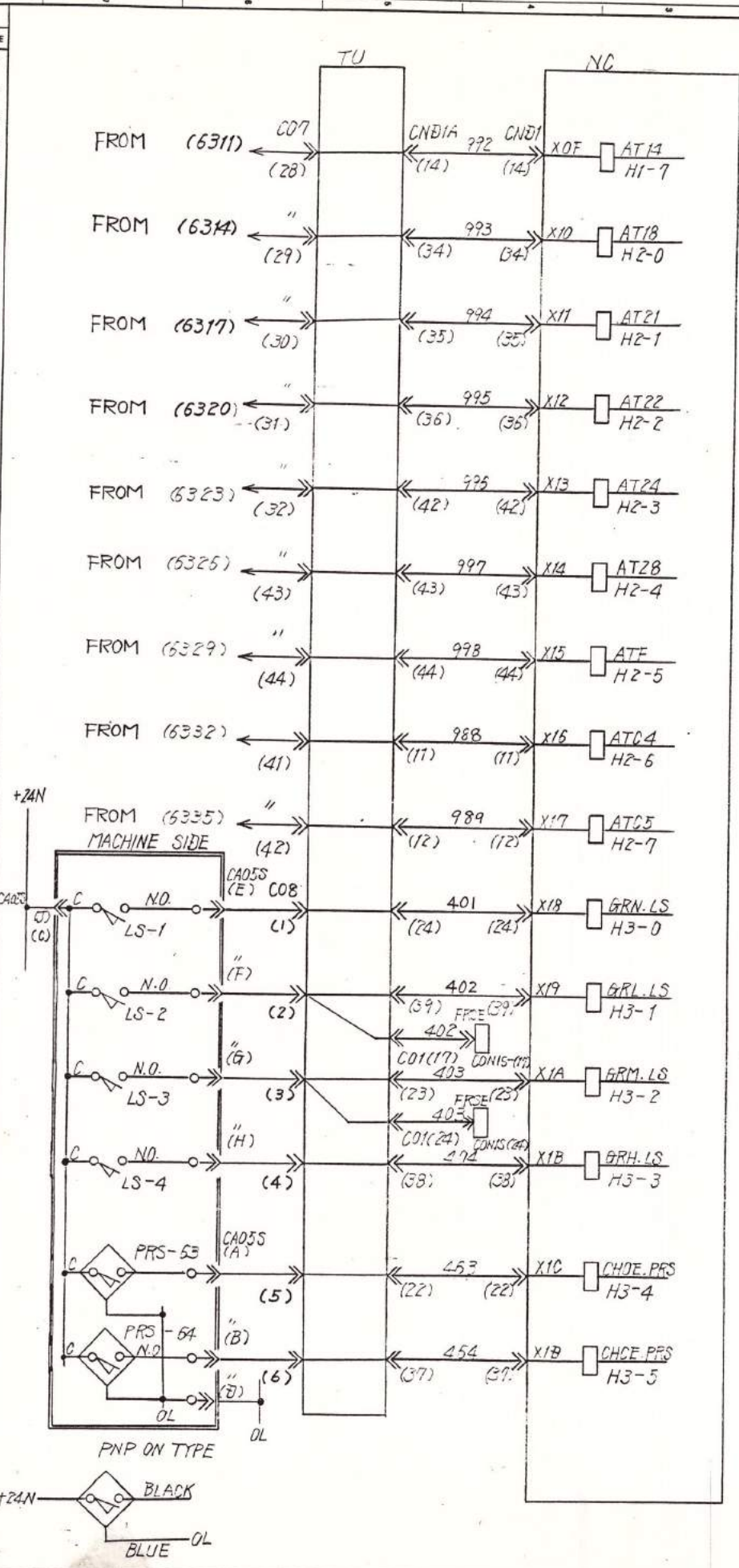
AT11 H1-5 ATC T CODE 11

AT12 H1-6 ATC T CODE 12

DRAWING NO. 1720147 414  
SHEET 3 OF 3

INDEX NUMBER  
 SHEET 415  
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ST-30 H-TAKE GEAR LESS (ST-25)



ATC T CODE 14  
 ATC T CODE 18  
 ATC T CODE 21  
 ATC T CODE 22  
 ATC T CODE 24  
 ATC T CODE 28  
 ATC T CODE FLAG  
 ATC SPARE 4  
 ATC SPARE 5  
 SPINDLE GEAR 0  
 SPINDLE GEAR 1  
 SPINDLE GEAR 2  
 SPINDLE GEAR 3  
 CHUCK OPEN ENB (OPTION)  
 CHUCK CLOSE ENB (OPTION)

ST-30 ONLY

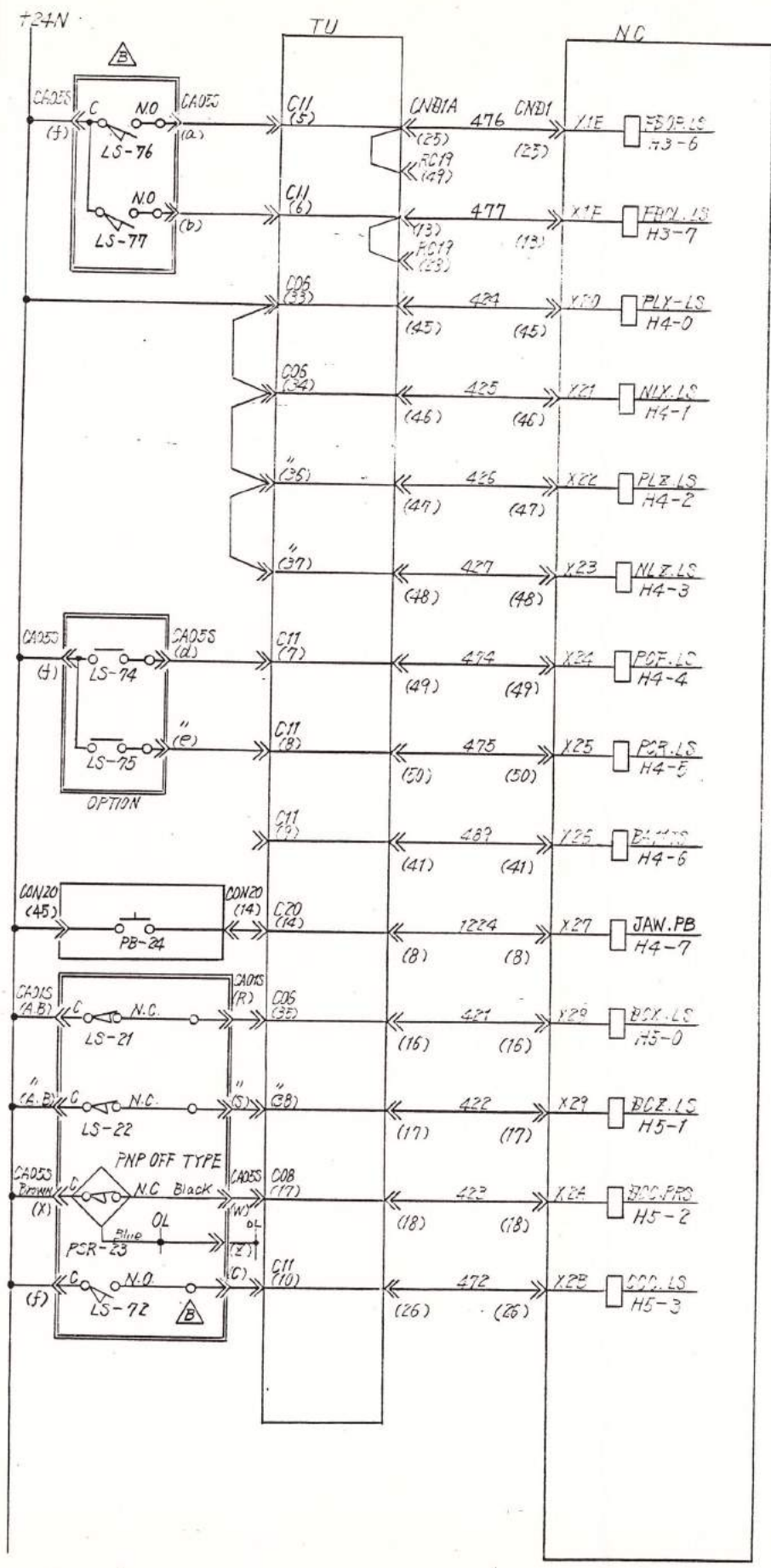


PC INPUT

CONTROL MAZATROL  
 DRAWING NO. 1720147 415B  
 SHEET 3 OF 3

DRAWING NO. 1720147 415B  
 SHEET OF

B'87/30 H-TAKE DOOR INTERLOCK



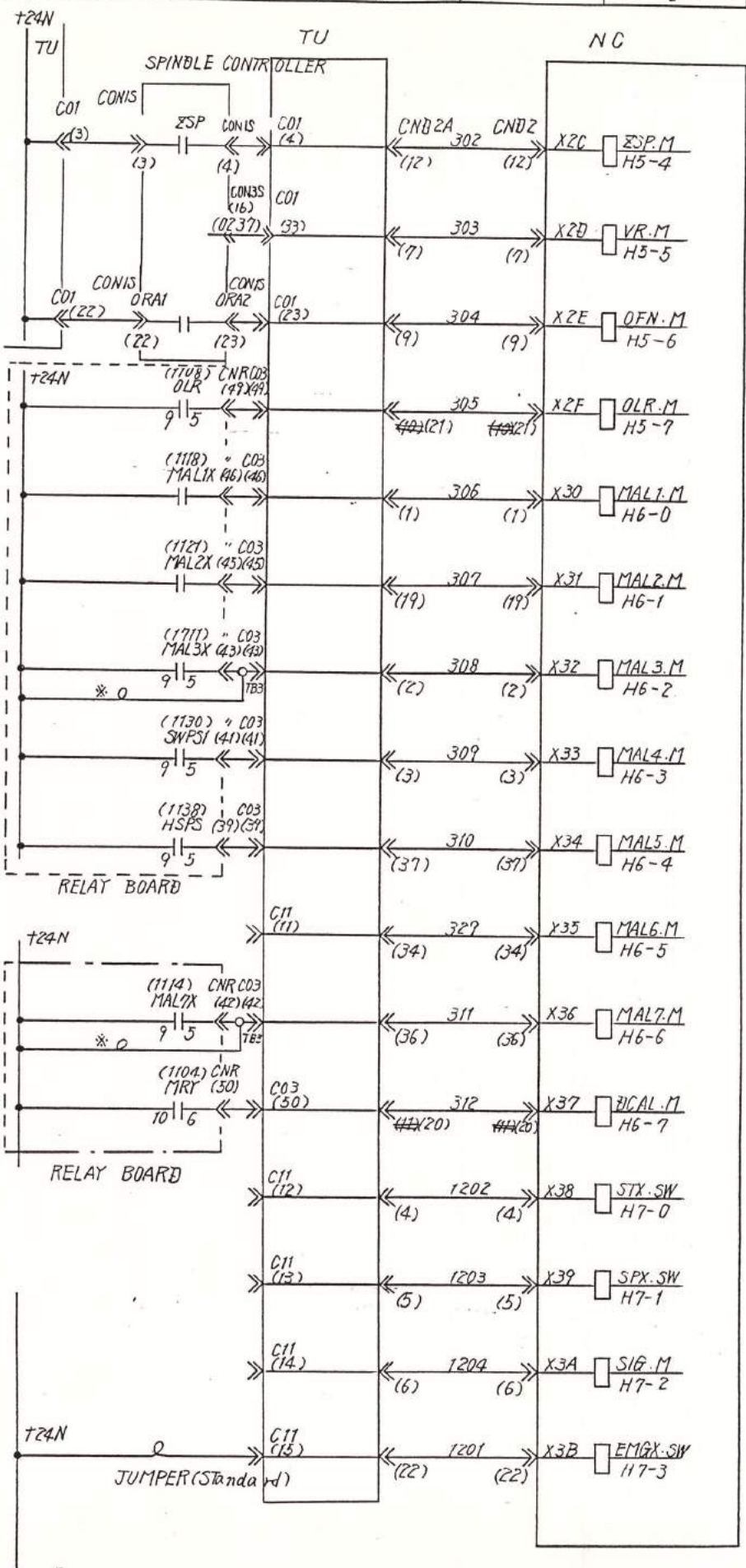
- FRONT DOOR OPEN END (OPTION)
- FRONT DOOR CLOSE END (OPTION)
- OVER TRAVEL +X
- OVER TRAVEL -Y
- OVER TRAVEL +Z
- OVER TRAVEL -Z
- PARTS CATCHER FOR
- PARTS CATCHER REV
- TAIL BODY AUTO POSITION SELECT
- JAW CHANGE PB
- DECELERATION X
- DECELERATION Z
- DECELERATION C (CAXIS ONLY)
- COVER CLOSE CONFIRMATION (YME DOOR INTERLOCK)

DATE 85.6.13  
CHK'D BY KATO



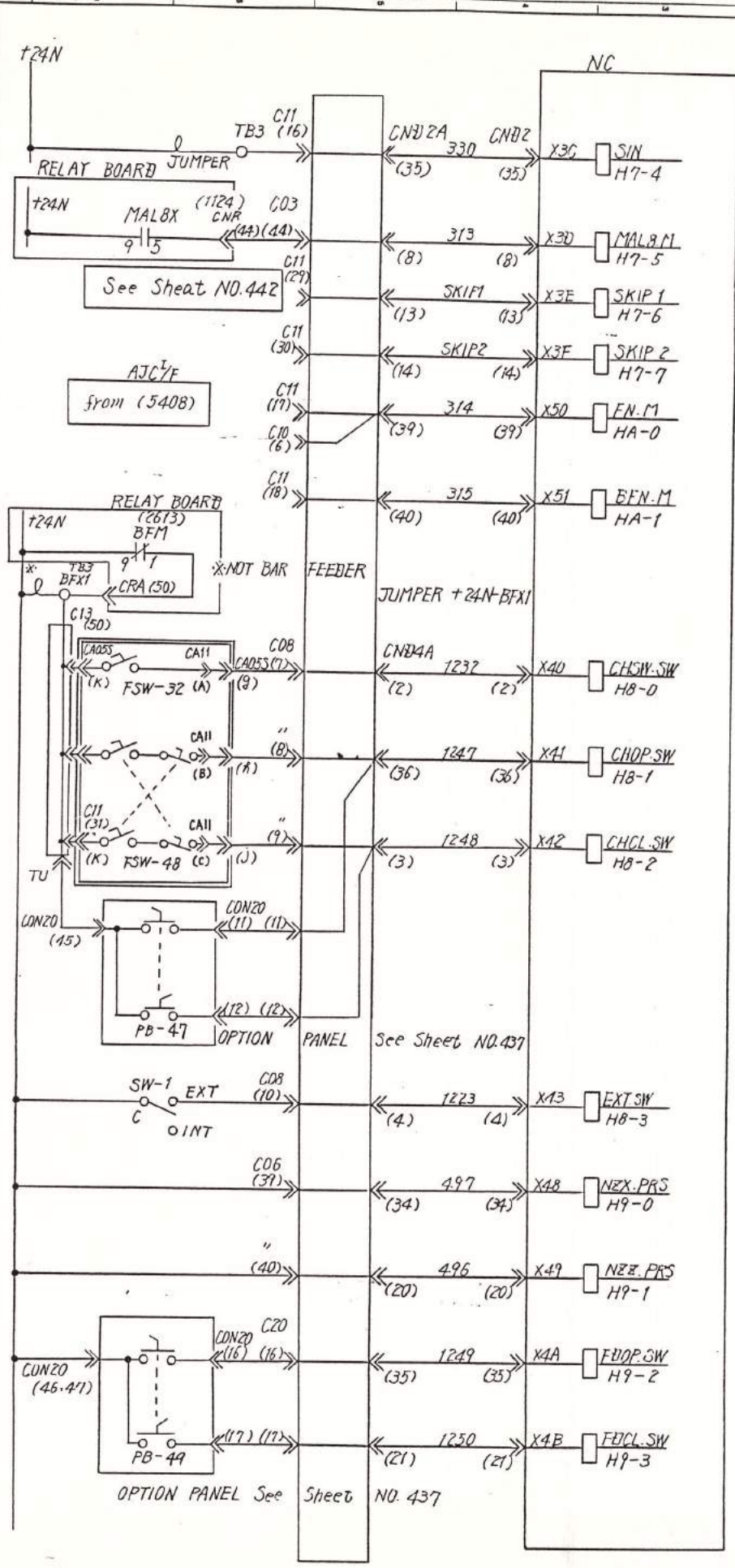
PC INPUT

CONTROL MAZATROL  
DRAWING NO. 1720147 416B  
SHEET 3



- X2C ZSP.M H5-4 ZERO SPEED
- X2D VR.M H5-5 SET SPEED
- X2E OFN.M H5-6 ORIENT FINISH
- X2F OLR.M H5-7 MACHINE REABT  
\* OPEN AT FAULT
- X30 MAL1.M H6-0 THERMAL TRIP (1)  
MOT. MCF  
\* OPEN AT FAULT
- X31 MAL2.M H6-1 CIRCUIT BRERKER TRIP  
\* OPEN AT FAULT
- X32 MAL3.M H6-2 AIR PRESSURE DOWN  
\* NOT USED AIR PRESSURE  
MAL3-+24N JUMPER  
\* OPEN AT FAULT
- X33 MAL4.M H6-3 SLIBEWAY LUBE  
\* CLOSE AT FAULT
- X34 MAL5.M H6-4 HEAD STOCK (ST-28 ONLT)  
\* CLOSE AT FAULT
- X35 MAL6.M H6-5 VENTILATION FAN  
\* CLOSE AT FAULT
- X36 MAL7.M H6-6 HYD. PRESSURE DOWN  
\* NOT USE HYD. PRESSURE  
MAL7-+24N JUMPER  
\* OPEN AT FAULT
- X37 ZICAL.M H6-7 SPINBLE ALARM  
\* OPEN AT FAULT
- X38 STX.SW H7-0 CYCLE START PB  
(OPTION)
- X39 SPX.SW H7-1 FEED HOLB PB  
(OPTION)
- X3A SIG.M H7-2 SINGLE BLOCK  
(OPTION)
- X3B EMGX.SW H7-3 EMERGENCY STOP PB  
\* OPEN AT FAULT

INDEX NUMBER	LINE
SHEET 118	01
	02
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- SPINDLE INTER LOCK
- MACHINE ALARM THERMAL TRIP (2)
- MMS SKIP 1
- MMS SKIP 2
- M FUNCTION FIN
- BAR FEEDER FIN (EXTERNAL RESET)
- CHUCK SW (Single)
- CHUCK OPEN (Double)
- CHUCK CLOSE (Double)
- CHUCK EXT-INT SW
- NEAR ZERO X
- NEAR ZERO Z
- FRONT DOOR OPEN
- FRONT DOOR CLOSE

DWN. BY: **Y. SHIBATA**  
 DATE: 85.6.13  
 CWD BY: **KATO**  
 DATE:

**Mazak**  
 YAMAZAKI MAZAK CORPORATION

TITLE: **PC INPUT**

CONTROL: **MAZATROL**  
 DRAWING NO.: **H20147 418**  
 SHEET: **3** OF

SHEET 118 LINE INDEX NUMBER



INDEX NUMBER  
SHEET 419

LINE  
01  
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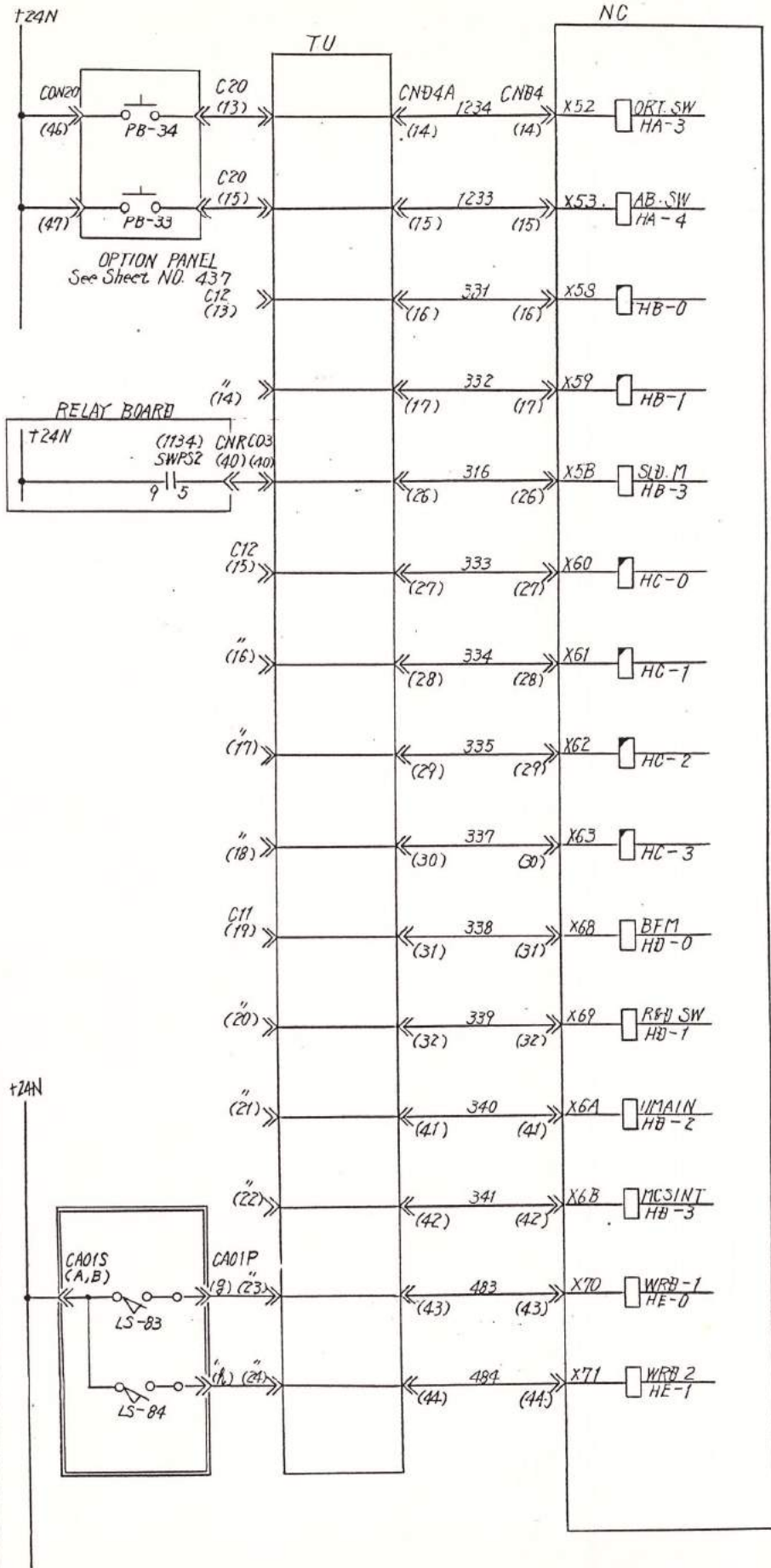
DRN. BY: Y. SHIBUKI  
DATE: '85.6.13  
CHKD BY: KATD  
DATE:

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
PC INPUT

CONTROL: MAZATROL  
DRAWING NO. 1720147 419  
SHEET 3 OF

SHEET 419 LINE  
INDEX NUMBER



ORIENT COMMAND (OPTION)

CHUCK AIR BLOW (OPTION)

SLIDWAY PRESSURE

NOT USE

BAR FEEDER MODE

RAPID & DECELERATION SW

MACHINE CYCLE START INTERLOCK

WORK REST DOG I (OPTION)

WORK REST DOG II (OPTION)

INDEX NUMBER  
SHEET 420

LINE  
01  
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DATE 85.8.28

DATE 85.6.13

DATE 85.6.13

DATE

DRN. BY Y. KAWAZU

CHK'D BY KATO

DATE

**Mazak**  
MAZAKI MACHINE CORPORATION

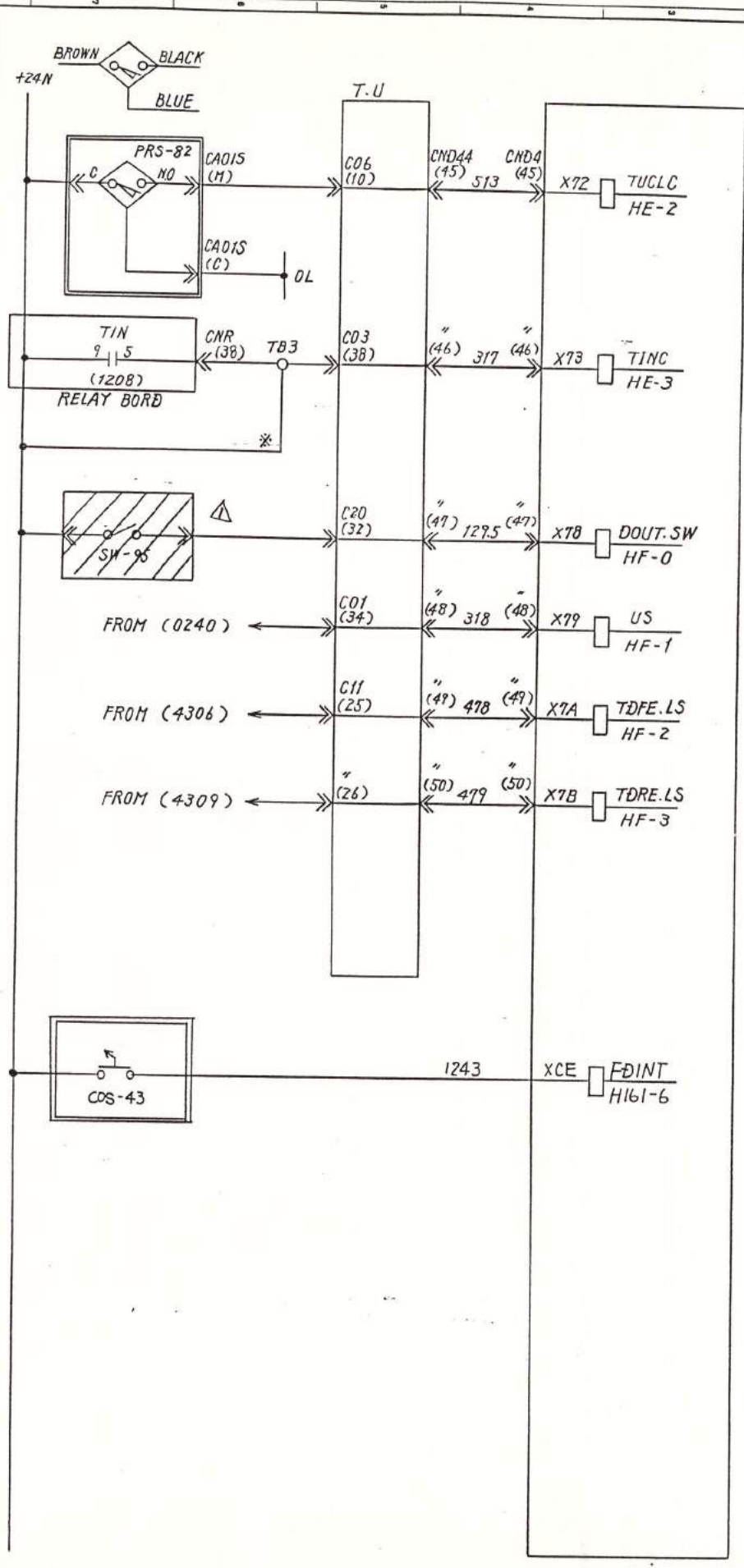
TITLE  
PC INPUT

CONTROL HAZATROL

DRAWING NO. 1720147420A

SHEET 3 OF

SHEET 420 LINE  
INDEX NUMBER



TOOL CLAMP  
CONFIRMATION

TOOL SHANK IN  
CONFIRMATION

※ NOT USE PSW-36  
↳ (STD. TYPE)  
JUMPER +24N - 310

TOOL MEASURE ARM  
FORWARD SW

UP TO SPEED

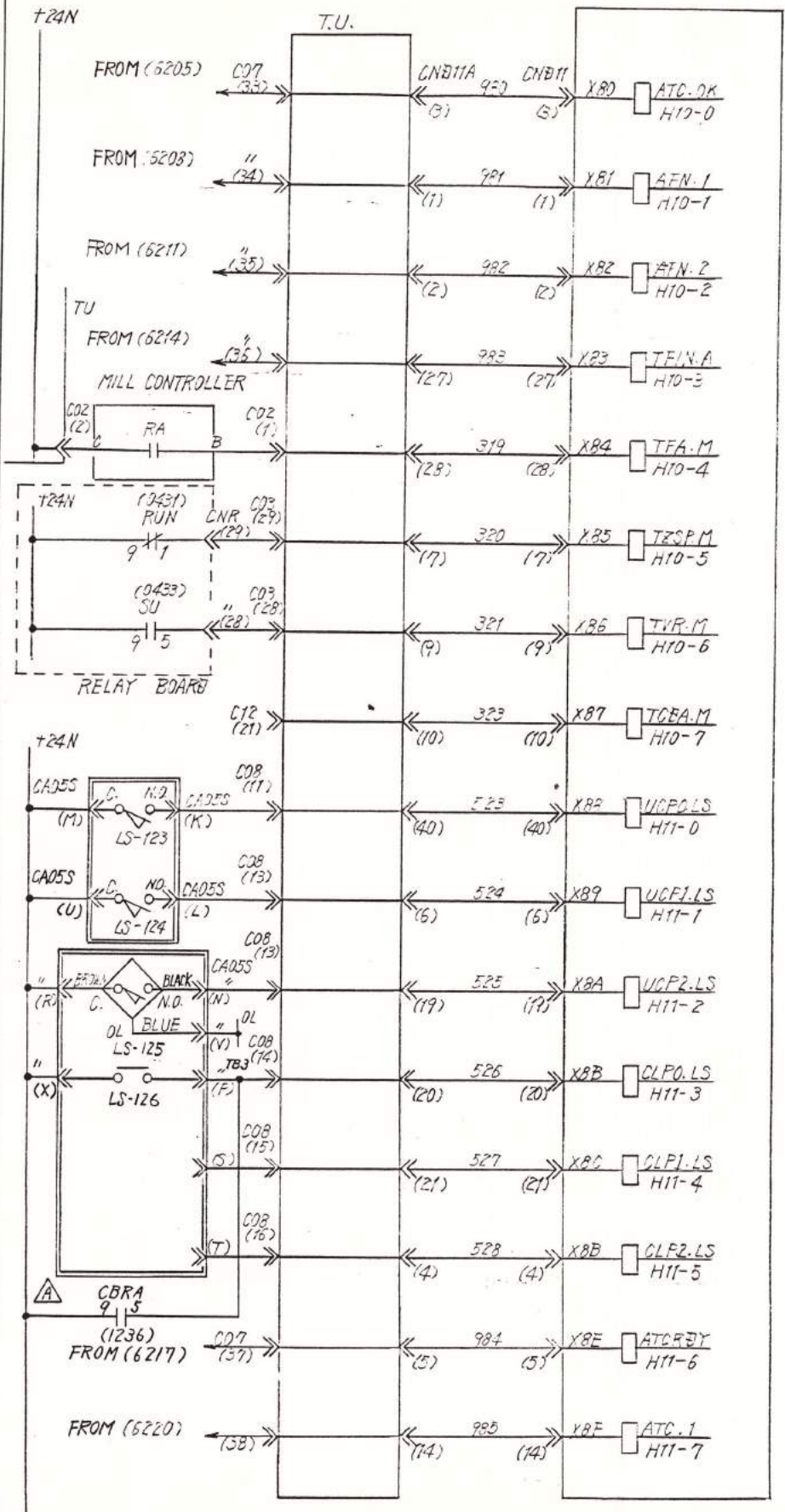
TOOL MEASURE ARM

TOOL MEASURE ARM

△ FRONT DOOR INTERLOCK

INDEX NUMBER  
 SHEET 421 LINE  
 87.1.29 H-TAKE C AXIS  
 DATE 85.6.13  
 CHK'D BY KATO  
 DRN. BY Y. SUZUKI  
 TITLE  
 PC INPUT  
 CONTROL MAZATROL  
 DRAWING NO. 1720147 421A  
 SIZE 3  
 SHEET 421 OF 3  
 INDEX NUMBER

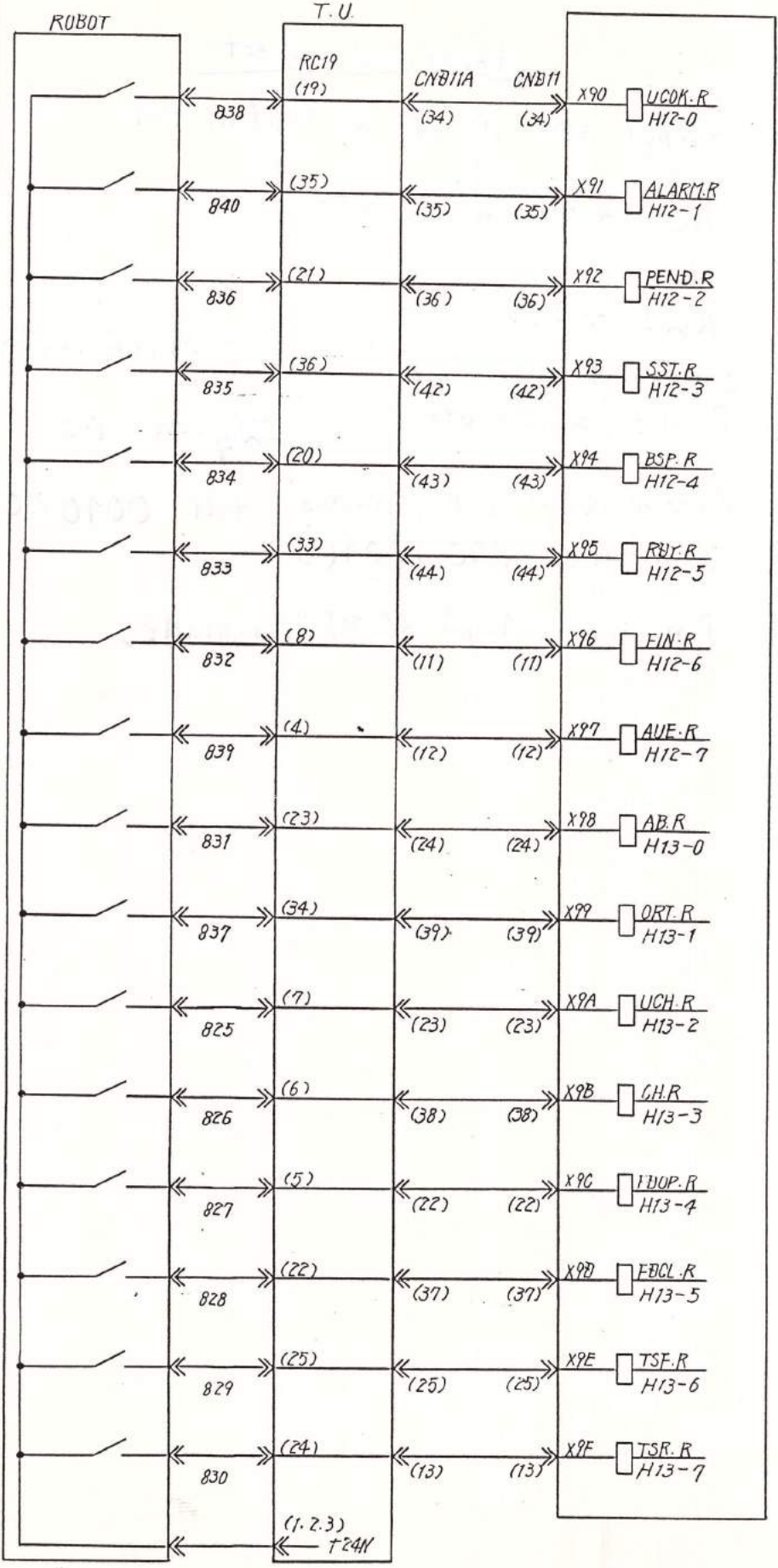
421



ATC OK  
 ATC FINISH 1  
 ATC FINISH 2  
 ATC T CODE FIN.  
 MILL MOTOR ALARM  
 \* OPEN AT FAULT  
 MILL MOTOR ZERO SPEED  
 \* CLOSE AT ZERO SPEED  
 MILL MOTOR SPEED  
 ARRIVAL  
 \* CLOSE AT SPEED ARRIVAL  
 MILL MOTOR ORIENT FIN  
 SPINDLE UNCLAMP 0/  
 C AXIS GEAR CONNECTION  
 (OPTION)  
 SPINDLE UNCLAMP 1/  
 C AXIS GEAR DISCONNECTION  
 (OPTION)  
 SPINDLE UNCLAMP 2/  
 C AXIS SHIFT POSITION  
 SPINDLE CLAMP 0/  
 CLAMP PIN OUT CONF.  
 SPINDLE CLAMP 1  
 SPINDLE CLAMP 2  
 ATC READY  
 ATC SPARE 1.

DRAWING NO. 1720147 421A  
 SHEET. OF.

INDEX NUMBER	SHEET 422	LINE
01		
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27	DATE 05.6.14	DRN. BY Y. SUZUKI
28	DATE 05.6.14	CHK. D. BY KAD
29	DATE	
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SHEET 422	INDEX NUMBER	LINE

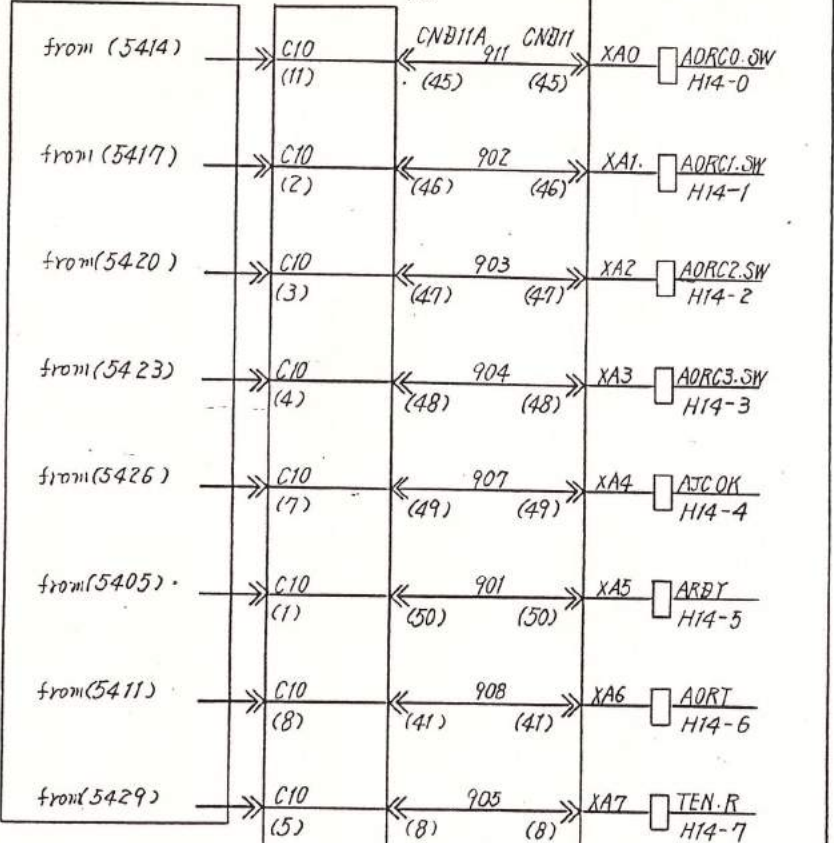


- ROBOT UNCHUCK OK
- ROBOT ALARM
- ROBOT PROGRAM END
- ROBOT CYCLE START
- ROBOT EMERGENCY STOP
- ROBOT READY
- ROBOT SERVICE FIN
- ROBOT ARM UP END
- PIN 4 och 1 på RC19 byggade
- ROBOT AIR BLOW 22/4/91 D.O.
- ROBOT SPINBLE ORIENT
- ROBOT CHUCK UNCHUCK
- ROBOT CHUCK CLAMP
- ROBOT FRONT DOOR OPEN
- ROBOT FRONT DOOR CLOSE
- TAIL SLEEVE FWB (from ROBOT)
- TAIL SLEEVE REV. (from ROBOT)



PC INPUT

AJC 1/2 See Sheet NO. 454 TU



ORIENT COMMAND OFF

do 0°

do 120°

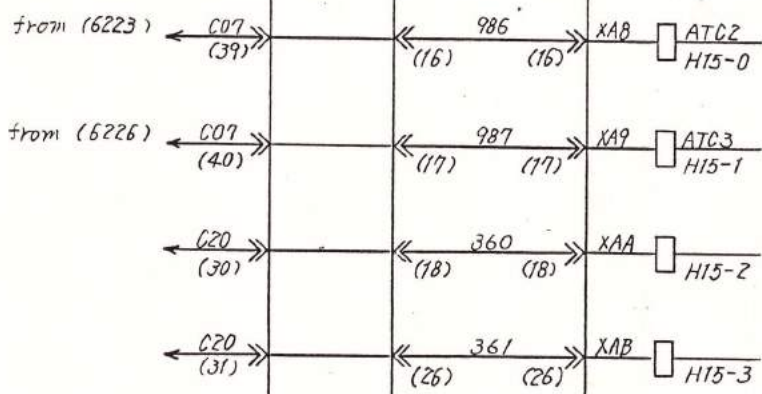
do 240°

JAW CHANGE OK

AJC READY

AJC ORIENT

AJC FINZ



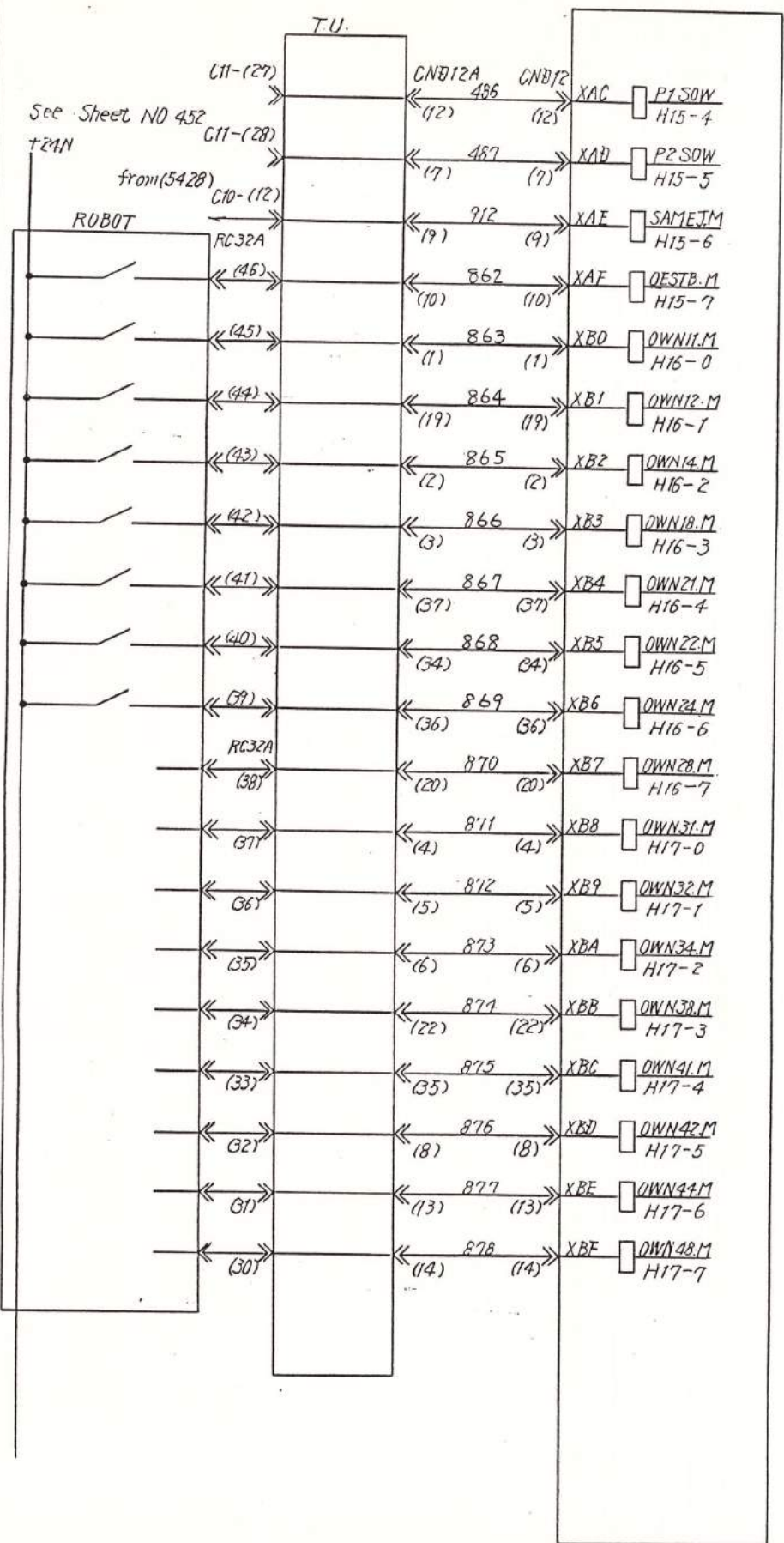
DATE 05.6.14  
CHK'D BY KATD  
DWN BY [Signature]



PC INPUT

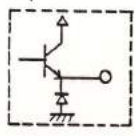
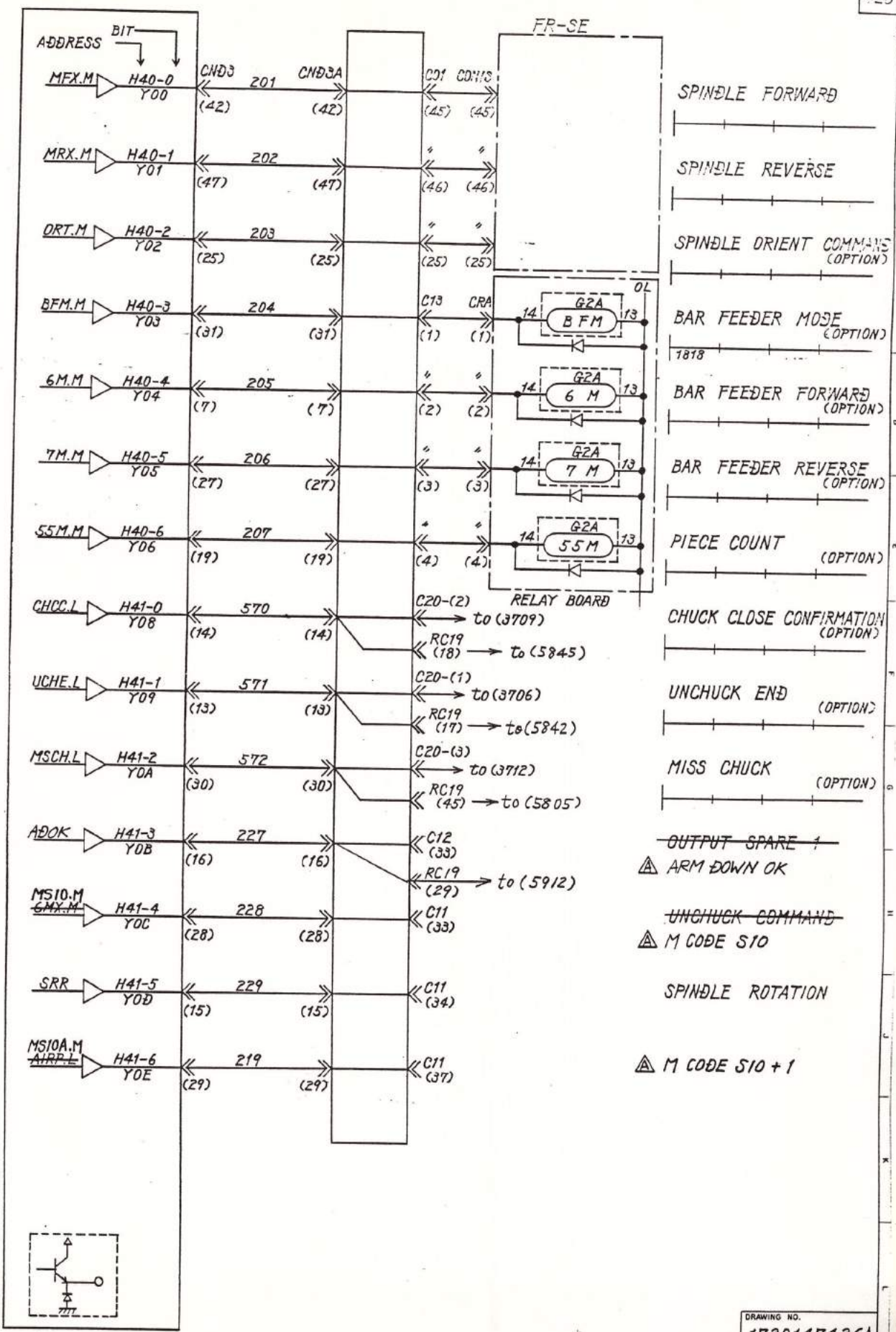
(OPTION)

CONTROL MAZATROL  
DRAWING NO. 1720147 423  
SHEET 3 OF 3

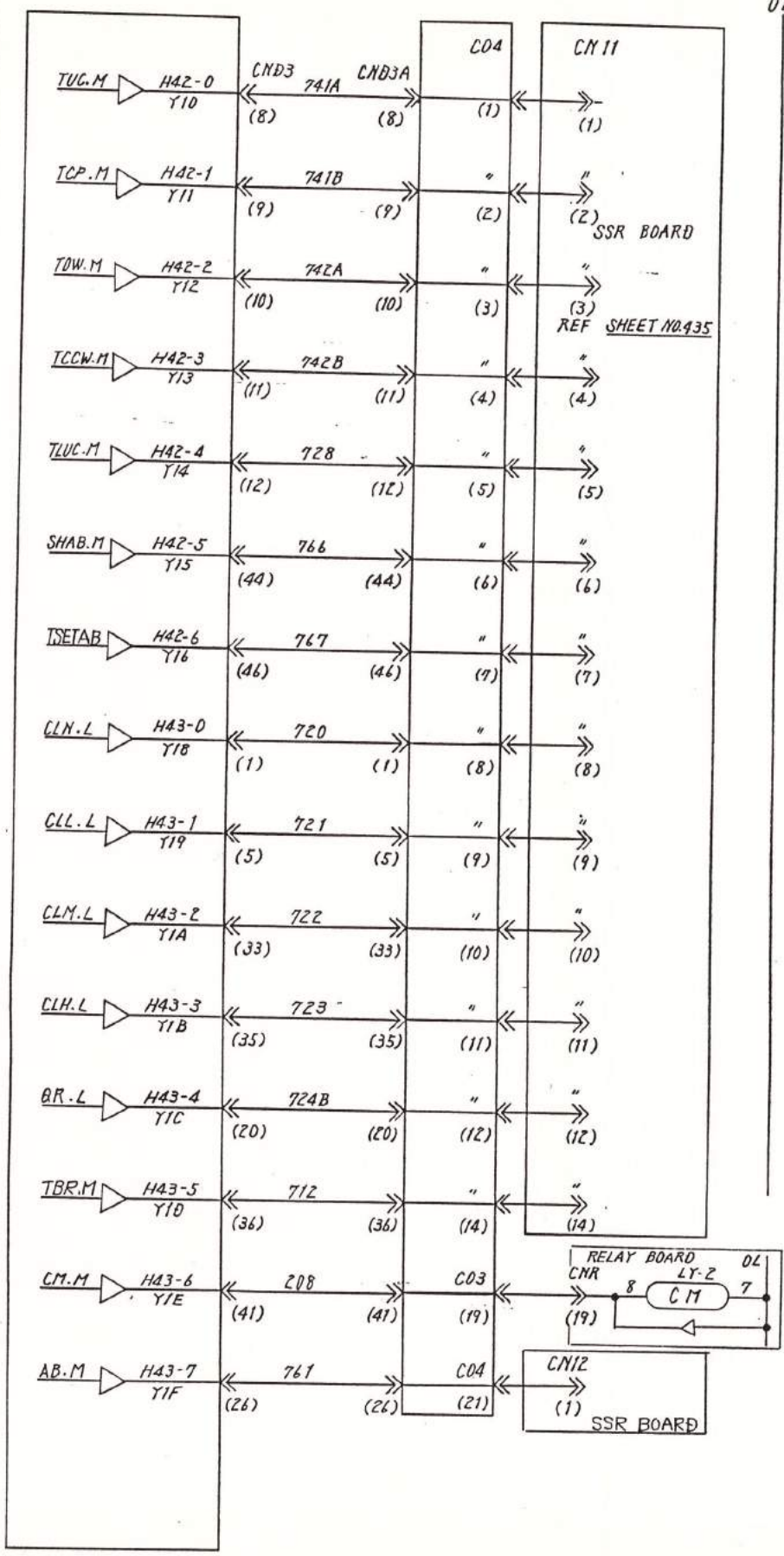


PALLET 1 ON  
PALLET 2 ON  
SAME JAW SIGNAL  
WORK NO. SEARCH STROBE  
WORK NO. SEARCH BCB 11  
do 12  
do 14  
do 18  
do 21  
do 22  
do 24  
do 28  
do 31  
do 32  
do 34  
do 38  
do 41  
do 42  
do 44  
do 48

INDEX NUMBER  
 SHEET 426 LINE  
 186.2.8 P.S. ROBOT ARM DOWN OK / M CODE QUIT SIO, SIO+1 ADD.  
 DATE 05.6.74  
 CHK'D BY KMTD  
 DATE  
 MAZAK  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 PC OUTPUT  
 CONTROL MAZATROL  
 DRAWING NO. 1720147426A  
 SHEET 3 OF 3  
 SHEET 426 LINE  
 INDEX NUMBER



INDEX NUMBER	SHEET 427	LINE
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SHEET 427	INDEX NUMBER	LINE



- MAGAZINE FORWARD
- MAGAZINE REVERSE
- SSR BOARD
- MAGAZINE CW
- REF SHEET NO. 435
- " CCW
- TOOL UNCLAMP
- SHANK AIR BLOW
- TOOL SET AIR BLOW
- SPINDLE GEAR SHIFT N (C AXIS ONLY)
- do L
- do M
- do H
- TAIL SLEEVE REVERSE
- TAIL BODY REVERSE (COOLANT SOL ON)
- COOLANT ON
- CHUCK AIR BLOW (OPTION)

DON. BY **ASUNAKI**  
 DATE **05.6.14**  
 CHK'D BY **KMTD**  
 DATE  
**Mazak**  
 MAZAK MACHINE CORPORATION  
**PC OUTPUT**  
 TITLE  
**CONTROL MAZAKROL**  
 DRAWING NO. **1720147 427**  
 SHEET **3** OF  
 SIZE



INDEX NUMBER  
SHEET 428 LINE

125.8.28 5.8  
87.2.2 HI TAKE DOOR INTERLOCK

DATE 10.6.14  
CHK'D BY KATD  
DATE

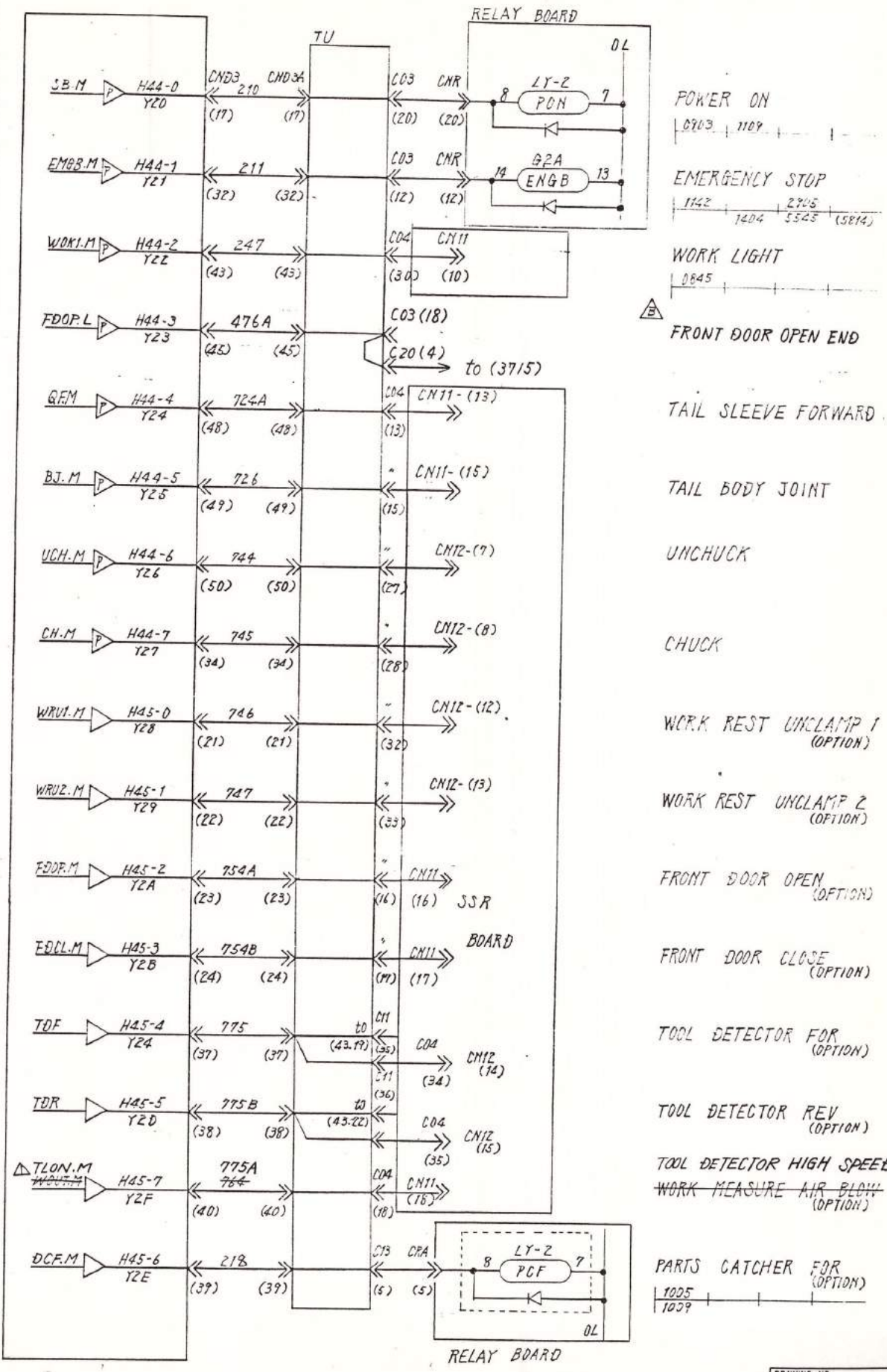
DRN BY Y.SUZUKI  
DATE 10.6.14  
CHK'D BY KATD  
DATE

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
PC OUTPUT

CONTROL MAZAKTRON  
DRAWING NO. 1720147 428B  
SIZE 3  
SHEET 428 OF 428

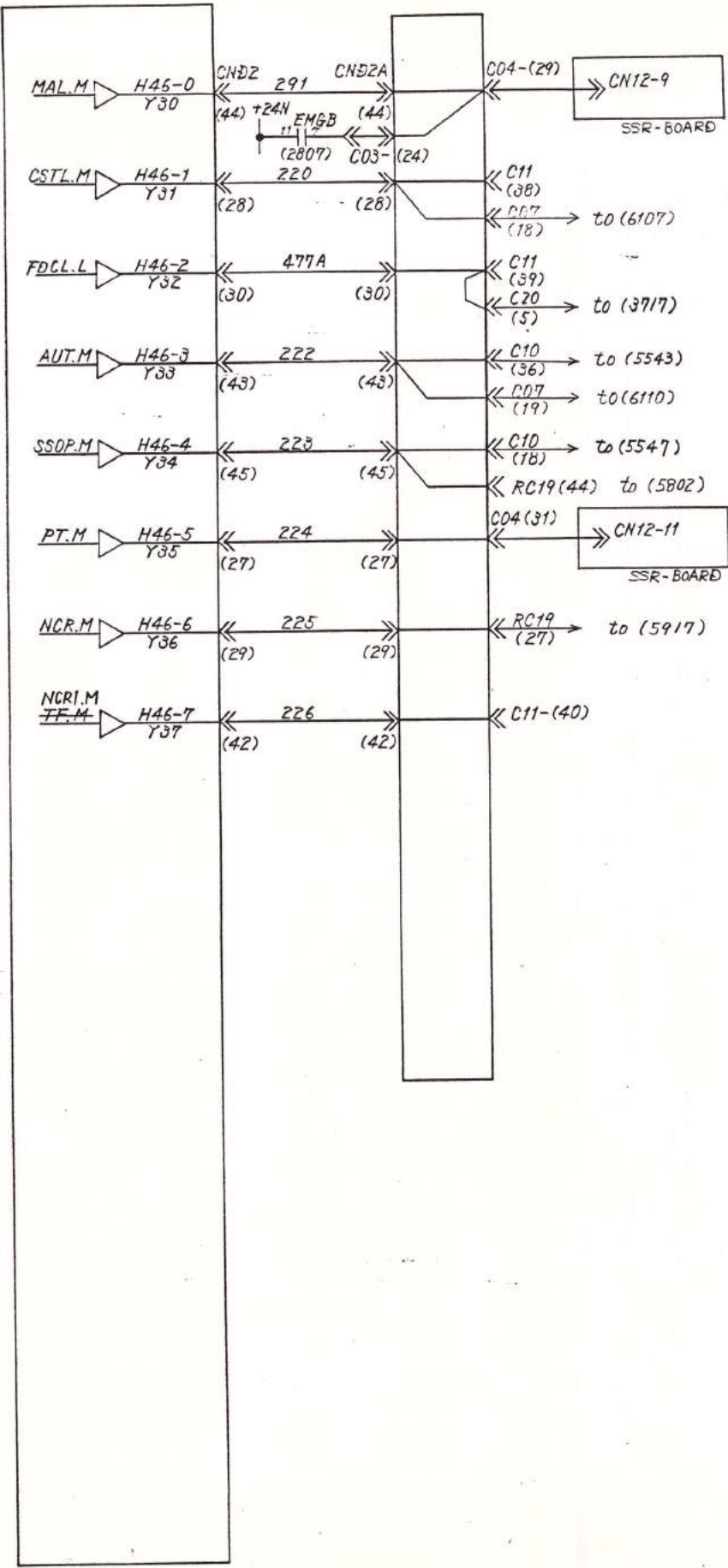
INDEX NUMBER



425

DRAWING NO.  
1720147 428B  
SHEET OF

INDEX NUMBER	LINE
SHEET 429	01
	02
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SHEET 429	LINE
INDEX NUMBER	



MACHINE ALARM (OPTION)

CYCLE START

△ FRONT DOOR CLOSE END

AUTO MODE

SHINDLE STOP (OPTION)

CYCLE FINISH INDICATOR (OPTION)

NC RESET/BOARD RESET (OPTION)

T FUNCTION STOP

△ NC RESET

DATE 85.6.14  
CHK'D BY YATO  
DATE

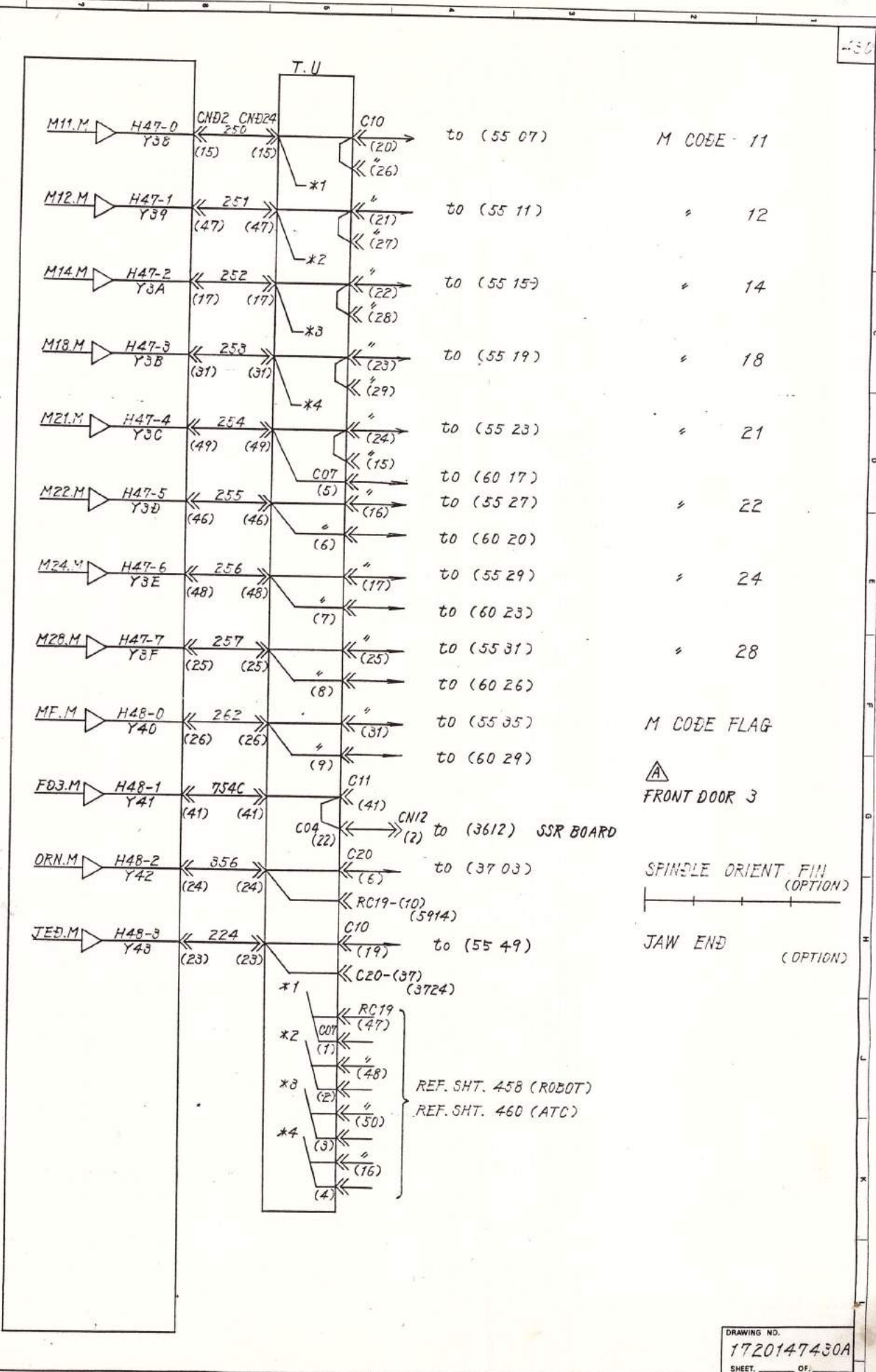
**Mazak**  
Mitsubishi Mazak Corporation

TITLE  
PC OUTPUT

CONTROL MAZATROL  
DRAWING NO. 1720147429B  
SHEET 3 OF

DRAWING NO. 1720147429B  
SHEET OF

INDEX NUMBER  
 SHEET 430 LINE  
 87.22 H-TAKE DOOR INTERLOCK  
 DWN. BY KAWAZAKI  
 DATE 05.6.14  
 CHK'D BY KATZ  
 DATE  
**Mazak**  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 PC OUTPUT  
 CONTROL MAETROL  
 DRAWING NO. 1720147430A  
 SHEET 3 OF  
 SHEET 430 LINE  
 INDEX NUMBER



DRAWING NO.  
 1720147430A  
 SHEET \_\_\_\_\_ OF \_\_\_\_\_

INDEX NUMBER  
SHEET 432 LINE

DATE 05.6.14  
CHKD BY KATD  
DRA. BY Y. SHIBUKI

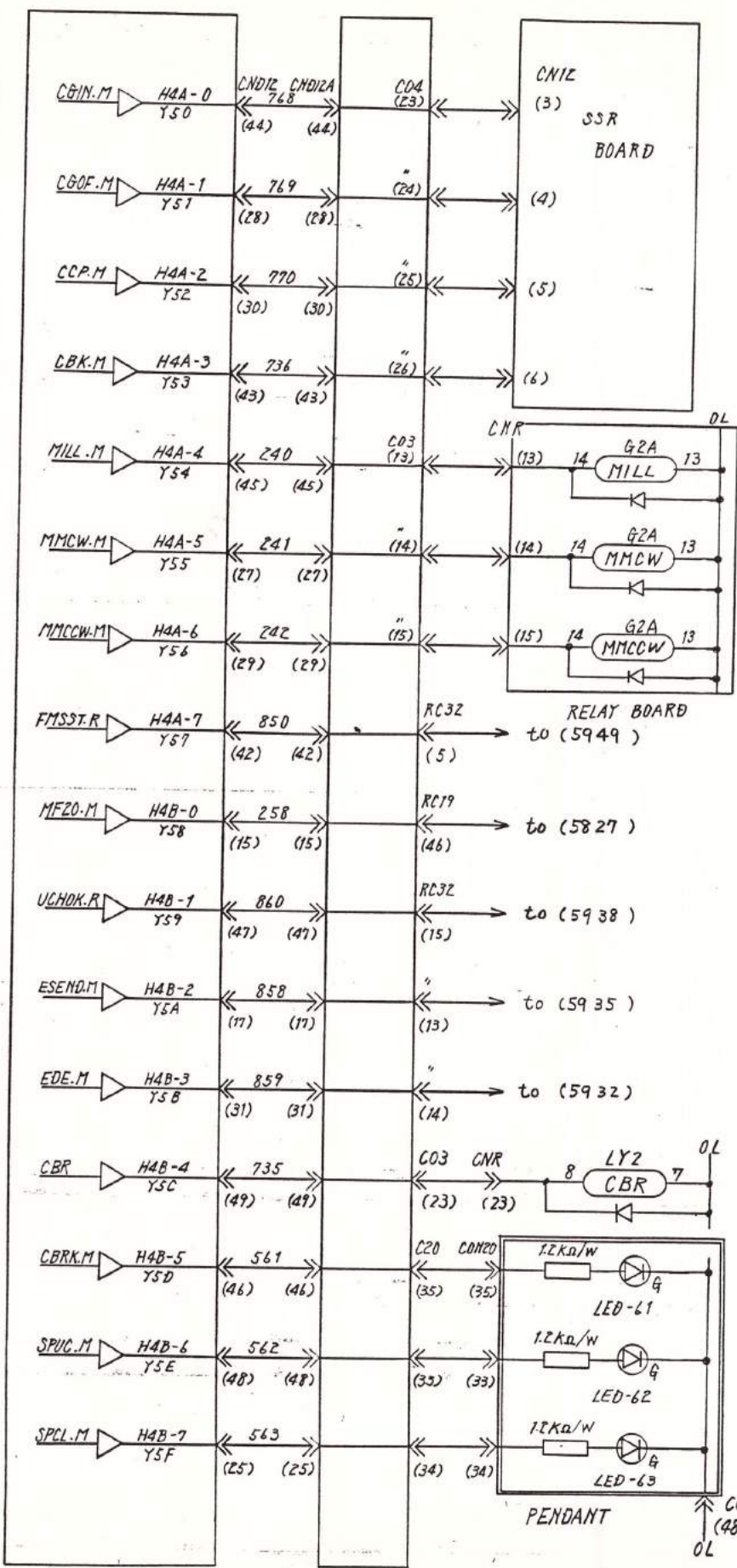
**Mazak**  
YAMAZAKI MAZAK CORPORATION

PC OUTPUT (OPTION)

CONTROL  
DRAWING NO. 1720147 432A  
SHEET 3 OF 3

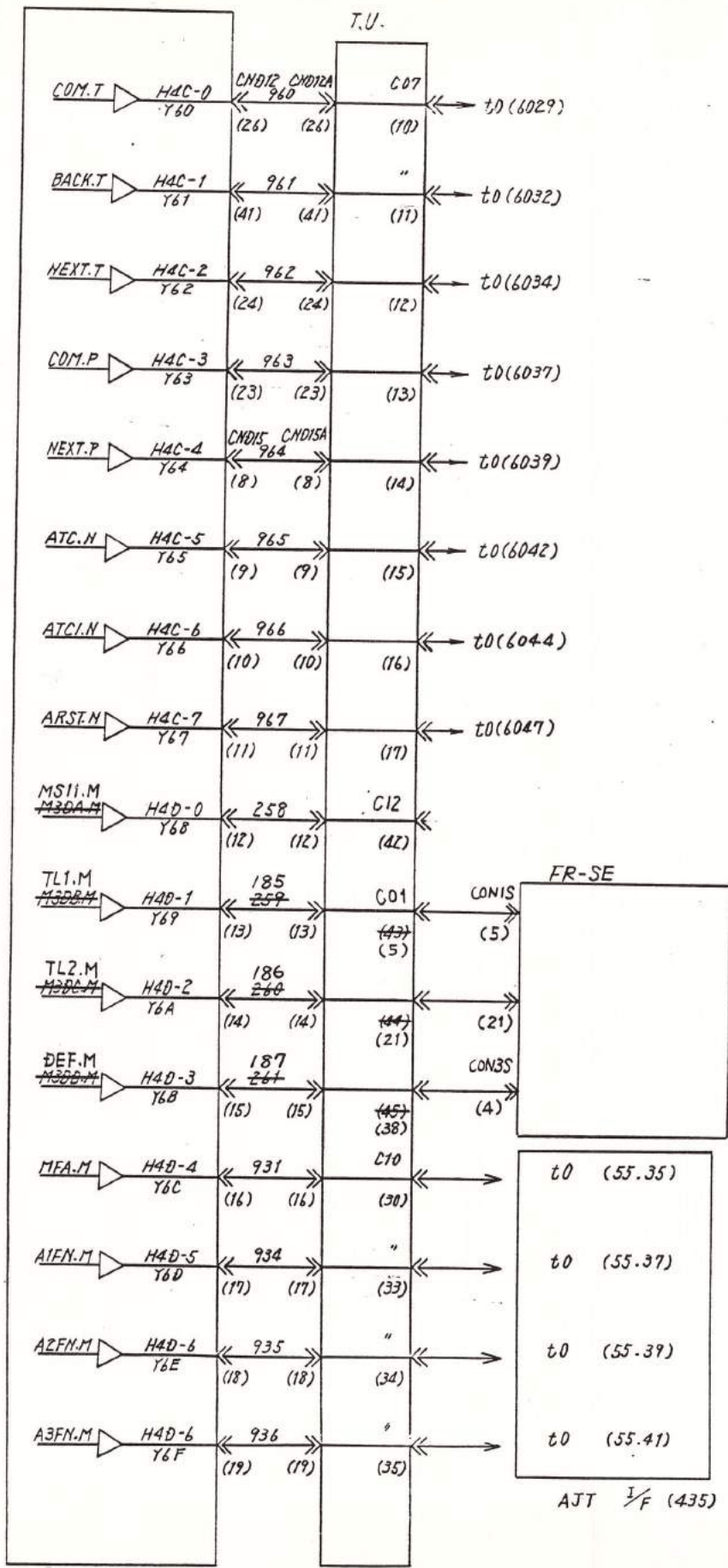
SHEET 432 LINE

187.1.29 H-TAKE C AXIS



- C AXIS GEAR CONNECT (C AXIS ONLY)
- C AXIS GEAR DISCONNECT (C AXIS ONLY)
- C AXIS CLAMP (C AXIS ONLY)
- C AXIS BRAKE (C AXIS ONLY)
- MILL MODE (MILL ONLY)
- MILL MOTOR CW (MILL ONLY)
- MILL MOTOR CCW (MILL ONLY)
- FMS START
- MFZO
- UNCHUCK OK
- WORK NO. SEARCH FINISH
- EXTERNAL DATA END
- C AXIS MOTOR BRAKE OFF
- C AXIS BRAKE LED
- SPINDLE UNCLAMP LED
- SPINDLE CLAMP LED

INDEX NUMBER  
 SHEET 433 LINE  
 Δ 86.2.8 YJ ORIENT SIGNAL ADD  
 DATE 85.6.14  
 CHK'D BY KATD  
 DATE  
 DRN BY YASUNAKA  
 DATE 85.6.14  
 CHK'D BY KATD  
 DATE  
 MZAKI  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 PC OUTPUT (OPTION)  
 CONTROL  
 MAAKTROL  
 DRAWING NO.  
 172014 433A  
 SHEET 3 OF  
 SIZE  
 SHEET 433 LINE  
 INDEX NUMBER



COMMAND T DATA

BACK T DATA

NEXT T DATA

COMMAND P DATA

NEXT P DATA

ATC START

ATC 1 START

ATC RESET

M CODE 31

M CODE 311

do 32

ORIENT FORWARD

do 34

ORIENT REVERSE

do 38

TDRQUE OFF

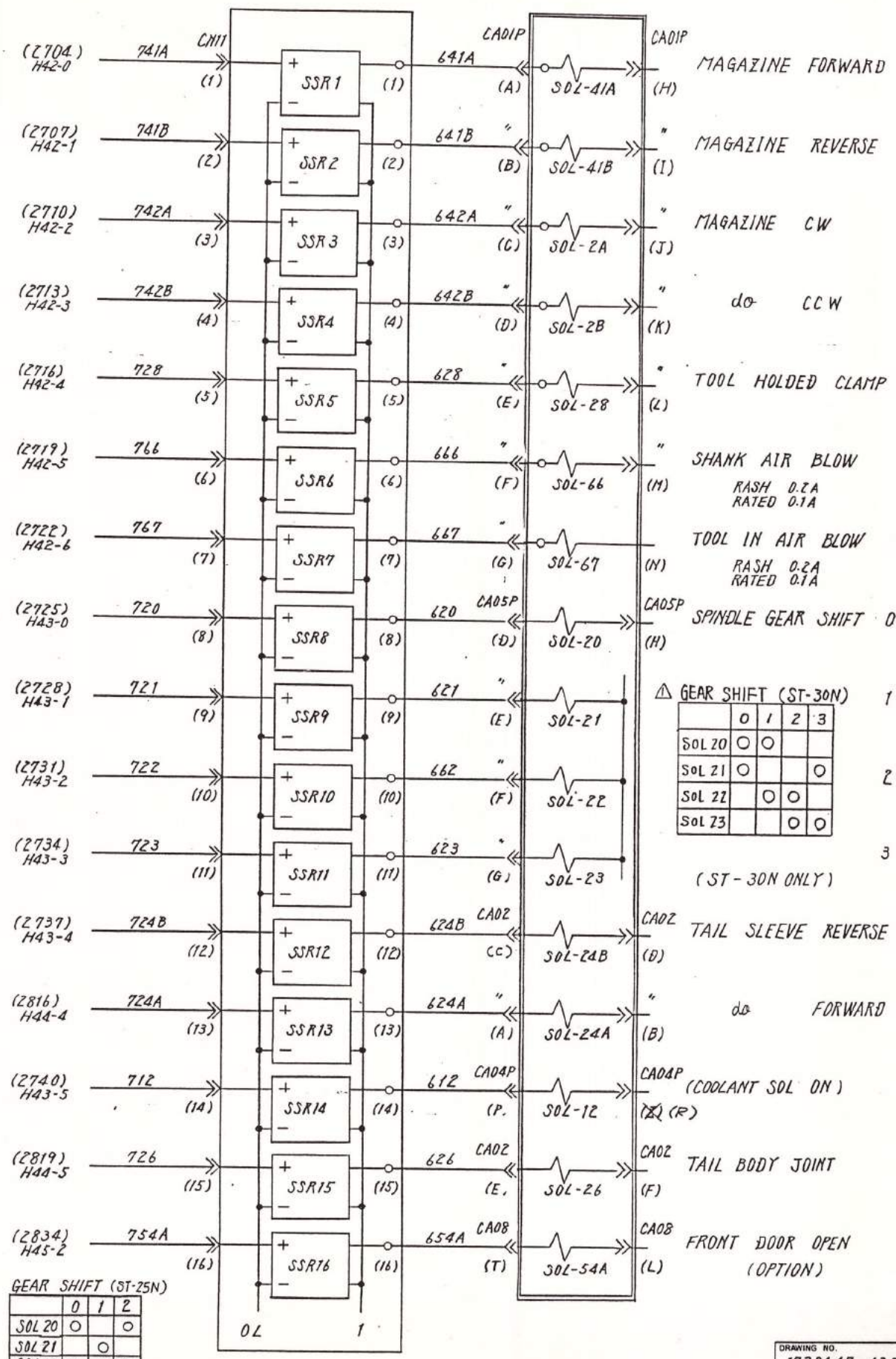
M STORBE

AJC ORIENT 0° FIN

do 120°

do 240°

INDEX NUMBER	SHEET 435	LINE
85.9.20 GEAR SHIFT 4.8		
DATE	CHK'D BY	DATE
85.6.14	KATO	
<b>Mazak</b> MACHINERY CORPORATION		
TITLE		
SSR BOARD		
CONTROL	DRAWING NO.	DATE
HAZARD	1720147 435	1720147 435
SHEET 3 OF 3		
INDEX NUMBER	SHEET 435	LINE



GEAR SHIFT (ST-25N)

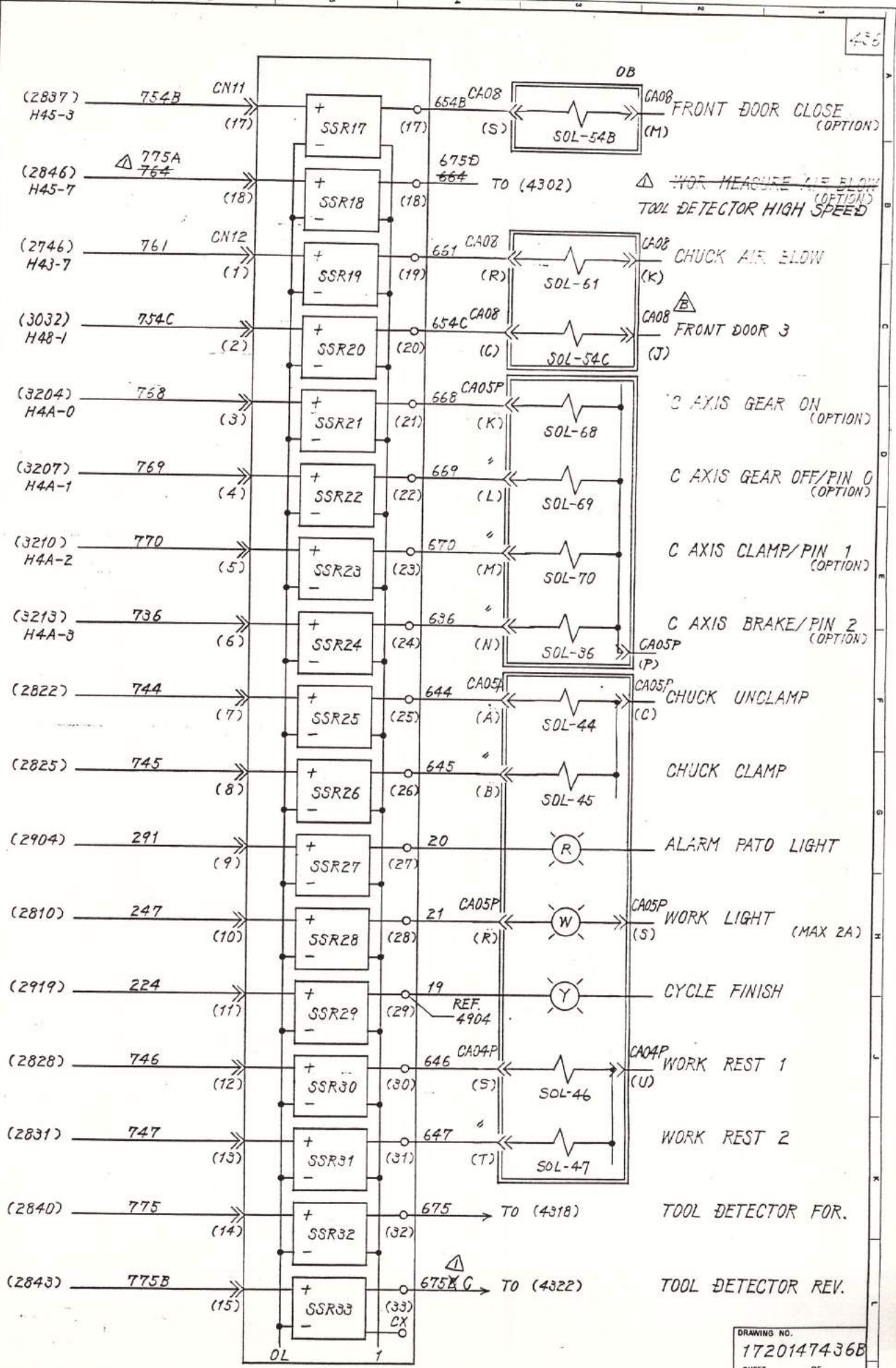
	0	1	2
SOL 20	○		○
SOL 21		○	
SOL 22	○		○

GEAR SHIFT (ST-30N)

	0	1	2	3	
SOL 20	○	○			1
SOL 21	○			○	
SOL 22		○	○		
SOL 23			○	○	

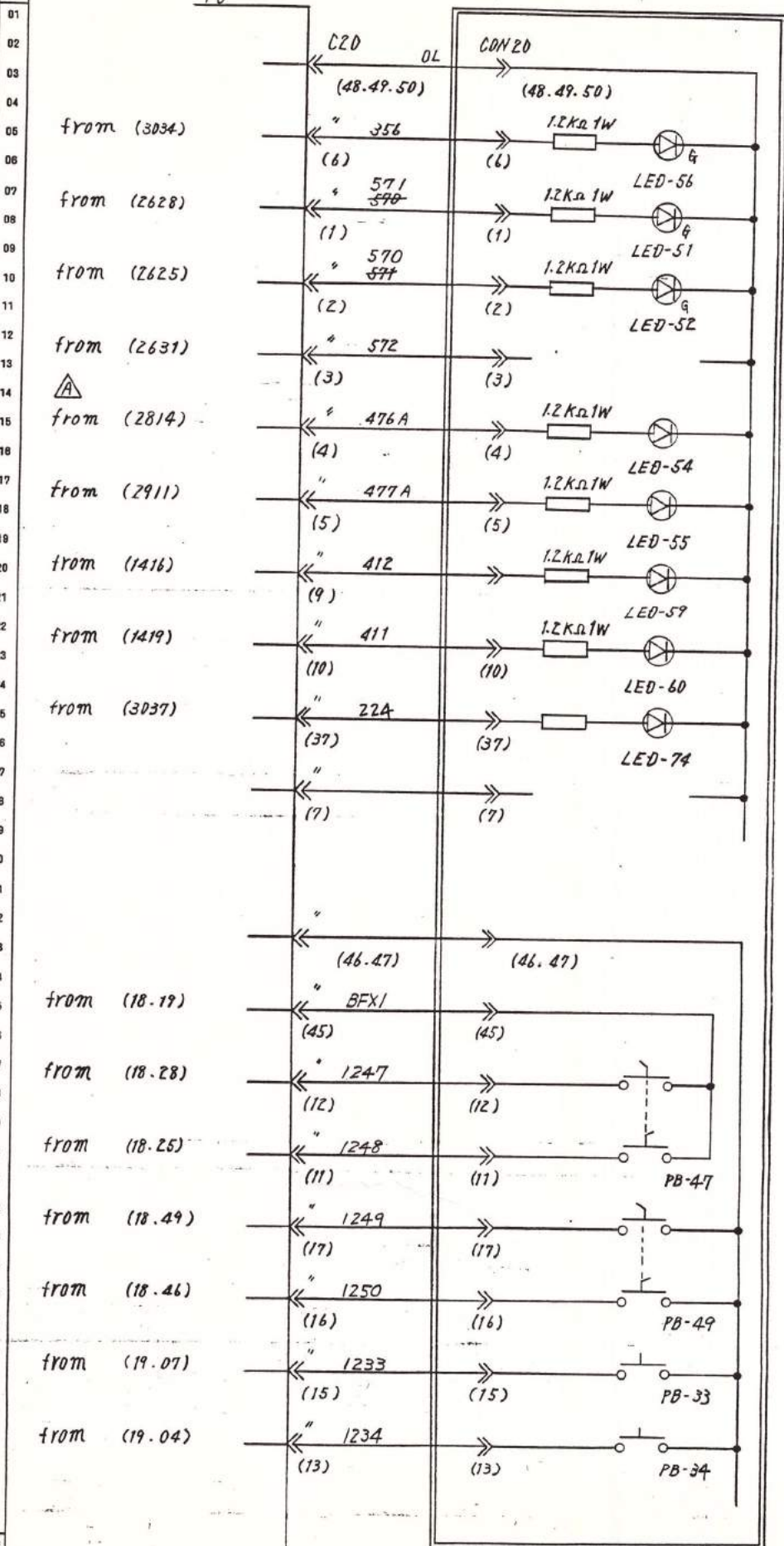
(ST-30N ONLY)

INDEX NUMBER 1720147436B  
 LINE 01  
 185.8.28  
 87.1.29 H-TAKE  
 Y.8  
 DOOR INTERLOCK  
 DRN. BY Y.8  
 DATE 15.6.14  
 CHK'D BY VAD  
 VAL. J.M.  
 CORR. JON.  
**Mazak**  
 TITLE SSR BOARD  
 CONTROL MAZATROL  
 DRAWING NO. 1720147436B  
 SIZE 3  
 INDEX NUMBER 1720147436B  
 LINE 02



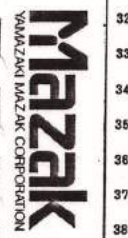
DRAWING NO. 1720147436B  
 SHEET. OF.

87.1.30 H-TAKE DOOR INTERLOCK



SPINDLE ORIENT FIN  
 UNCHUCK END  
 CHUCK CONFIRMATION  
 FRONT DOOR OPEN END  
 FRONT DOOR CLOSE END  
 TAIL SLEAVE FOR. END  
 TAIL SLEAVE REV. END  
 JAW END

DATE 9.6.14  
 CHK'D BY YARD  
 DATE



OPTION PANEL

CONTROL PANEL  
 DRAWING NO. 1720147 437A

SIZE 3



INDEX NUMBER	LINE
SHEET 438	
DATE 185.8.28	01
DATE 185.9.4	02
DATE 8.8	03
DATE	04
DATE	05
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DATE	07
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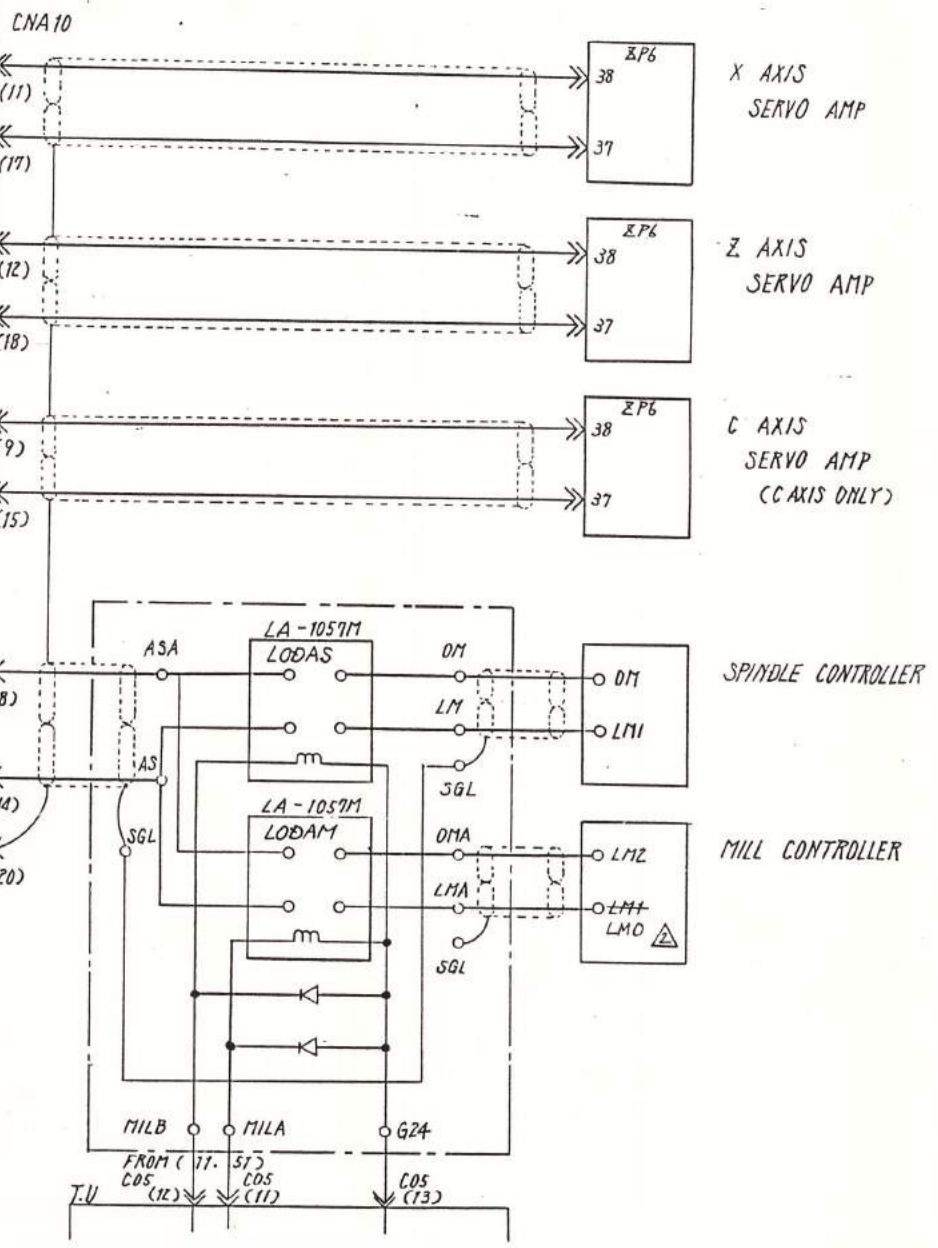
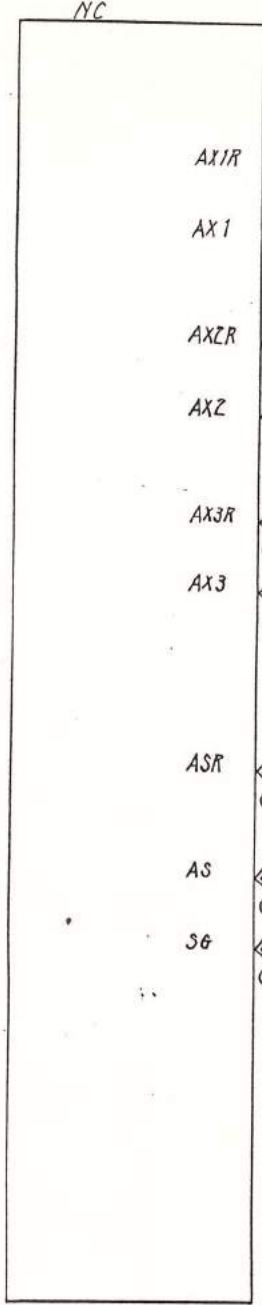
185.8.28  
 185.9.4  
 8.8  
 for FR-K-3.7K

ORN. BY Y. SIBUKI  
 DATE 85.6.14  
 CHK. D. BY Y. ANDO  
 DATE

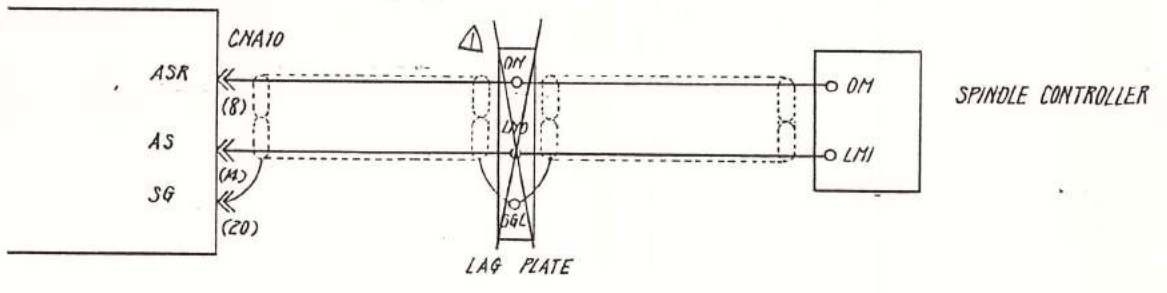


TITLE  
 LOAD MOTOR  
 CIRCUIT

CONTROL  
 DRAWING NO. 1720141 438A  
 SHEET 3 OF 3



STANDARD TYPE



DRAWING NO. 1720141 438A  
 SHEET 3 OF 3

INDEX NUMBER SHEET 439 LINE

17.2.2 H-TAKE SHIELD

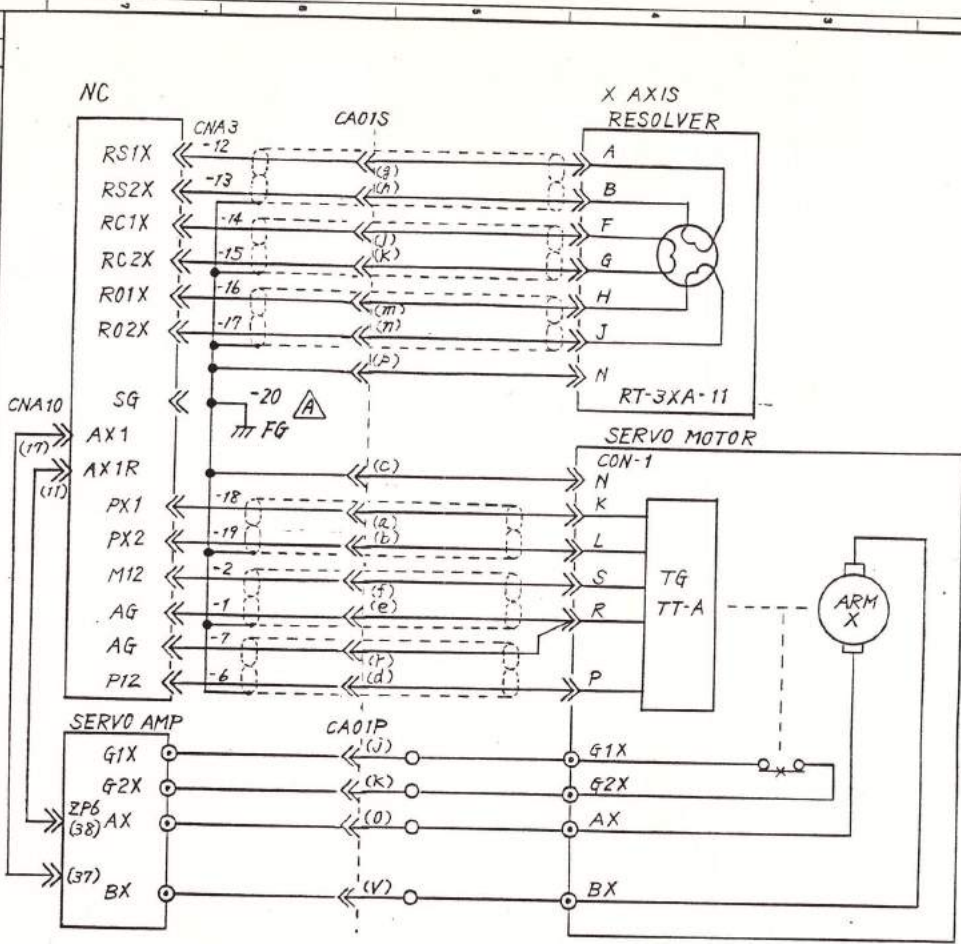
DATE 05.6.17  
 CHK'D BY KATO  
 DWN BY T. SAKAKI

**Mazak**  
 MAZAK CORPORATION

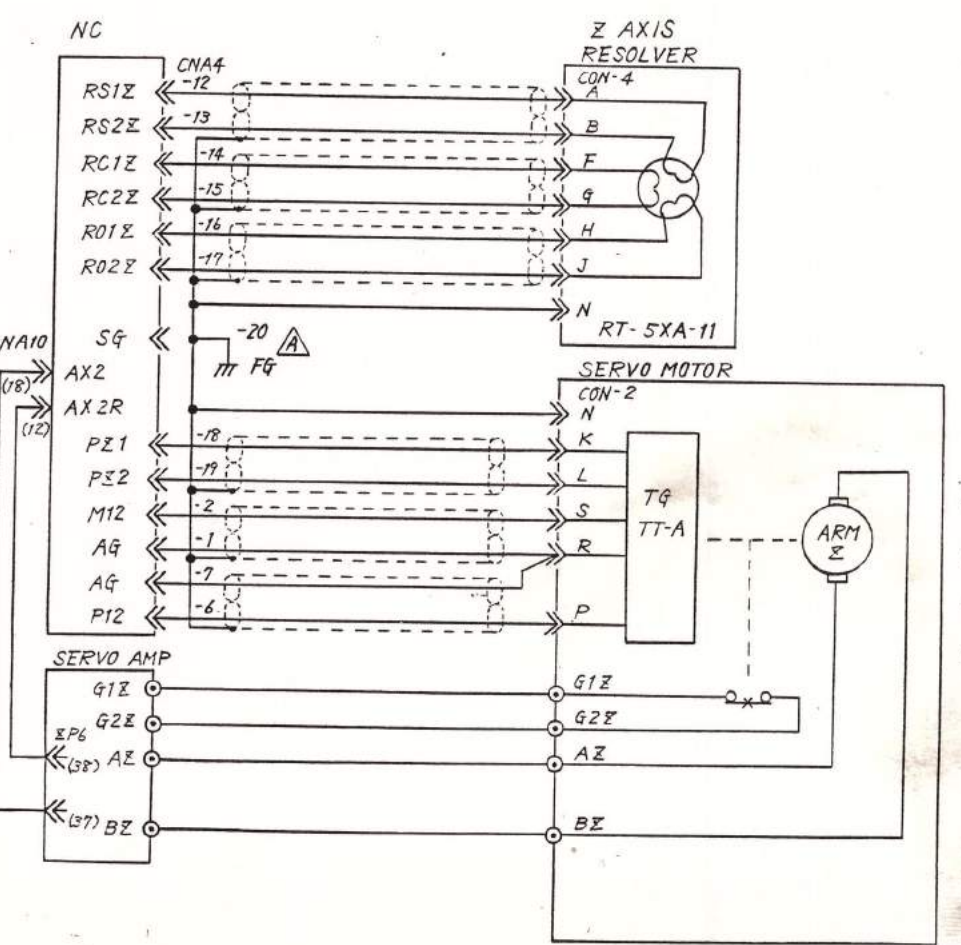
TITLE  
 SERVO MOTOR

CONTROL MAZATROL  
 DRAWING NO. 1120147439A  
 SIZE 3

SHEET 439 LINE



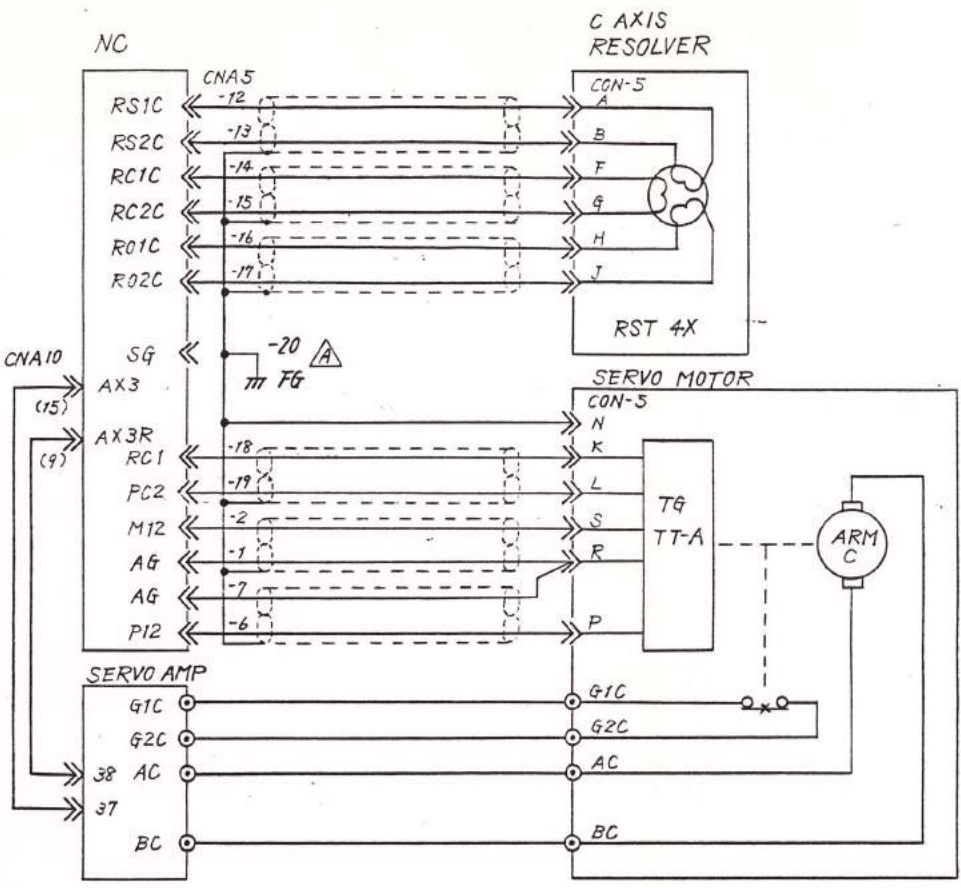
X SERVO MOTOR  
 HD 81-12  
 CONTINUANCE CURRENT  
 6.3A/2000 RPM  
 MAX. CURRENT  
 45A  
 MAX. SPEED  
 2000 RPM  
 CAPACITY  
 1.5 KVA



Z SERVO MOTOR  
 HD 101-12  
 CONTINUANCE CURRENT  
 10.9A/1000 RPM  
 MAX. CURRENT  
 45A  
 MAX. SPEED  
 1500 RPM  
 CAPACITY  
 2.2 KVA

DRAWING NO.  
 1120147439A  
 SHEET. OF.

INDEX NUMBER	LINE
SHEET 440	
A 07.2.2 H-TIME SHIELD	
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SHEET 440	LINE
INDEX NUMBER	



C SERVO MOTOR  
 HD 81-12  
 CONTINUANCE CURRENT  
 6.3 A / 2000 RPM  
 MAX. CURRENT  
 45 A  
 MAX. SPEED  
 2000 RPM  
 CAPACITY  
 1.5 KVA

CHK'D BY: Y. SUGIYAMA  
 DATE: 8.6.17  
 CHK'D BY: KATO  
 DATE:



TITLE  
 SERVO MOTOR

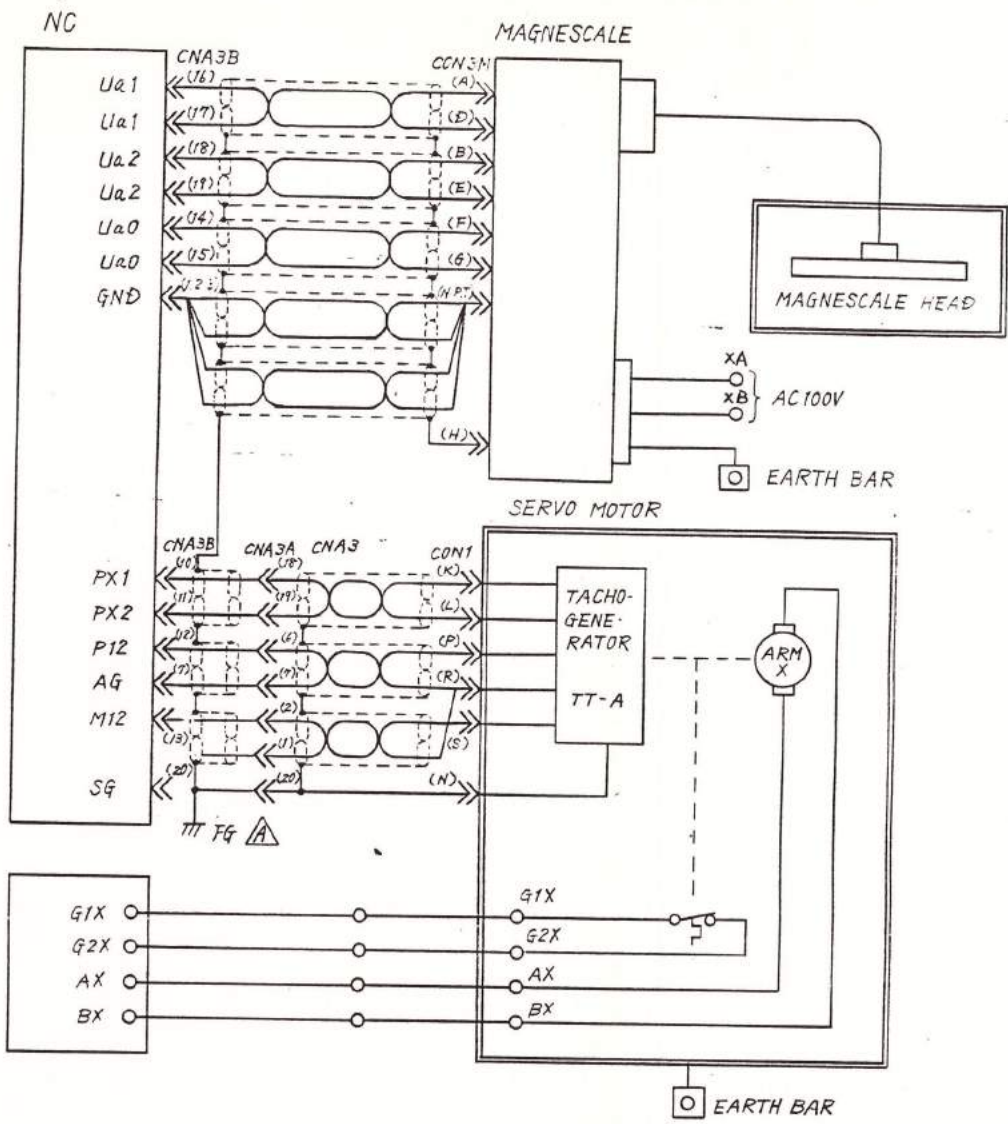
CONTROL: MAZATROL  
 DRAWING NO.: 1120147440A  
 SHEET: 01 OF 01

SIZE  
 3

DRAWING NO.  
 1120147440A  
 SHEET. 01 OF 01

INDEX NUMBER	LINE
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SHEET 441	LINE
INDEX NUMBER	

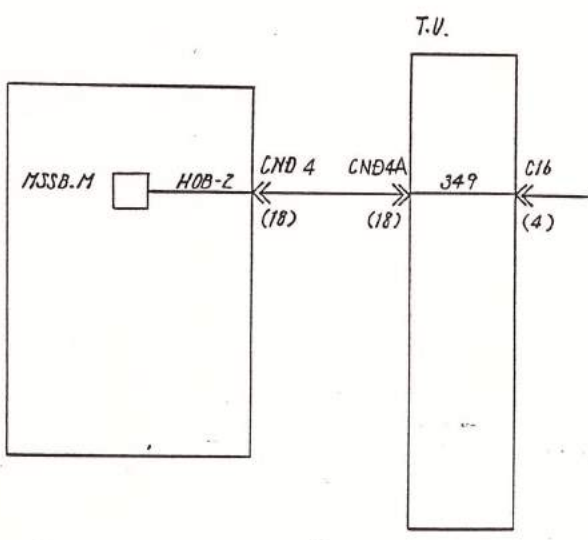
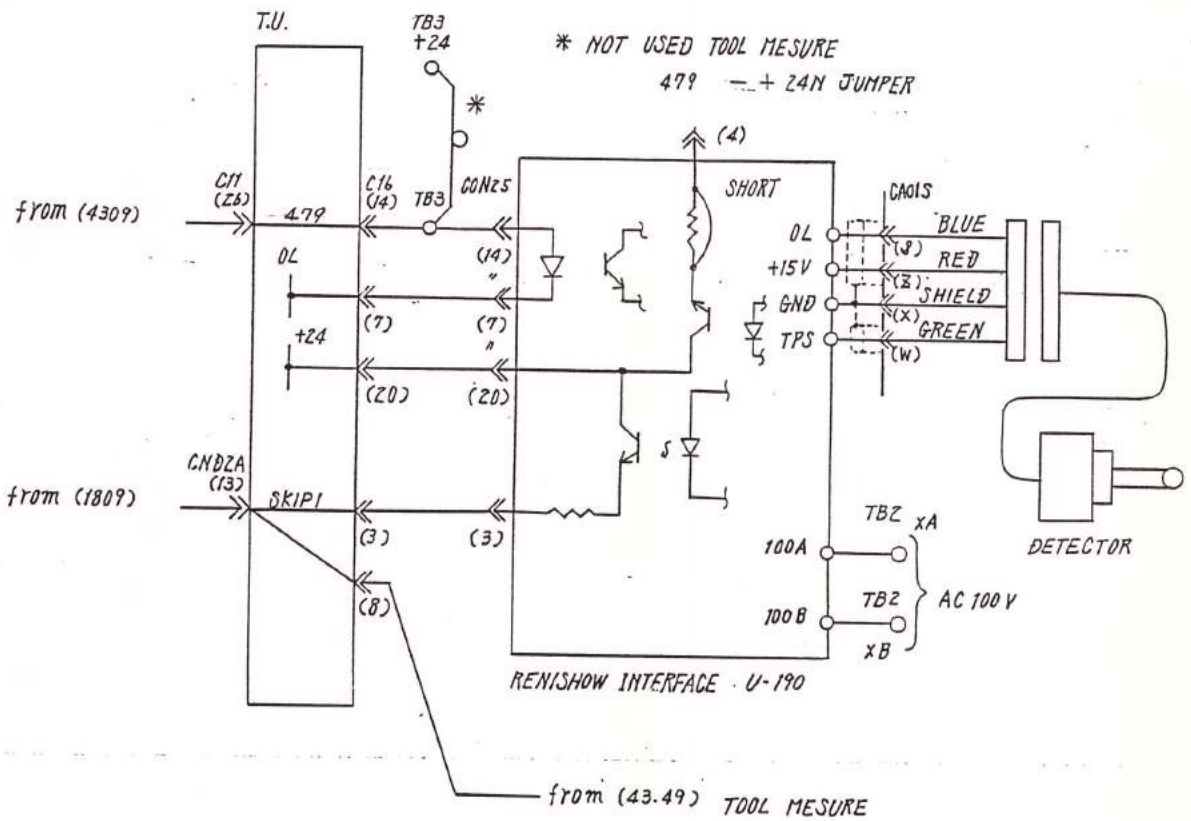
1872.2 HTAKE SHIELD



YAMAZAKI MAZAK CORPORATION  
SERVO & MAGNESCALE  
CIRCUIT

CONTROL MAZATROL  
DRAWING NO. 1720147441A  
SIZE 3

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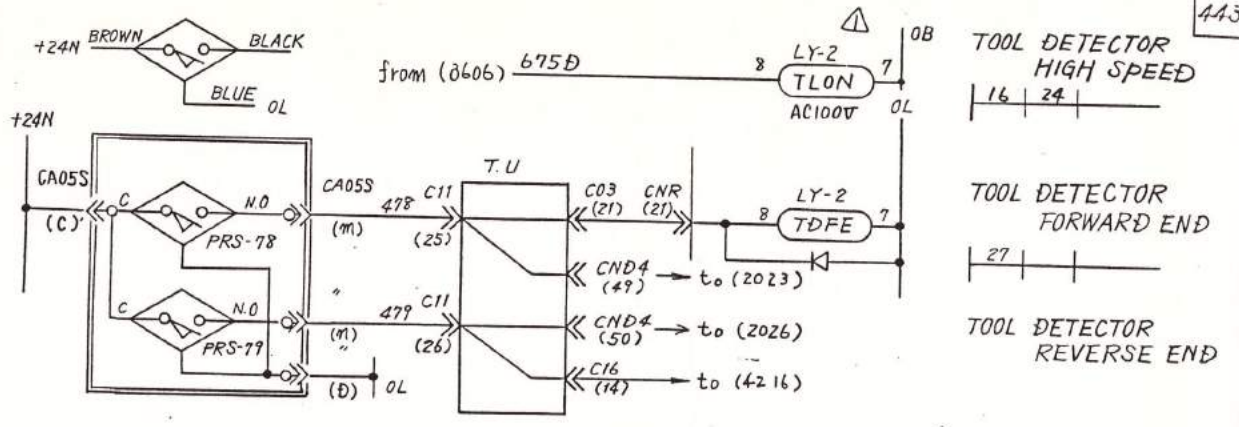
DRN. BY KATU  
DATE 95.6.17  
CHK'D BY KATU



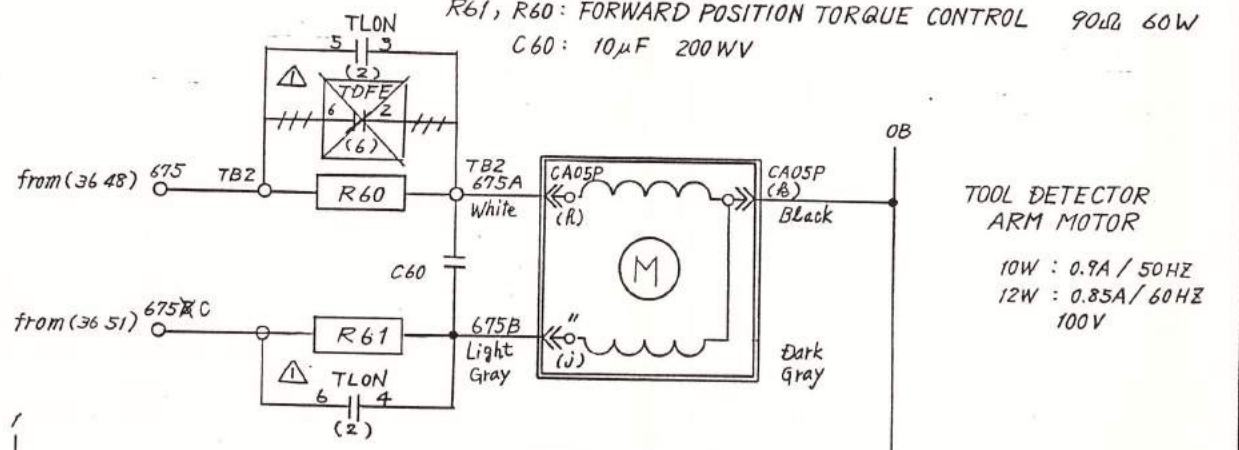
TITLE  
WORK MEASURE  
CIRCUIT

CONTROL MAZATROL  
DRAWING NO. 1720147 442  
OF 3

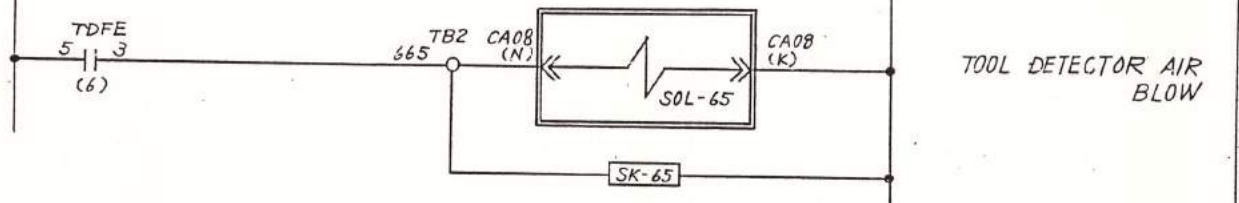
INDEX NUMBER  
SHEET 443 LINE  
DATE '85.8.28  
DRA. BY T. SAKAI  
CHK'D BY KATO  
DATE  
Mazak  
WAZAKI MAZAK CORPORATION  
TITLE  
TOOL MEASURE  
CIRCUIT (OPTION)  
CONTROL MAZATROL  
DRAWING NO.  
1720147443A  
SHEET 3 OF 3  
SHEET 443 LINE  
INDEX NUMBER



R61, R60: FORWARD POSITION TORQUE CONTROL 90Ω 60W  
C60: 10μF 200WV

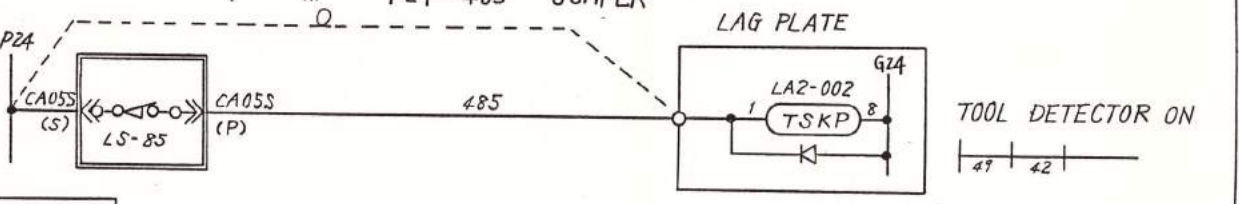


TOOL DETECTOR  
ARM MOTOR  
10W : 0.9A / 50HZ  
12W : 0.85A / 60HZ  
100V

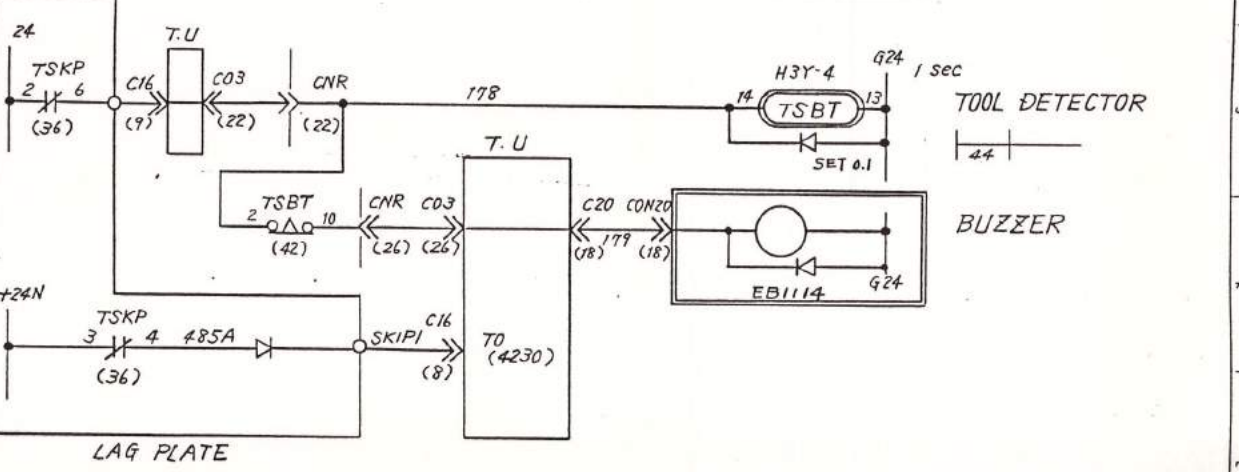


TOOL DETECTOR AIR  
BLOW

NOT USED TOOL MEASURE  
P24-485 JUMPER



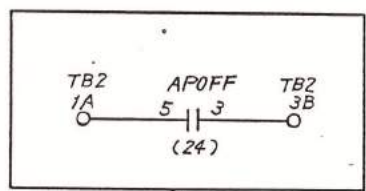
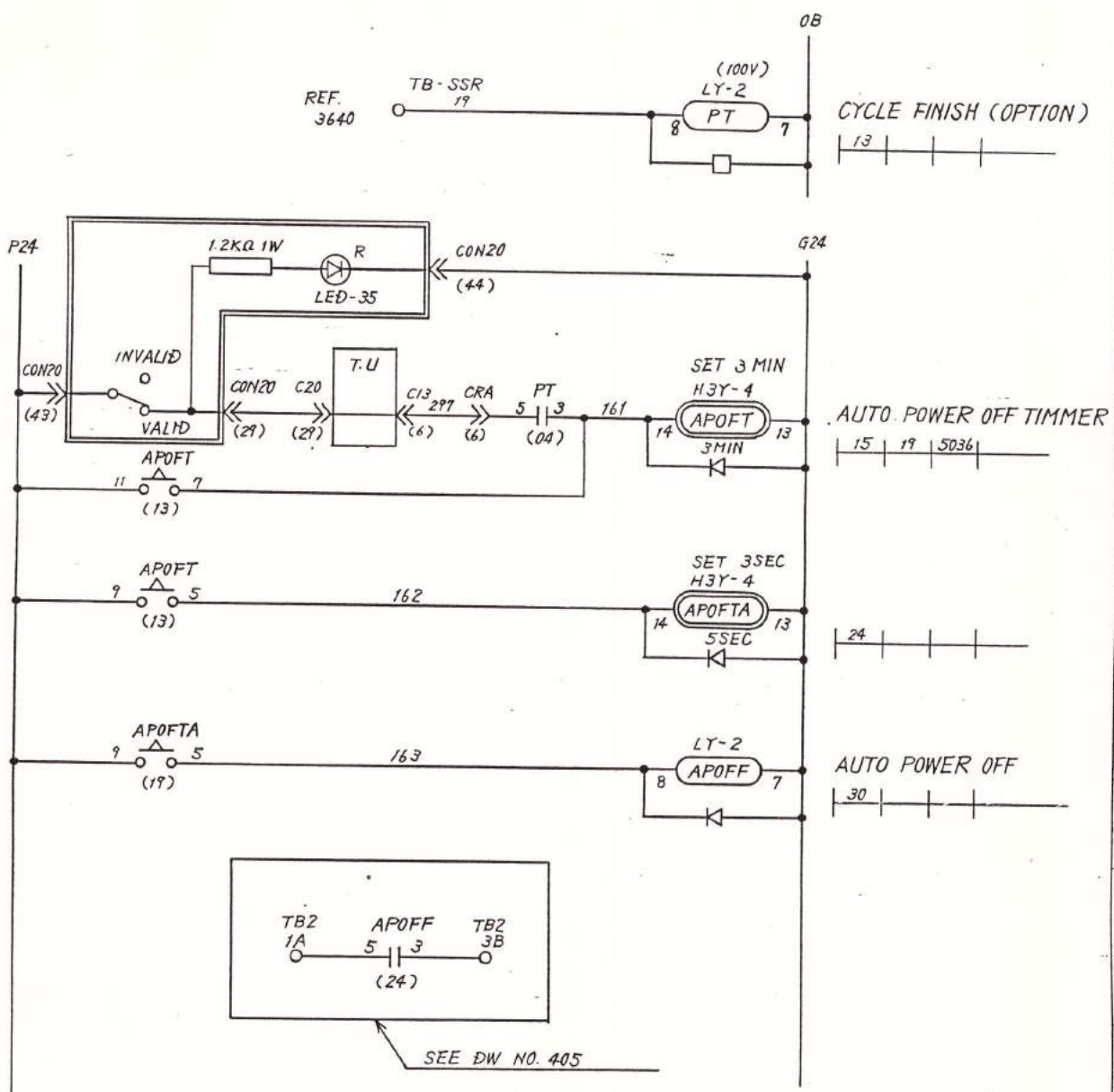
TOOL DETECTOR ON



TOOL DETECTOR  
BUZZER

DRAWING NO.  
1720147443A  
SHEET OF

INDEX NUMBER	
SHEET 449	LINE
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SHEET 449	LINE
INDEX NUMBER	



SEE DW NO. 405

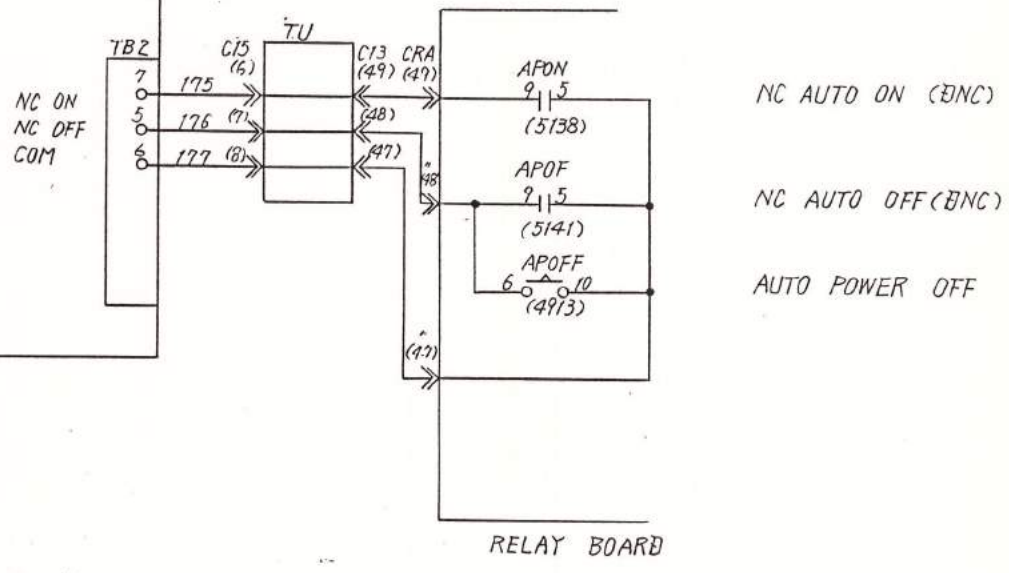
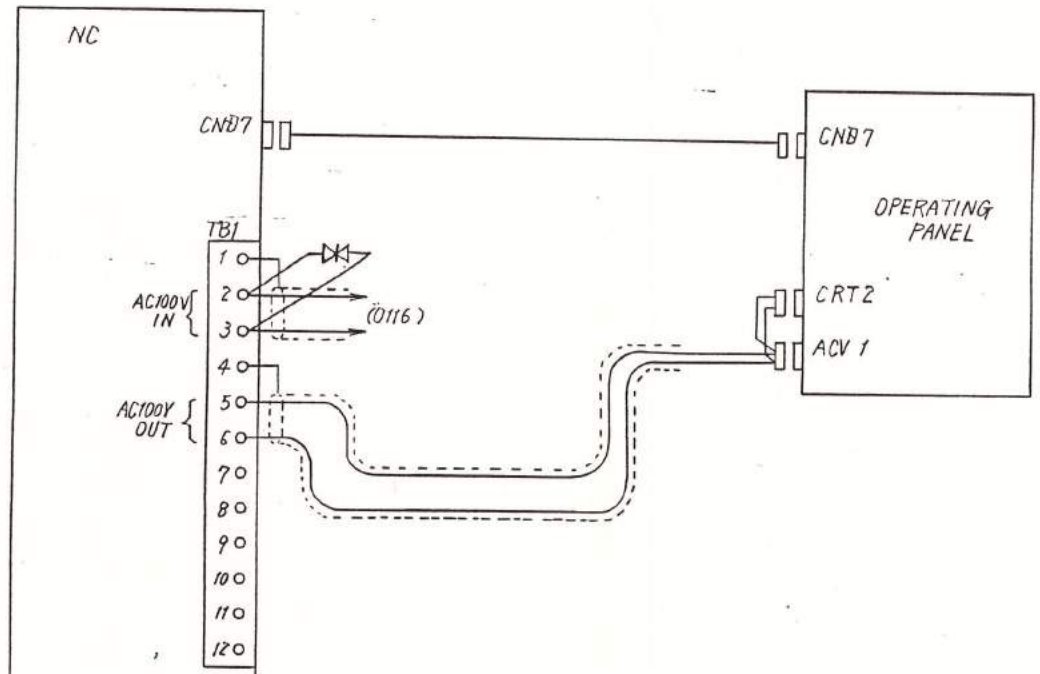
DRN. BY: **Y. KUROKI**  
 DATE: **6.17**  
 CHK'D BY: **K.M.T.**  
 DATE:



TITLE  
 (OPTION)  
 AUTO POWER OFF

CONTROL: **MAZATROL**  
 DRAWING NO.: **1720147449**  
 SHEET: **3** OF **3**

INDEX NUMBER	
SHEET 450	LINE
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SHEET 450	LINE
INDEX NUMBER	



DRN. BY: Y. NISHIDA  
 DATE: 1956.6.17  
 CHK'D BY: K.H.D.  
 DATE:

**Mazak**  
 MAZAKI MAZAK CORPORATION

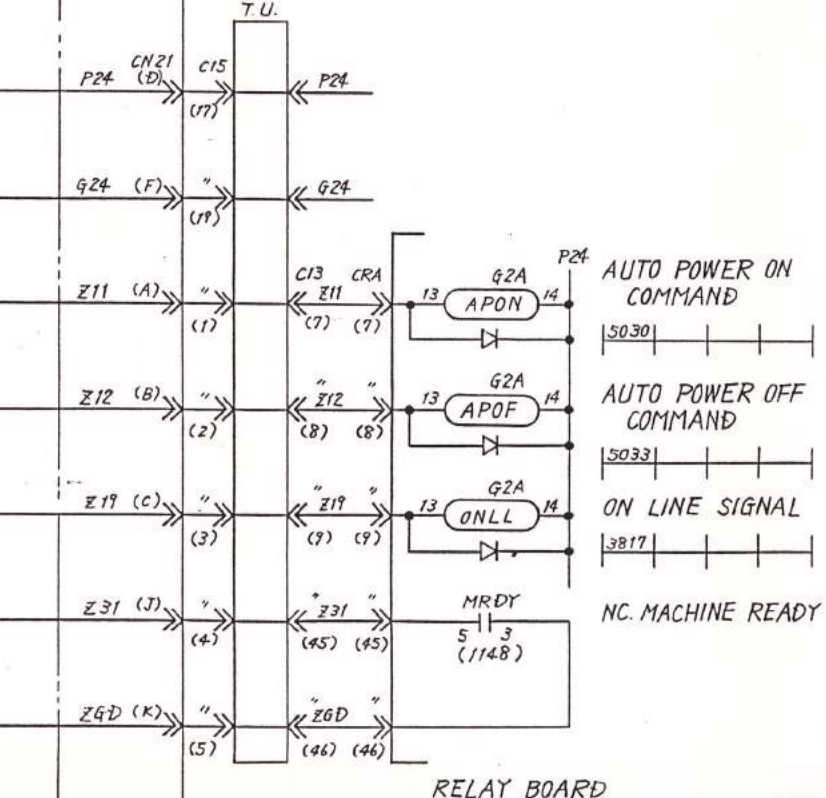
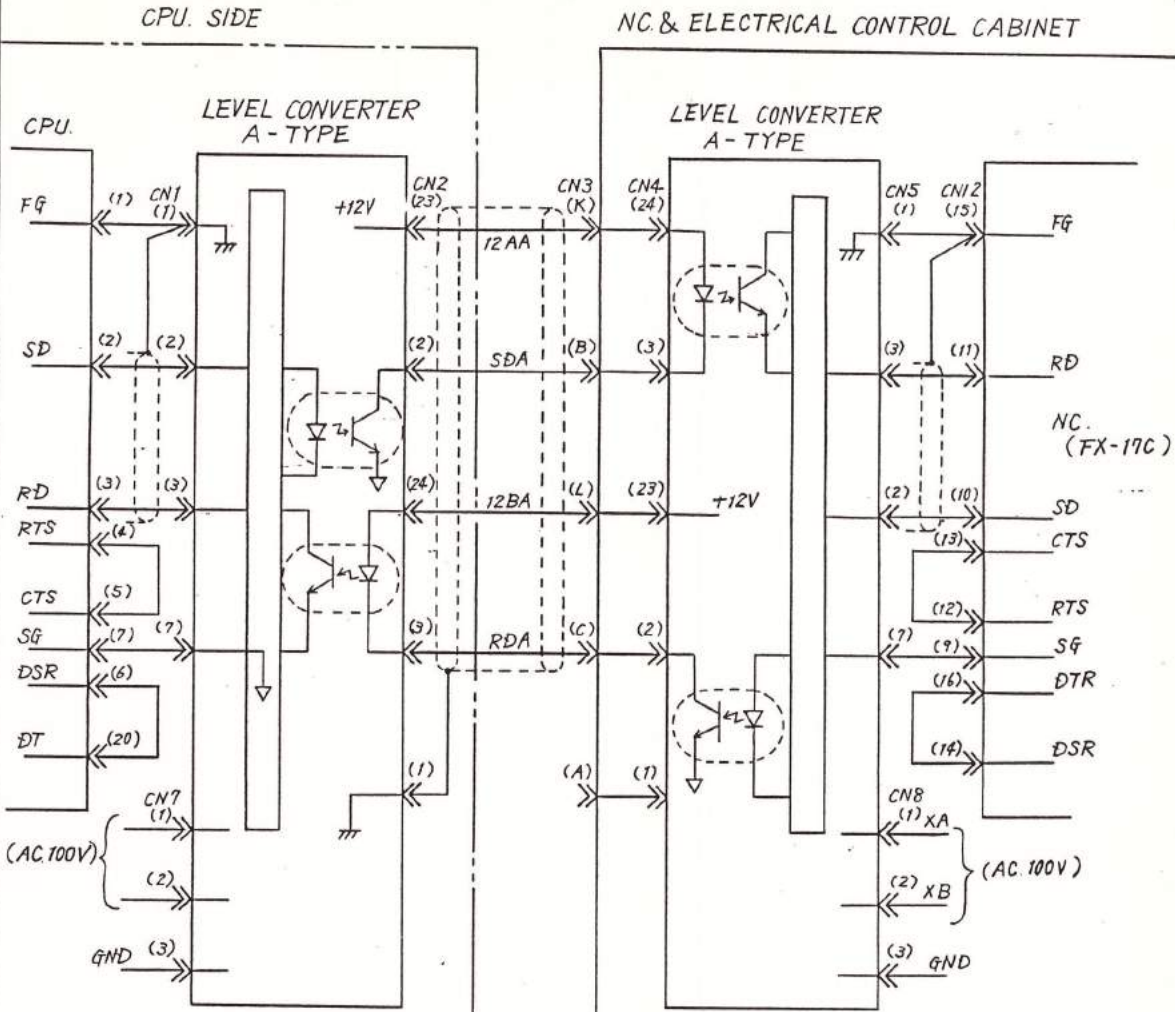
TITLE  
 ELEMENTARY  
 NC POWER DIAGRAM

CONT'D: MAZATROL  
 DRAWING NO. 1720147 450  
 SHEET. OF.

SIZE  
 3



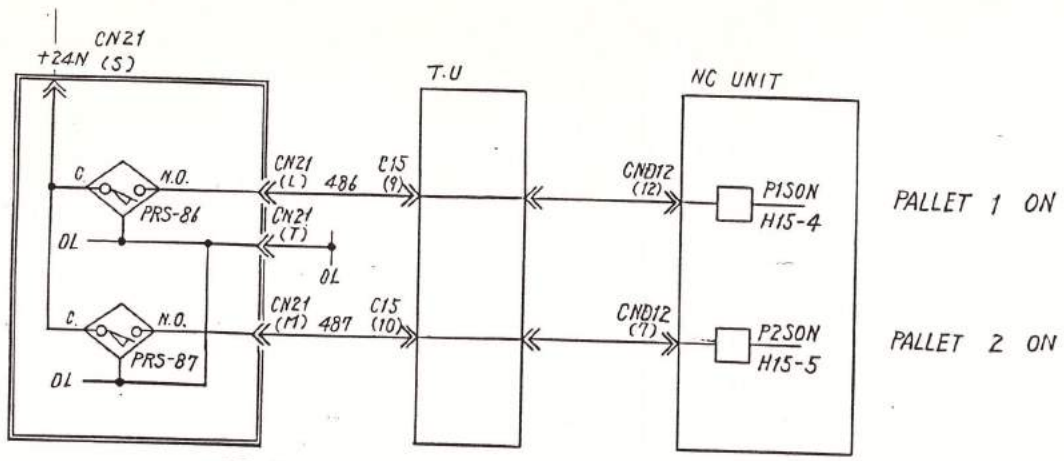
INDEX NUMBER	451
SHEET	451
LINE	
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SHEET	451
INDEX NUMBER	



DNC CONNECTION  
(A-TYPE)

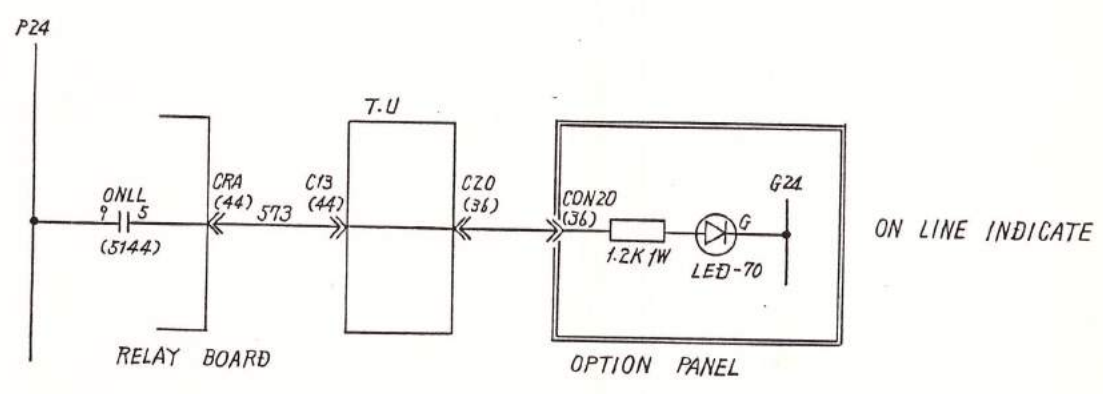
CONTROL  
Mazatrol  
DRAWING NO.  
1720147451  
SHEET 3 OF 3

INDEX NUMBER	LINE
SHEET 452	
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SHEET 452	LINE
INDEX NUMBER	



PALLET 1 ON

PALLET 2 ON



ON LINE INDICATE

DRN. BY Y. SUZUKI  
 DATE 05.6.17  
 CHG. BY KMTD  
 DATE  
**Mazak**  
 MAZAKI MAZAK CORPORATION  
 TITLE  
 CPU LINK  
 PALLET 1/F  
 CONTROL MAZATROL  
 DRAWING NO. 1720147452  
 SHEET 3 OF 3

INDEX NUMBER  
SHEET 454 LINE

DATE 85.8.28  
CHK'D BY YKT  
DATE

DRN. BY YOSHIZAKI  
DATE 85.6.17  
CHK'D BY YKT  
DATE

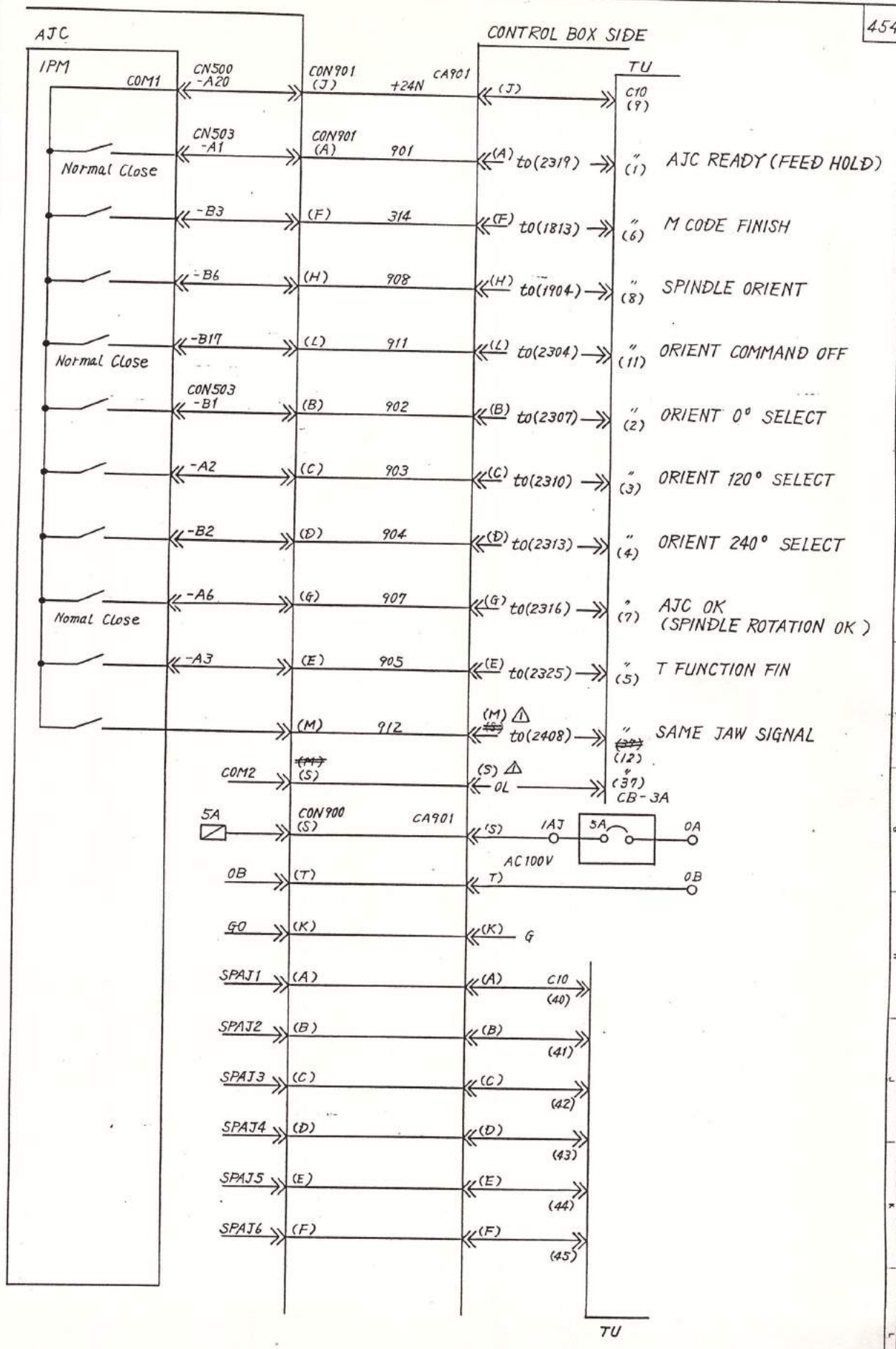
**Mazak**  
MAZAKI MAZAK CORPORATION

TITLE  
IPM OUTPUT

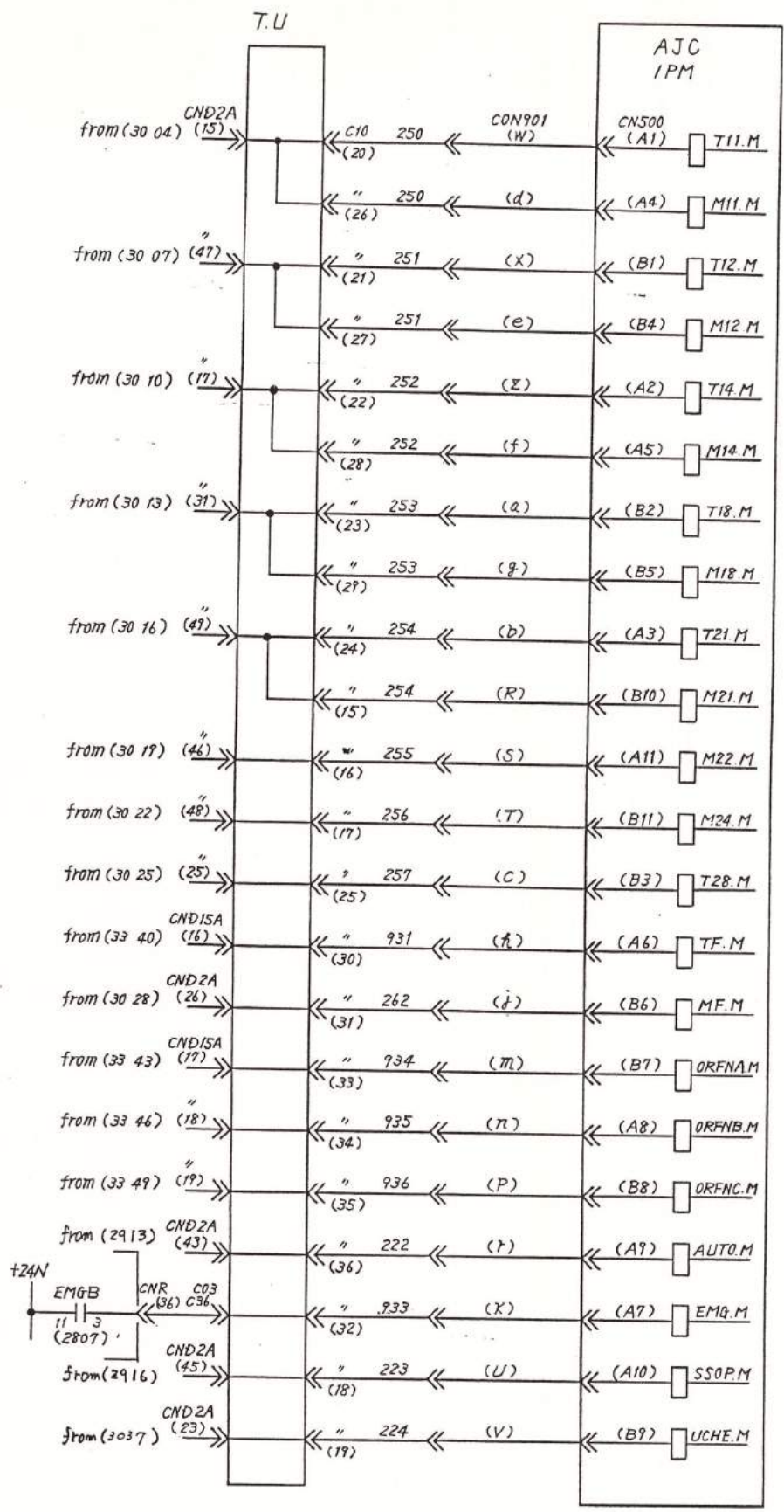
CONTROL MAZATROL  
DRAWING NO. 1720146454A  
SHEET 3 OF 3

SIZE 3

SHEET 454 LINE  
INDEX NUMBER



INDEX NUMBER	
SHEET 455	LINE
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SHEET 455	LINE
INDEX NUMBER	



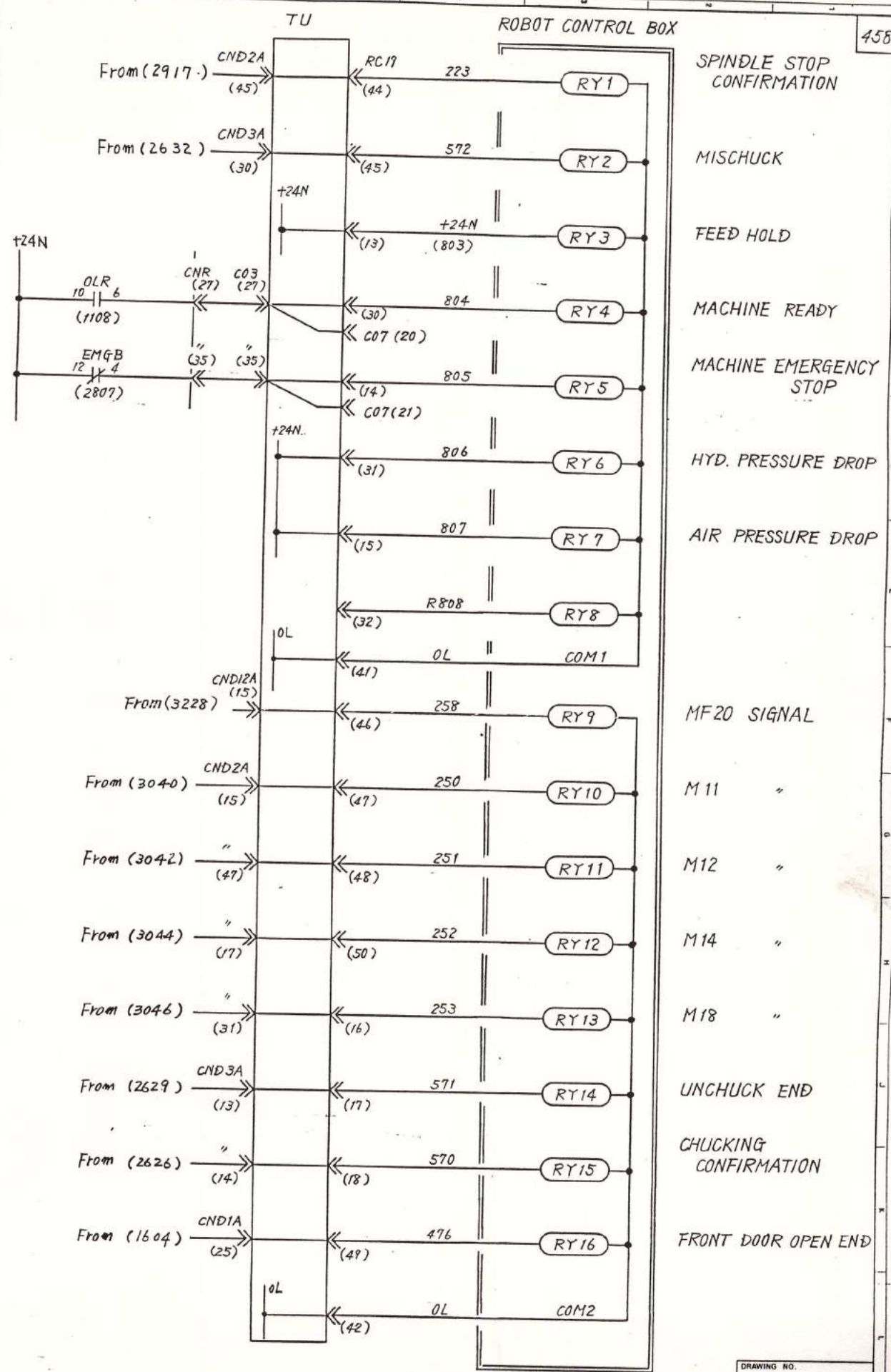
- T CODE 11
- M CODE 11
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- M CODE 12
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- M CODE 14
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- M CODE 18
- T CODE 21
- M CODE 21
- M CODE 22
- M CODE 24
- T CODE 28
- T CODE STROBE
- M CODE STROBE
- ORIENT 0° FINISH
- ORIENT 120° FINISH
- ORIENT 240° FINISH
- AJC AUTO MODE
- EMERGENCY STOP
- SPINDE STOP
- JAW CHANGE OK

DATE 8.6.17  
CHK'D BY YATO  
DATE



IPM INPUT

CONTROL MAZATROL  
DRAWING NO. 1720146455  
SHEET 3 OF 3



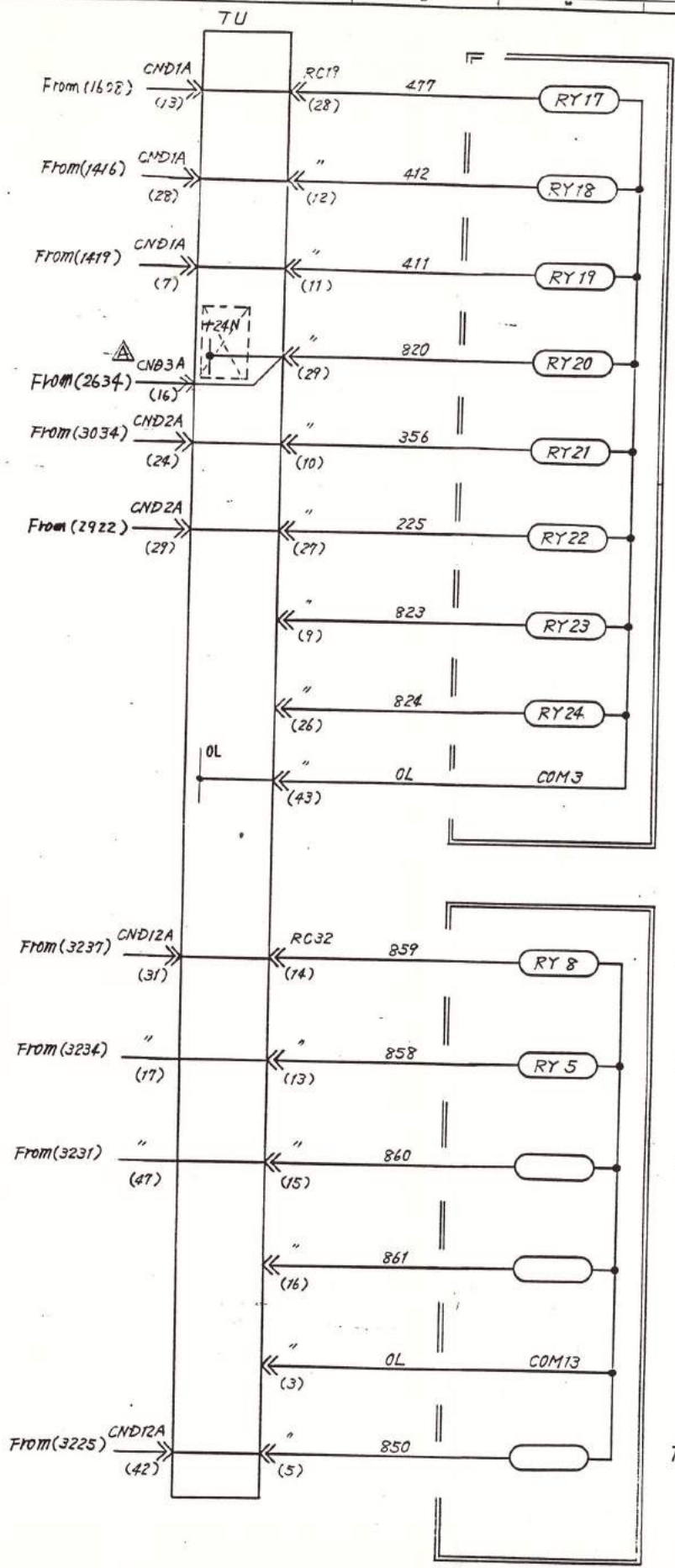
DRN BY Y. SUGIYAMA  
DATE '85.6.17  
CHK'D BY Y.ATO  
DATE



TITLE  
ROBOT CONTROL BOX (OPTION)

CONTROL MAZATROL  
DRAWING NO. 1720147458  
SHEET 3 OF 3

INDEX NUMBER	LINE
SHEET 459	
86.2.8	01
Y. J.	02
ROBOT ARM DOWN OK	03
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SHEET 459	LINE
INDEX NUMBER	



- FRONT DOOR CLOSE END
- TAIL SLEEVE FORWARD END
- TAIL SLEEVE REVERSE END
- ARM DOWN OK
- INPUT SPARE 2 (ORIENT FIN)
- " 3
- RESET EXT.
- " 4
- " 5
- EXTERNAL DATA END
- WORK NO. SEARCH FINISH
- UNCHUCK OK
- FMS START

ORN. BY Y. SUZUKI  
 DATE 85.6.17  
 CHK'D BY YKD  
 DATE  
**Mazak**  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 ROBOT CONTROL BOX (OPTION)  
 CONTROL MAZATROL  
 DRAWING NO. 1720147459A  
 SHEET 3 OF 3

INDEX NUMBER  
SHEET 460 LINE

DATE 8.17  
CHK'D BY KATO  
DATE

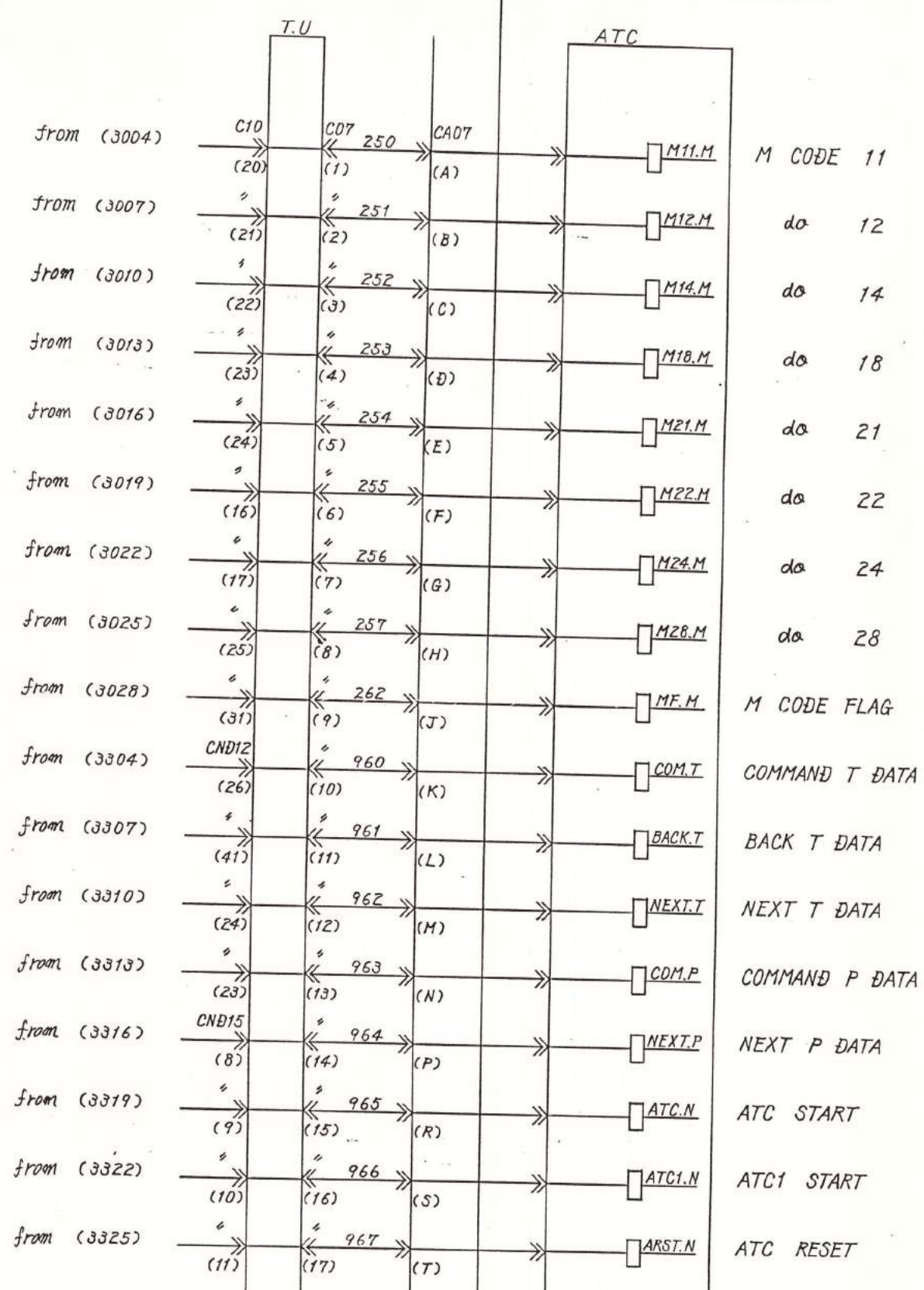
**Mazak**  
MAZAKI MACHINE CORPORATION

TITLE  
ATC INPUT (1)

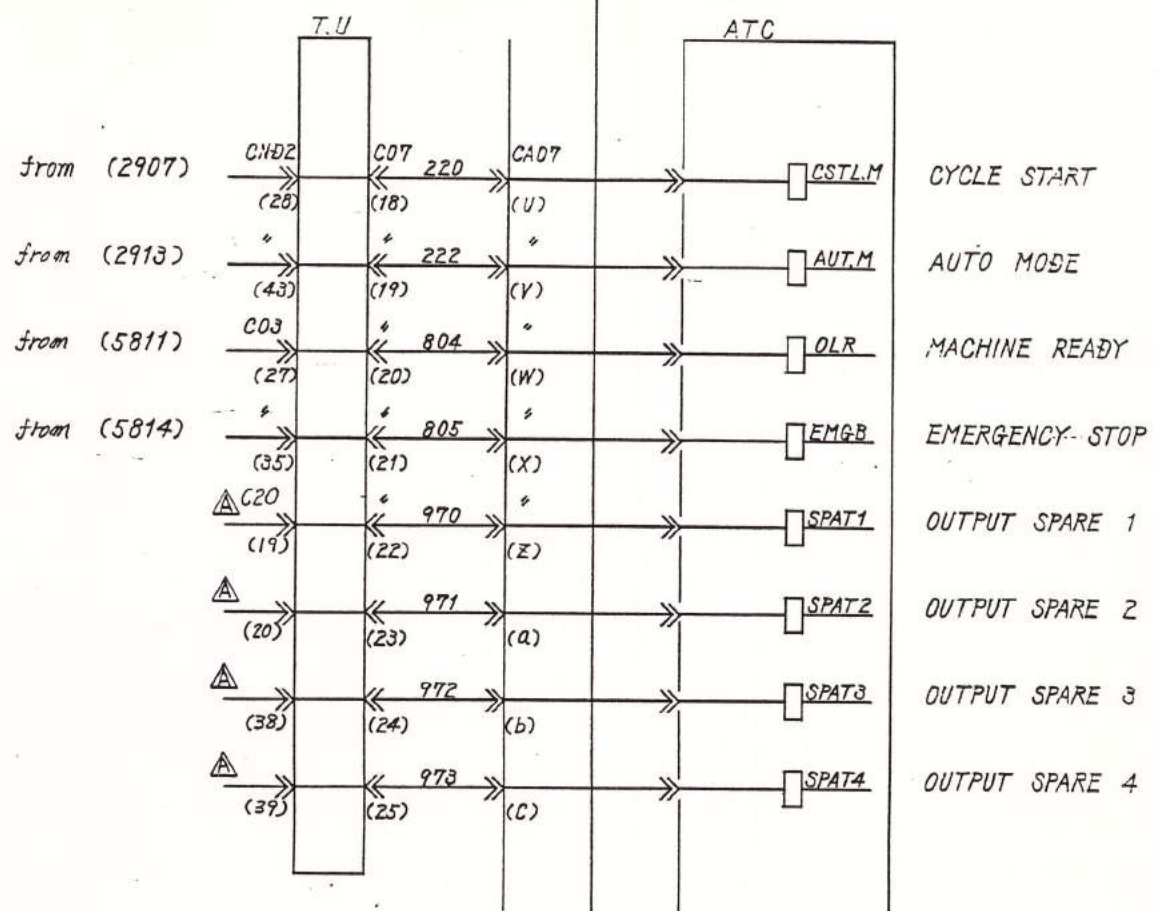
CONTROL  
HAZATROL  
DRAWING NO.  
1720147460  
SHEET 3 OF

SIZE  
3

SHEET 460 LINE  
INDEX NUMBER

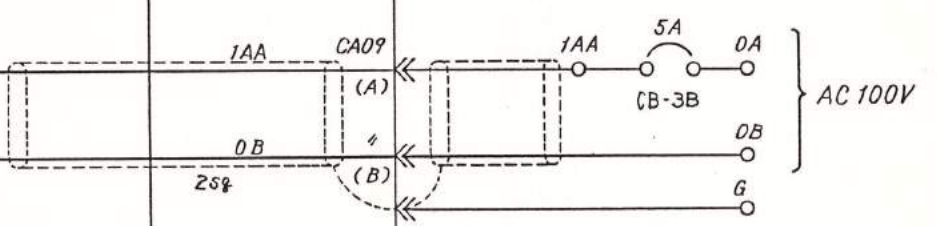
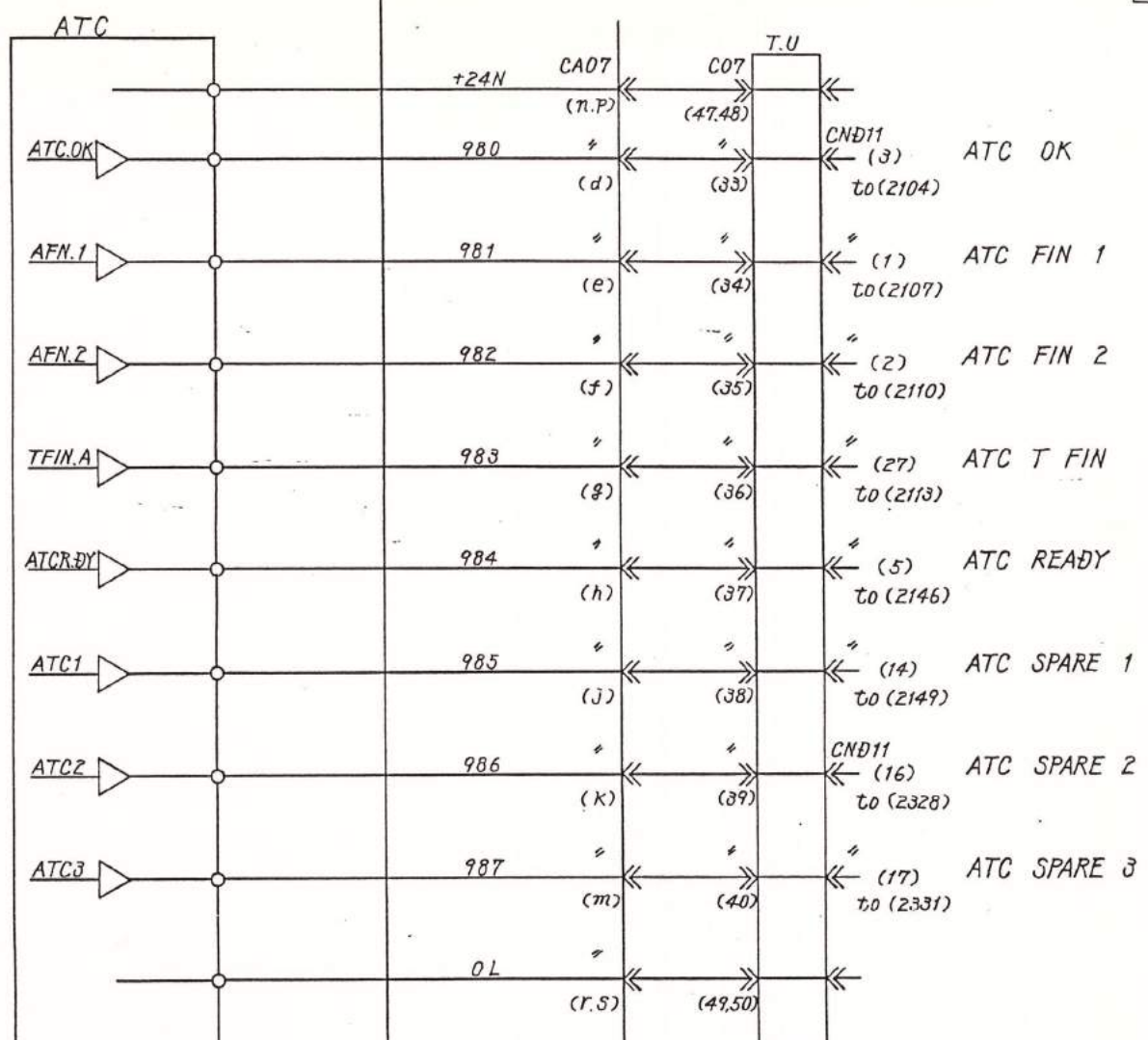


INDEX NUMBER	
SHEET 461	LINE
186.4.11 R.J	
DATE 8.6.17	
CHK'D BY YAD	
DATE	
DWN BY YSHEIKH	
Mazak	
YAMAZAKI MAZAK CORPORATION	
TITLE	
ATC INPUT (2)	
CONTROL	
DRAWING NO. 1720147461A	
SHEET 3 OF	
SIZE	
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SHEET 461	LINE
INDEX NUMBER	





INDEX NUMBER	
SHEET 462	LINE
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SHEET 462	LINE
INDEX NUMBER	



**Mazak**  
YAMAZAKI MACHINE CORPORATION

TITLE  
ATC OUTPUT

CONTROL  
DRAWING NO. 1720147462  
SHEET 3 OF 3

DATE 8.6.17  
CHK'D BY KATB  
ORIG. BY Y. SAKURA

INDEX NUMBER  
SHEET 463 LINE

DATE 1985.8.28  
DATE 1986.4.11  
DATE 1985.6.17

CHK'D BY KAITO  
DATE

ORIG. BY Y. SUZUKI  
DATE 1985.6.17

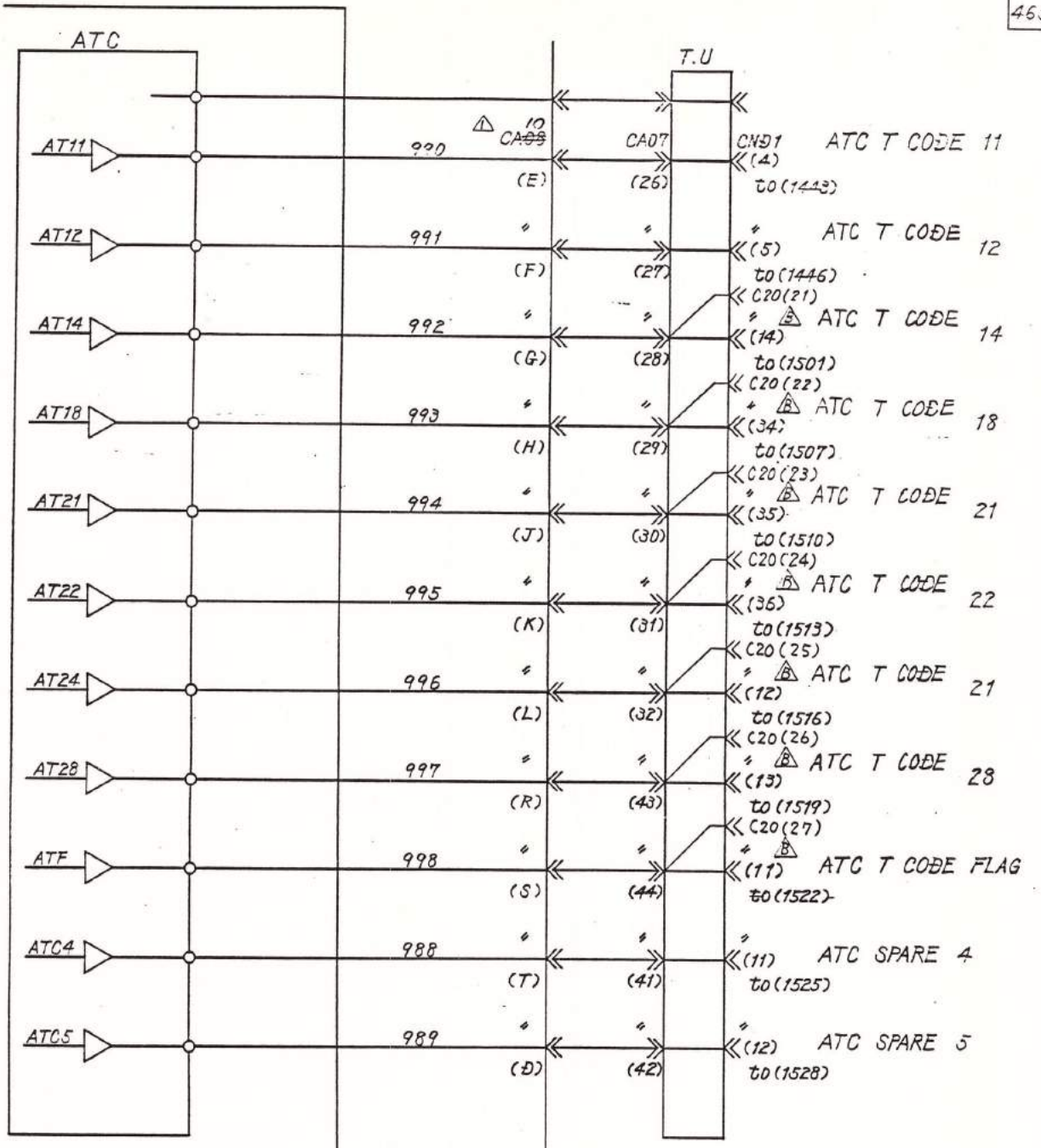
**Mazak**  
YAMAZAKI MAZAK CORPORATION

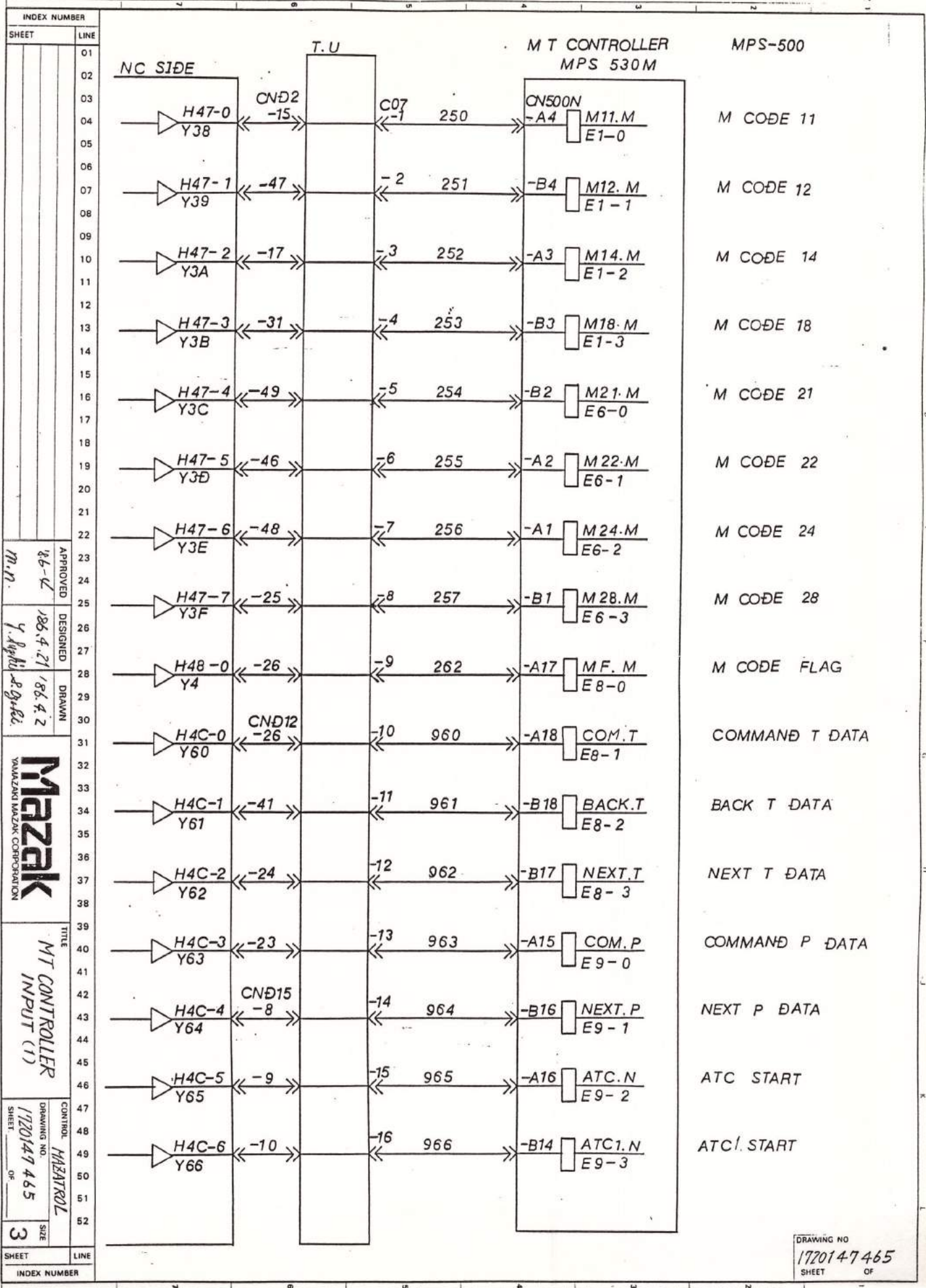
TITLE  
ATC OUTPUT (2)

CONTROL  
DRAWING NO. 1720147463B  
SHEET 3 OF 3

SHEET 463 LINE

INDEX NUMBER





APPROVED: *m.n.* 86-4-21 / 86-4-2  
DESIGNED: *Y. Higuchi & G. Sato*  
DRAWN: *Y. Higuchi & G. Sato*

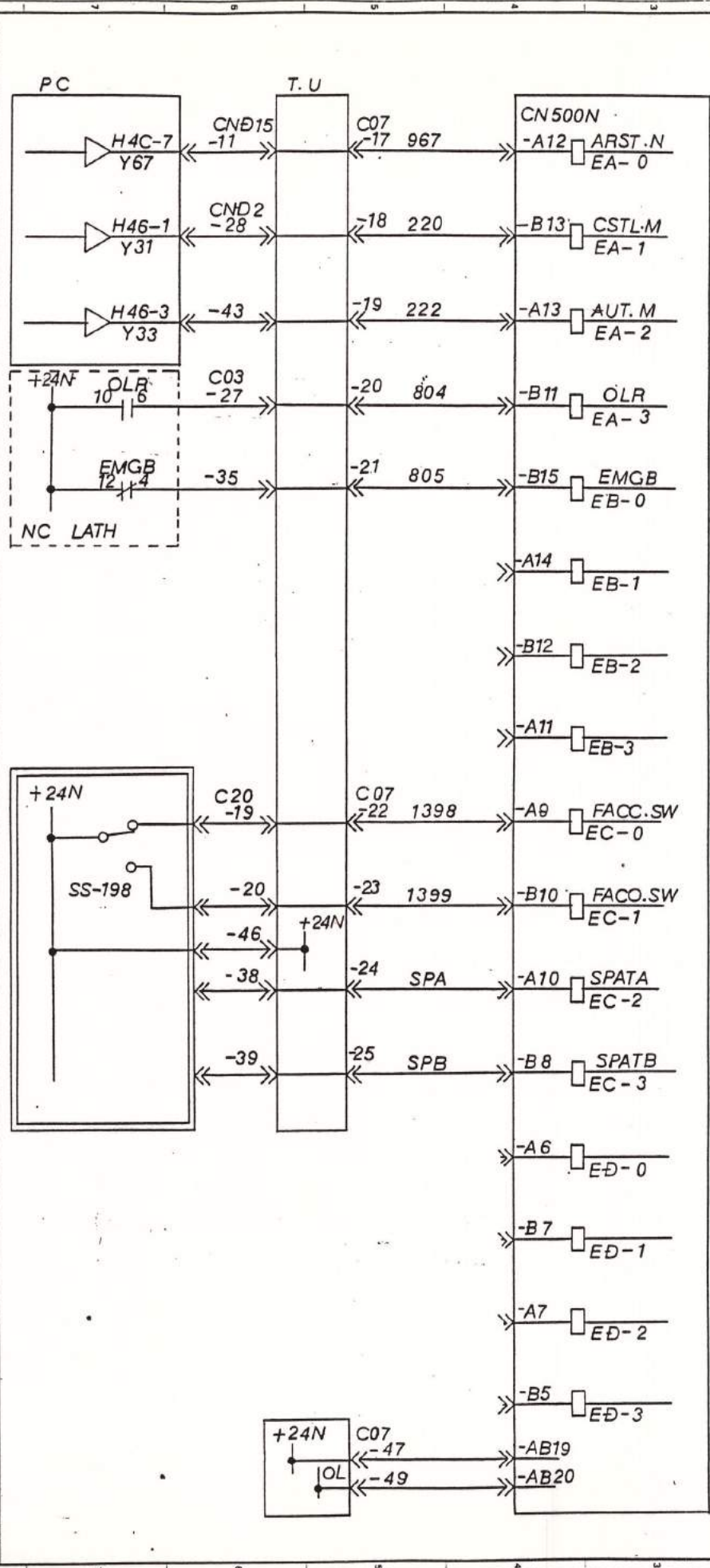
**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE: MT CONTROLLER INPUT (1)

CONTROL: MHAATROL  
DRAWING NO: 1720147 465  
SHEET 3 OF 3

DRAWING NO 1720147 465  
SHEET OF

INDEX NUMBER	
SHEET	LINE
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SHEET	LINE
INDEX NUMBER	



- ATC RESET
- CYCLE START
- AUTO MODE
- MACHINE READY
- EMERGENCY STOP
- FRONT ATC COVER CLOSE
- FRONT ATC COVER OPEN
- INPUT SPARE A
- INPUT SPARE B

APPROVED: *m.m.* 1/86-4-21  
DESIGNED: *V. S. S.* 1/86-4-21  
DRAWN: *S. S.* 1/86-4-21

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE: **MT CONTROLLER INPUT (2)**

CONTROL: **MATANROL**  
DRAWING NO: 1720147 466  
SHEET: 3 OF 3

INDEX NUMBER	LINE
SHEET	
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SHEET	LINE
INDEX NUMBER	



ATC OK

ATC FINISH 1

ATC FINISH 2

ATC T CODE FIN

ATC READY

ATC MANUAL TOOL CHANGE

ATC AUTO MODE

ATC ALARM

ATC TURRET GRIPPER OPEN

ATC SPARE OUT 1

ATC SPARE OUT 2

ATC SPARE OUT 3

ATC CYCLE

AUTO

MANUAL

ALARM

APPROVED  
DESIGNED  
DRAWN

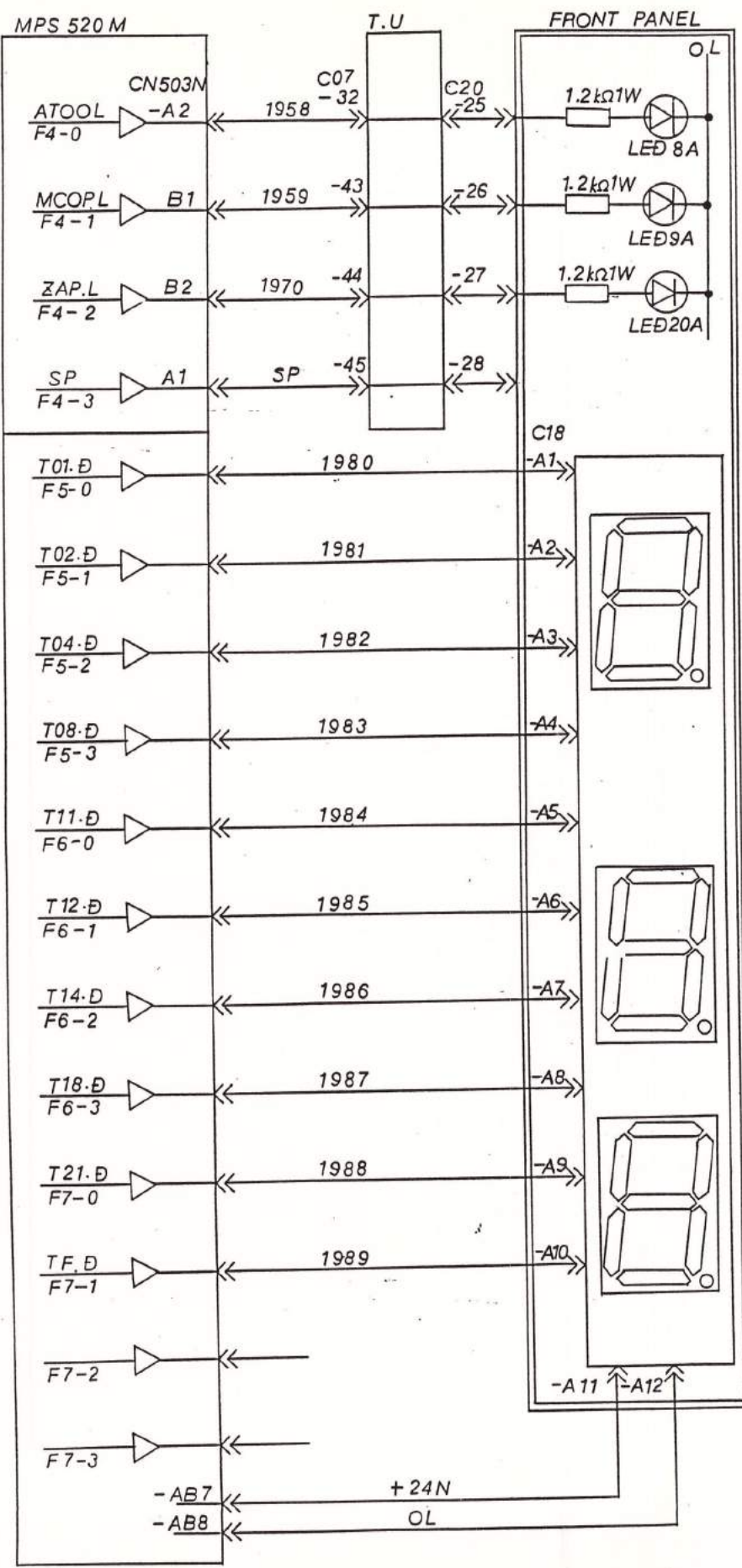


TITLE  
M T CONTROLLER  
OUTPUT (1)

CONTROL  
DRAWING NO  
1720147 467

DRAWING NO.  
1720147 467  
SHEET. OF.

INDEX NUMBER	LINE
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SHEET	LINE
INDEX NUMBER	



ARM TOOL ON  
MAGAZINE DOOR OPEN  
ATC POS OK

TOOL NO.1 DIGIT

TOOL NO.2 DIGIT

TOOL NO.3 DIGIT  
(BRANK of 1)

TOOL NO. POINT

APPROVED  
DESIGNED  
DRAWN

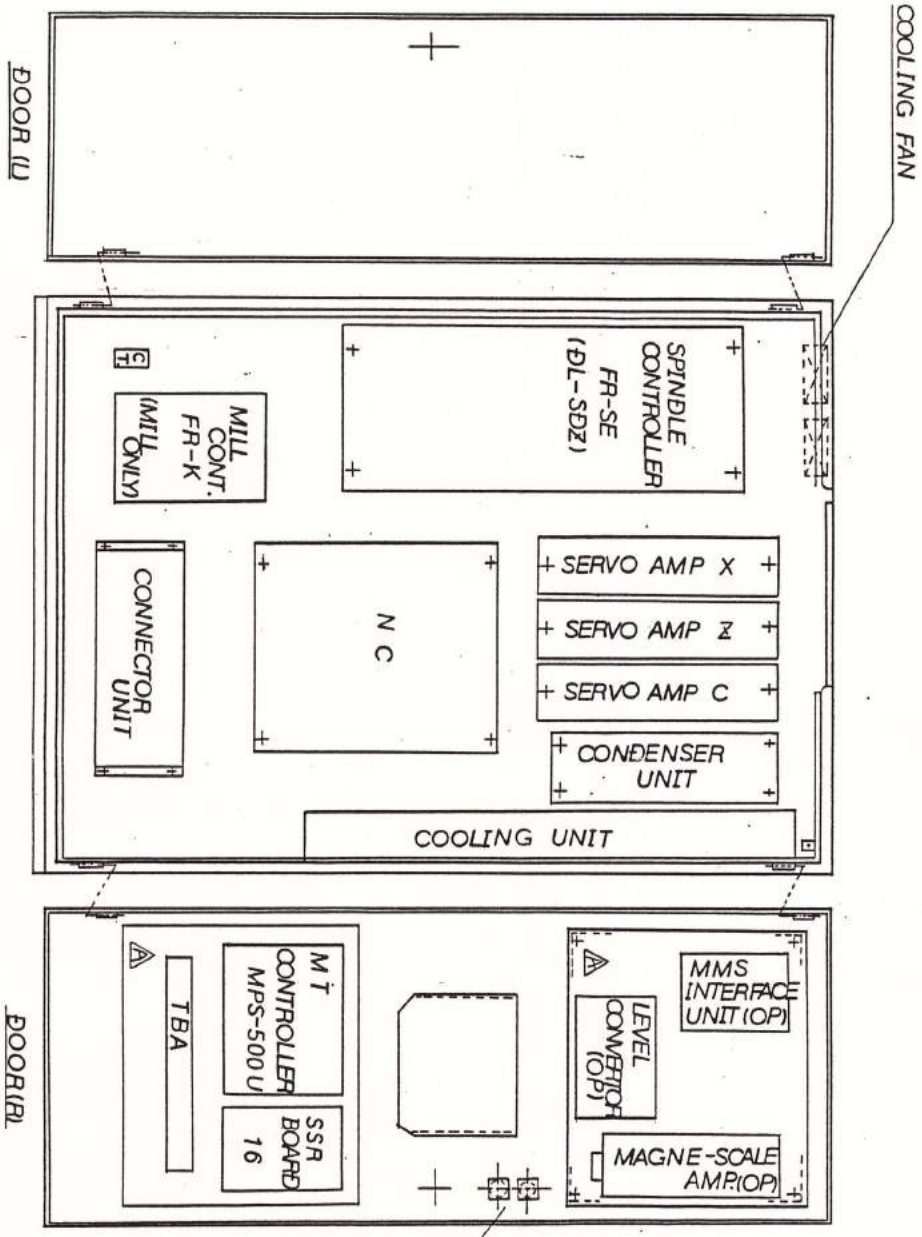
**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
M T CONTROLLER  
OUTPUT (2)

CONTROL  
DRAWING NO.  
1720147468  
SHEET OF 3

DRAWING NO.  
1720147468  
SHEET OF

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INDEX NUMBER	LINE
SHEET 00	01
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	52
INDEX NUMBER	LINE
SHEET 00	01

186-4-21 Y. Kusaka

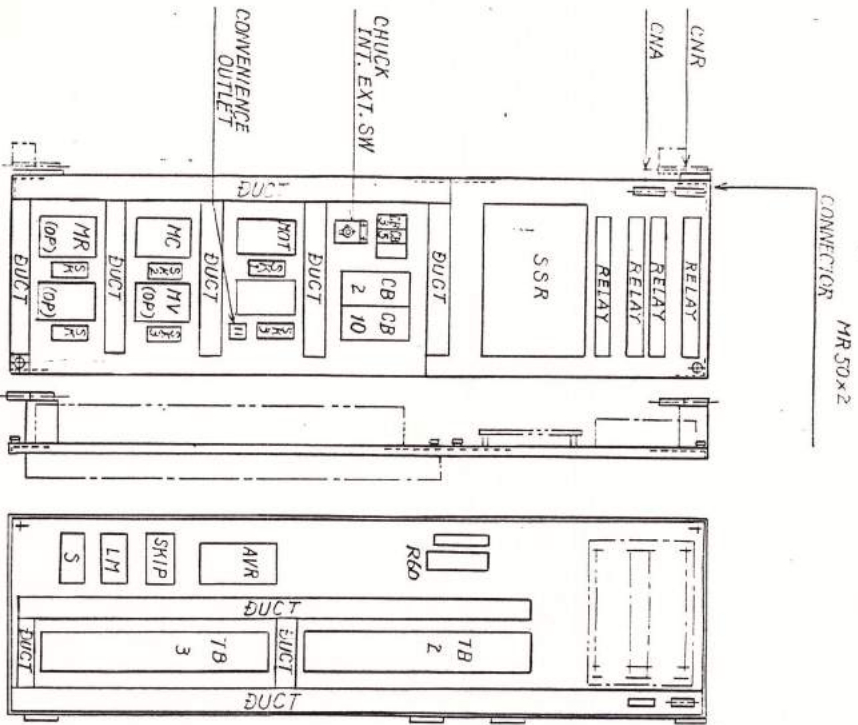
APPROVED 186-4 m.n.  
 DESIGNED 186-4-21 Y. Kusaka  
 DRAWN 186-3-31 S. Ogaki



TITLE  
 CONTROL BOX  
 LAYOUT

CONTROL MAZATROL  
 DRAWING NO. 1720147500A  
 SHEET 3 OF 3

DRAWING NO. 1720147500A  
 SHEET 3 OF 3



RELAY ARRANGEMENT

HRY	OLR	MAL 1X	MAL 2X	MAL 8X	MAL 3X	MAL 7X	SW PS1	SW PS2	EM GB
-----	-----	--------	--------	--------	--------	--------	--------	--------	-------

TIN	HILL	MH CW	MH CCM	RUN	SU	HS PS	CBRA
-----	------	-------	--------	-----	----	-------	------

*8	*8	*8	*2	*2	*2	*2	*2	*7	*7	*6
APON	APOF	ONLL	BFM	6M	7M	55M	APOFI	APOFI	APOFI	TSBT

C/M	PON	TDFE	PI	APOF	MROY	ENG	CBR	ATCAB	PCF
-----	-----	------	----	------	------	-----	-----	-------	-----

- \*1 MILL CENTER
- \*2 BAR FEEDER
- \*3 PARTS CATCHER
- \*4 HYD PRESSURE (TME)
- \*5 HEAD LUBE
- \*6 TOOL MEASURE
- \*7 AUTO POWER OFF
- \*8 DNC
- \*9 ROBOT

G2A  
H3Y-4  
LY2

INDEX NUMBER SHEET 502 LINE

DATE 186.4.21 Y-8  
DATE 87.1.29 H-TAKE

DATE 85.7.5  
CHK'D BY KATD

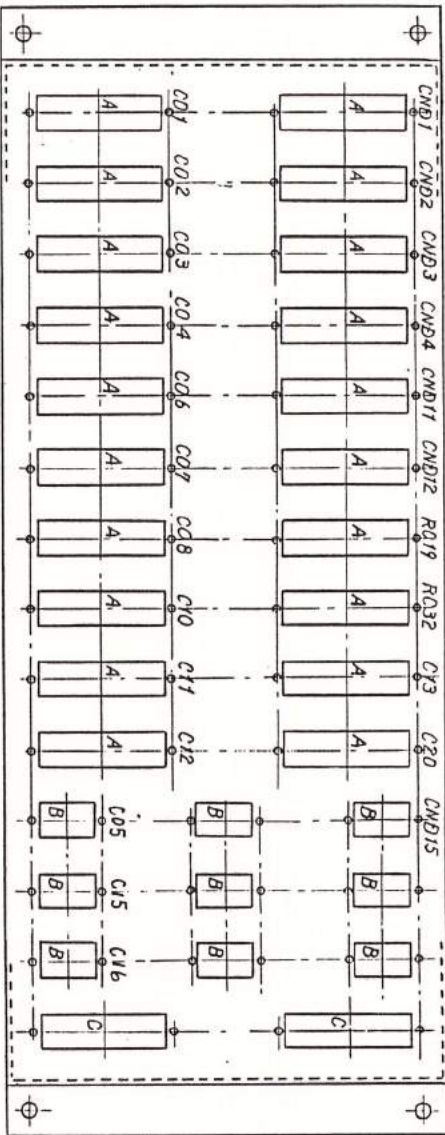
**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE PARTS ARRANGEMENT ON PANEL

CONTROL DRAWING NO. 1720147502B SHEET 3 OF 3

SHEET 502 LINE





C01	SPINDLE
C02	MILL
C03	RELAY
C04	SSR BOARD
C05	LS PRS MS
C06	TURRET
C07	ATC
C08	HEAD
RC19	ROBOT (1)
RC32	ROBOT (2)
C10	AJC
C11	OPTION
C12	SPARE
C13	RELAY (OP)
C20	PANEL
C15	DNC
C16	MMS

INDEX NUMBER	LINE
SHEET 503	
01	
02	
03	
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52	
SHEET 503	LINE
INDEX NUMBER	

DRN. BY Y. SUZUKI  
 DATE 85.7.5  
 CHK'D BY Y. MATO  
 DATE



TITLE  
 CONNECTOR UNIT  
 LAYOUT

CONTROL MAZATROL  
 DRAWING NO. 172014-7503  
 SHEET OF 3

INDEX NUMBER	LINE
SHEET 504	01
A 187129 H-TAKE	02
	03
	04
	05
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	10
	11
	12
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	14
	15
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52	
SHEET 504	LINE
INDEX NUMBER	

TB 2

R 1
S 1
T 1
G
R 7
S 7
T 7
3A
3B
3C
3D
OB
OA
OB
1A
1A
1A
1
1
OB
4
10
OB
673A
673B
45
46
852
OB
665
OB
OB
OB
OB
OB
OB
XA
XB
675
675A

TB 1

R 1
S 1
T 1
U 1
V 1
W 1
OHT1
OHT2
X A
X B
O A
O B

TB 3

P24
P24
24
24
24
24
G24
G24
G24
G24
G24
+24N
+24N
+24N
+24N
+24N
+24N
+24N
OL
OL
OL
120
122
123
151
152
154
155
157
308
311
330
530
1201
BFX1
478
479
130
526



DNR. BY TSUZUKI  
 DATE 05.7.5  
 CHK'D BY KATO  
 DATE  
**Mazak**  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 TERMINAL LAYOUT  
 CONTROL MAZATROL  
 DRAWING NO. 1720147504A  
 SHEET OF 3  
 SIZE  
 SHEET 504 LINE  
 INDEX NUMBER

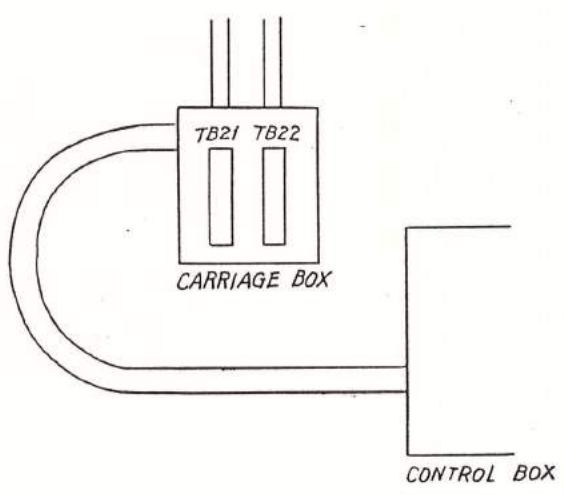
INDEX NUMBER	
SHEET	LINE
	01
	02
	03
	04
	05
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	13
	14
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	52
SHEET 508	LINE
INDEX NUMBER	

TB 21  
 ATL 30x1  
 CTL 15x23P

TB 22  
 CTL 15x25P

TPS
GND
+15V
OL
483
484
SP4
SP5
641A
OB
641B
642A
OB
642B
628
OB
666
667
OB
OB
G

+24N
OL
431
432
433
434
443
+24N
OL
482
448
+24N
447
421
+24N
422
P24
G24
428
416
+24N
536
SP1
SP2
SP3



**Mazak**  
 YAMAZAKI MAZAK CORPORATION

TITLE  
 TERMINAL LAYOUT  
 CARRIAGE BOX

CONTINUED  
 DRAWING NO. 1720147508  
 SHEET 3 OF 3

DRAWING NO. 1720147508  
 SHEET. OF.



CONNECTOR NO.		JOINING ROUTE	CONNECTOR TYPE																					
CND-3	NC →		MR50WF																					
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18						
SIGNAL	CLN.L				CLL.L		6MM	TUCM	TCPM	TCWM	TCCWM	TUCCM	UCHEL	CHCL	SRR	ADOK	SB.M	OL						
LINE NO.	720	OL	OL	OL	721	OL	205	741A	741B	742A	742B	728	571	570	229	227	210	OL						
NC CONN. TOR NO.																								
1/ADDRESS	H43-0				H43-1		H40-4	H42-0	H42-1	H42-2	H42-3	H42-4	H41-1	H41-0	H41-5	H41-3	H44-0							
PIN NO.		74	20	21	22	23	24	25	26	27	28	29	30	31	32									
SIGNAL		55MM	QRL	WRULM	WRU2M	FDOPM	FDCLM	ORIM	AS.M	71M	MS15M	MS14M	MSCHL	BFM.M	EMGBM									
LINE NO.		207	724B	746	747	754A	754B	203	761	206	228	219	572	204	211									
NC CONN. TOR NO.																								
1/ADDRESS	H40-6	H43-4	H45-0	H45-1	H45-2	H45-3	H40-2	H43-7	H40-5	H41-4	H41-6	H41-2	H40-3	H44-1										
PIN NO.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50						
SIGNAL	CLM.L	CH.M	CLH.L	TDF.M	TBRM	PCF.M	TCFH	CH.M	MFXM	WOKIM	SHABM	FDOP.L	THAB.M	MRX.M	QF.M	BT.M	UCH.M							
LINE NO.		722	745	723	712	775	775B	218	208	201	247	766	476A	767	202	724A	726	744						
NC CONN. TOR NO.																								
1/ADDRESS	H43-2	H44-7	H43-3	H43-5	H45-4	H45-5	H45-6	H45-7	H43-6	H40-0	H44-2	H42-5	H44-3	H42-6	H40-1	H44-4	H44-5	H44-6						

CONNECTOR NO.		JOINING ROUTE	CONNECTOR TYPE																				
CND-4	NC →		MR50WF																				
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18					
SIGNAL		CHSWSW	CHCLSW	EXT.SW										ORT.SW	AB.SW								
LINE NO.	OL	1232	1248	1223										1234	1233	331	332	349					
NC CONN. TOR NO.																							
1/ADDRESS	H8-0	H8-2	H8-3											HA-3	HA-4	HB-0	HB-1	HB-2					
PIN NO.	19	20	21	22	23	24	25	26	27	28	29	30	31	32									
SIGNAL		NZZ	FDCLSW					SB.M						BFM	RDBSW								
LINE NO.		496	1250					316	333	334	335	337	338	339									
NC CONN. TOR NO.																							
1/ADDRESS	H9-1	H9-3						HB-3	HC-0	HC-1	HC-2	HC-3	HD-0	HD-1									
PIN NO.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50					
SIGNAL		MZX	FDOPSW	CHOPSW				UMAIN	MISSINT	WRD1	WRDII	TUCLC	TINC	BDUJUSW	US	TDFELS	TBRELS						
LINE NO.	724N	497	1249	1247				340	341	483	484	513	317	1295	318	478	479						
NC CONN. TOR NO.																							
1/ADDRESS	H9-0	H9-2	H8-1					HD-2	HD-3	HE-0	HE-1	HE-2	HE-3	HF-0	HF-1	HF-2	HF-3						


HONDA CONNECTOR(MR50LTH OR MR50LTFH)

<p>INDEX NUMBER</p> <p>SHEET 511</p> <p>DATE 85.7.5</p> <p>CHK'D BY KATO</p> <p>DATE</p> <p style="font-size: 2em; font-weight: bold; text-align: center;">Mazak</p> <p style="text-align: center;">YAMAZAKI MAZAK CORPORATION</p> <p style="font-size: 1.2em; font-weight: bold;">TU CONNECTOR TABLE</p> <p>DRAWING NO. 1720247511 B</p> <p style="text-align: right;">CONTROL MAZATROL</p> <p style="text-align: right;">SHEET 3 OF</p>	<p>LINE</p> <p>01</p> <p>02</p> <p>03</p> <p>04</p> <p>05</p> <p>06</p> <p>07</p> <p>08</p> <p>09</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p> <p>28</p> <p>29</p> <p>30</p> <p>31</p> <p>32</p> <p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>38</p> <p>39</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p> <p>45</p> <p>46</p> <p>47</p> <p>48</p> <p>49</p> <p>50</p> <p>51</p> <p>52</p> <p>INDEX NUMBER</p>
---	---

CONNECTOR NO.	JOINING ROUTE	CONNECTOR TYPE
CND 5	NC →	MR 20 WF
PIN NO.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
SIGNAL		
LINE NO	0L 0L S1 S2	0L 104 105 106 107 108 109 110 111 112 113 114
NC CONNec-TOR NO		
1/0 ADDRESS		H48-4 H48-5 H48-6 H48-7 H49-0 H49-1 H49-2 H49-3 H49-4 H49-5 H49-6
PIN NO	19 20 21 22 23 24 25 26 27 28 29 30 31 32	
SIGNAL		
LINE NO	115	
NC CONNec-TOR NO		
1/0 ADDRESS		H49-7
PIN NO	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	
SIGNAL		
LINE NO		
NC CONNec-TOR NO		
1/0 ADDRESS		

CONNECTOR NO.	JOINING ROUTE	CONNECTOR TYPE
	→	
PIN NO	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
SIGNAL		
LINE NO		
NC CONNec-TOR NO		
1/0 ADDRESS		
PIN NO	19 20 21 22 23 24 25 26 27 28 29 30 31 32	
SIGNAL		
LINE NO		
NC CONNec-TOR NO		
1/0 ADDRESS		
PIN NO	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	
SIGNAL		
LINE NO		
NC CONNec-TOR NO		
1/0 ADDRESS		

HONDA CONNECTOR (MRSOLFH OR MRSOLMFH)

INDEX NUMBER	SHEET 512	LINE
DWN. BY Y. SUZUKI DATE 05-7-5 CHK'D BY KATO DATE		
 YAMAZUMI MACHINERY CORPORATION		
TITLE T.U. CONNECTOR TABLE		
CONTROL	MAZATROL	
DRAWING NO.	1720247512	
SHEET	OF	3
SHEET 512	INDEX NUMBER	LINE

CONNECTOR NO	JOINING ROUTE	CONNECTOR TYPE
CND11	NC →	MR 50WF
PIN NO	1	2
SIGNAL	AFN1	AFN2
LINE NO	981	982
NC CONNECTOR NO		
1/6 ADDRESS	H10-1	H10-2
PIN NO	19	20
SIGNAL	UCP3LS CLP1LS	UCP3LS CLP2LS
LINE NO	525	526
NC CONNECTOR NO		
1/6 ADDRESS	H11-2	H11-3
PIN NO	34	35
SIGNAL	UCOK R ALARM	PENDE R
LINE NO	838	840
NC CONNECTOR NO		
1/6 ADDRESS	H12-0	H12-1
PIN NO	36	37
SIGNAL	FDCLR	CH R
LINE NO	828	826
NC CONNECTOR NO		
1/6 ADDRESS	H13-0	H13-1
PIN NO	38	39
SIGNAL	CRT R	UCP1LS
LINE NO	837	523
NC CONNECTOR NO		
1/6 ADDRESS	H13-2	H13-3
PIN NO	37	38
SIGNAL	UCP2LS	UCP2LS
LINE NO	524	320
NC CONNECTOR NO		
1/6 ADDRESS	H11-1	H11-2
PIN NO	23	24
SIGNAL	UCH R	AB R
LINE NO	825	831
NC CONNECTOR NO		
1/6 ADDRESS	H14-7	H14-8
PIN NO	25	26
SIGNAL	TSF R	XAB
LINE NO	829	361
NC CONNECTOR NO		
1/6 ADDRESS	H10-6	H10-7
PIN NO	27	28
SIGNAL	TFINA	TFAM
LINE NO	983	319
NC CONNECTOR NO		
1/6 ADDRESS	H10-3	H10-4
PIN NO	42	43
SIGNAL	SST R	BSP R
LINE NO	835	834
NC CONNECTOR NO		
1/6 ADDRESS	H10-5	H10-6
PIN NO	41	42
SIGNAL	AORT	SST R
LINE NO	908	835
NC CONNECTOR NO		
1/6 ADDRESS	H13-6	H13-7
PIN NO	40	41
SIGNAL	UCP1LS	AORT
LINE NO	523	908
NC CONNECTOR NO		
1/6 ADDRESS	H15-0	H15-1
PIN NO	32	33
SIGNAL		
LINE NO	986	987
NC CONNECTOR NO		
1/6 ADDRESS	H15-2	H15-3
PIN NO	31	32
SIGNAL		
LINE NO	01	02
NC CONNECTOR NO		
1/6 ADDRESS	H14-1	H14-2
PIN NO	49	50
SIGNAL	ATCOK	ARDY
LINE NO	907	901
NC CONNECTOR NO		
1/6 ADDRESS	H14-3	H14-4
PIN NO	904	907
SIGNAL		
LINE NO		
NC CONNECTOR NO		
1/6 ADDRESS	H14-5	H14-6
PIN NO	903	904
SIGNAL		
LINE NO		
NC CONNECTOR NO		

CONNECTOR NO JOINING ROUTE CONNECTOR TYPE  
 CND 12 NC → MR 50WF

CONNECTOR NO	JOINING ROUTE	CONNECTOR TYPE
CND 12	NC →	MR 50WF
PIN NO	1	2
SIGNAL	OMN11M	OMN14M
LINE NO	863	865
NC CONNECTOR NO		
1/6 ADDRESS	H16-0	H16-2
PIN NO	19	20
SIGNAL	OMN12M	OMN28M
LINE NO	864	870
NC CONNECTOR NO		
1/6 ADDRESS	H16-1	H16-3
PIN NO	34	35
SIGNAL	OMN22M	OMN44M
LINE NO	868	875
NC CONNECTOR NO		
1/6 ADDRESS	H17-3	H17-4
PIN NO	37	38
SIGNAL	OMN21M	OMN21M
LINE NO	867	869
NC CONNECTOR NO		
1/6 ADDRESS	H17-1	H17-2
PIN NO	22	23
SIGNAL	OMN38M	COM P
LINE NO	874	963
NC CONNECTOR NO		
1/6 ADDRESS	H15-5	H15-6
PIN NO	24	25
SIGNAL	NEXT T	SPLM
LINE NO	962	563
NC CONNECTOR NO		
1/6 ADDRESS	H4C-2	H4B-7
PIN NO	39	40
SIGNAL	H4C-3	H4C-0
LINE NO	867	961
NC CONNECTOR NO		
1/6 ADDRESS	H4A-1	H4A-5
PIN NO	41	42
SIGNAL	H4C-1	H4A-5
LINE NO	867	830
NC CONNECTOR NO		
1/6 ADDRESS	H4A-3	H4A-1
PIN NO	43	44
SIGNAL	H4A-3	H4A-1
LINE NO	736	768
NC CONNECTOR NO		
1/6 ADDRESS	H4A-6	H4A-2
PIN NO	44	45
SIGNAL	H4A-6	H4A-2
LINE NO	768	240
NC CONNECTOR NO		
1/6 ADDRESS	H4B-3	H4B-5
PIN NO	46	47
SIGNAL	H4B-3	H4B-5
LINE NO	561	860
NC CONNECTOR NO		
1/6 ADDRESS	H4B-1	H4B-6
PIN NO	48	49
SIGNAL	H4B-1	H4B-6
LINE NO	860	562
NC CONNECTOR NO		
1/6 ADDRESS	H4B-2	H4B-4
PIN NO	50	51
SIGNAL	H4B-2	H4B-4
LINE NO		
NC CONNECTOR NO		

HONDA CONNECTOR (MR50LFH OR MR50LTFH)

INDEX NUMBER SHEET 513

DATE 85.7.5  
 CHK'D BY YAKI  
 DATE

**Mazak**  
 MAZAKI MAZAK CORPORATION

TITLE  
 TULCONNECTOR TABLE

CONTROL MAZATROL  
 DRAWING NO. 1720247513A  
 SHEET 3 OF 3

INDEX NUMBER SHEET 513

CONNECTOR NO	JOINING ROUTE	CONNECTOR TYPE
CND 15	NC	MR 20 WF
PIN NO	1	2
SIGNAL		
LINE NO	0L	0L
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	19	20
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	33	34
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	35	36
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	37	38
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	39	40
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	41	42
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	43	44
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	45	46
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	47	48
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	49	50
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		

CONNECTOR NO	JOINING ROUTE	CONNECTOR TYPE
CND 15	NC	MR 20 WF
PIN NO	1	2
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	19	20
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	33	34
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	35	36
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	37	38
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	39	40
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	41	42
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	43	44
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	45	46
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	47	48
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		
PIN NO	49	50
SIGNAL		
LINE NO		
MC CONNECTOR NO		
1/2 ADDRESS		

HONDA CONNECTOR (MR 50LFFH OR MR 50LMEFH)

INDEX NUMBER SHEET 514 LINE 01

DATE 85.7.5  
CHK'D BY YATD

**Mazak**  
YAMAZAKI MAZAK CORPORATION

T.U. CONNECTOR TABLE

HAZATROL

1720247514A

SIZE 3

INDEX NUMBER SHEET 514 LINE 01



INDEX NUMBER SHEET 515 LINE

DATE 85.8.31 BY J.J.

DATE 86.4.11 BY J.J.

DATE 85.7.5 CHK'D BY K.M.D.

DATE

DRN BY KAREEM

MAZAK

YAMAZAKI MAZAK CORPORATION

TU CONNECTOR TABLE

CONTROL MAZAKROL

DRAWING NO. 1720147 515 A

SHEET 3 OF 3

SHEET 515 INDEX NUMBER

C01 - SPINDLE

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
	1			
	2			
+24	3	+24N	CONIS-3	+24N
CNDZ-12	4	302	CONIS-4	ZSP
△ CNDIS-13	5	185	CONIS-5	TL1
	6			
C03-47	7	SET1	CONIS-7	SET 1
C03-48	8	SET2	CONIS-8	SET 2
	9			
	10			
C03-1	11	121	CONIS-11	FA
C05-14	12	P24	CONIS-12	P24
	13			
	14			
	15			
	16			
C08-2	17	402	CONIS-17	CTL 1
	18			
	19			
	20			
△ CNDIS-14	21	186	CONIS-21	TL2
+24N	22	+24N	CONIS-22	+24N (ORA1)
CNDZ-9	23	304	CONIS-23	ORAZ
C08-3	24	403	CONIS-24	CTM1 (ST-30N CND)
CND3-25	25	203	CONIS-25	ORC1
	26			
	27			
	28			
	29			
	30			
	31			
	32			
CNDZ-7	33	303	CON3-16	VRM
CND4-48	34	318	CON3-15	US
-	35	DIG	CON3-6	DIG
-	36	ODIG	CON3-7	ODIG
OL	37	OL	CON3-20	COM (OL)
△ CNDIS-15	38	187	CON3-4	DEF
	39			
	40			
	41			
	42			
	43			
	44			
CND3-42	45	201	CONIS-45	SRN
CND3-47	46	202	CONIS-46	SRI
	47			
	48			
	49			
	50			

C02 - MILL

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
CND11-28	1	310	TB-FRK	B
+24N	2	+24N	TB-FRK	C
	3			
C03-17	4	SU	TB-FRK	SU
C03-16	5	RUN	TB-FRK	RUN
G24	6	SE	TB-FRK	SE
	7			
	8			
	9			
C03-32	10	STR	TB-FRK	STR
C03-31	11	STF	TB-FRK	STF
C03-30	12	SD	TB-FRK	SD
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
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C03 - RELAY (1)

C04 - SSR BOARD

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
C01-11	1	121	CNR-1	MRY
C05-1	2	123	CNR-2	OLR
C05-4	3	151	CNR-3	MAL 1X
C05-5	4	155	CNR-4	MAL 2X
C05-6	5	158	CNR-5	MAL 8X
C05-2	6	530	CNR-6	MAL 3X
C05-3	7	531	CNR-7	MAL 7X
C05-7	8	533	CNR-8	SWPS 1
C05-8	9	534	CNR-9	SWPS 2
C011-3	10	535	CNR-10	HSPS
C06-11	11	536	CNR-11	TIN
CND3-32	12	211	CNR-12	EMQB
CND12-45	13	240	CNR-13	MILL
CND12-29	14	241	CNR-14	MMCW
CND12-29	15	242	CNR-15	MMCCW
C02-5	16	RUN	CNR-16	RUN
C02-4	17	SU	CNR-17	SU
CND3-45	18	476A	—	FDOP.L
CND3-41	19	208	CNR-19	CM (LY2)
CND3-17	20	210	CNR-20	SB (LY2)
C11-25	21	478	CNR-21	TDFE (LY2)
C16-9	22	178	CNR-22	TSBT
CND12A-49	23	735	CNR-23	CBR
C04-29	24	291	CNR-24	EMQB 4
	25			
C20-18	26	179	CNR-26	BUIZER
RC19-30	27	804	CNR-27	OLR
CND11-9	28	321	CNR-28	SU
CND11-7	29	320	CNR-29	RUN
C02-12	30	SD	CNR-30	SD
C02-11	31	STF	CNR-31	MMCCW
C02-10	32	STR	CNR-32	MMCW
C05-12	33	MILB	CNR-33	MILLB
C05-11	34	MILA	CNR-34	MILLA
RC19-14	35	805	CNR-35	EMQB3 (ROBOT)
C10-32	36	933	CNR-36	EMQB2 (AJC)
CND1-3	37	301	CNR-37	EMQB1
CND4-46	38	317	CNR-38	TINI
CNDZ-37	39	310	CNR-39	HSPS
CND4-26	40	316	CNR-40	SWPS 2
CNDZ-3	41	309	CNR-41	SWPS 1
CNDZ-36	42	311	CNR-42	MAL 7X1
CNDZ-2	43	308	CNR-43	MAL 3X1
CNDZ-8	44	313	CNR-44	MAL 8X1
CNDZ-19	45	307	CNR-45	MAL 2X1
CNDZ-1	46	306	CNR-46	MAL 1X1
C01-7	47	SET1	CNR-47	OLR 2B
C01-8	48	SET2	CNR-48	OLR 2A
CNDZ-21	49	305	CNR-49	OLR 1
CNDZ-20	50	312	CNR-50	MRY 1

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
CND3-8	1	741A	CN11-1	TUC
CND3-9	2	741B	CN11-2	TOP
CND3-10	3	742A	CN11-3	TCW
CND3-11	4	742B	CN11-4	TCOW
CND3-12	5	728	CN11-5	TLUC
CND3-44	6	766	CN11-6	SHAB
CND3-46	7	767	CN11-7	TIAB
CND3-1	8	720	CN11-8	CLN
CND3-5	9	721	CN11-9	CL1
CND3-33	10	722	CN11-10	CLM
CND3-35	11	723	CN11-11	CLH
CND3-20	12	724B	CN11-12	QR
CND3-42	13	724A	CN11-13	GF
CND3-36	14	712	CN11-14	TBR
CND3-49	15	726	CN11-15	BJ
CND3-23	16	754A	CN11-16	FDOP
CND3-24	17	754B	CN11-17	FDCL
CND3-40	18	775A	CN11-18	TLON
OL	19	OL	CN11-19	OL
OL	20	OL	CN11-20	OL
CND3-26	21	761	CN12-1	AB
C11-41	22	754C	CN12-2	FD3.M
CND12-44	23	768	CN12-3	CGIN
CND12-28	24	769	CN12-4	CGOF
CND12-30	25	770	CN12-5	CCP
CND12-43	26	736	CN12-6	CBK
CND3-50	27	744	CN12-7	UCH
CND3-34	28	745	CN12-8	CH
CNDZ-44	29	291	CN12-9	R.P.L
CND3-43	30	247	CN12-10	WORK 1
CNDZ-29	31	224	CN12-11	PT
CND3-21	32	746	CN12-12	WRU1
CND3-22	33	747	CN12-13	WRU2
CND3-37	34	775	CN12-14	TDF
CND3-38	35	775B	CN12-15	TDR
	36			
	37			
	38			
OL	39	OL	CN12-19	OL
OL	40	OL	CN12-20	OL
	41			
	42			
	43			
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	46			
	47			
	48			
	49			
	50			

INDEX NUMBER SHEET 516

DATE '86.4.21  
1987.2.2 H TAKE  
Y. Augustu

DATE '85.7.5  
DRAWN BY Y.M.T.O

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
T11 CONNECTOR TABLE

CONTROL  
MAYNTR0L

DRAWING NO.  
1720147 516B

SIZE  
3

INDEX NUMBER SHEET LINE

INDEX NUMBER  
SHEET 517

DATE 85.7.5  
CHK'D BY KATD  
DRN. BY T. SHIBUKI

**Mazak**  
Mazak Machine Corporation

TITLE  
TU CONNECTOR TABLE

CONTROL  
DRAWING NO. 1720147 517  
SHEET 3 OF 3

INDEX NUMBER

C05 - ETC (MR-20)

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
C03-2	1	123		MCF
C03-6	2	530	TB3	MAL3X
C03-7	3	531	CON-16	MAL7X
C03-3	4	151		MCF
C03-4	5	155		CB-10
C03-5	6	158		MV
C03-8	7	533	CA04P-S	PSW-33
C03-9	8	534	CA04P-P	PSW-34
C20-7	9	120	TB3	PON
	10			
C03-34	11	MILA	—	
C03-33	12	MILB	—	TO LAG PLATE
G24	13	G24	—	G24
C01-12	14	P24	TB3	P24
	15			
	16			
+24	17	+24N	TB3	+24N
+24	18	+24N	TB3	+24N
OL	19	OL	TB3	OL
OL	20	OL	TB3	OL

C15 - DNC OPTION (MR-20)

517

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
C13-7	1	Z11	CN21-A	APON
C13-8	2	Z12	CN21-B	APDF
C13-9	3	Z19	CN21-C	ONLL
C13-45	4	Z31	CN21-J	MRDYB
C13-46	5	Z60	CN21-K	MRDYA
C13-49	6	175	TB2N-5	APONA
C13-48	7	176	TB2N-7	APOFA
C13-47	8	177	TB2N-6	ACOM
CND12-12	9	486	CN21-L	PI2ON
CND12-7	10	487	CN21-M	PZ2ON
	11			
	12			
	13			
	14			
	15			
	16			
C05-14	17	P24	CN21-D	
	18	P24		
C05-13	19	G24	CN21-F	
	20	G24		

C16 - MMS OPTION (MR20)

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
	1			
	2			
CND2-13	3	SKIP1	CON25-3	WORK MEASURE
CND4-18	4	349	CON25-4	MSSB
	5			
	6			
	7	OL	CON25-7	
CND2-13	8	SKIP1	LAG PLATE	TOOL MEASURE
C03-22	9	178	LAG PLATE	TOOL DETECTOR ON
	10			
	11			
	12			
	13			
C11-26	14	479	CON25-14	TOOL DETECTOR FWD
	15			
	16			
	17			
	18			
	19			
+24N	20	+24N	CON25-20	+24N

DRAWING NO. 1720147 517  
SHEET. OF.

C03 - TURRET, MAGAZINE

C07 - ATC

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
CND1-1	1	447	CA01S-N	MZRE
CND1-2	2	448	CA01S-L	MZRF
CND1-27	3	443	CA01S-9	IND. PRS
	4			
CND1-40	5	431	CA01S-C	FT1 PRS
CND1-6	6	432	CA01S-D	FT2 PRS
CND1-19	7	433	CA01S-E	FT3 PRS
CND1-20	8	434	CA01S-F	FT4 PRS
CND1-21	9	428	CA01S-V	TCI
CND4-45	10	513	CA01S-K	TUCLC
C03-11	11	536	CA01S-X	TIN
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
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	29			
	30			
	31			
	32			
CND1-45	33	424	+24N	PLX-LS
CND1-46	34	425	+24N	NLX-LS
CND1-16	35	421	CA01S-P	DCX-LS
CND1-47	36	426	+24N	PLZ-LS
CND1-48	37	427	+24N	NLZ-LS
CND1-17	38	422	CA01S-S	DCZ-LS
CND4-34	39	490	+24N	NZX.PRS
CND4-20	40	491	+24N	NZZ.PRS
CND1-9	41	416	CA01S-W	BJ-LS
	42			
	43			
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INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
C10-20	1	250	CA07-A	M11.M
C10-21	2	251	CA07-B	M12.M
C10-22	3	252	CA07-C	M14.M
C10-23	4	253	CA07-D	M18.M
C10-24	5	254	CA07-E	M21.M
C10-16	6	255	CA07-F	M22.M
C10-17	7	256	CA07-G	M24.M
C10-25	8	257	CA07-H	M28.M
C10-31	9	262	CA07-J	MF.M
CND12-26	10	960	CA07-K	COM.T
CND12-41	11	961	CA07-L	BACK.T
CND12-24	12	962	CA07-M	NEXT.T
CND12-23	13	963	CA07-N	COM.P
CND15-8	14	964	CA07-P	NEXT.P
CND15-9	15	965	CA07-R	ATC.N
CND15-10	16	966	CA07-S	ATCI.N
CND15-11	17	967	CA07-T	ARST.N
CND2-28	18	220	CA07-U	CSTL.M
CND2-43	19	222	CA07-V	AUT.M
C03-27	20	804	CA07-W	OLR
C03-35	21	805	CA07-X	EMGB
C20-19	22	970	CA07-Z	SPAT 1
C20-20	23	971	CA07-Q	SPAT 2
	24	972	CA07-b	SPAT 3
	25	973	CA07-C	SPAT 4
CND1-4	26	990	CA08-E	AT11
CND1-5	27	991	CA08-F	AT12
<sup>C20-21</sup> CND1-14	28	992	CA08-G	AT14
<sup>C20-22</sup> CND1-34	29	993	CA08-H	AT18
<sup>C20-23</sup> CND1-35	30	994	CA08-J	AT21
<sup>C20-24</sup> CND1-36	31	995	CA08-K	AT22
<sup>C20-25</sup> CND1-42	32	996	CA08-L	AT24
CND11-3	33	980	CA07-d	ATC.OK
CND11-1	34	981	CA07-e	AFN.1
CND11-2	35	982	CA07-f	AFN.2
CND11-27	36	983	CA07-g	TFINA
CND11-5	37	984	CA07-h	ATC.RDY
CND11-14	38	985	CA07-j	ATC.1
CND11-16	39	986	CA07-k	ATC.2
CND11-17	40	987	CA07-m	ATC.3
CND1-11	41	988	CA08-T	ATC.4
CND1-12	42	989	CA08-D	ATC.5
<sup>C20-26</sup> CND1-43	43	997	CA08-R	AT.28
<sup>C20-27</sup> CND1-44	44	998	CA08-S	ATF
<sup>C20-28</sup>	45	SP		
	46			
+24N	47	+24N	CA07-n	+24N
+24N	48	+24N	CA07-p	+24N
OL	49	OL	CA07-y	OL
OL	50	OL	CA07-s	OL

INDEX NUMBER  
SHEET 518

DATE 85.7.5  
CHK'D BY KATO

MAZAK  
Mitsubishi Mazak Corporation

TU CONNECTOR TABLE

CONTROL MAZATROL  
DRAWING NO. 1720147 518A  
SHEET 3 OF 3

INDEX NUMBER

C03- HEAD

RC19A RESET (1)

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
CND1-24	1	401	CA053-E	GRN.LS
CND1-39	2	402	CA053-F	GRL.LS
CND1-23	3	403	CA053-G	GRM.LS
CND1-38	4	404	CA053-H	GRM.LS
CND1-22	5	463	CA053-A	CHOE.PRS
CND1-37	6	464	CA053-B	CHCE.PRS
CND-2	7	1232	CA053-19	CHSW.SW
CND-36	8	1247	CA053-16	CHOP.SW
CND-3	9	1248	CA053-13	CHCL.SW
CND-4	10	1223	---	EXT.SW
CND11-40	11	523	CA053-10	UCP1.LS
CND11-6	12	524	CA053-11	UCP2.LS
CND11-19	13	525	CA053-12	UCP3.LS
CND11-20	14	526	CA053-13	CLP1.LS
CND11-21	15	527	CA053-14	CLP2.LS
CND11-4	16	528	CA053-15	CLP3.LS
CND1-18	17	423	CA053-17	DCC.PRS
	18			
	19			
	20			
	21			
	22			
	23			
	24			
	25			
	26			
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INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
+24N	1	-24N	RC19 1	+24N
+24N	2	+24N	RC19 2	+24N
+24N	3	+24N	RC19 3	+24N
CND11-12	4	320	RC19 4	AUE.R
CND11-22	5	327	RC19 5	FSOP.R
CND11-38	6	323	RC19 6	CH.R
CND11-23	7	325	RC19 7	UCH.R
CND11-11	8	332	RC19 8	FIN.R
	9	323	RC19 9	SP
CND2A-24	10	356	RC19 10	ORT.FN
CND1A-7	11	411	RC19 11	GRELS
CND1A-28	12	412	RC19 12	GFELS
+24N	13	803	RC19 13	+24N
C03-35	14	805	RC19 14	EMG
	15	+24N	RC19 15	AIR DOWN
CND2A-31	16	253	RC19 16	M18
CND3A-13	17	571	RC19 17	UNCHUCK END
CND3A-14	18	570	RC19 18	CHUCK END
CND11-34	19	838	RC19 19	UCOK.R
CND11-43	20	834	RC19 20	BSP.R
CND11-36	21	836	RC19 21	PEND.R
CND11-37	22	828	RC19 22	FDCL.R
CND11-24	23	831	RC19 23	AB.R
CND11-13	24	830	RC19 24	TSR.R
CND11-25	25	829	RC19 25	TSF.R
	26	824	RC19 26	SP
CND2A-29	27	225	RC19 27	NC RESET
CND1A-13	28	477	RC19 28	FDCL
CND3-16	29	227	RC19 29	ARM DOWN OK
C03-27	30	804	RC19 30	MRDY
	31	+24N	RC19 31	HYD.P.DOWN
	32	808	RC19 32	SP
CND11-44	33	833	RC19 33	RDY.R
CND11-39	34	837	RC19 34	ORT.R
CND11-35	35	840	RC19 35	ALARM.R
CND11-42	36	835	RC19 36	SST.R
	37	841	RC19 37	
	38	842	RC19 38	
	39	843	RC19 39	
	40	844	RC19 40	
OL	41	OL	RC19 41	OL
OL	42	OL	RC19 42	OL
OL	43	OL	RC19 43	OL
CND2A-45	44	223	RC19 44	SSP
CND3A-30	45	572	RC19 45	MISCHUCK
CND12-15	46	258	RC19 46	MF20
CND2A-15	47	250	RC19 47	M11
CND2A-47	48	251	RC19 48	M12
CND1A-25	49	476	RC19 49	FSOP.LS
CND2A-17	50	252	RC19 50	M14

INDEX NUMBER  
SHEET 519

DATE 1/86.4.21  
Y. Hoshino

DATE 85.9.5  
CHKD BY KAD  
DATE

DRN. BY FUJIMAN

**Mazak**  
YAMAZAKI MAZAK CORPORATION

T14 CONNECTOR INBL

CONTROL MAZATROL

DRAWING NO. 1720147 519A  
SHEET OF 3

INDEX NUMBER

INDEX NUMBER  
 SHEET 520  
 DATE 1987.4.21  
 187.2.3 H-TAKE  
 Y. Kuroki  
 DATE 1987.7.5  
 CHK'D BY KAD  
 DATE  
**Mazak**  
 YAMAZAKI MAZAK CORPORATION  
 TITLE  
 T/U CONNECTOR TABLE  
 CONTROL  
 DRAWING NO. 1720147 520B  
 SHEET 3 OF 3  
 INDEX NUMBER

C10 - AJC

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
CND11-50	1	901	CA900-A	901J
CND11-45	2	902	CA900-B	902J
CND11-47	3	903	CA900-C	903J
CND11-43	4	904	CA900-D	904J
CND11-8	5	905	CA900-E	905J
CND2-39	6	314	CA900-F	905J
CND11-49	7	907	CA900-G	907J
CND11-41	8	908	CA900-H	908J
+24N	9	+24N	CA900-J	909J
---	10		CA900-K	910J
CND11-45	11	911	CA900-L	911J
CND12-9	12	912	CA900-M	912J
---	13		CA900-N	913J
---	14		CA900-P	914J
CND2-49	15	254	CA900-R	915J
CND2-45	16	255	CA900-S	916J M22
CND2-43	17	256	CA900-T	917J M24
CND2-45	18	223	CA900-U	918J
CND2-23	19	224	CA900-V	920J
CND2-15	20	250	CA900-W	921 M11
CND2-47	21	251	CA900-X	922 M12
CND2-17	22	252	CA900-Z	923 M14
CND2-31	23	253	CA900-a	924 M18
CND2-49	24	254	CA900-b	925 M21
CND2-25	25	257	CA900-c	926 M28
CND2-15	26	250	CA900-d	927
CND2-47	27	251	CA900-e	928
CND2-17	28	252	CA900-f	929
CND2-31	29	253	CA900-g	930
CND15-18	30	931	CA900-h	931 MFA
CND2-26	31	262	CA900-j	932 MF
C03-36	32	933	CA900-K	933
CND15-17	33	934	CA900-n	934 AIFN
CND15-18	34	935	CA900-n	935 2
CND15-19	35	936	CA900-P	936 3
CND2-48	36	222	CA900-r	937
OL	37	OL	CA900-S	OL
---	38			
---	39			
---	40		CA901-A	SPAJ 1
---	41		CA901-B	SPAJ 2
---	42		CA901-C	SPAJ 3
---	43		CA901-D	SPAJ 4
---	44		CA901-E	SPAJ 5
---	45		CA901-F	SPAJ 6
---	46			
---	47			
---	48			
---	49			
---	50			

C11 - OPTION

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
CND1-28	1	418	CA02-10	QFE.LS
CND1-7	2	411	CA02-10	QRE.LS
C03-10	3	535	CA055-4	HSPS
CND1-10	4	418	---	BFE.LS
CND1-25	5	476	CA055-10	F50P.LS
CND1-13	6	477	CA055-6	FDCL.LS
CND1-49	7	474	CA055-10	PCF.LS
CND1-50	8	475	CA055-10	PCR.LS
CND1-41	9	489	---	BAUTS
CND1-26	10	472	CA055-10	CCC.LS
CND2-34	11	329	---	MAL6.M
CND2-4	12	1202	---	STX.SW
CND2-5	13	1203	---	SPX.SW
CND2-6	14	1204	---	SIG.SW
CND2-22	15	1201	---	EMGX SW
CND2-35	16	330	---	SIN
CND2-39	17	314	---	FN.M
CND2-40	18	315	---	BFN.M
CND4-31	19	338	---	BFM
CND4-32	20	339	---	R&E SW
CND4-41	21	340	---	UJMAIN
CND4-42	22	341	---	MSSINT
CND4-43	23	483	CA01F-8	WRD1
CND4-44	24	484	CA01F-10	WRD2
CND4-49	25	478	CA05-6	TDFE.LS
CND4-50	26	479	CA06-H	TDFRE.LS
CND12-12	27	486	---	PISON
CND12-7	28	487	---	P2SON
CND2-13	29	SKIP1	---	
CND2-14	30	SKIP2	---	
C13-50	31	BFX1	CA055-10	BFX1
CND4-18	32	349	---	MSS5.M
CND3-28	33	228	---	MS10
CND3-15	34	229	---	SRR
CND3-37	35	775	---	TDF
CND3-38	36	775	---	TDR
CND3A-29	37	219	---	MS10A
CND3A-28	38	220	---	CSTC
CND2A-30	39	477A	---	FDCL.L
CND3A-42	40	226	---	TF.M
CND2A-41	41	754C	---	FD3.M
---	42			
---	43			
---	44			
---	45			
---	46			
---	47			
---	48			
---	49			
---	50			

C12- SPARE

C13-RELAY (2)(OPTION)

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
CND4-16	13	331	---	1
CND4-17	14	332	---	2
CND4-27	15	333	---	3
CND4-28	16	334	---	4
CND4-29	17	335	---	5
CND4-30	18	337	---	6
	19			
	20			
CND11-10	21	323		INPUT SP
	22			
	23			
	24			
	25			
	26			
	27			
	28			
	29			
	30			
	31			
	32			
CND3-16	33	227	---	OUTSP 1
	34			
	35			
	36			
	37			
	38			
	39			
	40			
	41			
△ CND15-12	42	258	---	MS11
	43			
	44			
	45			
	46			
	47			
	48			
	49			
	50			

INSIDE CONNEC	PIN NO.	LINE NO.	OUTSIDE CONNEC	SIGNAL NAME
CND3A-31	1	204	CRA-1	BFM
CND3A-7	2	205	CRA-2	6M
CND3A-27	3	206	CRA-3	7M
CND3A-19	4	207	CRA-4	55M
CND3A-39	5	218	CRA-5	PCF (LY2)
C20-29	6	1297	CRA-6	AUTO POWER OFF
C15-1	7	Z11	CRA-7	APON
C15-2	8	Z12	CRA-8	APOF
C15-3	9	Z19	CRA-9	ONLL
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
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	36			
	37			
	38			
	39			
	40			
	41			
	42			
	43			
C20-36	44	573	CRA-44	ONLL A
C15-4	45	773	CRA-45	MRDTB
C15-5	46	774	CRA-46	MRDYA
C15-8	47	177	CRA-47	ACOM
C15-7	48	176	CRA-48	APOF
C15-6	49	175	CRA-49	APON
CND20-49	50	BFX1	CRA-50	BFM1

INDEX NUMBER SHEET 521 LINE

DATE 186.4.21

CHK'D BY Y. Suzuki

DATE 95.7.5

CHK'D BY YKTD

DATE

DRN. BY Y. Suzuki

CONTROL MAZATROL

DRAWING NO. 1720147 521A

SHEET 3 OF 3

TU CONNECTOR TABLE

INDEX NUMBER

RC32A-R030T

C20 - PANEL

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
OL	1	OL	RC32 1	
OL	2	OL	RC32 2	
OL	3	OL	RC32 3	COM13
OL	4	OL	RC32 4	
CND12A-42	5	350	RC32 5	FMS START
---	6	351	RC32 6	
---	7	352	RC32 7	
---	8	353	RC32 8	
---	9	354	RC32 9	
---	10	355	RC32 10	
---	11	356	RC32 11	
---	12	357	RC32 12	
CND12A-17	13	358	RC32 13	WNO. FIN
CND12A-31	14	359	RC32 14	EDE1
CND12A-47	15	350	RC32 15	UNCHUCK OK
---	16	351	RC32 16	
---	17		RC32 17	
---	18		RC32 18	
---	19		RC32 19	
---	20		RC32 20	
---	21		RC32 21	
---	22		RC32 22	
---	23		RC32 23	
---	24		RC32 24	
---	25		RC32 25	
---	26		RC32 26	
---	27		RC32 27	
---	28		RC32 28	
---	29	379	RC32 29	
---	30	378	RC32 30	OWN48
---	31	377	RC32 31	OWN44
---	32	376	RC32 32	OWN42
---	33	375	RC32 33	OWN41
---	34	374	RC32 34	OWN38
---	35	373	RC32 35	OWN34
---	36	372	RC32 36	OWN32
---	37	371	RC32 37	OWN31
---	38	370	RC32 38	OWN 28
CND12-36	39	359	RC32 39	OWN24.M
CND12-34	40	358	RC32 40	OWN22.M
CND12-37	41	357	RC32 41	OWN21.M
CND12-3	42	356	RC32 42	OWN18.M
CND12-2	43	355	RC32 43	OWN14.M
CND12-19	44	354	RC32 44	OWN12.M
CND12-1	45	353	RC32 45	OWN11.M
CND12-10	46	352	RC32 46	DESTB.M
---	47	+24N	RC32 47	
---	48	+24N	RC32 48	
+24N	49	+24N	RC32 49	+24N
+24N	50	+24N	RC32 50	+24N

INSIDE CONNEX	PIN NO.	LINE NO.	OUTSIDE CONNEX	SIGNAL NAME
CND3-13	1	571	CON20-1	JCHE.L
CND3-14	2	570	CON20-2	JHCC.L
CND3-30	3	572	CON20-3	MSCH.L
C03-18	4	476A	CON20-4	FDDP.L
C11-39	5	477A	CON20-5	FDCL.L
CND2-24	6	355	CON20-6	ORN.M
---	7			
---	8			
C11-1	9	412	CON20-9	6FE.LS
C11-2	10	411	CON20-10	GRE.LS
CND4-36	11	1247	CON20-11	CHOP.SW
CND4-5	12	1248	CON20-12	CHCL.SW
CND4-14	13	1234	CON20-13	ORT.SW
CND1-8	14	1224	CON20-14	JAWCHG.PB
CND4-13	15	1233	CON20-15	AB.SW
CND4-35	16	1249	CON20-16	FDDP.SW
CND4-21	17	1250	CON20-17	FDCL.SW
C13-43	18	179	CON20-18	BUZZER
C07-22	19	1398	CON20-19	FACC.SW
C07-23	20	1399	CON20-20	FACO.SW
C07-28	21	1971	CON20-21	ATCC.L
C07-29	22	1955	CON20-22	AUTO.L
C07-30	23	1956	CON20-23	MANU.L
C07-31	24	1957	CON20-24	ALARM.L
C07-32	25	1958	CON20-25	A TOOL.L
C07-43	26	1959	CON20-26	MCOP.L
C07-44	27	1970	CON20-27	ZAP.L
C07-45	28	SP	CON20-28	SP
C13-6	29	1297	CON20-29	AUTO POWOR OFF
CND11-18	30	360	CON20-30	
CND11-26	31	361	CON20-31	
CND4-47	32	1295	CON20-32	SOULT.SW
CND12-48	33	352	CON20-33	SPUC
CND12-25	34	353	CON20-34	SPCL
CND12-46	35	351	CON20-35	CBRK
C13-44	36	573	CON20-36	ONLL
CND2-23	37	224	CON20-37	JEND
---	38			
---	39			
---	40			
---	41			
---	42			
P24	43	P24		P24
G24	44	G24		G24
C13-50	45	BFX1	CON20-45	BFX1
+24N	46	+24N		+24N
+24N	47	+24N		+24N
OL	48	OL		OL
OL	49	OL		OL
OL	50	OL		OL

INDEX NUMBER SHEET 522  
 DATE 05.7.5  
 DRAWN BY Y. MATSUKI  
 CHECKED BY YATO  
**Mazak**  
 MAZAKI CORPORATION  
 TITLE TUL CONNECTOR TABLE  
 DRAWING NO. 1720147 522B  
 SHEET 3 OF 3  
 CONTROL MAZAKROL  
 INDEX NUMBER

DRAWING NO.  
**1720147 522B**  
 SHEET OF



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

(NR20WC)  
CHA1 - ROTARY ENCODER (NOT ORIENT)  
- SPINDLE CONTROLLER (ORIENT)

1	2	3	4	5	6	7
OH	OH	OH	PSH	PSH	PSH	
8	9	10	11	12	13	
14	15	16	17	18	19	20
SC	SC	PA	PA	PA	PA	PA

CNA0 NR20WF LOAD MOTOR

1	2	3	4	5	6	7
	8	9	10	11	12	13
	ASR	AK3R	AK1R	AK2R		
14	15	16	17	18	19	20
AS	AX3		AX1	AX2		SG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

CNA3 (NR20WF) - RESOLVER  
- TAORGENE X AXIS

1	2	3	4	5	6	7
AQ	M12			P12	AQ	
8	9	10	11	12	13	
14	15	16	17	18	19	20
RC1X	RC2X	RO1X	RO2X	PX1	PX2	

CNA3A (NR20RM) OPTION MAGNE SCALE  
CNA3-

1	2	3	4	5	6	7
AQ	M12			P12	AQ	
8	9	10	11	12	13	
14	15	16	17	18	19	20
				PX1	PX2	SG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

CNA4 (NR20WF) - RESOLVER  
- TAORGENE Z AXIS

1	2	3	4	5	6	7
AQ	M12			P12	AQ	
8	9	10	11	12	13	
14	15	16	17	18	19	20
RC1Z	RC2Z	RO1Z	RO2Z	PZ1	PZ2	

CNA3B (NR20WF) (OPTION MAGNE SCALE)

1	2	3	4	5	6	7
GND	GND	GND	17	12	13	
8	9	10	11	12	13	
14	15	16	17	18	19	20
Ua0	Ua0	Ua1	Ua1	Ua2	Ua2	

CON20 19~28 ABD

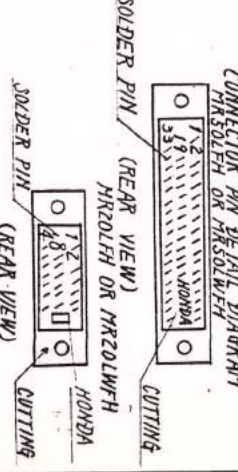
OPTION PANEL

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
571	570	572	496	477	356			412	411	1247	1248	1234	1224	1233	1249	1250	719
19	20	21	22	23	24	25	26	27	28	29	30	31	32				
1398	1399	1971	1955	1956	1957	1958	1959	1970	5P	1297	360	361	1295				
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
562	563	567	570	224						P24	Q24	BFX1	124N	124N	0L	0L	0L

MRS0-LFH

1	2	3	4	5	6	7
AQ	M12			P12	AQ	
8	9	10	11	12	13	
14	15	16	17	18	19	20
RC1C	RC2C	RO1C	RO2C	PC1	PC2	

M12-AQ RC1C-RC2C TWIST PAIR SHIELD  
P12-AQ RO1C-RO2C  
RS1C-RS2C PX1-PX2 SG: SHIELD EARTH



INDEX NUMBER SHEET 523

DATE 1986.4.21 Y. Suzuki  
CHK'D BY KAKI  
DATE 1987.2.3 H-TAKE

CON20-19~28 ABD

DATE 1985.7.5  
CHK'D BY KAKI

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
CONNECTOR TABLE

CONTNO. HAZAIKOL  
DRAWING NO. 1720147 523B  
SHEET 3 OF 3

INDEX NUMBER SHEET 523

CON1 S **△**  
SPINDLE CONTROLLER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		12AN	302	185		SET1	SET2		121	PA		30	31	32		402	
	19	20	21	22	23	24	25	26	27	28	29	SG	SET	SET			
			186	124N	304	403	203	0L				45	46	47	48	49	50
33	34	35	36	37	38	39	40	41	42	43	44	201	202	ESP1	ESP2		

SET1 - SET2 TWIST PAIR SHIELD  
SG : SHIELD EARTH  
JUMPER  
VSF07538  
BLUE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		19	20	21	22	23	24	25	26	27	28	29	30	31	32		
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		19	20	21	22	23	24	25	26	27	28	29	30	31	32		
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		19	20	21	22	23	24	25	26	27	28	29	30	31	32		
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

CON3 S (MRZOLFH) **△**  
SPINDLE CONTROLLER

1	2	3	4	5	6	7
			187		DIG	0DIG
8	9	10	11	12	13	
14	15	16	17	18	19	20
318	303					0L

VSF 0.7538 BLUE  
(MRZOLFH)

CONA SPINDLE CONTROLLER

1	2	3	4	5	6	7
OH	OH	OH	PSH	PSH	PSH	
8	9	10	11	12	13	
14	15	16	17	18	19	20
SC	SC	PA	PA	PB	PB	SG

PSH-OH PA-PA TWIST PAIR SHIELD  
SC-SC PB-PB SG: SHIELD EARTH  
PSH-OH

CONMA SPINDLE ORIENT (MRZOLFH)

1	2	3	4	5	6	7
OH	OH	OH	PSH	PSH	PSH	
8	9	10	11	12	13	
14	15	16	17	18	19	20
SC		PA		PB		SG

PSH-OH PA-OH PB-OH  
SC-OH SC-OH TWIST PAIR SHIELD

1	2	3	4	5	6	7
8	9	10	11	12	13	
14	15	16	17	18	19	20

CON2 S (MRZOLFH)

1	2	3	4	5	6	7
AGA	OHST	OHST		NISC		
8	9	10	11	12	13	
CON				PISC		
14	15	16	17	18	19	20
PA	RA	PB	RB			SS

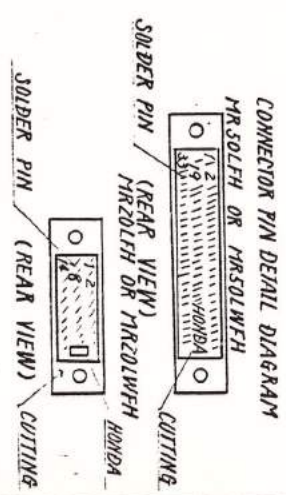
PULSE GENERATOR  
CON- PISC PA-RA TWIST PAIR SHIELD  
AGA-NISC PB-RB SS: SHIELD EARTH  
OHST, OHST IRRAX 07538 BLUE

CONCZOLMH) ORIENT POSITION DATA  
SPINDLE CONTROLLER

1	2	3	4	5	6	7
109	108	107	106	105	104	
8	9	10	11	12	13	
14	15	16	17	18	19	20
115	114	113	112	111	110	

VSF 0.7538 BLUE

1	2	3	4	5	6	7
8	9	10	11	12	13	
14	15	16	17	18	19	20



INDEX NUMBER SHEET 524

LINE 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

DATE 85.7.5  
CHK'D BY KATU  
DATE 85.7.5  
CHK'D BY KATU

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
CONNECTOR TABLE

CONTROL MAZATROL  
DRAWING NO. 1720147 524A  
SHEET 3 OF 3

INDEX NUMBER SHEET 524

INDEX NUMBER  
SHEET 525 LINE

01  
02  
03  
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52

DRN. BY Y. SUZUKI  
DATE 10.7.5  
CHK'D BY Y. KATO  
DATE

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
CANNON CONNECTOR  
CONNECTION

CONTROL  
MAZATROL  
DRAWING NO.  
1720147525C  
SIZE  
3

SHEET 525 LINE  
INDEX NUMBER

CA05P  
MS3102A 28-21SX

Pin NO	Line NO
A	644
B	645
C	OB
D	620
E	621
F	622
G	623
H	OB
J	130
K	668
L	669
M	670
N	636
P	OB
R	21
S	OB
T	646
U	647
V	OB
W	
X	
Z	10
a	OB
b	673A
c	673B
d	OB
e	SP11
f	SP12
g	SP13
h	675A
j	675B
k	OB
m	OB
n	U31
p	V31
r	W31
s	G

CA04P  
MS3102A 28-12

Pin NO	Line NO
A	U6
B	V6
C	W6
D	G
E	U61
F	V61
G	W61
H	U4
J	V4
K	W4
L	G
M	10
N	OB
P	612
R	OB
S	<del>646</del>
T	<del>647</del>
U	OB
V	SP8
W	SP9
X	SP10
Z	G24
a	534
b	G24
d	533

CA01S  
MS3102A 28-21

Pin NO	Line NO
A	+24N
B	+24N
C	OL
D	OL
E	24
F	G24
G	431
H	432
J	433
K	434
L	443
M	513
N	448
P	447
R	421
S	422
T	428
U	416
V	536
W	7PS
X	GND
Z	+15V
a	PX1
b	PX2
c	SG
d	P12
e	AG
f	M12
g	RS1X
h	RS2X
j	RC1X
k	RC2X
m	RO1X
n	RO2X
p	SG
r	AG
s	OL

CA01P  
MS3102A 32-7

Pin NO	Line NO
A	641A
B	641B
C	642A
D	642B
E	628
F	666
G	667
H	655A
I	655B
J	681
K	OB
L	OB
M	OB
N	OB
O	AX
P	UIT
R	V17
S	W17
T	G
U	
V	BX
W	654
X	OB
Y	SP20
Z	SP21
a	P24A
b	G24A
c	511
d	512
e	1A08
f	1418
g	483
h	484
j	G1X
k	G2X

CA02  
MS3102A 20-29

Pin NO	Line NO
A	624A
B	OB
C	624B
D	OB
E	626
F	OB
G	G
H	
J	
K	
L	+24N
M	412
N	+24N
P	411
R	+24N
S	SP6
T	SP7

A  
187.23 H-TAKE

CA05S  
MS3102A 28-21S

Pin NO	Line NO
A	463
B	464
C	+24N
D	OL
E	401
F	402
G	403
H	404
J	+24N
K	523
L	524
M	+24N
N	525
P	526
R	+24N
S	527
T	528
U	+24N
V	OL
W	423
X	+24N
Z	OL
a	476
b	477
c	472
d	474
e	475
f	P24
g	1232
h	1247
j	1248
k	BFX1
m	478
n	479
p	485
r	535
s	G24

CA07  
MS3102A 28-21S

Pin NO	Line NO
A	250
B	251
C	252
D	253
E	254
F	255
G	256
H	257
J	262
K	960
L	961
M	962
N	963
P	964
R	965
S	966
T	967
U	220
V	222
W	804
X	805
Z	970
a	971
b	972
c	973
d	980
e	981
f	982
g	983
h	984
j	985
k	986
m	987
n	+24N
p	+24N
r	OL
s	OL

<sup>08</sup>  
~~CA10~~  
MS3102A ~~28-25~~  
20-29S

Pin NO	Line NO
A	530
B	24
C	654C <sup>A</sup>
D	
E	
F	
G	
H	
J	0B <sup>A</sup>
K	0B
L	0B
M	0B
N	665
P	611
R	661
S	654B
T	654A

CON901  
MS3102A 28-21S

Pin NO	Line NO
A	901
B	902
C	903
D	904
E	905
F	906
G	907
H	908
J	+24N
K	910
L	911
M	912
N	913
P	914
R	254
S	255
T	256
U	223
V	224
W	250
X	251
Z	252
a	253
b	254
c	257
d	250
e	251
f	252
g	253
h	931
j	262
k	933
m	934
n	935
p	936
r	222
s	OL

CA09  
MS3102A 18-10S

Pin NO	Line NO
A	1AT
B	0B
C	G
D	

<sup>10</sup>  
~~CA08~~  
MS3102A 20-29S

Pin NO	Line NO
A	
B	
C	
D	989
E	990
F	991
G	992
H	993
J	994
K	995
L	996
M	
N	
P	
R	997
S	998
T	988

DRN. BY: Y. SUZUKI  
DATE: 85.7.5  
CHK'D BY: KATO  
DATE:



TITLE  
CANNON CONNECTOR  
CONNECTION

CONTROL  
MAZATROL  
DRAWING NO.  
1720147526A  
SHEET 3 OF 3

INDEX NUMBER  
SHEET 527 LINE

DATE 198.7.5  
CHK'D BY KATD  
DWN BY YASUZUKI

**Mazak**  
WAZANSI MAZAK CORPORATION

TITLE  
CONNECTOR TABLE

CONTROL  
DRAWING NO. 1720147527  
SHEET 3 OF 3

SHEET 527 LINE

X AXIS  
TACO  
CON-1  
MS3108B 20-29S

PIN NO	LINE NO
A	
B	
C	
D	
E	
F	
G	
H	
J	
K	PX1
L	PX2
M	
N	SG
P	P12
R	AG
S	M12
T	

PX1-PX2 } TWIST PAIR  
P12-AG } SHIELD  
M12-AG }  
SG IRRAX 0.75S8 BLUE

X AXIS  
RESOLVER  
CON-3  
MS3106B 20-29S

PIN NO	LINE NO
A	RS1X
B	RS2X
C	
D	
E	
F	RC1X
G	RC2X
H	RO1X
J	RO2X
K	
L	
M	
N	SG
P	
R	
S	
T	

RS1X-RS2X } TWIST PAIR  
RC1X-RC2X } SHIELD  
RO1X-RO2X }  
SG IRRAX 0.75S8 BLUE

Z AXIS  
TACO  
CON-2  
MS3106B 20-29S

PIN NO	LINE NO
A	
B	
C	
D	
E	
F	
G	
H	
J	
K	PZ1
L	PZ2
M	
N	SG
P	P12
R	AG
S	M12
T	

PZ1-PZ2 } TWIST PAIR  
P12-AG } SHIELD  
M12-AG }  
SG IRRAX 0.75S8 BLUE

Z AXIS  
RESOLVER  
CON-4  
MS3106B 20-29S

PIN NO	LINE NO
A	RS1Z
B	RS2Z
C	
D	
E	
F	RC1Z
G	RC2Z
H	RO1Z
J	RO2Z
K	
L	
M	
N	SG
P	
R	
S	
T	

RS1Z-RS2Z } TWIST PAIR  
RC1Z-RC2Z } SHIELD  
RO1Z-RO2Z }  
SG IRRAX 0.75S8 BLUE

C AXIS  
TACO & RESO  
CON-5  
MS3108B 20-29S

PIN NO	LINE NO
A	RS1C
B	RS2C
C	
D	
E	
F	RC1C
G	RC2C
H	RO1C
J	RO2C
K	PC1
L	PC2
M	
N	SG
P	P12
R	AG
S	M12
T	

RS1C-RS2C } TWIST PAIR  
RC1C-RC2C } SHIELD  
RO1C-RO2C }  
P12-AG }  
M12-AG }  
PC1-PC2 }  
SG IRRAX 0.75S8 BLUE

SCALE AMP  
CON-3M  
MS3102A 20-29

PIN NO	LINE NO
A	Ua1
B	Ua2
C	
D	Ua1
E	Ua2
F	Ua0
G	Ua0
H	SG
J	
K	
L	
M	
N	GND
P	GND
R	GND
S	
T	

Ua1-Ua1 } TWIST PAIR  
Ua2-Ua2 } SHIELD  
UaC-UaC }  
GND-GNDx2 }  
SG SHIELD EARTH

INDEX NUMBER  
SHEET 528 LINE

DATE 05.7.5  
CHK'D BY KATG  
DATE

DRN. BY T. SIZEMAN  
Mazak  
YAMAZAKI MAZAK CORPORATION

TITLE  
CONNECTOR TABLE

CONTROL  
MAZATROL  
DRAWING NO. 1720147528  
SHEET 3 OF 3

INDEX NUMBER

01  
02  
03  
04  
05  
06  
07  
08  
09  
10  
11  
12  
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14  
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49  
50  
51  
52

AJC  
CON900  
MS3102A 20-29S

PIN NO	LINE NO
A	SPAJ1
B	SPAJ2
C	SPAJ3
D	SPAJ4
E	SPAJ5
F	SPAJ6
G	
H	
J	
K	G
L	
M	
N	
P	
R	
S	IA
T	OB

HYD. UNIT  
CON16  
MS 3102A 20-29S  
MS 3106B 20-29P

PIN NO	LINE NO
A	U2
B	V2
C	W2
D	G
E	
F	
G	
H	24
J	S31
K	
L	
M	
N	
P	
R	
S	
T	

CHIT CONVEYER  
CON21  
MS 3102A 20-29

PIN NO	LINE NO
A	U6
B	V6
C	W6
D	
E	G
F	
G	
H	U61
J	V61
K	W61
L	
M	
N	
P	
R	
S	
T	

HYD. UNIT (ATC)  
CON90  
MS 3102A 20-29S  
MS 3106B 20-29P

PIN NO	LINE NO
A	U8
B	V8
C	W8
D	G
E	
F	
G	
H	
J	
K	
L	
M	
N	
P	
R	
S	
T	

POSITION CODE  
CON6  
MS 3106B 20-29S

PIN NO	LINE NO
A	PA
B	SC
C	PB
D	
E	
F	
G	
H	PSH
J	
K	OH
L	
M	
N	PA
P	SC
R	PB
S	
T	

COOLANT  
CON17  
MS 3102A 20-29S  
MS 3106B 20-29P

PIN NO	LINE NO
A	U4
B	V4
C	W4
D	G
E	
F	
G	
H	
J	
K	
L	
M	
N	
P	
R	
S	
T	

FOOT SW  
CA11  
MS 3102A 14S6S  
MS 3106B 14S6P

PIN NO	LINE NO
A	1232
B	1247
C	1248
D	BFX1
E	BFX1
F	BFX1

PIN NO	LINE NO
A	
B	
C	
D	
E	
F	
G	
H	
J	
K	
L	
M	
N	
P	
R	
S	
T	

PA-PA } TWIST PAIR  
PB-PB }  
SC-SC } SHIELD  
PSH-OH }

CN 1 DB 25S

1	2	3	4	5	6	7	8	9	10	11	12	13
FG	SD	RD				SG						
14	15	16	17	18	19	20	21	22	23	24	25	

CN 2 DB 25P

1	2	3	4	5	6	7	8	9	10	11	12	13
FGA	SDA	RDA										
14	15	16	17	18	19	20	21	22	23	24	25	26
									12AA	12BA		

CN 3 MS 3106B 20-29P (MS3102A 20-29S)

A	B	C	D	E	F	G	H	J	K
FGA	SDA	RDA	P	R	S	T			
L	H	N							12AA
12BA									

CN 4 DB 25S

1	2	3	4	5	6	7	8	9	10	11	12	13
FGA	RDA	SDA										
14	15	16	17	18	19	20	21	22	23	24	25	
									12BA	12AA		

CN 5 DB 25S

1	2	3	4	5	6	7	8	9	10	11	12	13
FG	SD	RD				SG						
14	15	16	17	18	19	20	21	22	23	24	25	

CN 7 JMSP1303F

1	2	3
100A	100B	GND

CN 8 JMSP1303F

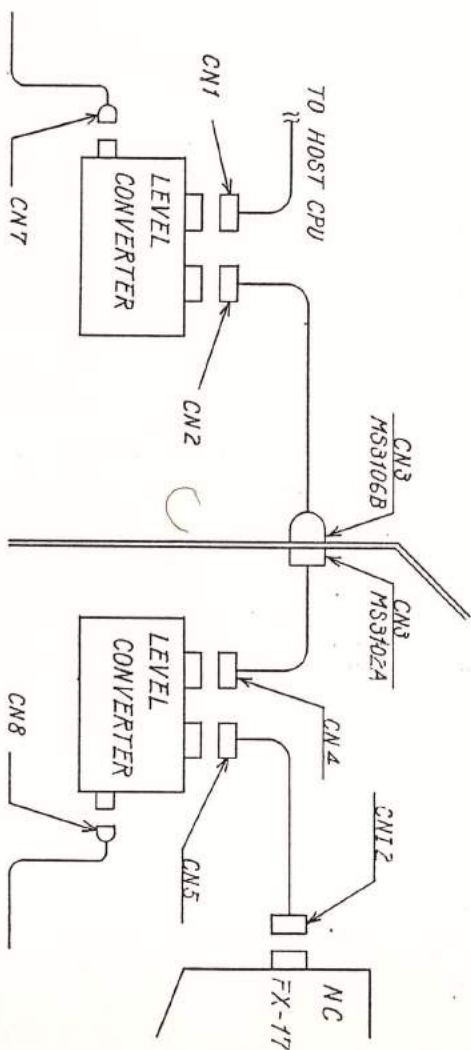
1	2	3
XA	XB	GND

CN 12 MR 50 FWH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
								SG	SD	RD	RTS	CTS	DSR	FG	BTR		
19	20	21	22	23	24	25	26	27	28	29	30	31	32				
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

CN 21 MS 3106B 20-29PW

A	B	C	D	E	F	G	H	J	K
Z11	Z12	Z19	P24A		G24				
L	H	N	P	R	S	T			
486	487								
Z31	Z6D								



INDEX NUMBER	LINE
SHEET 530	01
	02
	03
	04
	05
	06
	07
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	09
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	12
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	27
DRN. BY TADUKI	28
DATE 05.7.5	29
CHK'D BY YAKO	30
DATE	31
Mazak YAMAZAKI MAZAK CORPORATION	
TITLE CONNECTOR TABLE (BNC OPTION)	
CONTROL MAA1R0L	47
DRAWING NO. 1720147530	48
SHEET 3 OF	49
SIZE	50
SHEET 530	51
INDEX NUMBER	52

INDEX NUMBER  
SHEET 531 LINE

DATE 197.1.29 H-TAKE

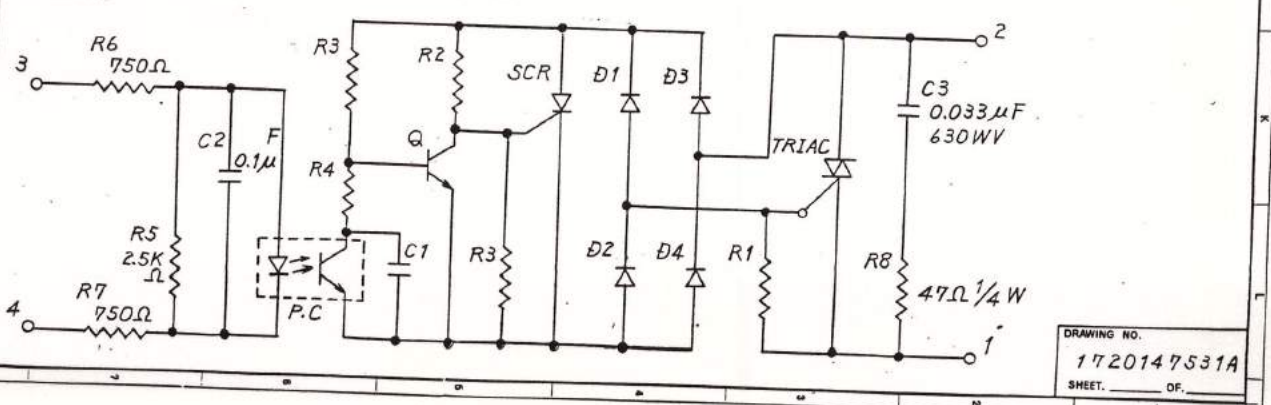
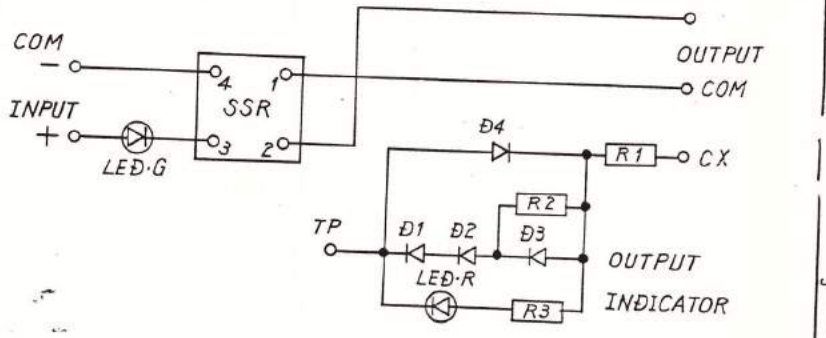
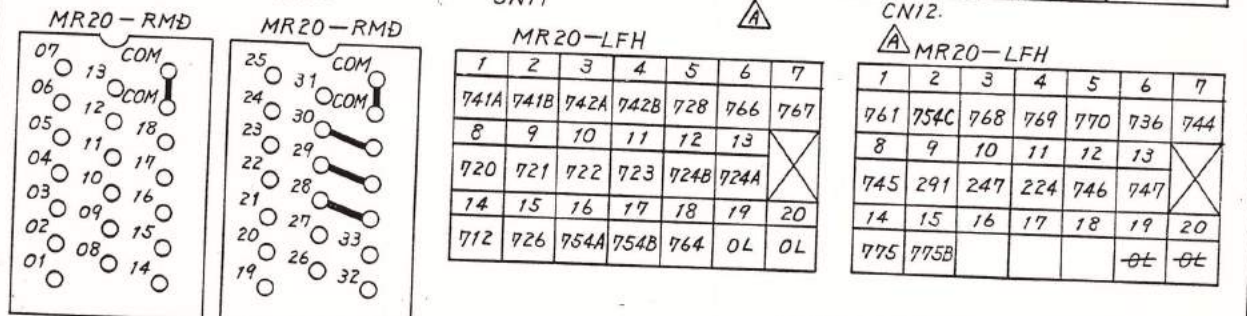
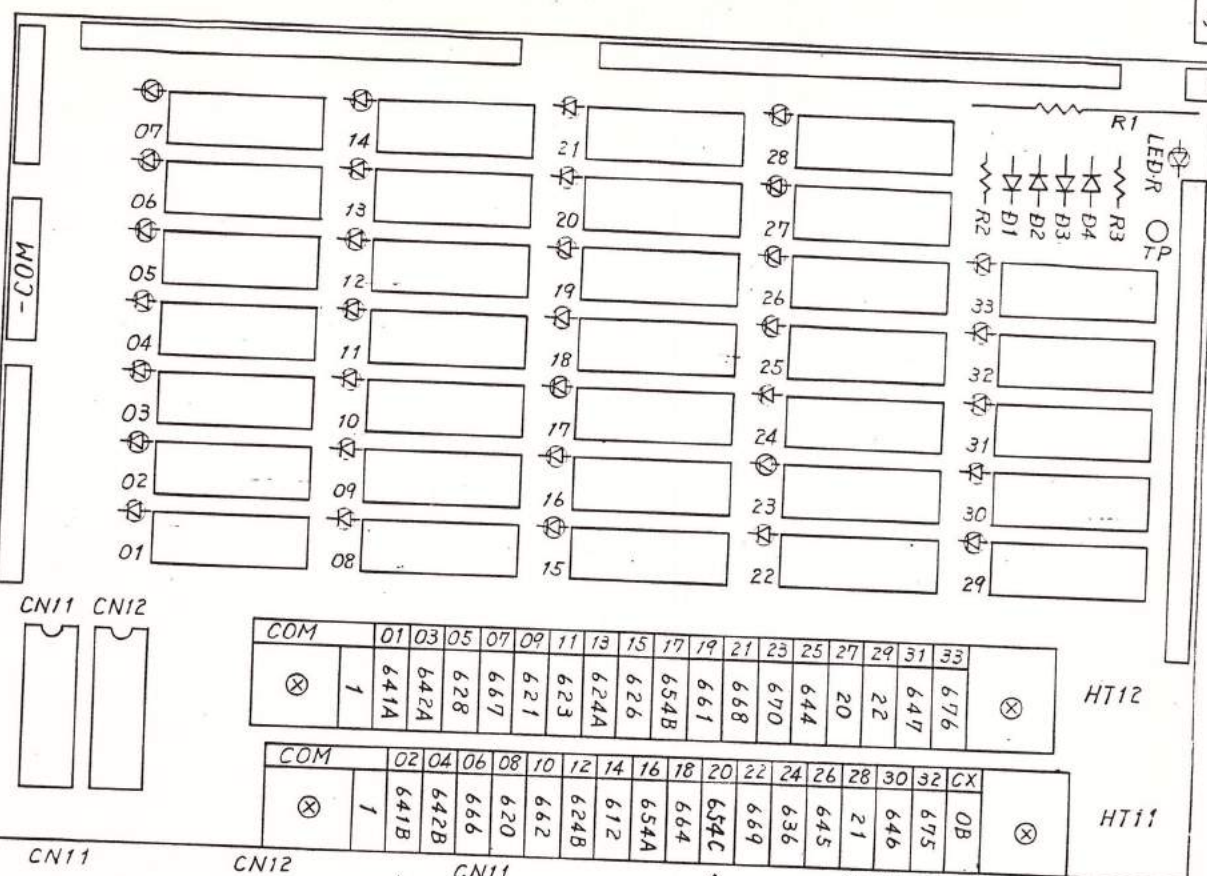
DATE 85.7.5  
CHK'D BY KATO  
DRA. BY Y. SUZUKI

**Mazak**  
YAMAZAKI MAZAK CORPORATION

TITLE  
SSR BOARD  
(B2W102F33QB)

CONTROL MAZATROL  
DRAWING NO. 1720147531A  
SIZE 3

INDEX NUMBER  
SHEET 531 LINE





- 1 X000  
0-----[EMG.M ] EMERGENCY STOP  
8300 8302
- 2 X001  
0-----[MZR.LS ] MAGAZINE REVERSE END  
8421 4212 4300 \*8507  
10501
- 3 X002  
0-----[MZF.LS ] MAGAZINE FORWARD END  
4211 4212
- 4 X003  
0-----[IND.LS ] MAGAZINE INDEX POSITION  
4302 \*4408 \*4503 4601  
4801\*10501\*11505 11601  
\*11603
- 5 X004  
0-----[GF.LS ] TAIL SLEEVE FORWARD END  
8201 8204 8301 9702  
10606\*10606\*11102 11202  
11404
- 6 X005  
0-----[GR.LS ] TAIL SLEEVE REVERSE END  
8107 8202 8203 8301  
9702 10606 11202
- 7 X006  
0-----[BJ.LS ] TAIL BODY JOINT POSITION  
8200 8301 9602 10605  
11304\*11304
- 8 X007  
0-----[TBRE.LS ] TAIL BODY REVERSE END  
10605
- 9 X008  
0-----[FT1.PRS ] TOOL POSITION 1 PRS  
\*11405\*11406\*11407\*11408  
11409 11410 11411\*11412  
\*11413 11414 11415
- 10 X009  
0-----[FT2.PRS ] TOOL POSITION 2 PRS  
\*11405\*11406\*11407\*11408  
\*11409\*11410 11411 11412  
11413 11414 11415
- 11 X00A  
0-----[FT3.PRS ] TOOL POSITION 3 PRS  
\*11405\*11406 11407 11408  
11409 11410 11411 11412  
11413 11414\*11415
- 12 X00B  
0-----[FT4.PRS ] TOOL POSITION 4 PRS  
\*11405 11406 11407\*11408  
\*11409 11410 11411 11412  
\*11413\*11414\*11415
- 13 X00C  
0-----[TCL.LS ] TOOL CHANGE INTERLOCK  
4406 4403 4504 5302  
9002\*10903\*11004
- 14 X00F  
0-----[MX.1 ] CHUCK RECHUCKING  
6005
- 15 X016  
0-----[TGPOP.M ] TURRET GRIPPER OPEN  
3701 \*3905 \*3908 \*4306
- 16 X017  
0-----[MZROT.M ] MAGAZINE ROTATION OK  
3903 3904
- 17 X018  
0-----[GRN.LS ] SPINDLE GEAR NEUTRAL  
6709 6805 7403 10705
- 18 X019  
0-----[GR.LS ] SPINDLE GEAR LOW  
6904 7201 10705
- 19 X01A  
0-----[GRM.LS ] SPINDLE GEAR MIDDLE  
6904 7202 10705
- 20 X01B  
0-----[GRH.LS ] SPINDLE GEAR HIGH  
6904 7203 10705

	DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
	CHK'D BY. <u>M.KURITA</u>	Y704 C	DRAWING NO. <u>172 01 47 800</u>
	DATE. <u>1986.7.9</u>		SHEET. <b>001</b> OF. <u>    </u>
	APPR'D BY. <u>    </u>		
	DATE. <u>    </u>		
REV.	DATE.	NAME.	

\*\*\* [ X ] ELEMENT LIST \*\*\*

- 1 X01C  
0-----[CHOP.LS ] CHUCK OPEN END  
5710 5711 5802 5902  
6105 7001 10608
- 2 X01D  
0-----[CHCL.LS ] CHUCK CLOSE END  
5710 5711 5802 5902  
\*6001 \*6002 6006 6106  
10608
- 3 X01E  
0-----[FDOP.LS ] FRONT DOOR OPEN END  
8611 9801\*10603 10604
- 4 X01F  
0-----[FDCL.LS ] FRONT DOOR CLOSE END  
8502 8702 9801\*10603  
10604
- 5 X024  
0-----[PCTF.LS ] PARTS CATCHER FORWARD END  
9703
- 6 X025  
0-----[PCRV.LS ] PARTS CATCHER REVERSE END  
9002 9703
- 7 X027  
0-----[JAW.PB ] JAW CHANGE PB.  
5302 6006
- 8 X028  
0-----[DECX.LS ] X AXIS DECELERATION  
\*9207 9208
- 9 X029  
0-----[DECY.LS ] Y AXIS DECELERATION  
\*9207 9208
- 10 X02B  
0-----[CCC.LS ] CUT COVER CLOSE  
8401 8511 \*8704 8705  
\*10201\*10306
- 11 X02C  
0-----[ZSP.M ] SPINDLE ZERO SPEED  
\*6001 \*6002 6502 6905  
7801
- 12 X02D  
0-----[VIR.M ] SPINDLE SPEED ARRIVAL  
6005 6306 6905
- 13 X02E  
0-----[ORA.M ] SPINDLE ORIENT FINISH  
7505 7506 7509 7603  
7605 7606 7607 7701  
\*10701
- 14 X02F  
0-----[CLR.M ] MACHINE READY  
2707
- 15 X030  
0-----[\*MAL1.M ] THERMAL TRIP  
\*10101
- 16 X031  
0-----[\*MAL2.M ] NO FUSE DRAWER TRIP ALARM  
\*10102
- 17 X032  
0-----[\*MAL3.M ] AIR PRESSURE DOWN ALARM  
\*10105
- 18 X033  
0-----[MAL4.M ] SLIDWAY LUB. PRES. ALARM  
10403
- 19 X034  
0-----[MAL5.M ] HEAD STOCK LUB. PRES. ALARM  
10406
- 20 X035  
0-----[MAL6.M ] VENTILATING FAN ALARM  
10511

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY. _____		SHEET. <u>002</u> OF. _____
	DATE. _____	<b>YAMAZAKI MAZAK CORPORATION</b>	
REV.	DATE	NAME.	

- 1 X036  
0-----[MAL7.M ] HYDRAULIC PRESSURE DOWN ALARM  
\*10103
- 2 X037  
0-----[SPAL.M ] SPINDLE ALARM  
\*10107
- 3 X038  
0-----[CST.M ] CYCLE START  
3501
- 4 X039  
0-----[SPX.SW ] FEED HOLD SW.  
2710 10904
- 5 X03D  
0-----[EMGX.SW] EMERGENCY STOP  
2707 \*2709\*10110
- 6 X03C  
0-----[SIN.M ] SPINDLE INTERLOCK  
\*6305\*10201
- 7 X03D  
0-----[MAL8 ] THERMAL TRIP (2)  
\*10601
- 8 X03E  
0-----[SKIP0 ] MMS SKIP  
3502 11302 11303
- 9 X040  
0-----[F.SW ] CHUCK SINGLE FOOT SW.  
5805 \*5805 5901 10201  
10306
- 10 X041  
0-----[UCH.SW ] CHUCK DOUBLE FOOT SW. -OPEN  
\*5805 5901 10201 10306
- 11 X042  
0-----[CH.SW ] CHUCK DOUBLE FOOT SW. -CLOSE  
5805 \*5901
- 12 X043  
0-----[EXT.SW ] CHUCK EXT-INT SELECT  
6007 \*6101 6103 \*6104
- 13 X04A  
0-----[FDCP.SW ] FRONT DOOR OPEN  
8611
- 14 X04B  
0-----[FDCL.SW ] FRONT DOOR CLOSE  
8702
- 15 X050  
0-----[FIN.M ] M CODE FINISH  
\*5503 5601 10002
- 16 X051  
0-----[BPN.M ] EXTERNAL RESET  
3308 3304 \*3702 8406  
\*10109 10903
- 17 X052  
0-----[ORT.SW ] SPINDLE ORIENT  
7305
- 18 X053  
0-----[AB.SW ] AIR BLOW  
8706
- 19 X059  
0-----[EXAMP.M ] EXTERNAL CONTROLLER ALARM  
10302
- 20 X05A  
0-----[MSSB.M ] MEASURE UNIT OK  
10801

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY. _____		SHEET. <u>003</u> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**

- 1 X050  
0-----[SLD.M ] SLIDE WAY PRESSURE DOWN (2)  
#10404
- 2 X060  
C-----[TSPW.EX] TAIL SLEEVE FOR. SW EXT.  
8101
- 3 X061  
0-----[TSSP.EX ] TAIL SLEEVE STOP SW EXT.  
8102
- 4 X062  
0-----[TSCW.EX] TAIL SLEEVE REV. SW EXT.  
8103
- 5 X070  
0-----[WRD1.LS ] WORK REST DOG 1  
8305
- 6 X071  
0-----[WRD2.LS ] WORK REST DOG 2  
8307
- 7 X072  
0-----[TLCC.PRS] TOOL CLAMP CONFIRMATION  
4203
- 8 X073  
0-----[TIN.PSW ] TOOL SHUNK IN PSW.  
4302 #4707
- 9 X07A  
0-----[TDF.PRS ] TOOL DETECTOR FWD.  
5703 5802 8909 #8910  
#9104 9105 #9106 9107  
#9901#11002 11003
- 10 X07B  
0-----[TDR.PRS ] TOOL DETECTOR REV.  
5107 8511 8908 #8909  
8910 #8910 #9006 #9105  
9106 #9107 9901
- 11 X080  
0-----[ATCRDY ] ATC READY FROM SUB PC  
#3211 4205
- 12 X081  
0-----[AFN.1 ] ATC FIN 1  
#4005 4006 4007 4906  
4907
- 13 X082  
0-----[AFN.2 ] ATC FIN 2  
4005
- 14 X083  
0-----[TFIN.A ] TOOL DATA FIN FROM SUB PC  
5001 #5002 #5003 #5004  
#5005 #5006
- 15 X084  
0-----[#TFA.M ] MILL MOTOR ALARM  
6508#10108
- 16 X085  
0-----[ZSP.M ] MILL ZERO SPEED  
4406 4408 4502 #6201  
9603 9802 10304#10307
- 17 X086  
0-----[TVR.M ] MILL SPEED ARRIVAL  
9601 9603
- 18 X088  
0-----[CCE.LS ] C GEAR ON/SPINDLE UNCLAMP 0\*  
6703 #6703 #6705 7801  
#7002 7902 10703 10804
- 19 X089  
0-----[CGR.LS ] C GEAR OFF/SPINDLE UNCLAMP 1\*  
6703 #6705 #7801 7802  
7805 #7806 7904 #8007  
10703 10804
- 20 X08A  
0-----[CSPS.M ] C SHIFT POS./SPINDLE UNCLAMP2\*  
6703 #6705 7807 7901  
#7901 10703#10804

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY. _____		SHEET. <u>004</u> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

- 1 X08B  
0-----[CPOF.M ] C PIN OUT / SPINDLE CLAMP 0"  
\*6703 6705 \*7903 7907  
10703
- 2 X08C  
0-----[CLP1.LS ] SPINDLE CLAMP 1"  
\*6703 6705 10703
- 3 X08D  
0-----[CLP2.LS ] SPINDLE CLAMP 2"  
\*6703 6705 10703
- 4 X08E  
0-----[ATCRDY ] ATC READY  
\*10802
- 5 X08F  
0-----[MTC.A ] MANUAL TOOL CHANGE (ATC)  
4306
- 6 X090  
0-----[UCHFN.R ] ROBOT UNCHUCK FIN  
\*8907 9001
- 7 X092  
0-----[PEND.R ] ROBOT PROGRAM END  
3303 3304 \*3702 0406
- 8 X093  
0-----[SST.R ] ROBOT CYCLE START  
3301
- 9 X094  
0-----[BSP.R ] ROBOT EMERGENCY STOP  
\*11102
- 10 X095  
0-----[RCADY.R ] ROBOT READY  
3301 5306 5902 7305  
7608 8104 8105 8203  
8611 8702 8706
- 11 X096  
0-----[FIN.R ] ROBOT SERVICE FIN  
10002
- 12 X097  
0-----[AUE.R ] ROBOT ARM UP END  
8702 9002
- 13 X098  
0-----[AB.R ] ROBOT AIR BLOW  
0706
- 14 X099  
0-----[ORT.R ] ROBOT SPINDLE ORIENT  
7305 \*7410 7608
- 15 X09A  
0-----[UCH.R ] ROBOT CHUCK UNCLAMP  
\*5806 5902
- 16 X09B  
0-----[CH.R ] ROBOT CHUCK CLAMP  
5806 \*5902
- 17 X09C  
0-----[FDOP.R ] ROBOT FRONT DOOR OPEN  
8611
- 18 X09D  
0-----[FDCL.R ] ROBOT FRONT DOOR CLOSE  
6702
- 19 X09E  
0-----[TSF.R ] TAIL SLEEVE FORWARD  
0104 11404
- 20 X09F  
0-----[TSR.R ] TAIL SLEEVE REVERSE  
8105

	DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	HAZATROL T3
	CHK'D BY. <u>M. KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY. _____		SHEET. <b>005</b> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

- 1 X0A0  
0----- [ORTOF.M ] A/C ORIENT OFF  
6407 6408 7509 7603  
\*7701 \*7706\*10202
- 2 X0A1  
0----- [AORC1 ] ORIENT 0° SERLECT  
7302 \*7305
- 3 X0A2  
0----- [AORC2 ] ORIENT 120° SELECT  
7304 \*7305
- 4 X0A3  
0----- [AORC3 ] ORIENT 240° SELECT  
7303 \*7305
- 5 X0A4  
0----- [AJCCK ] A/C CK  
\*6305 6505 8908\*10202
- 6 X0A5  
0----- [ARDY ] A/C READY  
\*10302
- 7 X0A6  
0----- [ACRT ] A/C SPINDLE ORIENT  
7302 7303 7304
- 8 X0A7  
0----- [TFN ] T FUNCTION FIN  
\*5303 5601 10602
- 9 X0A8  
0----- [ATCAUT ] ATC AUTO  
\*3603
- 10 X0A9  
0----- [ATCAL ] ATC ALARM  
10306
- 11 X0AC  
0----- [P10N.LS ] PALETTE 1 ON  
9313
- 12 X0AD  
0----- [P20N.LS ] PALETTE 2 ON  
9314
- 13 X0AE  
0----- [SAMEJ ] A/C SAME JAW SIGNAL  
\*5703 \*8903 \*8904 9900
- 14 X0AF  
0----- [DEST.R ] WORK No. SEARCH CONFIRMATION  
\*9505 9506 9507 9508  
9509 9510 9511 9512
- 15 X100  
0----- [MA.N ] MACHINE READY  
2701 \*2701 2707 2807  
2902 2903 2904 2905  
2906 2907 2908
- 16 X101  
0----- [SA.N ] SERVO READY  
2707 2809 \*3102 3103  
9309
- 17 X106  
0----- [CLEAR.N ] CLEAR  
\*3702 10003
- 18 X107  
0----- [RST.N ] RESET  
\*2708 \*3417 \*3605 \*3702  
8408 8409
- 19 X108  
0----- [STL.N ] CYCLE START  
2710 3806 \*8503 8504  
9306 10109\*10203 10500  
11102\*11102
- 20 X109  
0----- [SPL.N ] FEED HOLD  
\*2710 3804

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC W/C	MAZATROL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY. _____		SHEET. <b>006</b> OF. _____
	DATE. _____		
<b>YAMAZAKI MAZAK CORPORATION</b>			
REV.	DATE.	NAME.	

1	X10A	0-----	[COPL.N ]	AUTO RUNNING	*10700
2	X10B	0-----	[PHEAD.N ]	PROGRAM HEAD	3605
3	X10C	0-----	[PEND.N ]	PROGRAM END	3604 8404
4	X10F	0-----	[COUNT.N ]	COUNT UP	3702
5	X110	0-----	[NCAL.N ]	NC ALARM	3610 3611 9310
6	X111	0-----	[TLAL.N ]	TOOL LIFE ALARM	3609 3611 *6307 *6509 9311
7	X112	0-----	[MCAL.N ]	MACHINE ALARM	3608 3611 9312
8	X118	0-----	[XPN.N ]	X HOME POSITION	3103 3612 9301 9308
9	X119	0-----	[ZPN.N ]	Z HOME POSITION	3103 3613 *9204 9308
10	X11A	0-----	[ZPC.N ]	C HOME POSITION	3614
11	X11D	0-----	[ZPT.N ]	TOOL CHANGE	3607
12	X11F	0-----	[CLOC.N ]	C AXIS LOCK ON NC	7808*10803
13	X120	0-----	[DEN.N ]	DISTRIBUTION END	4407 5013 5014 9513 *10506*11102
14	X121	0-----	[DEN2.N ]	DISTRIBUTION 2 END	5101 5102
15	X122	0-----	[THAL.N ]	NC THERMAL ALARM	10805
16	X124	0-----	[MTAP.N ]	MILL TAP CYCLE	5101 *5101 9603
17	X127	0-----	[TAP.N ]	SPINDLE TAP CYCLE	5102 *5102 *6209 6210 9601
18	X129	0-----	[EIA.N ]	ISO/EIA PROGRAMING MODE	3304 5103 5105 8405
19	X12A	0-----	[AHIN.N ]	HANDLE INTERRUPT ON	3418 *0501
20	X12E	0-----	[CRF.N ]	C AXIS RETURN FIN	*7803 7309

			DRN. BY. Y. SUZUKI	TITLE.	CONTROL
			DATE. 1986.7.9	ST-25 ATC M/C	MAZATROL TS
			CHK'D BY. M. KURITA		DRAWING NO.
			DATE. 1986.7.9	YTC4 C	172 01 47 800
			APPR'D BY.		SHEET. 007 OF.
			DATE.		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

\*\*\* [ X ] ELEMENT LIST \*\*\*

- 1 X130 0-----[AFNI.N ] ATC CYCLE 1 FIN  
#4003 #4004
- 2 X137 0-----[AFNS.N ] ATC CYCLE 8 FIN  
#4007 #4008
- 3 X140 0-----[TUCC.N ] TOOL UNCLAMP  
#4214 #4301 #4307 #4408  
#5002 #6905
- 4 X141 0-----[STPO.N ] SINGLE STEP  
11203
- 5 X142 0-----[OFS.N ] OPTIONAL STOP  
8401 #8403
- 6 X144 0-----[MLKO.N ] MACHINE LOCK  
3706 #7808 #8083
- 7 X145 0-----[COLMO.N ] COOLANT ON (MANUAL)  
3506
- 8 X146 0-----[COLAO.N ] COOLANT ON (AUTO)  
3506
- 9 X147 0-----[WLO.N ] WORK LIGHT  
5709
- 10 X148 0-----[TSETMO.N] TOOL SET MENU ON NC  
3909 #8910 #9112
- 11 X149 0-----[-ZTISO.N] -Z TOOL SET SELECT ON NC  
9111
- 12 X14A 0-----[-XTISO.N] -X TOOL SET SELECT ON NC  
9110
- 13 X14B 0-----[+ZTISO.N] +Z TOOL SET SELECT ON NC  
9109
- 14 X14C 0-----[+XTISO.N] +X TOOL SET SELECT ON NC  
9108
- 15 X14F 0-----[SIMUL.N ] SIMULATION MODE  
#2812 #2901 #3604 #3605  
#3612 #3613 #3614 #3702  
#5004 #5006 #4304
- 16 X170 0-----[MCF.N ] M CODE STROBE  
5013 #5015 #5104 #5108  
5708 #6002
- 17 X171 0-----[TF.N ] T CODE STROBE  
2901 #3811 #4304 #4004  
4805 #4909 #6602 #6603
- 18 X172 0-----[GRF.N ] G CODE STROBE  
2901 #5013 #5015 #5104  
6703 #7104 #7106 #7205  
#10002
- 19 X173 0-----  
3811 #3901 #3902
- 20 X174 0-----[ORF.N ] ORIENT COMMAND  
2901 #5212 #6602

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATRCL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY.		SHEET. <u>008</u> OF.
	DATE.		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**



\*\*\* [ X ] ELEMENT LIST \*\*\*

- 1 X1E1  
0-----CRST.D } DNC RESET  
3303\*10109
- 2 X1E4  
0-----[ZRN.D } DNC ZERO RETURN  
9204
- 3 X1E5  
0-----[ST.D } DNC CYCLE START  
3301
- 4 X1E6  
0-----[EMG.D } DNC EMERGENCY STOP  
2709
- 5 X1F5  
0-----[CLEAR.D } DNC CLEAR  
10003
- 6 X0C0  
0-----[RST.SW } RESET SW. BD  
3303 3404 \*8406 \*8510  
\*10109
- 7 X0C1  
0-----[SOVU.SW } SPINDLE OVERRIDE UP SW. BD  
3305 3307 3405
- 8 X0C2  
0-----[SOVD.SW } SPINDLE OVERRIDE DOWN SW. BD  
3306 3308 3406
- 9 X0C3  
0-----[FOVU.SW } JOG FEED OVERRIDE UP SW. BD  
3309 3407
- 10 X0C4  
0-----[FOVD.SW } JOG FEED OVERRIDE DOWN SW. BD  
3401 3408
- 11 X0C5  
0-----[OTR.SW } OVER TRAVEL RELEASE  
3409
- 12 X0C6  
0-----[ROVU.SW } RAPID FEED OVERRIDE UP SW. BD  
3402 3410
- 13 X0C7  
0-----[ROVD.SW } RAPID FEED OVERRIDE DOWN SW. BD  
3403 3411
- 14 X0C8  
0-----[TFS.SW } TOOL PASS MEMORY SW. BD  
3412
- 15 X0C9  
0-----[VFC.SW } VFC SW. BD  
3413
- 16 X0CA  
0-----[CRTC.SW } CRT CLEAR SW. BD  
3414
- 17 X0CB  
0-----[SPM.SW } SPINDLE MODE SW. BD  
\*6201
- 18 X0CC  
0-----[MLM.SW } MILL MODE SW. BD  
6107
- 19 X0CD  
0-----[ESP.SW } EMERGENCY STOP SW. BD  
\*2707 2709
- 20 X0CE  
0-----[DINT } DOOR INTERLOCK OFF SW.  
\*6401 \*6511 \*8705 10109  
10201 10306 10901

	DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	GT-25 ATC M/C  YT04 C	MAZATROL T3
	CHK'D BY. <u>M. KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>		172 01 47 600
	APPR'D BY. _____		SHEET. <u>009</u> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**

- 1 X0CF 0-----[FRL.SW ] PROGRAM LOCK SW. BD  
3416 7307
- 2 X0D0 0-----[ST.SW ] CYCLE START SW. BD  
3301
- 3 X0D1 0-----[SP.SW ] FEED HOLD SW. BD  
2710 \*4306 \*4403 4504  
4601 7307 7901\*1000\*
- 4 X0D2 0-----[SST.SW ] SPINDLE/MILL START SW. BD  
3302
- 5 X0D3 0-----[SSP.SW ] SPINDLE/MILL STOP SW. BD  
\*6401 \*6402 \*6511
- 6 X0D4 0-----[JG.SW ] SPINDLE/MILL JOG START SW. BD  
\*6401 6402 \*6511 6702  
\*6905
- 7 X0D5 0-----[CCW.SW ] SPINDLE/MILL CCW SW. BD  
6302 \*6401 \*6402 \*6511
- 8 X0D6 0-----[HS10.SW ] HANDLE PULSE 10 MODE SW. BD  
\*3105 3106 \*3108 3201
- 9 X0D7 0-----[HS1.SW ] HANDLE PULSE 1 MODE SW. BD  
3105 \*3106 \*3108 3201
- 10 X0D8 0-----[RT.SW ] RAPID FEED SW. BD  
3104 10907 11001
- 11 X0D9 0-----[JG.SW ] JOG MODE SW. BD  
3101
- 12 X0DA 0-----[ATC.SW ] ATC MODE SW. BD  
3019 3206 3301 3302
- 13 X0DB 0-----[ZRN.SW ] ZERO RETURN MODE SW. BD  
3102 11001
- 14 X0DC 0-----[SPR.SW ] SPINDLE PROCESS MODE SW. BD  
3018
- 15 X0DD 0-----[TEST.SW ] TEST MODE SW. BD  
3017
- 16 X0DE 0-----[AUTO.SW ] AUTO MODE SW. BD  
3015
- 17 X0DF 0-----[REST.SW ] RESET MODE SW. BD  
3016 \*8301
- 18 X0E0 0-----[H10N.SW ] HANDLE PULSE GENE. ON SW. BD  
3417 4504
- 19 X0E1 0-----[H10F.SW ] HANDLE PULSE GENE. OFF SW. BD  
\*3417 4601
- 20 X0E2 0-----[PCF.SW ] PARTS CATCHER FORWARD SW. BD  
8511

	DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>HAZATROL T3</u>
	DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
	CHK'D BY. <u>M.KURITA</u>		SHEET. <u>010</u> OF. <u>    </u>
	DATE. <u>1986.7.9</u>	<u>Y704 C</u>	
	APPR'D BY. <u>    </u>		
	DATE. <u>    </u>		
REV.	DATE.	NAME.	

\*\*\* [ X ] ELEMENT LIST \*\*\*

- 1 XOE3  
0-----[PCR.SW ] PARTS CATCHER REVERSE SW. BD  
48511
- 2 XOE4  
0-----[BON.SW ] BAR FEEDER ON SW. BD  
3403
- 3 XOE5  
0-----[BOF.SW ] BAR FEEDER OFF SW. BD  
\*8403
- 4 XOE6  
0-----[WRCL1.SW] WORK REST CLAMP 1 SW. BD  
\*8304
- 5 XOE7  
0-----[WRUC1.SW] WORK REST UNCLAMP 1 SW. BD  
3304
- 6 XOE8  
0-----[WRCL2.SW] WORK REST CLAMP 2 SW. BD  
\*8306
- 7 XOE9  
0-----[WRUC2.SW] WORK REST UNCLAMP 2 SW. BD  
3306
- 8 XOEa  
0-----[MTC.SW ] MILL TOOL CHANGE SW. BD  
4306
- 9 XOEb  
0-----[TBJ.SW ] TAIL BODY JOINT SW. BD  
8301
- 10 XOEc  
0-----[TFR.SW ] TURRET FRONT REAR SELECT SW. BD  
4603
- 11 XOEd  
0-----[TBJ.SW ] TAIL BODY JOINT SW. BD  
8205
- 12 XOf0  
0-----[PC.SW ] JOG FEED +C SW. BD  
3507 11402\*11403
- 13 XOf1  
0-----[CON.SW ] J C AXIS ON SW. BD  
7707 7901 10804
- 14 XOf2  
0-----[NC.SW ] JOG FEED -C SW. BD  
3508\*11402 11403
- 15 XOf3  
0-----[NZ.SW ] JOG FEED -Z SW. BD  
3506 \*3809 10401\*11307  
11308
- 16 XOf4  
0-----[PZ.SW ] JOG FEED +Z SW. BD  
3505 \*3809 10401 11307  
\*11308
- 17 XOf5  
0-----[PX.SW ] JOG FEED +X SW. BD  
3503 \*3803 10401 11305  
\*11306
- 18 XOf6  
0-----[NX.SW ] JOG FEED -X SW. BD  
3504 \*3808 10401\*11305  
11306
- 19 XOfb  
0-----[TSSP.SW] TAIL SPINDLE STOP SW. BD  
3102
- 20 XOfc  
0-----[TSR.SW ] TAIL SPINDLE REVERSE SW. BD  
3103

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATRCL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
	APPR'D BY. _____		SHEET. <u>011</u> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**



\*\*\* [ Y ] ELEMENT LIST \*\*\*

- 1 Y000  
0-----[MFX.M ] SPINDLE FORWARD  
6407
- 2 Y001  
0-----[MRX.M ] SPINDLE REVERSE  
6408
- 3 Y002  
0-----[ORT.M ] SPINDLE ORIENT COMMAND  
7601
- 4 Y003  
0-----[BPM.M ] BAR FEEDER MODE  
8603
- 5 Y004  
0-----[6M.M ] BAR FEEDER FORWARD  
5115
- 6 Y005  
0-----[7M.M ] BAR FEEDER REVERSE  
5116
- 7 Y006  
0-----[55M.M ] PEACE COUNT  
8610
- 8 Y008  
0-----[CHCC.L ] CHUCK CLOSE CONFIRMATION  
5301
- 9 Y009  
0-----[UCHE.L ] UNCHUCK END  
5710
- 10 Y00A  
0-----[MSCH.L ] MISS CHUCK  
5711
- 11 Y00B  
0-----[RARMDOK ] ROBOT ARM DOWN CK  
8903
- 12 Y00C  
0-----[MS10 ] M CODE S10  
5705
- 13 Y00D  
0-----[SRR.M ] SPINDLE ROTATION  
6501
- 14 Y00E  
0-----[MS10+1 ] M CODE S10 + 1  
5706
- 15 Y010  
0-----[MZF.M ] MAGAZINE FORWARD  
4505
- 16 Y011  
0-----[MZR.M ] MAGAZINE REVERSE  
4602
- 17 Y012  
0-----[MZCW.M ] MAGAZINE CW  
11604
- 18 Y013  
0-----[MZCCW.M ] MAGAZINE CCW  
11605
- 19 Y014  
0-----[TLUC.M ] TOOL UNCLAMP  
4502
- 20 Y015  
0-----[SHAB.M ] SHANK AIR BLOW  
4704

				DRN. BY. <u>Y. SUZUKI</u>	TITLE. ST-25 ATC M/C	CONTROL MAZATROL T3	
				DATE. <u>1986.7.9</u>		YT04 C	DRAWING NO. 172 01 47 800
				CHK'D BY. <u>M. MORITA</u>			SHEET. <b>013</b> OF. _____
				DATE. <u>1986.7.9</u>			
				APPR'D BY. _____	<b>YAMAZAKI MAZAK CORPORATION</b>		
				DATE. _____			
REV.	DATE.	NAME.					

\*\*\* [ Y ] ELEMENT LIST \*\*\*

1	Y016 0-----	(TAB.M )	TOOL AIR BLOW 4705
2	Y010 0-----	(CLN.M )	SPINDLE GEAR SHIFT N 7005
3	Y012 0-----	(CLL.M )	SPINDLE GEAR SHIFT L 7006
4	Y01A 0-----	(CLM.M )	SPINDLE GEAR SHIFT M 7101
5	Y01B 0-----	(CLH.M )	SPINDLE GEAR SHIFT H 7102
6	Y01C 0-----	(GR.M )	TAIL SLEEVE REVERSE 8203
7	Y01D 0-----	(MCCN.M )	COOLANT SOL. 8507
8	Y01E 0-----	(CM.M )	COOLANT 8508
9	Y01F 0-----	(TAB.M )	CHUCK AIR BLOW 8708
10	Y020 0-----	(SB.M )	NC READY 3705
11	Y021 0-----	(EMGB.M )	EMERGENCY STOP. 2709
12	Y022 0-----	(WOK1.M )	WORK LIGHT 5707
13	Y024 0-----	(GF.M )	TAIL SPINDLE FORWARD 8204
14	Y025 0-----	(BJ.M )	JOINT PIN / BODY FOR 8301
15	Y026 0-----	(UCH.M )	UNCHUCK 6004
16	Y027 0-----	(CH.M )	CHUCK 6003
17	Y028 0-----	(WRU1.M )	WORK REST UNCLAMP 1 8805
18	Y029 0-----	(WRU2.M )	WORK REST UNCLAMP 1 8807
19	Y02A 0-----	(FDOP.M )	FRONT DOOR OPEN 8701
20	Y02B 0-----	(FDCL.M )	FRONT DOOR CLOSE 8703

				DRN. BY. <u>Y. SUZUKI</u>	TITLE	CONTROL
				DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
				CHK'D BY. <u>H. KURITA</u>		DRAWING NO.
				DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
				APPR'D BY. _____		SHEET. <u>014</u> OF. _____
				DATE. _____		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		

1	Y020 0-----	[TDF.M ]	TOOL DETECTOR FORWARD 9101
2	Y02D 0-----	[TDR.M ]	TOOL DETECTOR REVERSE 9102
3	Y02E 0-----	[PCF.M ]	PARTS CATCHER FOR. 3511
4	Y02F 0-----	[TLGN.M ]	TOOL DETECTOR LOW SPEED ON 9103
5	Y030 0-----	[MAL.M ]	MACHINE ALARM 3611
6	Y031 0-----	[STL.M ]	CYCLE START 3807
7	Y032 0-----	[SPL.M ]	FEED HOLD 3805
8	Y033 0-----	[AUT.M ]	AUTO MODE 3703
9	Y034 0-----	[SSOP.M ]	SPINDLE STOP 3503
10	Y035 0-----	[PT.M ]	CYCLE FINISH INDICATOR 3406
11	Y036 0-----	[NCR.M ]	NC RESET / ROAD RESET 3407
12	Y037 0-----	[NCR1.M ]	NC RESET 3403
13	Y040 0-----	[HF.M ]	M COMMAND 5703
14	Y041 0-----	[DEN.M ]	DATA END 5014
15	Y042 0-----	[ORN.M ]	SPINDLE ORIENT FIN 7604
16	Y043 0-----	[JED.M ]	AJC. JAW END 5302
17	Y050 0-----	[CGIN.M ]	C AXIS GEAR ON 7702
18	Y051 0-----	[CGOF.M ]	C AXIS GEAR OFF 7703
19	Y052 0-----	[CCP.M ]	C AXIS CLAMP 7704
20	Y053 0-----	[CBK.M ]	C AXIS BRAKE 7705

				DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL.
				DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
				CHK'D BY. <u>H. KURITA</u>		DRAWING NO.
				DATE. <u>1986.7.9</u>	YT04 C	172 01 47 000
				APPR'D BY. _____		SHEET. <b>015</b> OF. _____
				DATE. _____		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		

\*\*\* [ Y ] ELEMENT LIST \*\*\*

- 1 Y054 0-----[MILL.M ] MILL MOPE  
6202
- 2 Y055 0-----[MLCH.M ] MILL MOTOR CH  
6602
- 3 Y056 0-----[MLCCH.M ] MILL MOTOR CCH  
6603
- 4 Y058 0-----[MF20.M ] MF 20  
5107
- 5 Y059 0-----[DCH.R ] ROBOT UNCLUCK  
0907
- 6 Y05A 0-----[ESEND.M ] WORK NO SEACH SEACH END/TF  
9512
- 7 Y05D 0-----[EREND.M ] WORK NO SEACH READ END  
9513
- 8 Y05C 0-----[CPR.M ] C AXIS CLAMP PIN RETRACT  
7905
- 9 Y05D 0-----[CBRK.L ] C AXIS BRAKE  
6707
- 10 Y05E 0-----[SPUC.L ] SPINDLE UNCLAMP  
6704
- 11 Y05F 0-----[SPCL.L ] SPINDLE CLAMP  
6705
- 12 Y060 0-----[COH.T ] COMMAND TOOL DATA STROBE  
5004
- 13 Y061 0-----[BACK.T ] BACK TOOL DATA STROBE  
5005
- 14 Y062 0-----[NEXT.T ] NEXT TOOL DATA STROBE  
5006
- 15 Y063 0-----[COH.P ] COMMAND POCKET DATA STROBE  
5002
- 16 Y064 0-----[NEXT.P ] NEXT POCKET DATA STROBE  
5003
- 17 Y065 0-----[ATC.ST ] ATC ACTION START SUB PC  
3211
- 18 Y066 0-----[ATCPOS.A] ATC POSITION OK  
4005
- 19 Y067 0-----[ATC.RST ] ATC CYCLE RESET TO SUB PC  
3409
- 20 Y068 0-----[MS11 ] M CODE S11  
5707

	DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC H/C	MAZATROL T3
	CHK'D BY. <u>M. KURITA</u>	Y704 C	DRAWING NO.
	DATE. <u>1986.7.9</u>		172 01 47 800
	APPR'D BY. _____		SHEET. <u>016</u> OF _____
	DATE. _____		
<b>REV.</b>	<b>DATE.</b>	<b>NAME.</b>	<b>YAMAZAKI MAZAK CORPORATION</b>



- 1 Y069 ----- [TL1.M ] ORIENT FORWARD  
7505
- 2 Y06A ----- [TL2.M ] ORIENT REVERSE  
7506
- 3 Y06D ----- [DEF.M ] ORIENT TORQUE OFF  
7706
- 4 Y06C ----- [MF100 ] M CODE 100 STROBE  
5106
- 5 Y06D ----- [ORFNA.M ] A.J.C ORIENT 0° FIN  
7605
- 6 Y06E ----- [ORFNB.M ] A.J.C ORIENT 120° FIN  
7606
- 7 Y06F ----- [ORFNC.M ] A.J.C ORIENT 240° FIN  
7607
- 8 Y0A0 ----- [RST.L ] RESET LED  
3404
- 9 Y0A1 ----- [SOVU.L ] SPINDLE OVERRIDE UP LED  
3405
- 10 Y0A2 ----- [SOVD.L ] SPINDLE OVERRIDE UP LED  
3406
- 11 Y0A3 ----- [FOVU.L ] FEED OVERRIDE UP LED  
3407
- 12 Y0A4 ----- [FOVD.L ] FEED OVERRIDE DOWN LED  
3408
- 13 Y0A5 ----- [OTR.L ] O.T. RELEASES LED  
3409
- 14 Y0A6 ----- [ROVU.L ] RAPID OVERRIDE UP LED  
3410
- 15 Y0A7 ----- [ROVD.L ] RAPID OVERRIDE DOWN LED  
3411
- 16 Y0A8 ----- [ST.L ] CYCLE START LED  
3806
- 17 Y0A9 ----- [SP.L ] FEED HOLD LED  
3804
- 18 Y0AA ----- [SST.L ] SPINDLE/MILL START  
6609
- 19 Y0AB ----- [SSP.L ] SPINDLE/MILL STOP  
6701
- 20 Y0AC ----- [SUG.L ] SPINDLE/MILL JOG  
6702

	DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>HAZATROL T3</u>
	DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
	CHK'D BY. <u>H. KURITA</u>		
	DATE. <u>1986.7.9</u>	<u>YT04 C</u>	
	APPR'D BY. _____		
	DATE. _____		SHEET. <u>017</u> OF. _____
<b>YAMAZAKI MAZAK CORPORATION</b>			
REV.	DATE.	NAME.	

\*\*\* [ Y ] ELEMENT LIST \*\*\*

- 1 Y0AD 0-----[CCW.L ] SPINDLE/MILL REVERSE  
6304
- 2 Y0AE 0-----[INDIC.L ] HANDLE PULSE X10 LED  
3211
- 3 Y0AF 0-----[INDI.L ] HANDLE PULSE X1 LED  
3210
- 4 Y0B0 0-----[CRT.L ] RPID FEED MODE LED  
3209
- 5 Y0B1 0-----[JOG.L ] JOG MODE LED  
3207
- 6 Y0B2 0-----[ATC.L ] ATC MODE LED  
3206
- 7 Y0B3 0-----[ZRN.L ] ZERO RETURN MODE  
3205
- 8 Y0B4 0-----[SPR.L ] SINGLE PROCESS LED  
3205
- 9 Y0B5 0-----[TEST.L ] TEST MODE  
3204
- 10 Y0B6 0-----[AUTO.L ] AUTO MODE LED  
3202
- 11 Y0B7 0-----[REST.L ] RESTART MODE LED  
3203
- 12 Y0BA 0-----[CRTC.L ] CRT.OFF LED  
3415
- 13 Y0BB 0-----[SPM.L ] SPINDLE MODE  
6208
- 14 Y0BC 0-----[MLM.L ] MILL MODE  
6204
- 15 Y0BD 0-----[POS.L ] TAIL BODY JOINT POSITION  
3203
- 16 Y100 0-----[ST.N ] CYCLE START NC  
3003
- 17 Y101 0-----[SP.N ] FEED HOLD NC  
2002
- 18 Y102 0-----[STEP.N ] SINGLE STEP NC  
11203
- 19 Y105 0-----[M02R.N ] M02 RESET NC  
0405
- 20 Y106 0-----[RST.N ] RESET NC  
3003

	DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>GT-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
	DATE. <u>1986.7.2</u>		DRAWING NO. <u>172 01 47 000</u>
	CHK'D BY. <u>Y.KURITA</u>		
	DATE. <u>1986.7.9</u>	<u>YT04 C</u>	
	APPR'D BY. _____		SHEET. <u>018</u> OF _____
	DATE. _____		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**

\*\*\* [ Y ] ELEMENT LIST \*\*\*

- 1 Y107 0-----[REGEN] J REMOTE RESET NC  
3304
- 2 Y108 0-----[KEY.N] J MEMORY PROTECT  
3418
- 3 Y109 0-----[CONT.N] J CRT CLEAR ON/OFF  
3414
- 4 Y10A 0-----[HSENS.N] J HNS SENSOR ON  
3502
- 5 Y110 0-----[CROVU.N] J RAPID FEED OVERRIDE UP NC  
3402
- 6 Y111 0-----[COVU.N] J TABLE OVERRIDE UP NC  
3305
- 7 Y112 0-----[FOVU.N] J JOG FEED OVERRIDE UP NC  
3309
- 8 Y113 0-----[HOVU.N] J MILL OVERRIDE UP NC  
3307
- 9 Y114 0-----[CROVD.N] J RAPID FEED OVERRIDE DOWN NC  
3403
- 10 Y115 0-----[COVD.N] J TABLE OVERRIDE DOWN NC  
3306
- 11 Y116 0-----[FOVD.N] J JOG FEED OVERRIDE DOWN NC  
3401
- 12 Y117 0-----[HOVD.N] J MILL OVERRIDE DOWN NC  
3308
- 13 Y119 0-----[CAXIS.N] J C AXIS MODE NC  
7908
- 14 Y11C 0-----[MILL.N] J MILL MODE NC  
6200
- 15 Y120 0-----[TFS.N] J TOOL PASS MEMORY NC  
3412
- 16 Y122 0-----[HIT.N] J HANDLE WEDGE NC  
3417
- 17 Y123 0-----[VFC.N] J VFC NC  
3413
- 18 Y125 0-----[CDZ.N] J CHAMFERING OFF NC  
8600
- 19 Y126 0-----[CRET.N] J C AXIS RETURN NC  
7800
- 20 Y127 0-----[ATC.N] J ATC ACTION START NC  
4001

	DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL
	DATE. <u>1986.7.9</u>	GT-25 ATC M/C	MAZATROL TS
	CHK'D BY. <u>M. KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 000
	APPR'D BY.		SHEET. <b>019</b> OF.
	DATE.		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**

\*\*\* [ Y ] ELEMENT LIST \*\*\*

1	Y128 0-----	---[SPST.N ] SPINDLE RUNNING NC 6605
2	Y129 0-----	---[DOCN.N ] SPINDLE RUN REVERSE NC 6606
3	Y12A 0-----	---[ENOSP.N ] MILL RUNNING NC 6607
4	Y12B 0-----	---[ENOCN.N ] MILL OCN NC 6608
5	Y130 0-----	---[ILX.N ] X AXIS INTERLOCK 11302
6	Y131 0-----	---[ILZ.N ] Z AXIS INTERLOCK 11303
7	Y132 0-----	---[ILC.N ] C AXIS INTERLOCK 6603
8	Y134 0-----	---[MLK.N ] MACHINE LOCK 3706
9	Y135 0-----	---[EDT.N ] ERROR DETECT NC 6607
10	Y13B 0-----	---[ORFN.N ] ORIENT FIN NC 7602
11	Y13C 0-----	---[ATCFN.N ] ATC ACTION FINISH NC 4009
12	Y13D 0-----	---[ORFN.N ] OR CODE FIN NC 7104
13	Y13E 0-----	---[MPN.N ] M CODE FIN NC 10002
14	Y13F 0-----	---[TPN.N ] T CODE FIN NC 4004
15	Y140 0-----	---[PX.N ] JOG FEED +X NC 11305
16	Y141 0-----	---[PZ.N ] JOG FEED +Z NC 11307
17	Y142 0-----	---[PC.N ] JOG FEED +C NC 11402
18	Y144 0-----	---[NX.N ] JOG FEED -X NC 11306
19	Y145 0-----	---[NZ.N ] JOG FEED -Z NC 11308
20	Y146 0-----	---[NC.N ] JOG FEED -C NC 11403

				DRN. BY. <u>Y. SUZUKI</u>	TITLE. GT-25 ATC M/C	CONTROL
				DATE. <u>1986.7.9</u>		MAZATROL T3
				CHK'D BY. <u>M. KURIITA</u>	YT64 C	DRAWING NO.
				DATE. <u>1986.7.9</u>		172 01 47 800
				APPR'D BY. _____		SHEET. <u>020</u> OF. _____
				DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>			

\*\*\* [ Y ] ELEMENT LIST \*\*\*

1	Y158 0-----	[HX.N ] HANDLE PULSE X NC 3510
2	Y159 0-----	[HZ.N ] HANDLE PULSE Z NC 3511
3	Y15A 0-----	[HC.N ] HANDLE PULSE C NC 3512
4	Y160 0-----	[*SVFX.N ] X AXIS CTRWD OFF 2003
5	Y161 0-----	[*SVFZ.N ] Z AXIS CTRWD OFF 2004
6	Y162 0-----	[*SVFC.N ] C AXIS CTRWD OFF 8002
7	Y168 0-----	[+XTSET.N] +X TOOL SET NC 9108
8	Y169 0-----	[+ZTSET.N] +Z TOOL SET NC 9109
9	Y16C 0-----	[-XTSET.N] -X TOOL SET NC 9110
10	Y16D 0-----	[-ZTSET.N] -Z TOOL SET NC 9111
11	Y16F 0-----	[TSET.N ] TOOL SET READY NC 9112
12	Y170 0-----	[VH.N ] ATC TYPE V/H NC 3008
13	Y171 0-----	[SM.N ] ATC TYPE SUB MAGAZINE NC 3009
14	Y172 0-----	[RM.N ] ATC TYPE RAM HEAD NC 3010
15	Y178 0-----	[MIL.N ] MILLING SPECIFICATION 3011
16	Y179 0-----	[CAX.N ] C AXIS SPECIFICATION 3012
17	Y17A 0-----	[VT.N ] VERTICAL SPECIFICATION 3013
18	Y190 0-----	[ATC1.N ] ATC CYCLE 1 NC 4003
19	Y197 0-----	[ATC8.N ] ATC CYCLE 8 NC 4007
20	Y1A1 0-----	[PEND.D ] DNC PROGRAM END 2004

			DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL TO</u>
			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
			CHK'D BY. <u>M. KURITA</u>		
			DATE. <u>1986.7.9</u>	<u>Y104 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>021</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

\*\*\* [ Y ] ELEMENT LIST \*\*\*

- 1 Y1A2 0-----[EOP].D 1 DNC PROGRAM END PREPARATION  
9305
- 2 Y1A3 0-----[ESTL].D 1 DNC AUTO OPERATION  
9306
- 3 Y1A5 0-----[FREL].D 1 DNC MEMORY PROTECTION  
9307
- 4 Y1A6 0-----[HP].L 1 DNC HOME POSITION  
9308
- 5 Y1A7 0-----[RDY].D 1 DNC NC & MACHINE READY  
9309
- 6 Y1A9 0-----[DNCAL].D 1 DNC NC ALARM  
9310
- 7 Y1AA 0-----[TLAL].D 1 DNC TOOL LIFE ALARM  
9311
- 8 Y1AB 0-----[MICAL].D 1 DNC MACHINE ALARM  
9312
- 9 Y1AE 0-----[P2ON].D 1 DNC PALLET 2 ON  
9313
- 10 Y1AF 0-----[P1ON].D 1 DNC PALLET 1 ON  
9314
- 11 Y1B0 0-----[ALNO.5.D] DNC ALARM NO.5  
9405
- 12 Y1B1 0-----[ALNO6.D] DNC ALARM NO.6  
9401
- 13 Y1B2 0-----[ALNO7.D] DNC ALARM NO.7  
9402
- 14 Y1B3 0-----[ALNO8.D] DNC ALARM NO.8  
9404
- 15 Y1B5 0-----[ALNO2.D] DNC ALARM NO.2  
9501
- 16 Y1B7 0-----[ALNO4.D] DNC ALARM NO.4  
9502
- 17 Y1D0 0-----[SENS.P] 1 CHUCK STROKE SENSORE USE  
5710
- 18 Y1D1 0-----[GM7M.P] 1 GM.7M USE  
5806
- 19 Y1D2 0-----[MOMENT.P] CHUCK MOMENTARY  
45005
- 20 Y1D3 0-----[LUCKICH.P] UNCHUCK INCHING  
45905

	DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>GT-25 ATC M/C</u>	CONTROL. <u>MAZATROL T3</u>
	DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 000</u>
	CHK'D BY. <u>M. KURITA</u>		
	DATE. <u>1986.7.9</u>	<u>YT04 C</u>	
	APPR'D BY. _____		
	DATE. _____		SHEET. <u>022</u> OF. _____
<b>YAMAZAKI MAZAK CORPORATION</b>			
REV.	DATE.	NAME.	

\*\*\* [ Y ] ELEMENT LIST \*\*\*

- 1 Y1D4  
0-----[AIR.P ] AIR CHUCK SEAL TYPE  
\*5710
- 2 Y1D5  
0-----[PCT.P ] PARTS CATCHER USE  
\*5002
- 3 Y1D7  
0-----[RGLF.P ] ROLLER BAR FEEDER  
5004
- 4 Y1D9  
0-----[GR2.P ] GEAR SHIFT 2 POSITION  
6002
- 5 Y1DA  
0-----[GR3.P ] GEAR SHIFT 3 POSITION  
6002
- 6 Y1DB  
0-----[GRN.P ] GEAR SHIFT NEUTRAL NOT USE  
\*6031
- 7 Y1DC  
0-----[DCORET.P] DC SPINDLE ORIENT DATA  
\*7607
- 8 Y1DD  
0-----[SPUC.P ] CHUCK SPINDLE UNCLAMP CK  
\*5005
- 9 Y1DF  
0-----[OPSP.L.P] OPTIONAL STOP PATOLIGHT ON  
5406
- 10 Y1E0  
0-----[TEAL.P ] TAIL BODY JOINT TYPE  
\*10665
- 11 Y1E1  
0-----[AJC.P ] AUTO JAW CHANGEAR USE  
\*5711
- 12 Y1E3  
0-----[ROBOT.P ] FLEX USE  
\*5708
- 13 Y1E5  
0-----[TGET.P ] TOOL GETTER USE  
\*5107
- 14 Y1E6  
0-----[JAW.P ] CHUCK JAW CHANGE TYPE  
\*5002
- 15 Y1E8  
0-----[TLCC.P ] TOOL CLAMP PRG CANCEL  
\*4203
- 16 Y1E9  
0-----[72M73M.P] 72M,73M USE  
5702
- 17 Y1EA  
0-----[TDRK.P ] TOOL DETECTOR BRAKE USE  
5007
- 18 Y1EB  
0-----[TSELC.P] TOOL DETECTOR MOVE SELECT  
\*9101
- 19 Y1EC  
0-----[CLOC.P ] C AXIS LOCK ON PARA.  
7000
- 20 Y1F0  
0-----[TEST.P ] TEST MODE USE  
5017

				DRN. BY. <u>Y. SUZUKI</u>	TITLE. ST-25 ATC M/C	CONTROL.
				DATE. <u>1986.7.9</u>		MAZATROL T3
				CHK'D BY. <u>H. MORITA</u>	YT04 C	DRAWING NO.
				DATE. <u>1986.7.9</u>		172 01 47 000
				APPR'D BY. _____	DATE. _____	SHEET. <u>023</u> OF. _____
				DATE. _____		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		

\*\*\* I Y J ELEMENT LIST \*\*\*

- 1 Y1F1 0-----[EDTGF.P ] ERROR DETECT OFF (POWER ON) 6306
- 2 Y1F2 0-----[ESTOUB.P ] START SUB CH USE \*0317
- 3 Y1F3 0-----[ETIME.P ] 2 TIME PIN STRIKE 4410
- 4 Y1F4 0-----[EXTTCH.P] EXT. TAIL CH. USE \*0101
- 5 Y1F5 0-----[FDINCH.P] FRONT DOOR INCHING \*0611
- 6 Y1F6 0-----[MILA.P ] MILL ROTATION ALARM \*10307
- 7 Y1F7 0-----[GRIND.P ] ORIENT INDEX MOVE \*7403
- 8 Y1F8 0-----[XZJOG.P ] X,Z AXIS FEED CH. SAME TIME OK 3303
- 9 Y1F9 0-----[V/HATC.P] ATC. TYPE V/H 3000
- 10 Y1FA 0-----[CUDATC.P] ATC. TYPE SUB MAGAZINE \*3303
- 11 Y1FB 0-----[AXSATC.P] ATC. TYPE AXIS TRAVEL \*3003
- 12 Y1FC 0-----[MILL.P ] MILL CENTER SPECIFICATION 3011
- 13 Y1FD 0-----[C-AXIS.P] C AXIS SPECIFICATION 3012
- 14 Y1FE 0-----[V-LATH.P] VERTICAL LATHE TYPE \*3003
- 15 YOC0 0-----[CRDY.L ] ; NC READY LED 3603
- 16 YOC2 0-----[FHEAD.L ] PROGRAM HEAD LED 3606
- 17 YOC3 0-----[PEND.L ] PROGRAM END LED 3604
- 18 YOC4 0-----[ZPT.L ] TOOL CHANGE LED 3607
- 19 YOC5 0-----[MCAL.L ] MACHINE ALARM LED 3608
- 20 YOC6 0-----[TLAL.L ] TOOL LIFE ALARM LED 3609

	DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL.
	DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
	CHK'D BY. <u>M. KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.9</u>	YT04 C	172 01 47 600
	APPR'D BY. _____		SHEET. <u>024</u> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**



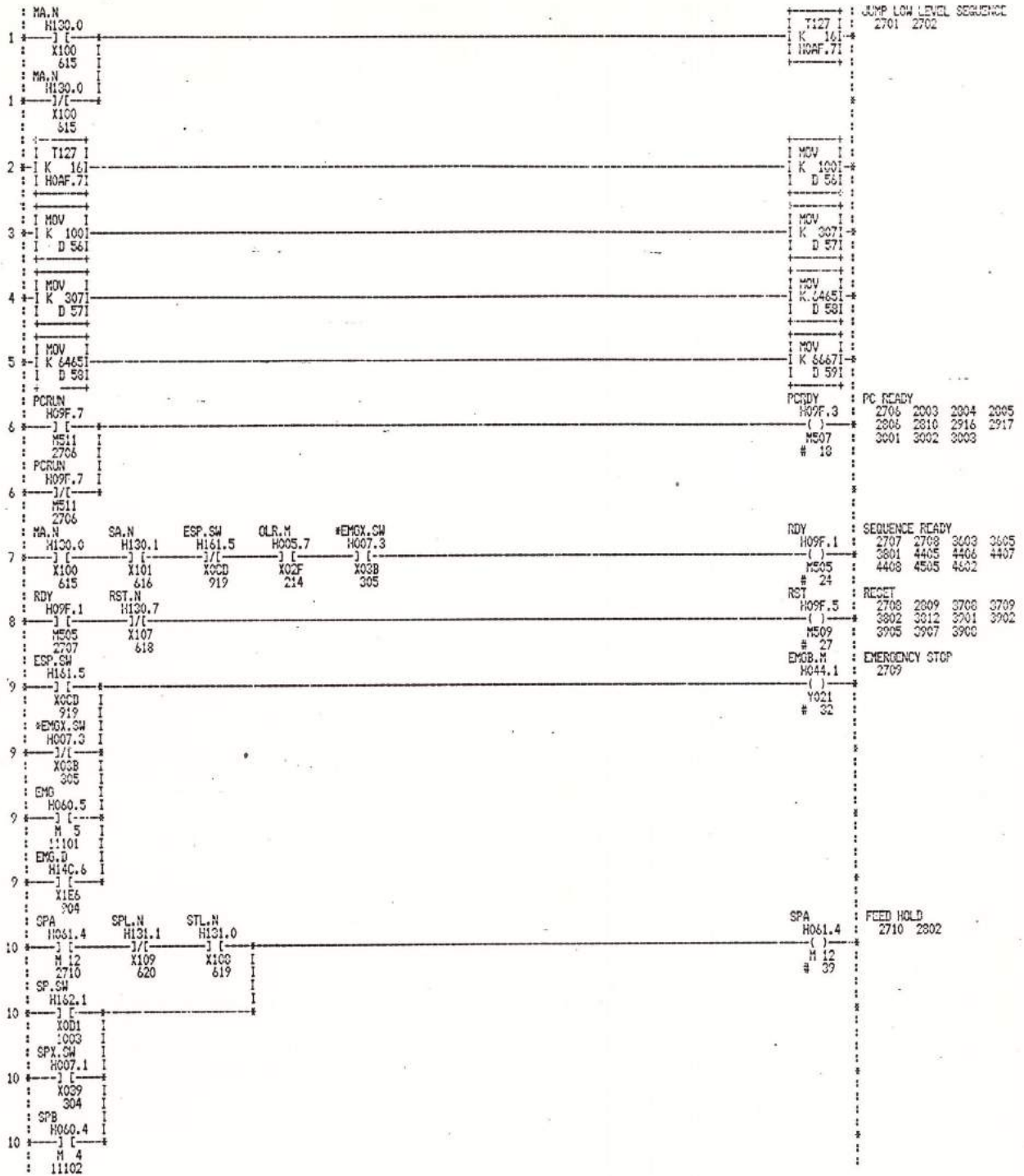
1	YOC7 0-----	-----CNCL.L	NO ALARM LED 3610
2	YOC8 0-----	-----CZPK.L	X HOME POSITION LED 3612
3	YOC9 0-----	-----CZPE.L	Z HOME POSITION LED 3613
4	YOCA 0-----	-----CZPC.L	C HOME POSITION LED 3614
5	YOC0 0-----	-----CSPS.L	SPINDLE MODE LED 3207
6	YOC0 0-----	-----CAXC.L	C AXIS MODE LED 7209
7	YOC0 0-----	-----MMS.L	MILL MODE LED 6205
8	YOC0 0-----	-----CTGPOP.L	TURRET GRIPPER OPEN LED 3701
9	YOCF 0-----	-----CCOUNT.L	COUNT UP LED 3702
10	YOD0 0-----	-----CHGN.L	HANDLE ON 3410
11	YOD1 0-----	-----CHIOF.L	HANDLE OFF 3501
12	YOD2 0-----	-----CPCF.L	PARTS CATCHER FORWARD LED 3601
13	YOD3 0-----	-----CPCR.L	PARTS CATCHER REVERSE LED 3602
14	YOD4 0-----	-----CBON.L	BAR FEEDER ON LED 3604
15	YOD5 0-----	-----CBOF.L	BAR FEEDER OFF LED 3605
16	YOD6 0-----	-----CNRCL1.L	WORK REST CLAMP 1 LED 3009
17	YOD7 0-----	-----CNRUC1.L	WORK REST UNCLAMP 1 LED 3000
18	YOD8 0-----	-----CNRCL2.L	WORK REST CLAMP 2 LED 3011
19	YOD9 0-----	-----CNRUC2.L	WORK REST UNCLAMP 2 LED 3010
20	YODA 0-----	-----MTC.L	MILL TOOL CHANGE LED 4700

				DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL TC</u>
				DATE. <u>1986.7.2</u>		DRAWING NO. <u>172 01 47 800</u>
				CHK'D BY. <u>M. KURITA</u>		
				DATE. <u>1986.7.2</u>	<u>YT04 C</u>	
				APPR'D BY. _____		
				DATE. _____		SHEET. <u>025</u> OF. _____
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		

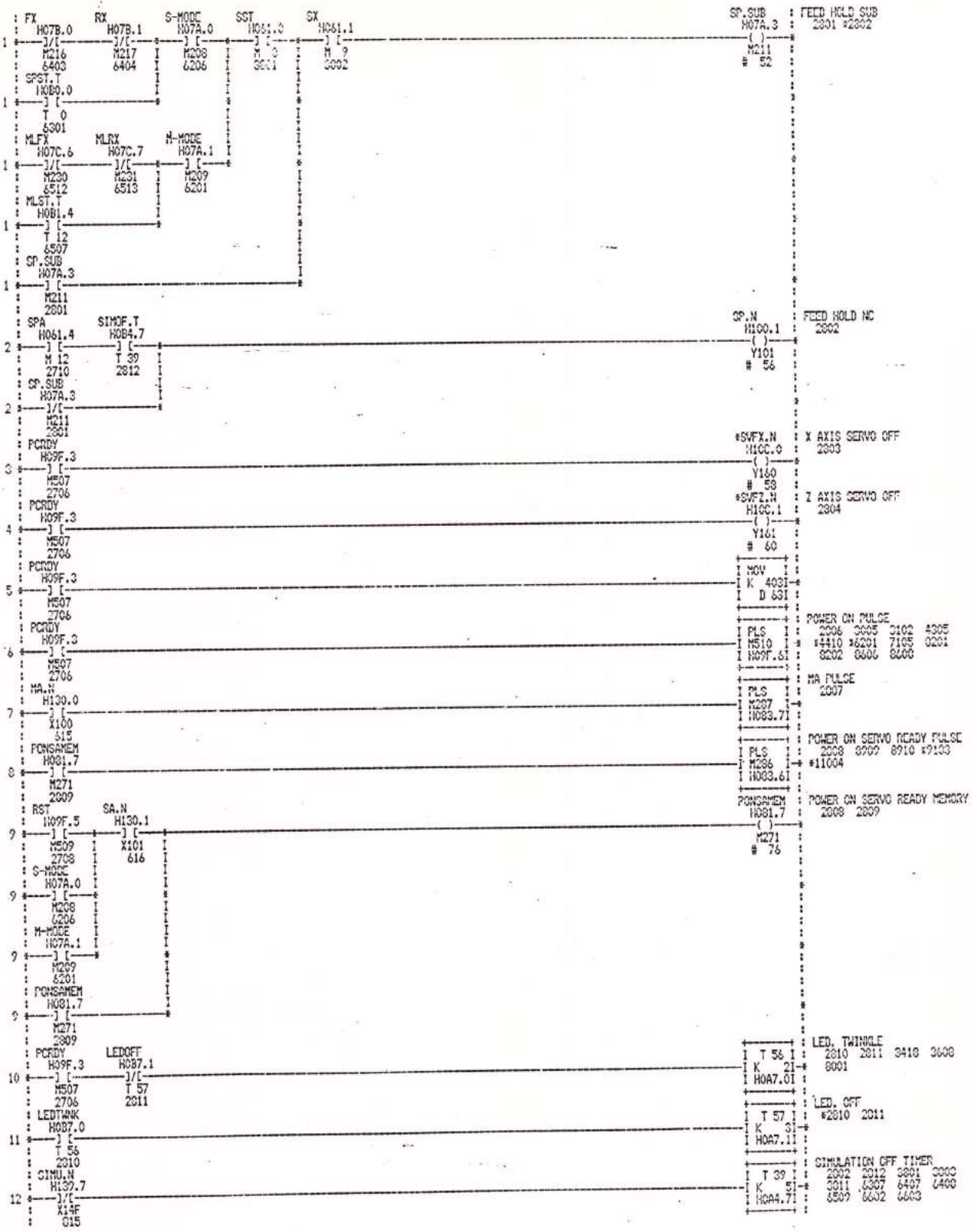
\*\*\* [ Y ] ELEMENT LIST \*\*\*

1	Y02B 0-----	[JST.L]	1 TAIL BODY JOINT LED 3502
2	Y02C 0-----	[TFR.L]	1 TURNET FRONT REAR SELECT LED 4605
3	Y02D 0-----	[TBU.L]	1 TAIL BODY JOINT LED 3207
4	Y0E0 0-----	[PC.L]	1 JOG FEED +C LED 3507
5	Y0E1 0-----	[CON.L]	1 C AXIS ON LED 3001
6	Y0E2 0-----	[NC.L]	1 JOG FEED -C LED 3509
7	Y0E3 0-----	[NZ.L]	1 JOG FEED -Z LED 3506
8	Y0E4 0-----	[PZ.L]	1 JOG FEED +Z LED 3505
9	Y0E5 0-----	[PX.L]	1 JOG FEED +X LED 3503
10	Y0E6 0-----	[NX.L]	1 JOG FEED -X LED 3504
11	Y0EA 0-----	[TSF.L]	1 TAIL SLEEVE FORWARD LED 3003
12	Y0EB 0-----	[TSS.L]	1 TAIL SLEEVE STOP LED 3005
13	Y0EC 0-----	[TSR.L]	1 TAIL SLEEVE REVERSE LED 3004
14	Y0ED 0-----	[HX.L]	1 HANDLE PULSE X LED 3513
15	Y0EE 0-----	[HC.L]	1 HANDLE PULSE C LED 3602
16	Y0EF 0-----	[HZ.L]	1 HANDLE PULSE Z LED 3601

				DRN. BY. <u>Y. SUZUKI</u>	TITLE ST-25 ATC M/C	CONTROL MAZATROL TD	
				DATE. <u>1986.7.9</u>		YT04 C	DRAWING NO. 172 01 47 800
				CHK'D BY. <u>M. KURITA</u>			
				DATE. <u>1986.7.9</u>			
				APPR'D BY. _____			
				DATE. _____		SHEET. <u>026</u> OF. _____	
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>			



				DRN. BY. Y.SUZUKI	TITLE.	CONTROL
				DATE. 1986.7.9	ST-25 ATC M/C	MAZATREL T3
				CHK'D BY. M.KURITA		DRAWING NO.
				DATE. 1986.7.9	Y704 C	172 01 47 300
				APPR'D BY.		SHEET. 027 OF.
				DATE.		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		



			DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>GT-25 ATC H/C</u>	CONTROL. <u>MAZATROL T3</u>
			DATE. <u>1986.7.9</u>	Y704 C	DRAWING NO. <u>172 01 47 600</u>
			CHK'D BY. <u>M.KURITA</u>		SHEET. <u>028</u> OF. <u>    </u>
			DATE. <u>1986.7.9</u>		
			APPR'D BY. <u>    </u>		
			DATE. <u>    </u>		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

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: MFN11      SIMU.N
: H06B.5    HI39.7
1  : J I      J I
  : N 93     X14F
  : 5108     615
  : TF.N     HI3E.1
1  : J I
  : X171     617
  : GRF.N    HI3E.2
1  : J I
  : X172     818
  : GRF.N    HI3E.4
1  : J I
  : X174     820
  : MA.N     HI30.0
2  : J I
  : X100     615
  : MA.N     HI30.0
3  : J I
  : X100     615
  : MA.N     HI30.0
4  : J I
  : X100     615
  : MA.N     TEST.L
  : HI30.0  HI72.5
5  : J I      J I
  : X100     Y0B5
  : 615     3204
  : MA.N     TEST.L
  : HI30.0  HI72.5
6  : J I      J I
  : X100     Y0B5
  : 615     3204
  : MA.N     HI30.0
7  : J I
  : X100     615
  : MA.N     HI30.0
8  : J I
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  : X100     615
  : MA.N     HI30.0
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  : X100     615
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13 : J I
  : X100     615
  : MA.N     HI30.0
14 : J I
  : X100     615
  : MA.N     HI30.0
15 : J I
  : X100     615
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  : H507    2706
  
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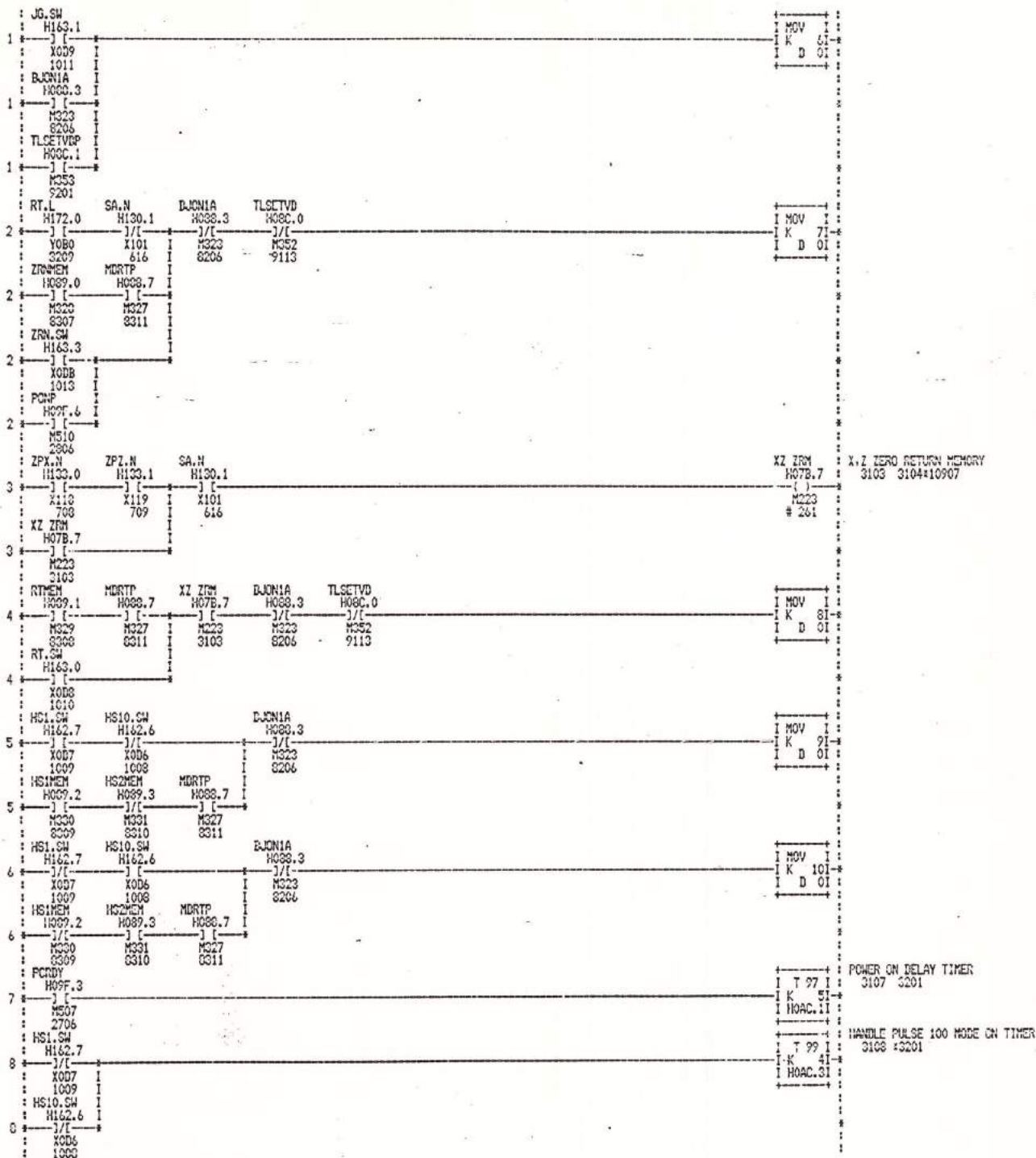
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: 10002
: T 08
: K 101
: H0A4.61
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: MOV I
: K2X180I
: D 64I
:
: MOV I
: K2X198I
: D 65I
:
: MOV I
: K2X180I
: D 66I
:
: MOV I
: K2X1C0I
: D 67I
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: MOV I
: K 9I
: D 67I
:
: MOV I
: K2X1A0I
: D 68I
:
: MOV I
: K2X188I
: D 69I
:
: MOV I
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: D 70I
:
: MOV I
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: D 71I
:
: MOV I
: K2X1C0I
: D 72I
:
: MOV I
: K2X1D8I
: D 73I
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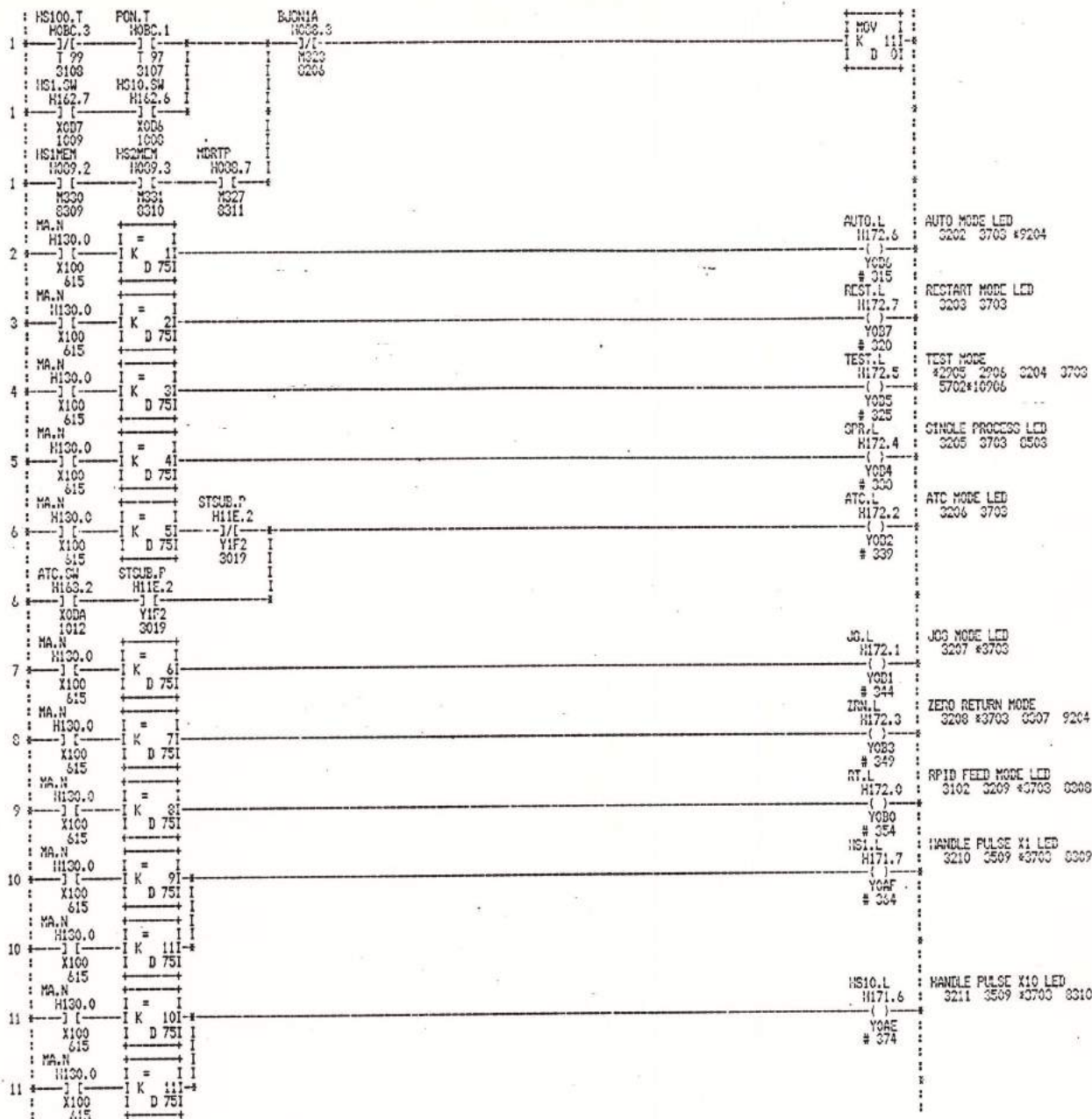
				DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
				DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
				CHK'D BY. <u>M.KURITA</u>		
				DATE. <u>1986.7.9</u>	<u>Y04 C</u>	
				APPR'D BY. _____		
				DATE. _____		SHEET. <u>029</u> OF _____
REV.	DATE	NAME		<b>YAMAZAKI MAZAK CORPORATION</b>		

1	PCRDY H09F.3   [ ]   ME07 2706				MOV D 341 K2Y1E01	
2	PCRDY H09F.3   [ ]   ME07 2706				MOV D 351 K2Y1E81	
3	PCRDY H09F.3   [ ]   ME07 2706				MOV D 361 K2Y1F01	
4	PCRDY H09F.3   [ ]   ME07 2706				MOV D 371 K2Y1F81	
5	PCMP H09F.6   [ ]   MS10 2806				MOV D1231 K2M1841	
6	PCRDY H09F.3   [ ]   ME07 2706				MOV D 481 D 821	
7	PCRDY H09F.3   [ ]   ME07 2706				* 1 K 11 D 821	
8	V/HATC.P SUBATC.P AXSATC.P V-LATH.P H11F.1 H11F.2 H11F.3 H11F.6   [ ]     [ ]     [ ]     [ ]   Y1F9 Y1FA Y1FB Y1FE 3008 3008 3008 3008 V/HATC.P SUBATC.P AXSATC.P V-LATH.P H11F.1 H11F.2 H11F.3 H11F.6   [ ]     [ ]     [ ]     [ ]   Y1F9 Y1FA Y1FB Y1FE 3008 3008 3008 3008 V/HATC.P SUBATC.P AXSATC.P V-LATH.P H11F.1 H11F.2 H11F.3 H11F.6   [ ]     [ ]     [ ]     [ ]   Y1F9 Y1FA Y1FB Y1FE 3008 3008 3008 3008				WL.N ATC TYPE V/H NC H10E.0 3008 ( ) Y170 # 192 SM.N ATC TYPE SUB MAGAZINE NC H10E.1 3009 3608 3812 *4010 ( ) 4101 4205 *4205 4303 Y171 *4304 4304 4306 # 197 RM.N ATC TYPE RAM HEAD NC H10E.2 3010 ( ) Y172 # 202 MILL.N MILLING SPECIFICATION H10F.0 3011 ( ) Y178 # 204 CAX.N C AXIS SPECIFICATION H10F.1 3012 *5212 7803 7804 ( ) 7805 7806 Y179 # 206 VT.N VERTICAL SPECIFICATION H10F.2 3013*10407 ( ) Y17A # 208 I-AGCP SPINDLE 10 ANGLE SPC. H07A.7 3014 6291 6703 6704 ( ) 6705 7703 7704 7705 M215 10703 # 211	
11	MILL.P H11F.4   [ ]   Y1FC 3011 C-AXIS.P H11F.5   [ ]   Y1FD 3012 V-LATH.P H11F.6   [ ]   Y1FE 3008 MILL.P H11F.4   [ ]   Y1FC 3011 C-AXIS.P H11F.5   [ ]   Y1FD 3012					
12	AUTO.SW H163.6   [ ]   XODE M323 1016 REST.SW H163.7   [ ]   XODF M323 8206					
13	TEST.SW H163.5   [ ]   XODD M323 1015 SPR.SW H163.4   [ ]   XODC M323 8206 ATC.SW H163.2   [ ]   XODA M323 8206					
14	TEST.P H11E.0   [ ]   Y1FO 3017					
15	STSUB.P H11E.2   [ ]   Y1F2 3019					

DRN. BY. <u>Y. SUZUKI</u>		TITLE. <u>ST-25 ATC M/C</u>		CONTROL. <u>HAZATROL T3</u>	
DATE. <u>1988.7.9</u>				DRAWING NO. <u>172 01 47 800</u>	
CHK'D BY. <u>M. KURITA</u>		Y104 C		SHEET. <u>030</u> OF	
DATE. <u>1988.7.2</u>					
APPR'D BY. _____					
DATE. _____					



REV.	DATE.	NAME.	DRN. BY. Y.SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9	Y704 C	DRAWING NO. 172 01 47 800
			CHK'D BY. M.KURITA		SHEET. 031 OF.
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					



			DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>HAZATROL T3</u>
			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 600</u>
			CHK'D BY. <u>M.KURITA</u>		
			DATE. <u>1986.7.9</u>	<u>YT04 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>032</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



1	ATC.SW H163.2	ST.SW H162.0		STCM.SUB H09C.3	CYCLE START SW SUB 3301 #3605 3799 3901 #8406 #8801 10901 10902 #4803 # 303
1	X0DA 1012	X0D0 1002			
1	STSUB.P H11E.2				
1	J/I				
1	Y1F2 3019				
1	CT.D H14C.5				
1	J/I				
1	X1E5 903				
1	SST.M H007.0				
1	J/I				
1	X038 303				
1	SST.R H012.3	READY.R H012.5			
1	J/I				
1	X093 508	X095 510			
2	ATC.SW H163.2	SST.SW H162.2		CCTSM.SB H07C.4	SPINDLE START SW SUB 3302 3405 3406 3514 #4804 # 307
2	X0DA 1012	X0D2 1004			
2	STSUB.P H11E.2				
2	J/I				
2	Y1F2 3019				
2	RST.SW H160.0			RST.N H100.6	RESET NC 3303 #9303 10303 10304
2	J/I				
2	X0C0 906				Y106 # 393
3	BFN.M H00A.1				
3	J/I				
3	X051 216				
3	RST.D H14C.1				
3	J/I				
3	Y1E1 901				
3	PEND.R H012.2				
3	J/I				
3	X092 507				
3	RST.ALP H03B.4				
3	J/I				
3	M043 11204				
4	30M H062.4	SSOP.M H046.4	EIA.N H135.1	ERS.N H100.7	REMOTE RESET NC 3304
4	J/I				
4	M 20 5213	Y034 6503	X129 718		Y107 # 399
4	BFN.M H00A.1				
4	J/I				
4	X051 216				
4	PEND.R H012.2				
4	J/I				
4	X092 507				
5	SOVD.SW H160.1	MILL.N H103.4		SOVD.N H102.1	TABLE OVERRIDE UP NC 3305
5	J/I	J/I			
5	X0C1 907	Y11C 6203			Y111 # 402
5	SOVD.SW H160.2	MILL.N H103.4		SOVD.N H102.5	TABLE OVERRIDE DOWN NC 3306
5	J/I	J/I			
5	X0C2 908	Y11C 6203			Y115 # 405
5	SOVD.SW H160.1	MILL.N H103.4		MOVD.N H102.3	MILL OVERRIDE UP NC 3307
5	J/I	J/I			
5	X0C1 907	Y11C 6203			Y113 # 408
5	SOVD.SW H160.2	MILL.N H103.4		MOVD.N H102.7	MILL OVERRIDE DOWN NC 3308
5	J/I	J/I			
5	X0C2 908	Y11C 6203			Y117 # 411
5	FOVD.SW H160.3			FOVD.N H102.2	JOG FEED OVERRIDE UP NC 3309
5	J/I				
5	X0C3 909				Y112 Y116 # 413

DRN. BY.	Y. SUZUKI	TITLE.	CT-25 ATC M/C	CONTROL.	MAZATROL T3
DATE.	1986.7.9			DRAWING NO.	172 01 47 800
CHK'D BY.	M. KURITA		YT04 C	SHEET.	033 OF.
DATE.	1986.7.9				
APPR'D BY.					
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

1	FOVD.SW H160.4				FOVD.N H162.6	JOG FEED OVERRIDE DOWN NC 3401
2	XCC4 210				Y110 # 415	RAPID FEED OVERRIDE UP NC 3402
3	ROVD.SW H160.6				ROVD.N H162.0	RAPID FEED OVERRIDE DOWN NC 3403
4	XCC6 212				Y110 # 417	RESET LED 3404
5	ROVD.SW H160.7				ROVD.N H162.4	SPINDLE OVERRIDE UP LED 3405
6	XCC7 213				Y114 # 417	SPINDLE OVERRIDE UP LED 3405
7	RST.SW H160.0				ROT.L H170.0	FEED OVERRIDE UP LED 3407
8	XCC0 206				Y0A0 # 421	FEED OVERRIDE DOWN LED 3408
9	SOVD.SW H160.1				SOVD.L H170.1	G.T. RELEASES LED 3409
10	XCC1 207				Y0A1 # 423	RAPID OVERRIDE UP LED 3410
11	SOVD.SW H160.2				SOVD.L H170.2	RAPID OVERRIDE DOWN LED 3411
12	XCC2 208				Y0A2 # 425	TOOL PASS MEMORY NC 3412
13	FOVD.SW H160.3				FOVD.L H170.3	WFC NC 3413
14	XCC3 209				Y0A3 # 427	CRT CLEAR ON/OFF 3414 3415
15	FCVD.SW H160.4				FOVD.L H170.4	CRT OFF LED 3415
16	XCC4 210				Y0A4 # 429	MEMORY PROTECT 3416
17	CTR.SW H160.5				CTR.L H170.5	HANDLE WEDGE NC 3417 3418 *3501 3502
18	XCC5 211				Y0A5 # 431	HANDLE ON 3418
19	FCVD.SW H160.6				ROVD.L H170.6	
20	XCC6 212				Y0A6 # 433	
21	ROVD.SW H160.7				ROVD.L H170.7	
22	XCC7 213				Y0A7 # 435	
23	TPS.SW H161.0				TPS.N H104.0	
24	XCC8 214				Y120 # 437	
25	WFC.SW H161.1				WFC.N H104.3	
26	XCC9 215				Y123 # 439	
27	CRTC.SW H161.2				CRTC.N H101.1	
28	XCCA 216				Y107 # 441	
29	CRTC.N H101.1				CRTC.L H170.2	
30	Y109 3414				Y0SA # 443	
31	PRL.SW H161.7				KEY.N H101.0	
32	XCCF 1001				Y108 # 445	
33	HICN.SW H164.0	RST.N H130.7	AUT.M H046.3	HICF.SW H164.1	HIT.N H104.2	
34	XCE0 1010	X107 613	Y033 3703	XCE1 1019	Y122 # 451	
35	HIT.N H104.2					
36	Y122 3417					
37	HIT.N H104.2	AUT.M H046.3	LEDTRNK H087.0		HICN.L H176.0	
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39	AHIN.N H135.2					
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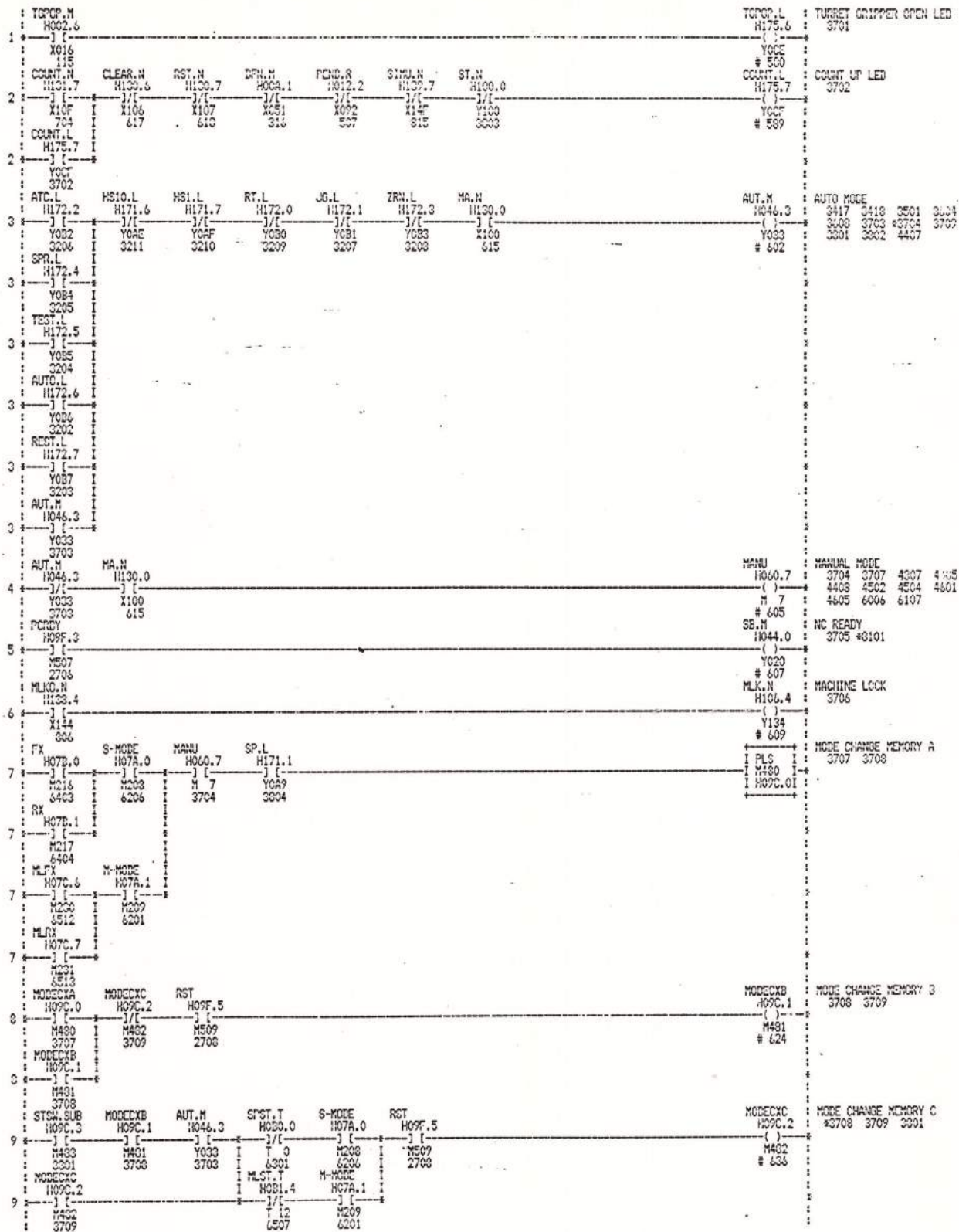
DRN. BY.	Y.SUZUKI	TITLE.	ST-25 ATC M/C	CONTROL.	MAZATROL T3
DATE.	1986.7.9	CHK'D BY.	M.KURITA	DRAWING NO.	172 01 47 800
DATE.	1986.7.9	APPR'D BY.		SHEET.	034 OF.
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

1	AIR.N H105.2 1/1 X12A 719 SKIP0 H007.6	HIT.N H104.2 1/1 Y122 3417	AUT.M H046.3 1/1 Y033 3703	H0F.L H176.1 ( ) Y0B1 # 460 MSENG.N H101.2 ( ) Y10A # 462 PX.L H170.5 ( ) Y0E5 # 465 NX.L H178.6 ( ) Y0E6 # 468 PZ.L H178.4 ( ) Y0E4 # 470 NZ.L H170.3 ( ) Y0E3 # 472 PC.L H170.0 ( ) Y0E0 # 476 NC.L H178.2 ( ) Y0E2 # 480 HS H09F.4 ( ) M508 # 484	HANDLE OFF 3501  MTC SENSOR ON 3502  JOG FEED +X LED 3503  JOG FEED -X LED 3504  JOG FEED +Z LED 3505  JOG FEED -Z LED 3506  JOG FEED +C LED 3507  JOG FEED -C LED 3508  HANDLE PULSE MODE 3509 3510 3511 3512 3513 3601 3602
2	X03E 308 PX.SH H164.5	BJONIA H038.3 1/1			
3	X0F5 1117 NX.SH H166.6	M323 8206 BJONIA H038.3 1/1			
4	X0F6 1118 PZ.SH H164.4	M323 8206 1/1			
5	X0F4 1116 NZ.SH H166.3	M323 8206 1/1			
6	X0F3 1115 PC.SH H166.0	M323 8206 1/1 C-MODE H07A.2 1/1 M210 7907 NC.SH H166.2	JCCK H079.2 1/1 M202 11401 JCCK H079.2 1/1 M202 11401		
7	X0F0 1112 NC.SH H166.2	M210 7907 C-MODE H07A.2 1/1 M210 7907	M202 11401 JCCK H079.2 1/1 M202 11401		
8	X0F2 1114 HIT.N H104.2	M210 7907 1/1 Y122 3417 H01.L H171.7 1/1 Y0AF 3210 HS10.L H171.6 1/1 Y0AE 3211			
9	X0F1 1113 C-MODE H07A.2	M210 7907 1/1 HC.SH H167.6 1/1 M210 7907 C-MODE H07A.2 1/1 M210 7907 HC H09F.4 1/1 M508 3509	M202 11401 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509		
10	X0F0 1112 C-MODE H07A.2	M210 7907 1/1 HC.SH H167.6 1/1 M210 7907 C-MODE H07A.2 1/1 M210 7907 HC H09F.4 1/1 M508 3509	M202 11401 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509		
11	X0F0 1112 C-MODE H07A.2	M210 7907 1/1 HC.SH H167.6 1/1 M210 7907 C-MODE H07A.2 1/1 M210 7907 HC H09F.4 1/1 M508 3509	M202 11401 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509		
12	X0F0 1112 C-MODE H07A.2	M210 7907 1/1 HC.SH H167.6 1/1 M210 7907 C-MODE H07A.2 1/1 M210 7907 HC H09F.4 1/1 M508 3509	M202 11401 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509		
13	X0F0 1112 C-MODE H07A.2	M210 7907 1/1 HC.SH H167.6 1/1 M210 7907 C-MODE H07A.2 1/1 M210 7907 HC H09F.4 1/1 M508 3509	M202 11401 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509		
14	X0F0 1112 C-MODE H07A.2	M210 7907 1/1 HC.SH H167.6 1/1 M210 7907 C-MODE H07A.2 1/1 M210 7907 HC H09F.4 1/1 M508 3509	M202 11401 1/1 M508 3509 1/1 M508 3509 1/1 M508 3509		

REV.	DATE.	NAME.	DRN. BY. Y.SUZUKI	TITLE. ST-25 ATC N/C	CONTROL. MAINTROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 800
			CHK'D BY. M.KURITA	YT04 C	SHEET. 035 OF.
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					

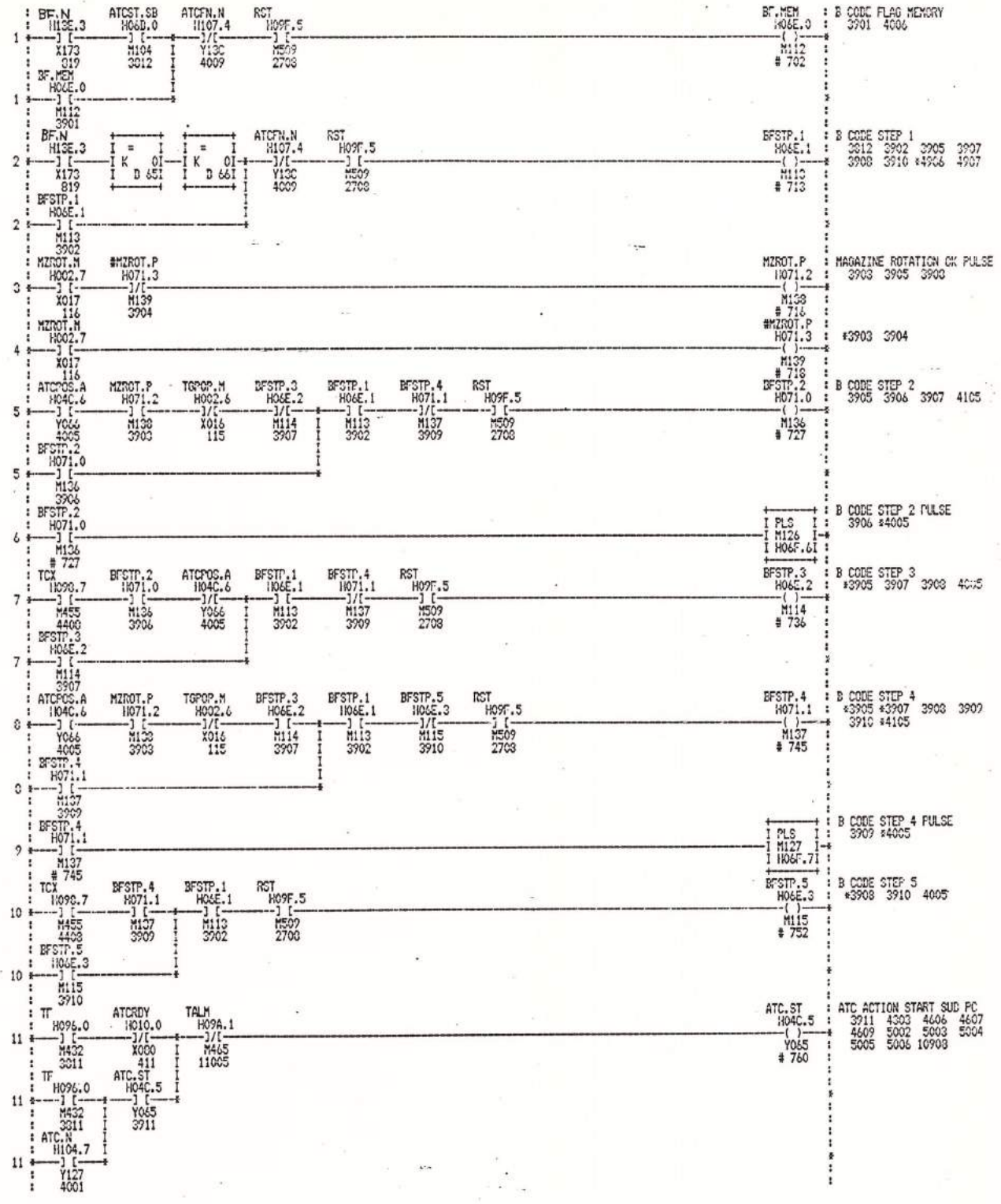
1	HL.N H100.1 J I Y157 3511	HS H09F.4 J I M500 3509							HL.L H179.7 ( ) Y0EF # 530	HANDLE PULSE Z LED 3601
2	HL.N H100.2 J I Y15A 3512	HS H09F.4 J I M500 3509							HL.L H179.6 ( ) Y0EE # 530	HANDLE PULSE C LED 3602
3	RDY H09F.1 J I M500 2707								RDY.L H174.0 ( ) Y0CO # 535	NC READY LED 3603
4	PEND.N H101.6 J I X10E 703	AUT.M H046.0 J I Y000 3703	SIMU.N H139.7 J I X14F 815						PEND.L H174.3 ( ) Y0C3 # 541	PROGRAM END LED 3604 3606
4	30M H062.4 J I M 20 5210									
4	PEND.N H070.4 J I M132 3605									
5	2M H062.3 J I M 19 5111	STCH.SUB H076.3 J I M480 3301	RST.N H130.7 J I X107 810	PHEAD.L H174.2 J I Y0C2 3606	RDY H09F.1 J I M500 2707				PEND.M H070.4 ( ) M132 # 548	PROGRAM END LED MEMORY 3604 3605
5	PEND.N H070.4 J I M132 3605									
6	PHEAD.N H131.5 J I Y10D 702	PEND.L H174.3 J I Y0C3 3604	SIMU.N H139.7 J I X14F 815						PHEAD.L H174.2 ( ) Y0C2 # 552	PROGRAM HEAD LED #3605 3606
7	ZPT.N H133.3 J I Y11D 711								ZPT.L H174.4 ( ) Y0C4 # 554	TOOL CHANGE LED 3607
8	ATCAUT H015.0 J I Y0A0 709	AUT.M H046.3 J I Y000 3703	ST.L H171.0 J I Y0A0 3606	SM.N H10E.1 J I Y171 3609	LEDBANK H087.0 J I Y 56 2810				MCAL.L H174.5 ( ) Y0C5 # 561	MACHINE ALARM LED 3608
8	MCAL.N H132.2 J I Y112 707									
9	TLAL.N H132.1 J I Y111 706								TLAL.L H174.6 ( ) Y0C6 # 563	TOOL LIFE ALARM LED 3609
10	MCAL.N H132.0 J I Y110 705								NCAL.L H174.7 ( ) Y0C7 # 565	NC ALARM LED 3610
11	MCAL.N H132.2 J I Y112 707								MAL.N H046.0 ( ) Y030 # 569	MACHINE ALARM 3611
11	TLAL.N H132.1 J I Y111 706									
11	MCAL.N H132.0 J I Y110 705									
12	ZPX.N H133.0 J I X110 700	SIMU.N H139.7 J I X14F 815							ZPX.L H175.0 ( ) Y0C8 # 572	X HOME POSITION LED 3612
13	ZPY.N H133.1 J I X119 709	SIMU.N H139.7 J I X14F 815							ZPY.L H175.1 ( ) Y0C9 # 575	Y HOME POSITION LED 3613
14	ZPC.N H133.2 J I X11A 710	SIMU.N H139.7 J I X14F 815							ZPC.L H175.2 ( ) Y0CA # 578	Z HOME POSITION LED 3614

DRN. BY.	Y.SUZUKI	TITLE.	GT-25 ATC M/C	CONTROL.	MAZATROL T3
DATE.	1986.7.9	CHK'D BY.	M.KURITA	DRAWING NO.	172 01 47 800
DATE.	1986.7.9	APPR'D BY.		SHEET.	036 OF.
DATE.				YAMAZAKI MAZAK CORPORATION	
REV.	DATE.	NAME.			

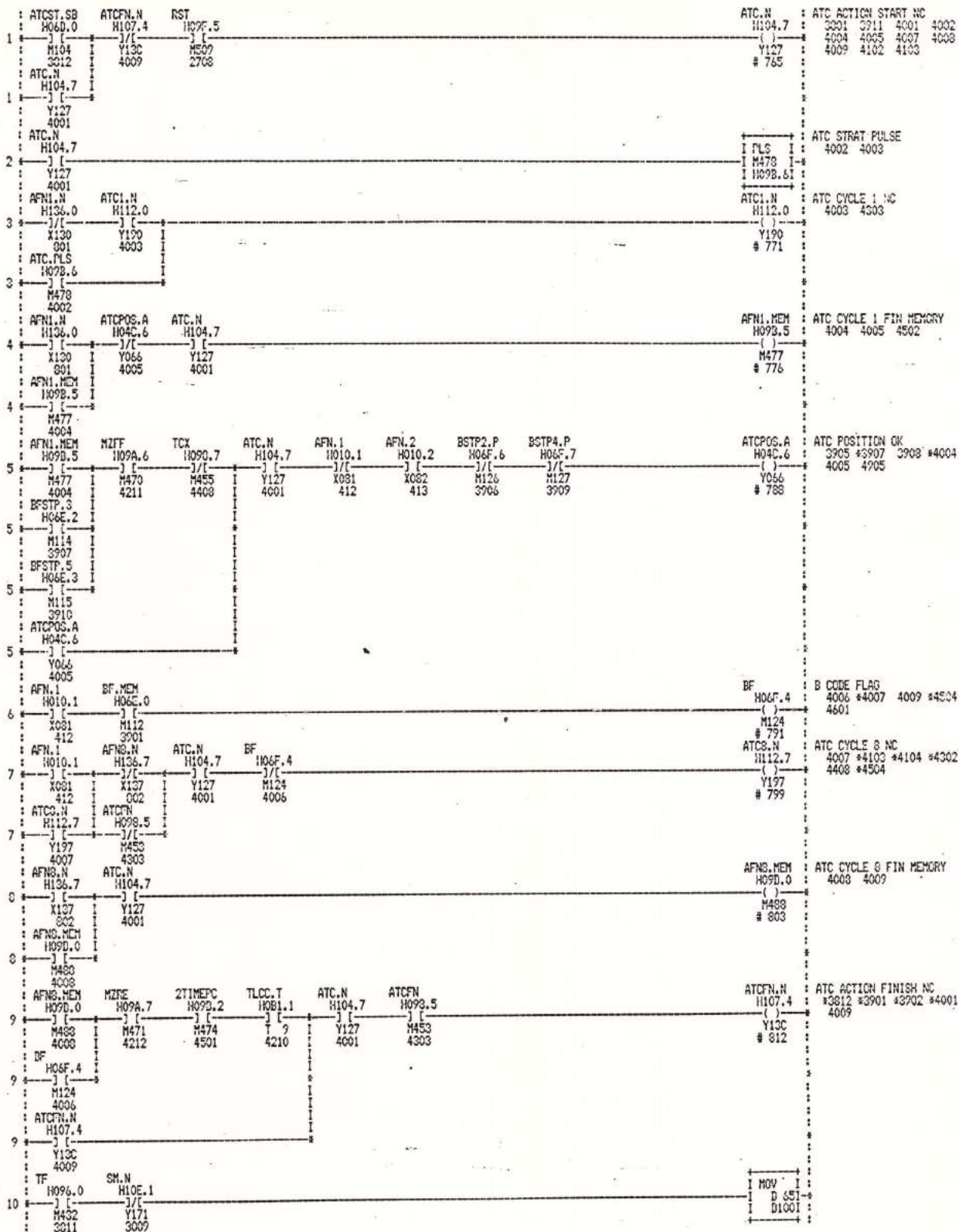


1	STW.SUB H09C.3	MZRC H09A.7	TLCC.T H081.1	AUT.M H048.3	RDY H09F.1	START.T H081.7	SST H061.0	CYCLE START 3301 3301 3302 3303 3403
1	M430 3301 M08EAC H09C.2	M471 4212 ATC.N H104.7	4210	M433 3703	M435 2707	1 39 2012	M 8 # 646	
2	SST H061.0	AUT.M H048.3	RST H09F.5				SX H061.1	START MEMORY 2001 3302 4300 4510
2	M 9 3301	Y033 3703	M507 2708				M 9 # 651	
3	SST H061.0	SIMOF.T H084.7					ST.N H100.0	CYCLE START NC *3702 3303 *3407
3	M 8 3301	T 39 2312					Y100 # 654	
4	SPL.N H131.1	SIMU.N H139.7					SP.L H171.1	FEED HOLD LED 3707 3304 3305
4	X107 820	X14F 815					Y0A9 # 657	
5	SP.L H171.1						SPL.N H046.2	FEED HOLD 3305
5	Y0A9 3304						Y032 # 659	
6	STL.N H131.0	SIMUL.N H132.7					ST.L H171.0	CYCLE START L&D 3308 3306 3307 *3201 *3202*10901*10902 11401
6	X130 819	X14F 815					Y0A0 # 662	
7	ST.L H171.0						STL.N H046.1	CYCLE START 3307
7	Y0A0 3306						Y031 # 664	
8	PX.SW H166.5	NX.SW H166.6					JYK H079.4	JOG FEED Z GK 3300 11307 11308
8	X0F5 1117	X0F6 1118					M204 # 668	
9	PZ.SW H166.4	NZ.SW H166.3					JYK H079.3	JOG FEED X GK 3309 11305 11306
9	X0F4 1116	X0F3 1115					M203 # 672	
10	MFOK H061.5						BACKZERO H06E.6	BACK TOOL DATA ZERO 3810 *3811 9903
10	M 13 5013	K 01 D 661					M118 # 677	
11	TF.N H13E.1	SIMOF.T H084.7	265M H06E.5				TF H096.0	T FUNCTION 3811 3812 3911 4810 4101 4205 4303 *4910 4911 4912 4913
11	X171 817	T 39 2012	M117 5702				M432 # 685	
11	265M H06C.5	BACKZERO H06E.6						
11	M117 5702	M118 3810						
12	TF H096.0	ATCFN.N H107.4	SM.N H10E.1	RST H09F.5	TALN H09A.1		ATCST.SB H06D.0	ATC START *** 3812 3901 4001 *4101 *4205 4205 *4303 4304 *4304 10908
12	M432 3311	Y13C 4007	Y171 3309	M507 2700	M465 11005		M104 # 696	
12	BPSTP.1 H06E.1							
12	M113 3902							
12	ATCST.SB H06D.0							
12	M104 3312							

DRN. BY.	Y.SUZUKI	TITLE.	ST-25 ATC M/C	CONTROL	MAZATROL T3
DATE.	1986.7.9	CHK'D BY.	M.MURITA	DRAWING NO.	172 01 47 800
DATE.	1986.7.9	APPR'D BY.		SHEET.	038 OF
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



REV.	DATE.	NAME.	DRN. BY. Y.SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9	YT04 C	DRAWING NO. 172 01 47 800
			CHK'D BY. M.KURITA		SHEET. 039 OF.
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					



REV.	DATE.	NAME.	DRN. BY. Y.SUZUKI	TITLE.	CONTROL.
			DATE. 1986.7.9	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. M.KURITA		DRAWING NO.
			DATE. 1986.7.9	YT04 C	172 01 47 800
			APPR'D BY.		SHEET. 040 OF.
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					



TF	SM.N	ATCST.SB							
1	H096.0 M422 3011	H10E.1 Y171 3009	H06D.0 J/E 3812						
	ATC.N H104.7								
2	Y127 4001								
	ATCS.N H112.7	ATC.N H104.7							
3	J/E Y197 4007	J/E Y127 4001							
	ATCS.N H112.7	ATC.N H104.7							
4	J/E Y197 4007	J/E Y127 4001							
	ATC.N H104.7	BFGSTP.2 H071.0	BFGSTP.4 H071.1						
5	Y127 4001	M136 3906	M137 3909						
	MGR0TBF H06E.4								
6	M116 4105								
	MGR0TBF H06E.4								
7	J/E M116 4105								
	MGR0TBF H06E.4								
8	J/E M116 4105								
	PCRDY H09F.3								
9	J/E M507 2706								
	PCRDY H09F.3								
10	J/E M507 2706								
	PCRDY H09F.3								
11	J/E M507 2706								
	PCRDY H09F.3								
12	J/E M507 2706								
	PCRDY H09F.3								
13	J/E M507 2706								
	PCRDY H09F.3								
14	J/E M507 2706								
	PCRDY H09F.3								
15	J/E M507 2706								
	PCRDY H09F.3								
16	J/E M507 2706								
	PCRDY H09F.3								
17	J/E M507 2706								
	PCRDY H09F.3								
18	J/E M507 2706								
	PCRDY H09F.3								
19	J/E M507 2706								
	PCRDY H09F.3								
20	J/E M507 2706								
	PCRDY H09F.3								

MOV D 601  
E1001

MOV D 691  
D1001

K 71  
D1001

K 91  
D1001

MGR0TBF H06E.4  
( )  
M116  
# 847

MOV D 601  
D1001

K 71  
D1001

K 91  
D1001

T1X H094.0  
( )  
M416  
# 870

T2X H094.1  
( )  
M417  
# 875

T3X H094.2  
( )  
M418  
# 880

T4X H094.3  
( )  
M419  
# 885

T5X H094.4  
( )  
M420  
# 890

T6X H094.5  
( )  
M421  
# 895

T7X H094.6  
( )  
M422  
# 900

T8X H094.7  
( )  
M423  
# 905

T9X H095.0  
( )  
M424  
# 910

T10X H095.1  
( )  
M425  
# 915

T11X H095.2  
( )  
M426  
# 920

T12X H095.3  
( )  
M427  
# 925

MAGAZINE ROTATION AT EF  
4105 4106 4107 4108

TOOL COMMAND 1  
4109 11503

TOOL COMMAND 2  
4110 11503

TOOL COMMAND 3  
4111 11503

TOOL COMMAND 4  
4112 11503

TOOL COMMAND 5  
4113 11503

TOOL COMMAND 6  
4114 11503

TOOL COMMAND 7  
4115 11503

TOOL COMMAND 8  
4116 11503

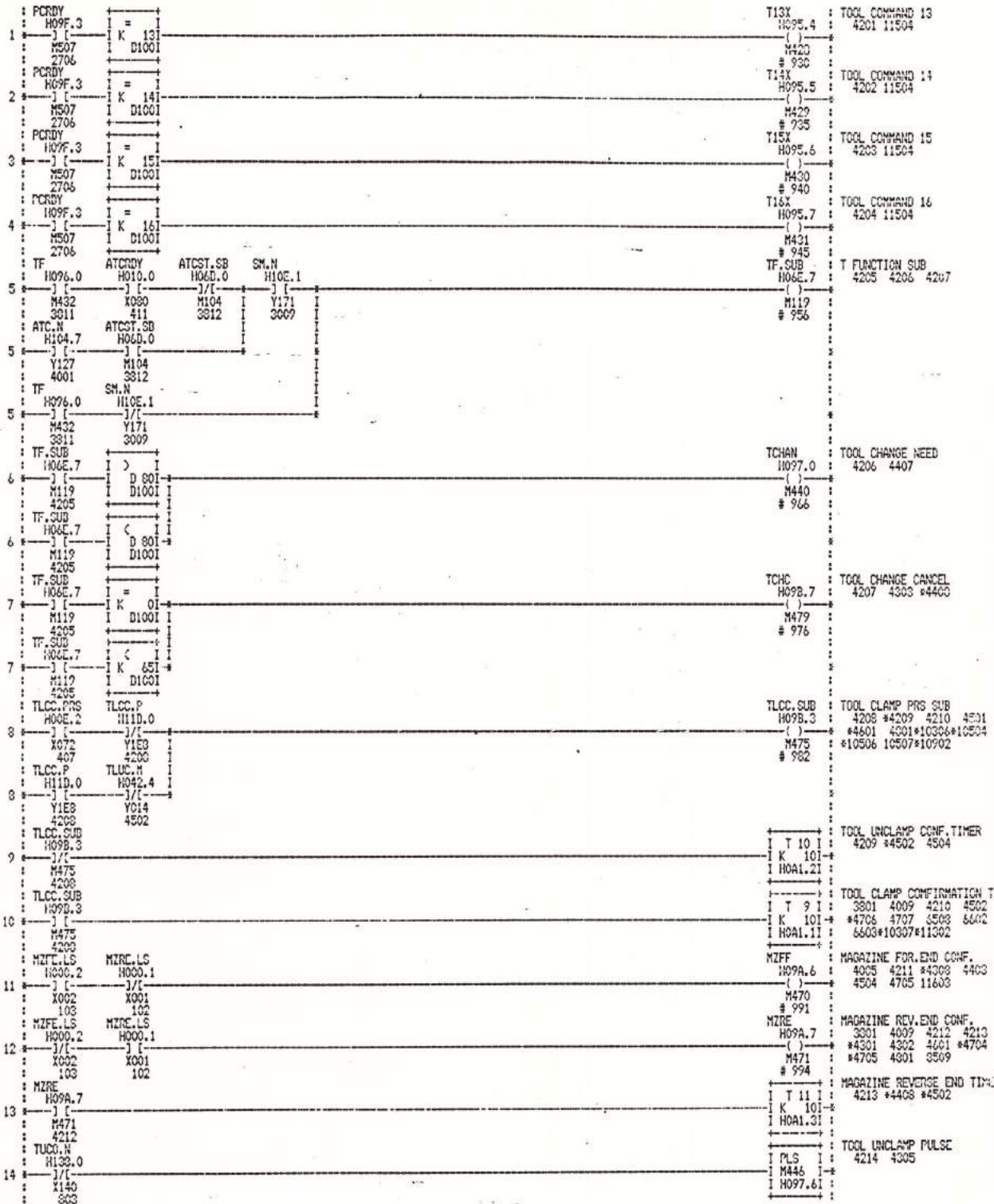
TOOL COMMAND 9  
4117 11504

TOOL COMMAND 10  
4118 11504

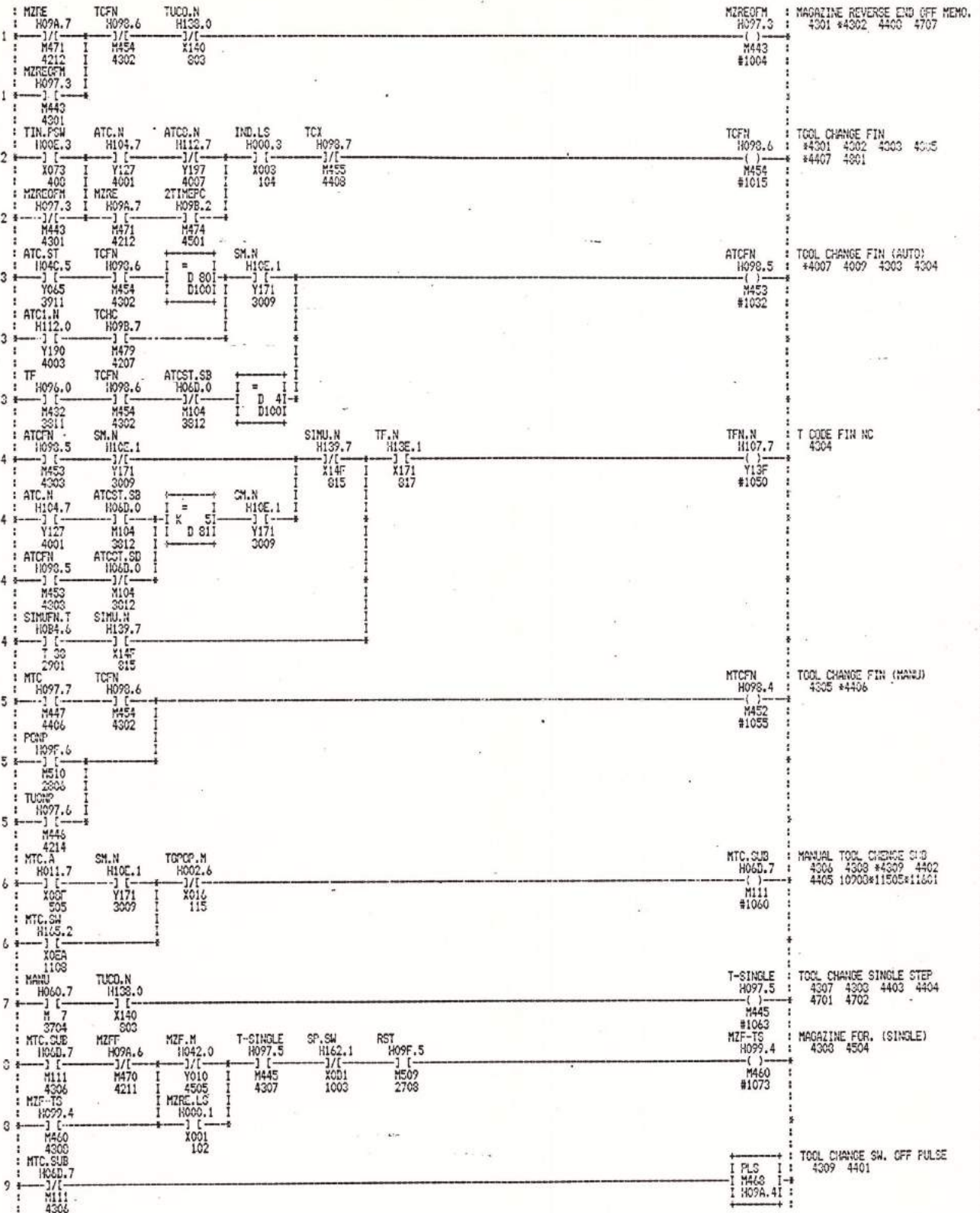
TOOL COMMAND 11  
4119 11504

TOOL COMMAND 12  
4120 11504

			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	HAZATROL T3
			CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
			DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>041</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



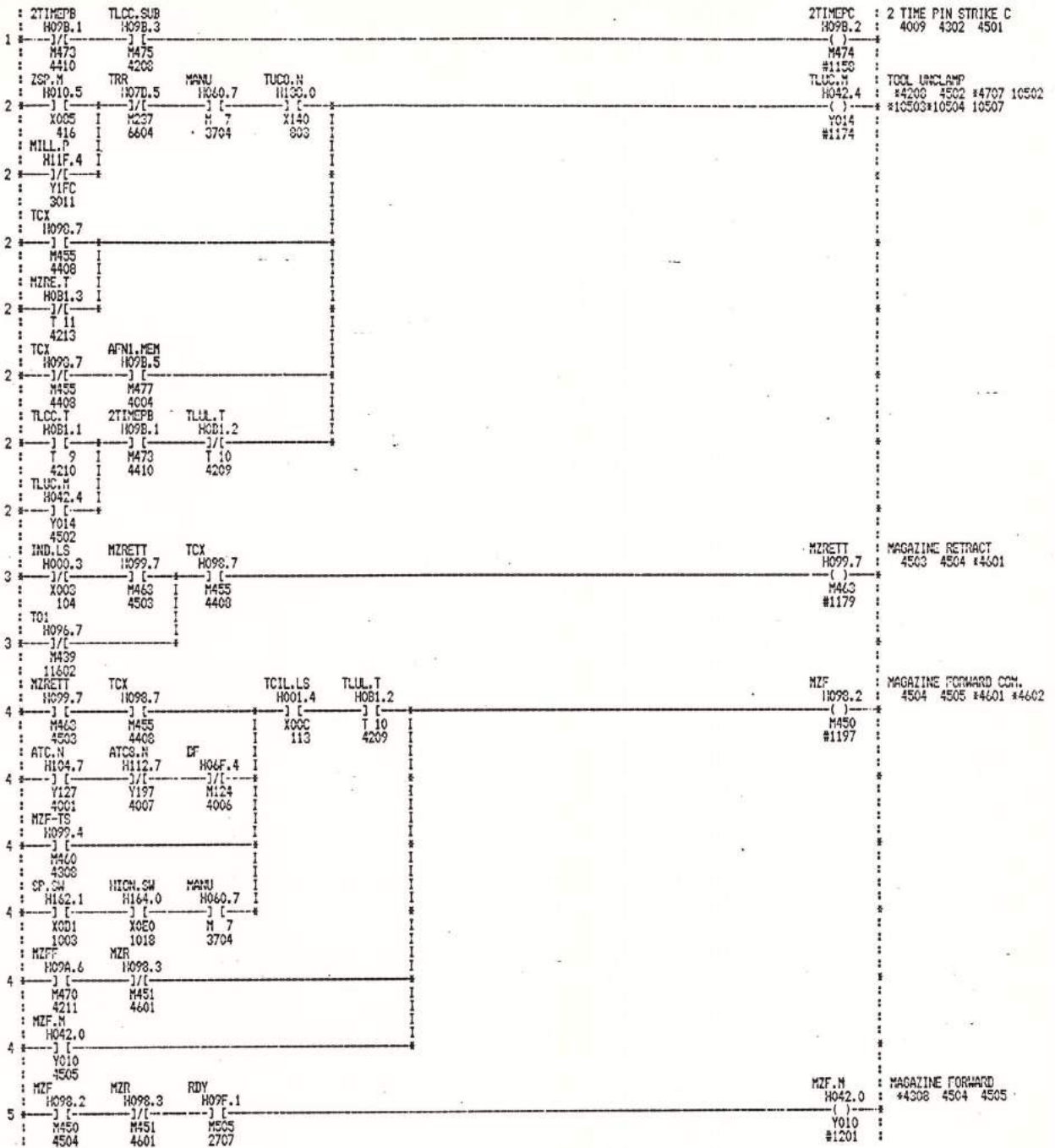
				DRN. BY. <u>Y. SUZUKI</u>	TITLE ST-25 ATC M/C	CONTROL MAZATROL T3
				DATE <u>1986.7.9</u>		YT04 C
				CHK'D BY. <u>Y. KURITA</u>		
				DATE <u>1986.7.7</u>		
				APPR'D BY. _____		
				DATE _____		
REV.	DATE	NAME	<b>YAMAZAKI MAZAK CORPORATION</b>			



DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
DATE. 1986.7.9	YTO4 C	DRAWING NO. 172 01 47 300
CHK'D BY. H. KURITA		SHEET. 043 OF.
DATE. 1986.7.9		
APPR'D BY.		
DATE.		
REV.	DATE.	NAME.

1	MTC H09A.4 M463 4309 MTC.SUB H09B.7	MTC SW.T H09B.5 J/C T 37 4402											MTCMP H09A.5 M467 #1078	MAGAZINE ROT. COMMAND 4401 4403	
2	M111 4304 MZF H09A.6 M470 4211 MZR-TS H099.5	MTCMP H09A.5 J/C M469 4401 MZR.M H042.1 Y011 4602 MZF H09A.6 M470 4211	T-SINGLE H097.5 J/C M445 4307	MTC SW.T H09A.5 J/C T 37 4402	SP.SW H162.1 J/C X001 1003	RST H09F.5 J/C M509 2708							MZR-TS H099.5 M461 #1092	MAGAZINE REV. (SINGLE) 4403 4601	
3	M461 4403 MTC SW.T H09A.5 T 37 4402 MANU H060.7 M 7 3704 OPCK H060.1 M 1 8402 MTCM H099.2 M453 4405	T-SINGLE H097.5 J/C M445 4307 MTC.GUD H06D.7 M111 4306 MTC H097.7 M447 4406	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707									MZROT-TS H097.6 M462 #1095 MTCM H099.2 M458 #1103	MAGAZINE CH. (SINGLE) 4404 4701 4702 MANUAL TOOL CHANGE MEMORY 4405 4406 #6508	
5	MTCM H099.2 M458 4405	ZSP.M H010.5 J/C X085 416 MILL.P H11F.4 M447 4406 AUT.M H046.3 Y033 3703 TCHAN H097.0 M440 4206	TRR H07D.5 J/C M237 6604	TCIL.LS H001.4 J/C X00C 113	MTCFN H09B.4 J/C M452 4305	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707							MTC H097.7 M447 #1114	MANUAL TOOL CHANGE 4305 4405 4406 4403 4701 4702 #6511
6	MTC H097.7 M447 4406 DEN.N H124.0 X120 713 ATC.N H104.7 Y127 4001 ATCM H09A.0 M464 4407	MILL.P H11F.4 Y1FC 3011 AUT.M H046.3 Y033 3703	TRR H07D.5 J/C M237 6604	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707									ATCM H09A.0 M464 #1125	AUTO TOOL CHANGE MEMORY 4407 4408 4701 4702 #6508 11602 #11602
7	ATCM H09A.0 M464 4407	TCFN H098.6 J/C M454 4302 MZR.T H081.3 J/C M464 4407 MTC H097.7 M447 4406 MTCN H097.7 M447 4406	ATCM H09A.0 J/C M464 4407 MTC H097.7 M447 4406	ZSP.M H010.5 J/C X005 416 MILL.P H11F.4 M447 4406	TCFC H09B.7 J/C M479 4207 MANU H060.7 M 7 3704	TUCO.N H128.0 J/C X140 803	TCIL.LS H001.4 J/C X00C 113	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707	TCX H09C.7 J/C M455 #1146				TOOL CHANGE COMMAND 3707 3910 4405 #4302 4408 4502 #4502 4503 4504 4601 #4603	
8	TO1 H096.7 J/C M439 11602 IND.LS H030.3 J/C X003 104 2TIMEPB H09B.1 M473 4410 TUOF.PLS H08B.1 M345 10503 PCNP H09F.6 M510 2306	MZR.T H081.3 J/C M464 4407 MTC H097.7 M447 4406	ATCM H09A.0 J/C M464 4407 MTC H097.7 M447 4406	ZSP.M H010.5 J/C X005 416 MILL.P H11F.4 M447 4406	TCFC H09B.7 J/C M479 4207 MANU H060.7 M 7 3704	TUCO.N H128.0 J/C X140 803	TCIL.LS H001.4 J/C X00C 113	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707	TCX H09C.7 J/C M455 #1146				2TIMEPA H09B.0 M472 #1149 2TIMEPB H09B.1 M473 #1155	2 TIME PIN STRIKE A 4409 4410 2 TIME PIN STRIKE B 4409 4410 #4501 4502
9	M473 4410 TUOF.PLS H08B.1 M345 10503 PCNP H09F.6 M510 2306	MZR.T H081.3 J/C M464 4407 MTC H097.7 M447 4406	ATCM H09A.0 J/C M464 4407 MTC H097.7 M447 4406	ZSP.M H010.5 J/C X005 416 MILL.P H11F.4 M447 4406	TCFC H09B.7 J/C M479 4207 MANU H060.7 M 7 3704	TUCO.N H128.0 J/C X140 803	TCIL.LS H001.4 J/C X00C 113	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707	TCX H09C.7 J/C M455 #1146				2TIMEPA H09B.0 M472 #1149 2TIMEPB H09B.1 M473 #1155	2 TIME PIN STRIKE A 4409 4410 2 TIME PIN STRIKE B 4409 4410 #4501 4502
10	M473 4410	MZR.T H081.3 J/C M464 4407 MTC H097.7 M447 4406	ATCM H09A.0 J/C M464 4407 MTC H097.7 M447 4406	ZSP.M H010.5 J/C X005 416 MILL.P H11F.4 M447 4406	TCFC H09B.7 J/C M479 4207 MANU H060.7 M 7 3704	TUCO.N H128.0 J/C X140 803	TCIL.LS H001.4 J/C X00C 113	TALM H09A.1 J/C M465 11005	RDY H09F.1 J/C M505 2707	TCX H09C.7 J/C M455 #1146			2TIMEPA H09B.0 M472 #1149 2TIMEPB H09B.1 M473 #1155	2 TIME PIN STRIKE A 4409 4410 2 TIME PIN STRIKE B 4409 4410 #4501 4502	

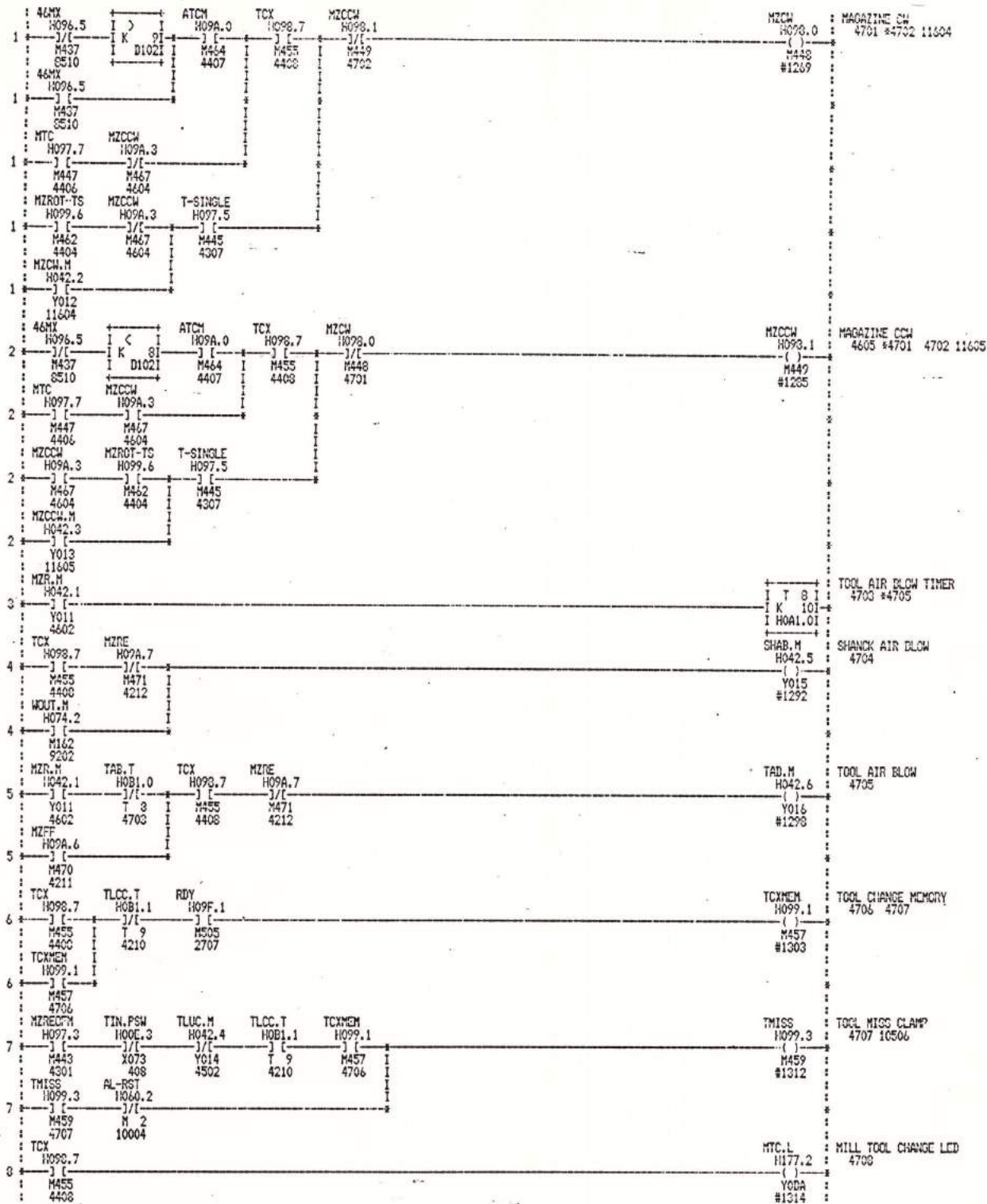
REV.	DATE	NAME	DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M.KURITA</u>	YT04 C	DRAWING NO.
			DATE. <u>1986.7.9</u>		172 01 47 800
			APPR'D BY.		SHEET. <u>044</u> OF.
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					



			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.9</u>	ST-25 ATC H/C	YAZATROL T3
			CHK'D BY. <u>H.HURITA</u>		DRAWING NO.
			DATE. <u>1986.7.9</u>	YT04 C	172 01 47 000
			APPR'D BY. _____		SHEET. <b>045</b> OF. _____
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

1	MZRETT H097.7 M453 4503 MZR-TS H097.5 M461 4403 DF H06F.4 M124 4006 SP. SW H162.1	TCX H098.7 M455 4408	IND. LG H030.0 X003 104	TLCS, SUB H05B.3 M475 4200	MZR H090.3 ( ) M451 #1216	MAGAZINE REVERSE CCH. #4504 #4505 4601 4602
1	M471 4212 MZR. W H042.1 Y011 4602	MZF H098.2 M450 4504	MANU H060.7 M 7 3704			
2	MZR H090.3 M451 4601 MTR. CH H165.4 X05C 1110 MZCCW H09A.3 M467 4604 MZCCW H09A.3 M467 4604 MZCCW H09A.3 M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	MZF H090.2 M450 4504	RDV H09F.1 M455 2707		MZR. M H042.1 ( ) Y011 #1220 PLS M466 H09A.2I MZCCW H09A.3 ( ) M467 #1229	MAGAZINE REVERSE #4403 4601 4602 4700 4705 MAGAZINE CH / CCH 4603 4604 #4604 MAGAZINE CCH DIRECTION #4604 4604 4605 #4701 4702
3	H165.4 X05C 1110 MZCCW H09A.3 M467 4604 MZCCW H09A.3 M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	TCX H098.7 M455 4408			MTR. L H177.4 ( ) Y05C #1235 MDV D1001 * D1021 TMINI H097.2 ( ) M442 #1244 K D1021 D C01 D1021	TURRET FRONT REAR SELECT LED 4605 T-CODE CHSL. REAL TOOL 4607 4608
4	M467 4604 MZCCW H09A.3 M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	H09A.2 M466 4603 H09A.2 M466 4603 H09A.2 M466 4603 H046.3 Y033 3703				
5	M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	H09A.2 M466 4603 H09A.2 M466 4603 H046.3 Y033 3703				
6	M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	H09A.2 M466 4603 H09A.2 M466 4603 H046.3 Y033 3703				
7	M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	H09A.2 M466 4603 H09A.2 M466 4603 H046.3 Y033 3703				
8	M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	H09A.2 M466 4603 H09A.2 M466 4603 H046.3 Y033 3703				
9	M467 4604 MZCCW H098.1 M449 4702 ATC. ST H04C.5 Y065 3911 ATC. ST H04C.5 Y065 3911 TMINI H097.2 M442 4607 ATC. ST H04C.5 Y065 3911	H09A.2 M466 4603 H09A.2 M466 4603 H046.3 Y033 3703				

REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9	YT04 C	DRAWING NO. 172 01 47 000
			CHK'D BY. M. MURITA		SHEET. 046 OF.
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					



REV.	DATE	NAME	DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL T3</u>
			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
			CHK'D BY. <u>M.KURITA</u>		
			DATE. <u>1986.7.9</u>	<u>YT04 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>047</u> OF. _____
<b>YAMAZAKI MAZAK CORPORATION</b>					

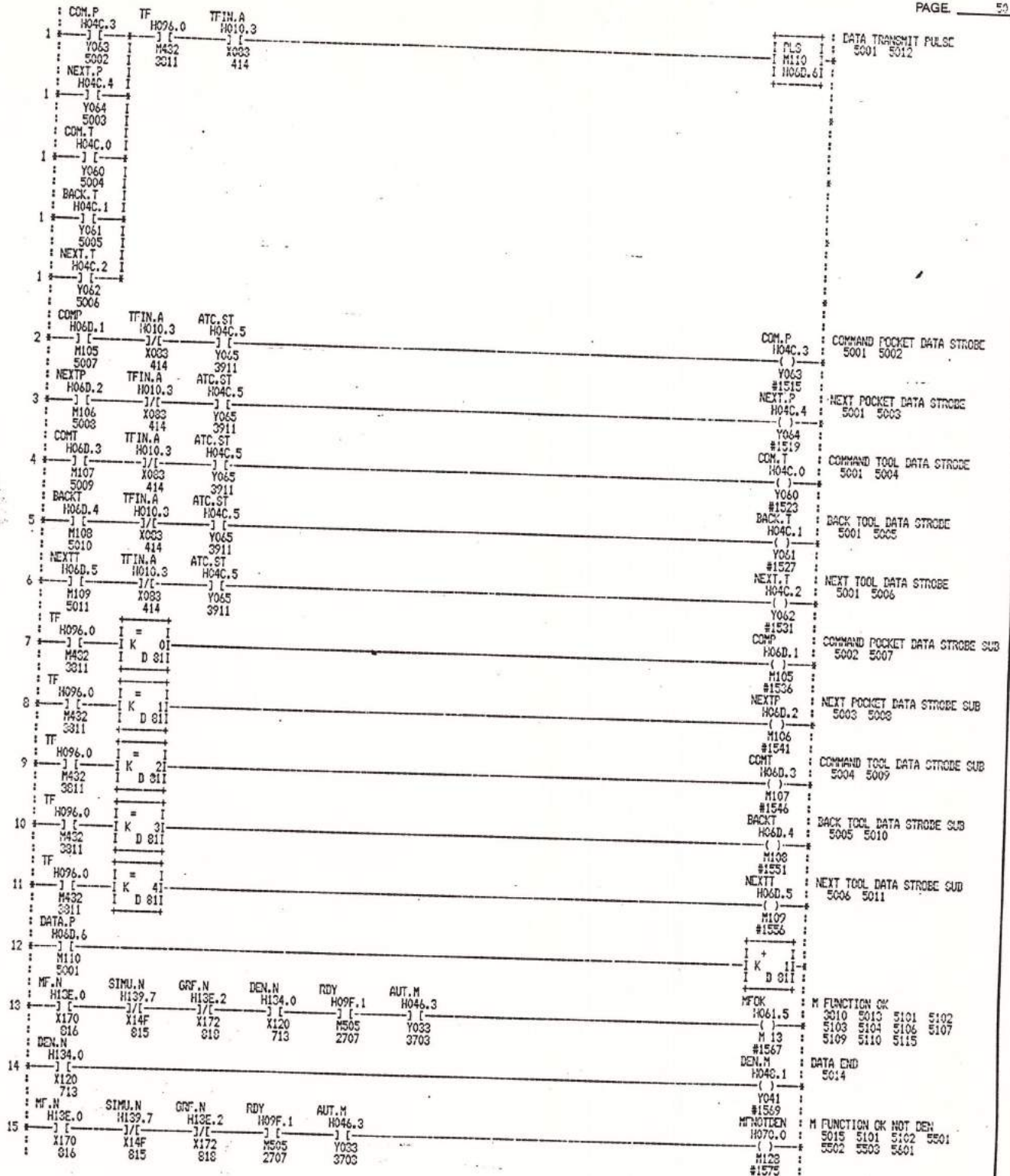
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1	H09A.7 M471 4212 ATC.N H104.7 Y127 4001	H000.3 X003 104 TCFN H098.6 M454 4002	H098.3 M475 4200	H104.7 Y127 4001	H109.7 X14F 015	H096.6 ( ) M438 H1020	4001 4002 4010	4006 4010 4014	4007 4011 4015	4008 4012
2	PCRDY H09F.3 M507 2706									
3	PCRDY H09F.3 M507 2706									
4	TF.N H13E.1 X171 817	SM.N H10E.1 Y171 3009		SIMU.N H139.7 X14F 815						
5	TF.N H13E.1 X171 817	SM.N H10E.1 Y171 3009		SIMU.N H139.7 X14F 815						
6	T1 H092.0 M400 11405	MZLK H096.6 M438 4801								
7	T2 H092.1 M401 11406	MZLK H096.6 M438 4801								
8	T3 H092.2 M402 11407	MZLK H096.6 M438 4801								
9	T4 H092.3 M403 11408	MZLK H096.6 M438 4801								
10	T5 H092.4 M404 11409	MZLK H096.6 M438 4801								
11	T6 H092.5 M405 11410	MZLK H096.6 M438 4801								
12	T7 H092.6 M406 11411	MZLK H096.6 M438 4801								
13	T8 H092.7 M407 11412	MZLK H096.6 M438 4801								
14	T9 H093.0 M408 11413	MZLK H096.6 M438 4801								
15	T10 H093.1 M409 11414	MZLK H096.6 M438 4801								
16	T11 H093.2 M410 11415	MZLK H096.6 M438 4801								
17	T12 H093.3 M411 11416	MZLK H096.6 M438 4801								
18	T13 H093.4 M412 11417	MZLK H096.6 M438 4801								
19	T14 H093.5 M413 11418	MZLK H096.6 M438 4801								

DRN. BY.	Y. SUZUKI	TITLE		CONTROL
DATE.	1966.7.9	ST-25 ATC M/C		MAZATROL T3
CHK'D BY.	M. KURITA	YTC4 C		DRAWING NO.
DATE.	1966.7.9			172 01 47 000
APPR'D BY.				SHEET 048 OF.
DATE.				
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>	



1	T15 M093.6 M414 11501	MZLK M096.6 M438 4301		MOV K 151 D 801
2	T16 M093.7 M415 11502	MZLK M096.6 M438 4301		MOV K 161 D 801
3	MZLK M096.6 M438 4301	SM.N H10E.1 Y171 3009		MOV D 801 D 31
4	PCRDY M09F.3 M507 2706	SM.N H10E.1 Y171 3009		MOV K 01 D 31
5	ATCPOS.A M04C.6 Y066 4005			MOV K 01 D 41
6	ATC.N H104.7 Y127 4001	AFN.1 M010.1 X031 412	BFSTP.1 M06E.1 M113 3902	MOV D 697 D 41
7	ATC.N H104.7 Y127 4001	AFN.1 M010.1 X031 412	BFSTP.1 M06E.1 M113 3902	MOV D 601 D 41
8	MZLK M096.6 M438 4301	SM.N H10E.1 Y171 3009	ATC.N H104.7 Y127 4001	MOV D 301 D 41
9	MZLK M096.6 M438 4301	SIMU.N H139.7 X14F 615	SM.N H10E.1 Y171 3009	MOV D 31 D 41
9	TF.N H13E.1 X171 817	SIMU.N H139.7 X14F 615		
10	TF M096.0 M432 3811			MOV K 01 D 811
11	TF M096.0 M432 3811			MOV D 681 K2Y0381
12	TF M096.0 M432 3811			MOV D 701 K2Y0381
13	TF M096.0 M432 3811			MOV D 651 K2Y0381
14	TF M096.0 M432 3811			MOV D 661 K2Y0381
15	TF M096.0 M432 3811			MOV D 671 K2Y0381

			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
			DATE <u>1986.7.9</u>	Y04 C	172 01 47 800
			APPR'D BY. _____		SHEET <u>049</u> OF _____
			DATE _____		
REV.	DATE	NAME	<b>YAMAZAKI MAZAK CORPORATION</b>		

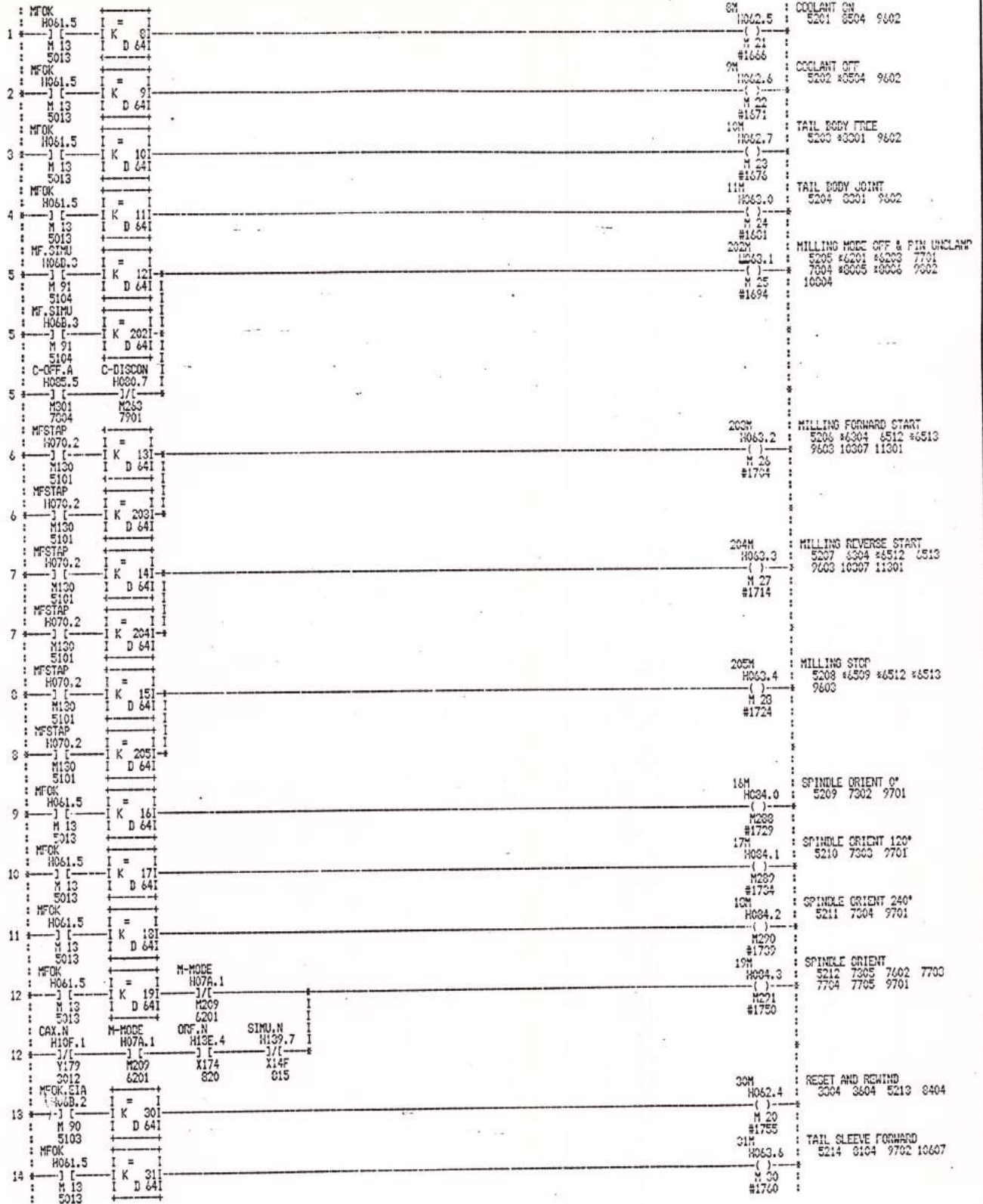


DRN. BY. Y.SUZUKI	TITLE	CONTROL
DATE. 1986.7.9	ST-25 ATC M/C	MAZATROL T3
CHK'D BY. M.KURITA		DRAWING NO.
DATE. 1986.7.9	YT04 C	172 01 47 800
APPR'D BY.		SHEET. 050 OF.
DATE.		
REV.	DATE.	NAME.

**YAMAZAKI MAZAK CORPORATION**

1	MFNOTDEN H070.0	MTAP.N H134.4	GEN2.N H134.1	MFSTAP H070.2	M FUNCTION OK SPINDLE TAP 5101 5206 5207 5208
	J [ ]	J [ ]	J [ ]	( )	
	M 13 5013	X124 716	X121 714	M130 #1502	
1	MFOK H061.5	MTAP.N H134.4			
	J [ ]	J [ ]			
	M 13 5013	X124 716			
2	MFHTAP H070.0	TAP.N H134.7	GEN2.N H134.1	MFHTAP H070.3	M FUNCTION OK MILL TAP 5102 5112 5113 5114
	J [ ]	J [ ]	J [ ]	( )	
	M 13 5013	X127 717	X121 714	M131 #1509	
2	MFOK H061.5	TAP.N H134.7			
	J [ ]	J [ ]			
	M 13 5013	X127 717			
3	MFOK H061.5	EIA.N H135.1		MFOK.EIA H068.2	M FUNCTION OK (EIA) 5103 5111 5210 5314 5315 5408 5409 5410
	J [ ]	J [ ]		( )	
	M 13 5013	X129 710		M 90 #1592	
4	MF.N H13E.0	GRF.N H13E.2	SIMU.N H139.7	MF.SIMU H06B.3	M FUNCTION (SIMULATION) 5104 5105 5205 5304 5305 5306 5307 5406
	J [ ]	J [ ]	J [ ]	( )	
	M 13 816	X172 818	X14F 815	M 91 #1597	
4	MFOK H061.5				
	J [ ]				
	M 13 5013				
5	MF.SIMU H06B.3	EIA.N H135.1		MF.EIA.S H06B.4	M FUNCTION EIA (SIMULATION) 5105 5405
	J [ ]	J [ ]		( )	
	M 91 5104	X129 718		M 92 #1600	
6	MFOK H061.5	[ < ] K 991	[ > ] K 2001	MF100 H04D.4	M CODE 100 STROBE 5106
	J [ ]	[ < ]	[ > ]	( )	
	M 13 5013	D 641	D 641	Y06C #1603	
7	TDR.PRC H06F.3	MFOK H061.5	[ < ] K 191	MF20.M H04D.0	MF 20 5107 5705 10002
	J [ ]	J [ ]	[ < ]	( )	
	X07B 410	M 13 5013	D 641	Y05B #1610	
7	TSET.P H11C.5		[ > ] K 301		
	J [ ]		[ > ]		
	Y1E 5107		D 641		
8	MF.N H13E.0	SIMU.N H139.7		MFN11 H06D.5	M FUNCTION 11 2901 5103
	J [ ]	J [ ]		( )	
	M 13 816	X170 815	X14F	M 93 #1621	
9	MFOK H061.5	[ = ] K 01		OM H061.6	PROGRAM STOP 5107 6401 #8403 8403
	J [ ]	[ = ]		( )	
	M 13 5013	D 641		M 14 #1626	
10	MFOK H061.5	[ = ] K 11		1M H061.7	OPTIONAL STOP 5110 0401 3403
	J [ ]	[ = ]		( )	
	M 13 5013	D 641		M 15 #1631	
11	MFOK.EIA H06B.2	[ = ] K 21		2M H062.3	END OF PROGRAM 3405 5111 8404 8405 9602
	J [ ]	[ = ]		( )	
	M 90 5103	D 641		M 19 #1636	
12	MFHTAP H070.3	[ = ] K 31		3M H062.0	SPINDLE FORWARD 5112 #6304 6403 #6404 9601 10203 11207
	J [ ]	[ = ]		( )	
	M131 5102	D 641		M 16 #1641	
13	MFHTAP H070.3	[ = ] K 41		4M H062.1	SPINDLE REVERSE 5113 #6403 6404 9601 10203 11207
	J [ ]	[ = ]		( )	
	M131 5102	D 641		M 17 #1646	
14	MFHTAP H070.3	[ = ] K 51		5M H062.2	SPINDLE STOP 5114 #6307 9601
	J [ ]	[ = ]		( )	
	M131 5102	D 641		M 18 #1651	
15	MFOK H061.5	[ = ] K 61		6M.M H040.4	BAR FEEDER FORWARD 5115 5902 9602
	J [ ]	[ = ]		( )	
	M 13 5013	D 641		Y004 #1656	
16	MFOK H061.5	[ = ] K 71		7M.M H040.5	BAR FEEDER REVERSE 5116 5906 9602
	J [ ]	[ = ]		( )	
	M 13 5013	D 641		Y005 #1661	

REV.	DATE.	NAME.	DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1985.7.9</u>	GT-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M.KURITA</u>	YT04 C	DRAWING NO.
			DATE. <u>1985.7.9</u>		172 01 47 600
			APPR'D BY. _____		SHEET. <u>051</u> OF. _____
			DATE. _____		
<b>YAMAZAKI MAZAK CORPORATION</b>					



REV.	DATE	NAME	DRN. BY. Y.SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 800
			CHK'D BY. M.KURITA	Y704 C	SHEET. 052 OF.
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					

1	MFOK H061.5 M 13 5013	K = 321 D 641	32M H060.7 ( ) M 31 #1765	TAIL SLEEVE REVERSE 5301 5105 9702 10007
2	MFOK H061.5 M 13 5013	K = 331 D 641	33M H064.0 ( ) M 32 #1770	CHUCK PRESSURE LOW 5302
3	MFOK H061.5 M 13 5013	K = 341 D 641	34M H064.1 ( ) M 33 #1775	CHUCK PRESSURE HIGH 5303
4	MF.SIMU H06B.3 M 91 5104	K = 361 D 641	36M H064.3 ( ) M 35 #1785	HYD SHIFT (N) 5304 6001 7107 9702
4	MF.SIMU H06B.3 M 91 5104	K = 401 D 641		
5	MF.SIMU H06B.3 M 91 5104	K = 371 D 641	37M H064.4 ( ) M 36 #1795	HYD SHIFT (L) 5305 6002 7201 9702
5	MF.SIMU H06B.3 M 91 5104	K = 411 D 641		
6	MF.SIMU H06B.3 M 91 5104	K = 381 D 641	38M H064.5 ( ) M 37 #1805	HYD SHIFT (M) 5306 6003 6803 7201 7202 9702
6	MF.SIMU H06B.3 M 91 5104	K = 421 D 641		
7	MF.SIMU H06B.3 M 91 5104	K = 391 D 641	39M H064.6 ( ) M 38 #1815	HYD SHIFT (H) 5307 6803 6804 7202 7203 9702
7	MF.SIMU H06B.3 M 91 5104	K = 431 D 641		
8	MFOK H061.5 M 13 5013	K = 451 D 641	46M H064.2 ( ) M 34 #1820	ONE WAY ROTATION 5308 8510 9702
9	MFOK H061.5 M 13 5013	K = 471 D 641	47M H064.7 ( ) M 39 #1825	46M CANCEL 5309 8510 9702
10	MFOK H061.5 M 13 5013	K = 481 D 641	48M H065.0 ( ) M 40 #1830	PARTS CATCHER FORWARD 5310 8511 9703
11	MFOK H061.5 M 13 5013	K = 491 D 641	49M H065.1 ( ) M 41 #1835	PARTS CATCHER REVERSE 5311 8511 9703
12	MFOK H061.5 M 13 5013	K = 511 D 641	51M H065.2 ( ) M 42 #1840	ERROR DETECT GT 5312 8606 9703
13	MFOK H061.5 M 13 5013	K = 521 D 641	52M H065.3 ( ) M 43 #1845	ERROR DETECT ON 5313 8606 9703
14	MFOK.E1A H06B.2 M 90 5103	K = 531 D 641	53M H065.4 ( ) M 44 #1850	CHAMFERING GT 5314 8606 9703
15	MFOK.E1A H06B.2 M 90 5103	K = 541 D 641	54M H065.5 ( ) M 45 #1855	CHAMFERING ON 5315 8606 9703
16	MFOK H061.5 M 13 5013	K = 551 D 641	55M H065.6 ( ) M 46 #1860	WORK COUNTER 5316 8607 8610 9703

	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL
	DATE. <u>1986.7.2</u>	ST-25 ATC H/C	MAZATROL T3
	CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
	DATE. <u>1986.7.2</u>	YT04 C	172 01 47 000
	APPR'D BY. _____		SHEET. <u>053</u> OF. _____
	DATE. _____		
REV.	DATE.	NAME.	

**YAMAZAKI MAZAK CORPORATION**

1	MFGK H061.5 J (-) M 13 5013	I K = 561 D 641	54M H065.7 ( ) M 47 #1005	FRONT DOOR OPEN 5401 0501 0611 0704 9501
2	MFGK H061.5 J (-) M 13 5013	I K = 571 D 641	57M H066.0 ( ) M 40 #1070	FRONT DOOR CLOSE 5402 0702 9501
3	MFGK H061.5 J (-) M 13 5013	I K = 581 D 641	58M H066.1 ( ) M 42 #1075	SPINDLE AIR FLOW 5403 0706 0707 9001
4	MFGK H061.5 J (-) M 13 5013	I K = 591 D 641	59M H066.2 ( ) M 50 #1000	PROGRAM END PREPARATION 5404 0801 9001
5	MF.ETA 6 H06B.4 J (-) M 92 5105	I K = 601 D 641	60M H069.4 ( ) M 76 #1005	MILL II MODE 5405 6107 6203 7000 #0005 #0006 9802 10004
6	MF.61MU H06B.3 J (-) M 91 5104	I K = 611 D 641	61M H066.3 ( ) M 51 #1090	MILL I MODE 5406
7	MF.61MU H06B.3 J (-) M 91 5104	I K = 621 D 641	62M H066.4 ( ) M 52 #1095	MILL II MODE 5407
8	MFGK.ETA H06B.2 J (-) M 90 5103	I K = 631 D 641	63M H066.5 ( ) M 53 #1200	TOOL CHANGE 5400
9	MFGK.ETA H06B.2 J (-) M 90 5103	I K = 641 D 641	64M H066.6 ( ) M 54 #1205	TOOL LOAD 5400
10	MFGK.ETA H06B.2 J (-) M 90 5103	I K = 651 D 641	65M H066.7 ( ) M 55 #1210	TOOL UNLOAD 5410
11	MFGK H061.5 J (-) M 13 5013	I K = 661 D 641	66M H067.1 ( ) M 57 #1215	CYCLE BAR FEEDER CALL 1 5411
12	MFGK H061.5 J (-) M 13 5013	I K = 671 D 641	67M H067.2 ( ) M 53 #1220	CYCLE BAR FEEDER CALL 1 5412
13	MFGK H061.5 J (-) M 13 5013	I K = 701 D 641	70M H067.3 ( ) M 59 #1925	SPINDLE OVL DETECT OFF 5413 #0002 9001
14	MFGK H061.5 J (-) M 13 5013	I K = 711 D 641	71M H067.4 ( ) M 60 #1930	SPINDLE OVL DETECT ON 5414 0002 9001
15	MFGK H061.5 J (-) M 13 5013	I K = 721 D 641	72M H06C.4 ( ) M 00 #1935	CHUCK EXT. CHANGE 5415 5902 #6102 6106 9001
16	MFGK H061.5 J (-) M 13 5013	I K = 731 D 641	73M H06C.5 ( ) M 01 #1940	CHUCK INT. CHANGE 5416 5902 6102 9001
17	MFGK H061.5 J (-) M 13 5013	I K = 761 D 641	76M H067.5 ( ) M 61 #1245	AJC JAN UNLOAD 5417 5708 #5708 5806 #0505 0904 9903
18	MFGK H061.5 J (-) M 13 5013	I K = 771 D 641	77M H067.6 ( ) M 62 #1250	AJC JAN LOAD 5418 5708 #5708 #0505 0904 9903
19	MFGK H061.5 J (-) M 13 5013	I K = 781 D 641	78M H069.0 ( ) M 72 #1255	WORK REST DOG VALID 5419 0803 9901
20	MFGK H061.5 J (-) M 13 5013	I K = 791 D 641	79M H069.1 ( ) M 70 #1260	WORK REST DOG INVALID 5420 #0003 9901

DRN. BY.	Y. SUZUKI	TITLE	ST-25 ATC M/C	CONTROL	MAZATROL T3
DATE	1986.7.9			DRAWING NO.	172 01 47 000
CHK'D BY.	H. KURITA		YT04 C		
DATE	1986.7.9				
APPR'D BY.					
DATE					SHEET. 054 OF.
REV.	DATE	NAME	<b>YAMAZAKI MAZAK CORPORATION</b>		

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: MNOTDEN      I = I
: H070.0      I = I
1  J L      I K 811
: M128      I D 641
: S015
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: S015
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: M128      I D 641
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: M128      I D 641
: S015
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: M128      I D 641
: S015
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: H070.0      I = I
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: S015
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: S015
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: M128      I D 641
: S015
: FIN.M      AUCHOV
: H00A.0      H08C.8
3  J L      J L
: X050      X058
: 315      0904
: TFN      BF.T
: H014.7      H08C.7
3  J L      J L
: X0A7      T103
: 608      0903
    
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81M H160.0 WORK DETECTOR AIR DLOW ON  
 ( ) 5501 9202 9203 9901  
 M 63  
 #2030

82M H160.1 WORK DETECTOR AIR DLOW OFF  
 ( ) 5502 #2202 #2203 9901  
 M 64  
 #2040

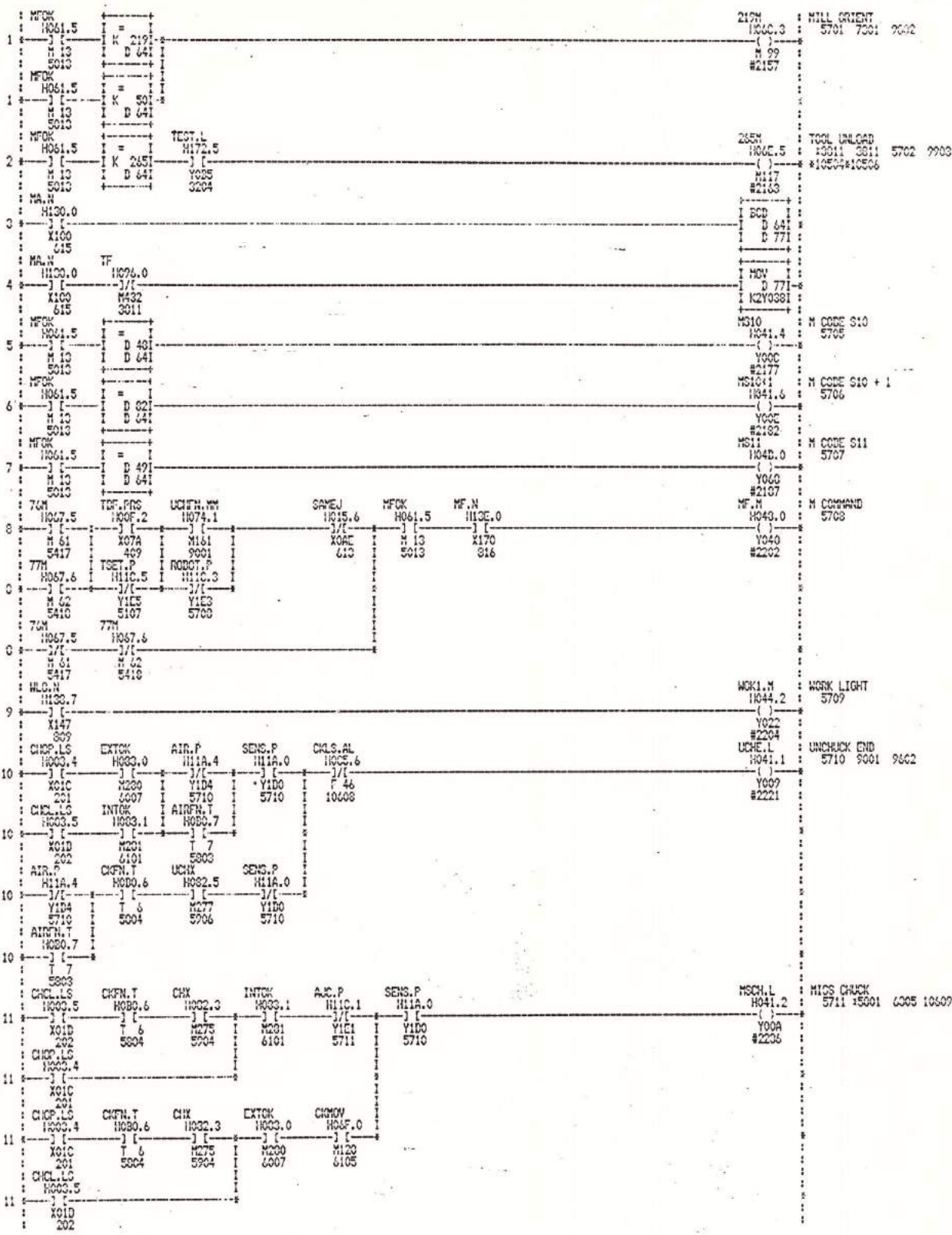
83M H160.2 TOOL DETECTOR ON  
 ( ) 5503 8905 9003 #9004  
 M 65  
 #2050

DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL T3</u>
DATE. <u>1986.7.2</u>	YT04 C	DRAWING NO. <u>172 01 47 800</u>
CHK'D BY. <u>M. KURITA</u>		SHEET. <u>055</u> OF. <u>    </u>
DATE. <u>1986.7.2</u>		
APPR'D BY. <u>    </u>		
DATE. <u>    </u>		
REV.	DATE.	NAME.

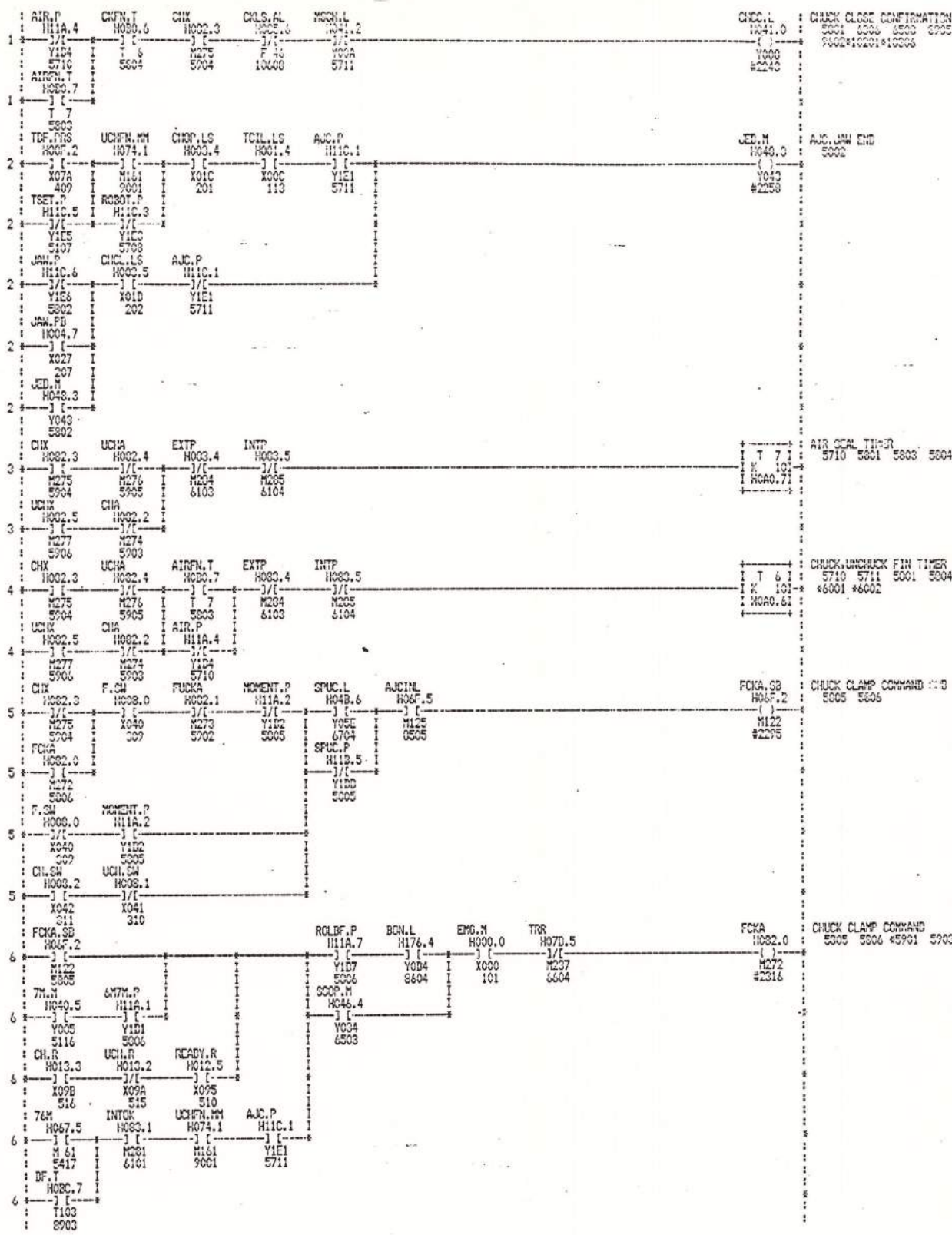
1	MFN0TDEN H070.0 M128 S015	K 041 D 641	G4M H068.2 ( ) M 66 #2072	TOOL DETECTOR OFF 5601 #8003 7004 #9203 7701
1	MFN0TDEN H070.0 M128 S015	K 1111 D 641		
1	FIN.M H00A.0 X050 315	AJCHOV H03C.6 M058 0704		
1	TFN H014.7 X0A7 608	DF.T H03C.7 T103 8903		
2	MFK H061.5 M 13 S013	K 061 D 641	G6M H068.3 ( ) M 67 #2077	WORK REST 1 UNCLAMP 5602 8804 8901
3	MFK H061.5 M 13 S013	K 071 D 641	G7M H068.4 ( ) M 68 #2082	WORK REST 1 CLAMP 5603 #8004 8901
4	MFK H061.5 M 13 S013	K 881 D 641	G8M H068.5 ( ) M 69 #2087	WORK REST 2 UNCLAMP 5604 8806 8901
5	MFK H061.5 M 13 S013	K 891 D 641	G9M H068.6 ( ) M 70 #2092	WORK REST 2 CLAMP 5605 #8006 8901
6	MFK H061.5 M 13 S013	K 971 D 641	G7M H068.7 ( ) M 71 #2097	MILL SPEED CHANGE 5606
7	M.SHM H068.3 M 71 S104	K 2001 D 641	200M H079.0 ( ) M200 #2102	MILL POINT CUTTING 5607 6107 6203 7803 #8005 #8006 9802 10804
8	M.SHM H068.3 M 71 S104	K 2011 D 641	201M H079.1 ( ) M201 #2107	MILL LINE CUTTING 5608 6107 6203 7803 #8005 #8006 9802 10804
9	MFK H061.5 M 13 S013	K 2101 D 641	210M H067.2 ( ) M314 #2117	SPINDLE CLAMP 5609 8805 #8006 9002 9902
9	MFK H061.5 M 13 S013	K 621 D 641		
10	MFK H061.5 M 13 S013	K 2111 D 641	211M H067.3 ( ) M315 #2127	SPINDLE BRAKE 5610 #8005 8006 9802 9902
10	MFK H061.5 M 13 S013	K 671 D 641		
11	MFK H061.5 M 13 S013	K 2121 D 641	212M H067.4 ( ) M316 #2132	SPINDLE FREE 5611 7701 #8005 #8006 9802 9902
12	MFK H061.5 M 13 S013	K 2161 D 641	216M H06C.0 ( ) M 76 #2137	LUBE TURRET SELECT 5612 9902
13	MFK H061.5 M 13 S013	K 2171 D 641	217M H0C0.1 ( ) M 97 #2142	LUBE TURRET RET 5613 9902
14	MFK H061.5 M 13 S013	K 2181 D 641	218M H06C.2 ( ) M 70 #2147	LUBRICATION 5614 9902

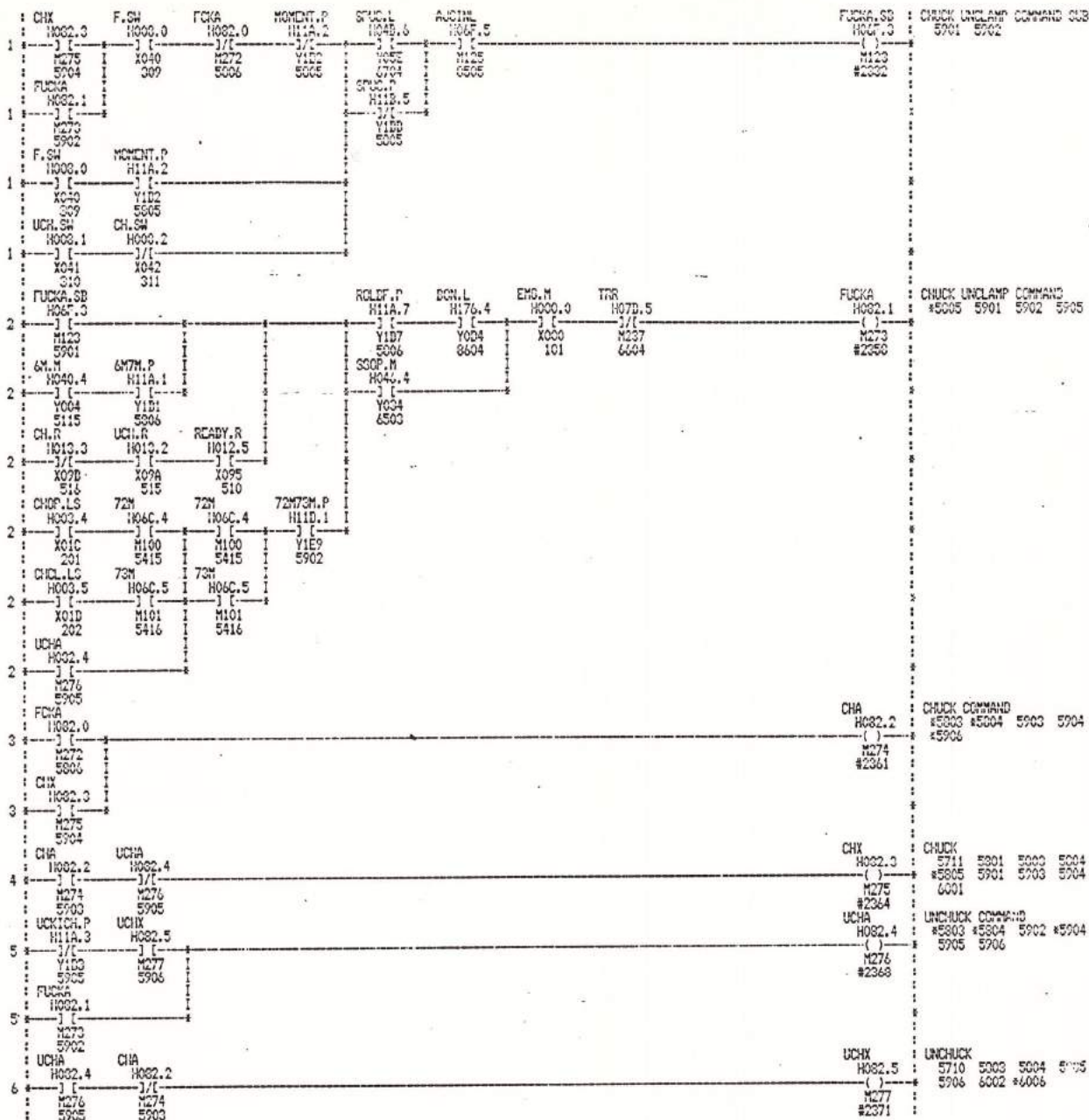
DRN. BY.	Y.SUZUKI	TITLE.	ST-25 ATC M/C	CONTROL.	MAZATROL T3
DATE.	1986.7.9			DRAWING NO.	172 01 47 000
CHK'D BY.	M.KURITA		Y704 C	SHEET.	056 OF.
DATE.	1986.7.9				
APPR'D BY.					
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		





REV.	DATE	NAME	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE 1986.7.9	Y704 C	DRAWING NO. 172 01 47 000
			CHK'D BY. H. KURITA		SHEET. 057 OF.
			DATE 1986.7.9		
			APPR'D BY.		
			DATE		
<b>YAMAZAKI MAZAK CORPORATION</b>					

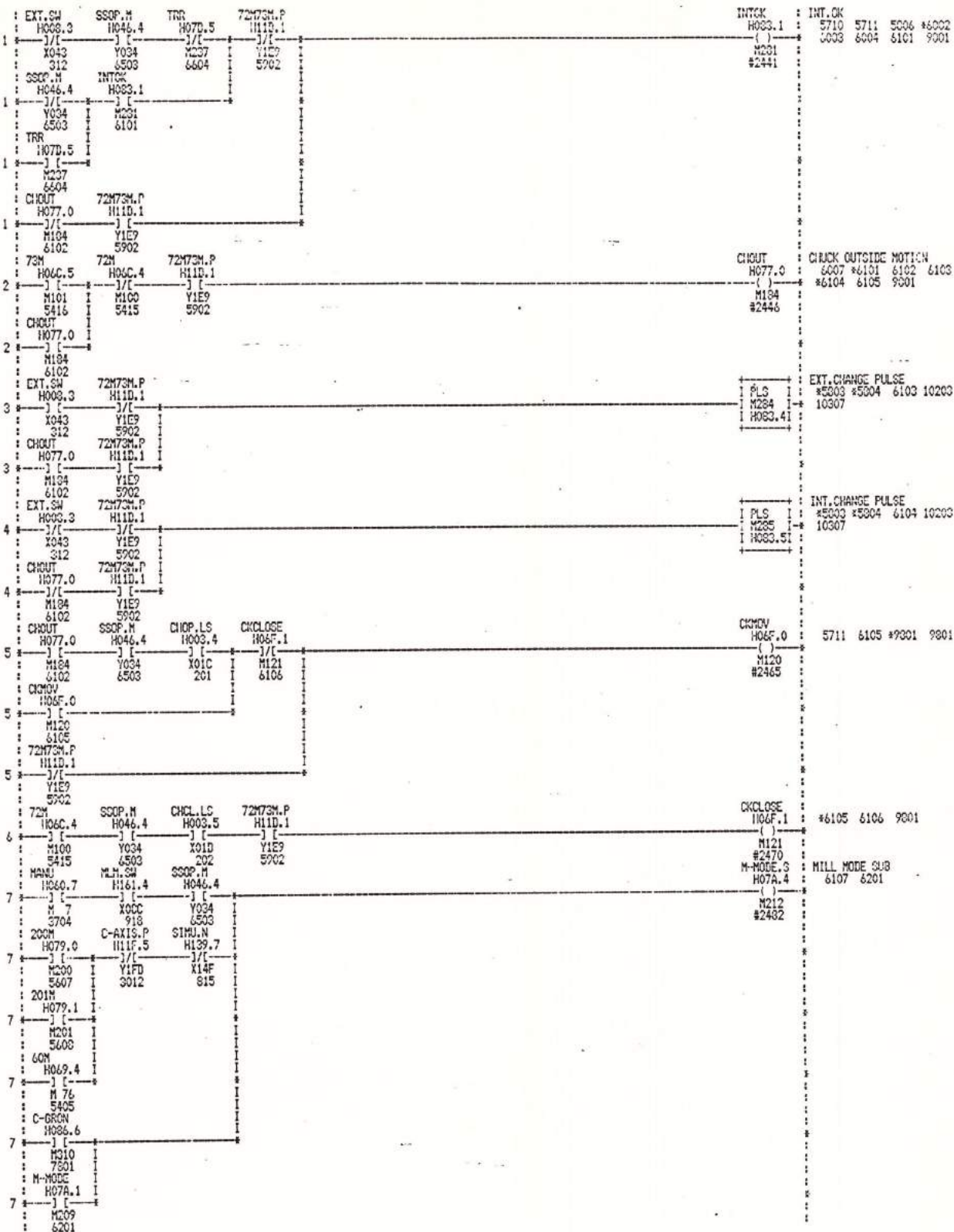




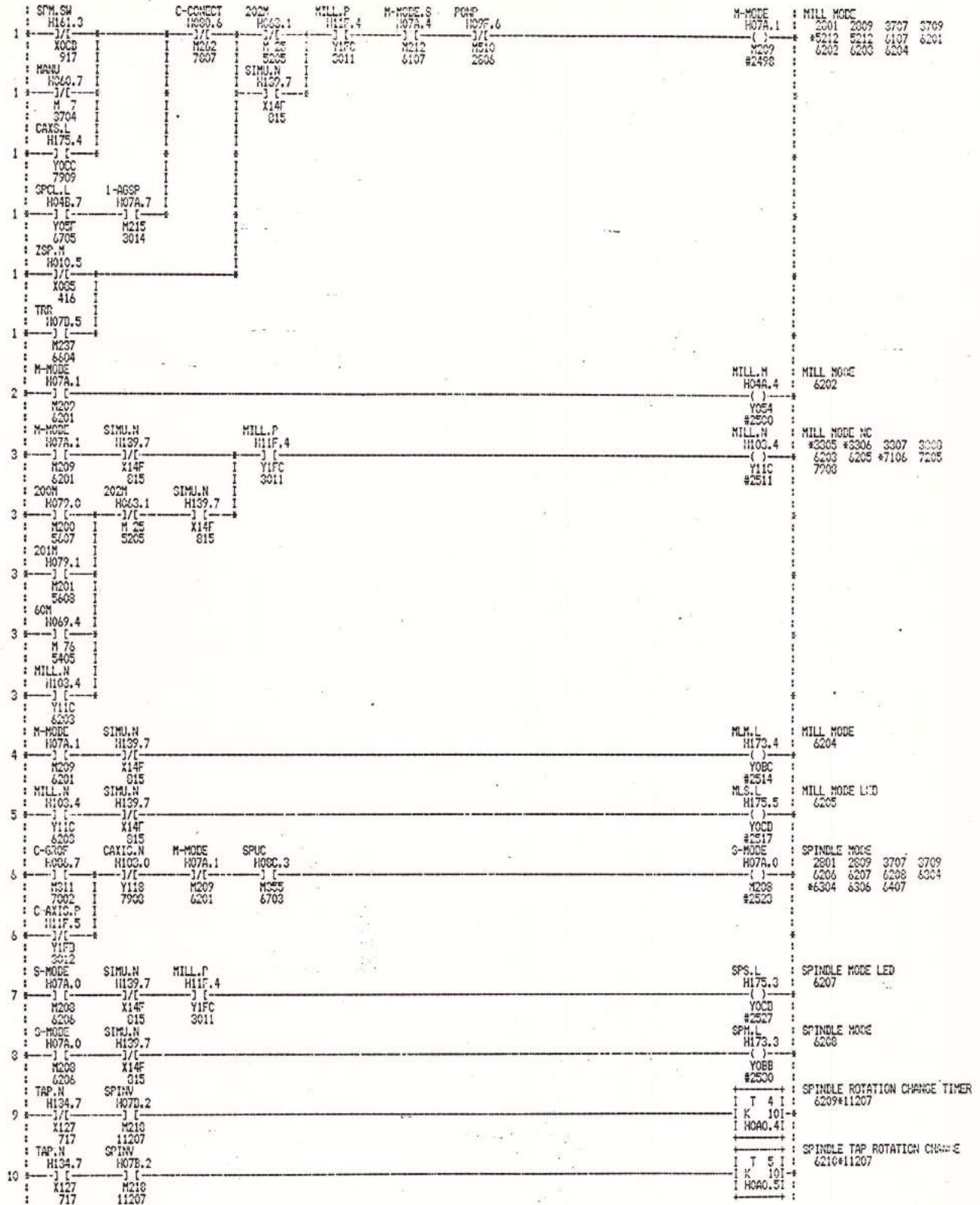
REV.	DATE.	NAME.	DRN. BY. <u>Y.SUZUKI</u>	TITLE.	CONTROL.
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	HAZATROL T3
			CHK'D BY. <u>H.KURITA</u>	VT04 C	DRAWING NO.
			DATE. <u>1986.7.9</u>		172 01 47 800
			APPR'D BY. _____		SHEET. <b>059</b> OF. _____
			DATE. _____		
<b>YAMAZAKI MAZAK CORPORATION</b>					

1	CHCL.LS H003.5 1/1 X01D 202 ZSP.M H005.4 1/1 X02C 211 EXTOK H003.0 1/1 M290 6007 SENS.P H11A.0 1/1 Y1E0 5710 JAWC H032.7 1/1 M277 6006	CFGN.T H080.6 1/1 T 6 5904 AIR.P H11A.4 1/1 Y1D4 5710	CHX H002.3 1/1 M275 5904	RECH H002.6 1/1 M270 6005	CH.SB H083.2 1/1 M292 #2392	CHUCK CLOSE SUB 6001 6003 6004	
2	CHCL.LS H003.5 1/1 X01D 202 ZSP.M H005.4 1/1 X02C 211 INTOK H003.1 1/1 M281 6101 SENS.P H11A.0 1/1 Y1D0 5710 RECH H082.6 1/1 M270 6005 EXTOK H003.0 1/1 M290 6007	CFGN.T H080.6 1/1 T 6 5904 AIR.P H11A.4 1/1 Y1D4 5710	UCHX H002.5 1/1 M277 5706		UCH.SB H083.3 1/1 M293 #2392	CHUCK OPEN SUB 6002 6003 6004	
3	EXTOK H003.0 1/1 M290 6007 INTOK H003.1 1/1 M291 6101 EXTOK H003.0 1/1 M290 6007 INTOK H003.1 1/1 M291 6101	CH.SB H083.2 1/1 M292 6001 UCH.SB H083.3 1/1 M293 6002			CH.M H044.7 1/1 Y027 #2378	CHUCK 6003	
4	EXTOK H003.0 1/1 M290 6007 INTOK H003.1 1/1 M291 6101 CHX H002.3 1/1 M275 5904	UCH.SB H083.3 1/1 M293 6002			UCH.M H044.6 1/1 Y026 #2404	UNCHUCK 6004	
5	CHX H002.3 1/1 M275 5904 SSOP.M H046.4 1/1 Y034 6503 MANU H040.7 1/1 M 7 3704 EXT.CH H003.3 1/1 X043 312 SSOP.M H046.4 1/1 Y034 6503 TRR H07D.5 1/1 M237 6404 CHOUT H077.0 1/1 M184 6182	VR.M H005.5 1/1 X02D 212 SSOP.M H046.4 1/1 Y034 6503 EXTOK H003.0 1/1 M290 6007 TRR H07D.5 1/1 M237 6404 72M73M.P H11D.1 1/1 Y1E9 5902	TRR H07D.5 1/1 M237 6404			RECH H082.6 1/1 M278 #2409	RECHUCKING COMMAND #6001 6002 6005
6	MANU H040.7 1/1 M 7 3704 EXT.CH H003.3 1/1 X043 312 SSOP.M H046.4 1/1 Y034 6503 TRR H07D.5 1/1 M237 6404 CHOUT H077.0 1/1 M184 6182	SSOP.M H046.4 1/1 Y034 6503 EXTOK H003.0 1/1 M290 6007 TRR H07D.5 1/1 M237 6404 72M73M.P H11D.1 1/1 Y1E9 5902	UCHX H082.5 1/1 M277 5906	JAW.PB H004.7 1/1 X027 207	CHCL.LS H003.5 1/1 X01D 202	JAW.P H11C.6 1/1 Y1E6 5002	JAW CHANGE 6001 6006
7	EXT.CH H003.3 1/1 X043 312 SSOP.M H046.4 1/1 Y034 6503 TRR H07D.5 1/1 M237 6404 CHOUT H077.0 1/1 M184 6182	SSOP.M H046.4 1/1 Y034 6503 EXTOK H003.0 1/1 M290 6007 TRR H07D.5 1/1 M237 6404 72M73M.P H11D.1 1/1 Y1E9 5902				EXTOK H083.0 1/1 M290 #2429	EXT.OK 5710 5711 *6001 6003 6004 6006 6007

DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>HAZATROL TS</u>
DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
CHK'D BY. <u>M.KURITA</u>	TITLE. <u>YT04 C</u>	SHEET. <u>060</u> OF. <u>        </u>
DATE. <u>1986.7.9</u>		
APPR'D BY. <u>        </u>		
DATE. <u>        </u>		
REV.	DATE.	NAME.



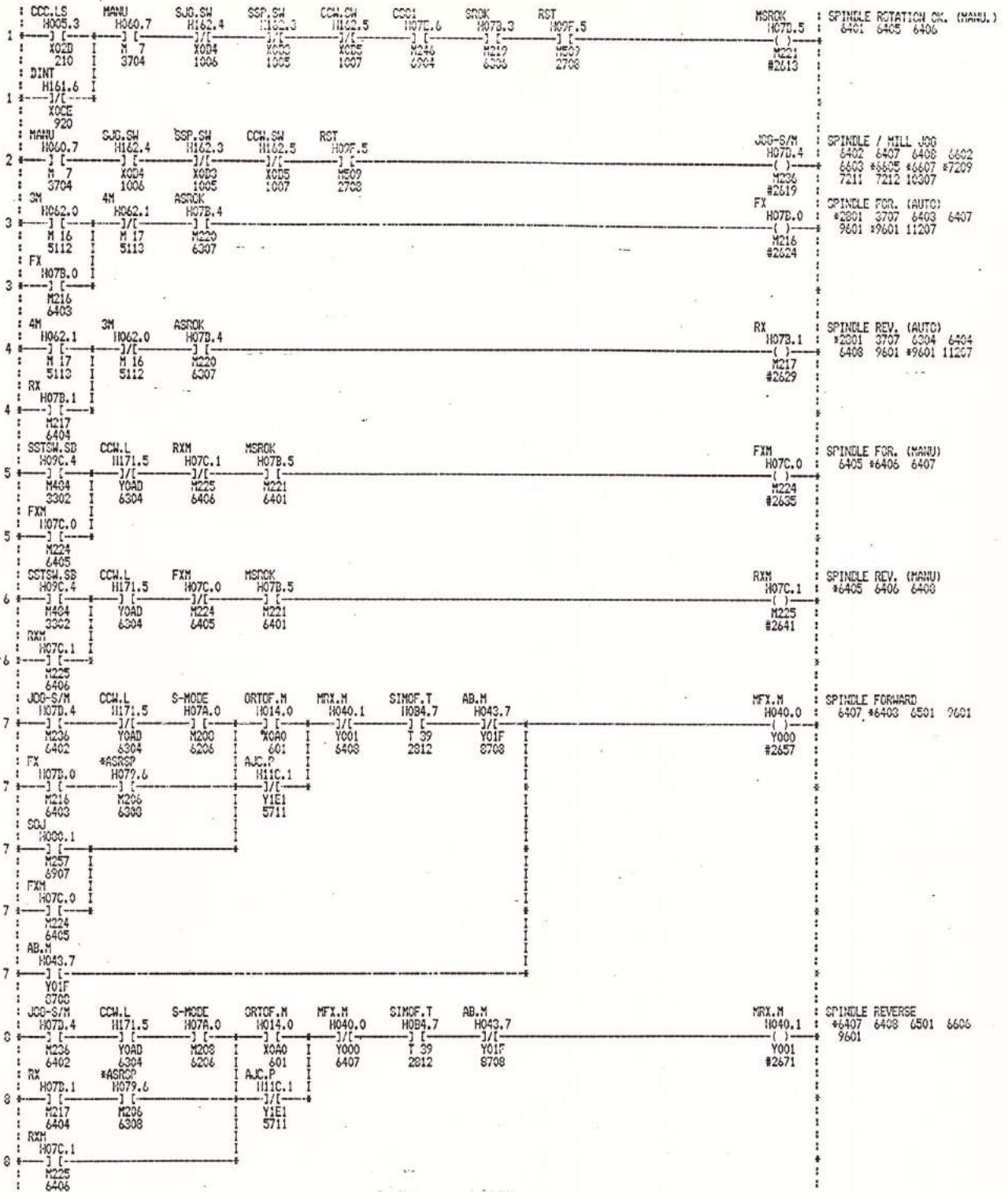
			DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC H/C</u>	CONTROL <u>HAZATROL T3</u>
			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 000</u>
			CHK'D BY. <u>M. KURITA</u>		
			DATE. <u>1986.7.9</u>	<u>YT04 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>061</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



REV.	DATE.	NAME.	DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL T3</u>
			DATE. <u>1986.7.9</u>	<u>YT04 C</u>	DRAWING NO. <u>172 01 47 800</u>
			CHK'D BY. <u>H. KURITA</u>		SHEET. <u>062</u> OF. <u>    </u>
			DATE. <u>1986.7.9</u>		
			APPR'D BY. <u>    </u>		
			DATE. <u>    </u>		
<b>YAMAZAKI MAZAK CORPORATION</b>					

1	SGR.M H041.5	SPINN H07B.2										T 0 1 K 101 H0AD.01	SPINDLE START TIMER 2801 #3709 6301 9601
2	MANN H060.7											PLS H213 H07A.51	CCW SW.PULSE 6302 6303 #6303
3	MACH H07A.6											MACH H07A.6	MANUAL CCW #6303 6303 6304
4	RX H07B.1	S-MODE H07A.0	3M H062.0	20CM H063.2	AUT.M H046.3							CCW.L H171.5	SPINDLE/MILL REVERSE 6304 #6405 6406 #6407 6408 #6514 6601 #6602 6603
5	AJCK H014.4	AJ.C.P H11C.1										SRNOT H07B.6	SPINDLE ROTATION INHIBIT 6305 #6306
6	BCN.L H176.4	VR.M H005.5	ROLBF.P H11A.7	TDF.T H082.4	SRNOT H07B.6	SPUC H03C.3	S-MODE H07A.0	RST H09F.5				SRCK H073.3	SPINDLE ROTATION OK. 6306 6307 6401
7	SRCK H07B.3	SM H062.2	END.FLS H079.5	CCC H072.7	SIMOF.T H084.7	61MX H08A.0	TLAL.N H132.1					ASROK H07D.4	SPINDLE ROTATION OK. (AUTO) 6307 6403 6404
8	AUT.M H046.3	OPSX H060.1	CS31 H07L.6	CCC H072.7	SX H061.1							*ASRCP H079.6	SPINDLE ROTATION STOP (AUTO) 6308 6407 6408

REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.2	YTC4 C	DRAWING NO. 172 01 47 000
			CHK'D BY. M. KURITA		
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		SHEET. 063 OF.
<b>YAMAZAKI MAZAK CORPORATION</b>					

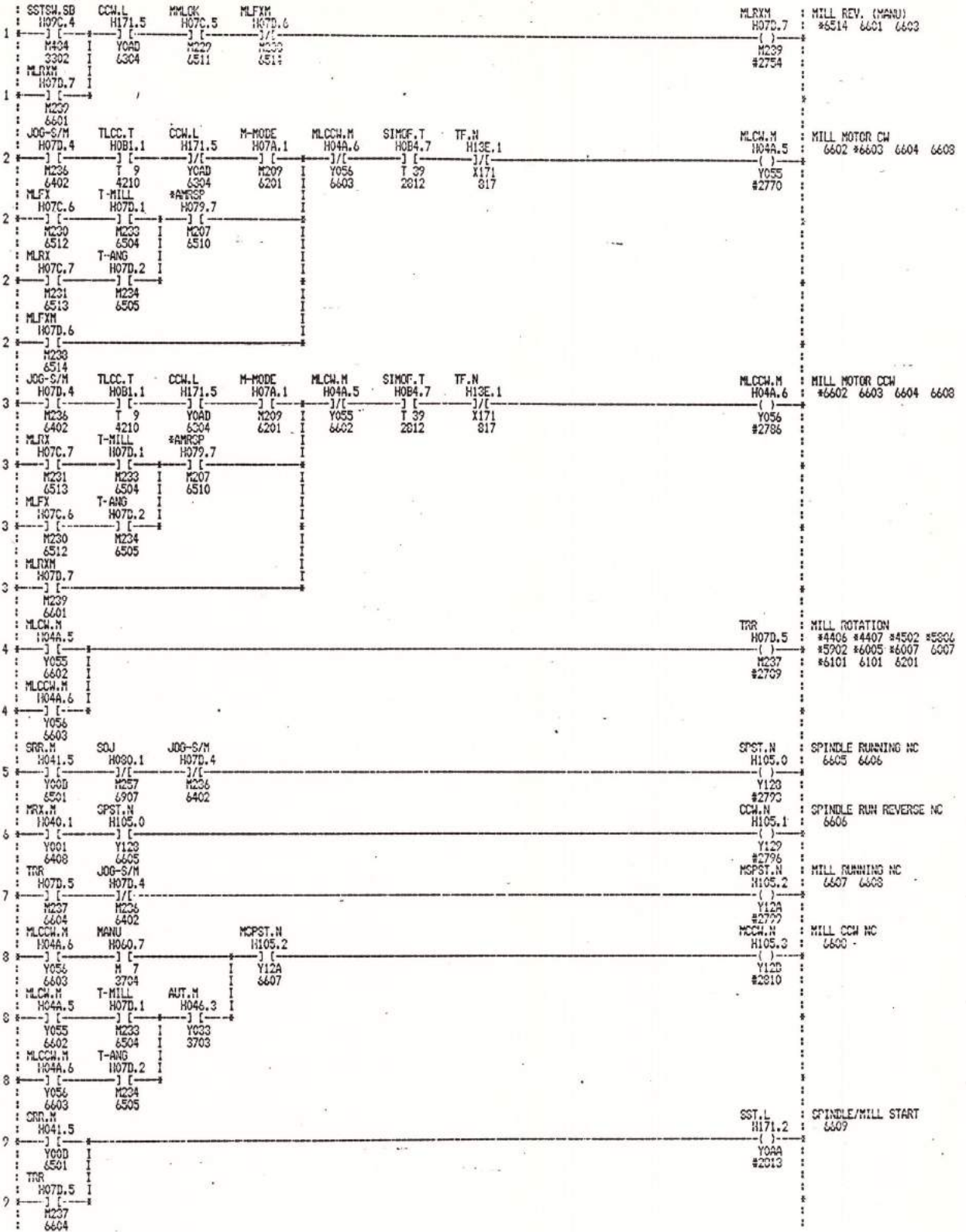


REV.	DATE.	NAME.	DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>HAZARDOUS T3</u>
			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
			CHK'D BY. <u>M. KURITA</u>	Y04 C	SHEET. <u>064</u> OF.
			DATE. <u>1986.7.9</u>		
			APPR'D BY. _____		
			DATE. _____		
<b>YAMAZAKI MAZAK CORPORATION</b>					



1	MRX.M H040.0 Y030 6407 MRX.M H040.1 Y001 6408 ZSP.M H005.4 X02C 211 GSR.M H041.5 Y030 6501 AWLCK H07C.4 M228 6509 AWLCK H07C.4 M228 6509 MLINV H07C.2 M226 11301 TRP H07D.5 M237 6604 M-ROSE H07A.1 M237 6601 MLOK H07C.3 M227 6508 AUT.M H046.3 Y032 6703 CCD.LS H005.3 X02B 210 DIRT H161.6 X03E 920 203M H063.2 M 26 5206 MLFX H07C.6 M230 6512 204M H063.3 M 27 5207 205M H063.4 M 28 5208 AWLCK H07C.4 M229 6509 MLORT H080.5 M261 7301 MLFX H07C.6 M230 6512 204M H063.3 M 27 5207 205M H063.4 M 28 5208 AWLCK H07C.4 M229 6509 MLORT H080.5 M261 7301 MLRX H07C.7 M231 6513 SSTGW.SD H09C.4 M404 3302 MLFXM H07D.6 M238 6514	AD.M H043.7 Y01F 6700 Y001 6408 CPSP.T H080.1 T 1 6502 K = 11 D 711 K = 21 D 711 MLINV H07C.2 M226 11301 MLINV H07C.2 M226 11301 CHCC.L H041.0 Y008 6601 205M H063.4 M 28 5208 GSK H060.1 M 9 6402 MANU H060.7 M 7 3704 SUS.SW H162.4 M 9 3002 M 27 5207 205M H063.4 M 28 5208 AWLCK H07C.4 M229 6509 MLORT H080.5 M261 7301	*TFA.M H010.4 X034 415 END.FLS H079.5 M 28 8404 H061.1 M 9 3002 SUS.SW H162.4 M 9 3002 M 27 5207 205M H063.4 M 28 5208 AWLCK H07C.4 M229 6509 MLORT H080.5 M261 7301	TLCC.T H081.1 T 9 4210 CCC H072.7 M 28 8404	MLIT.AL H082.1 F 17 10307 MLORT H080.5 M 28 8404	MTCH H099.2 F 17 M450 4405 SINGF.T H084.7 M 28 2012	ATCM H07A.0 M454 4407 TLAL.W H132.1 M 28 706	RST H09F.5 M509 2708	SRR.M H041.5 Y030 62675 SPINLE ROTATION 6301 6501 6603 6605 ( ) 6609 66701 6702 7209 7210 7211 7403 SPINLE STOP TIMER T 11 K 101 H0A0.11 6502 6503 GOSP.M H046.4 Y034 62681 T-MILL H07D.1 M233 62686 T-ANG H07D.2 M234 62691 SPINLE STOP 6304 6506 6602 6605 ( ) 6606 6607 6607 6101 6101 6105 6106 TOOL FOR MILLING 6504 6602 6603 6603 TOOL FOR ANGLE 6505 6602 6603 6608 MILL TAP ROTATION CHANGE TIMER T 15 K 101 H0A1.71 6506*11001 MILL START TIMER T 12 K 101 H0A1.41 2801 63709 6507 9601 9603 MILL ROTATION OK. 6503 6509 6511 MILL ROTATION OK. (AUTO) 6504 6505 6509 6512 6513 MILL ROTATION STOP (AUTO) 6510 6602 6603 MILL ROTATION OK. (MANU) 6511 6514 6601 MILL FOR. (AUTO) H07C.6 ( ) M230 11301 62735 MILL FOR. (AUTO) H07C.7 ( ) M231 11301 62742 MILL FOR. (MANU) H07D.6 ( ) M238 62748
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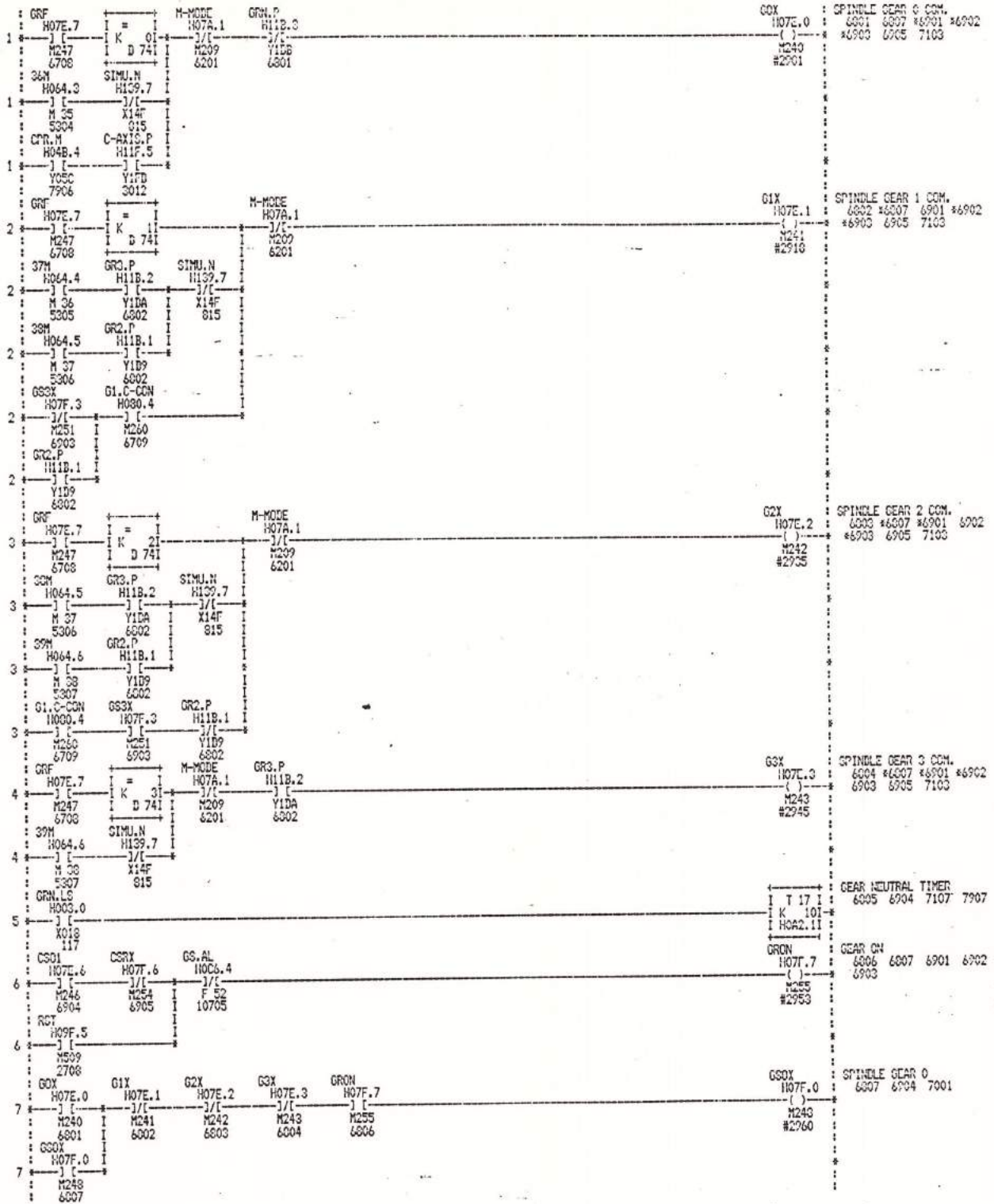
REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 800
			CHK'D BY. H. MURITA	YT04 C	
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		SHEET. 065 OF.
<b>YAMAZAKI MAZAK CORPORATION</b>					



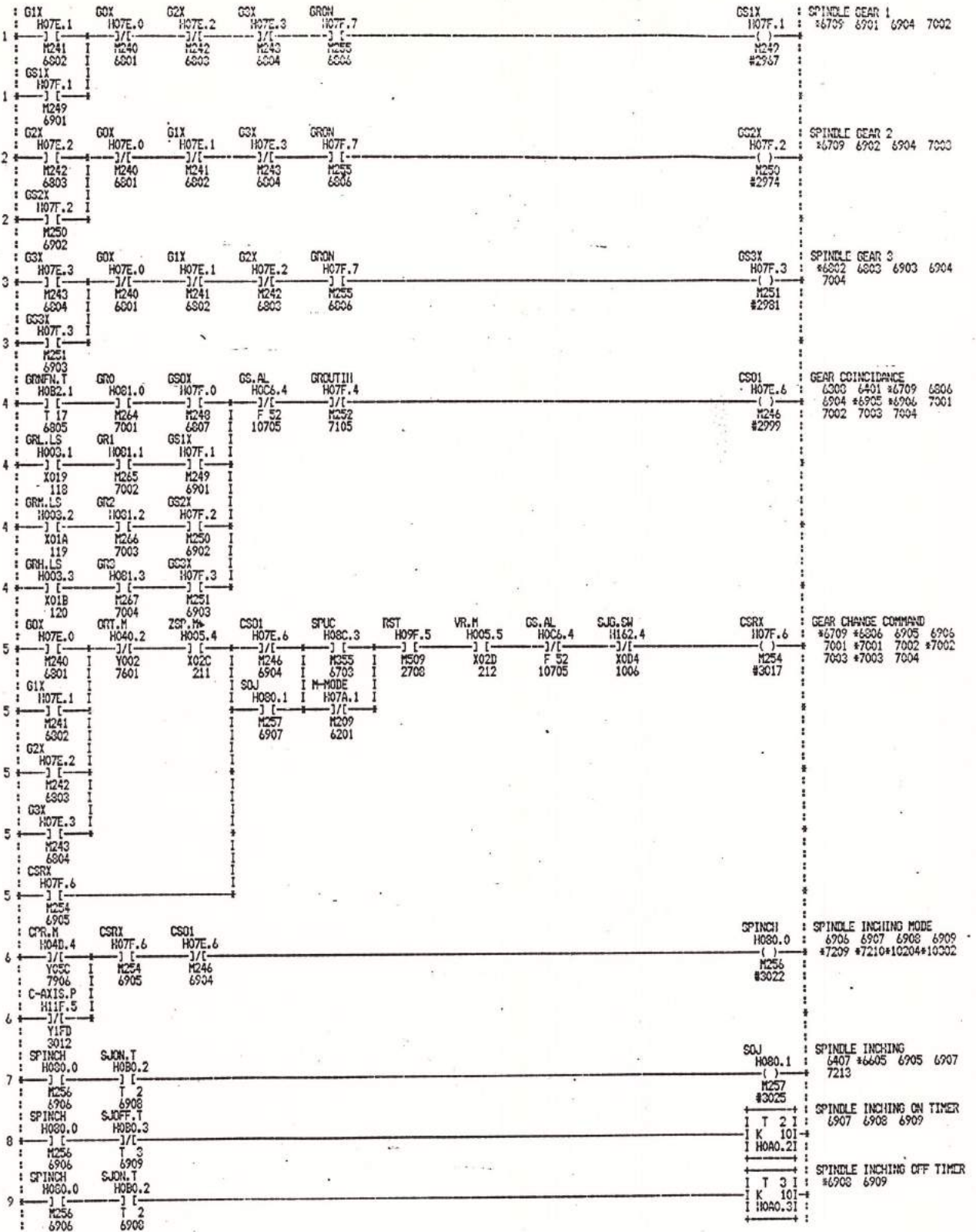
DRN. BY.	Y. SUZUKI	TITLE.	ST-25 ATC H/C	CONTROL.	HAZATROL T3
DATE.	1986.7.9	CHK'D BY.	H. KUNITA	DRAWING NO.	172 01 47 000
DATE.	1986.7.9	APPR'D BY.		SHEET.	066 OF.
DATE.		DATE.		<b>YAMAZAKI MAZAK CORPORATION</b>	
REV.	DATE.	NAME.			

1	SRR.M H041.5 1/1 Y03D 6501	TRR H07D.5 1/1 M237 6604									CCF.L H171.3 1/1 Y0AB #2016	SPINDLE/MILL STOP 6761
2	SRR.M H041.5 1/1 Y03D 6501	S.JG.SM H142.4 1/1 X0D4 1006									S.JG.L H171.4 1/1 Y0AC #2020	SPINDLE/MILL JOG 6762
2	TRR H07D.5 1/1 M237 6604											
3	CCOF.M H04A.1 1/1 Y051 7703	CCP.M H04A.2 1/1 Y052 7704	CDK.M H04A.3 1/1 Y053 7705	CPGF.M H011.3 1/1 X03B 501	CLP1.LS H011.4 1/1 X03C 502	CLP2.LS H011.5 1/1 X03D 503	CCE.LS H011.0 1/1 X038 418	CCR.LS H011.1 1/1 X039 419	CCPS.M H011.2 1/1 X03A 420	1-AGSP H07A.7 1/1 M215 3014	SPUC H03C.3 1/1 Y055 #2040	SPINDLE UNCLAMP 6206 6306 6703 6704 6905 7005 7006 7007 6706 9002*10201
3	CGIN.M H04A.0 1/1 Y050 7702	CCOF.M H04A.1 1/1 Y051 7703	CCP.M H04A.2 1/1 Y052 7704	CDK.M H04A.3 1/1 Y053 7705	CCE.LS H011.0 1/1 X038 418	CCR.LS H011.1 1/1 X039 419	C-AXIS.P H11F.5 1/1 Y1FD 3012					
3	MILL.P H11F.4 1/1 Y1FC 3011											
4	CPUC H09C.3 1/1 M355 6703	1-AGSP H07A.7 1/1 M215 3014									SPUC.L H04B.6 1/1 Y05E #2048	SPINDLE UNCLAMP 6005 5901 6704
4	CCP.M H04A.2 1/1 Y052 7704	CDK.M H04A.3 1/1 Y053 7705	C-AXIS.P H11F.5 1/1 Y1FD 3012									
4	MILL.P H11F.4 1/1 Y1FC 3011											
5	CCOF.M H04A.1 1/1 Y051 7703	CPGF.M H011.3 1/1 X03B 501	CCE.LS H011.0 1/1 X038 418	1-AGSP H07A.7 1/1 M215 3014							SPCL.L H04B.7 1/1 Y05F #2845	SPINDLE CLAMP 6201 6705 6766 7402 #7006 9002 #9002
5	CCP.M H04A.2 1/1 Y052 7704	CLP1.LS H011.4 1/1 X03C 502	CCR.LS H011.1 1/1 X039 419									
5	CDK.M H04A.3 1/1 Y053 7705	CLP2.LS H011.5 1/1 X03D 503	CCPC.M H011.2 1/1 X03A 420									
5	CCP.M H04A.2 1/1 Y052 7704	CDK.M H04A.3 1/1 Y053 7705	C-AXIS.P H11F.5 1/1 Y1FD 3012									
6	CPCL.L H04B.7 1/1 Y05F 6705											SPINDLE CLAMP CONFIRMATION 6706 #6002
7	CCP.M H04A.2 1/1 Y052 7704	CDK.M H04A.3 1/1 Y053 7705	C-AXIS.P H11F.5 1/1 Y1FD 3012								CDK.L H04B.5 1/1 Y05D #2072	C AXIS BRAKE 6707 #7008 9002 #9002
8	GRV.M H10E.2 1/1 X172 610	SIMOF.T H0B4.7 1/1 T 39 2012									CRV H07E.7 1/1 M247 #2075	G CODE STROBE 6708 6901 6902 6903 6904 7403
9	C-MODE H07A.2 1/1 M210 7907	C-CONNECT H090.6 1/1 M212 7907	GS1X H07F.1 1/1 M249 6901	GS2X H07F.2 1/1 M250 6902	CPR.M H04B.4 1/1 Y05C 7906						G1.C-CON H080.4 1/1 M260 #2008	GEAR 1 (FOR C-AXIS CONNECT) 6709 6902 6903
9	GRN.LS H083.0 1/1 X018 117	GRICH H081.5 1/1 M269 7401										
9	CS01 H07E.6 1/1 M246 6904											
9	G1.C-CON H080.4 1/1 M260 6709	CSRX H07F.6 1/1 M254 6905										

REV.	DATE.	NAME	DRN. BY. Y.SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 800
			CHK'D BY. M.KURITA	Y704 C	SHEET. 067 OF.
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					

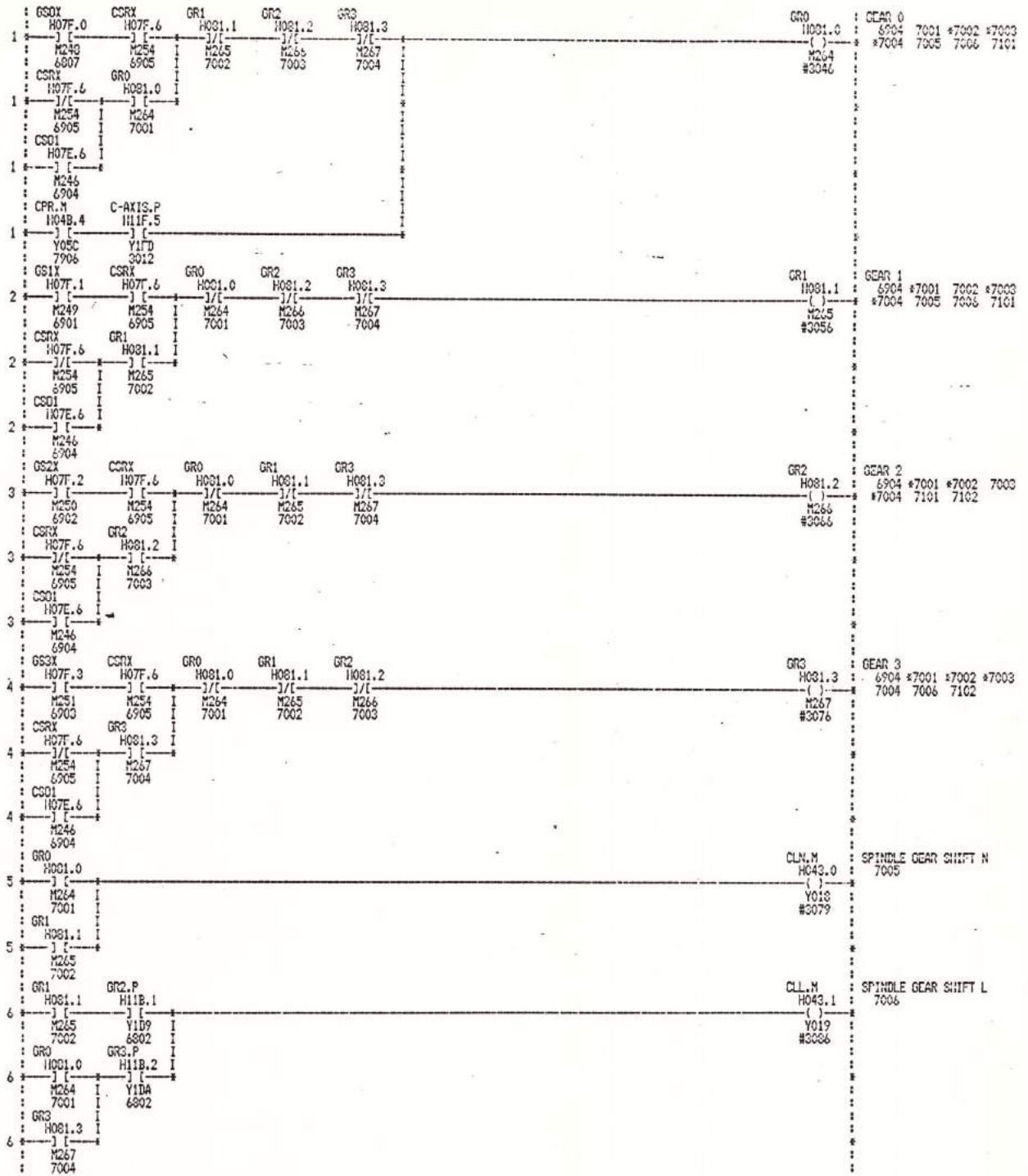


			DRN. BY. <u>Y.SUZUKI</u>	TITLE. _____	CONTROL. _____
			DATE. <u>1986.7.9</u>	ST-25 ATC W/C	MAZATROL TS
			CHK'D BY. <u>M.KURITA</u>	YT04 C	DRAWING NO. _____
			DATE. <u>1986.7.9</u>		172 01 47 800
			APPR'D BY. _____		SHEET. <b>068</b> OF. _____
			DATE. _____		
REV.	DATE	NAME	<b>YAMAZAKI MAZAK CORPORATION</b>		

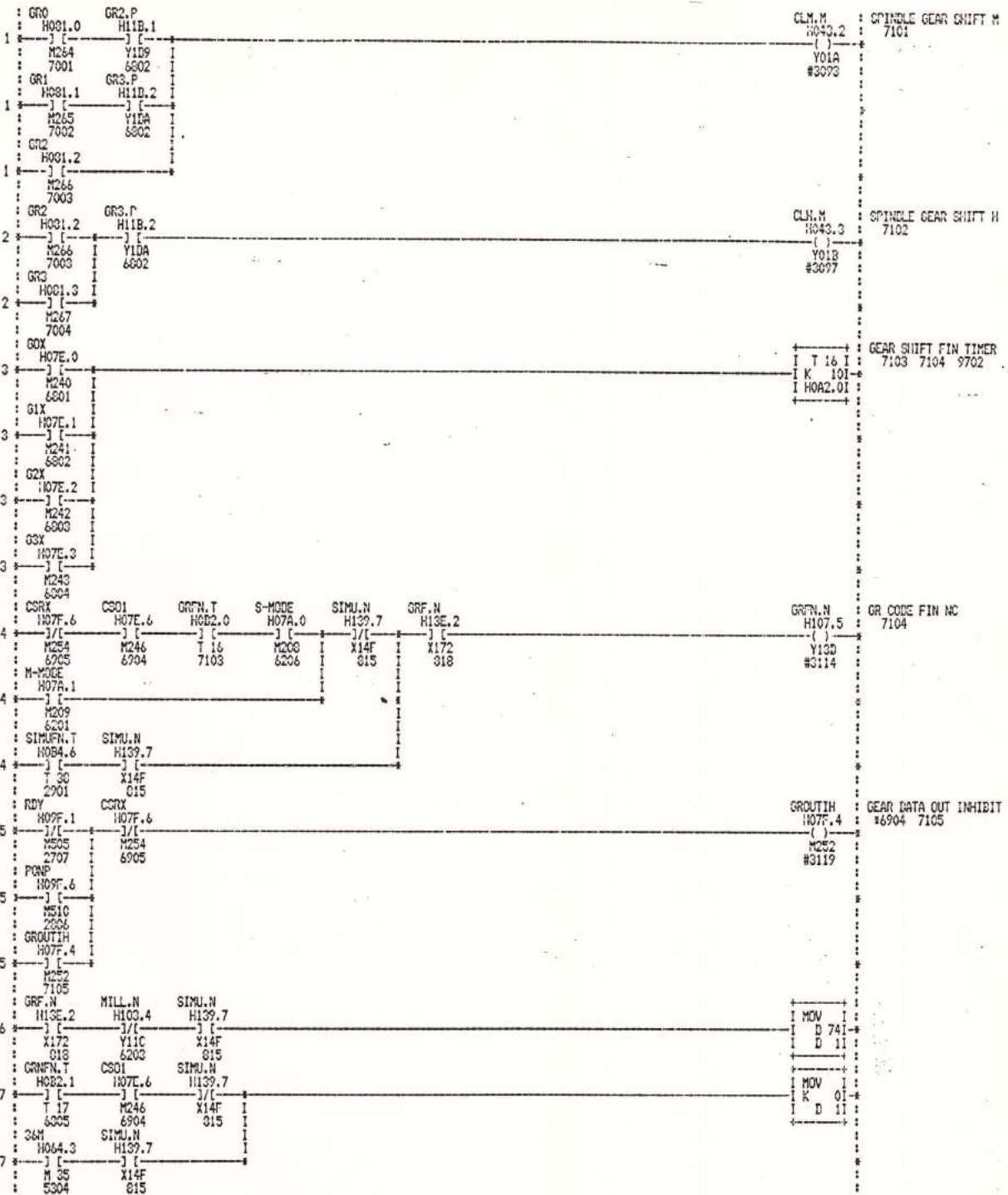


DRN. BY. <u>Y. SUZUKI</u>	TITLE <u>ST-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
DATE <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
CHK'D BY. <u>M. KURITA</u>		SHEET. <u>069</u> OF. <u>    </u>
DATE <u>1986.7.9</u>		
APPR'D BY. <u>    </u>		
DATE <u>    </u>		
REV. <u>    </u>		
DATE <u>    </u>		
NAME <u>    </u>		

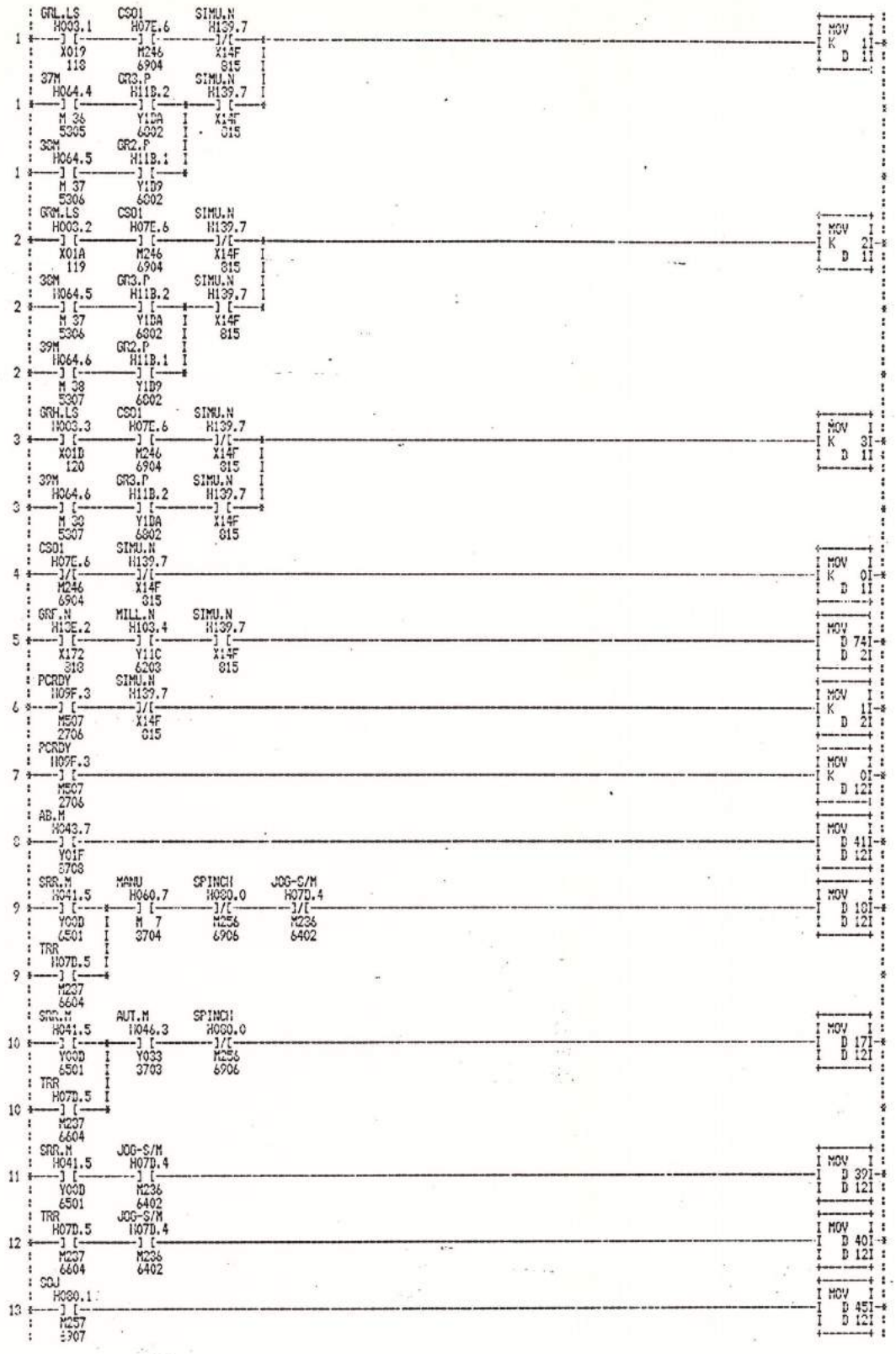
**YAMAZAKI MAZAK CORPORATION**



REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 000
			CHK'D BY. M. KURITA	Y704 C	SHEET. 070 OF. 000
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					

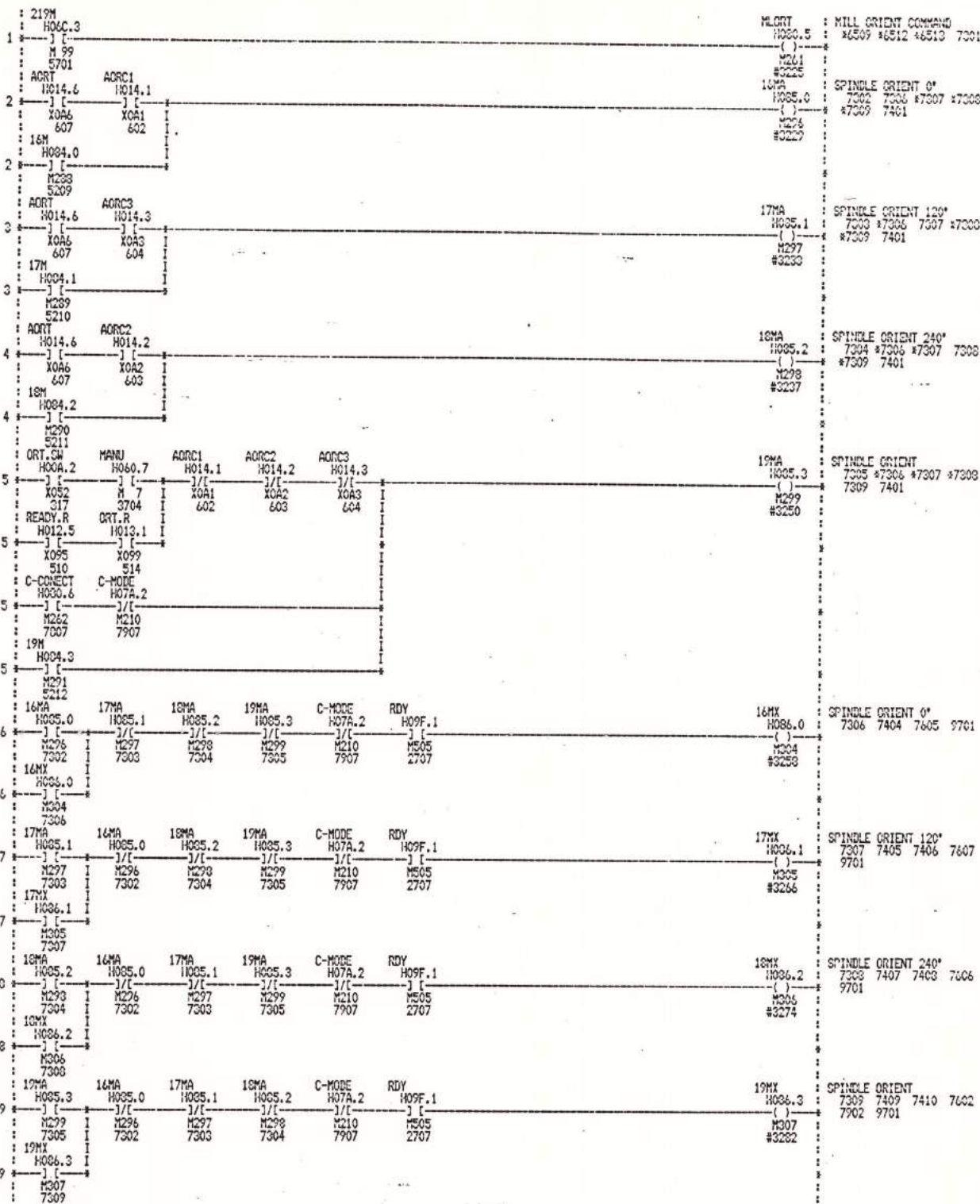


			DRN. BY. <u>Y. SUZUKI</u>	TITLE.	CONTROL	
			DATE. <u>1986.7.2</u>	ST-25 ATC H/C	MAZATROL T3	
			CHK'D BY. <u>M. KURITA</u>		DRAWING NO.	
			DATE. <u>1986.7.2</u>	YT04 C	172 01 47 000	
			APPR'D BY. _____		SHEET. <b>071</b> OF. _____	
			DATE. _____			
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>			

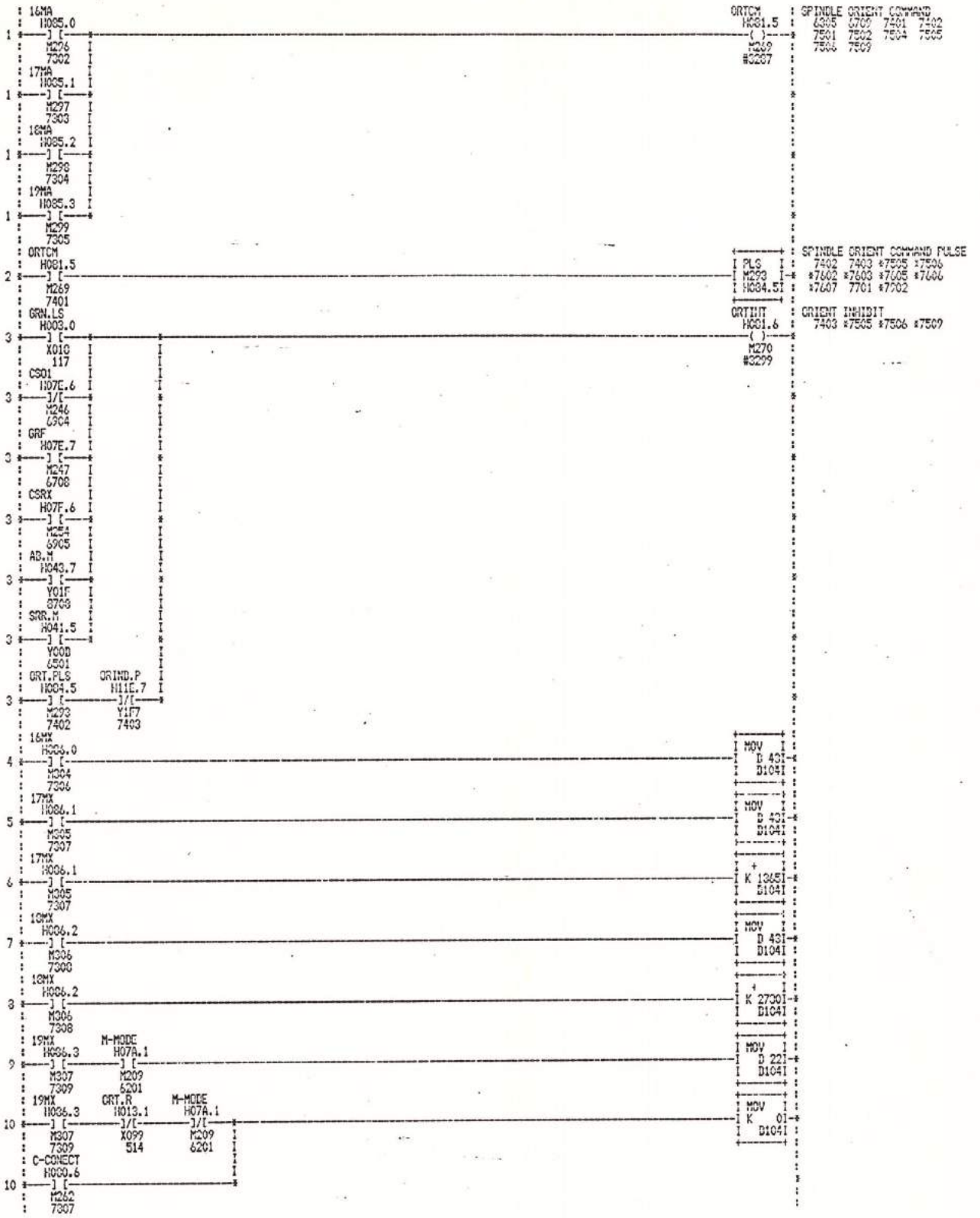


REV.	DATE.	NAME.	DRN. BY. <u>Y. SUZUKI</u>	TITLE. ST-25 ATC M/C YT04 C	CONTROL MAZATROL T3
			DATE. <u>1986.7.9</u>		DRAWING NO. 172 01 47 800
			CHK'D BY. <u>M. KURITA</u>		SHEET. <u>072</u> OF. _____
			DATE. <u>1986.7.9</u>		
			APPR'D BY. _____		
			DATE. _____		
<b>YAMAZAKI MAZAK CORPORATION</b>					

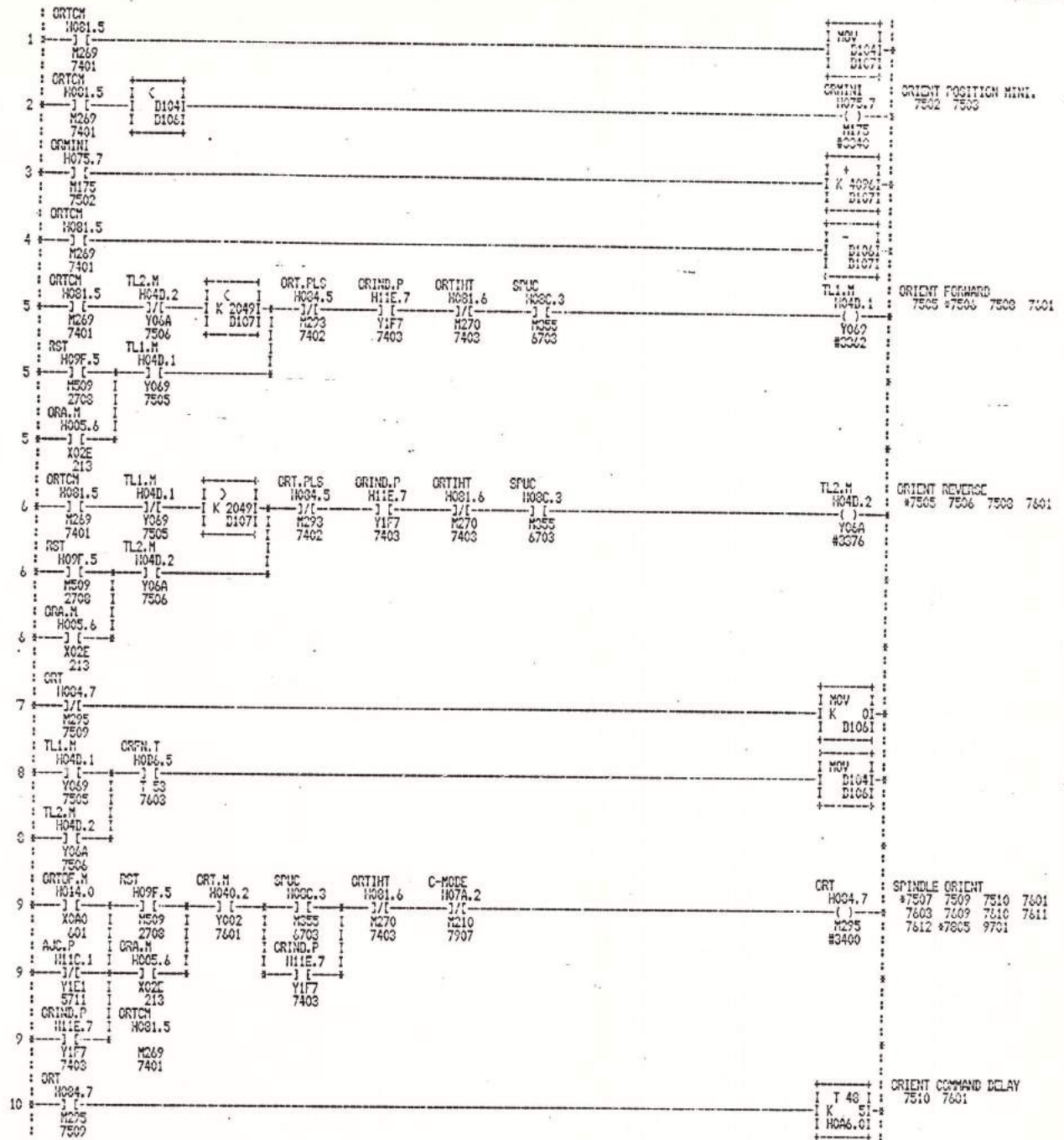




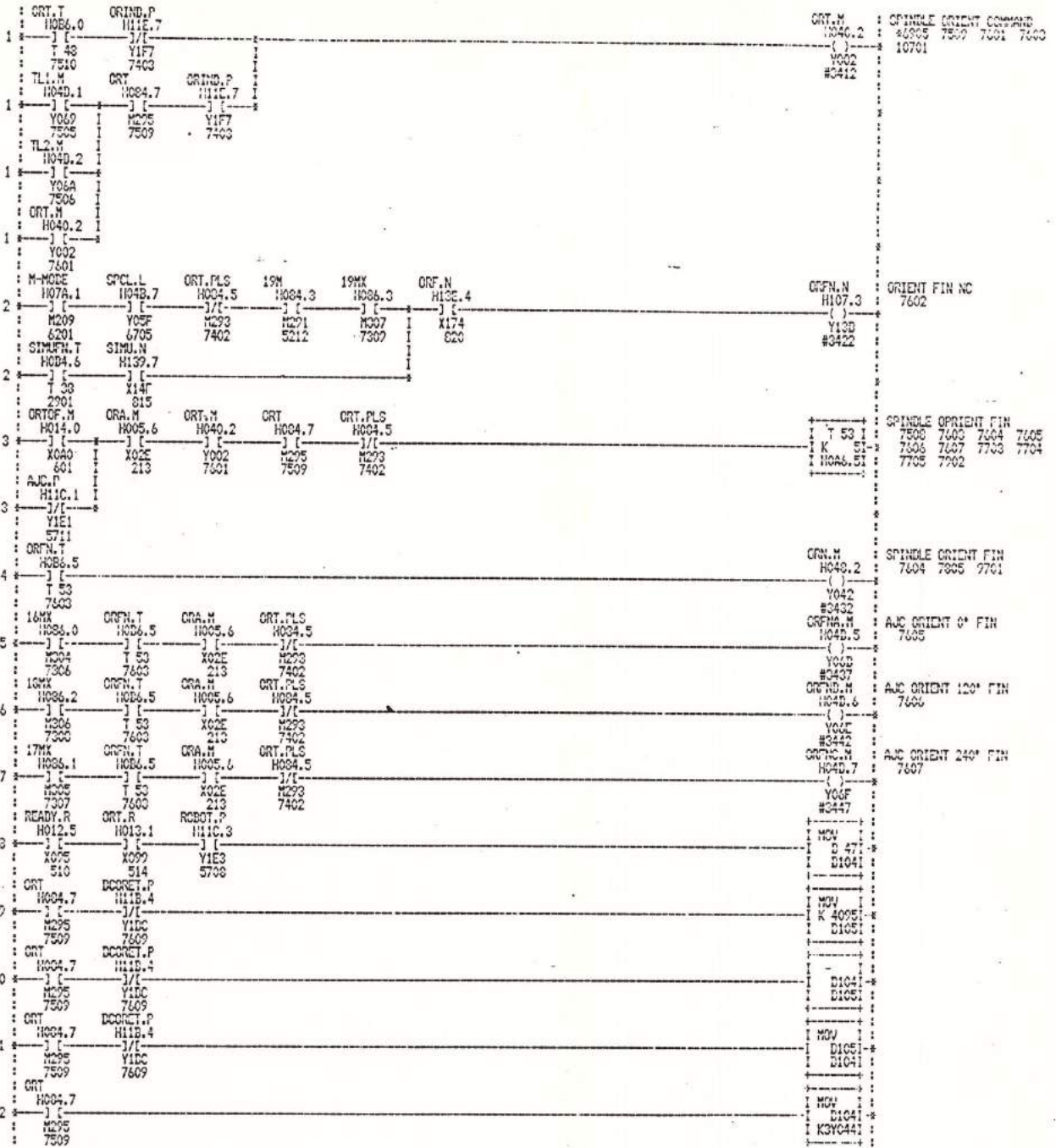
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			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	HAZATROL T3
			CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
			DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
			APPR'D BY. _____		SHEET. <b>073</b> OF _____
			DATE. _____	<b>YAMAZAKI MAZAK CORPORATION</b>	
REV.	DATE.	NAME.			



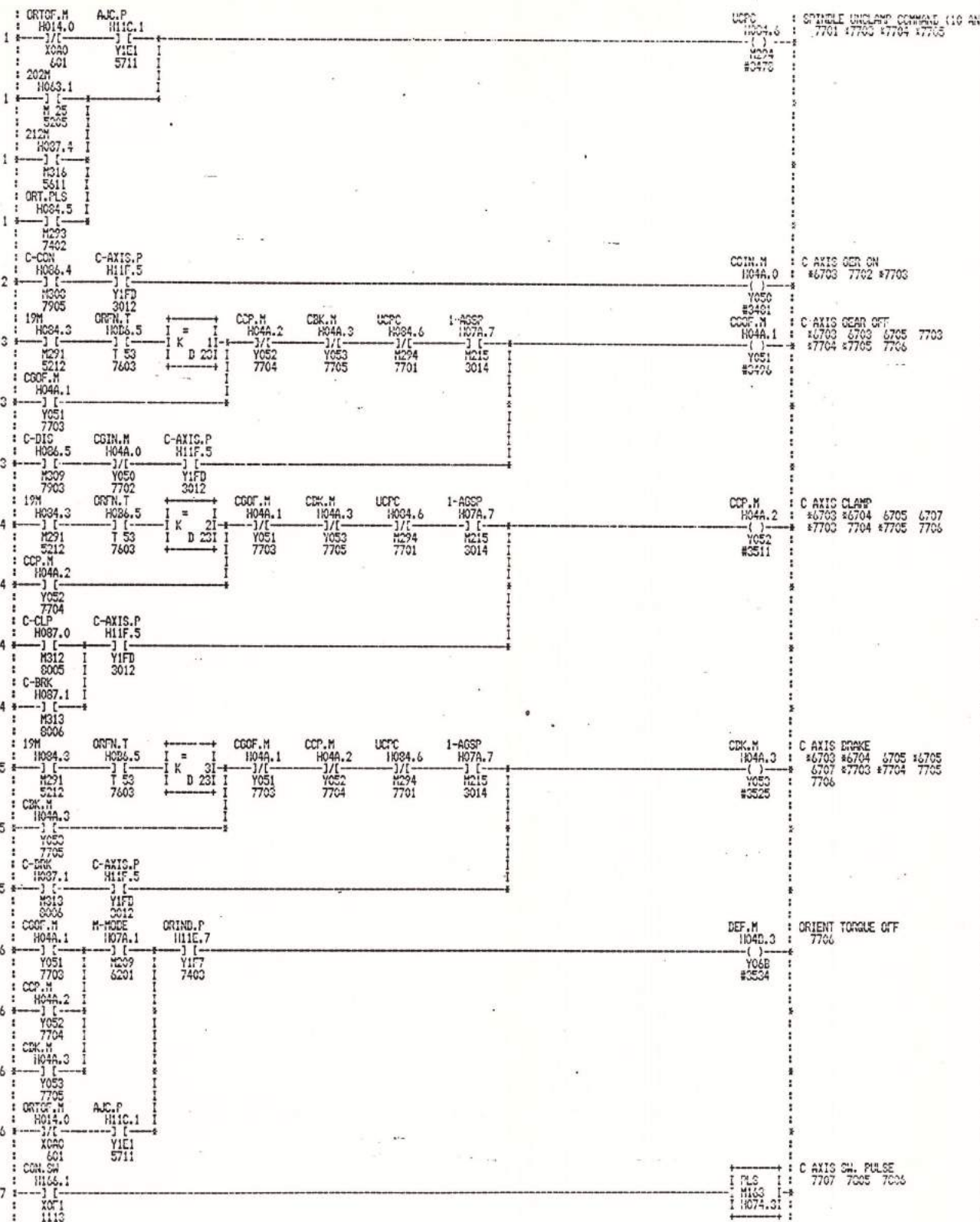
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			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 000</u>
			CHK'D BY. <u>M.KURITA</u>		
			DATE. <u>1986.7.9</u>	<u>Y704 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>074</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
DATE. <u>1986.7.9</u>	YTO4 C	DRAWING NO. <u>172 01 47 000</u>
CHK'D BY. <u>M. KURITA</u>		SHEET. <u>075</u> OF. <u>    </u>
DATE. <u>1986.7.9</u>		
APPR'D BY. <u>    </u>		
DATE. <u>    </u>		
REV.    DATE.    NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>	



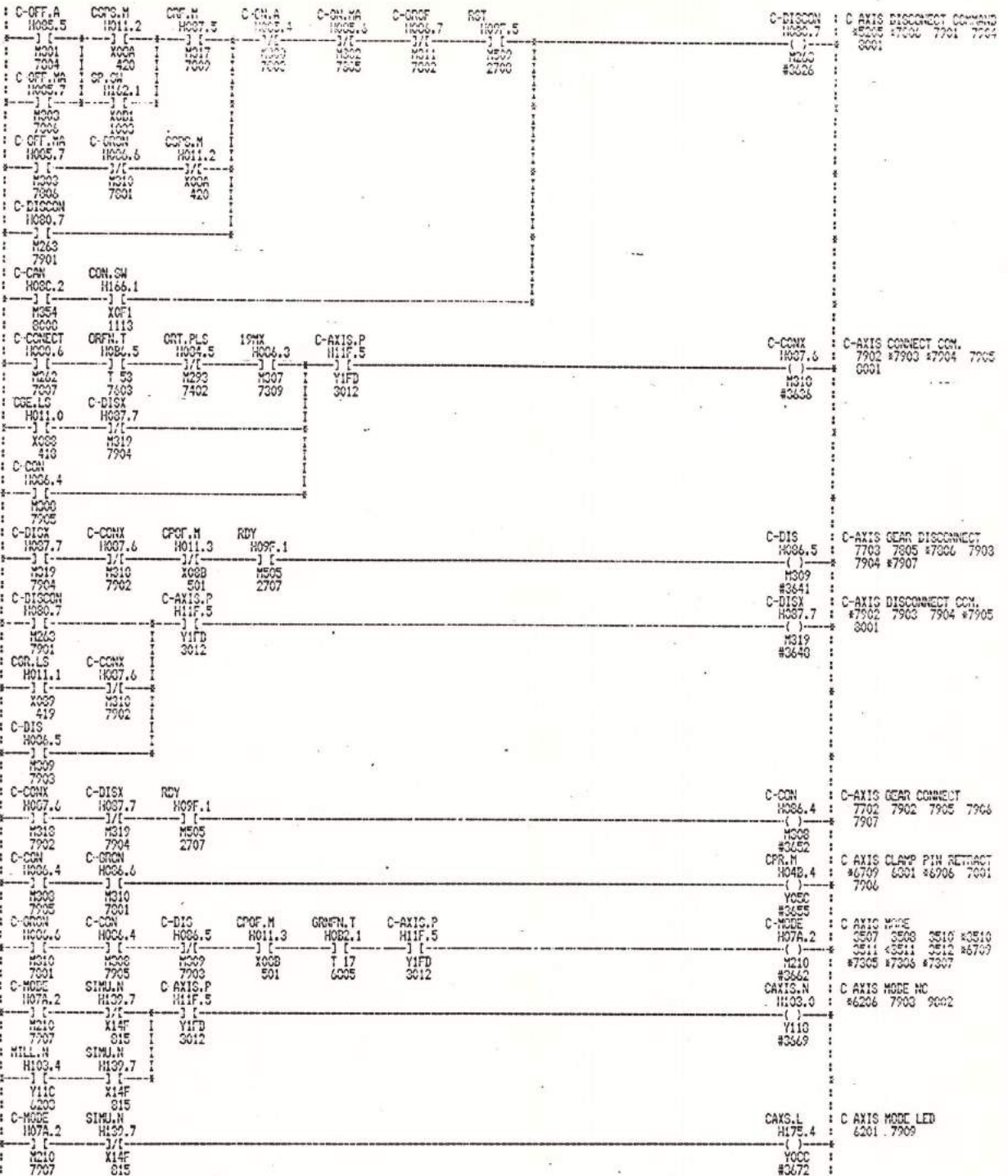
			DRN. BY. <u>Y. SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.2</u>	GT-25 ATC M/C	MAZATROL TO
			CHK'D BY. <u>N. KURITA</u>	Y704 C	DRAWING NO.
			DATE. <u>1986.7.2</u>		172 01 47 000
			APPR'D BY.		SHEET. <u>076</u> OF.
			DATE.		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



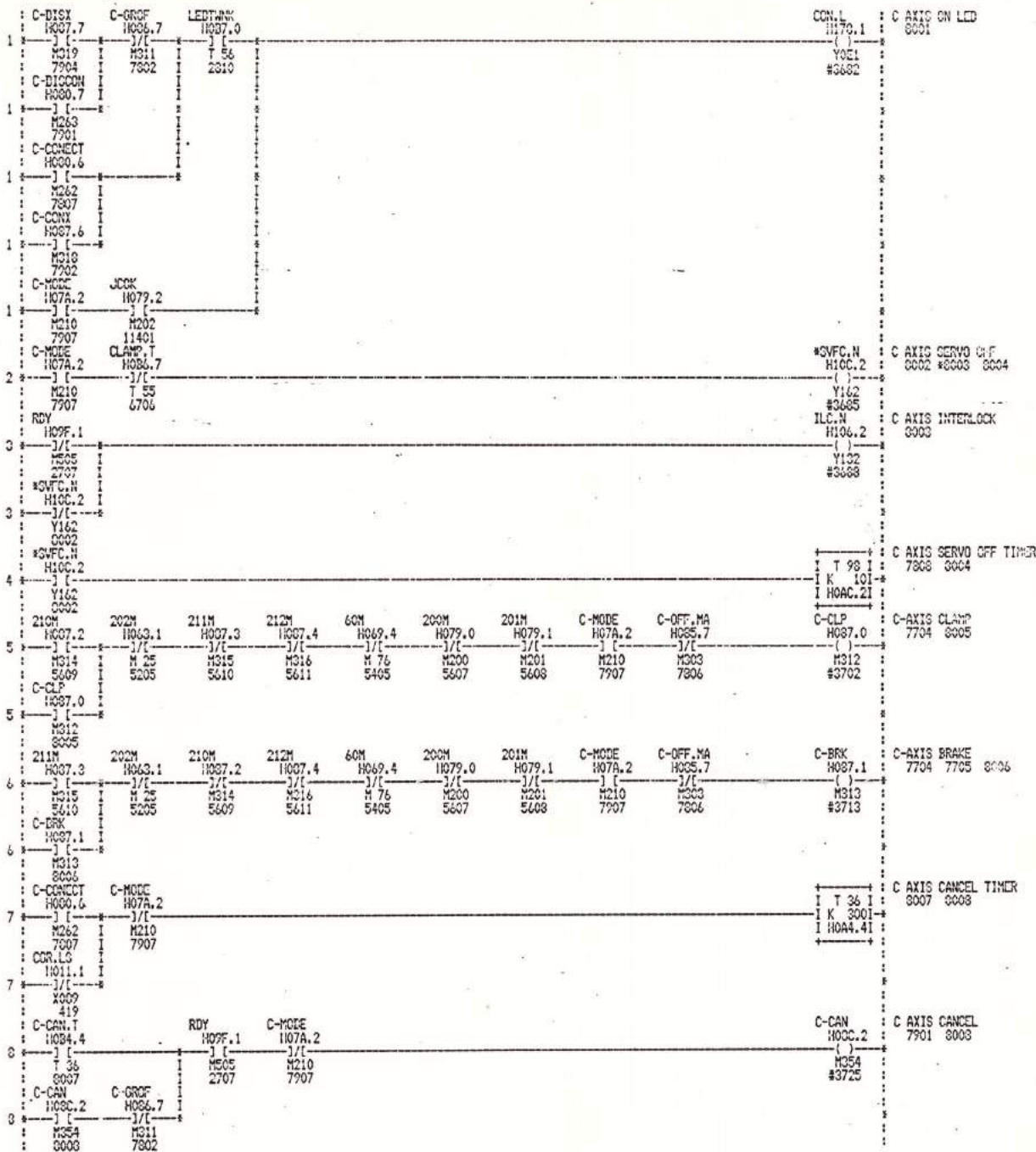
REV.			DATE.			NAME.			DRN. BY. <u>Y. SUZUKI</u>		TITLE. <u>ST-25 ATC M/C</u>		CONTROL. <u>MAZATROL T3</u>	
									DATE. <u>1986.7.9</u>		YTO4 C		DRAWING NO. <u>172 01 47 800</u>	
									CHK'D BY. <u>M. KURITA</u>				SHEET. <u>077</u> OF. <u>    </u>	
									DATE. <u>1986.7.2</u>					
									APPR'D BY. <u>    </u>					
									DATE. <u>    </u>					
<b>YAMAZAKI MAZAK CORPORATION</b>														

1	CCE.LS H011.0 X000 410	CCR.LS H011.1 Y000 410								C-GRN H006.6 M010 #0009	C-AXIS GEAR CONNECT S107 7001 #7901 7700 7707
2	CCE.LS H011.0 X000 410	CCR.LS H011.1 Y000 410								C-GRF H006.7 M011 #0010	C-AXIS GEAR DISCONNECT S204 7002 #7000 #7000 #7701 #0001 #0000
3	200H H079.0 X000 5007	AUT.M H040.3 Y000 3700	CAX.N H10F.1 M012	C-MODE H07A.2 M010 7707	SIMU.N H10F.7 M010 015					C-ON.A H005.4 M000 #0550	C-AXIS GEAR CONNECT (AUTO) 7000 7007 #7901
3	200H H079.1 X000 5008										
3	GCH H042.4 M 70 E405										
4	200H H040.1 M 25 E005	AUT.M H040.3 Y000 3700	CAX.N H10F.1 M012	C-MODE H07A.2 M010 7707	SIMU.N H10F.7 M010 015	RST H02F.5 M009 2700				C-OFF.A H005.5 M001 #0557	C-AXIS GEAR DISCONNECT (AUTO) S205 7004 #7007 7000 7701 #0000
5	CCR.LS H011.1 X000 410	C-DIS H036.5 M007 7000	CRF H004.7 M012 7000	CON.P H074.3 M103 7707	C-OFF.MA H005.7 M000 7000	MANU H060.7 M 7 3704	CAX.N H10F.1 M012			C-ON.MA H005.6 M002 #0550	C-AXIS GEAR CONNECT (MANU) 7005 #7006 7007 #7901
5	C-ON.MA H005.6 M000 7000										
6	CCR.LS H011.1 X000 410	CON.P H074.3 M103 7707	C-ON.MA H005.6 M002 7000	MANU H060.7 M 7 3704	CAX.N H10F.1 M012	RST H02F.5 M009 2700				C-OFF.MA H005.7 M000 #0579	C-AXIS GEAR DISCONNECT (MANU) #7005 7006 #7007 7000 7701 #0005 #0006 100.0
6	C-DIS H036.5 M007 7000										
6	C-OFF.MA H005.7 M000 7000	C-DISCON H000.7 M010 7001									
7	C-ON.A H005.4 M000 7000	CSPC.M H011.2 X000 420	C-OFF.A H005.5 M001 7004	C-OFF.MA H005.7 M000 7000	C-MODE H07A.2 M010 7707	RST H02F.5 M009 2700				C-CONNECT H000.6 M002 #0570	C-AXIS CONNECT COMMAND #6201 0709 7305 7410 7007 7702 0001 0007
7	C-ON.MA H005.6 M000 7000	SP.CH H102.1 X001 1000									
7	C-CONNECT H000.6 M002 7007										
8	CLCC.N H103.7 X11F 712	C-OFF.A H005.5 M001 7004	CRF.N H105.6 Y12E 720	C-GRF H006.7 M011 7002	CRK.L H04B.5 Y05D 6707	SPCL.L H04B.7 Y05F 6705	#SVFC.T H00C.2 T 98 0004			CRET.N H104.6 Y12E #3002	C-AXIS RETURN NC 7000#10506#11401
9	MUKO.N H100.4 X144 000	C-OFF.MA H005.7 M003 7000									
9	CLCC.P H11D.4 Y10C 7000										
9	CRF.N H105.6 X12E 720	C-GRF H006.7 M011 7002	RST H02F.5 M009 2700							CRF.M H007.5 M017 #0007	C-AXIS RETURN FIN MEMORY 7009 7901 10004#11401
9	CRF.N H007.5 M017 7009										

REV.	DATE	NAME	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 000
			CHK'D BY. M. KURITA	YT04 C	
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		SHEET. 078 OF.
<b>YAMAZAKI MAZAK CORPORATION</b>					

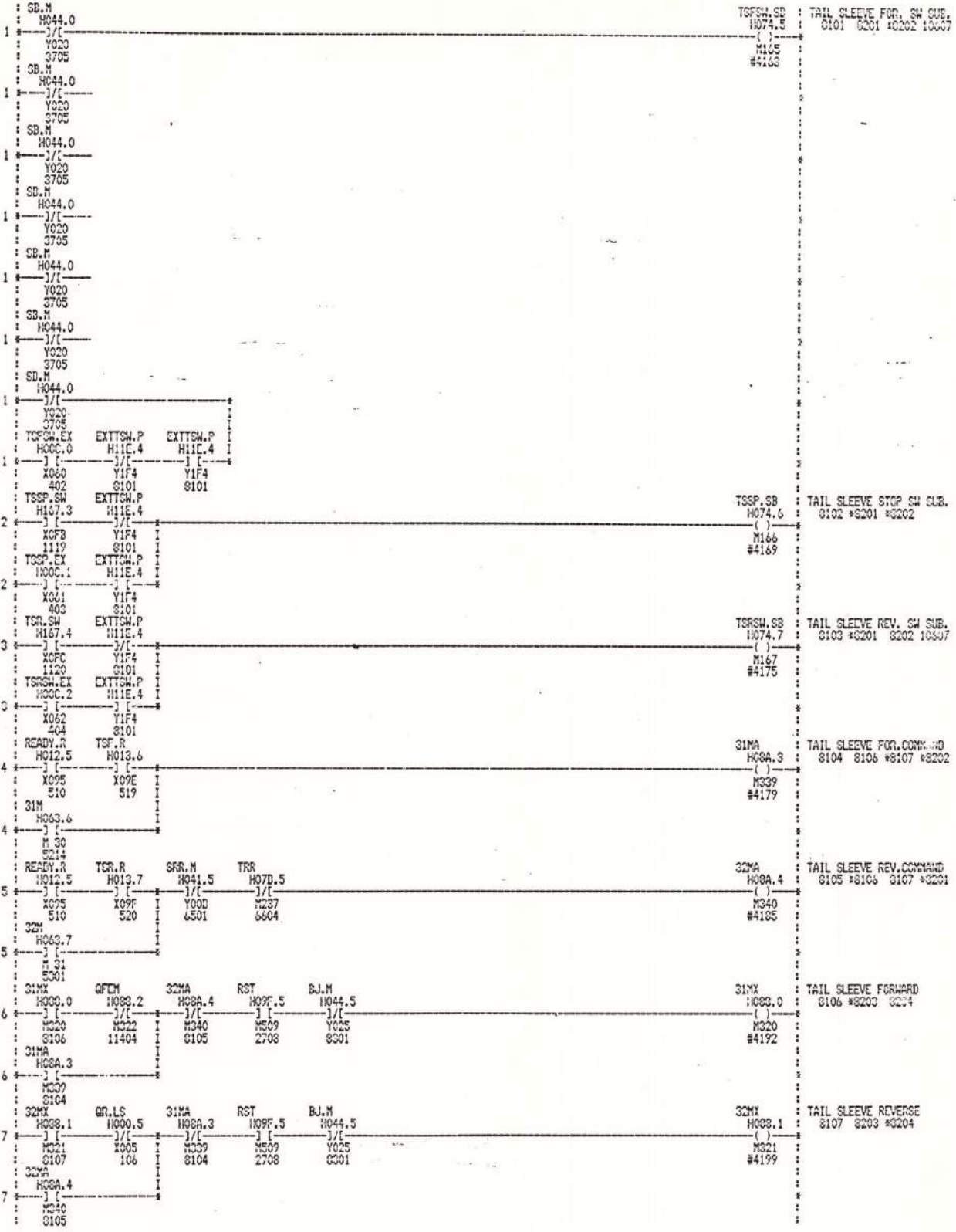


REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC H/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 800
			CHK'D BY. H. KURITA	VT04 C	
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		SHEET. 079 OF.
<b>YAMAZAKI MAZAK CORPORATION</b>					

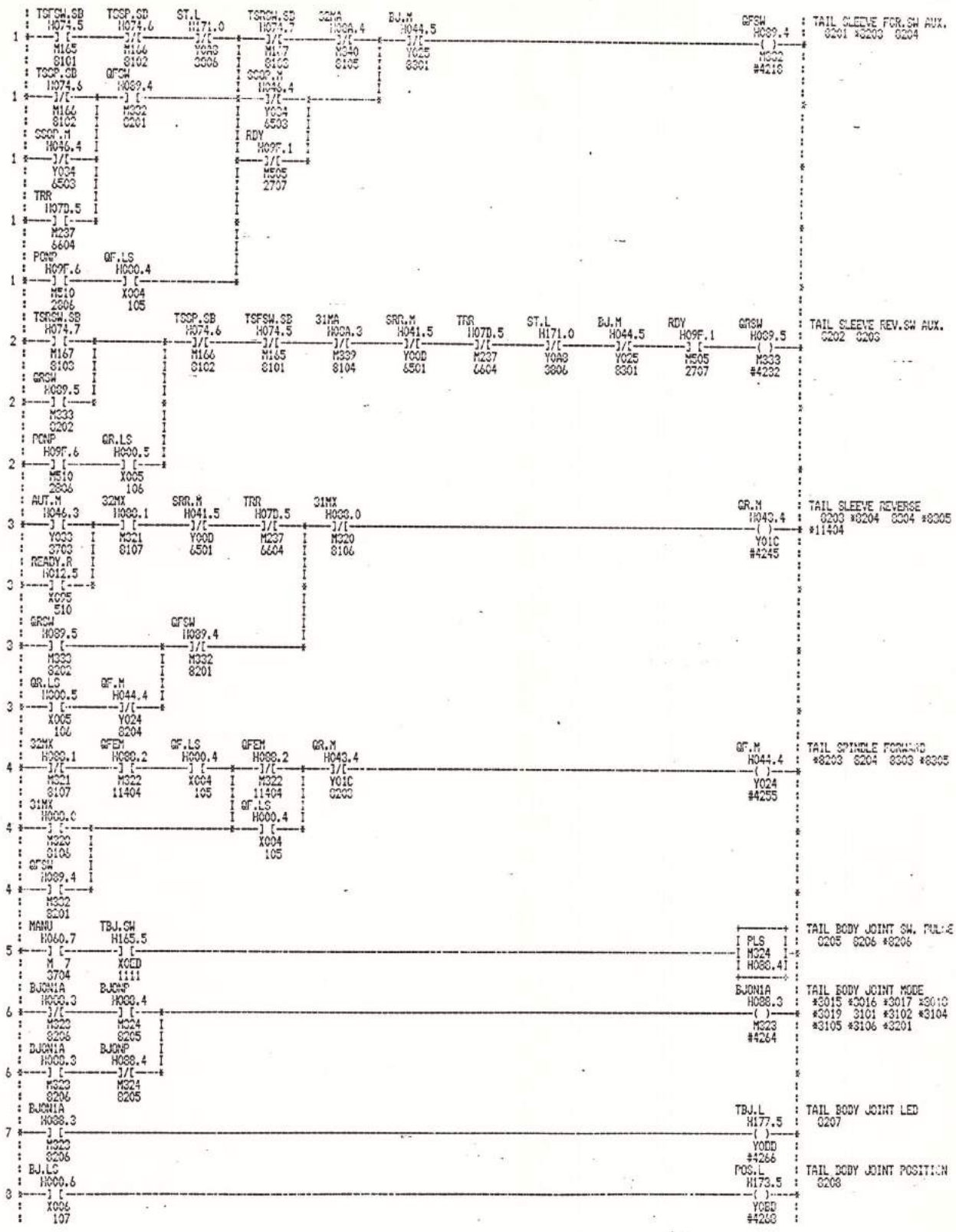


			DRN. BY. <u>Y. SUZUKI</u>	TITLE ST-25 ATC M/C	CONTROL MAZATROL T3
			DATE. <u>1986.7.9</u>		DRAWING NO. 172 01 47 000
			CHK'D BY. <u>M. KURITA</u>	YT04 C	SHEET. <u>080</u> OF. _____
			DATE. <u>1986.7.9</u>		
			APPR'D BY. _____		
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

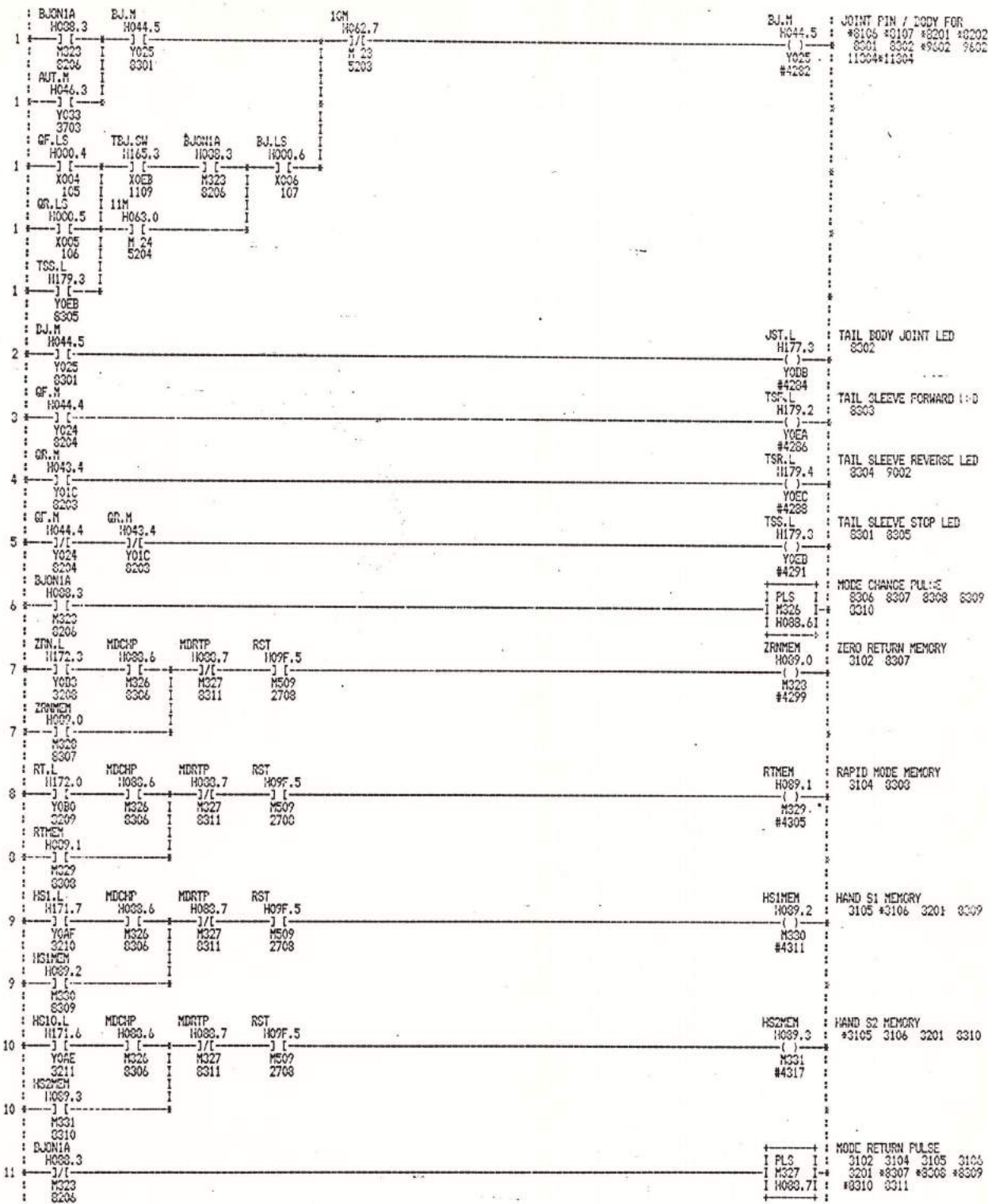




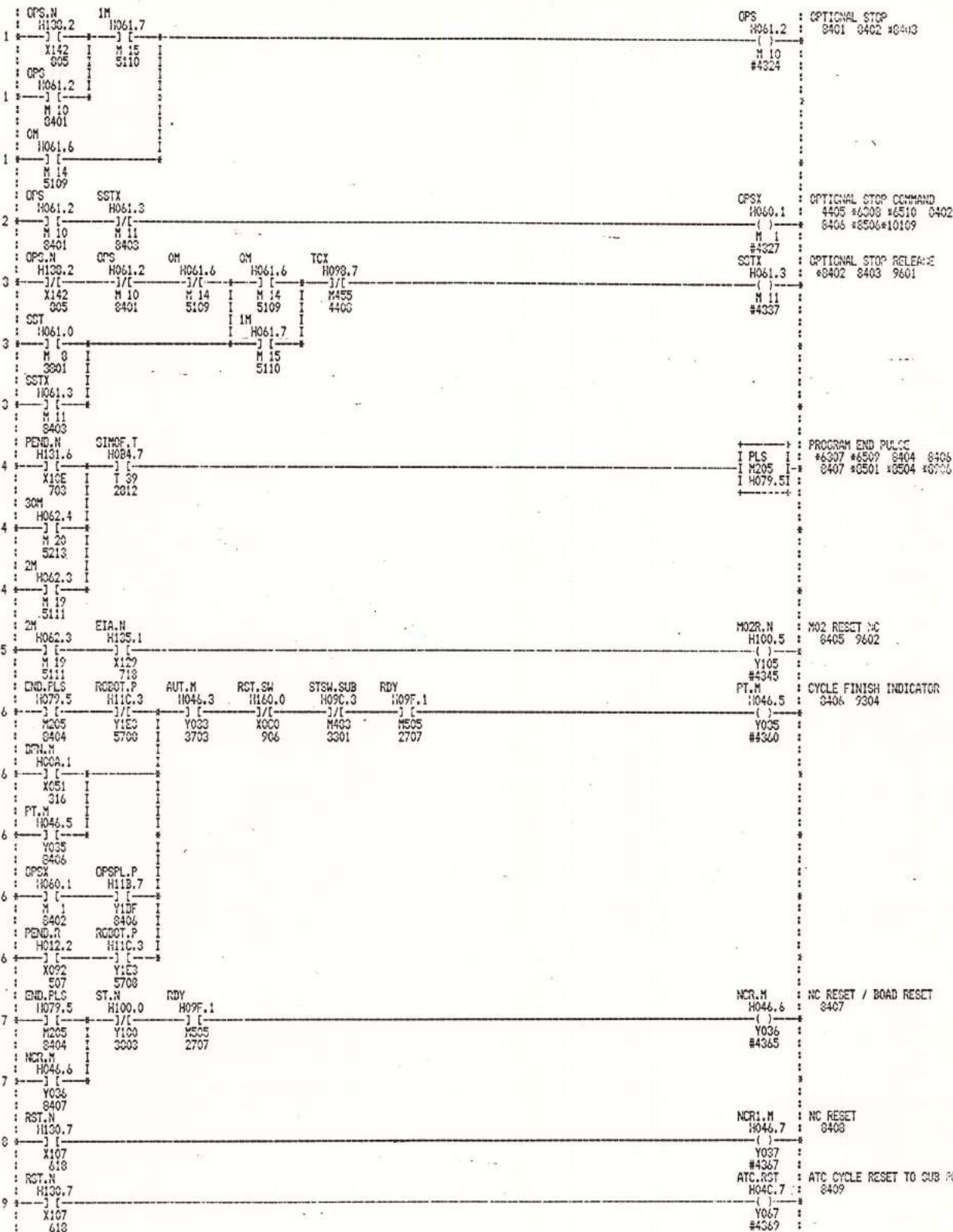
DRN. BY.	Y. SUZUKI	TITLE.	ST-25 ATC M/C	CONTROL	MAZATROL T3
DATE.	1986.7.9			DRAWING NO.	172 01 47 390
CHK'D BY.	M. KURIITA		YT04 C	SHEET.	081 OF.
DATE.	1986.7.9				
APPR'D BY.					
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



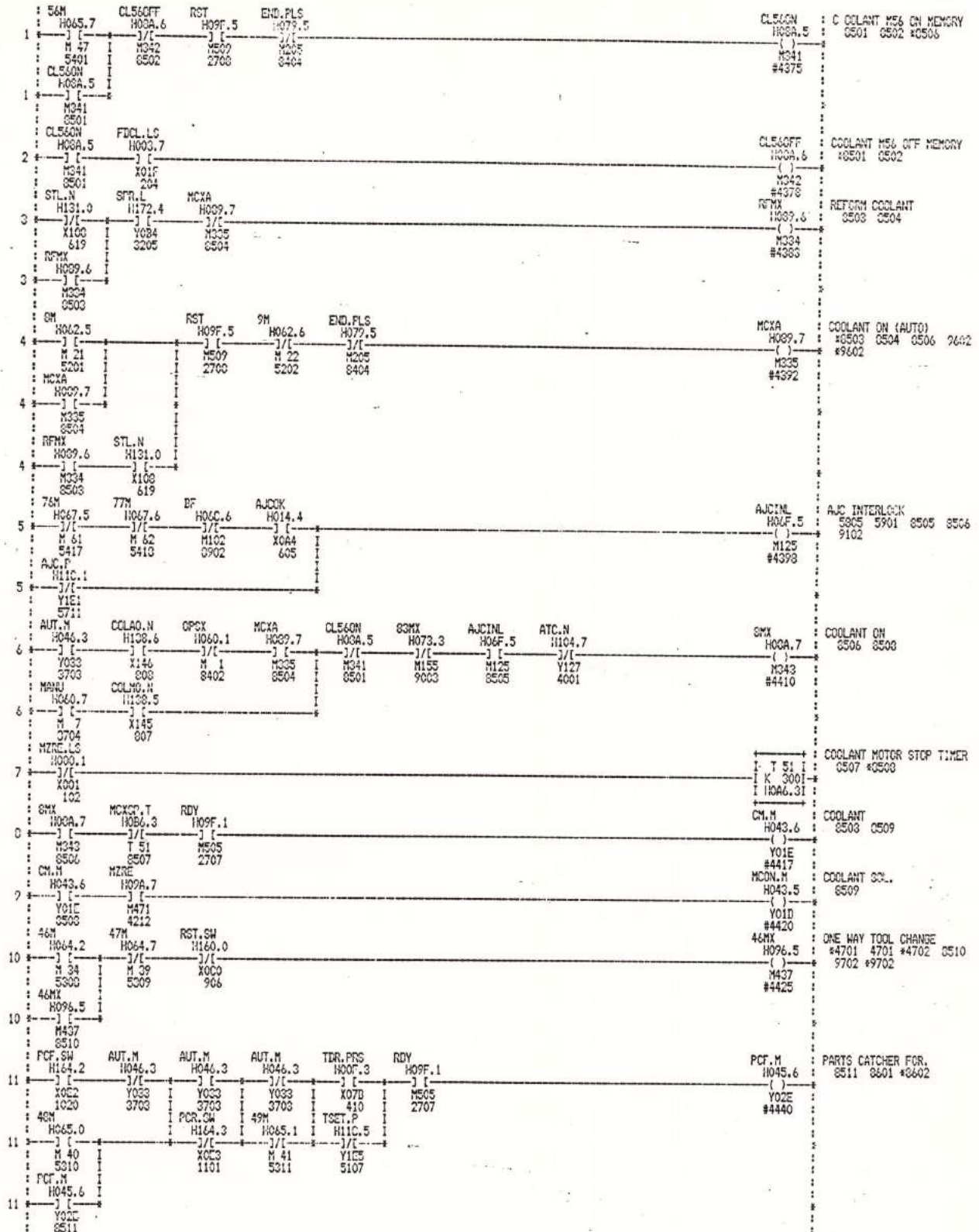
DRN. BY. Y.SUZUKI	TITLE	CONTROL
DATE. 1986.7.9	GT-25 ATC M/C	MAZATROL T3
CHK'D BY. M.KURITA		DRAWING NO.
DATE. 1986.7.9	YT04 C	172 01 47 000
APPR'D BY.		SHEET. 082 OF.
DATE.		
REV.	DATE.	NAME.



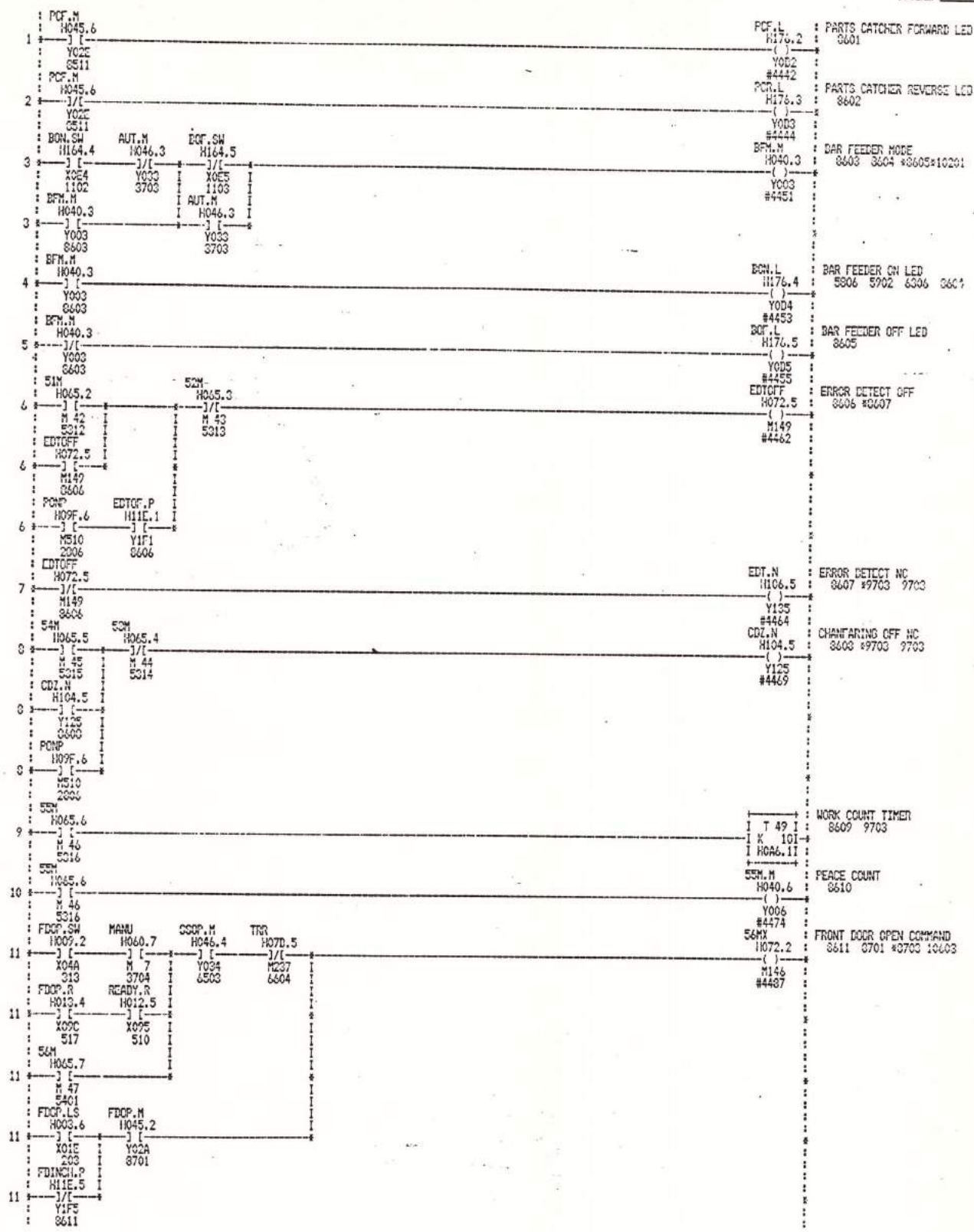
DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL T3</u>
DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
CHK'D BY. <u>M.KURITA</u>		
DATE. <u>1986.7.9</u>	<u>Y704 C</u>	
APPR'D BY. _____		
DATE. _____		SHEET. <u>083</u> OF. _____
REV. DATE. NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>	



			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL	
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3	
			CHK'D BY. <u>M.HIRITA</u>		DRAWING NO.	
			DATE. <u>1986.7.9</u>	YT04 C	172 01 47 600	
			APPR'D BY. _____		SHEET. <u>084</u> OF. _____	
			DATE. _____			
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>			

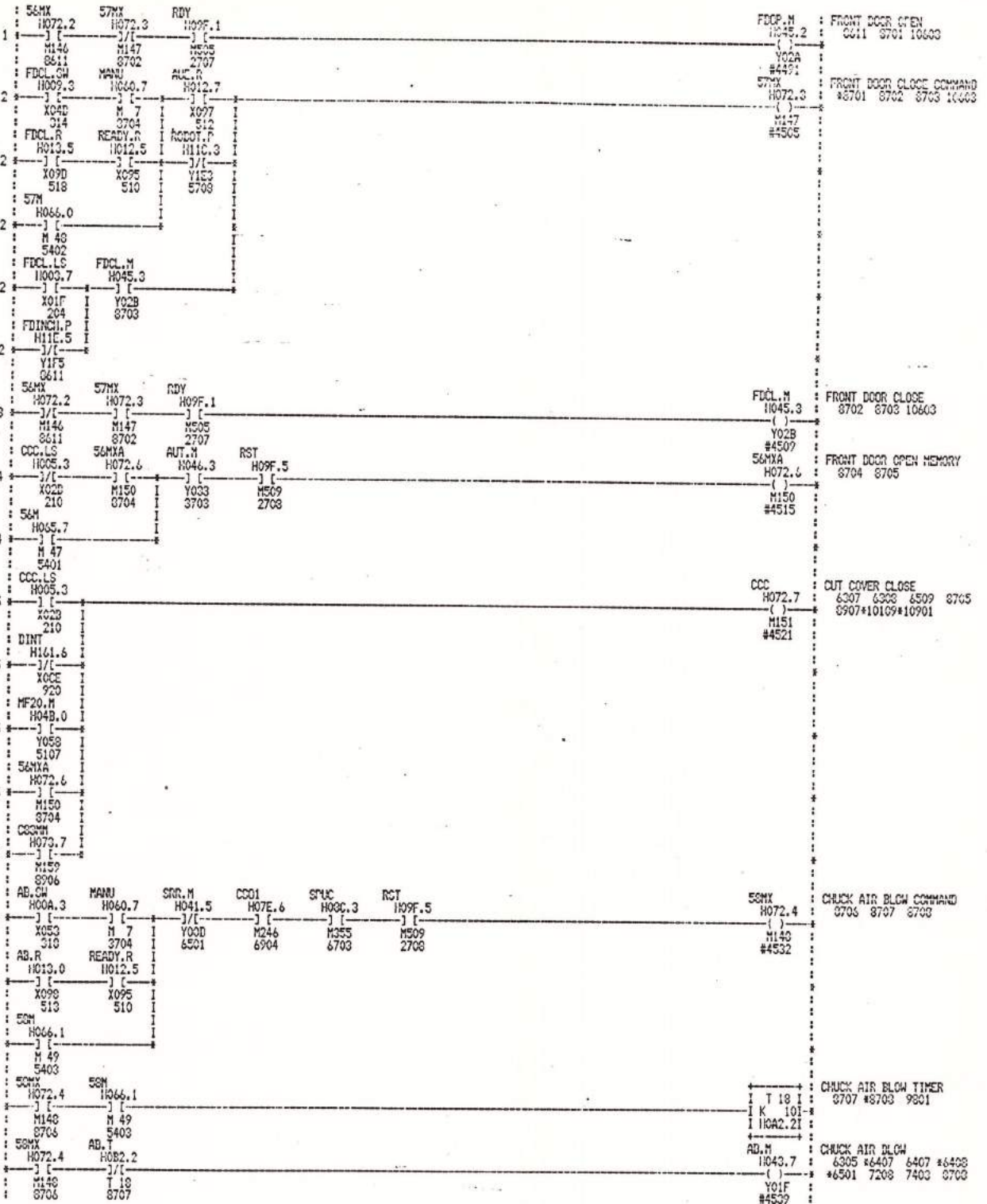


DRN. BY.	Y. SUZUKI	TITLE.	ST-25 ATC M/C	CONTROL.	YAZATROL T3
DATE.	1986.7.9			DRAWING NO.	172 01 47 600
CHK'D BY.	M. MURITA		Y704 C		
DATE.	1986.7.9				
APPR'D BY.					
DATE.					
				SHEET.	085 OF.
<b>YAMAZAKI MAZAK CORPORATION</b>					
REV.	DATE.	NAME.			

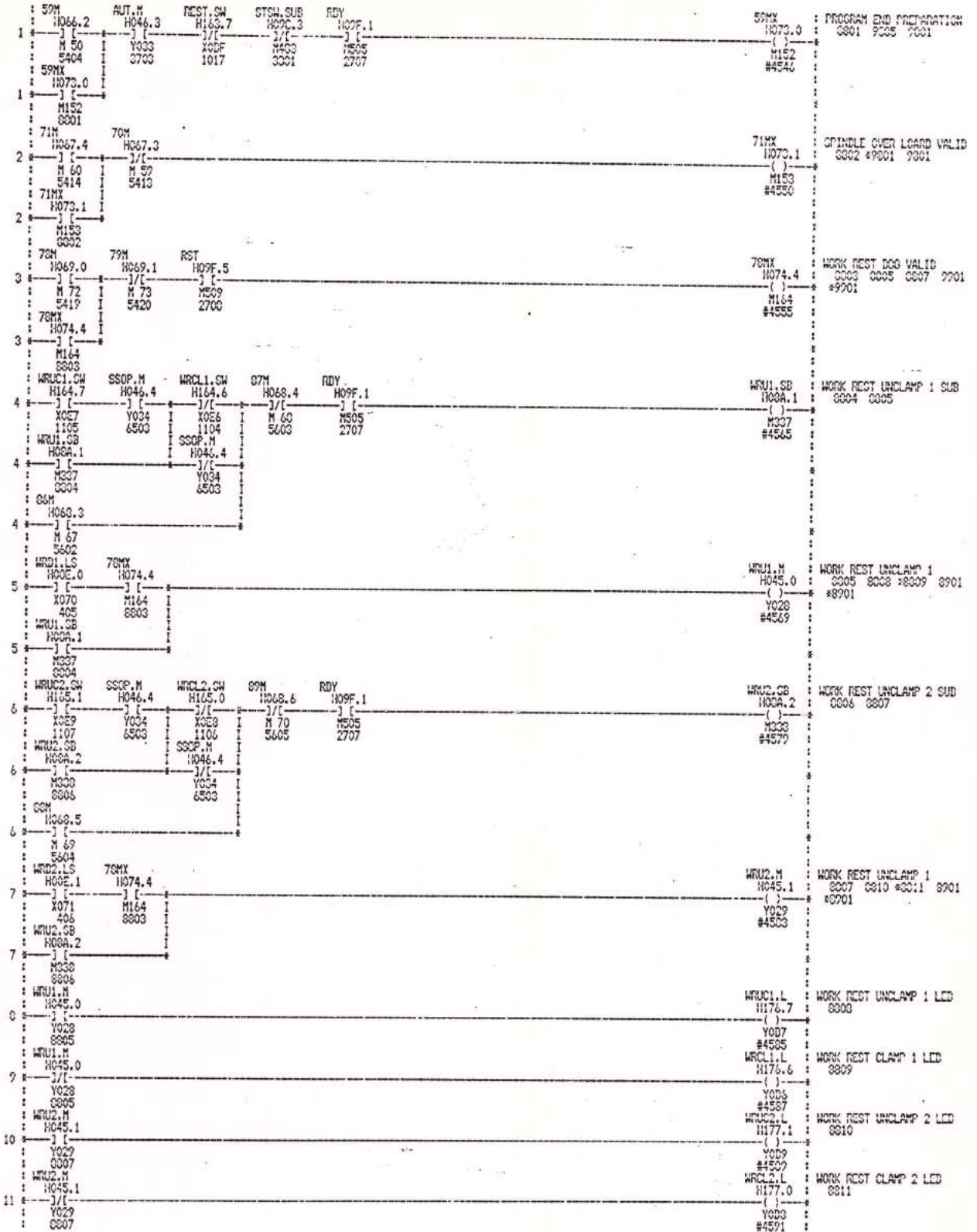


REV.	DATE.	NAME.

DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL. <u>MAZATROL T3</u>
DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 600</u>
CHK'D BY. <u>M. KURITA</u>	TITLE. <u>YT04 C</u>	
DATE. <u>1986.7.9</u>		SHEET. <u>086</u> OF. <u> </u>
APPR'D BY. <u> </u>		
DATE. <u> </u>		
<b>YAMAZAKI MAZAK CORPORATION</b>		

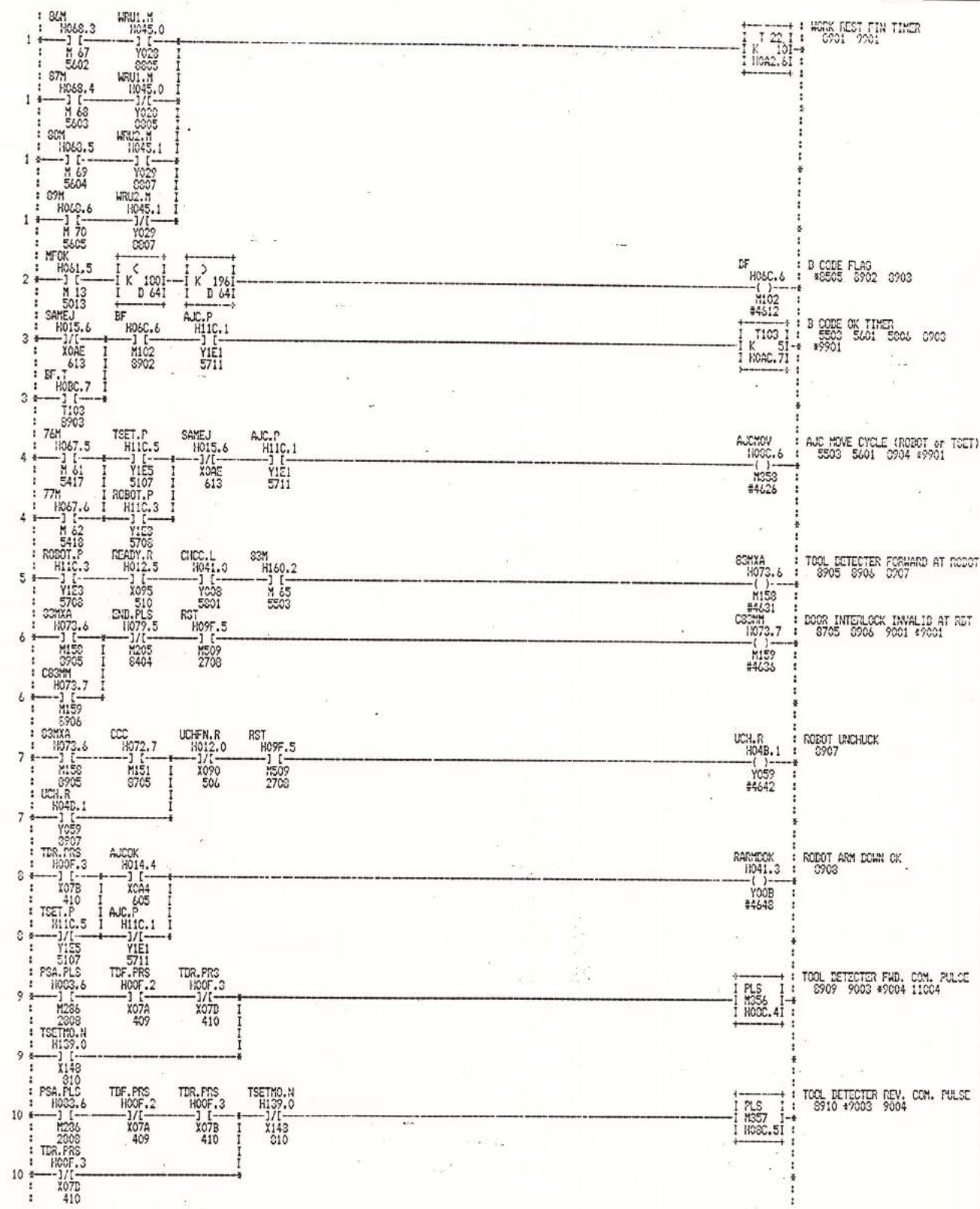


DRN. BY.	Y. SUZUKI	TITLE.	ST-25 ATC M/C	CONTROL.	MAZATROL TO
DATE.	1986.7.9				DRAWING NO.
CHK'D BY.	M. KURITA		YT04 C		172 01 47 000
DATE.	1986.7.9				SHEET. 087 OF.
APPR'D BY.					
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

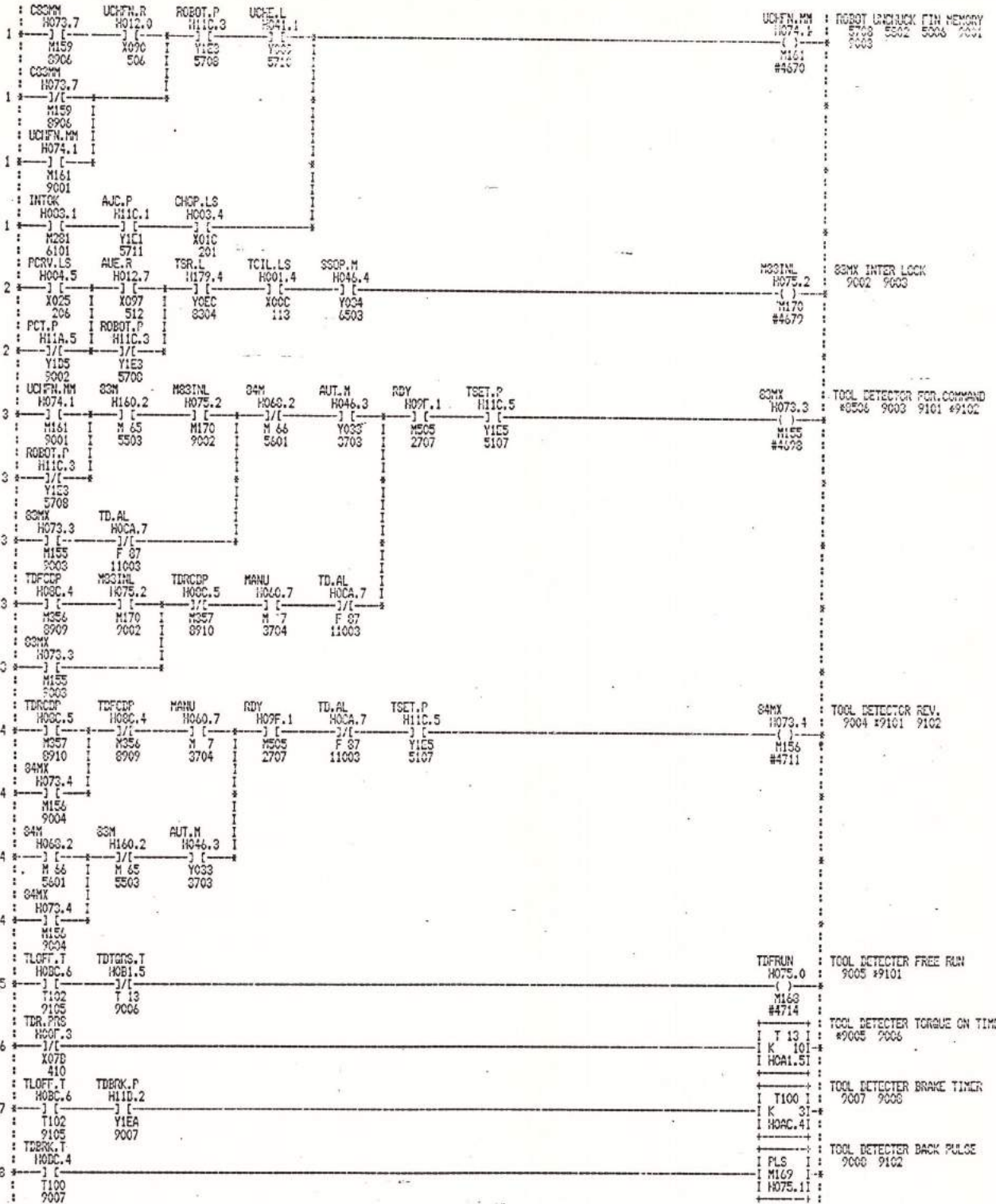


REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL TO
			DATE. 1986.7.9		DRAWING NO. 172 01 47 000
			CHK'D BY. M. MURITA	Y704 C	SHEET. 088 OF.
			DATE. 1986.7.7		
			APPR'D BY.		
			DATE.		
<b>YAMAZAKI MAZAK CORPORATION</b>					

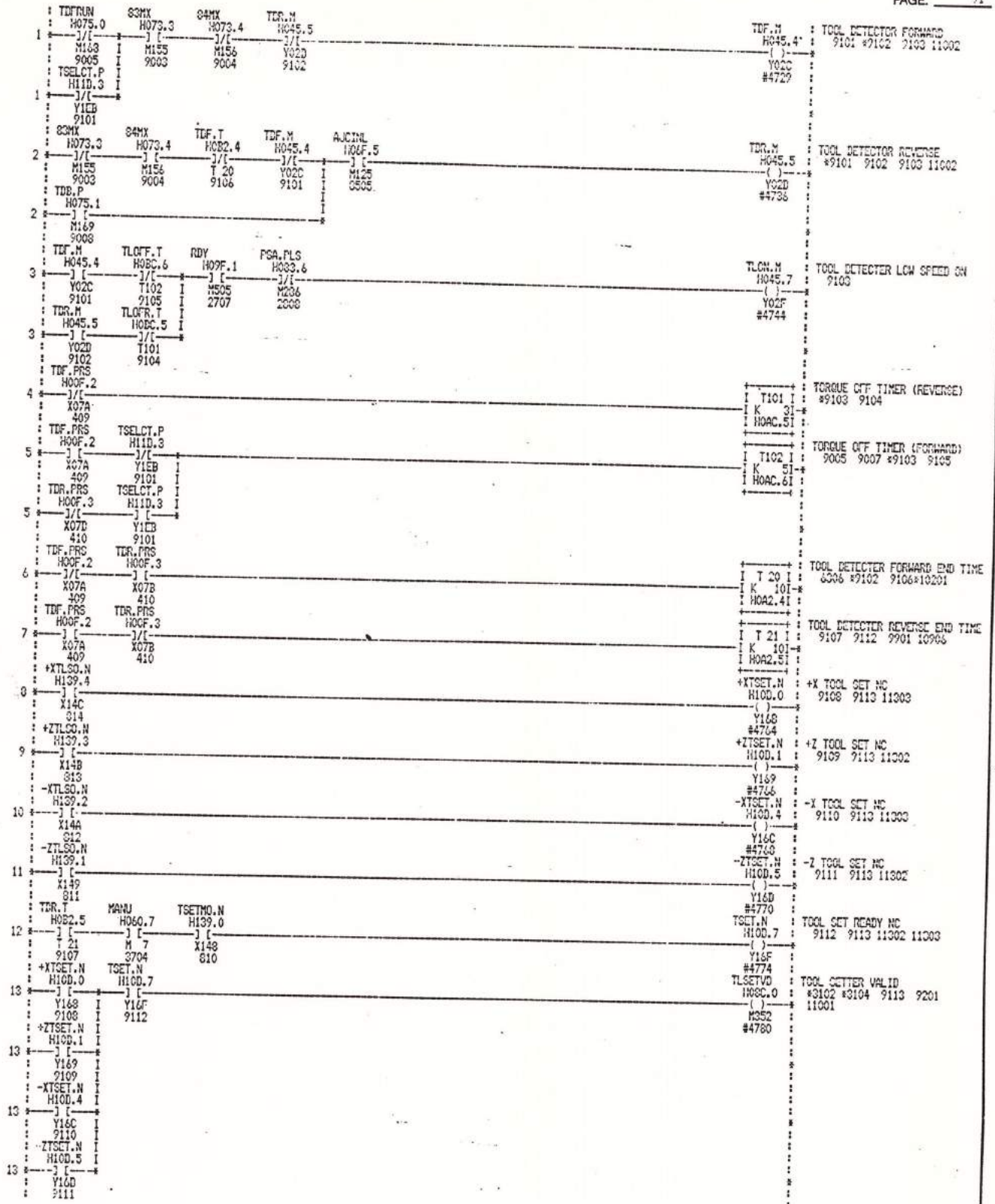




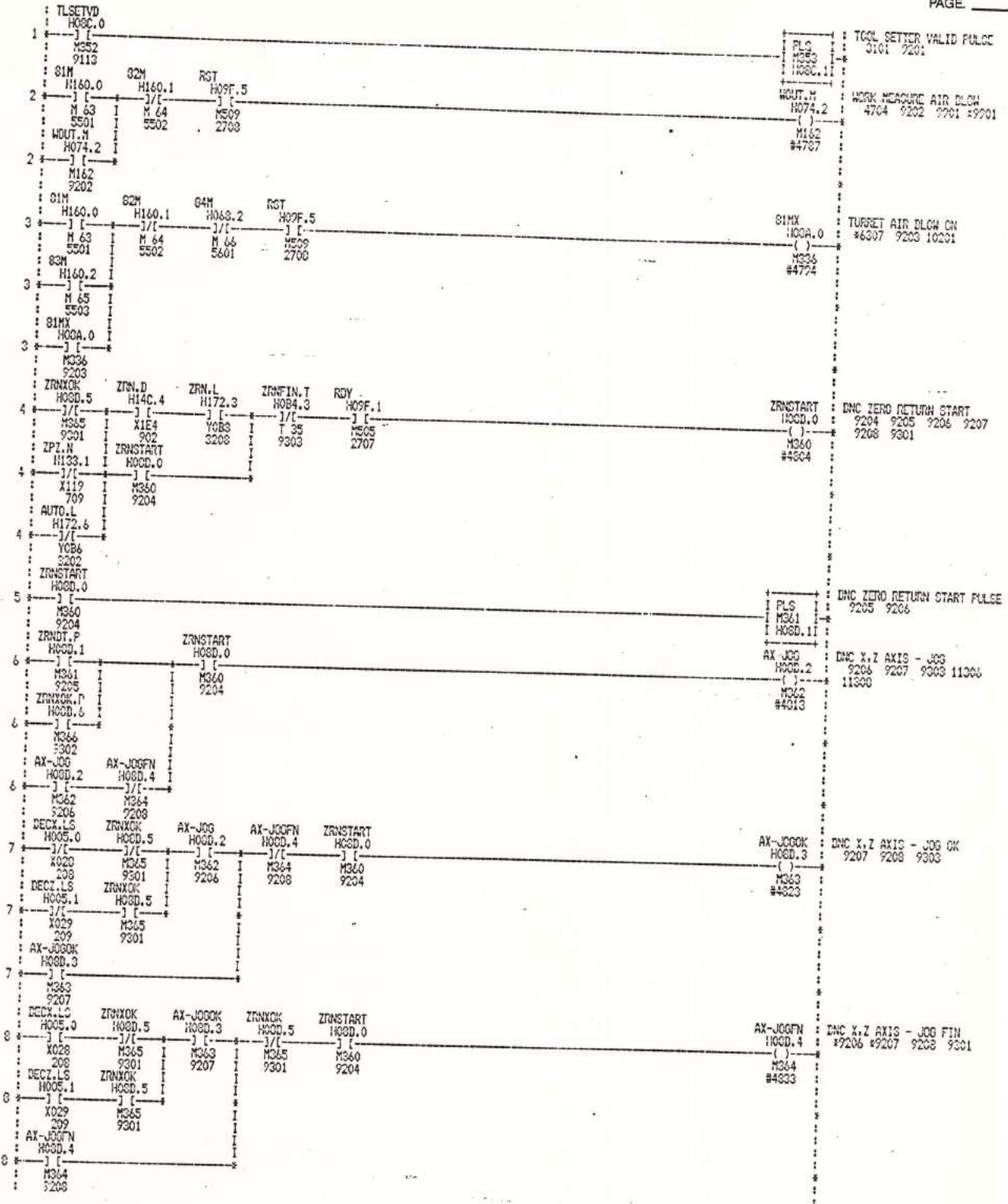
DRN. BY.	Y. SUZUKI	TITLE.	GT-25 ATC M/C	CONTROL.	MAZATROL T3
DATE.	1986.7.9			DRAWING NO.	172 01 47 000
CHK'D BY.	M. KURITA		YTC4 C		
DATE.	1986.7.9				
APPR'D BY.					
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



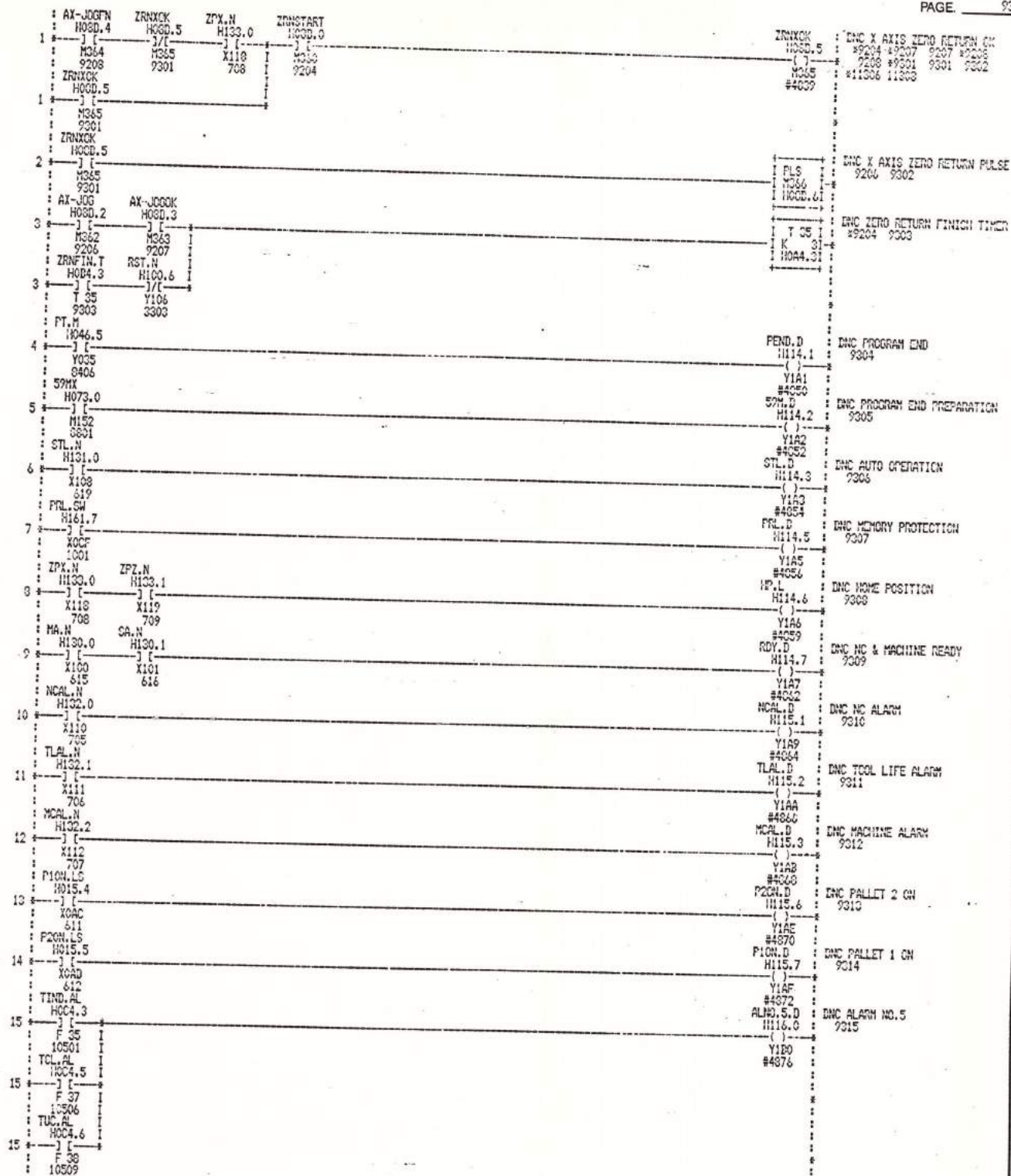
DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
DATE. 1986.7.9	YTO4 C	DRAWING NO. 172 01 47 800
CHK'D BY. M. KURITA		SHEET. 090 OF.
DATE. 1986.7.9		
APPR'D BY.		
DATE.		
REV.	DATE.	NAME.



DRN. BY.	Y. SUZUKI	TITLE	ST-25 ATC M/C	CONTROL	MAZATROL T3
DATE.	1986.7.9			DRAWING NO.	172 01 47 800
CHK'D BY.	M. KURITA		Y704 C		
DATE.	1986.7.9				
APPR'D BY.					
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		
			SHEET. 091 OF.		



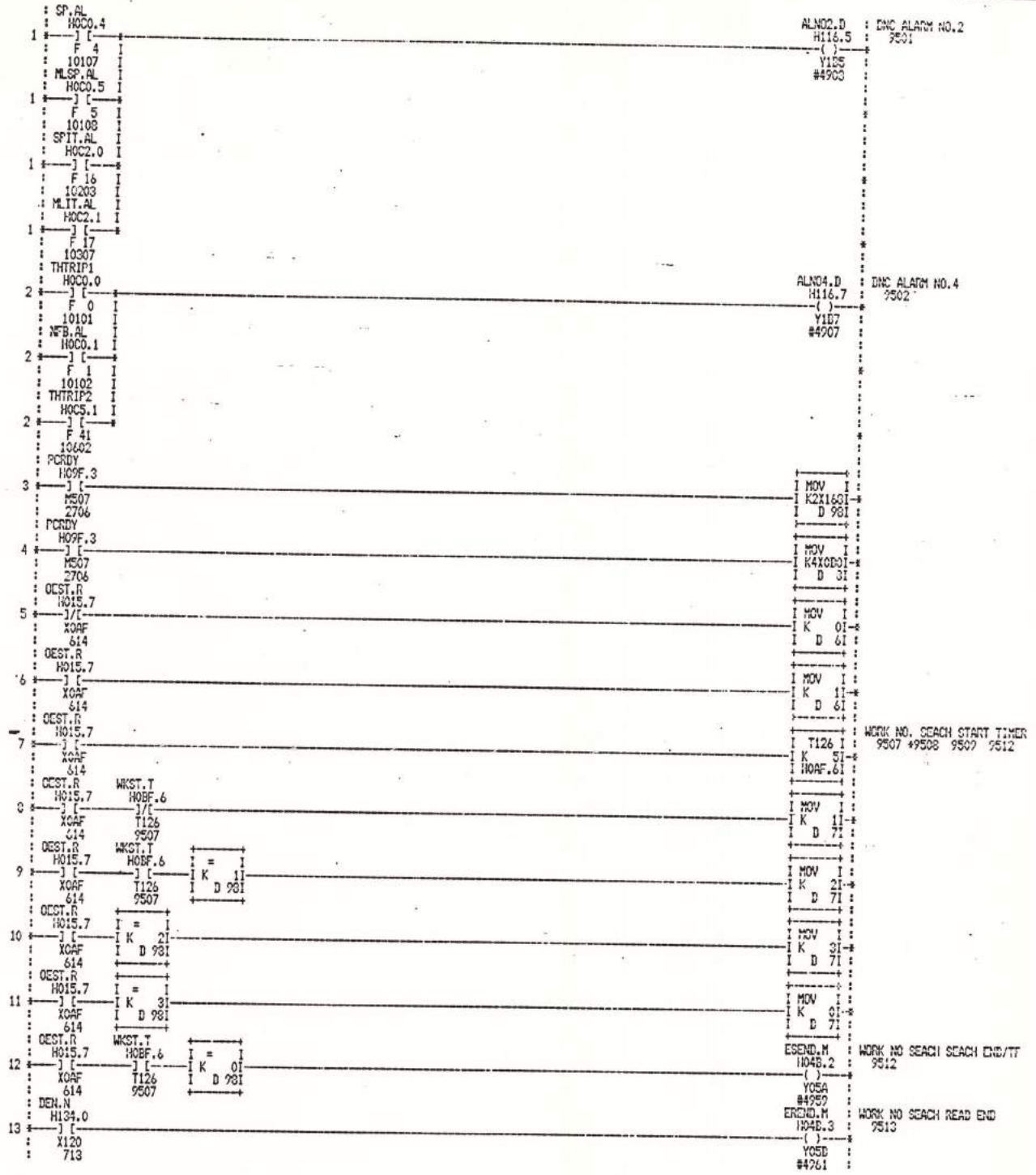
			DRN. BY. <u>Y. SUZUKI</u>	TITLE ST-25 ATC M/C	CONTROL MAZATROL T3
			DATE <u>1986.7.9</u>		DRAWING NO. 172 01 47 000
			CHK'D BY. <u>M. KURITA</u>	Y704 C	SHEET. <u>092</u> OF. <u>    </u>
			DATE <u>1986.7.9</u>		
			APPR'D BY. <u>    </u>		
			DATE <u>    </u>		
REV.	DATE	NAME	<b>YAMAZAKI MAZAK CORPORATION</b>		



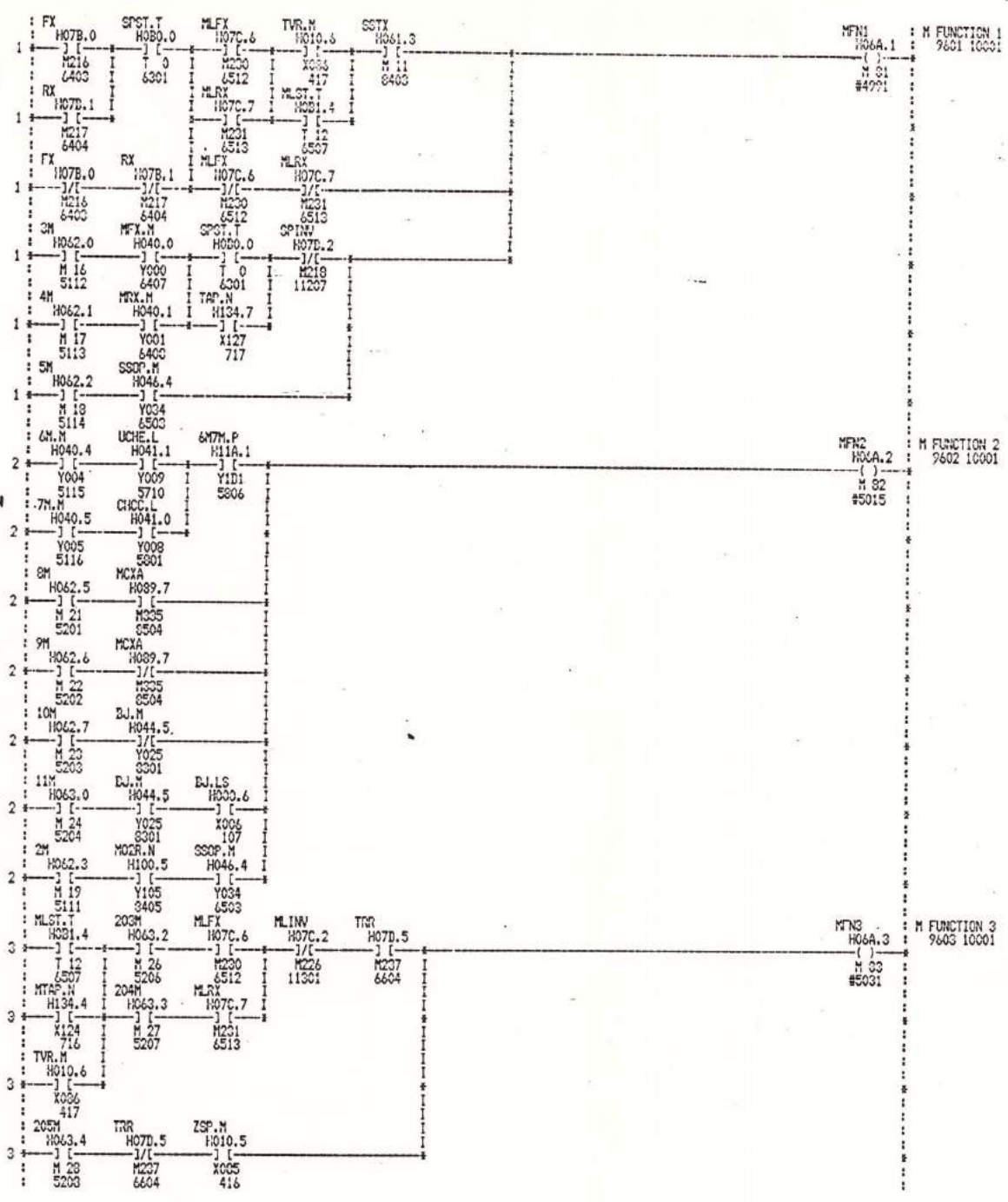
			DRN. BY. <u>Y.SUZUKI</u>	TITLE. ST-25 ATC M/C	CONTROL MAZATROL T3
			DATE. <u>1986.7.9</u>		DRAWING NO. 172 01 47 600
			CHK'D BY. <u>M.KURITA</u>	YT04 C	SHEET. <b>093</b> OF
			DATE. <u>1986.7.9</u>		
			APPR'D BY. _____		
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

1	TD,AL HCC5.3 F 43 10605 G,AL HCC5.4 F 44 10606 TC,SM,AL HCC5.5 F 45 10607 EXEMG,AL HCC0.7	ALN06.D H116.1 ( ) Y1E1 #4000	ENC ALARM NO.6 9401
2	F 7 10110 MES,AL HCC6.6 F 54 10801 EXAMP,AL HCC6.7 F 55 10802 CV,AL HCC0.6	ALN07.D H116.2 ( ) Y1E2 #4004	ENC ALARM NO.7 9402
3	F 6 10109 FAN,AL HCC5.0 F 40 10511 FD,AL HCC6.2 F 42 10604 CKLC,AL HCC6.6 F 46 10408 HSC1,AL HCC5.7 F 47 10409 SPOR,AL HCC6.1 F 49 10702 PIN,AL HCC6.3 F 51 10703 SS,AL HCC6.4 F 52 10705 MLGS,AL HCC6.5	ALN08.DG H080.7 ( ) M357 #4093	ENC ALARM NO.8 SUB 9403 9404
4	F 53 9404 CAX,AL HCC7.1 F 57 10004 NCFCD,AL HCC7.2 F 50 10005 ALN08.DS H080.7 M357 9403	ALN08.D H116.0 ( ) Y1D3 #4098	ENC ALARM NO.8 9404

				DRN. BY. <u>Y.SUZUKI</u>	TITLE  ST-25 ATC H/C	CONTROL HAZATROL TS
				DATE. <u>1986.7.9</u>		DRAWING NO. 172 01 47 600
				CHK'D BY. <u>M.KURITA</u>	YT04 C	SHEET. <b>094</b> OF. _____
				DATE. <u>1986.7.9</u>		
				APPR'D BY. _____		
				DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>			

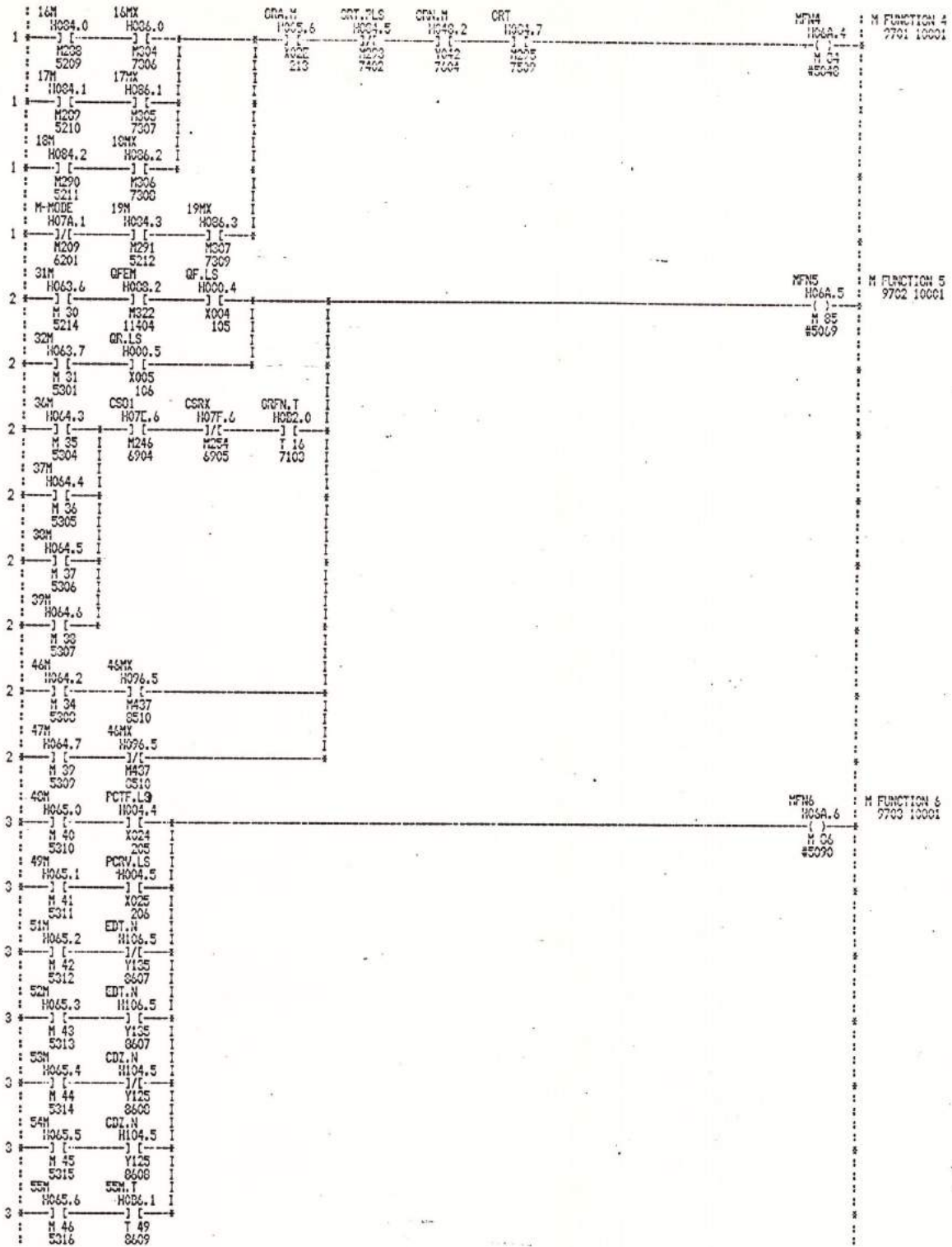


			DRN. BY. <u>Y. SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL TO
			CHK'D BY. <u>M. KURITA</u>	YT04 C	DRAWING NO.
			DATE. <u>1986.7.9</u>		172 01 47 800
			APPR'D BY. _____		SHEET. <b>095</b> OF. _____
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



DRN. BY. Y. SUZUKI	TITLE	CONTROL
DATE. 1966.7.9	ST-25 ATC M/C	MAZATROL T3
CHK'D BY. H. KURITA		DRAWING NO.
DATE. 1966.7.9	Y704 C	172 01 47 000
APPR'D BY.		SHEET. 096 OF.
DATE.		
REV.	DATE.	NAME.



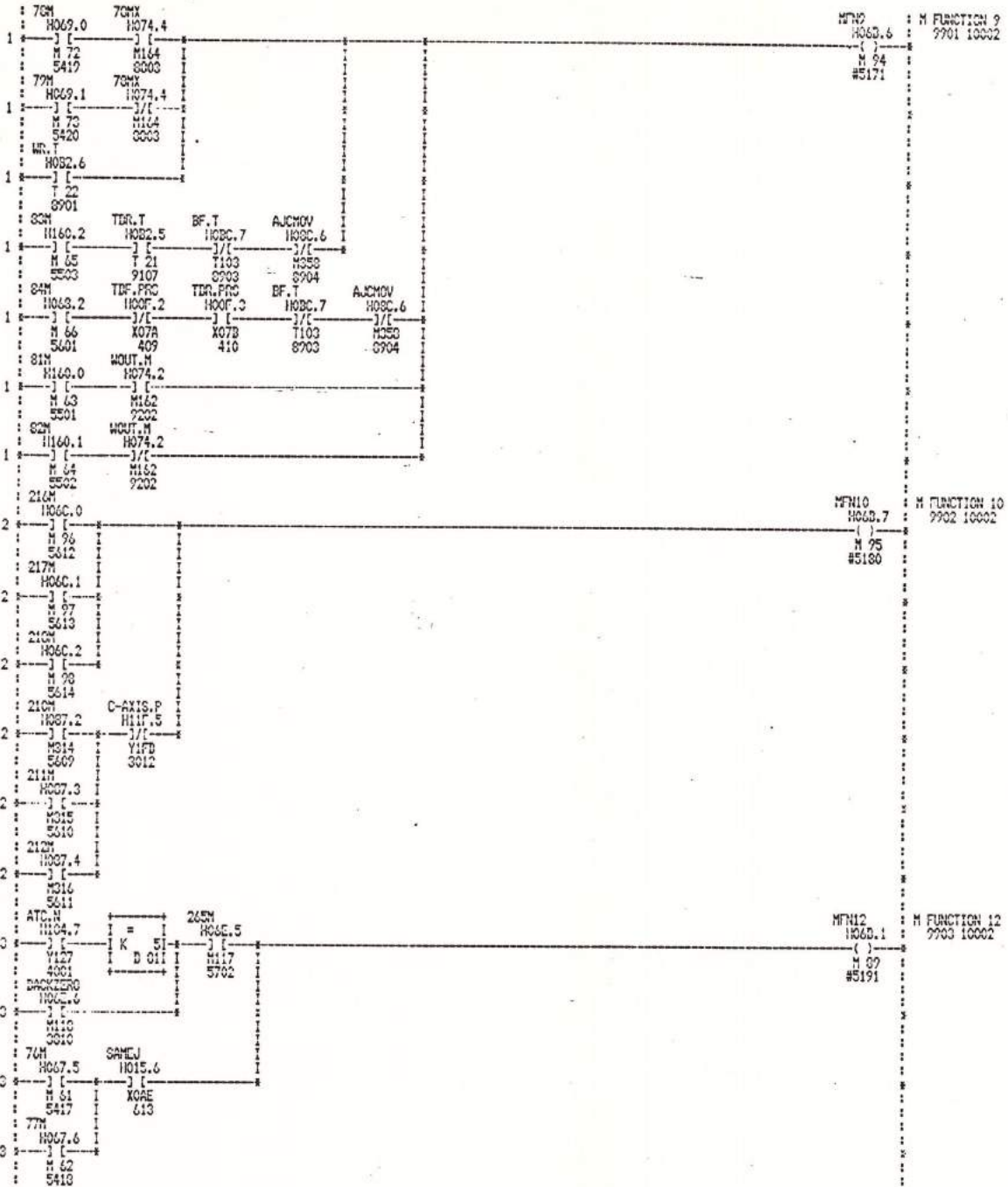


			DRN. BY. <u>Y. SUZUKI</u>	TITLE. GT-25 ATC M/C	CONTROL MAZATROL T3
			DATE. <u>1986.7.9</u>		DRAWING NO. 172 01 47 000
			CHK'D BY. <u>M. KURITA</u>	YT04 C	SHEET. <u>097</u> OF.
			DATE. <u>1986.7.9</u>		
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			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

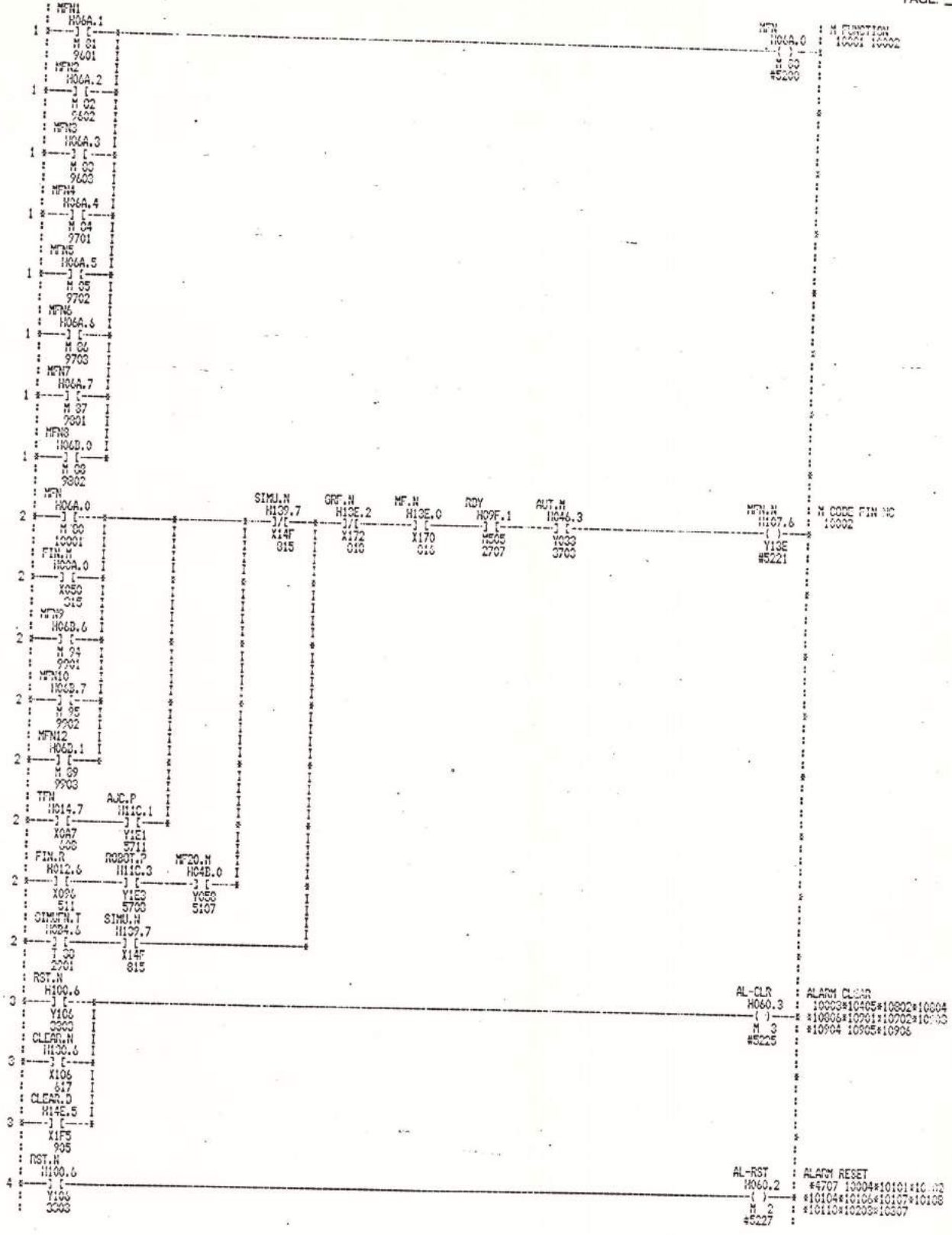
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H065.7	H065.6										H06A.7	9801 10001
1	M 47	X01E										
5401		203										
57M	FDCP.LS											
H066.0	H066.7											
1	M 48	X01F										
5402		204										
59M	AB.T	ZSP.M										
H066.1	H066.2	H065.4										
1	M 49	T 18	X02C									
5403		S707	211									
59M	59M											
H066.2	H073.0											
1	M 50	H152										
5404		8901										
70M	71M											
H067.3	H073.1											
1	M 59	H153										
5413		8902										
71M	71M											
H067.4	H073.1											
1	M 60	H153										
5414		8902										
72M	CKCLCCE	CKMOV										
H068.4	H06F.1	H06F.0										
1	M100	H121	H120									
5415		6106	6105									
73M	CHOUT	CKMOV										
H068.5	H077.0	H06F.0										
1	M101	H124	H120									
5416		6102	6105									
200M	CAXIS.W	C-AXIS.P										
H079.0	H105.0	H11F.5										
2	M200	V118	Y1FD									
5607		7908	3012									
201M	M-MODE	C-AXIS.P										
H079.1	H07A.1	H11F.5										
2	M201	H209	Y1FD									
5608		6201	3012									
60M												
H069.4												
2	M 76											
5405												
202M	SPUC											
H063.1	H06C.3											
2	M 25	H055										
5205		6703										
210M	SPCL.L	C-AXIS.P										
H087.2	H04B.7	H11F.5										
2	M314	Y05F	Y1FD									
5609		6705	3012									
211M	CDK.L	C-AXIS.P										
H087.3	H04B.5	H11F.5										
2	M315	Y05D	Y1FD									
5610		6707	3012									
212M	CDK.L	SPCL.L	C-AXIS.P									
H087.4	H04B.5	H04B.7	H11F.5									
2	M316	Y05D	Y05F	Y1FD								
5611		6707	6705	3012								
219M	TTR	ZSP.M										
H06C.3	H07D.5	H010.5										
2	M 99	H237	X035									
5701		6604	416									

MR18  
H06B.0  
M FUNCTION 8  
9802 10001  
M 98  
#5147

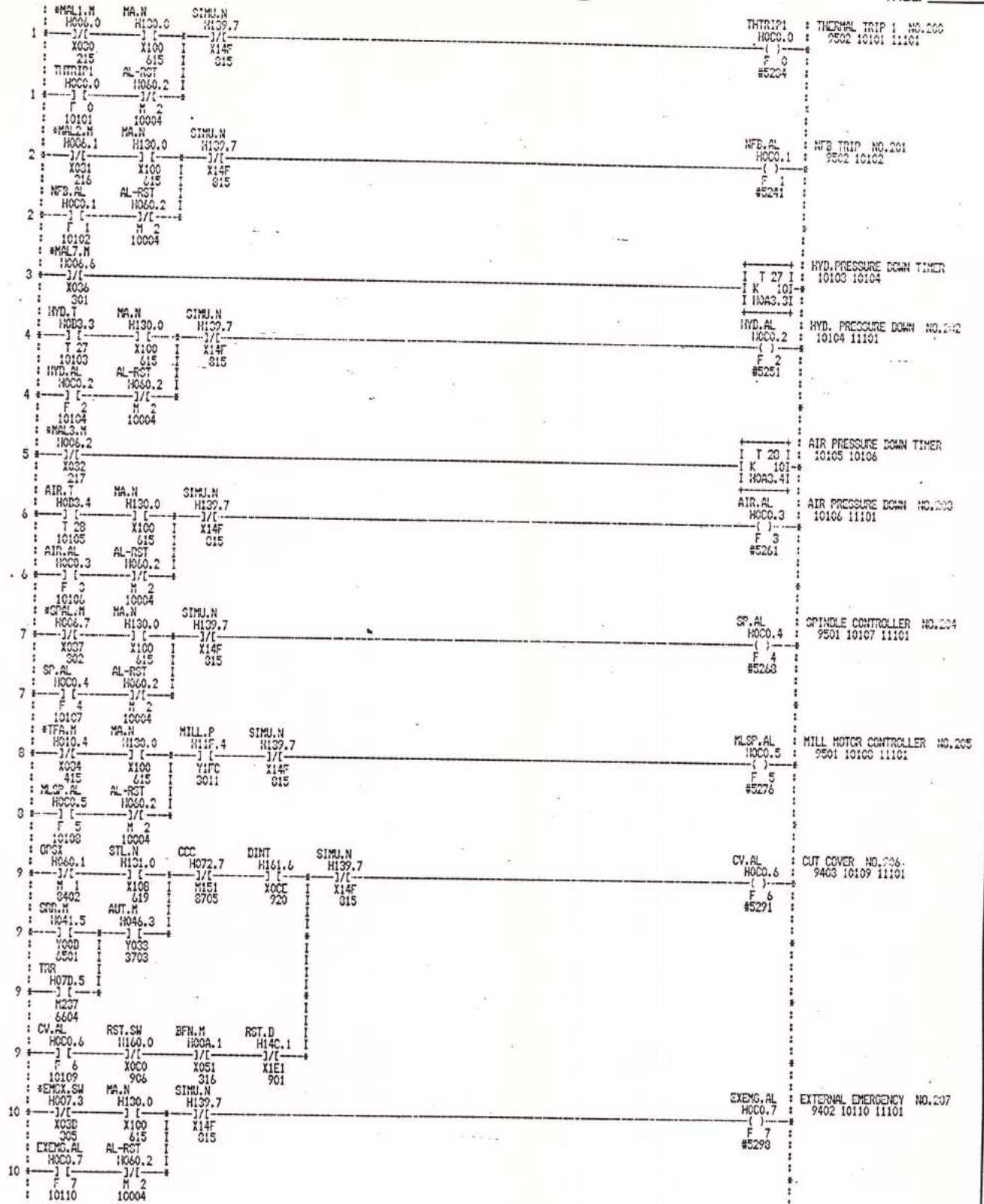
DRN. BY. <u>Y. SUZUKI</u>				TITLE ST-25 ATC M/C	CONTROL MAZATROL T3	
DATE <u>1986.7.9</u>						
CHK'D BY. <u>M. KURITA</u>				YT04 C	DRAWING NO. 172 01 47 000	
DATE <u>1986.7.9</u>						
APPR'D BY. _____				SHEET. <b>098</b> OF.		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		



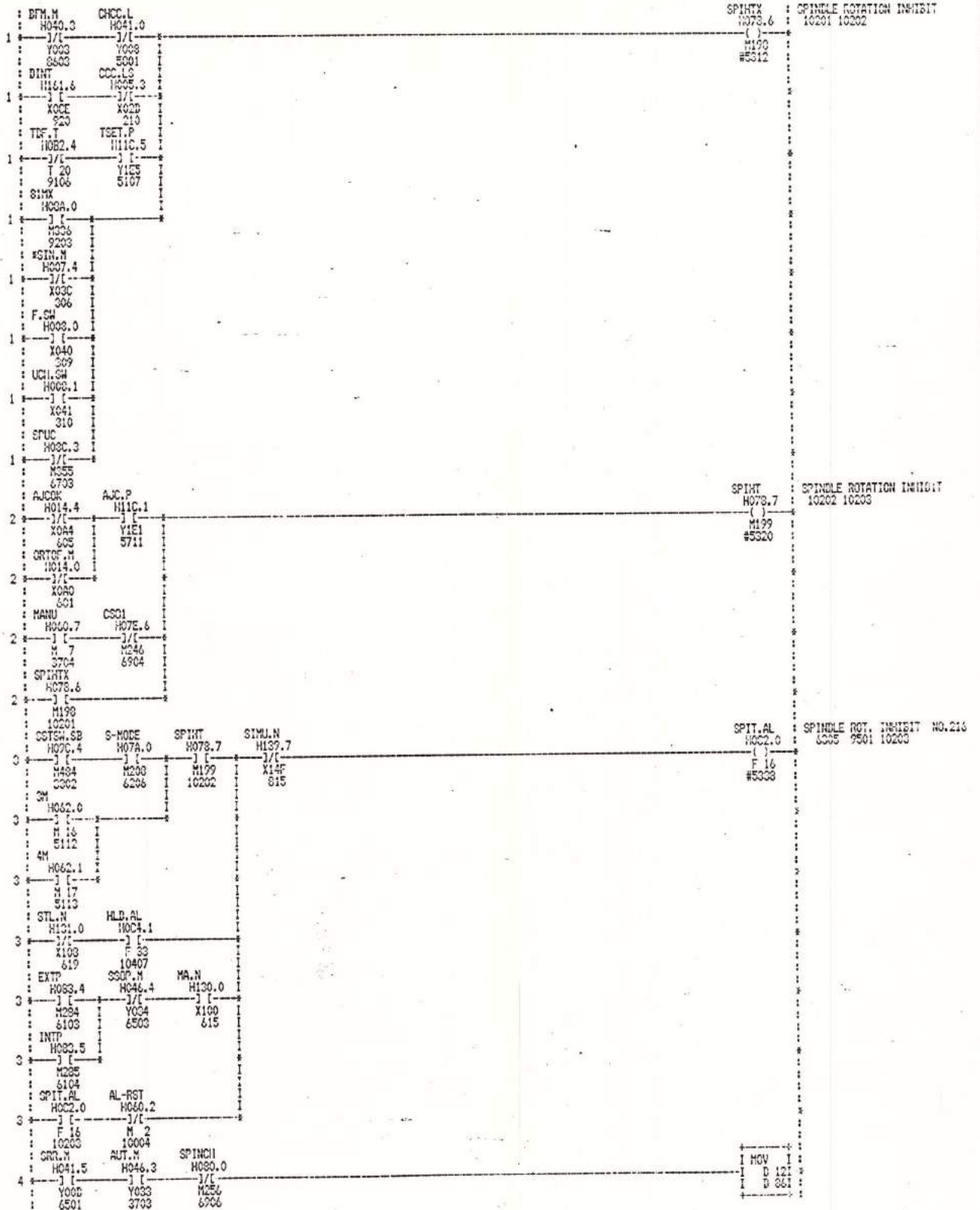
REV.	DATE.	NAME.	DRN. BY. <u>Y. GUNIKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M. KRITA</u>	YT04 C	DRAWING NO.
			DATE. <u>1986.7.9</u>		172 01 47 000
			APPR'D BY.		SHEET. <u>099</u> OF.
			DATE.	<b>YAMAZAKI MAZAK CORPORATION</b>	



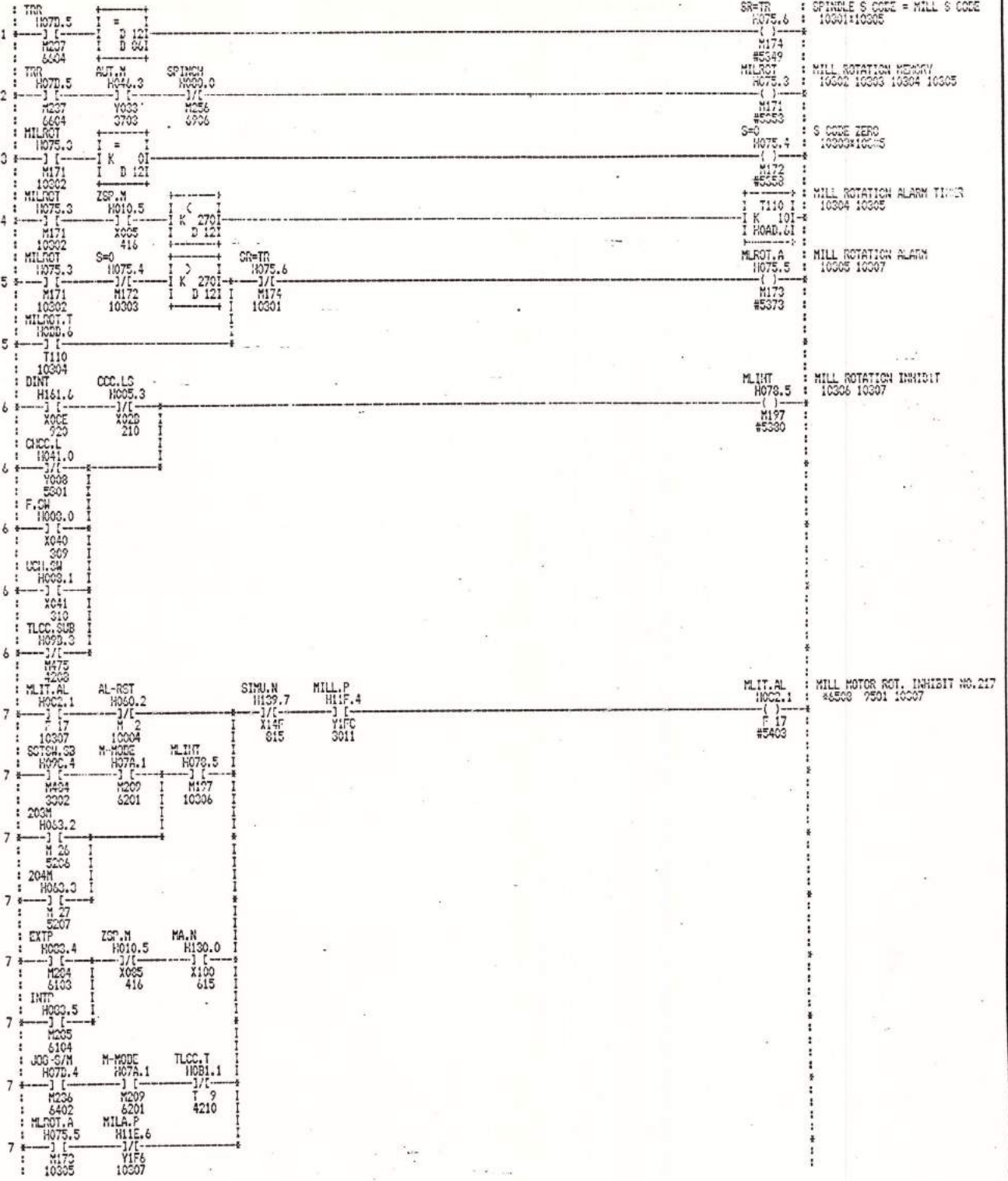
			DRN. BY. <u>Y. SUZUKI</u>	TITLE  ST-25 ATC M/C	CONTROL  MAZATROL TO
			DATE. <u>1985.7.9</u>		
			CHK'D BY. <u>N. KUNITA</u>	TITLE  YT04 C	DRAWING NO.  172 01 47 800
			DATE. <u>1985.7.9</u>		
			APPR'D BY. _____		
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



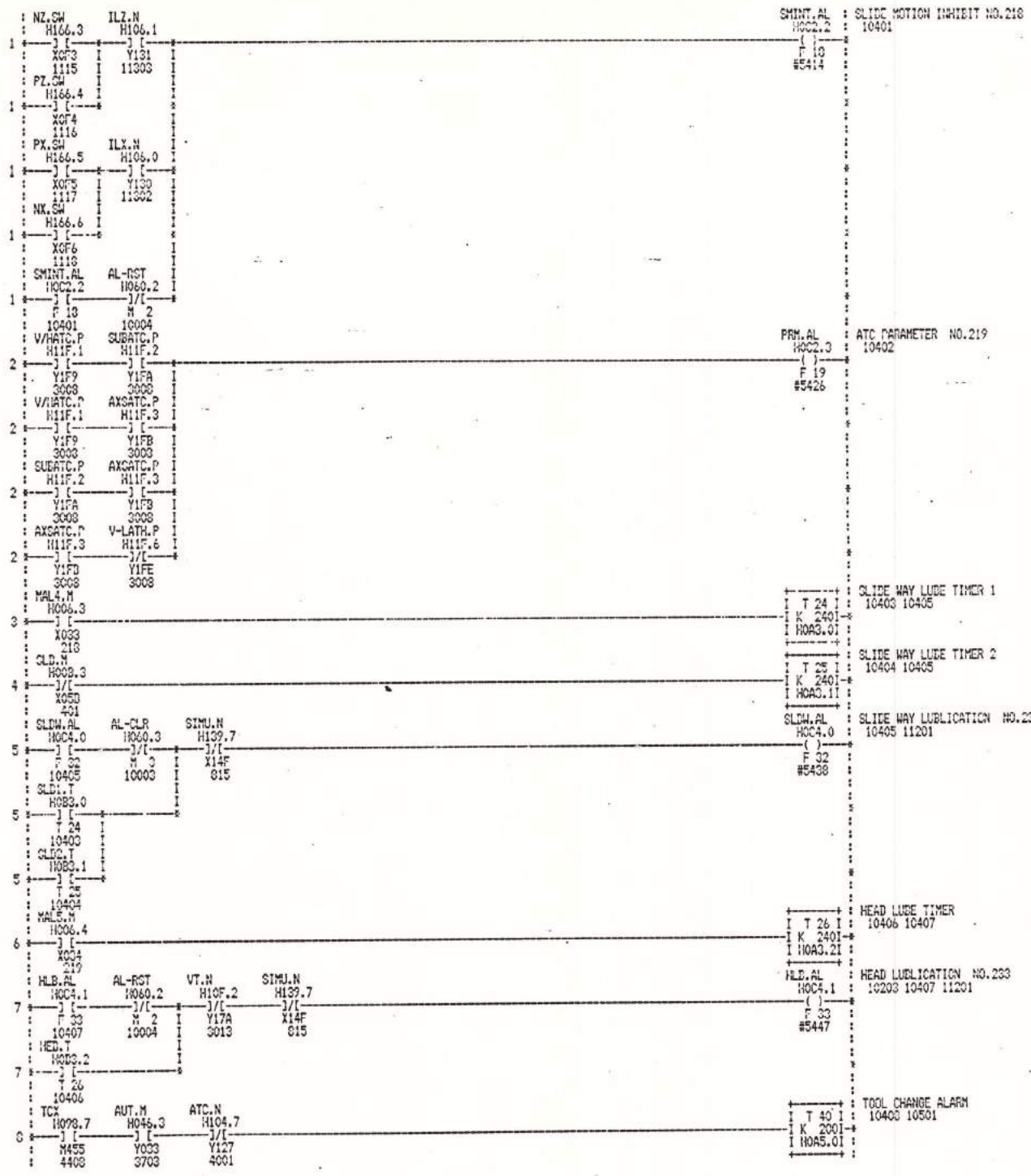
DRN. BY. <u>Y. SUZUKI</u>	TITLE	CONTROL
DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
CHK'D BY. <u>M. KURITA</u>		DRAWING NO.
DATE. <u>1986.7.9</u>	YT04 C	172 01 47 800
APPR'D BY. _____		
DATE. _____		SHEET. <u>101</u> OF. _____
REV.	DATE.	NAME.



			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.2</u>	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
			DATE. <u>1986.7.2</u>	Y304 C	172 01 47 800
			APPR'D BY. _____		SHEET. <u>102</u> OF. _____
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

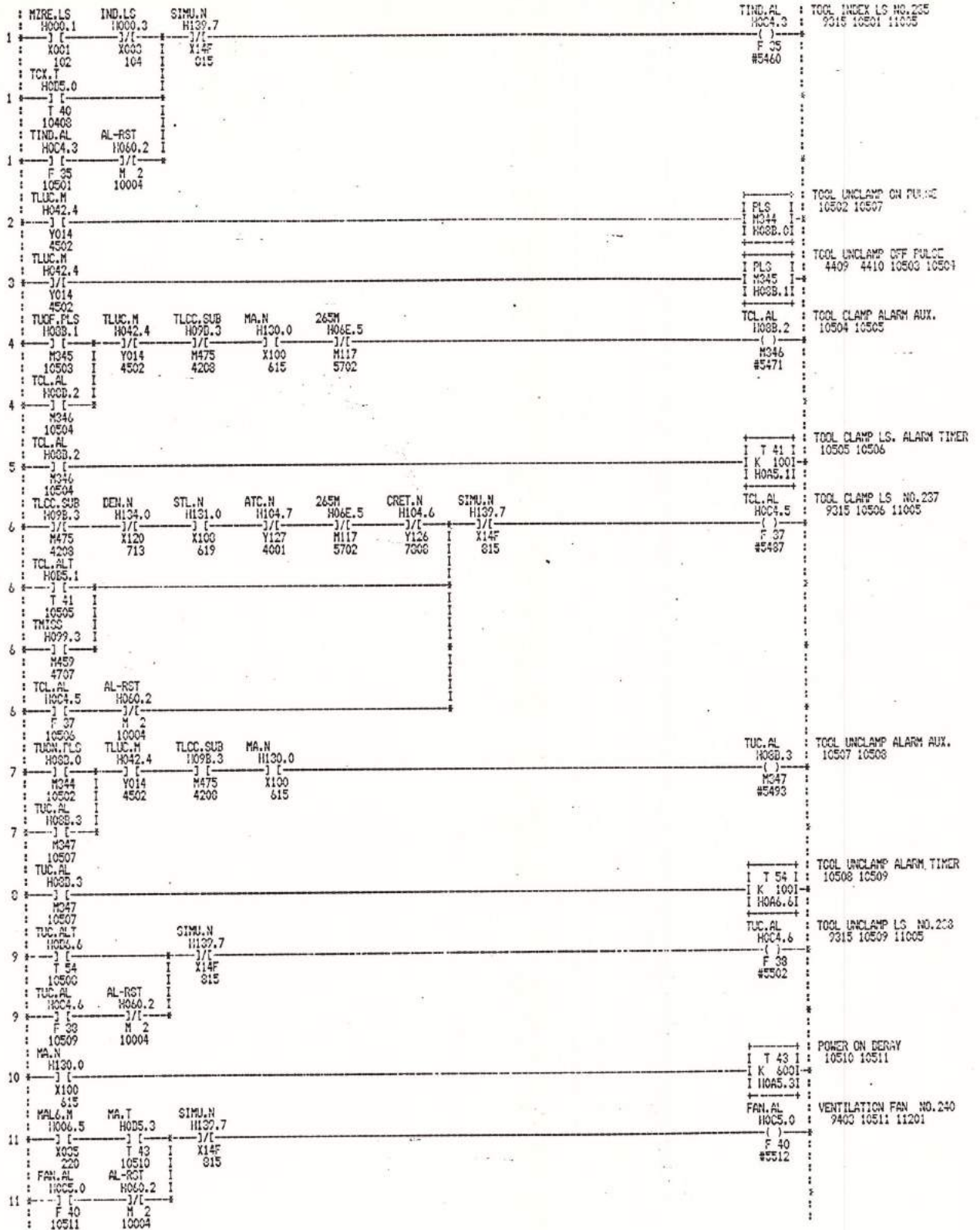


			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE. <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M.MURITA</u>		DRAWING NO.
			DATE. <u>1986.7.9</u>	VT04 C	172 01 47 800
			APPR'D BY. _____		SHEET. <u>103</u> OF. _____
			DATE. _____		
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

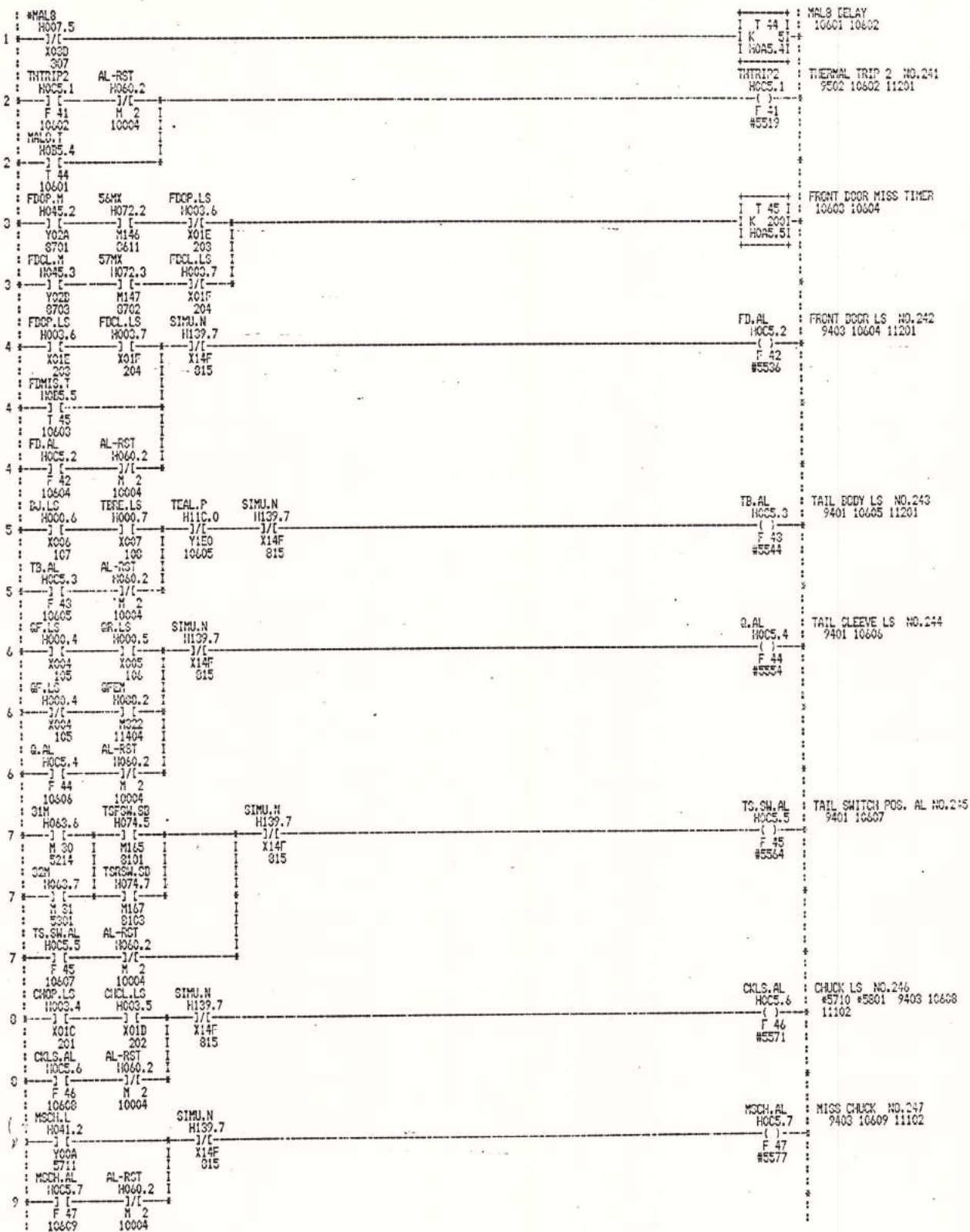


			DRN. BY. <u>Y.SUZUKI</u>	TITLE	CONTROL
			DATE <u>1986.7.9</u>	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. <u>M.KURITA</u>		DRAWING NO.
			DATE <u>1986.7.9</u>	YT04 C	172 01 47 800
			APPR'D BY. _____		SHEET. <u>104</u> OF. _____
			DATE _____	<b>YAMAZAKI MAZAK CORPORATION</b>	
REV.	DATE	NAME.			

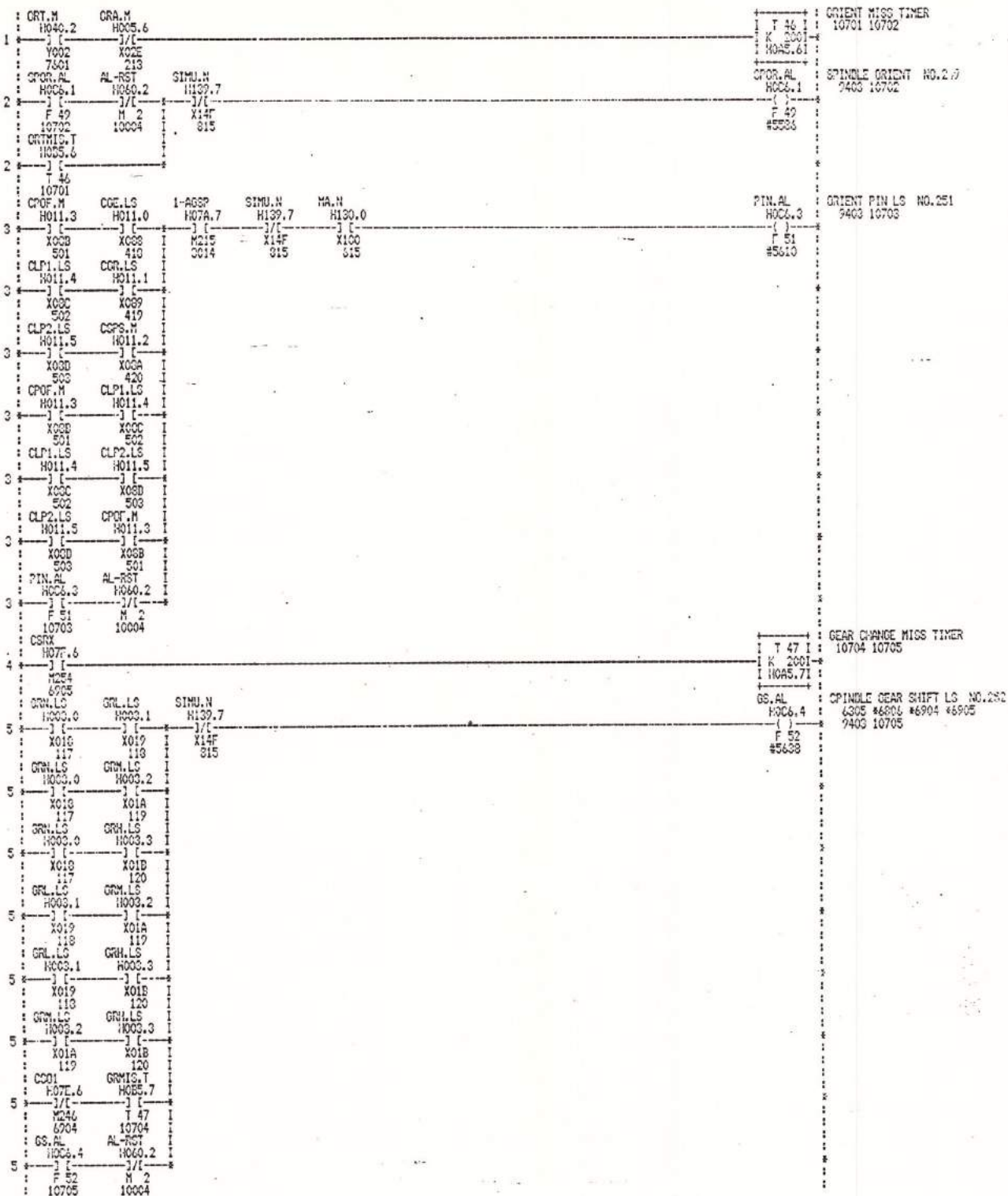




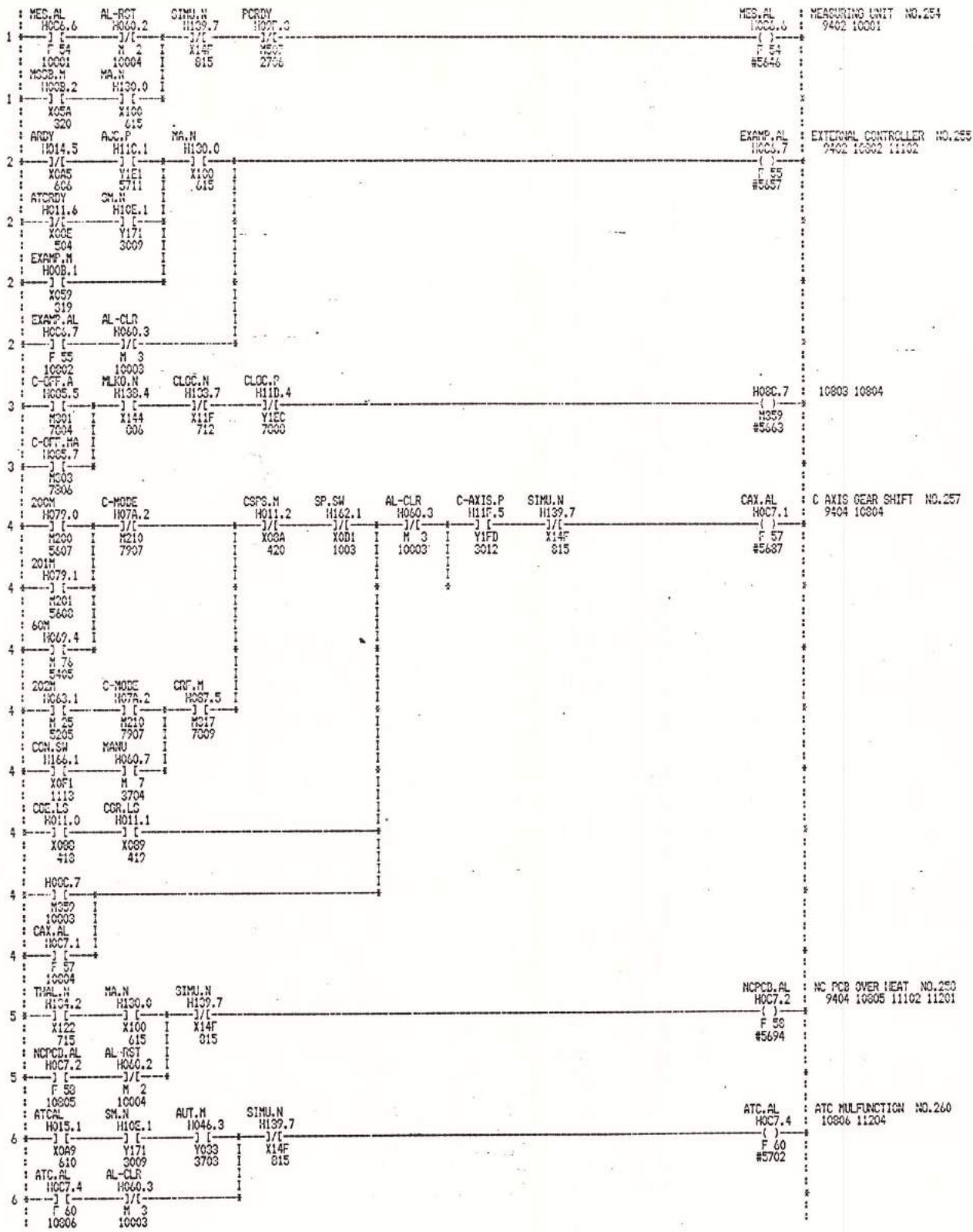
REV.	DATE.	NAME.	DRN. BY. Y.SUZUKI	TITLE.	CONTROL.
			DATE. 1986.7.9	ST-25 ATC M/C	MAZATROL T3
			CHK'D BY. M.MURITA		DRAWING NO.
			DATE. 1986.7.9	YT04 C	172 01 47 800
			APPR'D BY.		SHEET. 105 OF.
DATE.					
<b>YAMAZAKI MAZAK CORPORATION</b>					



			DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
			DATE. <u>1988.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
			CHK'D BY. <u>M. MURITA</u>		
			DATE. <u>1988.7.9</u>	<u>Y704 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>106</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



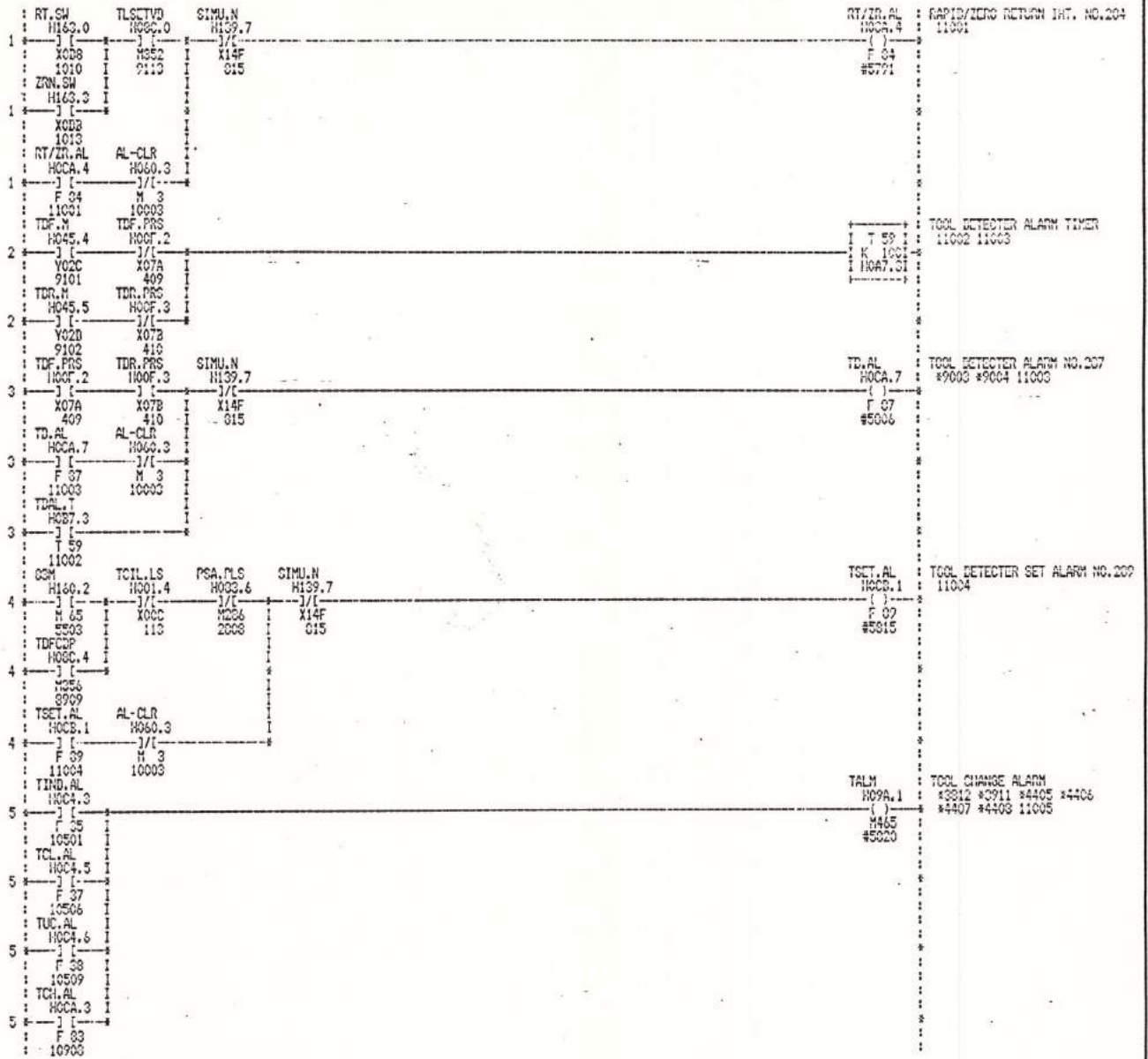
			DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
			DATE. <u>1986.7.9</u>		DRAWING NO. <u>172 01 47 800</u>
			CHK'D BY. <u>M. KURITA</u>		
			DATE. <u>1986.7.9</u>	YT04 C	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>107</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



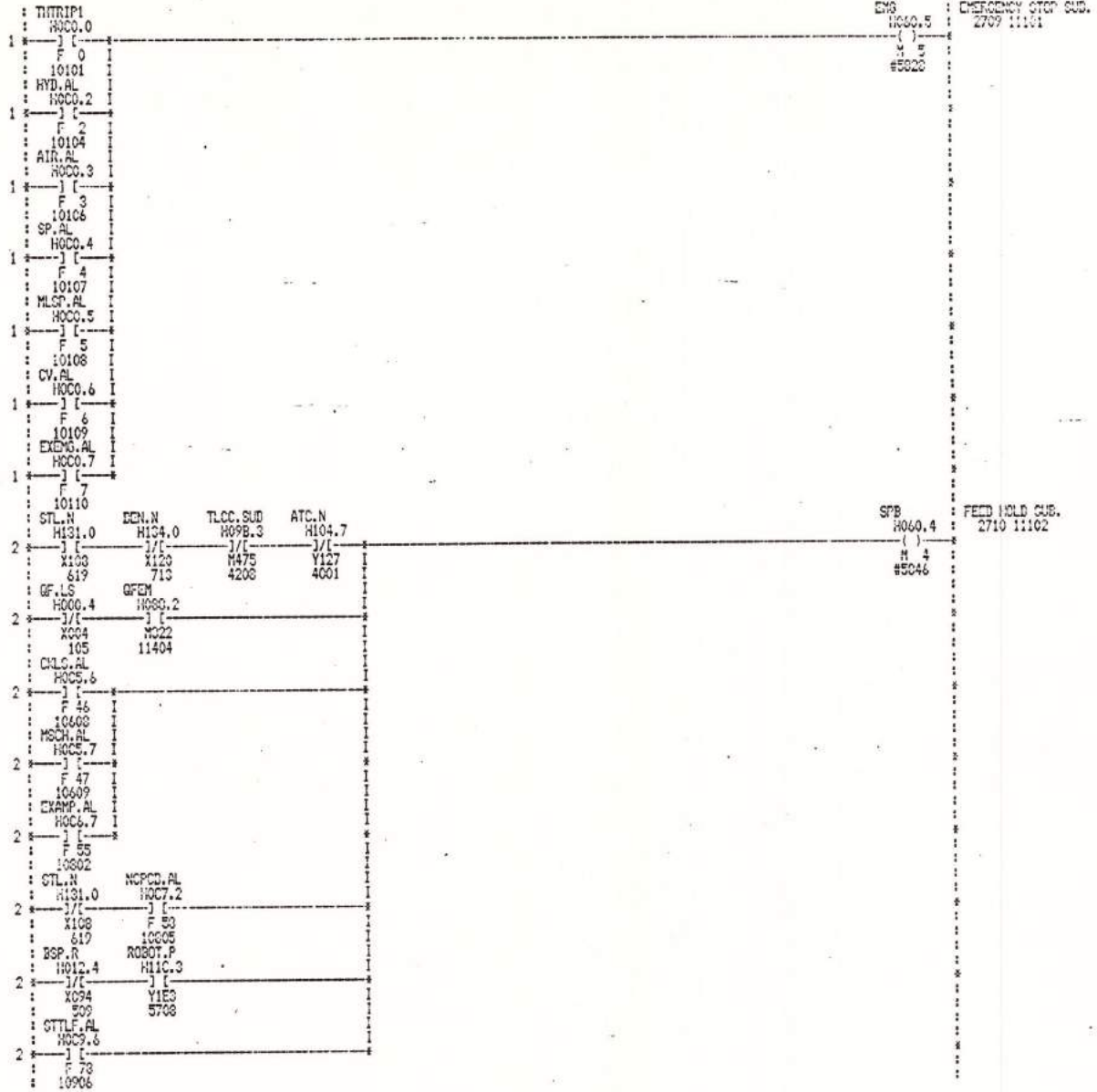
DRN. BY.	Y.SUZUKI	TITLE	ST-25 ATC M/C	CONTROL	MAZATROL T3
DATE	1986.7.9			DRAWING NO.	172 01 47 800
CHK'D BY.	M.KURITA		YT04 C		
DATE	1986.7.9				
APPR'D BY.					
DATE					SHEET. 108 OF. _____
REV.	DATE	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

1	CCC H072.7 1/1 M15 6705 STCV.AL H068.6 1/1 F 70 10901	DINT H161.6 1/1 X0CE 920 AL-CLR H060.3 1/1 M 3 10003	STSM.SUB H09C.3 1/1 M403 3301	AUT.M H046.3 1/1 Y033 3703	ST.L H171.0 1/1 Y0A3 3306	SIMU.N H139.7 1/1 X14F 615	STCV.AL H068.6 ( ) F 70 #5712	START MISS COVER OPEN NO.270 10901	
2	2 TLCC.SUB H07B.3 1/1 M475 4200 STTU.AL H068.7 1/1 F 71 10902	STSM.SUB H09C.3 1/1 M483 3301 AL-CLR H060.3 1/1 M 3 10003	AUT.M H046.3 1/1 Y033 3703	ATC.N H104.7 1/1 Y127 4001	ST.L H171.0 1/1 Y0A3 3306	SIMU.N H139.7 1/1 X14F 615	STTU.AL H068.7 ( ) F 71 #5722	START MISS UNCLAMP NO.271 10902	
3	3 BFN.M H00A.1 1/1 K051 316 STRT.AL H069.0 1/1 F 72 10903	STSM.SUB H09C.3 1/1 M403 3301 AL-CLR H060.3 1/1 M 3 10003	AUT.M H046.3 1/1 Y033 3703	SIMU.N H139.7 1/1 X14F 615				STRT.AL H069.0 ( ) F 72 #5730	START MISS EXT. RESET NO.272 10903
4	4 SPY.CW H007.1 1/1 K039 304 STSP.AL H069.1 1/1 F 73 10904	STSM.SUB H09C.3 1/1 M403 3301 AL-CLR H060.3 1/1 M 3 10003	SIMU.N H139.7 1/1 X14F 615					STSP.AL H069.1 ( ) F 73 #5737	START MISS EXT. HOLD NO.273 10904
5	5 TCX H098.7 1/1 M455 4408 TUCC.N H138.0 1/1 K140 603 AL-CLR H060.3 1/1 M 3 10003	TRR H07D.5 1/1 M237 6604 STMIL.AL H069.5 1/1 F 77 10905						STMIL.AL H069.5 ( ) F 77 #5744	START MISS MILL & TOX NO.277 10905
6	6 STSM.SUB H09C.3 1/1 M453 3301 STTLF.AL H069.6 1/1 F 70 10906	TDR.7 H082.5 1/1 T 21 9107 AL-CLR H060.3 1/1 M 3 10003	OPL.N H131.2 1/1 X15A 701	AUT.M H046.3 1/1 Y033 3703	TCST.L H172.5 1/1 Y055 3204	SIMU.N H139.7 1/1 X14F 615	STTLF.AL H069.6 ( ) F 70 #5755	START MISS TOOL SET NO.270 10906 11102	
7	7 RT.SW H07D.7 1/1 M223 3103 RT.AL H06A.1 1/1 F 81 10907	RT.SW H169.0 1/1 X083 1010 AL-CLR H060.3 1/1 M 3 10003	SIMU.N H139.7 1/1 X14F 615					RT.AL H06A.1 ( ) F 81 #5762	RAPID INHIBIT NO.201 10907
8	8 ATC.ST H04C.5 1/1 Y065 3711 ATC.ST H04C.5 1/1 Y065 3711 MTC.SUB H063.7 1/1 M111 3306 TCR.AL H06A.3 1/1 F 83 10908	TD1 H096.7 1/1 D1001 11602 ATCST.SB H060.0 1/1 D 41 M104 3812 AUT.M H046.3 1/1 Y033 3703 AL-CLR H060.3 1/1 M 3 10003	TCIL.LS H001.4 1/1 X063 113					TCR.AL H06A.3 ( ) F 83 #5763	TOOL CHANGE INHIBIT NO.202 10908 11055

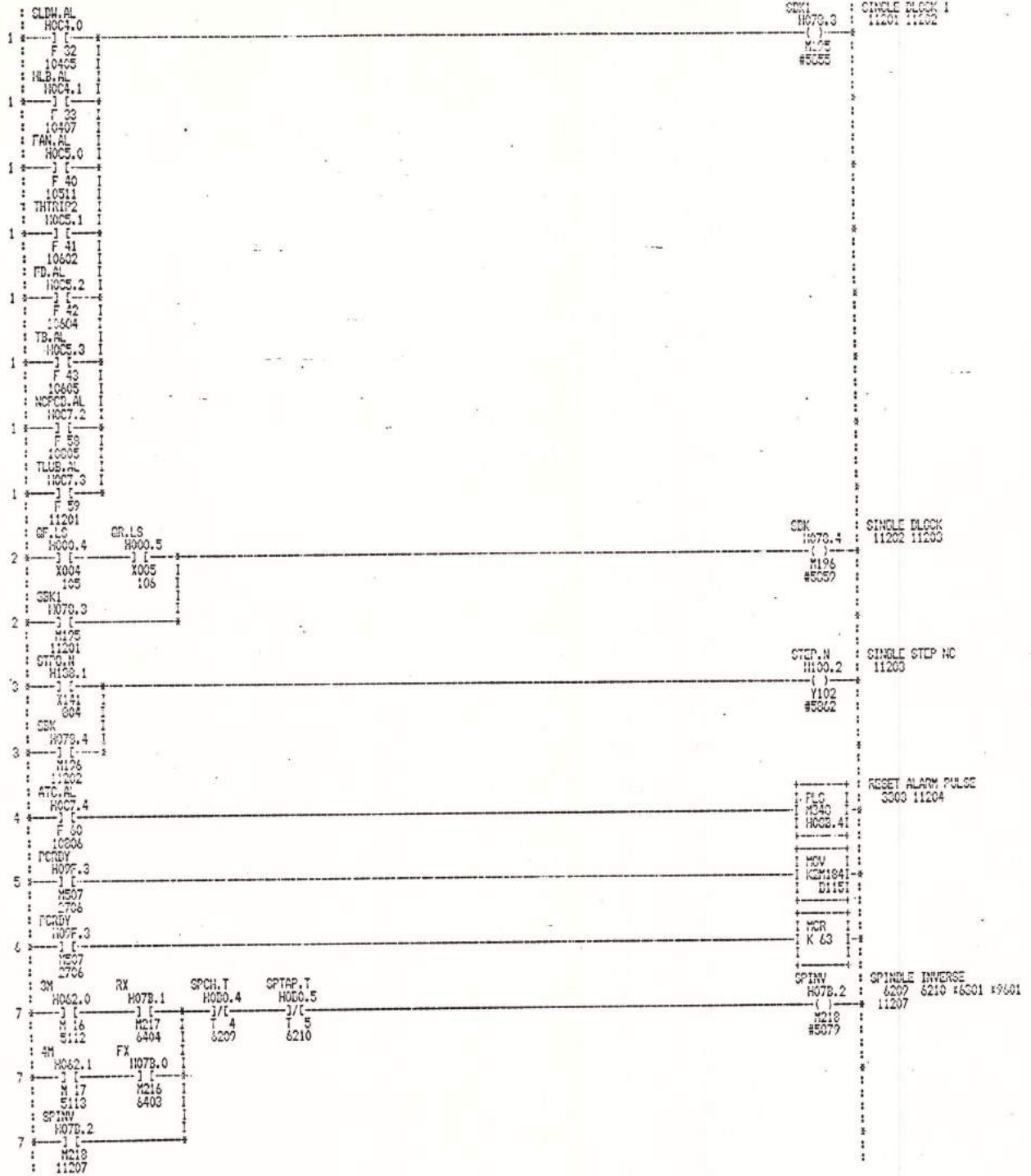
DRN. BY.	Y. SUZUKI	TITLE.	ST-25 ATC W/C	CONTROL.	MAZATROL T3
DATE.	1986.7.9	CHK'D BY.	M. KUBITA	DRAWING NO.	172 01 47 600
DATE.	1986.7.9	APPR'D BY.		SHEET.	109 OF
DATE.					
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		



			DRN. BY. <u>Y.SUZUKI</u>	TITLE. <u>ST-25 ATC H/C</u>	CONTROL. <u>MAZATROL TS</u>
			DATE. <u>1986.7.7</u>		DRAWING NO. <u>172-01-47-000</u>
			CHK'D BY. <u>M.BRITA</u>		
			DATE. <u>1986.7.7</u>	<u>Y704 C</u>	
			APPR'D BY. _____		
			DATE. _____		SHEET. <u>110</u> OF. _____
REV.	DATE.	NAME.	<b>YAMAZAKI MAZAK CORPORATION</b>		

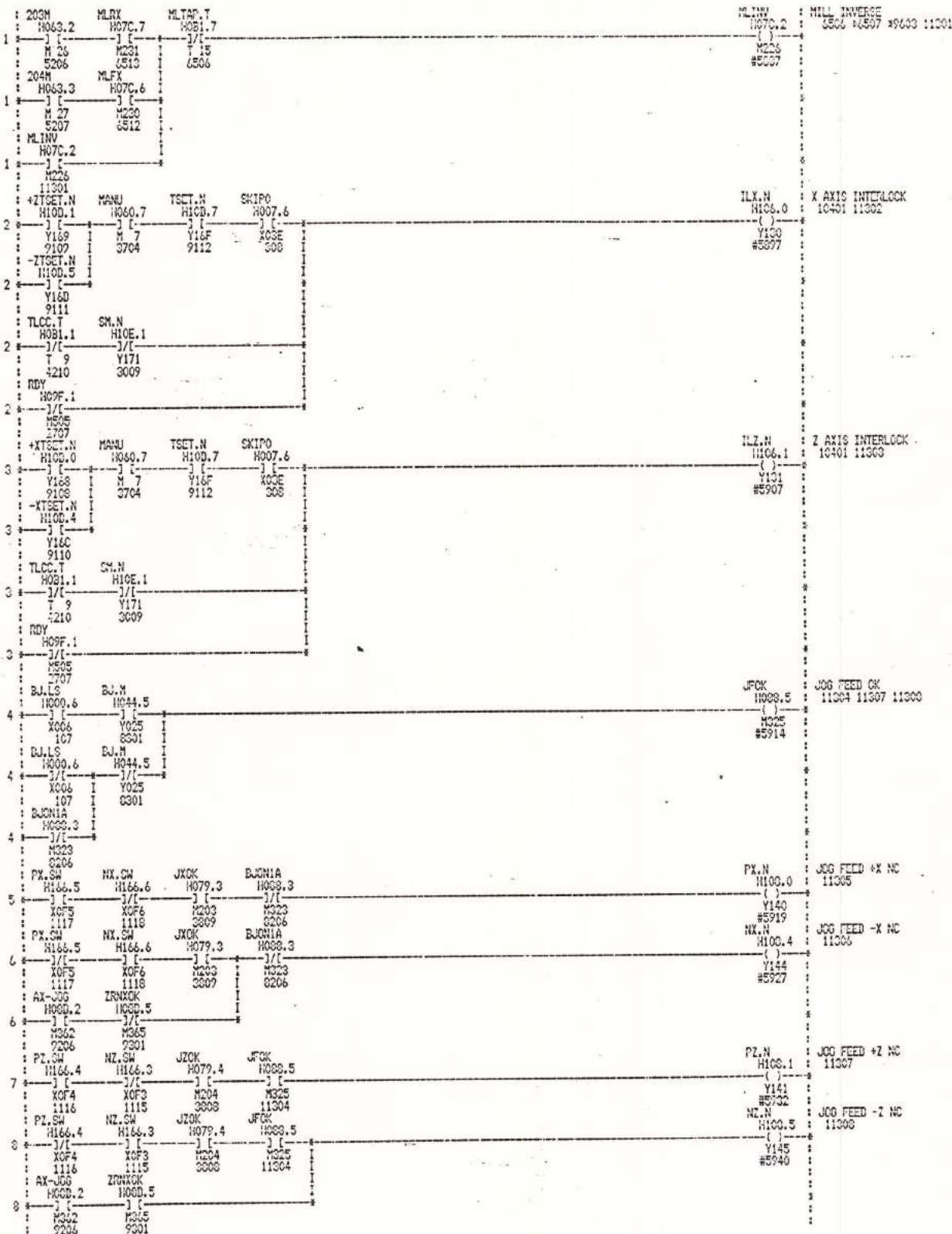


				DRN. BY. <u>Y. SUZUKI</u>	TITLE ST-25 ATC N/C	CONTROL
				DATE. <u>1986.7.9</u>		MAINTROL TO
				CHK'D BY. <u>Y. HIRITA</u>	VT04 C	DRAWING NO.
				DATE. <u>1986.7.9</u>		172 01 47 000
				APPR'D BY. _____		SHEET. <u>111</u> OF. _____
				DATE. _____		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		



				DRN. BY. <u>Y. SUZUKI</u>	TITLE GT-25 ATC W/C	CONTROL HAZATROL T3
				DATE. <u>1986.7.9</u>		1704 C
				CHK'D BY. <u>M. KURITA</u>		
				DATE. <u>1986.7.9</u>		
				APPR'D BY. _____		
				DATE. _____		
REV.	DATE.	NAME.		<b>YAMAZAKI MAZAK CORPORATION</b>		





DRN. BY. <u>Y. SUZUKI</u>	TITLE. <u>ST-25 ATC M/C</u>	CONTROL <u>MAZATROL T3</u>
DATE. <u>1986.7.2</u>		DRAWING NO. <u>172 01 47 000</u>
CHK'D BY. <u>M. KUSITA</u>		
DATE. <u>1986.7.2</u>	YT04 C	
APPR'D BY. _____		SHEET. <u>113</u> OF _____
DATE. _____		
REV. _____		
DATE. _____		
NAME. _____		

1	CRCT.N H104.6 1/1 Y126 7808 PC.SW H166.0 1/1 X0F0 1112 PC.SW H166.0 1/1 X0F0 1112 AUT.M H046.3 Y033 3703 READY.R H012.5 4 X095 510 GFEN H068.2 4 M322 11404	CRF.M H087.5 1/1 M517 7809 NC.SW H166.2 1/1 X0F2 1114 NC.SW H166.2 1/1 X0F2 1114 ST.L H171.0 Y0A0 3306 TSF.R H013.6 X09E 519	C-MODE H079.2 1/1 M210 7907 JOCK H079.2 1/1 M202 11401 JOCK H079.2 1/1 M202 11401 GF.LS H000.4 X004 105	C-AXIS.P H11F.5 1/1 Y142 3012 C-AXIS.P H11F.5 1/1 Y142 3012 GR.M H043.4 Y01C 0203	JOCK H079.2 ( ) M202 #5744 PC.N H100.2 ( ) Y142 #5749 NC.N H100.0 ( ) Y142 #5754 GR.M H068.2 ( ) M322 #5763	JOG FEED C ON 3507 0500 0512 0501 11401 11402 11403 JOG FEED NC NC 11402 JOG FEED -C NC 11403 TAIL SLEEVE FOR C/D MEMORY #0100 0204 #0204 0702 10036 11402 11404
5	FT1.PRS H001.0 1/1 X008 109 FT1.PRS H001.0 1/1 X008 109 FT1.PRS H001.0 1/1 X008 109 FT1.PRS H001.0 1/1 X008 109 FT1.PRS H001.0 1/1 X008 109 FT1.PRS H001.0 1/1 X008 109 FT1.PRS H001.0 1/1 X008 109	FT2.PRS H001.1 1/1 X009 110 FT2.PRS H001.1 1/1 X009 110 FT2.PRS H001.1 1/1 X009 110 FT2.PRS H001.1 1/1 X009 110 FT2.PRS H001.1 1/1 X009 110 FT2.PRS H001.1 1/1 X009 110 FT2.PRS H001.1 1/1 X009 110	FT3.PRS H001.2 1/1 X00A 111 FT3.PRS H001.2 1/1 X00A 111 FT3.PRS H001.2 1/1 X00A 111 FT3.PRS H001.2 1/1 X00A 111 FT3.PRS H001.2 1/1 X00A 111 FT3.PRS H001.2 1/1 X00A 111	FT4.PRS H001.3 1/1 X00B 112 FT4.PRS H001.3 1/1 X00B 112 FT4.PRS H001.3 1/1 X00B 112 FT4.PRS H001.3 1/1 X00B 112 FT4.PRS H001.3 1/1 X00B 112 FT4.PRS H001.3 1/1 X00B 112	T1 H092.0 ( ) M400 #5760 T2 H092.1 ( ) M401 #5773 T3 H092.2 ( ) M402 #5778 T4 H092.3 ( ) M403 #5783 T5 H092.4 ( ) M404 #5788 T6 H092.5 ( ) M405 #5793 T7 H092.6 ( ) M406 #5798 T8 H092.7 ( ) M407 #5803 T9 H093.0 ( ) M408 #5808 T10 H093.1 ( ) M409 #5813 T11 H093.2 ( ) M410 #5818 T12 H093.3 ( ) M411 #5823 T13 H093.4 ( ) M412 #5828 T14 H093.5 ( ) M413 #5833	TOOL POSITION 1 4806 11405 11500 TOOL POSITION 2 4807 11406 11500 TOOL POSITION 3 4808 11407 11500 TOOL POSITION 4 4809 11408 11500 TOOL POSITION 5 4810 11409 11500 TOOL POSITION 6 4811 11410 11500 TOOL POSITION 7 4812 11411 11500 TOOL POSITION 8 4813 11412 11500 TOOL POSITION 9 4814 11413 11504 TOOL POSITION 10 4815 11414 11504 TOOL POSITION 11 4816 11415 11504 TOOL POSITION 12 4817 11416 11504 TOOL POSITION 13 4818 11417 11504 TOOL POSITION 14 4819 11418 11504

REV.	DATE.	NAME.	DRN. BY. Y. SUZUKI	TITLE. ST-25 ATC M/C	CONTROL. MAZATROL T3
			DATE. 1986.7.9		DRAWING NO. 172 01 47 000
			CHK'D BY. M. KURITA	YT04 C	
			DATE. 1986.7.9		
			APPR'D BY.		
			DATE.		SHEET. 114 OF.
<b>YAMAZAKI MAZAK CORPORATION</b>					

1	FT1.FRS H001.0 X000 109	FT2.FRS H001.1 X009 110	FT3.FRS H001.2 X00A 111	FT4.FRS H001.3 X00B 112	T15 H093.6 M414 #6000	TOOL POSITION 15 11501 11501 11504
2	FT1.FRS H001.0 X000 109	FT2.FRS H001.1 X009 110	FT3.FRS H001.2 X00A 111	FT4.FRS H001.3 X00B 112	T16 H093.7 M415 #6040	TOOL POSITION 16 11502 11502 11504
3	T1X H094.0 M416 #109	T1 H092.0 M400 11405			TC01 H094.1 M403 #6067	TOOL COINCIDENCE 1 11503 11502
3	T2X H094.1 M417 #110	T2 H092.1 M401 11406				
3	T3X H094.2 M410 #111	T3 H092.2 M402 11407				
3	T4X H094.3 M419 #112	T4 H092.3 M403 11408				
3	T5X H094.4 M420 #113	T5 H092.4 M404 11409				
3	T6X H094.5 M421 #114	T6 H092.5 M405 11410				
3	T7X H094.6 M422 #115	T7 H092.6 M406 11411				
3	T8X H094.7 M423 #116	T8 H092.7 M407 11412				
4	T9X H095.0 M424 #117	T9 H093.0 M400 11413			TC02 H096.2 M434 #6091	TOOL COINCIDENCE 2 11504 11602
4	T10X H095.1 M425 #118	T10 H093.1 M409 11414				
4	T11X H095.2 M426 #119	T11 H093.2 M410 11415				
4	T12X H095.3 M427 #120	T12 H093.3 M411 11416				
4	T13X H095.4 M428 #201	T13 H093.4 M412 11417				
4	T14X H095.5 M429 #202	T14 H093.5 M413 11418				
4	T15X H095.6 M430 #203	T15 H093.6 M414 11501				
4	T16X H095.7 M431 #204	T16 H093.7 M415 11502				
5	IND.LS H000.3 X000 104	MTC.SUB H000.7 M111 #3006			MTCX H096.3 M435 #6005	MANUAL TOOL CHANGE 11505 11601
5	MTCX H096.3 M435 #6005					

DRN. BY.	Y.SUZUKI	TITLE.	ST-25 ATC W/C	CONTROL.	MAZATROL T9
DATE.	1986.7.9	CHK'D BY.	M.MURITA	DRAWING NO.	172 01 47 000
DATE.	1986.7.9	DATE.	1986.7.9	SHEET.	115 OF.
DATE.		DATE.		YAMAZAKI MAZAK CORPORATION	
REV.	DATE.	NAME.			

1	IND.LS H099.3 3/E X003 104 TC01 H096.1 3/E H453 1503 TC02 H096.2 3/E H454 11504 TC03 H096.4 3/E H456 11601 T01 H096.7 3/E M409 11602 MICH H098.0 3/E M443 4701 MZCCW H098.1 3/E M442 4702	MTC.SUB H099.7 3/E M451 4006 ATCN H099.0 3/E M464 4407 ATCN H099.0 3/E M464 4407 MZFF H099.6 3/E M470 4211 MZRTOK H099.0 3/E M456 11603 MZRTOK H099.0 3/E M456 11603	MTCX H096.3 3/E M405 11505 RDY H097.1 3/E M605 2707	TC03 H096.4 ( ) M456 #6099 T01 H096.7 ( ) M409 #6106 MZRTOK H099.0 ( ) M456 #6111 MZCH.M H042.2 ( ) Y012 #6114 MZCCW.M H042.3 ( ) Y013 #6117	TC01 COINCIDENCE 3 11601 11602 TC01 COINCIDENCE #6099 #6106 11603 11602 MAGAZINE ROTATION CK. 11603 11604 11605 MAGAZINE CW 4701 11604 MAGAZINE CCM 4702 11605
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DRN. BY. <u>Y. SUZUKI</u>	TITLE	CONTROL
DATE. <u>1986.7.9</u>	ST-25 ATC H/C	MATERIAL TO
CHK'D BY. <u>H. HIRATA</u>	YT04 C	DRAWING NO.
DATE. <u>1986.7.9</u>		172 01 47 000
APPR'D BY. _____		SHEET, 116 OF _____
DATE. _____		
REV.	DATE.	NAME.

**YAMAZAKI MAZAK CORPORATION**

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UN	3	4	5	6	7	8	ページ	枚数
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機種	ST-25N	PARTS LIST	ユニット	Cabinet	LIST No	7	1	7	2	0	1	R	0	1	0	0	全頁数	3
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変更No No	識別 No	区分 SEC.	ユニット番号 UNIT No	SPECIFICATION OF UNIT	組 図 No.	リスト No.	SET No	変 更 処理日
9	10	11	12	22				
	A		71720101000	ST-25N JAPAN	20 HP			
	B		02000	ST-25N (30N) da	25HP			
	C		03000	ST-30N da	30HP			
	D		04000	ST-25N EXPORT	20HP ~ 25HP			
	E		05000	ST-30N da	25HP ~ 30HP			
	F							
	G							
	H							
	J							
	K							
	L							
	M							
	N							
	P							
	Q							

YAMAZAKI MACHINERY WORKS LTD

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△ '87.2.4 HTAKE

リスト番号 LIST No 717201R0201

部品番号 PARTS No	部品名称 PARTS NAME カタカナ	備号 REMARKS	材質 MTL	使用個数 QTY															
				A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
026FA000050	Cylinder Switch	AHE5-JZA 11A	FKT	/	/	/	/	/											
030FA000130	Indicator Lamp	AHR 11MA (M100)	ds	/	/	/	/	/											
017WE000020	Toggle Switch	B-6A	NIKAI	/	/	/	/	/											
056TY000250	FAN	04506 AC100V	TOBICHI	/	/	/	/	/											
056TY000250	Fixer Guard	A-30F	ds	/	/	/	/	/											
44126092190	Earth Bar			/	/	/	/	/											
011TQ000010	Limit Switch	Z15 GA-K	TATECHI	4	4	4	4	4											
043PA000520	Spark Killer	3CR-34330	OPATA	/	/	/	/	/											
	RESISTER	22KΩ 1/2W	HATSUSHITA	/	/	/	/	/											
056Yc000210	Earth Mark	4114609009-0		/	/	/	/	/											

形式 No.012 A 4

YAMAZAKI MACHINERY WORKS LTD

1 1 2  
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△ '87.2.4 HTAKE YME

リスト番号 LIST No 717201R0301

部品番号 PARTS No	部品名称 PARTS NAME カタカナ	備号 REMARKS	材質 MTL	使用個数 QTY															
				A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
051MA000330	Breaker	NF225CB 125A	TC-S ADD	/															
051MA001430	ds	NF225CB 150A	ds	/															
051MA0003130	ds	NF225CB 225A	ds		/	/													
051MA001390	ds	NF225CB 200A	ds		/														
056Yc000190	Earth Mark	34050700020		/	/	/	/	/											

形式 No.012 A 4



機種		PARTS LIST										UNIT	OPTION	LIST No	UN 3 4 5 6 7 8								ページ		枚数	全頁数
ST-25N														717206R0100												2
変更No	識別No	区分	SEC.	ユニット番号 UNIT No										SPECIFICATION OF UNIT	組 図 No.	リスト No.	SET No	変更処理日								
9	10	11	12	71720601000										AJC 2/4												
		A																								
		B																								
		C																								
		D																								
		E																								
		F																								
		G																								
		H																								
		J																								
		K																								
		L																								
		M																								
		N																								
		P																								
		Q																								

形式 No. 012-1 S 57. 12. 2, 000

YAMAZAKI MACHINERY WORKS LTD

△ '87.2.4 H-TAKE YME

リスト番号		UN 3								ページ		投室
LIST No		717206R0201										

変更	識別	部品番号	部品名称	備考	材質	使用個数 QTY										使用部署				11	12	13	14	15	16	17	18				
						3桁の数字フィールド																									
N	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
		D60DAC00230	Connector	MS 3102A 20-29S		DAIICHI DENCHI	1																								
		D60DA000300	dc	MS 3102A 28-21S		dc	1																								
		D04TC000010	Control Relay	G2A DC24V		TATEISHI																									
		D04TC000030	RELAY Socket	PY-14 (G2A)		dc																									
		D04TC000060	Relay Holder	PYC-3 (G2A)		dc																									
		D37MAG00270	Diode	SR1FM-4		MIETU BIENE																									
		D60DA001160	DUST CAP	MS 25042 20-D		DAIICHI DENCHI																									
		D60DA001140	dc	MS 25042 28-D																											
		D51MS00210	Circuit Protector	DA 1513-05 SA-055A																											
		D60H0001360	Circuit Protector	BAC11-150-5 SA-CB3A		MIYASUBARA	1																								
		D60H0001360	CONNECTOR	MR-50LFH		G10	1																								

形式 No. 012 A 4 S 57. 7. 5, 000



機種		ST-25N PARTS LIST		ユニット		OPTION (CPU LINK)		LIST No		UN 3 4 5 6 7 8		ページ		設定		全頁数	
								717207R0100								3	
変更No 技術No		識別 9 10		区分 SEC. 11 12		ユニット番号 UNIT No		20 21 22 19 0 0 0		SPECIFICATION OF UNIT		ユニットの仕様		SET No		変更 処理日	
				A		71720701000		0		CPU LINK		Preparation					
				B		71720702000		0		do		A Type 2m					
				C		71720703000		0		do		B Type 2m					
				D													
				E													
				F													
				G													
				H													
				J													
				K													
				L													
				M													
				N													
				P													
				Q													

書式 No.012-1 S 56. 11. 2,000

Mazak YAMAZAKI MAZAK CORPORATION

1 2		P	
UN		3 4 5 6 7 8	
リスト番号 LIST No		7 1 7 2 0 7 R 0 2 0 0	

変更 NO	部品番号 PARTS No		部品名称 PARTS NAME		備考 REMARKS	材質 MTL	使用個数 QTY																			
	9	10	英	カタカナ			20	A	B	C	D	E	F	G	H	J	K	L	M	N	P	79	U	78	75	
	D04	TC000010	Control Relay	G2A (DC24V)		TATEISHI	3	3	3																	
	D04	TC000100	Power Relay	LY-2 (DC24V)		do	1	1	1																	
	D04	TC000030	Relay Socket	PY-14 (G2A)		do	3	3	3																	
	D04	TC000120	do	PT-08 (LY-2)		do	1	1	1																	
	D04	TC000060	Relay Holder	PYC-3 (G2A)		do	3	3	3																	
	D04	TC000150	do	PYC-P (LY-2)		do	1	1	1																	
	D34	MA000270	Diode	SR1 FM4		mitsubishi	4	4	4																	
	D65	UB002310	LEVEL CONVERTER	A TYPE			-	2	-																	
	D65	UB000710	do	B TYPE			-	-	2																	
	D60	DA001160	DUST CAP	MS25043-20D		DBK	1	2	2																	
	D60	DA000490	Connector	MS3106B 20-29P		DBK																				
	D60	DA001070	Cable Clamp	MS3057-12A		do																				
	D60	NC001870	Connector	DB-25P		KOKU-DENSHI																				
	D60	NC002970	Connector Case	DB-C2-J9		do																				
	D64	KK000040	Copcon	NC-2		KITAGAWA			1																	

書式 No.012 A 1

Mazak YAMAZAKI MAZAK CORPORATION

1	2
P	

リスト番号 LIST No	7	1	7	2	0	7	R	0	3	0	0
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設 NO	部 品 番 号 PARTS No		部 品 名 称 PARTS NAME	備 考 REMARKS	材 質 MTL	使 用 個 数 QTY																																		
	英 文		カタカナ			20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35																			
	A	B	C			D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S																			
			Cable	<del>4000009-A692A</del>																																				
			do	4000009-A695																																				
			do	4000009-A694																																				
			do	4000009-A920																																				
			do	4000009-A919 A																																				
			do	4000009-A693 A																																				
			do	4000009-A952 B																																				
			do	0D-9475-2-M-GD		NEC																																		
			do	1000009-A020																																				

1	2
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UN	3	4	5	6	7	8	ページ	設定
	7	1	7	2	0	8	R0100	

全頁数
2

変更No 技術No	識別 No	区分 SEC. No	ユニット番号 UNIT No	22	SPECIFICATION OF UNIT	組 図 No.	リストNo.	SET No	変 更 処理日
		A	71720801000		Foot Switch Single				
		B	71720802000		do Double				
		C							
		D							
		E							
		F							
		G							
		H							
		J							
		K							
		L							
		M							
		N							
		P							
		Q							

書式No.012-1

**Mazak YAMAZAKI MAZAK CORPORATION**

1	2
P	

PN	3	8	ページ	設定				
リスト番号	LIST No	7	1	7	2	0	8	R0200

設変 NO	部品番号 PARTS No	部品名称 PARTS NAME 英 文 カタカナ	備 考 REMARKS	材質 MTL	使用個数 QTY																ス ラ ン ク イ ン ジ ン 81
					A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q		
	D16PC000060	Foot Switch	OFL-1-SM2C 1A1B	OJIBEN	1	-															
	D16PC000080	do	OFL-TW-SM2C 2A2B	do	-	1															
	D63ND000130	Braid Tube	FBA-3	NIPPON FLEX	m 2.2	m 2.2															
	D64ND000340	Box Connector	VFC-103B		2	2															
		Wire	VSF 0.75 <sup>#</sup> Blue		m 13	m 17															
	D60DA000900	CONNECTOR	MS3106B-14S6P GAII		1	1															
	D60DA000400	do	MS3102A-14S6S do		1	1															

書式 No.012 A 4

1	2
U	

機種	ST-25N PARTS LIST	ユニット	OPTION	LIST No	7	1	7	2	0	9	R	0	1	0	0	全頁数	2
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変更No 技術No	識別 10	区分 SEC. 11	ユニット番号 UNIT No 22	SPECIFICATION OF UNIT	組 図 No.	リストNo.	SET No	変更 処理
	A		71720901000	CHIP CONVEYER				
	B							
	C							
	D							
	E							
	F							
	G							
	H							
	J							
	K							
	L							
	M							
	N							
	P							
	Q							

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Mazak YAMAZAKI MAZAK CORPORATION

1	2
P	

リスト番号 LIST No	PN	3	8	ページ	設置
	7	1	7	2	0

設定 O	部品番号 PARTS No	部品名称 PARTS NAME 英文カタカナ	備考 REMARKS	材質 MTL	使用個数 QTY																	
					A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q			
	D60DA000480	Connector	MS 3106B 20-29P	DAIICHI DENSHI	1																	
	D64ND000030	Niporex Tube	VF-4	NIPPON FLEX	3.4																	
	D64ND000860	Combination Connector	PSF-104 CA2022	do	1																	
	D64ND000660	Box Connector	VFC-304	do	1																	
		Wire	1KIV 2 <sup>58</sup> Black	do																		
		do	1KIV 2 <sup>58</sup> Green	do																		
		do	1rrax 0.5 <sup>58</sup> Black	do																		

書式No.012 A 4

1	2
U	

UN	3	4	5	6	7	8	ページ	設変
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全頁数	3
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機種	ST-25N	PARTS LIST	ユニット	OPTION	LIST No	7	1	7	2	1	0	R	0	1	0	0	
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変更No 技術No	識別 9	区分 SEC. 10	ユニット番号 UNIT No 11	22	SPECIFICATION OF UNIT	組 図 No.	リスト No.	SET No	変 更 処理日												
		A	7	1	7	2	1	0	R	0	1	0	0	0	0	0	0	Mill Center With C AXIS	Wiring Parts		
		B																			
		C																			
		D																			
		E																			
		F																			
		G																			
		H																			
		J																			
		K																			
		L																			
		M																			
		N																			
		P																			
		Q																			

書式 No.012-1

**Mazak** YAMAZAKI MAZAK CORPORATION

1	2
P	

PN	3	8	ページ	設変							
リスト番号	7	1	7	2	1	0	R	0	2	0	0
LIST No											

設変 NO	部 品 番 号 PARTS No	部 品 名 称 PARTS NAME 英 文 カタカナ	備 考 REMARKS	材 質 MTL	使用個数 QTY																ス ラ ン ク 79 80
					A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q		
	D63ND000030	Niporex Tube	VF-4		NIPPON FLEX																
	D63ND000050	do	VF-8		do																
	D64ND000240	Box Connector	VFC-104		do	3															
	D64ND000450	do	VFC-204		do	-															
	D64ND000660	do	VFC-304		do	-															
	D64ND000260	do	VFC-108		do	-															
	D64ND000470	do	VFC-208		do	1															
	D64ND000670	do	VFC-308		do	1															
	D64KK000030	Capcon	NC-1		KITAGAWA KO GYO	3															
	D64ND000860	Combination Connector	PSF-104 CA 2022		NIPPON FLEX	1															
	D60DA000490	Connector	MS 3106B 20-29S	crv 6	DAIICHI DENSHI	1															
	D60DA000680	do	MS 3108.B 20-29S		do																
	D60HD000280	Connector	MR 20 WF	crv 5	HONDA	1															

書式 No.012 A 4

YAMAZAKI MACHINERY WORKS LTD

1	2
P	

△ '87.2.5 H TAKE

PN	3	8	ページ	設	変
リスト番号	7	172	7CR	030	1
LIST No					

設	部	品	番	号	部	品	名	称	備	考	材	質	使用個数 QTY																ス	ラ	ン	ク	79	80	81		
													9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								25	26
	PARTS	No			英	文	PARTS	NAME	REMARKS	MTL			A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q										
					Wire		LV 5.5 <sup>mm</sup>	Black																													
							1KIV 0.75 <sup>mm</sup>	Blue																													
							1KIV 0.75 <sup>mm</sup>	Red																													
							Twist Pair	Shield																													
△	D04TC0000	10			Control Relay		G2A	DC24V			TATEISHI	/																									
	D04TC0000	100			Power Relay		LY2	DC24V			do	/																									
/	D04TC0000	30			Relay Socket		PY-14	(G2A)			do	/																									
	D04TC0000	120			do		PT-08	(LY2)			do	/																									
	D04TC0000	60			Relay Holder		PYC-3	(G2A)			do	/																									
	D04TC0000	150			do		PYC-P	(LY2)			do	/																									
	D34MA0000	270			Diode		SR1-FM4				MITSUBISHI	2																									
					do		SR3-04	red			do	/																									
/					Resister		20Ω	5W			HATSUSHITA	/																									

1	2
U	

UN	3	4	5	6	7	8	ページ	設定
	7	1	7	2	1	1	R	0100

全頁数
2

変更No 技術No	識別 9	区分 SEC. 10	ユニット番号 UNIT No 11	22	SPECIFICATION OF UNIT	組 図 No.	リ ス ト No.	SET No	変 更 処理日										
		A	7	1	7	2	1	1	R	0	1	0	0						
		B																	
		C																	
		D																	
		E																	
		F																	
		G																	
		H																	
		J																	
		K																	
		L																	
		M																	
		N																	
		P																	
		Q																	

書式No.012-1

**Mazak YAMAZAKI MAZAK CORPORATION**

1	2
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PN	3	8	ページ	設定							
リスト番号 LIST No	7	1	7	2	1	1	R	0	2	0	0

設定 O	部品番号 PARTS No	部品名称 PARTS NAME 英 文 カタカナ	備 考 REMARKS	材質 MTL	使用個数 QTY													ス テ ィ ン グ 80								
					A	B	C	D	E	F	G	H	J	K	L	M	N		P	Q	79	81				
	060HD002800	Connector MR 20 WF		HONDA	1																					
	060HD002360	do MR 20 RM		do	1																					
	060DA000480	Connector MS3106B 20-29S		DAITCHI EENSHI	1																					
	060DA001070	Cable Clamp MS3057-12A		do	1																					

書式 No.012 A 4





1	2
U	

機種	ST-25N	PARTS LIST	OPTION (Work Measure)	LIST No	7	1	7	2	1	3	R	0	1	0	0	全頁数	2
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変更No 技術No	識別 9	区分 SEC. 10	11	12	ユニット番号 UNIT No	22	SPECIFICATION OF UNIT	組 図 No.	リ ス ト No.	SET No	変 更 処理日
		A			71721301000		Work Measuer				
		B									
		C									
		D									
		E									
		F									
		G									
		H									
		J									
		K									
		L									
		M									
		N									
		P									
		Q									

書式 No. 012-1

Mazak YAMAZAKI MAZAK CORPORATION

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P	

リスト番号 LIST No	PN	3	8	ページ	設置
7	1	7	2	1	3
	R	0	2	0	0

設変 NO	部品番号 PARTS No	部品名称 PARTS NAME 英文 カタカナ	備考 REMARKS	材質 MTL	使用個数 QTY																ス ラ ン ク レ イ ン グ 80		
					20	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q		79	
	D704B001830	Touch Sensor Unit	U-190	UNION DENSHI	1																		
	D04TC000010	Control Relay	G2A (DC24V)	MUSSB																			
	D04TC000060	Relay Holder	PYC-3 (G2A)	dc																			
	D04TC000030	Relay Socket	PY-14 (G2A)	dc																			
	D34MA000270	Diode	SKI FMA	dc	MITSUBISHI																		
	D60HD001350	Connector	MR20 LFH	CON25	HONDA	1																	

書式 No. 012 A 4













1	2
U	

機種	ST-25N	PARTS LIST	ユニット	Wiring parts	LIST No	7	1	7	2	2	1	R	0	1	0	0	全頁数	9
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変更No 技術No	識別 9 10	区分 SEC. 11	ユニット番号 12	UNIT No 22	SPECIFICATION OF UNIT	組 図 No.	リスト No.	SET No	変 更 処理日									
		A	7	1	7	2	2	1	0	0	0	ST-25N	15,20 HP					
		B											25 HP					
		C																
		D																
		E																
		F																
		G																
		H																
		J																
		K																
		L																
		M																
		N																
		P																
		Q																

書式No.012-1

**Mazak** YAMAZAKI MAZAK CORPORATION

1	2
P	

リスト番号	7	1	7	2	2	1	R	0	2	0	0
LIST No	7	1	7	2	2	1	R	0	2	0	0

設定 ( )	部品番号 PARTS No		部品名称 PARTS NAME 英 文 カタカナ		備 考 REMARKS	材質 MTL	使用個数 QTY													79 80 81				
	9	19	英	文			A	B	C	D	E	F	G	H	J	K	I	M	N		P	Q		
	D63ND	000010	Niporex Tube	VF-2		NIPLEX FLEX	-	-																
	D63ND	000020	do	VF-3		do	0.3	0.3																
	D63ND	000030	do	VF-4		do	2.0	2.0																
	D63ND	000040	do	VF-6		do	3.7	3.7																
	D63ND	000050	do	VF-8		do	5.2	5.2																
	D63ND	000060	do	VF-10		do	1.7	1.7																
	D63ND	000070	do	VF-12		do																		
	D63ND	000080	do	VF-16		do	2.2	2.2																
	D63ND	000120	Braid Tube	FBA-2		do	-	-																
	D63ND	000130	do	FBA-3		do	6.2	6.2																
	D63ND	000140	do	FBA-4		do	-	-																
	D63ND	000150	do	FBA-6		do	-	-																
	D63DC	000270	Braid Tube Box Connector	BF-31 GSC-31		DAIWA do	2.4 4	2.4 4																

書式No.012-A-1



# Mazak YAMAZAKI MAZAK CORPORATION

1	2										
P											
PN	3	8	ページ	2	変						
リスト番号 LIST No	7	1	7	2	2	1	R	0	3	0	0

設 変 NO	部 品 番 号 PARTS No	部 品 名 称 PARTS NAME カタカナ 英文	備 考 REMARKS	材 質 MTL	使 用 個 数 QTY													79 R	80 R							
					20	A	B	C	D	E	F	G	H	J	K	L	M			N	P	Q				
	D64ND000220	Box Connector	VFC-102	NIPPON FLEX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000430	do	VFC-202	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000640	do	VFC-302	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000230	do	VFC-103	do	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000440	do	VFC-203	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000650	do	VFC-303	do	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000240	do	VFC-104	do	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000450	do	VFC-204	do	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000660	do	VFC-304	do	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000250	do	VFC-106	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000460	do	VFC-206	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000670	do	VFC-306	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000260	do	VFC-108	do	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000470	do	VFC-208	do	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000680	do	VFC-308	do	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000270	do	VFC-110	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000480	do	VFC-210	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000690	do	VFC-310	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000280	do	VFC-112	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000490	do	VFC-212	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000700	do	VFC-312	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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# Mazak YAMAZAKI MAZAK CORPORATION

1	2										
P											
PN	3	8	ページ	2	変						
リスト番号 LIST No	7	1	7	2	2	1	R	0	4	0	0

設 変 NO	部 品 番 号 PARTS No	部 品 名 称 PARTS NAME カタカナ 英文	備 考 REMARKS	材 質 MTL	使 用 個 数 QTY													79 R	80 R							
					20	A	B	C	D	E	F	G	H	J	K	L	M			N	P	Q				
	D64ND000290	Box Connector	VFC-116	NIPPON FLEX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000500	do	VFC-216	do	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000710	do	VFC-316	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000390	do	VFC-102B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000540	do	VFC-202B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000760	do	VFC-302B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000340	do	VFC-103B	do	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000550	do	VFC-203B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000770	do	VFC-303B	do	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000350	do	VFC-104B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000560	do	VFC-204B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000780	do	VFC-304B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000360	do	VFC-106B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000570	do	VFC-206B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64ND000790	do	VFC-306B	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	D64KK000030	Capcon	NC-1	KITAGAWA KOGYO	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

式 No. 012 A 4

# Mazak YAMAZAKI MAZAK CORPORATION

1	2			
P				
PN	3	8	ページ	設定
リスト番号	7	17221R	0500	
LIST No				

設変 NO	部品番号 PARTS No	部品名称 PARTS NAME 英文 カタカナ	備考 REMARKS	材質 MTL	使用個数 QTY													79 80							
					A	B	C	D	E	F	G	H	J	K	L	M	N		P	U					
	D64ND000860	Combination Connector	PSF-104-CA2022		NIPPON FLEX	8	8																		
	D64ND000890	do	PSF-106-CA2022		do	-	-																		
	D64ND000900	do	PSF-106-CA2028		do	-	-																		
	D60DA000090	Connector	MS3101B 20-29S		DAIICHI DENSHI	-	-																		
	D60DA000100	do	MS3101B 20-29P		do	-	-																		
	D60DA000200	do	MS3101B 22-22S		do	-	-																		
	D60DA000210	do	MS3106B 22-22P		do	-	-																		
	D60DA000230	do	MS3102A 20-29S		do	2	2																		
	D60DA000260	do	MS3102A 20-29P		do	-	-																		
	D60DA000300	do	MS3102A 18-21S		do	-	-																		
	D60DA000350	do	MS3102A 28-21P	CON16 CON11	do	-	-																		
	D60DA000480	do	MS3106B 20-29P	CON3 CON2	do	4	4																		
	D60DA000490	do	MS3106B 20-29S	CON6 CON9	do	4	4																		
	D60DA000540	do	MS3106B 28-21S		do	-	-																		
	D60DA000580	do	MS3106B 28-21P		do	1	1																		
	D60DA000680	do	MS3108B 20-29S	CON1	do	1	1																		
	D60DA000700	do	MS3109B 20-29P		do	-	-																		

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# Mazak YAMAZAKI MAZAK CORPORATION

1	2			
P				
PN	3	8	ページ	設定
リスト番号	7	17221R	0600	
LIST No				

設変 NO	部品番号 PARTS No	部品名称 PARTS NAME 英文 カタカナ	備考 REMARKS	材質 MTL	使用個数 QTY													79 80							
					A	B	C	D	E	F	G	H	J	K	L	M	N		P	U					
	D60DA000770	Connector	MS3108B 28-21S		DAIICHI DENSHI	-	-																		
	D60DA000820	do	MS3108B 28-21P		do	-	-																		
		do	MS3108B 28-12P		do	1	1																		
	D60DA001150	DUST CAP	MS25043-28D		DAIICHI DENSHI	-	-																		
	D60DA001160	do	MS25043-20D		do	2	2																		
	D60DA001070	Cable Clamp	MS3057-12A		DAIICHI DENSHI	1	1																		
	D60HD0002800	Connector	MR 20WF	CNA3 CNA9 CON7	HONDA	3	3																		
	D60HD																								
	D60DA000600	Connector	MS3106B 28-21P	CA05P	DAIICHI DENSHI	1	1																		
	D60DA000610	do	MS3106B 28-21P	CA05S	do	1	1																		

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Mazak YAMAZAKI MAZAK CORPORATION

リスト番号 LIST No 7 17221R 0700

設変 NO	部品番号 PARTS No	部品名称 PARTS NAME カタカナ 英文	備考 REMARKS	材質 MTL	使用個数 QTY															
					A	B	C	D	E	F	G	H	J	K	I	M	N	P	U	
	D61DB000010	Vinyl Cabtyre Cable VCT-2C 0.75 <sup>sq</sup>																		
	D61DB000080	do VCT-3C 0.75 <sup>sq</sup>																		
	D61DB000150	do CVT-4C 0.75 <sup>sq</sup>																		
	D62SA001020	Irrax Wire A-0.5 <sup>sq</sup> Blue																		
		do A-0.5 <sup>sq</sup> Red			m	m														
		do A-0.5 <sup>sq</sup> Black			m	m														
	D62SA001030	do A-0.75 <sup>sq</sup> Blue			m	m														
	D62SA001060	do A-0.75 <sup>sq</sup> Red			m	m														
		do A-1.25 <sup>sq</sup> Blue			m	m														
		do A-1.25 <sup>sq</sup> Red			m	m														
		do A-1.25 <sup>sq</sup> Black			m	m														
		Wire 1KIV 2 <sup>sq</sup> Black			m	m														
	D62KS001210	do 1KIV 2 <sup>sq</sup> Green			m	m														
		do 1KIV 1.25 <sup>sq</sup> Black			m	m														
		do 1KIV 1.25 <sup>sq</sup> Red			m	m														
		do 1KIV 1.25 <sup>sq</sup> Blue			m	m														
		do 1KIV 1.25 <sup>sq</sup> Green			m	m														

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Mazak YAMAZAKI MAZAK CORPORATION

リスト番号 LIST No 7 17221R 0800

設変 NO	部品番号 PARTS No	部品名称 PARTS NAME カタカナ 英文	備考 REMARKS	材質 MTL	使用個数 QTY															
					A	B	C	D	E	F	G	H	J	K	I	M	N	P	U	
		Wire LV 5.5 <sup>sq</sup> Black																		
		do LV 5.5 <sup>sq</sup> Green			m	m														
		do LV 14 <sup>sq</sup> Black			m	m														
		do LV 14 <sup>sq</sup> Green			m	m														
		do LV 22 <sup>sq</sup> Black			m	m														
		do LV 22 <sup>sq</sup> Green			m	m														
		do LV 30 <sup>sq</sup> Black			-	-														
		do LV 38 <sup>sq</sup> Black			m	m														
		do LV 60 <sup>sq</sup> Black			-	-														

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機種	ST-25N	PARTS LIST	ユニット	STANDARD SPAKE PARTS	LIST No	7	1	7	2	2	5	R	0	1	0	0	UN	3	4	5	6	7	8	ページ	設定	全頁数	2
変更No 技術No	9	10	識別	11	12	SPECIFICATION OF UNIT ユニットの仕様											SET No	変更 処理日									
ユニット番号	UNIT No	19	20	21	22	ST-25N																					
	A	7	1	7	2	2	5	0	1	0	0	0															
	B																										
	C																										
	D																										
	E																										
	F																										
	G																										
	H																										
	J																										
	K																										
	L																										
	M																										
	N																										
	P																										
	Q																										

書式 No.012-1 S 56. 11. 2,000

Mazak YAMAZAKI MAZAK CORPORATION

1	2		
P			
PN	3	8	ページ 設定
リスト番号	7	1	7
LIST No	2	2	5
	R	0	2
	0	2	0

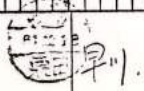
設変 NO	部品番号 PARTS No	部品名称 PARTS NAME 英文 カタカナ	備考 REMARKS	材質 MTL	使用個数 QTY																					
					20	A	B	C	D	E	F	G	H	J	K	L	M	N	P	79						
	D04TC000010	Control Relay G2A (DC 24V)		FUJISI	1																					
	D04TC000100	Power Relay LY-2 (DC 24V)		do	1																					
	D20FA000150	Lamp (AHR-11M-1A1) DC30V T10.L20 BA9S-13		FUJI	2																					

特注リスト

7-ラント 1.5kW

1						6
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ユニット品番		設計リスト番号				CPU				年		月		日		発行予定	
7	15 16 17 000	47	機種	ユニット	ページ	設定	材料	外注	M/C	精機							
							仕入	機械	品保	コスト							
							鍍金	組立	精工								
子品番	品名・規格	材質	使用個数	発注数	LOT	区分	納期	出庫先	担当	発注先	%	月	台	社内	備考	スペ	
E10114A041790	7-ラント用 1.5kW MSD-K21 KP 2025 100V 66A	ニッケル	1														
	7-ラント用 1.5kW MF-5055-3P-40A AX-F	ニッケル	1														



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