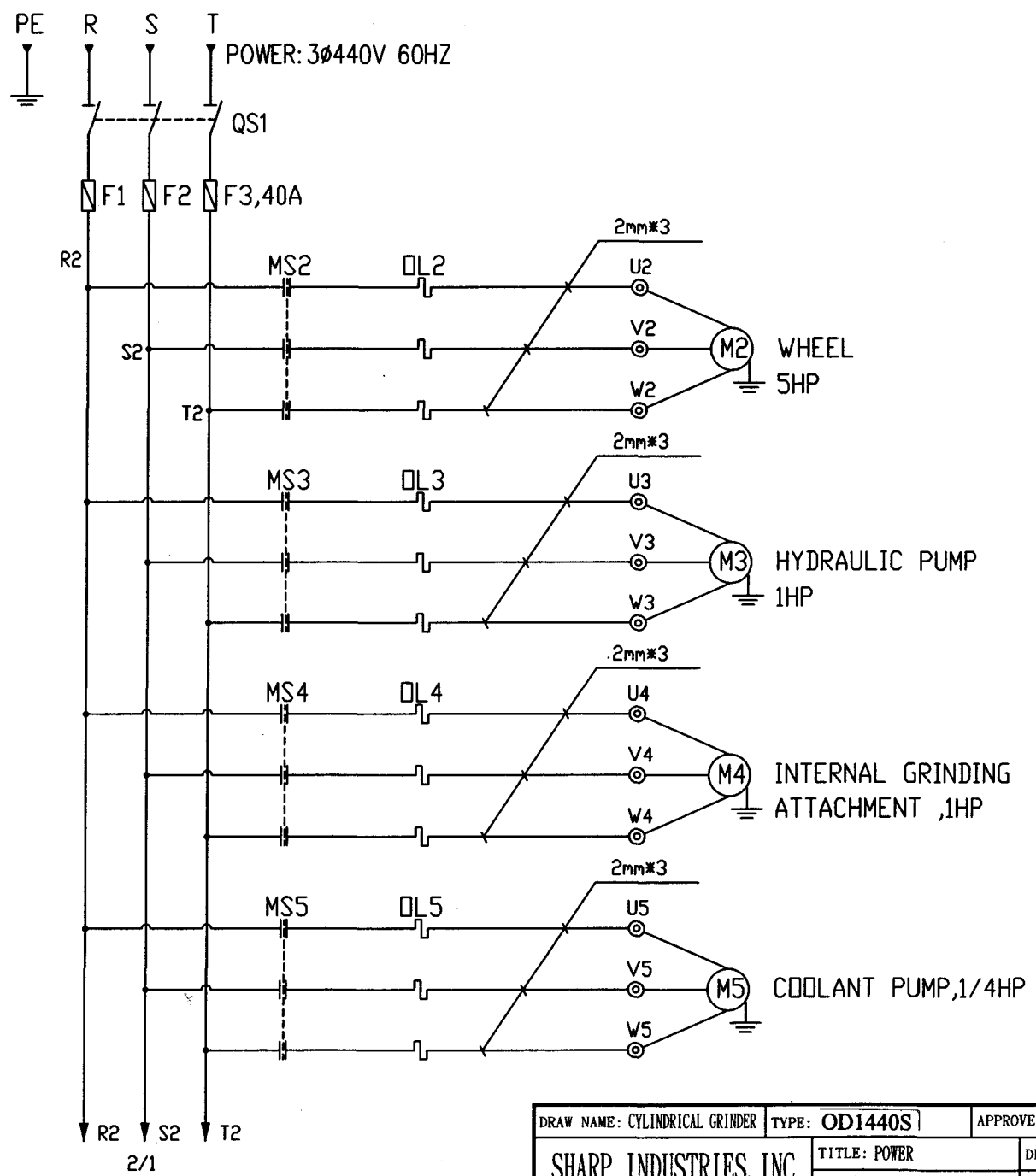
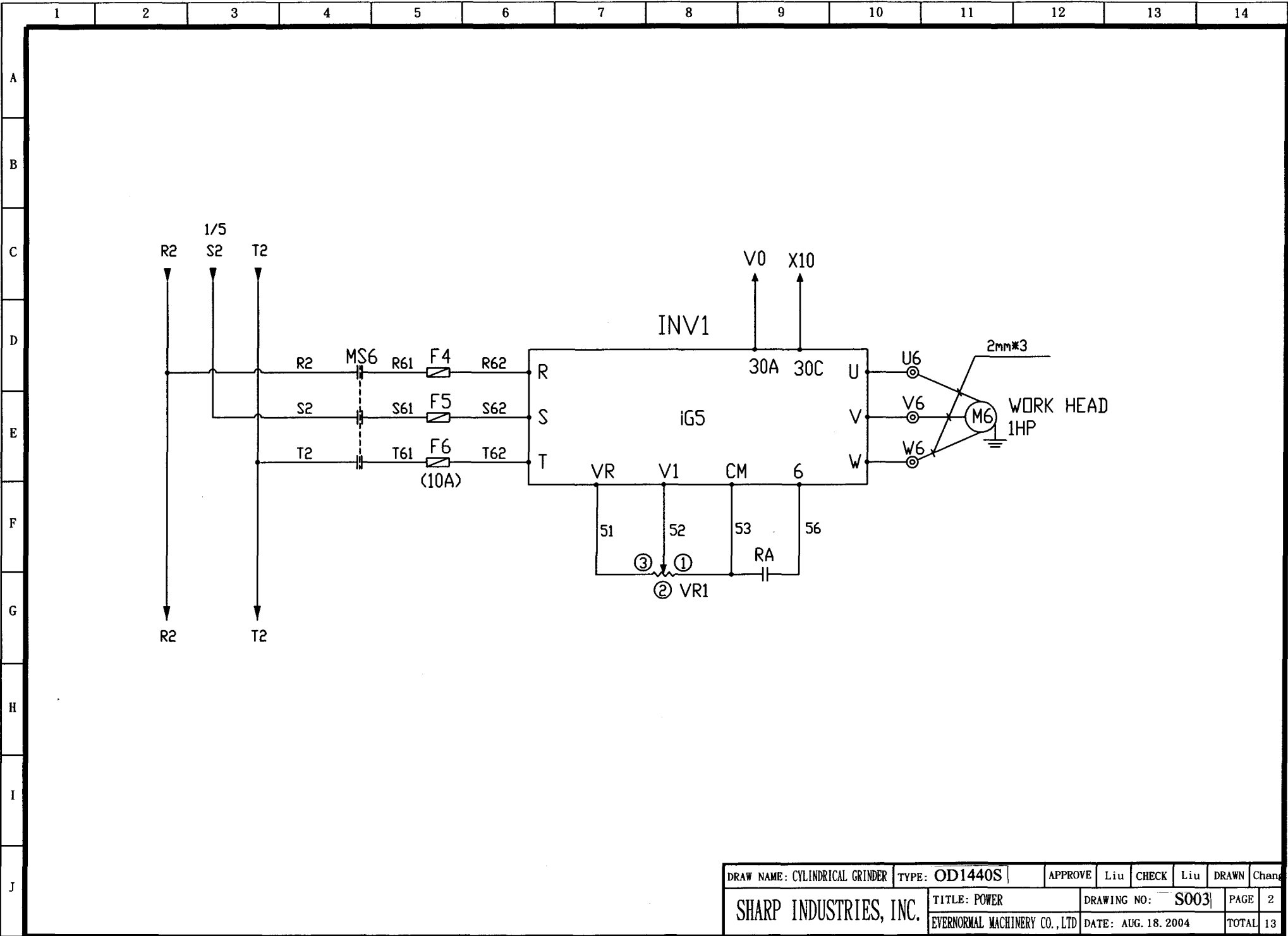


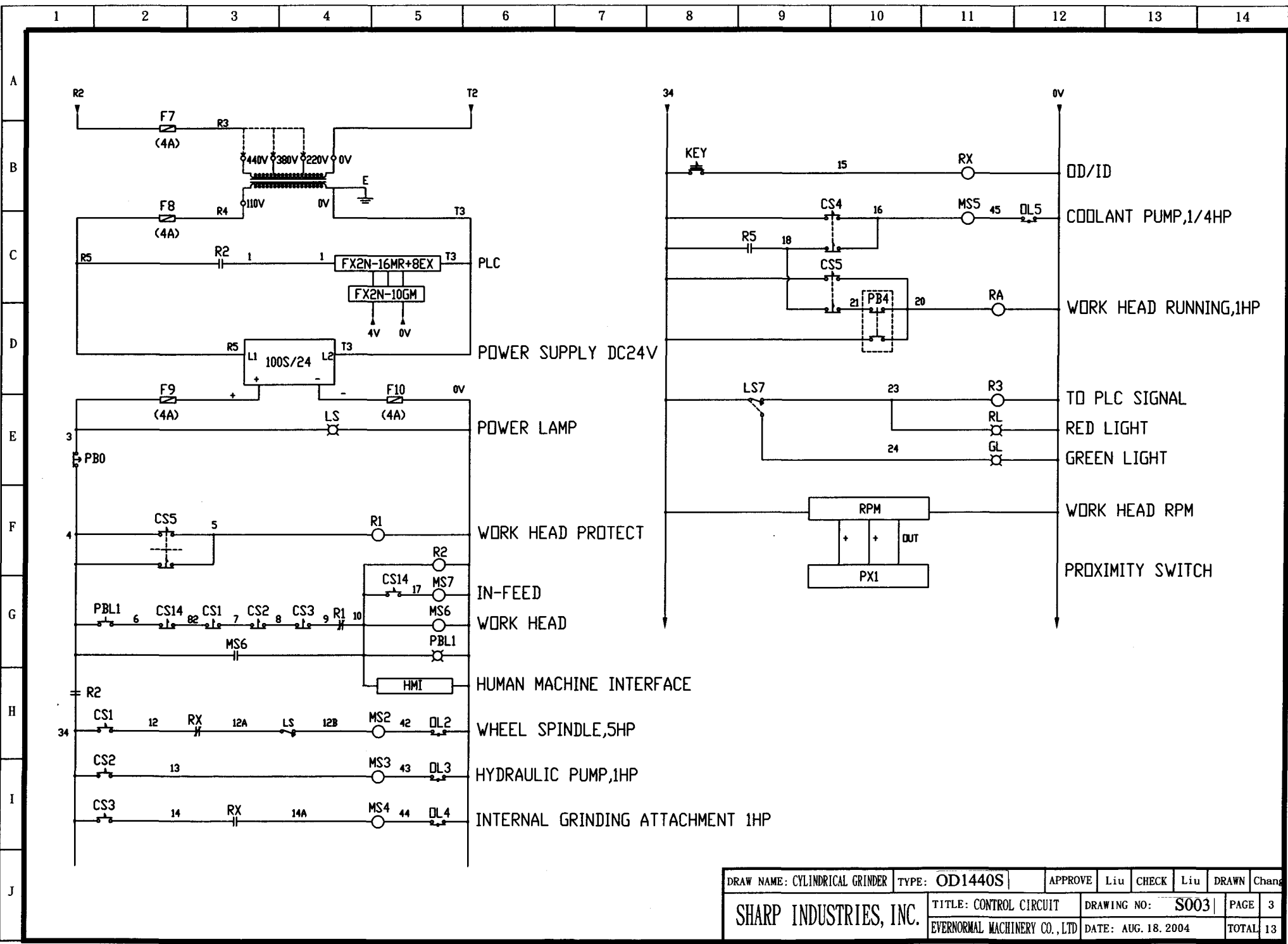
A
B
C
D
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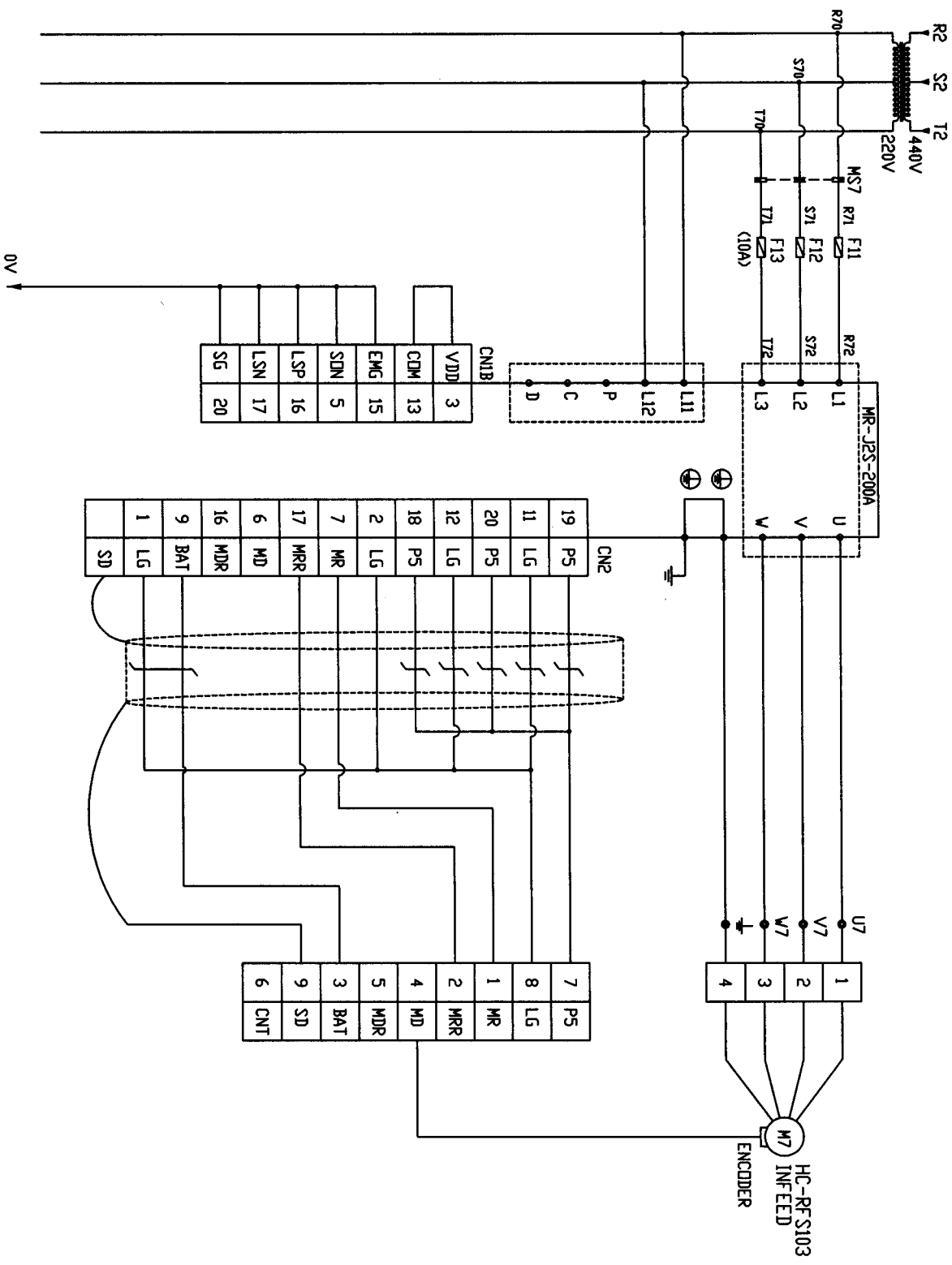
DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S	APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.		TITLE: POWER	DRAWING NO: S003		PAGE	1		
EVERTNORMAL MACHINERY CO., LTD		DATE: AUG. 18. 2004		TOTAL		13		



DRAW NAME: CYLINDRICAL GRINDER	TYPE: OD1440S	APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.		TITLE: POWER		DRAWING NO: S003		PAGE	2
EVENORMAL MACHINERY CO., LTD		DATE: AUG. 18. 2004		TOTAL		13	



DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S		APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.			TITLE: CONTROL CIRCUIT		DRAWING NO: S003		PAGE	3	
EVERNORMAL MACHINERY CO., LTD			DATE: AUG. 18. 2004		TOTAL		13		

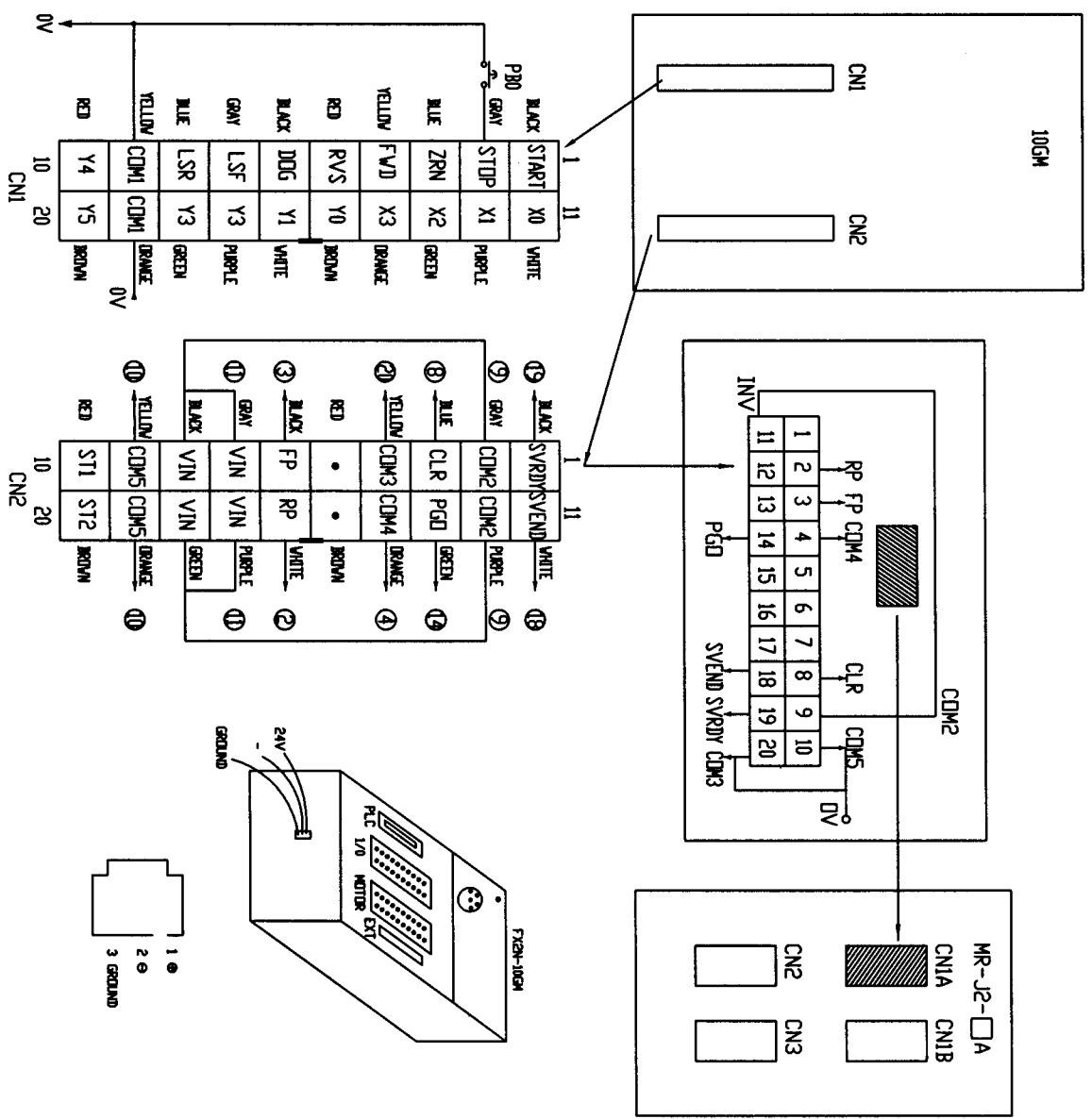


CNIB	D
VDD	3
CDM	13
EMG	15
SDN	5
LSP	16
LSN	17
SG	20

CN2	19	P5
	11	LG
	20	P5
	12	LG
	18	P5
	2	LG
	7	MR
	17	MRR
	6	MD
	16	MDR
	9	BAT
	1	LG
		SD

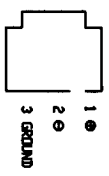
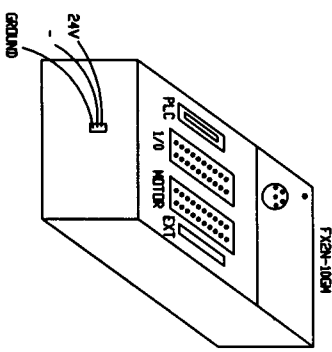
7	P5
8	LG
1	MR
2	MRR
4	MD
5	MDR
3	BAT
9	SD
6	CNT

DRAW NAME: CILINDRICAL GRINDER TYPE: OD1440S
 TITLE: CONTROL CIRCUIT DRAWING NO: S003
 EVERORRAL MACHINERY CO., LTD DATE: AUG. 18. 2004
 SHARP INDUSTRIES, INC. APPROVE: Liu CHECK: Liu DRAWN: Chang
 PAGE 4 TOTAL 13

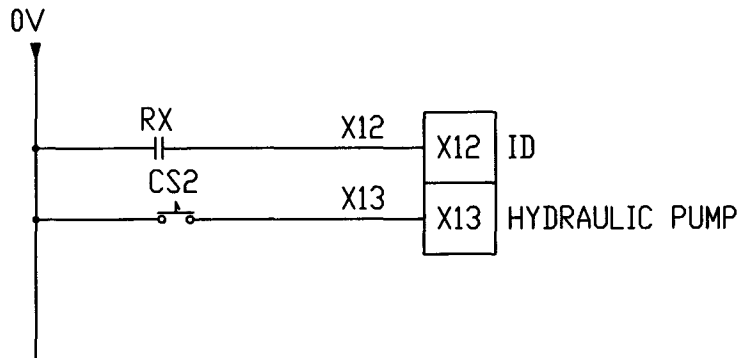
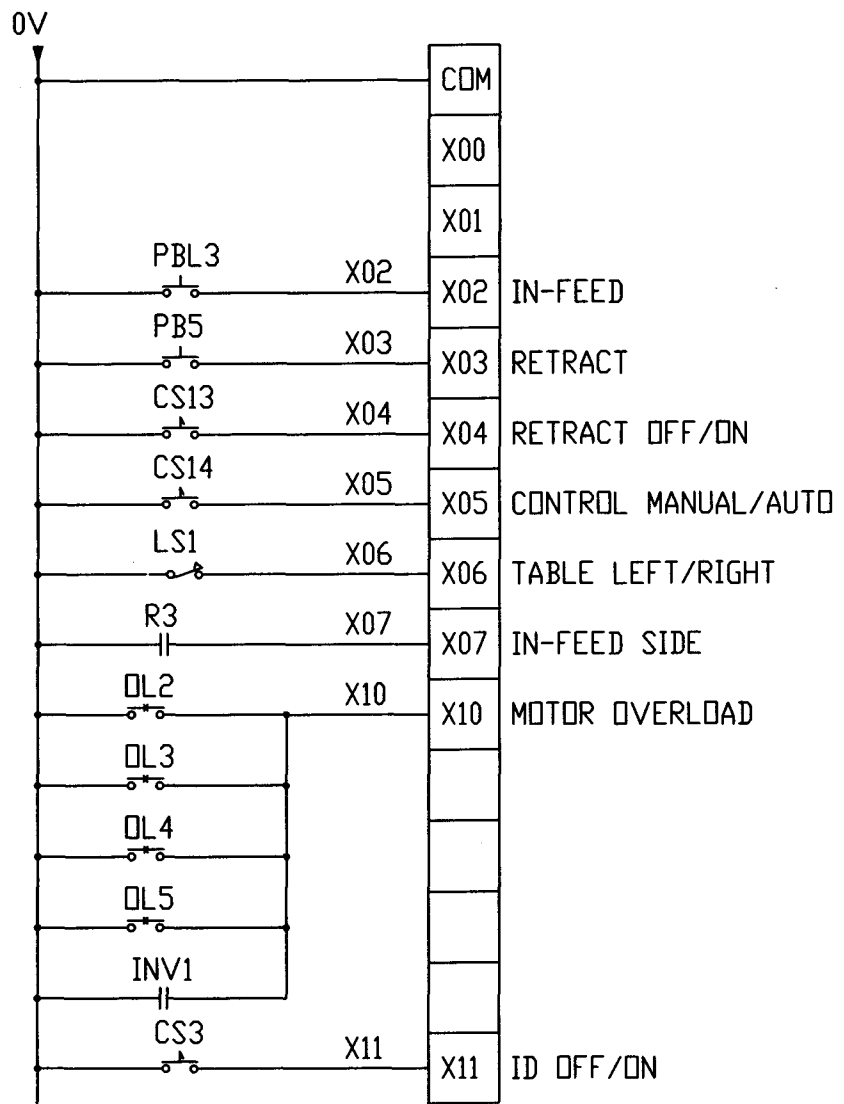


WORK HEAD	
PARAMETER SETTINGS	SET
PARM	SET
ACC	2.0
DEC	2.0
FUI-26	1
DRV	1
F-r9	2
St1	12
FUI-07	0
FUI-20	90
FUI-21	60
FUE-40	1
I/O5	20

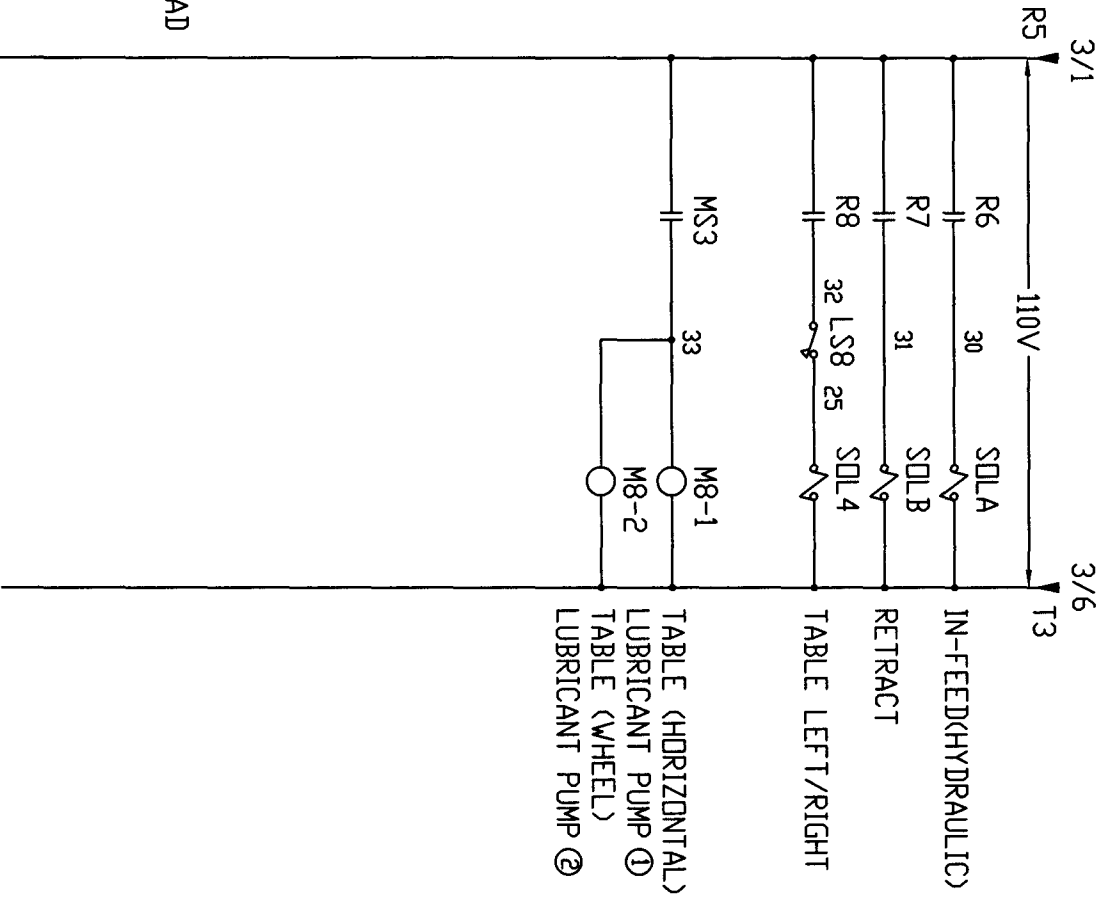
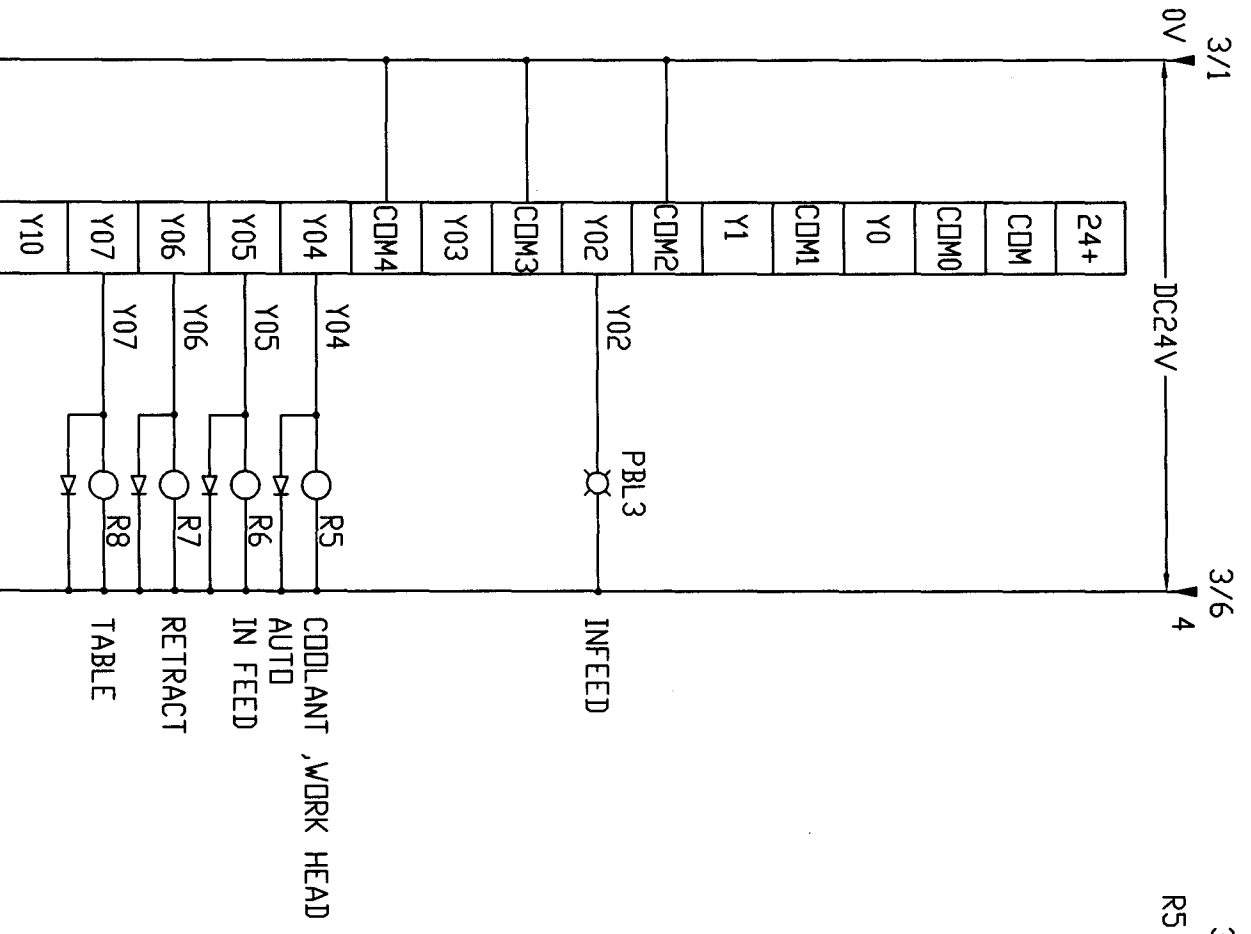
SERVO DRIVER	
PARAMETER SETTINGS	SET
PARM	SET
P00	0000
P01	0002
P02	0208
P03	16384
P04	1250
P06	18
P26	60
P34	150
P60	1110



DRAW NAME: CILINDRICAL GRINDER	TYPE: OD1440S	APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.		TITLE: CONTROL CIRCUIT	DRAWING NO: S003	PAGE	5	TOTAL	13
EVERNORMAL MACHINERY CO., LTD.		DATE: AUG. 18. 2004					



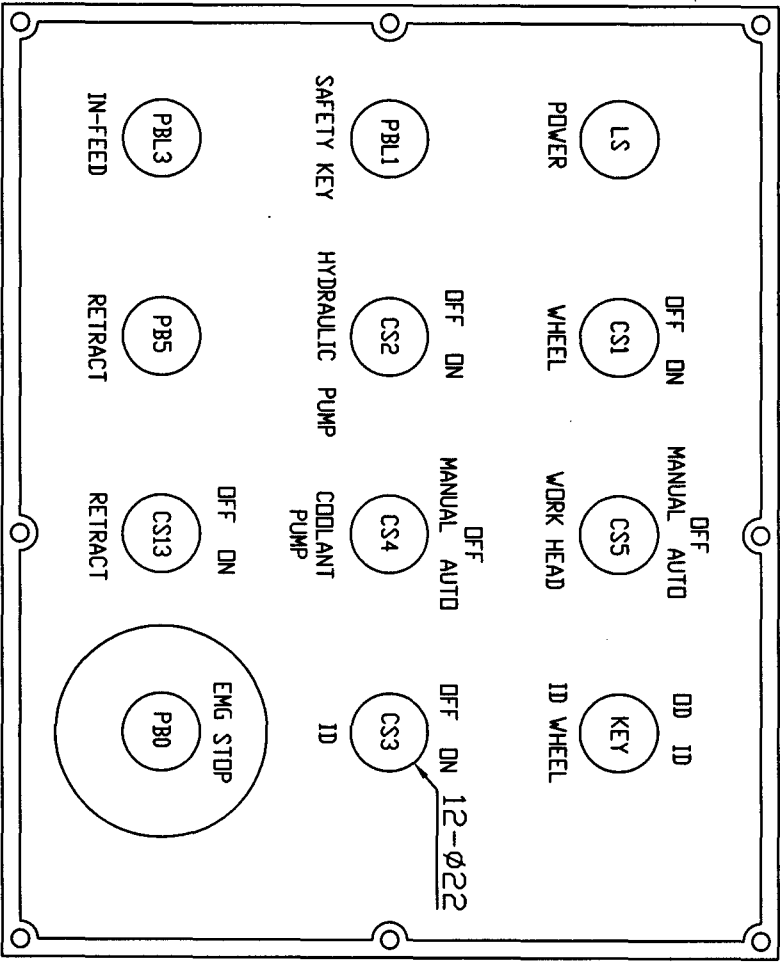
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SHARP INDUSTRIES, INC.		TITLE: PLC INPUT		DRAWING NO: S003		PAGE	6
EVERNORMAL MACHINERY CO., LTD		DATE: AUG. 18. 2004		TOTAL		13	



DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S		APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.		TITLE: PLC OUTPUT		DRAWING NO.:	S003		PAGE	7	
EVERNORMAL MACHINERY CO., LTD		DATE: AUG. 18. 2004		TOTAL	13				

A B C D E F G H I J

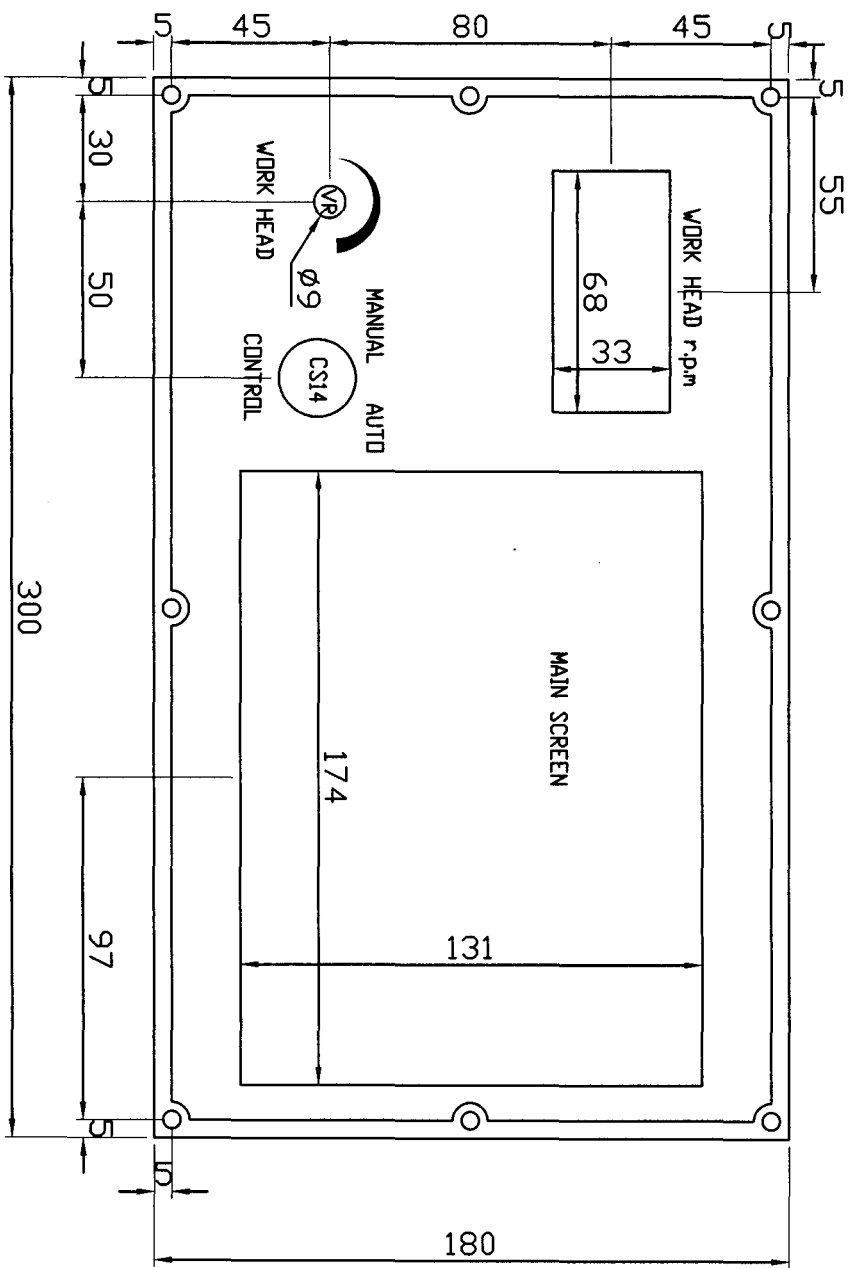
1 2 3 4 5 6 7 8 9 10 11 12 13 14



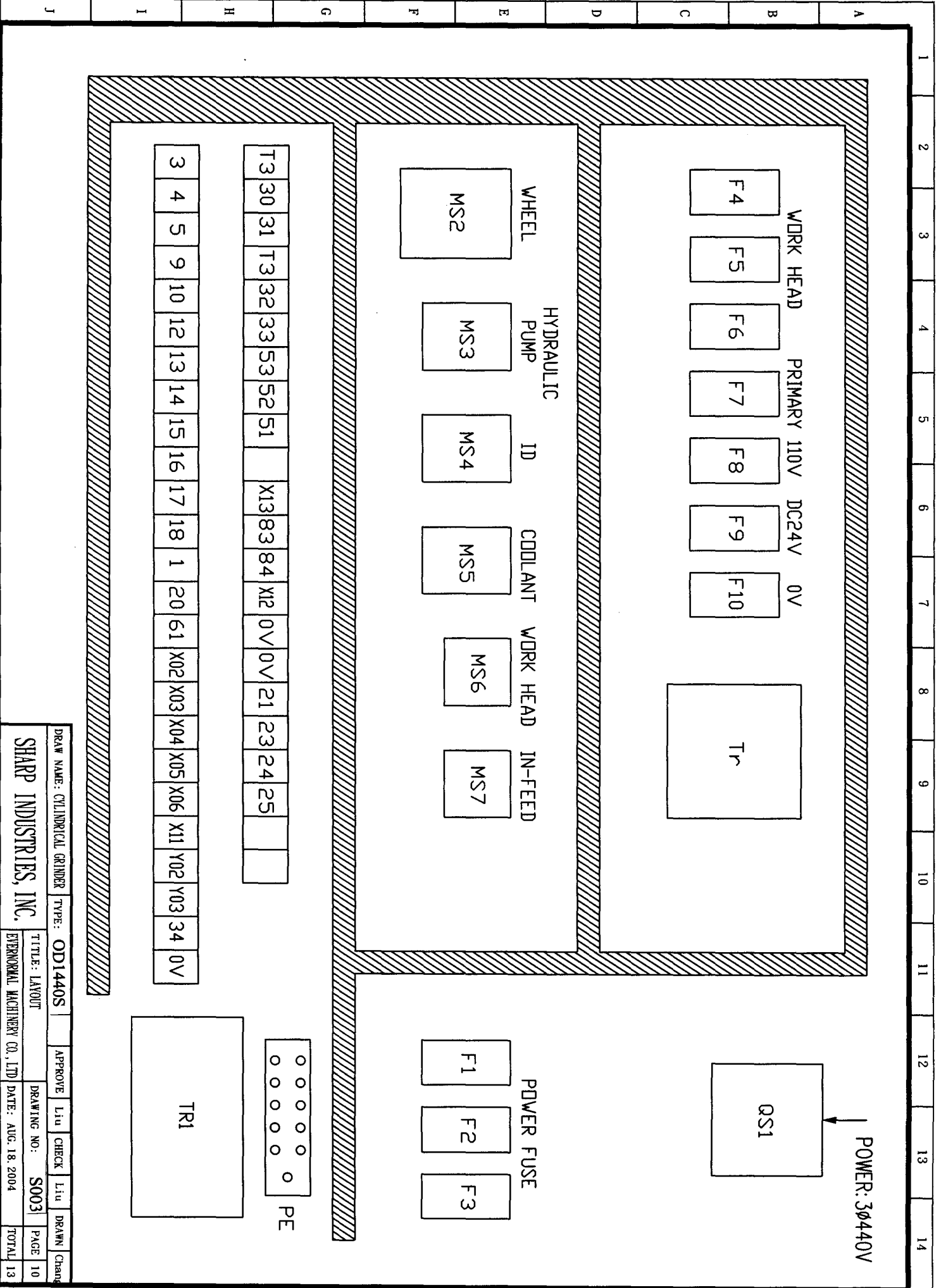
WORK HEAD
JOG



DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S		APPROVE		DRAWN	
SHARP INDUSTRIES, INC.		TITLE: OPERATION PLATE		Liu		Chan	
EVERNORMAL MACHINERY CO., LTD		DRAWING NO: S003		CHECK		PAGE	
DATE: AUG. 18. 2004				Liu		8	
TOTAL		13					



DRAW NAME: CYLINDRICAL GRINDER TYPE: OD1440S		APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.		TITLE: OPERATION PLATE	DRAWING NO: S003	DATE: AUG. 18. 2004	PAGE	9	TOTAL 13
EVERNORMAL MACHINERY CO., LTD.							

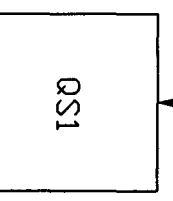


1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I J

POWER: 3Ø440V

QS1



POWER FUSE

F1

F2

F3

WORK HEAD

PRIMARY 110V

DC24V

0V

F4

F5

F6

F7

F8

F9

F10

TR

HYDRAULIC

WHEEL

ID

COOLANT

WORK HEAD

IN-FEED

MS2

MS3

MS4

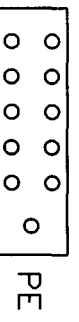
MS5

MS6

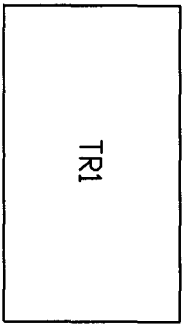
MS7

T3	30	31	T3	32	33	53	52	51	X13	83	84	X12	0V	0V	21	23	24	25		
----	----	----	----	----	----	----	----	----	-----	----	----	-----	----	----	----	----	----	----	--	--

3	4	5	9	10	12	13	14	15	16	17	18	1	20	61	X02	X03	X04	X05	X06	X11	Y02	Y03	34	0V
---	---	---	---	----	----	----	----	----	----	----	----	---	----	----	-----	-----	-----	-----	-----	-----	-----	-----	----	----



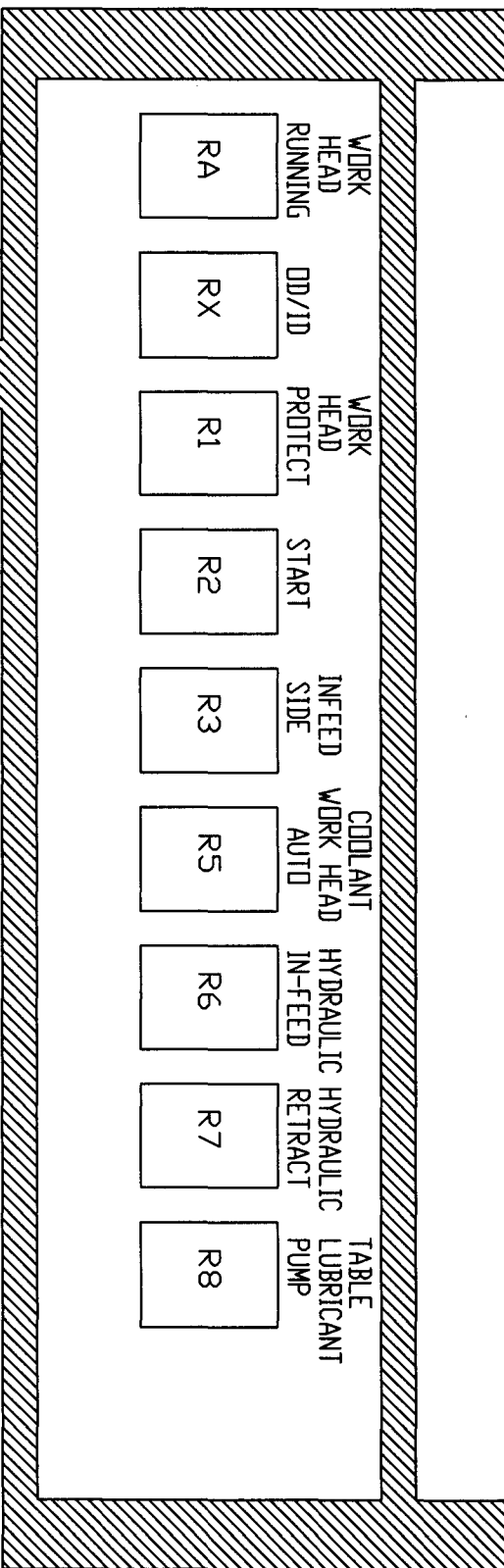
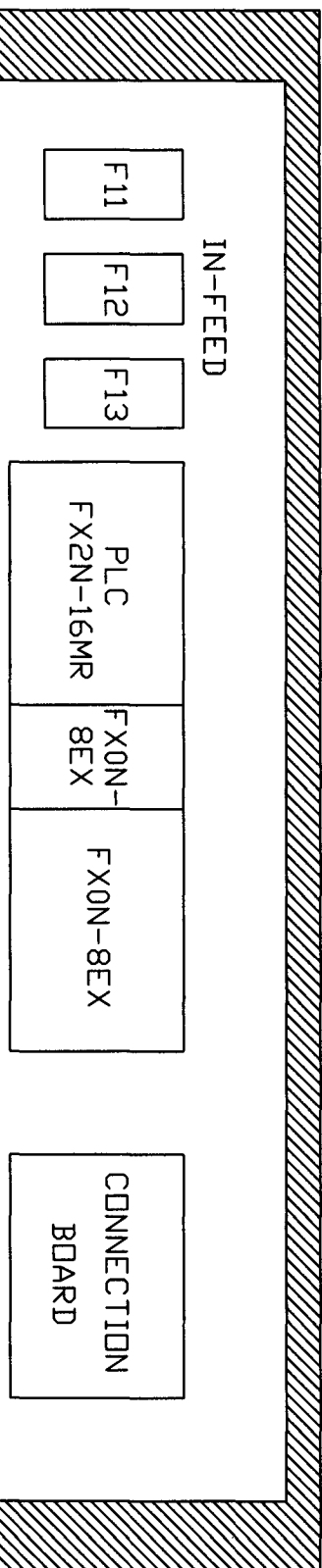
TR1



DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S		APPROVE	Liu	CHECK	Liu	DRAWN	Chang
SHARP INDUSTRIES, INC.		TITLE: LAYOUT		DRAWING NO.:	S003	DATE:	AUG. 18. 2004	PAGE	10
EVERNORMAL MACHINERY CO., LTD.				TOTAL	13				

1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I J



P/S
100/24

MR-J2S-200A

INV
IG5

DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S		APPROVE	Liu	CHECK	Liu	DRAWN	Chang
TITLE: LAYOUT		DRAWING NO: S003		DATE: AUG. 18. 2004	PAGE		11		
SHARP INDUSTRIES, INC.		EVENORMAL MACHINERY CO., LTD.		TOTAL		13			

1	2	3	4	5	6	7
A	SYMBOL	DESCRIPTION & FUNCTION	TYPE	BRAND		
B	QS1	POWER ON/OFF	VA3	TELEMECANIQUE		
	F1	POWER	14*51 40A	LEGRAND		
	F2	POWER	14*51 40A	LEGRAND		
C	F3	POWER	14*51 40A	LEGRAND		
	F4	WORK HEAD FUSE	DF6-AB10 10A	TELEMECANIQUE		
D	F5	WORK HEAD FUSE	DF6-AB10 10A	TELEMECANIQUE		
	F6	WORK HEAD FUSE	DF6-AB10 10A	TELEMECANIQUE		
E	F7	TRANSFORMER PRIMARY SIDE	DF6-AB10 4A	TELEMECANIQUE		
	F8	110V CONTROL	DF6-AB10 4A	TELEMECANIQUE		
F	F9	DC24V	DF6-AB10 4A	TELEMECANIQUE		
	F10	DC24V	DF6-AB10 4A	TELEMECANIQUE		
G	F11	INFEED FUSE	DF6-AB10 10A	TELEMECANIQUE		
	F12	INFEED FUSE	DF6-AB10 10A	TELEMECANIQUE		
H	F13	INFEED FUSE	DF6-AB10 10A	TELEMECANIQUE		
	T-1	110V, CONTROL	500VA 0,220,380,440/0,100,110			
I	T-2	220/440 ALTERNATION	2KVA 220/440V			

8	9	10	11	12	13	14
	SYMBOL	DESCRIPTION & FUNCTION	TYPE	BRAND		
	P/S	DC24V, POWER	100S/24	MEAN-WELL		
	INV	WORK HEAD VARIABLE SPEED	IG5,440V 1.5KW	LG		
	MR-J2S	INFEED	MR-J2S-200A	MITSUBISHI		
	PLC	CONTROL	FX1N-16MR+8EX FX2N-10GM	MITSUBISHI		
	R1	WORK HEAD PROTECT	MY2NJ,DC24V	OMRON		
	R2	START	MY2NJ,DC24V	OMRON		
	R3	INFEED SIDE	MY2NJ,DC24V	OMRON		
	R5	COOLANT WORK HEAD AUTO	MY2NJ,DC24V	OMRON		
	R6	HYDRAULIC IN-FEED	MY2NJ,DC24V	OMRON		
	R7	HYDRAULIC RETRACT	MY2NJ,DC24V	OMRON		
	R8	TABLE LUBRICANT PUMP	MY2NJ,DC24V	OMRON		
	RA	WORK HEAD RUNNING	MY2NJ,DC24V	OMRON		
	RX	OD/ID	MY4NJ,DC24V	OMRON		

DRAW NAME: CYLINDRICAL GRINDER	TYPE: OD1440S	APPROVE	Liu	CHECK	Liu	DRAWN	Cheng
TITLE: LAYOUT		DRAWING NO: S003	DATE: AUG. 18. 2004		PAGE 12		TOTAL 13
SHARP INDUSTRIES, INC.							
EVERORRAL MACHINERY CO., LTD							

A	1	2	3	4	5	6	7
	SYMBOL	DESCRIPTION & FUNCTION	TYPE	BRAND			
B	LS1	TABLE LEFT/RIGHT	Z-15GW 2255B	OMRON			
	LS3	WHEEL BELT	AZ-15ZVRK-M16	SCHMERSAL			
	LS7	INFEED SIDE	Z-15GW 4455B	OMRON			
	LS8	TABLE HANDLE	Z-15GW 4455B	OMRON			
	HMI	HUMAN MACHINE INTERFACE	UG221H-LCAD	FUJI			
	rpm	WORK HEAD SPEED	72*36,DP732D DC5V 600rpm	TENANIC			
E	MS2	WHEEL CONTACTOR	3RT1025-1B,0 DC24V	SIEMENS			
	MS3	HYDRAULIC CONTACTOR	3RT1016-1BB41 DC24V	SIEMENS			
	MS4	ID CONTACTOR	3RT1016-1BB41 DC24V	SIEMENS			
	MS5	COOLANT CONTACTOR	3RT1016-1BB41 DC24V	SIEMENS			
	MS6	WORK HEAD CONTACTOR	3RT1016-1BB41 DC24V	SIEMENS			
	MS7	IN-FEED CONTACTOR	3RT1016-1BB41 DC24V	SIEMENS			
H	DL2	WHEEL OVER LOAD	3RU1126-4AB0 11~16A	SIEMENS			
	DL3	HYDRAULIC OVER LOAD	3RU1116-1EB0 2.6~4A	SIEMENS			
	DL4	ID OVER LOAD	3RU1116-1EB0 2.6~4A	SIEMENS			
I	DL5	COOLANT OVER LOAD	3RU1116-1AB0 1.1~1.6A	SIEMENS			

	8	9	10	11	12	13	14
	SYMBOL	DESCRIPTION & FUNCTION	TYPE	BRAND			
	VR1	WORK HEAD SPEED VARIABLE	10KΩ				
	LS	POWER LAMP	22ø,DC24V	TELEMECANIQUE			
	PBL1	SAFETY KEY	22ø,1ø,DC24V	TELEMECANIQUE			
	PB4	WORK HEAD JOG	22ø,1ø1b	TELEMECANIQUE			
	PBL3	INFEED	22ø,1ø,DC24V	TELEMECANIQUE			
	PB5	RETRACT	22ø,1ø	TELEMECANIQUE			
	CS1	WHEEL OFF/ON	22ø,1ø1b	TELEMECANIQUE			
	CS2	HYDRAULIC OFF/ON	22ø,1ø1b	TELEMECANIQUE			
	CS3	ID OFF/ON	22ø,1ø1b	TELEMECANIQUE			
	CS4	COOLANT MANU/AUTO	22ø,2ø	TELEMECANIQUE			
	CS5	WORK HEAD MANU/AUTO	22ø,4ø	TELEMECANIQUE			
	CS13	RETRACT OFF/ON	22ø,1ø1b	TELEMECANIQUE			
	PB0	EMERGENCY STOP	22ø,1b	TELEMECANIQUE			
	KEY	ID/OD	25ø,1ø1b	TEND			
	PX1	WORK HEAD SPEED	EZE-XZE1	OMRON			

DRAW NAME: CYLINDRICAL GRINDER		TYPE: OD1440S		APPROVE	Liu	CHECK	Liu	DRAWN	Chang
TITLE: LAYOUT		DRAWING NO: S003		DATE: AUG. 18. 2004		PAGE 13		TOTAL 13	
SHARP INDUSTRIES, INC.									
EVERNORAL MACHINERY CO., LTD									