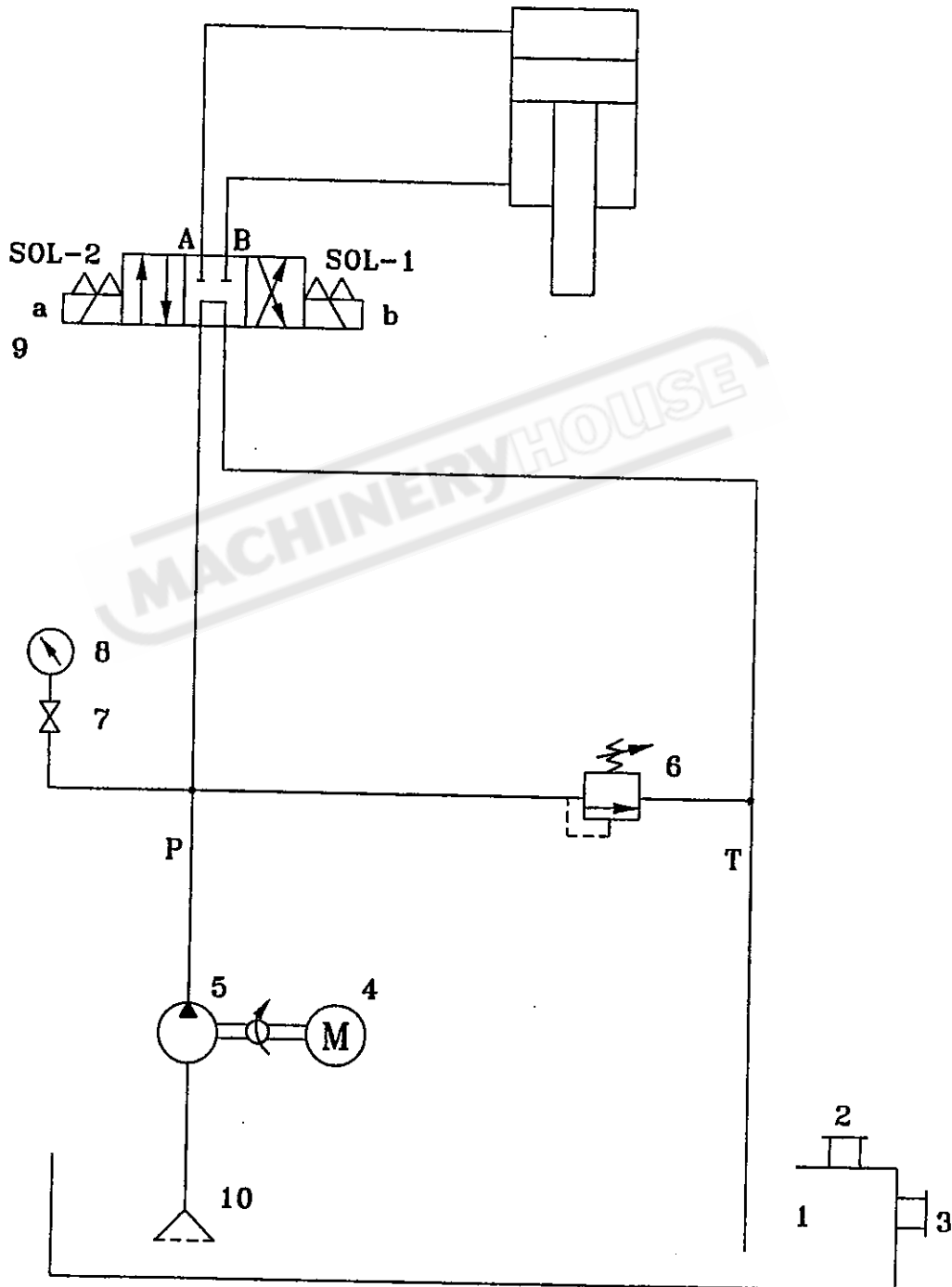


Hydraulic Circuit

IW-45M,50A,60H



Hydraulic Circuit Parts

IW-45M, IW-50A, IW-60H

No.	Description	Qty	Specification / Part No.
1	Tank	1	
2	Breather & Filter	1	OL-HY-08A
3	Oil Level Gauge	1	OL-LG-4
4	Motor	1	IW-45M: 5 HP IW-50A: 5 HP IW-60H:7.5 HP
5	Pump	1	Gear Pump
6	Relief Valve	1	RPEC-FAN
7	Gauge Cock	1	OL-ST-02
8	Pressure Gauge	1	2" x 300 Kg/Cm2
9	Solenoid Valve	1	4WE6G61/EG24N9K4
10	Suction Oil Filter	1	OL-MF-106

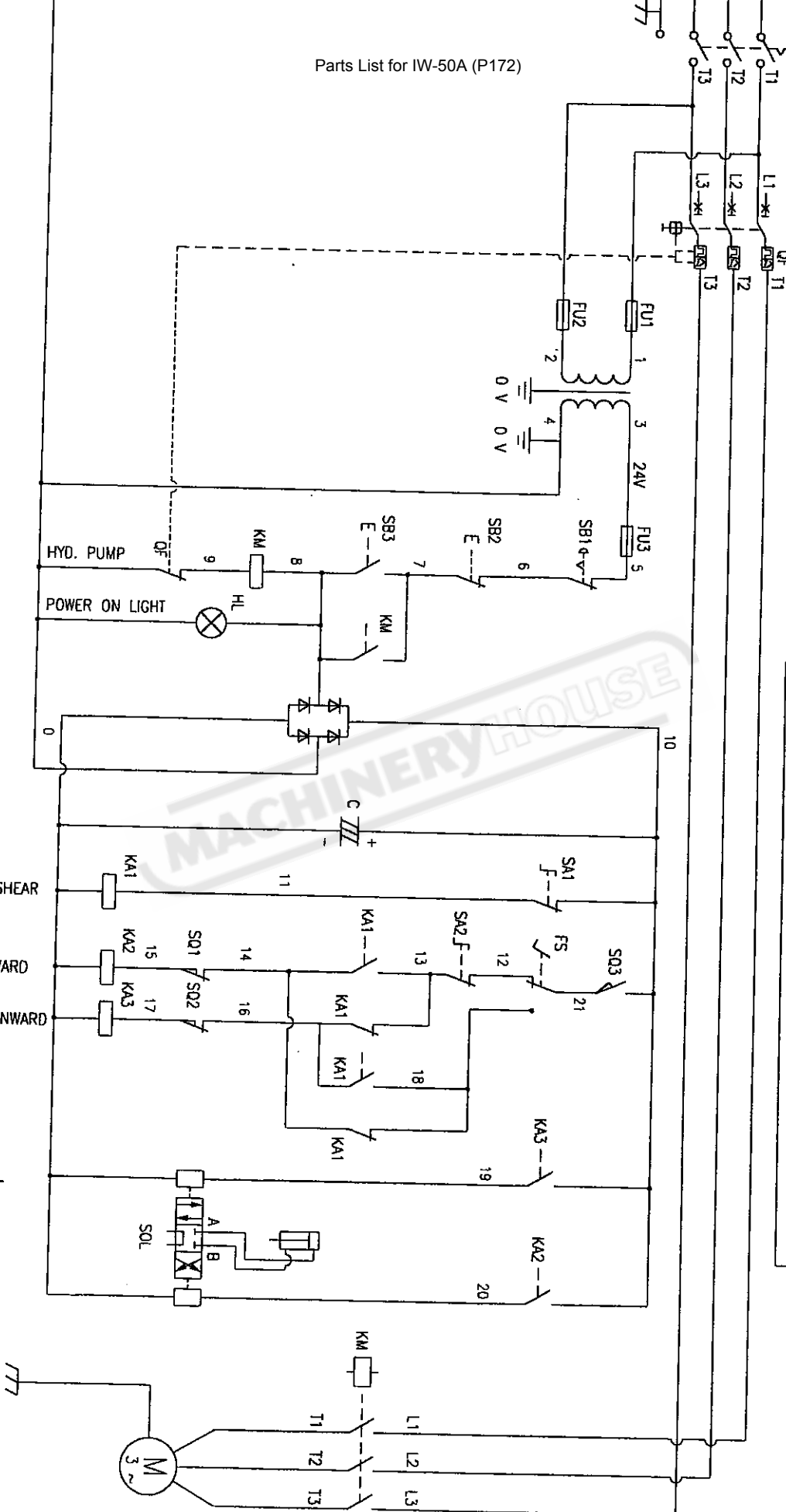
23/8/2012

Parts List for IW-50A (P172)

Electrical Circuit (CE)

IW-45M model

- SB1: EMERGENCY STOP
- SB2: PUMP OFF
- SB3: PUMP ON
- FS: FOOT SWITCH
- OF: MOTOR CIRCUIT BREAKER
- SA1: PUNCH/SHEAR
- SA2: NORMAL/JOG
- SQ1: RAM UP STOP
- SQ2: RAM DOWN STOP
- SQ3: PUNCH SAFETY INTERLOCK

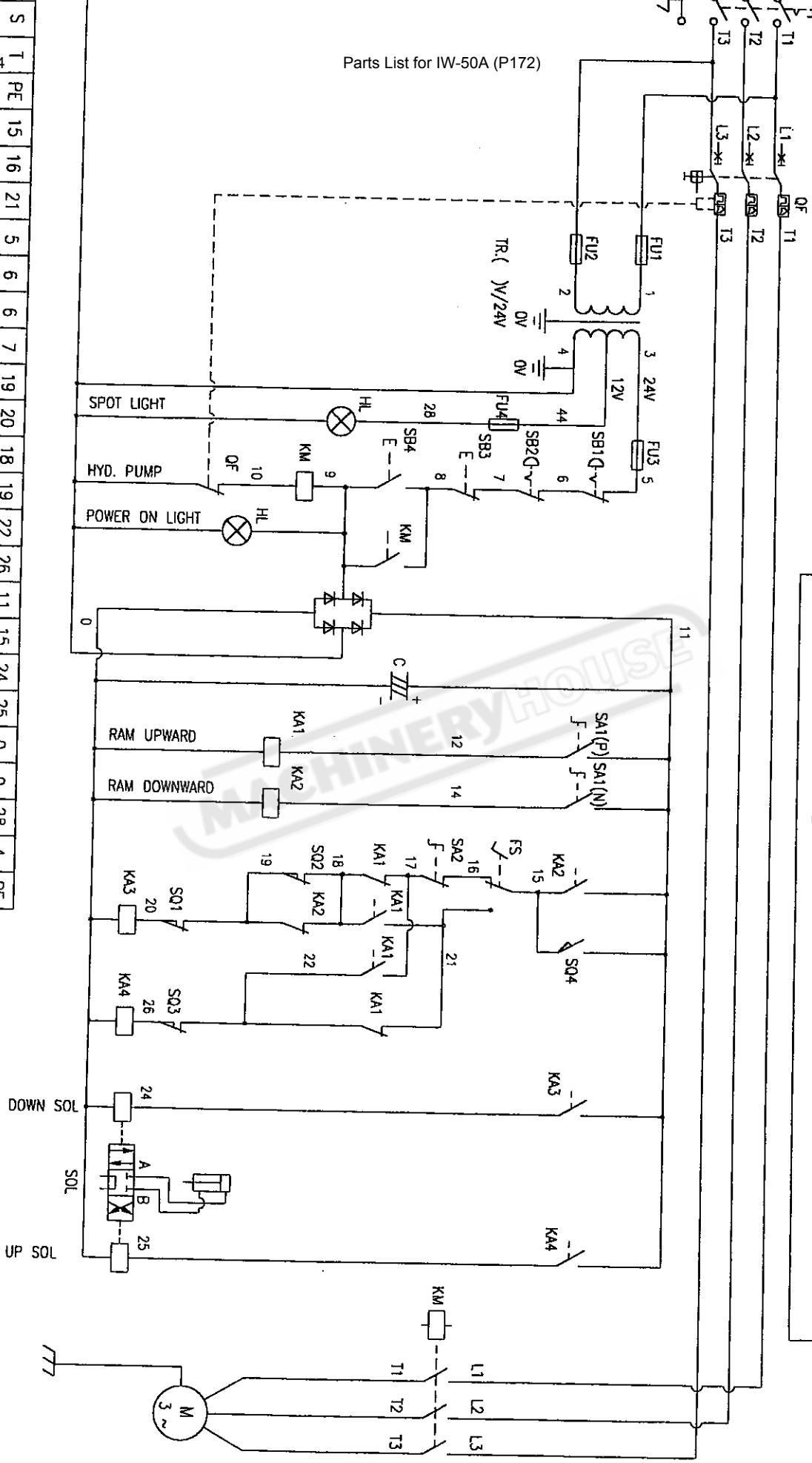


R	S	T	PE	21	12	18	5	6	14	15	16	17	10	21	19	20	0	0	PE
POWER SOURCE				FS	Y	SB1	Y	SQ1	Y	SQ2	Y	SQ3	Y	SOL	Y	PE			

Electrical Circuit

IW-50A, IW-60H

Parts List for IW-50A (P172)



- SB1: EMERGENCY STOP(A)
- SB2: EMERGENCY STOP(B)
- SB3: PUMP OFF
- SB4: PUMP ON
- OF: MOTOR CIRCUIT BREAKER
- FS: FOOT SWITCH
- SA1: PUNCH/SHEAR/NOTCH
- SA2: NORMAL/JOG
- SQ1: RAM DOWN STOP
- SQ2: SHORT STROKE
- SQ3: RAM UP STOP
- SQ4: NOTCH SAFETY INTERLOCK

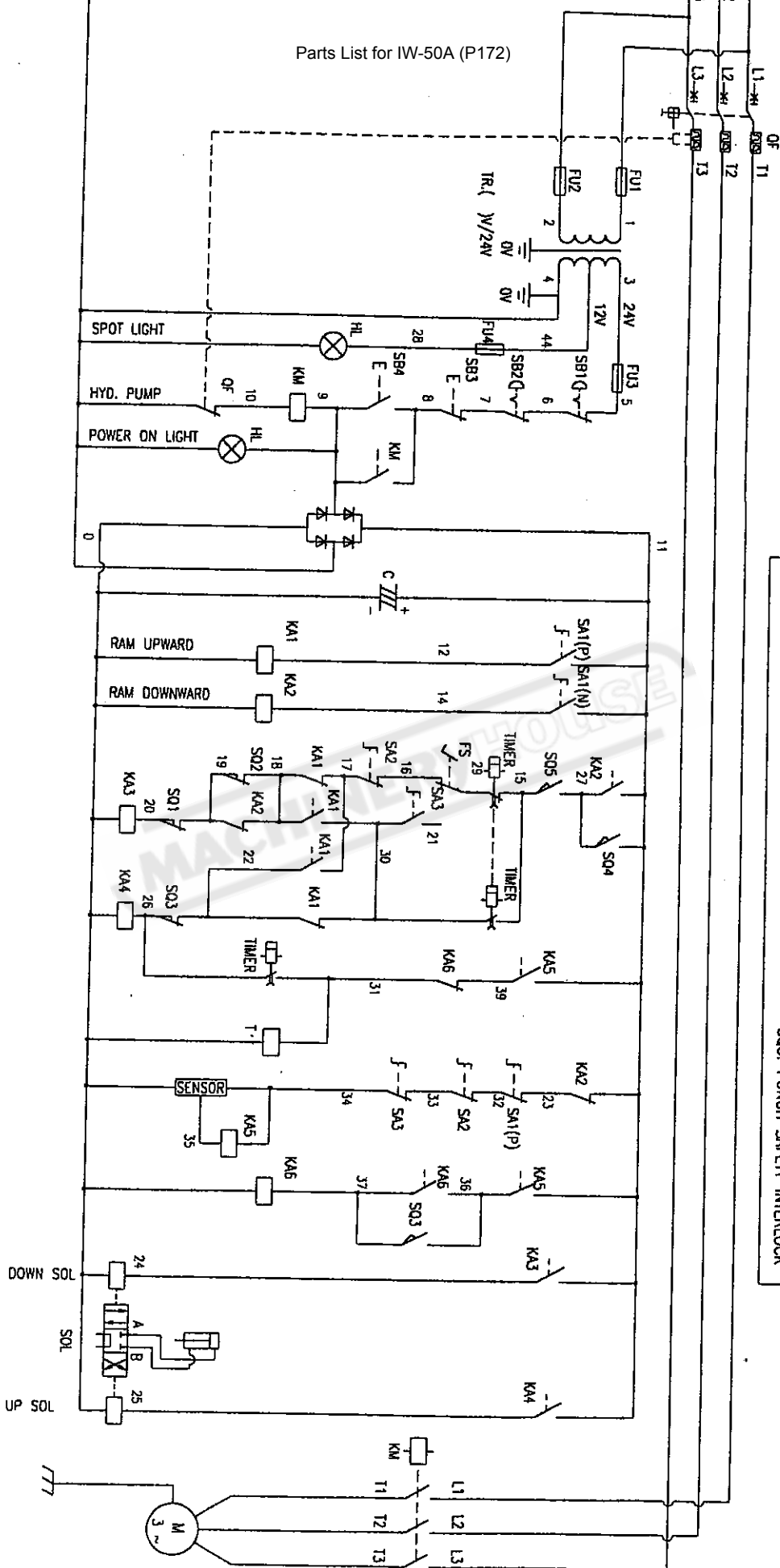
S	T	PE	15	16	21	5	6	6	7	19	20	18	19	22	26	11	15	24	25	0	0	28	4	PE
WATER SOURCE	FS	SB1	SB2	SQ1	SQ2	SQ3	SQ4	SOL	LAMP															

23/8/2012

Electrical Circuit (CE)

IV-50A, IV-60H model with sensor

Parts List for IW-50A (P172)



- SB1: EMERGENCY STOP(A)
- SB2: EMERGENCY STOP(B)
- SB3: PUMP OFF
- SB4: PUMP ON
- OF: MOTOR CIRCUIT BREAKER
- FS: FOOT SWITCH
- SA1: PUNCH/SHEAR/NOTCH
- SA2: NORMAL/JOG
- SA3: AUTO/MANU
- SO1: RAM DOWN STOP
- SO2: SHORT STROKE
- SO3: RAM UP STOP
- SO4: NOTCH SAFETY INTERLOCK
- SO5: PUNCH SAFETY INTERLOCK

T	PE	29	16	21	5	6	6	7	19	20	18	19	22	26	36	37	11	27	15	27	24	25	34	35	0	0	28	4	PE
SOURCE	Δ	FS	人	SB1	人	SB2	人	SQ1	人	SQ2	人	SQ3	人	SQ4	人	SQ5	人	SOL	人	SENSOR	人	LAMP	人						

Electrical Parts

IW-45M (CE)

Code	Description	Quantity	Function
QF	Motor Circuit Breaker	1	Motor Protection
FU1,FU2,FU3	Fuse	3	Control Circuit Protection
QS	Isolator Switch	1	Circuit Interrupter
SB1	Push-Lock Push Bottom	1	Emergency Stop
SB2	Flush Push Bottom (Red)	1	Pump Off
SB3	Flush Push Bottom (Green)	1	Pump On
SA1	Selector Switch	1	Punch / Shear Switch
SA2	Selector Switch	1	Normal / Jog Switch
FS	Foot Switch	1	Foot Switch Control
KA1	Relay	1	Punch / Shear
KA2	Relay	1	Ram Upward
KA3	Relay	1	Ram Downward
SQ1	Limit Switch	1	Ram Up Limit Switch
SQ2	Limit Switch	1	Ram Down Limit Switch
SQ3	Limit Switch	1	Punch Safety Interlock
SOL	Solenoid Valves	1	
KM	Magnetic Switch (Contactors)	1	
	Bridge Rectifiers	1	
Tr	Transformer	1	

Electrical Parts

IW-50A, IW-60H

Code	Description	Quantity	Function
QF	Motor Circuit Breaker	1	Motor Protection
FU1,FU2,FU3	Fuse	3	Control Circuit Protection
FU4	Fuse	1	Spot Light Protection
QS	Isolator Switch	1	Circuit Interrupter
SB1,SB2	Push-Lock Push Bottom	2	Emergency Stop
SB3	Flush Push Bottom (Red)	1	Pump Off
SB4	Flush Push Bottom (Green)	1	Pump On
SA1	Selector Switch	1	Punch/Shear/Notch Switch
SA2	Selector Switch	1	Normal/Jog Switch
FS	Foot Switch	1	Foot Switch Control
KA1	Relay	1	Punch/Shear Stroke
KA2	Relay	1	Notch Stroke
KA3	Relay	1	Ram Downward
KA4	Relay	1	Ram Upward
SQ1	Limit Switch	1	Ram Down Limit Switch
SQ2	Limit Switch	1	Short (Notch) Stroke Limit Switch
SQ3	Limit Switch	1	Ram Up Limit Switch
SQ4	Limit Switch	1	Notch Safety Interlock
SOL	Solenoid Valve	1	
KM	Magnetic Switch (Contactors)	1	
	Bridge Rectifiers	1	
Tr	Transformer	1	

Electrical Parts

IW-50A, IW-60H (CE)

With Electric Backgauge

Code	Description	Quantity	Function
QF	Motor Circuit Breaker	1	Motor Protection
FU1,FU2,FU3	Fuse	3	Control Circuit Protection
FU4	Fuse	1	Spot Light Protection
QS	Isolator Switch	1	Circuit Interrupter
SB1,SB2	Push-Lock Push Bottom	2	Emergency Stop
SB3	Flush Push Bottom (Red)	1	Pump Off
SB4	Flush Push Bottom (Green)	1	Pump On
SA1	Selector Switch	1	Punch/Shear/Notch Switch
SA2	Selector Switch	1	Normal/Jog Switch
SA3	Selector Switch	1	Auto/Manual Switch
FS	Foot Switch	1	Foot Switch Control
KA1	Relay	1	Punch/Shear Stroke
KA2	Relay	1	Notch Stroke
KA3	Relay	1	Ram Downward
KA4	Relay	1	Ram Upward
KA5, KA6	Relay	2	Backgauge Sensor Control
SQ1	Limit Switch	1	Ram Down Limit Switch
SQ2	Limit Switch	1	Short (Notch) Stroke Limit Switch
SQ3	Limit Switch	1	Ram Up Limit Switch
SQ4	Limit Switch	1	Notch Safety Interlock
SQ5	Limit Switch	1	Punch Safety Interlock
T	Timer for Electric Backgauge	1	Sensor Timer
SENSOR	Sensor	1	Backgauge Sensor
SOL	Solenoid Valve	1	
KM	Magnetic Switch	1	
	Bridge Rectifiers	1	
Tr	Transformer	1	

CAPACITIES AND SPECIFICATIONS**SINGLE CYLINDER MODELS**

Unit: mm

MODEL	IW-45M	IW-45K	IW-50A	IW-60H
PUNCHING				
Punching Pressure	45 Ton	45 Ton	50 Ton	60 Ton
Punch Capacity	ø22 x 15	ø22 x 15	ø20 x 18	ø28 x 15
(Diameter x Thickness)	ø40 x 8	ø40 x 8	ø40 x 9	ø40 x 11
Throat Depth	175	165	180	220
Max. Stroke Length	35	30	42	55
Cycles/Min. (15mm stroke)	31	37	24	29
Working Height Up to Die	970	1050	840	1000
FLAT SHEARING				
Flat Bar Shear	350 x 8	300 x 10	300 x 12	350 x 15
(Width x Thickness)	180 x 12	.....	200 x 18	210 x 20
Blade Length	360	310	310	360
Angle Flange Trim	75	75	100	100
Working Height	970	800	1150	1006
ANGLE SHEARING				
At 90° Shearing	80 x 80 x 8	75 x 75 x 6	100 x 100 x 10	100 x 100 x 13
At 45° Miter Shearing	50 x 50 x 6	.....	65 x 65 x 8	80 x 80 x 8
Working Height	1120	1000	850	1236
BAR SHEARING				
Round Bar Shear	ø25	ø30	ø32	ø40
Square Bar Shear	25 x 25	25 x 25	30 x 30	38 x 38
Channel Shear	.....	76*	76*	102*
H Beams Shear	.....	76*	76*	102*
Working Height	1190	1000	880	1260
NOTCHING				
Rectangular Notcher (W x D x T)	50.8 x 90 x 7**	50.8 x 90 x 7	50.8 x 90 x 7	50.8 x 90 x 8
Vee-Notcher (Side x Side x T)	90 x 90 x 8**	90 x 90 x 8*	90 x 90 x 8*	90 x 90 x 10*
Working Height	.....	1050	1150	1006
SPECIAL TOOLING				
Single Vee Press Brake (L x T)	160 x 6*	160 x 8*	160 x 10*	160 x 8*
Multi-Vee Press Brake (L x T)	.....	250 x 4*	250 x 6*	.....
Angle Bending*	65 x 8*	65 x 8*	65 x 8*	65 x 10*
Pipe Notching*	.....	ø63*	ø63*	.....
OTHER				
Electric Power (HP)	5 HP	5 HP	5 HP	7.5 HP
Net Weight (Apr.)	830 kg	840 kg	1130 kg	1500 kg
Gross Weight (Apr.)	930 kg	940 kg	1250 kg	1650 kg
Machine Dimensions (Apr.) (L x W x H)	1260 x 700 x 1350	1050 x 760 x 1490	1310 x 770 x 1450	1460 x 770 x 1560
Packing Dimensions (Apr.) (L x W x H)	1530 x 860 x 1630	1320 x 920 x 1770	1580 x 930 x 1730	1730 x 930 x 1840

* : Optional Tooling

** : On IW-45M the notcher is optional tooling to be installed at the punching station.

Note: Based on material strength of 45kg/mm² tensile.

Design and specifications subject to change without notice.

An 1-hole die holder and a 2-piece gauging table are provided as standard equipment on all single cylinder models.