

ROUND BENDING MACHINE

Model: W 2 4 Y - 6

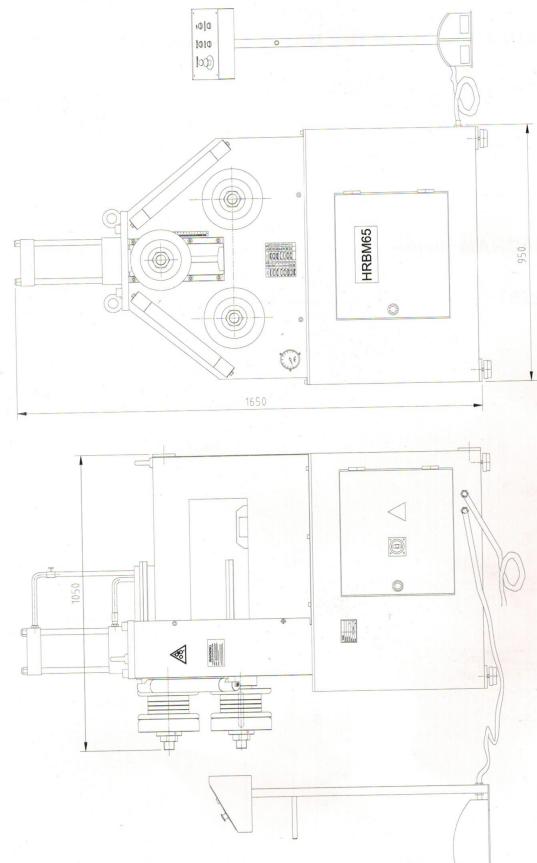


Operation Manual

Table of contents

I. OUTLINE OF MACHINE.....	3
II. INSTALLATION AND USE OF THE MACHINE.....	4
III. MAIN SPECIFICATION	5
IV. USED TO ADJUST.....	7
V. PARTS LIST.....	8
VI. CIRCUIT DIAGRAM.....	13
VII. PACKING LIST.....	14

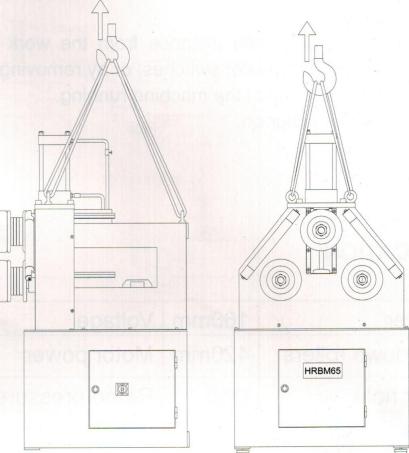
I. OUTLINE OF MACHINE



This machine has the function with a cured rolling. Can tube round steel, angle steel, T shaped steel, channel steel curved sheet metal materials. Adjusted by the movements of the upper round of rolling on the size. Which Is an ideal circular work piece forming equipment.

II. INSTALLATION AND USE OF THE MACHINE

Before preparing the machine for installation and start-up, a detailed visual account is required in order to detect any possible damages that occurred during transporting and handling.



If spare parts of the machine were damaged while shipping, the installation of the machine has to be suspended.

While lifting take care of these points:

- 1) Always lift and carry the machine from the handles.
- 2) Use a steel rope capable of carrying one ton.
- 3) Take precautions for handling and lifting.
- 4) Check if the load is properly balanced by lifting it an inch or two.
- 5) Lift the machine, proceeding with care, without sudden accelerations or quick changes of directions.



Attentions:

Machinery general safety warnings

- For safety, machine must be set up, used and serviced properly.
- Read, understand and follow instructions in the operator's and parts manual which was shipped with your machine.

When setting up machine:

- Always avoid using machine in damp or poorly lighted work areas.
- Always be sure machine is securely anchored to the floor.
- Always keep machine guards in place.
- Always put start switch in "OFF" position before plugging in machine.

1. Wear proper apparel. No loose clothing or jewelry which can get caught in moving parts. Rubber soled foot wear is recommended for best footing.
2. Never leave the machine running while unattended. Machine shall be shut off whenever it is not in operation.
3. Keep work area clean. Cluttered areas invite accidents..
4. Use only recommended accessories and follow manufacturers instructions pertaining to them.
5. All visitors should be kept at a safe distance from the work area. Make workshop completely safe by using padlocks, master switches, or by removing starter keys.
6. Never place any part of your body at the machine running.

Never service machine with motor on.

III. MAIN SPECIFICATION

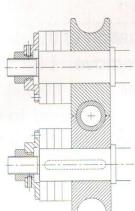
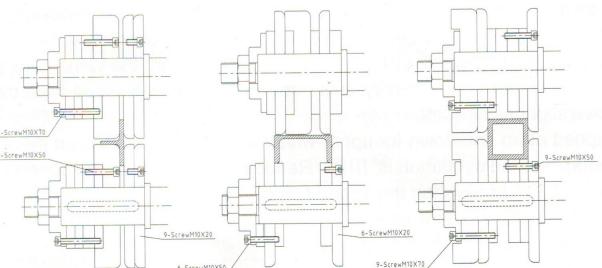
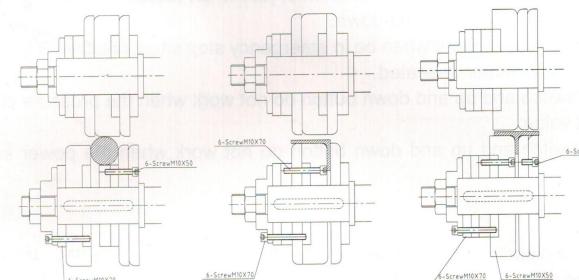
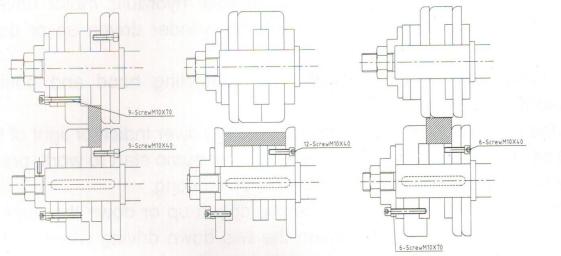
1.

Travel of upper roller	160mm	Voltage	220V
Distance between down rollers	420mm	Motor power	2.25Kw
Dia. of rollers inner hole	Φ65	Rated pressure	10 MPa
Dia. of tube wheels	Φ195	Outer speed	5~20rpm

2. REEL CAPACITY

Profile	Size (mm)	MinΦ (mm)	Profile	Size (mm)	MinΦ (mm)
	120X25 50X10	600 400		80x40X7 40x40X5	500 400
	50 20	600 400		100x50x6 50x40x5	600 500
	Ø50 Ø20	600 400		100x50x6 50x40x5	500 400
	70X6 40X5	500 400		3 1/2 x 2 2 1/8 x 2	900 500
	70X6 40X5	600 500		Ø100X2 Ø60X2	1000 500
	80x40X7 40x40X5	500 400		70X70X3 30X30X3	900 500
	80x40X7 40x40X5	400 360		80X40X3 50X30X2	800 500

3. DIAGRAM OF WHEEL COMBINATION



IV. USED TO ADJUST

This rolling machine is fully hydraulic controls: hydraulic motor driven the wheels turning, telescopic of the piston rod for hydraulic cylinder driven up or down the upper wheel.

Before using, please remove I  protecting hood and pour 32# or 46# hydraulic oil into it.

1. Turn the power switch I , and while the power indicator light of the foot switch on the control panel. Press start button, the hydraulic pump start to work, press stop button or emergency stop button, the hydraulic pump stop working.

2. Press up or down press, the hydraulic driven up or down the upper wheel; tread the foot switch, hydraulic motor will driven the two down driving wheel turning, while the upper wheel can not moving at the same time, just when loosen the foot switch the upper wheel will be performing go up and down.

3. Oil bump do not work when be in emergency stop situation, it work have to be after the emergency stop button reseated.

4. Foot switch and up and down button do not work when the pressure can not reach to the request value.

Foot switch and up and down button do not work when the power supply wiring incorrect.



Ordinarily, the system's total pressure below 15MPa. When load, III  the value of pressure gage below 10MPa. General to consider the life of the machine and the cross section deformation of the material volume, the value of pressure gage must be below 10MPa. The value could adjusted by the III  overflow valve.

The adjust of overflow valve III  : when precession, the value of gage raised; when backout, the value of gage mifcify. It is about 5MPa when finished from the factory, but could revolve slight as needed.

5. The speed of up and down for upper wheel adjusted depending on the shape and thickness of workpiece, adjust button is III②. Reduce the screw then the speed for up and down slowly, stretch the screw then the speed faster.

6. Turn II  , make spare part II④ ⑤ ⑥ face outside, could adjust the degree of plane for the great circle of the rolled material.

* LUBRICATION AND MAINTENANCE ON THE MACHINE

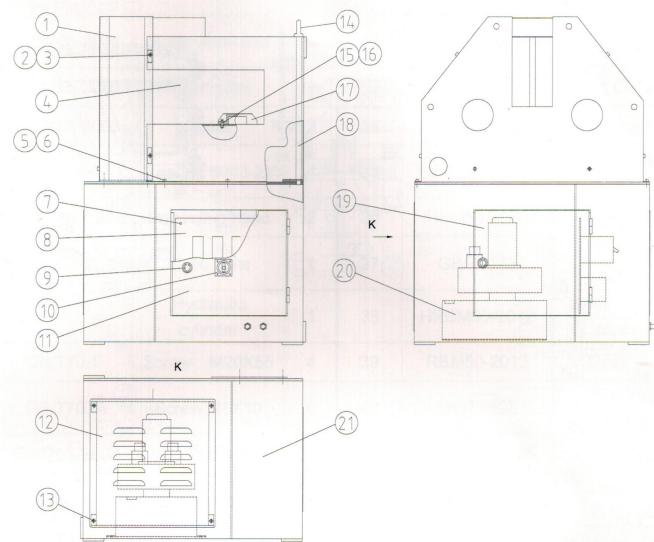
1. Often remove I  the protecting hood to observe the situation of the oil in the tank.

2. According to the operating frequency of the machine, remove I  the protecting hood, monthly or weekly, and smear the grease or oil to the gear.

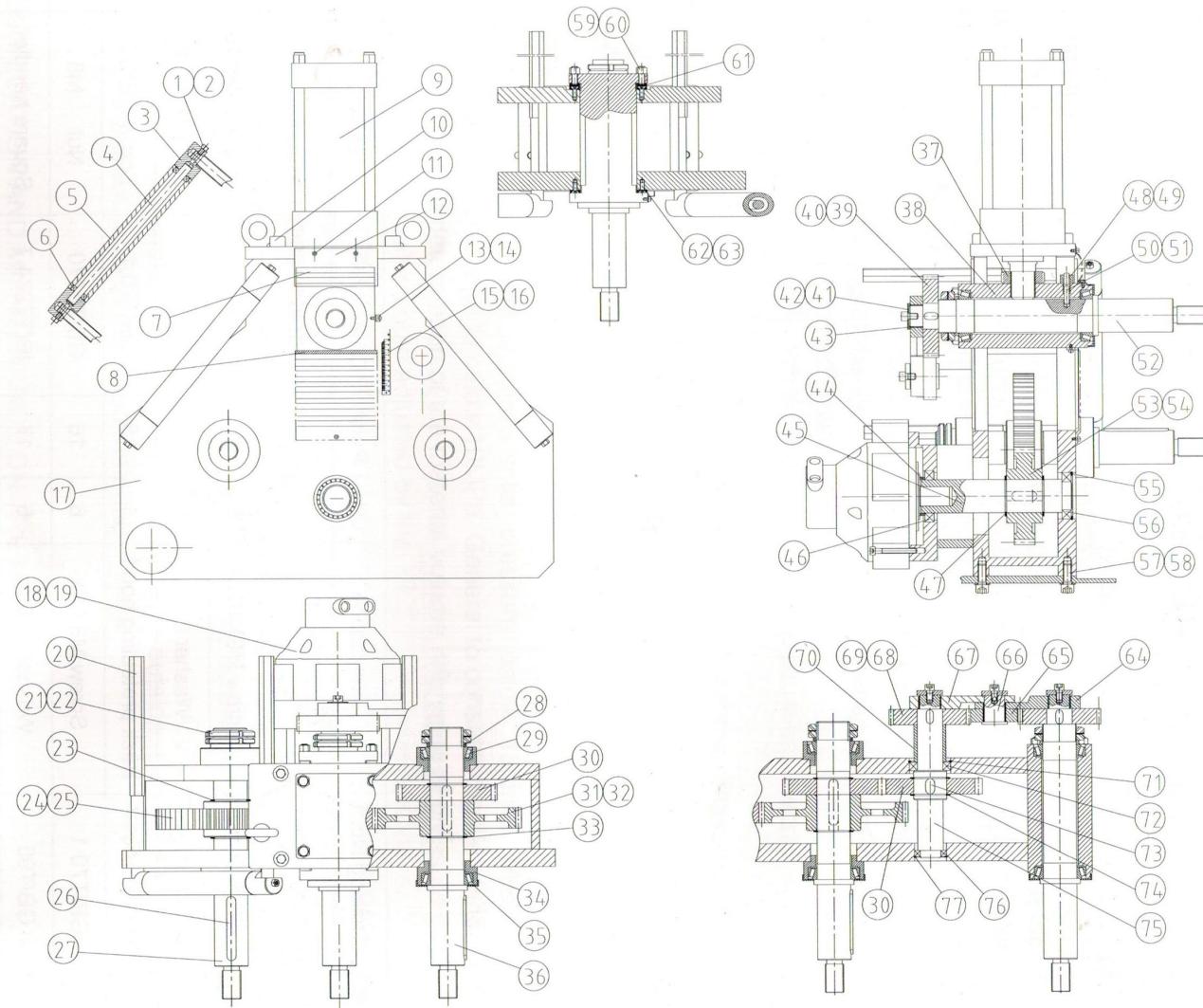
3. If you let the three wheels working in the horizontal plane, you need to first take the hydraulic station out of the machine, and then put the machine down and let it face up, then put the hydraulic station into I  the base to be fixed.

V.PARTS LIST

1.



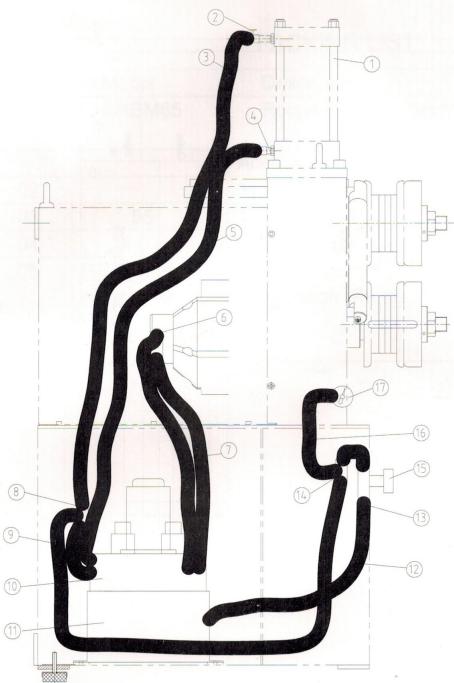
Part#	Drawing No.	Description	Q'ty	Part#	Drawing No.	Description	Q'ty
1	HRBM65-1001	Upper protecting hood	1	12	HRBM65-1008	Base cover	1
2	GB/T70.1	Screw M8X10	6	13	GB/T70.1	Screw M8X10	4
3	GB/T95	Washer 8	6	14	GB/T825	Ringbolt M16	3
4	HRBM65-1002	Back protecting hood	1	15	GB/T70.1	Screw M8X20	4
5	GB/T70.1	Screw M8X10	6	16	GB/T6170	Nut M8	4
6	GB/T95	Washer 8	6	17	JB/T7274.7	Square handle	2
7	GB/T70.1	Screw M6X20	4	18	HRBM65-1004	Back rod	1
8	HRBM65-1003	Electroplax	1	19	HRBM65-1006	Upper cover of base	1
9	MS705-1	Safety locker	2	20		Hydraulic station	1
10		Power switch	1	21	HRBM65-1007	base	1
11	HRBM65-1005	Right cover of base	1				



Part#	Drawing No.	Description	Q'ty	Part#	Drawing No.	Description	Q'ty
1	GB/T77	Screw M8X20	4	30	HRBM65-2020	Transition Gear	2
2	GB/T6172.1	Thin nut M8	4	31	HRBM65-2008	Driving shaft gear	1
3	HRBM65-2001	Roller shaft end	4	32	GB/T1096	Flat key 18X90	1
4	HRBM65-2002	Inner roller	2	33	GB/T894.1	Shaft Collar 65	2
5	HRBM65-2003	Roller	2	34	HRBM65-2007	Bearing set	4
6	GB/T276	Bearing 6003-2z	4	35	HRBM65-2005	Bearing sleeve cover	3
7		Protecting hood	2	36	HRBM65-2006A	Driving shaft	1
8	HRBM65-2029	Fixed plate	1	37	GB/T6173	Thin nut M48X1.5	1
9		Hydraulic cylinder	1	38	HRBM65-2012	Block from the skating	1
10	GB/T70.1	Screw M20X55	4	39	RBM50-2012	Gear	1
11	GB/T70.1	Screw M5X10	8	40	GB/T1096	Flat key 14x28	1
12	HRBM65-2028	Upper fixed plate	2	41	HRBM65-2025	Gland	3
13	RBM50-3003	indicator	1	42	GB/T70.1	Screw M12X20	3
14	GB/T70.1	Screw M5X10	1	43	SF-1	Bush 40x44x25	2
15	RBM40-135	Ruler	1	44	HRBM65-2017	Sleeve	1
16	GB/T827	Rivet	3	45	HRBM65-2013	Middle shaft	1
17	HRBM65-2010	Engine base	1	46	GB/T276	Bearing 6013	1
18		Hydraulic motor	1	47	GB/T894.1	Shaft collar 65	2
19	GB/T70.1	Screw M12X40	5	48	HRBM65-2014	Pin gland	1
20	HRBM65-2004	Hexagon screw	4	49	GB/T70.1	Screw M8x20	2
21	GB/T812	Roud nut M65X2	6	50	HRBM65-2015	Pin roll	1
22	GB/T858	Washers 65	3	51	BS230V-1011	Spring	1
23	GB/T894.1	Shaft Collar 65	2	52	HRBM65-2011	Driven shaft	1
24	HRBM65-2008	Driving shaft gear	1	53	HRBM65-2016	Gear	1
25	GB/T1096	Flat key 18X50	1	54	GB/T1096	Flat key 18x50	1
26	GB/T1096	Flat key 18X125	3	55	GB/T893.1	Hole ring 90	1

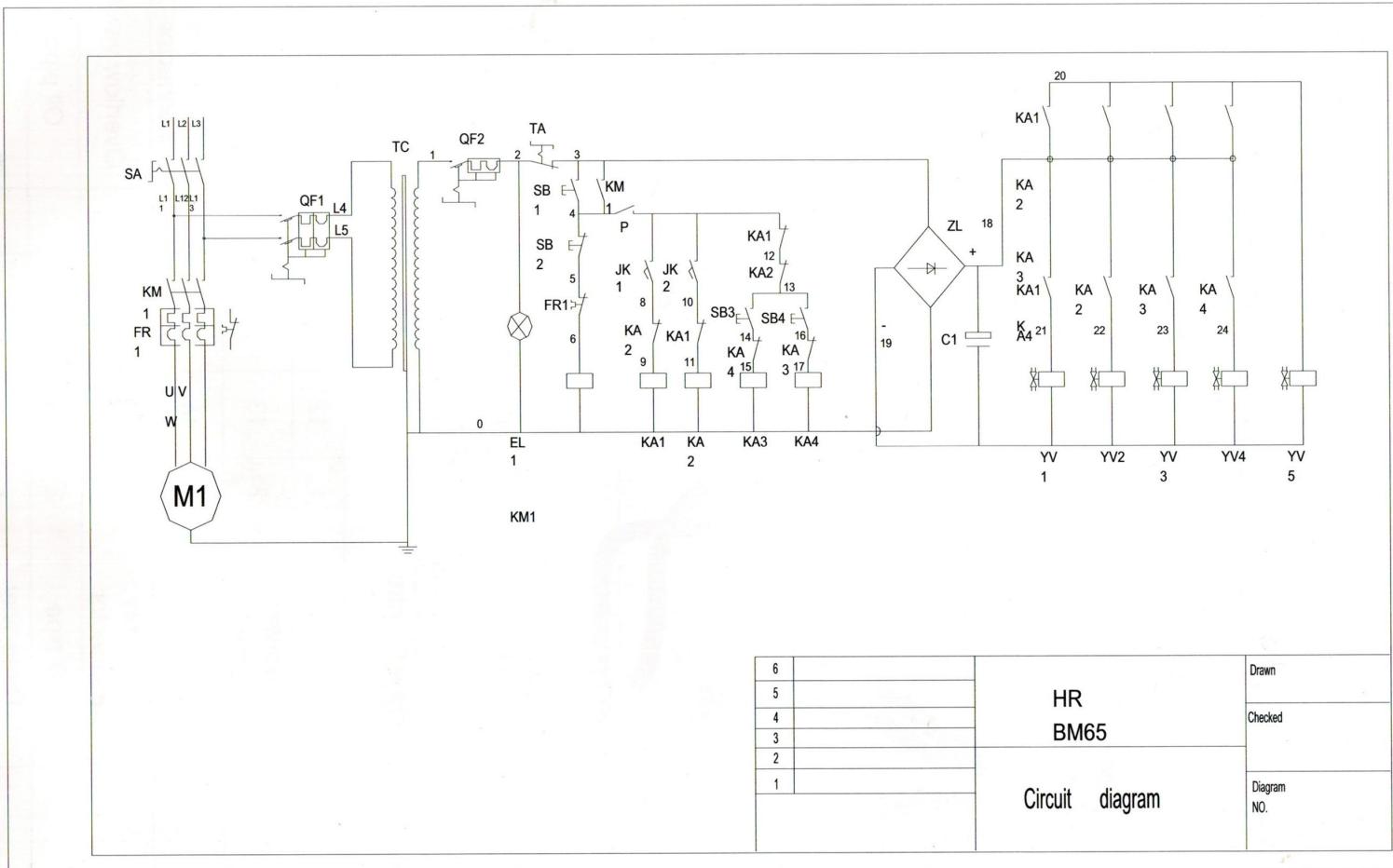
Part#	Drawing No.	Description	Q'ty	Part#	Drawing No.	Description	Q'ty
27	HRBM65-2006	Driving shaft	1	56	GB/T276	Bearing 6011	1
28	HRBM65-2009	Septum	3	57	GB/T70.1	Screw M16X40	6
29	GB/T297	Tapered Roller Bearings 32013	6	58	GB/T95	Washer 16	6
59	GB/T77	Screw M12X35	4	70	HRBM65-2022	Sleeve	1
60	GB/T6170	Nut M12	4	71	GB/T893.1	Hole ring 80	1
61	HRBM65-2019	Compression sliders	2	72	GB/T276	Bearing 6010	1
62	HRBM65-2018	Oriented slider	4	73	GB/T1096	Flat key 18x50	1
63	GB/T70.3	Screw M8X12	16	74	GB/T894.1	Shaft Collar 65	2
64	HRBM65-2024	With board	1	75	HRBM65-2021	Axis transition	1
65	HRBM65-2027	Introduction round	1	76	GB/T276	Bearing 61908	1
66	HRBM65-2026	Introduction axle	1	77	GB/T893.1	Hole ring 62	1
67	HRBM65-2023	With board	1				
68	RBM50-2012	Gear	1				
69	GB/T1096	Flat key 14x28	4				

3.



Part#	Drawing No.	Specification	Q'ty	Part#	Drawing No.	Specification	Q'ty
1		Hydraulic cylinder	1	10		Magnetic valve	1
2		Speed control valve	1	11		Hydraulic station	1
3		Oil pipe	1	12		Oil pipe	1
4		Two-way connector	2	13		Two-way connector	1
5		Oil pipe	1	14		Three-way connector	1
6		Two-way connector	2	15		Overflow valve	1
7		Oil pipe	2	16		Oil pipe	1
8		Three-way connector	1	17		Pressure gage	1
9		Oil pipe	1				

VI. CIRCUIT DIAGRAM



VII. PACKING LIST

PACKING LIST

Item	Model	Description	Qty	Remark
01	HRBM65	Round bending machine	1pc	
Accessories				
02		Wheel(upper/down)		Request
03	55	Wrench stay	1	
04	4,6,8	Allen wrench	1pc unit kind	
05	GB/T70.1	Screw using for the combination wheels	M10X20 9 pcs M10X40 9 pcs M10X50 9 pcs M10X70 9 pcs	