



## **JPSG-1020FM Metal working Surface Grinder**

**JT1-131 3~400V 50Hz**

### **PARTS LIST**



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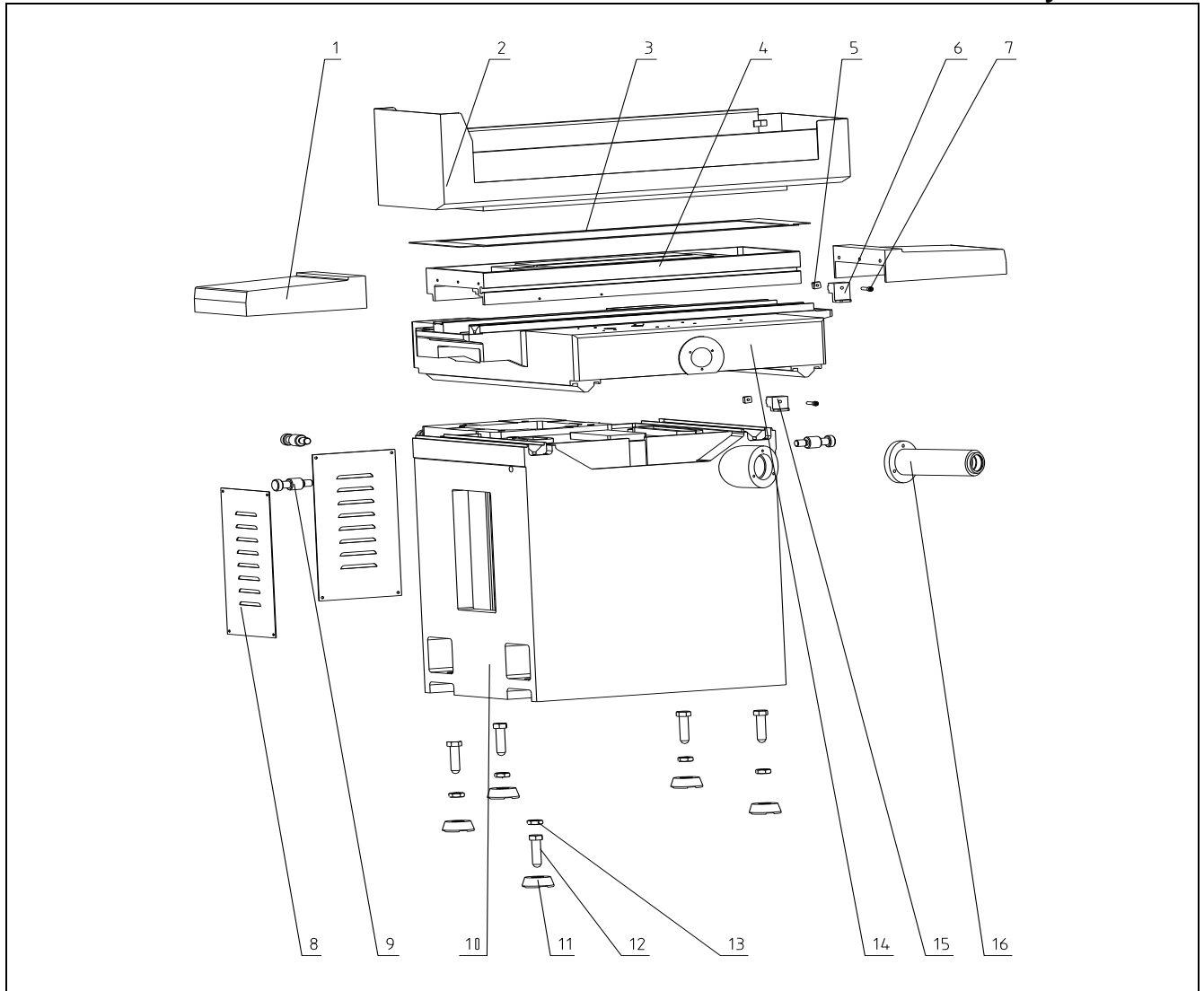
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Made in PRC / Сделано в КНР

P- JT1-131

2024-11

**Exploded View for JPSG-1020FM Metal Working Surface Grinder----A**  
**Table assembly structure**

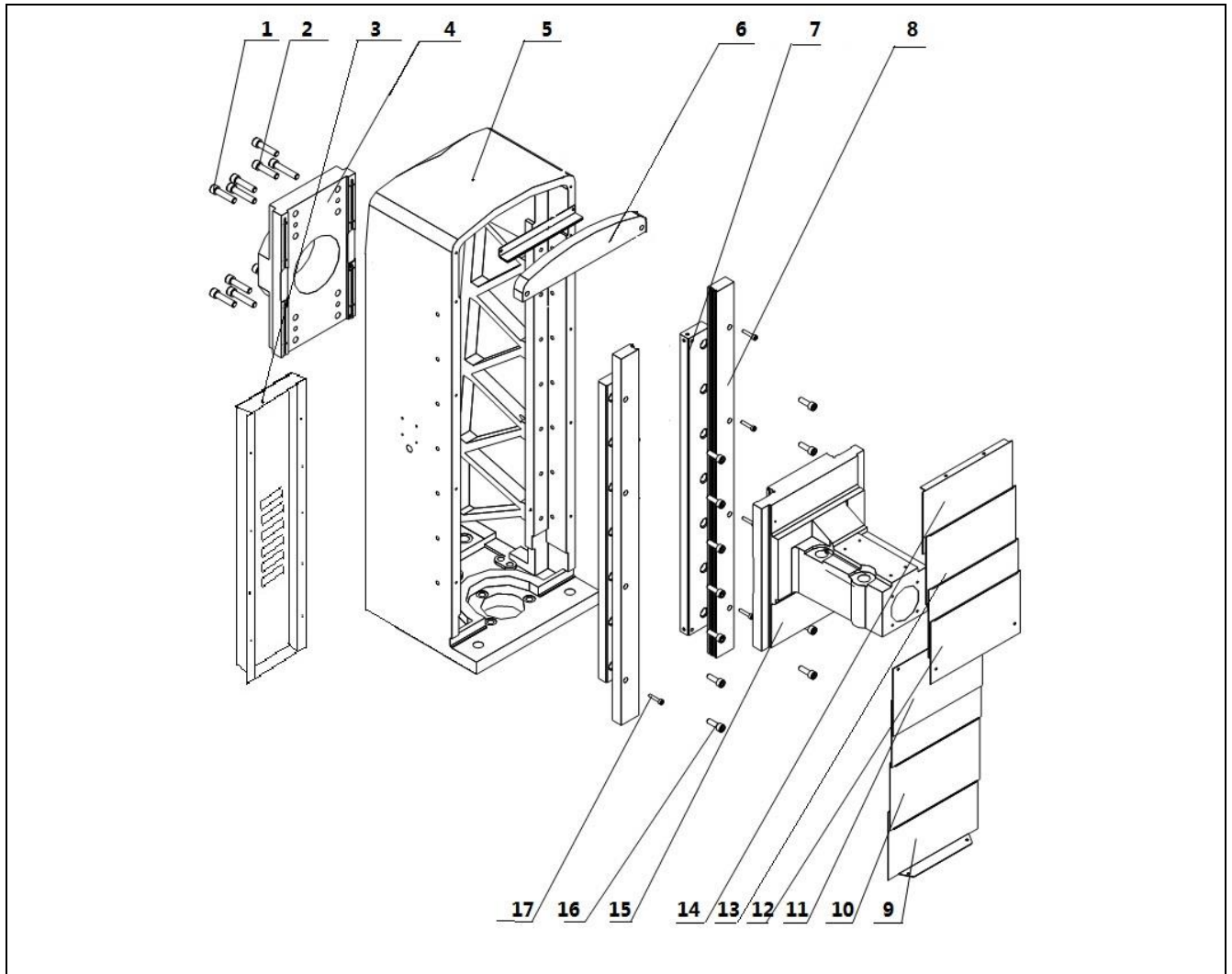


**Part List for JPSG-1020FM Metal Working Surface Grinder – A**  
**Table assembly structure**

Index No.	Part No.	Description	Size	Qty.
1	JPSG1020FM-A01	Left And Right Guard		2
2	JPSG1020FM-A02	Splashing Guard		1
3	JPSG1020FM-A03	Water-Proof Cushion		1
4	JPSG1020FM-A04	Work Table		1
5	JPSG1020FM-A05	Square Nut		2
6	JPSG1020FM-A06	Right Limit ADJ Block		1
7	TS-1504081	Socket Head Cap Screw	M8x40	2
8	JPSG1020FM-A08	Shutter		2
9	JPSG1020FM-A09	Hoisting Set		4
10	JPSG1020FM-A10	Machine Bed		1
11	JPSG1020FM-A11	Leveling Wedge		5
12	JPSG1020FM-A12	Leveling Screw		5
13	JPSG1020FM-A13	Hexagon Nut	M22	5
14	JPSG1020FM-A14	Saddle		1
15	JPSG1020FM-A15	Left Limit ADJ Block		1
16	JPSG1020FM-A16	Extension Shaft Bracket		1
17	JPSG1020FM-A17	Left And Right Guard		2

## Exploded View for JPSG-1020FM Metal Working Surface Grinder----B

### Column structure

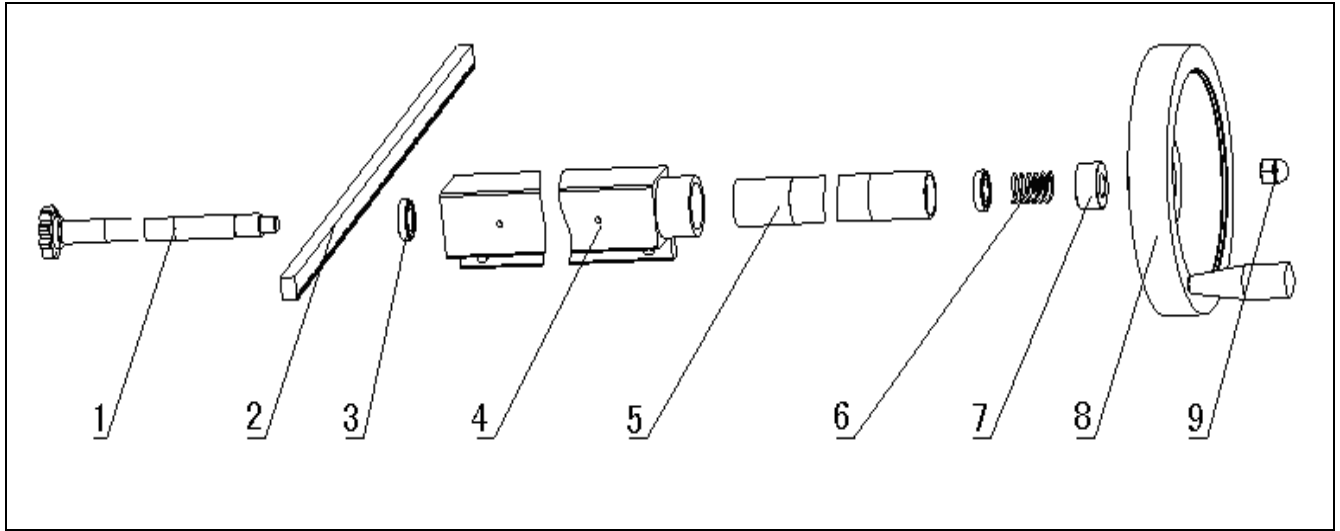


## Part List for JPSG-1020FM Metal Working Surface Grinder – B

### Column Structure

Index No.	Part No.	Description	Size	Qty.
1	TS-1506071	Socket Head Cap Screw	M12x50	8
2	TS-1506091	Socket Head Cap Screw	M12x60	4
3	JPSG1020FM-B03	Column Rear Guard		1
4	JPSG1020FM-B04	Motor Fixed Plate		1
5	JPSG1020FM-B05	Column		1
6	JPSG1020FM-B06	Upper Clamping Strip		1
7	JPSG1020FM-B07	Steel Guide Way		2
8	JPSG1020FM-B08	Guide Plate		2
9	JPSG1020FM-B09	Dust-Proof Plate		1
10	JPSG1020FM-B10	Dust-Proof Plate		1
11	JPSG1020FM-B11	Dust-Proof Plate		1
12	JPSG1020FM-B12	Dust-Proof Plate		1
13	JPSG1020FM-B13	Dust-Proof Plate		1
14	JPSG1020FM-B14	Dust-Proof Plate		1
15	JPSG1020FM-B15	Spindle House		1
16	TS-1503071	Socket Head Cap Screw	M6x30	10
17	TS-1505041	Socket Head Cap Screw	M10x30	14

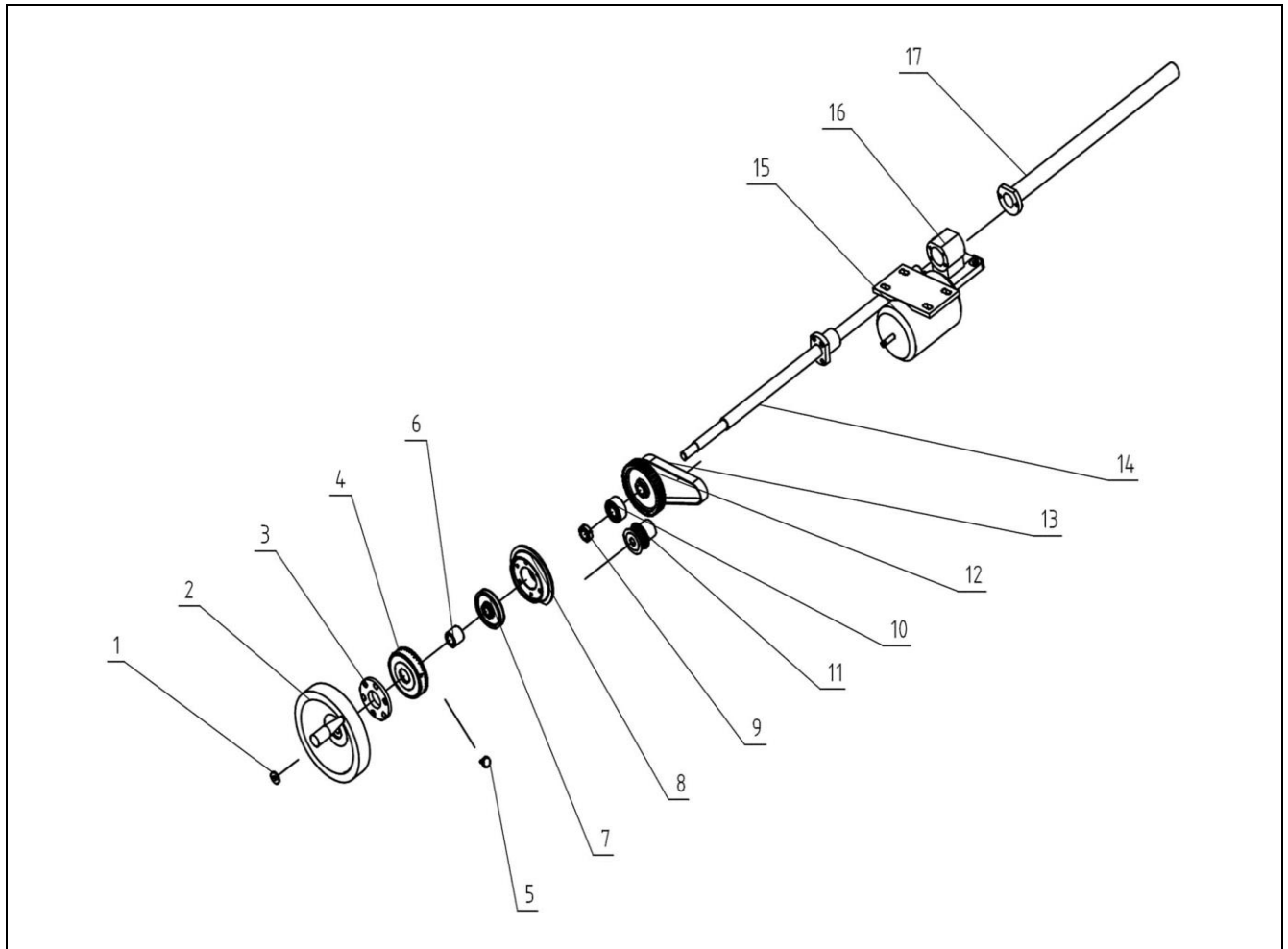
**Exploded View for JPSG-1020FM Metal Working Surface Grinder----C  
Table Longitudinal Manual Feed Structure**



**Part List for JPSG-1020FM Metal Working Surface Grinder – C  
Table Longitudinal Manual Feed Structure**

Index No.	Part No.	Description	Size	Qty.
1	JPSG1020FM-C01	Gear Shaft		1
2	JPSG1020FM-C02	Rack		1
3	JPSG1020FM-C03	Deep-Furrow Ball Bearing	61903-2RZ	2
4	JPSG1020FM-C04	Gear Shaft Bracket		1
5	JPSG1020FM-C05	Driven Shaft Sleeve		1
6	JPSG1020FM-C06	Spring		1
7	JPSG1020FM-C07	Copper Sleeve		1
8	JPSG1020FM-C08	Hand Wheel	15*200 HY8313.7	1
9	JPSG1020FM-C09	Acorn Nut	M12	1
10	JPSG1020FM-C10			

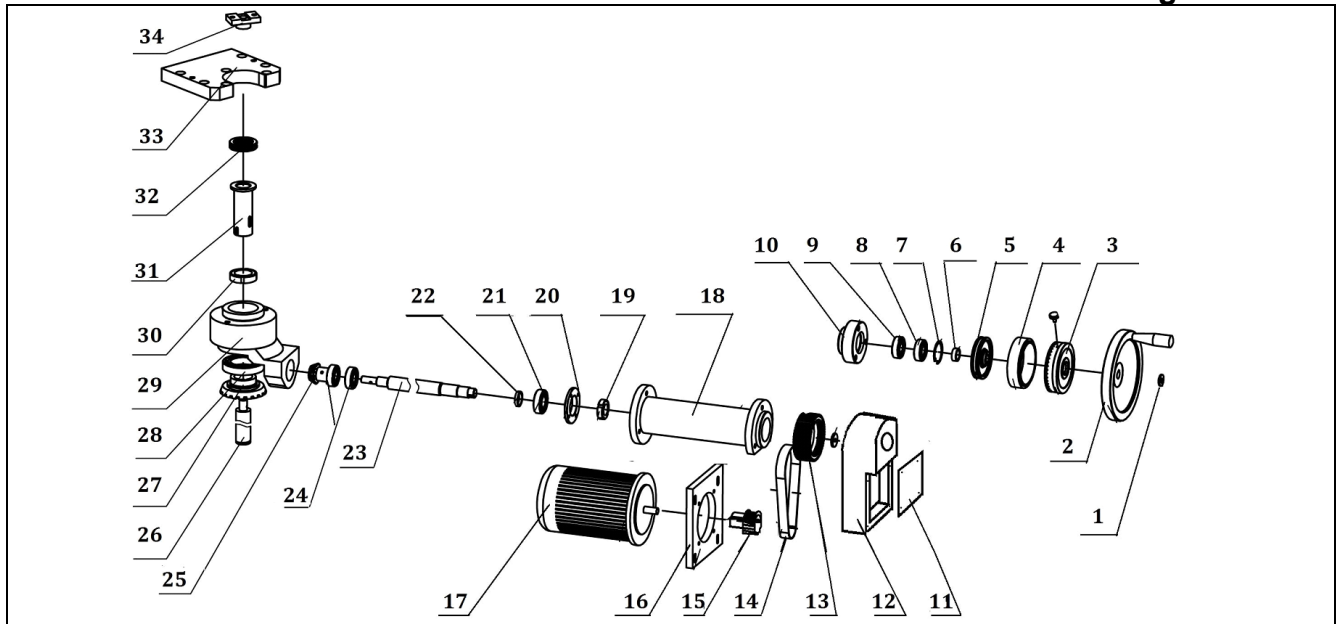
**Exploded View for JPSG-1020FM Metal Working Surface Grinder----D  
Cross Feed Structure**



**Part List for JPSG-1020FM Metal Working Surface Grinder – D  
Cross Feed Structure**

Index No.	Part No.	Description	Size	Qty.
1	JPSG1020FM-D01	Star Nut	B-M10*40 HY8314.4	1
2	JPSG1020FM-D02	Hand Wheel	17*200 HY8313.7	1
3	JPSG1020FM-D03	Bearing Cover		1
4	JPSG1020FM-D04	Feed Dial		1
5	JPSG1020FM-D05	Knurling Set Screw	M6x16	1
6	JPSG1020FM-D06	Spacer		1
7	JPSG1020FM-D07	Sleeve		1
8	JPSG1020FM-D08	Vernier Dial Plate		1
9	JPSG1020FM-D09	Round Nut	M20×1.5	1
10	JPSG1020FM-D10	Bearing	3204A (47×20×20.6)	1
11	JPSG1020FM-D11	Small Timing Pulley		1
12	JPSG1020FM-D12	Big Time Pulley		1
13	JPSG1020FM-D13	Timing Belt	187L075	1
14	JPSG1020FM-D14	Cross Lead Screw		1
15	JPSG1020FM-DM3	Cross Feed Motor	(KT516)40W S1 900/min	1
16	JPSG1020FM-D16	Feed Nut Bracket		1
17	JPSG1020FM-D17	Cross Lead Screw Safe Shield		1

## Exploded View for JPSG-1020FM Metal Working Surface Grinder----E Elevating Structure



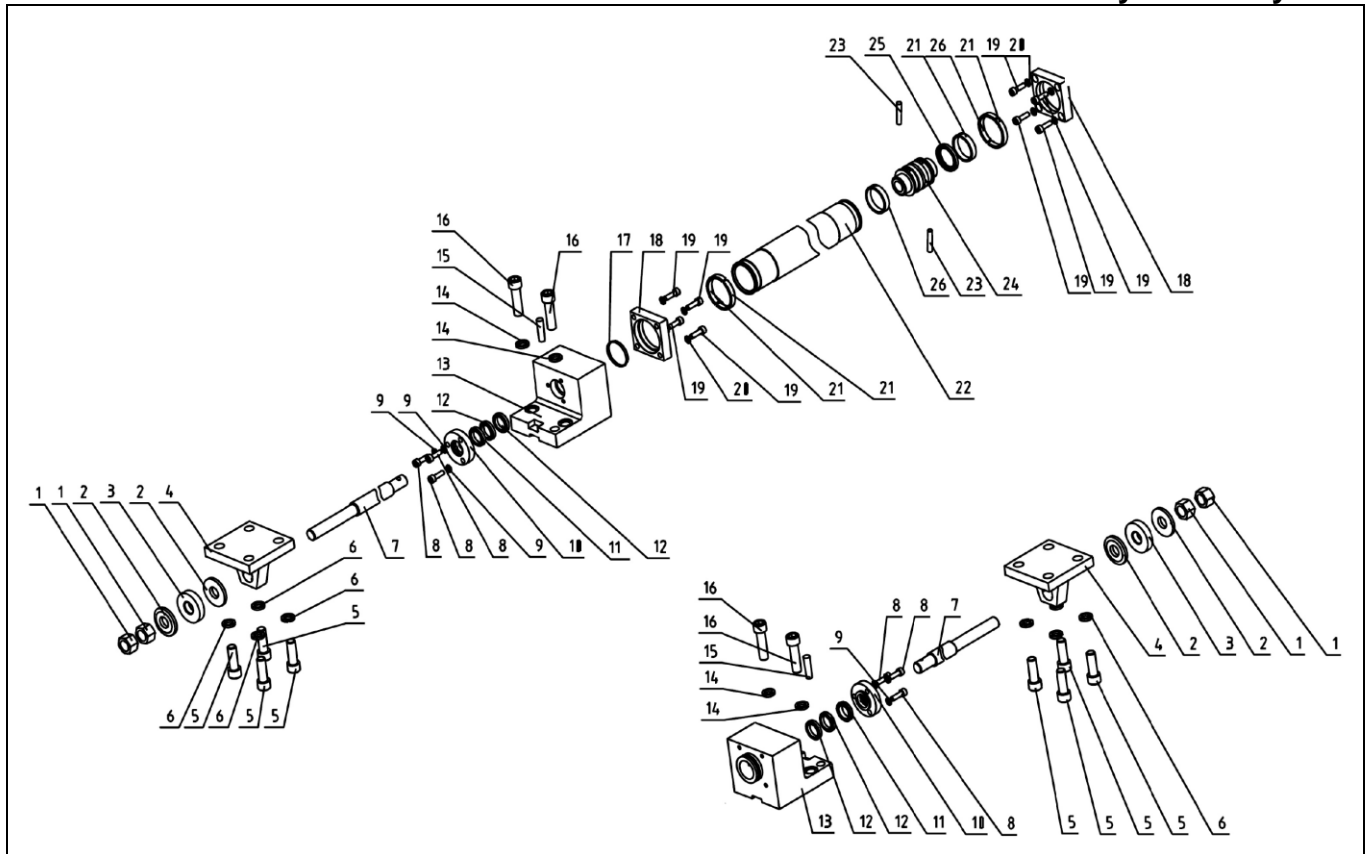
## Part List for JPSG-1020FM Metal Working Surface Grinder – E Elevating Structure

Index No.	Part No.	Description	Size	Qty.
1	JPSG1020FM-E01	Washer		1
2	JPSG1020FM-E02	Hand Wheel	17*250 HY8313.7	1
3	JPSG1020FM-E03	Vertical Feed Dial		1
4	JPSG1020FM-E04	Vernier Dial		1
5	JPSG1020FM-E05	Dial Sleeve	M6x16	1
6	JPSG1020FM-E06	Spacer		1
7	JPSG1020FM-E07	Retaining Washer	C-50	1
8	JPSG1020FM-E09	Deep-Furrow Ball Bearing(6204)	6204-2RZ	1
9	JPSG1020FM-E09	Deep-Furrow Ball Bearing(6204)	6204-2RZ	1
10	JPSG1020FM-E10	Bearing Base		1
11	JPSG1020FM-E11	Cover Plate		1
12	JPSG1020FM-E12	Transmission Box		1
13	JPSG1020FM-E13	Vertical Belt Pulley(Big)		1
14	JPSG1020FM-E14	Timing Belt	203L075/GB11616-89	1
15	JPSG1020FM-E15	Small Pulley		1
16	JPSG1020FM-E16	Fixed Plate For Lifting Motor		1
17	JPSG1020FM-EM4	Motor	400V 50Hz 40W 900/min	1
18	JPSG1020FM-E18	Extension Shaft Bracket		1
19	JPSG1020FM-E19	Round Nut	M25x1.5	1
20	JPSG1020FM-E20	Bearing Cover		1
21	JPSG1020FM-E21	Double-Row Self-Aligning Bearing (1205)	1205(25x52x15)GB/T301	1
22	JPSG1020FM-E22	Washer		1
23	JPSG1020FM-E23	Vertical Shaft		1
24	JPSG1020FM-E24	Deep-Furrow Ball Bearing (6204)	6204-2RZ	2
25	JPSG1020FM-E25	Bevel Pinion		1
26	JPSG1020FM-E26	Vertical Screw		1
27	JPSG1020FM-E27	Bevel Gear		1
28	JPSG1020FM-E28	Deep-Furrow Ball Bearing (6204)	6204-2RZ	1
29	JPSG1020FM-E29	Drive Base		1
30	JPSG1020FM-E30	Round Nut	M40x1.5	1
31	JPSG1020FM-E31	Vertical Nut		1

32	JPSG1020FM-E32	Thrust Bearing(51108)	51108(40x60x13)	1
33	JPSG1020FM-E33	Connecting Plate		1
34	JPSG1020FM-E34	Top Guard		1

### Exploded View for JPSG-1020FM Metal Working Surface Grinder----F

### Hydraulic Cylinder



### Part List for JPSG-1020FM Metal Working Surface Grinder – F

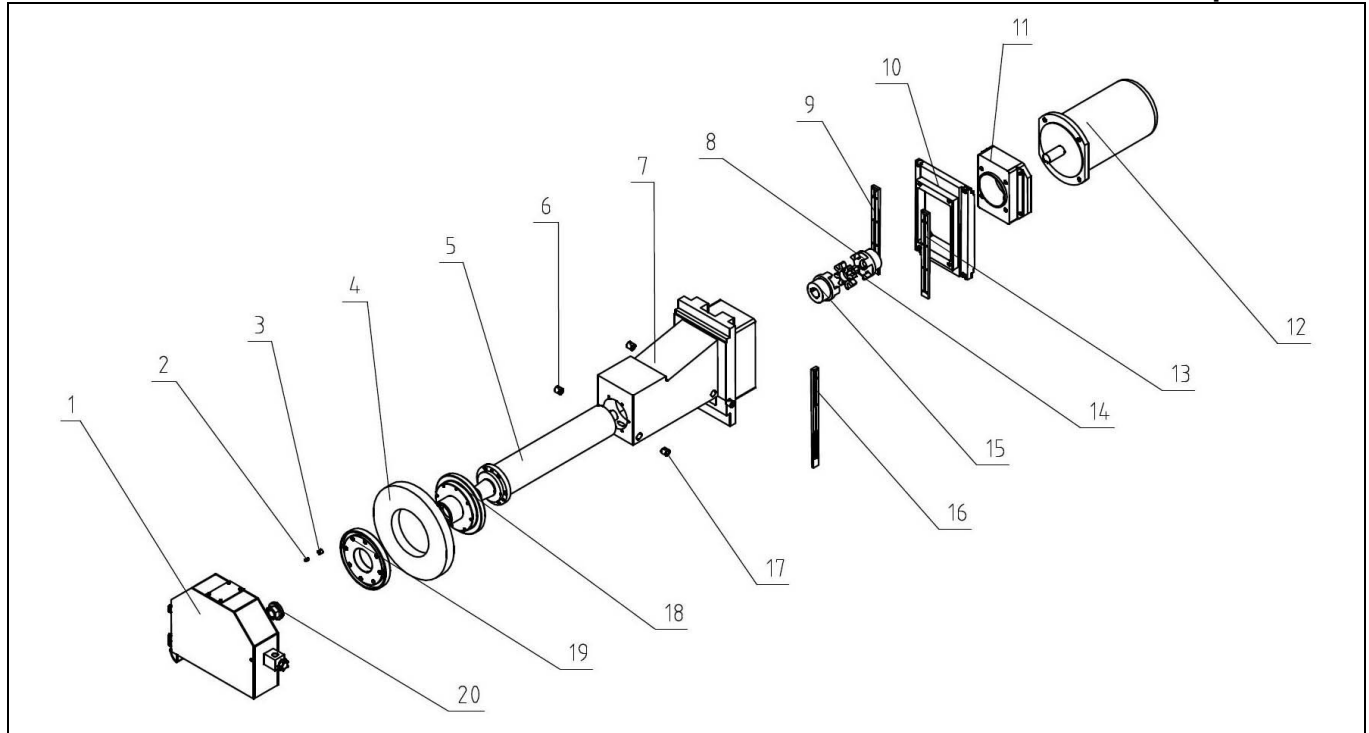
### Hydraulic Cylinder

Index No.	Part No.	Description	Size	Qty.
1	JPSG1020FM-F01	Hexagonal Nut	M16x1.5	4
2	JPSG1020FM-F02	Washer		4
3	JPSG1020FM-F03	Cushion		2
4	JPSG1020FM-F04	Driven Base		2
5	TS-1506051	Socket Head Cap Screw	M12x40	8
6	TS-2361121	Lock Washer	12	8
7	JPSG1020FM-F07	Piston Rod		2
8	TS-1503051	Socket Head Cap Screw	M6x20	6
9	TS-2361061	Lock Washer	6	6
10	JPSG1020FM-F10	End Cap		2
11	JPSG1020FM-F11	Dust-Proof Ring	AD48-20x28x5.3	2
12	JPSG1020FM-F12	Y-Shaped Ring	MA30-20x28x6.3	4
13	JPSG1020FM-F13	Hydraulic Cylinder Bracket		2
14	TS-2361121	Lock Washer	12	4
15	JPSG1020FM-F15	Taper Pin	8x35	2
16	TS-1506051	Socket Head Cap Screw	M12x40	4
17	JPSG1020FM-FM4	O-Shaped Ring	12	2
18	JPSG1020FM-F18	Guard Cover		2
19	TS-1503051	Socket Head Cap Screw	M6x20	8
20	TS-2361061	Lock Washer	6	8
21	JPSG1020FM-F21	Ring		2
22	JPSG1020FM-F22	Hydraulic Cylinder		1
23	JPSG1020FM-F23	Taper Pin	6x30	2

24	JPSG1020FM-F24	Piston		1
25	JPSG1020FM-F25	Hermetic Ring	K30-40A	1
26	JPSG1020FM-F26	Guide Ring	FUR02-8.1x2.5-40-D24	2

### Exploded View for JPSG-1020FM Metal Working Surface Grinder----G

Spindle Unit



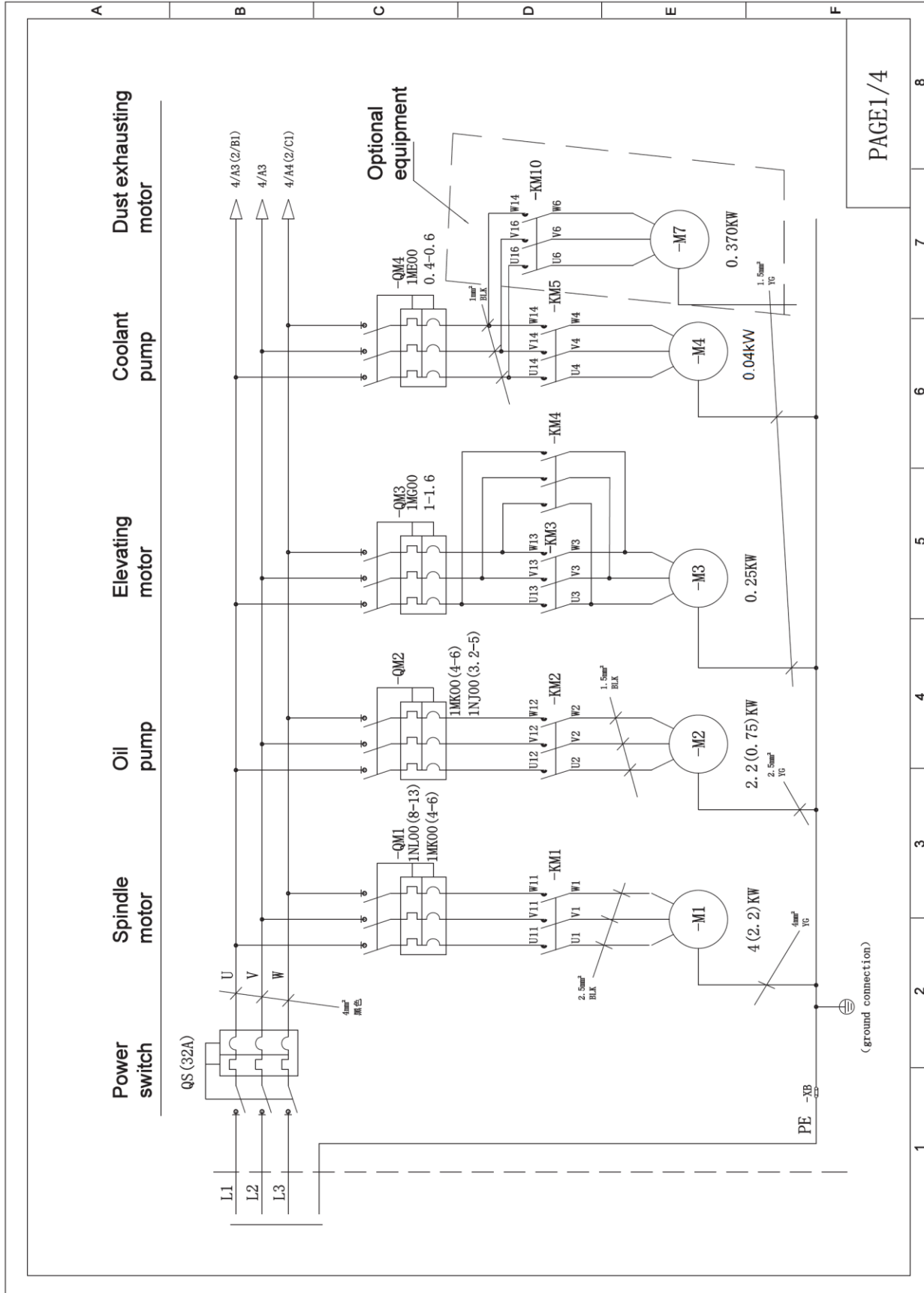
### Part List for JPSG-1020FM Metal Working Surface Grinder – G

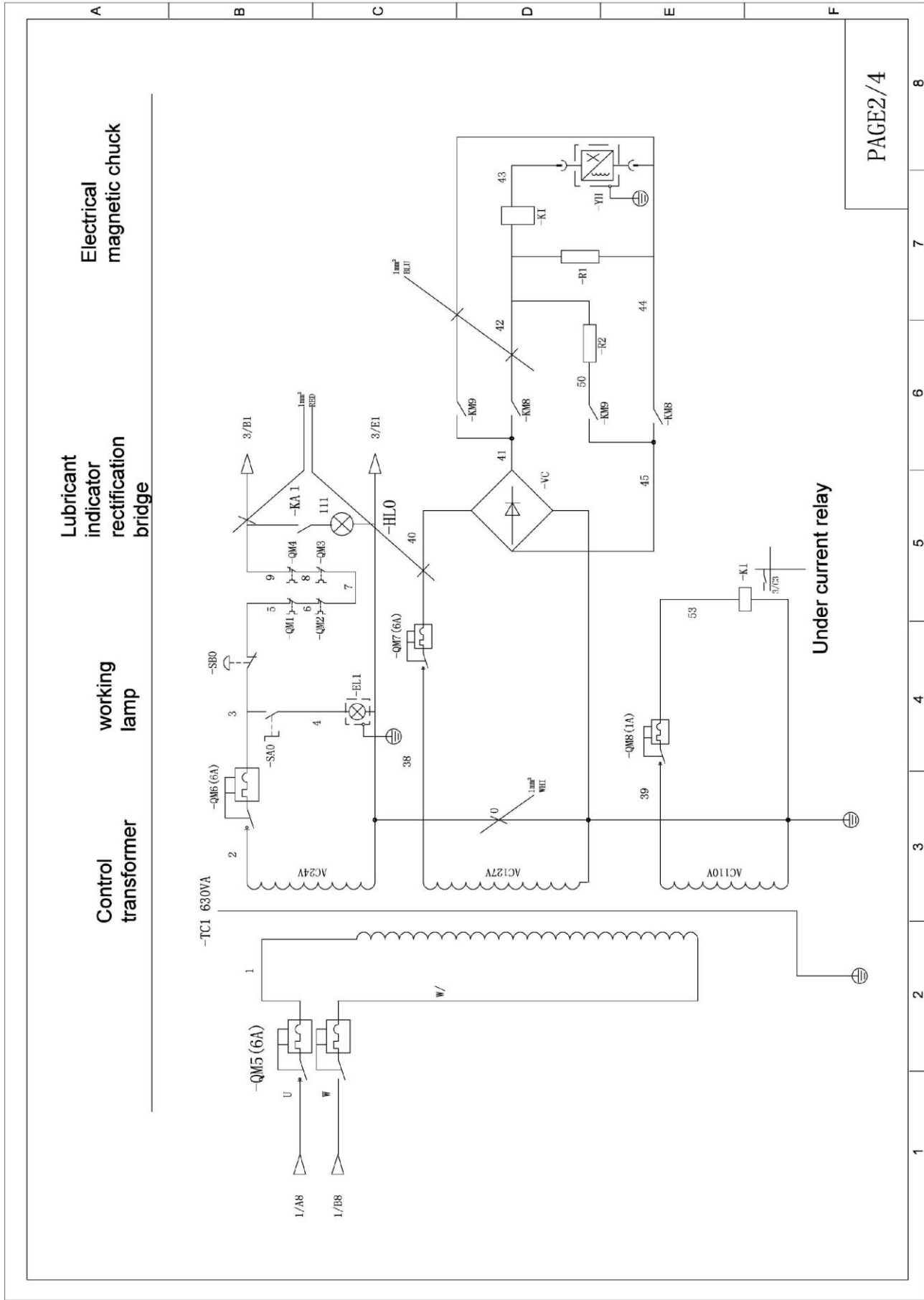
Spindle Unit

Index No.	Part No.	Description	Size	Qty.
1	JPSG1020FM-G01	Grinding Wheel Shield		1
2	JPSG1020FM-G02	Lock Screw		3
3	JPSG1020FM-G03	Balancing Block		3
4	JPSG1020FM-G04	Grinding Wheel		1
5	JPSG1020FM-G05	Spindle		1
6	JPSG1020FM-G06	Plug		2
7	JPSG1020FM-G07	Spindle Housing		1
8	JPSG1020FM-G09	Coupling Connect To Motor Shaft		1
9	JPSG1020FM-G09	Gjb		1
10	JPSG1020FM-G10	Clamping Plate		1
11	JPSG1020FM-G11	Motor Assembling Flange		1
12	JPSG1020FM-GM1	AC Motor		1
13	JPSG1020FM-G13	Gib		1
14	JPSG1020FM-G14	Plastic Insert		1
15	JPSG1020FM-G15	Coupling Connect To The Spindle		1
16	JPSG1020FM-G16	Gib		1
17	JPSG1020FM-GM4	Plug		1
18	JPSG1020FM-G18	Wheel Flange Base		1
19	JPSG1020FM-G19	Wheel Flange Clamping Cover		1
20	JPSG1020FM-G20	Lock Nut		1



# Wiring Diagram for JPSG-1020FM Metal Working Surface Grinder JT1-131 3~400V 50Hz





Control transformer

working lamp

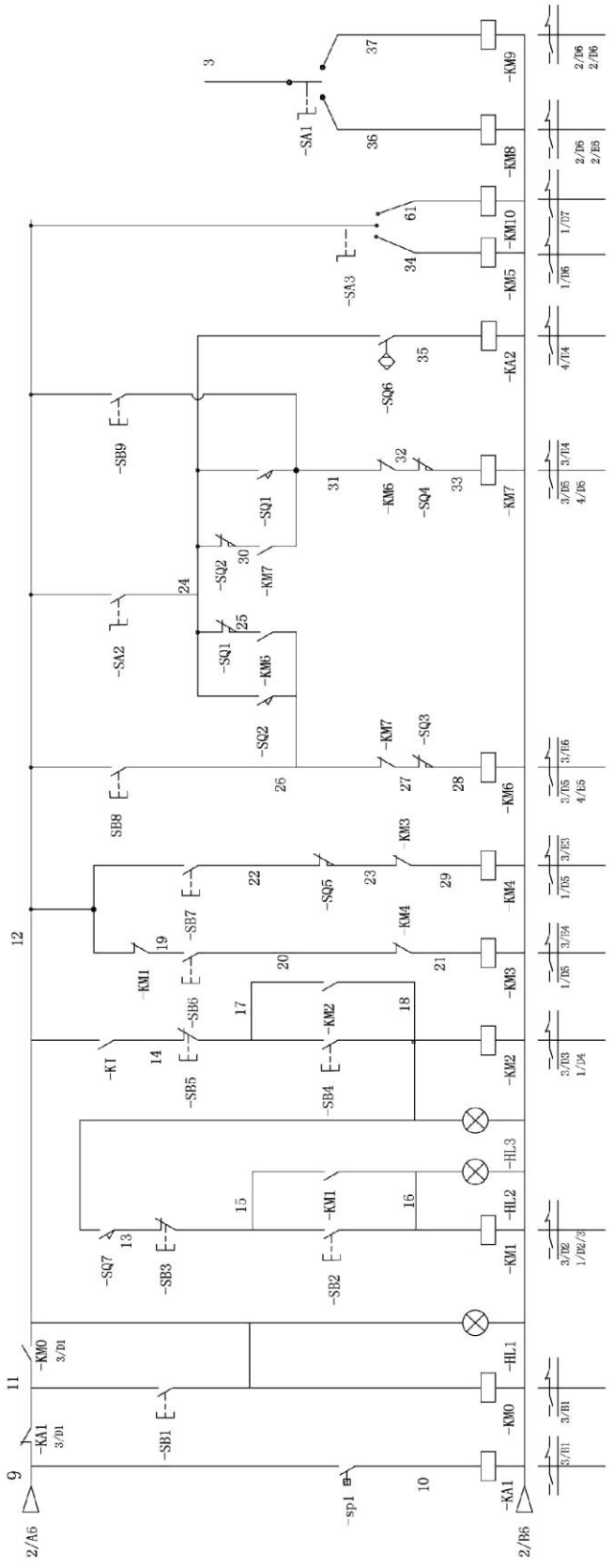
Lubricant indicator rectification bridge

Electrical magnetic chuck

Under current relay

A B C D E F

lubricant protect on | Power on indicator | spindle start | oil pump start | spindle down | spindle up | table move backward | table move forward | table reversing signal | coolant pump start | magnetiz | demagnetiz

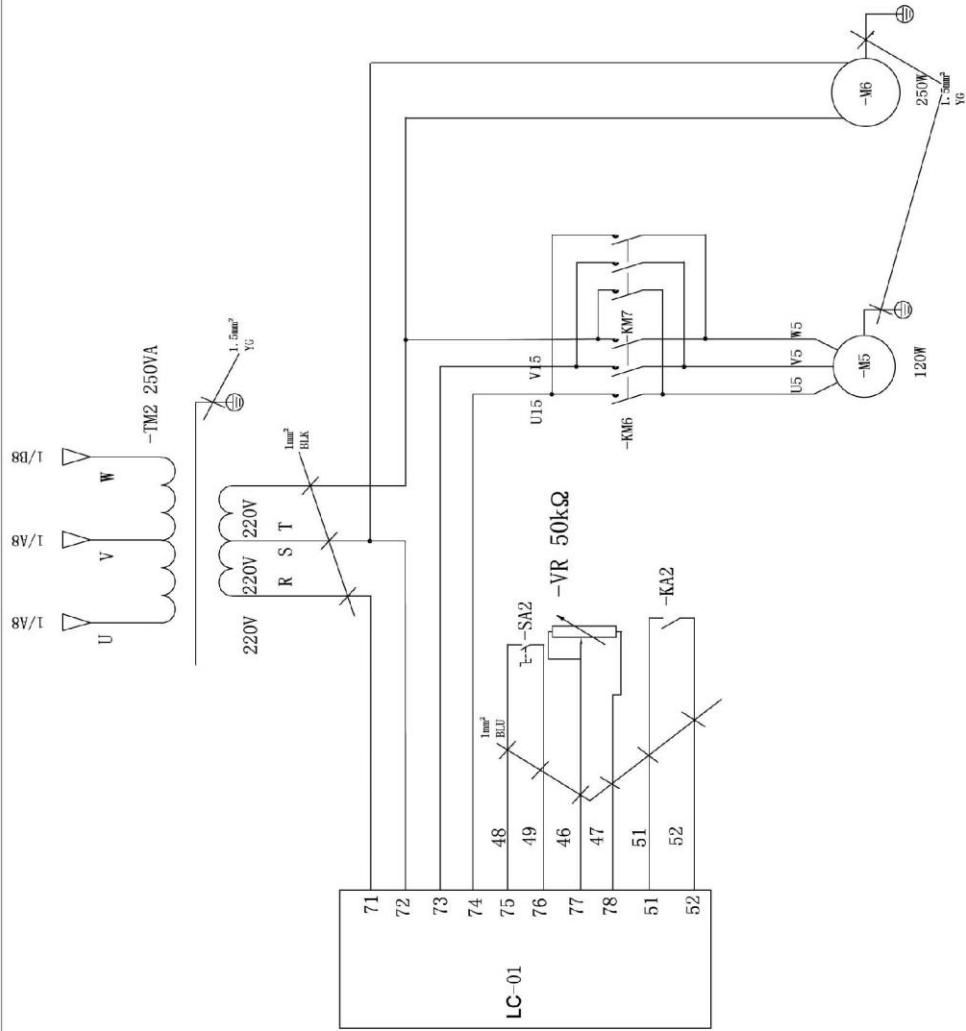


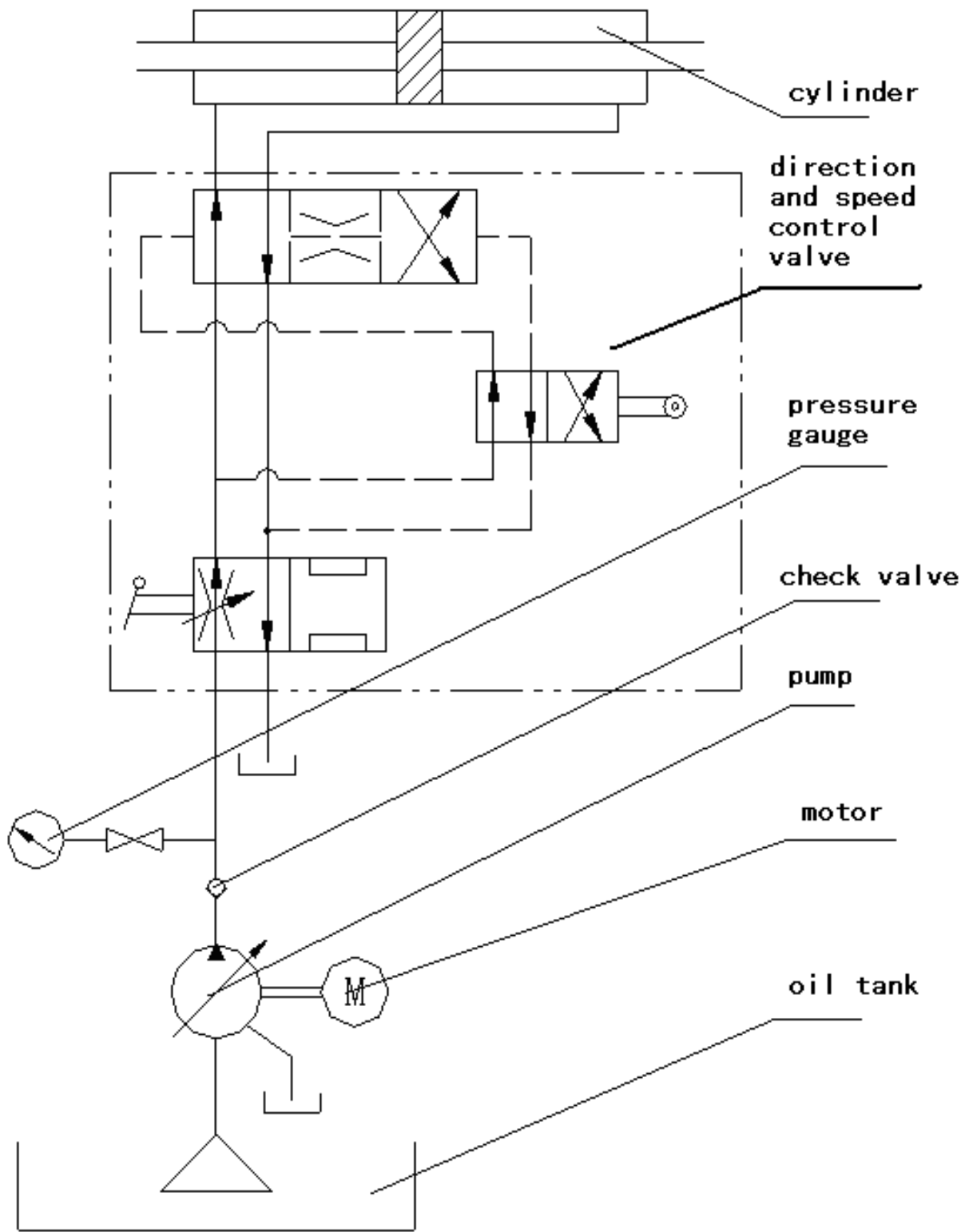
1 2 3 4 5 6 7 8

cross feed AC motor controller

cross feed motor

lubricant pump







Hydraulic system principle diagram

## Parts list of JPSG-1020FM Metal Working Surface Grinder Electrical Circuit

Index No.	Code	Description	Spec.	Q/ty	Remark
1	QM1	Breaker	3UV1340-1MN00(14-20A)	1	
2	QM2	Breaker	3UV1340-1NL00(8-13A)	1	
3	QM3	Breaker	3UV1340-1MF00(0.6-1A)	1	
4	QM4	Breaker	3UV1340-1MJ00(2.4-4A)	1	
5	QM5	Breaker	DZ47-63/2P D6	1	
6	QM6-7	Breaker	DZ47-63/1P D6	2	
7	QM8	Breaker	DZ47-63/1P C1	1	
8	KM1	Contacto	3TB4322-OXB0	1	
9	KM0-8	Contacto	3TB4022-OXB0	9	
10	KA0 KA4	Middle rely	MY2NJ-AC24V	2	
11	KA1-8	Middle rely	MY2NJ-DC24V	5	
12		AC motor controller	SQ-02A	1	
13	EL1	Working lamp	J150B	1	
14	PLC	Siemens	6ES7214-1AD23-0XB8	1	
15	TD400	HMI	6AV6 6640-OAA00-OAX0	1	
16		Power switch	S-100-24	1	
17	SQ1-2	Travel switch	TZ-6004	2	
18	SQ3-4	Travel switch	JLXK1-411	2	
19	SQ5	Travel switch	YBLX-19/001	1	
20	SQ7	Travel switch	TZ-3101	1	
21	SB0	Emergency switch	LA38-11MXS/203	1	
22	SB1/6/7	Button with lamp	LA38-11D/203 绿	3	
23	SB7-8	Button	LA38-11/203--Green	2	
24	SA2	Knob	LA38-31X2/203	2	
25	SA4	Knob	LA38-21X3/203	1	
26	SA5	Knob(auto reset)	LA38-20XL3/203	1	
27	SA6	Waveband switch	DPN01N-30°	1	
28	HL1-3	Indicator lamp	AD11-16/21-6GZ(Green)	4	
29	HL4	Indicator lamp	AD11-16/21-6GZ(Red)	1	
30	SQ6	Approach switch	Bi2-M12-AZ31X (AC20-250V3-100MA. DC10-300V63-100MA)	1	
31		Servo diver	ASD-A0421-AB	1	
32		Servo motor	ECMA-E31305ES	1	

33	QS	Switch	JFD11-32/300030	1	
34	VR	Potentiometer	WTH118-47K $\Omega$ 2W	1	
35	KI	Undercurrent rely	JL18S-2.5A	1	
36	VC	Rectifier	QL20A-500V	1	
37	R1 R2	Resistance	ZG11-50-T1000 $\Omega$	2	
38	TC1	Transformer	JBK5-630VA/220V380V/127V(400VA)、110V(50VA)、24V(180VA)	1	
39	TM2	Transformer	JSG-1KVA/220V, 380V/220V	1	

### Packing List --Main Machine, Accessories and Tools

Index No.	Description	Q'ty.	Remark
1	 Oil tank	1pc	In the tool box
2	 Coolant tank	1pc	In the tool box

### Accessories

Index No.	Description	Spec.	Q/ty.	Remark
1	Balance Arbor	JPSG1020FM-12-302 	1pc	In the tool box
2	Wheel Dresser Base (not include diamond pen)		1pc	In the tool box

3	Wheel Flange & Grind Wheel	 P200x20x31.75 WA46L5V35	1 set	In the carton
4	Leveling Wedge		1set / 5pcs	In the tool box
5	Tool Box		1pc	In the tool box
6	Wheel Extractor	Extract nut	1pc	In the tool box
		Wrench 12-301-2 		
7	Wheel Lock Wrench	JPSG1020FM -12-301-1	1set / 2pcs	In the tool box
8	Screw Drive	150	1set / 2pcs	In the tool box
9	Wrench For Hexagonsocket Head Screw 	4/S91-7	1pc	In the tool box
10		5/S91-7	1pc	In the tool box
11		6/S91-7	1pc	In the tool box
12		8/S91-7	1pc	In the tool box
13		10/S91-7	1pc	In the tool box
15	Electro Magnetic Chuck	200*460mm 	1pc	On the worktable
		 Auto. lubrication x 1 unit	1pc	On the machine

### Optional Accessories

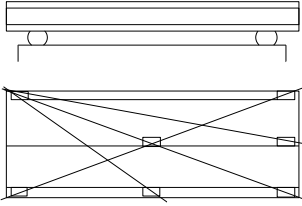
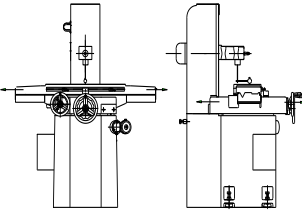
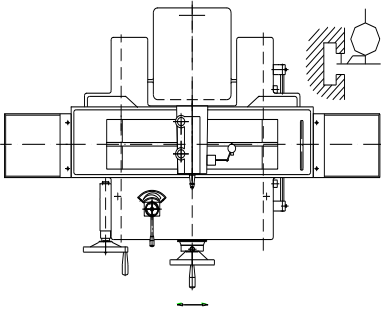
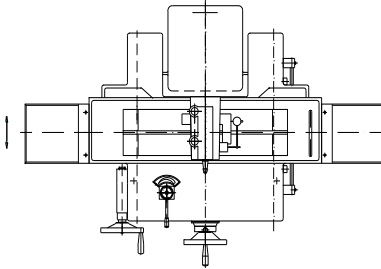
Index No.	Description	Spec.	Q/ty	Remark
1	Wheel Balancing Stand		1pc	In the tool box
2	Diamond Pen		1pc	In the carton

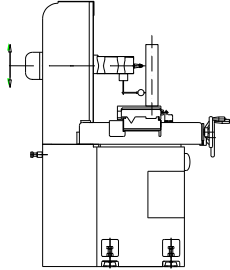
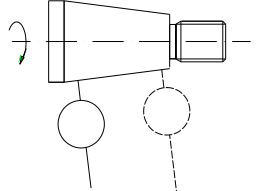
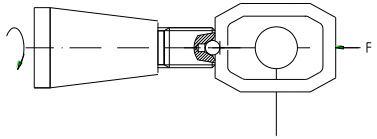
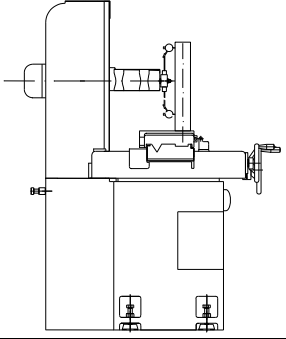
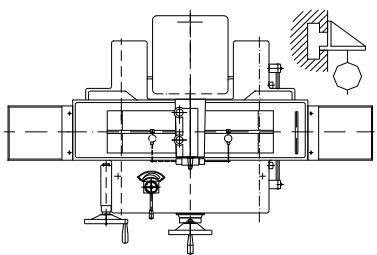


3	1set More Wheel Flange And Wheel		1 set	In the carton
4	 Digital Readout		1set	On Machine

## Precision Inspection Register

### Geometrical precision

Index No.	Items	Diagram	Permissible deviation	Actual deviation
1	Flatness of the table surface		Full length: 0.01 Local: 0.005/300	
2	a. Parallelism of the table surface to its longitudinal movement b. Parallelism of the table surface to its transverse movement		a. Full length: 0.015 Local: 0.008/300 b. Full length: 0.01	
3	Parallelism of the median slot to the longitudinal movement of table		Full length: 0.015 Local: 0.008/300	
4	Verticality of the table transverse movement to the longitudinal movement		0.03/300	

5	Verticality and straightness of the wheel head up and down to the table surface		0.03/300	
6	Radial run out of the wheel spindle nose		0.004	
7	Axial run out of the wheel spindle		0.004	
8	Parallelism of the spindle center line to the table surface		0.025/300	
9	Verticality of the spindle center line to the medina slot		0.015/300	

### Machining precision

Index No.	Inspection items	Permissible deviation	Actual deviation	Remark
P1	Grinding five columned test blocks	Tolerance in thickness: 0.005/300		Test pieces are 45# steel Ø50
P2	Grinding completed test block	Tolerance in thickness: 0.005/300		The material test piece is iron HT200, the length is half of table, width is three times of wheel width, the thickness is 60mm