



Model ZX32G

Model ZX32GP

MILLING & DRILLING MACHINE OPERATING MANUAL



No.	Description	No.	Description
1	bolt	11	Scale
2	Head handle	12	Adjustable lock screw
3	nut	13	Longitudinal table feed handle wheel
4	Combined switch	14	Micro feed handle wheel
5	Speed handle	15	Operate bar
6	Gauge bar	16	Head body
7	Plexiglass protective cover	17	Oil filler plug
8	Longitudinal table feed handle wheel	18	To raise and lower body
9	Stop block	19	Arbor bolt cover
10	Cross table feed handle wheel	20	Column

2. USES AND FEATURES

2.1 This machine has several functions: milling, drilling, boring, grinding, working face and tapping etc.

2.2 It's suitable for cutting, processing and repairing single or small batches parts of all professions. It is of high quality, good function, easy operation, and not limited to skill operator.

2.3 Operating drilling and milling by two ways:

- (1) Manual operation for rapid drilling;
- (2) Worm feed operation for slow milling.

2.4 Bronze adjustable nut, which adjust the thread clearance, reduce the wear, and also make screws rotated smoothly and increase the thread accuracy.

2.5 Whole-piece cast iron column make this machine strong and stable,

and also keeps high accuracy.

2.6 The tough cast headstock ensures its accuracy lasting enduring through the treatment of precise boring, honing, and relieving internal stress.

2.7 The machine gears are ground for steady precision.

2.8 Easy to change speed.

3. PRESERVING MANUAL

Please preserve the manual because it gives you such operation, maintenance, fixing breakdown, parts subsidiary form, circuit diagram; Meanwhile, please reverse your invoice of purchasing machine.

Please write your invoice number on the called of manual, store up the invoice and manual in safe, dry place in order to be consulted.

4. Warning

The warning of our manual couldn't include all situations happening on all condition and circumstances. Operator must understand that he only could operate and couldn't repair by himself.

5. General safe rule

Warning! You should look up manual to know basic safe preventive measures in order to reducing the danger of fire and electricity shocking before operating, processing or saving.

5.1 Keep the product circumstance clean. The confusion circumstance is easy to bring danger.

5.2 Idea work condition. Don't make the power source drenched by the rain; don't make the power source equipment on damp place.

5.3 Don't allow child nearby workshop, and not allow child or visitor to touch the machine (or subsidiary equipment). They should far from the work place.

5.4 Store up idle tool. You should put it on dry, high or locked place, and not allow child to hold when you don't use it.

5.5 Don't make the machine overload. You should draw up quota load for safety.

5.6 Using tool right. Don't make small tool and subsidiary equipment overload or excess function (For example: Don't use round saw to cut the pipe feed or wood.)

5.7 Proper dress. Don't wear oversized clothes or jewelry. You should wear rubber gloves, anti-slippery shoes and cover long hair as carrying parts outdoor.

5.8 Wearing protective glasses. Operator usually should wear protective glasses on the dusty circumstance.

5.9 Don't abuse power line. Don't take out power line from conduct, and

make it far from scorching hot, grease dirt place and the sharp edge of knife.

5.10 Do not work the overlong work-piece. The length of the work-piece should be in the standard scope and keep balance in the process of working.

5.11 Keep the tools under careful maintenance. To keep the edge of knife clean, and make it has good safe function. You should keep tool accessories and tools clean and dry as changing and storing up, and also should be coated with antirust grease, check the extend of power line regularly, exchange it if you find damage.

5.12 Taking away keys and wrench for adjustment. As usual, Operator should take away the keys and wrench which be used to adjust and lock work-piece to avoid danger before start the machine.

5.13 Avoiding unconscious starting. Don't allow the finger touch the switch turning on in order to ensuring safe when cutting off the power source.

5.14 Keeping vigilance. Don't start machine to operate when the operator feel tired.

5.15 Don't start machine after drinking wine or taking medicine.

5.16 Check on damaged part. In order to get normal function, you should

check on and determine if the protection board and others parts are damaged as usual before using the machine again. Check on and calibrate the running condition of sliding parts, to repair or change it if you find it damaged. If the switch can't work (the damage except manual rule), you can ask service center for changing.

5.17 Exchanging parts or accessories. You should replace the part of tool by the same parts as repairing, and have right reasons to change any part.

5.18 Operate machine rightly. Don't use small machine as big machine, because it should be used in a regular scope. Don't repair machine and do something out of its duty.

5.19 The user should know the maintenance of power machine and should ask profession for maintenance, which is the necessary term ensuring the machine accuracy and safety.

6.Special warning.

Please take attention on special danger as operating, and protect those safe protective equipments beside you.

6.1 Electricity danger, Do not operate the machine on electrified and wet place; Do not use extend of power source or power line wrongly. Make sure the power source of the machine is ground wired.

6.2 The danger of splashing things. Before using machine, you should

avoid the danger of metal splashing things because its speed is very fast as running, and wear protective glasses; Don't make the machine overload; You should stand on one side of the machine in avoid the hurt of metal things; Don't allow visitor nearby the machine when it's running.

6.3 The danger of tangled body (things). Carry out protective measures to protect those easy moving parts of the machine. Don't wear oversized clothes, jewelry, and keep long hair when operating machine because it could touch machine or work-piece; you should stop the machine as soon as it touch the machine.

7. Mounting and carrying.

7.1 Don't install the machine at the sunshine place to avoid the deformation of machine and loss of accuracy.

7.2 Mount machine to a sturdy table or base. It is advisable that the table you choose be well constructed to avoid any vibration during operation.

7.3 Four holes are provided on the machine base for mounting the machine. The size is 390mm×240mm. Four holes are provided on the machine base for mounting. Before tightening bolts make sure the working table on the machine is level lengthwise and crosswise. Use shims if necessary.

7.4 The hoisting should be fit for the net weight of machine with good hoist. The load - bearing of hoist should exceed the weight of machine in order to protect machine and personal safety.

8.Cleaning and lubricating

8.1 The machine has been coated with antirust grease before packing. You should clean the grease and lubricating it before operating it.

8.2 Before starting machine. Please lubricate all bright work and guide surface as the lubricate manual (fig 2). The level of oil should keep the middle of oil gauge.

8.3 Take off the oil filler plug, fill the lubricant in such as SAE68 oil in level to the gear box until the oil level reach the middle of oil fluid level indicator, then lock the plug.

9.Protecting for accuracy

Make sure the balance of level of table surface of machine in the length and breath before operating machine. As milling or drilling, it can't guarantee the processing accuracy if it don't keep on the level purely.

10.Using and Maintenance.

10.1Main parts of machine

- (1) To raise and lower the head by head handle (2).
- (2) Choose the forward, reverse and stop of changing-direction

switch (4) to control the motor running or stop, then the machine can milling, drilling or stop.

- (3) Feeding by spindle feed handle (15).
- (4) To adjust the table left and right travel by the table feed handle wheel (8).
- (5) To adjust the table forward and backward travel by the table feed handle wheel (10).
- (6) To operate the micro handle wheel (14) for micro feed.
- (7) To adjust the scale (11) size according to working need.

10.2 Preparing for operation

Please confirm if all the parts is the fit place before operation. The machine can offer accuracy service if the normal safe equipment cared for carefully (see Fig1 and Fig2).

(1) Before operation

- ① Fill in lubrication
- ② The table should be protected from rust and grease dirt to protect machine accuracy.
- ③ Check if the tool is in the effective situation and the work-piece is locked firmly.
- ④ Be sure of that the speed is suitable.

⑤ Be sure of everything is ready before using.

(2) After operation

① Turn off the power switch

② Take down the tools

③ Clean the machine and coat with lubrication.

④ Cover the machine with cloth to keep out the dust.

(3) Adjusting the gearbox

① To raise and lower the gearbox, loosen the two lock nuts, revolve the crank handle, when the desired height is reached, tightened the lock nuts. make sure the gear box is tightened at the column.

② The gear box can revolve 360° after loosening the above bolts, and tighten the heavy-duty lock nut on the gear box after adjusting the gear box on the desired angle.

③ As drilling bevel, please loose three nuts connecting gearbox and slip saddle up to the angle on the indicator you need, and then lock them.

(4) Preparing for drilling (except the machine which is installed mechanical power feed system)

As drilling, revolve handle against clockwise, make the worm gear break away from handle base, then drilling pass hole, you also can put the positive depth stop gauge on the depth you need to drill blind hole.

(5) Preparing for milling

- ① The micro feed handle wheel is used for adjusting feed depth. Revolve handle clockwise to make the worm gear connect with handle base, turn the micro handle wheel to make milling cutter reach demanded place. Regarding its rigidity, the socket couldn't extend too long.
- ② The locking socket handle is used for locking socket. You can use locking handle to lock socket when the milling cutter up to demanded place.
- ③ There are two lock screws at the front of and in the left of table separately to lock the table. If necessary, you can lock the table to stop it moving.
- ④ The movable fixed block in the front of the table is ready for spacing as working. Loosen screw, move the fixed block to the requisite position, then tighten up the screw before operating.
- ⑤ When you want to change the gearbox angle in the left or right, please loose the three nuts linking with gearbox and the slip saddle, then adjust it to demanded place. Lock the three screws again.
- ⑥ If the machine has a strange voice or has breakdown. You should cut off power source at once, to find reason and fix it in time.

10.3 The safe rule of drilling and milling

- (1) Be sure that drill bit or cutting tool is securely fastened in the chuck.
- (2) Before starting the operation, make sure the clip keys have taken away.
- (3) Adjust the table gauge and the depth gauge to the proper position so that the drilling head drill will not touch the worktable.
- (4) After finishing operation, take off drilling head or milling cutter and clean the machine.
- (5) Warning: When drilling or milling, you should use the proper vice to hold the work-piece.
- (6) Warning: Do not wear glove when operating machine.

10.4 The compensation for wearing and gap adjustment of table (see fig.4)

- (1) The machine is equipped with gab strip for the compensation for wear and the extra gab in the vertical, length.
- (2) When the gap is too big, turn the bolt of gab strip clockwise, or if the gap is too tight, turn it the reverse way.
- (3) Adjust the bolt of gab strip until the table doesn't rock.

10.5 Fasten the worktable and base (see Fig.4)

- (1) When operating longitudinal feed, Make sure to fasten the cross feed travel to ensure the processing accuracy, to do this by fasten two small

lock screws located on the right side of the worktable base.

(2) When operating the cross feed, make sure to fasten the longitudinal feed travel of the worktable, to do this by fasten the lock screws on the front of the table.

(3) Adjusting the travel stops on the front of worktable to control the longitudinal travel and the length of milling - drilling.

10.6 Changing the speed

(1) Cut off the power source.

(2) Revolving the speed handle to choose the proper speed.

(3) If the gears don't engage, you should take away the cover of Spindle (19), turn the spindle to make the gears engaged, then cover it.

(4) Be sure that everything is normal, and turn on the power source.

Place R/min	L-1	L-2	L-3	H-1	H-2	H-3
50Hz	95	180	270	500	930	1420
60Hz	115	220	320	600	1120	1700

10.7 Changing tools

(1) Changing face mills or drill chuck arbor.

Loosen the arbor bolt at the top of the spindle shaft about two rounds with a wrench. Rap the top of the drawbar bolt with mallet. Hold the chuck arbor on hand and detach the drawbar bolt with the other hand after loosening the taper.

(2) Installing the face mill cutter or milling cutter holder

Insert the mills and mills arbor into the taper of spindle, turn the drawbar bolt, but do not over tightening.

(3) Changing the taper drills

① Turn down the drawbar bolt and insert the taper drills into the spindle hole.

② Turn the spindle feed handle to move the spindle downward until the rectangle hole in the rack shaft sleeve appear. Insert keypunch keys through this hole and the rectangle hole in the spindle, and then strike light with mallet to force the taper drills out.

11.Noise

The biggest noise doesn't exceed 83dB(A) at the front, in the left and right of every tested point (500mm) without other noise.

12. Maintenance

Day-to-day maintenance is easier to keep machine in good conditions and have a better processing accuracy than to remedy after being out of order at any time.

12.1 Daily maintenance (by operator)

(1) Fill the lubricant before using the machine every day.

(2) If the temperature of spindle causes overheating or strange noise, you

should stop machine immediately to check it for keeping accurate performance.

- (3) Keep work area clean, release vise, cutter and work-piece from table, turn off power source, take chip or dust away from machine. Fill the lubricant and coating, anti-rust oil before leaving according to the manual.

12.2 Weekly maintenance

- (1) Clean and coat the cross, longitudinal and vertical screw with oil.
- (2) Check to see if sliding rotation and surface is lack of lubricant. If it's not enough, please fill it.

12.3 Monthly maintenance

- (1) Adjust the gap of every feed gap strip.
- (2) Lubricate worm gear, worm shaft and bearing to avoid wear.

12.4 Yearly maintenance

- (1) Adjust table to horizontal position for guarantee accuracy.
- (2) Check electric cord, plugs and switches to avoid loosening or wearing.

13. Trouble shooting

13.1 The spindle don't revolve after putting through the power source

- (1) The voltage is wrong and the main switch is cut off. — to adjust the enter voltage, turn on the main switch.

(2) The fuse is cut off in the switch box. — to change a new switch.

(3) The overload protective relay separate automatically when the power source is too strong. — to press it and make it on the normal position.

13.2 The motor is too hot or has no power.

(1) Overload — to reduce the load.

(2) The voltage is too weak. — to adjust to right voltage.

(3) The feeler of the electromagnetic switch fall off.— to change a new one.

(4) The overload protective relay doesn't work. — to connect the electric wire again or changing a new one.

(5) The motor is too bad. — to change a new one.

(6) The fuse of electric wire isn't connected well. (It's easy to make the motor hold up.) — to cut off the power source at once, and change a new one.

(7) The cutting tool is too blunt. — to grind it.

13.3 The temperature of spindle bearing is too high

(1) The lubricant is not efficiency. — to fill lubricant.

(2) The spindle bearing is installed too tightly. — to rotate the spindle by handle to loosen it.

(3) The time of high-speed rotation is too long. — to reduce the cutting

load.

13.4 The spindle is lack of power.

- (1) The change-speed handle can't change the gears on right position — to turn it to make it on corresponding position.
- (2) The motor is burnt up. — to change a new one.
- (3) The fuse is cut. — to change a new one

13.5 The movement of worktable, elevation table and cross beam is balance.

- (1) The gab is too big. — to adjust to a fit gab.
- (2) The leaf screw isn't locked tightly. — to turn it tightly and fix it on a proper position.
- (3) The feeding is too deep. — to reduce the depth of cutting.

13.6 The spindle shake as processing. The surface of work-piece is too rough.

- (1) The gab of spindle is too big. — to adjust it on a proper position or change new one.
- (2) The spindle moves downward or upward too loosely. — to rotate the inner cover of two bearing but not too tightly. It's best when there is no gab between two bearings.
- (3) The gab of taper face is too big. — to adjust the pulling force of

bearing to a proper degree.

(4) The clip head don't hard up. — to adjust it.

(5) The milling cutter is blunt. — to grind it.

(6) The work-piece doesn't carry hard. to make sure of carrying it tightly.

13.7 The micro feeding can't work smoothly

(1) The clutch don't hard up. — Be sure to fasten it.

(2) The worm gear and worm shaft are worn seriously. to change a new one.

(3) The bolt of fixing handle doesn't hard up. — Be sure of fasten.

13.8 The accuracy is too bad

(1) The work-piece is too heavy to balance. — to hold it according to the balance principle when fastening the work-piece.

(2) Often beating the work-piece with mallet. — It should be forbid.

(3) The level accuracy of the table is too bad. — to check up and maintain the accuracy of worktable after using it for some time.

14. Ordering replacement parts

Complete parts list is attached. If the parts are needed, please contact your local supplier.

15. Extra tools and accessories.

Each of machines is equipped with a M.T.3 or R8 spindle taper arbor,

please contact with your local supplier or mater cutting tool supplier to obtain any of these accessories.

Taper drill

Reamers

End mills

Milling cutter arbor

Clips

Adapter sleeves

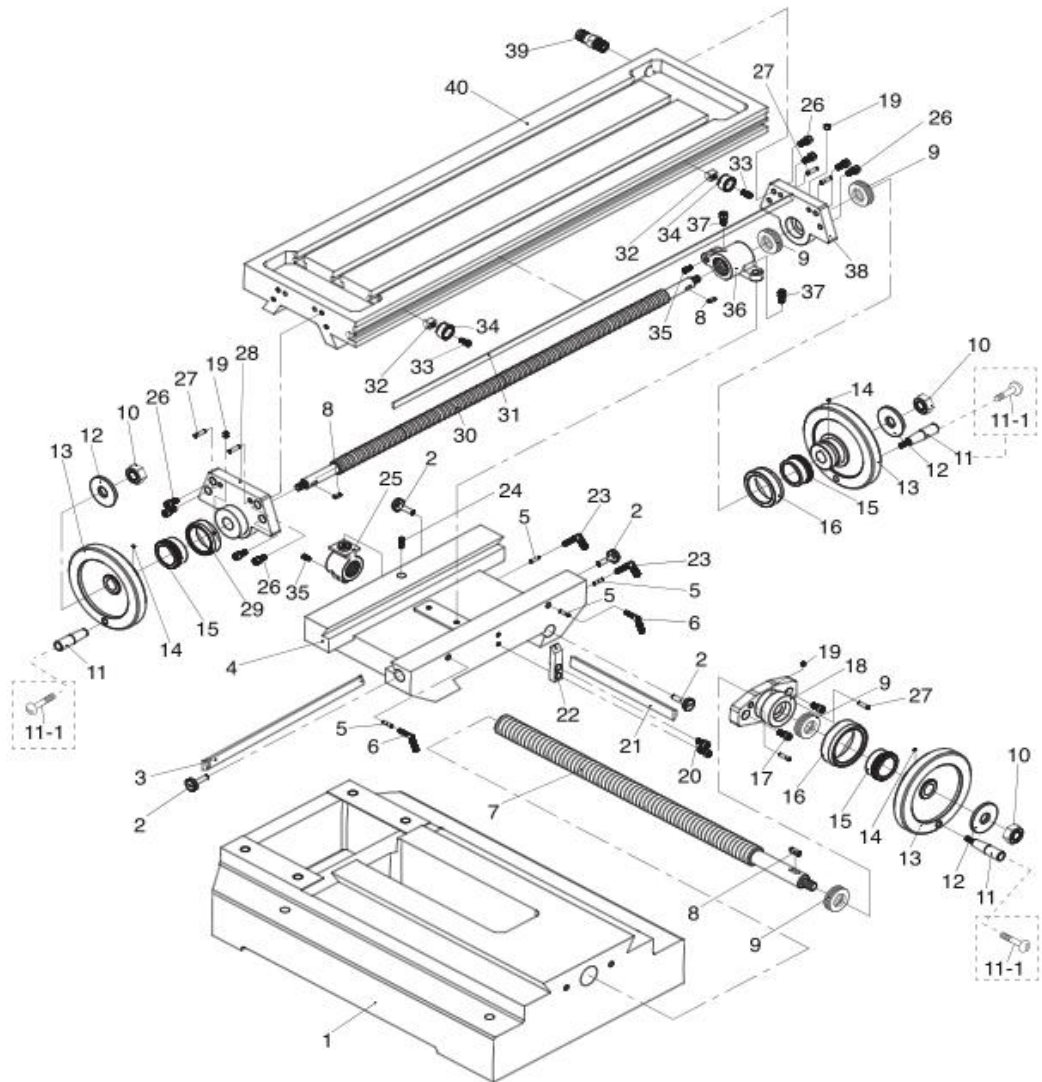
16.Bearing list

No.	Model	Name	position	Amount
1	8103	Push ball bearing	Worktable	4
2	7205E	Conic ball bearing	spindle	1
3	7207E	Conic ball bearing	spindle	1
4	80106	Deep trenches ball bearing	Gear box	1
5	80101	Deep trenches ball bearing	Gear box	5
6	80207	Deep trenches ball bearing	Gear box	2
7	200	Deep trenches ball bearing	Micro feed	2

17.ELECTRIC CONTROL SYSTEM (Attached Circuit diagram)

The voltage of the power source is 220V/50Hz. We suggest that user should install a 10A protective switch against leak electricity or fuse box. The grounding protection must be good.

Table & Base



Base Parts List

REF	PART #	DESCRIPTION
1	P0795001	BASE CASTING
2	P0795002	GIB SCREW M6-1 X 25
3	P0795003	WORKTABLE GIB
4	P0795004	WORKTABLE SADDLE
5	P0795005	DOWEL PIN 6 X 12
6	P0795006	ADJUSTABLE HANDLE 80L M8-1.25 X 25
7	P0795007	Y-AXIS LEADSCREW
8	P0795008	KEY 5 X 5 X 16
9	P0795009	THRUST BEARING 51103
10	P0795010	LOCK NUT M10-1.5
11	P0795011	REVOLVING HANDLE
11-1	P0795011-1	HANDLE SCREW M10-1.5 X 12, 12 X 73
12	P0795012	FLAT WASHER 10MM
13	P0795013	HANDWHEEL 125MM, KEYED BORE 10MM
14	P0795014	HANDWHEEL SPRING
15	P0795015	GRADUATED DIAL
16	P0795016	GRADUATED DIAL SEAT
17	P0795017	CAP SCREW M8-1.25 X 20
18	P0795018	Y-AXIS LEADSCREW BRACKET
19	P0795019	BALL OILER 6MM PRESS-IN
20	P0795020	CAP SCREW M6-1 X 12

REF	PART #	DESCRIPTION
21	P0795021	Y-AXIS GIB
22	P0795022	X-AXIS STOP BLOCK W/ INDICATOR
23	P0795023	ADJUSTABLE HANDLE 80L M8-1.25 X 25
24	P0795024	CAP SCREW M8-1.25 X 50
25	P0795025	Y-AXIS LEADSCREW NUT
26	P0795026	CAP SCREW M6-1 X 20
27	P0795027	INT THREADED TAPER PIN 6 X 12
28	P0795028	X-AXIS LEADSCREW BRACKET (L)
29	P0795029	X-AXIS DIAL SEAT
30	P0795030	X-AXIS LEADSCREW
31	P0795031	X-AXIS TABLE SCALE
32	P0795032	SQUARE NUT M6-1
33	P0795033	CAP SCREW M6-1 X 14
34	P0795034	STOP BLOCK
35	P0795035	CAP SCREW M5-.8 X 20
36	P0795036	X-AXIS LEADSCREW NUT
37	P0795037	CAP SCREW M6-1 X 25
38	P0795038	X-AXIS LEADSCREW BRACKET (R)
39	P0795039	HOSE CONNECTOR M16-2 X 15
40	P0795040	TABLE

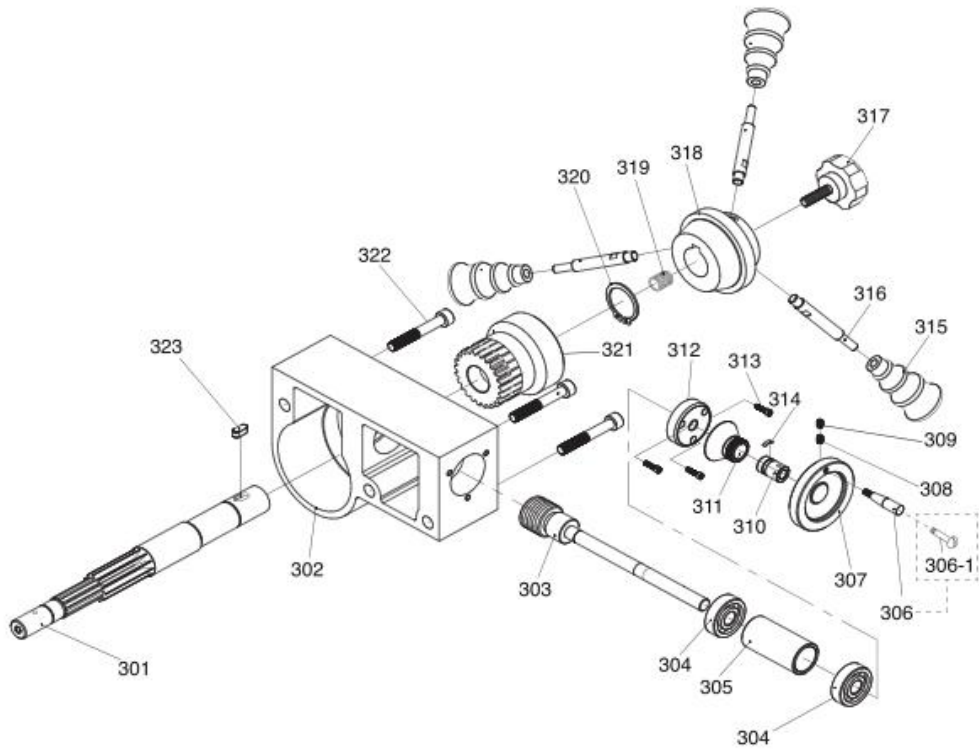
Headstock Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
101	P0795101	DRAWBAR CAP	146	P0795146	FLAT WASHER 6MM
102	P0795102	SEAL SEAT	147	P0795147	KNOB BOLT M6-1 X 14
103	P0795103	INT RETAINING RING 62MM	148	P0795148	SPINDLE END CAP
104	P0795104	BEARING SEAT	149	P0795149	SPINDLE
105	P0795105	EXT RETAINING RING 35MM	150	P0795150	TAPERED ROLLER BEARING 30207
106	P0795106	BALL BEARING 6006-OPEN	151	P0795151	PHLP HD SCR M5-.8 X 10
107	P0795107	GEAR 57T	152	P0795152	COIL SEAT
108	P0795108	SPINDLE HOUSING	153	P0795153	FLAT HD SCR M5-.8 X 10
109	P0795109	KEY 8 X 8 X 14	154	P0795154	DRAIN PLUG M12-1
110	P0795110	OIL SEAL 30 X 42 X 7	155	P0795155	HEADSTOCK CASTING
111	P0795111	OIL SEAL SLEEVE	156	P0795156	GEAR COLLAR (FRONT)
112	P0795112	PHLP HD SCR M5-.8 X 16	157	P0795157	ROLL PIN 4 X 10
113	P0795113	OIL SEAL SLEEVE GASKET	158	P0795158	SET SCREW M6-1 X 10 LONG DOG-PT
114	P0795114	SET SCREW M6-1 X 10 CONE-PT	159	P0795159	COPPER BLOCK (FRONT)
115	P0795115	GEAR KNOB	160	P0795160	SET SCREW M6-1 X 8
116	P0795116	STEEL BALL 6.5MM	161	P0795161	HEX NUT M6-1
117	P0795117	COMPRESSION SPRING .8 X 5 X 25	162	P0795162	COPPER BLOCK (REAR)
118	P0795118	GEAR KNOB LABEL	163	P0795163	GEAR COLLAR (REAR)
119	P0795119	SET SCREW M8-1.25 X 8	164	P0795164	FLAT HD CAP SCR M4-.7 X 20
120	P0795120	CONTROL FACEPLATE	165	P0795165	SWITCH BRACKET
121	P0795121	SPEED SHIFT SHAFT	166	P0795166	PHLP HD SCR M4-.7 X 8
122	P0795122	BUTTON HD CAP SCR M4-.7 X 6	168	P0795168	QUILL LOCK SLEEVE (R)
123	P0795123	FLAT WASHER 4MM	169	P0795169	OIL SEAL 10 X 22 X 7
124	P0795124	DEPTH INDICATOR	170	P0795170	SET SCREW M6-1 X 20 LONG DOG-PT
125	P0795125	DEPTH ADJ NUT M12-1.5	171	P0795171	HEX NUT M6-1
126	P0795126	DEPTH ADJ SCREW M12-1.5, M12-2	172	P0795172	RIVET 2.5 X 5 FLUTED
127	P0795127	HEX NUT M14-2 THIN	173	P0795173	OIL SIGHT M16 X 1.5
128	P0795128	SPINDLE SLEEVE	174	P0795174	HEADSTOCK ANGLE GAUGE
129	P0795129	DEPTH SUPPORT RING	175	P0795175	SET SCREW M5-.8 X 10 CONE-PT
130	P0795130	SCREW SLEEVE M14-2	176	P0795176	BALL BEARING 6001-OPEN
131	P0795131	ROLL PIN 3 X 14	177	P0795177	SPACER
132	P0795132	KNURLED KNOB	178	P0795178	GEAR 27T
133	P0795133	LOCK WASHER 6MM	179	P0795179	GEAR 21T
134	P0795134	HEX NUT M6-1	180	P0795180	GEAR 36T
135	P0795135	CAP SCREW M6-1 X 35	181	P0795181	SPINDLE SHAFT
136	P0795136	TAPERED ROLLER BEARING 30205	182	P0795182	KEY 5 X 5 X 70
137	P0795137	TAPERED WASHER 25MM	183	P0795183	KEY 5 X 5 X 36
138	P0795138	SPANNER NUT M25-1.5	184	P0795184	SET SCREW M5-.8 X 10 CONE-PT
139	P0795139	QUILL LOCK SLEEVE (L)	186	P0795186	COMPRESSION SPRING
140	P0795140	QUILL LOCK HANDLE	187	P0795187	GEAR 46T
141	P0795141	SET SCREW M10-1.5 X 35 DOG-PT	188	P0795188	KEY 5 X 5 X 16
142	P0795142	ROLL PIN 3 X 12	189	P0795189	GEAR 18T
143	P0795143	EXT RETAINING RING 18MM	190	P0795190	INT RETAINING RING 28MM
144	P0795144	FLAT COIL SPRING	191	P0795191	HEADSTOCK PLUG
145	P0795145	RETURN SPRING HOUSING			

Headstock Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
192	P0795192	O-RING 23.7 X 3.5 P24	199	P0795199	TAPER PIN 8 X 35
193	P0795193	MOTOR 1HP 220V 1-PH	200	P0795200	OIL PLUG BOLT M16-1.5 X 15
193-1	P0795193-1	MOTOR FAN COVER	201	P0795201	HEADSTOCK COVER
193-2	P0795193-2	MOTOR FAN	202	P0795202	MOTOR SHAFT
193-3	P0795193-3	CAPACITOR COVER	203	P0795203	BALL BEARING 6006-OPEN
193-4	P0795193-4	R CAPACITOR 20M 450V 1-1/2 X 3-1/4	204	P0795204	INT RETAINING RING 55MM
193-5	P0795193-5	S CAPACITOR 100M 250V 1-1/2 X 3-1/4	205	P0795205	OIL SEAL 30 X 55 X 10
193-6	P0795193-6	CENTRIFUGAL SWITCH	206	P0795206	EXT RETAINING RING 16MM
193-7	P0795193-7	CONTACT PLATE	207	P0795207	GEAR 23T
193-8	P0795193-8	JUNCTION BOX	208	P0795208	KEY 6 X 6 X 25
193-9	P0795193-9	BALL BEARING 6204ZZ	209	P0795209	GEAR 38T
193-10	P0795193-10	BALL BEARING 6204ZZ	210	P0795210	GEAR 32T
194	P0795194	KEY 6 X 6 X 36	211	P0795211	MOTOR GEAR SHAFT
195	P0795195	CAP SCREW M8-1.25 X 12	212	P0795212	KEY 5 X 5 X 60
196	P0795196	MOTOR MOUNTING PLATE	213	P0795213	KEY 5 X 5 X 10
197	P0795197	CAP SCREW M6-1 X 16	214	P0795214	GEAR 41T
198	P0795198	CAP SCREW M6-1 X 40	215	P0795215	SPACER

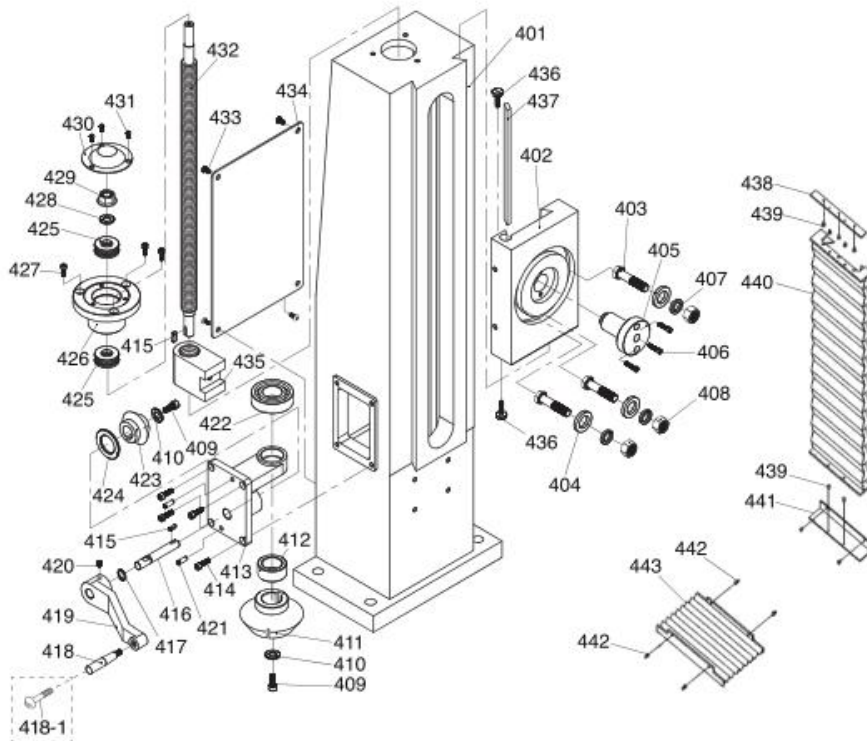
Downfeed Handle



REF	PART #	DESCRIPTION
301	P0795301	DOWNFEED GEAR SHAFT
302	P0795302	DOWNFEED GEAR SHAFT HOUSING
303	P0795303	WORM SHAFT
304	P0795304	BALL BEARING 6200-OPEN
305	P0795305	SPACER
306	P0795306	REVOLVING HANDLE
306-1	P0795306-1	HANDLE SCREW M6-1 X 10, 8 X 46
307	P0795307	FINE DOWNFEED HANDWHEEL 64MM
308	P0795308	SET SCREW M6-1 X 8
309	P0795309	SET SCREW M6-1 X 5
310	P0795310	HANDWHEEL SEAT
311	P0795311	GRADUATED DIAL

REF	PART #	DESCRIPTION
312	P0795312	WORM SHAFT COVER
313	P0795313	CAP SCREW M4-.7 X 16
314	P0795314	HANDWHEEL CURVED PLATE SPRING
315	P0795315	HANDLE GRIP
316	P0795316	SHLDR STUD-UDE M10-1.5 X 145, 11MM
317	P0795317	KNOB BOLT M10-1.5 X 35
318	P0795318	COARSE DOWNFEED HUB
319	P0795319	COMPRESSION SPRING
320	P0795320	EXT RETAINING RING 25MM
321	P0795321	WORM GEAR
322	P0795322	CAP SCREW M8-1.25 X 55
323	P0795323	KEY 8 X 8 X 16

Column



REF	PART #	DESCRIPTION
401	P0795401	COLUMN
402	P0795402	HEADSTOCK MOUNT
403	P0795403	HEX BOLT M12-1.75 X 55
404	P0795404	FLAT WASHER 12MM
405	P0795405	HEADSTOCK SEAT
406	P0795406	CAP SCREW M6-1 X 25
407	P0795407	LOCK WASHER 12MM
408	P0795408	HEX NUT M12-1.75
409	P0795409	CAP SCREW M6-1 X 14
410	P0795410	FLAT WASHER 6MM
411	P0795411	BEVEL GEAR
412	P0795412	BUSHING
413	P0795413	Z-AXIS LEADSCREW BRACKET
414	P0795414	CAP SCREW M6-1 X 20
415	P0795415	KEY 5 X 5 X 16
416	P0795416	CRANK SHAFT
417	P0795417	EXT RETAINING RING 15MM
418	P0795418	REVOLVING HANDLE
418-1	P0795418-1	HANDLE SCREW M10-1.5 X 12, 12 X 73
419	P0795419	Z-AXIS CRANK HANDLE
420	P0795420	SET SCREW M8-1.25 X 8
421	P0795421	TAPER PIN 6 X 18

REF	PART #	DESCRIPTION
422	P0795422	BALL BEARING 6002-OPEN
423	P0795423	SMALL BEVEL GEAR
424	P0795424	BEVEL PAD
425	P0795425	THRUST BEARING 51202
426	P0795426	BEARING SEAT
427	P0795427	CAP SCREW M6-1 X 14
428	P0795428	FLAT WASHER 14MM
429	P0795429	FLANGE NUT M14-2
430	P0795430	TOP COVER
431	P0795431	BUTTON HD CAP SCR M4-.7 X 8
432	P0795432	Z-AXIS LEADSCREW
433	P0795433	CAP SCREW M5-.8 X 8
434	P0795434	BACK COVER
435	P0795435	Z-AXIS LEADSCREW NUT
436	P0795436	GIB ADJUSTMENT SCREW M6-1 X 25
437	P0795437	COLUMN GIB
438	P0795438	Z-AXIS WAY COVER UPPER PLATE
439	P0795439	PHLP HD SCR M4-.7 X 6
440	P0795440	Z-AXIS WAY COVER
441	P0795441	Z-AXIS WAY COVER LOWER BRACKET
442	P0795442	PHLP HD SCR M5-.8 X 12
443	P0795443	Y-AXIS WAY COVER

PACKING LIST

PRODUCT: MILLING & DRILLING MACHINE

N O.	DESCRIPTION	SPECIFICATIONS	QTY	NOTE		
1	MILLING&DRILLING MACHINE		1			
2	STANDARD ACCESSORIES					
	OPEN WRENCH	17×19	1			
	DRILL CHUCK		1			
	ALLEN WRENCH	5mm, 6mm	2			
	SCREW DRIVER(-)	6"	2			
	DRILL STOCK	M.T.3	1			
	WEDGE		1			
	DRAW BAR		1			
	HANDWHEEL		3			
3	OPTIONAL ACCESSORIES			PURCHASE ACCORDING TO ORDER		
	LAMP					
	FACE MILLING CUTTER	Ø76mm				
	PARALLEL VISE	90mm or 125mm				
	MILL CHUCK					
	DEPTH GAUGE					
	MACHINE STAND					
	END MILLING CUTTER	Ø 2- Ø20mm				
	TWIST DRILL	Ø 1- Ø 31.5mm				
	ELECTRIC TABLE POWERFEED					
	58PCS CLAMPINGFIXTURE					
	CHIP TRAY					
	MILL CUTTER HOLDER					
	COOLANT DEVICE					
4	Operating manual		1			
5	Packing list		1			

