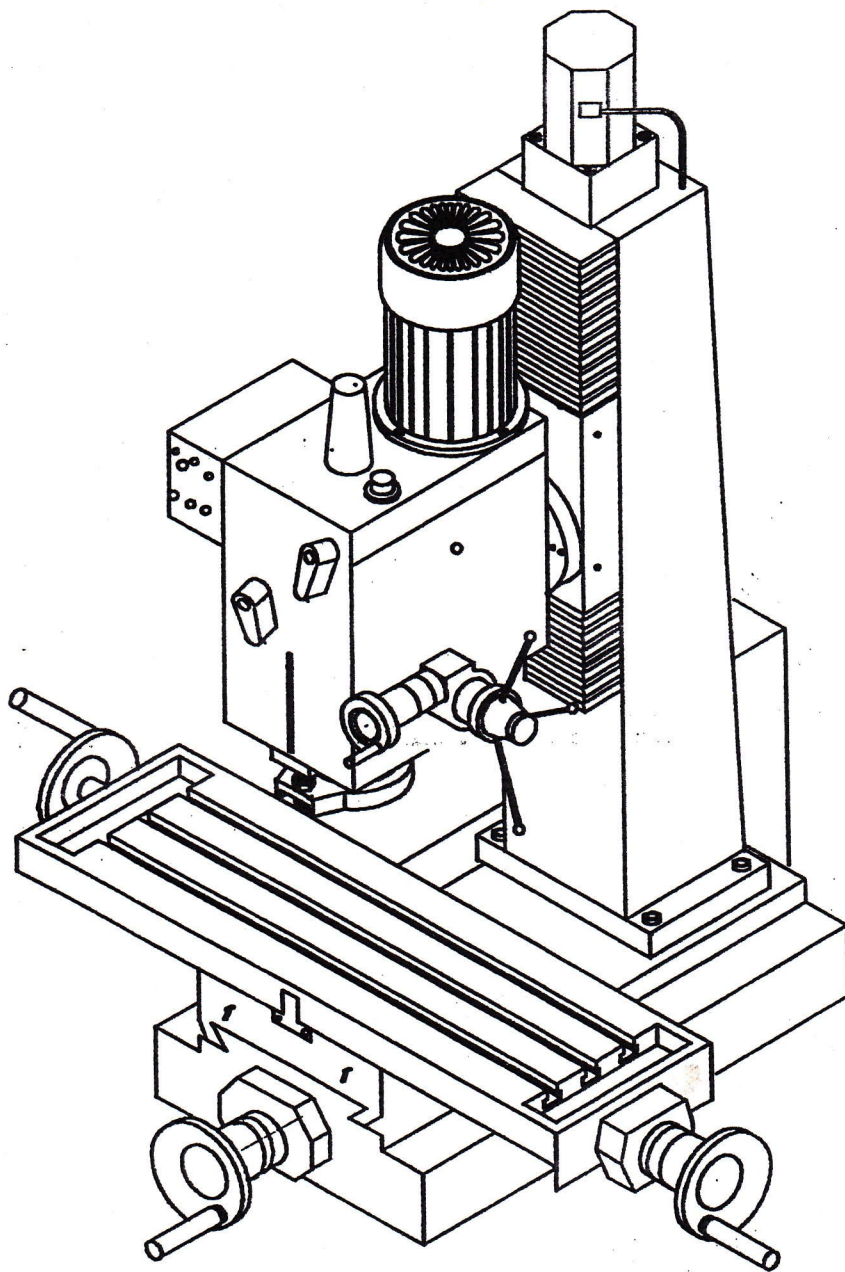


ZX-45Z

MILLING-DRILLING MACHINE TOOLS OPERATING MANUAL



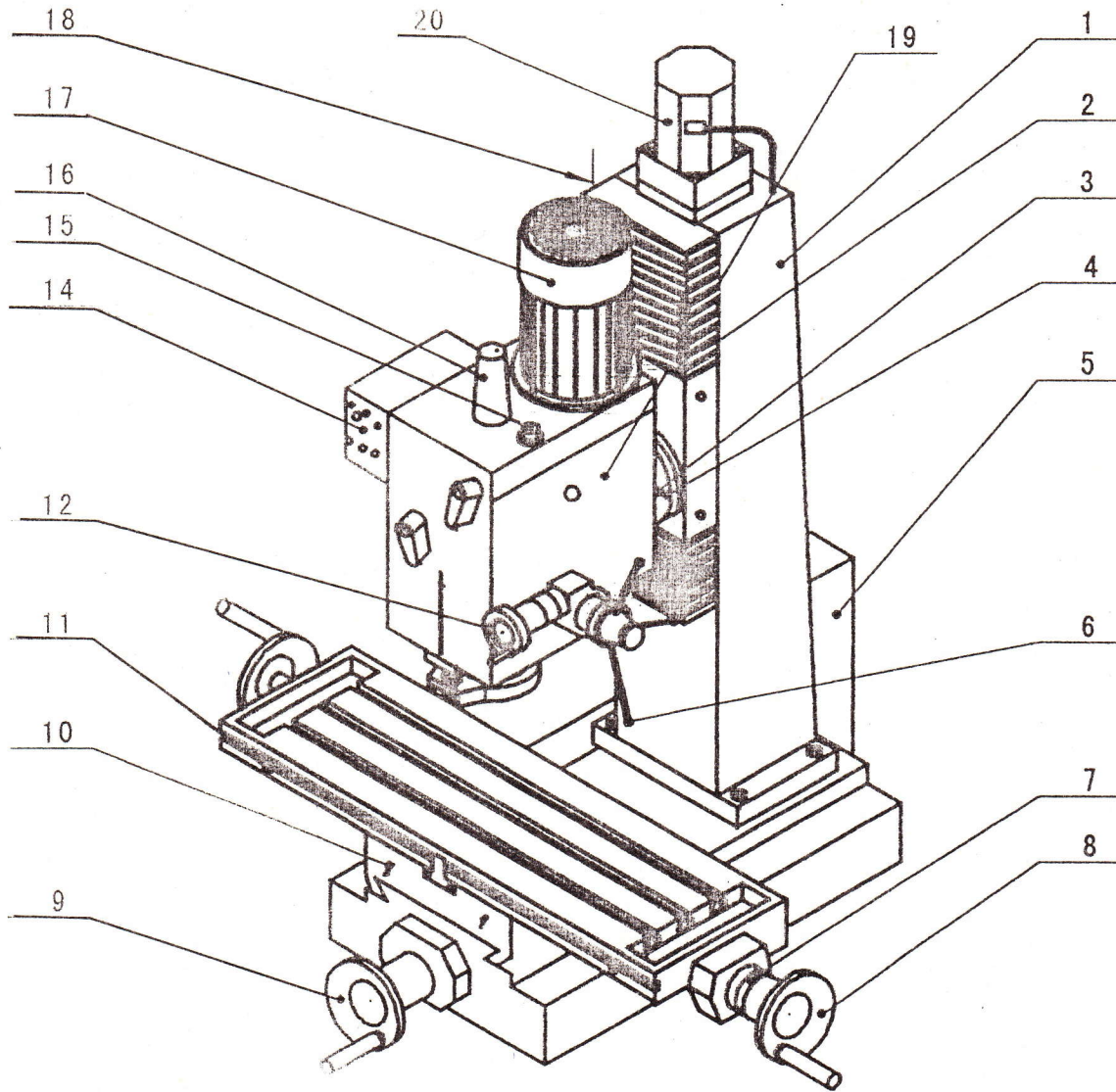


Fig. 1

- | | |
|--|--|
| 1. square upright | 11. stop bracket |
| 2. protection cover which likes organ | 12. spindle micro-feed handle wheel |
| 3. lock nut | 13. speed lever |
| 4. taper pin | 14. switchboard |
| 5. electric control box | 15. oil filler plug |
| 6. spindle feed handle | 16. arbor bolt cover |
| 7. scale | 17. power motor |
| 8. longitudinal table feed handlewheel | 18. crank handle with disengagement |
| 9. cross table feed handlewheel | 19. barrel |
| 10. leaf screw | 20. head rapid traverse motor (electric motor) |

Thank you for purchasing the ZAY7045L MILLING-DRILLING MACHINE if properly cared for and operated, this machine can provide you with years of accurate service.

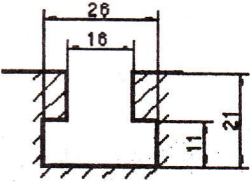
Please read this manual carefully before using your machine.

1. USES AND FEATURES

- 1.1 This machine has several functions, such as surface cutting, drilling, milling, and tapping.
- 1.2 This machine is of fine quality, can be operated easily, and it is not limited to skilled operators.
- 1.3 The drilling and milling operation can be performed by two methods:
 - (1) Hand operation, which makes quick feed drilling.
 - (2) Worm gear feed operation, which makes slow feed milling.
- 1.4 Bronze adjustable nuts, which adjust the thread clearance and reduce the wear. They also make screws rotated smoothly and increase the thread accuracy.
- 1.5 Whole upright, which makes this machine strong and stable, and also keeps high accuracy.
- 1.6 Head of tough cast ensures its accuracy lasting enduring through the treatment of precise boring, grinding, and relieving internal stress.
- 1.7 Smoothly and precisely gears transmitting.
- 1.8 It is easy to change speed.
- 1.9 Tapping operation clockwise or counter clockwise and the working depth can be adjusted by positive depth stop gauge.
- 1.10 Special brake handles for head.
- 1.11 Reading the height of the head by barrel on the left of upright.

2. SPECIFICATION

Model	ZAY7045L	
Max. drilling capacity	45 mm	
Max. face mill capacity	80 mm	
Max. end mill capacity	32 mm	
Max. tapping capacity	M12	
Swivel angle of head-stock at perpendicular direction	±90°	
Distance from spindle axis to column surface	280mm	
Max. distance between spindle nose and table	530 mm	
Spindle taper	M. T. 4	
Spindle stroke	130 mm	
Diameter of spindle sleeve	75 mm	
Diameter of revolving platform	315 mm	
Overall height(without stand)	1417mm	
Working area of table	800 mm * 240 mm	
Forward and backward travel of table	300mm	
Right and left travel of table	585 mm	
Motor	0.85/1.1 kw	
Spindle speed(4p) (r/min)	4pole	80, 150, 260, 480, 900, 1575
	2pole	160, 300, 520, 960, 1800, 3150
Net weight/gross	295 kg/340 kg	

T-Solt	
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Optional	Face milling cutter $\phi 63\text{mm}$ Machine vice 90mm or 125mm End mill cutter 2-20mm Twist drill 1-32mm Machine stand
Standard accessories	Double-head wrench 22*24 mm Allen wrench 4mm, 5mm, 6mm Screwdriver(-) 150 mm Taper sleeve 4-3 Drill stock MT4 Drill chuck 13mm Wedge Draw bar Draw bar washer

3. MOUNTING MACHINE

- 3.1 Be sure to fix the head on the upright before moving machine. while moving machine, please keep its balance and safety.
- 3.2 Do not mount machine at the sunshine place to avoid the deformity of machine and the loss of accuracy.
- 3.3 Check to see if the motor turning in clockwise direction before connecting the electric distribution line.
- 3.4 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.
- 3.5 Four holes are provided on the machine base for mounting. Before tightening bolts make sure the work table on the machine is level lengthwise and crosswise. Use shims if necessary.

4. CLEANING AND LUBRICATING (see fig. 2)

- 4.1 Your machine has been coated with heavy grease to protect it before shipping. This coating should be completely removed before operating the machine. Commercial degreaser, kerosene or similar solvent may be used to remove the grease from the machine, but avoid getting solvent on rubber parts.
- 4.2 After cleaning, coat all bright work with a light lubricant. Lubricate all points in Fig. 2 with medium consistency machine oil.
- 4.3 Remove the oil filler plug fill the lubricant such as SAE 68 oil in level to the gear box until the oil level reach the middle of oil fluid level indicator. Then lock the plug. Fig. 2

