

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL

LATHE, BRAKE DRUM, FLOOR
MOUNTED, 60 INCH RATED SWING,
25 INCH MAXIMUM DRUM DIAME-
TER, W/GRINDING PROVISIONS,
1 HORSEPOWER DRIVE MOTOR,
1/2 HORSEPOWER GRINDING MOTOR,
115-VOLT, 60-CYCLE, SINGLE-PHASE
(STAR MACHINE AND TOOL COM-
PANY MODEL 1960) (4910-516-6192)

This reprint includes all changes in effect at the time of publication -Change 1.
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HEADQUARTERS, DEPARTMENT OF THE ARMY

MAY 1965

SECTION I USE AND MAINTENANCE

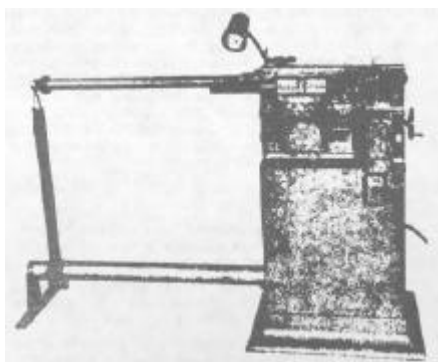


Fig. 1-1. Brake Drum Lathe

1-1. INTRODUCTION

1-2. The Star Brake Drum Lathe, Model 1960 is designed to put a smooth, accurate finish on used or unfinished brake drums (see figure 1-1).

1-3. The Model 1960 will handle passenger car drums as well as being capable of turning the largest and heaviest truck drums.

1-4. The Model 1960 is designed to keep maintenance expenses at a minimum and operating efficiency at a maximum.

1-5. The following instructions and parts breakdown will help ensure many years of high quality, troublefree drum turning. Numbers in parentheses refer to item numbers (see figure 2-1).

1-6. TABLE OF SPECIFICATIONS

Drum Capacity Range (dia.)	6" to 42"
Drum Cutting Depth (face).....	10"
Speeds, Number of Changes.....	Infinite
Speeds, Cutting Range.....	30 to 150 r.p.m.
Swing	60"
Motor	1 h.p., 115-230v., 60C., Single Phase 1725 r.p.m.
Feed, Range.....	O to Rapid Traverse
Number of Feeds.....	Infinite
Weight	590 lbs.

1-7. INSTALLATION

1-8. Remove machine and all accessories from shipping container.

1-9. Check all parts with packing slip to insure all items are included.

1-10. Clean the entire machine, adapters, and accessories with a good grease solvent to remove the protective coating on the machined surfaces.

1-11. Place machine in desired position and securely bolt it to the floor. Make sure machine is level by using a level on the top plate of the cabinet.

1-12. Install the 2" Arbor, R-390, into the Spindle (28) and tighten until Arbor is drawn up tightly in Spindle (28).

1-14. Place the Vertical Tube (184) over the Horizontal Tube (197) and position the Horizontal Tube (197) over the plug which is welded to the base.

1-15. Fasten the Bottom Mounting Plate (198) to the base of the Horizontal Tube, (197).

1-16. By use of a plumb bob, level, and shims, permanently position the Bottom Mounting Plate (198) so that the Horizontal Tube (197) is directly beneath the Arbor and level to the floor. Tighten Cap Screw (200) at rear of Horizontal Tube (197).

1-17. Swing the Vertical Tube (184) into the upright position and slide it toward the Arbor. Raise the Adjusting Bushing (187) by hand until the Rod End Bearing (188) will slide over the end of Arbor and the Vertical Tube (184) is directly below Arbor. Fasten the Vertical Tube (184) to the Horizontal Tube (197) by tightening the Locking Screw Shaft (195). Place Cam Shaft (190) in the up position until Pin (194) hits Stop Pin (193). Rotate the Adjusting Bushing (187) until you feel it touch the Cam (191). This is done by slowly moving the Cam Shaft (190) while you are rotating the Adjusting Bushing (187) until you feel a slight drag on the Cam (191). Tighten the Jam Nut (189). The outboard support is now permanently adjusted.

1-18. Place Tool Bit, CB-35, into Boring Bar (77) and fasten securely with the two Square Head Set Screws (78). The tool bit slot in the end of the Boring Bar (77) is deep enough to enable several degrees of adjustment of the tool bit angle. The groove running along the Boring Bar (77) should be lined up with the slit in the Compound Rest (73).

1-19. Position Lamp (121) over Lamp Bracket (122) and plug into Receptacle (85). Use standard bulb, 75 watts or less, moistening bulb neck before slipping it through silicone grommet at the base of reflector.

After screwing bulb into socket, make sure air space between shade and reflector is equal on all sides.

1-20. Plug machine into 115 volt outlet and the machine is now properly installed.

1-21. OPERATIONAL PROCEDURES

1-22. Mount drum on arbor using one of the following methods which apply. Be sure that the Arbor is mounted in Spindle (28) before mounting hub and drum assembly.

a.-Loose Drum Set-up. Select proper Tapered Cone to fit in center of drum. Place one Face Plate on Arbor followed by the Spring and Tapered Cone. Place drum on Arbor over Tapered Cone and push drum up to pads of Face Plate. Place other Face Plate on Arbor and push up to drum. Place additional Spacers on Arbor so that the two Face Plates can be tightened together when the Arbor Nut is put on the end of Arbor and tightened. Make sure that the face plate pads are riding on a smooth dean surface of the drum (see figure 1-2).

b.-Tapered Hub. Select the proper Tapered Cones to fit in drum hub. On some drums the Tapered Cones go in about 1/4 of an inch. Place Tapered Cone for inside