

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL

LATHE, BRAKE DRUM, FLOOR

MOUNTED, 60-INCH RATED SWING,

9-TO 25-INCH DRUM DIAMETER,

10-INCH MAXIMUM CUTTING DEPTH,

STATIONARY CUTTING TOOL TYPE,

1/2-HP, AC, 10/220-VOLT, 60-CYCLE,

SINGLE PHASE

(LEMPCO PRODUCTS, INC. MODEL 802)

(4910-516-6192)

HEADQUARTERS, DEPARTMENT OF THE ARMY
SEPTEMBER 1965

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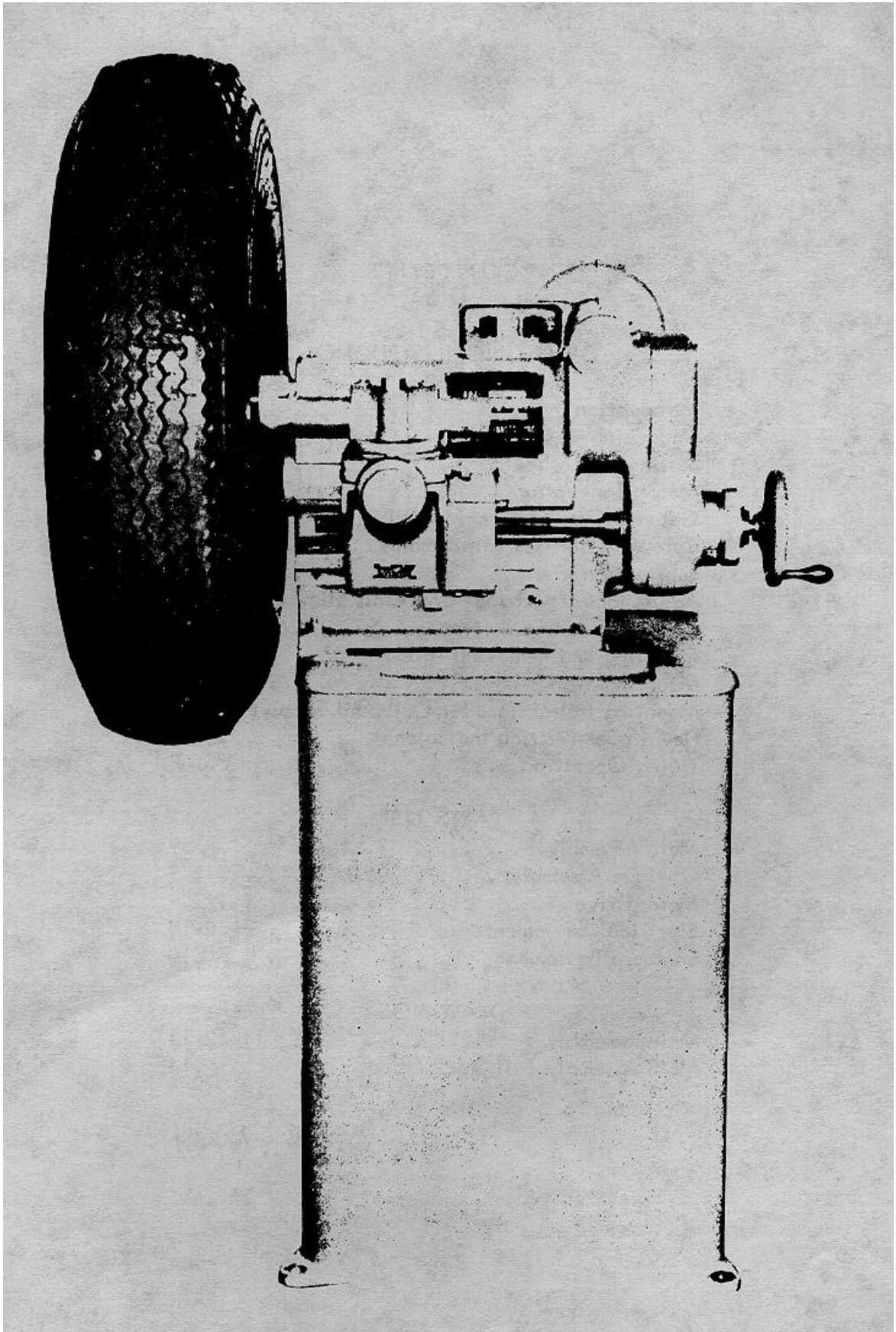
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OPERATING INSTRUCTIONS - BRAKE DRUM LATHE

Introduction

This instruction manual covers recommendations relative to the care and operation of the Brake Drum Lathe.

"Care of the Lathe" includes proper installation, close adherence to lubrication specifications with particular emphasis on oiling, and last, but not least, general rules governing cleanliness which must be followed at all times to retain the features of accuracy which have been built into the machine at the factory.

"Operation of the Lathe" includes various methods of mounting the drum on spindle, selection of correct spindle speeds and feeds, and a thorough knowledge of the function and use of all controls.

The importance of thorough reading and study of this entire manual cannot be emphasized too strongly and strict adherence to recommendations will result in faster setups, higher quality work, and longer tool and machine life.

UNPACKING

If preliminary inspection indicates the machine has arrived in good condition, the crate may be removed, **BUT DO NOT REMOVE THE SKIDS AT THIS TIME.** Be particularly careful not to pry against any part of the machine with a bar. Also be careful if using a heavy hammer or sledge, not to miss the crate and hit some vital part of the machine. Remove all packing paper.

After unpacking, take time to check to see if there is any damage which may not have shown up during the initial inspection.

SETTING UP LATHE

Remove lathe from skids and place on floor. Lag lathe to floor with lag bolts through the four corner holes.

MOTOR CONNECTIONS

Before connecting motor to line, be sure line voltage is the same as voltage stamped on tag attached to lead cable from motor. All lathes are wired for 115 volt AC at the factory. Any other voltage is by special order. A polarized plug with adapter is standard equipment on each lathe.

When electrical connections are made and lathe is operating, check rotation of work spindle. When standing on operator's side of lathe looking at top of spindle, top of spindle should turn towards you, or when looking at arbor end of spindle, spindle should rotate clockwise.

GENERAL CARE OF MACHINE AND ATTACHMENTS

Cleanliness is more than a virtue when it relates to machine tools. It is an absolute necessity to insure long life and correct functioning of the machine.

KEEP ALL MACHINED SURFACES CLEAN

The carriage and cross slide ways, likewise the top cross slides and bottom of the tool compound have perfect bearing between reciprocating parts. Borings, particularly those of cast iron, and even dust in the machine shop, are highly abrasive and if not wiped off the ways, will soon wear them out.

Do not assume that if ways wear, it can be taken up by adjusting the gibs. The gibs are useful for adjustment only as long as ways are straight. Worn ways, however, are never straight because they wear only at points in contact with chips or abrasives and only at points where carriage and cross slides are used the most. The balance of the ways remain much the same as when new. Then if gibs are adjusted to cause slides to work correctly at these worn points, slides will work too tightly, or it may be impossible to pass them over the unworn portions. Worn ways can only be corrected by scraping.

Keep work end of spindle wiped clean; it is a good policy to wipe it off every job. To insure correct fit of adapter, spindle end must be immaculately clean. Accuracy of rotation of adapter and brake drum which it clamps to spindle depends on a close, clean fit.