

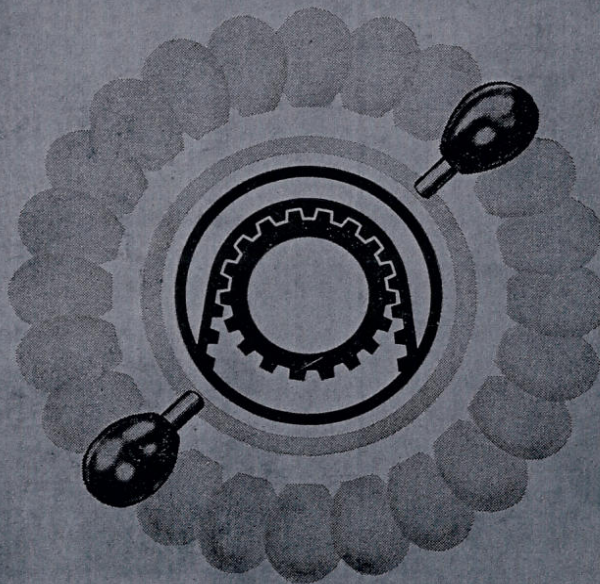
CLAUSING
REPLACEMENT PARTS # (219) 533-0371

OPERATING INSTRUCTIONS
and

PARTS LIST

CLAUSING
12

12-inch LATHES - 5900-series



CLAUSING

DIVISION OF ATLAS PRESS COMPANY

1915-2023 N. PITCHER ST., KALAMAZOO, MICHIGAN - U. S. A.

WARRANTY

Clausing machine tools are guaranteed against defects in material and workmanship for a period of one year from date of sale to original purchaser. Liability shall be limited to replacing, free of charge, f.o.b. factory, any such parts proving defective within the period of this warranty, but Clausing will not be responsible for transportation charges or other charges, loss or damages.

Clausing machine tools are guaranteed to equal or exceed the standards of accuracy as represented. Clausing reserves the right to make changes in design and construction without notice, and without making changes in products previously manufactured.

CLAUSING DIV.,
ATLAS PRESS CO.

**IMPORTANT --- YOUR CLAUSING WARRANTY
is NOT effective unless this card is returned ----**

Your Warranty THIS IS YOUR PERMANENT RECORD

MACHINE SERIAL NO: 504800 MODEL NO: 5914

NAME OF PURCHASER DABCO TOOL & DIE CO.

STREET 14721 W 11 MILE RD

CITY, ZONE, STATE OAK PARK MICH. 48237

PURCHASED FROM NATIONAL SALES

DATE PURCHASED _____

JEAN LOGAN

CLAUSING DIV., ATLAS PRESS CO., KALAMAZOO, MICH.

PHONE: Area Code 616 345-7455

This Manual Applies To Clausing 12" Lathes From Serial No. 502467 To _____

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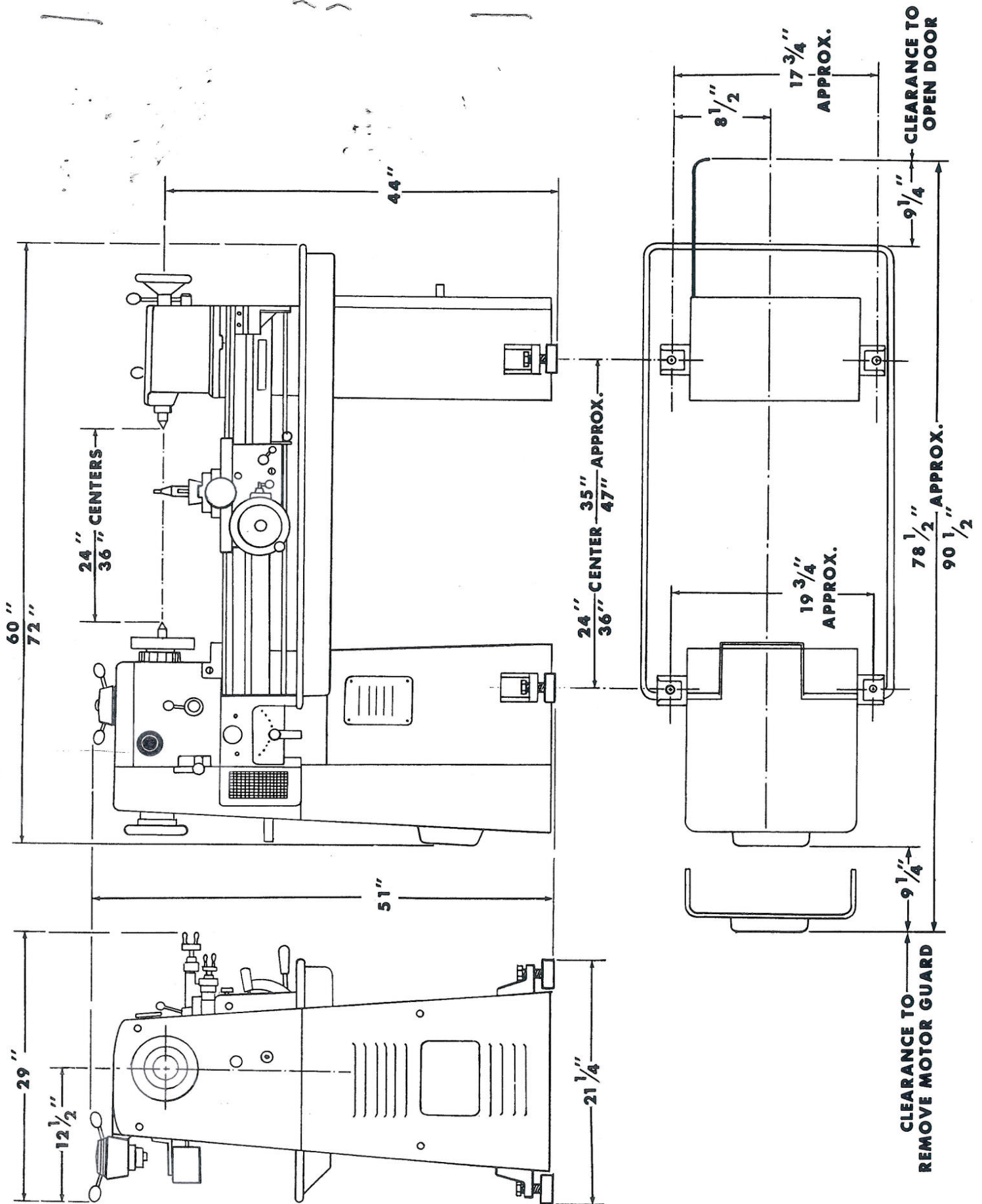
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GENERAL DIMENSIONS -- 5900 SERIES CLAUSING LATHES





DIVISION, ATLAS PRESS COMPANY
KALAMAZOO, MICHIGAN 49001

WIRING INSTRUCTIONS

for

4900-series

Serial Numbers from 400971

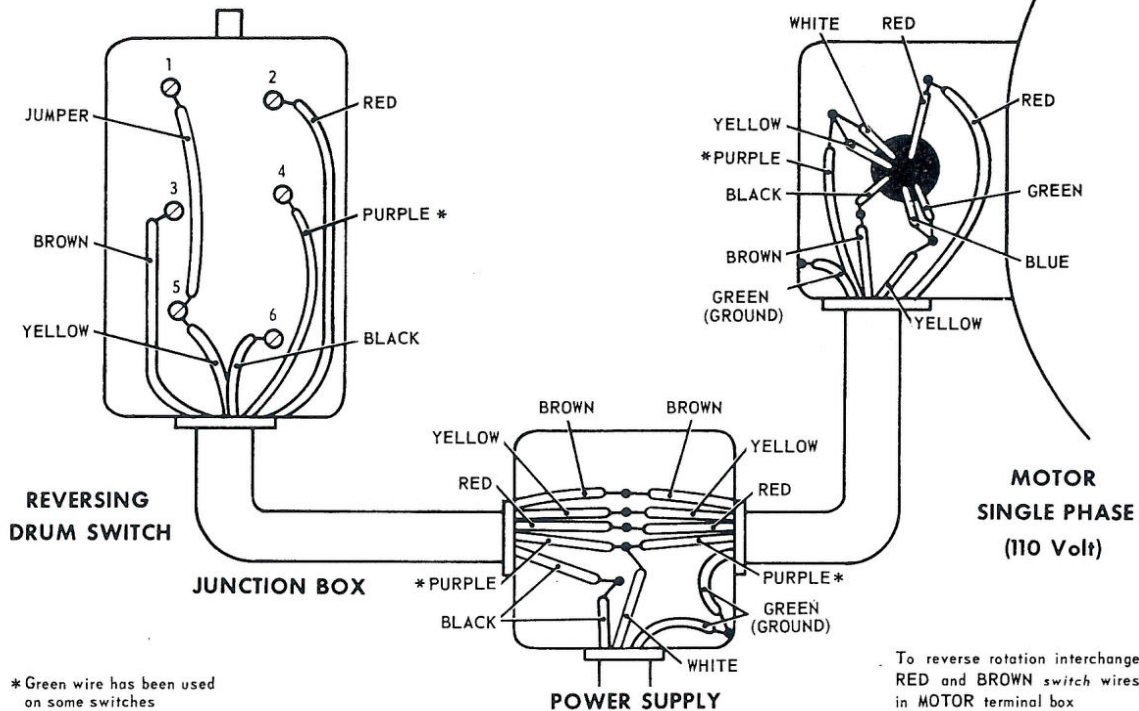
5900-series

Serial Numbers from 500817

CLAUSING LATHES

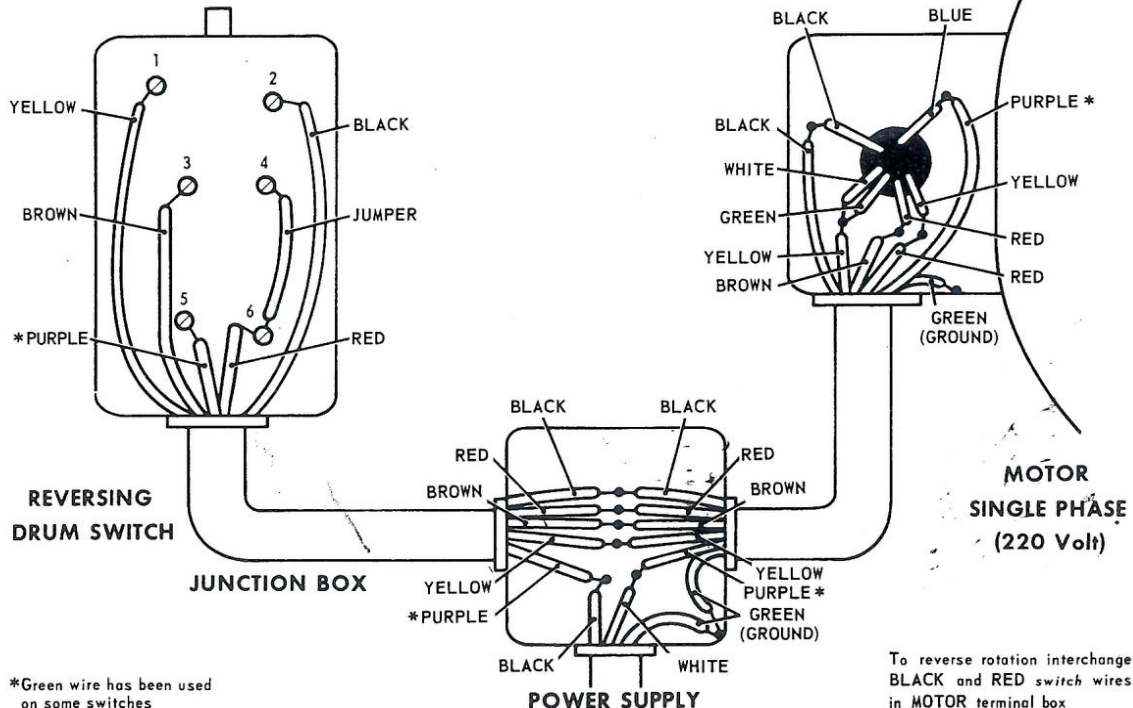
AUGUST 1963 FILE NO. 710-041-2

REVERSING SWITCH for SINGLE PHASE (110 Volt) MOTORS



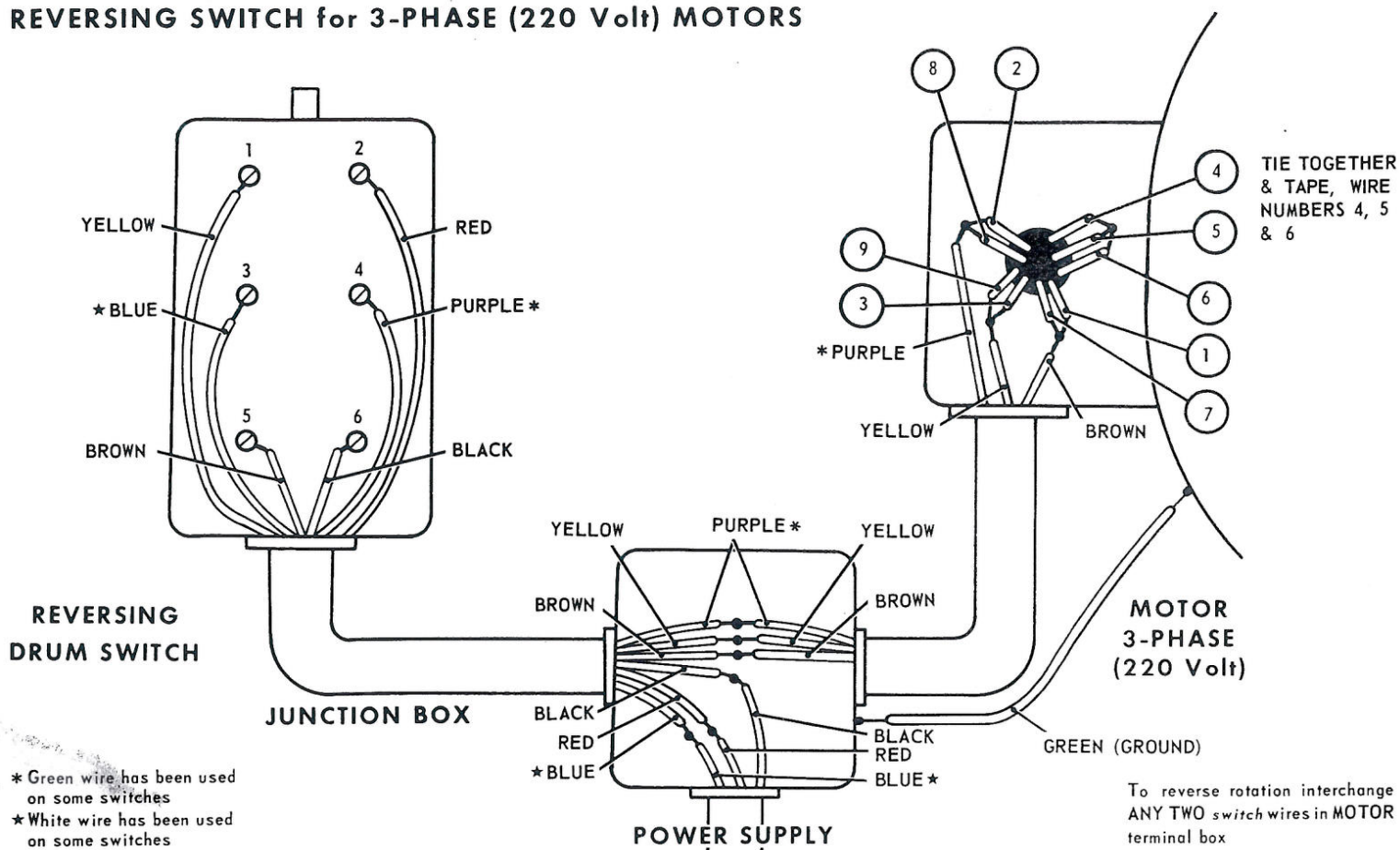
*Green wire has been used on some switches

REVERSING SWITCH for SINGLE PHASE (220 Volt) MOTORS

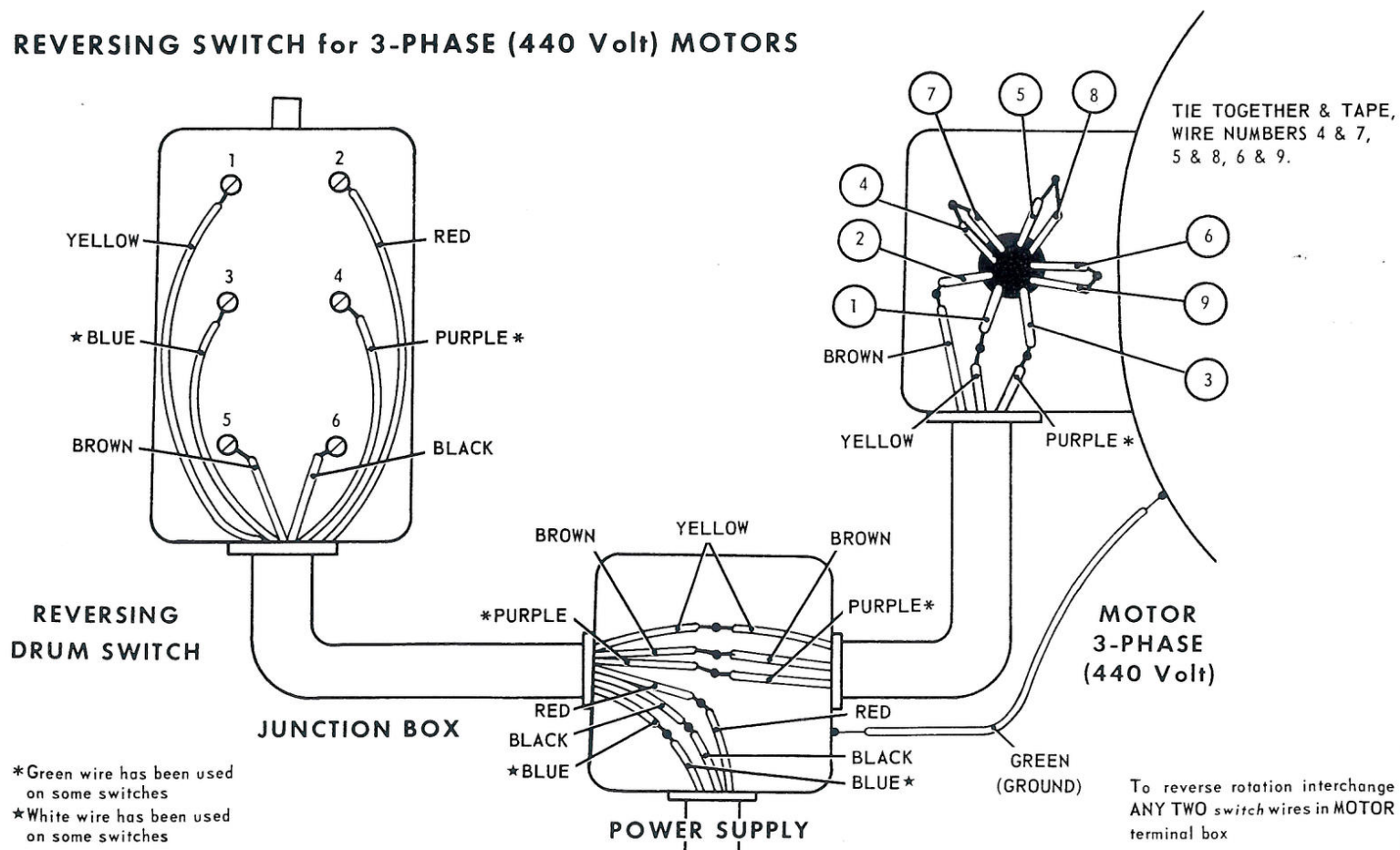


*Green wire has been used on some switches

REVERSING SWITCH for 3-PHASE (220 Volt) MOTORS



REVERSING SWITCH for 3-PHASE (440 Volt) MOTORS



INSTALLATION

FOUNDATION

Your Clausing lathe is a precision machine tool, and requires a solid foundation. The floor must be heavy enough to support the weight of the machine without noticeable deflection, and it must be level. If the floor does not meet these important requirements, a special foundation should be built.

CONCRETE FLOORS -- A reinforced concrete floor is the best foundation: it provides a rigid base, minimizes vibration from adjacent machines, and resists deflection.

WOOD FLOORS should be carefully checked for strength -- place a precision level on floor where lathe is to be located, and move a hand truck with average load past it. If bubble in level shows noticeable movement, the floor should be reinforced, or cut away and a concrete foundation installed.

CLEANING

Before moving carriage or tailstock along the ways, use a good grease solvent to remove the rust-proof coating applied to all polished and unpainted surfaces.

Do not use an air hose -- it could force dirt or grit picked up during transit into bearing surfaces.

Use a stiff bristle brush to clean lead screw.

When thoroughly cleaned, cover the unpainted surfaces with a light coating of "Way Lubricant" for proper lubrication.

Frequent cleaning and lubrication is essential to long service life -- see page 5 for instructions.

MOVING AND LIFTING

Leave lathe on skid -- simplifies moving to final location.

IMPORTANT: *DO NOT slide lathe along floor.*
DO NOT USE fork lift under chip pan.

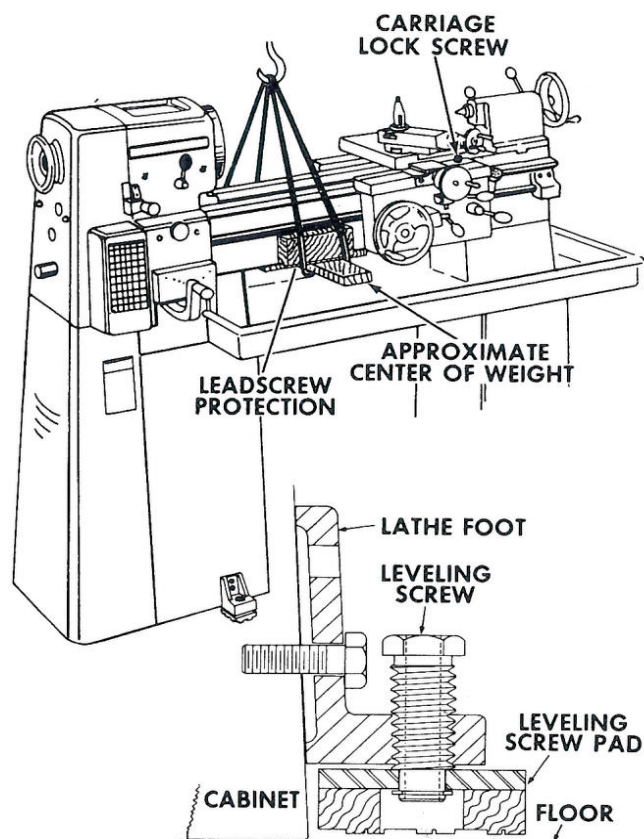


Figure 1

CAUTION: *DO NOT LOWER LEVELING SCREW PADS UNTIL LATHE IS READY TO BE LEVELED -- refer to figure 1.*

When using a sling -- clean bed ways, move tailstock to the right-hand end of the bed and lock it in place. To protect lead screw and bed, place a 3/4" thick hardwood board under approximate center of weight load, insert sling as shown in figure 1, and raise machine about one-inch off floor. Make any necessary adjustments for balance by moving carriage along bed. -- *Before moving carriage, loosen lock screw -- located on top right side of the carriage.*

If a fork lift is used, place 3/4" thick hardwood board under the bed so that the clutch rod will not be bent when the lathe is raised -- *do not pick up by chip pan.*

Mounting pads do not require anchoring.

Leveling screws are equipped with non-slip mounting pads which eliminate the need for anchoring or bolting machine to floor. Floor must be clean and free of oil.

ELECTRICAL CONNECTIONS

The machine is wired at factory -- merely connect power supply to line leads in junction box on back of headstock cabinet. **IMPORTANT:** To reverse rotation of motor interchange any two line leads -- see **WIRING INSTRUCTIONS**.

Before connecting motor, make sure that voltage and other current requirements of the motor correspond with your power supply. If there is any question, verify your current and voltage by calling your power company.

ANCHORING LATHE TO FLOOR

CAUTION: DO NOT SLIDE LATHE ALONG FLOOR.

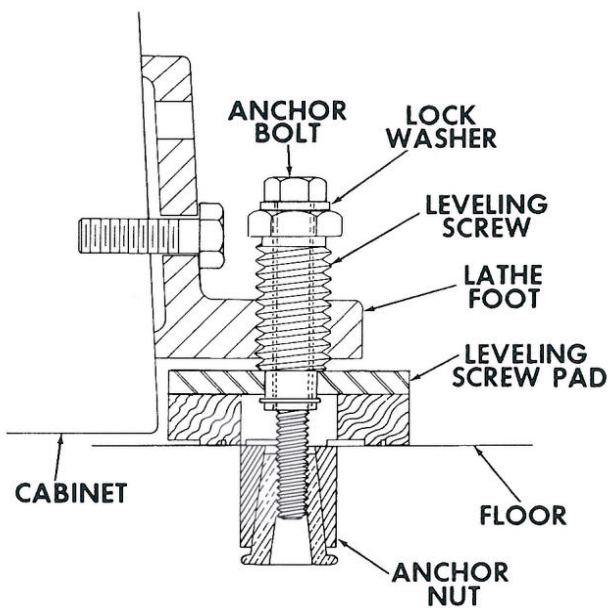


Figure 2

Use anchor bolts to secure lathe to concrete floor -- use lag screws to secure lathe to wood floor -- refer to figure 2.

With a hoist or lift, lower the lathe into position and mark the four leveling screw locations. **DO NOT LOWER LEVELING SCREW PADS.**

Lift machine out of the way, drill holes for anchor nuts and install anchor nuts -- for lag screws drill pilot holes.

Position and lower machine. Turn leveling screws until *no portion* of the lathe cabinet touches the floor -- shim under pads, if necessary.

Start anchor bolts or lag screws -- **DO NOT** tighten until lathe is level -- see Leveling Instructions.

LEVELING

The lathe should be kept perfectly level at all times. When carelessly mounted, the bed may become twisted. Even a slight amount of twist will move centers out of alignment and result in inaccurate work and excessive wear. Make it a habit to regularly check the level of the bed.

THIS IS IMPORTANT:

Use *one* precision level at least 6" long -- level should show a distinct bubble movement when a .003" shim is placed under one end.

Clean the bed ways thoroughly.

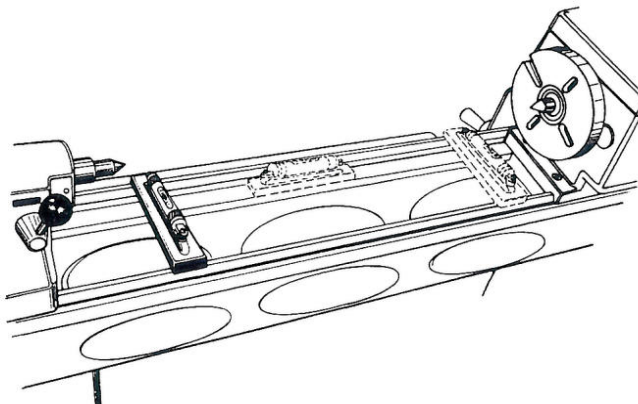


Figure 3

1. First level bed longitudinally, compensate for variations of bubble readings by turning the leveling screws on the cabinet base until bed is level -- refer to Figure 3 for level positions.

2. Next level both ends of the bed. The headstock and the tailstock -- must be checked with the level placed at right angles to the bed. Refer to Figure 3. Use a square to align the level. *Do not turn level end for end.*

Level reading at headstock and tailstock must be identical. Compensate for variations of bubble readings by turning the leveling screws until lathe is level.

NOTE: Avoid excessive adjustment of leveling screws by inserting shims between pads and floor.

3. Tighten the four anchoring bolts *not more than* finger-tight, or until the lock washers start to compress -- lag screws should be tightened, then backed off about one-quarter turn.

4. Recheck the level of the lathe -- unequal tightening of anchoring bolts may have pulled the bed out of level. Recheck leveling in 5 days.

Check level of bed at frequent intervals. Chatter -- turning taper -- boring taper -- facing convex or concave is the general result of an improperly leveled lathe.

LUBRICATION CHART - - - 5900 SERIES CLAUSING LATHES

CODE

D-DAILY oil with TEXACO WAY LUBRICANT "D" or equivalent.

WEEKLY

W1-Oil with TEXACO WAY LUBRICANT "D" or equivalent.

W2-Check oil level in window. Remove pipe plug and fill to mark with TEXACO REGAL PC-R&O oil or equivalent.

W3-With motor running and variable dial turned to low speed, fill with TEXACO REGAL PC-R&O oil or equivalent.

W4-Check oil level in window. Remove filler plug and fill to mark with TEXACO REGAL OIL "G" or equivalent.

W5-Fill countershaft fitting and grease the two fingers with TEXACO MARFAX H.D. #2 grease or equivalent.

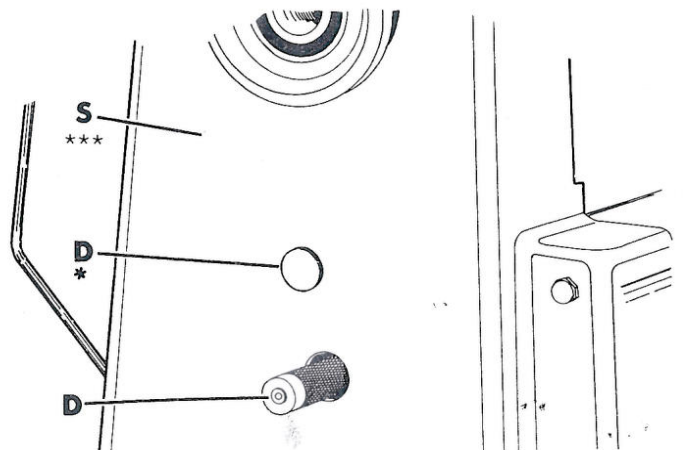
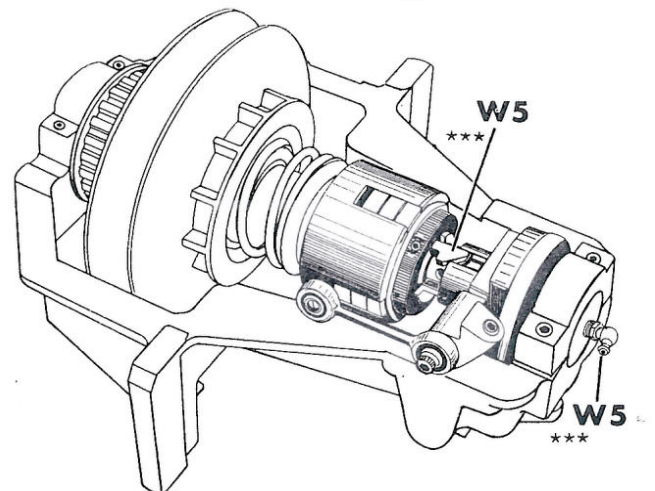
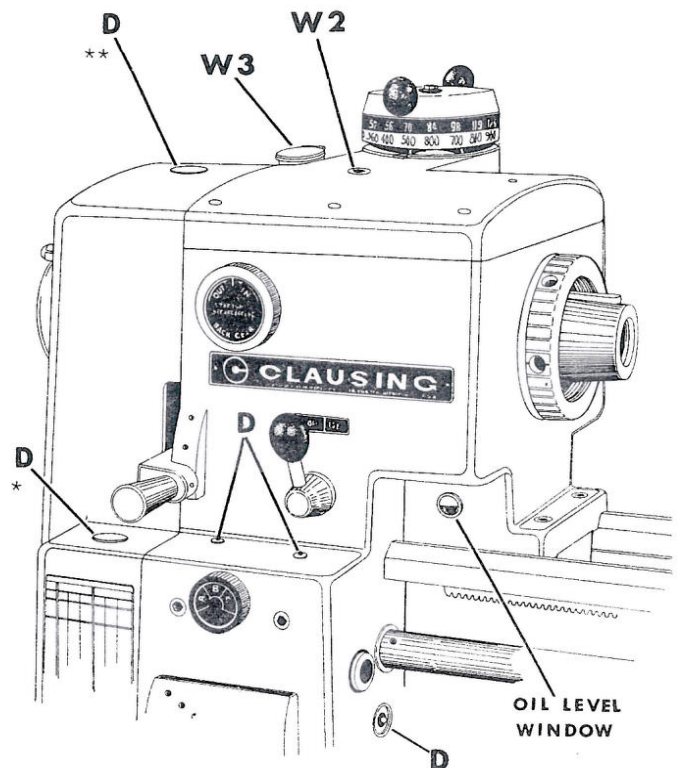
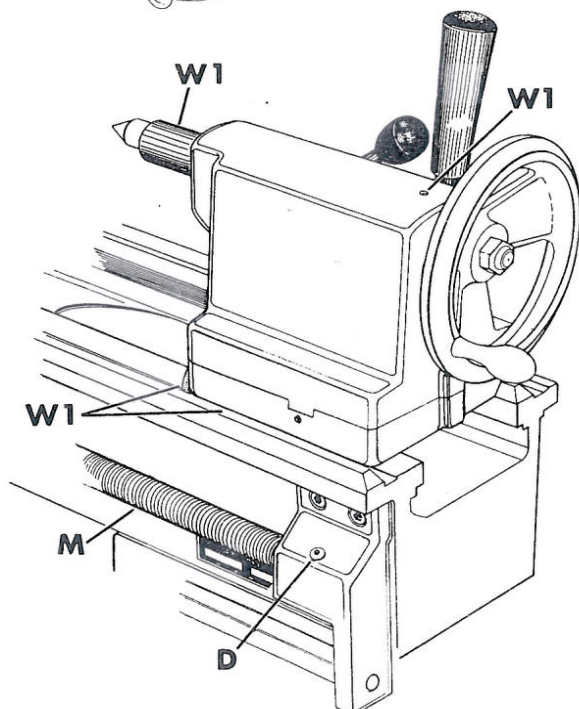
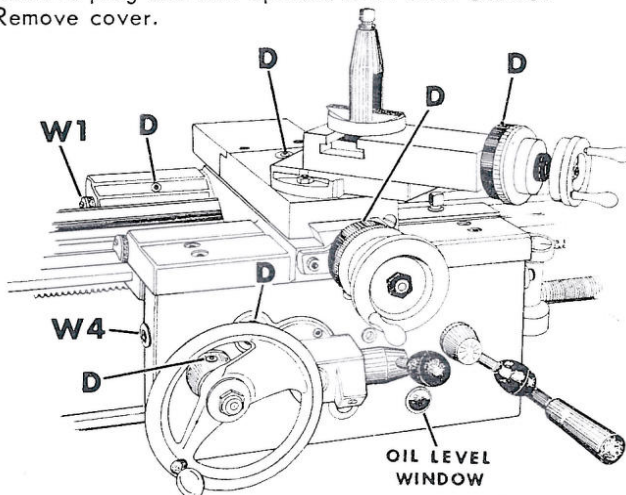
M-MONTHLY clean with Kerosene, then oil with TEXACO WAY LUBRICANT "D" or equivalent.

S-SEMIANNUALLY lubricate quadrant gear teeth with TEXACO CRATER No. 2X Fluid or equivalent. Remove oil and dirt before applying.

*Remove plug.

**Remove plug and turn spindle until oiler shows.

***Remove cover.



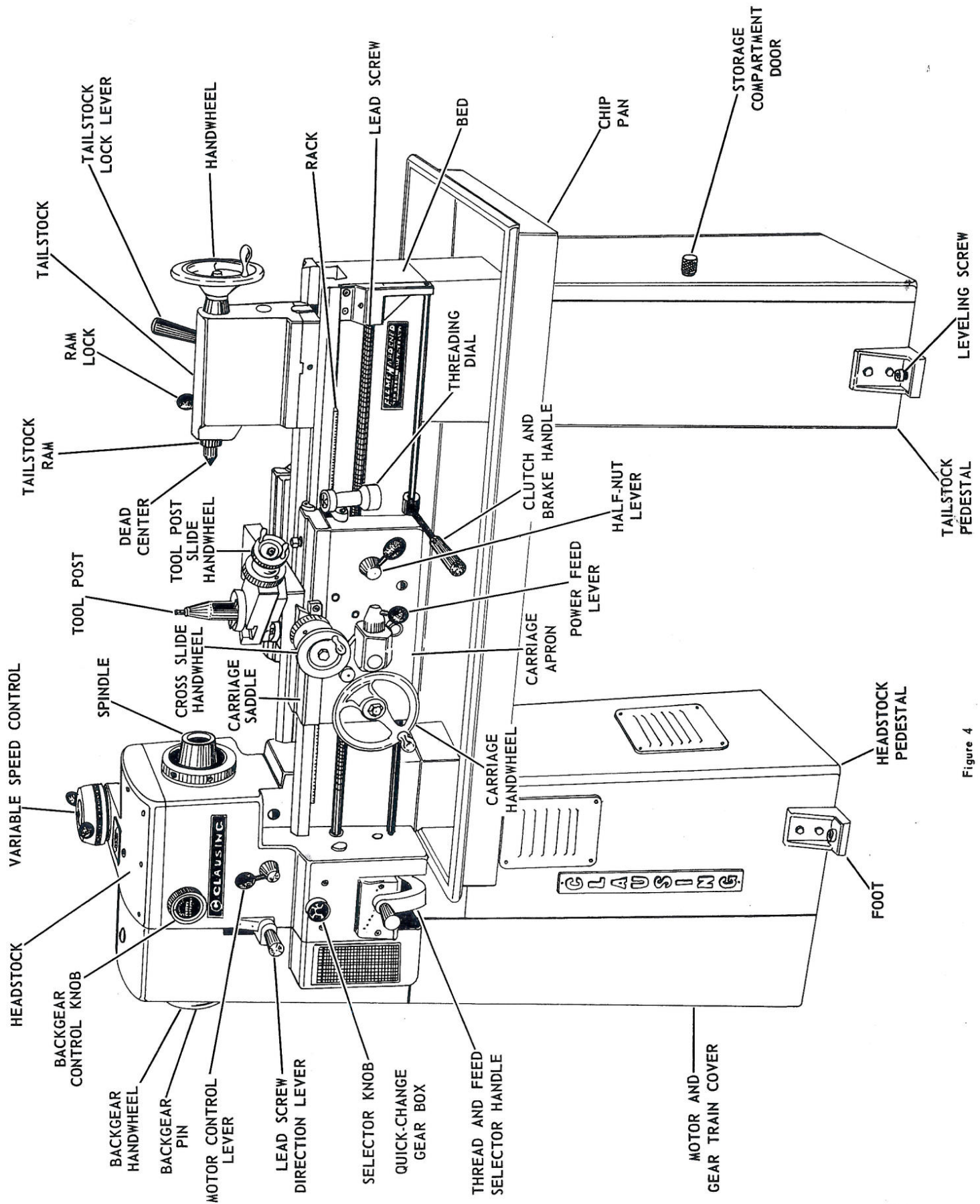


Figure 4

CONTROLS AND OPERATIONS

Do not operate lathe until you are thoroughly familiar with all controls and their functions. The machine is shipped from factory with gears set for direct drive and carriage locked to bed. *Read the instructions carefully.* Then, first operate the lathe in back gear -- get the "feel" of the controls -- set up different threads and feeds -- engage the power feeds -- get acquainted with the lathe before you start a job -- it will save time and produce better work.

HEADSTOCK

The totally enclosed headstock houses and supports the spindle, spindle bearings and driving gears. Gears, shafts, bearings and spindle bearings travel in a bath of oil.

BACK GEAR CONTROLS

BACK GEAR DRIVE provides the slow spindle speeds from 52 to 280 rpm required for heavy cuts and correct surface speeds for large diameter work.

IMPORTANT: The back gear knob should not be moved from one position to another unless motor is in "OFF" position. Spindle must come to a complete stop before changing drives.

To engage the back gear drive:

1. Stop lathe spindle.

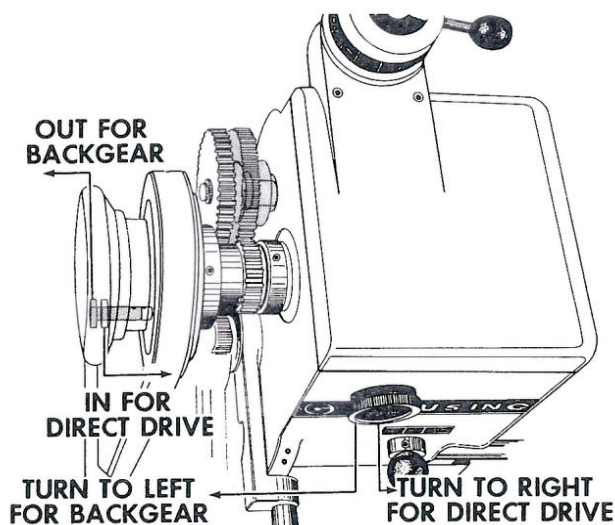


Figure 5

2. Turn back gear knob (figure 5) to the left -- rotate spindle by hand if gears do not mesh.
3. Disengage back gear pin from drive pulley by pulling pin away from headstock.

DIRECT DRIVE provides high spindle speeds from 360 to 2000 rpm.

To engage direct drive:

1. Stop spindle.
2. Turn back gear knob to the right.
3. Engage the back gear pin with drive pulley by pushing pin towards headstock -- rotate wheel if necessary.

SPINDLE SPEEDS

Speeds are changed hydraulically. Control dial, located on top of the headstock, actuates hydraulic system. Speeds -- between 52 and 280 rpm in back gear drive, and 360 to 2000 rpm in direct drive -- are obtained by turning the dial control.

Caution: DO NOT TURN CONTROL DIAL UNLESS MOTOR IS RUNNING -- it makes dial reading incorrect in terms of spindle rpm.

NOTE: Hydraulic system, however, is equipped with a by-pass valve that prevents damage if control dial is accidentally turned while motor is not running.

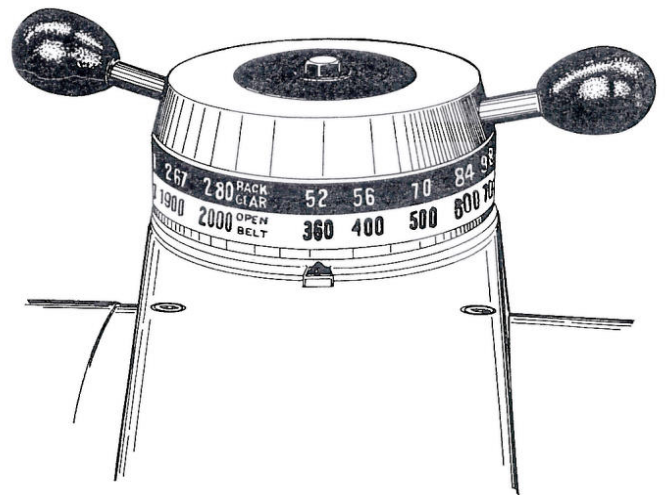


Figure 6

If dial reading is incorrect:

1. Start the motor -- turn variable speed control to 360 rpm (52 rpm if lathe is in back gear) -- refer to figure 6.
2. Hold at this speed, exerting slight pressure for 30 seconds.