511742-515899

# OPERATING INSTRUCTIONS
# and
# PARTS LIST

# CLAUSING

## 15-inch DRILL PRESSES

## VARIABLE SPEED DRIVE MODELS

**CLAUSING CORPORATION**
2019 N. PITCHER ST., KALAMAZOO, MI 49007

# CLAUSING CORPORATION

# SAFETY RULES FOR POWER TOOLS

## 1. KNOW YOUR POWER TOOL

Read the owner's manual carefully. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

## 2. GROUND ALL TOOLS

If tool is equipped with three-prong plug, it should be plugged into a three-hole receptacle. If adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a known ground. Never remove third prong.

## 3. KEEP GUARDS IN PLACE

and in working order.

## 4. REMOVE ADJUSTING KEYS AND WRENCHES

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on tool.

## 5. KEEP WORK AREA CLEAN

Cluttered areas and benches invite accidents.

## 6. AVOID DANGEROUS ENVIRONMENT

Don't use power tools in damp or wet locations. Keep work area well illuminated.

## 7. KEEP CHILDREN AWAY

All visitors should be kept a safe distance from work area.

## 8. MAKE WORKSHOP KID PROOF

— with padlocks, master switches, or by removing starter keys.

## 9. DON'T FORCE TOOL

It will do the job better and be safer at the rate for which it was designed.

## 10. USE RIGHT TOOL

Don't force tool or attachment to do a job it was not designed for.

## 11. WEAR PROPER APPAREL

No loose clothing or jewelry to get caught in moving parts.

## 12. USE SAFETY GLASSES

Also use face or dust mask if cutting operation is dusty.

## 13. SECURE WORK

Use clamps or a vise to hold work when practical. It's safer than using your hand, frees both hands to operate tool.

## 14. DON'T OVERREACH

Keep your proper footing and balance at all times.

## 15. MAINTAIN TOOLS IN TOP CONDITION

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

## 16. DISCONNECT TOOLS

before servicing and when changing accessories such as blades, bits, cutters.

## 17. AVOID ACCIDENTAL STARTING

Make sure switch is "OFF" before plugging in cord.

## 18. USE RECOMMENDED ACCESSORIES

Consult the owner's manual. Use of improper accessories may be hazardous.

The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before commencing power tool operation.

INSTRUCTIONS AND PARTS

CLAUSING

DIVISION, ATLAS PRESS COMPANY
KALAMAZOO, MICHIGAN 49001

# 15" DRILL PRESSES

## VARIABLE SPEED DRIVE

MODELS 1660 THROUGH 1793

**SERIES — 16VC- 1 — 16VT- 1**

*FROM SERIAL No. 511742 TO 515899*

JUNE 1965 FILE NO. 1661-3

1.3
2.2
3.3
4.1
5.1
6.3
7.1
8.1
8.2

### LEVELING THE DRILL PRESS

Drill press should be level and rest solidly on floor; place shims underneath the three foundation holes to level the drill press. Equal pressure should be applied to foundation bolts to prevent distorting the base.

### RAISING HEAD AND TABLE TO OPERATING POSITION

1. To position drill head, loosen clamp handle on left side of drill press.
2. Slide head up column to desired height and tighten clamp handle.
3. Loosen set screw in safety collar and slide it up column until it touches bottom of head, then tighten set screws.
4. To position table, loosen clamp handle on right side of table.
5. Slide table up column to desired height, and tighten clamp handle.

*Generally, the normal and most convenient position for the head is about 8" to 10" from top of column.*

*IMPORTANT: Always keep safety collar locked under head.*

### LUBRICATION

Keep QUILL (A) and COLUMN (C) covered with a light film of oil– see Fig. (1). FEED SHAFT (B) grease weekly with No. 1 bearing grease — fittings under head.

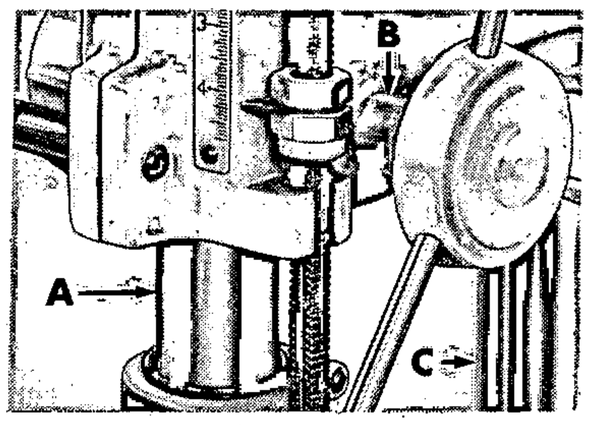


Figure 1

*All bearings in the head and lower quill are sealed-for-life ball bearings and do not require lubrication. Occasionally grease spindle splines.*

Once a year, clean and grease (medium cup grease) cam in handwheel (C, fig. 2). To disassemble — loosen screw (A) and remove plate (B); remove handwheel by taking out center bolt.

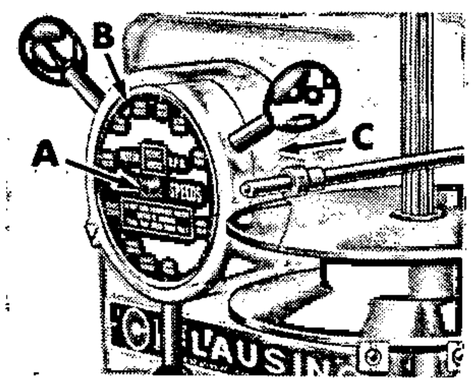


Figure 2

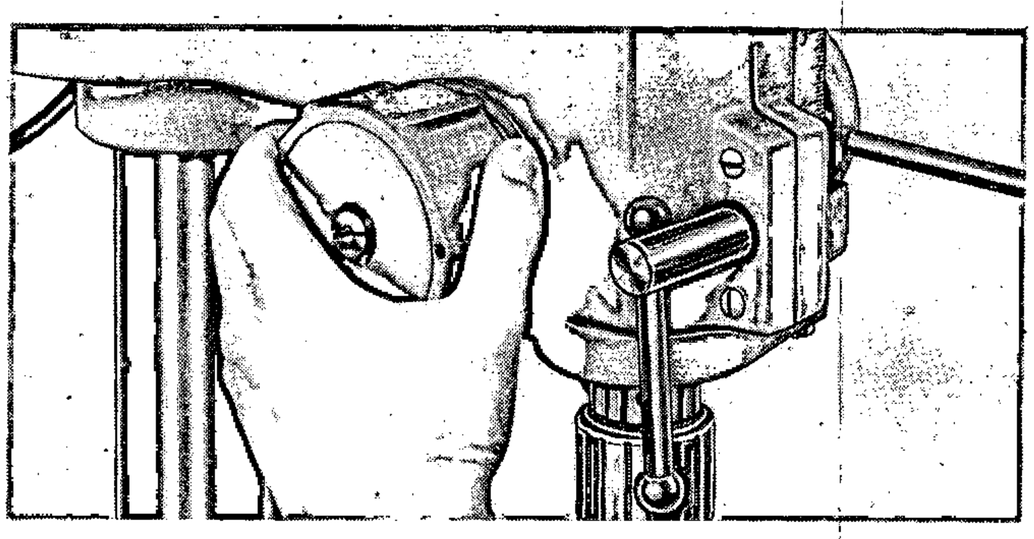


Figure 3

### ADJUSTING SPINDLE RETURN SPRING

To increase tension, lower quill to bottom of stroke, turn the spring cap counter-clockwise. To release tension, pull out spring cap (fig. 3) and turn clockwise.

### ADJUSTING SPINDLE END PLAY

1. Release spindle return spring tension (fig. 3).
2. While holding spindle to prevent its falling, remove hex nut on bottom of depth stop rod. Remove spindle and quill assembly from head.
3. Loosen set screw in collar directly above quill.
4. Push spindle firmly against bottom of quill. Force collar against top of quill and lock collar in this position.
5. Rotate spindle by hand to make sure it turns freely — *DO NOT have adjustment too tight.*
6. Replace spindle — quill assembly.

### ADJUSTING DEPTH STOP

1. When setting drill depth, position pointer at depth required and tighten nuts.
2. Loosen screws and with quill at maximum travel, position scale so pointer is at 4¾", then tighten screws (A, fig. 4).

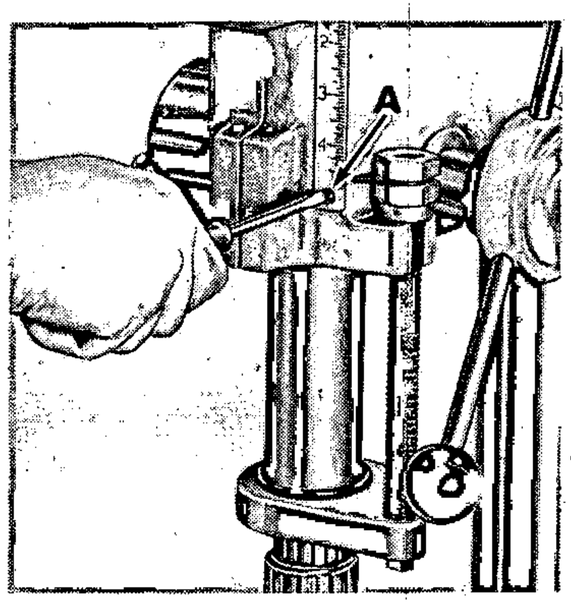


Figure 4

## CHANGING SPINDLE SPEEDS

To change speeds on variable drive, turn handwheel control until pointer shows desired speed.

CAUTION: *Do not turn handwheel control unless motor is running.*

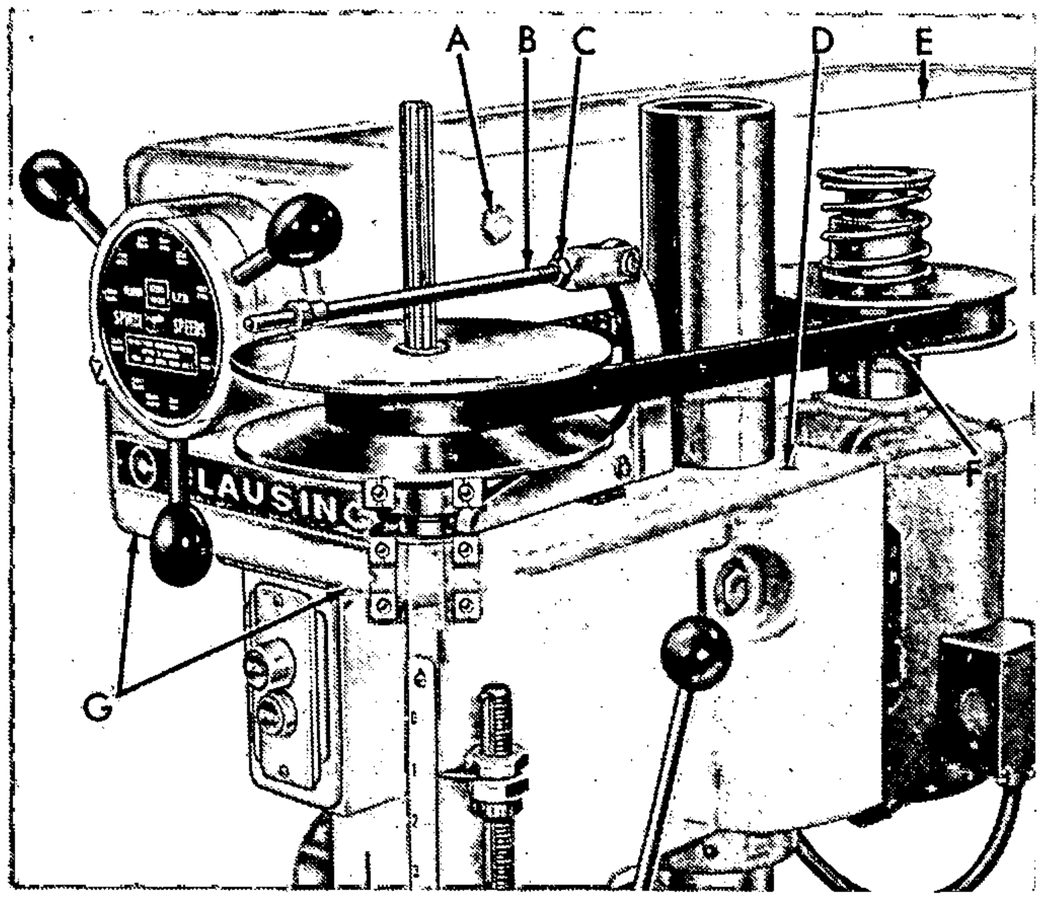



Figure 5

## REPLACING VARIABLE SPEED BELT

1. With motor running, turn variable speed dial to 700 rpm, then turn off motor.
2. Turn variable dial to lowest speed – this releases belt tension.
3. Remove cap screws (A&D, fig. 5) and slide guard (E) off rear of machine.
4. Remove cap screws (G) from spindle pulley guard.
5. Remove pulley guard by pulling forward.
6. Remove old belt.
7. Slip new belt over spindle pulley. Work belt on to motor pulley by rotating motor pulley by hand.

***IMPORTANT: Belt Adjustment.***

8. Install pulley guard. Start motor and turn variable control dial to highest speed – variable belt (F) should be flush with outside of motor pulley.

   If variable belt is not flush with pulley:

   A. Loosen lock nut (C) and turn adjusting rod (B) clockwise (with pliers) until belt is flush.

   B. Tighten lock nut (C).

   If variable belt projects beyond the pulley edge:

   A. Loosen lock nut (C) and turn adjusting rod (B) counterclockwise until belt is flush with edge.

   B. Tighten lock nut (C).

9. Install belt guard.

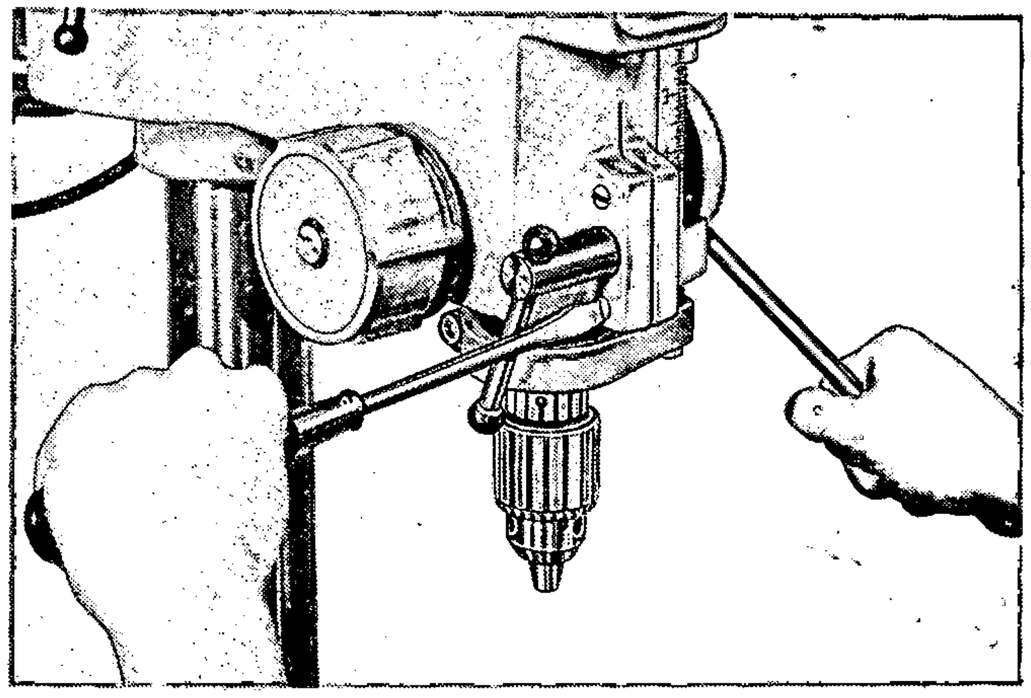


Figure 6

## QUILL TAKE-UP

Front of drill press head is split and has two screws that have been set at factory to provide an accurate fit between head and quill. This setting should not be disturbed unless play develops between quill and head.

To eliminate play, tighten the two screws on each side of quill lock (use correct size screw driver) until all play has been removed. Fig. (6). Move quill up and down in head to make sure it slides freely with no play

— DO NOT HAVE ADJUSTMENT TOO TIGHT.

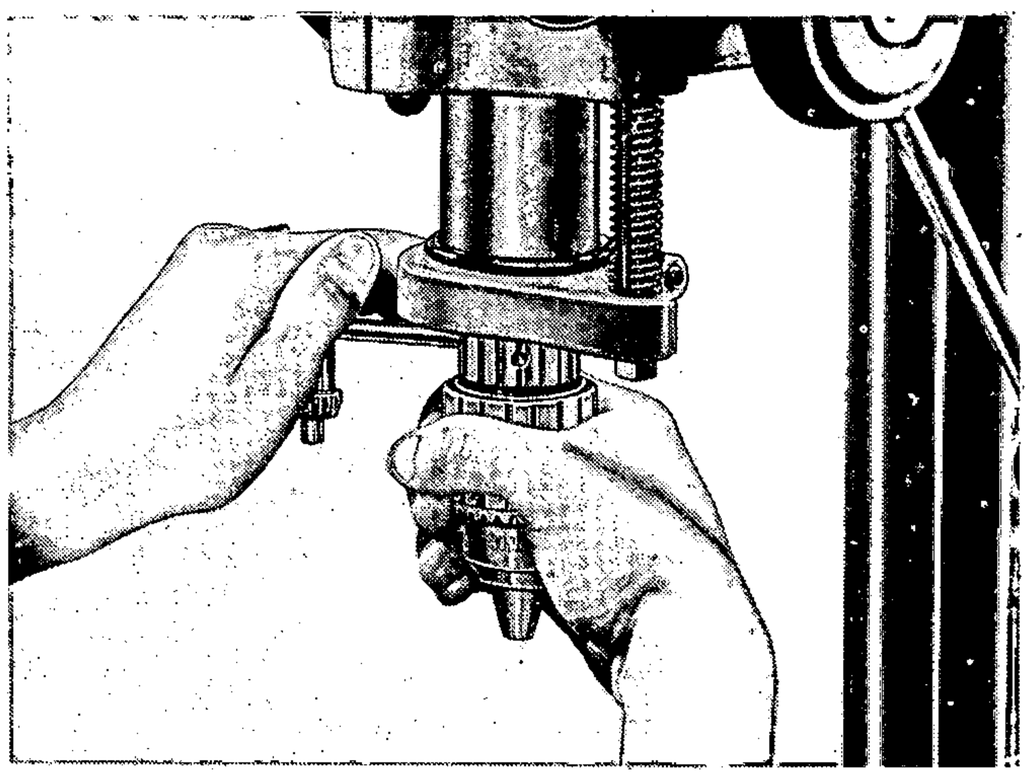


Figure 7

## REMOVING CHUCK

Insert chuck wrench handle in hole in chuck collar. While holding chuck in right hand, strike wrench handle with heel of left hand in a clockwise direction — see Fig. (7). Continue turning collar to remove chuck from spindle.

*Important* — Always clean spindle taper and chuck taper bore before replacing chuck. Chips or dirt score the spindle and cause chuck to slip and run out of true.

# PARTS INDEX

for

# 15" CLAUSING DRILL PRESSES

## VARIABLE SPEED DRIVE

## *MODELS 1660 THROUGH 1793*

16VC-1 - JACOBS CHUCK - SERIES

16VT-1 - MORSE TAPER - SERIES

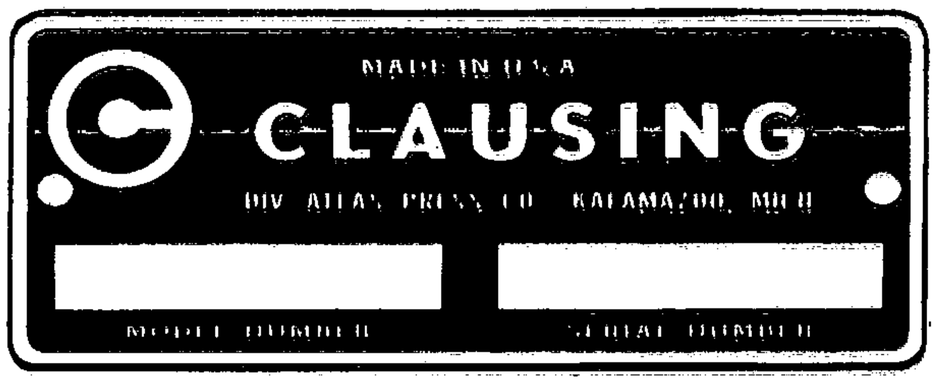
# FROM SERIAL NO. 511742 TO 515899



## INSTRUCTIONS FOR ORDERING REPAIR PARTS

It is important to furnish the following information in addition to QUANTITY required:

1. PART NUMBER
2. PART NAME
3. MODEL and SERIAL NUMBER of machine tool – you'll find both on the metal plate attached to machine -- note illustration below.




Be sure to give Model and Serial Number on this plate.

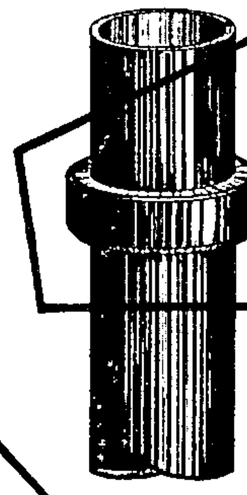
NOTE: Screws and nuts shown without part numbers should be purchased locally.

We reserve the right to make changes in design and specifications without notice.

VARIABLE SPEED SERIAL NO.
511742 TO 515899

# 15" DRILL PRESS
# COLUMN, TABLE AND BASE

**1615**
COLUMN COLLAR ASSEMBLY



**123-044**
COLUMN COLLAR

**557-024**
COLUMN COLLAR PLUG (2 Req'd)

3/8" - 16 x 3/8"
SOCKET SET SCREW
2 Req'd

**1620-16**
TABLE AND BRACKET ASSEMBLY

**703-008**
TILT SCALE

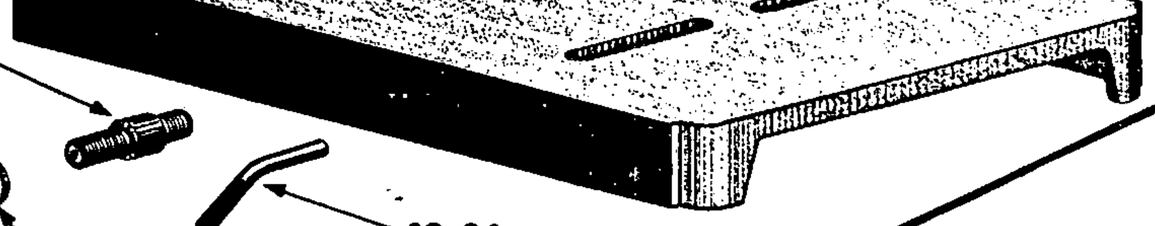
No. 6 - 32 x 3/16
ROUND HEAD MACHINE SCREW
(2 Req'd)

**1620-20**
LOCK ASSEMBLY

½-13 x 3
HEX HEAD CAP SCREW

**829-037**
TABLE

**041-176**
TABLE BRACKET



**698-056**
TABLE STUD

**40-36**
TABLE INDEX PIN

**932-052**
SPECIAL WASHER

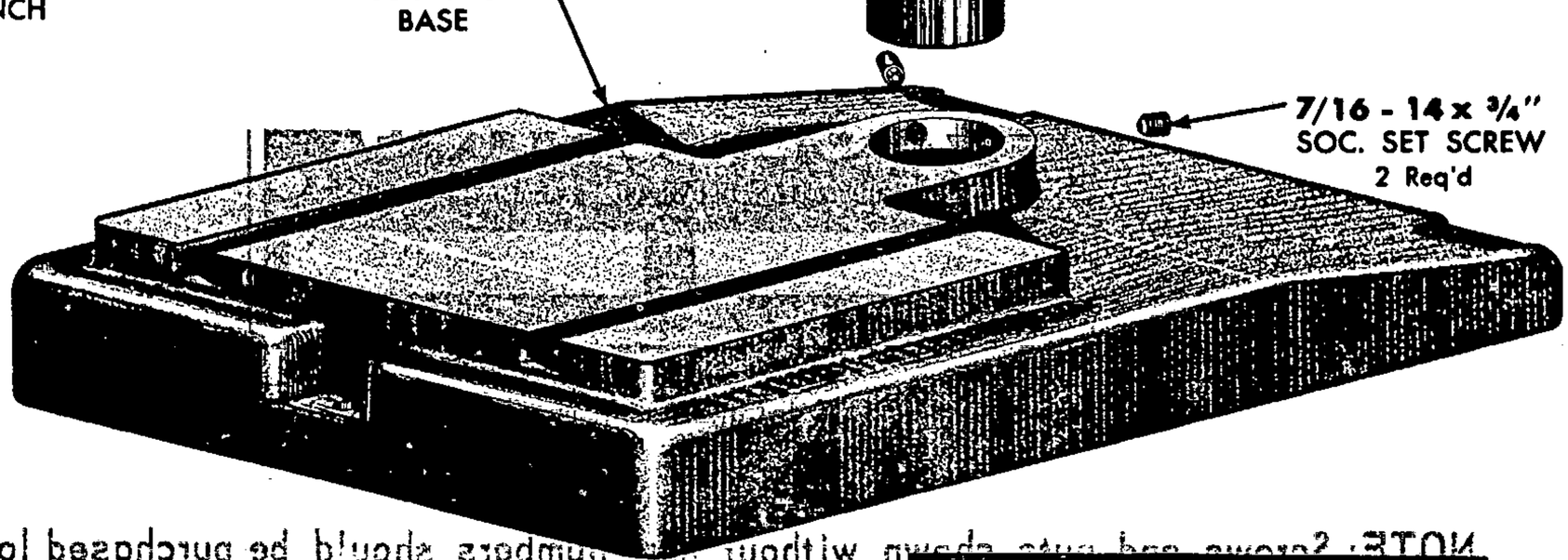
5/8"-18
HEX FULL NUT

**138-004**
BENCH MODEL COLUMN

**138-003**
FLOOR MODEL COLUMN

**W44-4**
ALLEN WRENCH

**050-045**
BASE



**7/16 - 14 x ¾"**
SOC. SET SCREW
2 Req'd

NOTE: Screws and nuts shown without part numbers should be purchased locally.

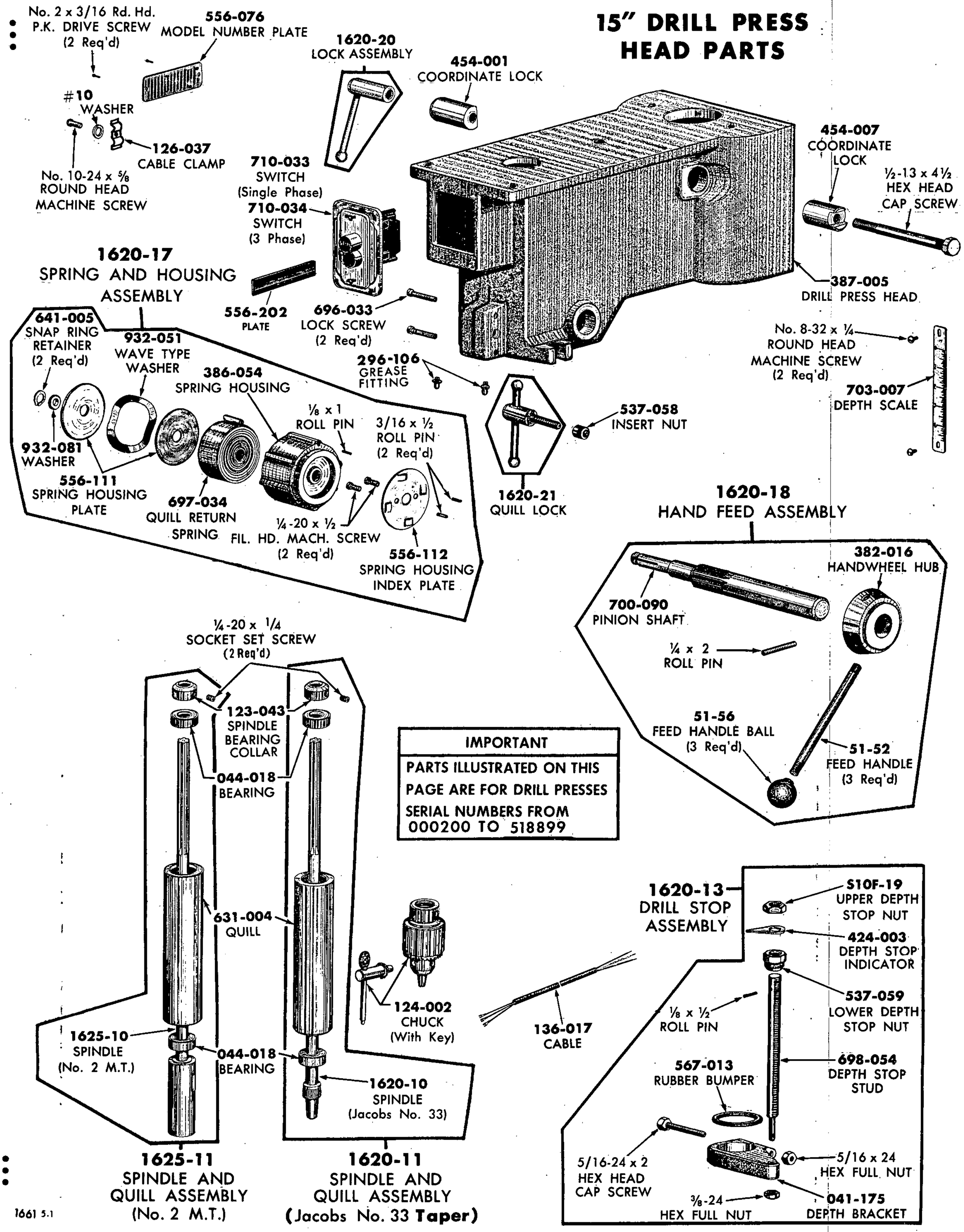
We reserve the right to make changes in design and specifications without notice.

**IMPORTANT**

**PARTS ILLUSTRATED ON THIS PAGE ARE FOR DRILL PRESSES SERIAL NUMBERS FROM 000200 TO**

VARIABLE SPEED SERIAL NO. 512289

# 15" DRILL PRESS HEAD PARTS



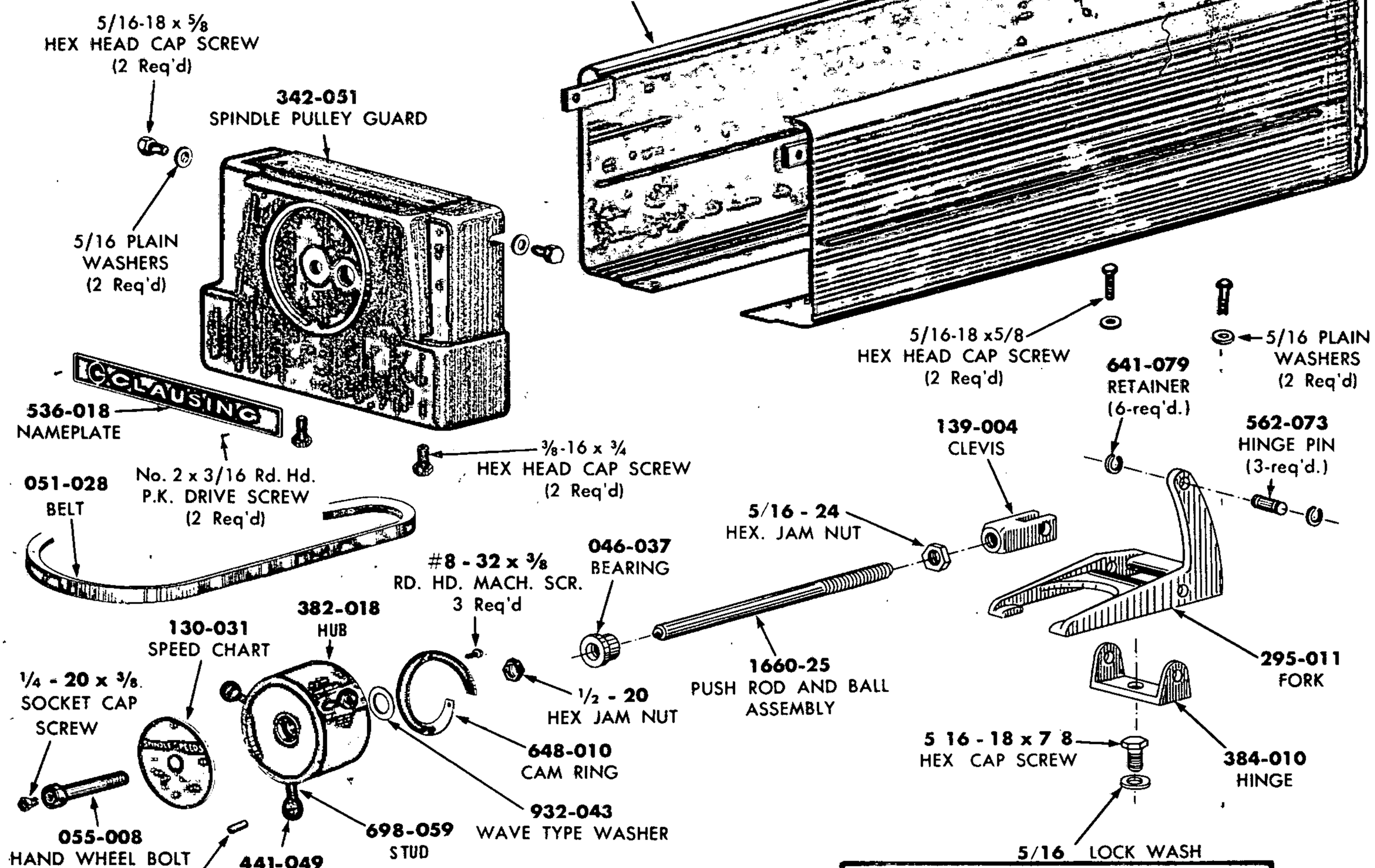

**IMPORTANT**

PARTS ILLUSTRATED ON THIS PAGE ARE FOR DRILL PRESSES SERIAL NUMBERS FROM 000200 TO 518899

**1625-11** SPINDLE AND QUILL ASSEMBLY (No. 2 M.T.)

**1620-11** SPINDLE AND QUILL ASSEMBLY (Jacobs No. 33 **Taper**)

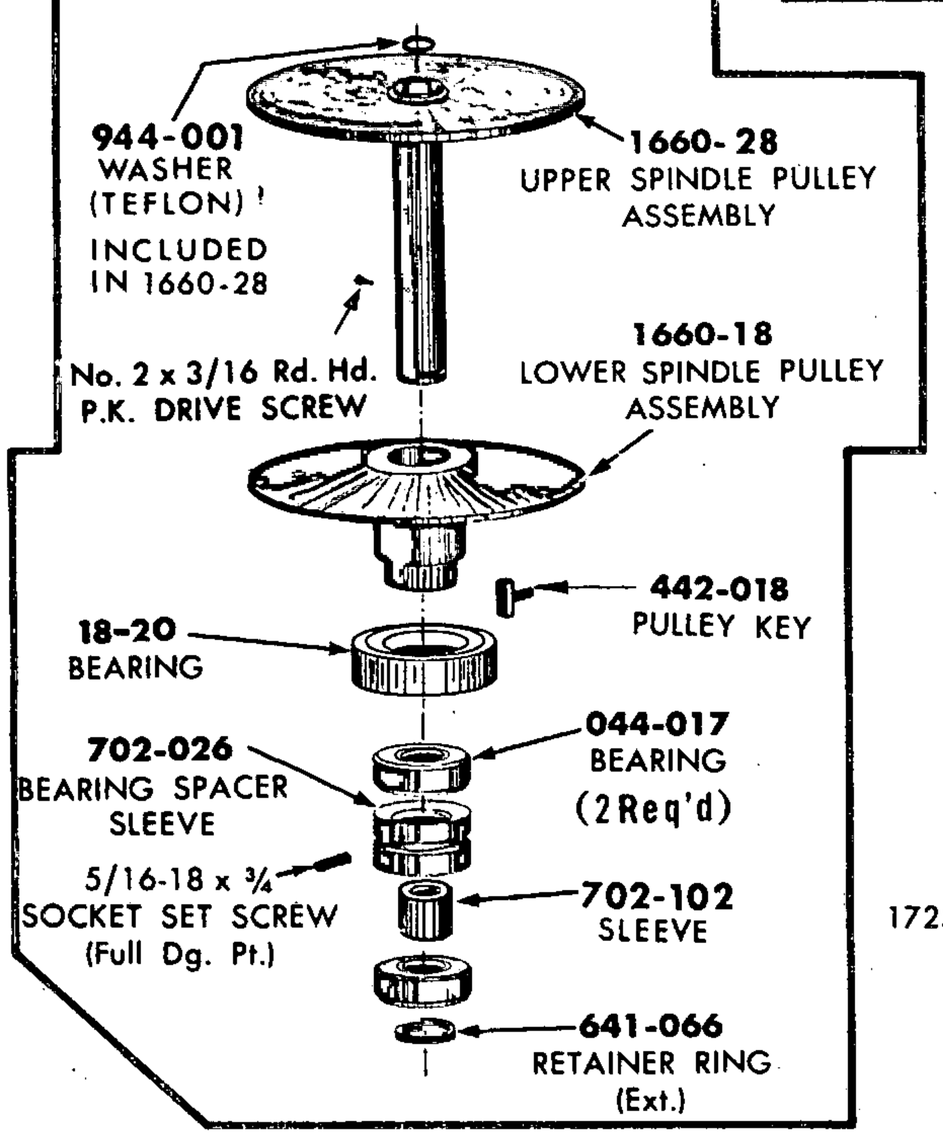
# 15" DRILL PRESS
# VARIABLE DRIVE PARTS



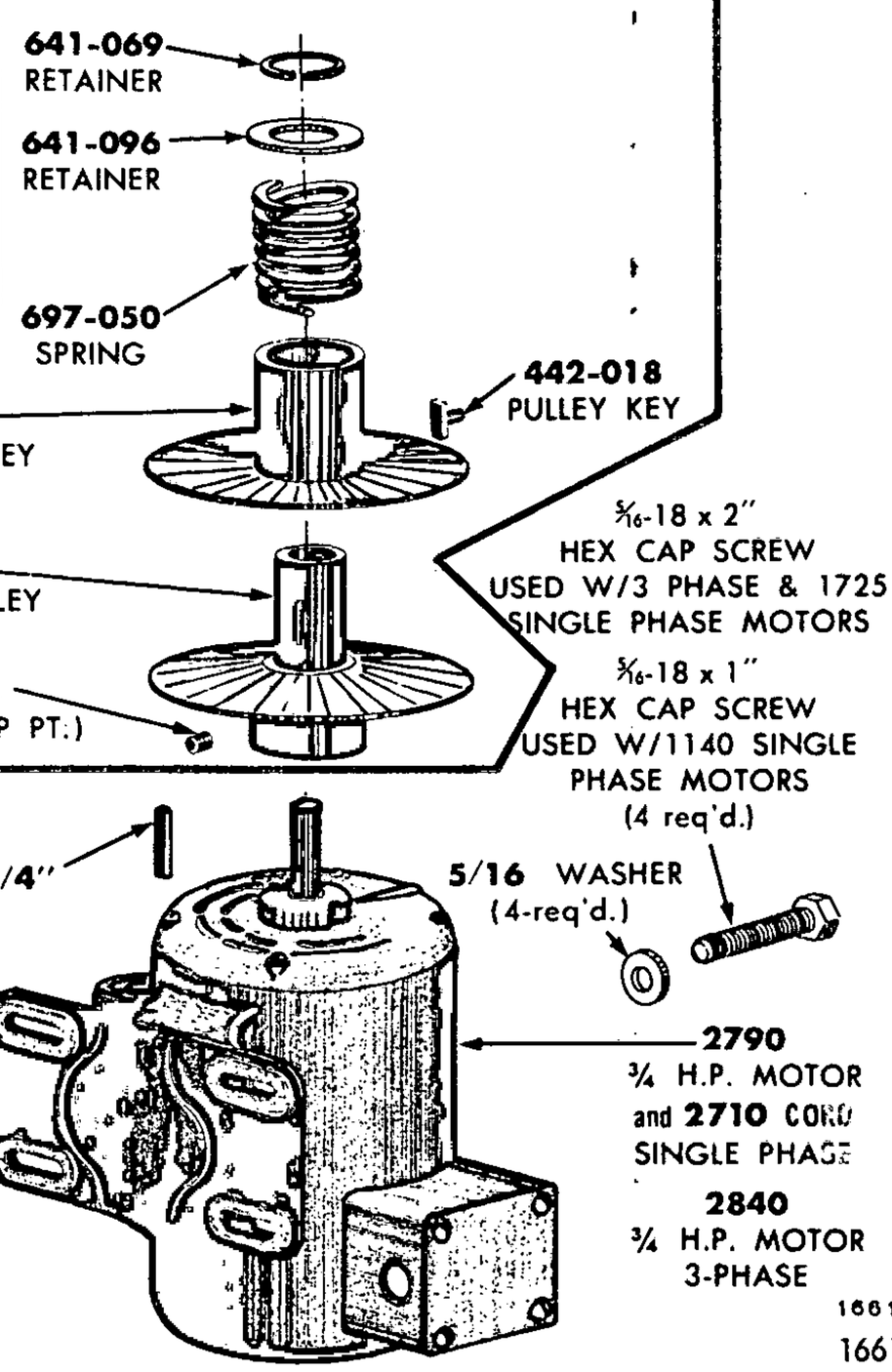

**IMPORTANT**

**PARTS ILLUSTRATED ON THIS PAGE ARE FOR DRILL PRESSES SERIAL NUMBERS FROM 511742 TO 515899**

## 1660-29
## SPINDLE PULLEY ASSEMBLY
(WITH BEARINGS AND SPACER)



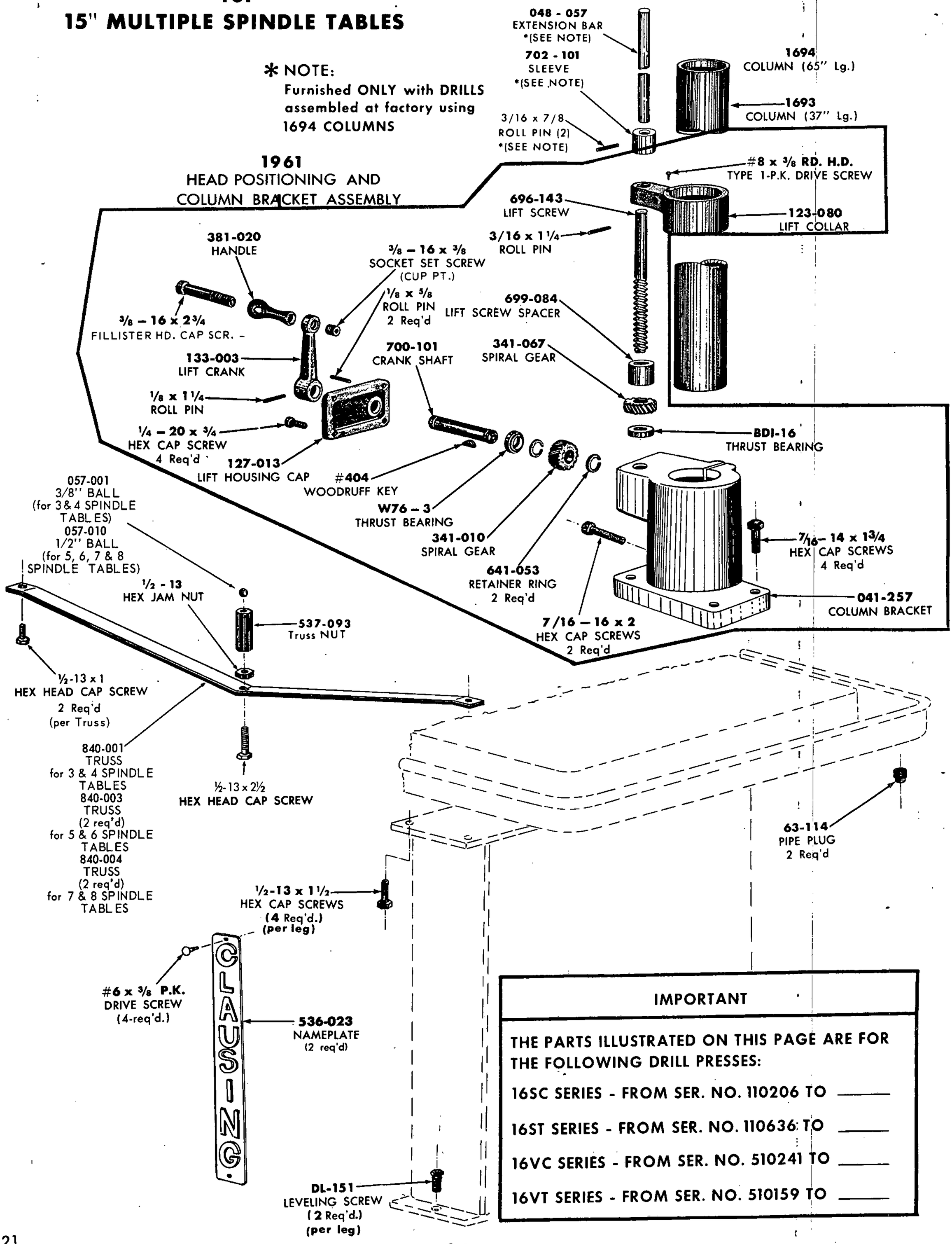

## 1660-24
## MOTOR PULLEY ASSEMBLY



# NO. 1961 HEAD POSITIONING AND COLUMN BRACKET PARTS
## for
## 15" MULTIPLE SPINDLE TABLES

✻ NOTE:
Furnished ONLY with DRILLS assembled at factory using 1694 COLUMNS

**1961**
HEAD POSITIONING AND COLUMN BRACKET ASSEMBLY




| IMPORTANT |
|---|
| THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR THE FOLLOWING DRILL PRESSES: |
| 16SC SERIES - FROM SER. NO. 110206 TO _____ |
| 16ST SERIES - FROM SER. NO. 110636 TO _____ |
| 16VC SERIES - FROM SER. NO. 510241 TO _____ |
| 16VT SERIES - FROM SER. NO. 510159 TO _____ |

# 15'' MULTIPLE SPINDLE TABLE PARTS

## OIL TROUGH TABLES AND LEGS

**050-052** BASE. 22'' x 25'' working surface. Single 15'' head.

**No. 1692** TABLE. 20" x 30" working surface. Takes two 15" heads.

**No. 1696** TABLE. 20" x 60" working surface. Takes four 15" heads.

**No. 1697** END SECTION. Two sections provide 20" x 90" working surface. Two take six 15" heads.

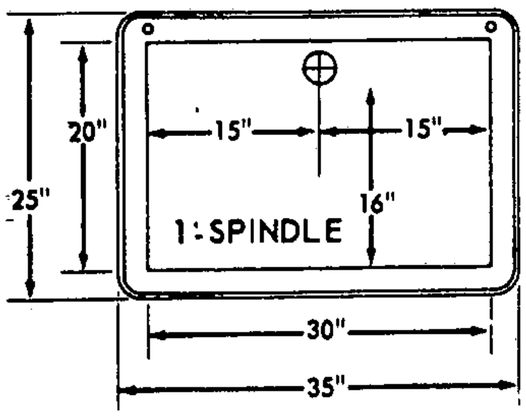
**No. 1698** MID SECTION. 20" x 30" working surface. Takes two 15" heads. Use with two No. 1697 End Sections.

**No. 1699** TABLE LEG. *Two* required for Nos. 1692 and 1696, *three* required for two No. 1697, and *three* for two No. 1697 with one No. 1698.

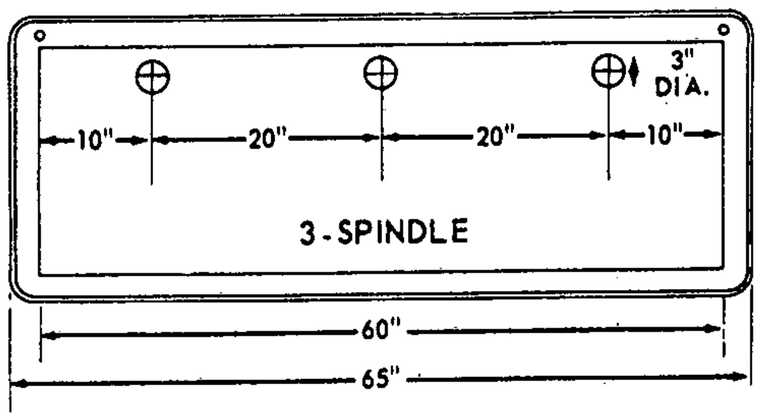
***Tables are drilled for legs. Holes for column mounting brackets drilled on order to customer's specifications.***

HEAD AND COMPONENT PARTS ARE ILLUSTRATED ON PARTS PAGES IN THE FRONT OF THIS SECTION.

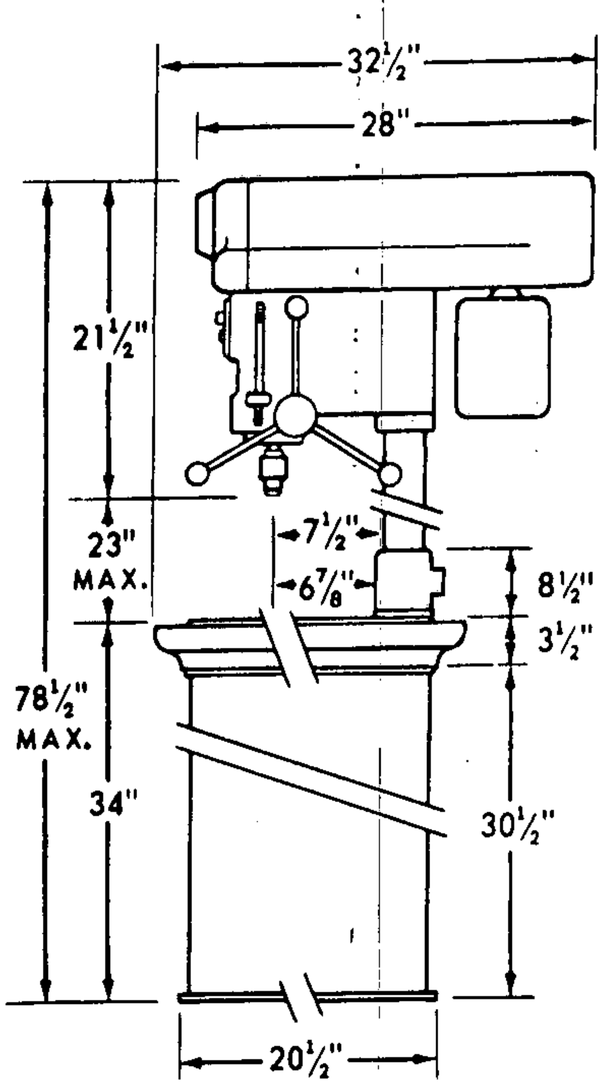
***NOTE: FASTENERS ARE INCLUDED WITH TABLE LEGS***

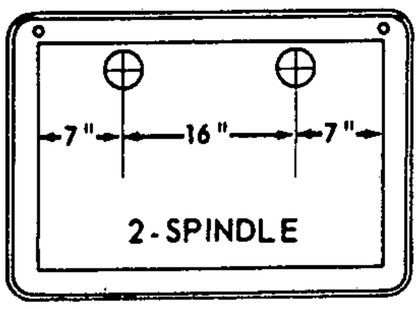



*One piece table, two legs required*

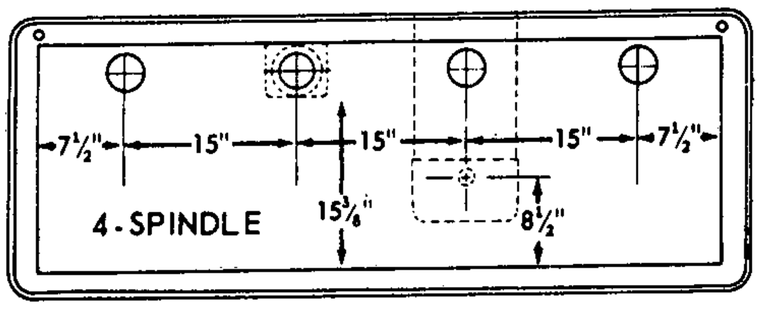



*One piece table, two legs required*

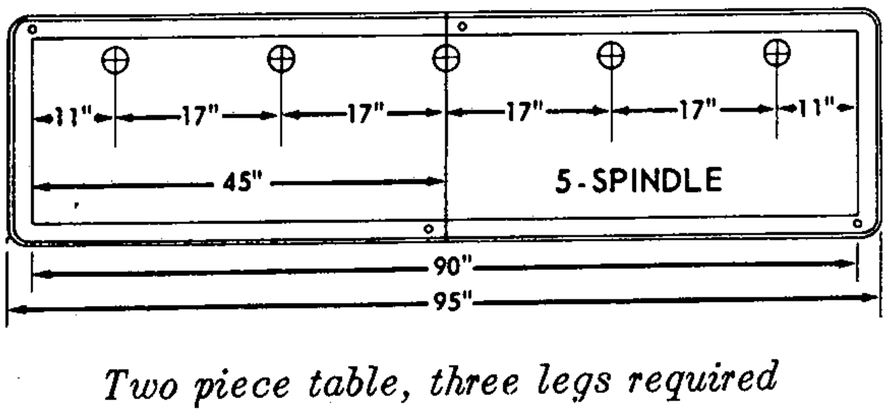


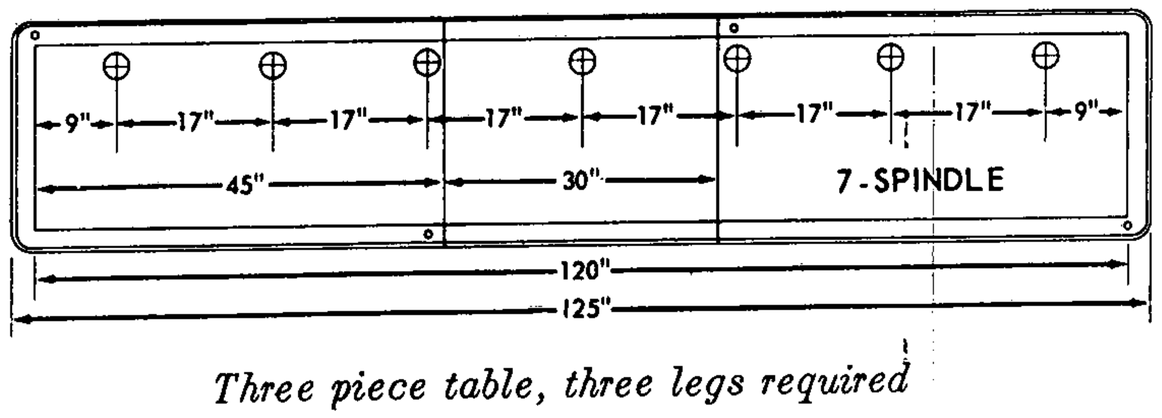

*One piece table, two legs required*



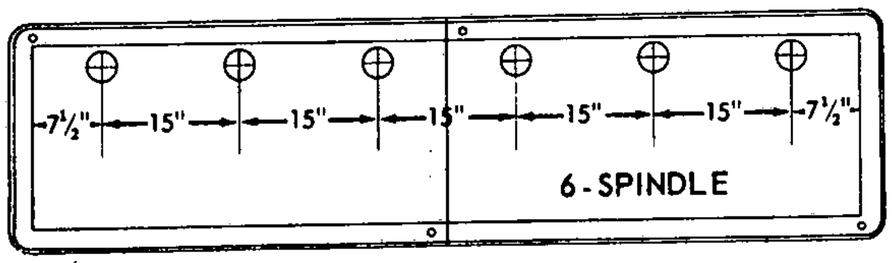

*One piece table, two legs required*



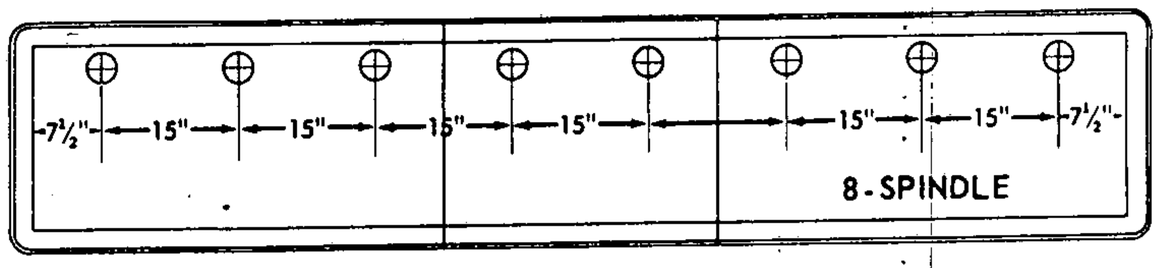

*Two piece table, three legs required*



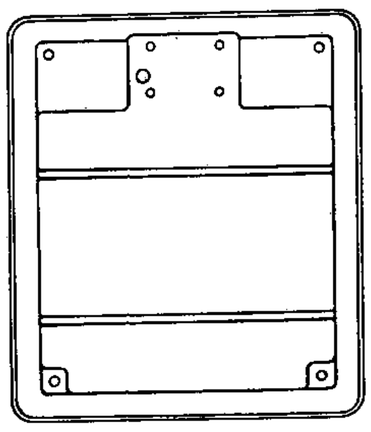

*Three piece table, three legs required*




*Two piece table, three legs required*

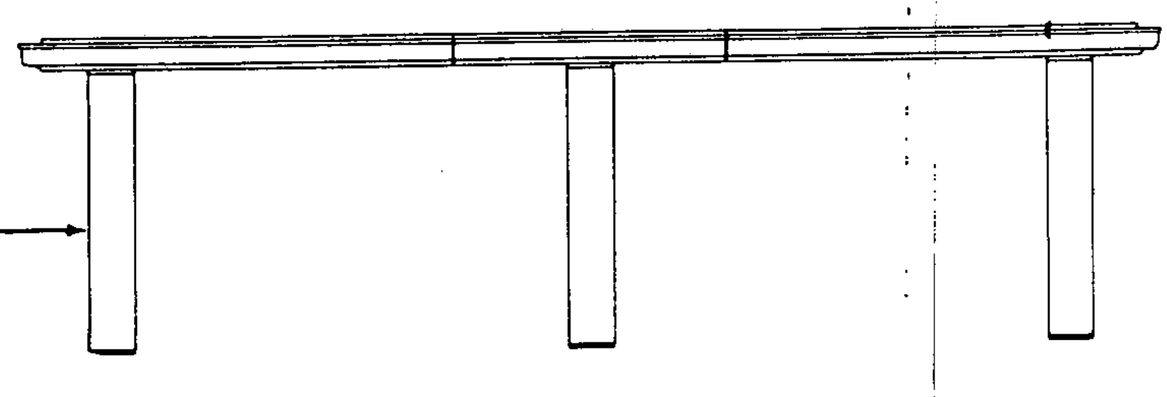



*Three piece table, three legs required*



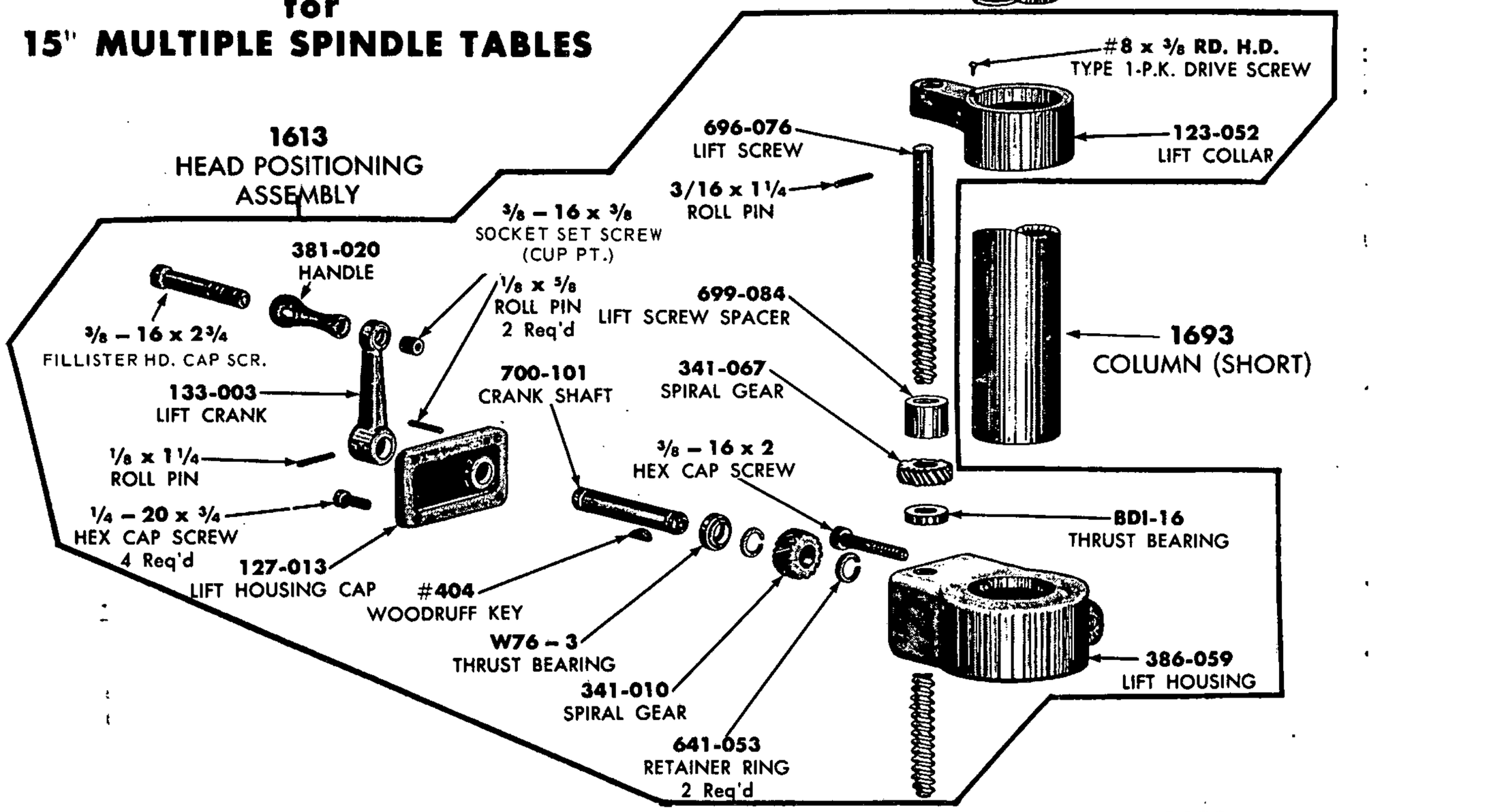
050-151
BASE, PRODUCTION

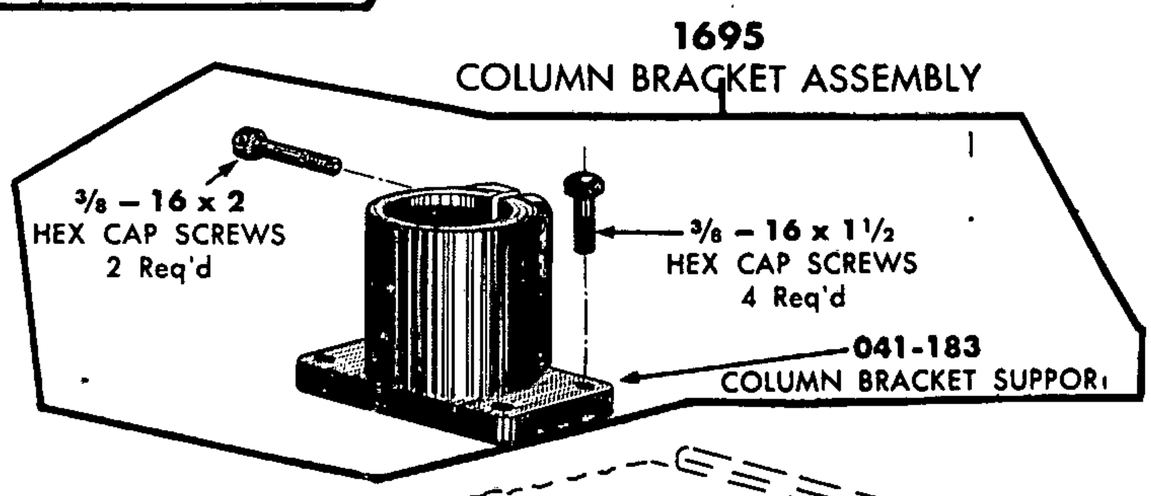
**NOTE: ORDER SPECIAL LEFT LEG 453-016 FOR TWO, THREE, FIVE AND SEVEN MULTIPLE SPINDLE DRILL PRESS TABLES.**

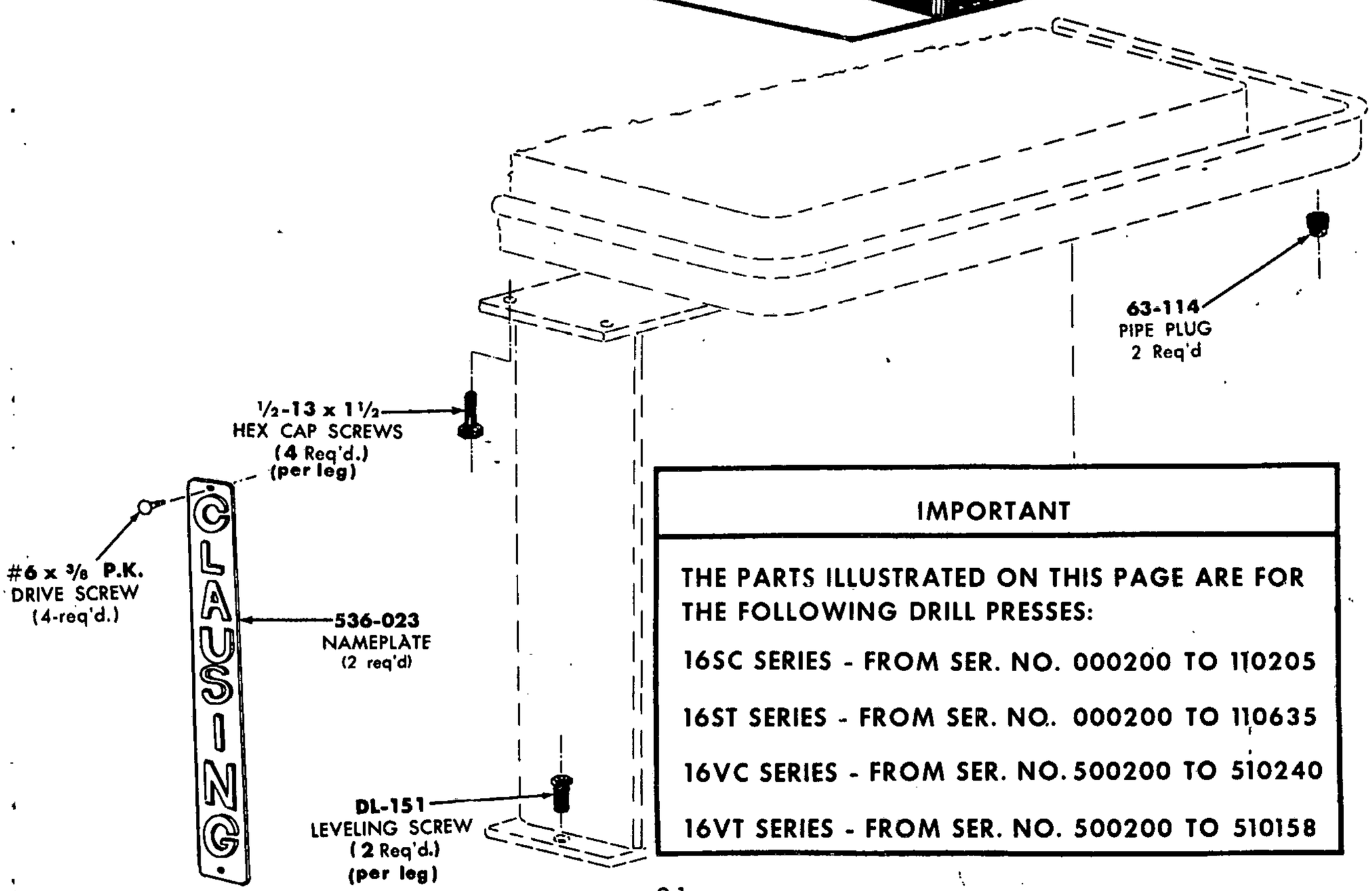


**No. 1699 TABLE LEG**

# NO. 1613 HEAD POSITIONING & NO. 1695 COLUMN BRACKET PARTS for 15" MULTIPLE SPINDLE TABLES




**IMPORTANT**

**THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR THE FOLLOWING DRILL PRESSES:**

**16SC SERIES - FROM SER. NO. 000200 TO 110205**

**16ST SERIES - FROM SER. NO. 000200 TO 110635**

**16VC SERIES - FROM SER. NO. 500200 TO 510240**

**16VT SERIES - FROM SER. NO. 500200 TO 510158**