REPLACING UPPER VARIABLE CONTROL CYLINDER

1. With lathe running, turn variable speed dial to highest range (280 or 2000 rpm), then turn motor off.

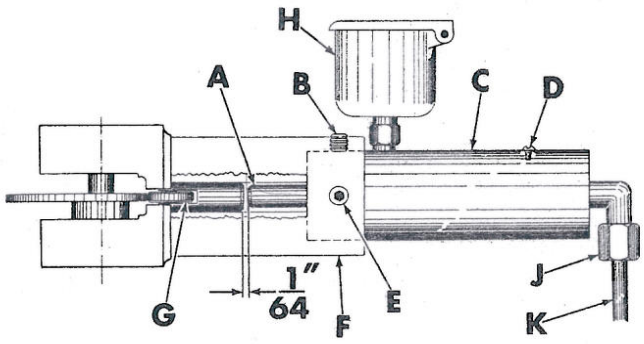


Figure 25

2. Remove nut (J, fig. 25) on end of variable control cylinder -- catching oil in pan.
3. Remove set screws (B) and (E) in variable cam housing (F).
4. Pull out upper variable control cylinder (C).
5. Remove the oil from old variable control cylinder oil reservoir (H).
6. While holding variable speed dial against low speed stop, slide new control cylinder (C) into variable housing (F) until variable plunger (A) is about 1/64" from cam roller plunger (G). Lock in place with set screws (B) and (E).
7. Install hydraulic line (K) and tighten nut (J).
8. Remove bleeder screw (D) and fill oil reservoir.
9. Keeping oil reservoir filled, hold variable dial against low speed stop until oil runs out bleeder hole – it takes a few minutes for oil to run down.
10. Replace bleeder screw (D).
11. Start lathe motor. Hold variable control against low speed stop for 30 seconds - turn variable dial to highest speed – then back to lowest speed. Control should stay at 52 rpm.

NOTE: Watch dial for a few seconds. If it doesn't remain at 52 rpm, the hydraulic system must be bled to remove trapped air.

To remove air from hydraulic system:

A. Run variable to highest speed.
B. Loosen bleeder screw (D, fig. 25) a few turns until oil starts coming out around the screw.
C. Retighten bleeder screw.
D. Turn variable dial to low speed stop and release – pointer should remain at 52 rpm.

NOTE: If dial moves, repeat steps A, B and C.

12. Permanently mark variable control cylinder location:

A. Remove set screw (E).
B. With a 1/4-inch drill, spot the cylinder for the 5/16" set screw (E).

NOTE: This drill mark simplifies future positioning of cylinder.

C. Replace set screw (E).

REPLACING LOWER VARIABLE CONTROL CYLINDER

1. With lathe running, turn variable speed dial to highest range (280 or 2000). Then, turn motor off.
2. Measure distance from end of shaft (D, fig. 24) to nut (E). NOTE: *Record this dimension.*
3. Disconnect fitting (A) and drain oil from unit.
4. While holding shaft (D) with a socket set screw wrench, remove nut (E) and washer.
5. Remove, sleeve from hydraulic cylinder.
6. Pull hydraulic cylinder (F) and outer half of variable pulley (B) off the shaft (D).
7. Press hydraulic cylinder (F) with bearing (C) from variable pulley (B).
8. Replace the two "O" rings on shaft (D).
9. Press new hydraulic cylinder with bearing into variable pulley hub (B), then slide the assembly onto shaft (D) and pulley hub.
10. Install sleeve and washer on shaft (D).
11. Start nut (E) on shaft (D).
12. Hold the shaft in place with a socket set screw wrench and then turn nut onto rod until distance from the end shaft (D) to nut (E) is the same as step 3.
13. Start fitting (A) onto hydraulic cylinder (F).
14. Fill oil reservoir.
15. Keep oil reservoir filled, hold variable dial against low speed stop until oil runs out around fitting (A) – it takes a few minutes for oil to run down.
16. Tighten fitting (A).
17. Start lathe motor. Hold variable control against low speed stop for 30 seconds – turn variable dial to highest speed – then back to lowest speed a few times. Control should stay at 52 rpm.

NOTE: Watch dial for a few seconds. If it doesn't remain at 52 rpm, the hydraulic system must be bled to remove trapped air.

To remove air from hydraulic system:

A. Run variable to highest speed.
B. Loosen bleeder screw (D, fig. 25) a few turns until oil starts coming out around the screw.
C. Retighten bleeder screw.
D. Turn variable dial to low speed, stop and release – pointer should remain at 52 rpm.

NOTE: If dial moves, repeat steps A, B, and C.

PARTS INDEX

For Lathes From Serial No. 502467 To _____

INSTRUCTIONS FOR ORDERING REPAIR PARTS

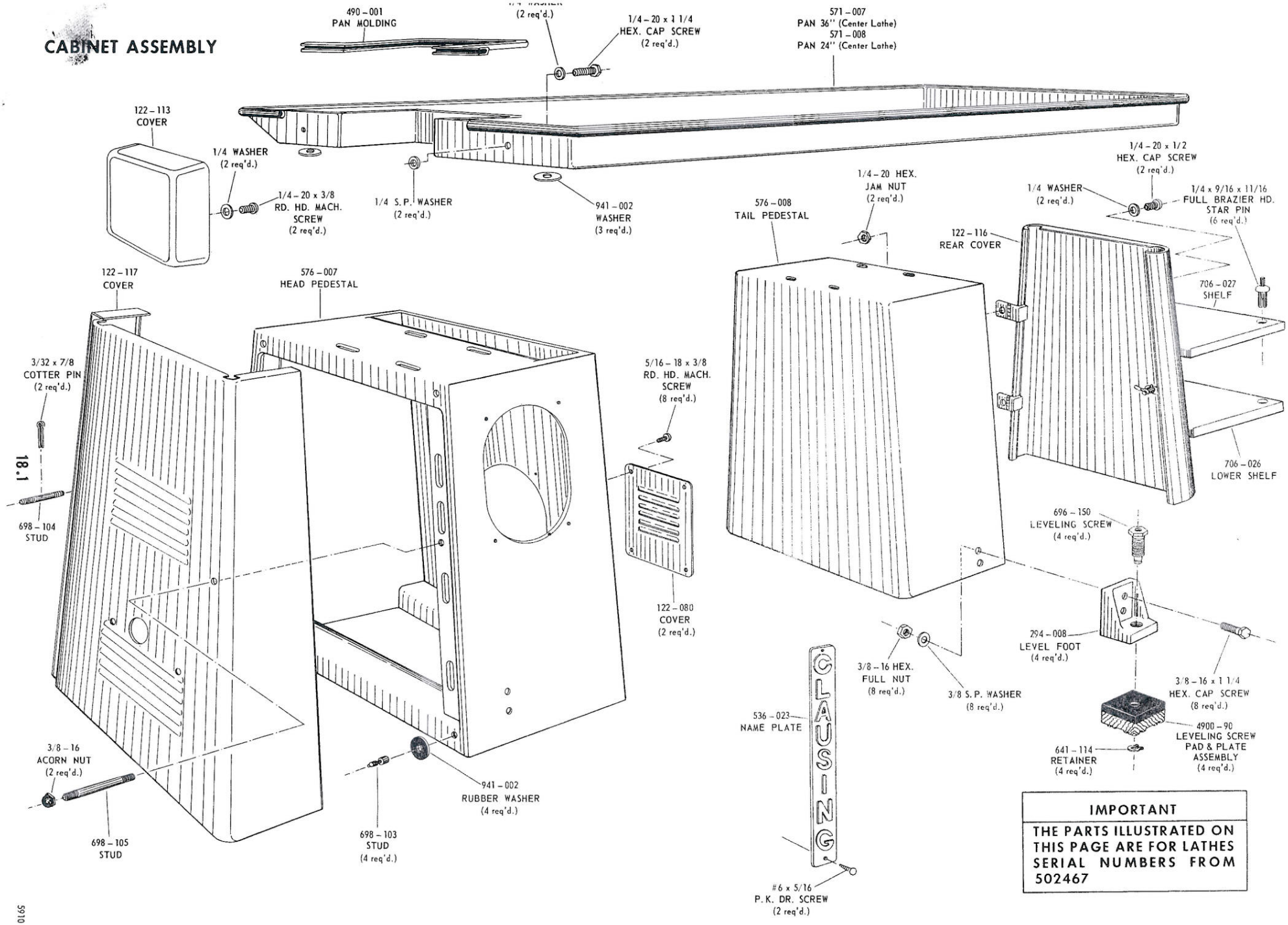
It is important to furnish the following information in addition to QUANTITY required:

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.

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.

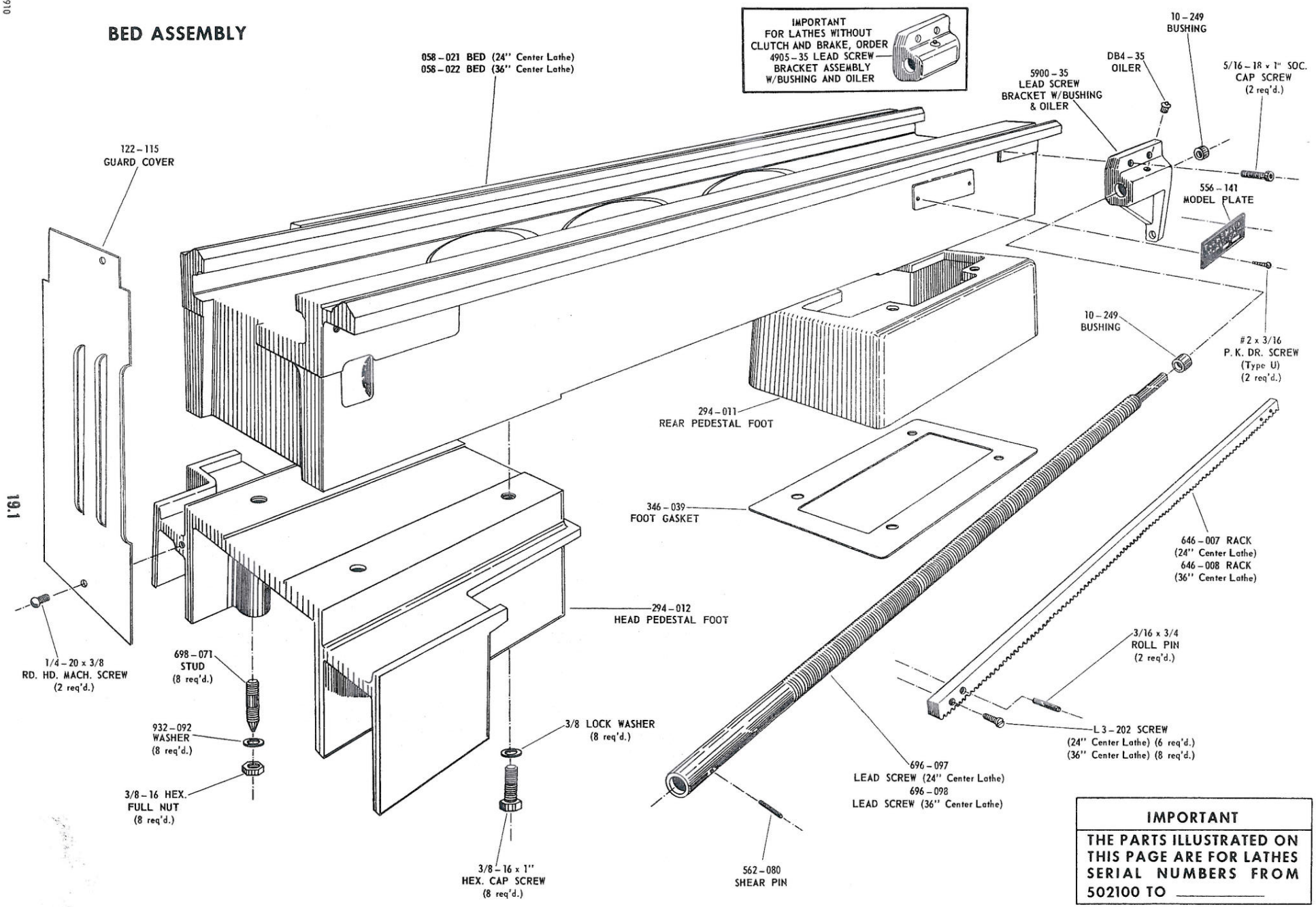
CABINET ASSEMBLY



IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502467

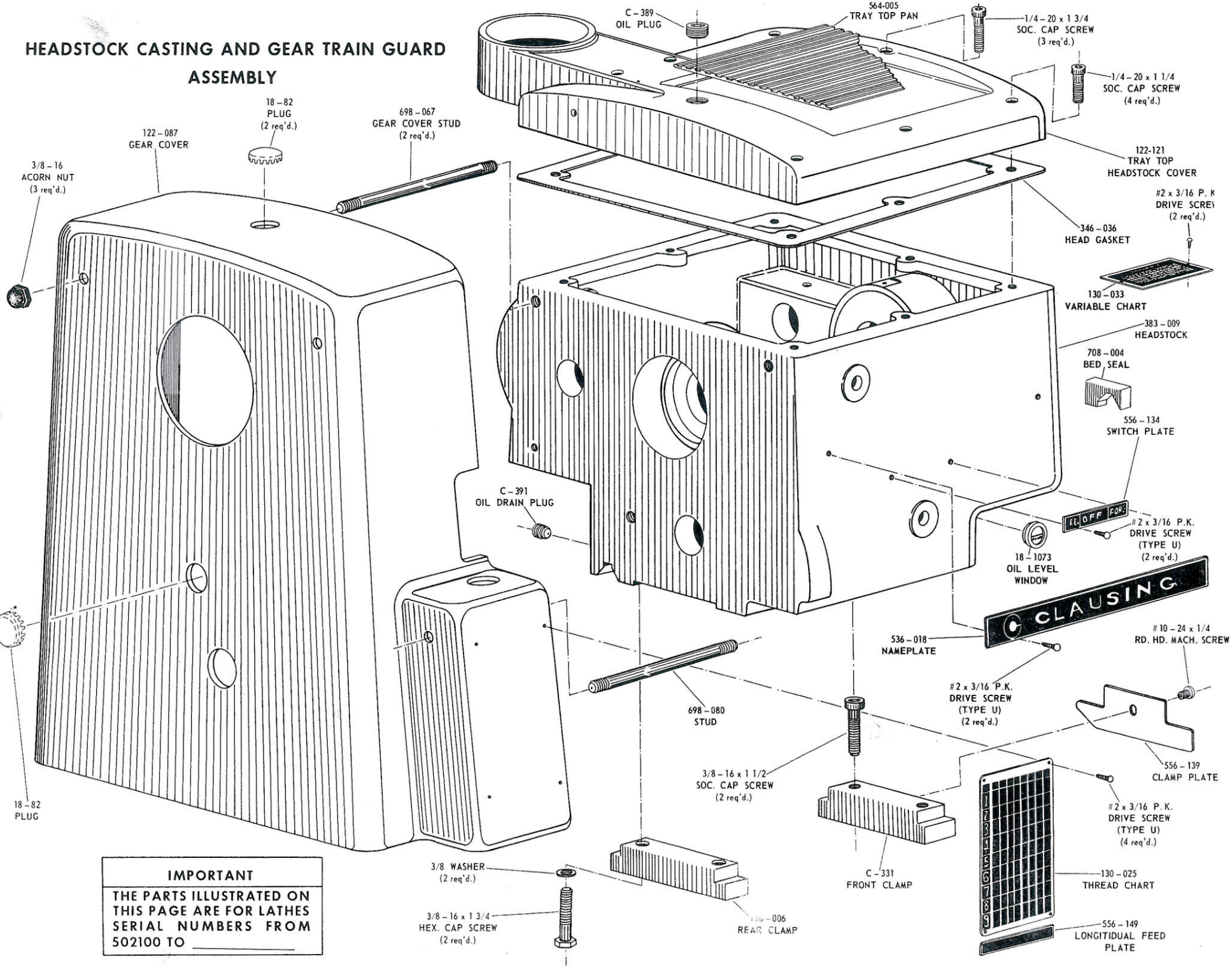
BED ASSEMBLY



IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502100 TO _____

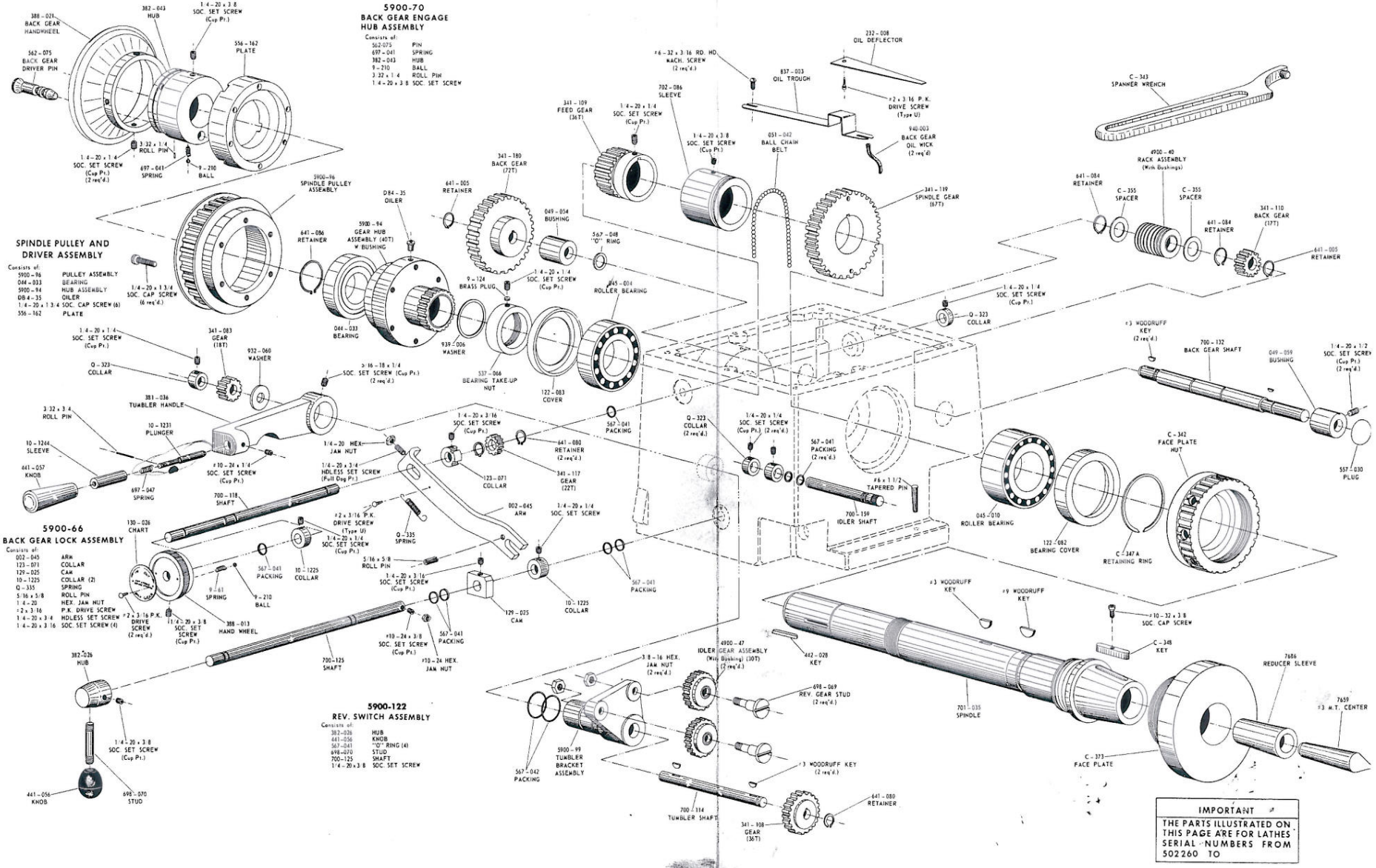
HEADSTOCK CASTING AND GEAR TRAIN GUARD ASSEMBLY



IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502100 TO _____

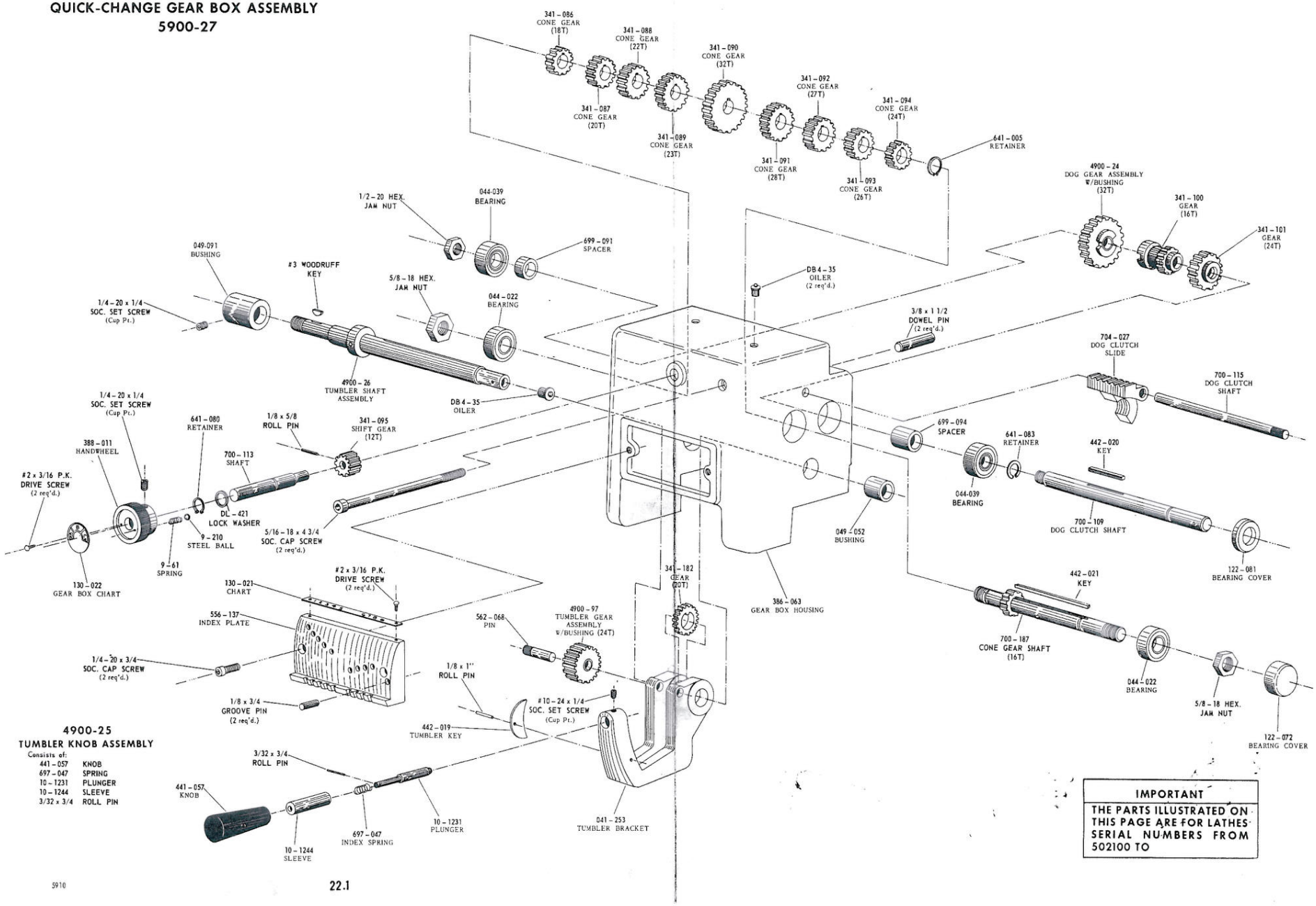
HEADSTOCK ASSEMBLY



IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502260 TO

QUICK-CHANGE GEAR BOX ASSEMBLY
5900-27



4900-25
TUMBLER KNOB ASSEMBLY

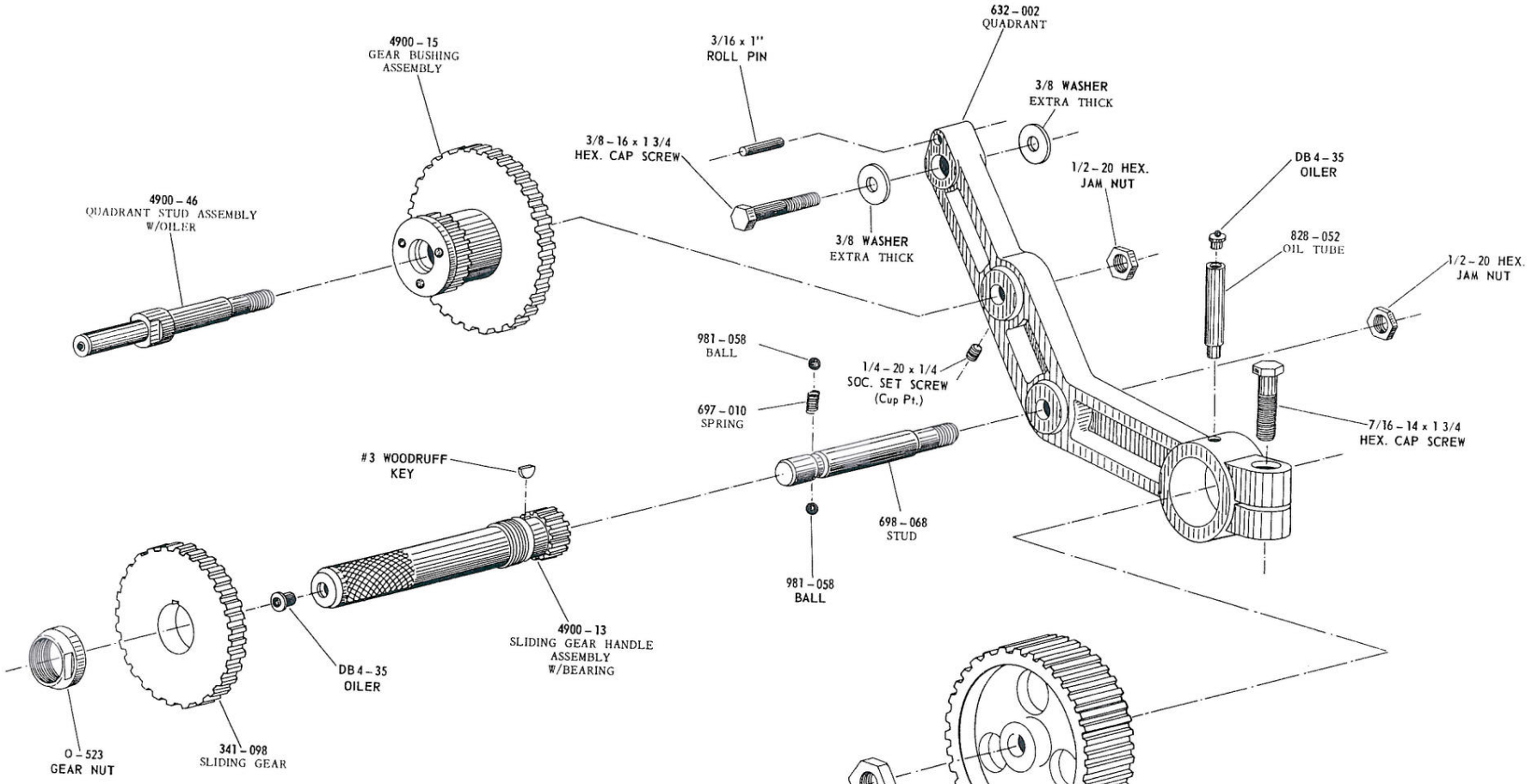
Consists of:

441 – 057	KNOB
697 – 047	SPRING
10 – 1231	PLUNGER
10 – 1244	SLEEVE
3/32 x 3/4	ROLL PIN

IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502100 TO

QUADRANT ASSEMBLY
NO. 4900-29



4900-14
SLIDING GEAR ASSEMBLY

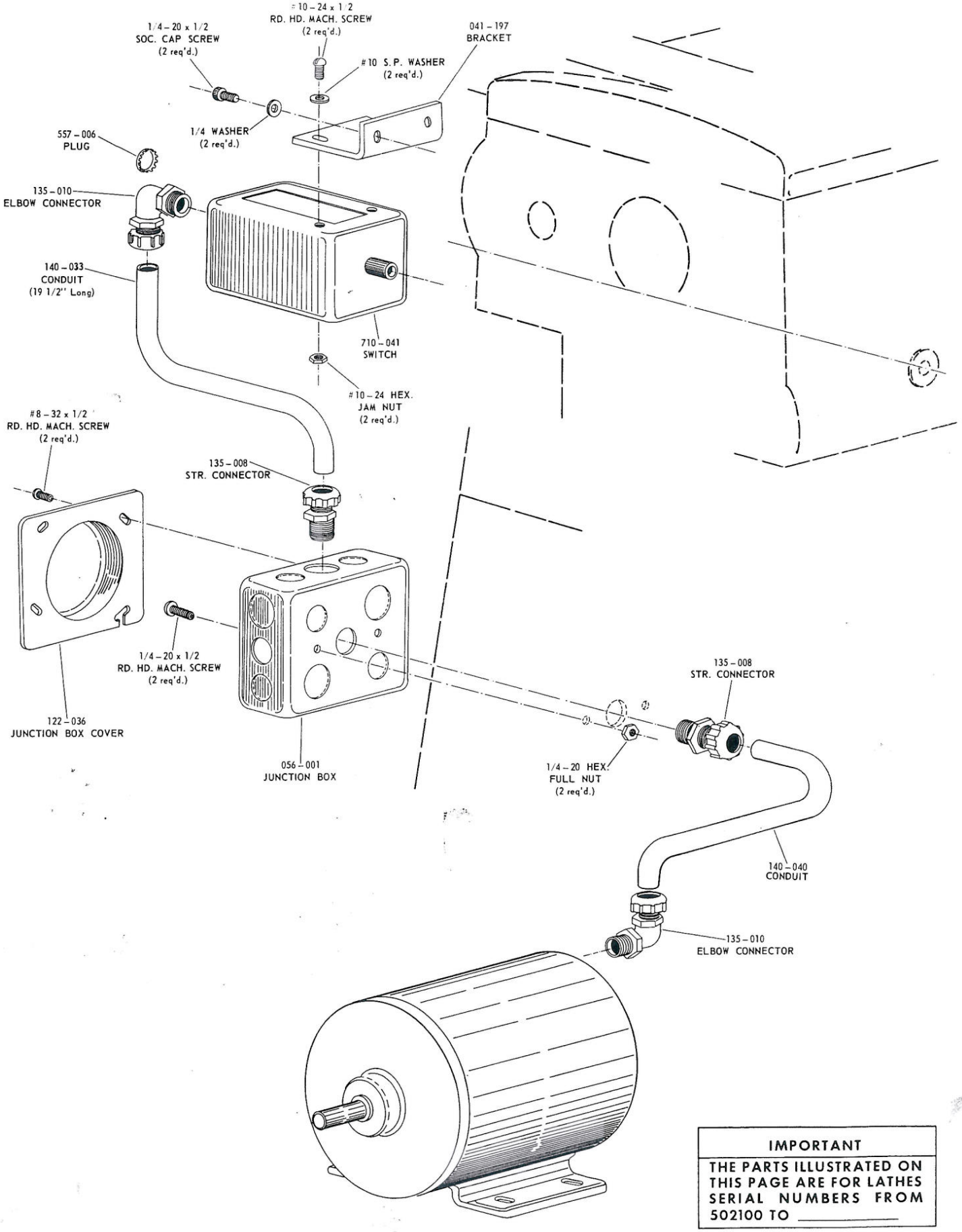
Consists of:

341 – 098	GEAR
4900 – 13	GEAR ASSEMBLY
DB 4 – 35	OILER
Q – 523	NUT
#3	WOODRUFF KEY

IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502100 TO _____

ELECTRICAL ASSEMBLY



IMPORTANT

THE PARTS ILLUSTRATED ON THIS PAGE ARE FOR LATHES SERIAL NUMBERS FROM 502100 TO _____