

13" 6500 Series
Serial No. from 58650 to 63742

THIS MANUAL

applies to the Clausing-Colchester 13 in × 24 in and 13 in × 36 in heavy duty, geared-head precision lathes.

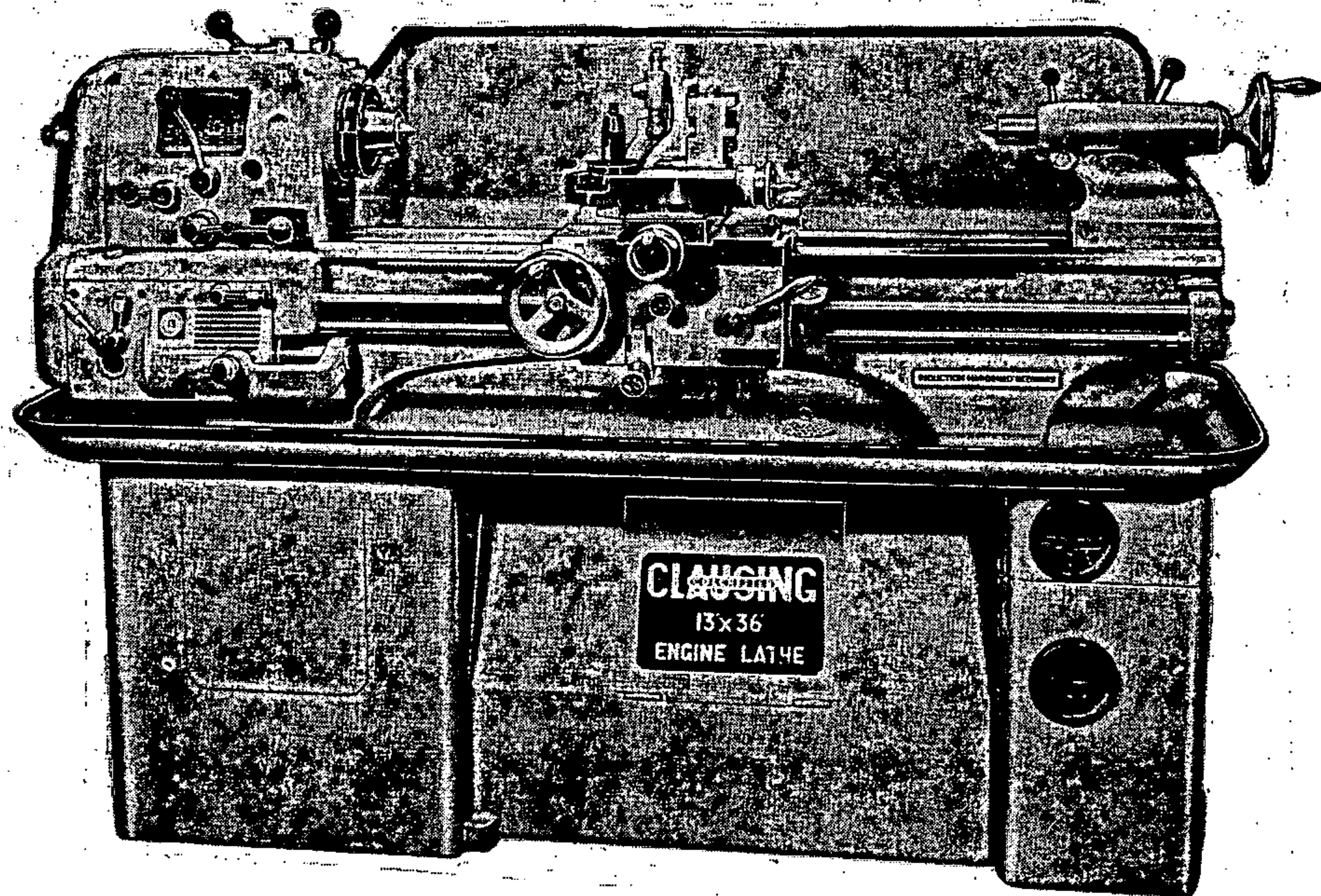
A full understanding of the contents will help you obtain the best results from the machine and achieve the standards of accuracy available.

Our Technical Service Department is always at your disposal to discuss any problems concerning the application of Clausing-Colchester lathes and their planned accessories or attachments. The aim is to ensure maximum satisfaction with your lathe.

The machine serial number is stamped at the tailstock end of the bed and **MUST** be quoted in all communications regarding your lathe.

Due to the Company policy of continuous improvement, designs may be modified or changed at any time without notice and this manual applies only to the machine with which it is issued.

THE SERIAL NUMBER OF YOUR MACHINE IS



INDEX

SPECIFICATION

3

INSTALLATION

INSTALLING
LIFTING
CLEANING AND BOLTING DOWN
ELECTRICAL WIRING
CHUCK MOUNTING
LUBRICATION

5
5
5
7
9
9

OPERATION

DRIVE STARTING STOPPING REVERSE
HEADSTOCK SPEED SELECTION
SWING FRAME
GEARBOX
APRON AND THREAD CUTTING
SETTING UP GEAR TRAIN
METRIC THREAD CUTTING
SADDLE AND SLIDES
THE BED AND TAILSTOCK

11
11
12
12
13
16
14
15
15

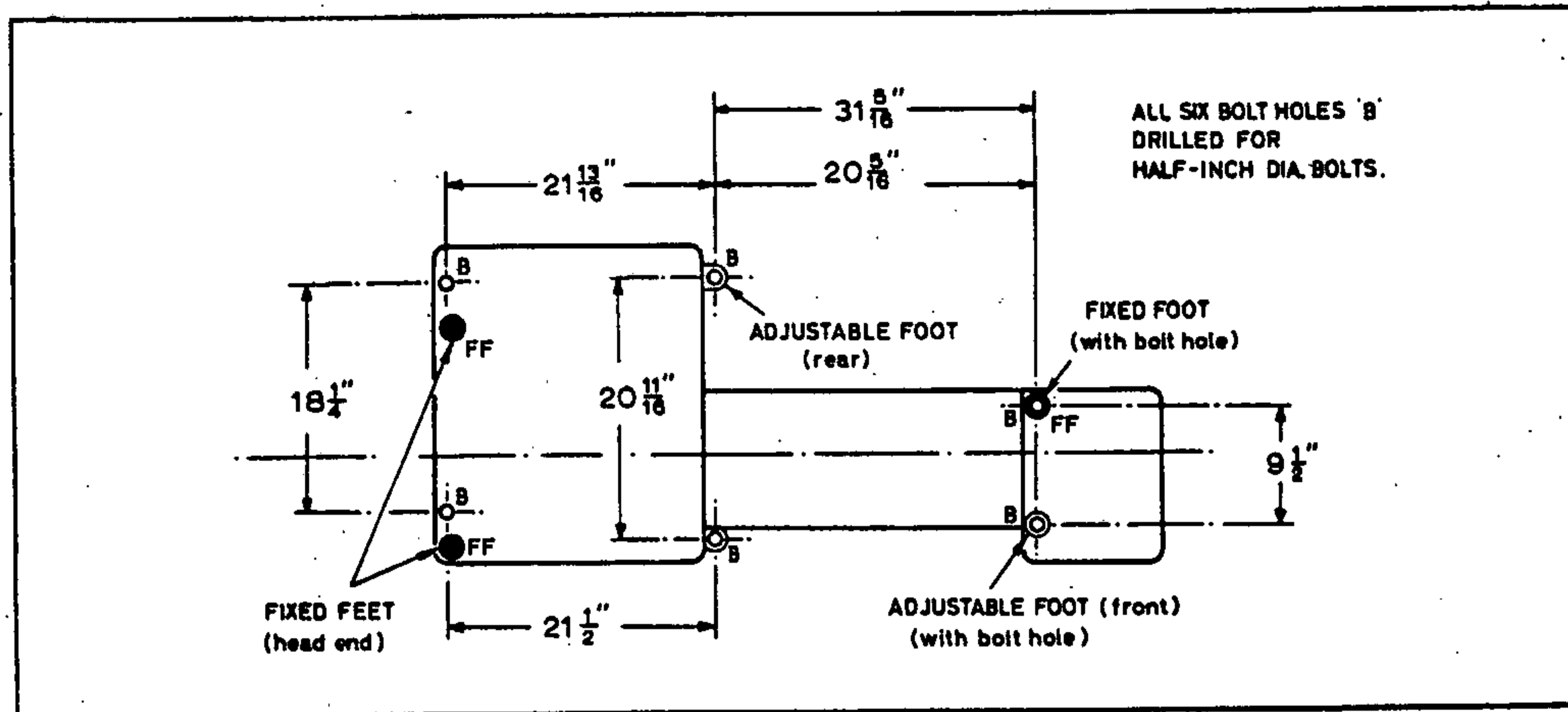
ACCESSORIES

EQUIPMENT LIST WITH ORDERING CODES
COOLANT SYSTEM
SQUARE TURRET TOOLPOST
STEADY REST AND REAR TOOLPOST
FEEDSTOPS
TELESCOPIC TAPER ATTACHMENT
HYDRAULIC PROFILING UNIT
RAPID THREADING UNIT

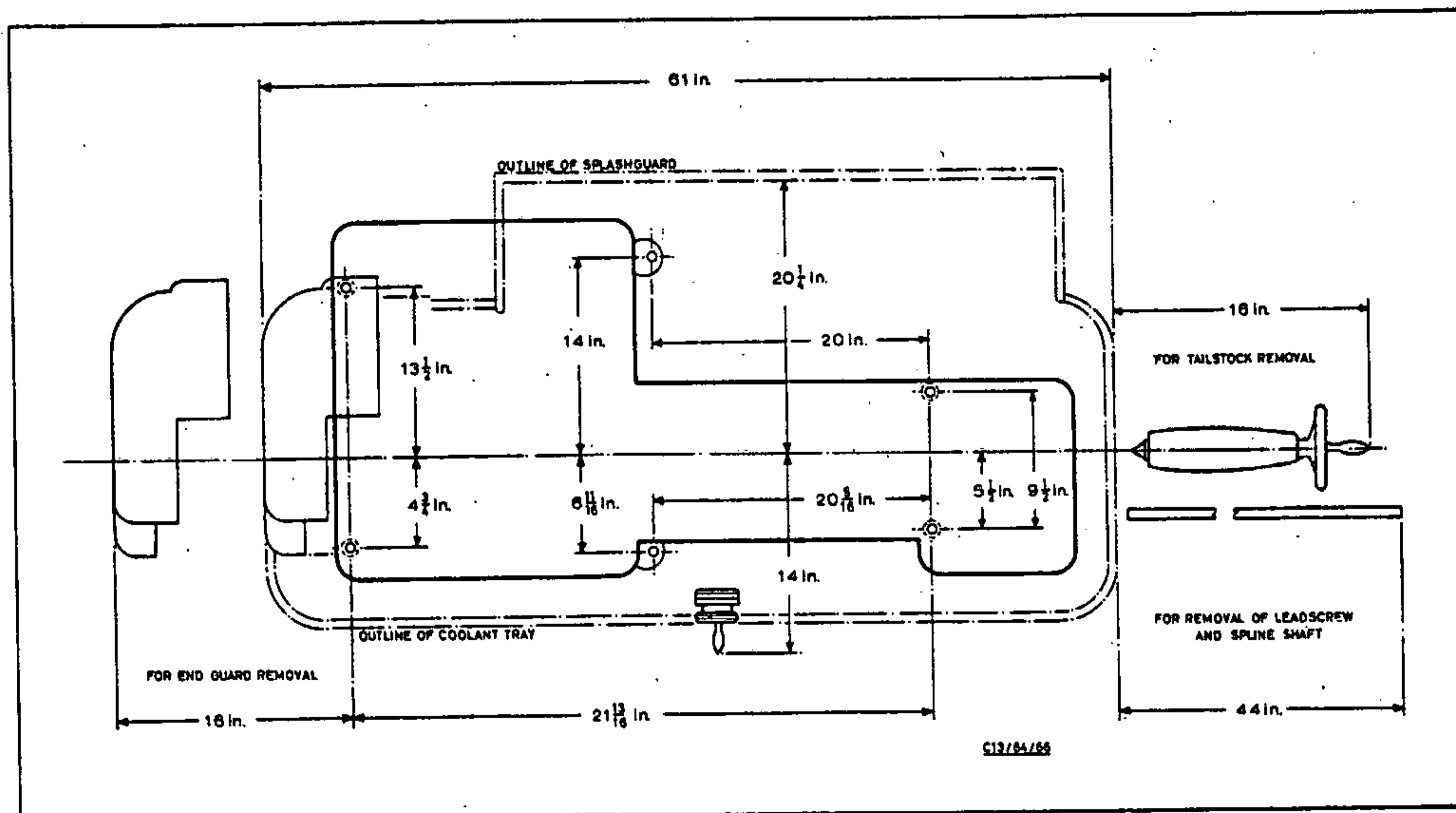
16
17
18
18
19
22

SPARES LISTS

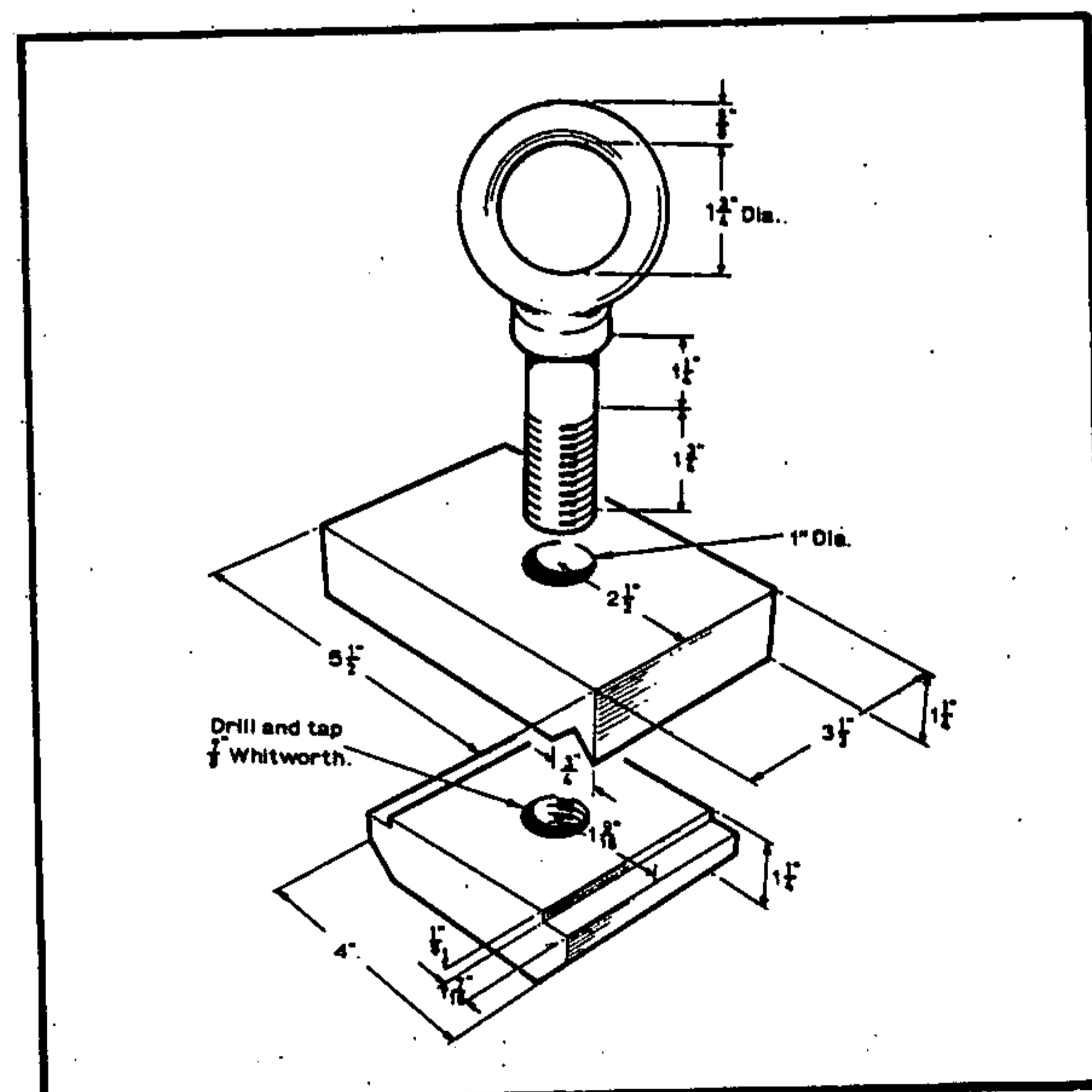
INSTALLATION PLAN



FOUNDATION PLAN



LIFTING PLATE & BOLT



INTRODUCTION

Clausing-Colchester lathes are the result of half a century of concentration in manufacture of this type of machine tool. Whilst essentially precision tools intended for producing accurate workpieces, the design of robust construction and simplified controls makes these machines suitable for tooling in production work.

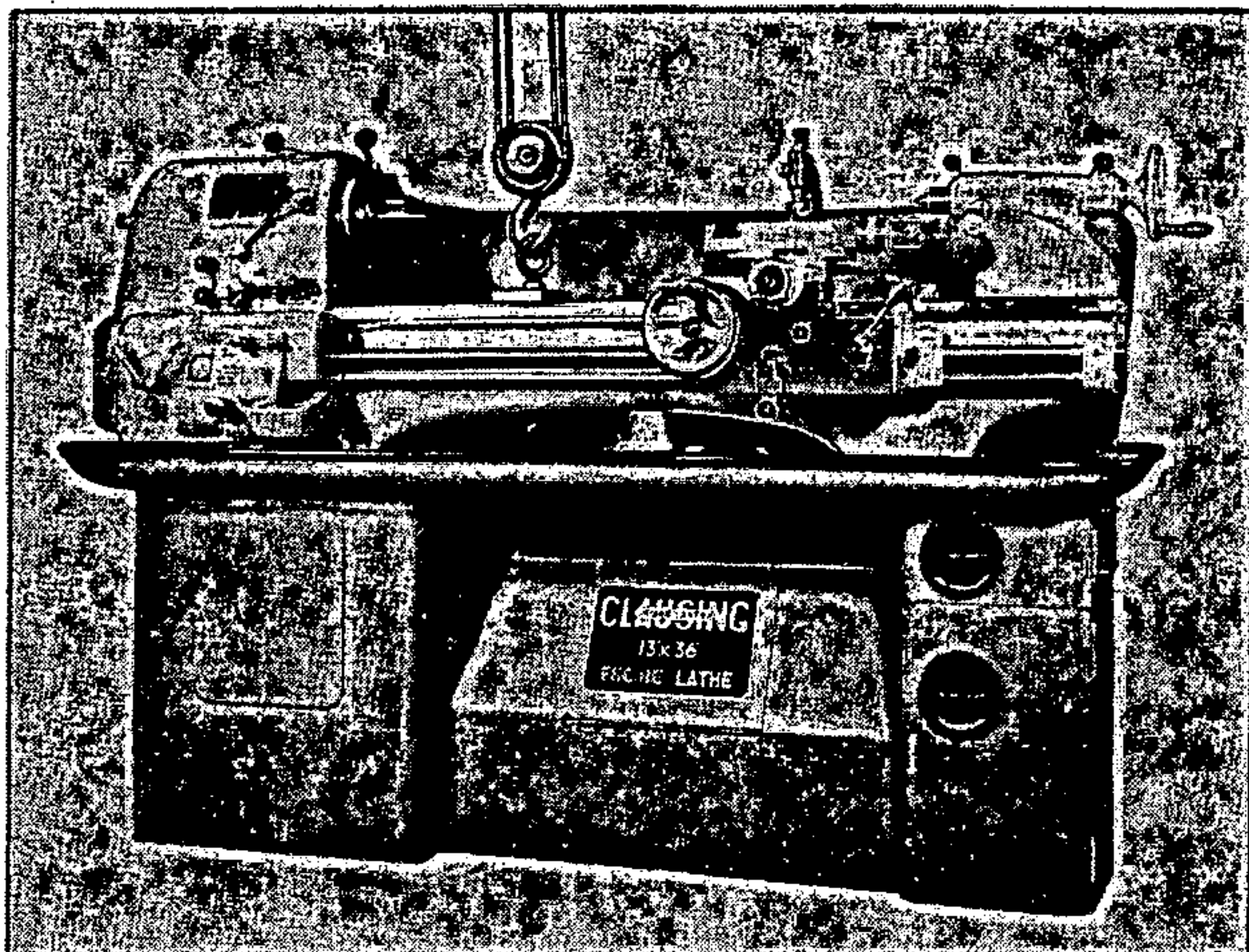
All castings are naturally aged for at least six months to avoid possible distortion. Jigs and special-purpose machines are used extensively in our manufacturing operations to ensure interchangeability of components. Care is taken in all processes of all departments to ensure your satisfaction with the machine.

The headstock is an all-g geared arrangement, totally enclosed within an oilbath and giving sixteen spindle speeds. The main spindle is precision finished from a heat-treated high tensile steel forging and is carried at the front end on Gamet high precision double row taper roller bearings of exceptional accuracy which are specially manufactured to our requirements. The rear end of the spindle is carried in a single-row taper roller bearing of similar design. All headstock spindles and shafts are carried in needle roller anti-friction bearings.

LIFTING

The complete machine weighs approximately 1,550 lb and proper equipment must, therefore, be made available for handling this weight. All lifting and repositioning should be carried out with great care. It is recommended that a lifting bolt with clamp plates to the dimensions shown on the sketch should be used. Wind the saddle and slides towards the tail end of the lathe and fit the clamp plate securely at the point of balance of the machine.

Do not sling the machine from any other points. In case of difficulty, consult your local Clausing-Colchester agent.



LIFTING THE LATHE

CLEANING

Each lathe is delivered having all bright machined surfaces covered with a heavy protective coating. Before attempting to operate the machine remove all traces of the preservative using white spirit or kerosene.

DO NOT USE CELLULOSE SOLVENTS FOR CLEANING—THESE WILL DAMAGE THE PAINT FINISH.

When cleaning, pay particular attention to the slides and spindle nose. It is essential that the end guard be removed and the gear train carefully cleaned before operating the lathe.

All cleaned parts should then be dried using fluff-free cloth and the bright surfaces given a light coating of Shell Tellus 33 oil.

WORKING AREA

When deciding upon the position for the lathe, remember that sufficient room must be allowed not only for ease of operation but to permit the end guard to be opened, for access to the motor compartment at the rear of the cabinet base and for the servicing operations recommended.

A foundation plan is included which gives the main installation dimensions and also the recommended minimum space required for efficient operation of the machine under all conditions of working.

INSTALLING

In order to achieve the full standards of accuracy built in to your Clausing-Colchester lathe, it is essential that the machine be installed upon a solid concrete base which must be as level and free from vibration as possible. For most applications the machine will then perform perfectly satisfactorily whilst free-standing. When operating at high speed on out-of-balance work, however, it may become necessary to bolt the machine to the concrete foundation. Instructions for installation of the machine under both sets of conditions are given below.

Careful attention to siting and foundation will greatly add to the accuracy of the work produced and to the life of the machine. If the lathe must be installed above ground floor level, it is essential for best results to provide a concrete floor and to position the machine headstock as close as possible to a supporting wall or pillar. Wooden floors are not recommended because changes in atmospheric conditions which affect the floor will adversely affect the alignment of the machine. When wooden floor siting is unavoidable, a section of the floor should be taken up and a concrete base built up to the floor level.

It is not recommended that the machine is placed on felt or rubber mats no matter what type of foundation is provided.

THE MACHINE SHOULD NOT BE GROUTED IN.

FREE STANDING MACHINES

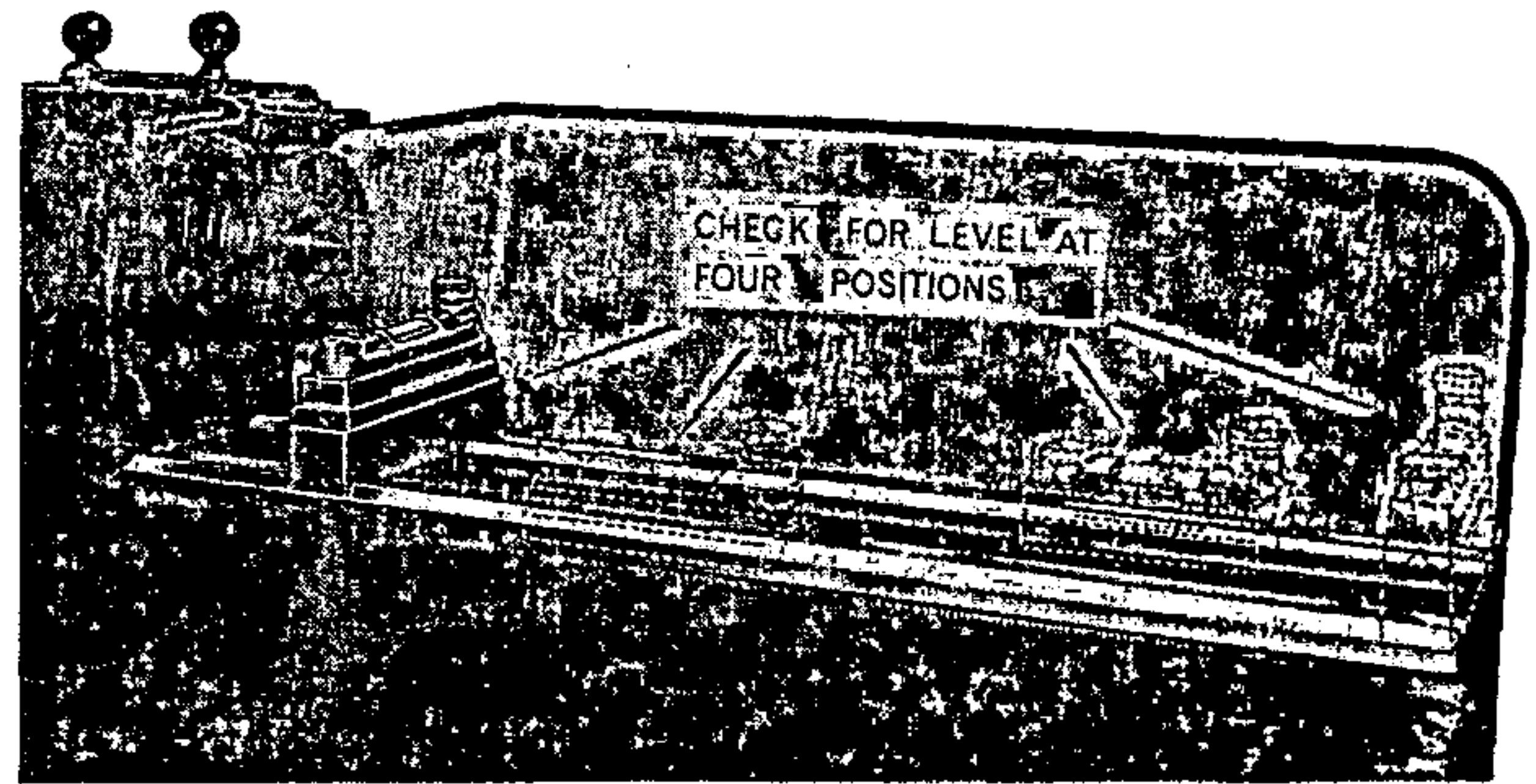
1. Position the lathe level upon the three fixed feet (shown in the installation plan).
2. Screw down the adjustable feet to each take its share of the load without losing ground contact at any other foot. Lock the adjustable feet.
3. Run the lathe. Any evident vibration will be due to incorrect setting of the adjustable feet; and this can be eliminated by slight alteration of the setting whilst the machine is running. Re-lock the adjustable feet.
4. For all normal operating requirements, the mounting as described will give all the support necessary.
5. It is essential that the machine is correctly levelled before using it in production and each time an adjustment is made to the foundation bolts or mounting feet. A precision engineers' level should be used and readings taken across headstock and tailstock ends and then in two positions on both front and rear bed shears in a longitudinal direction. Careful attention to levelling will greatly add to the accuracy of work produced and to efficient life of the machine. If the foundation is not accurate and level it may be necessary to adjust the levelling screws provided at the base of the cabinet.

BOLTING DOWN

1. Position the lathe level upon the three fixed feet (shown in the installation plan as FF).
2. Screw down the adjustable feet to each to take its share of the load without losing ground contact with any other foot. Lock the adjustable feet.
3. Insert $\frac{1}{2}$ in diameter foundation bolts through the bolt positions provided and into cleanly drilled holes in the concrete foundation. When inserted, they should be firmly secured within the foundation before attempting to tighten the holding-down nuts.
4. Secure the holding-down bolts firmly but avoid overtightening. Bolt tension should be just sufficient to retain the machine in position without disturbing the cross-wind alignment.
5. Run the machine. Any evident vibration will be due to incorrect setting of the adjustable feet which can be remedied by slackening the mounting bolts and altering the adjustment a little at a time. Care and attention given to obtain the correct setting at this stage will be well repaid. Re-lock the adjustable feet before tightening the mounting bolts.
6. It is essential that the machine is correctly levelled before using it in production and each time an adjustment is made to the foundation bolts or mounting feet. A precision engineers' level should be used and readings taken across headstock and tailstock ends and then in two positions on both front and rear bed shears in a longitudinal direction. Careful attention to levelling will greatly add to the accuracy of work produced and to efficient life of the machine. If the foundation is not accurate and level it may be necessary to adjust the levelling screws provided at the base of the cabinet.

ALIGNMENT CHECKS

When the machine is installed initially, or after subsequent re-positioning, it is advisable to carefully check the alignment of the headstock and tailstock. All machines are accurately aligned before despatch from the Works, but transit shocks may render a further checking necessary or of benefit.

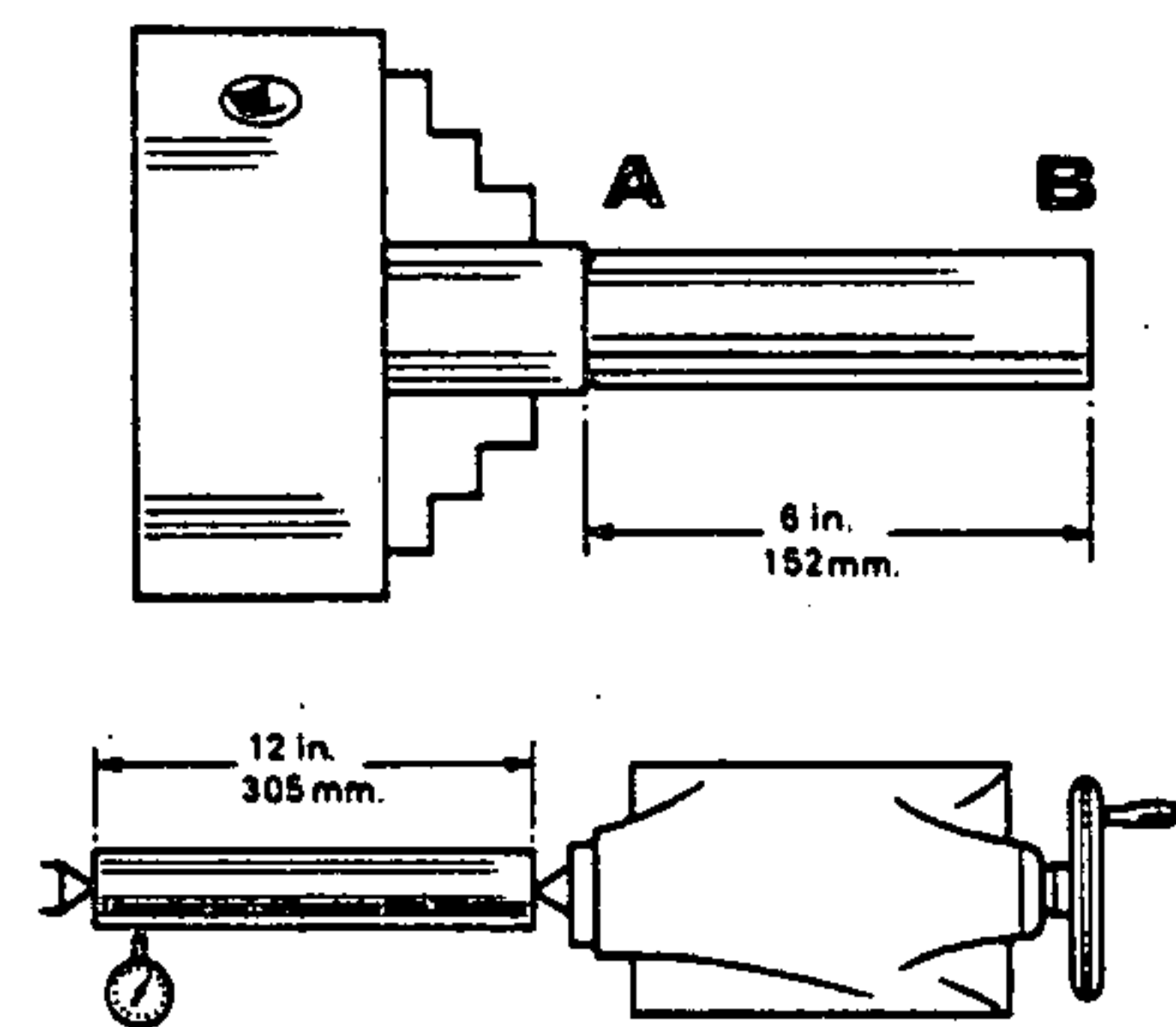


HEADSTOCK ALIGNMENT

Grip a length of mild steel bar in the chuck and using keen tools take a light cut over the outside diameter for about 6 in of its length. Do not use the tailstock centre as a steady during this test.

Micrometer readings at the two ends of the turned ends of the turned diameter (at A and B in the sketch) should be precisely the same. If the readings differ, the headstock should be re-aligned as follows:—

1. Slacken the four socket-head headstock retaining screws until only finger tight. This will allow the headstock to pivot about the locating dowel.
2. Accurate adjustment for re-alignment can be made using the 'set-over' pad which is built into the underside of the headstock and rests between the bedway.
3. After alignment, tighten the locknut on each adjusting screw of the set-over pad and securely tighten headstock retaining screws.



TAILSTOCK ALIGNMENT

Place a prepared 12 in ground steel bar between centres, as shown in the sketch. Then to the top slide fix a dial indicator with its anvil running along the horizontal centre-line of the test bar. By traversing the saddle along the bed, an accurate check on alignment can be made.

Any alignment errors may be rectified by adjustment to the two set-over screws provided one at each side of the tailstock base.

CLAUSING COLCHESTER

DIVISION, ATLAS PRESS CO.
KALAMAZOO, MICHIGAN

INSTALLING ELECTRIC CONTROL PANEL ASSEMBLY

ON
13" CLAUSING-COLCHESTER LATHES
FROM SERIAL NO. 58650 TO 63742

April 1964 FILE NO. 13"-CC ELEC-4

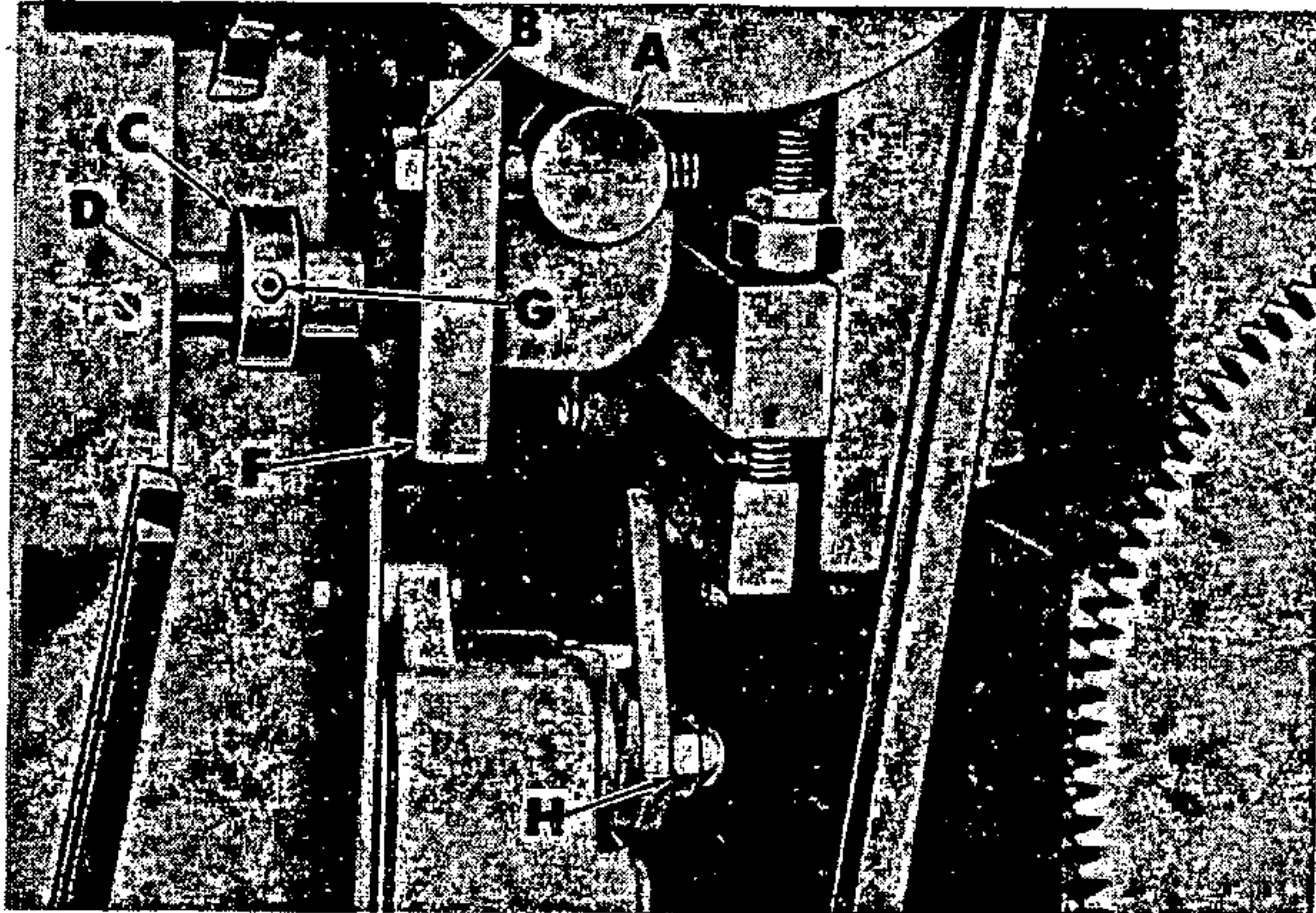


Figure 1

1. Before installing switch panel assembly turn the reversing switch shaft (D, fig. 1) clockwise as far as it will go, and then back two "clicks" — the switch is now in the off position.

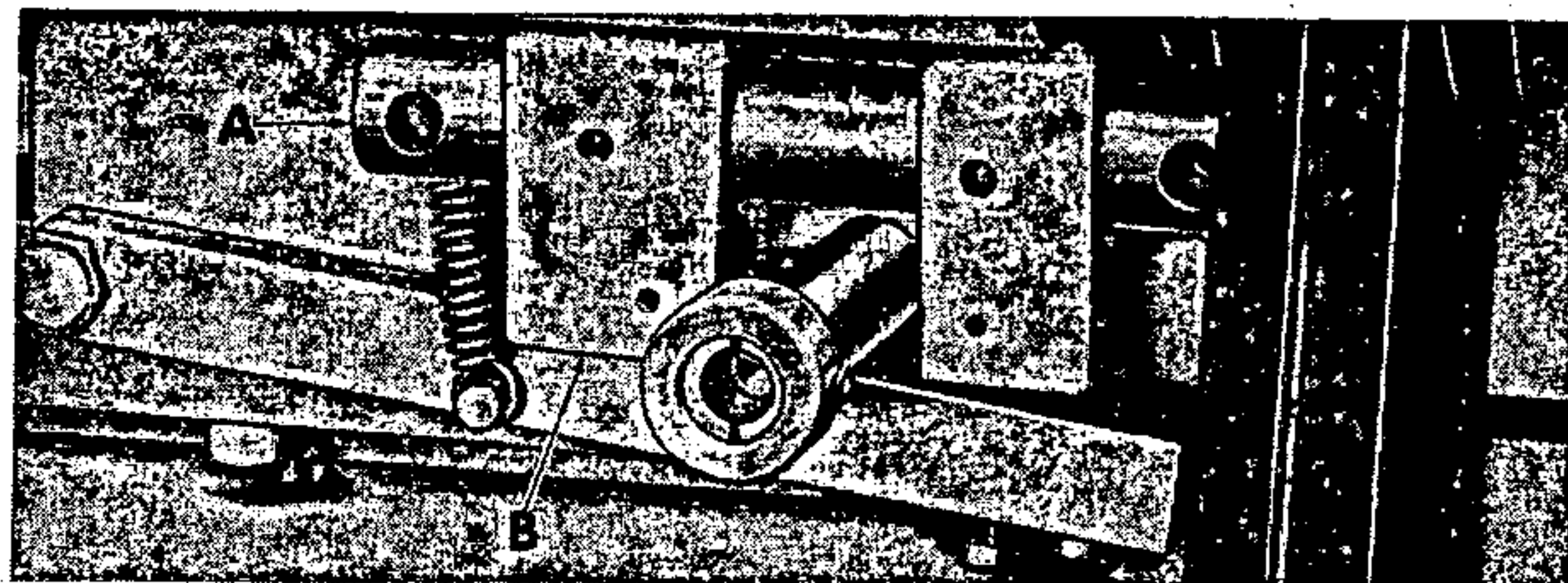


Figure 2

2. Slide switch panel mounting bar (A, fig. 2) in holes in back of headstock (B).
3. Slide drum switch shaft (D, fig. 1) with switch panel into coupling (C), then align mounting bar (A) with holes in mounting plate (F) and secure in place with two 3/8-16 x 2" screws (B). DO NOT TIGHTEN SECURELY.

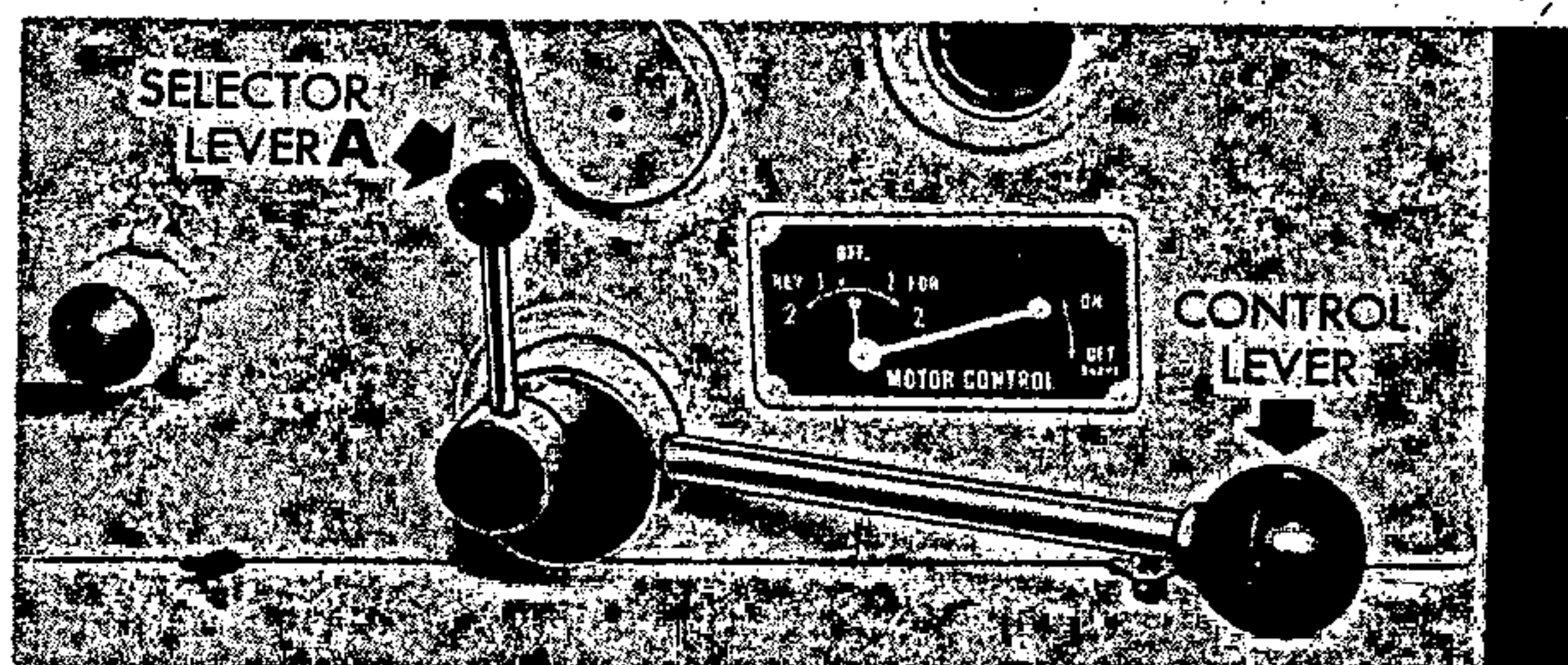


Figure 3

4. Make sure selector lever (A, fig. 3) rotates freely. If binding condition occurs, loosen mounting screws (B, fig. 1) and realign, then tighten screws securely.

5. Hold the small reversing selector lever at the front of the lathe head stock in a vertical position and securely tighten set screw (G) in coupling collar (C) to clamp reversing switch shaft.

IMPORTANT: Be sure set screw (G) is at 90° to slots in coupling.

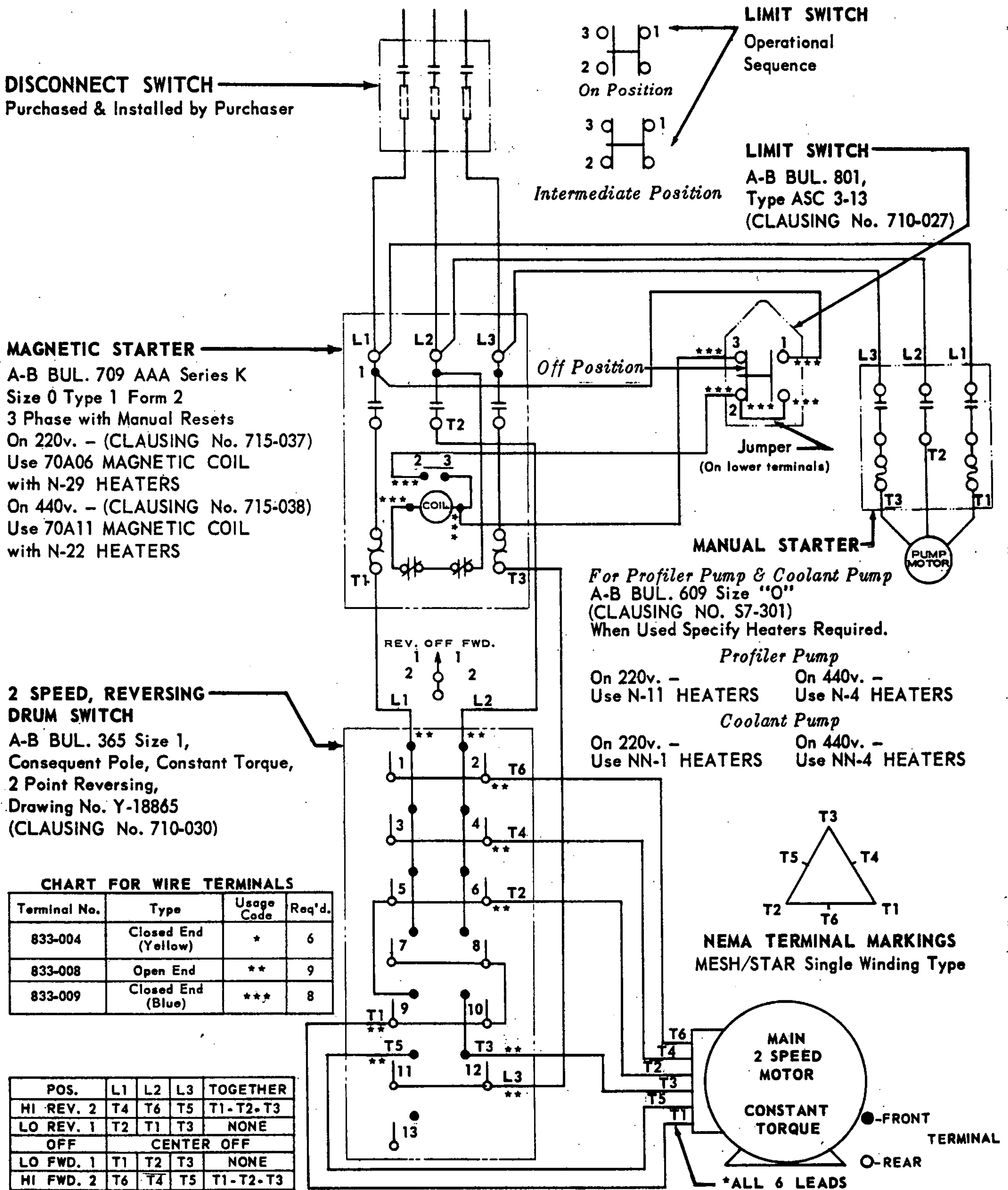
6. Connect the six numbered wires in the conduit from the reversing switch to the corresponding numbered motor leads. Use small screws and nuts, and tape connections.
7. Bring the main electric line into the magnetic starter through a knock out opening in the top of the box and connect the wires to the correct terminals as shown in the wiring diagram inside the switch cover.
8. Make sure red control lever is in "down" or "off" position.
9. Select the speed and direction of spindle rotation desired with the spindle selector lever.
10. Move the red control lever up to start the lathe and motor. To stop the lathe, push the lever down—continue to push the control lever down to operate the brake and quickly stop the spindle.
11. Before changing motor speed or direction of rotation, the control lever must be returned to the "off" position.

NOTE: The limit switch incorporates a safety feature to protect the machine and operator. In the event of an electrical power failure, the lathe cannot be accidentally restarted and will not restart by itself. It is necessary for the operator to return the control lever to the "off" position, and then move the lever to the "on" position to start the lathe.

12. If spindle rotation does not correspond to selector switch notation, interchange any two line leads. If the motor does not start when the control lever is in the "up" or "on" position, or stop in the "down" position, adjust the travel of the limit switch arm on the switch lever by loosening the adjusting nut (H, fig. 1). If the brake lever at the rear of the headstock jams on the threaded end of the brake link, adjust set screw in the bracket on the switch panel to limit travel of the switch lever.

WIRING TO POWER SUPPLY

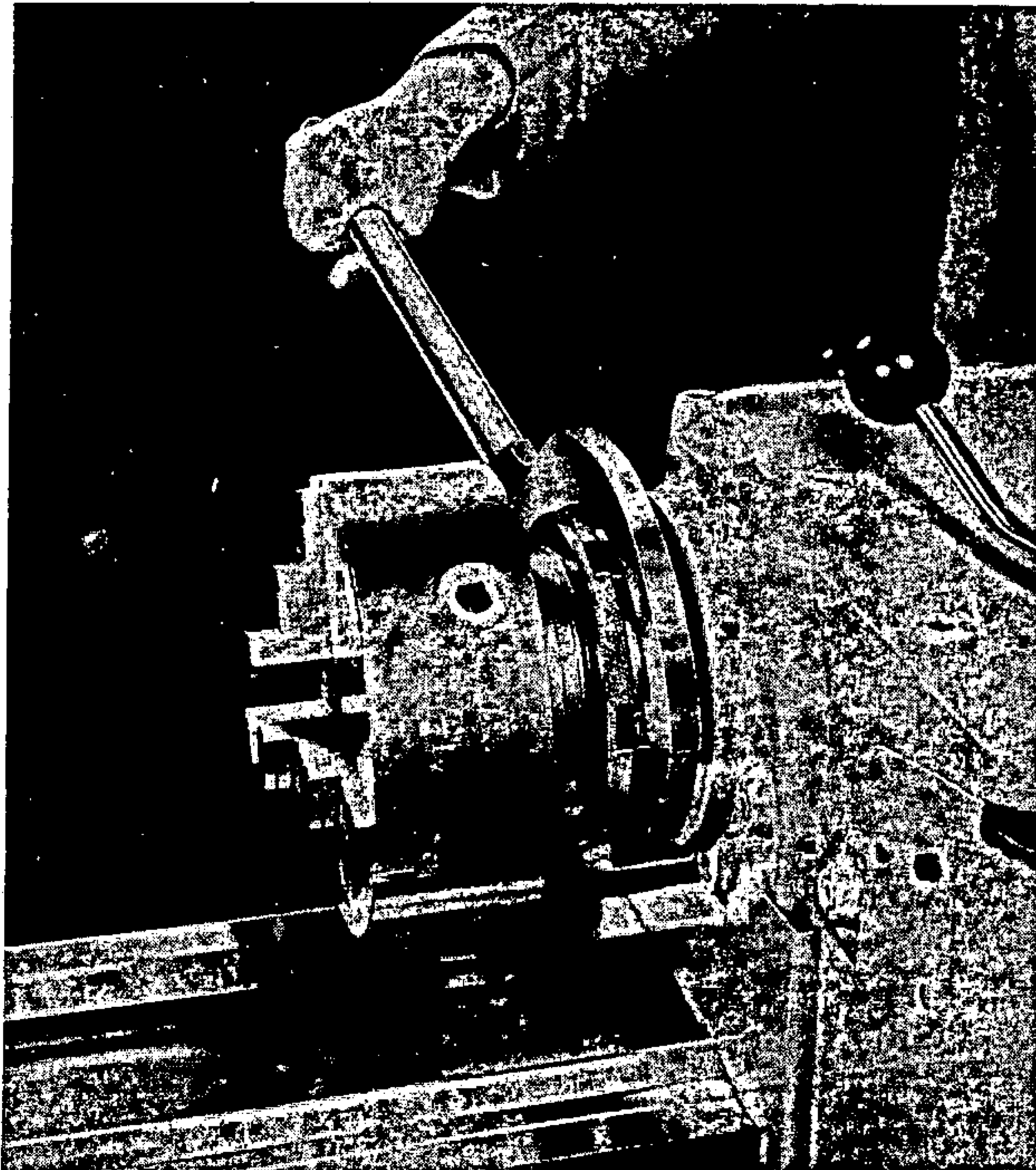
APPLIES TO CLAUSING-COLCHESTER 13" LATHES FROM SERIAL NO. _____ TO _____



CHUCK MOUNTING

The A.S.A. long-taper key drive spindle nose (to LO standard) is incorporated on this machine and has been selected in order to overcome the danger of chuck or faceplate detachment when the spindle is stopped or reversed rapidly.

Before fitting a chuck to the spindle nose, ensure that the centre and centre bush have been removed. Care should be taken to make sure that the taper and the key of the spindle nose, together with the internal tapered bore of the chuck, are scrupulously clean. Any dirt, swarf or burrs on these surfaces will upset the accuracy of the machine, may prevent the correct locking of the chuck on the spindle nose and can cause irremediable damage to the mating surfaces. The spindle nose drawnut engages with the thread on the back of the chuck; and when the drawnut has been screwed up by hand, without trouble, the special spanner wrench supplied with the machine should be used to tighten the drawnut fully. It is advisable to give the stock of the Spanner wrench one or two sharp blows with a mallet to ensure that the drawnut is quite tight. Do not, however, fit extension handles over the spanner wrench for tightening purposes.



NOTE:

Should the chuck remain fitted for any length of time, the locking procedure should be repeated frequently. This is important when the machine is engaged on work which involves intermittent or heavy cutting.

If the chuck is fitted with the spindle nose still warm from operating, it is essential that the drawnut is re-tightened before starting the machine again from a cold condition.

Releasing the drawnut will free the chuck or faceplate from the taper. Care must be taken whenever this is done, however, to ensure that the chuck does not slide off the spindle nose to damage the bed or saddle. It is advisable to obtain assistance each time the chuck is to be removed.

To avoid the possibility of moving the machine from its levelled position, final locking of the chuck or faceplate should be made with the spanner wrench horizontal.

LUBRICATION

Accuracy of the work produced and long, efficient service from your lathe depend to a large extent upon the care and correct attention given to lubrication.

Periodic attention

Before the new machine is put into service all oiling points should be properly lubricated, as indicated on the Lubrication Chart which shows the attention recommended daily, weekly and monthly. It cannot be stressed too highly that all the oiling points marked with a black dot (bedway, leadscrew and spline shaft) should be carefully cleaned and lubricated every working day in order to obtain efficient operation of the lathe.

Before starting work each day run the machine at high speed for a few minutes in order to thoroughly distribute lubricant throughout the gearing. This procedure is also advised when a period of work at slow speeds is anticipated.

Lubricants

When the machine is despatched from the Works the headstock and gearbox are filled to the correct levels with the approved lubricant, as follows:—

Headstock — Shell Tellus Oil 27
Gearbox — Shell Tellus Oil 33

Tellus oils may generally be obtained from Shell Oil Companies and agents throughout the world, but when difficulty is experienced in obtaining these recommended grades the following physical characteristics should be quoted in lubricant orders;

| | Tellus Oil 27 | Tellus Oil 33 |
|------------------------------------|------------------|------------------|
| Specific Gravity at 60°F | 0.870 | 0.876 |
| Flash Point closed | 390°F | 410°F |
| Pour Point | —20°F | —20°F |
| Viscosity Redwood No. 1— | | |
| 70°F | 310 secs | 750 secs |
| 140°F | 68 secs | 112 secs |
| 200°F | 41 secs | 52 secs |

THE USE OF INCORRECT GRADES OF OIL IN THE HEADSTOCK AND GEARBOX IS LIABLE TO CAUSE OVERHEATING AND RESULT IN POSSIBLE DAMAGE.

Oil levels

Oil levels in the headstock and gearbox should be checked every week. When checking the levels at the sight-glass, always stop the machine and allow a period of time for the oil to settle so that a true reading can be obtained. When this procedure is not followed there is a risk of overfilling which may result in the generation of excessive heat and cause oil loss through pressure leakage.

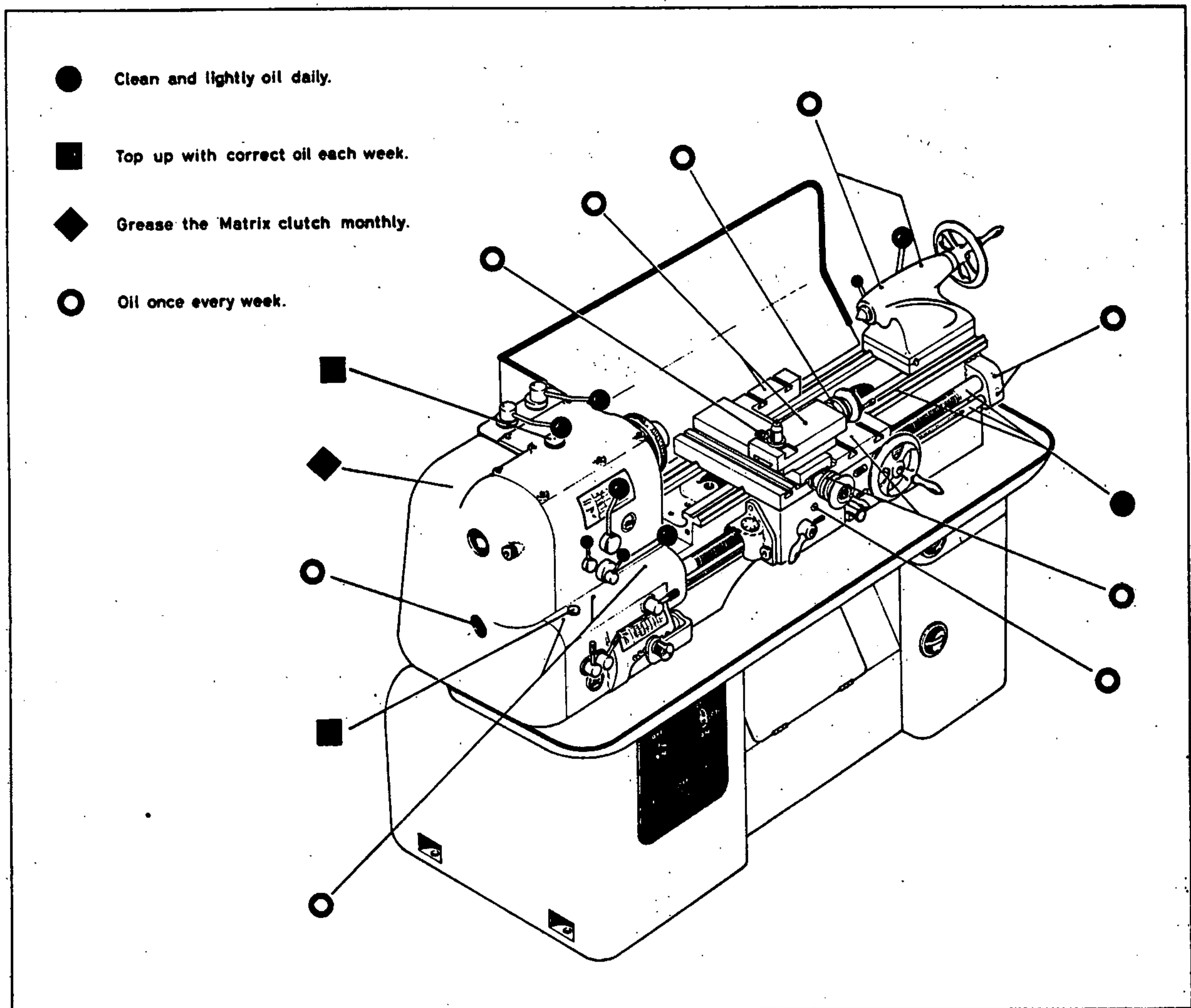
After an initial period of service of between 150 and 200 hours of running, both the headstock and gearbox of your new lathe should be drained, flushed with clean flushing oil and then refilled to the correct level with the recommended lubricant. Thereafter, repeat the draining and oil-change procedure every three months or 500 hours of operation—whichever is the shorter period.

Saddle and Slides

A one-shot lubrication system is fitted in the saddle. Before commencing work each day, depress the lubricator button to send a full supply of oil through the oil channels along the slideways.

An oil level sight glass is provided in the front face of the saddle. At least once every week check the oil reservoir and replenish as necessary with Shell Tellus Oil 33.

LUBRICATION CHART



DRIVE

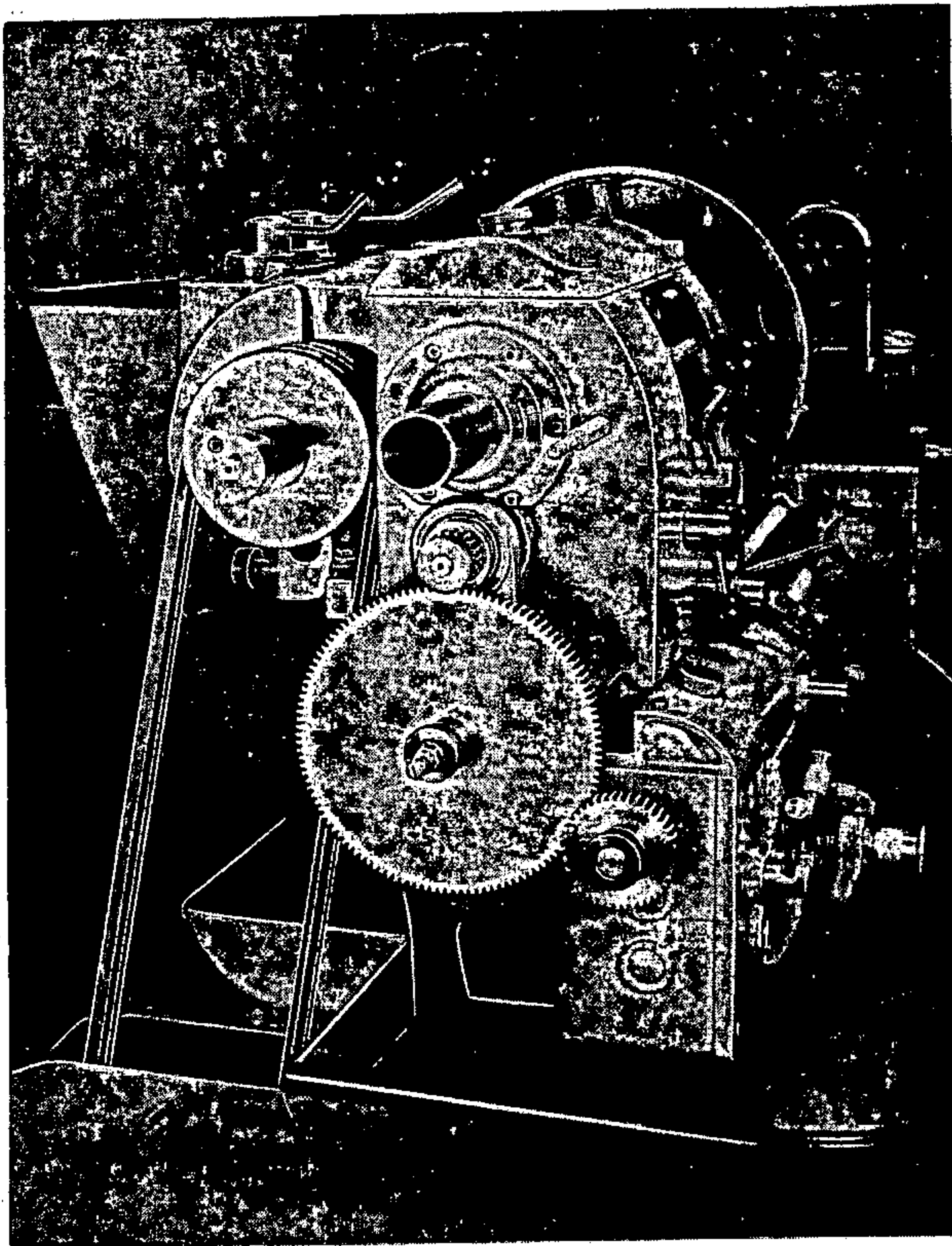
The headstock gear train is driven from a two speed electric motor through standard double vee belts and pulley drives.

When correctly tensioned, belt can be deflected $\frac{3}{4}$ in. when pressed at a point midlength between the motor and headstock pulleys.

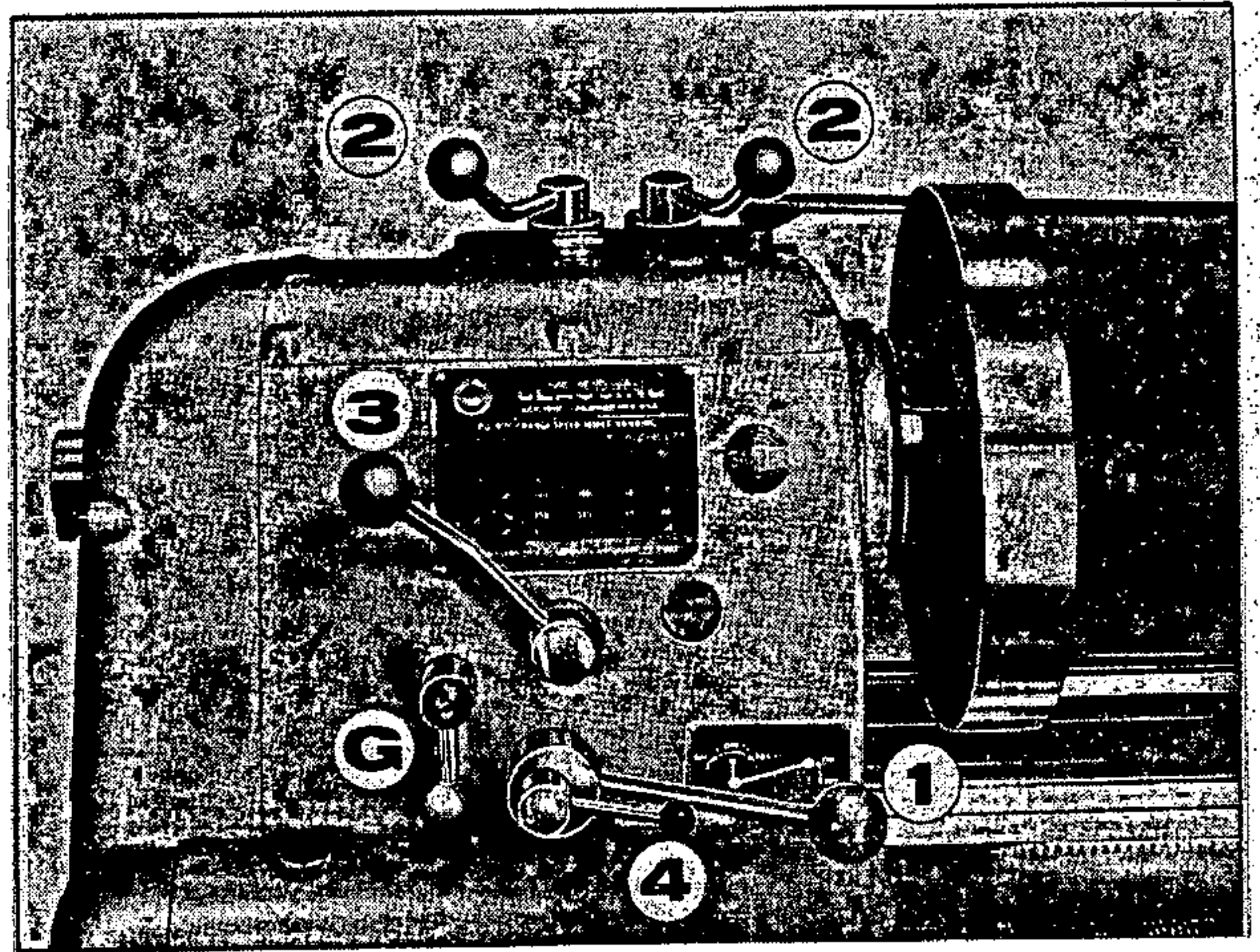
After an initial period of service (between 150 and 200 hours of operation) it may become necessary to re-adjust the tension of the driving belt to eliminate slap, vibration or slip due to belt stretch. Tension adjustment can be made any time by screwing down the two bolts retaining the front of the motor platform. Access to these two bolts is gained from the back of the motor compartment at the headstock end of the machine after removal of the louvred cover panel.

The drive is completely enclosed in an end guard to avoid the possibility of motor failure due to chips or coolant splashing. Removal of the end guard for motor or drive attention will automatically isolate the electric power supply.

DRIVE END GEARS



STARTING



Rotation of the main spindle is controlled from the front of the headstock by means of the starting lever (1). Pull the starting lever upward. This action will start the motor through an air brake starter; the starting lever will remain in this position until it is moved downward to stop spindle rotation.

The starting mechanism incorporates a no-volt release. In the event of an electrical supply failure, the machine can only be restarted by first moving the control lever to the OFF position and then starting in the normal manner. Correct operation of the no-volt release should be checked from time to time, as described in Section ELECTRICAL WIRING.

STOPPING

To stop the spindle, return the starting lever to the original or OFF position. On direct start machines, downward pressure on the starting lever operates a two-shoe Ferodo lined brake inside the driving pulley which causes the spindle to stop instantly. This brake cannot be fitted on lathes having the Matrix clutch.










REVERSE

On machines supplied for operation on 3-phase A.C. supply (only) rotation of the main spindle is readily reversed by means of the finger-tip reversing switch (4) which is inset in the starting lever. Because of the use of the American long taper spindle nose there is no possibility of the chuck or faceplate running off when the spindle is rapidly reversed or stopped; providing, of course, that these have been correctly fitted.

HEADSTOCK SPEED SELECTION

Speed selection is by means of two levers on the top of the headstock (2) and one lever on the front (3). Each lever has two positions, providing eight spindle speeds as shown on the data plate; but this range is increased to sixteen speeds by the use of a two-speed motor. The two-speed control switch for the motor is incorporated into the headstock controls. Lever positions and a chart of the speeds are shown in the illustration.

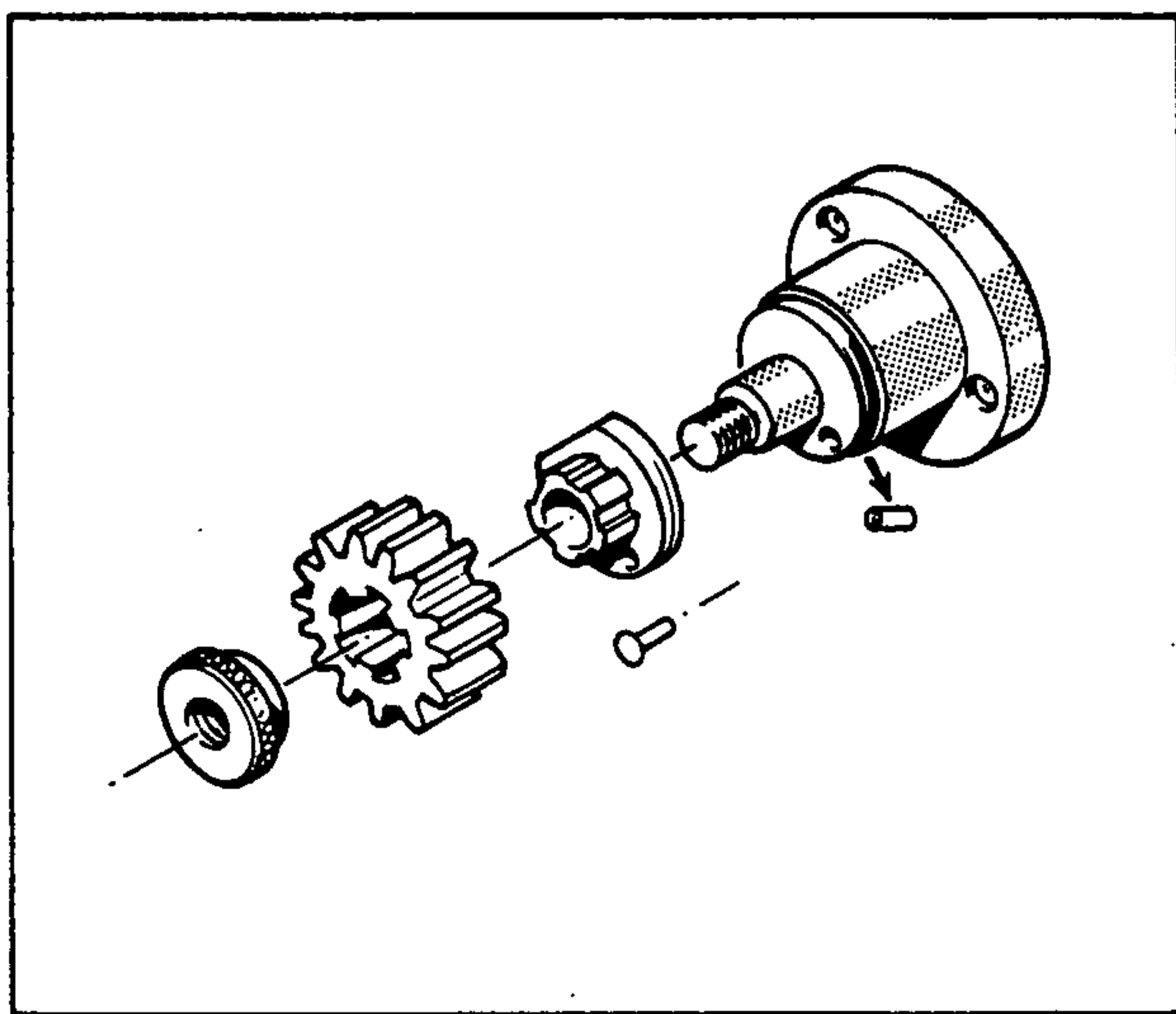
The small lever (G) is used in conjunction with gear-box controls for reversing the direction of feed. THE SPINDLE AND HEADSTOCK GEARING MUST ALWAYS BE STOPPED BEFORE MOVING ANY OF THE CHANGE LEVERS.

| | | | | | |
|--|---|---|---|---|--|
|  COLCHESTER ATLAS PRESS CO. KALAMAZOO, MICH. U.S.A. | | DO NOT CHANGE SPEED WHILE RUNNING | | | |
| | | SPINDLE SPEEDS PULLEY 2355 & 1175 R.P.M. | | | |
| LEVERS ON TOP | |  |  |  |  |
| | | HIGH SPEED | | | |
| LEVER AT FRONT |  | 1800 | 750 | 307 | 127 |
| |  | 1140 | 472 | 195 | 81 |
| | | LOW SPEED | | | |
| LEVER AT FRONT |  | 900 | 375 | 153 | 64 |
| |  | 570 | 236 | 98 | 40 |
| USE SHELL TELLUS OIL 27 OBTAINABLE FROM SHELL OIL COMPANIES THROUGHOUT THE WORLD THE COLCHESTER LATHE CO LTD ENGLAND | | | | | |

SWING FRAME

The drive from headstock to gearbox is transmitted through the train of gears on the end of the headstock, enclosed by the end cover.

The gears are fitted to a swing frame assembly which is readily adjustable to accommodate the full range of change gears available for each particular machine (see also Section GEARBOX). At each of the gear spindles a knurled handnut is fitted to enable gear wheels to be rapidly interchanged when required. Be sure to tighten the handnuts after fitting each gear wheel.



A shear pin safety device is fitted as a measure to protect against overload when screwcutting. A shear pin can be replaced easily by removing the top gear in the train, then the splined sleeve which carries the gear. The broken portion of pin may then be tapped out of the sleeve, from the side opposite to the splines. To remove the other broken portion, the shaft should be rotated until the pin hole is opposite the slot in the housing and swing frame then the broken pin may be knocked straight through and will drop out through the slot. A new pin can then be inserted and the top gear and sleeve re-assembled. When the end guard is opened the electric supply is automatically isolated by a micro-switch in the headstock.

NOTE:—The leadscrew should never be allowed to revolve except when screwcutting; it should be cleaned and lightly oiled each time before use.

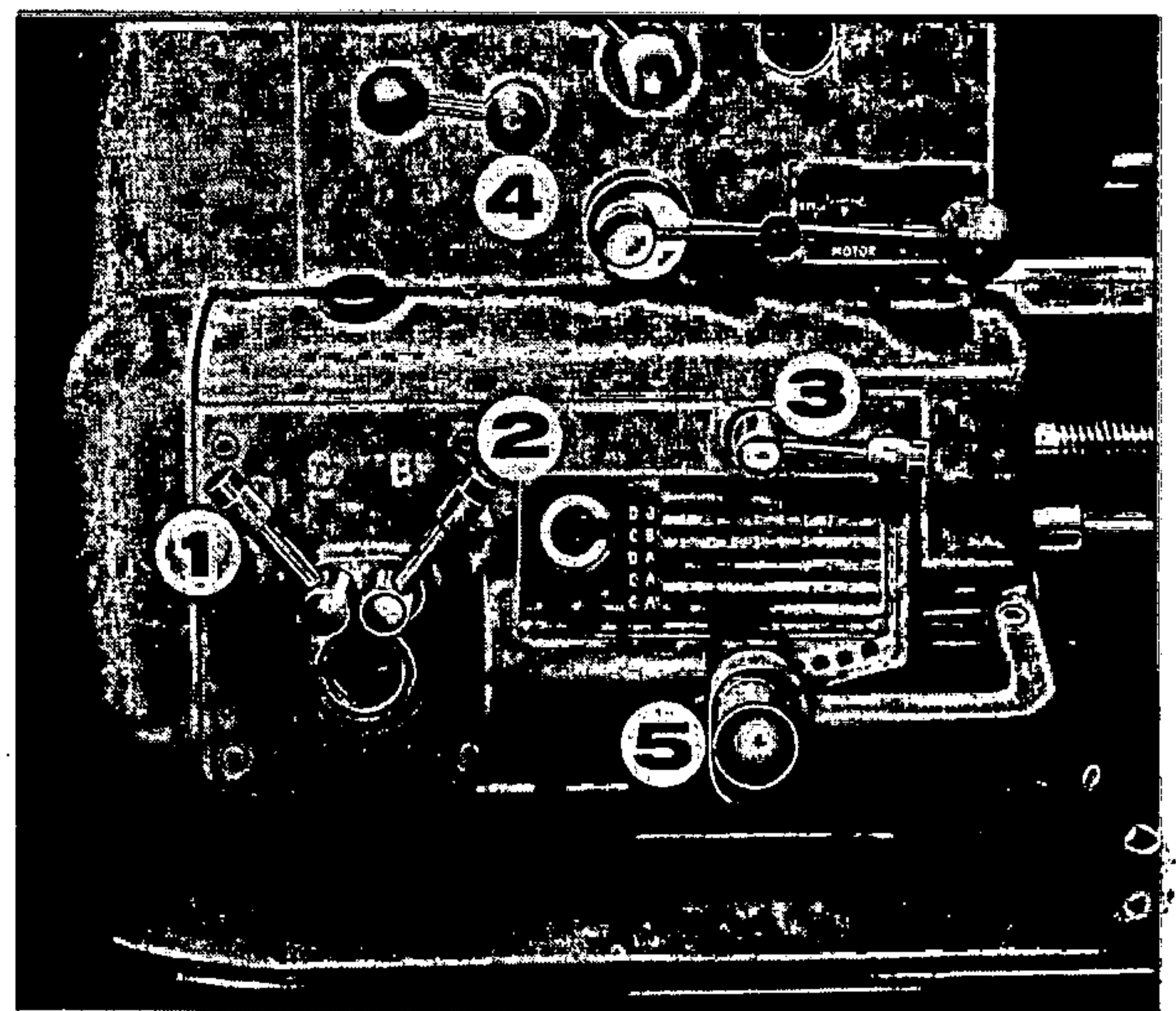
GEARBOX

The standard gearbox covers a range of 45 feeds and threads (including 11½ and 23 t.p.i.) but does not provide metric threads. The full range of feeds and threads available are shown in the reproduction of the machine data plates.

Control of the gearbox is by means of four levers (1, 2, 3 and 4 in the illustration) and the tumbler shaft (5). The tumbler shaft is provided with a spring-loaded plunger which engages with holes in the front of the gearbox cover to provide positive positioning and locking. The two selector levers (1) and (2) at the left-hand end of the gearbox each have two positions (A or B) and (C or D) and by manipulating these two levers in conjunction with the tumbler arm a range of 36 feeds and threads can be obtained. The remaining 9 feeds and threads of the total 45 are obtainable by substituting a 42T change gear for the 21T gear on the top driver position and re-meshing the train. This 42T change gear is supplied stowed alongside the 35T change gear on the gearbox driving shaft.

SPINDLE AND HEADSTOCK GEARING MUST BE STOPPED BEFORE ANY OF THE LEVERS CONTROLLING THE GEARBOX ARE MOVED.

A third lever (3) disengages the leadscrew when this is not actually required for screwcutting. A lever (4) situated high on the front of the headstock controls direction of the feeds, reversing them as required.



THREAD CUTTING

1. Threads available from the gearbox

The screwcutting dial on the apron has four numbered divisions and four sub-divisions marked on its surface, clearly visible from the operating position. The housing carrying this dial is located to the side of the apron and is retained in position by a knurled handscrew. When not required for use it may be swung out of contact with the leadscrew, since it is only employed when screwcutting is actually carried out.

To cut an even number of threads per inch (e.g. 12 t.p.i., 14 t.p.i.) the leadnut may be engaged at any division on the dial. For cutting an odd number of threads per inch (e.g. 13 t.p.i.) the leadnut must be engaged only on the numbered divisions. For fractional threads (e.g. $4\frac{3}{4}$ t.p.i.) the leadnut must only be engaged at the division marked 1 on the dial.

When engaging the leadnut, care should be taken to ensure that the appropriate dial division coincides exactly with the fixed point on each pass.

The settings of gear box levers for the threads available from each gearbox are shown on the machine data plates which are reproduced in Section GEAR-BOX.

2. Threads not available from the gearbox

To cut special and multi-start threads which are not immediately available from the gearbox, it is necessary to use special change gears which are obtainable as extra equipment. For calculating the number of teeth in the required gears the following formula should be used:

$$\text{Thread to be cut} = \frac{3 \times X \times Y}{10 \times T} = \frac{\text{Driver gear}}{\text{Driven gear}}$$

Where X = hole in feed box (see sketch below)

Y = 1 with selector levers on A C

2 with selector levers on A D

4 with selector levers on B C

8 with selector levers on B D

and T = Number of threads per inch to be cut

Values for X are as follows:—

0 0 0 0 0 0 0 0 0
28 26 24 23 22 20 19 18 16

Example

It is required to cut 27 t.p.i.

The values of X and Y may be chosen from any of the relevant numbers given above; and there is no rule about the choice. If the values selected give impossible numbers of teeth, try other values of X

and Y and continue so doing until a practicable result is obtained.

Setting up gear train (27 t.p.i.)

1. Remove gear from headstock spindle.
2. Loosen swingframe (quadrant) locking nut located between swing frame and end of bed. Swing quadrant until 120T idler gear is out of mesh with gear on gearbox shaft.
3. Loosen idler gear stud nut located on inside of quadrant, slide 120T idler gear away from headstock spindle.
4. Select the proper gear for headstock spindle position (i.e. 28T as example). Place gear in position on spindle and secure in place.
5. Slide 120T idler gear up until properly meshed with gear on headstock spindle and secure in place. For correct mesh; place piece of heavy wrapping paper (.005 in. thick) between teeth of meshing gears, tighten gears in position and remove paper.
6. Check gear in position on gearbox spindle. For obtaining 27 t.p.i. it should be 35T gear.
7. Swing quadrant so 120T idler gear is in proper mesh with gear on gearbox shaft. Tighten in place.
8. Set gearbox levers properly, as shown on the data plate (left hand to C, right hand to B) and position tumbler to cut 36 t.p.i.
9. Check gear set-up by cutting 27 t.p.i. on scrap stock.
In the case of 27 t.p.i. = $\frac{3 \times 18 \times 4}{10 \times 27} = \frac{28}{35}$ = Driver / Driven

| LEVERS | | THREADS PER INCH | | | | | | | | | | |
|--|---|--|-------|------|------------------|------|-----------------|-----------------|------|-----------------|-----------------|------|
| | | SLIDING FEEDS IN INCHES- SURFACING $\frac{1}{2}$ SLIDING | | | | | | | | | | |
| D | B | 112 | 104 | 96 | 92 | 88 | 80 | 76 | 72 | 64 | | |
| | | .0025 | .0025 | .003 | .003 | .003 | .0035 | .0035 | .004 | .0045 | | |
| C | B | 56 | 52 | 48 | 46 | 44 | 40 | 38 | 36 | 32 | | |
| | | .005 | .005 | .006 | .006 | .006 | .007 | .007 | .008 | .009 | | |
| D | A | 28 | 26 | 24 | 23 | 22 | 20 | 19 | 18 | 16 | | |
| | | .010 | .011 | .012 | .012 | .013 | .014 | .015 | .016 | .017 | | |
| C | A | 14 | 13 | 12 | 11 $\frac{1}{2}$ | 11 | 10 | 9 $\frac{1}{2}$ | 9 | 8 | | |
| | | .020 | .021 | .023 | .024 | .025 | .027 | .029 | .031 | .034 | | |
| WHEN USING 42⁷ DRIVER GEAR | | C | A | 7 | 6 $\frac{1}{2}$ | 6 | 5 $\frac{3}{4}$ | 5 $\frac{1}{2}$ | 5 | 4 $\frac{3}{4}$ | 4 $\frac{1}{2}$ | 4 |
| | | | | .039 | .042 | .045 | .048 | .050 | .055 | .058 | .061 | .068 |

FILL WITH SHELL TELLUS OIL 33 TO MARK ON SIGHT GLASS
OIL OBTAINABLE FROM SHELL OIL COMPANIES THROUGHOUT THE WORLD

Metric Thread Cutting

Compounding of the quadrant idler gear is necessary for cutting all 21 available metric threads. For this machine replace the 120T idler with a compound 127T and 120T idlers on the quadrant.

1. Loosen quadrant locking nut located between quadrant and end of bed. Swing quadrant until 120T gear is out of mesh with gear on feedbox shaft.
2. Loosen idler gear stud nut located on inside of quadrant. Slide 120T gear away from gear on headstock shaft. Select proper gear for headstock shaft from chart, place gear in position and tighten knurled nut.
3. Remove 120T idler gear from brass sleeve. Place 127T gear on brass sleeve followed by 120T gear. Slide sleeve with compound 127T/120T gears on idler gear stud; be sure 127T gear is next to quadrant.
4. Slide 127T/120T gear up until 127T gear meshes with selected gear in position on headstock shaft. For correct mesh, place strip of heavy wrapping paper (.005 in. thick) between teeth of meshing gears. Paper should fit tight between gears. Lock gear stud in place and remove paper.
5. Place 21T gear in position on feedbox shaft next to feedbox. This gear is used as spacer only.
6. Select proper gear for this shaft position from chart. It will be 30T, 35T or 42T only. Place gear in position next to 21T gear spacer. Tighten in place.
7. Swing quadrant until 120T gear meshes with outer gear on feedbox shaft. Check gear mesh (step 4) and tighten quadrant locking nut.
8. Position feedbox levers as shown in chart. Check gear setup by cutting thread on scrap stock.

NOTE:

When cutting metric threads, THE THREADING DIAL CANNOT BE USED. Close half-nut for first cut, then reverse lathe to return carriage for each succeeding pass until thread is completed.

| M/M Pitch | DRIVER (Top) | DRIVEN (Bottom) | LEVER | | TUMBLER |
|-----------|--------------|-----------------|-------|------|---------|
| | | | L.H. | R.H. | |
| 0.25* | 21T | 35T | D | B | 3 |
| 0.35* | 21T | 30T | D | B | 6 |
| 0.5 | 42T | 35T | D | B | 3 |
| 0.6 | 42T | 35T | D | B | 6 |
| 0.7 | 42T | 30T | D | B | 6 |
| 0.75 | 42T | 35T | D | B | 9 |
| 0.9 | 27T | 30T | C | B | 6 |
| 1.0 | 42T | 35T | C | B | 3 |
| 1.25† | 42T | 42T | C | B | 9 |
| 1.5 | 42T | 35T | C | B | 9 |
| 1.75 | 42T | 30T | C | B | 9 |
| 2.0 | 42T | 35T | D | A | 3 |
| 2.5† | 42T | 42T | D | A | 9 |
| 0.3 | 42T | 35T | D | A | 9 |
| 3.5 | 42T | 30T | D | A | 9 |
| 4.0 | 42T | 35T | C | A | 3 |
| 4.5 | 27T | 30T | C | A | 9 |
| 5.0† | 42T | 42T | C | A | 9 |
| 5.5 | 33T | 30T | C | A | 9 |
| 6.0 | 42T | 35T | C | A | 9 |
| 7.0 | 42T | 30T | C | A | 9 |

NOTE:

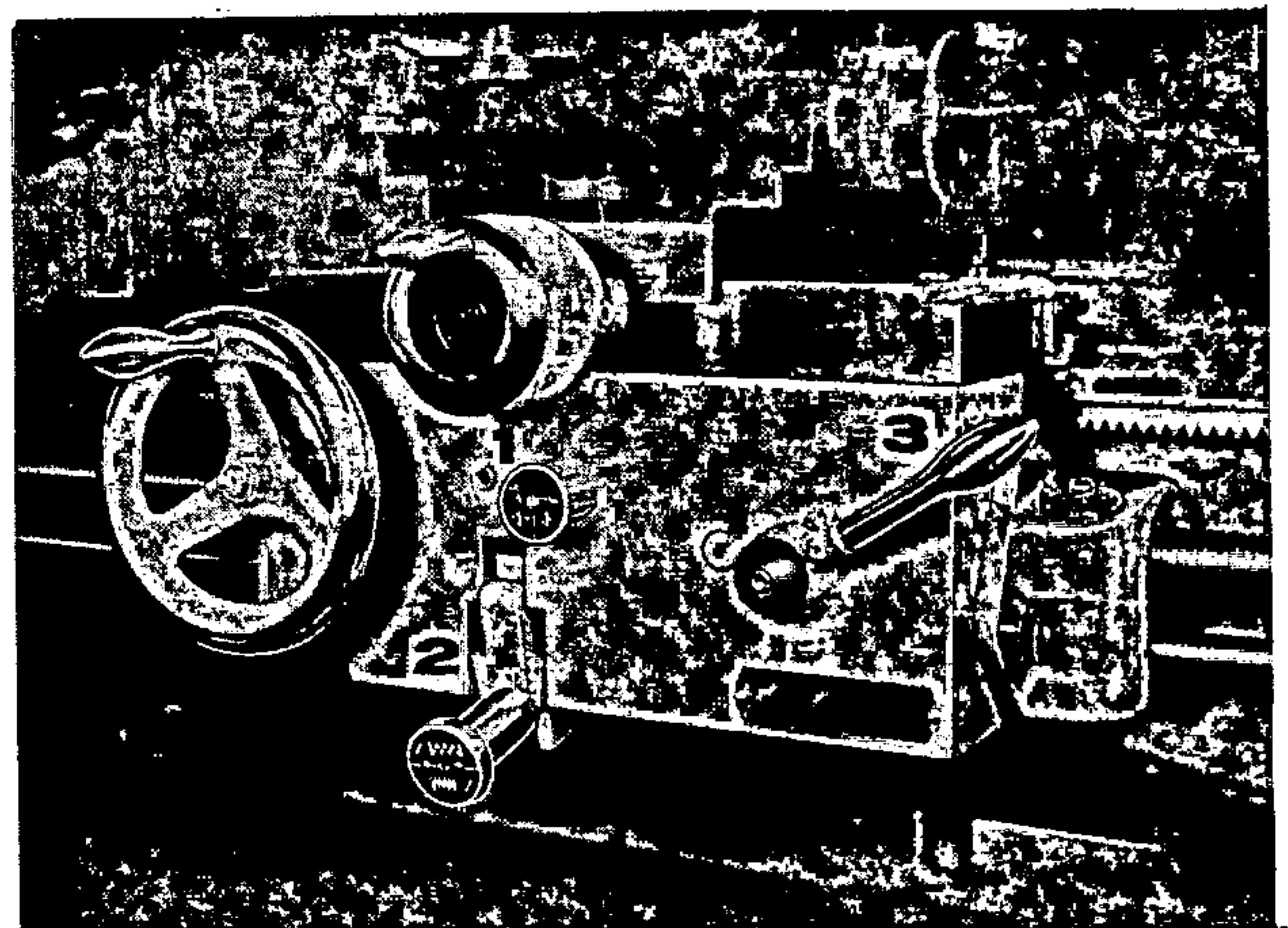
† For these threads an extra 42T gear is required.

* For these threads a spacer No. M1-565 ($\frac{1}{2}$ " wide x $\frac{7}{8}$ " Bore) is required in place of 21T gear at bottom position.

APRON

Longitudinal and cross-feeds are selected by means of a plunger (1) shown in the illustration. Longitudinal feeds are obtained with the plunger fully extended; cross-feeds with the plunger fully depressed. A central or neutral position is also provided which is selected when neither longitudinal nor cross-feed is required.

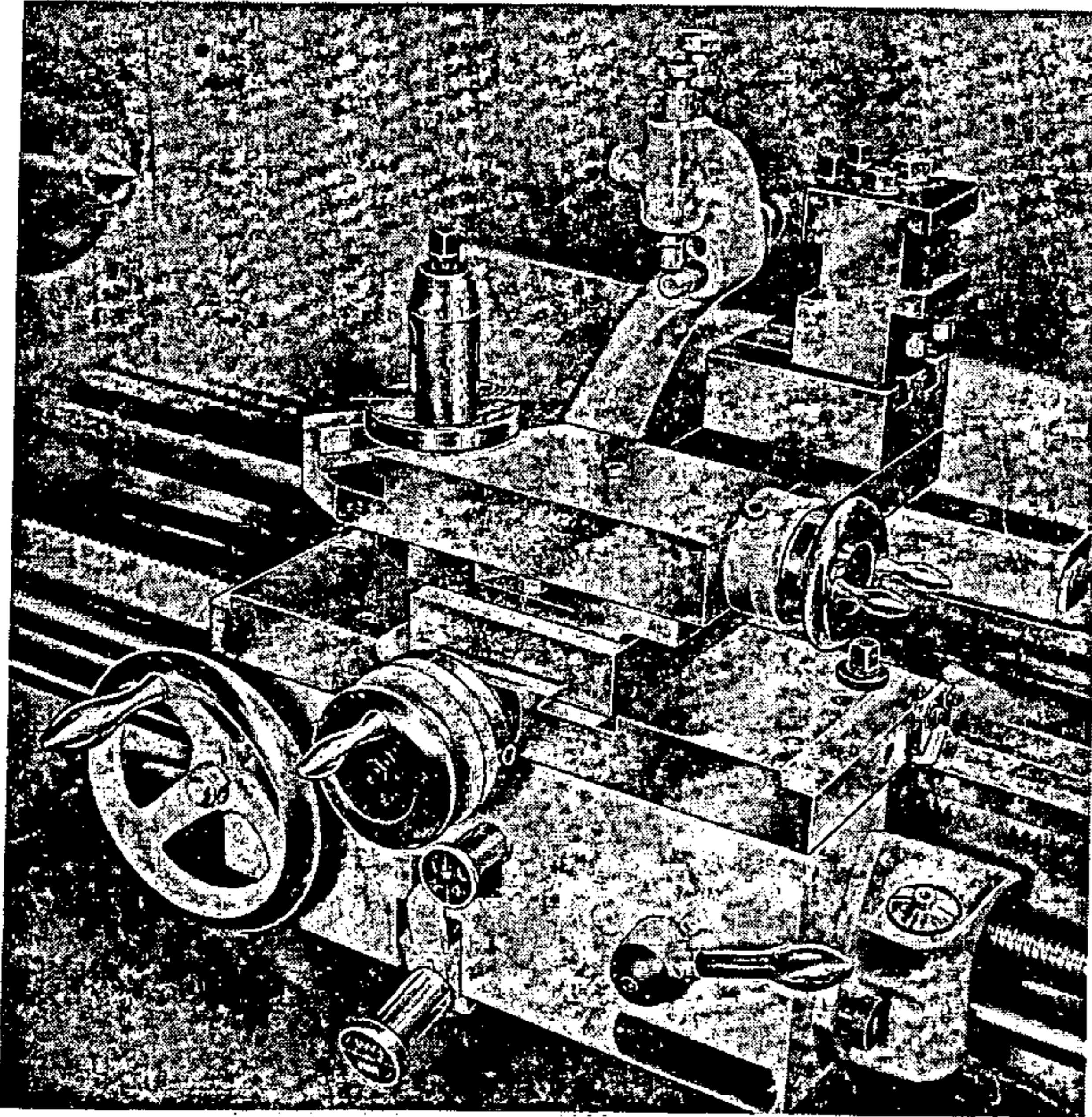
The feeds are engaged by lever (2) which incorporates a safety device to prevent overloading. This mechanism is pre-set at the Works to trip out at 400 lb end pressure. It should give long, trouble-free service.



SADDLE AND SLIDES

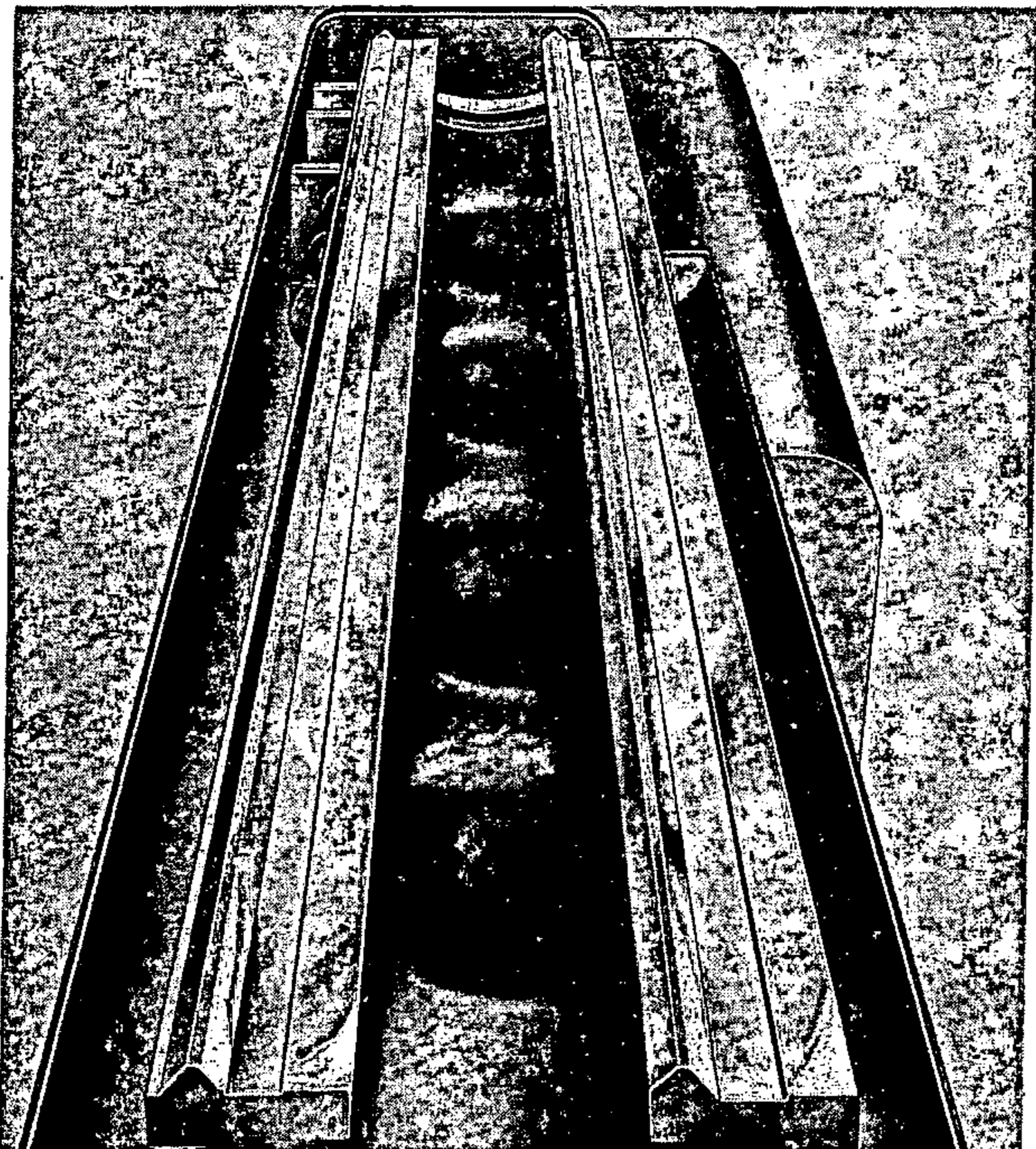
The saddle is of American winged type. It is secured to the bed by means of adjustable keep strips at front and rear and can be locked in any position on the bed by means of a locking clamp. The cross slide is graduated radially 90°-0-90° each side for accurate setting of the compound slide. Large diameter micrometer dials are graduated in 0.001 in. divisions on both the slides.

An American pillar-type toolpost is fitted as standard, intended for tools up to $\frac{3}{8}$ in. \times $1\frac{1}{8}$ in.



The Bed

All lathe beds are induction hardened and ground on working surfaces. To remove the detachable gap-piece on gap bed machines, simply unscrew the four cap-head screws. No dowels are fitted.

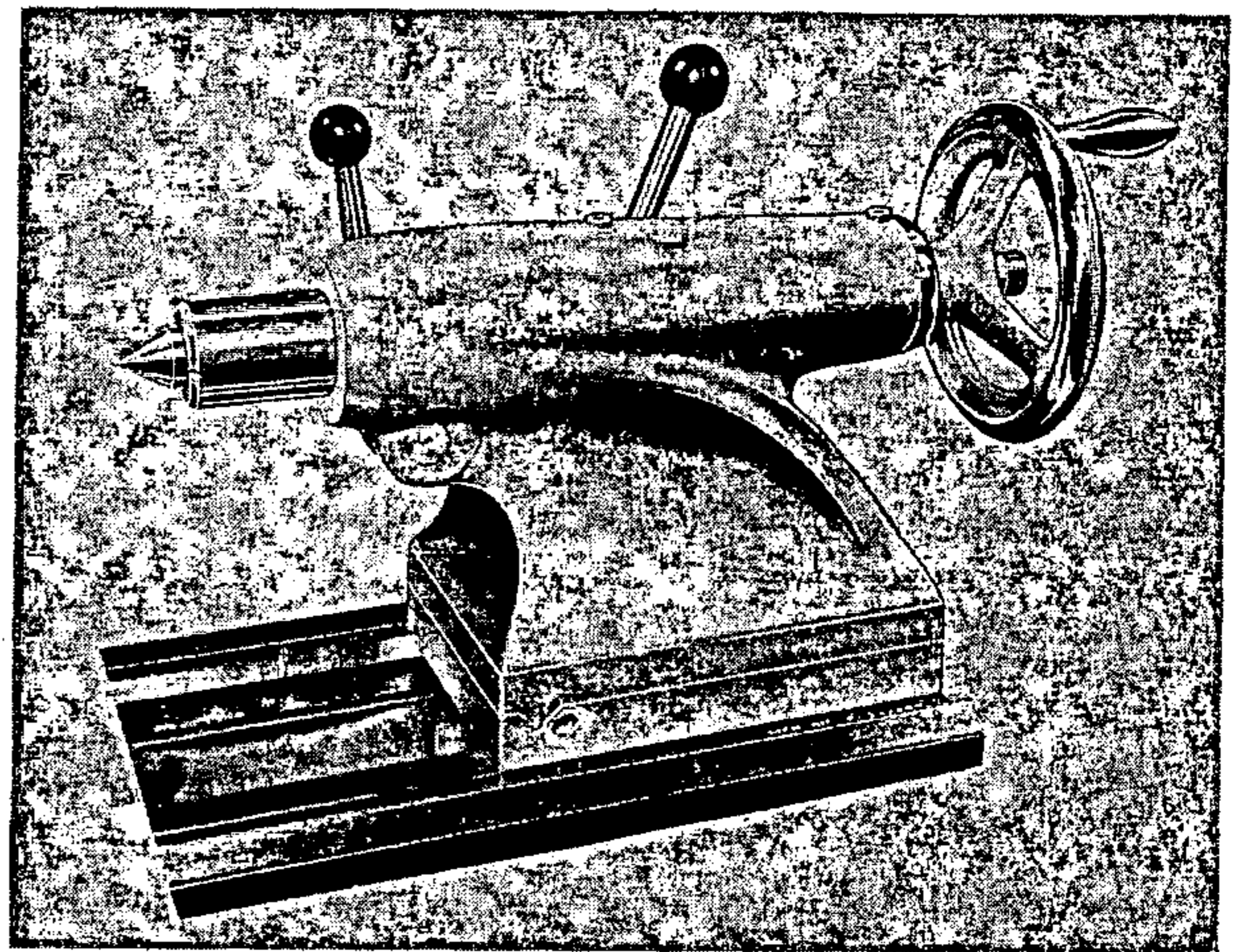


When refitting the gap-piece, first clean off the block and locating faces most thoroughly. Then fit the gap-piece in position and locate the four screws (two vertically from the top, two horizontally). Now bring up the saddle to give an approximate alignment and tighten the screws lightly. If the mating faces are properly clean the gap-piece may now be aligned exactly by a few taps in the required direction using a hide-faced mallet. Finally tighten the retaining screws securely.

The lathe bed should be cleaned down as often as possible to keep it free from chips. Use a brush for all cleaning; do not use an airblast which can drive chips under the sliding surfaces and may, also, blow away the protective oil film from working surfaces. After cleaning down, the bed should be coated with Shell Tellus Oil 33 to prevent formation of rust.

TAILSTOCK

The barrel is graduated in inch divisions and induction-hardened in the Morse taper bore and on the outside diameter. All standard tang drills are driven by the tang and eject at zero graduation. A tool-height indicator line is marked on the front face of the nose chamfer to assist in setting tools to correct centre height when a workpiece is set up between centres. There are two parts to the tailstock body casting; the base proper, which slides along the bedways, and the tailstock body which may be moved laterally on the base. This movement or 'setting over' allows shallow tapers to be turned without need for a special taper attachment; maximum set over is $\frac{1}{4}$ in. each side of the centre line, a graduated scale is marked on the rear face of the tailstock casting. The tailstock is set over by first releasing the bedway clamping lever and then adjusting the two set-over screws fitted in the base (one at each side) for this purpose.



THE TWO SPRING-LOADED SHOULDER BOLTS HOLDING THE BASE TO THE BODY DO NOT REQUIRE SLACKENING AT ANY TIME.

Quick lever clamping is employed to lock the tailstock in position on the bedways. The tailstock barrel is locked at the required setting by a lever-operated clamp.

ACCESSORIES

A comprehensive range of accessories is available for the Clausing-Colchester lathe, specifically designed for the machine and engineered for robust service and reliability.

A brief list of these is given below and more detailed information on certain items is given in subsequent pages. All accessories listed can be fitted to the machine after it has left the Works.

| Description | Code |
|--|---------|
| 3-jaw Universal scroll chuck—7½ in. | 13-201 |
| 4-jaw Independent chuck—10 in. | 13-202 |
| 18 in. Faceplate (gap bed lathes only) | 13-203 |
| Coolant system | 13-208 |
| Reversing switch | 13-212 |
| Steady rest | 13-210 |
| One-position carriage stop | 13-214 |
| Five-position carriage stop | 13-216 |
| Rear toolpost | 13-217 |
| Chuck backplate | 13-218 |
| Telescopic taper attachment | 13-213 |
| High-speed threading unit | 13-227 |
| Rotating centre | 13-215 |
| Hex bed turret | 13-651 |
| Micro carriage stop | 13-2000 |
| Turret toolpost | 13-4½-S |
| Hydraulic profiling attachments | |
| (13 in x 24 in lathes) | 13-230 |
| (13 in x 36 in lathes) | 13-231 |

COOLANT SYSTEM

The cabinet base has a built-in storage tank with a pump fitting position already provided. A pipe in the centre of the tray returns coolant to the tank and a gauze strainer is fitted to the pipe at tray level to prevent swarf and chips from entering the sump.

The jointed piping supplied with this unit is fully universal and will feed coolant to any required position. Supply of coolant is easily controlled by a ball-type shut-off valve. The whole system has been designed to eliminate the leaks usually inherent in other coolant systems. Capacity of the unit is 5½ gallons. An electric pump of robust and reliable design is available and is wired into the main electrical panel at the main switch (see Wiring Diagram). The pump motor should never be run if the coolant sump is dry. The sump should be cleaned at frequent intervals and refilled with fresh coolant. Precautions should be taken when refilling to avoid splashing the coolant over the pump.

Soluble oil emulsions

For most work a soluble oil emulsion will be chosen, since this will almost always be adequate for the work in hand, and preferred by the machine operator. When screwing with a die-head, tapping, or reaming, some extra coolant applied locally may be required. If much work of this type is contemplated, it may be better to use an emulsion of an extreme pressure soluble oil in the machine tank. A good quality oil of this type will give results equal to neat cutting oil whilst retaining the cleanliness of soluble oil.

Good quality soluble oils should always be chosen and mixed in accordance with the suppliers' recommendations. The following grades have been tested and used in our own works with complete satisfaction:-
Shell Dromus Oil B—conventional milky soluble oil mixed with water in the ratio 25/30:1.

Shell Dromus Oil D—translucent soluble oil mixed with water in the ratio 40:1.

Shell Dromus Oil 908—extreme pressure oil mixed with water in the ratio 10/15:1.



Soluble oils and machine maintenance

No soluble oil emulsion, however good, can completely prevent rust without help from the operator. The machine should therefore be cleaned down regularly and bright parts wiped over with machine oil. It should never be left, especially over weekends or holidays, with wet swarf on the bed or slides. When the work in hand requires the saddle or tailstock to be clamped in one position for long periods it is advisable to spread a little machine oil on the bed beforehand to ensure a film of oil between the surfaces.

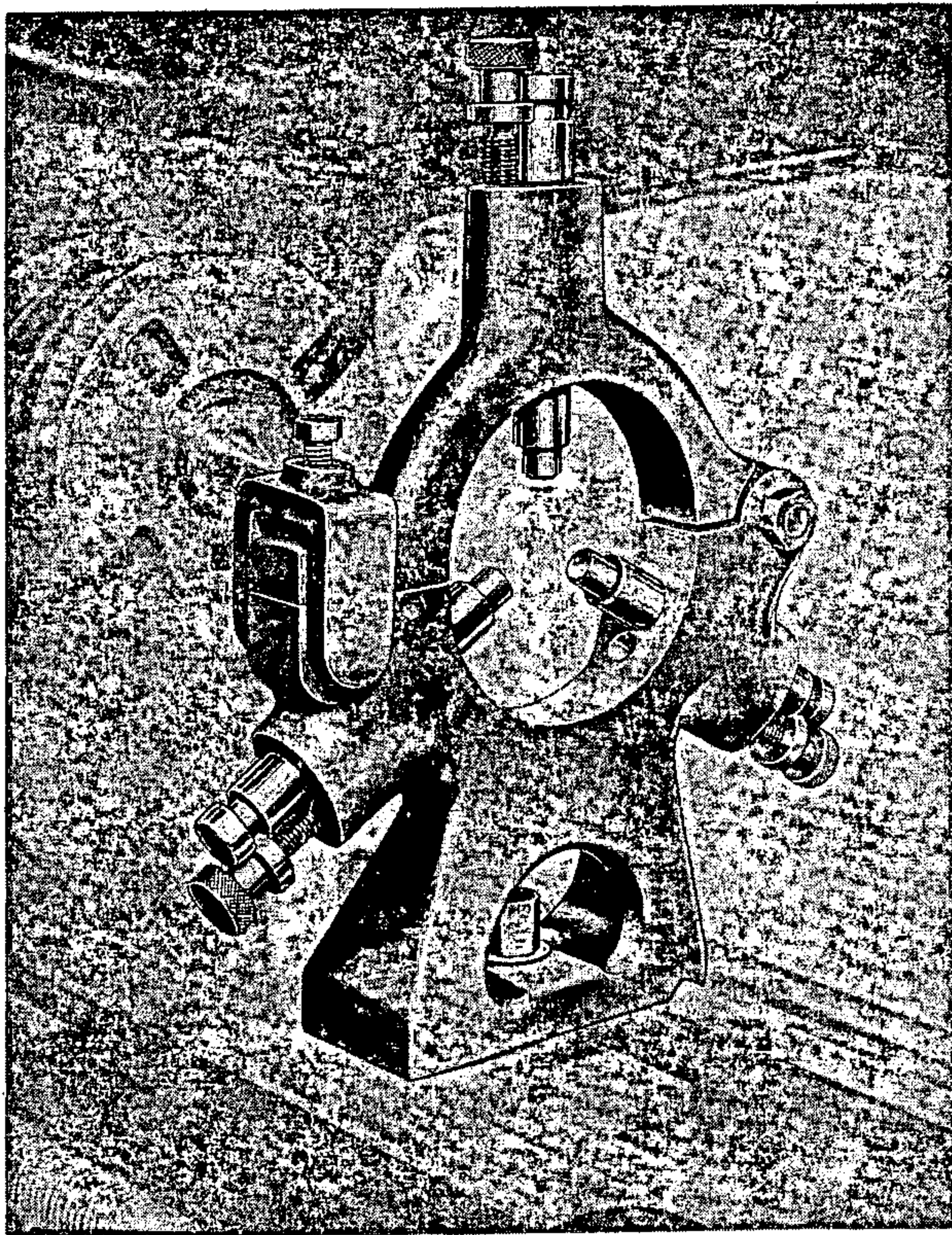
The tank should be emptied, cleaned out and re-filled with fresh soluble oil at regular intervals.

STEADY REST

Of extremely rigid design, this attachment is very easily opened and set. Three adjustable fingers are provided, and the maximum capacity is 4 in. bar diameter.

Inserts are of sintered bronze and quickly replaced, being a press fit into the ends of the fingers.

The whole attachment is readily attached to the bed by a clamp bolt, and can be removed very rapidly when not required for use.



REAR TOOLPOST

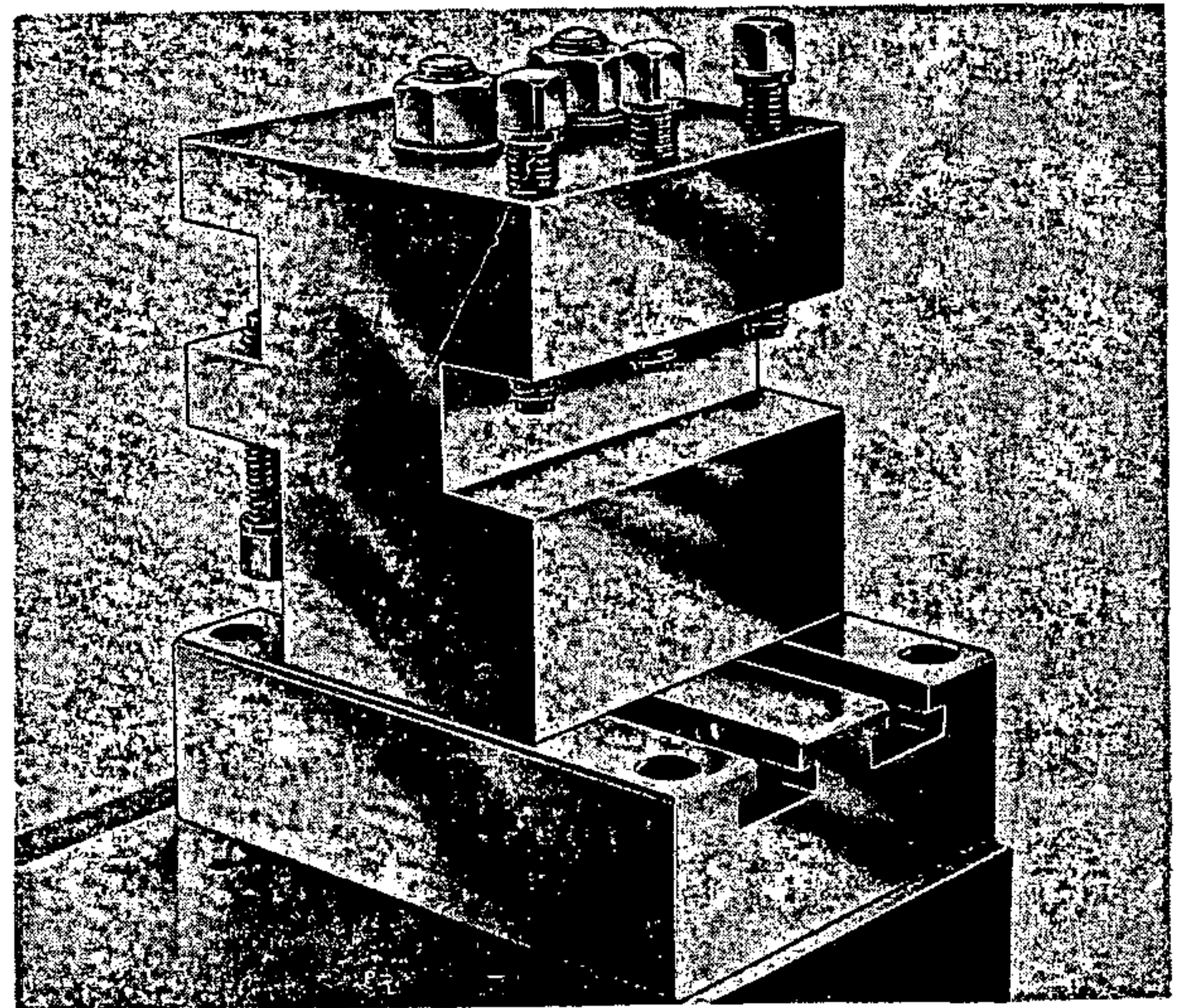
As an aid to production, a rear toolpost is available for fitting direct to the cross slide, which is drilled and tapped ready to receive it.

Two tool positions are provided so the tool may be fitted either in conventional manner, or in the inverted position.

Using this tool post (with the tool fitted in conventional manner) left hand threads can be easily cut.

Supplied complete with all necessary fixing screws, the only fitting required is the physical bolting of base pad to cross slide. Tee slots are provided in the base pad so that the toolpost may be adjusted in position

on the base. Maximum tool depths that can be accommodated in either position are $\frac{5}{8}$ in. Standard wrenches and Allen keys supplied with the machine will fit all the nuts and screws in this assembly.

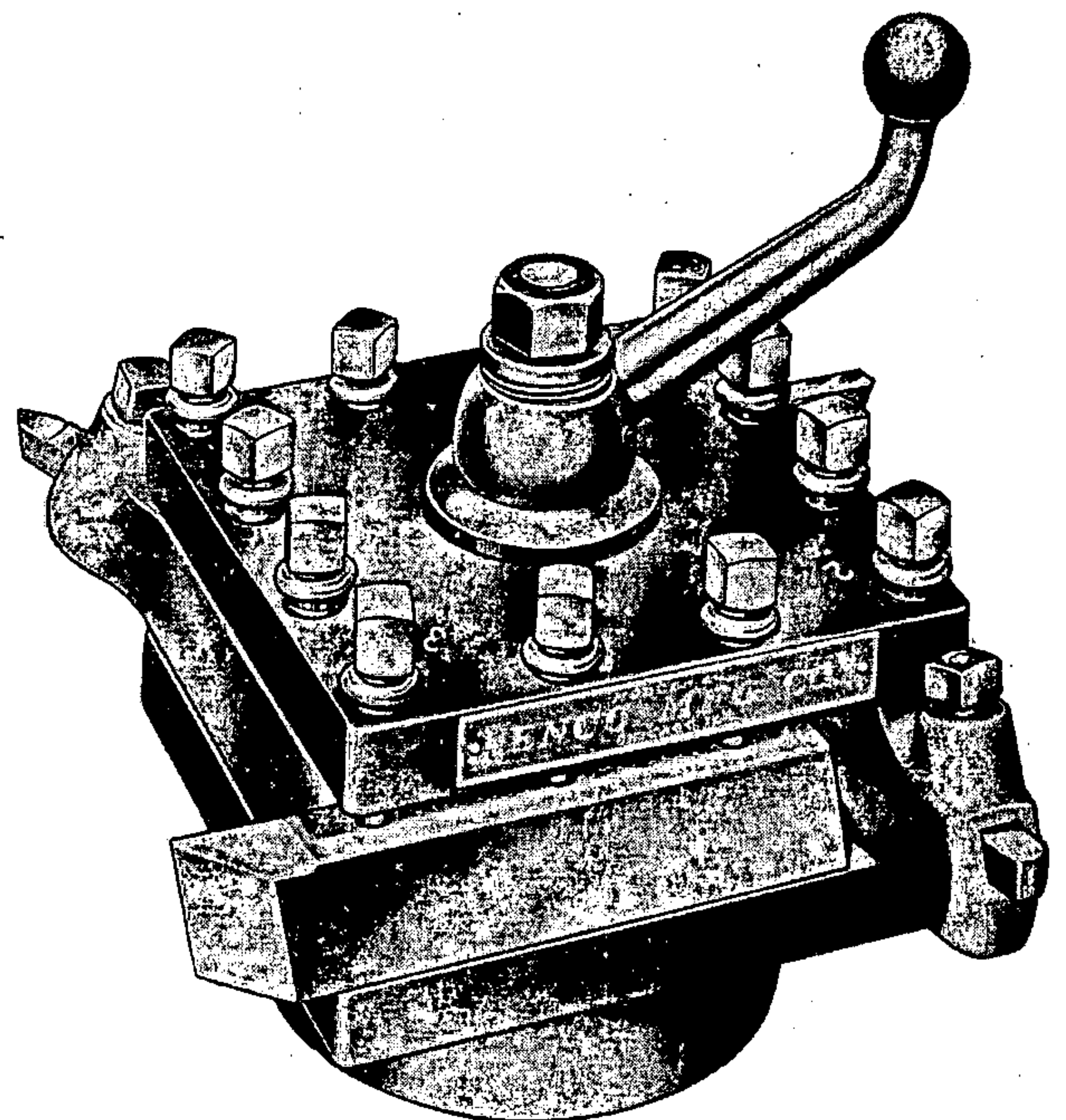


SQUARE TURRET TOOLPOST

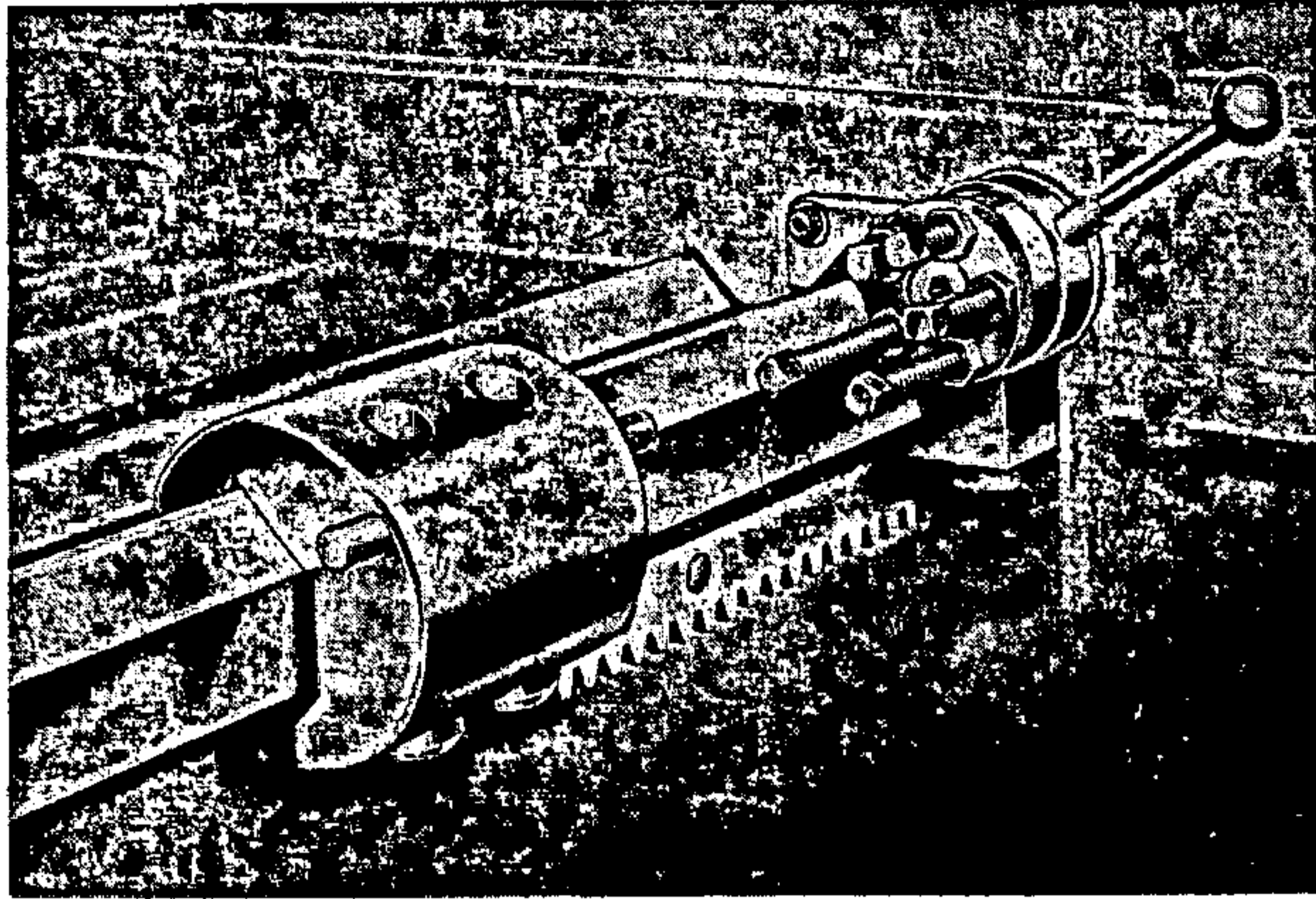
To index the toolpost into any of four operating positions, the central hand lever is moved in an anti-clockwise direction until distinct detents are felt. This indicates that the plunger mechanism has released the locating plunger and the indexing mechanism is engaged. When the central hand lever is returned in a clockwise direction the turret will index into the next position. A further short movement of the lever in the same direction will lock turret block to topslide.

Using the retracting plunger method of indexing, the turret block remains close on its bottom face whilst being indexed, which effectively prevents entry of chips between the locating faces. The turret block can also be swung into any position without use of the indexing mechanism.

The turret block will accommodate up to four tools or toolholders having a height up to $\frac{3}{4}$ in.



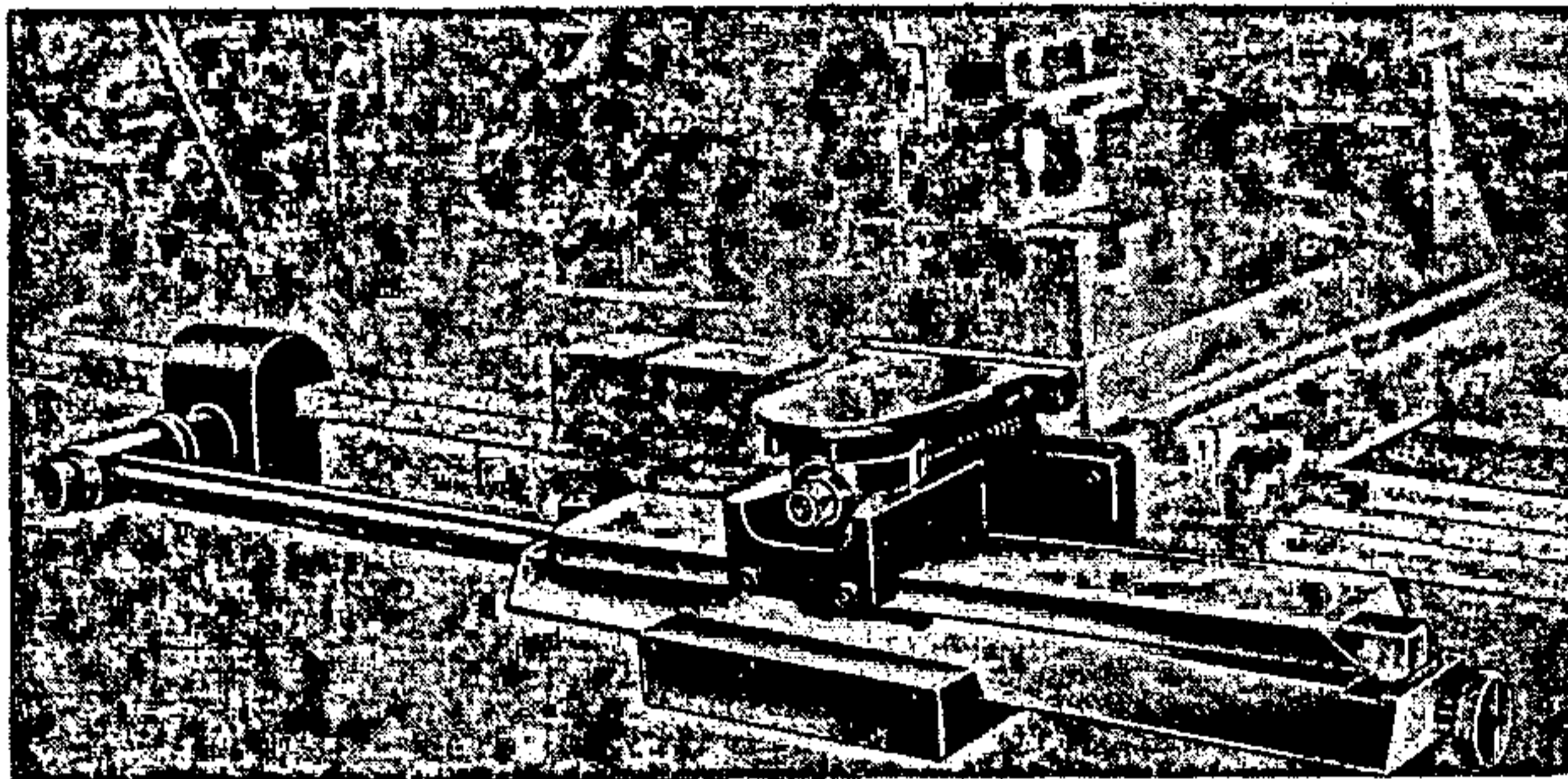
BED STOPS



To provide accurate and reliable means of repeating shoulder lengths, a single-type bed stop or five-position turret type bed stop are available as extra equipment. With these units, the saddle may be stopped in any desired position without detrimental effect on the feed mechanism.

A micro carriage stop is also available, for clamping on the front of the bedway. Micrometer control is graduated in 0.001 divisions. Hardened stop locks securely in any position.

TELESCOPIC TAPER TURNER



This attachment can be used for producing tapers up to 10° in either direction.

It can be mounted directly onto the rear of the saddle without any modification other than the fitting of a new saddle screw and nut which is supplied with the unit.

The swivel slide is graduated in $\frac{1}{4}^\circ$ of arc and in $\frac{1}{8}$ in. taper per foot and great sensitivity of control is obtained when setting a taper by the use of the micro adjustment screw.

The cross slide handwheel is always used to control the tool and the base slide can be adjusted along the bed so that the taper may be cut in any position. The attachment will deal with a length of 10 in. of taper at any one setting.

After attaching to the machine, all that is required to prepare the taper turner for use is the clamping of the connecting rod in the anchor bracket by means of the Caphead Allen screw

The fitting of this attachment in no way detracts from the use of the machine as a normal centre lathe. Change over can be accomplished simply by loosening the connecting rod clamping screw and traversing the saddle towards the headstock to disengage the connecting rod from the clamp. Then remove the anchor bracket from the bed so that there is no obstruction to foul the connecting rod. By replacing the bracket and engaging the connecting rod, the taper turner is rapidly reset for use.

Great care should be taken when re-adjusting or altering the fit of the base slide in the taper turner bracket, as any slackness will result in incorrect tapers.

To fit the taper turner:

1. The saddle and cross slide are ready drilled to receive the attachment, the necessary holes being drilled and tapped during manufacture.
2. Clean down the rear end of the saddle to receive the taper turner bracket.
3. Release the locknut in the centre of the cross slide handwheel.
4. Slide the cross slide to the rear of the saddle.
5. Remove the saddle screw nut fixing bolt and withdraw the screw and nut from the rear end.
6. Insert the taper turner saddle screw and nut and secure the nut with the fixing bolt.
7. Pull the cross slide forward and engage the saddle screw in the handwheel pinion. (NOTE: The lock nut from the original saddle screw is not replaced, but should be retained in case it is needed when refitting the original screw.)
8. The slide block assembly can now be fitted to the thrust block on the rear of the saddle screw assembly. Engage the slides in the bracket and the slide block assembly on the slides. This will enable the bracket to be bolted to the rear of the saddle using the pre-tapped holes provided.
9. Finally, bolt the bottom slide extension piece to the rear of the bottom slide. Fit the connecting rod to the taper turner slide and the connecting rod clamp to the machined face on the back of the bed.

HYDRAULIC PROFILER

COLCHESTER SERIES '300' HYDRAULIC PROFILING UNIT

Designed to permit faster and more accurate profiling, this unit can be fitted at any time to Colchester lathes without modification or alteration of the machine. The standard equipment unit comprises four basic sub-units; profile slide, tool box, the rear beam and tail-stock units (suitable for round or flat masters or models) and a free-standing hydraulic power unit complete with a set of hoses. Two further units are available as additional equipment; a turret stop assembly and a facing beam; both of which are described subsequently.

Profile slide

Mounted directly on the rear of the lathe cross slide, this is an integral unit comprising the operating cylinder, cartridge-type servo valve, stylus lever mechanism and a swivelling Colchester Multi-type toolpost complete with one turning tool holder.

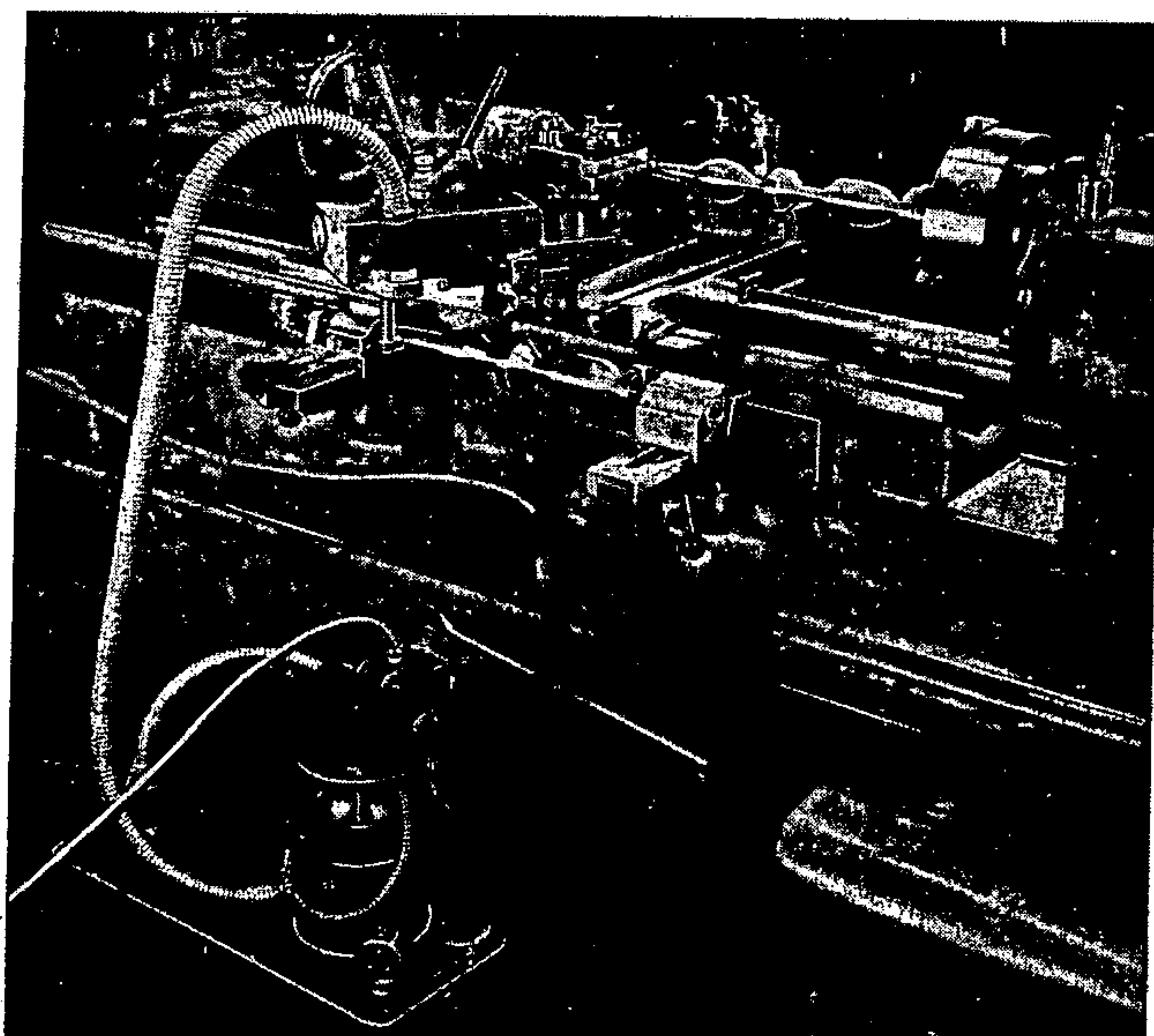
The complete unit can be fitted in four alternative positions; at 90°, 60°, 30° or parallel to the centre-line of the lathe. Maximum and minimum profiling angles obtainable for each of these positions are shown on the installation drawing overleaf. A copying accuracy of ± 0.0005 in. (0.01 mm) can be achieved; the change in copy diameter at 90° is $\frac{1}{2}$ in. (140 mm) and at 60° is 5 in. (127 mm).

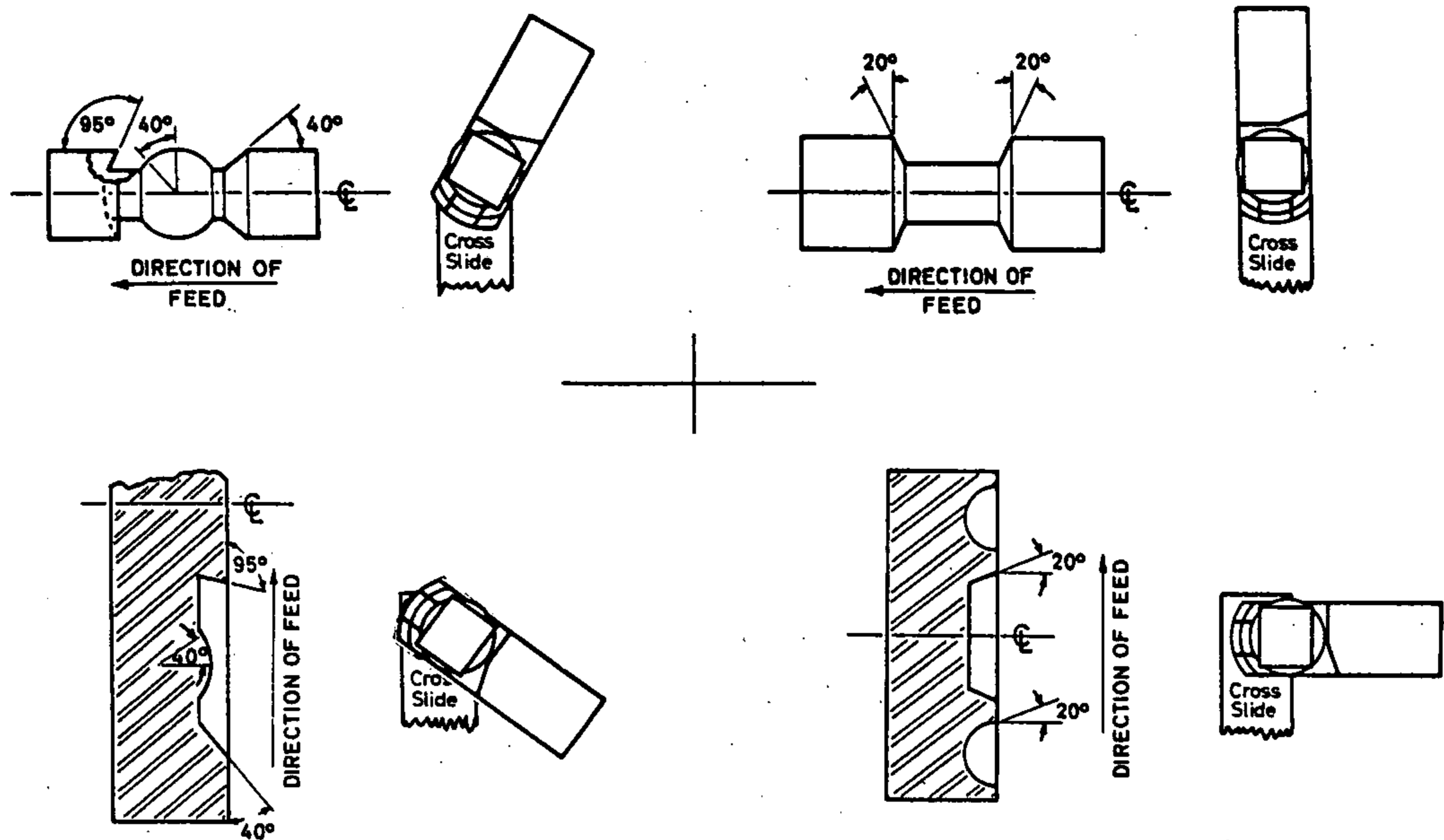
The main control valve is a self-contained cartridge unit secured into the profile slide casting. The stylus is mounted on the lower end of the stylus lever shaft which is retained in the outer end of the stylus lever. Height and angle of the stylus in relation to the model master is easily adjusted by hand after releasing the clamp bolt. A combined ON/OFF lever and forward feed-velocity control is mounted on top of the slide assembly. The ram has a stroke of 3 in. (76 mm) and maximum approach/retraction speed of 110 in. (279 mm) per minute. The low stylus pressure of only 6 oz. (17 g) permits soft masters or models to be used, if necessary.

Toolbox

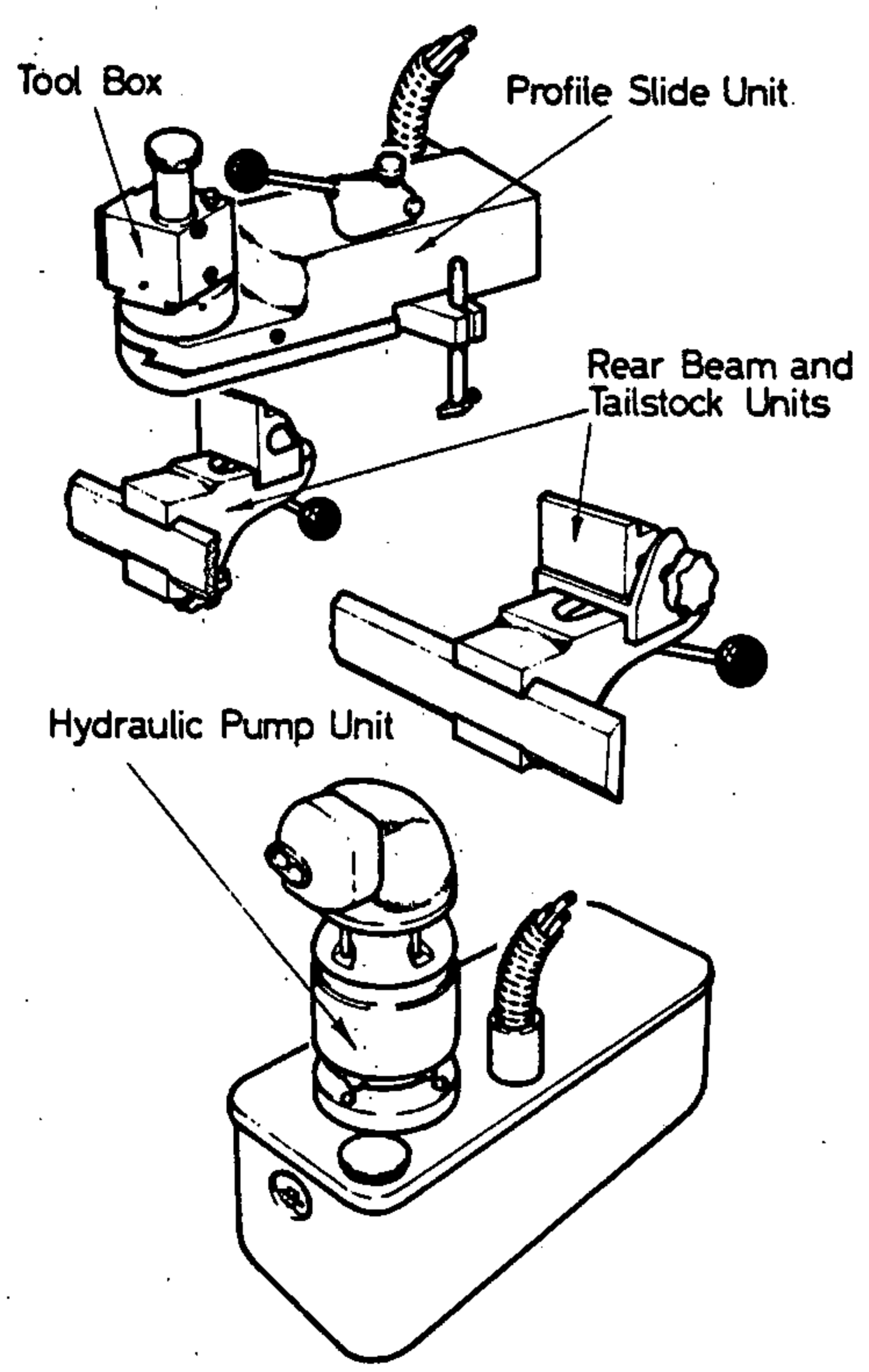
A swivelling Colchester Multi-type toolpost allows all tooling to be pre-set and enables all such tool changes to be made rapidly without the necessity for re-setting the slide assembly. Sufficient height adjustment is provided to permit the tool to be set up for forward or reverse cutting. Tools are carried in interchangeable toolholders; and when each tool has once been set to centre height it may be removed and replaced any number of times without alteration of the setting.

The toolbox is fitted on a base plate located at the front of the profile slide unit and can be mounted at four alternative positions, governed by the angle of the slide unit to the centre line of the machine. An adjusting handwheel is fitted which, through spiral gearing, provides micrometer control of the depth of cut up to $\frac{1}{2}$ in. (13 mm) movement of the tool box along the base slide. Three alternative sizes of toolbox base slides are available, dependent upon the size of the machine to which the unit is fitted.

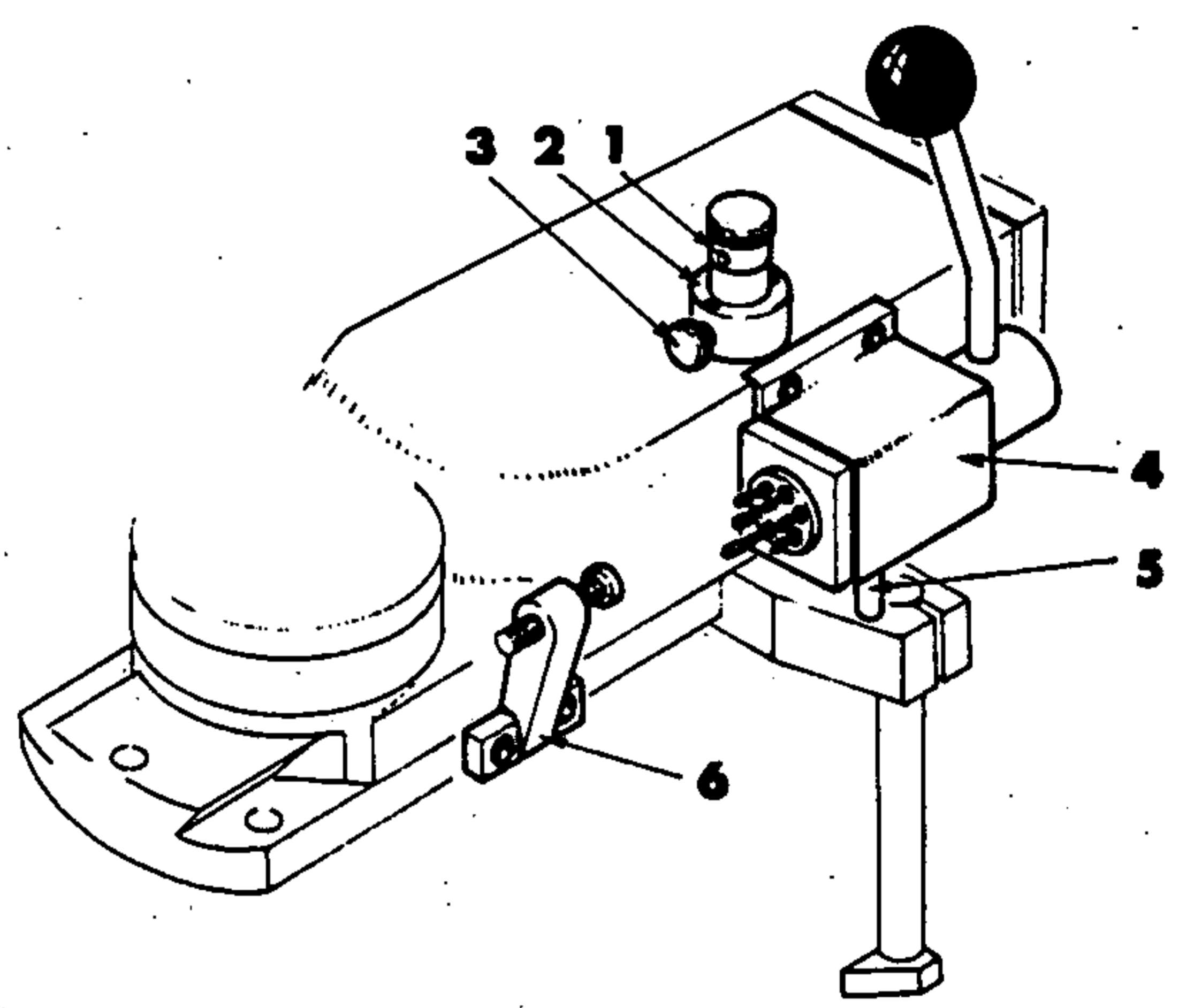




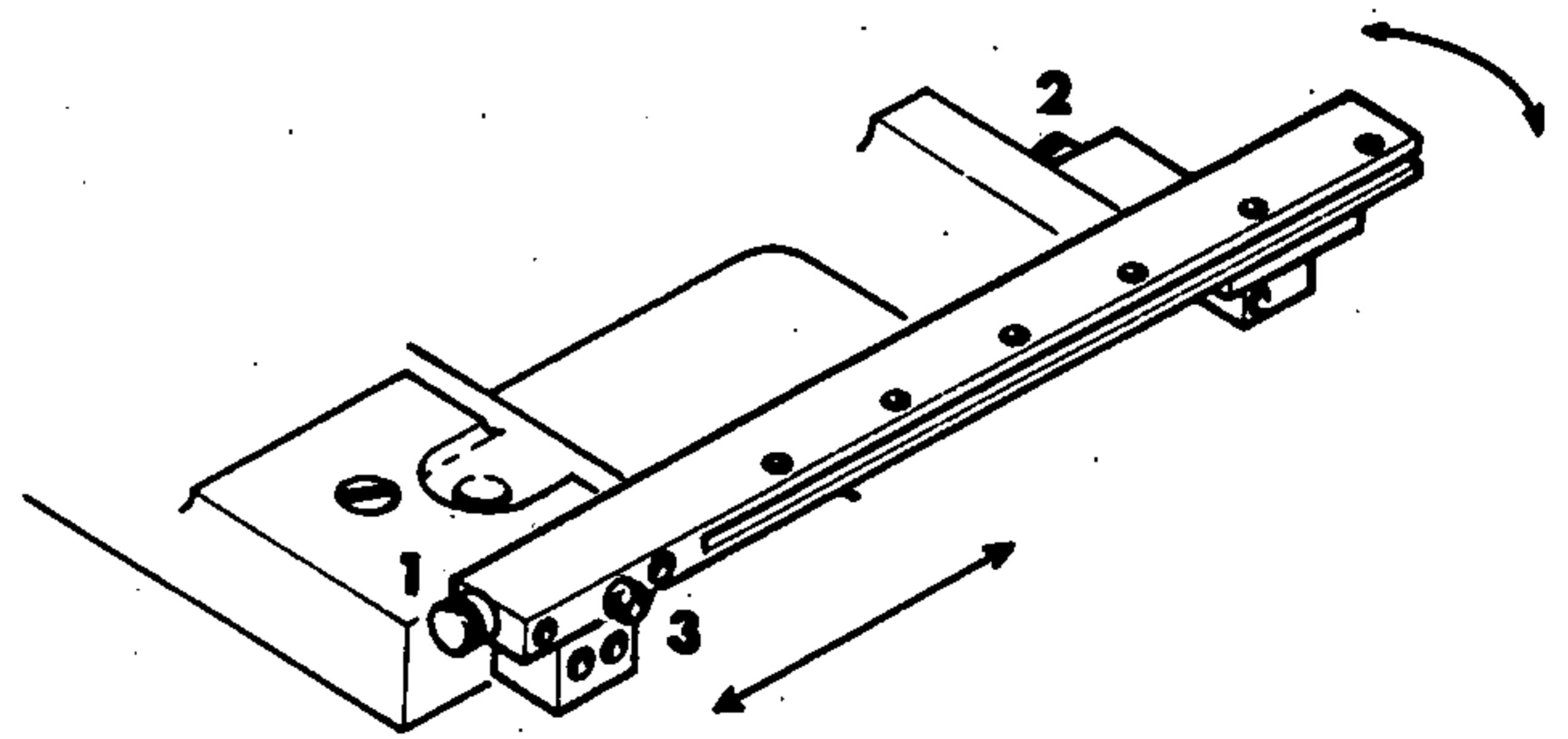
SLIDE POSITION CHART



HYDRAULIC PROFILING UNIT



TURRET STOP ASSY.



FACING BEAM ASSY.

Rear beam assembly

The dovetail-section beam is fitted directly on the rear face of the lathe bed to provide a rigid datum surface for carrying the model (or master) parallel to the centre-line of the machine.

Two beam-brackets slide on the beam to provide the locating surface for two tailstock-type model carriers which can accommodate either round master profiles or flat templates. Both brackets are mounted and locked on the beam by means of knurled handwheels. The tailstock centre of the model carrier at the headstock end is spring-loaded, that at the tail-end is adjustable by a knurled handwheel to give up to $2\frac{1}{2}$ in. (64 mm) of travel. Both model carriers are adjustable laterally relative to the machine centre-line and are locked by means of locking handles. Each tailstock housing is suitably drilled and tapped for attachment of flat profiling templates; short templates may be bolted on the tail-end housing only, longer templates should be supported at both housings. When the template is produced for support at both housings, the clamp-bolt holes should be made slightly elongated to permit small transverse adjustments.

Hydraulic power unit

This is a free-standing, combined tank and pump unit; designed to fit neatly at the back of the lathe. The motor unit is flange-mounted vertically upon the cover of the hydraulic tank. The electric pump works on $\frac{1}{2}$ h.p. producing a working pressure of 300 lb/sq. in. A pressure gauge is fitted on all units. The pump and oil filters can be removed easily for inspection or servicing. Connection of the pump unit to the profile slide assembly is by means of three plastic hoses (two of large bore, one of small bore) all of which are sheathed in a single flexible conduit.

ITEMS AVAILABLE AS EXTRA EQUIPMENT

Facing beam

To enable the profile slide unit to be used at 30° and parallel to the centre line of the machine, a facing beam is required. This consists of a slotted beam, or template carrier, which is mounted across the end of the saddle in the position shown in the sketch opposite. The template is fixed within the longitudinal slot and secured by the setscrews fitted along the edge of the beam. Final adjustment of the template position is made by setting the whole assembly over by means of the two micrometer adjusting screws (1 and 2). Screw No. 1 provides adjustment in a transverse plane whilst No. 2 varies the angle of the beam relative to the centre line of the machine. A pair of thumb-screws (3) are provided for locking the facing beam in the required position.

Turret stop assembly

The turret stop provides a highly effective means of turning a workpiece having widely varying diameters. The stop screws may be set to give up to five roughing cuts whilst the sixth station is set to allow the stylus to traverse the full template form.

Operation of the profile slide is by means of the control lever fitted to the rear face of the turret stop unit and movement of the lever to the left (towards the profile slide) brings the next turret stop screw round to the contact position and advances the unit. Movement of the lever to the right, or away from the profile slide, retracts the slide unit. To convert the standard profile assembly to a turret stop unit, the pin retaining the feed control dial (1) is removed and the ON/OFF (retraction) lever assembly is then

removed complete. A replacement keep is provided in the conversion kit; and this one must be fitted in place of the cam beneath the lever housing. Use the same two securing screws, however. The dial nut should then be re-fitted and pinned in position. The knurled lock-screw from the old lever assembly should be fitted to the new keep, as shown in the sketch. The side cover plate should next be removed and in its place the turret stop assembly is fitted, using the same four fixing screws. Now with the turret stop control lever in the retracted position, insert a spring dowel pin (5) through the underside of the hole in the stylus lever until it projects through the base of the turret stop assembly by approximately $\frac{3}{8}$ in. (10 mm.). The adjustable stop bracket (6) can now be fitted to the holes which are pre-drilled and tapped in the baseplate, using the screws provided in the conversion kit.

ASSEMBLING HYDRAULIC PROFILING ATTACHMENT TO LATHE

By consulting the chart shown in the sketches, the most suitable position for the profile slide assembly to produce the required work may be readily ascertained.

1. Clean out the pre-tapped holes at the rear of the cross slide and on the machined face at the rear of the bed. Mount the profile slide unit on the rear of the lathe cross slide and secure it in position with the four $\frac{5}{16}$ in. UNC screws provided (three screws fitted from the top, one from underneath).
2. Mount the rear beam unit on the machined face at the back of the lathe bed and secure in position using the socket cap screws provided. Before finally tightening the screws ensure that the beam is positioned parallel to the bedways; this can be accomplished by mounting a dial indicator on the rear of the saddle and with the gauge anvil running along the top edge of the beam.
3. The free-standing pump and tank unit should be positioned at the back of the lathe, toward the tail-end. After inserting the hydraulic hoses into the flexible sheathing, connect up between the units. Take care to match the marks on the tank connections with similar markings on the profile slide unit. This applies only to the two hoses of equal diameter, the third (smaller) hose can be fitted only in one position. Clamp the flexible sheathing at both the pump unit and profile slide ends.
4. Fill the hydraulic tank with Shell Tellus 33 oil to the level shown on the oil-sight glass. Before use, the hydraulic system must be bled of all air and provision is made on the top and rear face of the profile slide unit for this. With the motor connected up (see below) switch on the pump, check that the control lever is at the OFF or retracted position, then partially unscrew the rear bleed plug. When all air and bubbly oil has been expelled through the bleed plug, screw it up tight. Set the control lever now in the ON or contact position and repeat the procedure to expel all air through the top bleeder plug.

6501-3
652-4

Introduction

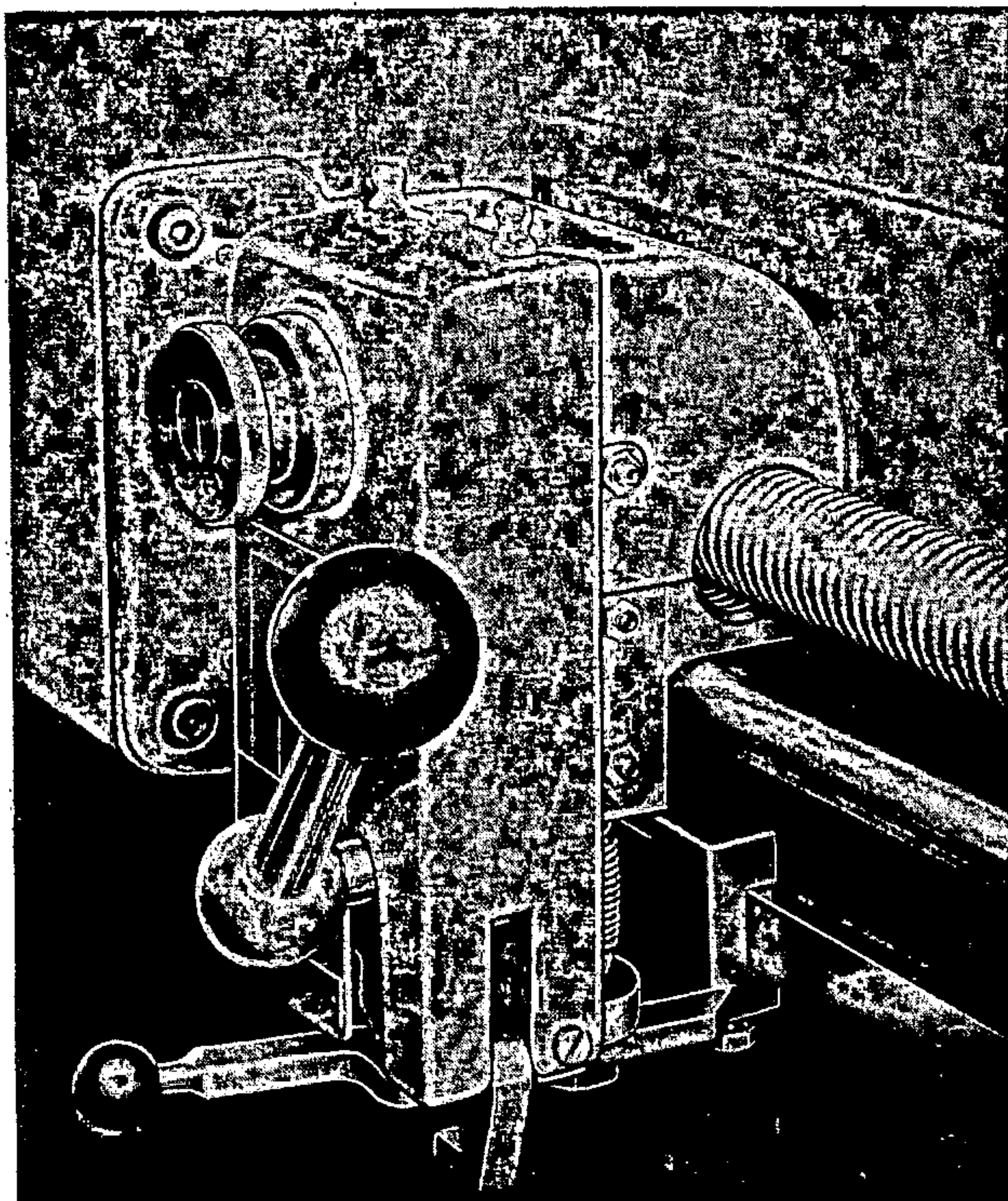
This attachment is designed to replace the existing screwcutting mechanism of the lathe. It is secured to the right hand side of the lathe apron by socket head screws and accurately positioned by dowels.

The attachment contains its own half-nut mechanism and obviates any possibility of the thread being picked up incorrectly. A threading dial is eliminated; the operator merely presses on the handle and the half-nut will engage at the correct point to pick up all American and English threads, including fractional threads per inch.

Once fully engaged, the half-nut is locked positively in mesh with the lead screw and always at precisely the same depth of engagement until disengaged automatically or manually.

When the knock-off lever encounters the stop which is fitted to the lathe bed, the half-nut is disengaged automatically, safely and with great accuracy.

As engagement of the half-nut is controlled and release is automatic, threads can safely be cut at high spindle speeds, the only limiting factors being considerations of tool life and the speed at which the carriage can be picked up without undue strain on the lathe mechanism.



Setting and Operation

The setting dial can be pulled out and turned to four different positions, the settings being as follows:
0—"Safe". Impossible to engage half-nut with lead screw

1—Odd-quarter threads per inch (e.g. $4\frac{3}{4}$)

2—Odd-half threads per inch (e.g. $4\frac{1}{2}$)

4—Whole numbers of threads per inch (e.g. 8 or 13)

Move the knock-off control to the "Screwcut" position and set the adjustable stop to engage the knock-off lever so the half-nut is disengaged at approximately the required position. Now, with the tool clear of the work and the lathe running, engage the half-nut and allow the knock-off to operate. Fine adjustment may then be made by using the compound slide.

Threads may be cut either by feeding the tool straight in or by using the top slide at half the thread angle. When using the latter method, however, allowance must be made for the fact that the tool will have moved forward by half the pitch when the thread is completed.

The tool may be allowed to form its own annular groove at the end of the cut, but should be withdrawn without delay to avoid rubbing.

It is important that the lead screw be clean and free from swarf for high speed screw cutting.

INSTRUCTIONS FOR FITTING NEW HALF NUT

Access to the screws securing the half nut is through two holes in the main casting of the attachment.

IT IS IMPORTANT to check that synchronisation of the nut and pinion is correct and, if necessary, adjustment must be made as detailed in the Maintenance section.

Mounting Instructions

1. Remove covers from the High Speed Threading unit.
2. Remove threading dial from carriage apron.
3. Loosen steady adjusting nut (B) and slide steady (C) up slightly.
4. Fit threader over lead screw, near the tailstock end of the lathe and hold in place. Engage threader half nut (E).
5. Move carriage back until it contacts face of threader. Attach threader to apron with three mounting bolts (A). Tighten bolts just enough to hold while aligning threader.
6. Ensure half nut is fully engaged with lead screw by applying gentle pressure upwards (taking care not to deflect leadscrew). Tighten bolts (A).
7. Position Steady (C) so that it just clears lead screw (.003 in. maximum); tighten steady adjusting nut (B).
8. On 17 in. lathes only, adjust lower steady (located next to apron) to bear lightly on underside of leadscrew.
9. Position stop bar (H) below knock-off lever (F) (about $\frac{1}{8}$ in. clearance) and parallel to feed rod. Locate mounting holes on lathe beddrill and tap $\frac{1}{8}$ in. UNC for mounting screws.
10. Attach stop bar to bed using flat head machine screws and spacers provided.
11. **Note:** When knock-off lever (F) is in "screwcut" position (i.e. knob moved to left) the knock-off lever should engage the stop (K) by approximately $\frac{5}{16}$ in. and when in the "lock" position (i.e. moved to right) it must be clear of the stop. Make any adjustment necessary by altering length of knock off lever or stop bar spacers.
12. Check the correct fitting of the threading unit as follows:—

Set the stop to engage the knock-off lever with the tool clear of the work. With the lathe running at about 300 r.p.m. and set to cut say 12 T.P.I., engage the nut, as described under "engaging the half-nut" and allow the knock-off to operate. It will be seen that the initial action of the knock-off mechanism is to rotate the locking lever clockwise and release the selector pin.

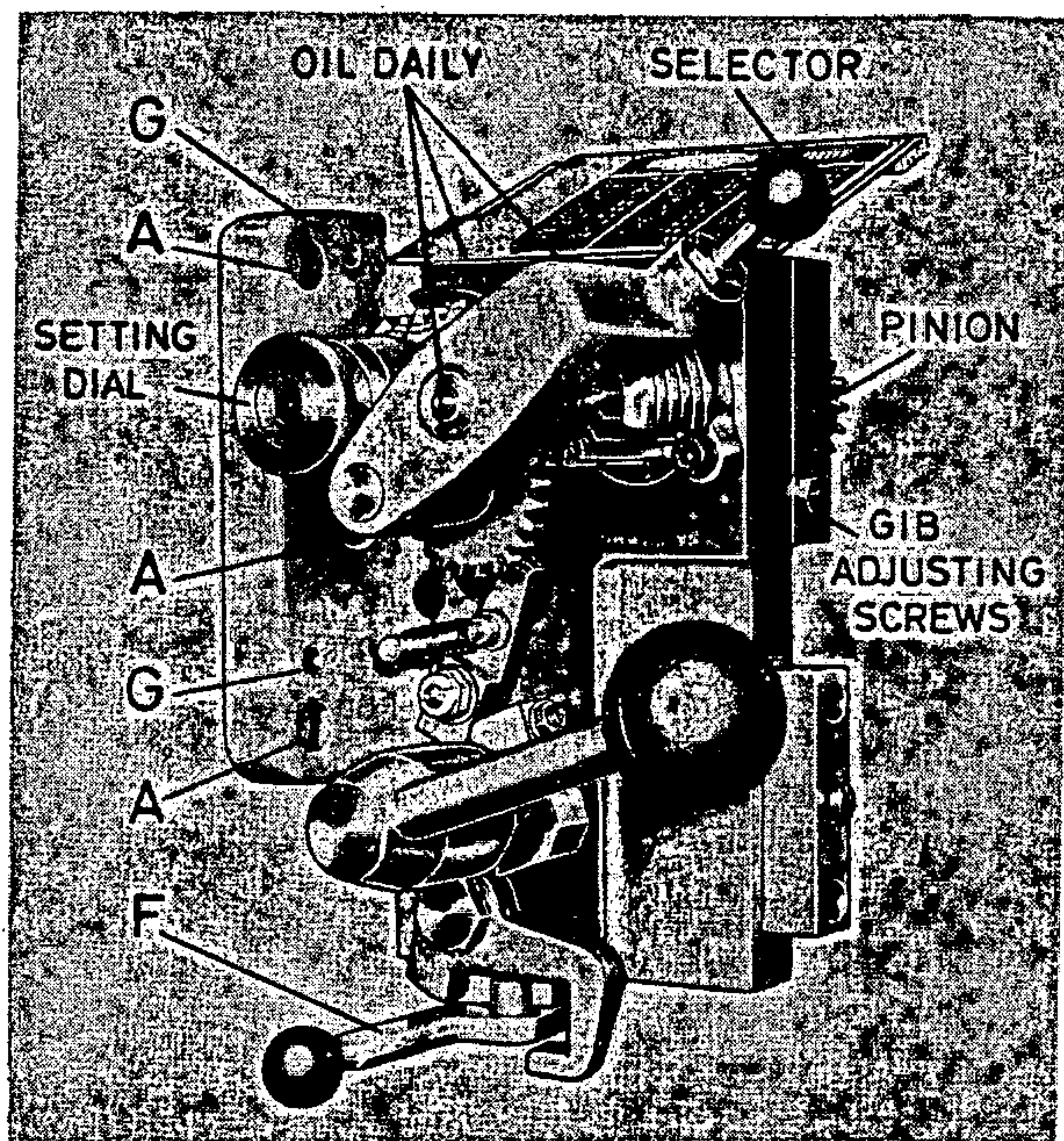
Immediately the selector pin is released it should fly out of the dial slot and the nut should disengage from the leadscrew.

If this action is sluggish it must be corrected by altering the position of the attachment on the apron in such a way to ensure that the nut is fully engaged and bearing against the front of the lead-screw (i.e. move the attachment away from the operator).

It is important to note that the half-nut has been designed so that it is thrown clear of the leadscrew immediately the slide pin is released. If the attachment is fitted incorrectly and the nut is pressing against the back of the leadscrew (i.e. tending to bend the leadscrew towards the operator) the servo action will not operate and the release mechanism is liable to act sluggishly.

This fault can be easily discovered by observing the slide pin when the knock-off mechanism operates with an increased load applied to the carriage by applying slight hand pressure to the traversing hand wheel. If the slide pin flies out of the dial slot **immediately** it is released the action is satisfactory, but if there is a slight pause the servo action is not operating and the nut is being forced out of engagement with the leadscrew by the safety device incorporated in the attachment.

13. After any necessary adjustments have been made, and repeated trials show that the attachment is working satisfactorily, drill dowel holes in lathe apron through holes "G" in threader, ream to dowel size and fit dowels.
14. Replace the covers and the attachment is ready for operation.



Engaging the Half-Nut

With the lathe running at required speed, hold down the handle with a steady pressure. Engagement will not be possible until the right moment, which is indicated by a movement of the handle. At this moment the handle should be depressed fully and released. If the half-nut is not properly locked in engagement, the handle will fly back and the procedure should be repeated.

The handle must be held down firmly and steadily until the half-nut engages; it should not be depressed intermittently or engagement will be delayed.

The handle *must* be released on engagement.

Before screw cutting, it is recommended that the operator carry out a few runs with the tool clear of the work to get the "feel" of the mechanism.

Manual Release

If it is required to cut a thread without using the automatic knock-off, the half-nut can be disengaged manually.

Safety Lock

If it is required to advance the carriage beyond the stop, this may be done without interfering with the setting, by moving the knock-off control to the "lock" position. It will then be retained in a position which will allow the stop to be by-passed, at the same time locking the attachment so that it will not be possible to engage the half-nut until the knock-off control is returned to the "screw cut" position.

Left Hand Threads

Left hand threads should be cut by reversing the lathe and inverting the tool. The lead screw can then be set to run in the normal direction of rotation and the automatic knock-off can be used. If a screw-on chuck is used, care must be taken, of course, to ensure that it does not unscrew while running.

Lubrication

Medium lubricating oil, not grease, should be used at the points indicated.

The double ball bearing on the pinion shaft is packed with grease and will not require attention.

Maintenance

Adjustment for wear in the half-nut slide is by three socket head screws with lock nuts operating on a gib on the right hand side of the attachment. It is essential, however, that this slide works freely over the full range of its travel.

Initially the attachment will either be fitted by a trained service engineer, or will be supplied with the mounting bracket drilled to correspond with existing locations on the lathe apron, but the following points should be noted:

1. When the half-nut mechanism is locked in engagement, the half-nut should be deeply meshed and the steady set to prevent the lead screw distorting upwards.
2. The half-nut should not bow the lead screw horizontally, a slight deflection away from the attachment is acceptable, but there must be no deflection towards the attachment.
3. With the cover of the attachment removed, it will be seen that a pin enters one of the slots in the control disc when the half-nut is engaged. With back lash taken up, this pin should be approximately central in the slot, with a slight bias towards the side of the slot nearest the mounting flange of the attachment. On no account must it bear against the side of the slot.

Should this fault develop through wear, it may be corrected by re-synchronizing the pinion as follows. Withdraw the pinion from the shaft after removing the retaining screw. The pinion is located on the driving collar by a pin which will engage any one of a series of holes arranged to give a vernier action. By moving the pinion round one hole at a time, the best position can easily be found by trial and error. A second pin, fitted to the reverse side of the pinion, may be used to give a further set of positions if necessary.

No other adjustment should be attempted without consulting the suppliers and the serial number of the attachment must always be quoted in case of difficulty or when ordering replacements.

CLAUSING—Colchester

PARTS SECTION

IMPORTANT:

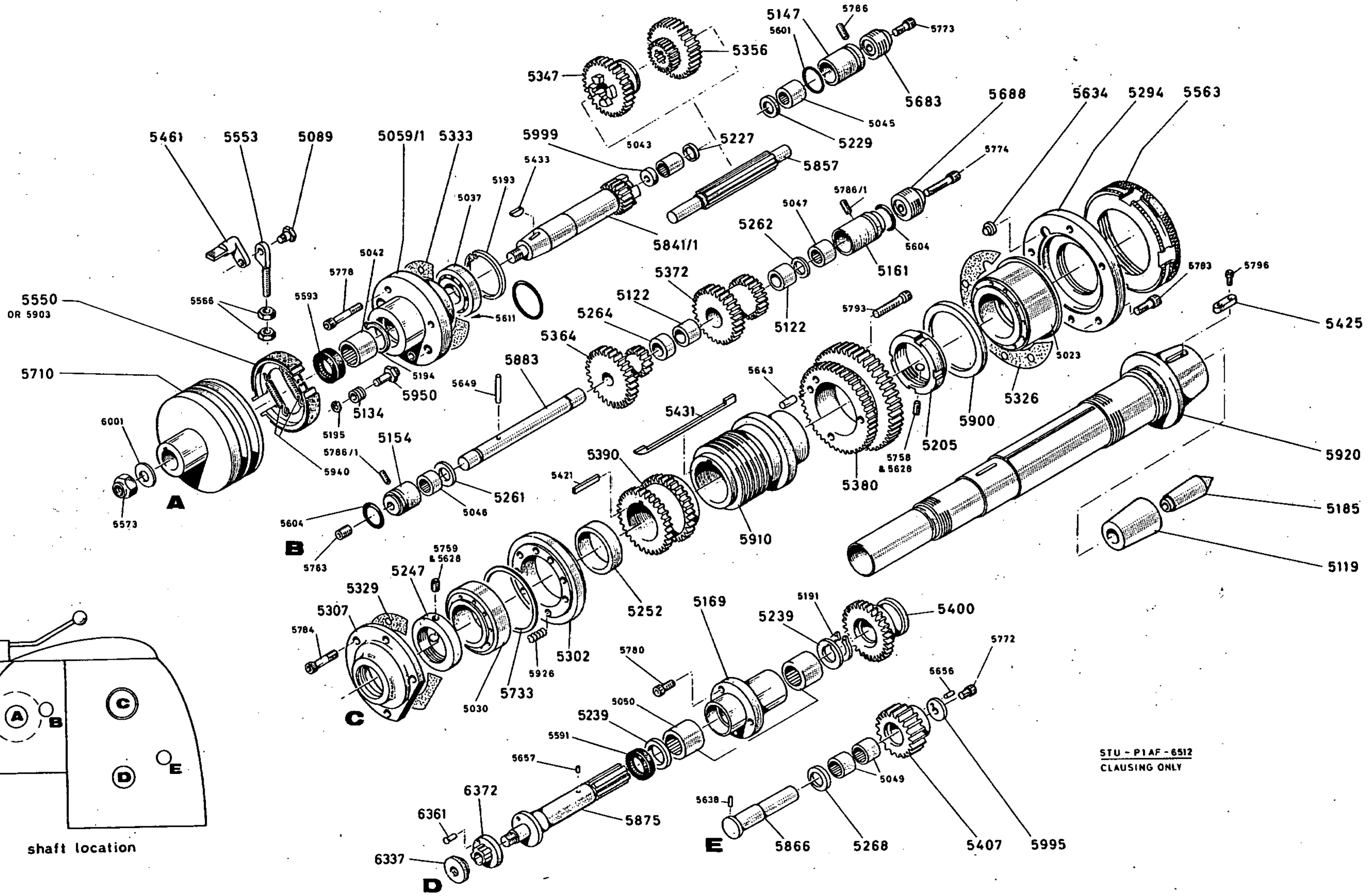
WHEN ORDERING

1. Quote component Order Number, which is given on the illustration, for all component parts required.
2. Give component description in full, from schedule opposite each drawing.

Note:- Those component Order Numbers printed on the drawing in small type are for standard items which can generally be purchased locally; e.g. nuts, bolts, screws and washers etc.

3. Always quote Lathe Serial Number in all orders or technical enquiries. This number is stamped on the bed at the tailstock end.

6521-3
6521-4



STU - P1AF - 6512
CLAUSING ONLY

HEADSTOCK : gears & shafts (A-F)

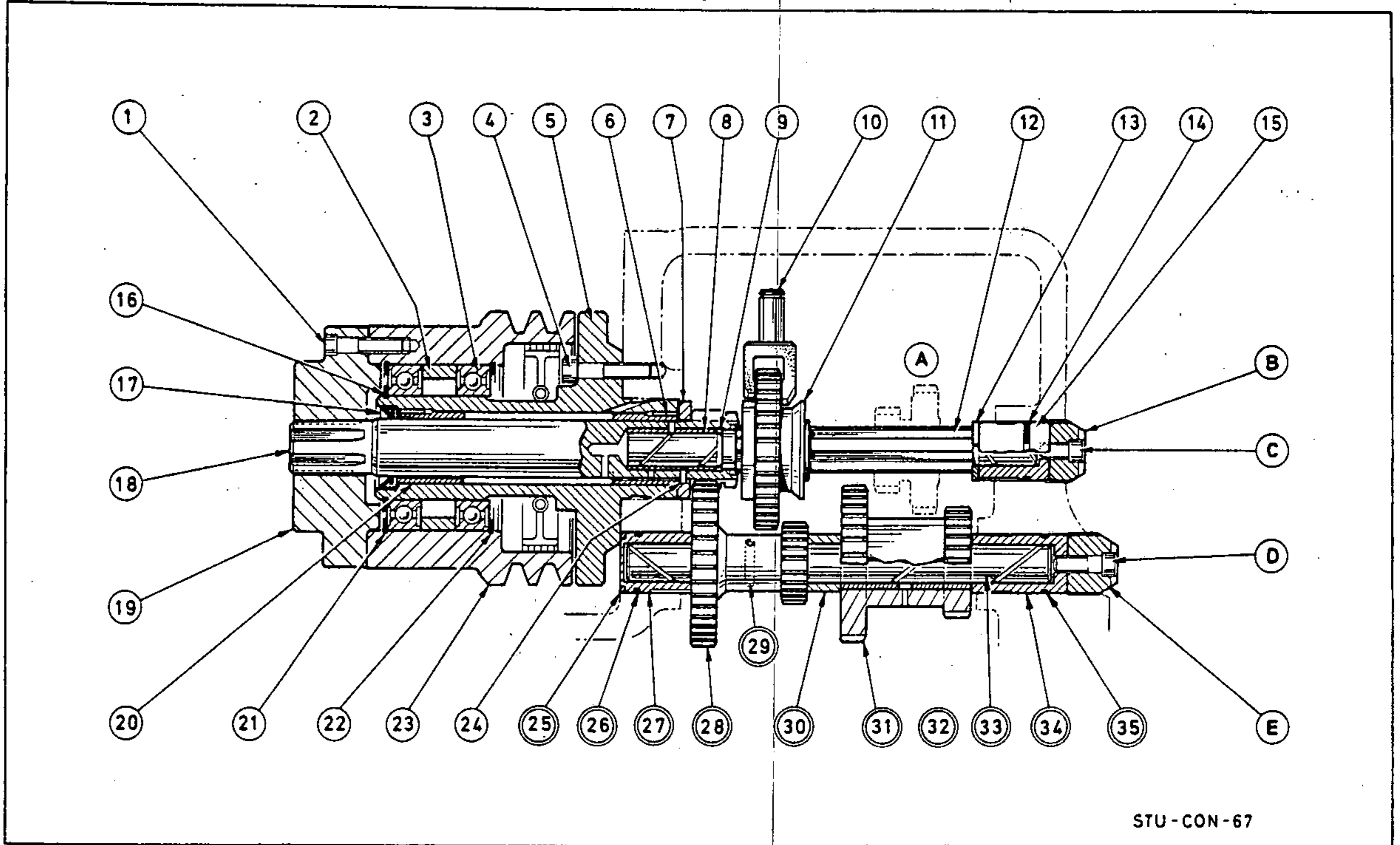


*Office
Master Book only*

HEADSTOCK CONVERSION CLAUSING - COLCHESTER 13" LATHES

Converts existing anti-friction headstock, with pulley mounted direct on clutch drive shaft, to new set-up having pulley mounted on own bearings

Serial No. 48868 to 63742



CONVERSION PROCEDURE

1. Slacken off and remove drive belts. Remove headstock cover.
2. Disassemble flanged bearing complete with clutch drive shaft from headstock. Retain cap-head securing screws for re-use.
3. Retain brake unit complete for re-use with new assembly.
4. Take out driving shaft with needle bearings complete in carrier. Retain the 14/24T sliding gear for re-use, but discard existing 30T gear.
5. Assemble new driving shaft, bush complete with new O-ring and shaft washer into headstock (items 12, 13, 14 and 15). Use existing screwed plug and screw (items B and C). Transfer sliding gear A to new shaft and add new 30T gear on shaft, see diagram.
6. Assemble clutch drive shaft into bushed flange bearing; take note from drawing how

NOTE:

1. All parts to be clean and oiled before fitting up.
2. Main bearings (item 3) are sealed, need no lubrication. When fitting replacement bearings on flanged bearing, assemble with Loctite grade CV.
3. Secure bushes (items 15, 27, 34) with existing screws through casting bosses.

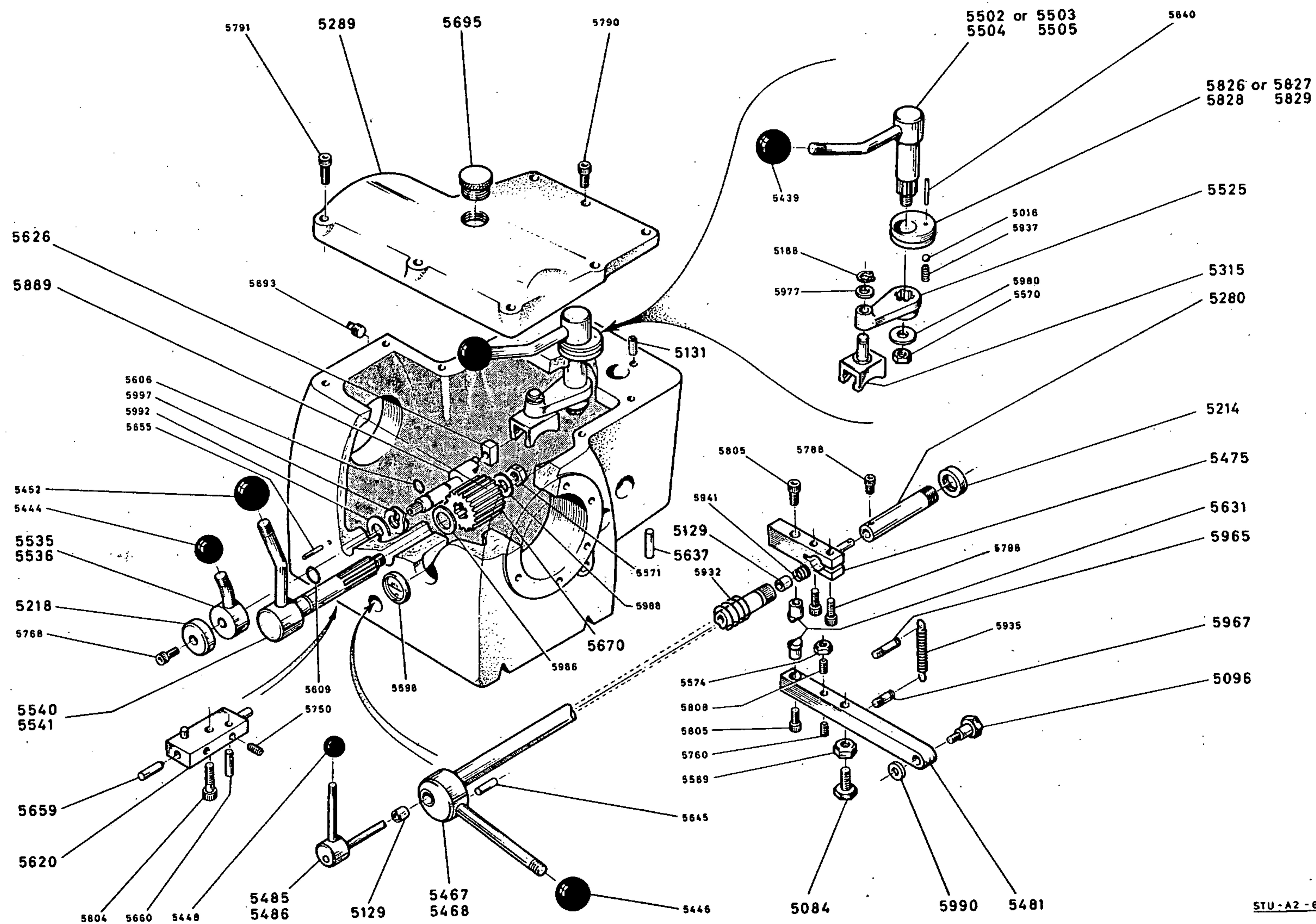
7. Assemble new flanged bearing assembly to headstock, using existing screws (item 4).
8. Transfer machine brake parts to new flanged bearing.
9. Assemble pulley and bearings sub-assembly on flanged bearing, secure with snap-ring (item 16).
10. Fit driving plate (item 19) over serrated-end of clutch drive shaft and secure with screws (item 1). Smear thread of screws with Loctite grade AVV before tightening.
11. Replace gear shifter fork for 30T gear with new part (item 10).
12. Connect up brake linkage, refit drive belts and tension up. Check out lathe on test run.

4. When specially ordered, additional components are supplied to replace second-shaft and bearings. Assemble as shown in diagram, parts are numbered 25 through 35 in double circles.
5. Existing parts of second shaft required for re-use are end plug and screw (items D and E). Discard all other parts.
6. Bore of these bearings should be lightly coated with Loctite Bearing Fit furnished before assembling on flanged bearing.

Ref. Drg. STU-P1 AF-6512

HEADSTOCK: Gears & Shafts (AF)

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | | |
|------------------|-----------------------------------|------------------|---------------------------------|------------------|---------------------------------------|------------------------------------|--------|
| 5059/1 | Flanged Bearing | 5461 | Brake-shoe expanding Lever | 5193 | Journal Bearing Clip | 12-774 | |
| 5089 | Expanding-lever Bolt | 5553 | Expanding-lever Link | 5194 | Needle Bearing Clip | 13-795 | |
| 5119 | Centre Bush | 5563 | Spindle-nose Draw Nut | 5195 | Brake-shoe Bush Clip | 11-845 | |
| 5122 | Second Shaft Gear Bushes (2) | 5628 | Spindle Collar Pads (2) | 5421 | Spindle reverse-gear Key | 17-009 | |
| 5134 | Brake-shoe Flanged Bush | 5634 | Front-bearing Peg | 5433 | Clutch Driving Shaft Key | 17-002 | |
| 5147 | Driving-shaft Bush | 5683 | Driving-shaft Bush Screwed Plug | 5566 | Brake Adjusting Locknut | 20-637 | |
| 5154 | Second Shaft Bush (L.H.) | 5688 | Second-shaft Bush Screwed Plug | 5573 | Pulley Retaining Nut | 21-683 | |
| 5161 | Second Shaft Bush (R.H.) | 5710 | Driving Pulley | 5591 | Reverse-shaft Oil Seal | 79-865 | |
| 5169 | Reverse Shaft Flanged Bush | 5733 | Back-bearing Thrust Ring | 5593 | Clutch Flanged-bearing Oil Seal | 79-181 | |
| 5185 | Centre, No. 3 Morse | 5841/1 | Clutch Driving Shaft | 5601 | Driving-shaft Bush Oil Ring | 27-182 | |
| 5205 | Front-bearing Adjusting Collar | 5857 | Driving Shaft | 5604 | Second-shaft Bush O-rings (2) | 27-182 | |
| 5227 | Driving Shaft Thrust Collar | 5866 | Inter-reverse Shaft | 5611 | Flanged Bearing O-ring | 27-148 | |
| 5229 | Driving Shaft Spacer Collar | 5875 | Reverse Shaft | 5638 | Inter-rev. Shaft Locating Pin | 24-539 | |
| 5239 | Reverse Shaft Spacer Collar | 5883 | Second Shaft | 5643 | Double-gear Locating Pin | 24-590 | |
| 5247 | Screwed Collar on Spindle | 5900 | Front Bearing Shield | 5649 | Second-shaft Gear Securing Pin | 14-607 | |
| 5252 | Back-bearing Spacer Collar | 5910 | Sliding Sleeve | 5656 | Gear Stop-washer Pin | 24-520 | |
| 5261 | Second Shaft Spacer Collar (L.H.) | 5920 | Main Spindle | 5657 | Collar Locating Pin | 25-584 | |
| 5262 | Second Shaft Spacer Collar (R.H.) | 5950 | Brake-shoe Fixing Stud | 5758 | Collar Locking Screw | 60-361 | |
| 5264 | Second Shaft Gear Spacer | 5995 | Inter-reverse Gear Stop Washer | 5759 | Screwed-collar Locking Screw | 60-361 | |
| 5268 | Inter-reverse Shaft Spacer Collar | 5999 | Shaft-bearing Removal Washer | 5763 | Second-shaft Plug Screw | 67-419 | |
| 5294 | Front-bearing Outside Cover | 6337 | Reverse-shaft Knurled Nut | 5772 | Stop-washer Retaining Screw | 46-212 | |
| 5302 | Back-bearing Inside Cover | 6361 | Shear Pin | 5773 | Screwed-plug Retaining Screw | 47-225 | |
| 5307 | Back-bearing Outside Cover | 6372 | Shear-pin Sleeve | 5774 | Screwed-plug Retaining Screw | 47-228 | |
| 5326 | Front-bearing Cover Gasket | | | 5778 | Flanged-bearing screws (3) | 47-228 | |
| 5329 | Back-bearing Outside Cover Gasket | | | 5780 | Flanged-bearing screws (3) | 46-212 | |
| 5333 | Flanged Bearing Housing Gasket | STANDARD ITEMS | | 5783 | Front bearing-cover Screws (3) | 46-213 | |
| 5347 | Driving Shaft Gear, 30T | 5023 | Front Roller Bearing (Gamet) | 5784 | Back-bearing Outside Cover Screws (3) | 46-213 | |
| 5356 | Driving Shaft Gear, 14/24T | 5030 | Back Roller Bearing (Gamet) | 5786 | Bush Securing Screw | 67-419 | |
| 5364 | Second Shaft Gear, 13/30T | 5037 | Flanged-bearing Journal | 02-180 | 5786/1 | Bush Securing Screws (2) | 67-419 |
| 5372 | Second Shaft Gear, 20/28T | 5042 | Flanged-bearing Needle Bearing | 03-925 | 5793 | Double-gear Securing Screws (3) | 47-229 |
| 5380 | Double Gear On Spindle, 51/44T | 5043 | Driving-shaft Needle Bearing | 03-886 | 5796 | Nose-key Securing Screws (2) | 45-201 |
| 5390 | Reverse Gear On Spindle, 30/30T | 5045 | Driving-shaft Bush Bearing | 03-886 | 5796 | Nose-key Securing Screws (2) | 45-201 |
| 5400 | Reverse Shaft Gear, 30T | 5046 | Second-shaft Bush Bearing, L.H. | 03-888 | 5903 | Brake-shoes, c/w Linings | 09-997 |
| 5407 | Inter-reverse Shaft Gear, 20T | 5047 | Second-shaft Bush Bearing, R.H. | 03-888 | 5926 | Back-bearing pressure springs (15) | 82-812 |
| 5425 | Spindle-nose Key | 5049 | Inter-reverse Gear Bearing | 03-184 | 5940 | Brake-shoe Springs (2) | 85-696 |
| 5431 | Sliding-sleeve Key | 5050 | Reverse-shaft Bush Bearing | 03-183 | 6001 | Pulley Retaining Washer | 82-815 |
| | | 5191 | Reverse-shaft Circlip | 11-749 | | | |



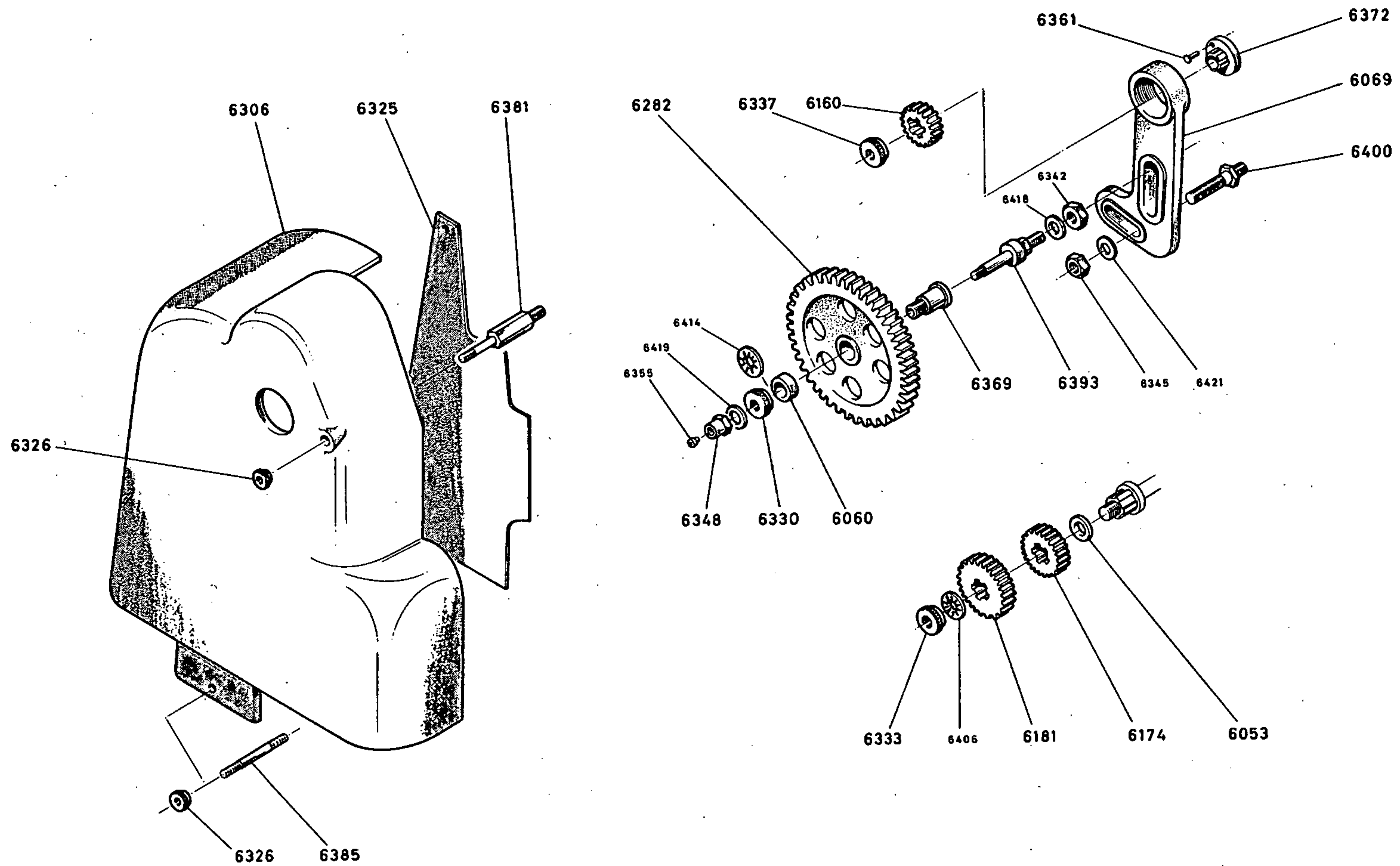
HEADSTOCK: castings & levers

Ref. Drg. STU-A2-6512

HEADSTOCK: Castings & Levers

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> |
|------------------|--|-----------------------|---|------------------|-------------------------------------|
| 5084 | Switch Actuating Bolt | 5637 | Headstock/Bed Locating Pin | 5598 | Oil-Level Sight |
| 5096 | Pivot Bolt | 5659 | Set-Over Pins (2) | 5606 | Operating Shaft O-Rings (2) |
| 5129 | Reverse Switch Lever Bushes (2) | 5670 | Sliding Sleeve Shifting Pinion 17T | 5609 | Sleeve Lever O-Ring |
| 5131 | Selector Locating Bush | 5695 | Oil Filler Plug | 5640 | Selector Locating Pins (2) |
| 5214 | Coupling Collar | 5826 | Driving Shaft Gear Selector L.H. | 5645 | Lever Locking Pin |
| 5218 | Reverse Gear Shifting Lever Collar | 5827 | Driving Shaft Gear Selector R.H. | 5655 | Lever Stop Pin |
| 5280 | Reverse Switch Coupling | 5828 | Driving Shaft Gear Selector L.H. (Chrome) | 5660 | Pad Locating Pin |
| 5289 | Headstock Cover | 5829 | Driving Shaft Gear Selector R.H. (Chrome) | 5693 | Drain Plug |
| 5315 | Gear Shifting Forks (2) | 5889 | Reverse Gear Shifting Shaft | 5750 | Pin Adjusting Screws (2) |
| 5467 | Operating Lever Assembly | 5932 | Operating Lever Spring | 5760 | Lockscrew for Lever Stop Screw |
| 5468 | Operating Lever Assembly (Chrome) | 5965 | Return Spring Stud, Long | 5768 | Rev. Gear Lever Retaining Screw |
| 5475 | Brake Operating Lever | 5967 | Return Spring, Stud, Short | 5788 | Switch Coupling Screw |
| 5481 | Switch Operating Lever | 5990 | Switch Lever Washer | 5790 | Headstock Cover Screws (6) |
| 5485 | Reverse Switch Lever Assembly | | | 5791 | Headstock Cover Screws (3) |
| 5486 | Reverse Switch Lever Assembly (Chrome) | | | 5798 | Brake Operating Lever Screws (2) |
| 5502 | Gear Shifting Lever, L.H. | <u>STANDARD ITEMS</u> | | 5804 | Pad Securing Screw |
| 5503 | Gear Shifting Lever, R.H. | 5016 | Selector Locating Balls (2) | 5805 | Locking Pawl Screws (2) |
| 5504 | Gear Shifting Lever, L.H. (Chrome) | 5188 | Shifting Fork Circlips (2) | 5808 | Lever Stop Screw |
| 5505 | Gear Shifting Lever, R.H. (Chrome) | 5439 | Gear Shift Lever Knobs (2) | 5935 | Switch Lever Return Spring |
| 5525 | Internal Gear Levers (2) | 5444 | Reverse Gear Lever Knob | 5937 | Gear Selector Springs (2) |
| 5535 | Reverse Gear Shifting Lever | 5446 | Operating Lever Knob | 5941 | Switch Rod Spring |
| 5536 | Reverse Gear Shifting Lever (Chrome) | 5448 | Reverse Switch Lever Knob | 5977 | Gear Lever Washer |
| 5540 | Sliding Sleeve Shifting Lever | 5452 | Sleeve Shifting Lever Knob | 5980 | Internal Shift Lever Washers (2) |
| 5541 | Sliding Sleeve Shifting Lever (Chrome) | 5569 | Switch Actuating Bolt Locknut | 5986 | Leather Washer |
| 5620 | Set-Over Pad | 5570 | Lever Retaining Nuts (2) | 5988 | Sleeve Pinion Washer |
| 5626 | Reverse Gear Shifting Pad | 5571 | Pinion Retaining Nuts (2) | 5992 | Rev. Gear Shift Shaft Washer |
| 5631 | Locking Pawls (2) | 5574 | Lever Stop Locknut | 5997 | Rev. Gear Shift Shaft Spring Washer |
| | | | | | 80-873 |
| | | | | | 27-846 |
| | | | | | 26-848 |
| | | | | | 24-546 |
| | | | | | 24-539 |
| | | | | | 24-520 |
| | | | | | 14-131 |
| | | | | | 88-070 |
| | | | | | 73-522 |
| | | | | | 59-352 |
| | | | | | 46-212 |
| | | | | | 72-495 |
| | | | | | 46-215 |
| | | | | | 46-217 |
| | | | | | 46-214 |
| | | | | | 47-227 |
| | | | | | 45-203 |
| | | | | | 59-355 |
| | | | | | 82-817 |
| | | | | | 82-803 |
| | | | | | 82-813 |
| | | | | | 85-695 |
| | | | | | 85-696 |
| | | | | | 86-118 |
| | | | | | 85-696 |
| | | | | | 85-698 |
| | | | | | 84-718 |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1.



6
 6521-2
 6521-2

STU - P4 - 6512

SWING FRAME : standard

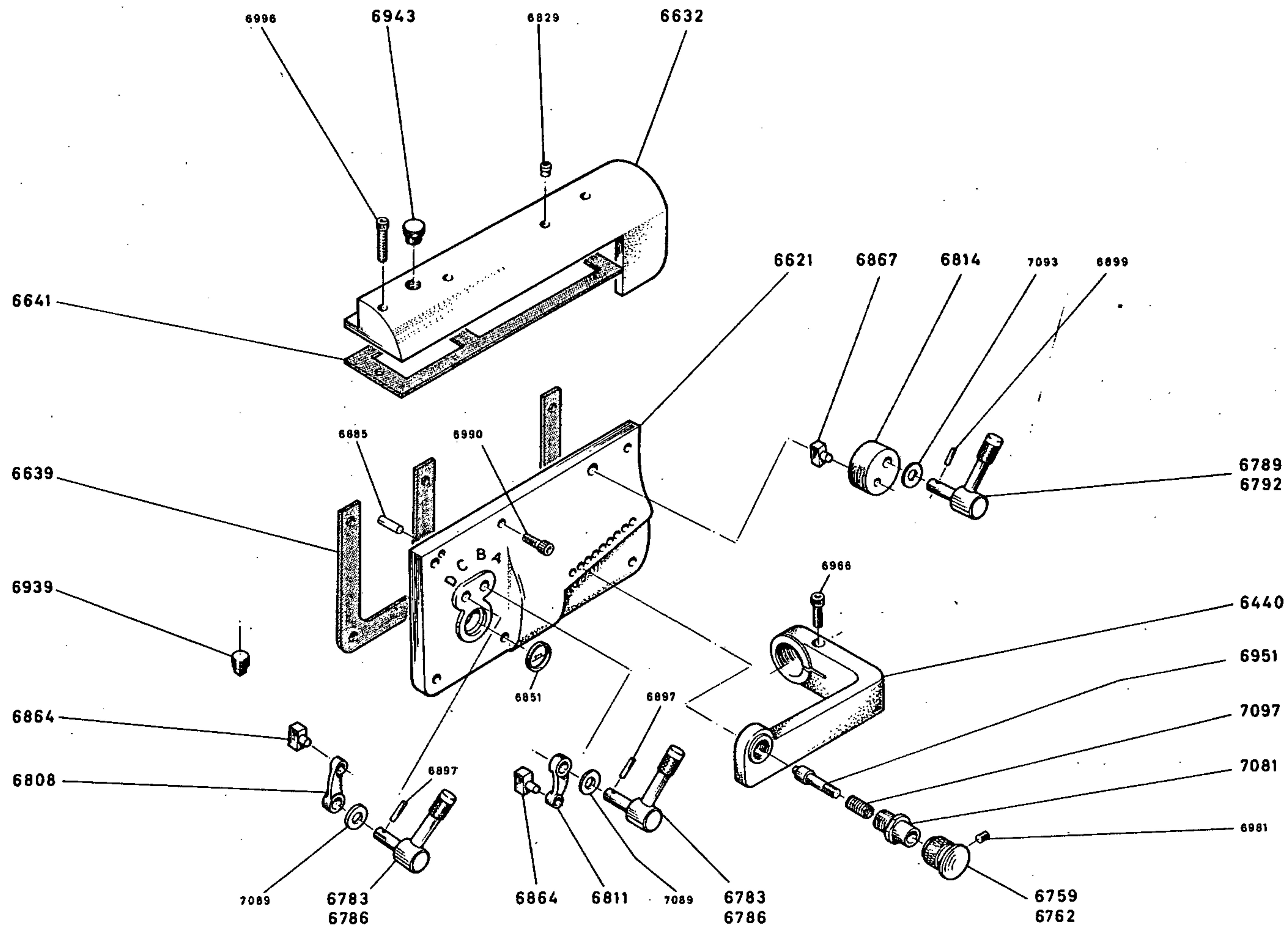
Ref. Drg. STU-P4-6512

SWING FRAME: Standard Lathes

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> |
|------------------|--|------------------|--|
| 6053 | Change Gear Alignment Collars (Set of 4) | 6372 | Shearpin Sleeve |
| 6060 | Change Gear Sleeve Spacer Collar | 6381 | Guard Stud (Hex.) |
| 6069 | Swing Frame | 6385 | Guard Stud (Round) |
| 6160 | Change Gear, 21T/16P | 6393 | Change Gear Stud |
| 6174 | Change Gear, 35T/16P | 6400 | Swing Frame Fixing Stud |
| 6181 | Change Gear, 42T/16P | | |
| 6282 | Change Gear, 120T/16P | | |
| 6306 | Belt and Change Gear Guard | | |
| 6325 | Inner Belt Guard | 6342 | Change Gear Sleeve Stud Locknut 20-624 |
| 6326 | Change Gear Guard Knurled Nut | 6345 | Swing Frame Locking Nuts (2) 20-624 |
| 6330 | Change Gear Sleeve Knurled Nut | 6355 | Change Gear Stud Oiler 23-124 |
| 6333 | Gearbox Driving Shaft Knurled Nut | 6406 | Gearbox Driving Shaft Fan Disc Washer 86-029 |
| 6337 | Reverse Shaft Knurled Nut | 6414 | Change Gear Sleeve Fan Disc Washer 86-030 |
| 6348 | Oiler Retaining Nut, c/w Oiler | 6418 | Change Gear Stud Washer 85-695 |
| 6361 | Shearpin | 6419 | Oiler Retaining Nut Washer 85-692 |
| 6369 | Change Gear Sleeve | 6421 | Swing Frame Fixing Stud Washers (2) 85-695 |

STANDARD ITEMS

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1



STU - P10 - 8512

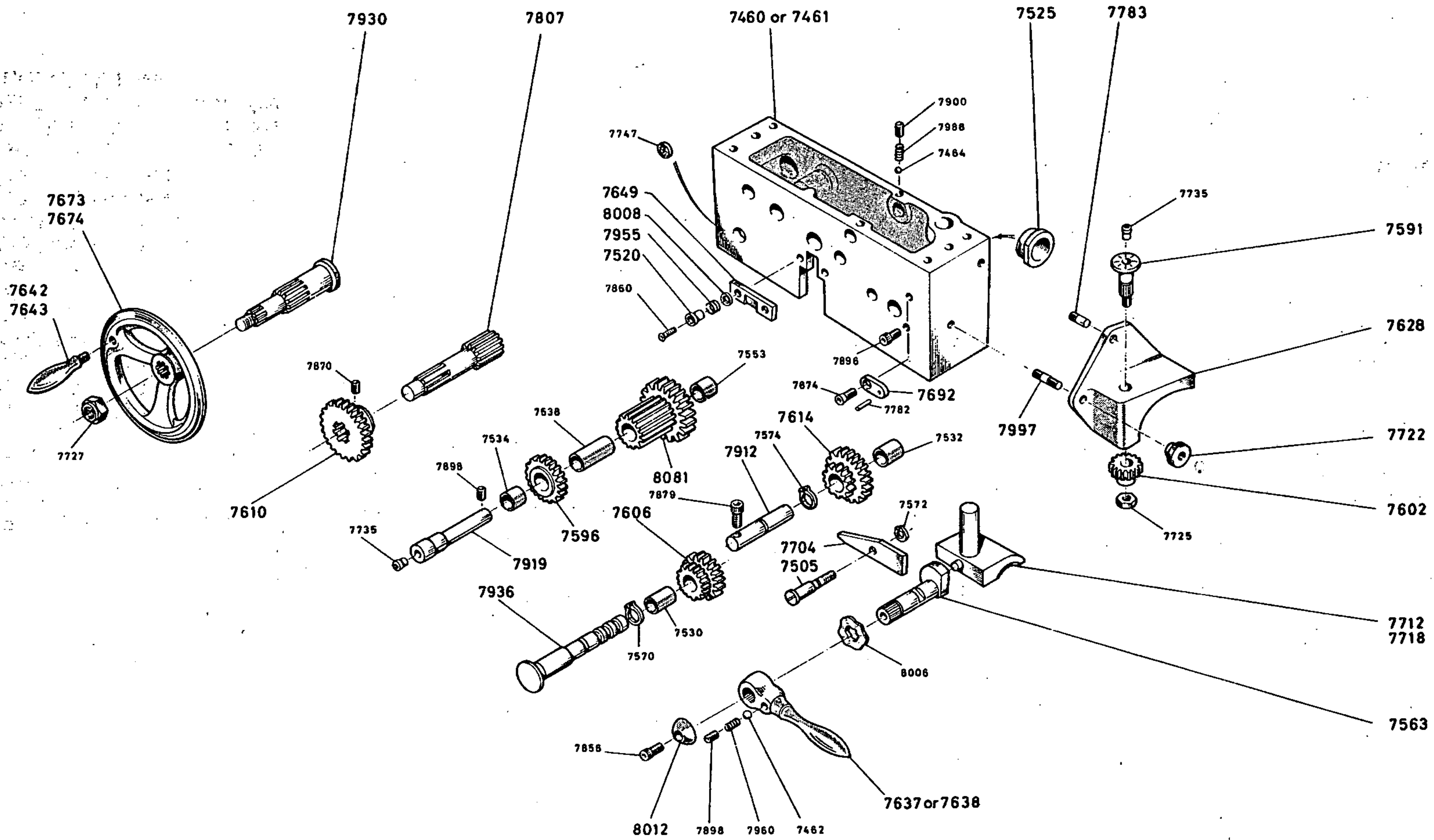
GEARBOX (Standard) : covers & levers

Ref. Drg. STU-P14-6512

APRON: (Gap-Bed)

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> |
|------------------|----------------------------------|------------------|-----------------------------------|------------------|--------------------------------------|------------------|--------------------|
| 7451 | Apron Casting | 7712 | Leadscrew Half-Nut (Standard) | 7534 | Idler Gear Bush | 10-964 | |
| 7469 | Wormbox Latch Bar | 7718 | Leadscrew Half-Nut (Metric) | 7538 | 25T Pinion Bush | 10-958 | |
| 7505 | Interlock Lever Pivot Bolt | 7722 | Dial Indicator Knurled Nut | 7553 | Apron Wormwheel Bush | 10-991 | |
| 7520 | Wormbox Latch Bar Bush | 7783 | Dial Indicator Guard Locating Pin | 7570 | Feed Selector Gear Retaining Clip | 13-784 | |
| 7525 | Leadscrew Flanged Bush | 7807 | Rack Pinion, 12T | 7572 | Interlock Lever Retaining Clip | 11-778 | |
| 7562 | Leadscrew Nut Eccentric | 7912 | Surfacing Gear Shaft | 7574 | Surfacing Gear Retaining Clip | 13-784 | |
| 7591 | Indicator Dial | 7919 | Wormwheel & Pinion Shaft | 7725 | Dial Indicator Gear Retaining Nut | 21-659 | |
| 7596 | Idler Gear, 33T | 7930 | Handwheel Racking Shaft 13T | 7727 | Apron Handwheel Retaining Nut | 21-673 | |
| 7602 | Dial Indicator Gear, 24T | 7936 | Feed Selector Shaft | 7735 | Oiler Nipples (2) | 23-124 | |
| 7606 | Feed Selector Gear, 25/32T | 7997 | Dial Indicator Guard Stud | 7782 | Handle Stop Key Locating Pin | 24-043 | |
| 7610 | Sliding Gear, 42T | 8008 | Latch Bar Damper Washers (2) | 7856 | Half-Nut Handle Retaining Screw | 46-212 | |
| 7614 | Surfacing Gear, 22/38T | 8012 | Half-Nut Handle Domed Washer | 7860 | Latch Bar Securing Screws (2) | 53-305 | |
| 7623 | Dial Indicator Guard | 8081 | Wormwheel & Pinion, 33/25T | 7870 | Sliding Gear Securing Screw | 60-362 | |
| 7637 | Leadscrew Nut Handle | | | 7874 | Handle Stop Key Securing Screw | 53-303 | |
| 7638 | Leadscrew Nut Handle (Chromed) | | <u>STANDARD ITEMS</u> | 7879 | Gear Shaft Securing Screw | 45-204 | |
| 7642 | Apron Handwheel Handle | | | 7896 | Half-Nut Handle Stop Screw | 46-212 | |
| 7643 | Apron Handwheel Handle (Chromed) | 7462 | Half-Nut Handle Locating Ball | 7898 | Half-Nut Handle Spring Tension Screw | 60-362 | |
| 7673 | Apron Handwheel C/W Handle | 7464 | Feed Selector Shaft | 7900 | Selector Shaft Spring Tension Screw | 60-364 | |
| 7674 | Apron Handwheel (Chromed) | | Locating Ball | 7960 | Half-Nut Handle Spring | 82-797 | |
| 7692 | Half-Nut Handle Stop Key | 7530 | Feed Selector Gear Bush | 7988 | Feed Shaft Spring | 82-078 | |
| 7704 | Interlock Lever | 7532 | Surfacing Gear Bush | 8006 | Half-Nut Cam Crinkle Washer | 86-735 | |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1.



STU - P14D - 8512

APRON : Straight bed

Ref. Drg. STU-P14D-6512

APRON: Straight Bed

Order No.

Order No.

Order No.

7460 Apron Casting
 7461 Apron Casting (Clausing Only)
 7469 Wormbox Latch Bar
 7505 Interlock Lever Pivot Bolt
 7520 Latch Bar Bush
 7525 Flanged Bush
 7563 Leadscrew Nut Eccentric Cam
 7591 *Indicator Dial
 7596 Idler Gear, 33T
 7602 *Dial Indicator Gear, 24T
 7606 Feed Selector Gear, 25/32T
 7610 Sliding Gear, 42T
 7614 Surfacing Gear, 22/38T
 7628 *Dial Indicator Guard
 7637 Leadscrew Half-Nut Handle
 7638 Leadscrew Half-Nut Handle (Chromed)
 7642 Apron Handwheel Handle
 7643 Apron Handwheel Handle (Chromed)
 7673 Apron Handwheel C/W Handle
 7674 Apron Handwheel (Chromed)
 7692 Half-Nut Handle Stop Key

7704 Interlock Lever
 7712 Leadscrew Half-Nut (Standard)
 7718 Leadscrew Half-Nut (Metric)
 7722 *Dial Indicator Guard Knurled Nut
 7783 *Dial Indicator Guard Locating Pin
 7807 Rack Pinion, 12T
 7912 Surfacing Gear Shaft
 7919 Wormwheel & Pinion Shaft
 7930 Handwheel Racking Shaft, 13T
 7936 Feed Selector Shaft
 7997 *Dial Indicator Guard Stud
 8008 Latch Bar Damper Washers (2)
 8012 Half-Nut Handle Domed Washer
 8081 Wormwheel & Pinion, 33/25T

STANDARD ITEMS

7462 Half-Nut Handle Locating Ball
 7464 Feed Selector Shaft Locating Ball
 7530 Feed Selector Gear Bush
 7532 Surfacing Gear Bush
 7534 Idler Gear Bush

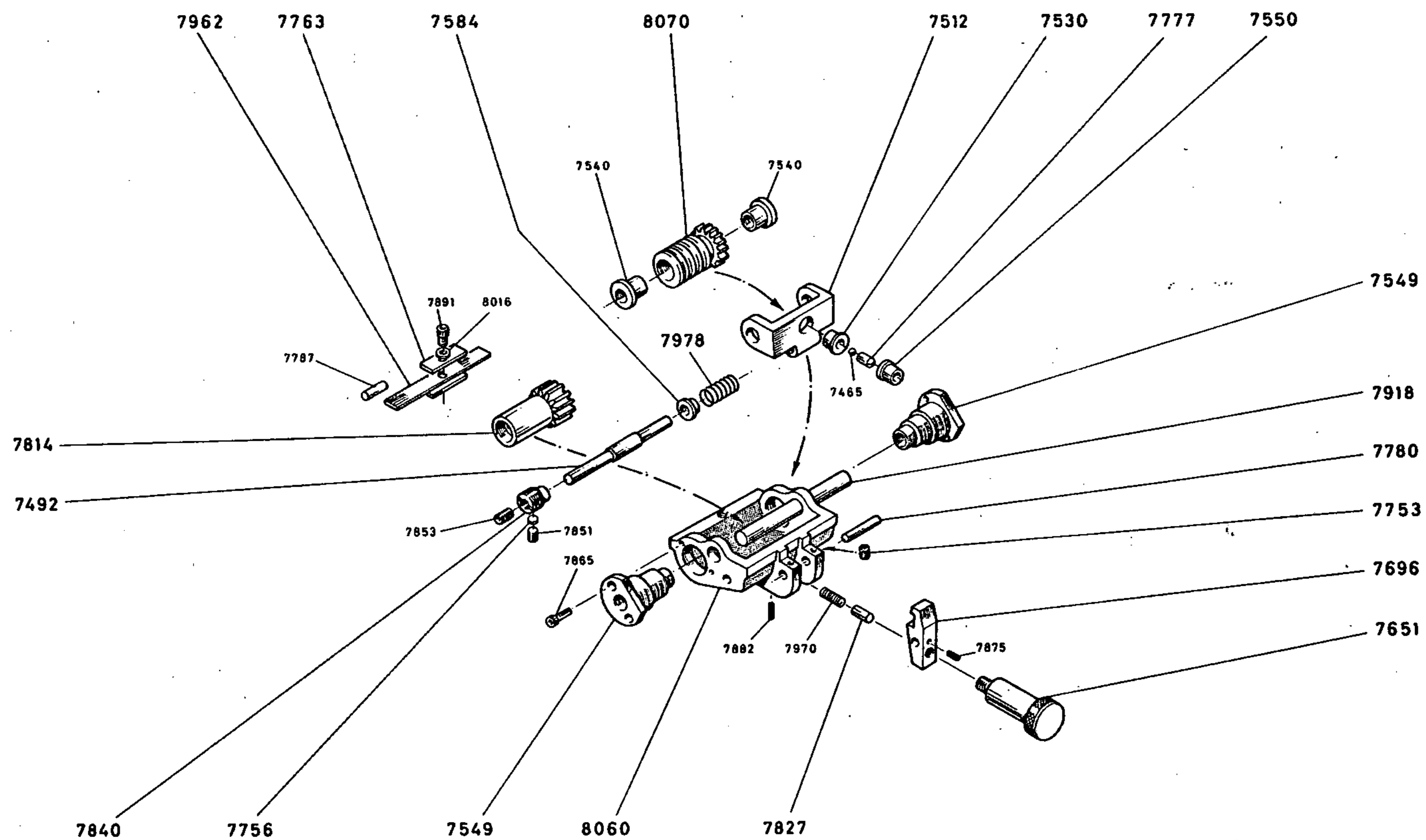
7538 25T Pinion Bush
 7553 Apron Wormwheel Bush
 7570 Feed Selector Gear Retaining Clip
 7572 Interlock Lever Retaining Clip
 7574 Surfacing Gear Retaining Clip
 7725 *Dial Indicator Gear Retaining Nut
 7727 Apron Handwheel Retaining Nut
 7735 Oiler Nipple
 7747 Oilsight (Clausing Only)
 7782 Handle Stop-Key Locating Pin
 7856 Half-Nut Handle Retaining Screw
 7860 Latch Bar Securing Screws (2)
 7870 Sliding Gear Securing Screw
 7874 Handle Stop-Key Securing Screw
 7879 Surfacing Gear Shaft Securing Screw
 7896 Half-Nut Handle Stop Screw
 7898 Handle Spring Tension Screw
 7900 Selector Shaft Spring Tension Screw
 7960 Leadscrew Half-Nut Handle Spring
 7988 Feed Selector Shaft Spring
 8006 Half-Nut Cam Crinkle Washer

10-958
 10-991
 13-784
 11-778
 13-784
 21-659
 21-673
 23-124
 80-871
 24-043
 46-212
 53-305
 60-362
 53-303
 45-204
 46-212
 60-362
 60-364
 82-797
 82-078
 86-735

* NOT on Continental lathes having metric gearbox

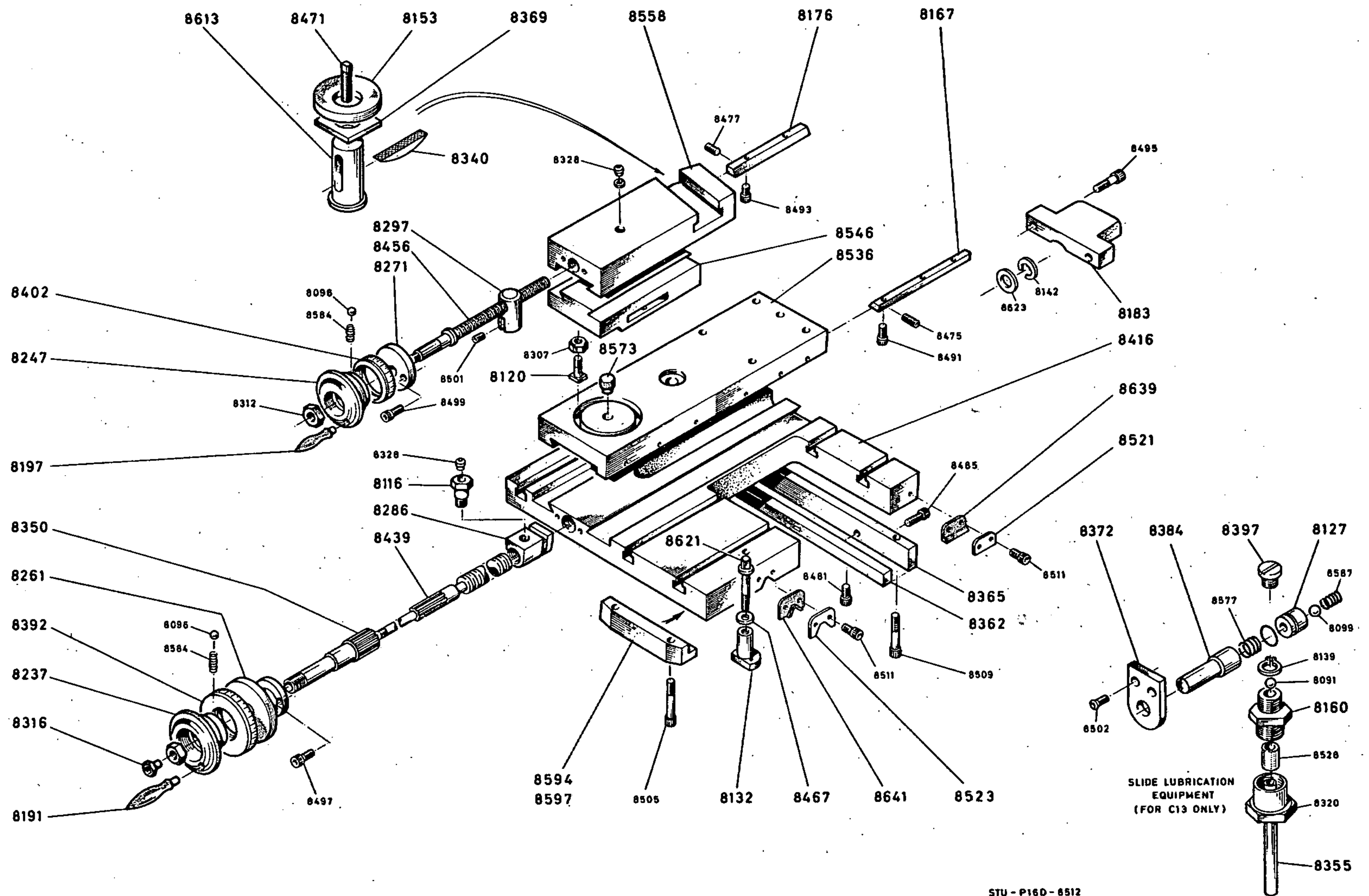
For wormbox details: Refer to STU-P15-6512 (Standard)
 Refer to STU-P15D-6512 (Clausing)

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1.



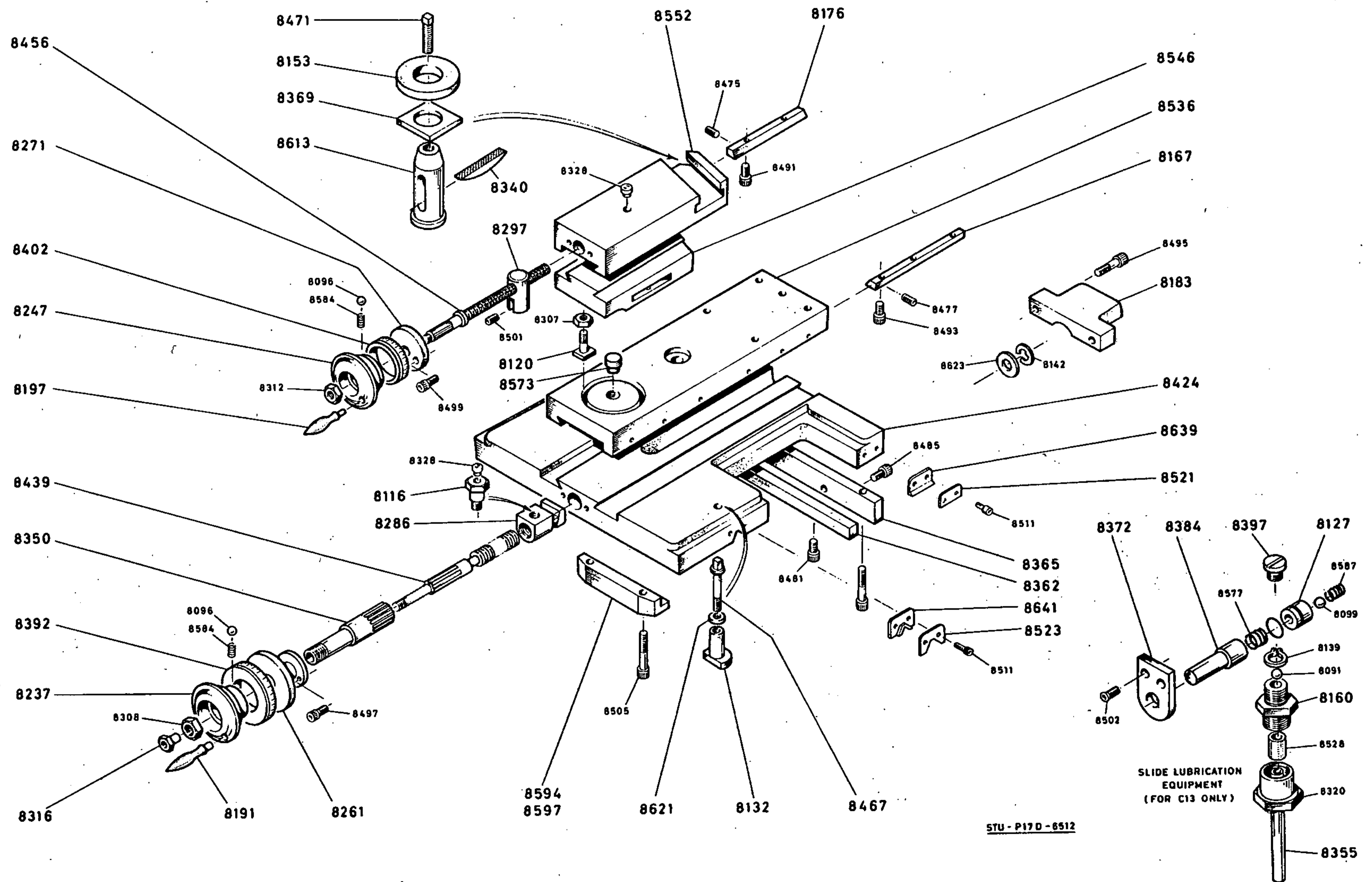
STU - P15D - 6512

APRON WORMBOX - extra



STU - P16D - 8512
CLAUSING

SADDLE & SLIDES : gap bed

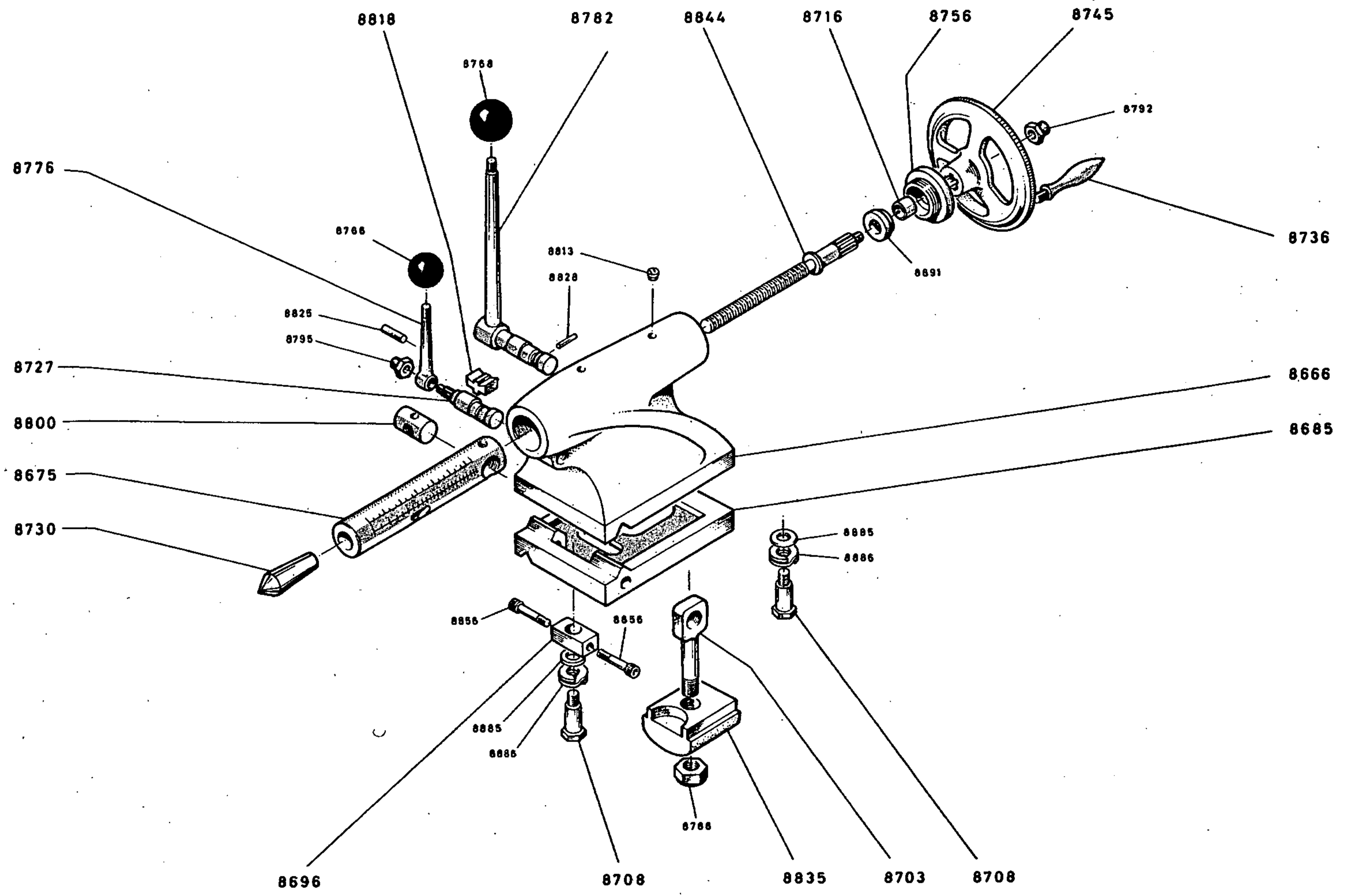


SADDLE & SLIDES : straight bed

Ref. Drg. STU-P17D-6512

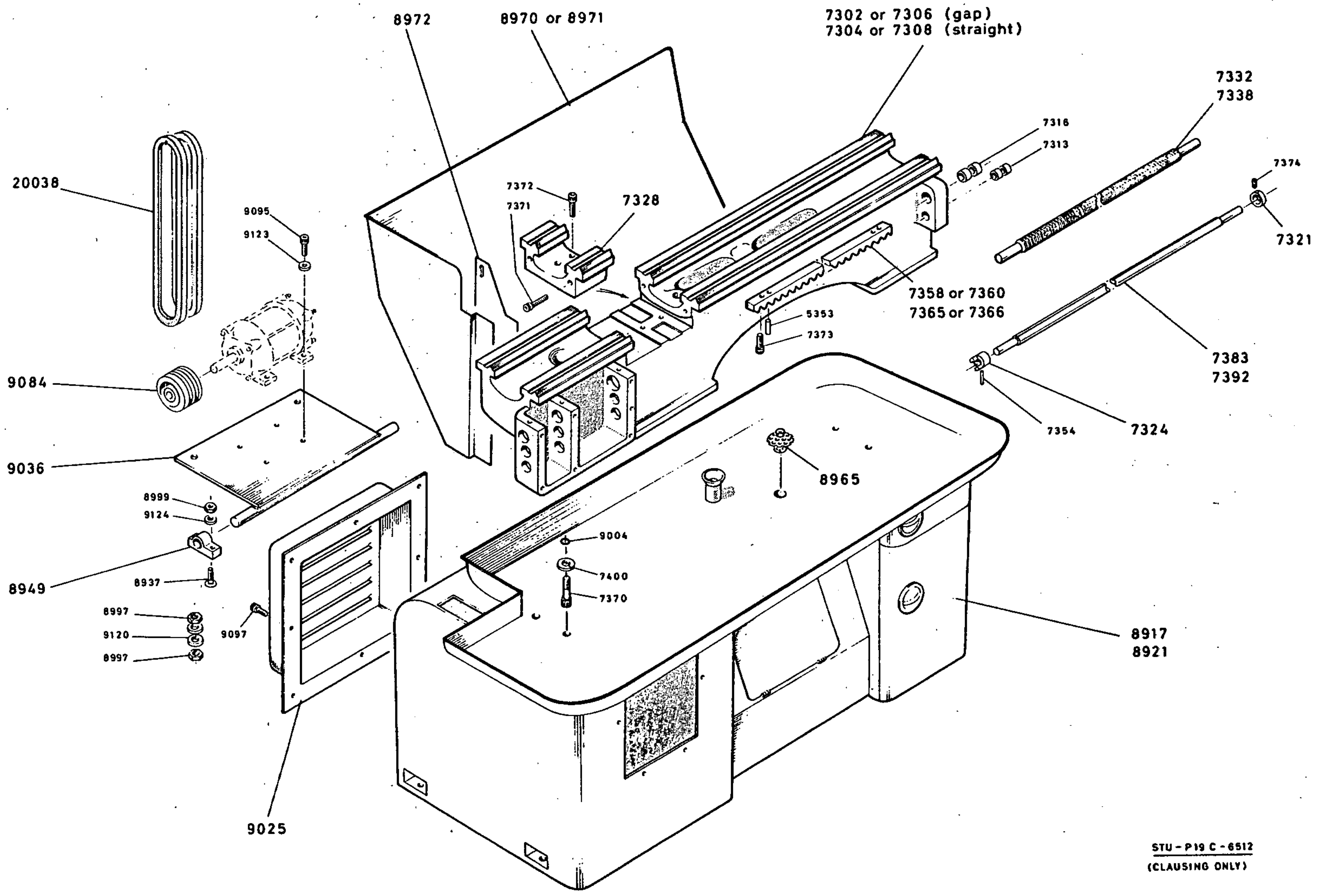
SADDLE & SLIDES: Straight Bed Lathes

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> |
|------------------|---|-----------------------|--|
| 8116 | Saddle Screw Nut Fixing Bolt | 8573 | Swivel Slide Spigot |
| 8120 | Swivel Slide Clamping Bolt & Nut | 8594 | Saddle Front Strip (A-Bed) |
| 8127 | Lubricating Valve Bush | 8597 | Saddle Front Strip (B-Bed) |
| 8132 | Saddle Locking Clamp C/W Pins | 8613 | Toolholder & Toolscrew |
| 8153 | Toolholder Collar | 8621 | Saddle Lock-Screw Washer |
| 8160 | Lubricating Union | 8639 | Bedway Wipers, Flat (2) |
| 8167 | Cross-Slide Gibs (2) | 8641 | Bedway Wipers, Vee (2) |
| 8176 | Top-Slide Gib | | |
| 8183 | Cross-Slide Screw Guard | | |
| 8191 | Cross-Slide Handwheel Handle (Chromed) | <u>STANDARD ITEMS</u> | |
| 8197 | Top-Slide Handwheel Handles (Chromed) (2) | 8091 | Lubricating Connector Ball |
| 8237 | Cross-Slide Handwheel C/W Handle | 8096 | Index Ring Pressure Balls (6) |
| 8247 | Top-Slide Handwheel C/W Handles | 8099 | Lubricating Valve Ball |
| 8261 | Cross-Slide Screw Keep (Chromed) | 8139 | Lubricating Connector Ball Clip |
| 8271 | Top-Slide Screw Keep (Chromed) | 8142 | Cross-Slide Screw Washer Clip |
| 8286 | Cross-Slide Nut Assembly | 8307 | Swivel Slide Clamp Bolt Nuts (2) |
| 8297 | Top-Slide Screw Nut | 8308 | Cross-Slide Handwheel Nut |
| 8316 | Cross-Slide Screw Retaining Nut | 8312 | Top-Slide Handwheel Nut |
| 8340 | Toolholder Swivel Piece | 8320 | Lubricating Union Nut |
| 8350 | Cross-Slide Screw Pinion | 8327 | Lubricating Valve Bush Oil-Ring |
| 8355 | Lubricating Stand-Pipe | 8328 | Oiler-Nipples (9) |
| 8362 | Saddle Rear Strip Adjusting Plate | 8475 | Cross-Slide Gib Adjusting Screws (4) |
| 8365 | Saddle Rear Strip Fixed Plate | 8477 | Top-Slide Gib Adjusting Screws (6) |
| 8369 | Toolholder Clamp Plate | 8481 | Saddle Rear Strip Adjusting Screws (4) |
| 8372 | Lubricating Plunger Plate | 8485 | Saddle Rear Strip Lock Screws (2) |
| 8379 | Oil Filler Plug | 8491 | Cross-Slide Gib Securing Screws (4) |
| 8384 | Lubricating Plunger | 8493 | Top-Slide Gib Securing Screws (6) |
| 8392 | Cross-Slide Index Ring | 8495 | Screw Guard Securing Screws (2) |
| 8402 | Top-Slide Index Ring | 8497 | Cross-Slide Keep Screws (2) |
| 8425 | Saddle Casting | 8499 | Top-Slide Keep Screws (2) |
| 8439 | Cross-Slide Screw & Nut | 8501 | Top-Slide Screw-Nut Screw |
| 8456 | Top-Slide Screw & Nut | 8502 | Plunger Plate Screws (2) |
| 8467 | Saddle Locking Screw | 8505 | Saddle Front Strip Securing Screws (2) |
| 8471 | Toolholder Tool Screw | 8509 | Saddle Rear Strip Securing Screws (2) |
| 8521 | Bedway Wiper Shield, Flat (2) | 8511 | Bed Wiper Securing Screws (8) |
| 8523 | Bedway Wiper Shield, Vee (2) | 8528 | Lubricating Union Sleeve |
| 8536 | Cross-Slide Assembly | 8577 | Lubricating Plunger Spring |
| 8546 | Swivel Slide Assembly (Angular) | 8584 | Index Ring Springs (6) |
| 8558 | Top-Slide Assembly (Angular) | 8587 | Lubricating Valve Spring |
| | | 8623 | Cross-Slide Screw Washer |



STU - P18C - 6512
CLAUSING ONLY

TAILSTOCK



STU - P19 C - 6512
 (CLAUSING ONLY)

CABINET, BED & TRANSMISSION

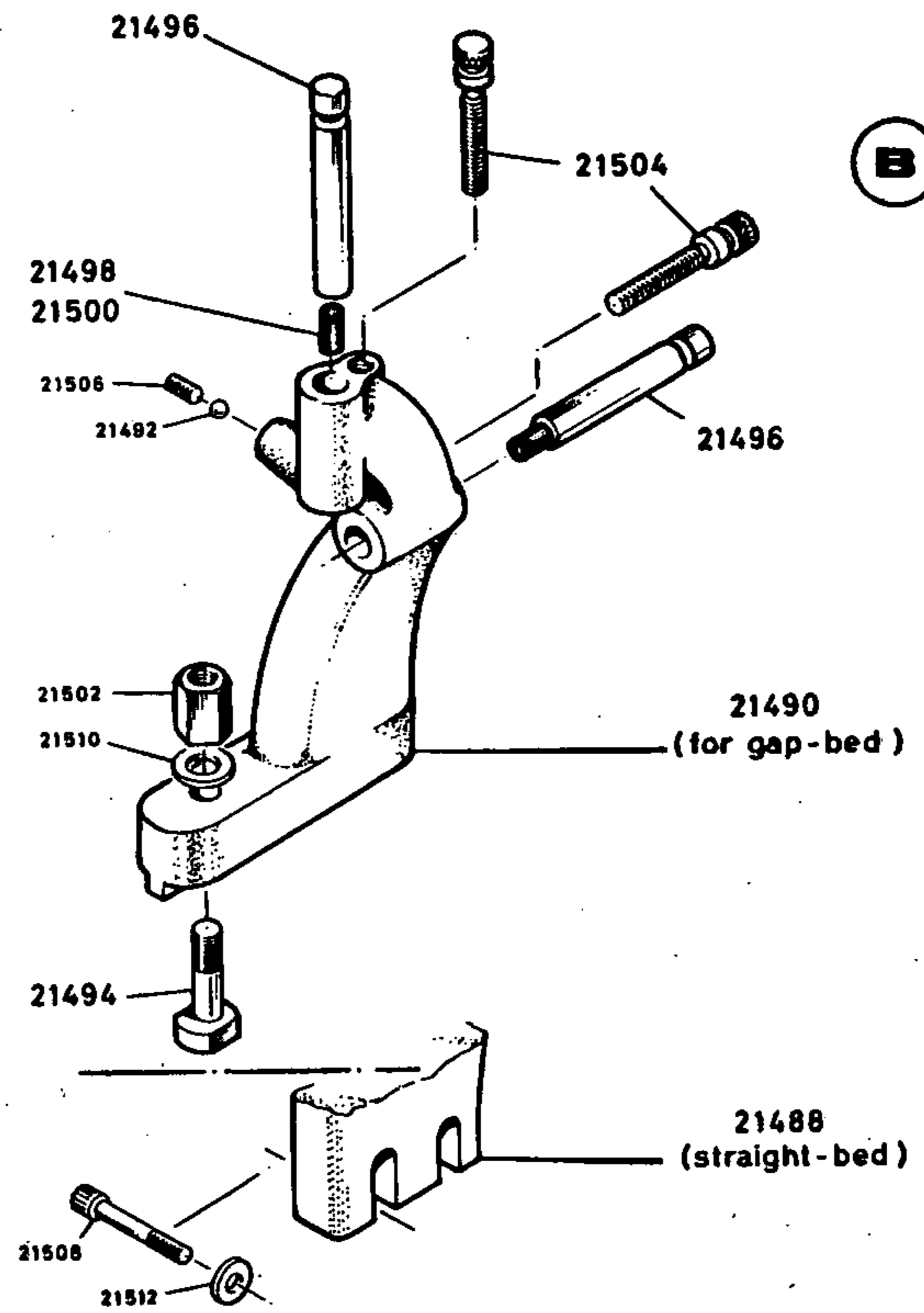
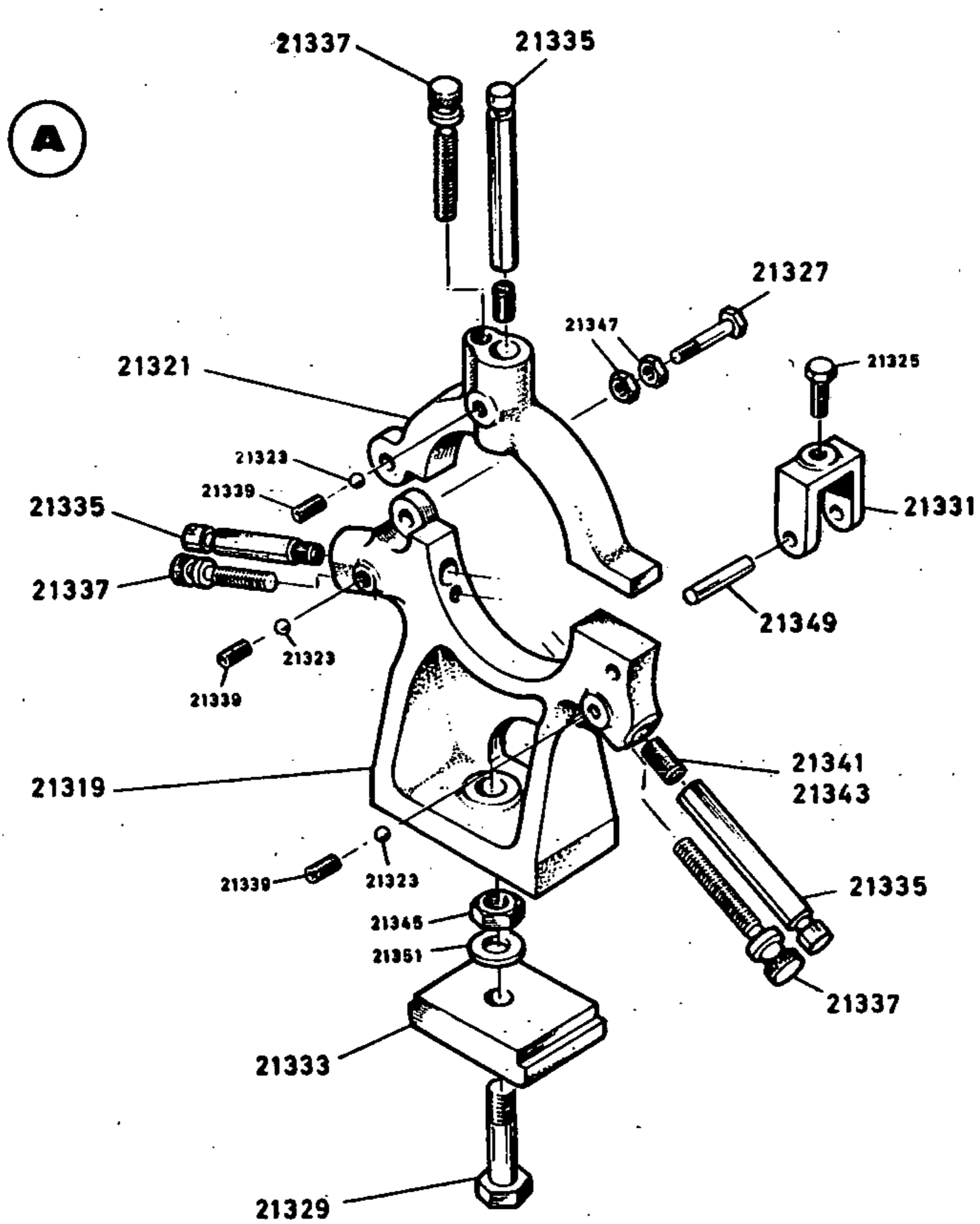
Ref. Drg. STU-P19C-6512

CABINET, BED & TRANSMISSION

CLAUSING 13

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> |
|------------------|--------------------------------|-----------------------|---|
| 7302 | Bed, Gap Type 24 in. | 9084 | Motor Pulley |
| 7304 | Bed, Straight 24 in. | 20038 | Vee Belts (2) |
| 7306 | Bed, Gap Type 36 in. | | |
| 7308 | Bed, Straight 36 in. | | |
| 7321 | Feedshaft Tail-end Collar | <u>STANDARD ITEMS</u> | |
| 7324 | Feedshaft Coupling | 7313 | Feedshaft Tail-end Bushes (2) 10-923 |
| 7328 | Gap Piece | 7316 | Leadscrew Tail-end Bushes (2) 10-936 |
| 7332 | Leadscrew, 24 in. | | (or 10-940 - 1 off) |
| 7338 | Leadscrew, 36 in. | 7353 | Rack Locating Pins (3) 24-539 |
| 7358 | Rack (A-Bed), 24 in. | 7354 | Coupling Securing Pin 14-659 |
| 7360 | Rack (B-Bed), 24 in. | 7370 | Bed Securing Screws (6) 50-260 |
| 7365 | Rack (A-Bed), 36 in. | 7371 | Gap Piece Screws, Horizontal (2) 48-246 |
| 7366 | Rack (B-Bed), 36 in. | 7372 | Gap Piece Screws, Vertical (2) 48-242 |
| 7383 | Feedshaft, 24 in. | 7373 | Rack Securing Screws (2) 45-201 |
| 7392 | Feedshaft, 36 in. | 7374 | Feedshaft Collar Lock Screw 59-350 |
| 8917 | Cabinet Assembly (13 x 24 in.) | 7400 | Bed Screw Spring Washers (6) 84-706 |
| 8921 | Cabinet Assembly (13 x 36 in.) | 8937 | Platform Bracket Bolts (2) 88-055 |
| 8949 | Motor Platform Brackets (2) | 8997 | Platform Adjusting Nuts (4) 20-639 |
| 8965 | Coolant Drain Filter | 8999 | Platform Bracket Bolt Nuts (2) 22-698 |
| 8970 | Back Splash Guard (24 in.) | 9004 | Bed Bolt Oil Rings (6) 27-060 |
| 8971 | Back Splash Guard (36 in.) | 9095 | Motor Securing Screws (4) 47-229 |
| 8972 | Splash Guard Fixed Plate | 9097 | Cover Plate Securing Screws (7) 45-202 |
| 9025 | Louvre Plate | 9120 | Platform Adjusting Nut Washers (4) 85-695 |
| 9036 | Motor Platform | 9123 | Motor Screw Washers (4) 85-692 |
| | | 9124 | Platform Bracket Ball Washers (2) 84-704 |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1



ACC-ST-P101-65

STEADIES (steady rests)

Ref. Drg. ACC-ST-P101-65

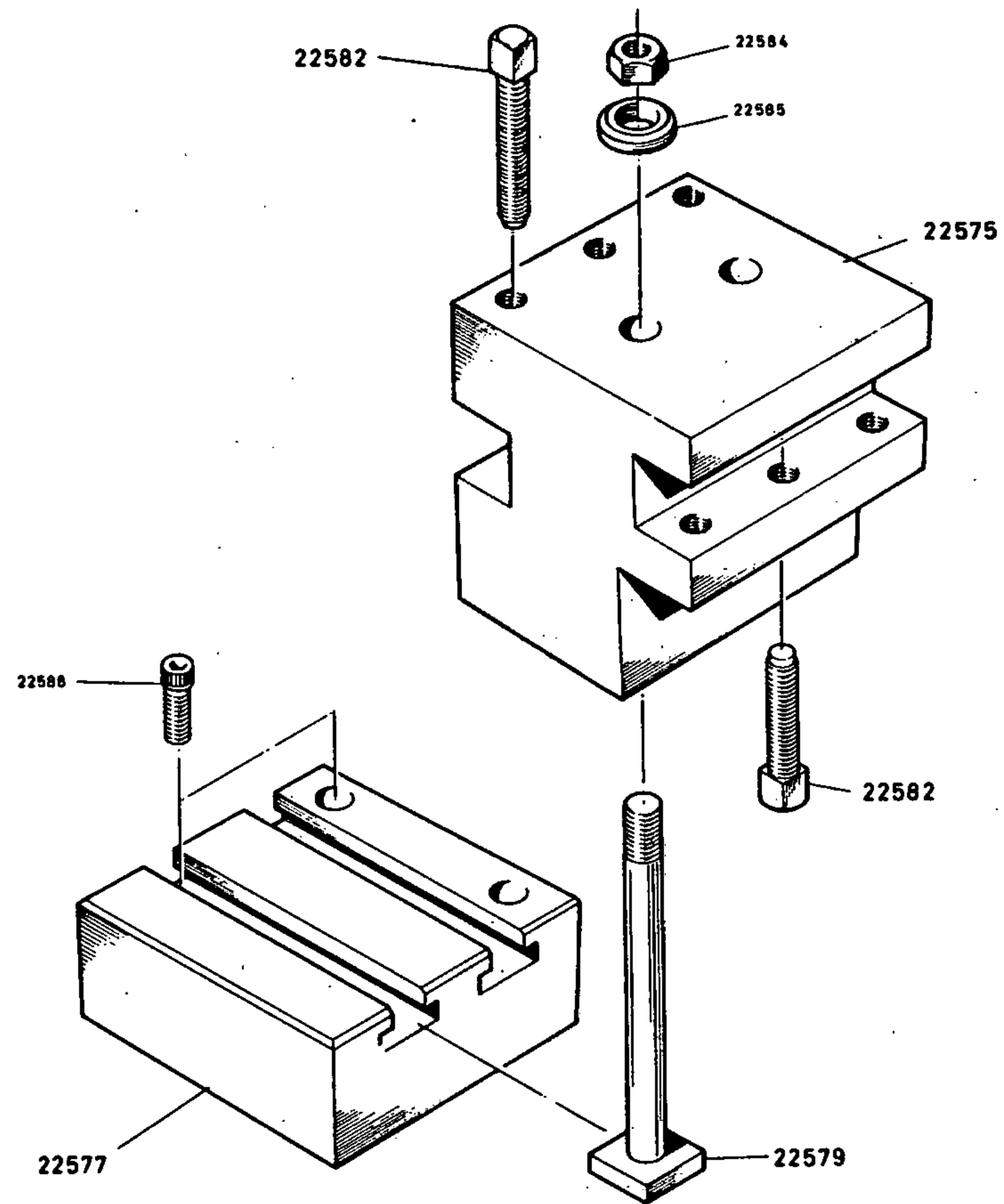
STEADIES (Steady Rests)

A - STATIONARY STEADY

B - TRAVELLING STEADY

| <u>Order No.</u> | <u>Description</u> | | <u>Order No.</u> | <u>Description</u> | |
|-----------------------|-----------------------------|--------|-----------------------|-----------------------------|--------|
| 21319 | Steady Base Casting | | 21347 | Pivot Bolt Locknuts (2) | 20-637 |
| 21321 | Steady Top Casting | | 21351 | Clamp Plate Bolt Washer | 85-695 |
| 21327 | Pivot Bolt | | 21488 | Steady Casting (Straight) | |
| 21329 | Clamp Plate Bolt | | 21490 | Steady Casting (Gap) | |
| 21331 | Clamp Fork | | 21494 | Steady Securing Bolt | |
| 21333 | Steady Clamp Plate | | 21496 | Steady Fingers (2) | |
| 21335 | Steady Fingers (3) | | 21498 | Finger Inserts, Plastic (2) | |
| 21337 | Finger Adjusting Screws (3) | | 21500 | Finger Inserts, Bronze (2) | |
| 21341 | Finger Inserts, Plastic (3) | | 21504 | Finger Adjusting Screws (2) | |
| 21343 | Finger Inserts, Bronze (3) | | | | |
| 21349 | Clamp Fork Hinge Pin | | | | |
| | | | <u>STANDARD ITEMS</u> | | |
| <u>STANDARD ITEMS</u> | | | 21492 | Finger Locking Balls (2) | 01-793 |
| 21323 | Finger Locking Balls (3) | 01-793 | 21502 | Steady Securing Bolt Nut | 20-612 |
| 21325 | Clamp Fork Bolt | 08-112 | 21506 | Finger Locking Screws (2) | 60-365 |
| 21339 | Finger Locking Screws (3) | 60-363 | 21508 | Steady Securing Screws (2) | 49-253 |
| 21345 | Clamp Plate Bolt Nut | 20-614 | 21510 | Securing Bolt Washer | 85-695 |
| | | | 21512 | Securing Screw Washers (2) | 85-694 |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1



ACC-ST - P103-65

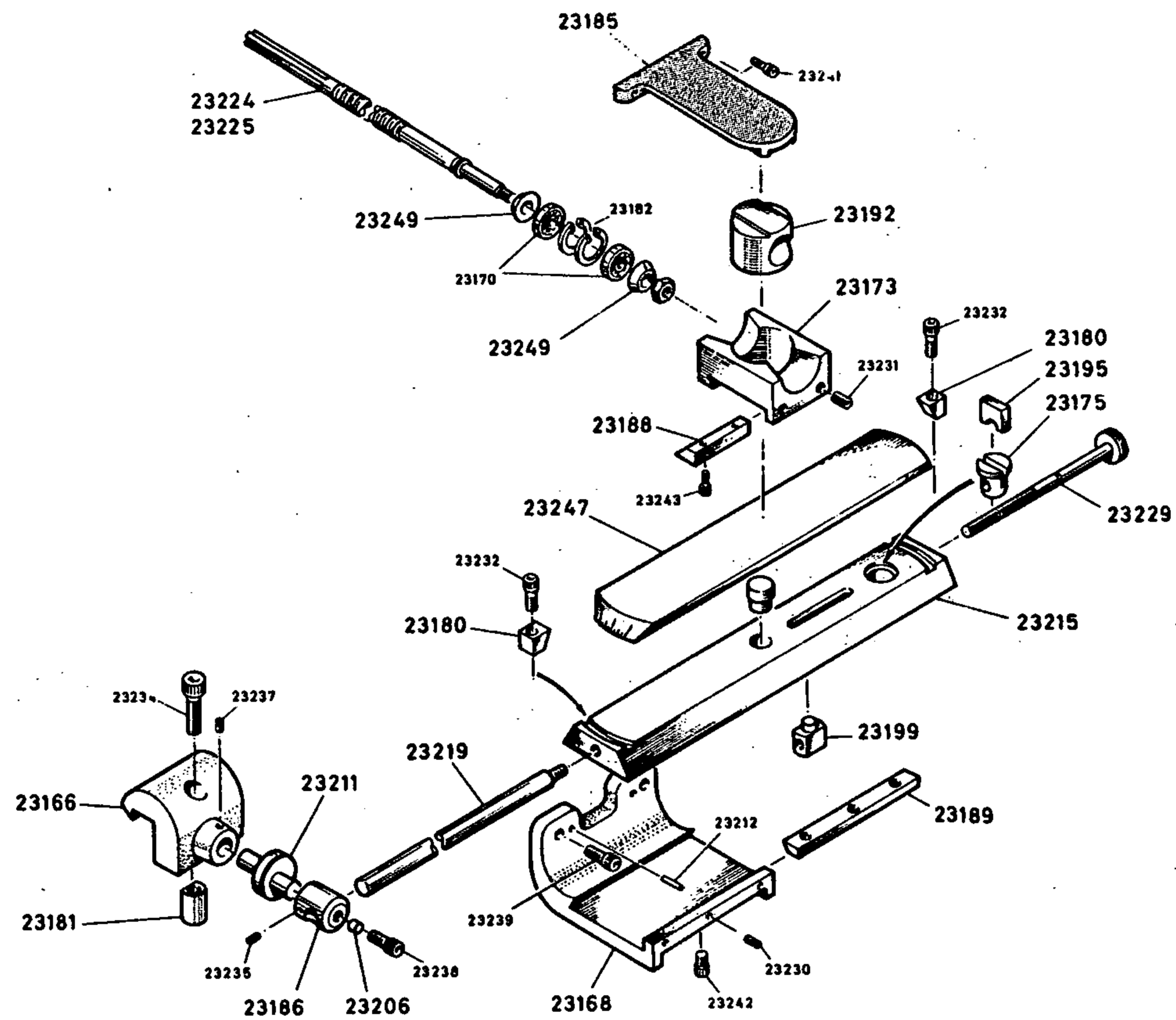
REAR TOOLPOST

Ref. Drg. ACC-ST-P103-65

REAR TOOLPOST

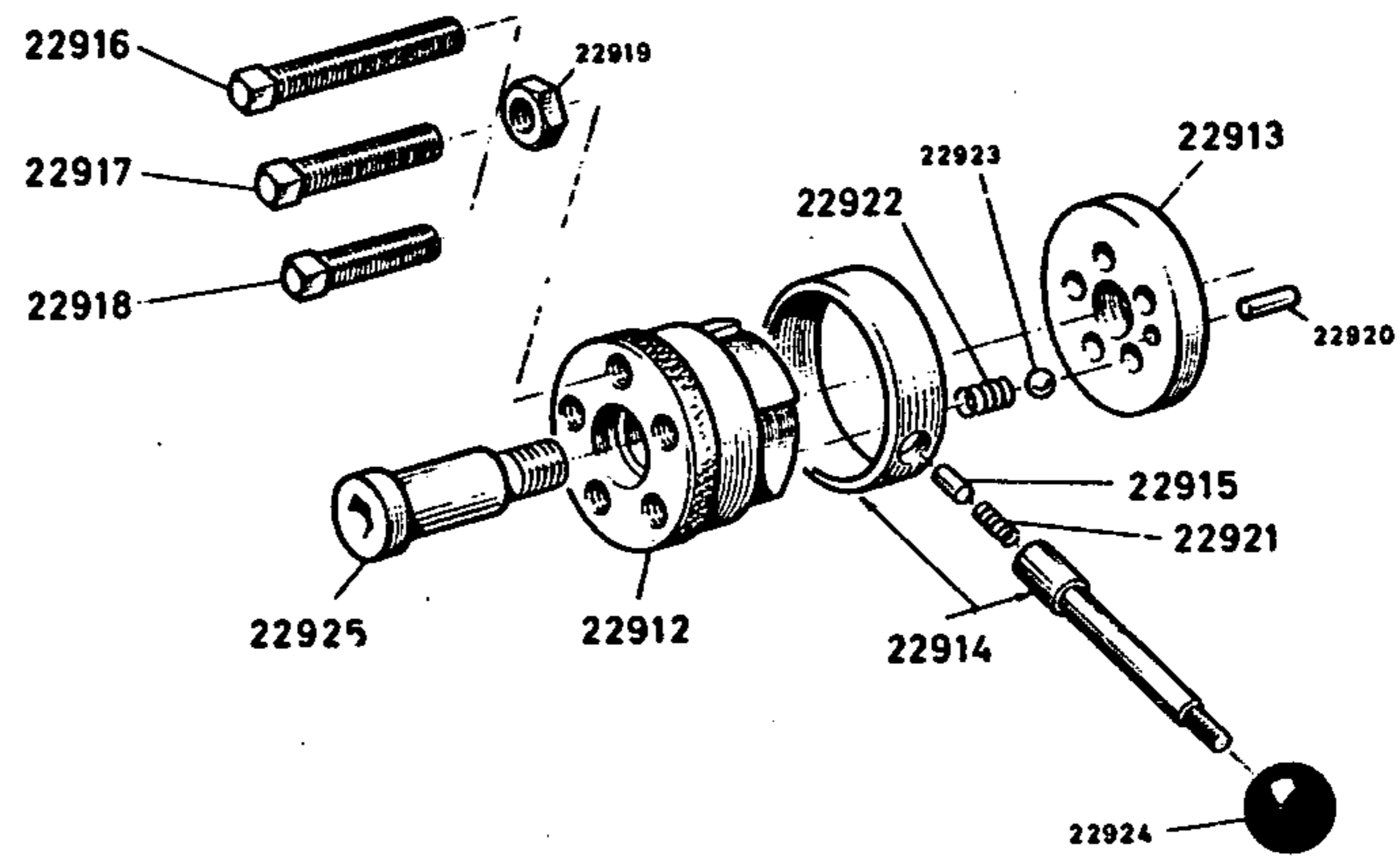
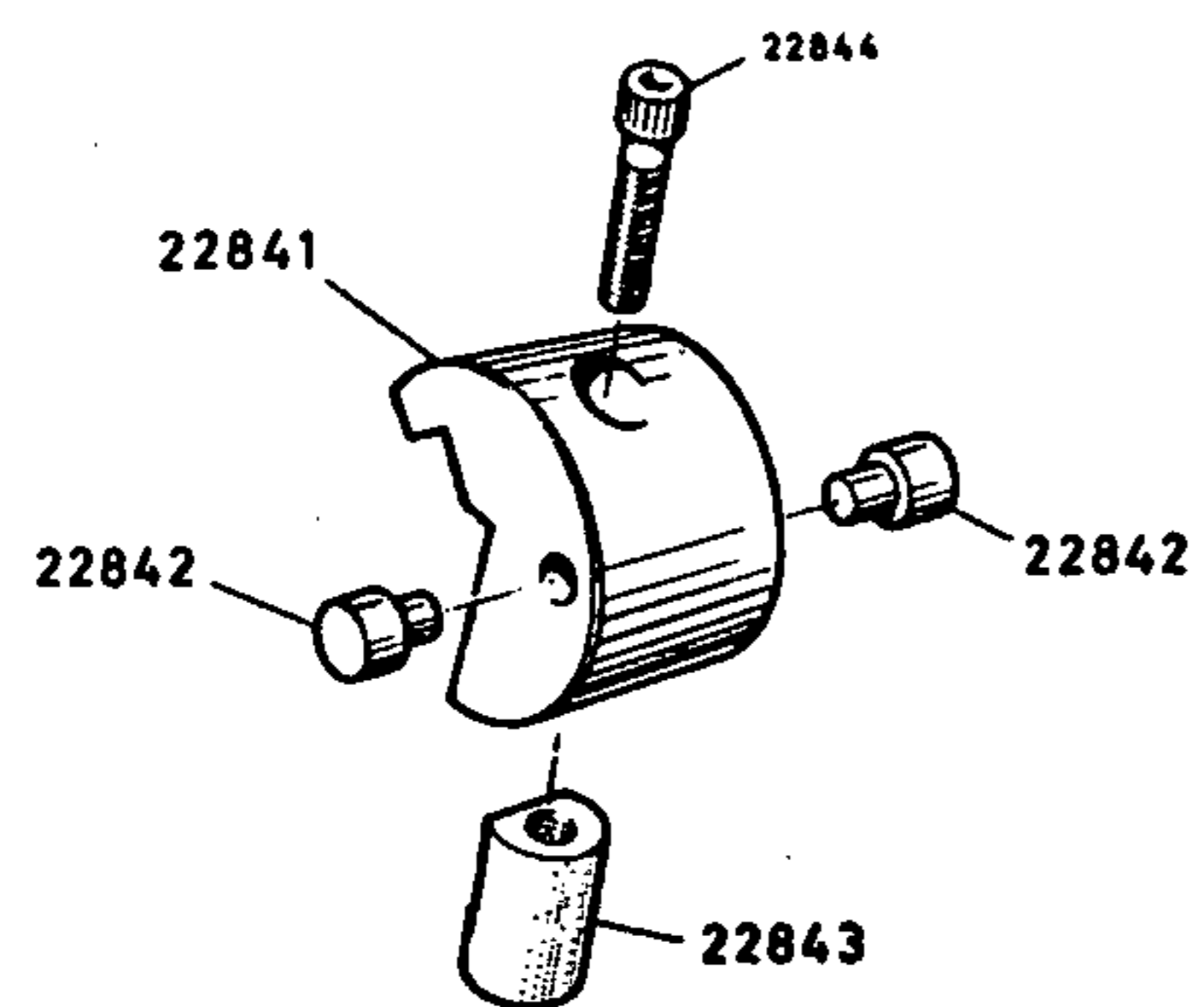
| <u>Order No.</u> | <u>Description</u> | |
|-----------------------|--------------------------------|--------|
| 22575 | Toolpost Block | |
| 22577 | Base Plate | |
| 22579 | Toolpost Clamping Bolts (2) | |
| 22582 | Tool Screws (6) | |
| <u>STANDARD ITEMS</u> | | |
| 22584 | Clamping Bolt Nuts (2) | 21-661 |
| 22585 | Clamping Bolt Washers (2) | 85-694 |
| 22588 | Base Plate Securing Screws (4) | 47-228 |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1



ACC-ST-P104-65

TELESCOPIC TAPER TURNING ATTACHMENT



ACC-ST-P105-65

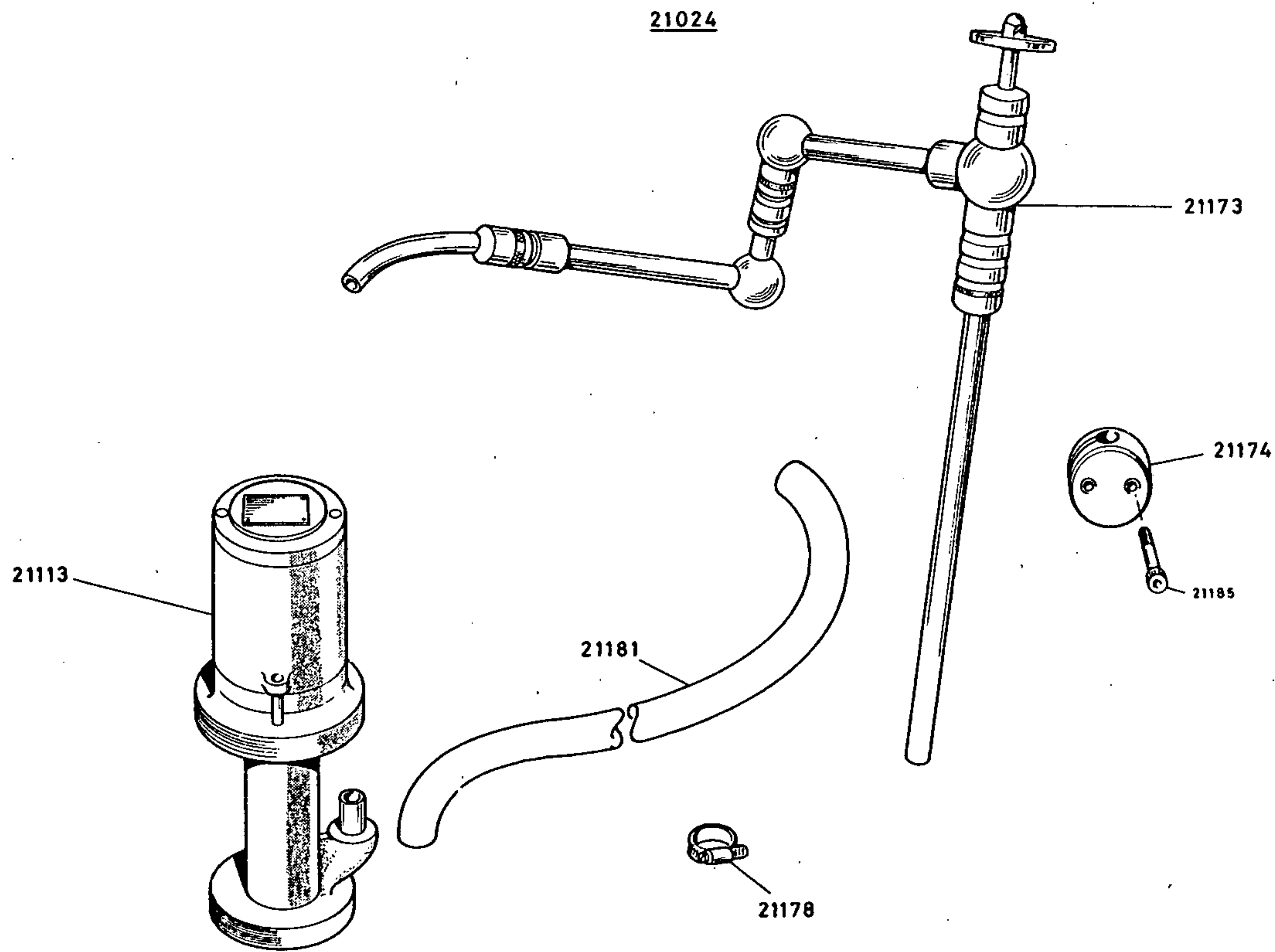
BED STOPS (single & 5-pos.)

Ref. Drg. ACC-ST-P105-65

BED STOPS (Single & 5-Position)

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> |
|------------------|-------------------------------|-----------------------|----------------------------------|
| 22841 | Body, Single Type | 22921 | Ratchet Lever Spring |
| 22842 | Stop Pads (2) | 22922 | Turret Locating Ball Spring |
| 22843 | Clamping Piece | 22925 | Turret Spindle |
| 22912 | 5-Position Turret | <u>STANDARD ITEMS</u> | |
| 22913 | Turret Plate | | |
| 22914 | Ratchet Lever & Ring Assembly | 22844 | Locking Screw 64-391 |
| 22915 | Ratchet Locating Pin | 22919 | Stop Screw Locknuts 20-636 |
| 22916 | Stop Screw, Long | 22920 | Turret Plate Locating Pin 24-541 |
| 22917 | Stop Screw, Medium | 22923 | Turret Locating Ball 01-788 |
| 22918 | Stop Screw, Short | 22924 | Ratchet Lever Knob 18-840 |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1



ACC - ST - P110 - 65

COOLANT UNIT

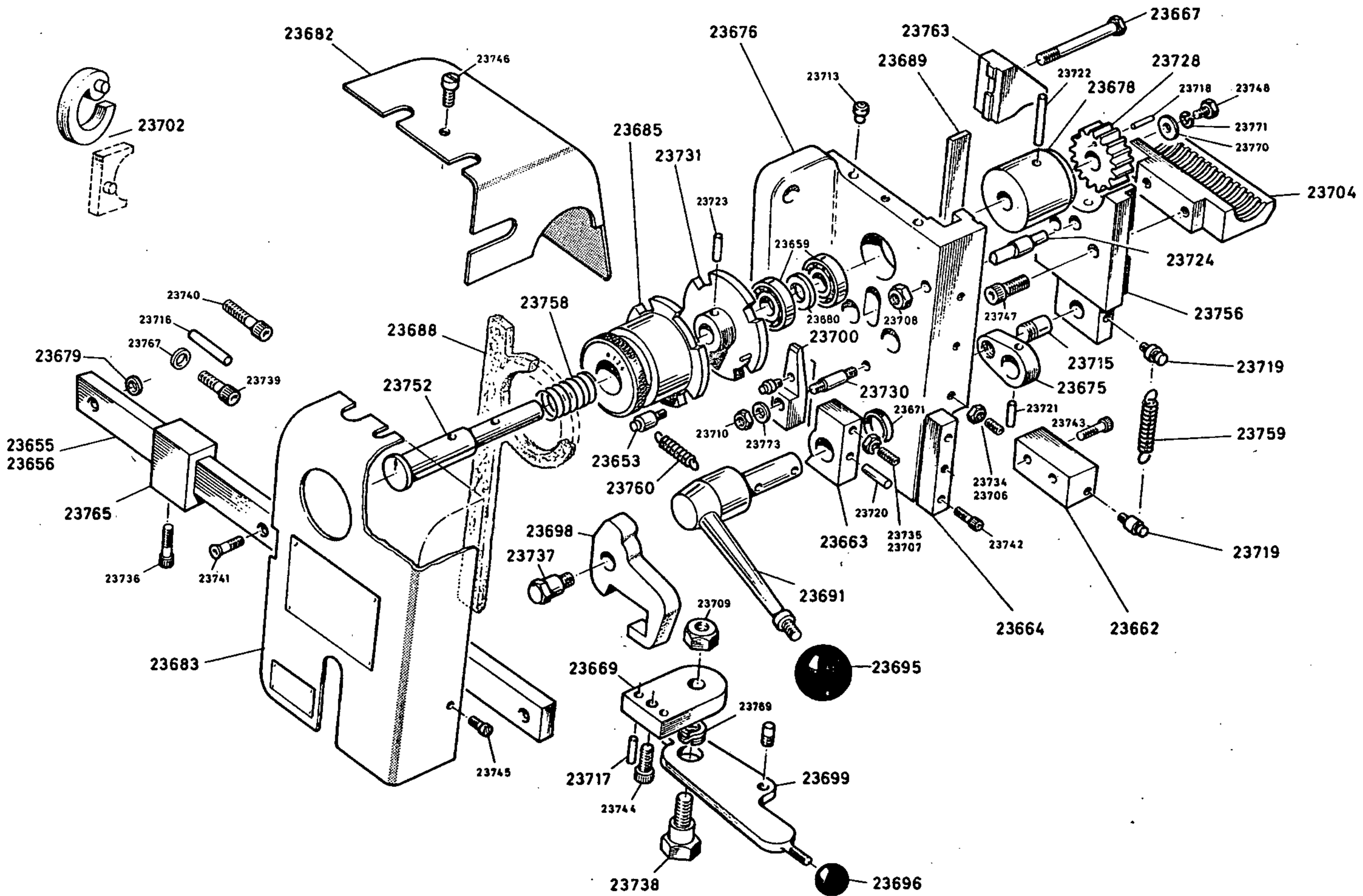
CLA 13-1-66

Ref. Drg. ACC-ST-P110-65

COOLANT UNIT

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | |
|------------------|--|-----------------------|-------------------------|--------|
| 21024 | Coolant Unit c/w Fittings (State Electric Supply) | 21174 | Feedpipe Bracket | |
| | | 21178 | Hose Clips (2) | |
| | | 21181 | Flexible Hose | |
| 21113 | Coolant Pump (State Details on Existing Pump) | <u>STANDARD ITEMS</u> | | |
| 21173 | Feedpipe Assembly, c/w Bracket | 21185 | Pipe Bracket Screws (2) | 45-206 |

SPECIFICATIONS OF STANDARD ITEMS ARE GIVEN IN APPENDIX 1



ACC - ST - P111 - 85

RAPID THREADER : English

Ref. Drg. ACC-St-P111-65

RAPID THREADER: English

| <u>Order No.</u> | <u>Description</u> | <u>Order No.</u> | <u>Description</u> | |
|------------------|--|-----------------------|---------------------------------------|--------|
| 23653 | Locking-Lever Spring Anchor | 23759 | Main Spring | |
| 23655 | Stop Bar (26 in.) | 23760 | Locking-Lever Spring | |
| 23656 | Stop Bar (46 in.) | 23763 | Top Steady | |
| 23662 | Spring Anchor-Block | 23765 | Adjustable Stop | |
| 23663 | Handle-Shaft Block | | | |
| 23664 | Cover Spacing-Block | <u>STANDARD ITEMS</u> | | |
| 23667 | Top Steady Bolt | 23659 | Dial Shaft Bearings (2) | 02-890 |
| 23669 | Knock-Off Lever Bracket | 23671 | Handle-Shaft Bush | 10-006 |
| 23675 | Handle-Shaft Cam | 23706 | Nuts for Gib Adjusting Screw | 22-690 |
| 23676 | Threader Main Casting | 23707 | Nut for Locking-Lever Adjusting Screw | 22-690 |
| 23678 | Pinion Driving Collar | 23708 | Nut for Top-Steady Screw | 22-689 |
| 23679 | Stop-Bar Spacers | 23709 | Knock-Off Lever Securing Nut | 22-691 |
| 23680 | Dial-Shaft Bearing Spacer | 23710 | Locking-Lever Securing Nut | 22-689 |
| 23682 | Back Cover | 23713 | Oiler Nipples | 23-124 |
| 37 23683 | Front Cover | 23716 | Attachment Location Pin | 14-131 |
| 23685 | Setting Dial Assembly | 23718 | Pinion Locating Pin | 24-046 |
| 23688 | Cover Gasket (Felt) | 23720 | Shaft-Block Securing Pin | 24-543 |
| 23689 | Slide Gib | 23721 | Shaft-Cam Securing Pin | 24-543 |
| 23691 | Handle | 23722 | Pinion Driving-Collar Pin | 25-608 |
| 23695 | Handle Knob | 23723 | Dial Plate Securing Pin | 24-543 |
| 23696 | Knock-Off Lever Knob | 23734 | Slide-Gib Adjusting Screws (3) | 73-195 |
| 23698 | Disengaging Lever | 23735 | Locking-Lever Adjusting Screw | 73-473 |
| 23699 | Knock-Off Lever & Pin | 23736 | Adjustable-Stop Locking Screw | 73-489 |
| 23700 | Locking-Lever & Pin | 23739 | Attachment Securing Screw (Short) | 47-227 |
| 23702 | Half-Nut Lever Lock (C-Type, for Lathe | 23740 | Attachment Securing Screws (Long) | 47-228 |
| 23704 | Half-Nut (Threader Unit) | 23741 | Stop-Bar Securing Screws | 73-520 |
| 23715 | Slide Driving Pin | 23742 | Spacing-Block Securing Screws | 46-214 |
| 23717 | Lever-Bracket Locating Pins | 23743 | Anchor-Block Securing Screws | 73-197 |
| 23719 | Main Spring Retaining Pins (2) | 23744 | Bracket Securing Screw | 73-199 |
| 23724 | Selector Pin | 23745 | Front-Cover Securing Screws | 73-472 |
| 23728 | Pinion | 23746 | Back-Cover Securing Screws | 73-472 |
| 23730 | Locking-Lever Pivot | 23747 | Half-Nut Securing Screws (2) | 73-196 |
| 23731 | Dial Plate | 23748 | Pinion Securing Screw | 73-198 |
| 23737 | Disengaging-Lever Pivot Screw | 23767 | Securing Screw Washer | 85-692 |
| 23738 | Knock-Off Lever Pivot Screw | 23769 | Knock-Off Lever Spring-Washer | 87-714 |
| 23752 | Dial Shaft | 23770 | Pinion Securing-Screw Washer | 85-720 |
| 23752 | Slide | 23771 | Pinion-Screw Spring Washer | 84-701 |
| 23758 | Dial Spring | 23773 | Locking-Lever Securing Nut Washer | 85-691 |

Appendix 1

STANDARD PARTS REFERENCE LIST

| Description | Section | Description | Section |
|----------------------------|---------|--|---------|
| Balls | 01 | 10 x 24 t.p.i. Cap Screws - Hex Socket Head | 45 |
| Bearings - Ball Journal | 02 | 1/4 in. U.N.C. Cap Screws - Hex Socket Head | 46 |
| Bearings - Roller | 03 | 5/16 in. U.N.C. Cap Screws - Hex Socket Head | 47 |
| Bearings - Thrust | 04 | 3/8 in. U.N.C. Cap Screws - Hex Socket Head | 48 |
| Belts - Flat | 05 | 7/16 in. U.N.C. Cap Screws - Hex Socket Head | 49 |
| Belts - Timing | 06 | 1/2 in. U.N.C. Cap Screws - Hex Socket Head | 50 |
| Belts - Vee | 07 | 5/8 in. U.N.C. Cap Screws - Hex Socket Head | 51 |
| Bolts - Hex Head | 08 | 3/4 in. U.N.C. Cap Screws - Hex Socket Head | 52 |
| Brake Shoes | 09 | 10 x 24 t.p.i. C/Sunk Screws - Hex Socket Head | 53 |
| Bushes | 10 | 1/4 in. U.N.C. C/Sunk Screws - Hex Socket Head | 54 |
| Circlips External | 11 | 5/16 in. U.N.C. C/Sunk Screws - Hex Socket Head | 55 |
| Circlips Internal | 12 | 3/8 in. U.N.C. C/Sunk Screws - Hex Socket Head | 56 |
| Circlips Special | 13 | 1/2 in. U.N.C. C/Sunk Screws - Hex Socket Head | 57 |
| Spring Dowels | 14 | 10 x 24 t.p.i. Cup Point Screws - Hex Socket Head | 58 |
| Electrical - Miscellaneous | 15 | 1/4 in. U.N.C. Cup Point Screws - Hex Socket Head | 59 |
| Handles | 16 | 5/16 in. U.N.C. Cup Point Screws - Hex Socket Head | 60 |
| Keys | 17 | 3/8 in. U.N.C. Cup Point Screws - Hex Socket Head | 61 |
| Knobs | 18 | 7/16 in. U.N.C. Cup Point Screws - Hex Socket Head | 62 |
| Motors | 19 | 1/2 in. U.N.C. Cup Point Screws - Hex Socket Head | 63 |
| Nuts | 20 | 5/8 in. U.N.C. Cup Point Screws - Hex Socket Head | 64 |
| Lock Nuts | 21 | 3/4 in. U.N.C. Cup Point Screws - Hex Socket Head | 65 |
| Nuts - Miscellaneous | 22 | 10 x 24 t.p.i. 1/2 Dog Screws - Hex Socket Head | 66 |
| Oilers | 23 | 1/4 in. U.N.C. 1/2 Dog Screws - Hex Socket Head | 67 |
| Mills Pins | 24 | 5/16 in. U.N.C. 1/2 Dog Screws - Hex Socket Head | 68 |
| Pins - Miscellaneous | 25 | 3/8 in. U.N.C. 1/2 Dog Screws - Hex Socket Head | 69 |
| Oil Rings | 26 | 1/2 in. U.N.C. 1/2 Dog Screws - Hex Socket Head | 70 |
| Oil Rings - Miscellaneous | 27 | 5/8 in. U.N.C. 1/2 Dog Screws - Hex Socket Head | 71 |
| Rivets | 28 | 3 B.A. B.A. Screws - Hex Socket Head | 72 |
| | 29 | Special Screws | 73 |
| | 30 | | 74 |
| | 31 | | 75 |
| | 32 | | 76 |
| | 33 | | 77 |
| | 34 | | 78 |
| | 35 | Oil Seals | 79 |
| | 36 | Oil Sights | 80 |
| | 37 | Spanners & Wrenches | 81 |
| | 38 | Springs | 82 |
| | 39 | Switches | 83 |
| | 40 | Locking Washers | 84 |
| | 41 | Standard Washers | 85 |
| | 42 | Washers Miscellaneous | 86 |
| | 43 | Thread Inserts | 87 |
| | 44 | Miscellaneous | 88 |
| | | Third shaft control assembly | 1000 |

6521-3
6521-4

**Section 01
Balls**

| Part Ref. | Description |
|-----------|---------------------------|
| 01.185 | 1/8 Dia. Steel Ball. |
| 01.786 | 5/32 Dia. Steel Ball. |
| 01.787 | 3/16 Dia. Steel Ball. |
| 01.788 | 1/4 Dia. Steel Ball. |
| 01.789 | 5/16 Dia. Steel Ball. |
| 01.790 | 3/8 Dia. Steel Ball. |
| 01.791 | 9/16 Dia. Steel Ball. |
| 01.792 | 5/8 Dia. Steel Ball. |
| 01.793 | 1/4 Dia. Phosphor Bronze. |
| 01.794 | 7/32 Dia. Steel Ball. |
| 01.795 | 9/32 Dia. Steel Ball. |
| 01.796 | 11/32 Dia. Steel Ball. |
| 01.797 | 13/32 Dia. Steel Ball. |
| 01.798 | 7/16 Dia. Steel Ball. |
| 01.799 | 15/32 Dia. Steel Ball. |
| 01.800 | 1/2 Dia. Steel Ball. |
| 01.801 | 17/32 Dia. Steel Ball. |
| 01.802 | 19/32 Dia. Steel Ball. |

**Section 02
Bearings - Ball Journal**

| Part Ref. | Description |
|-----------|---|
| 02.032 | 2 1/4 Dia. Hoffmann. XLS. |
| 02.033 | 2 1/2 Dia. Hoffmann. XLS. |
| 02.061 | 2 in. Dia. Hoffmann. XLS. |
| 02.180 | 2 1/8 x 1 1/8 x 3/8 Hoffmann. S11. |
| 02.872 | 10 m/m x 28 m/m x 8 m/m. Hoffmann. A10. |
| 02.873 | 13 m/m x 30 m/m x 7 m/m. Hoffman. A13. |
| 02.874 | 15 m/m x 35 m/m x 8 m/m. Hoffmann. A15. |
| 02.875 | 3/4 i.d. x 1 1/8 o.d. Hoffmann LS.8. |
| 02.876 | 7/8 i.d. x 1 1/8 o.d. x 3/8 wide Hoffmann. S9V2. |
| 02.877 | 1 in. i.d. x 2 in. o.d. x 3/8 wide Hoffmann. S10V2. |
| 02.878 | 50 m/m x 80 m/m x 16 m/m Hoffmann. |
| 02.879 | 2 in. i.d. x 3 5/16 o.d. Hoffmann. XLS.2. |

**Section 03
Bearings - Roller**

| Part Ref. | Description |
|-----------|---|
| 03.038 | 181/118/181190 XH Gamet. |
| 03.039 | 131095/131152 X Gamet. |
| 03.079 | HK1512 Ina Needle Roller. |
| 03.183 | 1 1/8 x 7/8 x 3/4 Ina SC1412 Needle Roller. |
| 03.184 | 1 in. x 3/4 x 1/2 Ina SC128 Needle Roller. |
| 03.187 | 1 1/2 x 1 1/4 x 1 Ina SC2016 Needle Roller. |
| 03.189 | 1 1/2 x 1 1/4 x 3/4 Ina SC2012 Needle Roller. |
| 03.191 | 1 1/8 x 1 1/8 x 3/4 Ina SC1812 Needle Roller. |
| 03.886 | 21 m/m x 15 m/m x 16 m/m HIHK.1516 Ina Needle. |
| 03.887 | 1 in. x 3/4 x 3/4 Ina SC1212 Needle Roller. |
| 03.888 | 7/8 x 1 1/16 x 3/4 Ina SC1112 Needle Roller. |
| 03.889 | 35 m/m x 28 m/m x 20 m/m HK.2820 Ina Needle. |
| 03.890 | 3/8 bore x 9/16 o.d. x 1/2 in. long Ina SC68 Needle Roller. |
| 03.891 | 9/16 bore x 3/4 o.d. x 1/2 in. long Ina SC98 Needle Roller. |

Section 03 continued

| Part Ref. | Description |
|-----------|--|
| 03.892 | 17 m/m x 40 m/m x 13 m/m KGS Taper roller KE30203 |
| 03.893 | 17 m/m bore Gamet taper roller 4 micron series plain. |
| 03.894 | 1 1/16 bore x 7/8 o.d. x 1/2 in. long Ina SC118 Needle Roller. |
| 03.895 | 20 m/m bore Gamet taper roller 4 micron series collar. |
| 03.896 | 25 m/m x 52 m/m x 16 m/m KGS taper roller KE30205 |
| 03.897 | 1 in. x 1/4 x 3/4 Ina SC1612 Needle Roller. |
| 03.898 | 1 1/8 x 1 1/8 x 1/2 Ina SC188 Needle Roller. |
| 03.899 | 50 m/m x 90 m/m x 29 m/m Gamet taper roller. |
| 03.900 | 2 3/8 bore x 4 o.d. x 1 in. long type 113060/113101 XH Gamet. |
| 03.901 | 140085/140140 H. Gamet. |
| 03.902 | 120063/1200110 H. Gamet. |
| 03.910 | 111,050/111,090 Gamet. |
| 03.911 | 131,095/131,152 X Gamet. |
| 03.912 | 111,050/111,090 C Gamet. |
| 03.913 | 112,045/112,085 C Gamet. |
| 03.914 | L181,118/181,190 XH Gamet. |
| 03.916 | SC1816 Ina Needle Roller. |

**Section 04
Bearings - Thrust**

| Part Ref. | Description |
|-----------|------------------------|
| 04.081 | A & K 1528 R & M. |
| 04.882 | WSP 5/16 in. Hoffmann. |
| 04.883 | HR 7/8 in. Hoffmann. |
| 04.884 | W 1 1/8 in. Hoffmann. |
| 04.885 | W 1 1/4 in. Hoffmann. |
| 04.886 | SCT 5/8 in. R & M. |
| 04.887 | SHT 7/8 in. |
| 04.888 | LT 1 1/4 in. R & M. |

**Section 05
Belts - Flat**

| Part Ref. | Description |
|-----------|--|
| 05.953 | 55 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.954 | 58 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.955 | 71 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.956 | 79 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.957 | 80 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.958 | 82 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.959 | 83 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.960 | 73 in. Lewis & Tyler. |
| 05.961 | 75 in. Lewis & Tyler. |
| 05.962 | 76 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.963 | 78 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |
| 05.964 | 80 in. Lewis & Tyler. |
| 05.965 | 81 in. Lewis & Tyler. |
| 05.966 | 81 in. x 1 1/2 x 3 m/m Thk. 271-21 FW. |

**Section 06
Belts - Timing**

| Part Ref. | Description |
|-----------|-----------------------------|
| 06.950 | 150L x 1/2 in. wide 40T. |
| 06.951 | 187L x 1/2 in. wide 50T. |
| 06.952 | 210L x 1/2 in. wide 56T. |
| 06.953 | 225L x 1/2 in. wide 60T. |
| 06.954 | 240L x 1/2 in. wide 64T. |
| 06.955 | 255L x 1/2 in. wide 68T. |
| 06.956 | 270L x 1/2 in. wide 72T. |
| 06.957 | 285L x 1/2 in. wide 76T. |
| 06.958 | 300L x 1/2 in. wide 80T. |
| 06.959 | 322L x 1/2 in. wide 86T. |
| 06.960 | 210L x 1 1/2 in. wide. |
| 06.961 | 345L x 1/2 in. wide 92T. |
| 06.962 | 360L x 1 1/2 in. wide. |
| 06.963 | 367L x 1/2 in. wide 98T. |
| 06.964 | 390L x 1/2 in. wide 104T. |
| 06.965 | 420L x 1/2 in. wide 112T. |
| 06.966 | 450L x 1/2 in. wide 120T. |
| 06.967 | 480L x 1/2 in. wide 128T. |
| 06.968 | 240H x 1 1/2 in. wide 48T. |
| 06.969 | 270H x 1 1/2 in. wide 54T. |
| 06.970 | 300H x 1 1/2 in. wide 60T. |
| 06.971 | 330H x 1 1/2 in. wide 66T. |
| 06.972 | 360H x 1 1/2 in. wide 72T. |
| 06.973 | 390H x 1 1/2 in. wide 78T. |
| 06.974 | 420H x 1 1/2 in. wide 84T. |
| 06.975 | 450H x 1 1/2 in. wide 90T. |
| 06.976 | 480H x 1 1/2 in. wide 96T. |
| 06.977 | 510H x 1 1/2 in. wide 102T. |
| 06.978 | 540H x 1 1/2 in. wide 108T. |

**Section 07
Belts - Vee**

| Part Ref. | Description |
|-----------|--------------------------------|
| 07.142 | A34 x 1/2 in. wide x 5/16 Thk. |
| 07.929 | A30 x 1/2 in. wide x 5/16 Thk. |
| 07.930 | A31 x 1/2 in. wide x 5/16 Thk. |
| 07.931 | A32 x 1/2 in. wide x 5/16 Thk. |
| 07.932 | A33 x 1/2 in. wide x 5/16 Thk. |
| 07.934 | A35 x 1/2 in. wide x 5/16 Thk. |
| 07.935 | A36 x 1/2 in. wide x 5/16 Thk. |
| 07.936 | A37 x 1/2 in. wide x 5/16 Thk. |
| 07.937 | A38 x 1/2 in. wide x 5/16 Thk. |
| 07.938 | A39 x 1/2 in. wide x 5/16 Thk. |
| 07.939 | A40 x 1/2 in. wide x 5/16 Thk. |
| 07.940 | A41 x 1/2 in. wide x 5/16 Thk. |
| 07.941 | A42 x 1/2 in. wide x 5/16 Thk. |
| 07.942 | A43 x 1/2 in. wide x 5/16 Thk. |
| 07.943 | A44 x 1/2 in. wide x 5/16 Thk. |
| 07.944 | A45 x 1/2 in. wide x 5/16 Thk. |
| 07.945 | A46 x 1/2 in. wide x 5/16 Thk. |
| 07.946 | A47 x 1/2 in. wide x 5/16 Thk. |
| 07.947 | A48 x 1/2 in. wide x 5/16 Thk. |
| 07.948 | A49 x 1/2 in. wide x 5/16 Thk. |
| 07.949 | A53 x 1/2 in. wide x 5/16 Thk. |
| 07.950 | A71 x 1/2 in. wide x 5/16 Thk. |
| 07.951 | A78 x 1/2 in. wide x 5/16 Thk. |
| 07.952 | A79 x 1/2 in. wide x 5/16 Thk. |
| 07.953 | A80 x 1/2 in. wide x 5/16 Thk. |
| 07.954 | A82 x 1/2 in. wide x 5/16 Thk. |
| 07.955 | A50 x 1/2 in. wide x 5/16 Thk. |
| 07.956 | A51 x 1/2 in. wide x 5/16 Thk. |
| 07.957 | A52 x 1/2 in. wide x 5/16 Thk. |
| 07.958 | A54 x 1/2 in. wide x 5/16 Thk. |
| 07.959 | A55 x 1/2 in. wide x 5/16 Thk. |
| 07.960 | A56 x 1/2 in. wide x 5/16 Thk. |
| 07.961 | A57 x 1/2 in. wide x 5/16 Thk. |
| 07.962 | A58 x 1/2 in. wide x 5/16 Thk. |
| 07.963 | A60 x 1/2 in. wide x 5/16 Thk. |
| 07.964 | A61 x 1/2 in. wide x 5/16 Thk. |
| 07.965 | A62 x 1/2 in. wide x 5/16 Thk. |
| 07.966 | A63 x 1/2 in. wide x 5/16 Thk. |
| 07.967 | A64 x 1/2 in. wide x 5/16 Thk. |
| 07.968 | A65 x 1/2 in. wide x 5/16 Thk. |

6521-3
6521-4

Section 07 continued

| Part Ref. | |
|-----------|--------------------------------|
| 07.969 | A66 x 1/2 in. wide x 5/16 Thk. |
| 07.970 | A68 x 1/2 in. wide x 5/16 Thk. |
| 07.971 | A70 x 1/2 in. wide x 5/16 Thk. |
| 07.972 | A72 x 1/2 in. wide x 5/16 Thk. |
| 07.973 | A74 x 1/2 in. wide x 5/16 Thk. |
| 07.974 | A75 x 1/2 in. wide x 5/16 Thk. |
| 07.975 | A76 x 1/2 in. wide x 5/16 Thk. |
| 07.976 | A81 x 1/2 in. wide x 5/16 Thk. |
| 07.977 | A84 x 1/2 in. wide x 5/16 Thk. |
| 07.978 | A85 x 1/2 in. wide x 5/16 Thk. |
| 07.979 | A87 x 1/2 in. wide x 5/16 Thk. |
| 07.980 | A90 x 1/2 in. wide x 5/16 Thk. |
| 07.981 | A92 x 1/2 in. wide x 5/16 Thk. |
| 07.982 | A93 x 1/2 in. wide x 5/16 Thk. |
| 07.983 | A94 x 1/2 in. wide x 5/16 Thk. |
| 07.984 | A96 x 1/2 in. wide x 5/16 Thk. |
| 07.985 | A97 x 1/2 in. wide x 5/16 Thk. |

Section 08
Bolts - Hex Head

| Part Ref. | |
|-----------|----------------------------------|
| 08.002 | 10 x 24 t.p.i. x 1/2 in. long. |
| 08.003 | 10 x 24 t.p.i. x 5/8 in. long. |
| 08.004 | 10 x 24 t.p.i. x 3/4 in. long. |
| 08.005 | 10 x 24 t.p.i. x 7/8 in. long. |
| 08.006 | 10 x 24 t.p.i. x 1 in. long. |
| 08.007 | 10 x 24 t.p.i. x 1 1/8 in. long. |
| 08.008 | 10 x 24 t.p.i. x 1 1/4 in. long. |
| 08.009 | 10 x 24 t.p.i. x 1 3/8 in. long. |
| 08.010 | 10 x 24 t.p.i. x 1 1/2 in. long. |
| 08.011 | 3/8 U.N.C. x 1 1/4 in. long. |
| 08.012 | 3/8 U.N.C. x 2 in. long. |
| 08.013 | 1/2 U.N.C. x 1 1/4 in. long. |
| 08.014 | 1/2 U.N.C. x 1 1/2 in. long. |
| 08.015 | 1/2 U.N.C. x 1 3/4 in. long. |
| 08.016 | 1/2 U.N.C. x 2 in. long. |
| 08.017 | 5/8 U.N.C. x 3 1/2 in. long. |
| 08.018 | 3/8 U.N.C. x 1 1/2 in. long. |
| 08.019 | 5/8 U.N.C. x 3 in. long. |
| 08.020 | 1/2 U.N.C. x 2 1/4 in. long. |
| 08.021 | 3/8 U.N.C. x 4 in. long. |
| 08.022 | 1/2 U.N.C. x 3 1/2 in. long. |
| 08.023 | 10 x 24 t.p.i. x 1 5/8 in. long. |
| 08.024 | 10 x 24 t.p.i. x 1 3/4 in. long. |
| 08.025 | 10 x 24 t.p.i. x 1 7/8 in. long. |
| 08.026 | 10 x 24 t.p.i. x 2 in. long. |
| 08.027 | 10 x 24 t.p.i. x 2 1/8 in. long. |
| 08.028 | 10 x 24 t.p.i. x 2 1/4 in. long. |
| 08.029 | 10 x 24 t.p.i. x 2 3/8 in. long. |
| 08.030 | 10 x 24 t.p.i. x 2 1/2 in. long. |
| 08.031 | 1/4 U.N.C. x 1/2 in. long. |
| 08.032 | 1/2 U.N.C. x 5/8 in. long. |
| 08.033 | 1/4 U.N.C. x 3/4 in. long. |
| 08.034 | 1/4 U.N.C. x 7/8 in. long. |
| 08.035 | 1/4 U.N.C. x 1 in. long. |
| 08.036 | 1/4 U.N.C. x 1 1/8 in. long. |
| 08.037 | 1/4 U.N.C. x 1 1/4 in. long. |
| 08.038 | 1/4 U.N.C. x 1 3/8 in. long. |
| 08.039 | 1/4 U.N.C. x 1 1/2 in. long. |
| 08.040 | 1/4 U.N.C. x 1 5/8 in. long. |
| 08.041 | 1/4 U.N.C. x 1 3/4 in. long. |
| 08.042 | 1/4 U.N.C. x 1 7/8 in. long. |
| 08.043 | 1/4 U.N.C. x 2 in. long. |
| 08.044 | 1/4 U.N.C. x 2 1/8 in. long. |
| 08.045 | 1/4 U.N.C. x 2 1/4 in. long. |
| 08.046 | 1/4 U.N.C. x 2 3/8 in. long. |
| 08.047 | 1/4 U.N.C. x 2 1/2 in. long. |
| 08.048 | 5/16 U.N.C. x 3/4 in. long. |
| 08.049 | 5/16 U.N.C. x 7/8 in. long. |
| 08.050 | 5/16 U.N.C. x 1 in. long. |
| 08.051 | 5/16 U.N.C. x 1 1/8 in. long. |
| 08.052 | 5/16 U.N.C. x 1 1/4 in. long. |
| 08.053 | 5/16 U.N.C. x 1 3/8 in. long. |
| 08.054 | 5/16 U.N.C. x 1 1/2 in. long. |
| 08.055 | 5/16 U.N.C. x 1 5/8 in. long. |

Section 08 continued

| Part Ref. | |
|-----------|-------------------------------|
| 08.056 | 5/16 U.N.C. x 1 1/4 in. long. |
| 08.057 | 5/16 U.N.C. x 1 1/8 in. long. |
| 08.058 | 5/16 U.N.C. x 2 in. long. |
| 08.059 | 5/16 U.N.C. x 2 1/8 in. long. |
| 08.060 | 5/16 U.N.C. x 2 1/4 in. long. |
| 08.061 | 5/16 U.N.C. x 2 3/8 in. long. |
| 08.062 | 5/16 U.N.C. x 2 1/2 in. long. |
| 08.063 | 5/16 U.N.C. x 2 5/8 in. long. |
| 08.064 | 5/16 U.N.C. x 2 3/4 in. long. |
| 08.065 | 5/16 U.N.C. x 2 7/8 in. long. |
| 08.066 | 5/16 U.N.C. x 3 in. long. |
| 08.067 | 3/8 U.N.C. x 3/4 in. long. |
| 08.068 | 3/8 U.N.C. x 7/8 in. long. |
| 08.069 | 3/8 U.N.C. x 1 in. long. |
| 08.070 | 3/8 U.N.C. x 1 1/8 in. long. |
| 08.071 | 3/8 U.N.C. x 1 1/4 in. long. |
| 08.072 | 3/8 U.N.C. x 1 1/2 in. long. |
| 08.073 | 3/8 U.N.C. x 1 3/4 in. long. |
| 08.074 | 3/8 U.N.C. x 1 7/8 in. long. |
| 08.075 | 3/8 U.N.C. x 2 in. long. |
| 08.076 | 3/8 U.N.C. x 2 1/8 in. long. |
| 08.077 | 3/8 U.N.C. x 2 1/4 in. long. |
| 08.078 | 3/8 U.N.C. x 2 3/8 in. long. |
| 08.079 | 3/8 U.N.C. x 2 1/2 in. long. |
| 08.080 | 3/8 U.N.C. x 2 5/8 in. long. |
| 08.081 | 3/8 U.N.C. x 2 3/4 in. long. |
| 08.082 | 3/8 U.N.C. x 3 in. long. |
| 08.083 | 3/8 U.N.C. x 3 1/4 in. long. |
| 08.084 | 3/8 U.N.C. x 3 1/2 in. long. |
| 08.085 | 3/8 U.N.C. x 3 3/4 in. long. |
| 08.086 | 1/2 U.N.C. x 3/4 in. long. |
| 08.087 | 1/2 U.N.C. x 7/8 in. long. |
| 08.088 | 1/2 U.N.C. x 1 in. long. |
| 08.089 | 1/2 U.N.C. x 1 1/8 in. long. |
| 08.090 | 1/2 U.N.C. x 1 1/4 in. long. |
| 08.091 | 1/2 U.N.C. x 1 1/2 in. long. |
| 08.092 | 1/2 U.N.C. x 1 3/4 in. long. |
| 08.093 | 1/2 U.N.C. x 2 in. long. |
| 08.094 | 1/2 U.N.C. x 2 1/8 in. long. |
| 08.095 | 1/2 U.N.C. x 2 1/4 in. long. |
| 08.096 | 1/2 U.N.C. x 2 3/8 in. long. |
| 08.097 | 1/2 U.N.C. x 2 1/2 in. long. |
| 08.098 | 1/2 U.N.C. x 2 5/8 in. long. |
| 08.099 | 1/2 U.N.C. x 3 in. long. |
| 08.100 | 1/2 U.N.C. x 3 1/4 in. long. |
| 08.101 | 1/2 U.N.C. x 3 1/2 in. long. |
| 08.102 | 1/2 U.N.C. x 4 in. long. |
| 08.103 | 1/2 U.N.C. x 4 1/4 in. long. |
| 08.104 | 1/2 U.N.C. x 4 1/2 in. long. |
| 08.105 | 1/2 U.N.C. x 4 3/4 in. long. |
| 08.106 | 1/2 U.N.C. x 5 in. long. |
| 08.107 | 1/2 U.N.C. x 5 1/4 in. long. |
| 08.108 | 1/2 U.N.C. x 5 1/2 in. long. |
| 08.109 | 1/2 U.N.C. x 5 3/4 in. long. |
| 08.110 | 1/2 U.N.C. x 6 in. long. |
| 08.111 | 5/8 U.N.C. x 1 in. long. |
| 08.112 | 5/8 U.N.C. x 1 1/4 in. long. |
| 08.113 | 5/8 U.N.C. x 1 1/2 in. long. |
| 08.114 | 5/8 U.N.C. x 1 3/4 in. long. |
| 08.115 | 5/8 U.N.C. x 2 in. long. |
| 08.116 | 5/8 U.N.C. x 2 1/4 in. long. |
| 08.117 | 5/8 U.N.C. x 2 1/2 in. long. |
| 08.118 | 5/8 U.N.C. x 2 3/4 in. long. |
| 08.119 | 5/8 U.N.C. x 3 in. long. |
| 08.120 | 5/8 U.N.C. x 3 1/4 in. long. |
| 08.121 | 5/8 U.N.C. x 4 in. long. |
| 08.122 | 5/8 U.N.C. x 4 1/4 in. long. |
| 08.123 | 5/8 U.N.C. x 4 1/2 in. long. |
| 08.124 | 5/8 U.N.C. x 4 3/4 in. long. |
| 08.125 | 5/8 U.N.C. x 5 in. long. |
| 08.126 | 5/8 U.N.C. x 5 1/4 in. long. |
| 08.127 | 5/8 U.N.C. x 5 1/2 in. long. |
| 08.128 | 5/8 U.N.C. x 5 3/4 in. long. |
| 08.129 | 5/8 U.N.C. x 6 in. long. |
| 08.130 | 3/4 U.N.C. x 1 in. long. |
| 08.131 | 3/4 U.N.C. x 1 1/4 in. long. |
| 08.132 | 3/4 U.N.C. x 1 1/2 in. long. |

Section 08 continued

| Part ref. | |
|-----------|------------------------------|
| 08.133 | 3/4 U.N.C. x 1 1/4 in. long. |
| 08.134 | 3/4 U.N.C. x 2 in. long. |
| 08.135 | 3/4 U.N.C. x 2 1/4 in. long. |
| 08.136 | 3/4 U.N.C. x 2 1/2 in. long. |
| 08.137 | 3/4 U.N.C. x 2 3/4 in. long. |
| 08.138 | 3/4 U.N.C. x 3 in. long. |
| 08.139 | 3/4 U.N.C. x 3 1/4 in. long. |
| 08.140 | 3/4 U.N.C. x 3 1/2 in. long. |
| 08.141 | 3/4 U.N.C. x 3 3/4 in. long. |
| 08.142 | 3/4 U.N.C. x 4 in. long. |
| 08.143 | 3/4 U.N.C. x 4 1/4 in. long. |
| 08.144 | 3/4 U.N.C. x 4 1/2 in. long. |
| 08.145 | 3/4 U.N.C. x 4 3/4 in. long. |
| 08.146 | 3/4 U.N.C. x 5 in. long. |
| 08.147 | 3/4 U.N.C. x 5 1/4 in. long. |
| 08.148 | 3/4 U.N.C. x 5 1/2 in. long. |
| 08.149 | 3/4 U.N.C. x 5 3/4 in. long. |
| 08.150 | 3/4 U.N.C. x 6 in. long. |
| 08.151 | 7/8 U.N.C. x 1 1/2 in. long. |
| 08.152 | 7/8 U.N.C. x 1 3/4 in. long. |
| 08.153 | 7/8 U.N.C. x 2 in. long. |
| 08.154 | 7/8 U.N.C. x 2 1/4 in. long. |
| 08.155 | 7/8 U.N.C. x 2 1/2 in. long. |
| 08.156 | 7/8 U.N.C. x 2 3/4 in. long. |
| 08.157 | 7/8 U.N.C. x 3 in. long. |
| 08.158 | 7/8 U.N.C. x 3 1/4 in. long. |
| 08.159 | 7/8 U.N.C. x 3 1/2 in. long. |
| 08.160 | 7/8 U.N.C. x 3 3/4 in. long. |
| 08.161 | 7/8 U.N.C. x 4 in. long. |
| 08.162 | 7/8 U.N.C. x 4 1/4 in. long. |
| 08.163 | 7/8 U.N.C. x 4 1/2 in. long. |
| 08.164 | 7/8 U.N.C. x 4 3/4 in. long. |
| 08.165 | 7/8 U.N.C. x 5 in. long. |
| 08.166 | 7/8 U.N.C. x 5 1/4 in. long. |
| 08.167 | 7/8 U.N.C. x 5 1/2 in. long. |
| 08.168 | 7/8 U.N.C. x 5 3/4 in. long. |
| 08.169 | 7/8 U.N.C. x 6 in. long. |

Section 09
Brake Shoes

| Part Ref. | |
|-----------|---------------------------------|
| 09.997 | 4 in. dia. for 6 in. lathe. |
| 09.998 | 5 in. dia. for 7 1/2 in. lathe. |
| 09.999 | 6 in. dia. for 8 1/2 in. lathe. |

Section 10
Bushes

| Part Ref. | |
|-----------|-------------------------|
| 10.035 | GH38 x 2 in. long. |
| 10.909 | FCT 211 x 5/8 in. long. |
| 10.910 | CT51 x 7/8 in. long. |
| 10.911 | CT10 x 3/4 in. long. |
| 10.912 | CT174 x 1/2 in. long. |
| 10.913 | CT174 x 5/8 in. long. |
| 10.914 | BS2 x 1 1/2 in. long. |
| 10.915 | CT174 x 3/4 in. long. |
| 10.916 | CT56 x 3/4 in. long. |
| 10.917 | CT174 x 1 in. long. |
| 10.918 | CT175 x 3/4 in. long. |
| 10.919 | CT175 x 1 1/4 in. long. |
| 10.920 | CT18 x 5/8 in. long. |
| 10.921 | CT15 x 5/8 in. long. |
| 10.922 | CT15 x 1 1/16 in. long. |
| 10.960 | CT18 x 3/4 in. long. |
| 10.924 | CT15 x 1 3/16 in. long. |
| 10.925 | CT15 x 1 5/16 in. long. |
| 10.926 | CT18 x 1 1/8 in. long. |
| 10.927 | CT15 x 1 1/4 in. long. |
| 10.928 | CT30 x 1 1/4 in. long. |
| 10.929 | BS15 x 1 in. long. |
| 10.930 | BS69 x 3/4 in. long. |
| 10.931 | BS69 x 1 5/16 in. long. |
| 10.932 | BS69 x 1 in. long. |

6521-3
6521-4

Section 10 continued

| Part Ref. | |
|-----------|-----------------------------------|
| 10.933 | BS69 x $1\frac{3}{16}$ in. long. |
| 10.934 | BS68 x $7\frac{1}{16}$ in. long. |
| 10.935 | BS69 x $9\frac{1}{16}$ in. long. |
| 10.936 | BS68 x $\frac{3}{4}$ in. long. |
| 10.937 | BS68 x $1\frac{1}{4}$ in. long. |
| 10.938 | BS69 x $\frac{7}{8}$ in. long. |
| 10.939 | BS68 x $1\frac{5}{8}$ in. long. |
| 10.940 | BS68 x $1\frac{3}{4}$ in. long. |
| 10.941 | BS2 x $\frac{5}{8}$ in. long. |
| 10.942 | FBS78 x $1\frac{5}{8}$ in. long. |
| 10.943 | BS2 x $1\frac{7}{16}$ in. long. |
| 10.944 | BS51 x 2 in. long. |
| 10.945 | BS2 x $\frac{7}{8}$ in. long. |
| 10.946 | GH6 x $\frac{7}{8}$ in. long. |
| 10.947 | BS68 x 2 in. long. |
| 10.948 | BS92 x $\frac{3}{4}$ in. long. |
| 10.949 | BS92 x 1 in. long. |
| 10.950 | BS92 x $1\frac{3}{16}$ in. long. |
| 10.951 | BS105 x $1\frac{9}{16}$ in. long. |
| 10.952 | CT15 x $\frac{3}{4}$ in. long. |
| 10.953 | CT15 x 1 in. long. |
| 10.954 | CT18 x 1 in. long. |
| 10.955 | CT18 x $1\frac{1}{4}$ in. long. |
| 10.956 | CT18 x $1\frac{3}{8}$ in. long. |
| 10.957 | CT40 x $\frac{7}{8}$ in. long. |
| 10.958 | CT40 x $1\frac{1}{4}$ in. long. |
| 10.959 | CT172 x $\frac{3}{8}$ in. long. |
| 10.923 | CT176 x $\frac{5}{8}$ in. long. |
| 10.961 | CT272 x $\frac{3}{4}$ in. long. |
| 10.962 | FBS233 x $\frac{5}{8}$ in. long. |
| 10.963 | FBS295 x $1\frac{1}{8}$ in. long. |
| 10.964 | FCT29 x $9\frac{1}{16}$ in. long. |
| 10.965 | FCT60 x $\frac{1}{2}$ in. long. |
| 10.966 | FCT73 x $\frac{7}{8}$ in. long. |
| 10.967 | FCT103 x $\frac{3}{4}$ in. long. |
| 10.968 | FCTSA x $\frac{5}{8}$ in. long. |
| 10.969 | FGH40A x $1\frac{3}{8}$ in. long. |
| 10.970 | FGH40A x $1\frac{3}{4}$ in. long. |
| 10.971 | GH6 x $1\frac{1}{8}$ in. long. |
| 10.973 | GH53 x $1\frac{1}{2}$ in. long. |
| 10.974 | FCT201 x $\frac{7}{8}$ in. long. |
| 10.975 | BS2 x $1\frac{9}{16}$ in. long. |

Section 11
Circlips - External

| Part ref. | |
|-----------|---|
| 11.172 | 72 m/m (2.834) Anderton type 1400. |
| 11.727 | $\frac{1}{8}$ dia. Anderton type 1400. |
| 11.728 | $\frac{3}{16}$ dia. Anderton type 1400. |
| 11.729 | $\frac{1}{4}$ dia. Anderton type 1400. |
| 11.730 | $\frac{5}{16}$ dia. Anderton type 1400. |
| 11.731 | $\frac{3}{8}$ dia. Anderton type 1500 E303. |
| 11.732 | $1\frac{1}{4}$ dia. Anderton type 1400. |
| 11.733 | $1\frac{5}{16}$ dia. Anderton type 1400. |
| 11.734 | $1\frac{7}{16}$ dia. Anderton type 1400. |
| 11.735 | $1\frac{9}{16}$ dia. Anderton type 1500. E 380. |
| 11.736 | $\frac{1}{2}$ dia. Anderton type 1400. |
| 11.737 | $\frac{1}{2}$ dia. Anderton type 1500. E396. |
| 11.738 | $\frac{3}{8}$ dia. Anderton type 1400. |
| 11.739 | $1\frac{3}{8}$ dia. Anderton type 1400. |
| 11.740 | $\frac{1}{2}$ dia. Seeger. |
| 11.741 | $9\frac{1}{16}$ dia. Anderton type 1400. |
| 11.742 | $1\frac{7}{16}$ dia. Anderton type 1400. |
| 11.743 | $\frac{5}{8}$ in. dia. Anderton type 1400. |
| 11.744 | $1\frac{1}{16}$ dia. Anderton type 1400. |
| 11.745 | $\frac{3}{4}$ dia. Anderton type 1400. |
| 11.746 | $1\frac{1}{2}$ dia. Anderton type 1400. |
| 11.747 | $\frac{3}{4}$ dia. Seeger. |
| 11.748 | $1\frac{3}{16}$ dia. Anderton type 1400. |

Section 11 continued

| Part ref. | |
|-----------|---|
| 11.749 | $\frac{7}{8}$ dia. Anderton type 1400. |
| 11.750 | $1\frac{1}{16}$ dia. Anderton type 1400. |
| 11.751 | $1\frac{5}{16}$ dia. Anderton type 1400. |
| 11.752 | $1\frac{3}{16}$ dia. Anderton type 1400. |
| 11.753 | 1 dia. Anderton type 1400. |
| 11.754 | $1\frac{1}{8}$ dia. Anderton type 1400. |
| 11.755 | $1\frac{1}{8}$ dia. Seeger. |
| 11.756 | $1\frac{1}{4}$ dia. Seeger. |
| 11.757 | 2 dia. Anderton type 1400. |
| 11.758 | 58 m/m (2.283) Anderton type 1400. |
| 11.759 | $1\frac{5}{8}$ dia. Anderton type 1400. |
| 11.760 | $1\frac{11}{32}$ dia. Anderton type 1400. |
| 11.761 | $2\frac{1}{16}$ dia. Anderton type 1400. |
| 11.762 | $2\frac{1}{8}$ dia. Anderton type 1400. |
| 11.763 | $2\frac{3}{16}$ dia. Anderton type 1400. |
| 11.764 | $2\frac{1}{4}$ dia. Anderton type 1400. |
| 11.765 | $2\frac{5}{16}$ dia. Anderton type 1400. |
| 11.766 | $2\frac{3}{8}$ dia. Anderton type 1400. |
| 11.767 | $2\frac{7}{16}$ dia. Anderton type 1400. |
| 11.768 | $2\frac{1}{2}$ dia. Anderton type 1400. |
| 11.769 | $2\frac{9}{16}$ dia. Anderton type 1400. |
| 11.770 | $2\frac{3}{8}$ dia. Anderton type 1400. |
| 11.771 | $2\frac{3}{4}$ dia. Anderton type 1400. |
| 11.772 | $2\frac{7}{8}$ dia. Anderton type 1400. |
| 11.773 | $2\frac{15}{16}$ dia. Anderton type 1400. |
| 11.774 | 3 dia. Anderton type 1400. |
| 11.775 | $1\frac{9}{16}$ dia. Anderton type 1400. |
| 11.776 | $\frac{5}{8}$ dia. Anderton type 1500. E485. |
| 11.777 | $\frac{3}{4}$ dia. Anderton type 1500. E580. |
| 11.778 | $\frac{5}{16}$ dia. Anderton type 1500. E250. |
| 11.779 | $1\frac{11}{16}$ dia. Anderton type 1400. |
| 11.780 | $1\frac{3}{4}$ dia. Anderton type 1400. |
| 11.781 | $1\frac{13}{16}$ dia. Anderton type 1400. |
| 11.782 | $\frac{1}{4}$ dia. Anderton type 1500. E210. |
| 11.783 | $1\frac{7}{8}$ dia. Anderton type 1400. |
| 11.784 | $3\frac{1}{16}$ dia. Anderton type 1400. |
| 11.785 | $3\frac{1}{2}$ dia. Anderton type 1400. |
| 11.786 | $2\frac{3}{16}$ Dia. Anderton type 1400. |
| 11.787 | $3\frac{1}{4}$ dia. Anderton type 1400. |
| 11.788 | $3\frac{3}{8}$ dia. Anderton type 1400. |
| 11.789 | $3\frac{7}{16}$ dia. Anderton type 1400. |
| 11.790 | $3\frac{1}{2}$ dia. Anderton type 1400. |
| 11.791 | $3\frac{9}{16}$ dia. Anderton type 1400. |
| 11.792 | $3\frac{5}{8}$ dia. Anderton type 1400. |
| 11.793 | $3\frac{3}{4}$ dia. Anderton type 1400. |
| 11.794 | $3\frac{13}{16}$ dia. Anderton type 1400. |
| 11.795 | $3\frac{7}{8}$ dia. Anderton type 1400. |
| 11.796 | $3\frac{15}{16}$ dia. Anderton type 1400. |
| 11.797 | 4 dia. Anderton type 1400. |
| 11.798 | $4\frac{1}{8}$ dia. Anderton type 1400. |
| 11.799 | $4\frac{1}{4}$ dia. Anderton type 1400. |
| 11.800 | $4\frac{3}{8}$ dia. Anderton type 1400. |
| 11.801 | $4\frac{1}{2}$ dia. Anderton type 1400. |
| 11.802 | $4\frac{5}{8}$ dia. Anderton type 1400. |
| 11.803 | $4\frac{3}{4}$ dia. Anderton type 1400. |
| 11.804 | $4\frac{7}{8}$ dia. Anderton type 1400. |
| 11.805 | 5 dia. Anderton type 1400. |
| 11.806 | $5\frac{1}{8}$ dia. Anderton type 1400. |
| 11.807 | $5\frac{1}{4}$ dia. Anderton type 1400. |

Section 11 continued

| Part ref. | |
|-----------|---|
| 11.808 | $5\frac{3}{8}$ dia. Anderton type 1400. |
| 11.809 | $5\frac{1}{2}$ dia. Anderton type 1400. |
| 11.810 | $5\frac{5}{8}$ dia. Anderton type 1400. |
| 11.811 | $5\frac{3}{4}$ dia. Anderton type 1400. |
| 11.812 | $5\frac{7}{8}$ dia. Anderton type 1400. |
| 11.813 | 6 dia. Anderton type 1400. |
| 11.814 | $6\frac{1}{8}$ dia. Anderton type 1400. |
| 11.815 | $6\frac{1}{4}$ dia. Anderton type 1400. |
| 11.816 | $6\frac{3}{8}$ dia. Anderton type 1400. |
| 11.817 | $6\frac{1}{2}$ dia. Anderton type 1400. |
| 11.818 | $6\frac{5}{8}$ dia. Anderton type 1400. |
| 11.819 | $6\frac{3}{4}$ dia. Anderton type 1400. |
| 11.820 | $6\frac{7}{8}$ dia. Anderton type 1400. |
| 11.821 | 7 dia. Anderton type 1400. |
| 11.822 | $7\frac{1}{8}$ dia. Anderton type 1400. |
| 11.823 | $7\frac{1}{4}$ dia. Anderton type 1400. |
| 11.824 | $7\frac{3}{16}$ dia. Anderton type 1400. |
| 11.825 | $7\frac{5}{8}$ dia. Anderton type 1400. |
| 11.826 | $7\frac{1}{2}$ dia. Anderton type 1400. |
| 11.827 | $7\frac{3}{4}$ dia. Anderton type 1400. |
| 11.828 | $7\frac{7}{8}$ dia. Anderton type 1400. |
| 11.829 | 8 dia. Anderton type 1400. |
| 11.830 | $1\frac{1}{16}$ dia. Anderton type 1500 E.52. |
| 11.831 | $\frac{3}{32}$ dia. Anderton type 1500 |
| 11.832 | $\frac{3}{32}$ dia. Anderton type 1500 E74A. |
| 11.833 | $\frac{7}{64}$ dia. Anderton type 1500 E79. |
| 11.834 | $\frac{7}{64}$ dia. Anderton type 1500 E79A. |
| 11.835 | $\frac{1}{8}$ dia. Anderton type 1500 E95. |
| 11.836 | $\frac{1}{8}$ dia. Anderton type 1500 E95A. |
| 11.837 | $\frac{9}{64}$ dia. Anderton type 1500 E102. |
| 11.838 | $\frac{9}{64}$ dia. Anderton type 1500 E102A. |
| 11.839 | $\frac{9}{64}$ dia. Anderton type 1500 E105. |
| 11.840 | $\frac{9}{64}$ dia. Anderton type 1500 E110. |
| 11.841 | $\frac{5}{32}$ dia. Anderton type 1500 E116. |
| 11.842 | $\frac{5}{32}$ dia. Anderton type 1500 E116A. |
| 11.843 | $1\frac{11}{64}$ dia. Anderton type 1500 E125. |
| 11.844 | $1\frac{11}{64}$ dia. Anderton type 1500 E125A. |
| 11.845 | $\frac{3}{16}$ dia. Anderton type 1500 E125X. |
| 11.846 | $\frac{3}{16}$ dia. Anderton type 1500 E125XA. |
| 11.847 | $\frac{3}{16}$ dia. Anderton type 1500 E125XB. |
| 11.848 | $\frac{3}{16}$ dia. Anderton type 1500 E147. |
| 11.849 | $\frac{3}{16}$ dia. Anderton type 1500 E147A. |
| 11.850 | $\frac{3}{16}$ dia. Anderton type 1500 E147B. |
| 11.851 | $\frac{7}{32}$ dia. Anderton type 1500 E188. |
| 11.852 | $\frac{1}{4}$ dia. Anderton type 1500 E120A. |
| 11.853 | $\frac{5}{16}$ dia. Anderton type 1500 E250A. |
| 11.854 | $2\frac{11}{64}$ dia. Anderton type 1500 E273. |
| 11.855 | $\frac{7}{16}$ dia. Anderton type 1500 E343. |
| 11.856 | 1 dia. Anderton type 1500 E743 |
| 11.858 | 15 m/m (0.590) Anderton type 1400. |

Section 12
Circlips - Internal

| Part Ref. | |
|-----------|------------------------------------|
| 12.170 | 72 m/m (2.834) Seeger. |
| 12.753 | 1/4 dia. Anderton type 1300. |
| 12.754 | 5/16 dia. Anderton type 1300. |
| 12.755 | 3/8 dia. Anderton type 1300. |
| 12.756 | 7/16 dia. Anderton type 1300. |
| 12.757 | 1/2 dia. Anderton type 1300. |
| 12.758 | 9/16 dia. Anderton type 1300. |
| 12.759 | 5/8 dia. Anderton type 1300. |
| 12.760 | 11/16 dia. Anderton type 1300. |
| 12.761 | 3/4 dia. Anderton type 1300. |
| 12.762 | 13/16 dia. Anderton type 1300. |
| 12.763 | 7/8 dia. Anderton type 1300. |
| 12.764 | 15/16 dia. Anderton type 1300. |
| 12.765 | 1 dia. Anderton type 1300. |
| 12.766 | 28 m/m (1.102) Anderton type 1300. |
| 12.767 | 40 m/m (1.574) Anderton type 1300. |
| 12.768 | 1 1/8 Dia. Anderton type 1300. |
| 12.769 | 52 m/m (2.047) Anderton type 1300. |
| 12.770 | 80 m/m (3.150) Anderton type 1300. |
| 12.771 | 83 m/m (3.267) Seeger. |
| 12.772 | 4 dia. Anderton type 1300. |
| 12.773 | 3.464 dia. Anderton type 1300. |
| 12.774 | 2 1/8 dia. Anderton type 1300. |
| 12.775 | 1 1/2 dia. Anderton type 1300. |
| 12.776 | 1 3/8 dia. Anderton type 1300. |
| 12.777 | 1 5/8 dia. Anderton type 1300. |
| 12.778 | 1 1/4 dia. Anderton type 1300. |
| 12.779 | 1 5/16 dia. Anderton type 1300. |
| 12.780 | 1 3/8 dia. Anderton type 1300. |
| 12.781 | 1 7/16 dia. Anderton type 1300. |
| 12.782 | 1 1/2 dia. Anderton type 1300. |
| 12.783 | 1 9/16 dia. Anderton type 1300. |
| 12.784 | 1 5/8 dia. Anderton type 1300. |
| 12.785 | 1 11/16 dia. Anderton type 1300. |
| 12.786 | 1 3/4 dia. Anderton type 1300. |
| 12.787 | 1 13/16 dia. Anderton type 1300. |
| 12.788 | 1 15/16 dia. Anderton type 1300. |
| 12.789 | 2 dia. Anderton type 1300. |
| 12.790 | 2 1/16 dia. Anderton type 1300. |
| 12.791 | 2 3/16 dia. Anderton type 1300. |
| 12.792 | 2 1/4 dia. Anderton type 1300. |
| 12.793 | 2 5/16 dia. Anderton type 1300. |
| 12.794 | 2 3/8 dia. Anderton type 1300. |
| 12.795 | 2 7/16 dia. Anderton type 1300. |
| 12.796 | 2 1/2 dia. Anderton type 1300. |
| 12.797 | 2 9/16 dia. Anderton type 1300. |
| 12.798 | 2 5/8 dia. Anderton type 1300. |
| 12.799 | 2 11/16 dia. Anderton type 1300. |
| 12.800 | 2 3/4 dia. Anderton type 1300. |
| 12.801 | 2 13/16 dia. Anderton type 1300. |
| 12.802 | 2 7/8 dia. Anderton type 1300. |
| 12.803 | 2 15/16 dia. Anderton type 1300. |
| 12.804 | 3 dia. Anderton type 1300. |

Section 12 continued

| Part Ref. | |
|-----------|----------------------------------|
| 12.805 | 3 1/16 dia. Anderton type 1300. |
| 12.806 | 3 3/8 dia. Anderton type 1300. |
| 12.807 | 3 5/16 dia. Anderton type 1300. |
| 12.808 | 3 1/4 dia. Anderton type 1300. |
| 12.809 | 3 3/8 dia. Anderton type 1300. |
| 12.810 | 3 7/16 dia. Anderton type 1300. |
| 12.811 | 3 1/2 dia. Anderton type 1300. |
| 12.812 | 3 9/16 dia. Anderton type 1300. |
| 12.813 | 3 5/8 dia. Anderton type 1300. |
| 12.814 | 3 3/4 dia. Anderton type 1300. |
| 12.815 | 3 13/16 dia. Anderton type 1300. |
| 12.816 | 3 7/8 dia. Anderton type 1300. |
| 12.817 | 3 15/16 dia. Anderton type 1300. |
| 12.818 | 4 1/8 dia. Anderton type 1300. |
| 12.819 | 4 1/4 dia. Anderton type 1300. |
| 12.820 | 4 3/8 dia. Anderton type 1300. |
| 12.821 | 4 1/2 dia. Anderton type 1300. |
| 12.822 | 4 5/8 dia. Anderton type 1300. |
| 12.823 | 4 3/4 dia. Anderton type 1300. |
| 12.824 | 4 7/8 dia. Anderton type 1300. |
| 12.825 | 5 dia. Anderton type 1300. |
| 12.826 | 5 1/8 dia. Anderton type 1300. |
| 12.827 | 5 1/4 dia. Anderton type 1300. |
| 12.828 | 5 3/8 dia. Anderton type 1300. |
| 12.829 | 5 1/2 dia. Anderton type 1300. |
| 12.830 | 5 5/8 dia. Anderton type 1300. |
| 12.831 | 5 3/4 dia. Anderton type 1300. |
| 12.832 | 5 7/8 dia. Anderton type 1300. |
| 12.833 | 6 dia. Anderton type 1300. |

Section 13
Circlips - Miscellaneous

| Part Ref. | |
|-----------|--|
| 13.190 | Anderton Ref. E389. |
| 13.732 | 3/8 dia. Anderton type 700/37A. Ext. |
| 13.733 | 3/8 dia. Anderton type 500/37. Ext. |
| 13.734 | Anderton Ref. E468. |
| 13.736 | RS62. (Spirolax). |
| 13.739 | Salter Bowed Ext. type 5101/60. |
| 13.742 | 9/16 dia. Salter Bowed Ext. type 5101/56. |
| 13.746 | Anderton type 1500/E520 Ext. |
| 13.779 | No. 62 Anderton type 10000 Ext. |
| 13.780 | 5/8 dia. Anderton type 700 62A Ext. |
| 13.781 | 5/8 dia. Salter Crescent 5103-62 Ext. |
| 13.783 | .437 dia. Anderton type 1400. |
| 13.784 | Anderton 1500 E 468 'E' type. |
| 13.785 | 2 1/16 dia. Salter Bevelled type 5002/206 Int. |
| 13.786 | Anderton type 1200 Size 8 Int. |
| 13.787 | Salter 15/16 Ext type 5100/93. |

Section 14
Spring Dowels

| Part Ref. | |
|-----------|----------------------------|
| 14.104 | 1/8 dia. x 3/4 in. long |
| 14.125 | 1/4 dia. x 1 1/2 in. long. |
| 14.131 | 1/4 dia. x 1 in. long. |
| 14.135 | 1/8 dia. x 1/2 in. long. |

Section 14 continued

| Part ref. | |
|-----------|------------------------------|
| 14.144 | 3/16 dia. x 1 1/4 in. long. |
| 14.599 | 5/16 dia. x 1 3/8 in. long. |
| 14.600 | 3/32 dia. x 5/16 in. long. |
| 14.601 | 3/32 dia. x 3/8 in. long. |
| 14.602 | 5/32 dia. x 3/8 in. long. |
| 14.603 | 5/32 dia. x 1/2 in. long. |
| 14.604 | 3/16 dia. x 1/2 in. long. |
| 14.605 | 3/16 dia. x 3/4 in. long. |
| 14.606 | 3/16 dia. x 7/8 in. long. |
| 14.607 | 3/16 dia. x 1 5/16 in. long. |
| 14.608 | 1/4 dia. x 2 5/8 in. long. |
| 14.609 | 1/4 dia. x 1 1/4 in. long. |
| 14.610 | 3/32 dia. x 1/4 in. long. |
| 14.611 | 3/32 dia. x 3/8 in. long. |
| 14.612 | 3/32 dia. x 7/16 in. long. |
| 14.613 | 3/32 dia. x 1/2 in. long. |
| 14.614 | 3/32 dia. x 9/16 in. long. |
| 14.615 | 3/32 dia. x 1 1/16 in. long. |
| 14.616 | 3/32 dia. x 3/4 in. long. |
| 14.617 | 3/32 dia. x 1 3/16 in. long. |
| 14.618 | 3/32 dia. x 7/8 in. long. |
| 14.619 | 3/32 dia. x 1 5/16 in. long. |
| 14.620 | 3/32 dia. x 1 in. long. |
| 14.621 | 3/8 dia. x 3/8 in. long. |
| 14.622 | 3/8 dia. x 7/16 in. long. |
| 14.624 | 3/8 dia. x 9/16 in. long. |
| 14.625 | 3/8 dia. x 5/8 in. long. |
| 14.626 | 3/8 dia. x 1 1/16 in. long. |
| 14.628 | 3/8 dia. x 1 3/16 in. long. |
| 14.629 | 3/8 dia. x 7/8 in. long. |
| 14.630 | 3/8 dia. x 1 5/16 in. long. |
| 14.631 | 3/8 dia. x 1 in. long. |
| 14.632 | 3/8 dia. x 1 1/8 in. long. |
| 14.633 | 3/8 dia. x 1 1/4 in. long. |
| 14.634 | 3/8 dia. x 1 3/8 in. long. |
| 14.635 | 3/8 dia. x 1 1/2 in. long. |
| 14.636 | 5/32 dia. x 9/16 in. long. |
| 14.637 | 5/32 dia. x 5/8 in. long. |
| 14.638 | 5/32 dia. x 1 1/16 in. long. |
| 14.639 | 5/32 dia. x 3/4 in. long. |
| 14.640 | 5/32 dia. x 1 3/16 in. long. |
| 14.641 | 5/32 dia. x 7/8 in. long. |
| 14.642 | 5/32 dia. x 1 5/16 in. long. |
| 14.643 | 5/32 dia. x 1 in. long. |
| 14.644 | 5/32 dia. x 1 1/8 in. long. |
| 14.645 | 5/32 dia. x 1 1/4 in. long. |
| 14.646 | 5/32 dia. x 1 3/8 in. long. |
| 14.647 | 5/32 dia. x 1 1/2 in. long. |
| 14.648 | 3/16 dia. x 9/16 in. long. |
| 14.649 | 3/16 dia. x 5/8 in. long. |
| 14.650 | 3/16 dia. x 1 1/16 in. long. |
| 14.651 | 3/16 dia. x 1 3/16 in. long. |
| 14.652 | 3/16 dia. x 1 in. long. |
| 14.653 | 3/16 dia. x 1 1/8 in. long. |
| 14.655 | 3/16 dia. x 1 3/8 in. long. |
| 14.656 | 3/16 dia. x 1 1/2 in. long. |
| 14.657 | 7/32 dia. x 3/4 in. long. |
| 14.658 | 7/32 dia. x 7/8 in. long. |
| 14.659 | 7/32 dia. x 1 in. long. |
| 14.660 | 7/32 dia. x 1 1/8 in. long. |
| 14.661 | 7/32 dia. x 1 1/4 in. long. |
| 14.662 | 7/32 dia. x 1 3/8 in. long. |
| 14.663 | 7/32 dia. x 1 1/2 in. long. |
| 14.664 | 1/4 dia. x 3/4 in. long. |
| 14.665 | 1/4 dia. x 7/8 in. long. |
| 14.667 | 1/4 dia. x 1 1/8 in. long. |
| 14.668 | 1/4 dia. x 1 1/4 in. long. |
| 14.669 | 1/4 dia. x 1 3/8 in. long. |
| 14.671 | 1/4 dia. x 1 5/8 in. long. |
| 14.672 | 1/4 dia. x 1 7/8 in. long. |
| 14.673 | 1/4 dia. x 2 in. long. |
| 14.674 | 1/4 dia. x 2 3/8 in. long. |
| 14.675 | 1/4 dia. x 2 1/4 in. long. |
| 14.676 | 1/4 dia. x 2 5/8 in. long. |
| 14.677 | 1/4 dia. x 2 1/2 in. long. |
| 14.678 | 1/4 dia. x 2 3/4 in. long. |
| 14.679 | 5/16 dia. x 3/4 in. long. |

6521 3
6521 4

Section 14 continued

| Part Ref. | |
|-----------|-----------------------------|
| 14.680 | 5/16 dia. x 7/8 in. long. |
| 14.681 | 5/16 dia. x 1 in. long. |
| 14.682 | 5/16 dia. x 1 1/8 in. long. |
| 14.683 | 5/16 dia. x 1 1/4 in. long. |
| 14.684 | 5/16 dia. x 1 1/2 in. long. |
| 14.685 | 5/16 dia. x 1 5/8 in. long. |
| 14.686 | 5/16 dia. x 1 3/4 in. long. |
| 14.687 | 5/16 dia. x 1 7/8 in. long. |
| 14.688 | 5/16 dia. x 2 in. long. |
| 14.689 | 5/16 dia. x 2 1/4 in. long. |
| 14.690 | 5/16 dia. x 2 1/2 in. long. |
| 14.691 | 3/8 dia. x 3/4 in. long. |
| 14.692 | 3/8 dia. x 7/8 in. long. |
| 14.693 | 3/8 dia. x 1 in. long. |
| 14.694 | 3/8 dia. x 1 1/8 in. long. |
| 14.695 | 3/8 dia. x 1 1/4 in. long. |
| 14.696 | 3/8 dia. x 1 1/2 in. long. |
| 14.697 | 3/8 dia. x 1 3/4 in. long. |
| 14.698 | 3/8 dia. x 1 5/8 in. long. |
| 14.699 | 3/8 dia. x 1 3/4 in. long. |
| 14.700 | 3/8 dia. x 1 7/8 in. long. |
| 14.701 | 3/8 dia. x 2 in. long. |
| 14.702 | 3/8 dia. x 2 1/4 in. long. |
| 14.703 | 3/8 dia. x 2 1/2 in. long. |

Section 15

Electrical - Miscellaneous

| Part Ref. | |
|-----------|---|
| 15.084 | 5 amp Slydlok fuse & holder. |
| 15.090 | 9v 1 1/2 amp screw type bulb. |
| 15.091 | 1-1 Bulgin. LES Mod. lamp-holder. |
| 15.101 | Low volt plug socket. |
| 15.149 | A.E.I. 'T' junction 3/4 in. conduit thrd. type. |

Section 16

Handles - Plastic

| Part Ref. | |
|-----------|----------------------------------|
| 16.841 | 3/8 bore x 2 1/2 in. long. |
| 16.842 | 3/8 bore x 3 in. long. cream. |
| 16.843 | 1 1/4 dia. x 1 11/16 cream. |
| 16.844 | 3/8 bore x 3 in. long black. |
| 16.845 | 1/2 bore x 1 3/4 in. long cream. |
| 16.846 | 1/2 bore x 1 3/4 in. long black. |
| 16.847 | 1 1/8 bore x 4 in. long. |
| 16.848 | 1 3/4 dia. x 4 in. long. |
| 16.849 | 1 1/4 dia. x 1 11/16 long black. |

Section 17

Keys

| Part Ref. | |
|-----------|-------------------------------------|
| 17.001 | No.3 Woodruff. |
| 17.002 | No.9 Woodruff. |
| 17.003 | No.15 Woodruff. |
| 17.004 | No.21 Woodruff. |
| 17.005 | Letter 'B' Woodruff. |
| 17.006 | 1/4 x 1/4 x 1 in. long Feather Key. |
| 17.007 | 1/4 sq. x 1 1/4 in. long sq. Key. |
| 17.008 | Letter 'D' Woodruff. |
| 17.009 | 1/4 x 1/4 x 1 1/4 in. long. |
| 17.010 | No.5 Woodruff. |
| 17.011 | No.7 Woodruff. |
| 17.012 | No.11 Woodruff. |
| 17.013 | No.18 Woodruff. |
| 17.014 | No.22 Woodruff. |
| 17.015 | No.24 Woodruff. |
| 17.016 | No.155 Woodruff. |
| 17.017 | Letter 'A' Woodruff. |
| 17.018 | Letter 'C' Woodruff. |
| 17.019 | Letter 'E' Woodruff. |
| 17.020 | Letter 'F' Woodruff. |
| 17.021 | Letter 'G' Woodruff. |

Section 17 continued

| Part Ref. | |
|-----------|--|
| 17.023 | 3/16 x 3/16 x 1 1/4 plain. |
| 17.024 | 1/4 x 1/4 x 2 1/2 plain. |
| 17.025 | 5/16 x 5/16 x 3 plain. |
| 17.026 | 5/16 x 3/8 x 3 1/4 in. plain |
| 17.027 | 3/8 x 1/4 x 3 1/4 plain. |
| 17.028 | 7/16 x 3/8 x 3 1/2 plain. |
| 17.029 | 3/16 x 7/16 x 3/4 round end. |
| 17.030 | 1/4 x 5/16 x 1 1/2 round end. |
| 17.031 | 3/4 x .283 x 1.885 Woodruff. |
| 17.032 | 3/16 x 1/2 Special. |
| 17.033 | 1 1/4 x 3/8 x 1 1/4 Special. |
| 17.059 | 3/16 x 3/16 x 1 1/4 in. long. Feather Key. |

Section 18

Knobs - Plastic

| Part Ref. | |
|-----------|--|
| 18.145 | 1/4 dia. x 3/8 U.N.C. Red. |
| 18.830 | 1 1/2 dia. x 7/16 U.N.C. Black. |
| 18.831 | 1 1/2 dia. x 7/16 U.N.C. Red. |
| 18.832 | 1 1/2 x dia. x 3/8 U.N.C. Red. |
| 18.833 | 1 1/2 dia. x 5/16 U.N.C. Red. |
| 18.834 | 1/4 dia. x 7/16 U.N.C. Red. |
| 18.835 | 1/4 dia. x 7/16 U.N.C. Black. |
| 18.836 | 1/4 dia. x 3/8 U.N.C. Black. |
| 18.837 | 1/4 dia. x 3/8 U.N.C. Cream. |
| 18.838 | 1 dia. x 3/8 U.N.C. Black. |
| 18.839 | 1 dia. x 3/8 U.N.C. Cream. |
| 18.840 | 3/4 dia. x 1/4 U.N.C. Black. |
| 18.841 | Reverse and two speed switch knob. |
| 18.843 | 1/4 dia. x 7/16 U.N.C. Transparent. |
| 18.844 | 1 1/2 dia. x 1/2 U.N.C. Trans- parent. |
| 18.845 | 1 1/4 dia. x 3/8 U.N.C. Red. |

Section 19

Motors

| Part Ref. | |
|-----------|---|
| 19.001 | A.E.I. 1hp 190/210/346/380/3/50. BK.2410c. Speed 1400-1730. |
| 19.003 | A.E.I. 1hp 220/240/380/440/3/50. BK.2410c. Speed 1400-1730. |
| 19.004 | A.E.I. 1hp 220/240/50 BC. 3014. Speed 1400-1730. |
| 19.005 | A.E.I. 1hp 290/320/500/550/3/50/60. BK.2410c. |
| 19.006 | A.E.I. 1hp 500/550/3/50/60. BK.3210c. Speed 1400-1730. |
| 19.007 | L.D.C. 1 1/2 hp 200/220/1/50. R3K4. Speed 1400. |
| 19.008 | L.D.C. 1 1/2 hp 230/250/1/50. R3K4. Speed 1420. |
| 19.009 | L.D.C. 2 hp 200/220/1/50. DP3R3K. Speed 1400. |
| 19.010 | L.D.C. 2 hp 230/250/1/50. DP3R3K. Speed 1400. |
| 19.011 | L.D.C. 2 hp 230/250/1/50 DP3R3J. Speed 1400-1730. |
| 19.012 | L.D.C. 3 hp 190/220/3/50/60. Frame AC184. |
| 19.013 | L.D.C. 3 hp 200/220/346/380/3/50. Frame A2W. Speed 1400. |
| 19.014 | L.D.C. 3 hp 208/220/3/60. Frame AC184. Speed 1730. |
| 19.015 | L.D.C. 3 hp 220/3/60 Frame AC184. NEMA. |
| 19.016 | L.D.C. 3 hp 220/346/380/3/60. Frame AC184. |

Section 19 continued

| Part Ref. | |
|-----------|---|
| 19.017 | Brook 3hp 220/440/3/60. Frame 225-4R. Speed 1800. |
| 19.018 | L.D.C. 3hp 230/250/400/440/3/50. Frame A2W. Speed 1400. |
| 19.019 | L.D.C. 3hp 230/250/400/400/3/50/60- Frame AC 184. |
| 19.020 | L.D.C. 3hp 260/280/3/50. Frame A2W. Speed 1400. |
| 19.021 | L.D.C. 3hp 400/3/60. Frame AC184. CSA. |
| 19.022 | L.D.C. 3hp 500/550/3/50. Frame A2W. |
| 19.023 | L.D.C. 3hp 550/3/50. Frame AC184. |
| 19.024 | L.D.C. 3hp 550/3/60. Frame AA215. Speed 1720. |
| 19.025 | L.D.C. 3hp 550/3/60. Frame AC184. CSA. |
| 19.026 | L.D.C. 3hp 550/3/60. Frame A3K. Speed 1720. |
| 19.027 | L.D.C. 5hp 200/220/346/380/3/50. Frame AC184. Speed 1400. |
| 19.028 | Brook 5hp 220/440/3/60. Frame 215-4R. Speed 1800. |
| 19.029 | L.D.C. 5hp 230/250/400/440/3/50. Frame AC184. Speed 1440. |
| 19.030 | L.D.C. 5hp 500/550/3/50. Frame AC184/5. Speed 1420. |
| 19.031 | L.D.C. 5hp 550/3/60. Frame HA215 Speed 1730 . |
| 19.032 | Brook 5hp Speed 950. |
| 19.033 | L.D.C. 7 1/2 hp 200/220/346/380/3/50. Frame HH215 Speed 1440. |
| 19.034 | Brook 7 1/2 hp 220/440/3/60. Frame 254U. Speed 1800. |
| 19.035 | L.D.C 7 1/2 hp 230/250/400/440/3/50. Frame AA215. Speed 1400. |
| 19.036 | L.D.C. 7 1/2 hp 500/550/3/50, Frame AA.215 |
| 19.037 | L.D.C. 7 1/2 hp 550/3/60. Frame EA8K. Speed 1720. |
| 19.038 | A.E.I. 2/1hp 200/220/50/60. KNX.C164. Speed 2880-1440. |
| 19.039 | A.E.I. 2/1hp 346/50/60. KNX.C164. Speed 2880-1440. |
| 19.040 | A.E.I. 2/1hp 380/420/3/50/60. KNX.C164. Speed 2880/1440. |
| 19.041 | A.E.I. 2/1hp 500/550/50/60. KNX.C164. Speed 2880/1440. |
| 19.042 | Brook 3/1 1/2 hp 190/220/3/50. Frame C184. Speed 3000-1500. |
| 19.043 | Brook 3/1 1/2 hp 190/220/3/60. Frame C213. Speed 1800-900. |
| 19.044 | Brook 3/1 1/2 hp 190/220/3/60. Frame C184. Speed 3600-1800. |
| 19.045 | Brook 3/1 1/2 hp 190/220/3/50. Frame C213. Speed 1800-900. |
| 19.046 | Brook 3/1 1/2 hp 220/50. Frame C213. Speed 1500-750. |

Section 19 continued

| Part Ref. | Description |
|-----------|---|
| 19.047 | Newman 3/1½ hp 220/3/60. Frame 215. |
| 19.048 | Brook 3/1½ hp 380/3/50. Frame C215. Speed 1500-750. |
| 19.049 | L.D.C. 3/1½ hp 380/3/50. Frame C184. Speed 3000-1500. |
| 19.050 | Brook 3/1½ hp 400/440/3/50. Frame C213. Speed 1500-750. |
| 19.051 | L.D.C. 3/1½ hp 400/440/3/50. Frame C184. Speed 3000-1500. |
| 19.052 | Brook 3/1½ hp 440/3/60. Frame C215. Speed 1800-900. |
| 19.053 | Brook 3/1½ hp 550/3/60. Frame C213. Speed 1800-900. |
| 19.054 | Brook 3/1½ hp 500/550/50. Frame C213. Speed 1500-750. |
| 19.055 | L.D.C. 3/1½ hp 500/550/3/50. Frame C184. Speed 3000-1500. |
| 19.056 | Brook 5/2½ hp 190/220/3/50. Frame C213. Speed 3000-1500. |
| 19.057 | Brook 5/2½ hp 190/220/3/50. Frame C215. Speed 1500-750. |
| 19.058 | L.D.C. 5/2½ hp 190/220/3/60. Frame C213. Speed 3600-1800. |
| 19.059 | Brook 5/2½ hp 190/220/3/60. Frame C215. Speed 1800-900. |
| 19.060 | Brook 5/2½ hp 220/50. Frame C215. Speed 1500-750. |
| 19.061 | L.D.C. 5/2½ hp 220/3/50. Frame C213. Speed 3000-1500. |
| 19.062 | Brook 5/2½ hp 220/3/60. Frame C254. Speed 1800-900. |
| 19.063 | Brook 5/2½ hp 380/3/50. Frame C215. Speed 1500-750. |
| 19.064 | L.D.C. 5/2½ hp 380/3/50. Frame C213. Speed 3000-1500. |
| 19.065 | L.D.C. 5/2½ hp 380/3/50. Frame C213. Speed 3000-1500. |
| 19.066 | L.D.C. 5/2½ hp 400/440/3/50. Frame C213. Speed 3000-1500. |
| 19.067 | Brook 5/2½ hp 400/440/3/50. Frame C215. Speed 1500-750. |
| 19.068 | Brook 5/2½ hp 440/3/60. Frame 254. Speed 1800-900. |
| 19.069 | Brook 5/2½ hp 500/550/50. Frame C215. Speed 1500-750. |
| 19.070 | Brook 5/2½ hp 500/550/3/50. Speed 3000-1500. |
| 19.071 | Brook 5/2½ hp 500/550/3/50. Frame C184. Speed 3000-1500. |
| 19.072 | Brook 5/2½ hp 550/3/60. Frame 254. Speed 1800-900. |

Section 19 continued

| Part Ref. | Description |
|-----------|---|
| 19.073 | L.D.C. 8/4 hp 190/220/3/50. Frame C254. Speed 1500-750. |
| 19.074 | Brook 8/4 hp 190/220/3/60. Frame C254. Speed 1800-900. |
| 19.075 | Brook 8/4 hp 220/50. Frame C254. Speed 1500-750. |
| 19.076 | Brook 8/4 hp 220/3/60. Frame 284. Speed 1800-900. |
| 19.077 | Brook 8/4 hp 380/50. Frame C254. Speed 1500-750. |
| 19.078 | Brook 8/4 hp 440/50. Frame. 254C. Speed 1500-750. |
| 19.079 | Brook 8/4 hp 440/3/60. Frame 284. Speed 1800-900. |
| 19.080 | Newman 8/4 hp 550/3/60. Frame 284. Speed 1800-900. |
| 19.081 | Brook 8/4 hp 500/550/3/50. Frame 254. Speed 1500-750. |
| 19.082 | A.E.I. 8/4 hp 220/440/1/60. BC.3014. |
| 19.165 | A.E.I. 1 hp 200/240/380/440. BK2410c. Speed 1400-1730. |
| 19.166 | A.E.I. 2/1 hp 380/420/3/50/60. Frame KNX.C164. |

Section 20 Nuts

| Part Ref. | Description |
|-----------|--------------------------|
| 20.609 | 10 x 24 T.P.I. Deep Nut. |
| 20.610 | ¼ U.N.C. Deep Nut. |
| 20.611 | ⅝ U.N.C. Deep Nut. |
| 20.612 | ¾ U.N.C. Deep Nut. |
| 20.613 | 7/16 U.N.C. Deep Nut. |
| 20.614 | ½ U.N.C. Deep Nut. |
| 20.615 | 9/16 U.N.C. Deep Nut. |
| 20.616 | 5/8 U.N.C. Deep Nut. |
| 20.617 | ¾ U.N.C. Deep Nut. |
| 20.618 | 10 x 32 T.P.I. Std.Nut. |
| 20.619 | ¼ U.N.F. Std.Nut. |
| 20.620 | ¼ U.N.C. Std.Nut. |
| 20.621 | 5/16 U.N.C. Std.Nut. |
| 20.622 | 3/8 U.N.C. Std.Nut. |
| 20.623 | 7/16 U.N.C. Std.Nut. |
| 20.624 | ½ U.N.C. Std.Nut. |
| 20.625 | 9/16 U.N.C. Std.Nut. |
| 20.626 | 5/8 U.N.C. Std.Nut. |
| 20.627 | ¾ U.N.C. Std.Nut. |
| 20.628 | 5/16 U.N.F. Std.Nut. |
| 20.629 | ½ U.N.F. Std.Nut. |
| 20.630 | 5/8 U.N.F. Std.Nut. |
| 20.631 | ¾ U.N.F. Std.Nut. |
| 20.632 | 10 x 24 T.P.I. Std.Nut. |
| 20.633 | 7/16 U.N.F. Std.Nut. |
| 20.634 | 9/16 U.N.F. Std.Nut. |
| 20.635 | ¼ U.N.C. Thin Nut. |
| 20.636 | 5/16 U.N.C. Thin Nut. |
| 20.637 | 3/8 U.N.C. Thin Nut. |
| 20.638 | 7/16 U.N.C. Thin Nut. |
| 20.639 | ½ U.N.C. Thin Nut. |
| 20.640 | 9/16 U.N.C. Thin Nut. |
| 20.641 | 5/8 U.N.C. Thin Nut. |
| 20.642 | ¾ U.N.C. Thin Nut. |
| 20.643 | ¾ U.N.F. Std.Nut. |
| 20.644 | ½ U.N.F. Thin Nut. |
| 20.645 | 10 x 24 T.P.I. Thin Nut. |

Section 20 continued

| Part Ref. | Description |
|-----------|--------------------------|
| 20.646 | 10 x 32 T.P.I. Thin Nut. |
| 20.647 | ¼ U.N.F. Thin Nut. |
| 20.648 | 5/16 U.N.C. Thin Nut. |
| 20.649 | ¾ U.N.F. Thin Nut. |
| 20.650 | 7/16 U.N.F. Thin Nut. |
| 20.651 | 9/16 U.N.F. Thin Nut. |
| 20.652 | 5/8 U.N.F. Thin Nut. |
| 20.653 | ¾ U.N.F. Thin Nut. |

Section 21 Lock Nuts

| Part Ref. | Description |
|-----------|---|
| 21.648 | ¼ U.N.F. Std. Lock Nut. |
| 21.649 | 5/16 U.N.F. Std. Lock Nut. |
| 21.650 | 3/8 U.N.F. Std. Lock Nut. |
| 21.651 | 7/16 U.N.F. Std. Lock Nut. |
| 21.652 | ½ U.N.F. Std. Lock Nut. |
| 21.653 | 9/16 U.N.F. Std. Lock Nut. |
| 21.654 | 5/8 U.N.F. Std. Lock Nut. (Nyloc). |
| 21.655 | ¾ U.N.F. Std. Lock Nut. (Nyloc). |
| 21.656 | 7/8 U.N.F. Std Lock Nut. (Simmonds Nyloc NP/D 286). |
| 21.657 | ¼ U.N.F. Thin Nut 'T'. |
| 21.658 | ¼ U.N.C. Std. Lock Nut. |
| 21.659 | 5/16 U.N.C. Std. Lock Nut. (Simmonds Aero). |
| 21.660 | 3/8 U.N.C. Std. Lock Nut. (Simmonds Aero). |
| 21.661 | 7/16 U.N.C. Std. Lock Nut. (Nyloc). |
| 21.662 | ½ U.N.C. Std. Lock Nut. (Nyloc NT/N1166). |
| 21.663 | 7/8 U.N.F. Thin Nut 'T'. |
| 21.664 | 9/16 U.N.C. Std. Lock Nut. |
| 21.665 | 5/8 U.N.C. Std. Lock Nut. |
| 21.666 | ¾ U.N.C. Std. Lock Nut. |
| 21.667 | 7/8 U.N.C. Std. Lock Nut. ('T' NT/N282). |
| 21.670 | 5/16 U.N.F. Thin Nut 'T'. |
| 21.671 | 3/8 U.N.F. Thin Nut 'T'. |
| 21.672 | 7/16 U.N.F. Thin Nut 'T' (Simmonds type NT/D 1146). |
| 21.673 | ½ U.N.F. Thin Nut 'T' (Simmonds type NT/D166). |
| 21.674 | 9/16 U.N.F. Thin Nut 'T'. |
| 21.675 | 5/8 U.N.F. Thin Nut 'T' (Simmonds type NT). |
| 21.676 | ¾ U.N.F. Thin Nut 'T'. |
| 21.677 | ¼ U.N.C. Thin Nut 'T'. |
| 21.678 | 5/16 U.N.C. Thin Nut 'T' (Simmonds type NT/N106). |
| 21.680 | 3/8 U.N.C. Thin Nut 'T'. (Philidas J.U.C.J). |
| 21.682 | 7/16 U.N.C. Thin Nut 'T'. (Simmonds NT/N126). |
| 21.683 | ½ U.N.C. Thin Nut 'T'. (Simmonds NT/N166). |
| 21.684 | 9/16 U.N.C. Thin Nut 'T'. (Simmonds NT/N166). |
| 21.685 | 5/8 U.N.C. Thin Nut 'T'. (Simmonds NT/N206). |
| 21.686 | ¾ U.N.C. Thin Nut 'T'. |
| 21.687 | ½ U.N.F. Lock Nut. (Philidas c/w cap). |

65213
65214

Section 22
Nuts Miscellaneous

| Part Ref. | Description |
|-----------|---|
| 22.146 | 1/4 B.S.F. Nyloc (Simmonds Type 'T'). |
| 22.634 | 3 B.A. Std. Nut. |
| 22.656 | 5/8 U.N.F. Philidas c/w plastic cap QUPP/1. |
| 22.663 | 1/2 U.N.C. Wedglok. |
| 22.668 | 3/8 U.N.C. Nyloc. |
| 22.681 | 5/16 U.N.C. Hex Slotted nut. |
| 22.687 | Spire Clip Nut. (Type SNU. 0530). |
| 22.688 | Vislok Nut. (Type Pat. 1319). |
| 22.689 | 1/4 B.S.W. Stiff Nut. |
| 22.690 | 2 B.A. Thin Nut. |
| 22.691 | 3/8 B.S.F. Nut (Thin). |

Section 23
Oilers

| Part Ref. | Description |
|-----------|-----------------------------------|
| 23.124 | 1/4 Dia. Springwell oil cup. |
| 23.826 | 1/4 B.S.F. Grease Nipple. |
| 23.827 | 1/4 Dia. Garland diaphragm oiler. |
| 23.828 | 5/16 Dia. Winkley oiler. |
| 23.830 | 3/8 Dia. Winkley oiler. |
| 23.831 | 1/4 Dia. Bennet oiler. |

Section 24
Mills Pins

| Part Ref. | Description |
|-----------|-----------------------------------|
| 24.491 | 1/16 Dia. x 3/16 in. long G.P.1. |
| 24.492 | 1/16 Dia. x 1/4 in. long G.P.1. |
| 24.493 | 1/16 Dia. x 5/16 in. long G.P.1. |
| 24.494 | 1/16 Dia. x 3/8 in. long G.P.1. |
| 24.495 | 1/16 Dia. x 7/16 in. long G.P.1. |
| 24.496 | 1/16 Dia. x 1/2 in. long G.P.1. |
| 24.497 | 1/16 Dia. x 9/16 in. long G.P.1. |
| 24.498 | 1/16 Dia. x 5/8 in. long G.P.1. |
| 24.499 | 1/16 Dia. x 11/16 in. long G.P.1. |
| 24.500 | 1/16 Dia. x 3/4 in. long G.P.1. |
| 24.501 | 1/16 Dia. x 13/16 in. long G.P.1. |
| 24.502 | 1/16 Dia. x 7/8 in. long G.P.1. |
| 24.503 | 1/16 Dia. x 15/16 in. long G.P.1. |
| 24.504 | 1/16 Dia. x 1 in. long G.P.1. |
| 24.505 | 3/32 Dia. x 5/16 in. long G.P.1. |
| 24.506 | 3/32 Dia. x 3/8 in. long G.P.1. |
| 24.507 | 3/32 Dia. x 7/16 in. long G.P.1. |
| 24.508 | 3/32 Dia. x 1/2 in. long G.P.1. |
| 24.509 | 3/32 Dia. x 9/16 in. long G.P.1. |
| 24.510 | 3/32 Dia. x 5/8 in. long G.P.1. |
| 24.511 | 3/32 Dia. x 11/16 in. long G.P.1. |
| 24.512 | 3/32 Dia. x 3/4 in. long G.P.1. |
| 24.513 | 3/32 Dia. x 13/16 in. long G.P.1. |
| 24.514 | 3/32 Dia. x 7/8 in. long G.P.1. |
| 24.515 | 3/32 Dia. x 15/16 in. long G.P.1. |
| 24.516 | 3/32 Dia. x 1 in. long G.P.1. |
| 24.517 | 3/32 Dia. x 1 1/8 in. long G.P.1. |
| 24.518 | 1/8 Dia. x 3/8 in. long G.P.1. |
| 24.519 | 1/8 Dia. x 7/16 in. long G.P.1. |
| 24.520 | 1/8 Dia. x 1/2 in. long G.P.1. |
| 24.521 | 1/8 Dia. x 3/4 in. long G.P.1. |
| 24.522 | 1/8 Dia. x 13/16 in. long G.P.1. |
| 24.523 | 1/8 Dia. x 1 in. long G.P.3. |
| 24.524 | 1/8 Dia. x 1 1/2 in. long G.P.2. |
| 24.525 | 1/8 Dia. x 9/16 in. long G.P.3. |
| 24.526 | 1/8 Dia. x 5/8 in. long G.P.3. |
| 24.527 | 1/8 Dia. x 3/4 in. long G.P.4. |
| 24.528 | 1/8 Dia. x 7/8 in. long G.P.4. |
| 24.529 | 1/8 Dia. x 1 1/2 in. long G.P.3. |
| 24.530 | 5/32 Dia. x 5/16 in. long G.P.3. |
| 24.531 | 5/32 Dia. x 3/8 in. long G.P.3. |
| 24.532 | 5/32 Dia. x 1/2 in. long G.P.3. |
| 24.533 | 5/32 Dia. x 3/4 in. long G.P.3. |
| 24.534 | 5/32 Dia. x 1 in. long G.P.3. |

Section 24 continued

| Part Ref. | Description |
|-----------|------------------------------------|
| 24.535 | 5/32 Dia. x 1 1/4 in. long G.P.3. |
| 24.536 | 3/16 Dia. x 1/2 in. long G.P.1. |
| 24.537 | 3/16 Dia. x 1 in. long G.P.1. |
| 24.538 | 3/16 Dia. x 1 1/8 in. long G.P.1. |
| 24.539 | 3/16 Dia. x 1/2 in. long G.P.3. |
| 24.540 | 3/16 Dia. x 9/16 in. long G.P.3. |
| 24.541 | 3/16 Dia. x 5/8 in. long G.P.3. |
| 24.542 | 3/16 Dia. x 3/4 in. long G.P.3. |
| 24.543 | 3/16 Dia. x 7/8 in. long G.P.3. |
| 24.544 | 3/16 Dia. x 1 in. long G.P.3. |
| 24.545 | 3/16 Dia. x 1 1/4 in. long G.P.3. |
| 24.546 | 3/16 Dia. x 1 1/2 in. long G.P.3. |
| 24.547 | 3/16 Dia. x 5/8 in. long G.P.4. |
| 24.548 | 3/16 Dia. x 1 1/16 in. long G.P.2. |
| 24.549 | 3/16 Dia. x 1 3/4 in. long G.P.3. |
| 24.550 | 3/16 Dia. x 3/8 in. long G.P.3. |
| 24.551 | 1/4 Dia. x 1/2 in. long G.P.2. |
| 24.552 | 1/4 Dia. x 5/8 in. long G.P.2. |
| 24.553 | 1/4 Dia. x 1 in. long G.P.2. |
| 24.554 | 1/4 Dia. x 1 1/8 in. long G.P.2. |
| 24.555 | 1/4 Dia. x 1 1/2 in. long G.P.2. |
| 24.556 | 1/4 Dia. x 1 3/4 in. long G.P.2. |
| 24.557 | 1/4 Dia. x 1/4 in. long G.P.3. |
| 24.558 | 1/4 Dia. x 3/8 in. long G.P.3. |
| 24.559 | 1/4 Dia. x 1 1/8 in. long G.P.3. |
| 24.560 | 1/4 Dia. x 3/4 in. long G.P.4. |
| 24.561 | 3/8 Dia. x 9/16 in. long G.P.1. |
| 24.562 | 3/8 Dia. x 5/8 in. long G.P.1. |
| 24.563 | 1/4 Dia. x 1 1/4 in. long G.P.3. |
| 24.564 | 1/8 Dia. x 1 1/16 in. long G.P.1. |
| 24.565 | 5/16 Dia. x 1 in. long G.P.2. |
| 24.566 | 3/8 Dia. x 7/8 in. long G.P.1. |
| 24.567 | 3/8 Dia. x 1 5/16 in. long G.P.1. |
| 24.568 | 3/8 Dia. x 1 in. long G.P.1. |
| 24.569 | 5/16 Dia. x 5/8 in. long G.P.3. |
| 24.570 | 5/16 Dia. x 3/4 in. long G.P.3. |
| 24.571 | 5/16 Dia. x 7/8 in. long G.P.3. |
| 24.572 | 5/16 Dia. x 1 in. long G.P.3. |
| 24.573 | 5/16 Dia. x 1 1/4 in. long G.P.3. |
| 24.574 | 5/16 Dia. x 1 1/2 in. long G.P.3. |
| 24.575 | 5/16 Dia. x 1 3/4 in. long G.P.3. |
| 24.576 | 5/16 Dia. x 2 1/2 in. long G.P.3. |
| 24.577 | 5/16 Dia. x 1 in. long G.P.4. |
| 24.578 | 5/16 Dia. x 1 1/4 in. long G.P.4. |
| 24.579 | 1/8 Dia. x 5/16 in. long G.P.3. |
| 24.580 | 3/8 Dia. x 3/4 in. long G.P.1. |
| 24.581 | 3/8 Dia. x 1 1/8 in. long G.P.1. |
| 24.582 | 3/8 Dia. x 1 1/4 in. long G.P.1. |
| 24.583 | 3/8 Dia. x 1 3/8 in. long G.P.1. |
| 24.584 | 3/8 Dia. x 5/8 in. long G.P.3. |
| 24.585 | 3/8 Dia. x 3/4 in. long G.P.3. |
| 24.586 | 3/8 Dia. x 7/8 in. long G.P.3. |
| 24.587 | 3/8 Dia. x 1 in. long G.P.3. |
| 24.588 | 3/8 Dia. x 1 1/4 in. long G.P.3. |
| 24.589 | 3/8 Dia. x 1 1/2 in. long G.P.3. |
| 24.590 | 3/8 Dia. x 1 3/4 in. long G.P.3. |
| 24.591 | 3/8 Dia. x 1 in. long G.P.4. |
| 24.592 | 3/8 Dia. x 1 1/2 in. long G.P.4. |
| 24.593 | 1/8 Dia. x 1 1/2 in. long G.P.1. |
| 24.594 | 5/32 Dia. x 7/16 in. long G.P.1. |
| 24.595 | 3/8 Dia. x 1 1/2 in. long G.P.2. |
| 24.596 | 5/32 Dia. x 1/2 in. long G.P.1. |
| 24.597 | 5/32 Dia. x 9/16 in. long G.P.1. |
| 24.598 | 5/32 Dia. x 5/8 in. long G.P.1. |
| 24.599 | 5/32 Dia. x 1 1/16 in. long G.P.1. |
| 24.600 | 5/32 Dia. x 3/4 in. long G.P.1. |
| 24.601 | 5/32 Dia. x 1 1/16 in. long G.P.1. |
| 24.602 | 5/32 Dia. x 7/8 in. long G.P.1. |
| 24.603 | 5/32 Dia. x 1 5/16 in. long G.P.1. |
| 24.604 | 5/32 Dia. x 1 in. long G.P.1. |
| 24.605 | 5/32 Dia. x 1 1/8 in. long G.P.1. |
| 24.606 | 5/32 Dia. x 1 1/4 in. long G.P.1. |
| 24.607 | 5/32 Dia. x 1 3/8 in. long G.P.1. |
| 24.608 | 5/32 Dia. x 1 1/2 in. long G.P.1. |
| 24.609 | 5/32 Dia. x 1 5/8 in. long G.P.1. |
| 24.610 | 5/32 Dia. x 1 3/4 in. long G.P.1. |
| 24.611 | 5/32 Dia. x 1 7/8 in. long G.P.1. |

Section 24 continued

| Part Ref. | Description |
|-----------|------------------------------------|
| 24.612 | 5/32 Dia. x 2 in. long G.P.1. |
| 24.613 | 3/16 Dia. x 7/16 in. long G.P.1. |
| 24.614 | 3/16 Dia. x 9/16 in. long G.P.1. |
| 24.615 | 3/16 Dia. x 5/8 in. long G.P.1. |
| 24.616 | 3/16 Dia. x 1 1/16 in. long G.P.1. |
| 24.617 | 3/16 Dia. x 3/4 in. long G.P.1. |
| 24.618 | 3/16 Dia. x 1 1/16 in. long G.P.1. |
| 24.619 | 3/16 Dia. x 7/8 in. long G.P.1. |
| 24.620 | 3/16 Dia. x 1 3/16 in. long G.P.1. |
| 24.621 | 3/16 Dia. x 1 1/4 in. long G.P.1. |
| 24.622 | 3/16 Dia. x 1 3/8 in. long G.P.1. |
| 24.623 | 3/16 Dia. x 1 1/2 in. long G.P.1. |
| 24.624 | 3/16 Dia. x 1 5/8 in. long G.P.1. |
| 24.625 | 3/16 Dia. x 1 3/4 in. long G.P.1. |
| 24.626 | 3/16 Dia. x 1 7/8 in. long G.P.1. |
| 24.627 | 3/16 Dia. x 2 in. long G.P.1. |
| 24.628 | 3/16 Dia. x 2 1/4 in. long G.P.1. |
| 24.629 | 3/16 Dia. x 2 1/2 in. long G.P.1. |
| 24.630 | 3/16 Dia. x 2 3/4 in. long G.P.1. |
| 24.631 | 3/16 Dia. x 3 in. long G.P.1. |
| 24.632 | 7/32 Dia. x 7/16 in. long G.P.1. |
| 24.633 | 7/32 Dia. x 1/2 in. long G.P.1. |
| 24.634 | 7/32 Dia. x 9/16 in. long G.P.1. |
| 24.635 | 7/32 Dia. x 5/8 in. long G.P.1. |
| 24.636 | 7/32 Dia. x 1 1/16 in. long G.P.1. |
| 24.637 | 7/32 Dia. x 3/4 in. long G.P.1. |
| 24.638 | 7/32 Dia. x 1 1/16 in. long G.P.1. |
| 24.639 | 7/32 Dia. x 7/8 in. long G.P.1. |
| 24.640 | 7/32 Dia. x 1 5/16 in. long G.P.1. |
| 24.641 | 7/32 Dia. x 1 in. long G.P.1. |
| 24.642 | 7/32 Dia. x 1 1/8 in. long G.P.1. |
| 24.643 | 7/32 Dia. x 1 1/4 in. long G.P.1. |
| 24.644 | 7/32 Dia. x 1 3/8 in. long G.P.1. |
| 24.645 | 7/32 Dia. x 1 1/2 in. long G.P.1. |
| 24.646 | 7/32 Dia. x 1 5/8 in. long G.P.1. |
| 24.647 | 7/32 Dia. x 1 3/4 in. long G.P.1. |
| 24.648 | 7/32 Dia. x 1 7/8 in. long G.P.1. |
| 24.649 | 7/32 Dia. x 2 in. long G.P.1. |
| 24.650 | 7/32 Dia. x 2 1/4 in. long G.P.1. |
| 24.651 | 7/32 Dia. x 2 1/2 in. long G.P.1. |
| 24.652 | 7/32 Dia. x 2 3/4 in. long G.P.1. |
| 24.653 | 7/32 Dia. x 3 in. long G.P.1. |
| 24.654 | 1/4 Dia. x 7/16 in. long G.P.1. |
| 24.655 | 1/4 Dia. x 1/2 in. long G.P.1. |
| 24.656 | 1/4 Dia. x 9/16 in. long G.P.1. |
| 24.657 | 1/4 Dia. x 5/8 in. long G.P.1. |
| 24.658 | 1/4 Dia. x 1 1/16 in. long G.P.1. |
| 24.659 | 1/4 Dia. x 3/4 in. long G.P.1. |
| 24.660 | 1/4 Dia. x 1 1/16 in. long G.P.1. |
| 24.661 | 1/4 Dia. x 7/8 in. long G.P.1. |
| 24.662 | 1/4 Dia. x 1 5/16 in. long G.P.1. |
| 24.663 | 1/4 Dia. x 1 in. long G.P.1. |
| 24.664 | 1/4 Dia. x 1 1/8 in. long G.P.1. |
| 24.665 | 1/4 Dia. x 1 1/4 in. long G.P.1. |
| 24.666 | 1/4 Dia. x 1 3/8 in. long G.P.1. |
| 24.667 | 1/4 Dia. x 1 1/2 in. long G.P.1. |
| 24.668 | 1/4 Dia. x 1 5/8 in. long G.P.1. |
| 24.669 | 1/4 Dia. x 1 3/4 in. long G.P.1. |
| 24.670 | 1/4 Dia. x 1 7/8 in. long G.P.1. |
| 24.671 | 1/4 Dia. x 2 in. long G.P.1. |
| 24.672 | 1/4 Dia. x 2 1/4 in. long G.P.1. |
| 24.673 | 1/4 Dia. x 2 1/2 in. long G.P.1. |
| 24.674 | 1/4 Dia. x 2 3/4 in. long G.P.1. |
| 24.675 | 1/4 Dia. x 3 in. long G.P.1. |
| 24.676 | 1/4 Dia. x 3 1/4 in. long G.P.1. |
| 24.677 | 1/4 Dia. x 3 1/2 in. long G.P.1. |
| 24.678 | 1/4 Dia. x 3 3/4 in. long G.P.1. |
| 24.679 | 1/4 Dia. x 4 in. long G.P.1. |
| 24.680 | 9/32 Dia. x 1/2 in. long G.P.1. |
| 24.681 | 9/32 Dia. x 9/16 in. long G.P.1. |
| 24.682 | 9/32 Dia. x 5/8 in. long G.P.1. |
| 24.683 | 9/32 Dia. x 1 1/16 in. long G.P.1. |
| 24.684 | 9/32 Dia. x 3/4 in. long G.P.1. |
| 24.685 | 9/32 Dia. x 1 1/16 in. long G.P.1. |
| 24.686 | 9/32 Dia. x 7/8 in. long G.P.1. |
| 24.687 | 9/32 Dia. x 1 5/16 in. long G.P.1. |
| 24.688 | 9/32 Dia. x 1 in. long G.P.1. |

Section 24 continued

| Part Ref. | Description |
|-----------|--|
| 24.371 | $\frac{9}{32}$ Dia. x $3\frac{1}{2}$ in. long G.P.4. |
| 24.372 | $\frac{9}{32}$ Dia. x $3\frac{3}{4}$ in. long G.P.4. |
| 24.373 | $\frac{9}{32}$ Dia. x 4 in. long G.P.4. |
| 24.374 | $\frac{9}{32}$ Dia. x $4\frac{1}{4}$ in. long G.P.4. |
| 24.375 | $\frac{9}{32}$ Dia. x $4\frac{1}{2}$ in. long G.P.4. |
| 24.376 | $\frac{9}{32}$ Dia. x $4\frac{3}{4}$ in. long G.P.4. |
| 24.377 | $\frac{9}{32}$ Dia. x 5 in. long G.P.4. |
| 24.378 | $\frac{5}{16}$ Dia. x $1\frac{1}{16}$ in. long G.P.4. |
| 24.379 | $\frac{5}{16}$ Dia. x $\frac{3}{4}$ in. long G.P.4. |
| 24.380 | $\frac{5}{16}$ Dia. x $1\frac{3}{16}$ in. long G.P.4. |
| 24.381 | $\frac{5}{16}$ Dia. x $\frac{7}{8}$ in. long G.P.4. |
| 24.382 | $\frac{5}{16}$ Dia. x $1\frac{5}{16}$ in. long G.P.4. |
| 24.383 | $\frac{5}{16}$ Dia. x $1\frac{7}{8}$ in. long G.P.4. |
| 24.384 | $\frac{5}{16}$ Dia. x $1\frac{9}{8}$ in. long G.P.4. |
| 24.385 | $\frac{5}{16}$ Dia. x $1\frac{1}{2}$ in. long G.P.4. |
| 24.386 | $\frac{5}{16}$ Dia. x $1\frac{5}{8}$ in. long G.P.4. |
| 24.387 | $\frac{5}{16}$ Dia. x $1\frac{3}{4}$ in. long G.P.4. |
| 24.388 | $\frac{5}{16}$ Dia. x $1\frac{7}{8}$ in. long G.P.4. |
| 24.389 | $\frac{5}{16}$ Dia. x 2 in. long G.P.4. |
| 24.390 | $\frac{5}{16}$ Dia. x $2\frac{1}{4}$ in. long G.P.4. |
| 24.391 | $\frac{5}{16}$ Dia. x $2\frac{1}{2}$ in. long G.P.4. |
| 24.392 | $\frac{5}{16}$ Dia. x $2\frac{3}{4}$ in. long G.P.4. |
| 24.393 | $\frac{5}{16}$ Dia. x 3 in. long G.P.4. |
| 24.394 | $\frac{5}{16}$ Dia. x $3\frac{1}{4}$ in. long G.P.4. |
| 24.395 | $\frac{5}{16}$ Dia. x $3\frac{1}{2}$ in. long G.P.4. |
| 24.396 | $\frac{5}{16}$ Dia. x $3\frac{3}{4}$ in. long G.P.4. |
| 24.397 | $\frac{5}{16}$ Dia. x 4 in. long G.P.4. |
| 24.398 | $\frac{5}{16}$ Dia. x $4\frac{1}{4}$ in. long G.P.4. |
| 24.399 | $\frac{5}{16}$ Dia. x $4\frac{1}{2}$ in. long G.P.4. |
| 24.400 | $\frac{5}{16}$ Dia. x $4\frac{3}{4}$ in. long G.P.4. |
| 24.401 | $\frac{5}{16}$ Dia. x 5 in. long G.P.4. |
| 24.402 | $\frac{5}{16}$ Dia. x $5\frac{1}{2}$ in. long G.P.4. |
| 24.403 | $\frac{5}{16}$ Dia. x 6 in. long G.P.4. |
| 24.404 | $\frac{5}{16}$ Dia. x $6\frac{1}{2}$ in. long G.P.4. |
| 24.405 | $\frac{5}{16}$ Dia. x 7 in. long G.P.4. |
| 24.406 | $\frac{11}{32}$ Dia. x $1\frac{1}{16}$ in. long G.P.4. |
| 24.407 | $\frac{11}{32}$ Dia. x $\frac{3}{4}$ in. long G.P.4. |
| 24.408 | $\frac{11}{32}$ Dia. x $1\frac{3}{16}$ in. long G.P.4. |
| 24.409 | $\frac{11}{32}$ Dia. x $\frac{7}{8}$ in. long G.P.4. |
| 24.410 | $\frac{11}{32}$ Dia. x $1\frac{5}{16}$ in. long G.P.4. |
| 24.411 | $\frac{11}{32}$ Dia. x 1 in. long G.P.4. |
| 24.412 | $\frac{11}{32}$ Dia. x $1\frac{1}{8}$ in. long G.P.4. |
| 24.413 | $\frac{11}{32}$ Dia. x $1\frac{1}{4}$ in. long G.P.4. |
| 24.414 | $\frac{11}{32}$ Dia. x $1\frac{3}{8}$ in. long G.P.4. |
| 24.415 | $\frac{11}{32}$ Dia. x $1\frac{1}{2}$ in. long G.P.4. |
| 24.416 | $\frac{11}{32}$ Dia. x $1\frac{5}{8}$ in. long G.P.4. |
| 24.417 | $\frac{11}{32}$ Dia. x $1\frac{3}{4}$ in. long G.P.4. |
| 24.418 | $\frac{11}{32}$ Dia. x $1\frac{7}{8}$ in. long G.P.4. |
| 24.419 | $\frac{11}{32}$ Dia. x 2 in. long G.P.4. |
| 24.420 | $\frac{11}{32}$ Dia. x $2\frac{1}{4}$ in. long G.P.4. |
| 24.421 | $\frac{11}{32}$ Dia. x $2\frac{1}{2}$ in. long G.P.4. |
| 24.422 | $\frac{11}{32}$ Dia. x $2\frac{3}{4}$ in. long G.P.4. |
| 24.423 | $\frac{11}{32}$ Dia. x 3 in. long G.P.4. |
| 24.424 | $\frac{11}{32}$ Dia. x $3\frac{1}{4}$ in. long G.P.4. |
| 24.425 | $\frac{11}{32}$ Dia. x $3\frac{1}{2}$ in. long G.P.4. |
| 24.426 | $\frac{11}{32}$ Dia. x $3\frac{3}{4}$ in. long G.P.4. |
| 24.427 | $\frac{11}{32}$ Dia. x 4 in. long G.P.4. |
| 24.428 | $\frac{11}{32}$ Dia. x $4\frac{1}{4}$ in. long G.P.4. |
| 24.429 | $\frac{11}{32}$ Dia. x $4\frac{1}{2}$ in. long G.P.4. |
| 24.430 | $\frac{11}{32}$ Dia. x $4\frac{3}{4}$ in. long G.P.4. |
| 24.431 | $\frac{11}{32}$ Dia. x 5 in. long G.P.4. |
| 24.432 | $\frac{11}{32}$ Dia. x $5\frac{1}{2}$ in. long G.P.4. |
| 24.433 | $\frac{11}{32}$ Dia. x 6 in. long G.P.4. |
| 24.434 | $\frac{11}{32}$ Dia. x $6\frac{1}{2}$ in. long G.P.4. |
| 24.435 | $\frac{11}{32}$ Dia. x 7 in. long G.P.4. |
| 24.436 | $\frac{3}{8}$ Dia. x $1\frac{3}{16}$ in. long G.P.4. |
| 24.437 | $\frac{3}{8}$ Dia. x $\frac{7}{8}$ in. long G.P.4. |
| 24.438 | $\frac{3}{8}$ Dia. x $1\frac{5}{16}$ in. long G.P.4. |
| 24.439 | $\frac{3}{8}$ Dia. x $1\frac{1}{8}$ in. long G.P.4. |
| 24.440 | $\frac{3}{8}$ Dia. x $1\frac{1}{4}$ in. long G.P.4. |
| 24.441 | $\frac{3}{8}$ Dia. x $1\frac{3}{8}$ in. long G.P.4. |
| 24.442 | $\frac{3}{8}$ Dia. x $1\frac{5}{8}$ in. long G.P.4. |
| 24.443 | $\frac{3}{8}$ Dia. x $1\frac{3}{4}$ in. long G.P.4. |
| 24.444 | $\frac{3}{8}$ Dia. x $1\frac{7}{8}$ in. long G.P.4. |

Section 24 continued

| Part Ref. | Description |
|-----------|---|
| 24.445 | $\frac{3}{8}$ Dia. x 2 in. long G.P.4. |
| 24.446 | $\frac{3}{8}$ Dia. x $2\frac{1}{4}$ in. long G.P.4. |
| 24.447 | $\frac{3}{8}$ Dia. x $2\frac{1}{2}$ in. long G.P.4. |
| 24.448 | $\frac{3}{8}$ Dia. x $2\frac{3}{4}$ in. long G.P.4. |
| 24.449 | $\frac{3}{8}$ Dia. x 3 in. long G.P.4. |
| 24.450 | $\frac{3}{8}$ Dia. x $3\frac{1}{4}$ in. long G.P.4. |
| 24.451 | $\frac{3}{8}$ Dia. x $3\frac{1}{2}$ in. long G.P.4. |
| 24.452 | $\frac{3}{8}$ Dia. x $3\frac{3}{4}$ in. long G.P.4. |
| 24.453 | $\frac{3}{8}$ Dia. x 4 in. long G.P.4. |
| 24.454 | $\frac{3}{8}$ Dia. x $4\frac{1}{4}$ in. long G.P.4. |
| 24.455 | $\frac{3}{8}$ Dia. x $4\frac{1}{2}$ in. long G.P.4. |
| 24.456 | $\frac{3}{8}$ Dia. x $4\frac{3}{4}$ in. long G.P.4. |
| 24.457 | $\frac{3}{8}$ Dia. x 5 in. long G.P.4. |
| 24.458 | $\frac{3}{8}$ Dia. x $5\frac{1}{2}$ in. long G.P.4. |
| 24.459 | $\frac{3}{8}$ Dia. x 6 in. long G.P.4. |
| 24.460 | $\frac{3}{8}$ Dia. x $6\frac{1}{2}$ in. long G.P.4. |
| 24.461 | $\frac{3}{8}$ Dia. x 7 in. long G.P.4. |

Section 25

Pins Miscellaneous

| Part Ref. | Description |
|-----------|--|
| 25.042 | $\frac{3}{32}$ Dia. x $\frac{3}{4}$ in. long Split Pin. |
| 25.561 | $\frac{1}{4}$ Dia. x $\frac{3}{4}$ in. long G.P.5. |
| 25.562 | $\frac{1}{4}$ Dia. x $1\frac{5}{8}$ in. long G.P.5. |
| 25.566 | $\frac{5}{16}$ Dia. x $\frac{1}{4}$ in. long G.P.3. |
| 25.567 | $\frac{5}{16}$ Dia. x $\frac{3}{8}$ in. long G.P.3. |
| 25.568 | $\frac{5}{16}$ Dia. x $\frac{1}{2}$ in. long G.P.3. |
| 25.581 | $\frac{3}{8}$ Dia. x $\frac{1}{4}$ in. long G.P.3. |
| 25.582 | $\frac{3}{8}$ Dia. x $\frac{3}{8}$ in. long G.P.3. |
| 25.583 | $\frac{3}{8}$ Dia. x $\frac{1}{2}$ in. long G.P.3. |
| 25.584 | $\frac{3}{8}$ Dia. x $\frac{1}{4}$ in. long G.P.3. |
| 25.585 | $\frac{3}{32}$ Dia. x 2 in. long Split Pin. |
| 25.586 | $\frac{3}{32}$ Dia. x $2\frac{1}{4}$ in. long Split Pin. |

Section 26

Oil Rings

| Part Ref. | Description |
|-----------|---|
| 26.034 | 3 in. Dia. x .210 Thk. Pioneer. PO/33730021. |
| 26.841 | $\frac{1}{8}$ Dia. x 0.70 Thk. Pioneer. PO/02501207. |
| 26.842 | $\frac{3}{16}$ Dia. x .070 Thk. Pioneer. PO/03101807. |
| 26.843 | $\frac{1}{4}$ Dia. x .070 Thk. Pioneer. PO/03702507. |
| 26.844 | $\frac{5}{16}$ Dia. x .070 Thk. Pioneer. PO/04303107. |
| 26.845 | $\frac{3}{8}$ Dia. x .070 Thk. Pioneer. PO/05003707. |
| 26.846 | $\frac{7}{16}$ Dia. x .070 Thk. Pioneer. PO/05604307. |
| 26.847 | $\frac{9}{16}$ Dia. x .103 Thk. Pioneer. PO/07505610. |
| 26.848 | $\frac{11}{16}$ Dia. x .103 Thk. Pioneer. PO/08706810. |
| 26.849 | $\frac{13}{16}$ Dia. x .103 Thk. Pioneer. PO/10008110. |
| 26.850 | $\frac{1}{2}$ Dia. x .103 Thk. Pioneer. PO/06805010. |
| 26.851 | 1 Dia. x .139 Thk. Pioneer. PO/12510013. |
| 26.852 | $1\frac{1}{2}$ Dia. x .139 Thk. Pioneer. PO/17515013. |
| 26.853 | $1\frac{3}{8}$ Dia. x .139 Thk. Pioneer. PO/18716213. |
| 26.854 | $1\frac{13}{16}$ Dia. x .139 Thk. Pioneer. PO/20618113. |
| 26.855 | $\frac{3}{8}$ Dia. x .103 Thk. Pioneer. PO/08106210. |
| 26.856 | 2 Dia. x .139 Thk. Pioneer. PO/22520013. |
| 26.857 | $\frac{3}{4}$ Dia. x .103 Thk. Pioneer. PO/09307510. |

Section 26 continued

| Part Ref. | Description |
|-----------|---|
| 26.858 | $\frac{7}{8}$ Dia. x .103 Thk. Pioneer. PO/10608710. |
| 26.859 | $\frac{1}{2}$ i.d. x $\frac{5}{8}$ o/d Dowty No.2. |
| 26.860 | $\frac{15}{16}$ Dia. x .103 Thk. Pioneer. PO/11209310. |
| 26.861 | $1\frac{1}{16}$ Dia. x .139 Thk. Pioneer. PO/13110613. |
| 26.862 | $1\frac{1}{8}$ Dia. x .139 Thk. Pioneer. PO/13711213. |
| 26.863 | $1\frac{5}{16}$ Dia. x .139 Thk. Pioneer. PO/14311813. |
| 26.864 | $1\frac{1}{4}$ Dia. x .139 Thk. Pioneer. PO/15012513. |
| 26.865 | $1\frac{5}{16}$ Dia. x .139 Thk. Pioneer. PO/15613113. |
| 26.866 | $1\frac{3}{8}$ Dia. x .139 Thk. Pioneer. PO/16213713. |
| 26.867 | $1\frac{7}{16}$ Dia. x .139 Thk. Pioneer. PO/16814313. |
| 26.868 | $1\frac{9}{16}$ Dia. x .139 Thk. Pioneer. PO/18115613. |
| 26.869 | $1\frac{11}{16}$ Dia. x .139 Thk. Pioneer. PO/19316813. |
| 26.870 | $1\frac{3}{4}$ Dia. x .139 Thk. Pioneer. PO/20017513. |
| 26.871 | $1\frac{7}{8}$ Dia. x .139 Thk. Pioneer. PO/21218713. |
| 26.872 | $1\frac{15}{16}$ Dia. x .139 Thk. Pioneer. PO/21819313. |
| 26.873 | $2\frac{1}{16}$ Dia. x .139 Thk. Pioneer. PO/23120613. |
| 26.874 | $2\frac{1}{8}$ Dia. x .139 Thk. Pioneer. PO/23721213. |
| 26.875 | $2\frac{3}{16}$ Dia. x .139 Thk. Pioneer. PO/24321813. |
| 26.876 | $2\frac{1}{4}$ Dia. x .139 Thk. Pioneer. PO/25022513. |
| 26.877 | $2\frac{5}{16}$ Dia. x .139 Thk. Pioneer. PO/25623113. |
| 26.878 | $2\frac{3}{8}$ Dia. x .139 Thk. Pioneer. PO/26223713. |
| 26.879 | $2\frac{7}{16}$ Dia. x .139 Thk. Pioneer. PO/26824313. |
| 26.880 | $2\frac{1}{2}$ Dia. x .139 Thk. Pioneer. PO/27525013. |
| 26.881 | $2\frac{9}{16}$ Dia. x .139 Thk. Pioneer. PO/28125613. |
| 26.882 | $2\frac{5}{8}$ Dia. x .139 Thk. Pioneer. PO/28726213. |
| 26.883 | $2\frac{11}{16}$ Dia. x .139 Thk. Pioneer. PO/29326813. |
| 26.884 | $2\frac{3}{4}$ Dia. x .139 Thk. Pioneer. PO/30027513. |
| 26.885 | $2\frac{13}{16}$ Dia. x .139 Thk. Pioneer. PO/30628113. |
| 26.886 | $2\frac{7}{8}$ Dia. x .139 Thk. Pioneer. PO/31228713. |
| 26.887 | $2\frac{15}{16}$ Dia. x .139 Thk. Pioneer. PO/31829313. |
| 26.889 | $3\frac{3}{8}$ Dia. x .210 Thk. Pioneer. PO/35031221. |
| 26.890 | $3\frac{1}{4}$ Dia. x .210 Thk. Pioneer. PO/36232521. |
| 26.891 | $3\frac{5}{8}$ Dia. x .210 Thk. Pioneer. PO/37533721. |
| 26.892 | $3\frac{1}{2}$ Dia. x .210 Thk. Pioneer. PO/38735021. |
| 26.893 | $3\frac{3}{4}$ Dia. x .210 Thk. Pioneer. PO/40036221. |
| 26.894 | $3\frac{7}{8}$ Dia. x .210 Thk. Pioneer. PO/41237521. |
| 26.895 | $3\frac{15}{8}$ Dia. x .210 Thk. Pioneer. PO/42538721. |
| 26.896 | 4 in. Dia. x .210 Thk. Pioneer. PO/43740021. |
| 26.897 | $4\frac{1}{8}$ Dia. x .210 Thk. Pioneer. PO/45041221. |

Section 26 continued

| Part Ref. | | |
|-----------|---|-----------------------|
| 26.898 | 4 1/4 Dia. x .210 Thk. | Pioneer. PO/46242521. |
| 26.899 | 4 3/8 Dia. x .210 Thk. | Pioneer. PO/47543721. |
| 26.900 | 4 1/2 Dia. x .210 Thk. | Pioneer. PO/48745021. |
| 26.901 | 4 5/8 Dia. x .210 Thk. | Pioneer. PO/50046221. |
| 26.902 | 4 3/4 Dia. x .210 Thk. | Pioneer. PO/51247521. |
| 26.903 | 4 7/8 Dia. x .210 Thk. | Pioneer. PO/52548721. |
| 26.904 | 5 in. Dia. x .210 Thk. | Pioneer. PO/53750021. |
| 26.905 | 5 1/8 Dia. x .210 Thk. | Pioneer. PO/55051221. |
| 26.906 | 5 1/4 Dia. x .210 Thk. | Pioneer. PO/56252521. |
| 26.907 | 5 3/8 Dia. x .210 Thk. | Pioneer. PO/57553721. |
| 26.908 | 5 1/2 Dia. x .210 Thk. | Pioneer. PO/58755021. |
| 26.909 | 5 5/8 Dia. x .210 Thk. | Pioneer. PO/60056221. |
| 26.910 | 5 3/4 Dia. x .210 Thk. | Pioneer. PO/61257521. |
| 26.911 | 5 7/8 Dia. x .210 Thk. | Pioneer. PO/62558721. |
| 26.912 | 6 in. Dia. x .275 Thk. | Pioneer. PO/65060027. |
| 26.913 | 6 1/8 Dia. x .275 Thk. | Pioneer. PO/66261227. |
| 26.914 | 6 1/4 Dia. x .275 Thk. | Pioneer. PO/67562527. |
| 26.915 | 6 3/8 Dia. x .275 Thk. | Pioneer. PO/68763727. |
| 26.916 | 6 1/2 Dia. x .275 Thk. | Pioneer. PO/70065027. |
| 26.917 | 6 5/8 Dia. x .275 Thk. | Pioneer. PO/71266227. |
| 26.918 | 6 3/4 Dia. x .275 Thk. | Pioneer. PO/72567527. |
| 26.919 | 6 7/8 Dia. x .275 Thk. | Pioneer. PO/73768727. |
| 26.920 | 7 in. Dia. x .275 Thk. | Pioneer. PO/75070027. |
| 26.921 | 7 1/8 Dia. x .275 Thk. | Pioneer. PO/76271227. |
| 26.922 | 7 1/4 Dia. x .275 Thk. | Pioneer. PO/77572527. |
| 26.923 | 7 3/8 Dia. x .275 Thk. | Pioneer. PO/78773727. |
| 26.924 | 7 1/2 Dia. x .275 Thk. | Pioneer. PO/80075027. |
| 26.925 | 7 5/8 Dia. x .275 Thk. | Pioneer. PO/81276227. |
| 26.926 | 7 3/4 Dia. x .275 Thk. | Pioneer. PO/82577527. |
| 26.927 | 7 7/8 Dia. x .275 Thk. | Pioneer. PO/83778727. |
| 26.928 | 8 in. Dia. x .275 Thk. | Pioneer. PO/85080027. |
| 26.929 | 7 1/16 i.d. x 9 1/16 o.d. Dowty No.1. | |
| 26.930 | 9 1/16 i.d. x 11 1/16 o.d. Dowty No.3. | |
| 26.931 | 5/8 i.d. x 3/4 o.d. Dowty No.4. | |
| 26.932 | 11 1/16 i.d. x 13 1/16 o.d. Dowty No.5. | |
| 26.933 | 3/4 i.d. x 7/8 o.d. Dowty No.6. | |
| 26.934 | 13 1/16 i.d. x 15 1/16 o.d. Dowty No.7. | |
| 26.935 | 7/8 i.d. x 1 o.d. Dowty No.8. | |

6521-3
6521-4

Section 26 continued

| Part Ref. | | |
|-----------|---|--|
| 26.936 | 15 1/16 i.d. x 1 1/16 o.d. Dowty No.9. | |
| 26.937 | 1 in. i.d. x 1 1/8 o.d. Dowty No.10. | |
| 26.938 | 1 1/16 i.d. x 1 3/16 o.d. Dowty No.11. | |
| 26.939 | 1 1/8 i.d. x 1 1/4 o.d. Dowty No.12. | |
| 26.940 | 1 3/16 i.d. x 1 5/16 o.d. Dowty No.13. | |
| 26.941 | 1 1/4 i.d. x 1 3/8 o.d. Dowty No.14. | |
| 26.942 | 1 5/16 i.d. x 1 7/16 o.d. Dowty No.15. | |
| 26.943 | 1 3/8 i.d. x 1 1/2 o.d. Dowty No.16. | |
| 26.944 | 1 7/16 i.d. x 1 9/16 o.d. Dowty No.17. | |
| 26.945 | 1 1/2 i.d. x 1 5/8 o.d. Dowty No.18. | |
| 26.946 | 1 9/16 i.d. x 1 11/16 o.d. Dowty No.19. | |
| 26.947 | 1 5/8 i.d. x 1 3/4 o.d. Dowty No.20. | |
| 26.948 | 1 3/4 i.d. x 1 7/8 o.d. Dowty No.21. | |
| 26.949 | 1 7/8 i.d. x 2 in. o.d. Dowty No.22. | |
| 26.950 | 2 in. i.d. x 2 1/8 o.d. Dowty No.23. | |
| 26.951 | 2 1/8 i.d. x 2 1/4 o.d. Dowty No.24. | |
| 26.952 | 2 1/4 i.d. x 2 3/8 o.d. Dowty No.25. | |
| 26.953 | 2 3/8 i.d. x 2 1/2 o.d. Dowty No.26. | |
| 26.954 | 2 1/2 i.d. x 2 5/8 o.d. Dowty No.27. | |
| 26.955 | 2 5/8 i.d. x 2 3/4 o.d. Dowty No.28. | |
| 26.956 | 2 3/4 i.d. x 2 7/8 o.d. Dowty No.29. | |
| 26.957 | 2 7/8 i.d. x 3 in. o.d. Dowty No.30. | |

Section 27

Oil Rings Miscellaneous

| Part Ref. | | |
|-----------|--|--|
| 27.026 | Pioneer POS/2504/MP/658 | |
| 27.027 | Pioneer SH/96/332. 1 1/8 i.d. | |
| 27.028 | 1.734 i.d. x .139 Thk. Pioneer. PO/20017513. | |
| 27.040 | Pioneer POS/2508/MP/658 | |
| 27.047 | Superfect SH/96/45 | |
| 27.048 | Superfect SH/96/34 | |
| 27.060 | 1/2 i.d. B4/1115. | |
| 27.137 | Dowty Mk7 list 4 pp 73c. | |
| 27.138 | Dowty Mk24 list 5 pp 49c. | |
| 27.141 | Superfect SH/96/16. | |
| 27.192 | Dowty Mk.7 list 1 pp 49c. | |
| 27.846 | .424 i.d. x .070 Thk. Pioneer. PO/06204310. | |
| 27.850 | .859 i.d. x .139 Thk. Pioneer. PO/11208713. | |
| 27.855 | Pioneer PO/23720021. | |
| 27.856 | POS/2507/MP/658. | |
| 27.857 | 2.100 i.d. x .070 Thk. Pioneer. PO/25021221. | |
| 27.858 | POS/2506/MP/658. | |
| 27.859 | SH/96/44 Superfect. | |
| 27.860 | PP73C Dowty. | |
| 27.861 | 5-004/MP/701. | |
| 27.862 | SH/96/11 Superfect. | |
| 27.025 | Pioneer POS/505/MH/658 | |
| 27.148 | Dowty list 5 Mk 26 pp 49c. | |
| 27.182 | Dowty 5 Mk 10 pp 49c. | |
| 27.193 | Dowty pp 49c/18 list 5. | |

Section 28
Rivets

| Part Ref. | | |
|-----------|--|--|
| 28.902 | 3/32 Dia. x 1/2 in. long R.H. Steel. | |
| 28.903 | 1/8 Dia. x 1/4 in. long Copper Round Head. | |
| 28.904 | 3/8 Dia. x 3/4 in. long Copper Hollow. | |
| 28.905 | 1/8 Dia. x 7/16 in. long Copper c/sunk Head. | |
| 28.906 | 5/32 Dia. Copper, c/sunk-Head. | |
| 28.907 | 1/4 Dia. x 7/16 in. long Copper c/sunk Head. | |
| 28.908 | 1/2 Dia. x 1/2 in. long x 3/16 Dia. Hd. Hollow Copper. | |
| 28.909 | 3/8 Dia. x 3/8 in. long c/sunk Steel. | |
| 28.910 | 3/16 Dia. x 3/8 in. long R.H. Steel. | |
| 28.911 | No.4 x 3/16 Pan Head. | |
| 28.912 | No.4 x 1/2 Pan Head. | |
| 28.913 | 3/32 Dia. x 5/8 in. long R.H. Steel. | |

Section 45
Cap Screws – Hex Socket Head
10 x 24 t.p.i.

| Part Ref. | |
|-----------|-------------------------------|
| 45.200 | 10 x 24 t.p.i. x ¼ in. long. |
| 45.201 | 10 x 24 t.p.i. x ⅜ in. long. |
| 45.202 | 10 x 24 t.p.i. x ½ in. long. |
| 45.203 | 10 x 24 t.p.i. x ⅝ in. long. |
| 45.204 | 10 x 24 t.p.i. x ¾ in. long. |
| 45.205 | 10 x 24 t.p.i. x ⅞ in. long. |
| 45.206 | 10 x 24 t.p.i. x 1 in. long. |
| 45.207 | 10 x 24 t.p.i. x 1¼ in. long. |
| 45.208 | 10 x 24 t.p.i. x 1½ in. long. |
| 45.209 | 10 x 24 t.p.i. x 1¾ in. long. |
| 45.210 | 10 x 24 t.p.i. x 2 in. long. |

Section 46
Cap Screws – Hex Socket Head
¼ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 46.211 | ¼ U.N.C. x ⅜ in. long. |
| 46.212 | ¼ U.N.C. x ½ in. long. |
| 46.213 | ¼ U.N.C. x ⅝ in. long. |
| 46.214 | ¼ U.N.C. x ¾ in. long. |
| 46.215 | ¼ U.N.C. x ⅞ in. long. |
| 46.216 | ¼ U.N.C. x 1 in. long. |
| 46.217 | ¼ U.N.C. x 1¼ in. long. |
| 46.218 | ¼ U.N.C. x 1½ in. long. |
| 46.219 | ¼ U.N.C. x 1¾ in. long. |
| 46.220 | ¼ U.N.C. x 2 in. long. |
| 46.221 | ¼ U.N.C. x 2¼ in. long. |
| 46.222 | ¼ U.N.C. x 2½ in. long. |

Section 47
Cap Screws – Hex Socket Head
⅝ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 47.223 | ⅝ U.N.C. x ½ in. long. |
| 47.224 | ⅝ U.N.C. x ⅝ in. long. |
| 47.225 | ⅝ U.N.C. x ¾ in. long. |
| 47.226 | ⅝ U.N.C. x ⅞ in. long. |
| 47.227 | ⅝ U.N.C. x 1 in. long. |
| 47.228 | ⅝ U.N.C. x 1¼ in. long. |
| 47.229 | ⅝ U.N.C. x 1½ in. long. |
| 47.230 | ⅝ U.N.C. x 1¾ in. long. |
| 47.231 | ⅝ U.N.C. x 2 in. long. |
| 47.232 | ⅝ U.N.C. x 2¼ in. long. |
| 47.233 | ⅝ U.N.C. x 2½ in. long. |
| 47.234 | ⅝ U.N.C. x 3 in. long. |

Section 48
Cap Screws – Hex Socket Head
⅜ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 48.236 | ⅜ U.N.C. x ½ in. long. |
| 48.237 | ⅜ U.N.C. x ⅝ in. long. |
| 48.238 | ⅜ U.N.C. x ¾ in. long. |
| 48.239 | ⅜ U.N.C. x ⅞ in. long. |
| 48.240 | ⅜ U.N.C. x 1 in. long. |
| 48.241 | ⅜ U.N.C. x 1¼ in. long. |
| 48.242 | ⅜ U.N.C. x 1½ in. long. |
| 48.243 | ⅜ U.N.C. x 1¾ in. long. |
| 48.244 | ⅜ U.N.C. x 2 in. long. |
| 48.245 | ⅜ U.N.C. x 2¼ in. long. |
| 48.246 | ⅜ U.N.C. x 2½ in. long. |
| 48.247 | ⅜ U.N.C. x 3 in. long. |
| 48.248 | ⅜ U.N.C. x 3½ in. long. |
| 48.249 | ⅜ U.N.C. x 4 in. long. |

Section 49
Cap Screws – Hex Socket Head
⅞ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 49.250 | ⅞ U.N.C. x 1 in. long. |
| 49.251 | ⅞ U.N.C. x 1¼ in. long. |
| 49.252 | ⅞ U.N.C. x 1½ in. long. |
| 49.253 | ⅞ U.N.C. x 2 in. long. |
| 49.254 | ⅞ U.N.C. x 2¼ in. long. |
| 49.255 | ⅞ U.N.C. x 2½ in. long. |
| 49.256 | ⅞ U.N.C. x 3 in. long. |

Section 50
Cap Screws – Hex Socket Head
½ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 50.257 | ½ U.N.C. x ¾ in. long. |
| 50.258 | ½ U.N.C. x 1 in. long. |
| 50.259 | ½ U.N.C. x 1¼ in. long. |
| 50.260 | ½ U.N.C. x 1½ in. long. |
| 50.261 | ½ U.N.C. x 2 in. long. |
| 50.262 | ½ U.N.C. x 2½ in. long. |
| 50.263 | ½ U.N.C. x 3 in. long. |
| 50.264 | ½ U.N.C. x 3½ in. long. |
| 50.265 | ½ U.N.C. x 4 in. long. |
| 50.266 | ½ U.N.C. x 4½ in. long. |
| 50.267 | ½ U.N.C. x 5 in. long. |
| 50.268 | ½ U.N.C. x 1¾ in. long. |
| 50.269 | ½ U.N.C. x 2¼ in. long. |

Section 51
Cap Screws – Hex Socket Head
⅝ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 51.268 | ⅝ U.N.C. x 1¼ in. long. |
| 51.269 | ⅝ U.N.C. x 1½ in. long. |
| 51.270 | ⅝ U.N.C. x 1¾ in. long. |
| 51.271 | ⅝ U.N.C. x 2 in. long. |
| 51.272 | ⅝ U.N.C. x 2½ in. long. |
| 51.273 | ⅝ U.N.C. x 3 in. long. |
| 51.274 | ⅝ U.N.C. x 3½ in. long. |
| 51.275 | ⅝ U.N.C. x 4 in. long. |
| 51.276 | ⅝ U.N.C. x 4½ in. long. |
| 51.277 | ⅝ U.N.C. x 5 in. long. |
| 51.278 | ⅝ U.N.C. x 5½ in. long. |
| 51.279 | ⅝ U.N.C. x 6 in. long. |

Section 52
Cap Screws – Hex Socket Head
¾ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 52.280 | ¾ U.N.C. x 1½ in. long. |
| 52.281 | ¾ U.N.C. x 2 in. long. |
| 52.282 | ¾ U.N.C. x 2½ in. long. |
| 52.283 | ¾ U.N.C. x 3 in. long. |
| 52.284 | ¾ U.N.C. x 3½ in. long. |
| 52.285 | ¾ U.N.C. x 4 in. long. |
| 52.286 | ¾ U.N.C. x 4½ in. long. |
| 52.287 | ¾ U.N.C. x 5 in. long. |
| 52.288 | ¾ U.N.C. x 5½ in. long. |
| 52.289 | ¾ U.N.C. x 6 in. long. |

Section 53
C/Sunk Screws – Hex Socket
Head 10 x 24 t.p.i.

| Part Ref. | |
|-----------|------------------------------|
| 53.300 | 10 x 24 t.p.i. x ¼ in. long. |
| 53.301 | 10 x 24 t.p.i. x ⅜ in. long. |
| 53.302 | 10 x 24 t.p.i. x ½ in. long. |
| 53.303 | 10 x 24 t.p.i. x ⅝ in. long. |
| 53.304 | 10 x 24 t.p.i. x ¾ in. long. |
| 53.305 | 10 x 24 t.p.i. x ⅞ in. long. |
| 53.306 | 10 x 24 t.p.i. x 1 in. long. |

Section 54
C/Sunk Screws – Hex Socket
Head ¼ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 54.307 | ¼ U.N.C. x ⅜ in. long. |
| 54.308 | ¼ U.N.C. x ½ in. long. |
| 54.309 | ¼ U.N.C. x ⅝ in. long. |
| 54.310 | ¼ U.N.C. x ¾ in. long. |
| 54.311 | ¼ U.N.C. x ⅞ in. long. |
| 54.312 | ¼ U.N.C. x 1 in. long. |
| 54.313 | ¼ U.N.C. x 1¼ in. long. |
| 54.314 | ¼ U.N.C. x 1½ in. long. |
| 54.315 | ¼ U.N.C. x 1¾ in. long. |

Section 55
C/Sunk Screws – Hex Socket
Head ⅝ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 55.316 | ⅝ U.N.C. x ½ in. long. |
| 55.317 | ⅝ U.N.C. x ⅝ in. long. |
| 55.318 | ⅝ U.N.C. x ¾ in. long. |
| 55.319 | ⅝ U.N.C. x 1 in. long. |
| 55.320 | ⅝ U.N.C. x 1¼ in. long. |
| 55.321 | ⅝ U.N.C. x 1½ in. long. |

Section 56
C/Sunk Screws – Hex Socket
Head ⅜ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 56.322 | ⅜ U.N.C. x ½ in. long. |
| 56.323 | ⅜ U.N.C. x ⅝ in. long. |
| 56.324 | ⅜ U.N.C. x ¾ in. long. |
| 56.325 | ⅜ U.N.C. x 1 in. long. |
| 56.326 | ⅜ U.N.C. x 1½ in. long. |
| 56.327 | ⅜ U.N.C. x 1¾ in. long. |
| 56.328 | ⅜ U.N.C. x 2 in. long. |

Section 57
C/Sunk Screws – Hex Socket
Head ½ in. U.N.C.

| Part Ref. | |
|-----------|-------------------------|
| 57.329 | ½ U.N.C. x ¾ in. long. |
| 57.330 | ½ U.N.C. x 1 in. long. |
| 57.331 | ½ U.N.C. x 1¼ in. long. |
| 57.332 | ½ U.N.C. x 1½ in. long. |
| 57.333 | ½ U.N.C. x 1¾ in. long. |
| 57.334 | ½ U.N.C. x 2 in. long. |

65-13
65-14

Section 58**Cup Point Screws – Hex Socket
Set 10 x 24 t.p.i.**

| Part Ref. | |
|-----------|---|
| 58.342 | 10 x 24 t.p.i. x $\frac{3}{16}$ in. long. |
| 58.343 | 10 x 24 t.p.i. x $\frac{1}{4}$ in. long. |
| 58.344 | 10 x 24 t.p.i. x $\frac{5}{16}$ in. long. |
| 58.345 | 10 x 24 t.p.i. x $\frac{3}{8}$ in. long. |
| 58.346 | 10 x 24 t.p.i. x $\frac{7}{16}$ in. long. |
| 58.347 | 10 x 24 t.p.i. x $\frac{1}{2}$ in. long. |
| 58.348 | 10 x 24 t.p.i. x $\frac{5}{8}$ in. long. |
| 58.349 | 10 x 24 t.p.i. x $\frac{3}{4}$ in. long. |

Section 59**Cup Point Screws – Hex Socket
Set $\frac{1}{4}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 59.350 | $\frac{1}{4}$ U.N.C. x $\frac{1}{4}$ in. long. |
| 59.351 | $\frac{1}{4}$ U.N.C. x $\frac{5}{16}$ in. long. |
| 59.352 | $\frac{1}{4}$ U.N.C. x $\frac{3}{8}$ in. long. |
| 59.353 | $\frac{1}{4}$ U.N.C. x $\frac{7}{16}$ in. long. |
| 59.354 | $\frac{1}{4}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 59.355 | $\frac{1}{4}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 59.356 | $\frac{1}{4}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 59.357 | $\frac{1}{4}$ U.N.C. x 1 in. long. |
| 59.358 | $\frac{1}{4}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 59.359 | $\frac{1}{4}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 60**Cup Point Screws – Hex Socket
Set $\frac{5}{16}$ in. U.N.C.**

| Part Ref. | |
|-----------|--|
| 60.360 | $\frac{5}{16}$ U.N.C. x $\frac{1}{4}$ in. long. |
| 60.361 | $\frac{5}{16}$ U.N.C. x $\frac{5}{16}$ in. long. |
| 60.362 | $\frac{5}{16}$ U.N.C. x $\frac{3}{8}$ in. long. |
| 60.363 | $\frac{5}{16}$ U.N.C. x $\frac{7}{16}$ in. long. |
| 60.364 | $\frac{5}{16}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 60.365 | $\frac{5}{16}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 60.366 | $\frac{5}{16}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 60.367 | $\frac{5}{16}$ U.N.C. x 1 in. long. |
| 60.368 | $\frac{5}{16}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 60.369 | $\frac{5}{16}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 61**Cup Point Screws – Hex Socket
Set $\frac{3}{8}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 61.370 | $\frac{3}{8}$ U.N.C. x $\frac{3}{8}$ in. long. |
| 61.371 | $\frac{3}{8}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 61.372 | $\frac{3}{8}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 61.373 | $\frac{3}{8}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 61.374 | $\frac{3}{8}$ U.N.C. x 1 in. long. |
| 61.375 | $\frac{3}{8}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 61.376 | $\frac{3}{8}$ U.N.C. x $1\frac{1}{2}$ in. long. |
| 61.377 | $\frac{3}{8}$ U.N.C. x $1\frac{3}{4}$ in. long. |

Section 62**Cup Point Screws – Hex Socket
Set $\frac{7}{16}$ in. U.N.C.**

| Part Ref. | |
|-----------|--|
| 62.378 | $\frac{7}{16}$ U.N.C. x $\frac{7}{16}$ in. long. |
| 62.379 | $\frac{7}{16}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 62.380 | $\frac{7}{16}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 62.381 | $\frac{7}{16}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 62.382 | $\frac{7}{16}$ U.N.C. x 1 in. long. |
| 62.383 | $\frac{7}{16}$ U.N.C. x $1\frac{1}{4}$ in. long. |

Section 63**Cup Point Screws – Hex Socket
Set $\frac{1}{2}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 63.384 | $\frac{1}{2}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 63.385 | $\frac{1}{2}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 63.386 | $\frac{1}{2}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 63.387 | $\frac{1}{2}$ U.N.C. x 1 in. long. |
| 63.388 | $\frac{1}{2}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 63.389 | $\frac{1}{2}$ U.N.C. x $1\frac{1}{2}$ in. long. |
| 63.390 | $\frac{1}{2}$ U.N.C. x 2 in. long. |

Section 64**Cup Point Screws – Hex Socket
Set $\frac{5}{8}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 64.391 | $\frac{5}{8}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 64.392 | $\frac{5}{8}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 64.393 | $\frac{5}{8}$ U.N.C. x 1 in. long. |
| 64.394 | $\frac{5}{8}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 65**Cup Point Screws – Hex Socket
Set $\frac{3}{4}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 65.395 | $\frac{3}{4}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 65.396 | $\frac{3}{4}$ U.N.C. x 1 in. long. |
| 65.397 | $\frac{3}{4}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 66 **$\frac{1}{2}$ Dog Screws – Hex Socket Set
10 x 24 t.p.i.**

| Part Ref. | |
|-----------|---|
| 66.410 | 10 x 24 t.p.i. x $\frac{3}{16}$ in. long. |
| 66.411 | 10 x 24 t.p.i. x $\frac{1}{4}$ in. long. |
| 66.412 | 10 x 24 t.p.i. x $\frac{5}{16}$ in. long. |
| 66.413 | 10 x 24 t.p.i. x $\frac{3}{8}$ in. long. |
| 66.414 | 10 x 24 t.p.i. x $\frac{1}{2}$ in. long. |
| 66.415 | 10 x 24 t.p.i. x $\frac{5}{8}$ in. long. |
| 66.416 | 10 x 24 t.p.i. x $\frac{3}{4}$ in. long. |

Section 67 **$\frac{1}{2}$ Dog Screws – Hex Socket Set
 $\frac{1}{4}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 67.417 | $\frac{1}{4}$ U.N.C. x $\frac{1}{4}$ in. long. |
| 67.418 | $\frac{1}{4}$ U.N.C. x $\frac{5}{16}$ in. long. |
| 67.419 | $\frac{1}{4}$ U.N.C. x $\frac{3}{8}$ in. long. |
| 67.420 | $\frac{1}{4}$ U.N.C. x $\frac{7}{16}$ in. long. |
| 67.421 | $\frac{1}{4}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 67.422 | $\frac{1}{4}$ U.N.C. x $\frac{9}{16}$ in. long. |
| 67.423 | $\frac{1}{4}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 67.424 | $\frac{1}{4}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 67.425 | $\frac{1}{4}$ U.N.C. x 1 in. long. |
| 67.426 | $\frac{1}{4}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 67.427 | $\frac{1}{4}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 68 **$\frac{1}{2}$ Dog Screws – Hex Socket Set
 $\frac{5}{16}$ in. U.N.C.**

| Part Ref. | |
|-----------|--|
| 68.428 | $\frac{5}{16}$ U.N.C. x $\frac{5}{16}$ in. long. |
| 68.429 | $\frac{5}{16}$ U.N.C. x $\frac{3}{8}$ in. long. |
| 68.430 | $\frac{5}{16}$ U.N.C. x $\frac{7}{16}$ in. long. |
| 68.431 | $\frac{5}{16}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 68.432 | $\frac{5}{16}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 68.433 | $\frac{5}{16}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 68.434 | $\frac{5}{16}$ U.N.C. x $\frac{7}{8}$ in. long. |
| 68.435 | $\frac{5}{16}$ U.N.C. x 1 in. long. |
| 68.436 | $\frac{5}{16}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 68.437 | $\frac{5}{16}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 69 **$\frac{1}{2}$ Dog Screws – Hex Socket Set
 $\frac{3}{8}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 69.438 | $\frac{3}{8}$ U.N.C. x $\frac{3}{8}$ in. long. |
| 69.439 | $\frac{3}{8}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 69.440 | $\frac{3}{8}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 69.441 | $\frac{3}{8}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 69.442 | $\frac{3}{8}$ U.N.C. x 1 in. long. |
| 69.443 | $\frac{3}{8}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 69.444 | $\frac{3}{8}$ U.N.C. x $1\frac{1}{2}$ in. long. |
| 69.445 | $\frac{3}{8}$ U.N.C. x 2 in. long. |

Section 70 **$\frac{1}{2}$ Dog Screws – Hex Socket Set
 $\frac{1}{2}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 70.445 | $\frac{1}{2}$ U.N.C. x $\frac{1}{2}$ in. long. |
| 70.446 | $\frac{1}{2}$ U.N.C. x $\frac{5}{8}$ in. long. |
| 70.447 | $\frac{1}{2}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 70.448 | $\frac{1}{2}$ U.N.C. x 1 in. long. |
| 70.449 | $\frac{1}{2}$ U.N.C. x $1\frac{1}{4}$ in. long. |
| 70.450 | $\frac{1}{2}$ U.N.C. x $1\frac{1}{2}$ in. long. |
| 70.451 | $\frac{1}{2}$ U.N.C. x 2 in. long. |

Section 71 **$\frac{1}{2}$ Dog Screws – Hex Socket Set
 $\frac{5}{8}$ in. U.N.C.**

| Part Ref. | |
|-----------|---|
| 71.452 | $\frac{5}{8}$ U.N.C. x $\frac{3}{4}$ in. long. |
| 71.453 | $\frac{5}{8}$ U.N.C. x 1 in. long. |
| 71.454 | $\frac{5}{8}$ U.N.C. x $1\frac{1}{2}$ in. long. |

Section 72**B.A. Cap Screws – Hex Socket
Head**

| Part Ref. | |
|-----------|-----------------------------------|
| 72.493 | 3 B.A. x $\frac{3}{8}$ in. long. |
| 72.494 | 3 B.A. x $\frac{1}{2}$ in. long. |
| 72.495 | 3 B.A. x $\frac{5}{8}$ in. long. |
| 72.496 | 3 B.A. x $\frac{3}{4}$ in. long. |
| 70.497 | 3 B.A. x $1\frac{1}{4}$ in. long. |
| 72.498 | 3 B.A. x $\frac{7}{8}$ in. long. |
| 72.499 | 3 B.A. x 1 in. long. |

Section 73**Special Screws**

| Part Ref. | |
|-----------|--|
| 73.106 | No. 10 x 24 x $\frac{3}{4}$ in. long Socket cap domed head. |
| 73.143 | $\frac{1}{4}$ U.N.C. x $\frac{3}{8}$ in. long domed head. |
| 73.169 | 10 x 24 t.p.i. x $\frac{1}{4}$ in. c/sunk screw (slotted). |
| 73.194 | $\frac{5}{16}$ in. BSW x $1\frac{1}{4}$ in. long Hex head. Set screw. |
| 73.195 | 2 BA x $\frac{1}{2}$ in. long. Hollow socket set screw. |
| 73.196 | $\frac{1}{4}$ in. BSW x $\frac{3}{8}$ in. long S.H.C.S. |
| 73.197 | $\frac{1}{4}$ in. BSW x $\frac{7}{8}$ in. long S.H.C.S. |
| 73.198 | 2 BA x $\frac{1}{2}$ in. long Hex head set screw. |
| 73.199 | $\frac{1}{4}$ in. BSW x $\frac{1}{2}$ in. long S.H.C.S. |
| 73.235 | $\frac{5}{16}$ U.N.C. x $3\frac{1}{2}$ in. long Cap screw hex socket head. |
| 73.450 | 6 BA x $\frac{3}{8}$ in. long Cheese head. |
| 73.471 | 4 BA x 1 in. long Cheese head. |

65213
65214

Section 73 continued

| Part Ref. | |
|-----------|--|
| 73.474 | 4 BA x 3/4 in. long Cheese head. |
| 73.479 | 44 x 1/4 in. Drive screws. |
| 73.480 | 44 x 5/16 in. Drive screws. |
| 73.481 | 46 x 5/16 in. Drive screws. |
| 73.482 | 1/4 U.N.C. x 3/8 in. long SKT. Hd. set screw full dog. |
| 73.483 | 2 BA x 3/8 in. long Cheese head. |
| 73.485 | 2 BA x 3/8 in. long Cheese head. |
| 73.486 | 2 BA x 1/2 in. long Cheese head. |
| 73.487 | 1/4 U.N.C. x 3/8 in. long Mushroom head. |
| 73.493 | No.8 x 32 U.N.C. x 3/8 in. long cap screw. |
| 73.494 | 1/4 U.N.C. x 3/8 in. long cap screw series CX large head |
| 73.507 | 3 BA x 3/4 in. long set screw cup point. |
| 73.510 | 7/16 U.N.F. x 7/16 in. long set screw cup point. |
| 73.511 | 3/16 U.N.C. x 3/8 in. long Mushroom head. |
| 73.512 | 7/64 Dia. c/sunk head self tapping. |
| 73.513 | No.4 x 5/16 in. long 'U' self tapping. |
| 73.514 | 3/8 U.N.C. x 3/8 in. long brass round head. |
| 73.515 | 1/2 U.N.F. x 1/2 in. long socket set cup point. |
| 73.516 | 5/16 U.N.F. x 3/8 in. long socket set cup point. |
| 73.517 | 2 BA x 7/8 in. long SKT.Csk Hd. screw. |
| 73.518 | 2 BA x 1/2 in. long Csk Hd screw. |
| 73.519 | 2 BA x 3/4 in. long SKT.Csk Hd. screw. |
| 73.472 | 2 BA x 1/4 in. long Cheese head. |
| 73.473 | 2 BA x 1 in. long socket set screw oval point. |
| 73.489 | 1/4 B.S.F. x 3/8 in. long S.H.C.S. |
| 73.520 | 1/4 U.N.C. x 1 in. long flat head. |
| 73.521 | 2 BA x 3/8 round head brass. |
| 73.522 | 5/16 U.N.C. x 3/4 in. wedglok set screw. |
| 73.523 | 5/16 U.N.C. x 1 in. wedglok set screw. |
| 73.524 | 4 BA x 1/2 in. long Cheese head. |
| 73.525 | 6 BA x 3/8 in. long Cheese head. |
| 73.526 | 4 BA x 13/16 in. long Cheese head. |
| 73.527 | 4 BA x 1/2 in. long Cheese head. |

**Section 79
Oil Seals**

| Part Ref. | |
|-----------|---|
| 79.036 | Weston. W22515637.R4. |
| 79.037 | Weston. W23727550.R4. |
| 79.062 | Weston. W16211237.R. |
| 79.069 | Weston. W913708225. |
| 79.071 | Angus. MS012. |
| 79.171 | Weston. W15011225. R4. |
| 79.181 | Weston. WB.16911037 R21. |
| 79.188 | Burtonwood. 6303. |
| 79.860 | $\frac{7}{8}$ i.d. x $1\frac{3}{8}$ o.d. x $\frac{1}{4}$ wide Angus M15 014 W13708725 R4. |
| 79.861 | $\frac{15}{16}$ i.d. x $1\frac{3}{8}$ o.d. x $\frac{5}{16}$ wide. Burtonwood 9907. |
| 79.862 | $\frac{15}{16}$ i.d. x $1\frac{1}{2}$ o.d. x $\frac{13}{32}$ wide. W15009340.R4. |
| 79.863 | 1 in. i.d. x $1\frac{5}{8}$ o.d. x $\frac{3}{8}$ wide. W16210037.R4. |
| 79.864 | 1 in. i.d. x $1\frac{3}{4}$ o.d. x $\frac{1}{4}$ wide. W17510025.R4. |
| 79.865 | $\frac{11}{16}$ i.d. x $1\frac{5}{8}$ o.d. x $\frac{5}{16}$ wide. W16210631.R4. |
| 79.866 | $\frac{1}{4}$ i.d. x $1\frac{1}{8}$ o.d. x $\frac{3}{8}$ wide. W16912537.R4. |
| 79.867 | $\frac{1}{8}$ i.d. x $1\frac{7}{8}$ o.d. x $\frac{5}{16}$ wide. W18713731.R4. |
| 79.868 | $\frac{1}{8}$ i.d. x $2\frac{3}{16}$ o.d. x $\frac{3}{8}$ wide. W21916237.R4. |
| 79.869 | Nylos grease ring 6205 JV 52 m/m o.d. |
| 79.878 | Burtonwood. W15711039R4. |
| 79.779 | Burtonwood. 137-1828-12. |
| 79.880 | Mis.012.Gaco. MOS/075-125 -8. |
| 79.881 | MOS/100-M5-024. |
| 79.882 | W16211231R4. |

**Section 80
Oil Sights**

| Part Ref. | |
|-----------|--|
| 80.870 | Perspex oilsight. SK625. |
| 80.871 | $1\frac{1}{4}$ o.d. Tecalemit. IC4610. |
| 80.873 | $1\frac{1}{2}$ o.d. Tecalemit. IC4612. |

**Section 81
Spanners & Wrenches**

| Part Ref. | |
|-----------|--|
| 81.151 | $\frac{15}{16}$ a/f x $\frac{3}{4}$ a/f open end spanner. |
| 81.152 | $\frac{9}{16}$ a/f x $\frac{11}{16}$ a/f open end spanner. |
| 81.153 | $\frac{7}{16}$ sq. x $\frac{1}{2}$ a/f combination spanner. |
| 81.154 | $\frac{15}{16}$ a/f x $\frac{11}{16}$ a/f box Spanner. |
| 81.155 | Tommy Bar. |
| 81.156 | $\frac{3}{8}$ a/f Allen hexagon key. |
| 81.157 | $\frac{5}{16}$ a/f Allen hexagon key. |
| 81.158 | $\frac{7}{32}$ a/f Allen hexagon key. |
| 81.159 | $\frac{3}{16}$ a/f Allen hexagon key. |
| 81.161 | $\frac{1}{8}$ a/f Allen hexagon key. |
| 81.162 | $\frac{3}{32}$ a/f Allen hexagon key. |
| 81.163 | $\frac{3}{8}$ x $\frac{7}{16}$ U.N.C. open end spanner. |
| 81.164 | $\frac{15}{16}$ x $1\frac{1}{8}$ a/f box spanner. |
| 81.165 | $\frac{1}{2}$ x $\frac{3}{4}$ a/f ring spanner. |

**Section 82
Springs**

| Part Ref. | |
|-----------|--|
| 82.063 | Flexo.163208. |
| 82.064 | 707.0040 0.240 Dia. x $\frac{9}{16}$ in. free length. |
| 82.065 | 707.0035 0.312 Dia. x $1\frac{7}{16}$ in. free length. |
| 82.066 | .237, o/d x $1\frac{1}{8}$ in. free length. |
| 82.068 | 707.0005 0.175 o/d x $\frac{3}{8}$ in. free length. |
| 82.072 | 707.0036 0.562 Dia. x $2\frac{1}{8}$ in. free length. |
| 82.076 | 707.0045 0.500 i.d. x 3 in. free length. |
| 82.078 | 707.0028 0.237 Dia. x $1\frac{1}{8}$ in. free length. |
| 82.082 | Flexo 103108. |
| 82.102 | 707-0030 0.625 Dia. x $1\frac{1}{2}$ in. free length. |
| 82.103 | 707.0030 0.3125 Dia. x $1\frac{1}{4}$ in. free length. |
| 82.105 | Flexo 82504. |
| 82.107 | Flexo 62604. |
| 82.108 | $\frac{3}{8}$ D.P. x $\frac{7}{8}$ in. free length. |
| 82.109 | Flexo 136314. |
| 82.110 | 707.0008 $\frac{5}{8}$ Dia. x 2 in. free length. |
| 82.111 | 707.0024 0.350 Dia. x $1\frac{1}{4}$ in. free length. |
| 82.112 | 707.0032 $\frac{13}{16}$ Dia. x $1\frac{5}{8}$ in. free length. |
| 82.113 | 707.0027 $\frac{1}{2}$ Dia. x $\frac{1}{2}$ in. free length. |
| 82.120 | 707.0046 $\frac{5}{16}$ Dia. x $\frac{5}{8}$ in. free length. |
| 82.121 | 707.0043 $\frac{9}{16}$ Dia. x $1\frac{5}{8}$ in. free length. |
| 82.122 | 707.0025 0.296 Dia. x $1\frac{9}{16}$ free length. |
| 82.123 | 707.0020 0.885 Dia. x $1\frac{1}{4}$ in. free length. |
| 82.132 | 707.0034 $1\frac{1}{64}$ Dia. x 1 in. free length. |
| 82.175 | Compression spring. |
| 82.179 | Tension spring. |
| 82.794 | 707.0023 $\frac{1}{4}$ Dia. x $\frac{13}{16}$ in. free length. |
| 82.795 | 707.0021 $\frac{1}{4}$ o/d x $\frac{1}{2}$ in. free length. |
| 82.796 | Flexo 82804. |
| 82.797 | $\frac{1}{4}$ o/d x $\frac{5}{8}$ in. free length. |
| 82.798 | Flexo 82806. |
| 82.799 | Flexo 82708. |
| 82.800 | Flexo 92910. |
| 82.801 | Flexo 93012. |
| 82.802 | Flexo 93107. |
| 82.803 | Flexo 103210. |
| 82.804 | Flexo 123106. |
| 82.805 | Flexo 143112. |
| 82.806 | Flexo 203512. |
| 82.807 | Flexo 223412. |
| 82.808 | Flexo 223612. |
| 82.809 | Flexo 243698. |
| 82.810 | Flexo 243724. |
| 82.811 | Flexo 323608. |
| 82.812 | 707.0014 0.180 Dia. x $\frac{21}{32}$ in. free length. |
| 82.813 | Flexo 143008. |
| 83.814 | 707.0031 $\frac{3}{8}$ Dia. x 14 SWG |
| 82.815 | 707.0015 $\frac{5}{16}$ Dia. x $1\frac{1}{8}$ OA. |
| 82.816 | 707.0022 $\frac{5}{16}$ Dia. x $2\frac{1}{8}$ OA. |
| 82.817 | 707.0016 $\frac{1}{2}$ Dia. x $2\frac{3}{16}$ in. free length. |
| 82.818 | 707.0033 0.240 Dia. x $\frac{5}{8}$ in. free length. |
| 82.819 | 22.5 m/m x 11.2 m/m x 8 m/m Schnorr disc spring |

Section 82 continued

| Part Ref. | |
|-----------|--|
| 82.820 | $1\frac{1}{8}$ o/d x .453 i.d. x .040 Beleville No.7. |
| 82.821 | $\frac{5}{8}$ i.d. x $\frac{15}{32}$ o/d Crinkle washer spring. |
| 82.822 | LSE 8596. Crinkle washer spring. |
| 82.823 | Flexo 62704. |
| 82.824 | Flexo 103208. |
| 82.825 | Flexo 122908. |
| 82.826 | Flexo 82805. |
| 82.827 | Flexo 62502. |
| 82.828 | Flexo 237508. |
| 82.829 | Flexo AA3516. |
| 82.830 | Flexo 123306. |
| 82.831 | Flexo 122906. |
| 82.832 | Flexo 153212. |
| 82.833 | Flexo 62603. |
| 82.834 | Flexo 143008. |
| 82.835 | Flexo 163314. |
| 82.836 | Flexo 244012. |
| 82.837 | Flexo 112808. |
| 82.838 | Flexo 112807. |
| 82.839 | Flexo 112908. |

**Section 83
Switches**

| Part Ref. | |
|-----------|-------------------------------------|
| 83.985 | Craig & Derricott CLS. |
| 83.986 | Klockner & Moeller. AT/ 11A/2/1. |
| 83.987 | Klockner & Moeller. AT-3- 1. |
| 83.988 | Klockner & Moeller. TW2- 3/21c. |
| 83.989 | Santon 128/AD55/TB. |
| 83.990 | Santon SR3212/BE/80/TB3. |
| 83.991 | Santon SR1311 PC. |
| 83.992 | Santon SS3311 PC. |
| 83.993 | Santon SR338/BF/49/TA3. |
| 83.994 | Santon SR326AY37/9/TA |
| 83.995 | Santon SR237. |
| 83.996 | Craig & Derricott RTL3049 AS. |
| 83.996 | Crabtree B15 16107/3. |
| 83.998 | Crabtree B15 starter 1-4 amp. |
| 83.999 | Crabtree B15 starter 1.5-3 amp. |
| 83.001 | Crabtree B15 skelton contact. |
| 83.002 | Crabtree B23 contactor. |
| 83.003 | Crabtree D6 starter 14101. |
| 83.004 | Crabtree D6 starter 14104. |
| 83.005 | Crabtree D6 starter 1.1-1.8 amp. |
| 83.006 | Siemens contactor K915- 1115-1A. |
| 83.007 | Santon ESX 1311 PC. |
| 83.008 | Santon ESR3314/AB/65. |
| 83.009 | Klockner & Moeller TW2 3/63e. |
| 83.010 | Klockner & Moeller T2-2-C |
| 83.012 | Klockner & Moeller TD2- 415-c. |
| 83.013 | Chilton S258AB766E. |
| 83.014 | Chilton C258AB424. |
| 83.015 | Chilton C25A292E. |
| 83.017 | MEM. 310 AX. |
| 83.019 | Santon ESR 3311 PC. |

Section 83 continued

| Part Ref. | |
|-----------|--|
| 83.049 | Stop button Brooks type Z |
| 83.050 | Stop button Brooks type Z. |
| 83.051 | UC2 contactor. |
| 83.052 | Overload block. |
| 83.053 | Heater coil for overload block. |
| 83.054 | Moving contact for UC2 contactor. |
| 83.055 | Aux. contact for UC2 contactor. |
| 83.056 | Fixed contact for UC2 contactor. |
| 83.057 | Coil for UC2 contactor. |
| 83.083 | 40 watt Stepdown transformer primary 220/440/550 V. |
| 83.085 | Starlight transformer GD Underwood input 250/500 V. 1 1/2 amp. |
| 83.086 | Burgess Mk.3 BR 600 V 2A Mico switch. |
| 83.087 | Moving contact for Crabtree B15 starter 1600/13. |
| 83.088 | Fixed contact for Crabtree B15 starter 1600/11. |
| 83.089 | Crabtree cable clamp assy. 1600/19. |
| 83.092 | Overload release unit Crabtree type 16007 3.6 amp. |
| 83.093 | Magnet coil Crabtree type 1600/9/5 380-420 V. |
| 83.094 | Crabtree B15 starter interior type. |
| 83.095 | Crabtree B15 starter moving contact 28011. |
| 83.096 | Crabtree series 16021. Aux. contact. |
| 83.100 | Crabtree contactor magnet 16000/20. |
| 83.126 | Shunt block extension for B23 Crabtree starter. |
| 83.127 | Spacer for B23 Crabtree starter. |
| 83.128 | Cable clamp extension for B23 Crabtree starter. |
| 83.129 | Overload release unit for B23 Crabtree starter. |
| 83.130 | Starter bottom assy c/w baseplate Crabtree B23. |
| 83.150 | Crabtree starter type D6 0.75-1 2A. |
| 83.163 | Crabtree B15 D & C starter 16104/5. |
| 83.164 | Crabtree B15 D & C starter 16199. |
| 83.167 | MEM.1315 AX 15 A isolator |
| 83.168 | Klockner & Moeller T2-4/60-102/7. |
| 83.174 | Sliding contact & block. |
| 83.176 | Toggle contact complete. |
| 83.177 | L/H slipper contact. |
| 83.178 | R/H slipper contact. |

Section 84
Locking Washers

| Part Ref. | |
|-----------|---|
| 84.067 | 3 3/4 o/d x 2.260 i.d. x .169 tab washer. |
| 84.077 | Terry Belleville washer No.10. |
| 84.097 | 43A tag washer. |
| 84.098 | 3/16 star washer. |

Section 84 continued

| Part Ref. | |
|-----------|--|
| 84.099 | 3/16 bore tab washer. |
| 84.701 | 3/16 Dia. bore single coil. |
| 84.702 | 1/4 Dia. bore single coil. |
| 84.703 | 5/16 Dia. bore single coil. |
| 84.704 | 3/8 Dia. bore single coil. |
| 84.705 | 7/16 Dia. bore single coil. |
| 84.706 | 1/2 Dia. bore single coil. |
| 84.707 | 9/16 Dia. bore single coil. |
| 84.708 | 5/8 Dia. bore single coil. |
| 84.709 | 3/4 Dia. bore single coil. |
| 84.710 | 7/8 Dia. bore Grover lock spring washer. |
| 84.711 | 3/16 Dia. bore double coil. |
| 84.712 | 1/4 Dia. bore double coil. |
| 84.713 | 5/16 Dia. bore double coil. |
| 84.714 | 3/8 Dia. bore double coil. |
| 84.715 | 7/16 Dia. bore double coil. |
| 84.716 | 1/2 Dia. bore double coil. |
| 84.717 | 9/16 Dia. bore double coil. |
| 84.718 | 5/8 Dia. bore double coil. |
| 84.719 | 3/4 Dia. bore double coil. |
| 84.720 | 1 1/16 Dia. bore single coil. |
| 84.721 | 2 BA Std. lock washer. |
| 84.722 | 1 1/16 Dia. bore double coil. |
| 84.723 | 7/8 Dia. bore double coil. |
| 84.724 | 7/8 Dia. spring washer. |
| 84.725 | Schnorr disc spring washer. type K.620L. |
| 84.726 | Terry's std. Belleville No. 7. |

Section 85
Standard Washer

| Part Ref. | |
|-----------|---|
| 85.690 | 3/16 Dia. bore. |
| 85.691 | 1/4 Dia. bore. |
| 85.892 | 5/16 Dia. bore. |
| 85.693 | 3/8 Dia. bore. |
| 85.694 | 7/16 Dia. bore. |
| 85.695 | 1/2 Dia. bore x 1 o/d x .092 in. W. |
| 85.696 | 1/2 Dia. bore x 1 1/8 o/d x .062 in. W. |
| 85.697 | 9/16 Dia. bore. |
| 85.698 | 5/8 Dia. bore. |
| 85.699 | 3/4 Dia. bore. |
| 85.700 | 1/2 in. i.d. x 5/16 Thick. |
| 85.701 | 1 1/16 Dia. bore. |
| 85.702 | 7/8 Dia. bore. |
| 85.720 | 2 BA Std. plain washer. |
| 85.727 | 0.445 i.d. x 0.660 x 18 SWG plain. |
| 85.728 | 1 o/d x 3/4 i.d. x 3/8 Thick. |

Section 86

Washers Miscellaneous

| Part Ref. | |
|-----------|--|
| 86.029 | 3/4 Internal fan disc washer |
| 86.030 | 7/8 Internal fan disc washer |
| 86.043 | 1 1/8 o/d x 3/4 i.d. x 3/16 Thk. leather washer. |
| 86.044 | 1 1/4 o/d x 3/4 i.d. x 3/16 Thk. leather washer. |
| 86.045 | 1 5/8 o/d x 1 1/8 i.d. x 3/16 Thk. leather washer. |
| 86.058 | 3/8 in. 5° taper washer. |
| 86.080 | AD 1528 Ina thrust washer |
| 86.118 | 1 1/4 o/d x 7/8 i.d. x 1/8 SKT leather washer. |
| 86.119 | 1/2 i.d. fan disc washer. |
| 86.133 | Dowty rubber washer GD1321-3. |
| 86.722 | 1 1/2 o/d x 2 1/2 x 1/2 in. leather washer. |
| 86.723 | 1 1/4 o/d x 2 1/2 x 1/8 in. leather washer. |
| 86.730 | 3BA large plain washer BS.3910/1961. |
| 86.731 | Tab washer Ref HHI/AG. |
| 86.732 | 5/16 HP washer. |
| 86.733 | Belleville washer 1383/10. |
| 86.734 | 1/2 i.d. x 3/16 o/d fibre washer |
| 86.735 | Beryllium copper washer. Ref.LSE 8596. |
| 86.738 | 1/4 bore shakeproof. |
| 86.740 | Dubo No.105 washer. |
| 86.741 | 3/16 bore x 7/16 o/d x 1/16 Thk rubber. |

Section 87
Thread Inserts

| Part Ref. | |
|-----------|---------------------------------------|
| 87.823 | 9/16 U.N.C. Helicoil. |
| 87.824 | 3/8 U.N.C. x 9/16 in. long. Helicoil. |
| 87.825 | 1/2 U.N.C. Helicoil. |

Section 88
Miscellaneous

| Part Ref. | |
|-----------|---|
| 88.041 | Brass pad 1/16 in. Thk. x 3/16 in. dia. |
| 88.070 | 3/8 in. solid gas plug. |
| 88.073 | Tecalmit 4336-2 90° M & F elbow. |
| 88.074 | Spire SRV 1590 (A) door latch. |
| 88.075 | Spire SBV 1691 door latch Stud. |
| 88.076 | 1 in. solid gas plug. |
| 88.046 | 1/2 in. U.N.C. x 2 1/2 in. long stud. |
| 88.147 | 1/4 in. B.S.F. ball joint. |

6541-3
6541-4

Section 1000

| Part Ref. | |
|-----------|--|
| 1001 | Selector Switch Type T2-4/90-z Comprising of: |
| | 1004 Switch Spindle Extension |
| | 1005 Indicator Mounting Plate |
| | 1006 Indicator Back Plate |
| | 1007 Switch Indicator Plate - Motor fwd. Motor rev. |
| | 1009 Thumb Grip Handle (Black) |
| 1002 | Selector Switch Type T26-2-z Comprising of: |
| | 1004 Switch Spindle Extension |
| | 1005 Indicator Mounting Plate |
| | 1006 Indicator Back Plate |
| | 1007 Switch Indicator Plate - Brake Re- lease - Coolant Pump |
| | 1009 Thumb Grip Handle (Black) |
| 1003 | Triple Pole Isolator Switch Type T26-3-v Comprising of: |
| | 1004 Switch Spindle Extension |
| | 1005 Indicator Mounting Plate |
| | 1006 Indicator Back Plate |
| | 1007 Switch Indicator Plate - Mains ON - OFF |
| | 1008 Thumb Grip Handle (Red) |
| 1010 | Neoprene Inch Button Cap Type G - T |
| 1011 | Inch Button Type DT.r |
| 1012 | Retaining Ring - Integral Part of 1010 |
| 1013 | Retaining Screwed Collar - Integral Part of 1011 |
| 1014 | Isolator Shroud Type T2 |
| 1015 | Triple Pole 25A Fuse Base Type S 25/3 |
| 1016 | Single Pole 25A Fuse Base Type SH.25/1.1 |
| 1017 | Fuse Holder Type K11(25A) or Type K111(25- 60A) |
| 1018 | 4A. Control Circuit Fuse Type TDZ.11.4. |
| 1019 | Main Phase Fuse 25A - Type TDZ.11.25 35A - Type TDZ.111.35 60A - Type TDZ.111.60 |
| 1020 | Forward and Reverse Contactor Type DIL.2/ 57 |
| 1021 | Control Transformer Type ET.200 |
| 1022 | Star Point Contactor Type DIL.0-41/56 |
| 1023 | No Volt Contactor Type DIL.00a-41/59 |
| 1024 | Overload Relay Type Z.2 |
| 1025 | Connecting Terminals Type RK.4(SAK.2.5) |
| 1026 | Terminal Barriers Type T.W. i/130.i |
| 1027 | Terminal End Plate Type AP.10/1179 |
| 1028 | Terminal End Clamp Type EWK/1846 |
| 1029 | Terminal Rail Type TS.32/120/1288 |
| 1030 | Sleeves - Integral Part of 1020 |
| 1031 | Inch Contact Black Type AK-44a |
| 1032 | Limit Switch Type AT.21-5-i |
| 1033 | Male Conduit Adapter Coupling |
| 1034 | Female Conduit Adapter Coupling |
| 1035 | Pump Conduit Adapter |
| 1036 | 3 Way Female Coupling |
| 1037 | Male Conduit Adapter |
| 1038 | ½ in. B.S.P. Locknut |
| 1039 | ¾ in. Bore Flexible Conduit |
| 1040 | ½ in. Bore Copper Pipe |
| 1041 | Kingley Coupling Type 304 (Female) |
| 1042 | Kingley Coupling Type 304 (Male) |
| 1043 | 3m x 12mm Round Head Screw |
| 1044 | 4m x 8mm Cheese Head Screw |
| 1045 | 4m x 12mm Cheese Head Screw |
| 1046 | 4m x 15mm Cheese Head Screw |
| 1047 | 4m x 20mm Cheese Head Screw |
| 1048 | 4m x 35mm Cheese Head Screw |
| 1049 | 4m x 105mm Cheese Head Screw |
| 1050 | 5m x 9mm Cheese Head Screw |
| 1051 | BT.787.1 Nut |
| 1052 | 5m x 12mm Cheese Head Screw |
| 1053 | ¾ in. U.N.F. x ¾ Cheese Head Screw |
| 1054 | 5mm Nut |
| 1055 | 4mm Standard Washer |
| 1056 | 4mm Shakeproof Washer |
| 1057 | 5mm Standard Washer |
| 1058 | 5mm Shakeproof Washer |

6076.2
6076.4