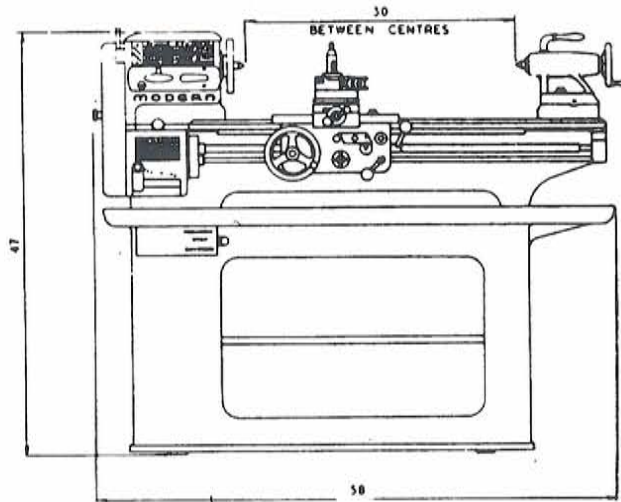
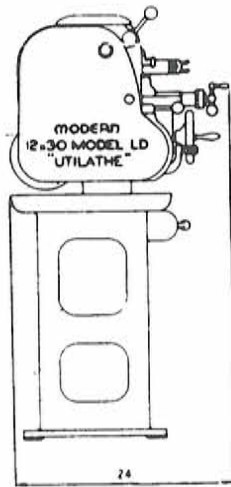


OPERATOR'S HANDBOOK.

12 x 30 MODEL LD

UTILATHE



CAPACITY

Swing over bed and saddle wings. 13"
 Swing over cross slide 8"
 Size of toolholder for round toolpost. 3/8" x 7/8"
 Maximum size of motor. Frame No. 69
 Maximum power available with 25 cycle motor. 3/4 H.P.
 Maximum power available with 60 cycle motor. 3/4 H.P.
 Net weight, including motor. 1050 lbs.

HEADSTOCK - 6 Speed geared headstock with two-speed pulleys
 Total number of spindle speeds 12
 Speed range in primary drive . . . 50, 90, 167, 300, 540, 1000
 Speed range in secondary drive . 75, 135, 250, 450, 810, 1500
 Threaded spindle nose 1-3/4" dia. x 8 T.P.I.
 Through hole in spindle nose 1-1/16" dia.
 Taper hole in spindle No. 4 Morse
 Spindle centre No. 2 Morse

TAILSTOCK
 Spindle diameter and length 1-9/16" x 7"
 Spindle travel and length of graduations 3"
 Spindle centre No. 2 Morse
 Handwheel is balanced and rotates on a sealed ball bearing

SADDLE
 Length on ways 14"

Width of bridge 5"
 Cross slide travel. 6-1/2"
 Compound slide travel 2-1/4"
BED
 Width at top. 8-1/2"
 Depth 7-1/2"
 Width of front vee for saddle guide 1"

QUICK CHANGE FEED BOX
 Number of thread and feed changes 48
 Range of threads 4 to 224 T.P.I.
 Range of feed rates per revolution
 - Longitudinal002" to .112"
 - Cross.001" to .056"
 Leadscrew 7/8" dia. x 8 T.P.I.

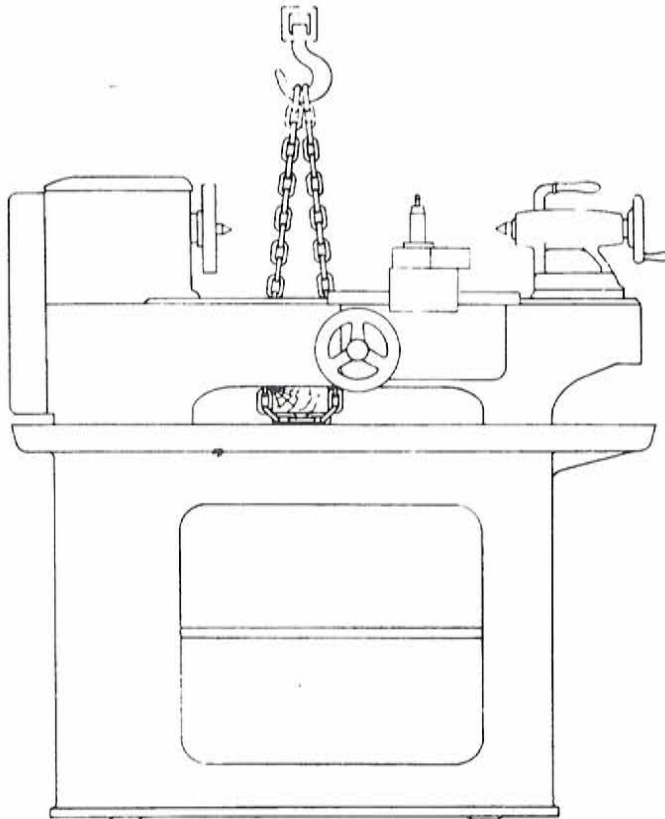
STANDARD EQUIPMENT SUPPLIED WITH LATHE: Dog Plate, Toolpost, Thread Chasing Dial, Motor Pulley and Vee Belts, Cast Iron Cabinet Stand and Chip Tray, Two Centres, Taper Reduction Sleeve for Spindle Nose, necessary Wrenches and Instruction Manual.

NOTE:- If customer desires to have motor and electrical controls installed at factory, please specify cycles, voltage and phase required when ordering.

Lifting and Installation Instructions

1. Lifting the Machine:

To lift the machine by the use of chain slings, run the carriage down to the tailstock and place the slings around the centre bed cross rib. (See Fig. 1). Protect painted surfaces with thick pads.



Do not attempt to lift this machine with a hoist having less than half a ton capacity. The shipping weight of the machine including electrics is 1000 lbs.

Do not remove skids from the machine until it is brought to its final position especially if the machine is to be moved on rollers.

2. Cleaning:

All unpainted parts of the machine have been coated with an anti-rust compound. This should be thoroughly removed after the machine is installed, and before moving the carriage, compound rest or tailstock on their respective slides.

To remove the anti-rust compound use a wiper dipped in Varsol or Kerosene.

All unpainted surfaces should immediately be coated with a film of light machine oil to prevent rust. If the finished surfaces are kept clean and well coated with oil, the lathe will retain its new appearance indefinitely.

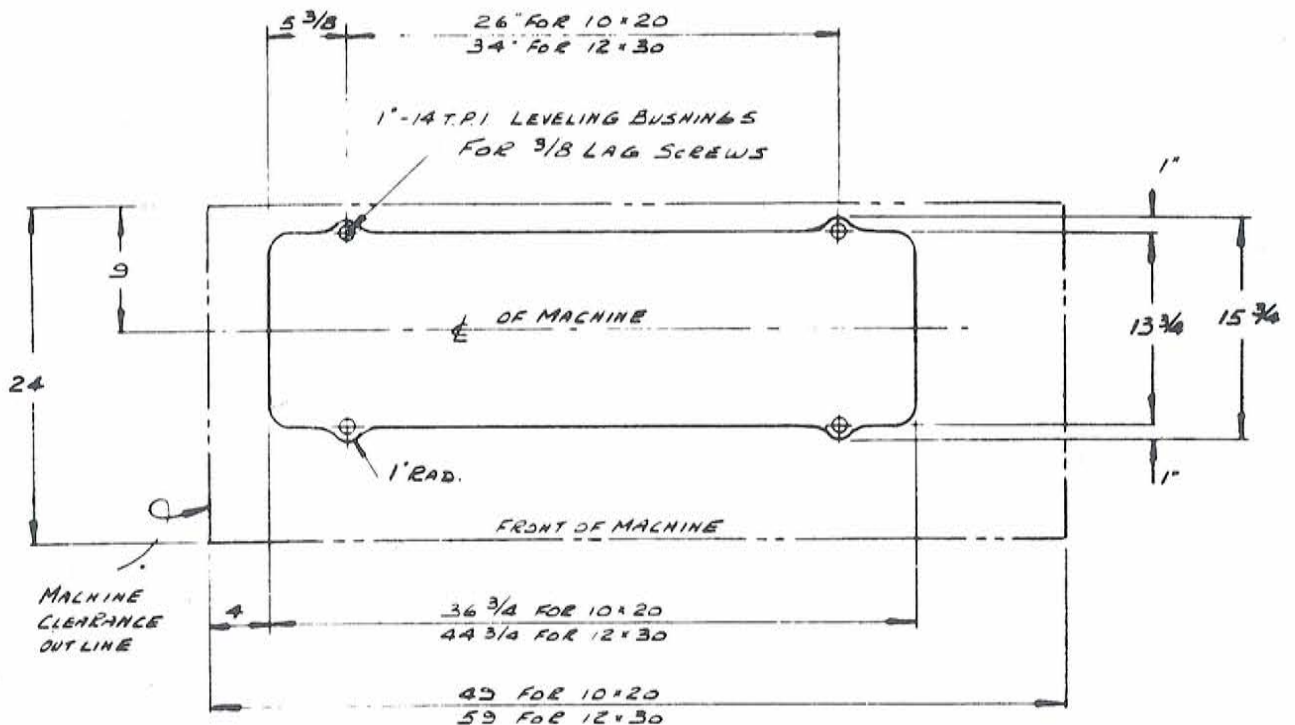
3. Inspection:

Check your delivery slip against the accessories that were ordered with the machine. If there is a shortage or error, report it to Modern Tool Works Limited immediately, giving the serial number of the machine which is stamped on the finished face, on the top of the bed at the tailstock end.

4. Installation:

For proper operation, the machine should be set on a substantial floor capable of supporting the weight safely. To secure the machine in its foundation, use anchor bolts or lag screws. For the size of the base and the location of the bolt holes, see floor plan - Fig. 2.

After the machine is in position, it must be levelled by the use of the four leveling bushings before tightening lag screws.



Floor Plan of 10 x 20 Utilathe
and 12 x 30 Model LD Utilathe

Fig. 2

It is important that the lathe be level in order to produce accurate work.

Use a precision level placed lengthwise and crosswise on the bed. To take a reading off the level for the crosswise levelling of the bed, use parallel bars placed on the flats of the bed.

After all the strain and twist has been removed from the lathe bed and it checks perfectly level, the legs should be lagged to the floor and the levelling re-checked. Recheck the level of the machine at regular intervals.

LUBRICATION

All machines are shipped with the lubricating oil drained from the oil sumps in the headstock and apron, and must be serviced before being put in use.

For proper lubrication follow the instructions listed in this manual.

Oil capacities listed under lubrication instructions are based on British Imperial Measure.

Headstock

An automatic splash type of lubrication provides an even distribution of oil to all gears and bearings in the Headstock.

To service the headstock, fill the reservoir to the centre of the oil sight gauge through the oil cap on the cover plate.

A high grade S.A.E. No. 30 oil should be used.

The reservoir capacity of the headstock is 4 quarts.

Depending on operating conditions, usually about every six months, the headstock should be drained and thoroughly flushed out, before adding new oil.

A light blending oil to which a small percentage of kerosene has been added may be used to flush out any dirt or sediment.

Run the machine for several minutes without load so that the flushing oil can circulate through the reservoir and remove the dirt.

The flushing oil must then be drained and new oil added.

Do not flush with solvents, which will soften and remove the paint.

Quick Change Gear Box

Two oilers located at the top ends of the Gear Box Casting, and one oiler located in Bearing Bush (inside the Belt Guard) lubricate all bearings and gears in the quick change gear box.

Fill the three oilers with machine oil at least once per eight hours of operation. Use an S.A.E. #30 oil.

Carriage

On the right hand side of the carriage two oilers lubricate the bearing surfaces of the carriage on the bed ways.

The oil flows down through the oilers to the ways, and along the length of the carriage through oil grooves. The oil is retained at the bearing surfaces by felt seals located at either end of the carriage which also provides even distribution of the lubricant over the ways.

Apron

The box construction of the apron completely encloses all moving parts and prevents the entry of dust or dirt.

The lower half of the apron forms a large oil reservoir in which all the gears run to provide an even distribution of lubricant.

Service the apron reservoir through the $\frac{1}{4}$ " pipe plug in the saddle casting.

Fill with oil to the centre of the oil sight gauge using an S.A.E. No. 30 oil. The reservoir capacity of the apron is 1 pint.

The apron oil reservoir should be drained, flushed with kerosene, and refilled with fresh clean oil at least once every 6 months.

Two individual oilers service the half-nut and the feed dial.

LUBRICATION (Contd.)Tailstock

The spindle and screw are lubricated by an oiler located on top of the spindle housing.

The bed ways on which the tailstock slides should be cleaned and oiled frequently.

Dry red lead mixed with machine oil to a creamy consistency is an excellent lubricant for the tailstock centre when machining work between centres.

Compound Slide and Cross Slide

On the compound slide one flush-type oiler lubricates both ways and screw, while another lubricates the screw bearing.

On the cross feed, the screw bearing is lubricated by an oiler behind the cross feed dial. Lift chip guard and apply a small amount of oil to the cross feed screw before using.

Two oilers on the cross slide lubricate the saddle ways individually.

Leadscrew Bracket and Leadscrew

A single oiler located on top of the lead screw end bracket lubricates both the end of the feed shaft and the end of the leadscrew.

Taper attachment

Apply a small amount of oil to the taper attachment slide before using.

Miscellaneous Lubrication

For all oilers on the machine use a medium S.A.E. No.30 machine oil. Before filling reservoirs or oil cups, always wipe off with a clean rag any accumulation of old oil, grease or dirt that might get into a part being lubricated.

Operating Instructions

1. Motor Control

The control lever located just below tray at left side of pedestal governs the operation of the motor. See Fig.3

Move the lever to "Forward" and the motor turns the spindle in the normal direction for turning, drilling, boring, etc.

Move the lever to "Off" and the motor is shut off.

Move the lever to "Reverse" and the spindle direction is reversed.

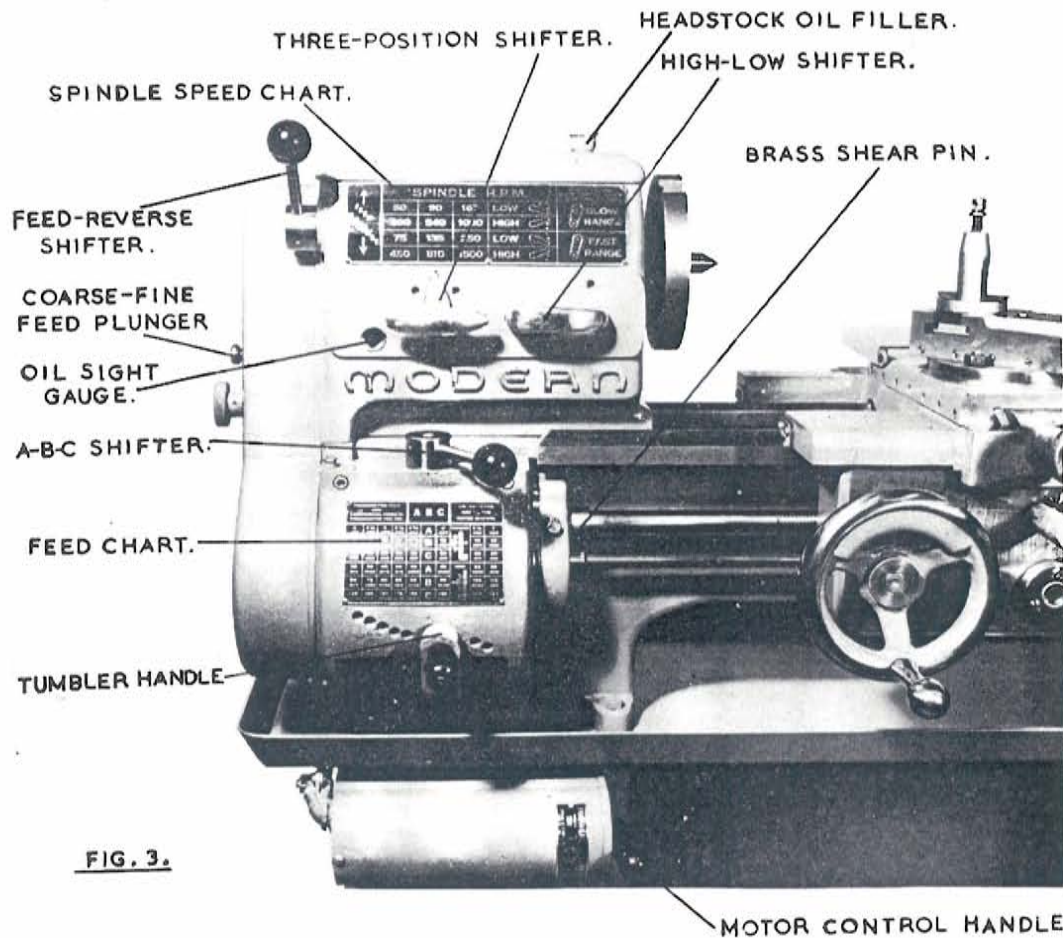


FIG. 3.

2. Spindle Speed Control Handles.

At the left front of the headstock, Fig.3 is the three position shift handle.

Immediately above, on the front of the headstock, is the Direct Reading Spindle Speed Chart.

The desired spindle speed is obtained by (i) Placing the three position shift handle in one of the three positions; (ii) Moving the high-low shift lever to either the high or low range; (iii) Running the input V-belt over either the slow or the fast pulley.

The resultant spindle speed may be noted directly from the chart.

For free hand rotation of the spindle, move the High-Low shift handle to its neutral position.

Do not operate the shift handles while the spindle is revolving.

Operating Instructions (Contd.)

3. Power Feeds

For longitudinal power feed or cross power feed, arrange the shift handles on the headstock and the Quick Change Gear Box, to correspond to the desired feed rate as shown on the feed chart, Fig.3.

Set the "Feed-Reverse" lever located on the left hand side of the headstock to "Feed" (Up), for L.H. Feed, or to "Reverse" (Down), for R.H. feed.

For coarse feed range, pull out plunger protruding through belt guard, and for fine feed, push plunger in, as indicated on Thread and Feed Chart. Do not engage the coarse feeds when spindle speeds are over 100 r.p.m.

The A-B-C shift handle located on top of the Feed Box, and the tumbler lever at the bottom, are used to obtain the required thread or feed indicated on Feed Chart.

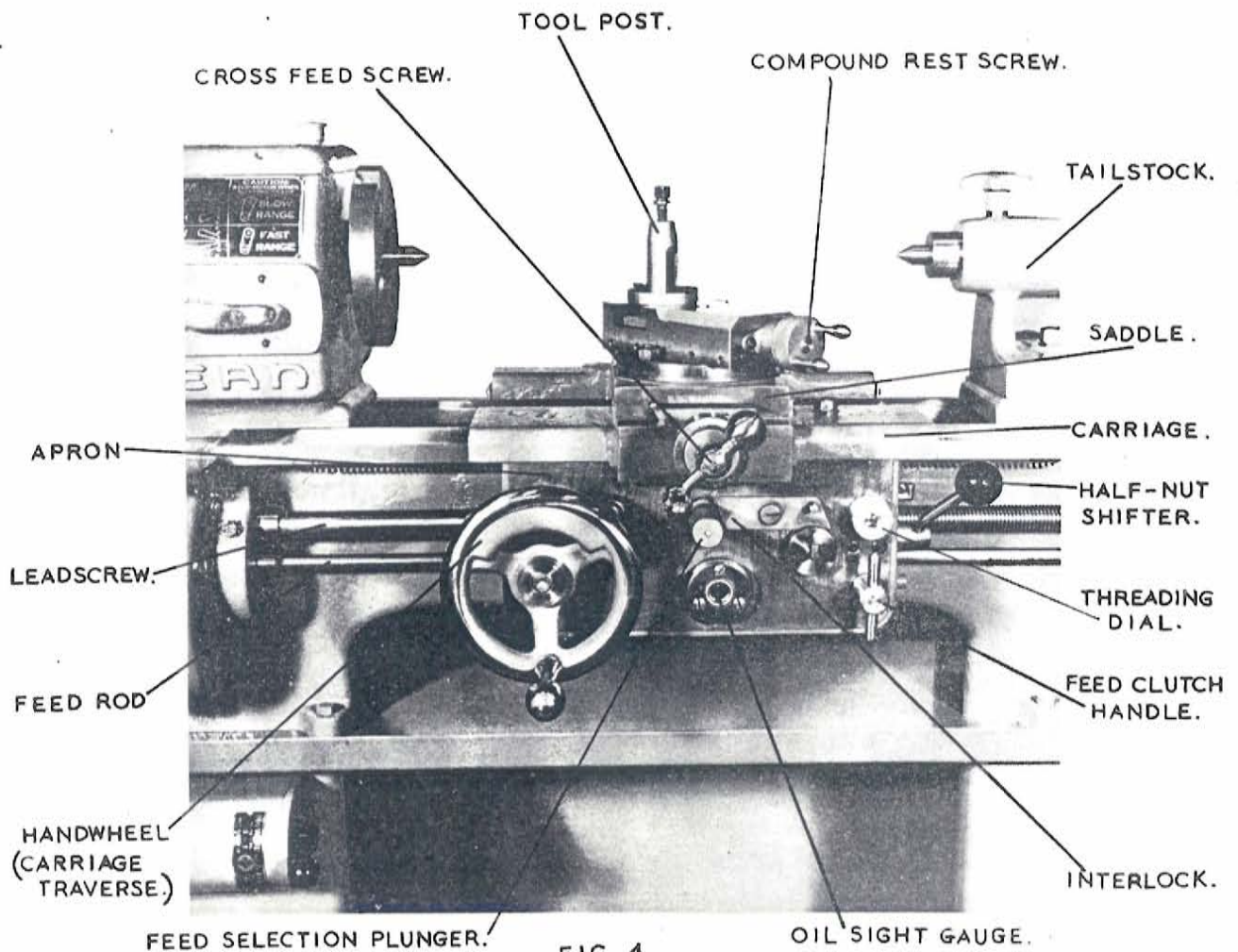


FIG. 4.

For longitudinal power feed, push in the Feed Selection Plunger located on the front centre of the apron to obtain the feed indicated on Chart.

For cross power feed, pull out the Plunger, which will produce a feed at half the rate indicated on Chart.

An interlock is fitted so that it is impossible to engage the Feed Selection Plunger if the half-nut is already engaged and vice versa.

After setting the Feed Selection Plunger the power should be clutched in by the Feed Clutch Handle located on the front lower right corner of the apron.

Do not use Feed Selection Plunger for clutching in.

Operating Instructions (Contd.)

4. Half Nut Control and Thread Chasing Dial

For cutting screw threads, set the A-B-C handle and the tumbler handle to give the required T.P.I. on the Feed Chart.

To engage Apron for Threading, the Half-Nut is pushed into mesh with the leadscrew by the Half-Nut Shifter located on the right end of the Apron. At the end of the first cut, disengage the Half-Nut, withdraw the tool from the work and return the carriage to its starting position. The tool is then set to the next depth of cut and the Half-Nut is re-engaged with the correct line on the Dial lined up with the Index Line (See below).

5. Thread Chasing Dial Instructions

The Dial on the left front of the Apron has 4 divisions marked 1, 2, 3, 4, and 4 unmarked half-divisions. A 4th traverse of the carriage gives one complete turn of this Dial.

- (i) When the number of threads per inch is divisible by 8, disregard the Dial.
- (ii) When the thread has an even number of T.P.T., e.g. 12, 22, T.P.T., engage the Half-Nut at any graduation.
- (iii) For an odd number of T.P.I., e.g. 11, 13, T.P.I., engage only on numbered graduations.
- (iv) For half T.P.I., e.g. $3\frac{1}{2}$, $4\frac{1}{2}$ T.P.I., engage the Half-Nut only on opposite numbered lines, i.e. 1 and 3, or 2 and 4.
- (v) For quarter T.P.I., e.g. $5\frac{3}{4}$, $3\frac{1}{4}$ T.P.I., engage Half-Nut on the same numbered line each time.

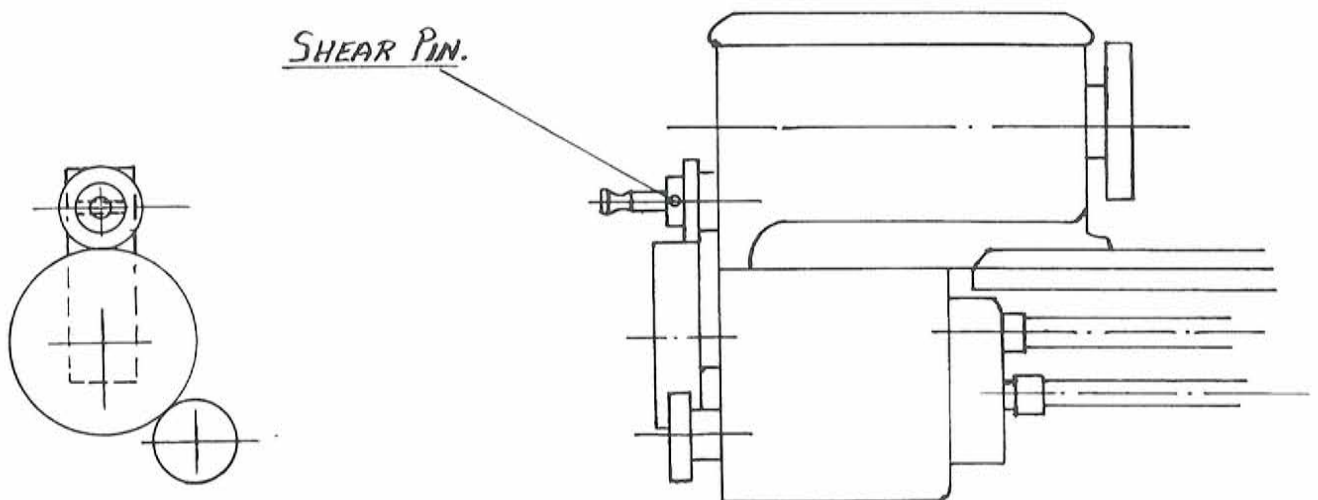
Lead Screw Shear Pin.

This brass shear pin is located at the left-hand end of the lead screw (see Fig. 3) and is provided to prevent damage to the lead screw should the carriage be allowed to come in contact with the headstock or some other obstruction which acts as a positive stop. When the stoppage takes place the lead screw continues to turn in the half nuts and will begin to move endwise thus shearing the pin longitudinally. The shear pin can be readily replaced by first withdrawing the lead screw from the coupling to remove the three portions of broken pin. It is then returned to the coupling and rotated by hand until the zero line on the screw coincides with that on the coupling. A new shear pin, which is provided with the machine, is then driven into place.

Gear Train Shear Pin

This brass shear pin is located in the feed gear shaft and drives the top gear (see sketch) of the end gear train under the belt guard. It is provided to prevent damage to the feed compound gears in the headstock due to a possible seizure in the feed box.

A new pin, which is provided with the machine, can be readily fitted by first removing the gear and knocking the broken portions out of the shaft and gear. The new pin is then fitted to the shaft and gear. It is essential, of course, to locate and remedy the cause of the seizure.

Fig. 5.

Taper Turning Attachment ~~(for 10" Utilities)~~

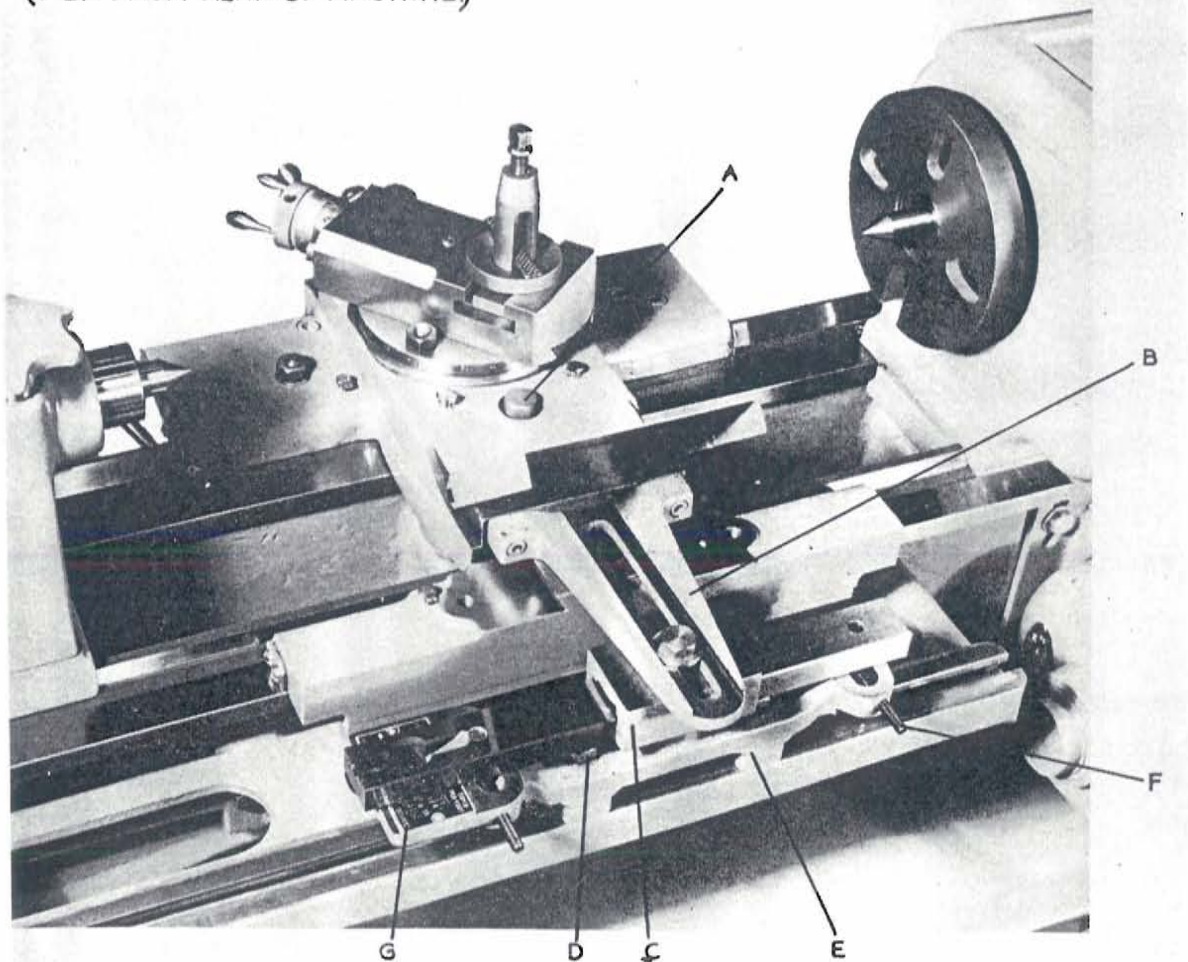
Capacity:- 10" stroke. Taper on dia. 4" per foot, or 20° included angle.

- (i) Remove the Hex. Head Screw and Washer which clamp the Cross-Feed Nut. (Be careful to brush away chips and dirt around the Screw before removing).
- (ii) Insert the knurled plug 'A' in this hole, to keep dirt from falling down on to the Cross-Slides.
- (iii) The Hex. Head Screw and Washer are then inserted through the slot in the extension bracket 'B' and screwed into the slide shoe 'C'.
- (iv) Slacken clamp nuts 'D' and push the sliding bracket 'E' longitudinally along the bed to the position where it straddles the work, and tighten the clamp nuts.
- (v) Slacken the clamp nuts (not visible on Fig.6) under the ends of Bracket 'E'. By adjusting the set screws 'F', the Index Line on the slide is set to the graduated plate 'G' to give the desired taper in degrees or inches per foot. Tighten the clamp nuts underneath.

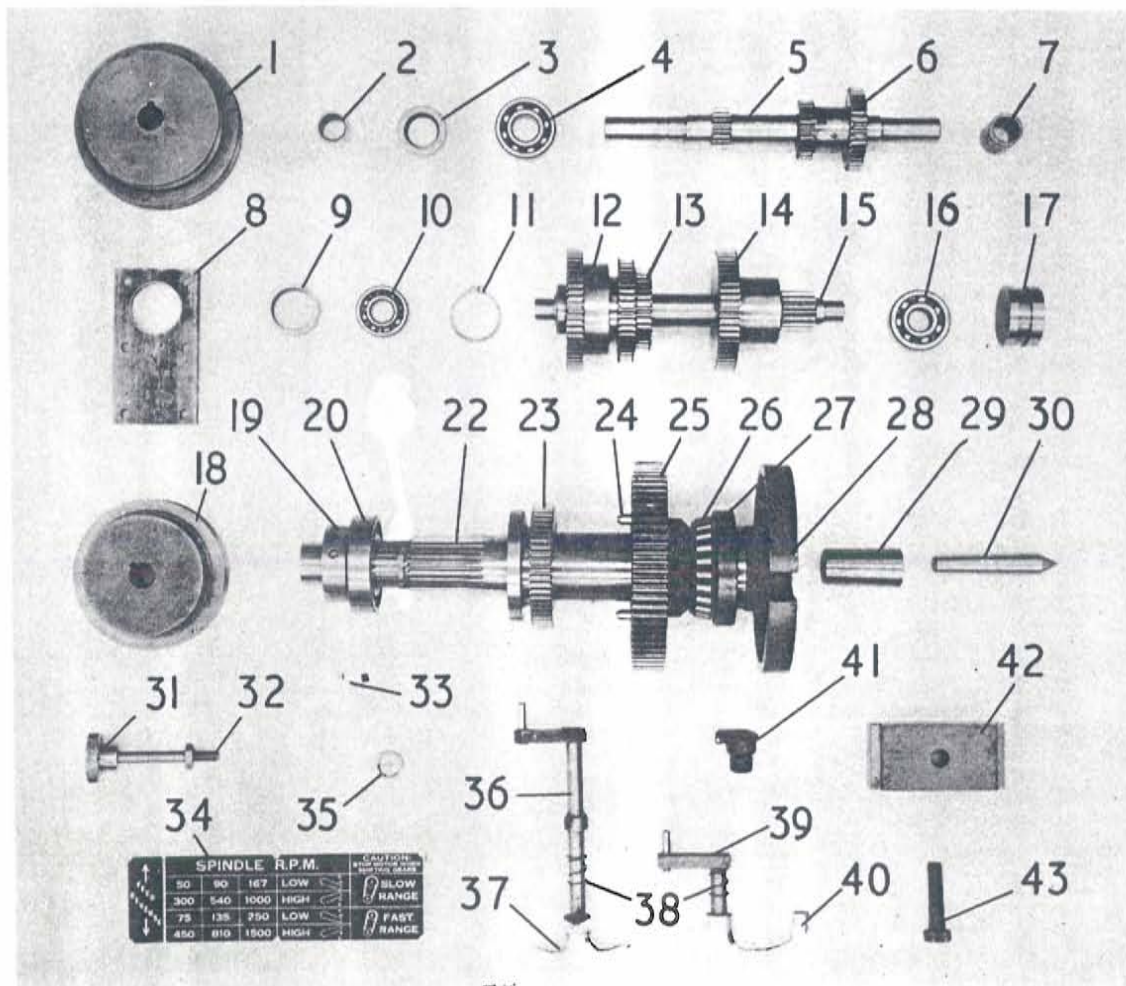
NOTE: Keep the slide bar clean and well oiled. Do not forget to slack off the hex. head screw when making new settings of the slide bar.

TAPER TURNING ATTACHMENT.
(VIEW FROM REAR OF MACHINE)

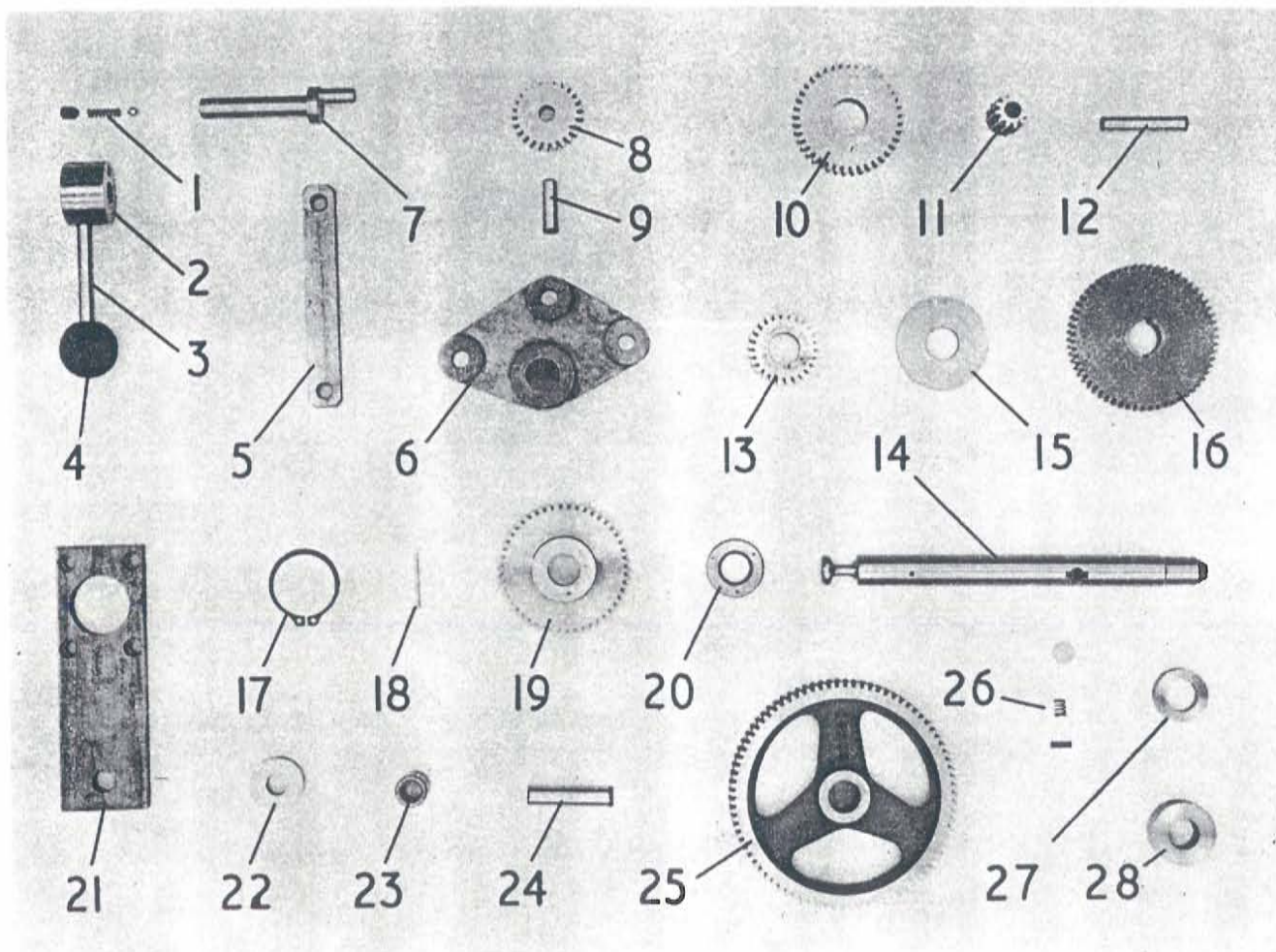
FIG. 6.



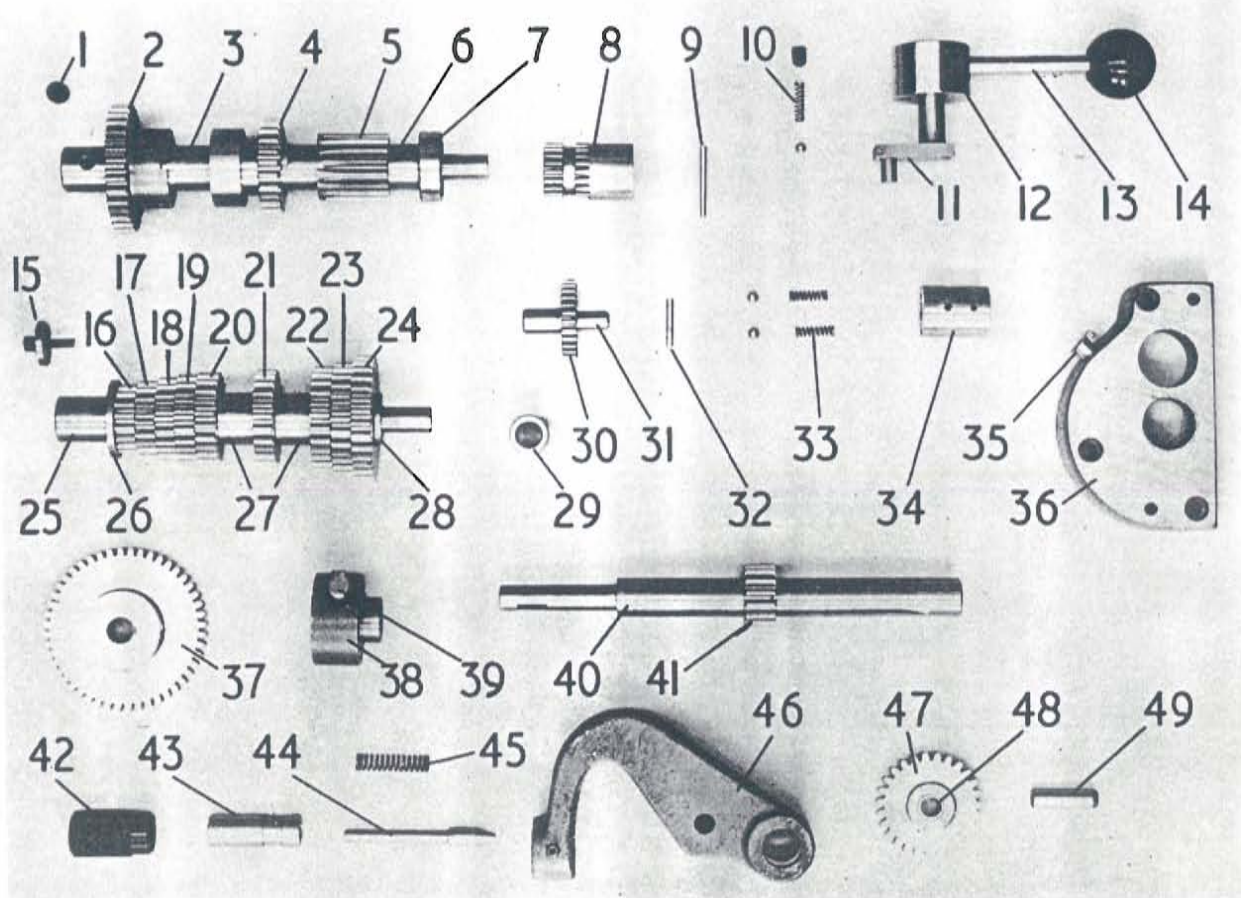
ITEM	NAME	PART NO.	ITEM	NAME	PART NO.
1	HEADSTOCK PULLEY (1500 RPM)	B-30550	24	HARDENED DOWEL (2 REQ'D)	A-30551
2	HEADSTOCK PULLEY (1800 RPM)	B-30348	25	72T BULL GEAR (WITH KEYED BORE)	B-30344
3	TORRINGTON INNER RACE	1R-1212		72T BULL GEAR (WITH PLAIN BORE)	B-30643
4	PERFECT OIL SEAL	1481		TIMKEN BEARING 18720 & 18790	B-30643
5	SKF BEARING	6204	26	SPINDLE FRONT COVER	A-30546
6	PULLEY SHAFT	B-30534	27	DOG PLATE	B-30345
7	26T & 37T DOUBLE GEAR	A-30535	28	SPINDLE NOSE SLEEVE	A-30544
8	OILITE BEARING	A-1049	29	LATHE CENTRE	A-30545
9	BEARING RETAINER PLATE	A-30533	30	KNOB FOR GUARD	A-21120
10	BEARING SPACER	A-30540	31	STUD FOR GUARD	A-30552
11	SKF BEARING	6203	32	BRASS PAD & SET SCREW	A-30564
12	TRUARC RING	5100-150	33	SPINDLE R.P.M. NAMEPLATE	A-30380
13	57T & 48T DOUBLE GEAR	A-30537	34	BIJUR OIL SIGHT	B-5095
14	37T GEAR	A-30536	35	THREE-POSITION SHIFTER	A-30549
15	56T GEAR	A-30538	36	INDICATOR KNOB	A-30346
16	INTERMEDIATE SHAFT	B-30539	37	SHIFTER SPRINGS (2 REQ'D)	A-21122
17	SKF BEARING	6303	38	HIGH-LOW SHIFTER	A-30548
18	BEARING RETAINER	A-30541	39	SHIFT LEVER	B-21043
19	MOTOR PULLEY	B-30349	40	GITS OIL FILLER	307
20	SPINDLE NUT	A-30559	41	CLAMPING PLATE (2 REQ'D)	A-30532
22	SKF BEARING	6207-25	42	1/2-13 X 2 HEX. HEAD CAP SCREW (2 REQ'D)	
	THREADED SPINDLE WITH FEATHER KEY DRIVE	C-30543	43		
	THREADED SPINDLE WITH SPLINED DRIVE	C-30642	THE FOLLOWING ITEMS ARE NOT SHOWN		
	CAM-LOCK SPINDLE WITH FEATHER KEY DRIVE	D-30608		HEADSTOCK CASTING - 12 X 30	E-30628
	CAM-LOCK SPINDLE WITH SPLINED DRIVE	D-30645		HEADSTOCK CASTING - 10 X 20	E-30342
23	SHIFTING GEAR (WITH KEYED BORE)	A-30542		HEADSTOCK COVER	C-30343
	SHIFTING GEAR (WITH SPLINED BORE)	A-30644		WASHER FOR HEADSTOCK PULLEY	A-30566
				VEE-BELT (1500 RPM)	2320
				VEE-BELT (1800 RPM)	2330



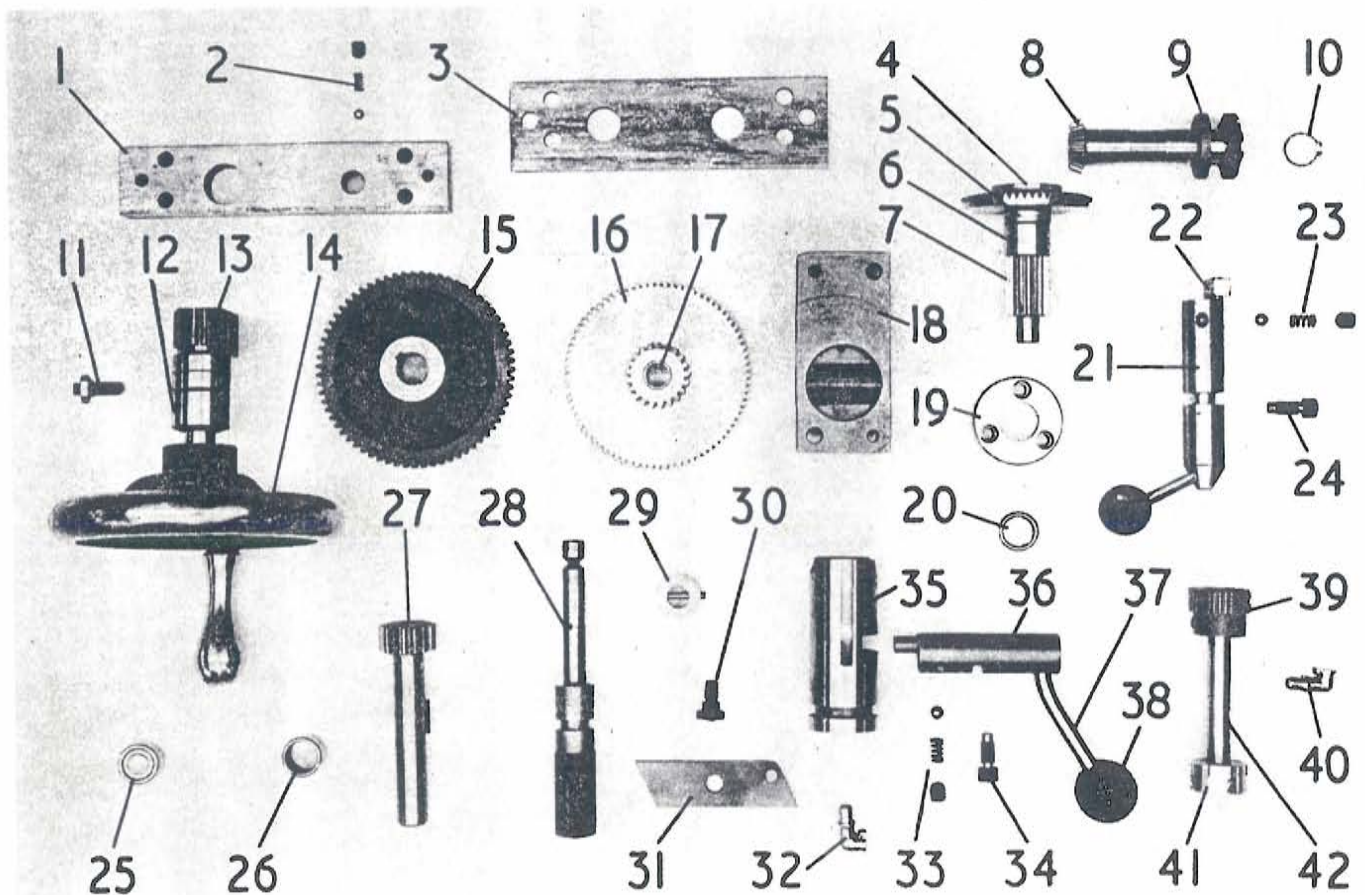
ITEM	NAME	PART NO.	ITEM	NAME	PART NO.
1	INDENT SPRING, HOLLOW SET SCREW AND STEEL BALL	A-30454	21	IDLER PLATE - 12 X 30	B-30641
2	SHIFT LEVER HUB	A-30446	21	IDLER PLATE - 10 X 20	B-30394
3	SHIFT LEVER HANDLE	A-30451	22	RETAINING COLLAR (2 FOR 12")	A-30393
4	DIMCO BLACK BAKELITE KNOB	95	23	OILITE BEARING (2 FOR 12")	A-742
5	TUMBLER LINK	A-30395	24	HARDENED DOWEL (2 FOR 12")	1/2 X 2
6	TUMBLER REVERSE BRACKET	C-30352	25	83T IDLER GEAR - 10 X 20 -	B-30353
7	ECCENTRIC	A-30396	25	54T IDLER GEAR 12 X 30 (2)	A-30640
8	25T TUMBLER GEAR	A-30382	26	CIRCULAR SPRING KEY	A-30390
9	HARDENED STEEL DOWEL (2)	3/8 x 1 1/2		KEY SPRING	A-30531
10	40T TUMBLER GEAR	A-30383	27	SPRING HOLDER	A-30397
11	12T TUMBLER PINION	A-30384	28	SPACING COLLAR	A-30389
12	HARDENED STEEL DOWEL	3/8 x 2		STOP COLLAR	A-30391
13	25T FEED GEAR	A-30385	THE FOLLOWING ITEMS ARE NOT SHOWN		
14	FEED GEAR SHAFT	B-30381		REAR END GUARD 12 x 30	D-30631
15	WASHER	A-30388		REAR END GUARD 10 x 20	D-30347
16	60T FEED GEAR	A-30386		STANDARD 3/8 STEEL BUTT	
17	TRUARC RING	5100-156		HINGE	
18	BRASS SHEAR PIN	A-30398			
19	48T FEED TRAIN GEAR	A-30392			
20	PERFECT OIL SEAL	13524			



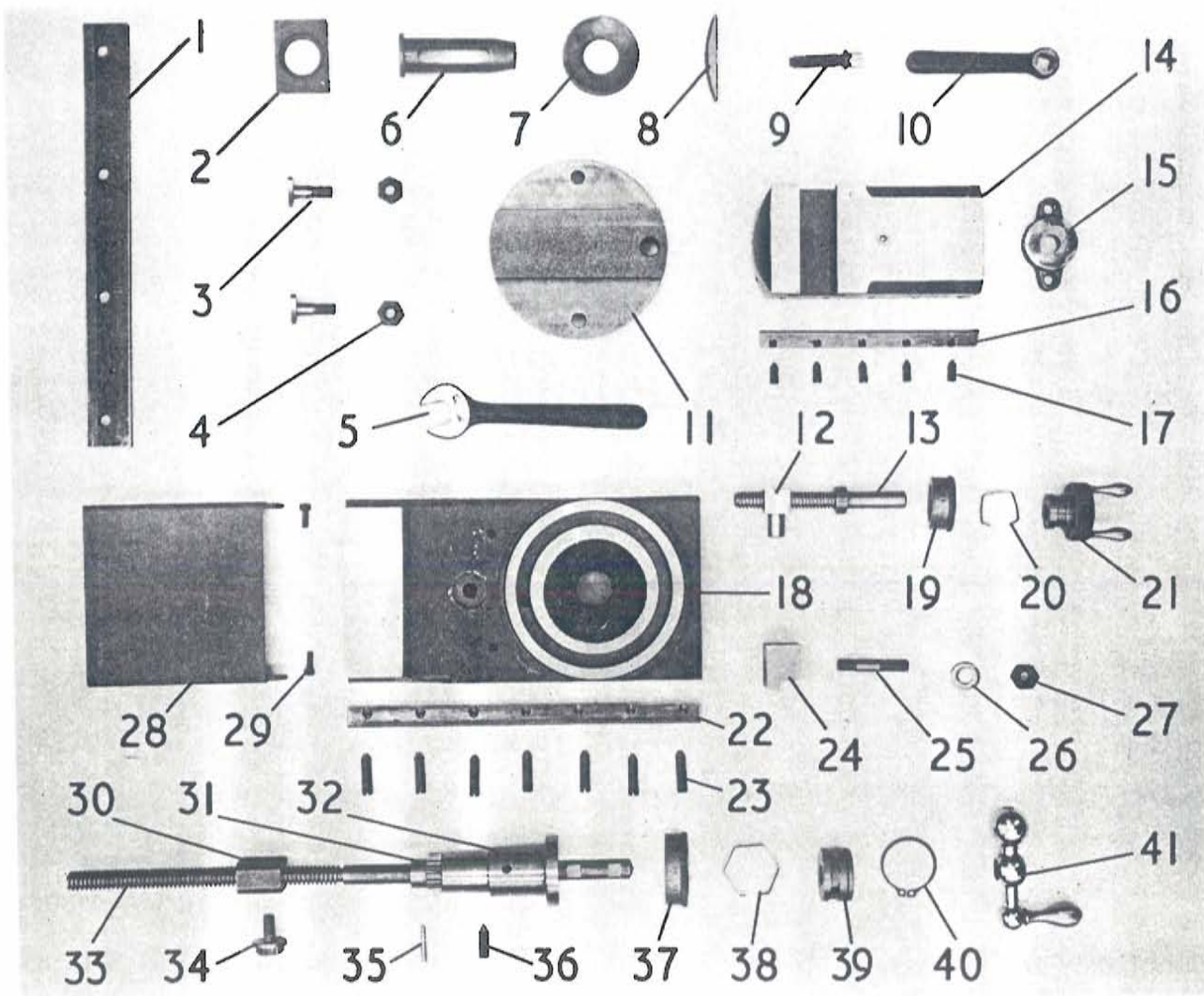
ITEM	NAME	PART NO.	ITEM	NAME	PART NO.
1	STANDARD 1/8 PIPE PLUG		28	SPACER WASHER	A-30438
2	32T CLUTCH GEAR	A-30420	29	OILITE BEARING	A-742
3	CLUTCH SHAFT	A-30419	30	FEED SHAFT CLUTCH GEAR	A-30423
4	24T DOUBLE CLUTCH GEAR	A-30424	31	STUB SHAFT	A-30426
5	16T CLUTCH GEAR	A-30421	32	No. 0 x 1 STANDARD TAPER PIN	
6	SPACER COLLAR	A-30440	33	INDENT SPRING AND STEEL BALL (2)	A-30454
7	S.K.F. BEARING 3204	6202-22	34	FEED SHAFT CLUTCH COUPLING	A-30425
8	LEAD SCREW COUPLING GEAR	A-30422	35	GITS OILER (2)	303
9	BRASS SHEAR PIN	A-30450	36	GEAR HOUSING	B-30359
10	INDENT SPRING, HOLLOW SET SCREW AND STEEL BALL	A-30454	37	48T INPUT GEAR	A-30453
11	SHIFTER	A-30445	38	BEARING BUSHING	A-30444
12	SHIFT LEVER HUB	A-30446	39	GITS OILER	303
13	SHIFT LEVER HANDLE	A-30451	40	POWER INPUT SHAFT	A-30441
14	DIMCO BLACK BAKELITE KNOB	95	41	16T SLIDING GEAR	A-30442
15	SHAFT RETAINING WASHER	A-30452	42	PLUNGER HANDLE	A-30449
16	16T SPUR GEAR	A-30428	43	PLUNGER HOUSING	A-30448
17	18T SPUR GEAR	A-30429	44	PLUNGER	A-30447
18	20T SPUR GEAR	A-30430	45	COMPRESSION SPRING	A-30455
19	22T SPUR GEAR	A-30431	46	TUMBLER BRACKET	C-30360
20	23T SPUR GEAR	A-30432	47	27T IDLER GEAR	A-30443
21	24T SPUR GEAR	A-30433	48	OILITE BEARING	A-532
22	26T SPUR GEAR	A-30434	49	HARDENED STEEL DOWEL	3/8 x 1 1/2
23	28T SPUR GEAR	A-30435	THE FOLLOWING ITEMS ARE NOT SHOWN		
24	32T SPUR GEAR	A-30436			
25	CLUSTER GEAR SHAFT	A-30427			
26	SPACER WASHER	A-30437			
27	SPACER COLLAR (2)	A-30439	FEED BOX CASTING	D-30358	
			FEED AND T.P.I. NAMEPLATE	A-30418	



ITEM	NAME	PART NO.	ITEM	NAME	PART NO.
1	BEARING PLATE	B-30458 ✓	23	INDENT SPRING, HOLLOW SET	A-30483
2	INDENT SPRING, HOLLOW SET	A-30484	24	SCREW AND STEEL BALL	A-30480 ✓
3	GIB PLATE	B-30459 ✓	25	SPECIAL SCREW	M-1112
4	55T BEVEL GEAR	B-30456 ✓	26	TORRINGTON NEEDLE BEARING	B-1112
5	PERFECT OIL SEAL	09916	27	TORRINGTON NEEDLE BEARING	A-30463 ✓
6	BEARING BUSHING	A-30476 ✓	28	RACK PINION SHAFT	A-30465 ✓
7	16T PINION	A-30464 ✓	29	FEED ENGAGING SHAFT	A-30475 ✓
8	22T BEVEL PINION	B-30457 ✓	30	COLLAR	A-30473 ✓
9	COLLAR (2)	A-30469 ✓	31	EX-CELL-O LOCK SCREW No. 2	1228
10	TRUARC RING	5100-68	32	INTERLOCK	A-30473 ✓
11	5-16 - 18 x 1 HOLLOW SET		33	GITS OILER	1228
	SCREW CONE POINT AND			INDENT SPRING, HOLLOW SET	A-30483
	JAM NUT			SCREW AND STEEL BALL	A-30480 ✓
12	NEW DEPARTURE BEARING	885140	34	SPECIAL SCREW	B-30461 ✓
	ASSEMBLY	A-30462 ✓	35	HALF NUT	A-30466 ✓
13	17T PINION	B-30481 ✓	36	HALF NUT SHIFTER	A-30451 ✓
14	BALCRANK HANDWHEEL	B-30378 ✓	37	SHIFTER HANDLE	95
15	67T GEAR	B-30460 ✓	38	DIMCO BLACK BAKELITE KNOB (2)	A-30472 ✓
16	PINION AND GEAR	604-4 ✓	39	32T WORM GEAR	1228
17	OILITE BEARING	B-30377 ✓	40	GITS OILER	A-30470 ✓
18	BEVEL GEAR BRACKET	A-30479 ✓	41	THREAD CHASING DIAL	A-30471 ✓
19	HOUSING FOR OIL SIGHT	B-5095 ✓	42	DIAL SHAFT	
20	BIJUR OIL SIGHT	A-30635 ✓	THE FOLLOWING ITEMS ARE NOT SHOWN		
21	FEED SHIFTER -	A-30636 ✓	APRON CASTING		
	HANDLE	A-30468 ✓	ZERO WASHER FOR DIAL		
22	SHIFTER SHOE				D-30376 ✓
					A-30474 ✓



ITEM	NAME	PART NO.	ITEM	NAME	PART NO.
1	REAR SADDLE GIB	B-30523	24	SADDLE CLAMP	A-30520
2	TOOL POST WASHER	A-30503	25	3/8-16 X 2 1/4 MILLED STUD	
3	TEE HEAD BOLT (2-REQ'D)	B-30509	26	3/8 STANDARD S.A.E. WASHER	
4	3/8-16 HEAVY HEX. NUT (2)		27	3/8-16 HEAVY HEX. NUT	
5	WILLIAMS #3 OPEN END WRENCH		28	CHIP GUARD	B-30522
6	TOOL POST FOR #0 TOOL HOLDER	A-30500	29	#10-32 X 1/2 SOCKET HEAD CAP SCREW (2-REQ'D)	
6	TOOL POST FOR #1 TOOL HOLDER	A-30665	30	CROSS FEED NUT	A-30372
7	TOOL POST RING	A-30502	31	19T GEAR FOR SCREW	A-30517
8	TOOL POST WEDGE	A-30501	32	EXTENTION BEARING	A-30516
9	3/8-16 X 1 1/2 "MAC-IT" TOOL POST SCREW		33	CROSS FEED SCREW	B-30511
10	WILLIAMS SQUARE BOX WRENCH	NO. 583	34	HEX. HEAD SCREW	A-30518
11	COMPOUND SWIVEL BASE 10" X 20"	B-30369		WASHER FOR HEX. HEAD SCREW	A-30519
	COMPOUND SWIVEL BASE 12" X 30" WITH #0 TOOL HOLDER	B-30632	35	NO. 0 X 1 TAPER PIN	
	COMPOUND SWIVEL BASE 12" X 30" WITH #1 TOOL HOLDER	B-30666	36	CONE POINT SCREW	A-30521
12	COMPOUND FEED NUT	A-30379	37	GRADUATED DIAL	A-30514
13	COMPOUND SCREW	A-30504	38	MARCEL SPRING	A-30515
14	COMPOUND SLIDE	B-30368	39	SLEEVE FOR SCREW	A-30513
15	BEARING PLATE	A-30375	40	TRUARC RING	5100-150
16	GIB FOR COMPOUND SLIDE	A-30373	41	CRANK FOR CROSS FEED	A-30512
17	GIB SCREW (5-REQ'D)	A-30363	THE FOLLOWING ITEMS ARE NOT SHOWN		
18	CROSS SLIDE	C-30371		SADDLE CASTING	D-30370
19	GRADUATED DIAL	A-30506		FRONT WIPER PLATE (2-REQ'D)	A-30524
20	MARCEL SPRING	A-30508		REAR WIPER PLATE (2-REQ'D)	A-30525
21	SLEEVE FOR SCREW	A-30507		FRONT WIPER (2-REQ'D)	A-30526
	BALCRANK HANDLE (2-REQ'D)	H-3301		REAR WIPER (2-REQ'D)	A-30527
22	GIB FOR CROSS SLIDE	B-30374			
23	GIB SCREW (7-REQ'D)	A-30362			



ITEM	NAME	PART NO.	ITEM	NAME	PART NO.																														
1	LATHE CENTRE	A-30545	19	THRUST BLOCK	A-30405																														
2	SPINDLE	B-30399	20	CLAMP STUD AND PLATE 10 x 20	A-30404																														
3	GITS OILER	523	20	CLAMP STUD AND PLATE 12 x 30	A-30638																														
4	3/8-16 x 1 1/2 SET SCREW		21	1/2-13 HEAVY HEX. NUT																															
5	SPINDLE SCREW	A-30400	22	1/2 S.A.E. WASHER																															
6	No. 2 WOODRUFF KEY		23	CLAMPING PLATE	B-30366																														
7	S.K.F. BEARING	6203-2Z	THE FOLLOWING ITEMS ARE NOT SHOWN																																
8	TRUARC RING (2)	5008-156																																	
9	CLAMPING KNOB LEVER	A-30637																																	
10	SPINDLE LOCKING WEDGE	A-30402																																	
11	CLAMPING STUD	A-30401																																	
12	SPINDLE HOUSING	D-30364																																	
13	3/8-16 x 1 1/2 SET SCREW																																		
14	BASE CASTING 10 x 20	C-30365																																	
14	BASE CASTING 12 x 30	C-30627																																	
15	WILLIAMS NO.805 BOX WRENCH																																		
16	BALCRANK HANDWHEEL	A-30408																																	
17	1/2-20 S.A.E. HEX. JAM NUT																																		
18	3/8-16 x 1 1/2 HEX. HD. CAP SCREW (2)																																		
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