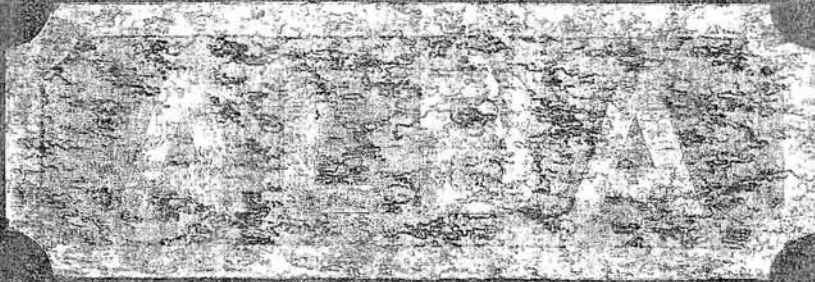


INSTRUCTION BOOK

ALVENS

(Walt Kid Gamett)



**HIGH SPEED
SHAPING MACHINES**

MODEL 1A — 10" STROKE

3/6

MADE IN ENGLAND

OPERATORS INSTRUCTION HANDBOOK

FOR THE

ALBA I.A.

HIGH SPEED

SHAPING MACHINE

SLINGING

It is important to sling the machine correctly and Fig.1. shows the method we recommend.

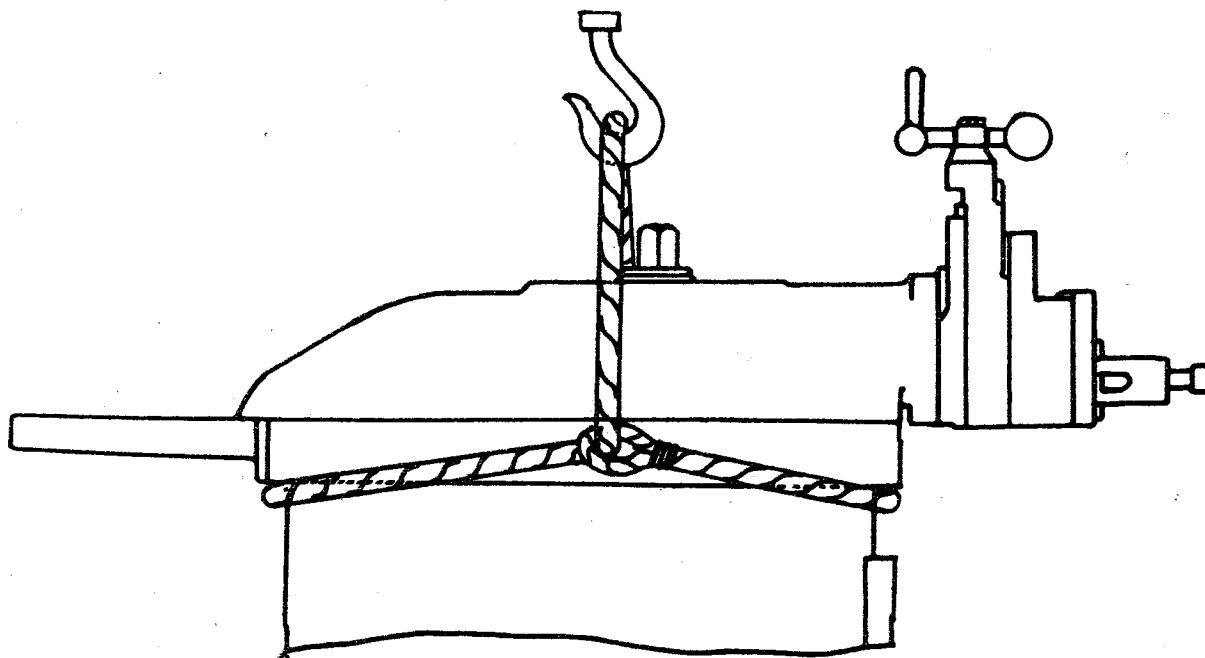


FIGURE 1

PLAN OF FOUNDATION

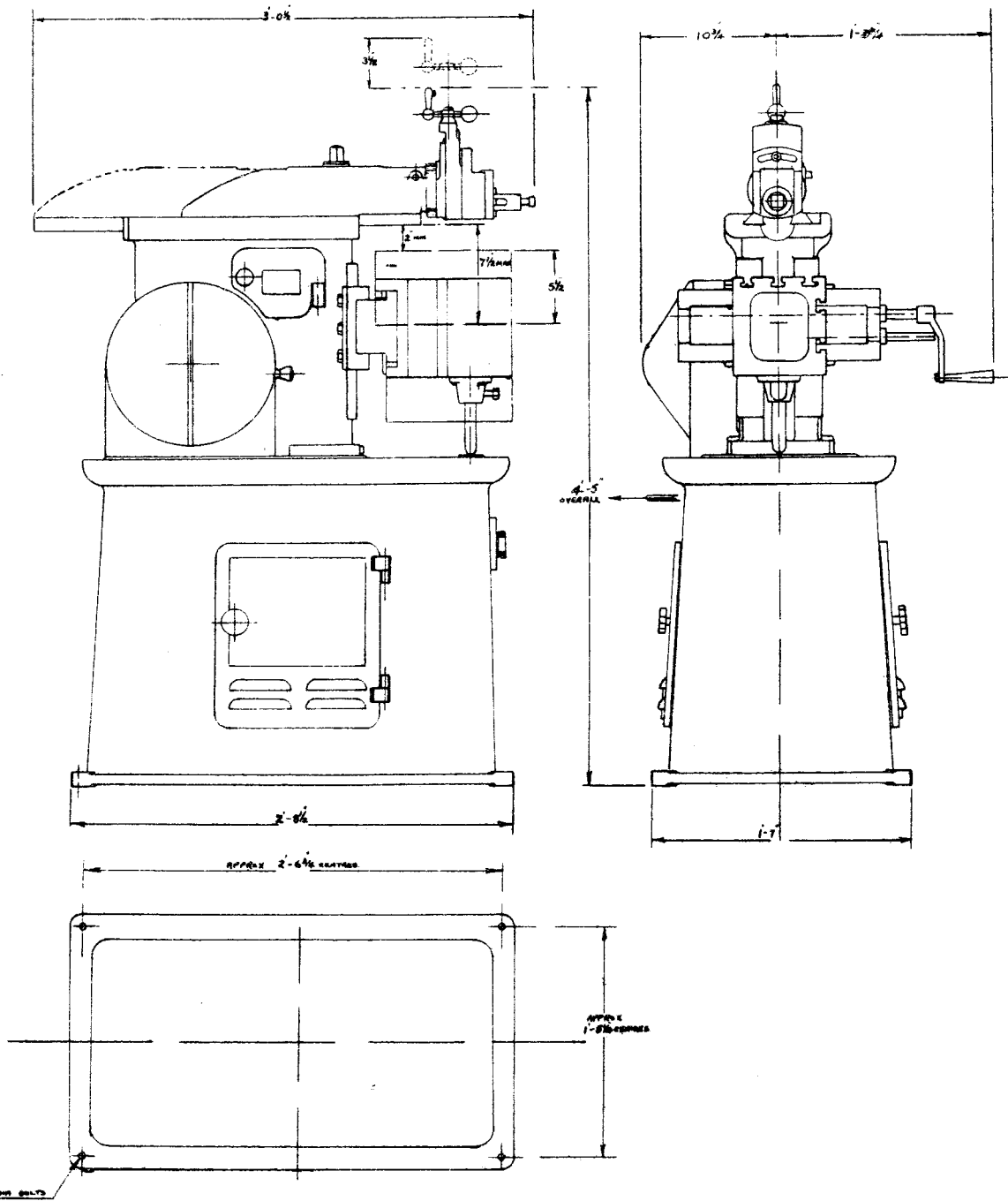


FIGURE 1

EXAMINATION

The machine should be carefully examined and any damage sustained in transit reported immediately to the responsible authority.

CLEANING

All bright surfaces are covered with a rust preventative which is soluble in ordinary machine oil. Do not allow any of the sliding parts to be moved until every trace of rust preventative has been removed.

INSTALLATION

The foundation should be prepared in accordance with the plan shown in Fig.2.

Lower the machine complete with rag bolts or bolts and plates on to suitable metal wedges or strips so that it may be correctly levelled before grouting down. The level should be checked with a precision spirit level set in both directions on the table surface.

LUBRICATION

Before running the machine should be lubricated thoroughly as indicated in the Chart below and in figures 3. and 4.

The recommended oil is given as a guide as any branded equivalent will be satisfactory.

The application of a light or medium machine oil to all slides and bright exposed parts at the end of a working shift is an obvious but vital necessity.

PART LUBRICATED	METHOD OF LUBRICATION	PERIOD	LUBRICANT
Ram Slide	Oil Nipples.	Daily	SHELL Oil Vitrea 33.
Rocker Arm — Ram Hinge.	Oil hole visible through top of ram.	"	"
Rocker arm and die block.	Oil hole in top of die block.	"	"
Bull Wheel Bearing.	Oil Nipple.	"	"
Clutch and Gear Shafts.	Oil Nipple adjacent to driven pulley and oil Nipples adjacent to Clutch Lever.	Weekly	"
Feed Cam.	Oil Hole.	"	"
Ratchet Bracket Bearing.	Oil Hole.	"	"
Cross and Vertical Leadscrew Bearings.	Oil Hole at each Bearing.	"	"
Gears.	Apply to teeth by hand.	"	SHELL Grease Alvania 2.

OPERATING DRIVE

The power is transmitted by vee belt from the 3/4 H.P. motor to the two stepped pulley and clutch unit and thence through the two speed gear train to the bull gear, rocker arm and ram, giving a final choice of 4. speeds. The motor is controlled by the "on"- "off" switch at the front of the machine base, and the final drive is engaged by the clutch lever; move the lever forward to engage and rearward to disengage the clutch. The speed changes are made by changing the position of the vee belt on the left-side of the machine and by changing the position of the gears by means of a plunger handle on the right-hand side of the machine; push the lever in for slow speeds and pull out for fast speeds. Do not change speeds whilst the machine is running.

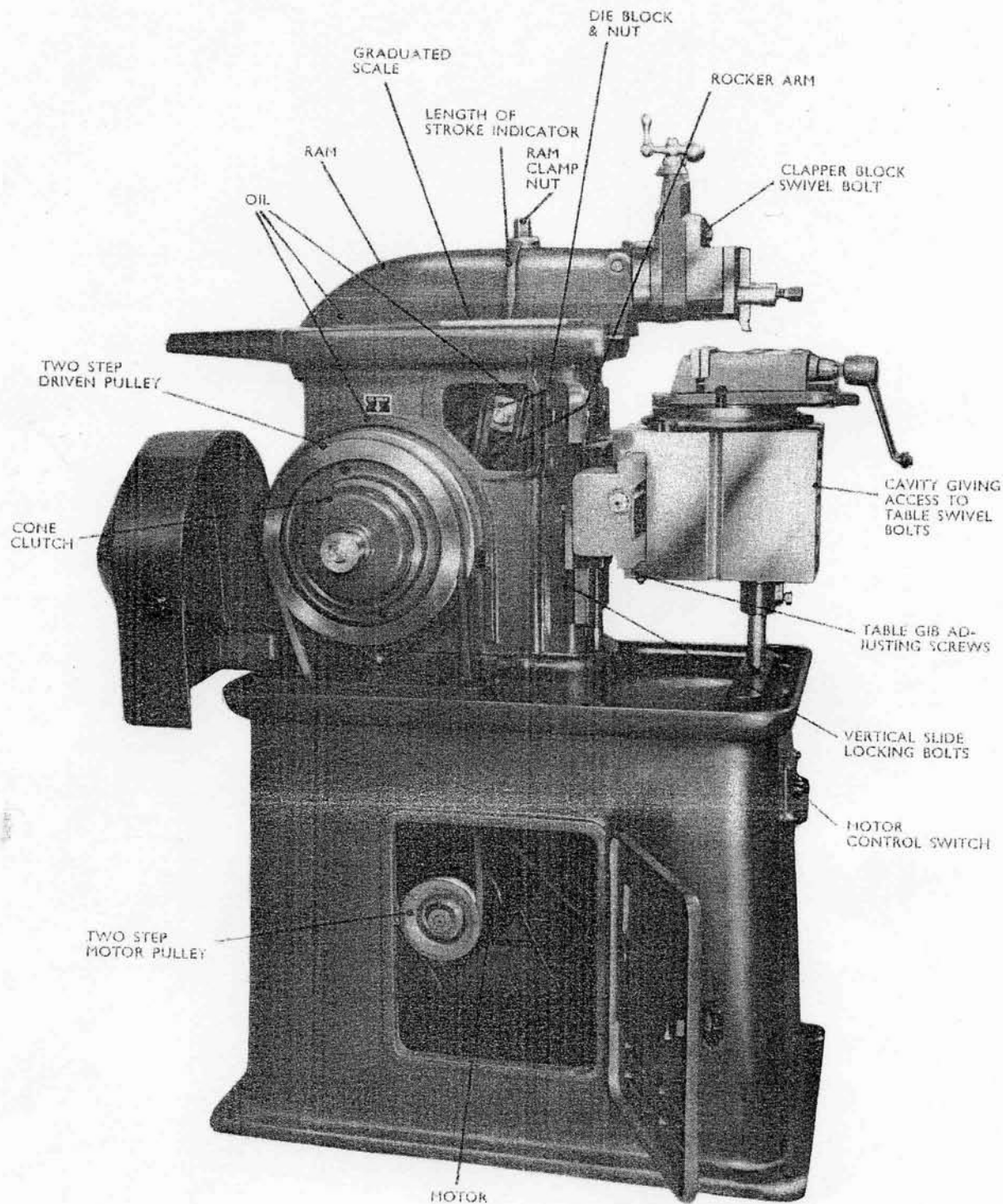


FIGURE 3

OPERATING

LENGTH OF STROKE

To adjust the length of stroke open the small door on the left side of the machine and release the die block nut. Adjust the position of the die block on the bull wheel, re-clamp and re-check the length of stroke from the ram pointer and scale by engaging the clutch and rotating the pulley wheel by hand. Ensure that the die block nut is tight before taking a cut.

To adjust the position of stroke release the ram clamp nut and push the ram to the required position, re-clamp the nut tightly."

CROSS FEED

The rate of cross feed may be varied by altering the position of the bracket on the tee slotted cam exposed at the right side of the machine. Minimum feed is obtained when the bracket is clamped to the centre of the cam and maximum feed obtained when the bracket is clamped at the rim of the cam.

To engage the automatic table cross feed, drop auto feed plunger into engagement with the ratchet gear below. To reverse the direction of feed lift plunger and turn through 180° before re-engaging the ratchet gear. To dis-engage auto cross feed lift plunger and rotate through 90° .

The automatic cross feed should operate on the return stroke of the ram so that the feed mechanism is not unduly strained. Should the cross feed be applied on the forward stroke of the ram, change the position of the bracket on the tee-slotted cam to the other side of the cam, i.e. diametrically opposite.

The feed link has been made telescopic to allow for variation in table heights. When transmitting feed, clamp the link rigidly by means of the link bolt.

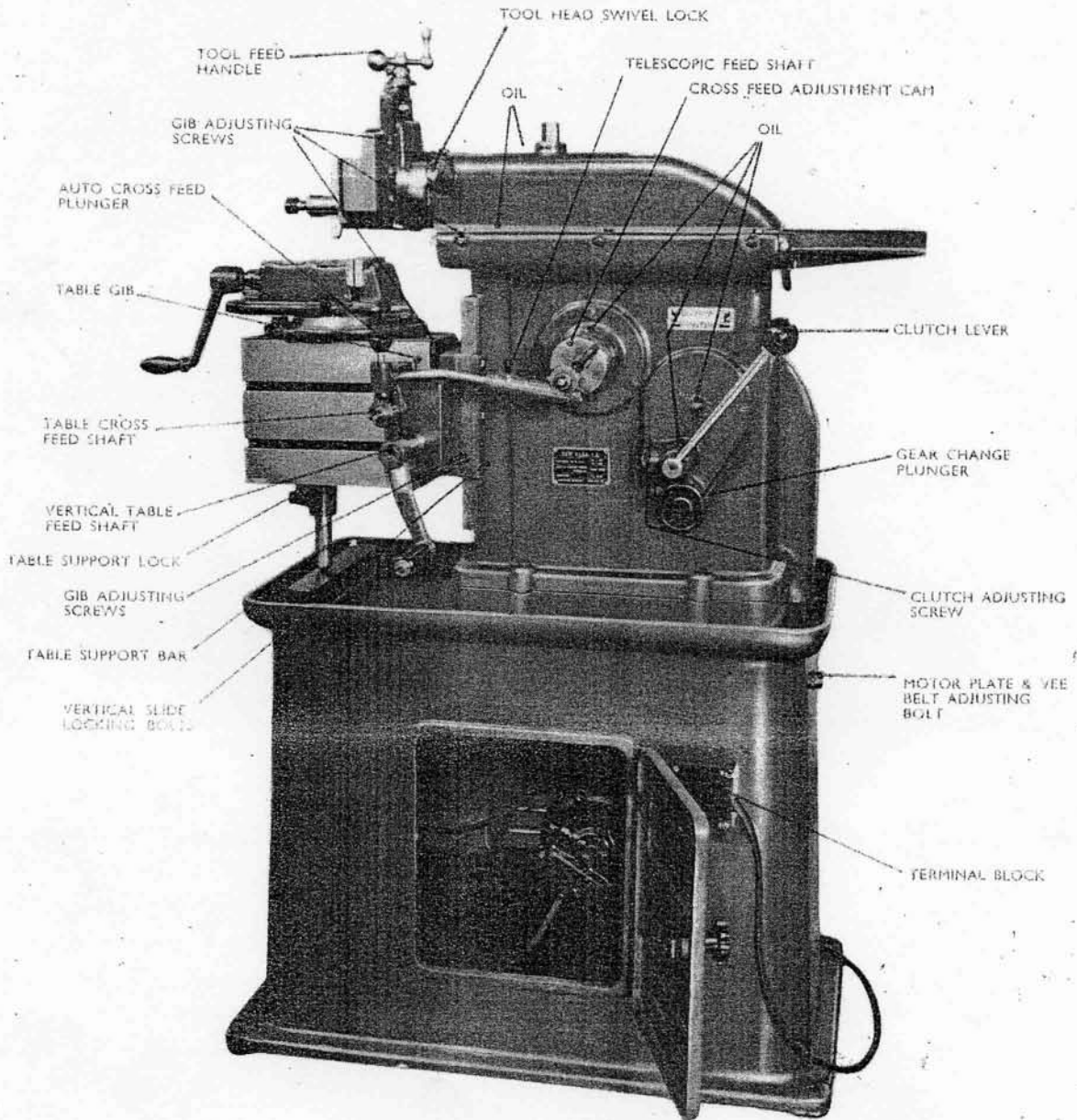


FIGURE 1

OPERATING

GENERAL

Vertical table feed is made by hand only. When the table has been correctly positioned, clamp in position by means of the vertical slide clamp bolts and lock the table support bar in position. The table may be swivelled by releasing the three bolts within the table and swivelling by hand to the desired position.

Angular down feed may be obtained by releasing the head lock and swivelling the head to the required position.

The clapper block may also be swivelled independently for angular tool setting by releasing the clamp bolt, figure 3.

MAINTENANCE

All slides are fitted with gib strips to compensate for wear, and may be adjusted by means of the locking bolts and gib screws provided.

Movement of the clutch and clutch lever may be adjusted by means of the screw and lock nut on the clutch lever boss. Ensure that the lock nut is tight after adjustment.

SPECIFICATION

Maximum stroke of ram	10"	254 mm.
Machining width (Automatic Feed)	11"	280 mm.
Machining height	7 $\frac{1}{2}$ "	197 mm.
Vertical movement to tool head	2 $\frac{1}{2}$ "	63 mm.
Table Length	10 $\frac{1}{4}$ "	260 mm.
Width	6 $\frac{3}{4}$ "	172 mm.
Height	7 $\frac{1}{2}$ "	190 mm.
Ram strokes per min.	40—55—75—100	40—55—75—100
Size of tools	$\frac{1}{2}$ " x $\frac{1}{2}$ "	13 x 13 mm.
Space required	34" x 26"	864 x 660 mm.
Power required to drive	$\frac{1}{2}$ h.p.	$\frac{1}{2}$ ch.
Speed of motor 50 cycle	960 r.p.m.	960 tr/mn.
Speed of motor 60 cycle	1140 r.p.m.	1140 tr/mn.
Width of vice jaws	3 $\frac{1}{2}$ "	92 mm.
Maximum opening of vice jaws	3 $\frac{1}{2}$ "	88 mm.
Net weight	840 lb.	381 kg.
Gross weight	1008 lb.	458 kg.
Case dimensions	42" x 26" x 55"	0.99 m ³
Code word	SEJBE	SEJBE

STANDARD EQUIPMENT Necessary operating handles. Operator's instruction Handbook Box spanner.

EXTRA EQUIPMENT Victoria all-steel unbreakable swivel base machine vice, 3 $\frac{1}{2}$ " width of jaws.
Set of assorted cutting tools.

All dimensions, weights, etc., are approximate only, and illustrations are not binding as to details as we are constantly improving designs.

COMPONENT PARTS LIST

OF THE

ALBA

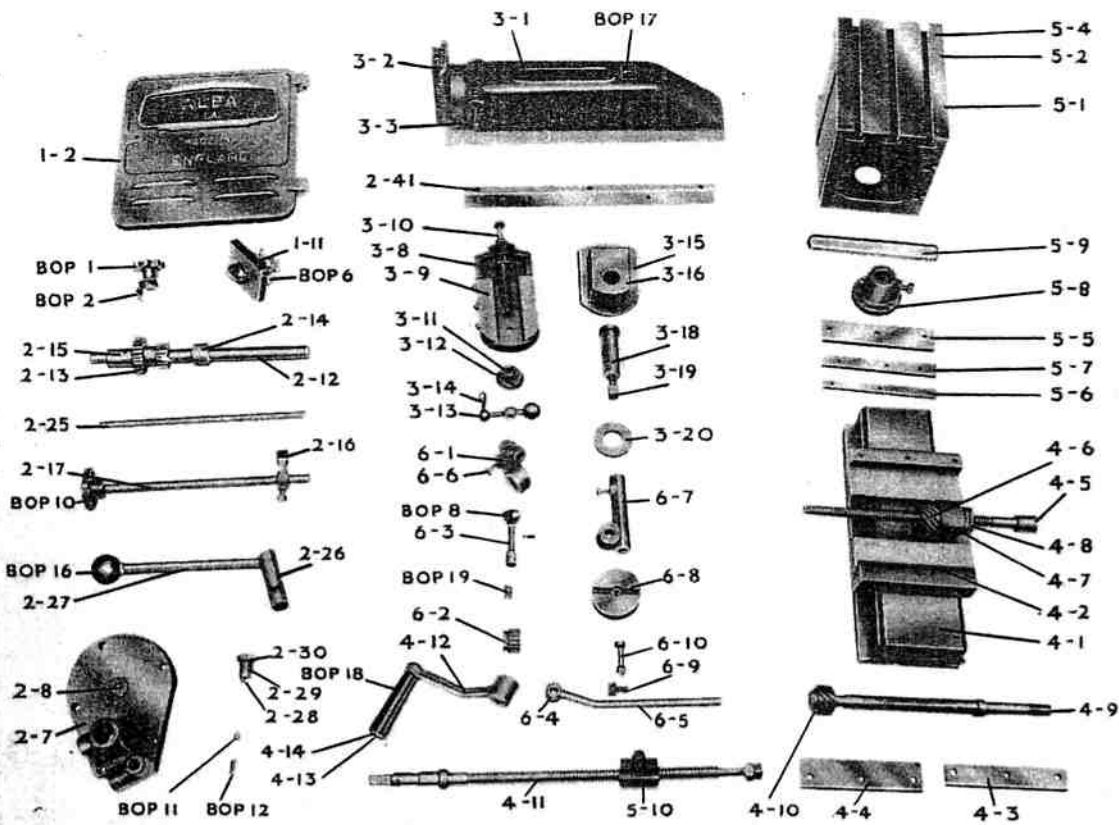
MODEL I A

HIGH SPEED SHAPING MACHINE

MADE IN ENGLAND

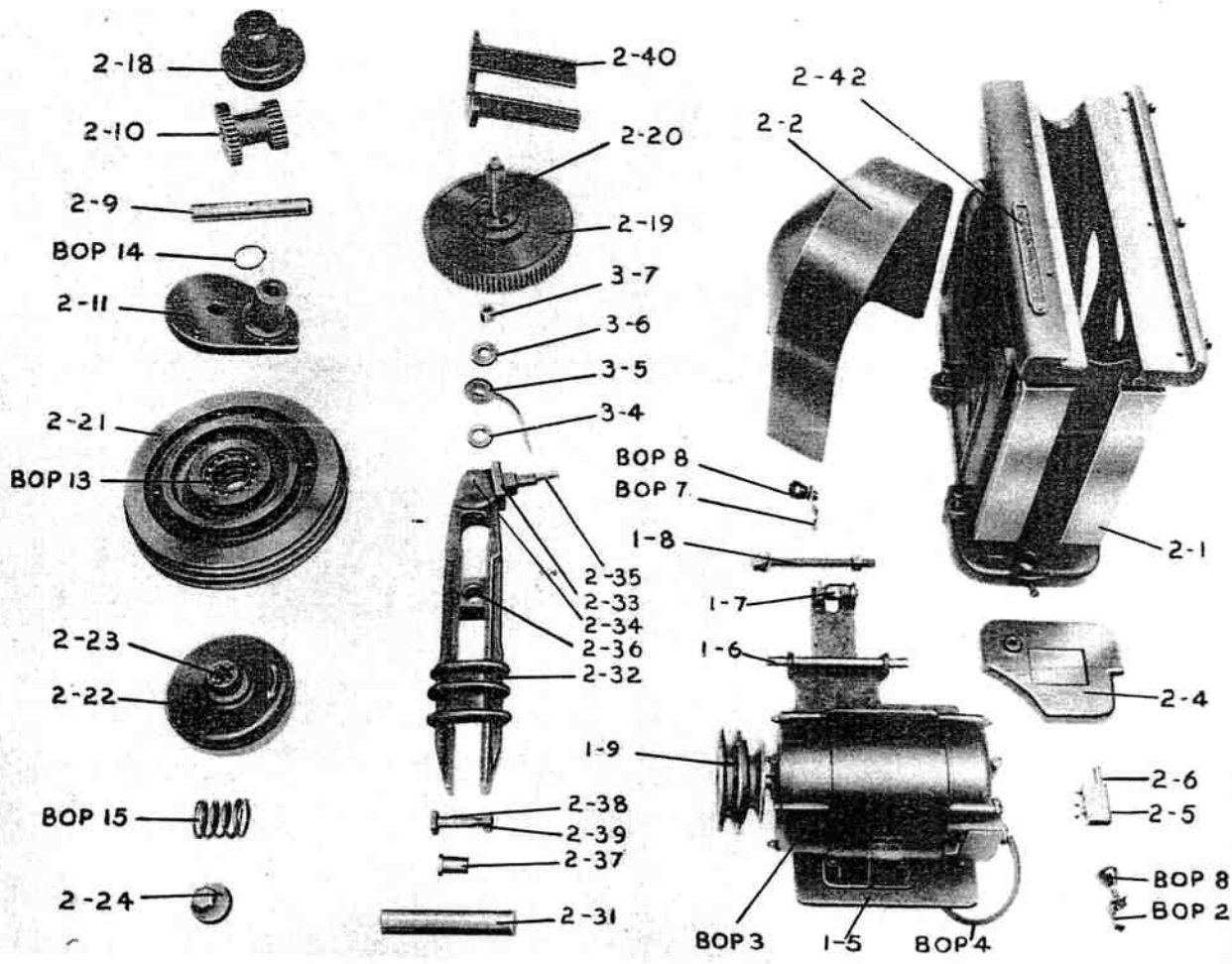
The Parts shown in this book are finished parts and for identification purposes only. In some cases it is necessary for the individual part to be correctly fitted to the machine.

Please always supply machine serial number when ordering spare parts.



- 1- 2 Door
- 1-11 Switch Plate.
- 2- 7 R.H. bearing bracket.
- 2- 8 Plug.
- 2-12 Driving Shaft.
- 2-13 Driving Gear Cluster.
- 2-14 R.H. locating collar.
- 2-15 L.M. locating collar.
- 2-16 Gear Selector fork.
- 2-17 Gear selector rod.
- 2-25 Clutch rod.
- 2-26 Clutch ram shaft.
- 2-27 Clutch operating arm.
- 2-28 Cam locating pin.
- 2-29 Eccentric screw.
- 2-30 Locknut for eccentric screw.
- 2-41 Ram Keep strip.
- 3- 1 Ram.
- 3- 2 Tool head swivel base.
- 3- 3 Locking cam.
- 3- 8 Tool Slide.
- 3- 9 Tool slide gib.
- 3-10 Vertical screw.
- 3-11 Graduated dial.
- 3-12 locking screw.
- 3-13 Ball Handle.
- 3-14 Finger grips.
- 3-15 Clapper box.
- 3-16 Clapper Block.
- 3-17 Clapper block hinge pin (not shown)
- 3-18 Tool post.
- 3-19 Tool post screw.
- 3-20 Tool plate.
- 4- 1 Crossslide.
- 4- 2 Cross-slide gib.
- 4- 3 L.H. keep strip.
- 4- 4 R.H. keep strip.
- 4- 5 Vertical Traverse screw.
- 4- 6 Vertical Traverse nut.

- 4- 7 Washer.
- 4- 8 Locknut.
- 4- 9 Elevating shaft.
- 4-10 Elevating gear.
- 4-11 Cross Traverse screw.
- 4-12 Handle stem.
- 4-13 Handle pivot.
- 4-14 Handle nut.
- 5- 1 Table.
- 5- 2 Apron.
- 5- 3 Table Swivel pin (not shown)
- 5- 4 Top keep strip.
- 5- 5 Bottom keep strip.
- 5- 6 Top gib.
- 5- 7 Bottom gib.
- 5- 8 Support boss.
- 5- 9 Support stem.
- 5-10 Table nut.
- 6- 1 Feed ratchet bracket.
- 6- 2 Feed ratchet.
- 6- 3 Feed plunger.
- 6- 4 Feed link boss.
- 6- 5 Extension feed link.
- 6- 6 Pivot screw.
- 6- 7 Feed drive link.
- 6- 8 Feed crank plate.
- 6- 9 Feed link arm pivot.
- 6-10 Pivot locking bolt.
- BOP 1. Door Handle.
- BOP 2. Door spring clip.
- BOP 6. "on-off" switch.
- BOP 8. Bakelite knob.
- BOP 10. Gear selector handle.
- BOP 11. Steel ball $\frac{1}{8}$ " dia.
- BOP 12. Compression spring $\frac{1}{4}$ " m. dia.
- BOP 16. Ball handle.
- BOP 17. Oil Plate.
- BOP 18. Handle.
- BOP 19. Compression spring $\frac{1}{2}$ " m. dia.



- | | | |
|---|-------------|--|
| 1- 1 Base | (not shown) | 2-31 Rocker arm pivot. |
| 1- 3 Door Hinge Block. | " " | 2-32 Rocker arm. |
| 1- 4 Door Hinge Pin. | " " | 2-33 Ram lock. |
| 1- 5 Motor Plate. | | 2-34 Ram lock pivot. |
| 1- 6 Motor Plate Hinge Pin. | | 2-35 Ram lock screw. |
| 1- 7 Adjusting Block. | | 2-36 Die block. |
| 1- 8 Adjusting Bolt. | | 2-37 Die Block bearing |
| 1- 9 Motor Pulley. | | 2-38 Positioning screw. |
| 1-10 Motor Pulley key (not shown. | | 2-39 Positioning screwnut. |
| 2- 1 Body. | | 2-40 Ram Guard. |
| 2- 2 Pulley Door. | | 2-42 Stroke Indicating plate. |
| 2- 3 Pulley door hinge join (not shown) | | 3- 4 Bottom ram clamp washer. |
| 2- 4 Inspection Door. | | 3- 5 Stroke indicating pointer. |
| 2- 5 Inspection door hinge block. | | 3- 6 Top ram clamp washer. |
| 2- 6 Inspection door hinge pin. | | 3- 7 Ram clamp nut. |
| 2- 9 Backgear shaft. | | BOP.3 1/4 H.P. Motor. |
| 2-10 Back gear. | | BOP.4 3 core cable. |
| 2-11 L.M. Bearing bracket. | | BOP.5 Vee belt. Turner B.64 (not sho |
| 2-18 Bull gear bearing. | | BOP.7 Spring clip. |
| 2-19 Bull wheel. | | BOP.8 Bakelite knob. |
| 2-20 Bull wheel spindle. | | BOP.9 THRUST bearing XLT. 7/8" (not sh |
| 2-21 Pulley. | | BOP.13 Ball journal XLS.1 1/4" |
| 2-22 Clutch plate. | | BOP.14 External Circlip 1 1/4" ext. |
| 2-23 Locating screw. | | BOP.15 Compression spring 1-9/16" di |
| 2-24 Clutch spring retaining washer. | | BOP.20 Box Spanner. 13/16" A/F. |