

INSTRUCTION BOOK

ELLIOTT

DRILLING MACHINE

MODEL No. 1. & No. 1.S.



MADE IN ENGLAND

B. ELLIOTT (MACHINERY) LTD.
VICTORIA ROAD · LONDON · N.W.10

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OPERATORS INSTRUCTION HANDBOOK

FOR THE

ELLIOTT

MODELS I (BENCH) & IS (PILLAR) HIGH SPEED DRILLING MACHINES

Slinging

The correct method of slinging is shown in Fig.1. Use sacking or other suitable material to protect the paintwork.

Examination

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

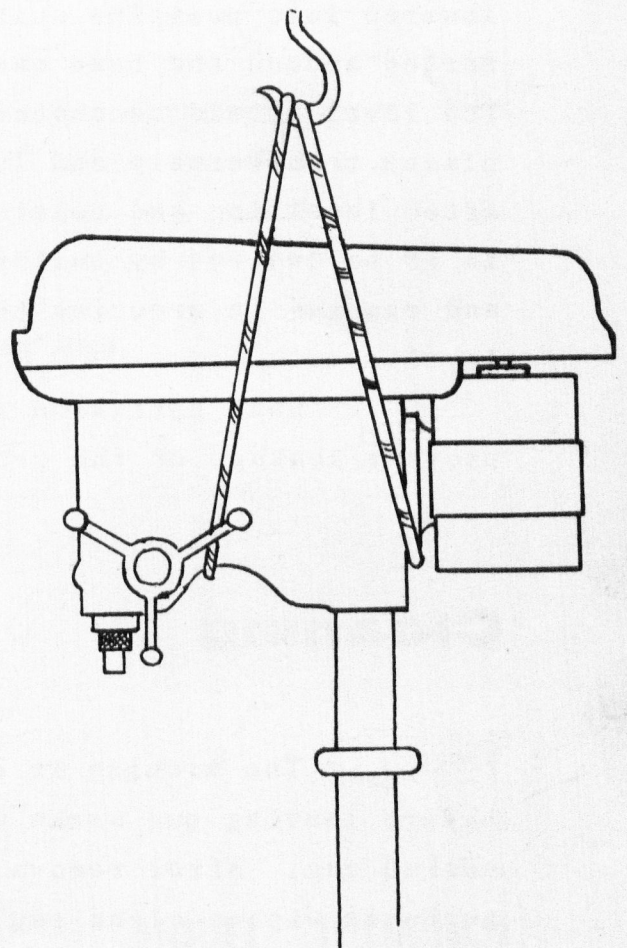


FIGURE 1

Installation

Model No.1.

The foundation should be prepared in accordance with the plan shown in Fig.2. After the machine has been lowered into position on the bench, suitable metal strips should be inserted around the base casting to obtain correct levelling. The level should be checked with a precision spirit level placed transversely and longitudinally on the table surface.

Model No.1S.

The foundation should be prepared in accordance with the plan shown in Fig.3. After the machine has been lowered into position suitable metal strips should be inserted around the base casting to obtain correct levelling. The level should be checked with a precision spirit level placed transversely and longitudinally on the table surface. After levelling and bolting down, the machine may be grouted in if so desired by building a dam around the base 2" wide, and running in grouting cement up to 1" above normal floor level.

Sand sprinkled around the outside of the dam will prevent leakage of the grout.

Cleaning

The machine is covered with a rust preventative before leaving our works which can be removed by a paraffin soaked rag. After removal of the rust preventative, wipe surfaces with a clean rag and coat with a film of light machine oil.

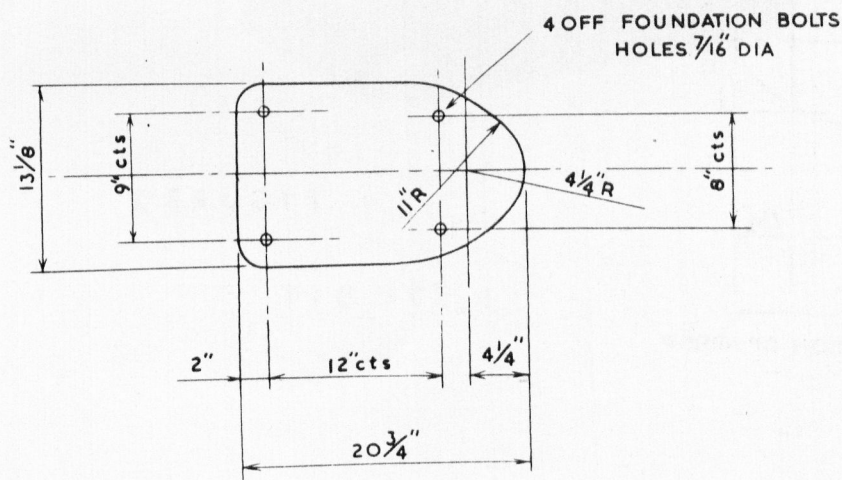
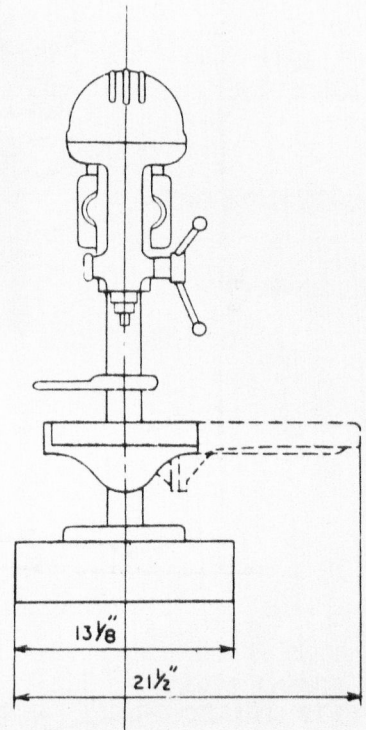
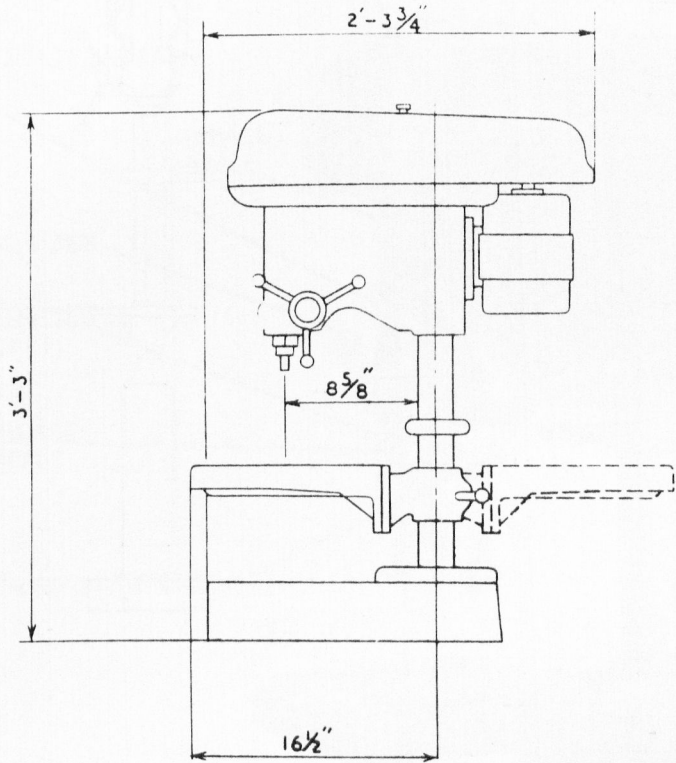


FIGURE 2

Foundation

MODEL I (BENCH)

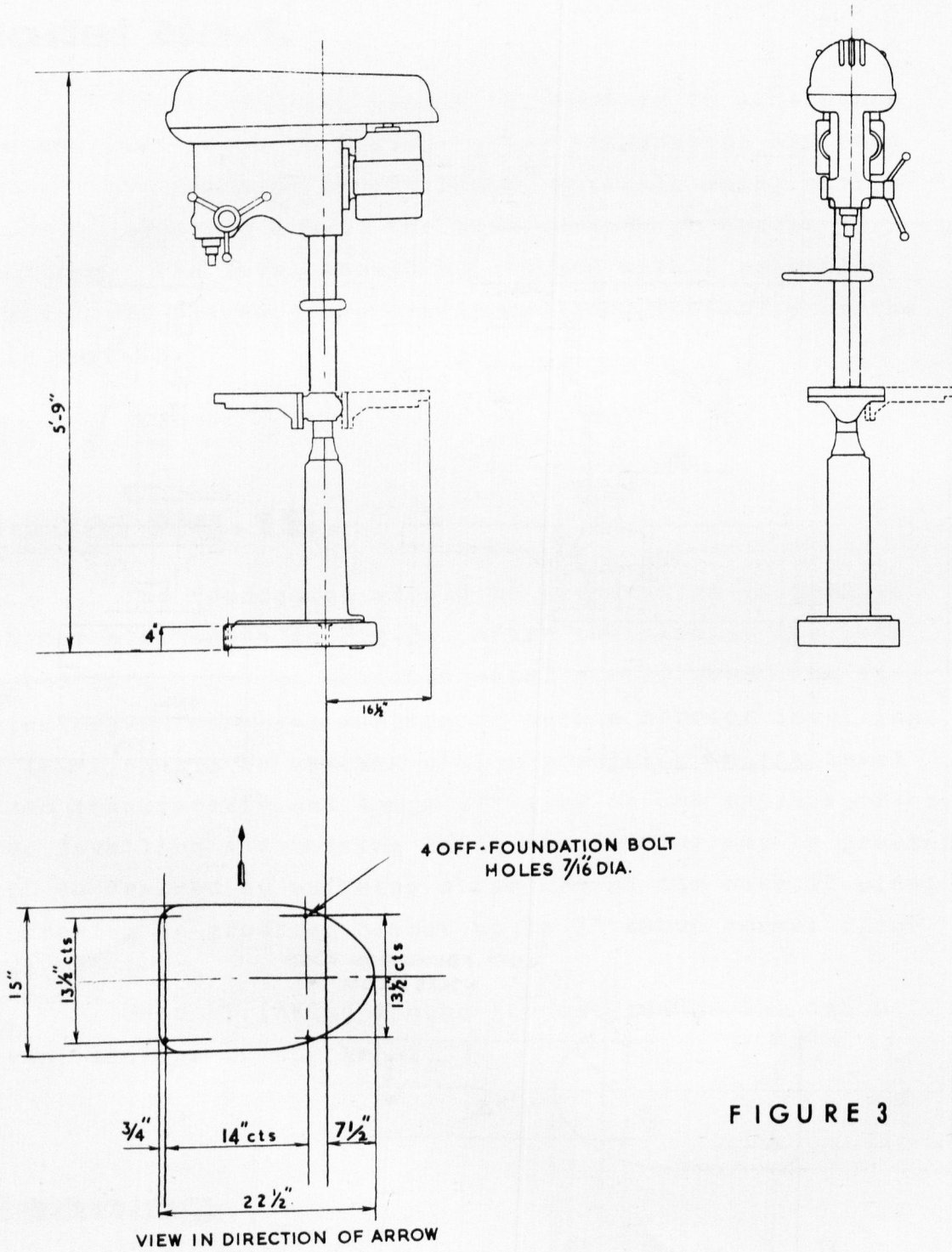


FIGURE 3

Foundation

MODEL IS (PILLAR)

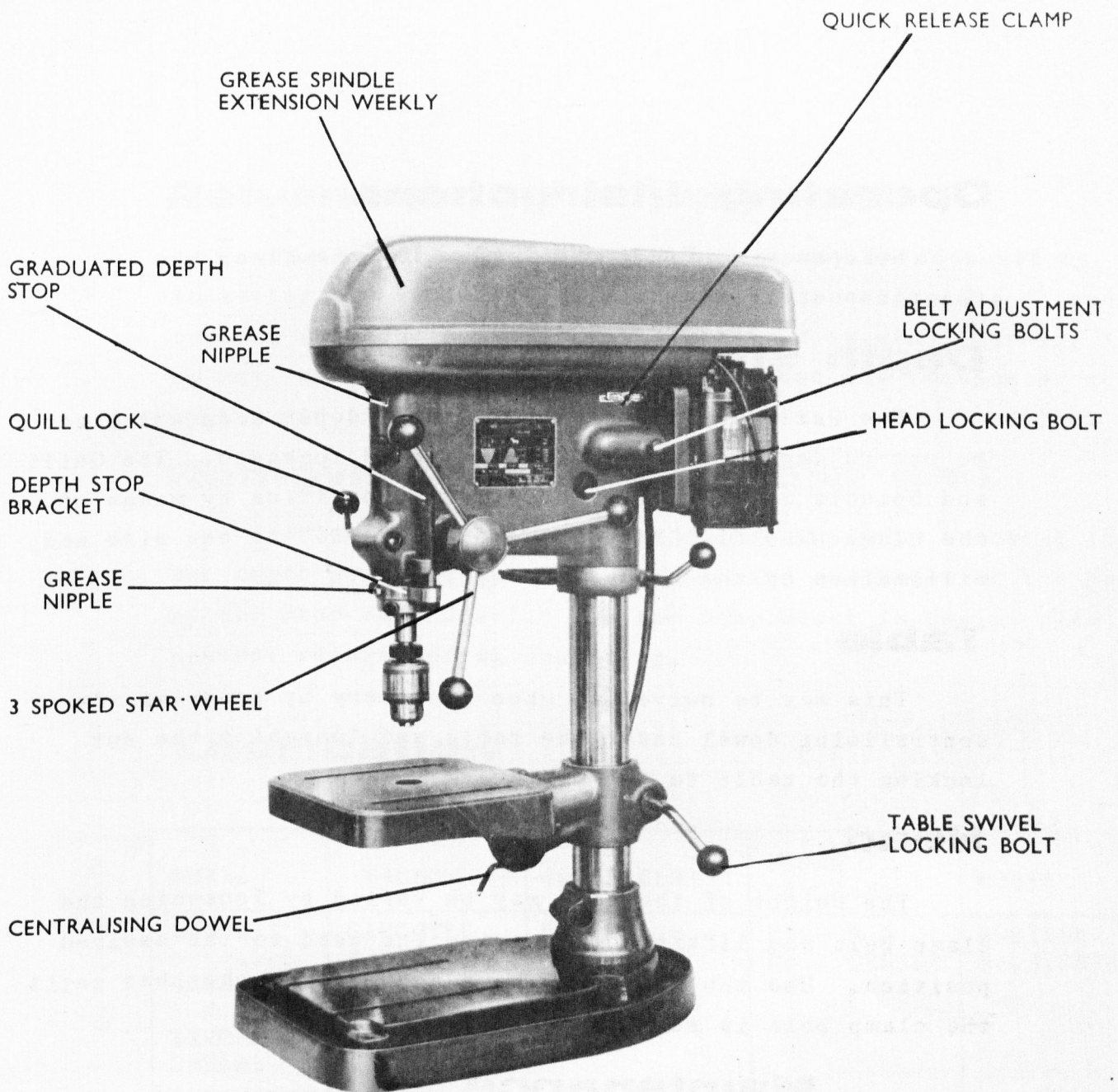


FIGURE 4

MAINS ENTRY

Mains are passed through a hole at top of L.H. side of switch (reverse side of machine).

Withdraw switch part way out of machine for purposes of connecting mains supply to switch.

All other wiring is integral with machine.

Operating Instructions

Reference to Fig.4 overleaf will make clear the functions of the various levers etc.

Depth stop

The Quill is fitted with a simple depth stop which can be set to depth by means of two knurled locknuts. The Quill and Spindle unit may be locked in any position by means of the clamp handle. Graduations are in 1/16" on one side and millimetres on the other.

Table

This may be swivelled when necessary by removing the centralising dowel under the table and loosening the nut locking the table to the table arm.

Head

The height of the head may be varied by loosening the clamp bolt and lifting or lowering the head to the desired position. Use the tool tray as a support for the head until the clamp bolt is re-adjusted.

Maintenance

Vee belts

To take up excessive slack in the belt, loosen the two locking bolts at the back of the head and push back motor mounting relocking bolts in the new position. Do not tighten belts too much by using a lever or similar means to move motor outwards, as this will produce excessive strain on motor shaft.

Vee belt size A 44 (Fenner)

Return spring adjustment

The tension of the return spring may be adjusted by loosening the set screw adjacent to the housing (Fig 4) and turning the housing to give the required return. Turning in an anti-clockwise direction will increase the tension of the spring and give a quicker spindle return.

Removing quill & spindle unit

This unit may be withdrawn quite simply by removing the two depth stop locknuts and feeding the quill out of the head by the Star Feed Wheel. Tie the Star Wheel in position to prevent return spring unwinding.

Lubrication

SHELL	VACUUM	WAKEFIELD	EDGAR VAUGHAN	MOBIL
UNEDO 1 GREASE " LIVONA 3 GREASE	GARGOYLE B.B. GREASE	SPEEROL.L.	EVCO B.B. No.4.GREASE	MOBILUX No.3.GREASE

Grease daily at the two nipples illustrated in figure 4, but grease less frequently if the machine is used either intermittently or on low speeds.

Raise the belt guard and grease spindle extension keyway weekly.

Keep all bright parts covered with a film of light machine oil.

Use shell grease Alvania 2 on high speed machines, i.e. machines with 2,800 r.p.m. motor.

Specification

No.1.

Drilling capacity	$\frac{1}{2}$ "	12.7 mm.
Size of table	13" x 13"	330 x 330 mm.
Spindle travel	4"	100 mm.
Diameter of column	2 $\frac{3}{4}$ "	70 mm.
Maximum distance chuck to table	6 $\frac{1}{2}$ "	165 mm.
Maximum distance chuck to base	15 $\frac{1}{2}$ "	393 mm.
Maximum distance column to centre of spindle	8 $\frac{3}{8}$ "	219 mm.
Power of motor	$\frac{1}{2}$ h.p.	$\frac{1}{2}$ ch.
Five (5) spindle speeds with 1400 r.p.m. motor	340-2580 r.p.m.	340-2580 tr/mn.
Net weight approx.	252 lb.	115 kg.
Gross weight approx.	336 lb.	152 kg.
Case dimensions	34" x 20" x 31"	.33 m ³
Code word	NEMEL	NEMEL

No.1S.

Drilling capacity	$\frac{1}{2}$ "	12.7 mm.
Size of table	13" x 13"	330 x 330 mm.
Spindle travel	4"	100 mm.
Diameter of column	2 $\frac{3}{4}$ "	70 mm.
Maximum distance chuck to table	12 $\frac{1}{2}$ "	317 mm.
Maximum distance chuck to base	46"	1168 mm.
Maximum distance column to centre of spindle	8 $\frac{3}{8}$ "	219 mm.
Power of motor	$\frac{1}{2}$ h.p.	$\frac{1}{2}$ ch.
Five spindle speeds with 1400 r.p.m. motor	340-2580 r.p.m.	340-2580 tr mn.
Net weight—approximate	322 lb.	146 kg.
Gross weight—approximate	532 lb.	241 kg.
Case dimensions	68" x 20" x 30"	.68 m ³
Code word	NEMO	NEMO

STANDARD EQUIPMENT Vee Belt, Complete Electrical Equipment, Operator's Instruction Book.

EXTRA EQUIPMENT. $\frac{1}{2}$ " capacity Precision 3-Jaw Drill Chuck, Chuck Guard, Mortising Attachment, Mortice Chisels and Bits, Grease Gun, 3 $\frac{1}{2}$ " 'Victoria' Machine Vice.

The manufacturers hereby reserve the right to modify the design of the machine and equipment, at any time, without notice and also to alter the materials of which it is constructed. Nothing in these particulars should be deemed to form part of any contract for the sale of machine or equipment.

**COMPONENT PARTS LIST
OF THE**

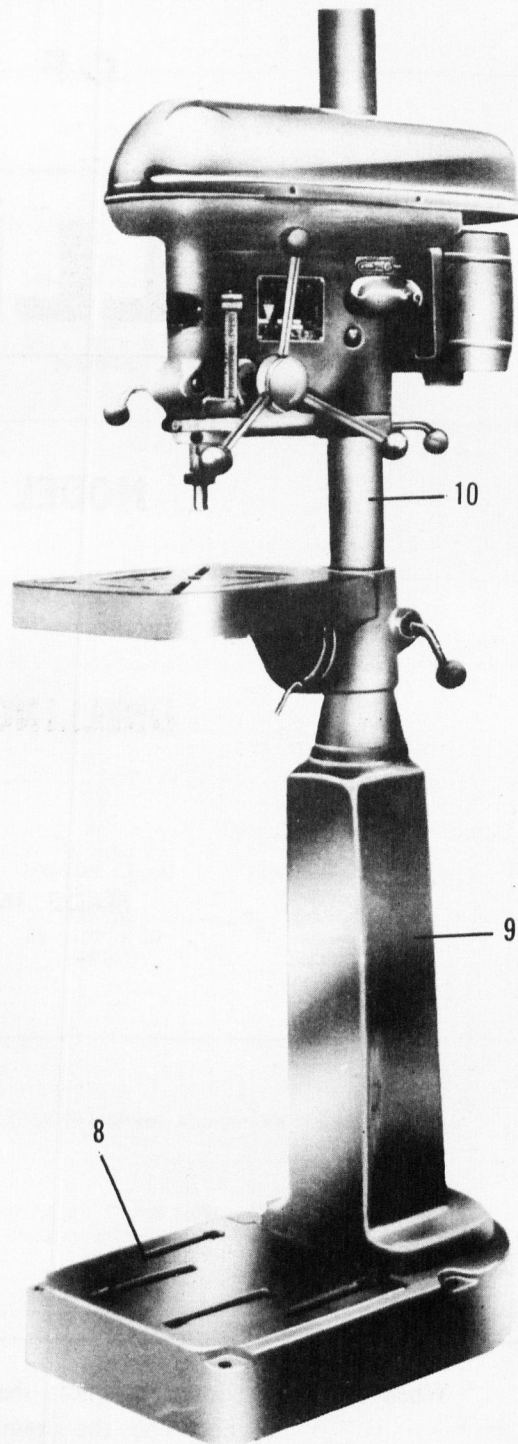
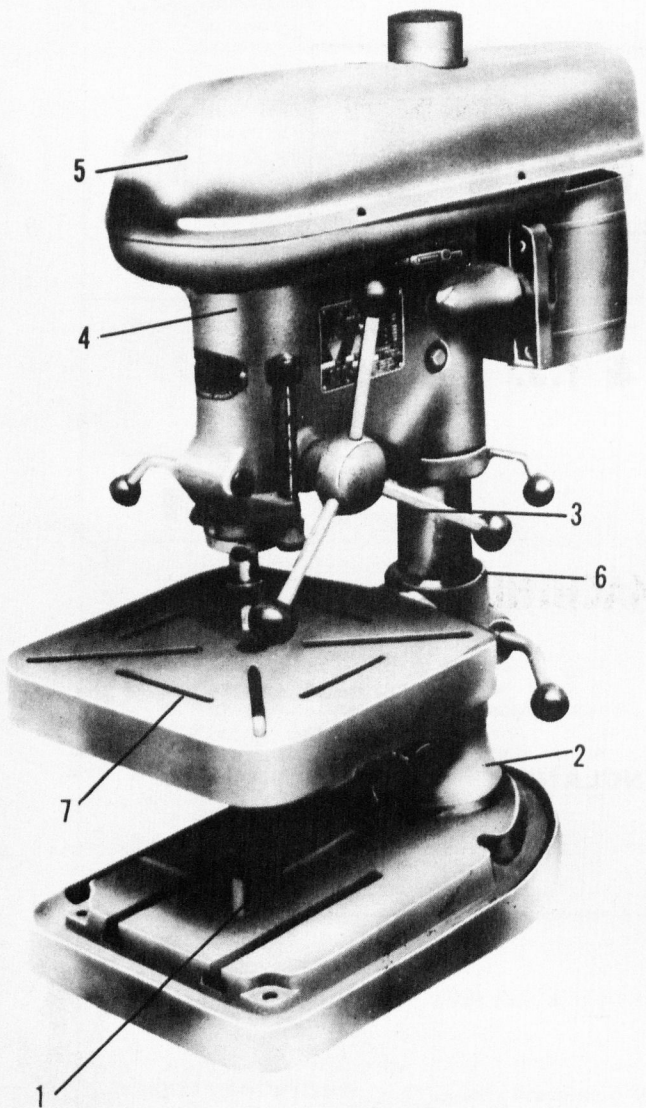
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MODEL I. & I.S.

DRILLING MACHINE

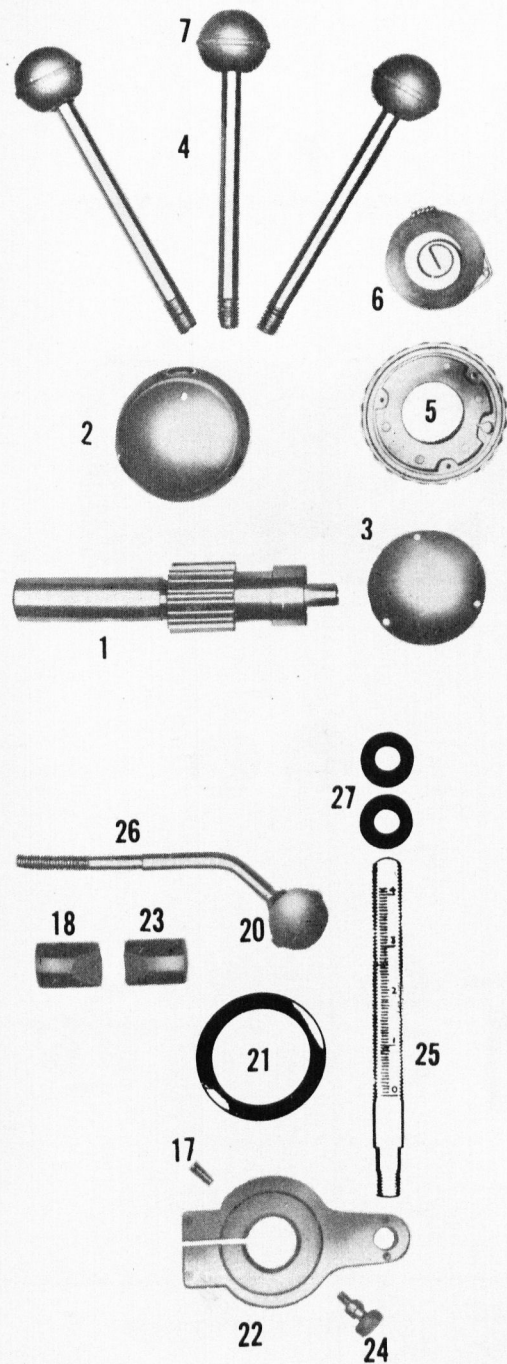
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When ordering spare parts quote the serial number of the machine, the part number and the description of the part as listed.

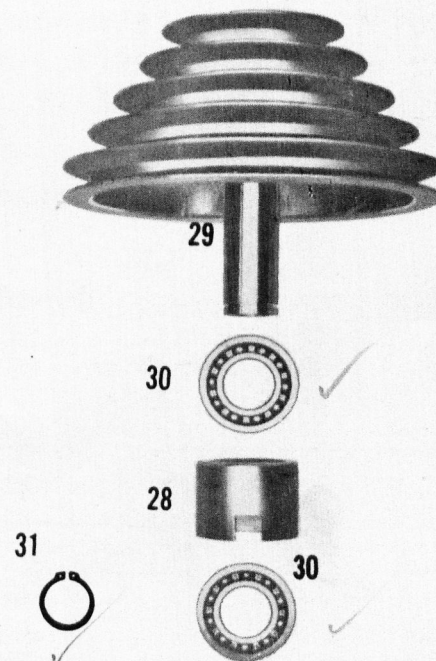
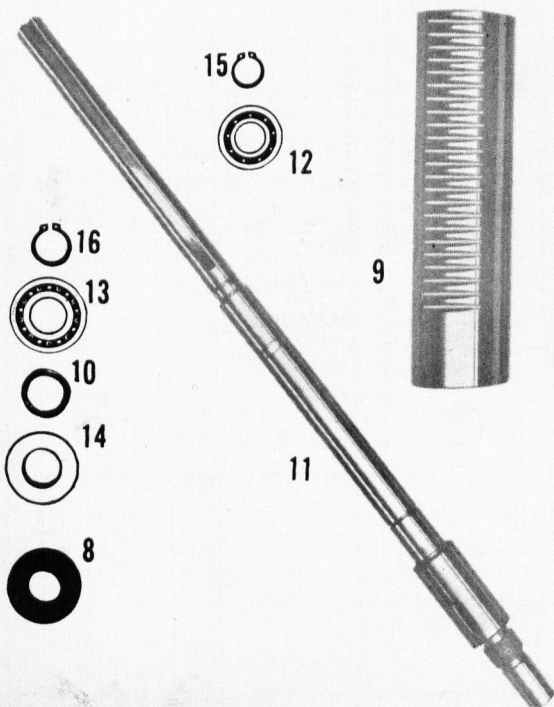


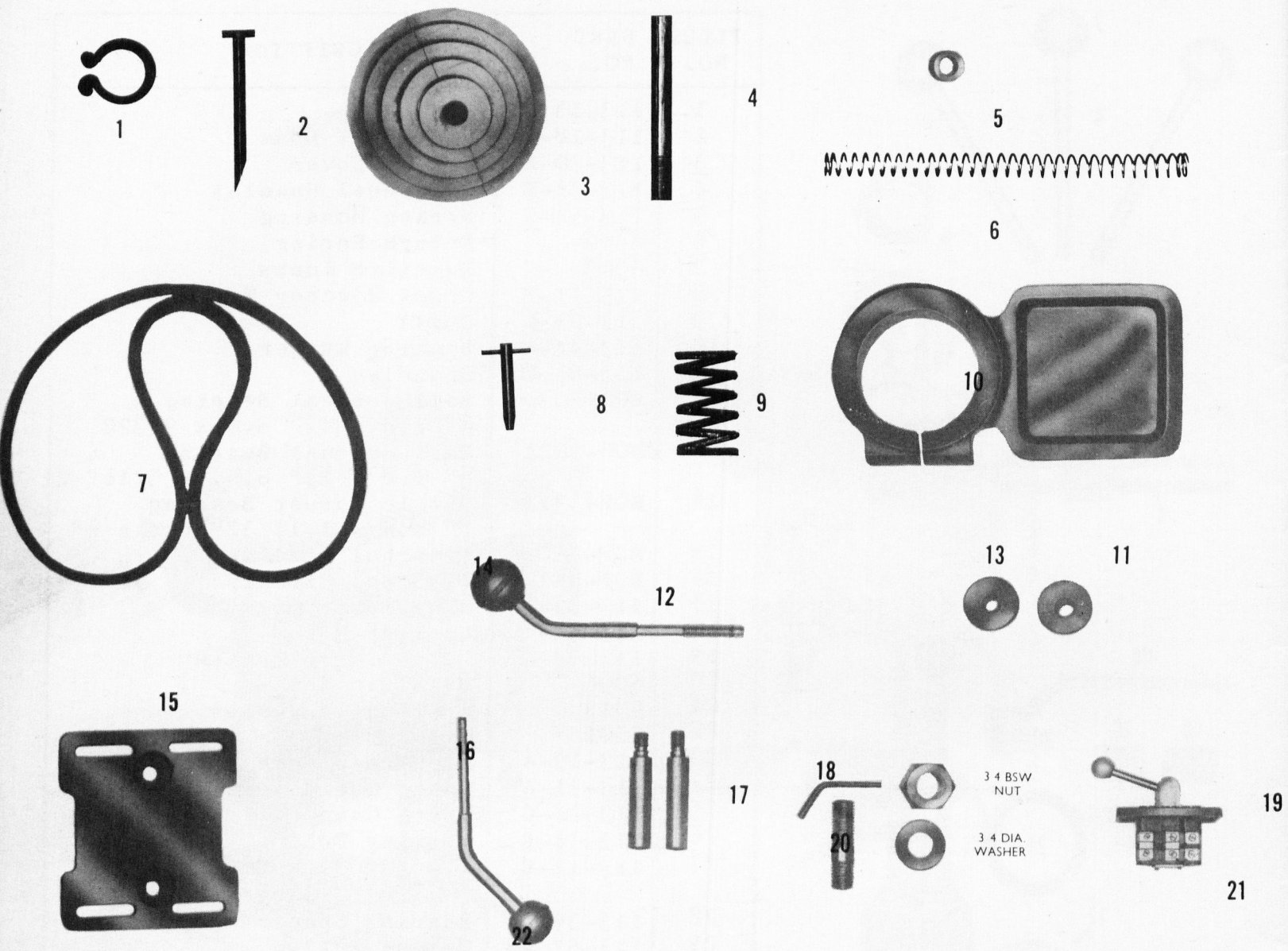
ILLUS NO.	PART NO.	DESCRIPTION
1	113-1	Base
2	113-2	Base Flange
3	113-6	Column
4	113-7	Drill Head
5	113-15	Belt Guard
6	113-92	Table Arm
7	113-93	Table

ILLUS NO.	PART NO.	DESCRIPTION
8	113-77	Base
9	113-83	Pedestal Column
10	161-33	Column



ILLUS NO.	PART NO.	DESCRIPTION
1	113-13	Pinion
2	113-18-B	Feedwheel Boss
3	113-30-A	Spring Cover
4	113-38-B	Feedwheel Handles
5	113-54-C	Spring Housing
6	8869	Return Spring
7	6005	Bakelite Knobs
8	113-11-B	Chuck Ejector Nut
9	113-23-C	Quill
10	113-44-A	Spacing Washer
11	113-53-C	Spindle
12	BOP-3034	Ball Journal Bearing $\frac{5}{8}$ " i.d x $1\frac{3}{8}$ " o.d x $9/32$ "
13	BOP-3031	Ball Journal Bearing $\frac{3}{4}$ " i.d x $1\frac{5}{8}$ " o.d. x $5/16$ "
14	BOP-3713	Single Thrust Bearing $\frac{3}{4}$ " i.d x $1.17/32$ " o.d x $\frac{5}{8}$ "
15	BOP-8601	External Circlip
16	BOP-8611	External Circlip
17	113-42-A	Chuck Guard Stud
18	113-45-A	Locking Nut
19	113-59-C	Depth Gauge Bracket
20	6006	Bakelite Knob
21	5713	Drill Stop Washer
22	5301	Greaser
23	113-19-A	Locking Sleeve
24	113-31-A	Chuck Guard Locking Screw
25	113-34-C	Depth Gauge
26	113-36-B	Locking Bolt
27	113-41-B	Knurled Nuts for Depth Gauge (2 off)
28	113-39	Bearing Spacer
29	113-57	Driven Pulley
30	BOP-3033	Light Narrow Bearings 1" i.d x 2" o.d x $\frac{3}{8}$ " (2 off)
31	BOP-8603	External Circlip





ILLUS NO.	PART NO	DESCRIPTION	ILLUS NO.	PART NO.	DESCRIPTION
1	BOP-8601	Circlip (External)	13	113-37	Clamp Nut
2	113-119	Sliding Rod	14	6006	Bakelite Knob
3	113-43	Motor Pulley	15	113-27	Motor Bracket
4	113-116	Guide Tube	16	113-29	Clamp Bolt
5	113-124	Collar	17	113-32	Motor Bracket Slides
6	8761	Compression Spring	18	113-35	Table Zero pin
7	8434	Vee Belt	19	113-95	Switch Cover Plate
8	113-117	Release Pin	20	113-98	Table Stud
9	BOP 8748	Compression Spring	21	4352	Switch
10	113-28	Tool Tray	22	6005	Bakelite Knob
11	113-33	Clamp Sleeve			$\frac{3}{4}$ " dia. Washer
12	113-36	Locking Bolt			$\frac{3}{4}$ " BSW. Nut

NOT ILLUSTRATED

6314	Speed Plate
6315	Name Plate

