



Instructions for
ARBOGA Radial Drilling Machine
Model ER 1830

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681011

ER 1830

Installation: The machine must be installed on a firm foundation. The baseplate must be levelled with washers on the foundation bolts to prevent harmful stresses when the nuts are tightened.

Connections to mains: The terminals of the line current are drawn to the junction box (9) on the baseplate. The motor is of 2-speed type and cannot be switched over to another voltage. The connection of pole change switch and the motor is shown in the separate table No. 414.

Lubrication: Change oil after the first 100 working hours, then every 500 hours. The oil is drained at the under side of the casting. The bearings in the gear box and the spindle quill are packed at the factory with good quality ball bearing grease. This lubrication is normally sufficient for several years of operation. A few drops of oil should be dripped into the oil cups on the case once a week. Lubrication of the gear case for the feed mechanism should be a little more liberal. A few drops in each cup once a day, when the machine is in use, and twice a day in cup Conus 3/16" (10) is recommended. A drop or two of oil now and then will be sufficient in other places indicated by oil cups or oil holes.

Drill head: The position of the drill head on the arm is shifted by means of handwheel, B 926 (14). During this movement the drill head rests against the arm through the intermediary of two ball-bearing journalled rollers (Fig. 4). The rollers C 1772 (8), are fitted on an excentric sleeve, C 1773 (30), for the adjustment of the height. The sleeve is of hexogan shape on the outside and can be turned after loosening stop nut, LB6M-10 (31). The drill head is locked with lever, C 3347 (6), by means of a locking wedge, C 3304, which exerts pressure on the slide. If the clamping action becomes insufficient tighten the clamping nut in the groove at the clamping knob situated on the backside of the quill housing.

The spindle sleeve, A 3345 (36), fig. 6, is balanced by means of a spring, C 3466 (41), which is placed inside worm wheel, C 1787 (40), for the mechanical feed.

The spindle, B 3033 (35), fig. 5, is journalled in the spindle sleeve, A 3345 (36) by a taper roller bearing, SKF 30208 (37), at the bottom, and a journal ball bearing SKF 6206 (34), at the top. Nut KM 6 (32), and lock washer MB 6 (33) at the top of the spindle, are used for setting up the roller bearing, when this has to be adjusted. These parts are made accessible after the spindle sleeve has been removed. Tighten the set screw, 3/8"x30 (15), to prevent the spindle sleeve from dropping down of itself later on. Remove the stop screw situated at the end of the arm. Slide the drill head outwards on the arm so far that the pinion, C 1782 (45) is brought outside the rack. Pound out the taper pin, KP 5x36 (38), and pull the handwheel, B 926 (14), off the gear shaft. Screw out the four screws, ECS 5x16 (13) which secure the feed gear case. Loosen the feed gear case. Screw off lock nut, C 950 (44). Now pull out the feed shaft, B 929 (42), without taking away spring, C 3466 (41), so far that its teeth get out of mesh with the gear rack, C 3035 (43), on the spindle sleeve. Make a note

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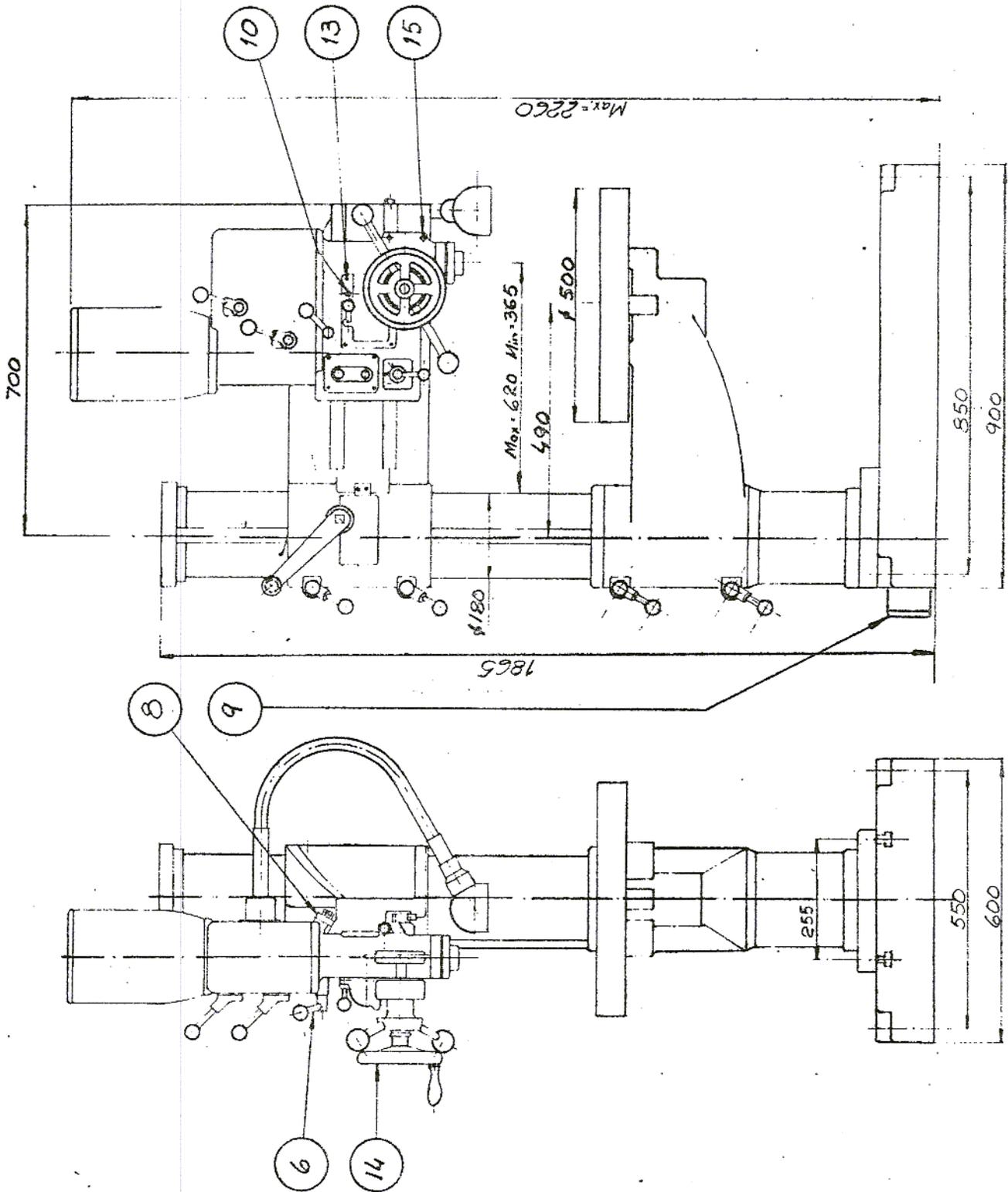
Lubrication of the gear case for the feed mechanism should be a little more liberal. A few drops in each cup once a day, when the machine is in use, and twice a day in cup Conus 3/16" (10) is recommended. A drop or two of oil now and then will be sufficient in other places indicated by oil cups or oil holes.

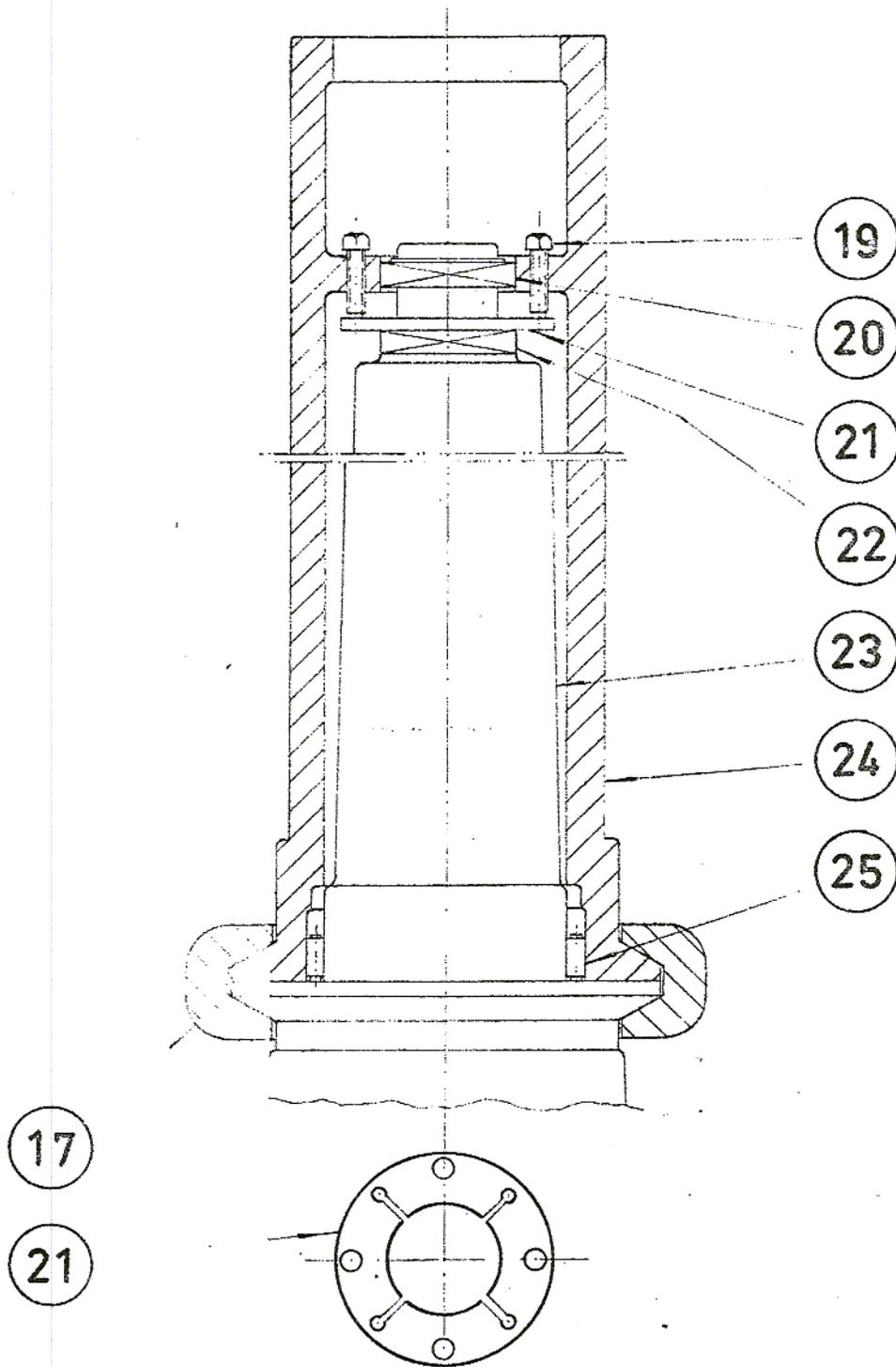
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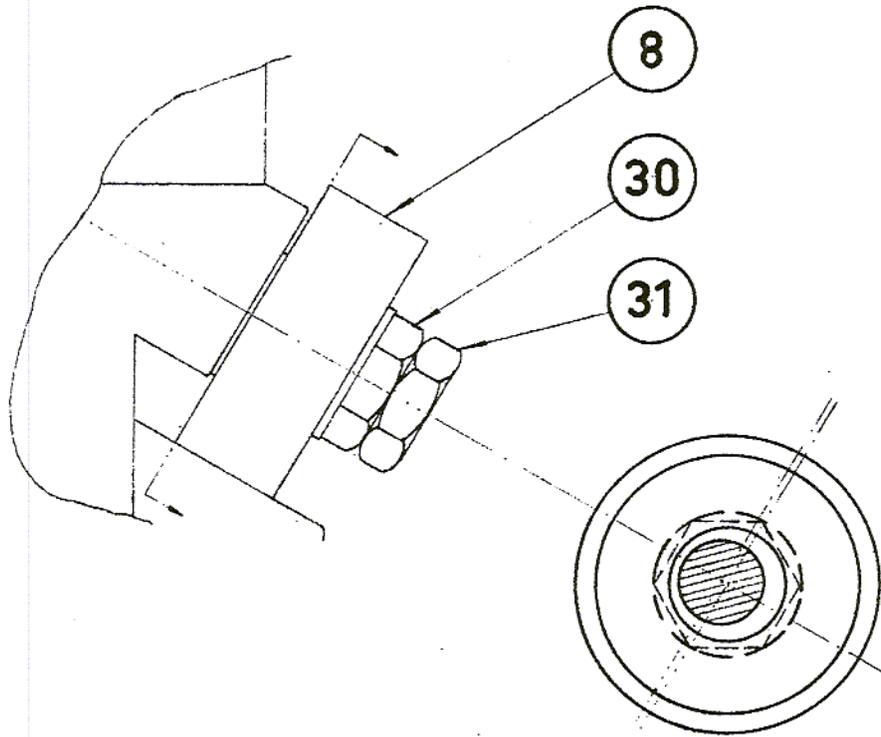
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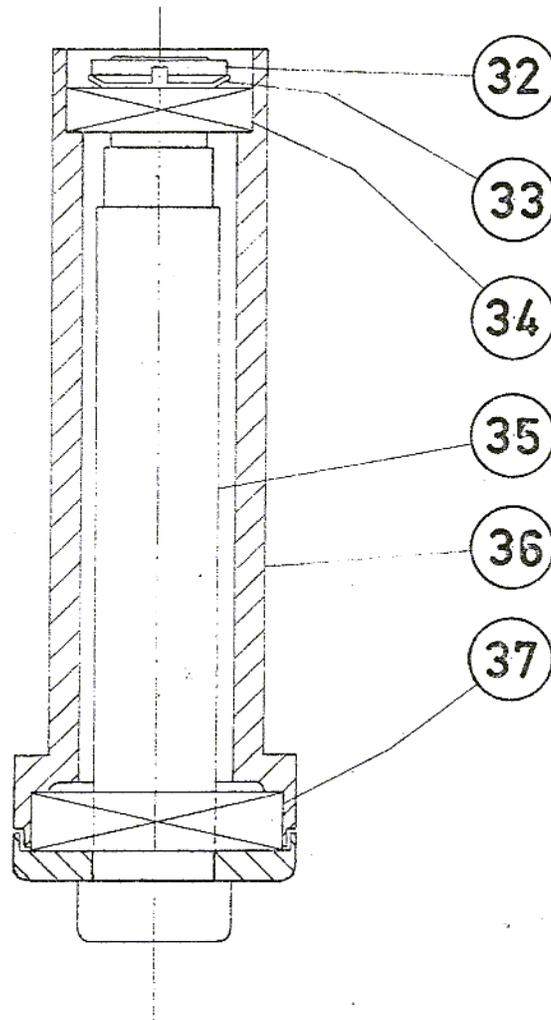
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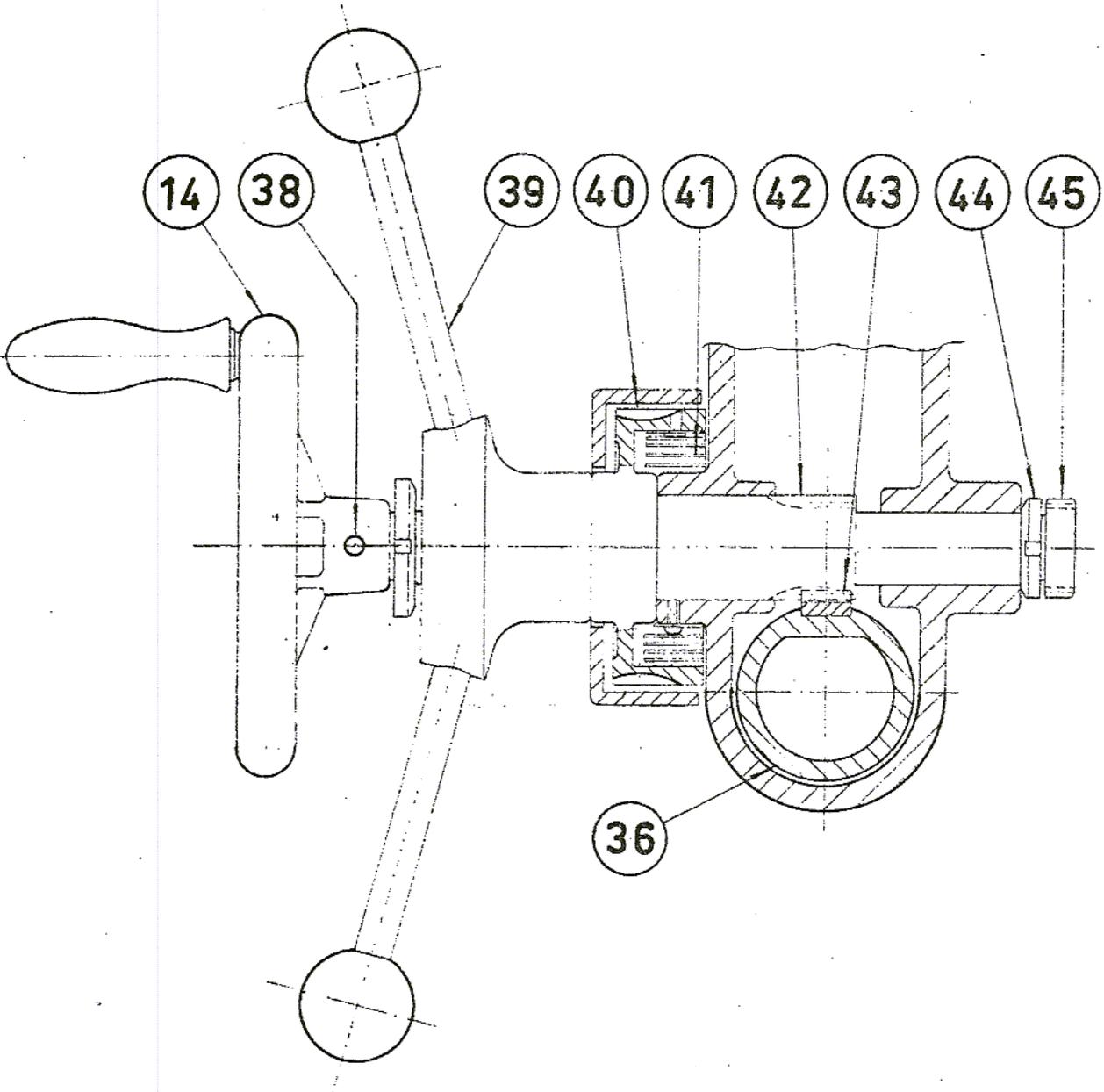
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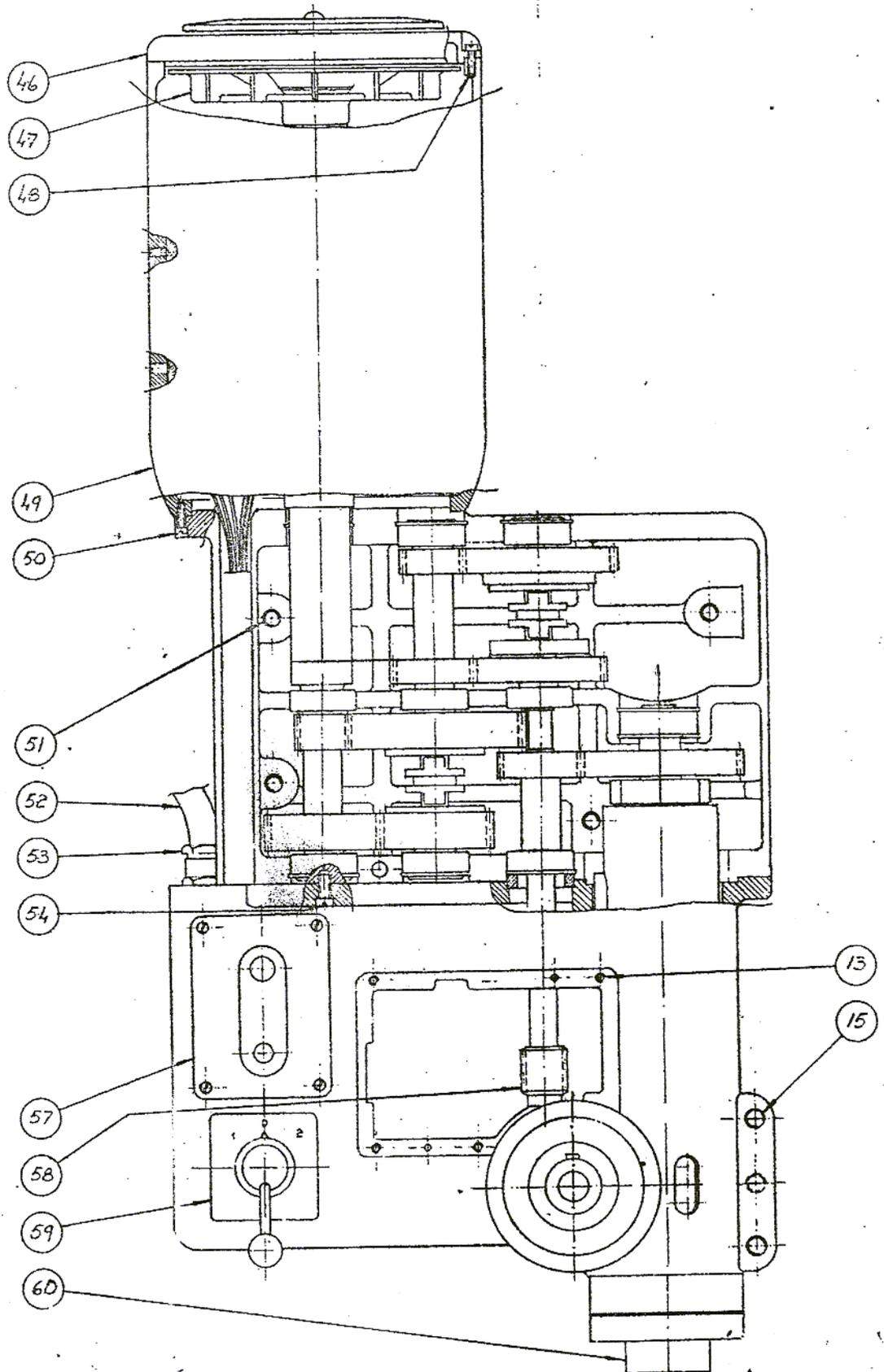


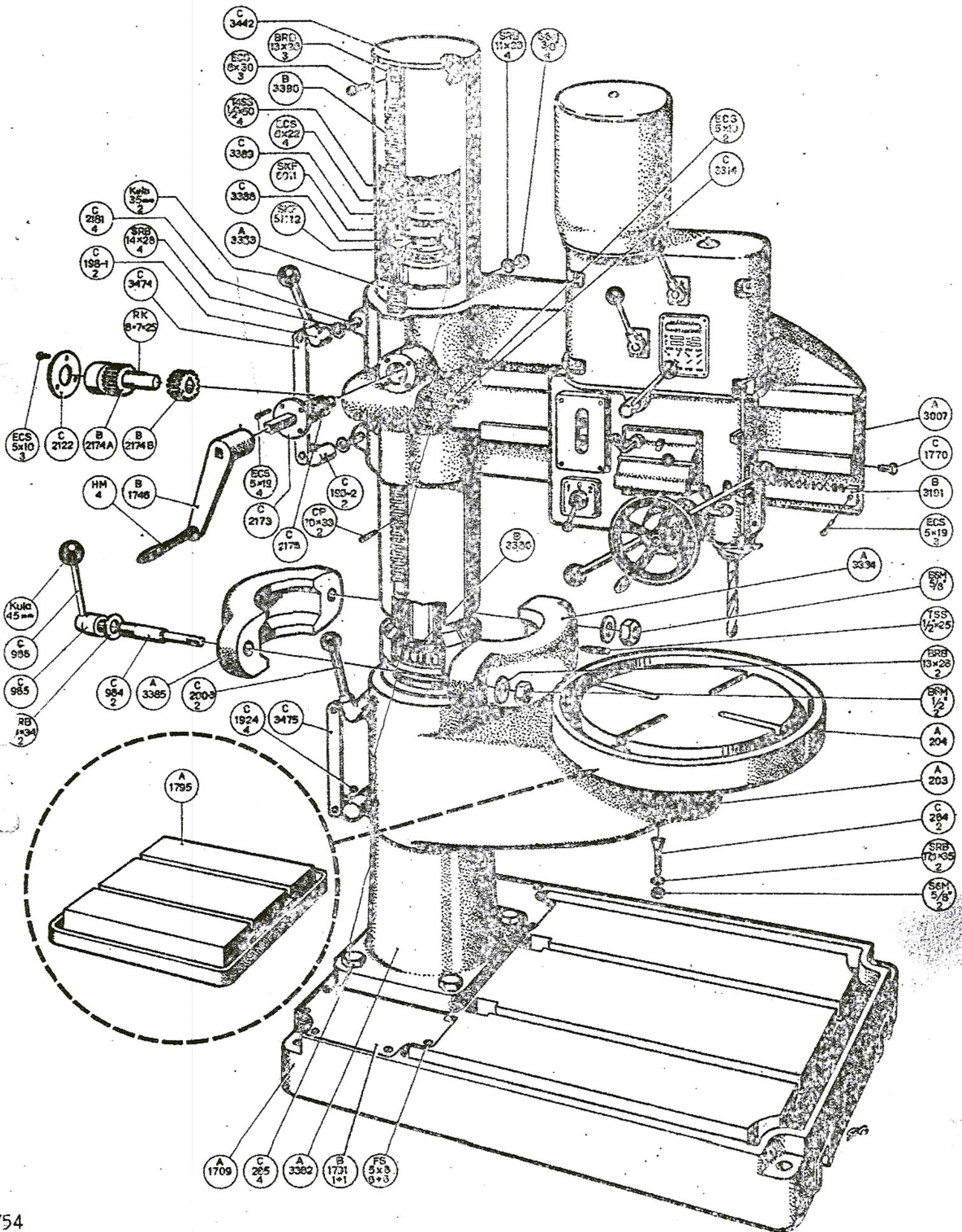


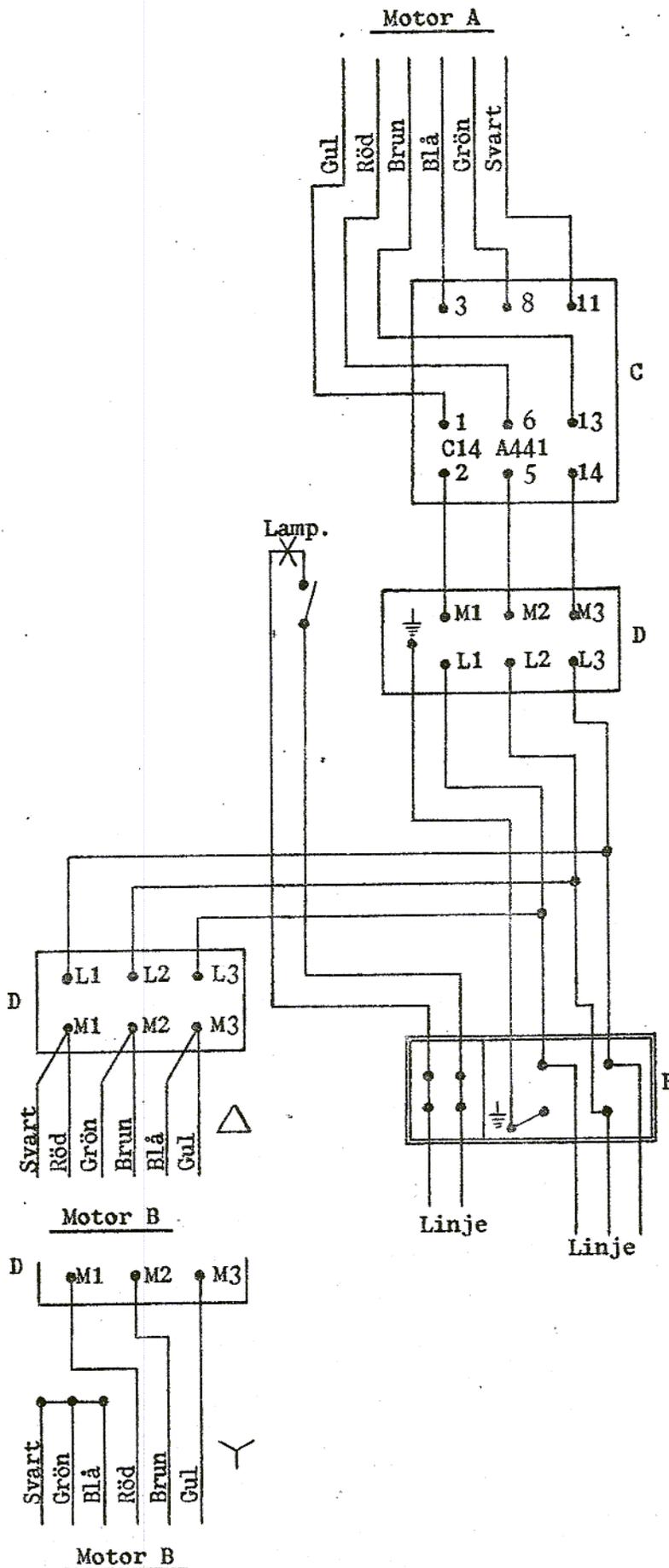












A.
Huvudmotor
Main motor
Hauptmotor
Moteur principal

B.
Pumpmotor
Moteur pompe

C.
Polomkopplare
(Dahlander)
Control switch for
2 speed motor
Polumschalter
Coupleur

D.
Motorskydd
Thermal overload
relay
Motorschutz
Disjoncteur

E.
Kopplingsdosa
Junction box
Kabeldose
Boîte de jonction

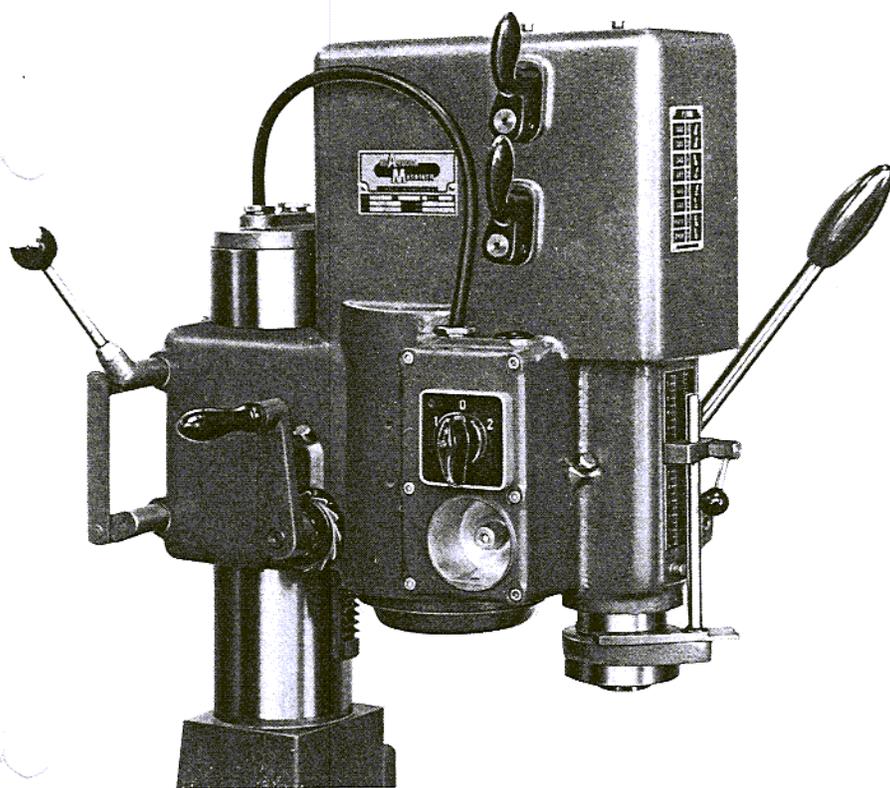
Svart, black, schwarz, noir
Grön, green, grün, vert
Röd, red, rot, rouge
Brun, brown, braun, brun
Blå, blue, blau, bleu
Gul, yellow, gelb, jaune

OPERATING INSTRUCTIONS



FOR THE DRILL EJECTOR, TYPE "TELL"

This Drilling Machine is fitted with a built-in Drill Ejector, the mechanism and instructions for use being outlined below.



When it is desired to remove a taper shank drill or chuck from the spindle, the pivoting finger stop is swung outward away from the spindle by pressing the short extended section, as shown in figure 2. This allows the quill unit to be raised an extra $\frac{1}{4}$ ". The drill or chuck shank is then ejected from out of the spindle by giving a light jerk on the feed lever. This operation can be carried out with the spindle running. The pivoting finger stop in the "IN" position, as shown in figure 1, prevents the quill unit from returning completely into the quill housing, thus preventing the tang on the drill shank from contacting the drill ejector during normal use.

It sometimes occurs that the drill or chuck shank may stick in the taper socket, making it difficult to eject. Do not use force to loosen it, as this may damage both the spindle shaft and the bearings.

In such case use the standard type of drift and when doing so, lower the spindle and quill unit so that the drift slot is below the spindle housing.

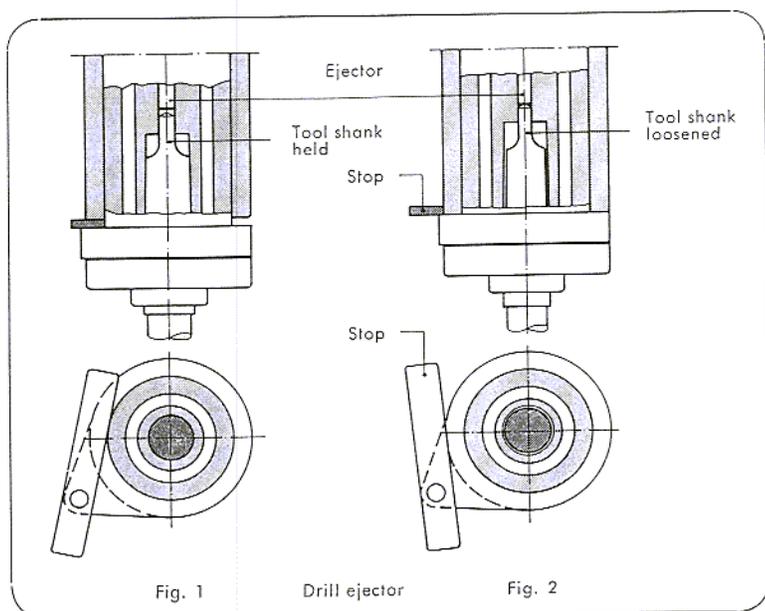


Fig. 1

Drill ejector

Fig. 2

It is essential for efficient use of the built-in drill ejector, that all drills and chuck shanks are provided with standard tapers and tangs. If the tang is too short the drill can only be removed by using a drift by the aforementioned method. With too long a tang the drill will be removed even if the pivoting finger stop is in the "IN" position. This can, however, be easily remedied by grinding down the head of the tang until it clears the ejector.