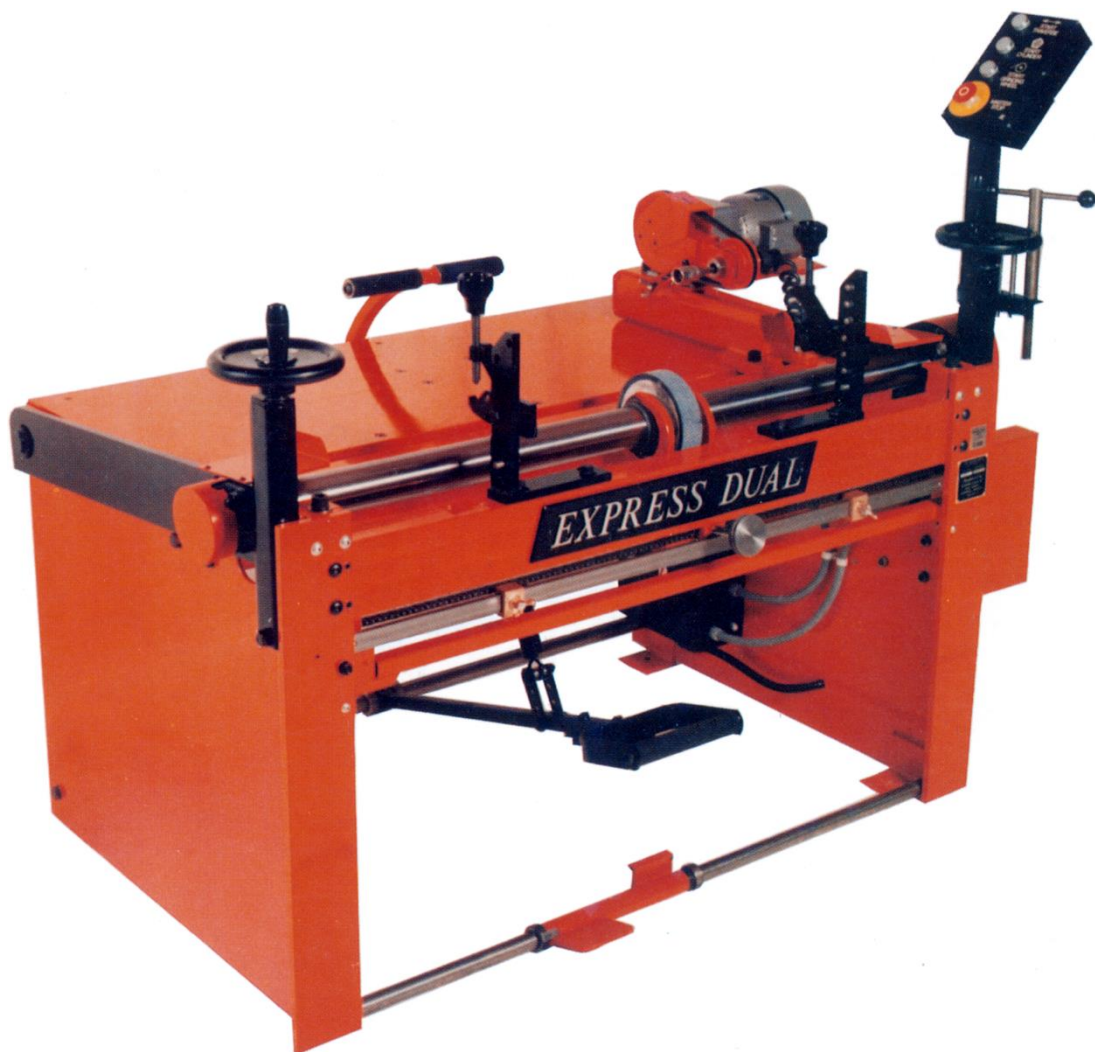


# **EXPRESS DUAL**

## **MACHINES 4662 – 11959**



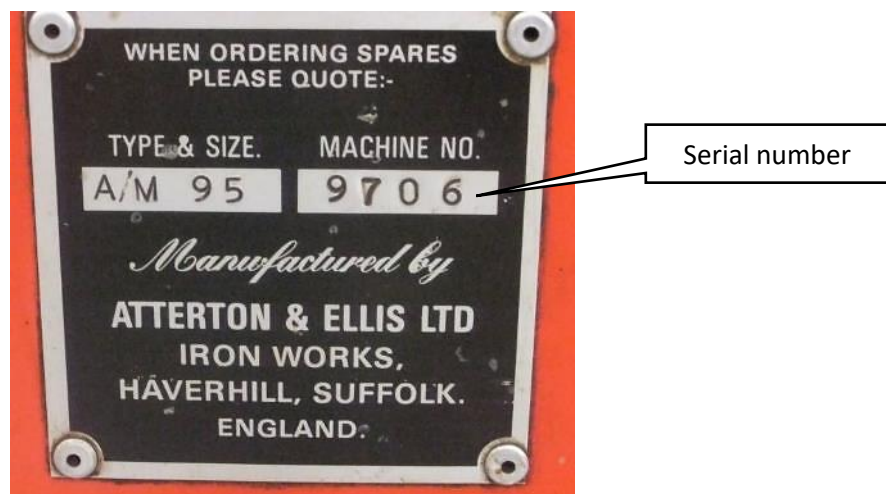
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## INTRODUCTION

This manual is intended to cover the last remaining parts available for the Express Dual range of machines 4662 – 11959.

All Bernhard grinders (both Anglemaster and Express Dual) are fitted with a rating plate that gives the serial number of the machine. When calling to order parts please have the serial number to hand.



Thank you for purchasing a Bernhard grinder, if you are considering replacing your grinder with a newer model please contact our head office.

### **Bernhard and Company Ltd**

Bilton Road  
Rugby  
Warwickshire  
England  
CV22 7DT

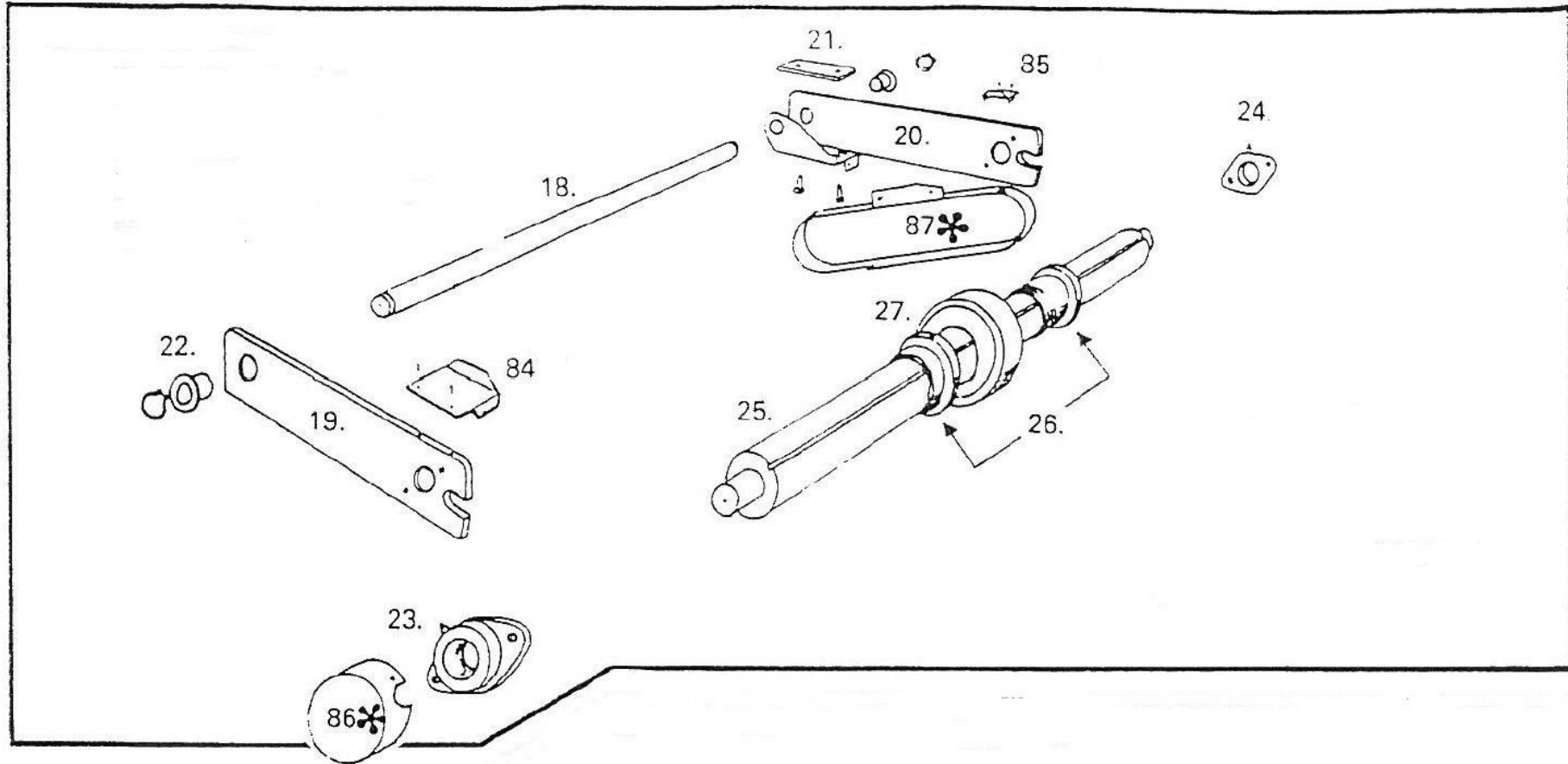
Telephone:

**1-888 474 6348** (Toll free from USA/Canada)

**+44 1788 811600** (Worldwide)

Email: [info@bernhard.co.uk](mailto:info@bernhard.co.uk)

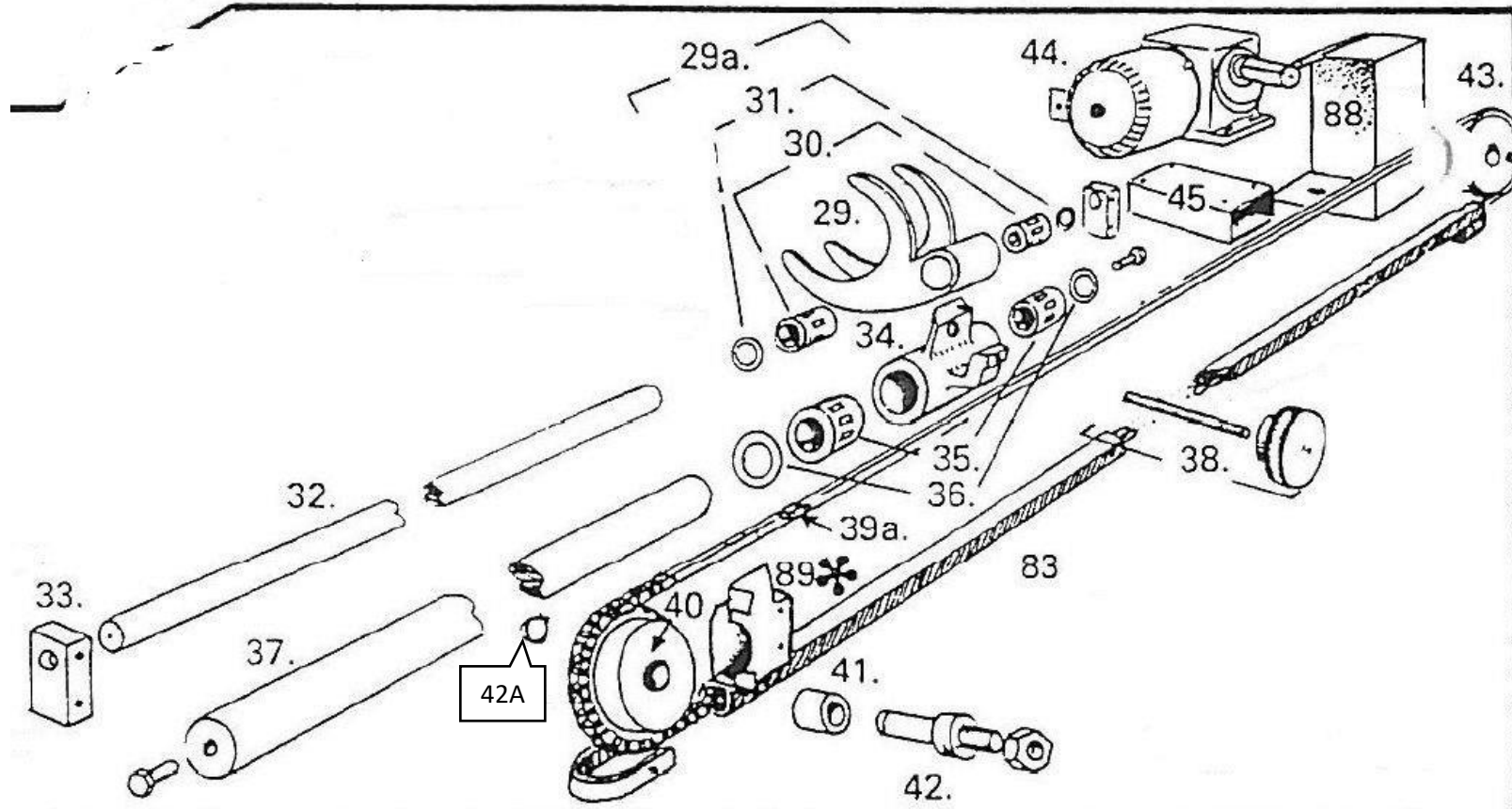
## MAINSHAFT MOUNTING



## MAINSHAFT MOUNTING PARTS

18 - Rearshaft with circlips – (OBSOLETE)
19 – Side Arm LH – (OBSOLETE)
20 – Side Arm RH – (OBSOLETE)
21 - Motor bolt retaining plates (2) – (OBSOLETE)
22 – Flanged oilite bush for 19 and 20 (2) – A07701
23 – Bearing unit LH – A07721
24 – Bearing unit RH – A07721
25 – Mainshaft – A09068
26 – Sleeve and nut – A09506
27 – Grinding stone – A06505
84 – End guard LH – (OBSOLETE)
85 – End guard RH – (OBSOLETE)
86 – Cap for mainshaft end – (OBSOLETE)
87 – Guard for main drive belt – (OBSOLETE)

TRAVERSE



## TRAVERSE PARTS

29, 29A, 30, 31 – Fork assembly including seals and bearings – A09505
32 – Shaft for fork driver (SEE FOLLOWING PAGES)
33 – Bracket for shaft (2) – (OBSOLETE)
34, 35, 36 – Traverse pickup including seals and bearings – A09509
37 – Shaft for pickup (SEE FOLLOWING PAGES)
38 – Engagement screw for pickup (SEE FOLLOWING PAGES)
39 – Traverse chain (SEE FOLLOWING PAGES)
39A – Link for traverse chain – A07502
40 – Idler sprocket – A07609
41 – Oilite bush – A07704
42 – Stud for idler sprocket – A09057
42A – Circlip for stud – A05602
43 – Drive sprocket – A03320
44 – Traverse motor – A04959
45 – Mounting bracket for traverse motor – (OBSOLETE)
88 – Guard for driver sprocket – (OBSOLETE)
89 – Guard for idler sprocket – (OBSOLETE)

**32 - TRAVERSE FORK SHAFT – A09049  
(UP TO MACHINE NUMBER 8765)  
(CHECK LENGTH IS 44 3/8" BEFORE ORDERING)**



**32 - TRAVERSE FORK SHAFT – A09050  
(MACHINE NUMBER 8766 – 11954)  
(CHECK LENGTH IS 49 1/2" BEFORE ORDERING)**





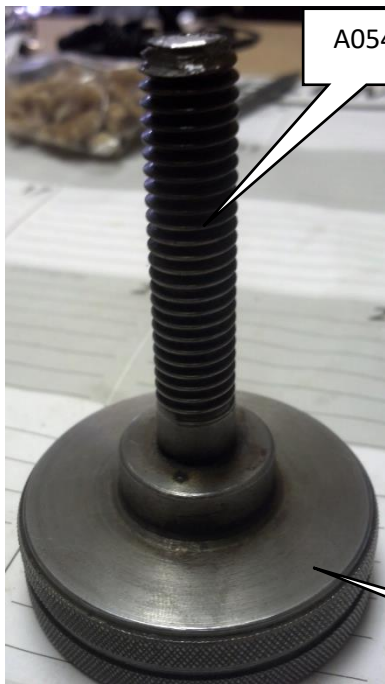
**37- TRAVERSE PICKUP SHAFT - A09097  
(UP TO MACHINE NUMBER 8765)  
(CHECK LENGTH IS 47 ½" BEFORE ORDERING)**



**37 -TRAVERSE PICKUP SHAFT - A09183  
(MACHINE NUMBER 8766 – 11954)  
(CHECK LENGTH IS 51 7/8" BEFORE ORDERING)**



## 38 – ENGAGEMENT SCREW FOR PICKUP



A05402

We have two types of engagement screw:-

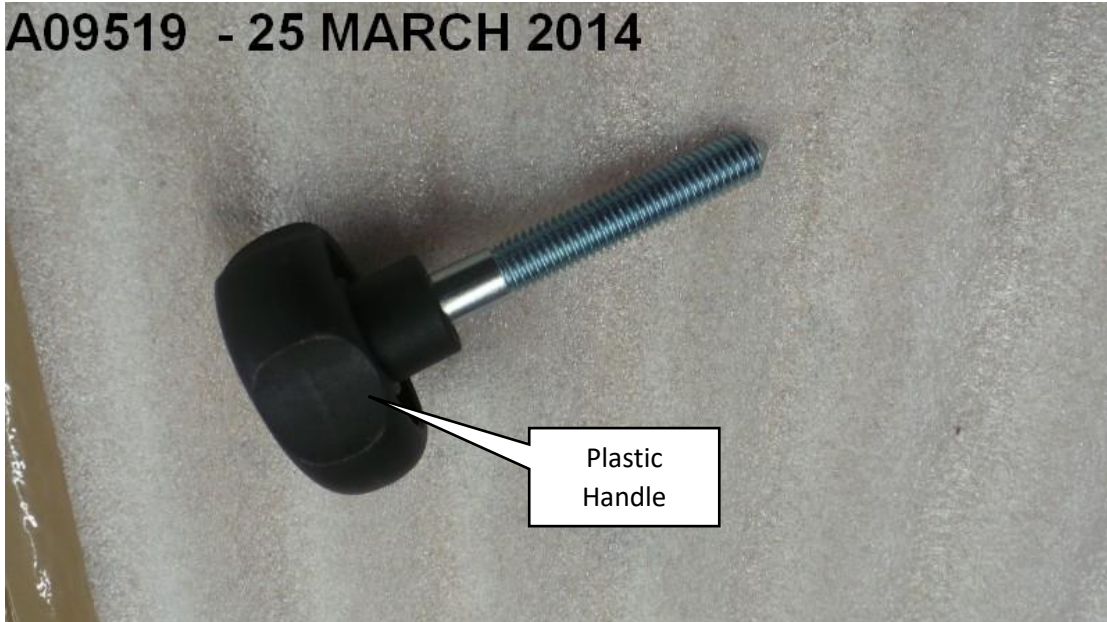
One with a metal handle – Our part A05402

One with a plastic handle – Our part A09519

Please select the type for your machine as the threads are a different pitch.

Metal Handle

A09519 - 25 MARCH 2014



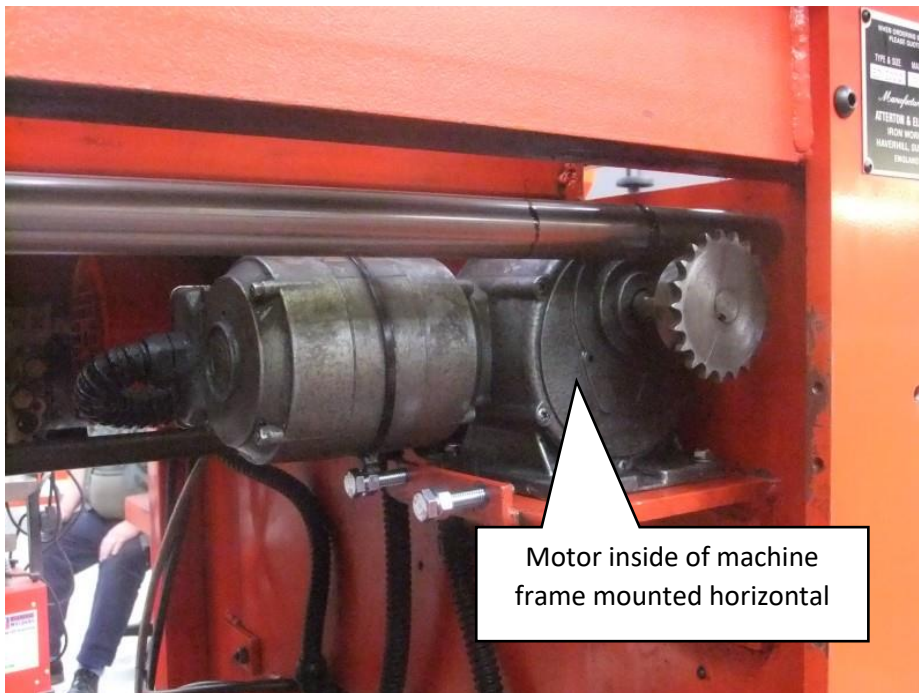
Plastic  
Handle

## 39 - TRAVERSE CHAIN – A07407 (UP TO MACHINE NUMBER 8765)



Motor outside of machine  
frame mounted horizontal

## 39 - TRAVERSE CHAIN A07406 (MACHINE NUMBER 8766 – 11954)

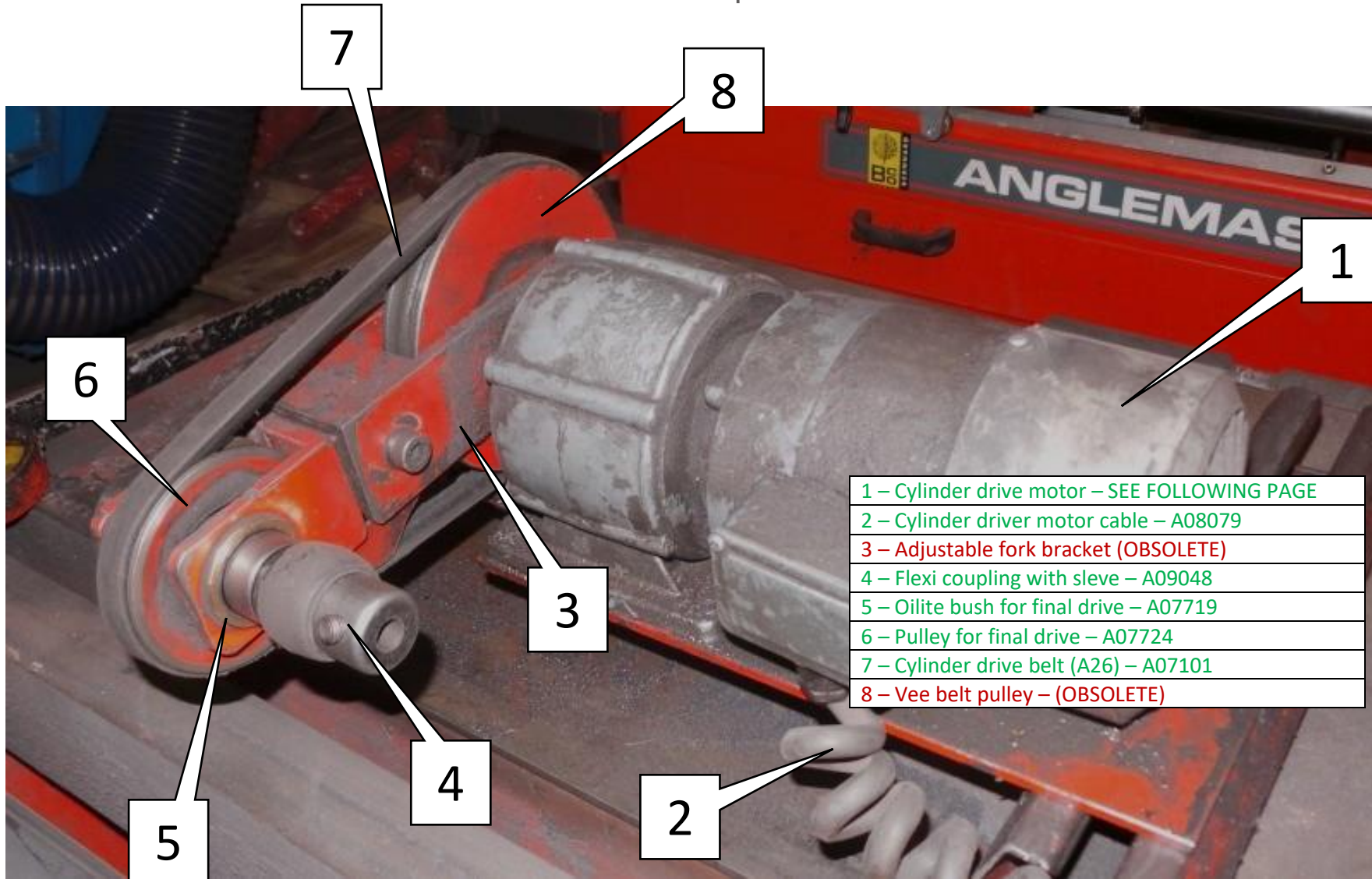


Motor inside of machine  
frame mounted horizontal

## CYLINDER DRIVE PARTS (UP TO MACHINE NUMBER 10807)

PARTS IN THIS SECTION ARE ONLY  
SUITABLE FOR MACHINES WITH THE  
CYLINDER DRIVE MOTOR ON TOP OF  
THE TABLE





- |   |
|---|
| 1 – Cylinder drive motor – SEE FOLLOWING PAGE |
| 2 – Cylinder driver motor cable – A08079      |
| 3 – Adjustable fork bracket (OBSOLETE)        |
| 4 – Flexi coupling with sleeve – A09048       |
| 5 – Oilite bush for final drive – A07719      |
| 6 – Pulley for final drive – A07724           |
| 7 – Cylinder drive belt (A26) – A07101        |
| 8 – Vee belt pulley – (OBSOLETE)              |

# 1 - CYLINDER DRIVE MOTOR (50HZ) - A06060

**REGIONS:- UK, EUROPE ONLY**

**A06060 - 09 JAN 2015**



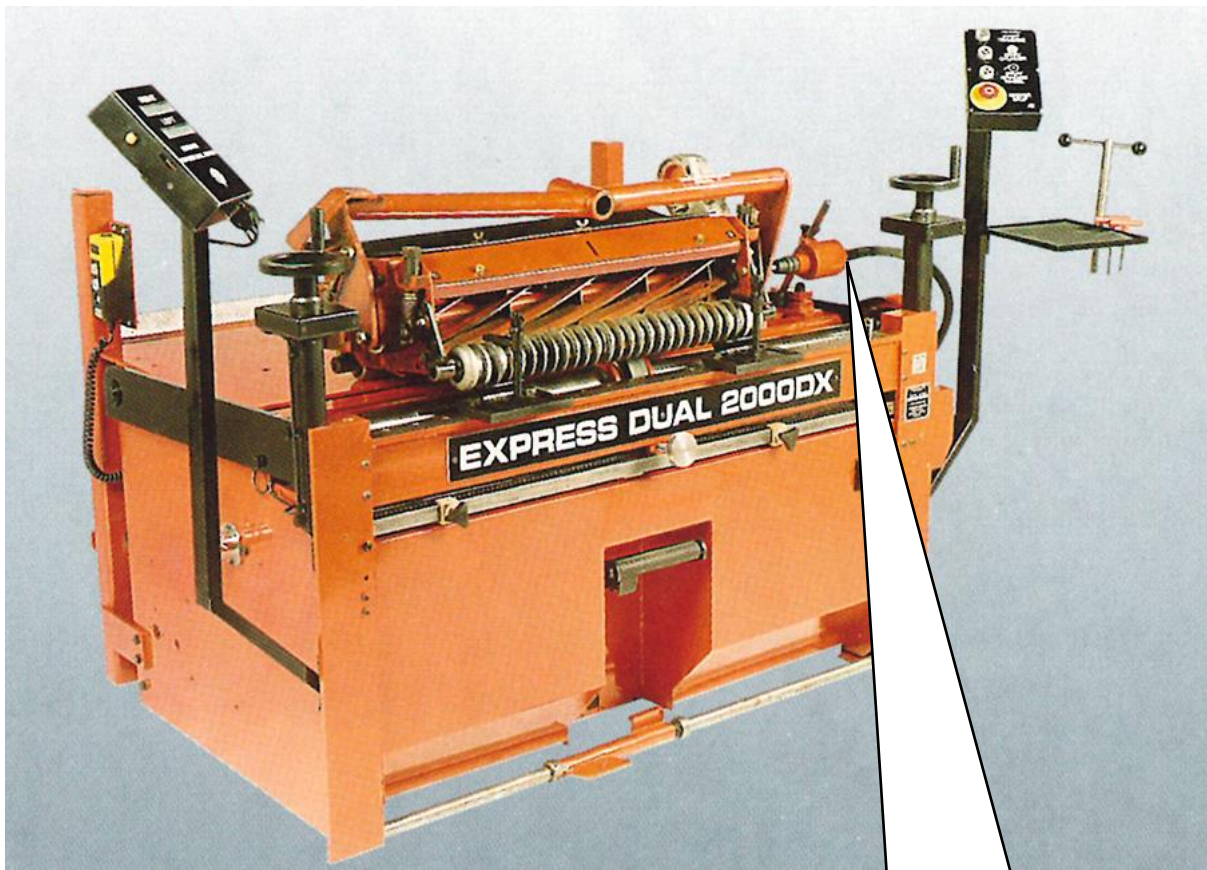
# 1 – CYLINDER DRIVE MOTOR (60HZ) – A06017

**REGIONS:- USA, CANADA ONLY**

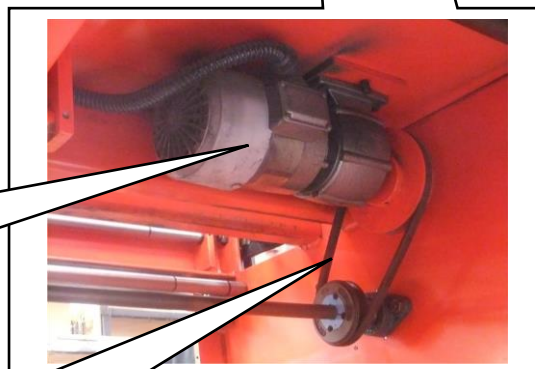
**A06017 - 09 JAN 2015**



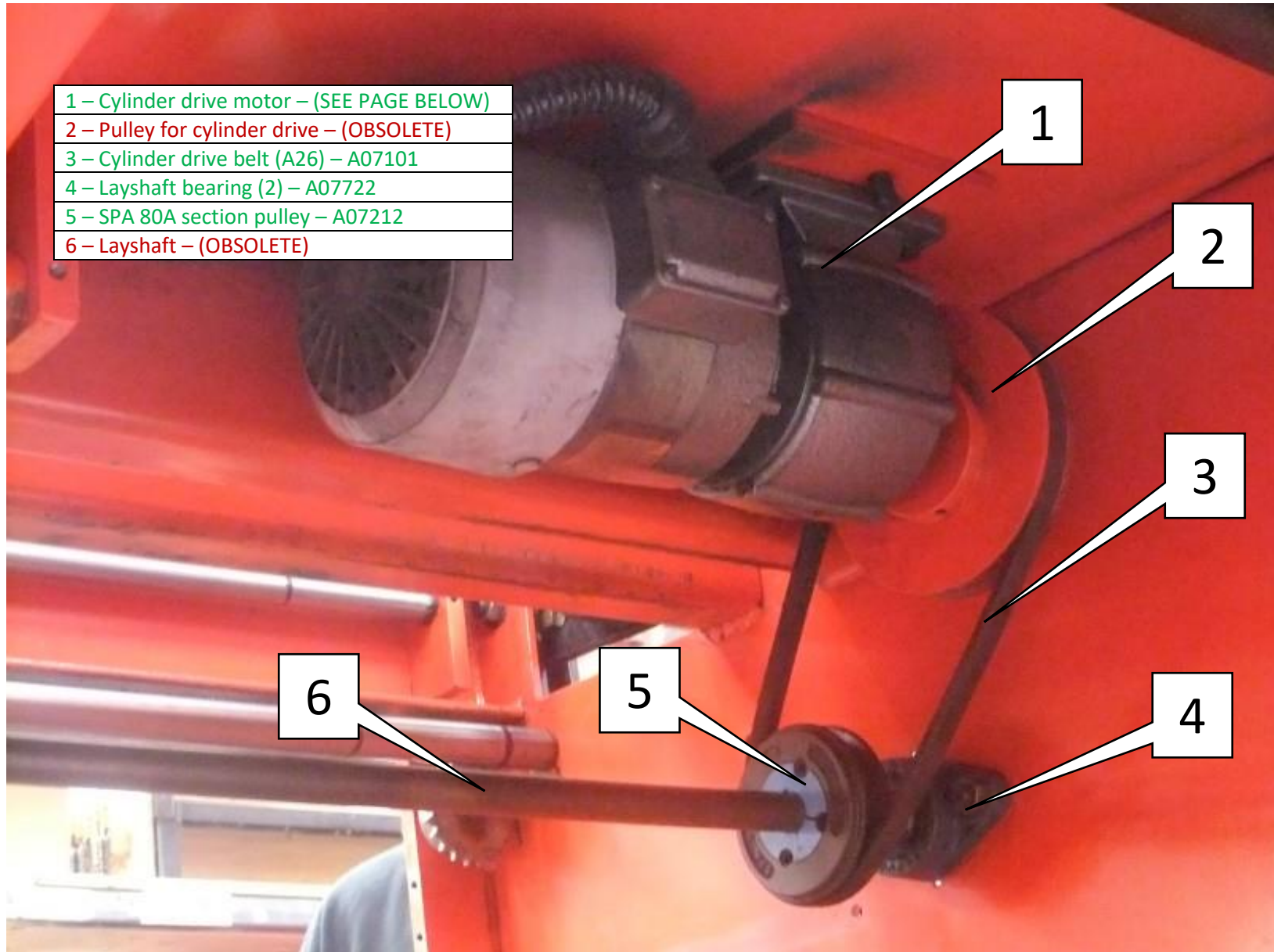
## CYLINDER DRIVE PARTS (MACHINE NUMBERS 10807 - 11563)



IN THIS VERSION THE  
CYLINDER DRIVE MOTOR IS  
MOUNTED TO THE  
UNDERSIDE OF THE TABLE



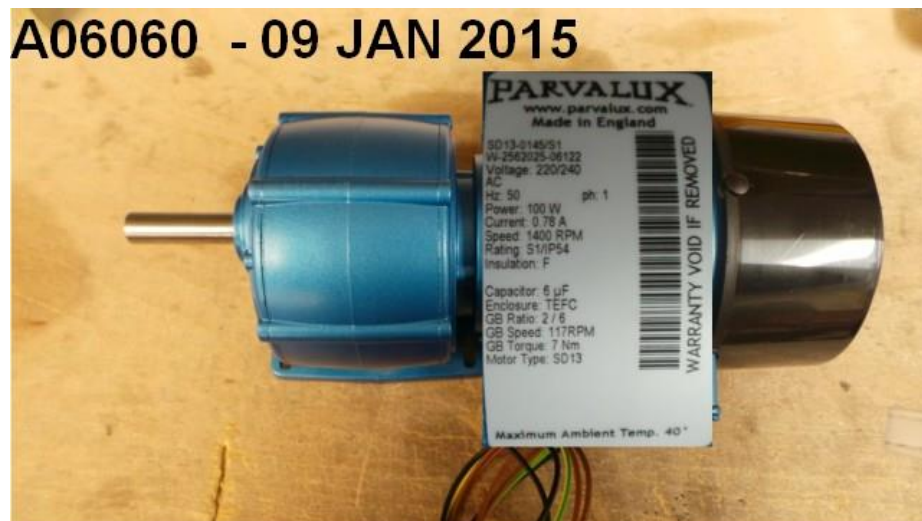
ALSO THE MOTOR IS CONNECTED  
TO THE SHAFT VIA A VEE BELT





# 1 - CYLINDER DRIVE MOTOR (50HZ) - A06060

## REGIONS:- UK, EUROPE ONLY



# 1 – CYLINDER DRIVE MOTOR (60HZ) – A06017

## REGIONS:- USA, CANADA ONLY



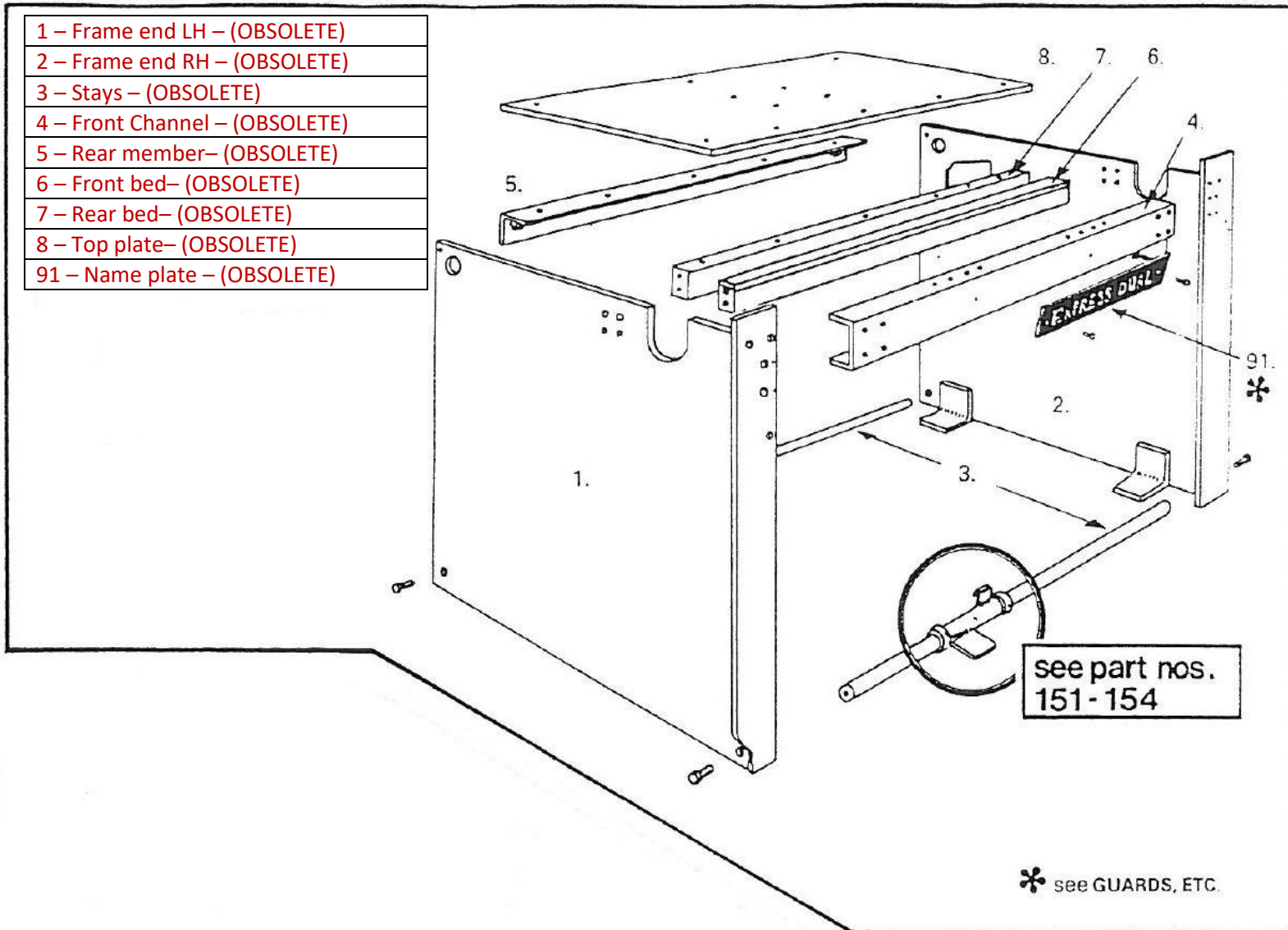
## EXPRESS DUAL FLEXI DRIVE SHAFT



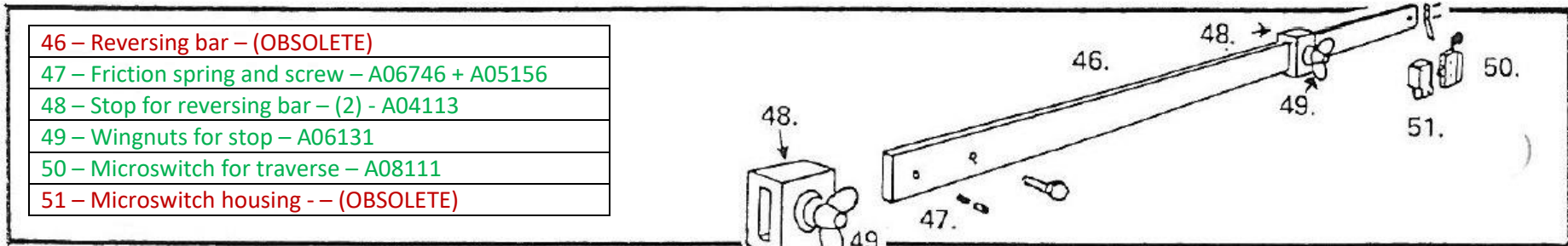
If your machine has this gearbox between the flexi drive shaft and the cutting unit then you will need kit "A09533 – HD Flexible shaft retro kit".

If it does not have a gearbox then you can replace the flexi drive shaft only under part A07404.

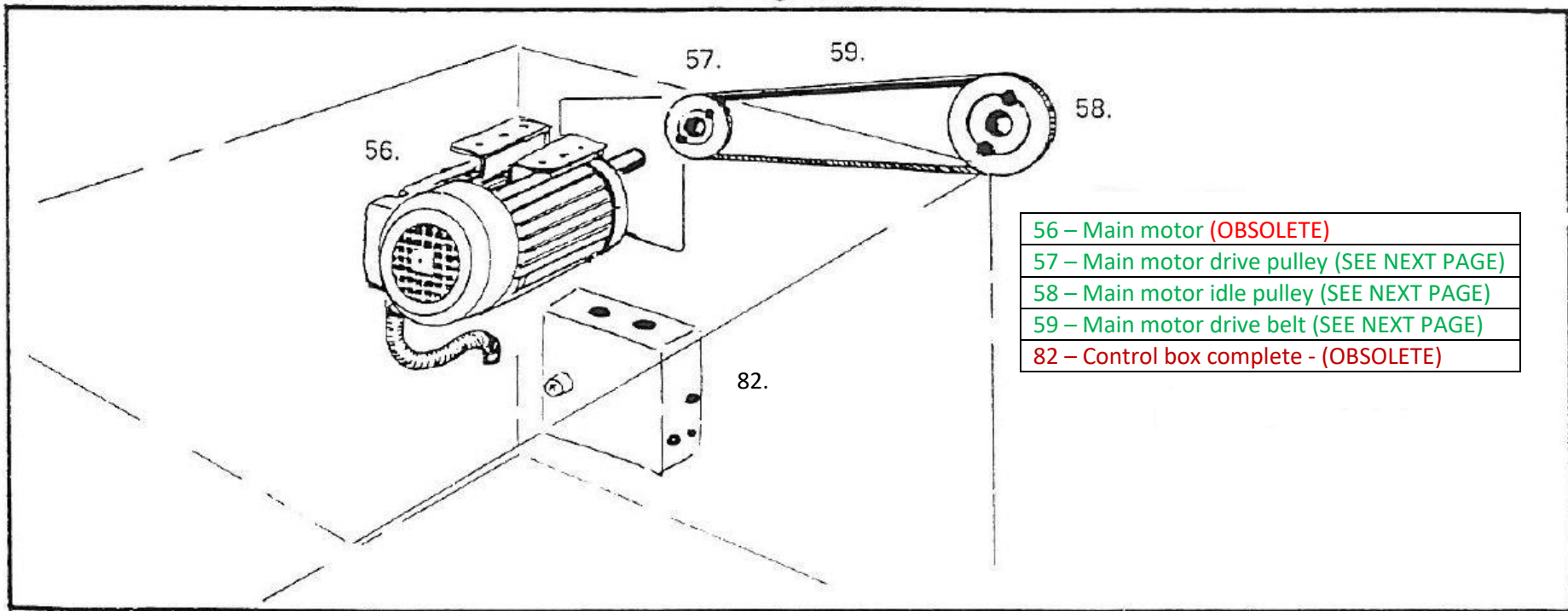
## MACHINE FRAME



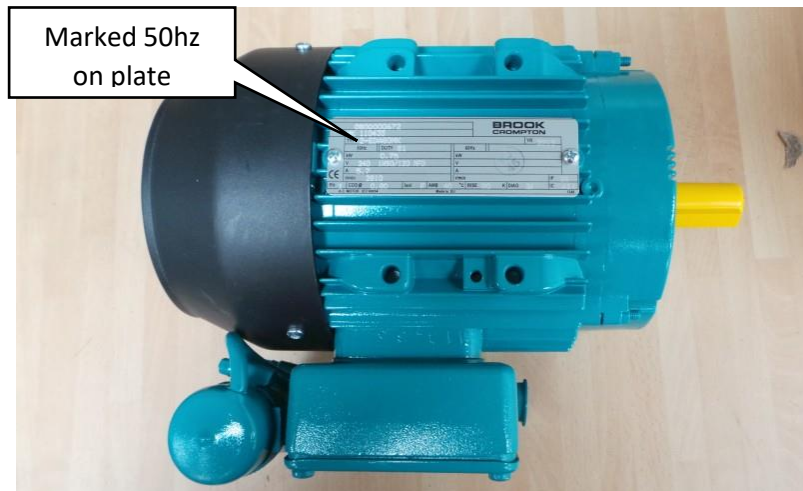
### TRAVERSING BAR



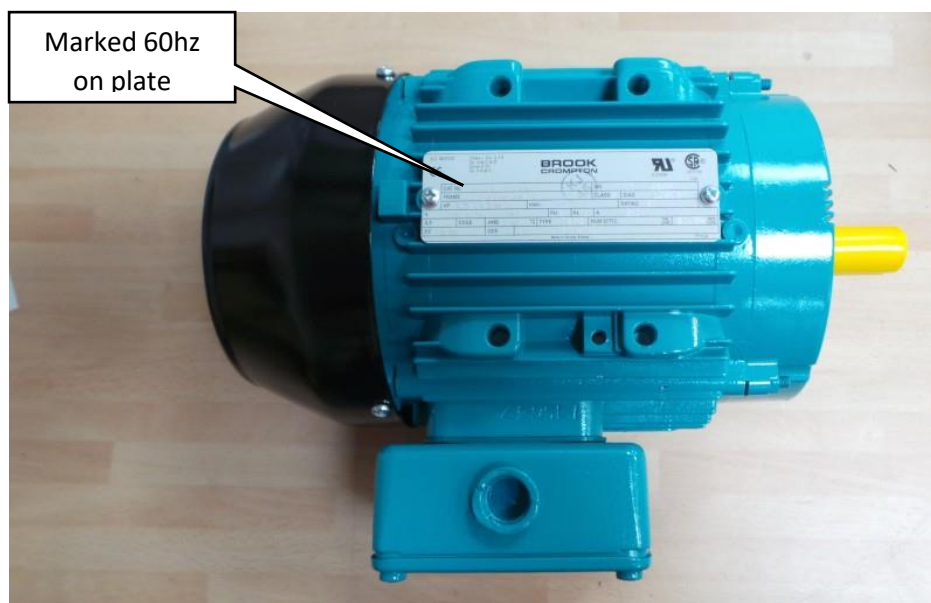
### MAIN MOTOR DRIVE



**56 - MAIN MOTOR 50HZ – A06015**  
**REGIONS UK AND EUROPE**  
**(OBSOLETE)**

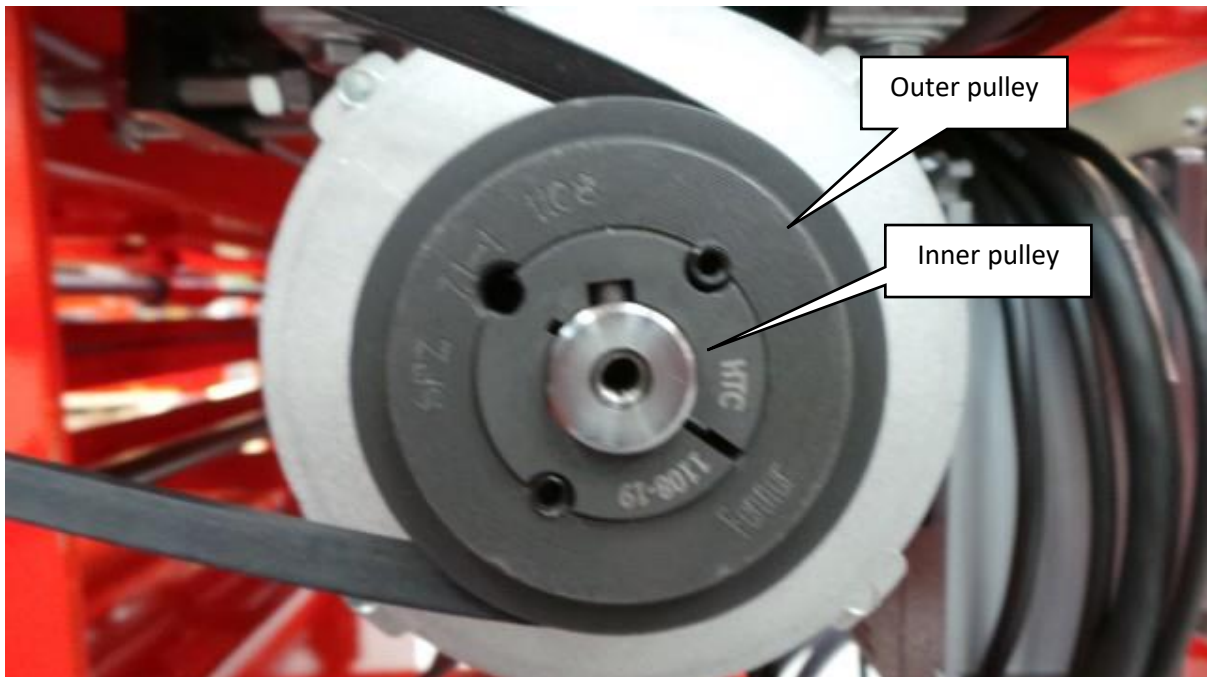


**56 - MAIN MOTOR 60HZ – A06014**  
**REGIONS USA AND CANADA**  
**(OBSOLETE)**



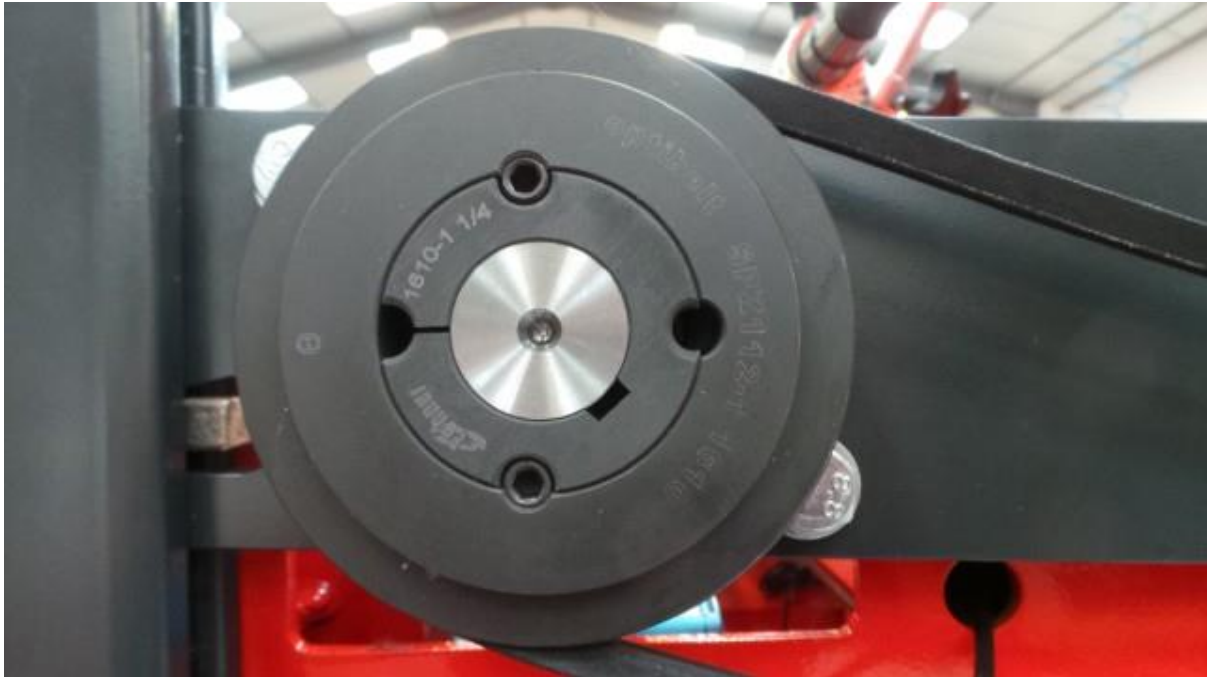
## 57 – MAIN MOTOR DRIVE PULLEY

Over the years we have used a number of different pulleys. The easiest way to identify the correct pulley is to check for a number on each part of the pulley. Once you have both numbers contact us and we can provide the part number.



## 58 – MAIN MOTOR IDLE PULLEY

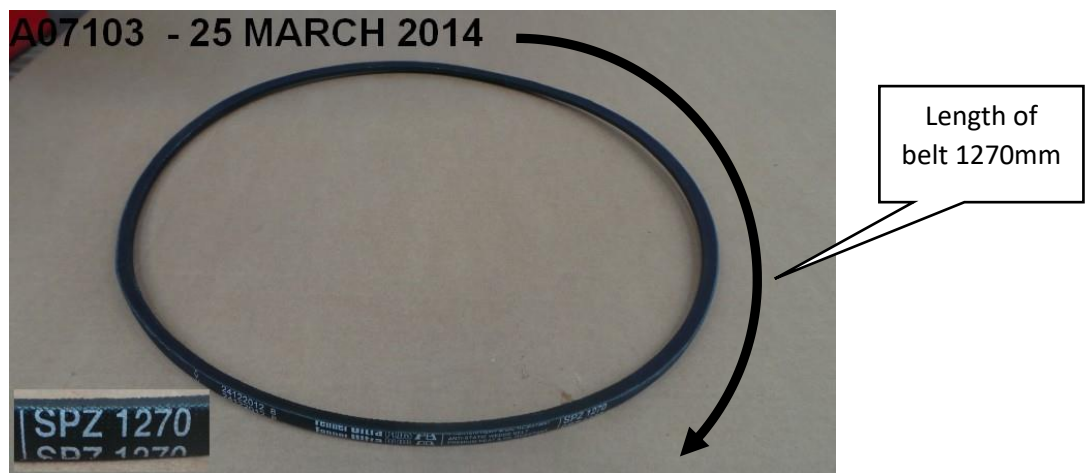
Over the years we have used a number of different pulleys. The easiest way to identify the correct pulley is to check for a number on each part of the pulley. Once you have both numbers contact us and we can provide the part number.



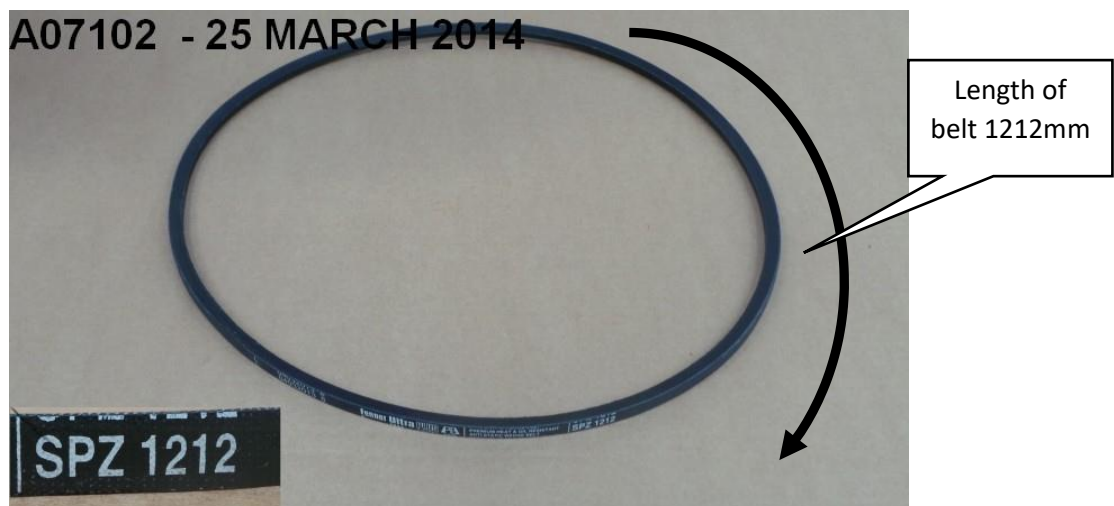
## 59 – MAIN MOTOR DRIVE BELT

Over time we have used two different belts on the machine. The easiest way to identify the correct belt is to check for a number on the belt (either 1270 or 1212), or measure the length of the belt.

### 59 – MAIN MOTOR DRIVE BELT – A07103

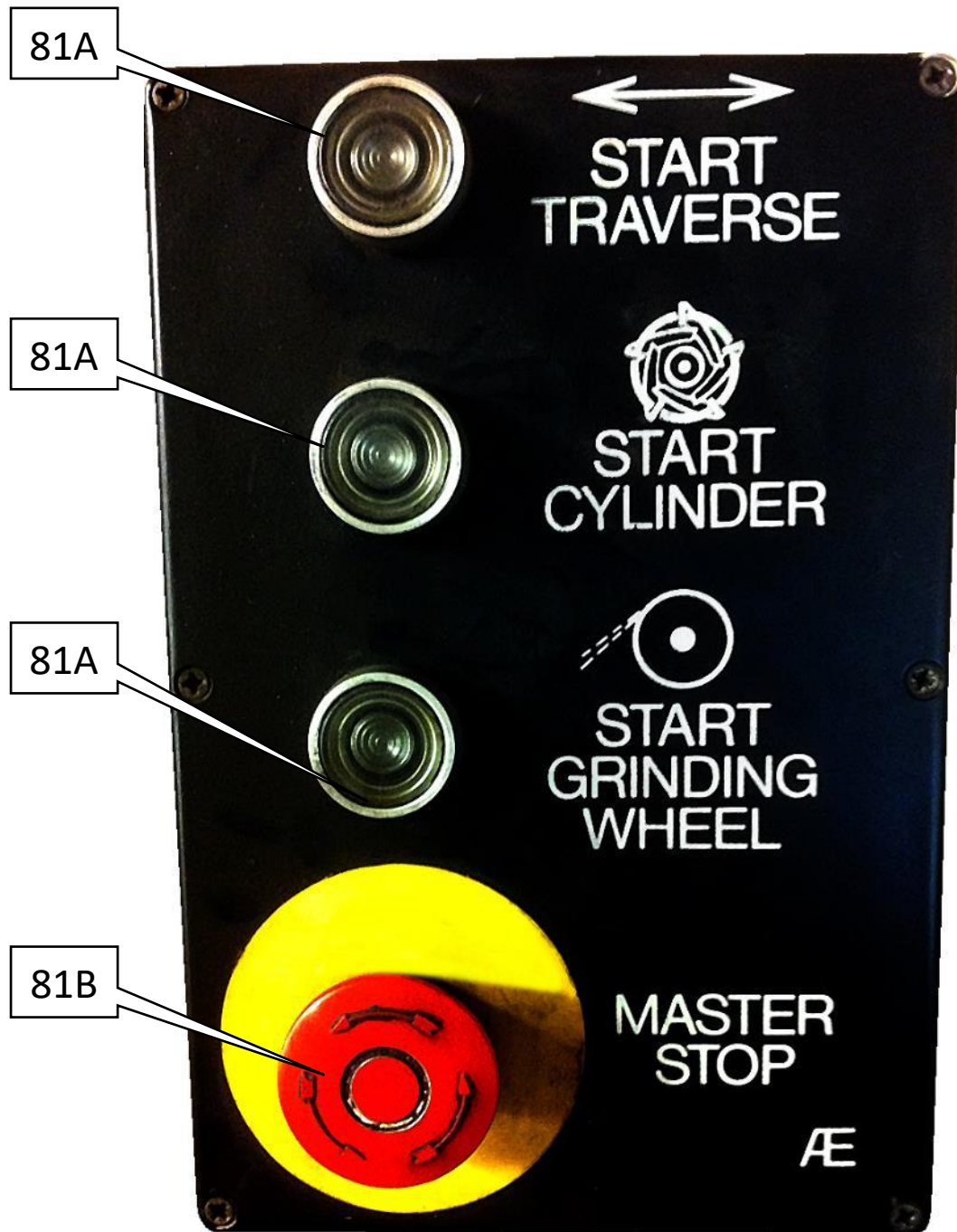


### 59 – MAIN MOTOR DRIVE BELT – A07102





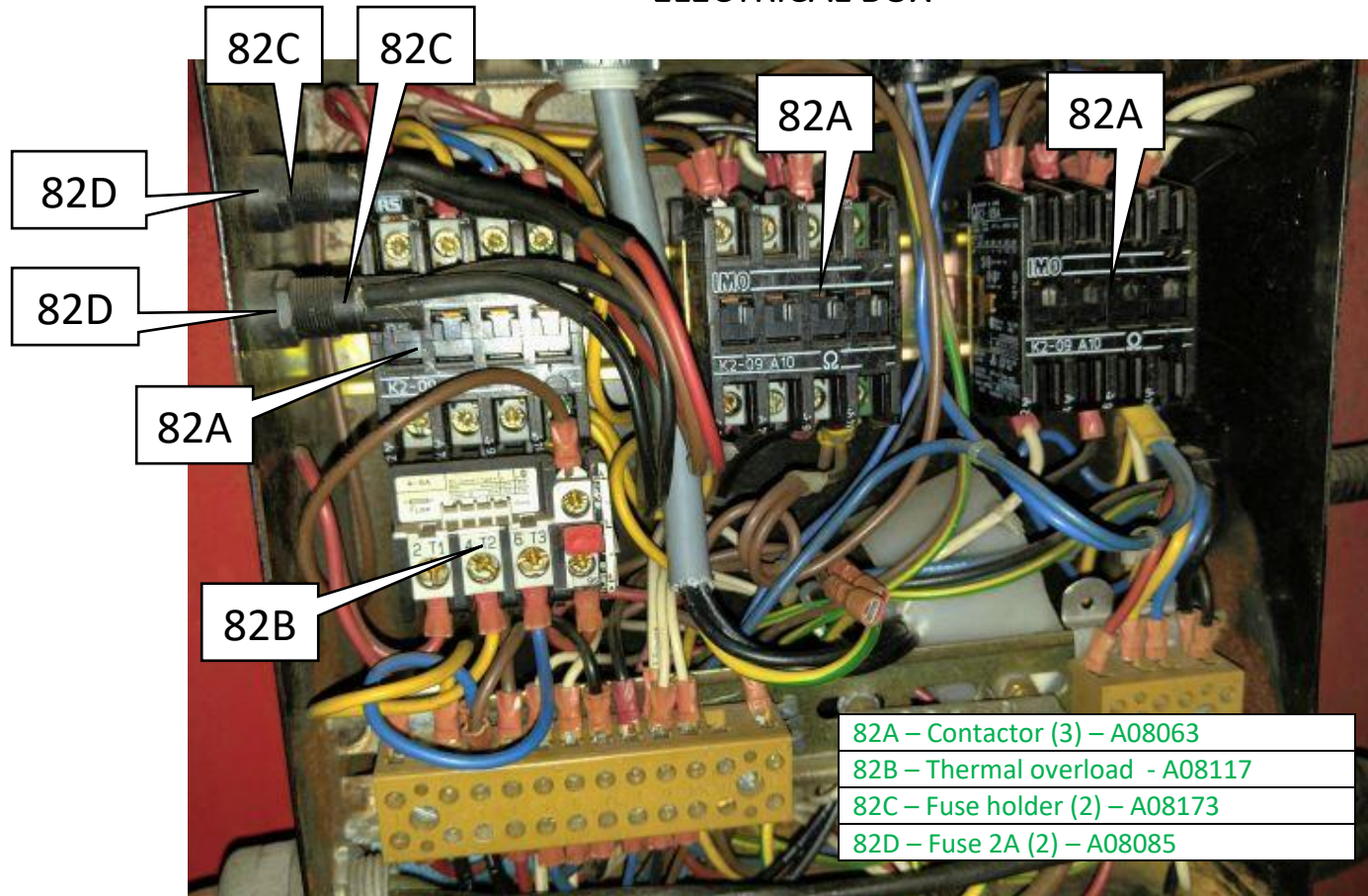
### CONTROL ARM



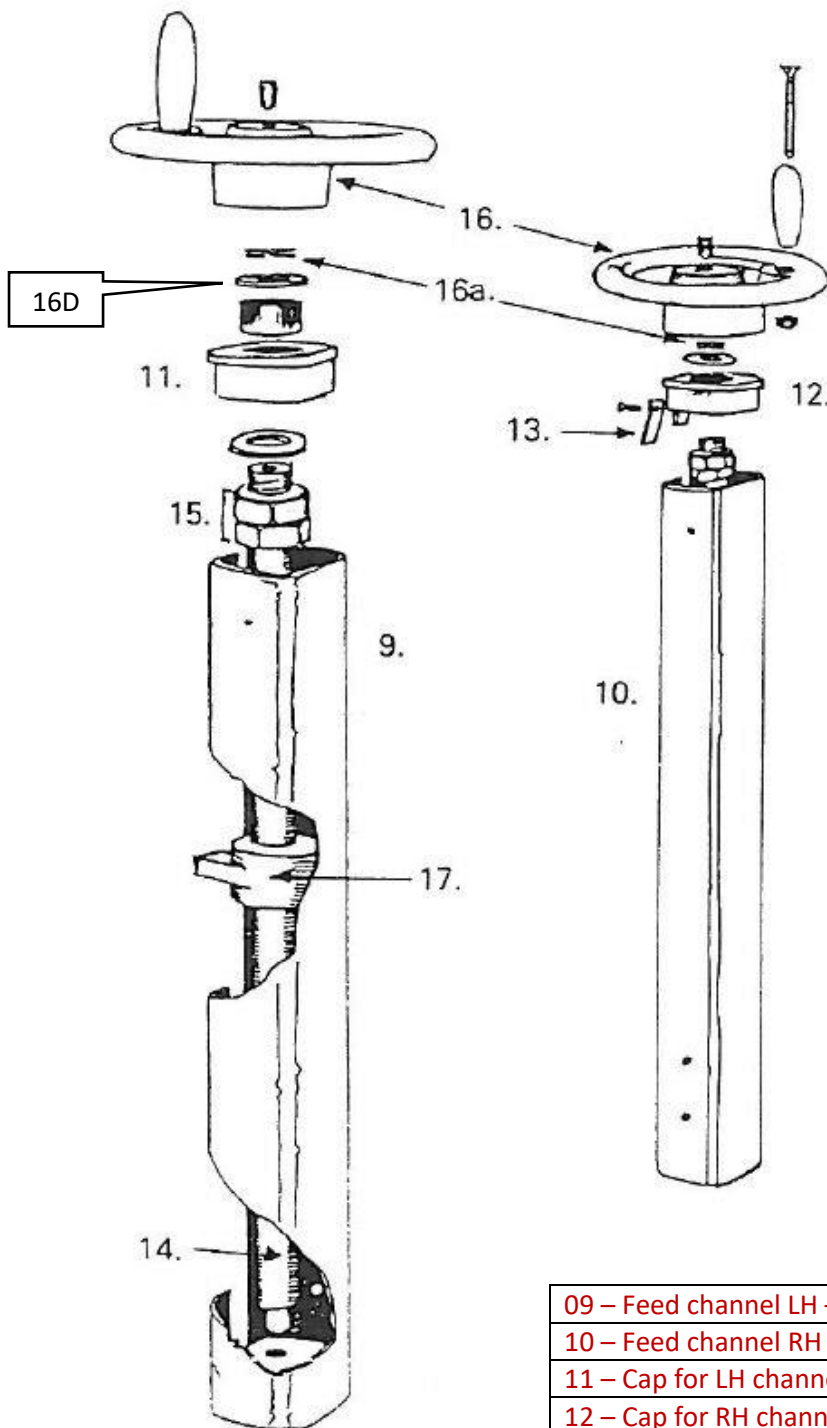
81A – Start button (3) – A07092

81B – Master stop button – A07091

### ELECTRICAL BOX

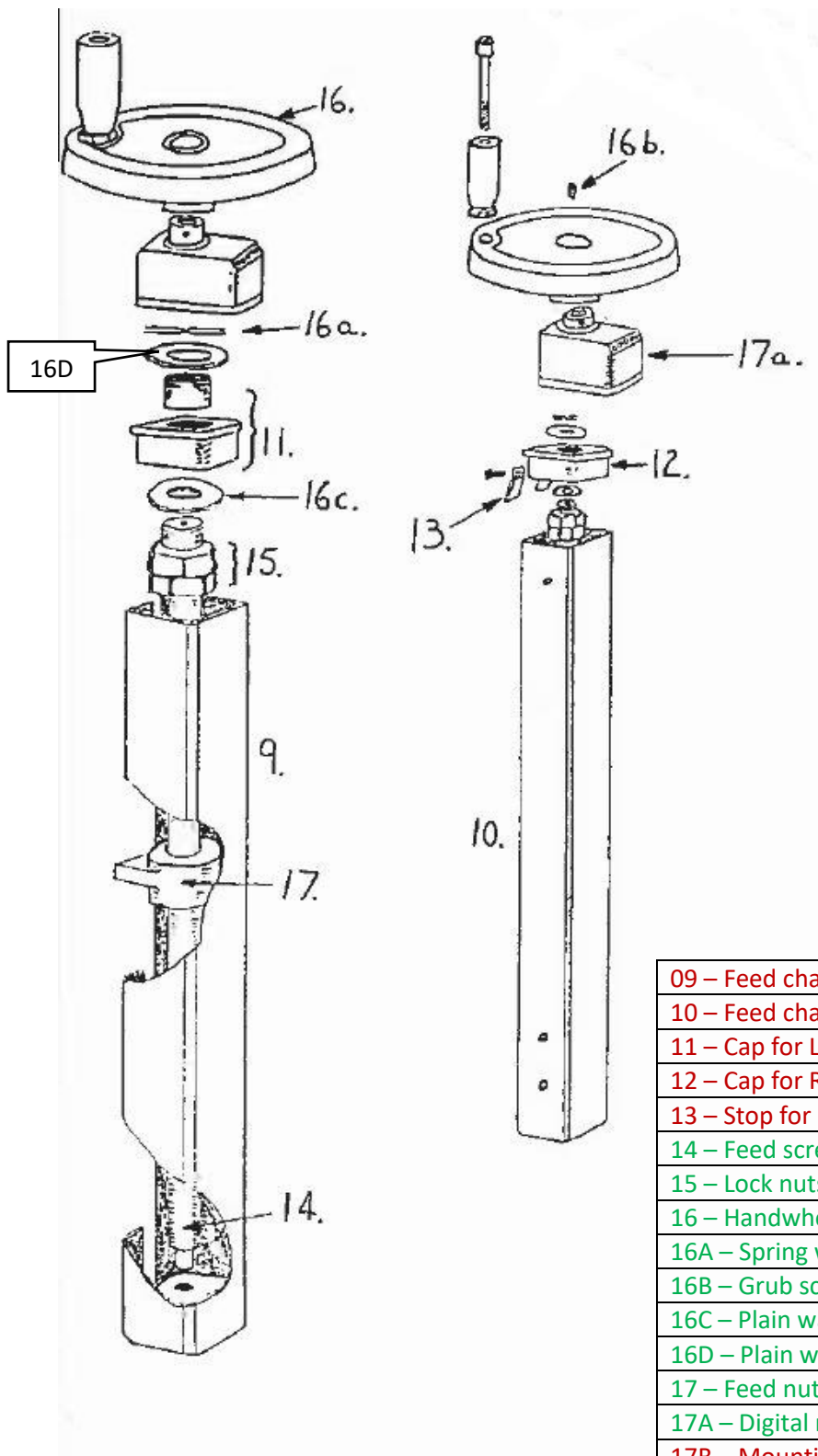


## FEED ADJUSTMENT (WITHOUT COUNTERS)



09 – Feed channel LH – (OBSOLETE)
10 – Feed channel RH – (OBSOLETE)
11 – Cap for LH channel – (OBSOLETE)
12 – Cap for RH channel – (OBSOLETE)
13 – Stop for RH cap – (OBSOLETE)
14 – Feed screws (2) – SEE FOLLOWING PAGES
15 – Lock nuts (4) – A05502
16 – Handwheels (2) – A06113
16A – Spring washers (2) – A05303
16D – Plain washer (2) – A05304
17 – Feed nuts (2) – A04043

## FEED ADJUSTMENT (WITH COUNTERS)



09 – Feed channel LH – (OBSOLETE)
10 – Feed channel RH – (OBSOLETE)
11 – Cap for LH channel – (OBSOLETE)
12 – Cap for RH channel – (OBSOLETE)
13 – Stop for RH cap – (OBSOLETE)
14 – Feed screws (2) – SEE FOLLOWING PAGES
15 – Lock nuts (4) – A05502
16 – Handwheels (2) – A06113
16A – Spring washers (2) – A05303
16B – Grub screws (2) – A05110
16C – Plain washers (4) – A05305
16D – Plain washer – (2) – A05304
17 – Feed nuts (2) – A04043
17A – Digital readout (2) – A06770
17B – Mounting plates (2) – (OBSOLETE)
17C – Spacers (2) – (OBSOLETE)

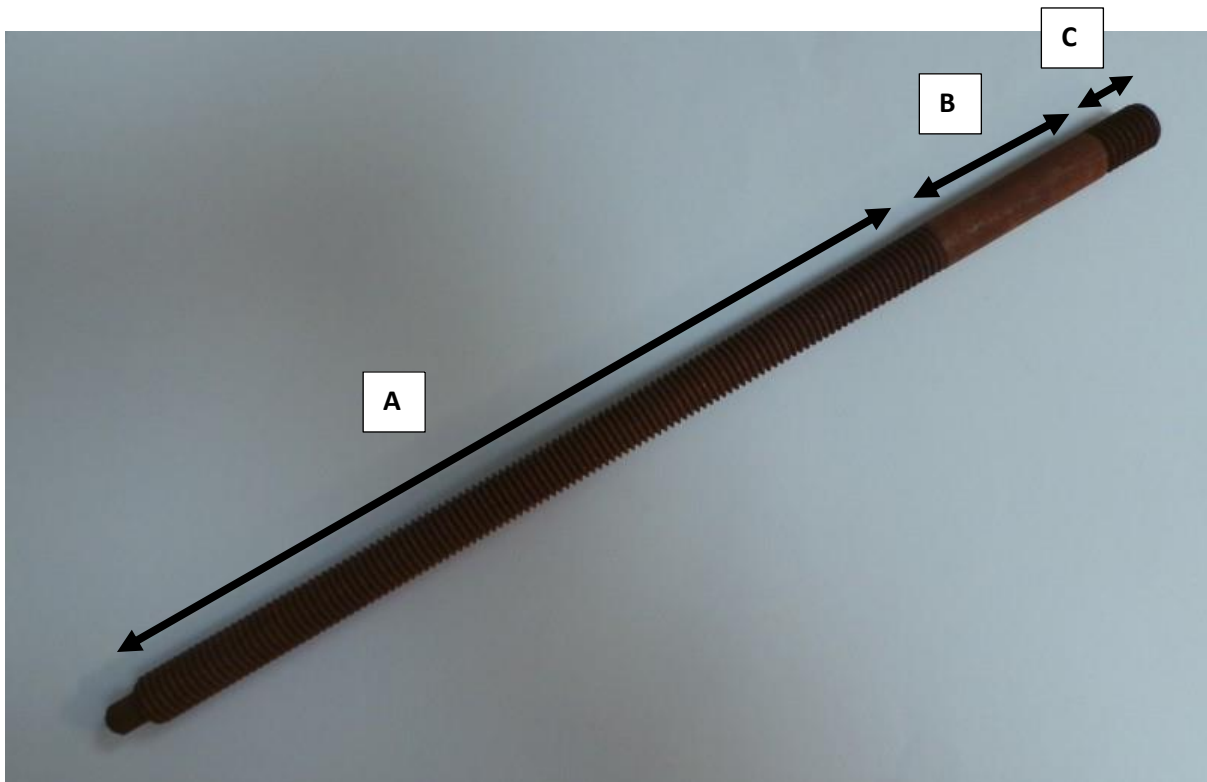
## 14 – FEED SCREWS

Over the years a number of different length feed screws have been used. To supply you the correct feed screw we need the following information.

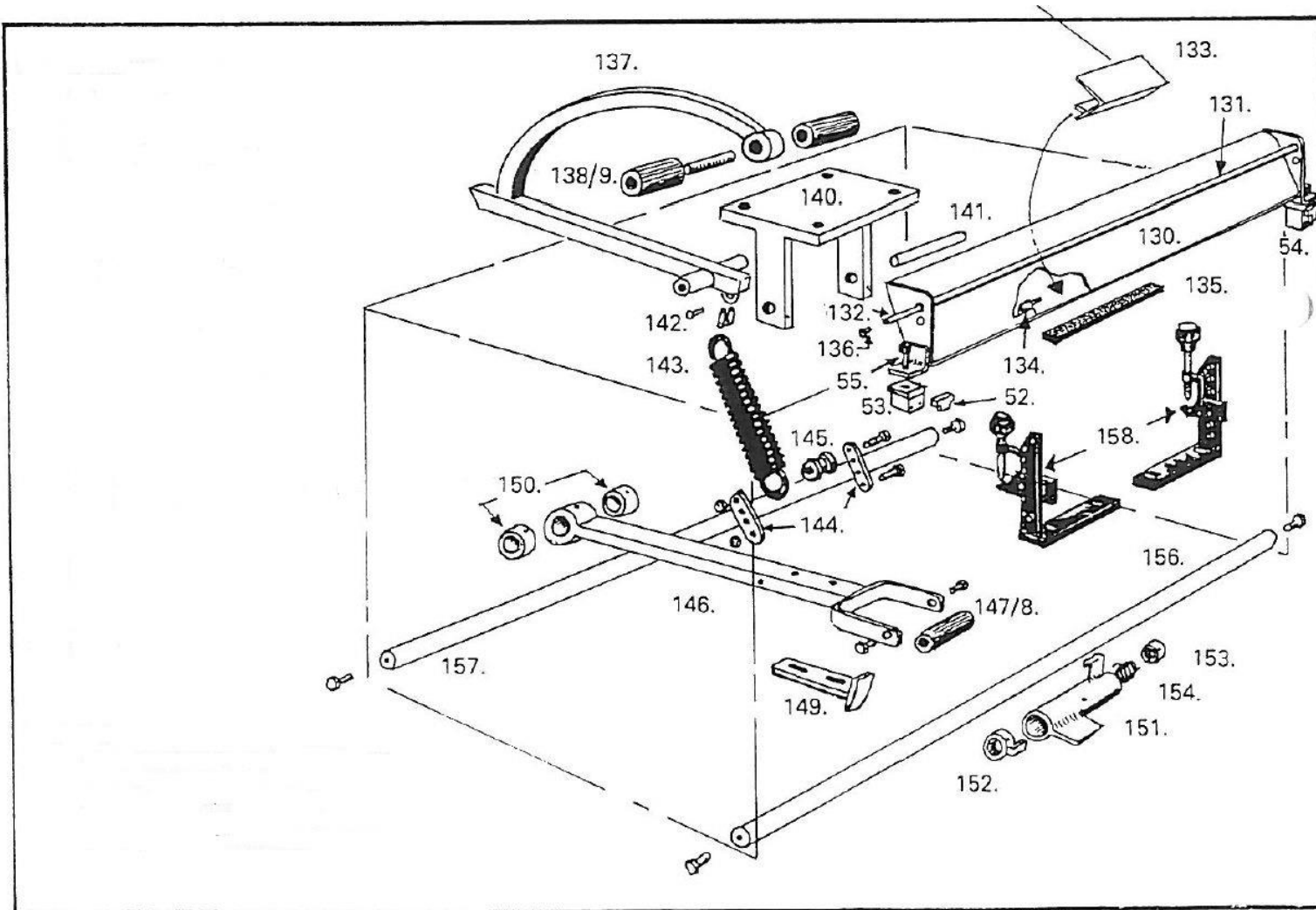
Length of threaded part “A”

Length of plain part “B”

Length of threaded part “C”



### CLAMPING AND ROLLER REST



## CLAMPING AND ROLLER REST (PARTS)

52 – Spacer for mounting block (2) - OBSOLETE
53 – Mounting block for LH end - OBSOLETE
54 – Mounting block for RH end - OBSOLETE
55 – Cap head screws for rest adjustment - OBSOLETE
130 – Location guard - OBSOLETE
131 – Chromium plate tube for 130 - OBSOLETE
132 – Extension V for 130 - OBSOLETE
133 – Retaining pin for 130 - OBSOLETE
134 – Securing screw (2) - OBSOLETE
135 – Polystyrene pad for 130 - OBSOLETE
136 – Securing screw (2) - OBSOLETE
137 – Radius pressure lever - OBSOLETE
138 – Pressure bar - OBSOLETE
139 – Pressure bar rubbers (2) - OBSOLETE
140 – Pressure lever bracket - OBSOLETE
141 – Pressure lever pin - OBSOLETE
142 – Upper spring link - OBSOLETE
143 – Pressure spring - OBSOLETE
144 – Lower spring link - OBSOLETE
145 – Spring Link Bobbin - OBSOLETE
146 – Operating lever - OBSOLETE
147 – Operating lever foot bar - OBSOLETE
148 – Foot bar rubber - OBSOLETE
149 – Operating lever latch - OBSOLETE
150 – Operating lever location collar (2) - OBSOLETE
151 – Operating lever catch - OBSOLETE
152 – Operating lever catch collar LH - OBSOLETE
153 – Operating lever catch collar RH - OBSOLETE
154 – Operating lever catch spring - OBSOLETE
156 – Shaft stay front - OBSOLETE
157 – Shaft stay rear - OBSOLETE
158 – Multifix bracket (2) – SEE BELOW

## 158 – MULTIFIX BRACKET

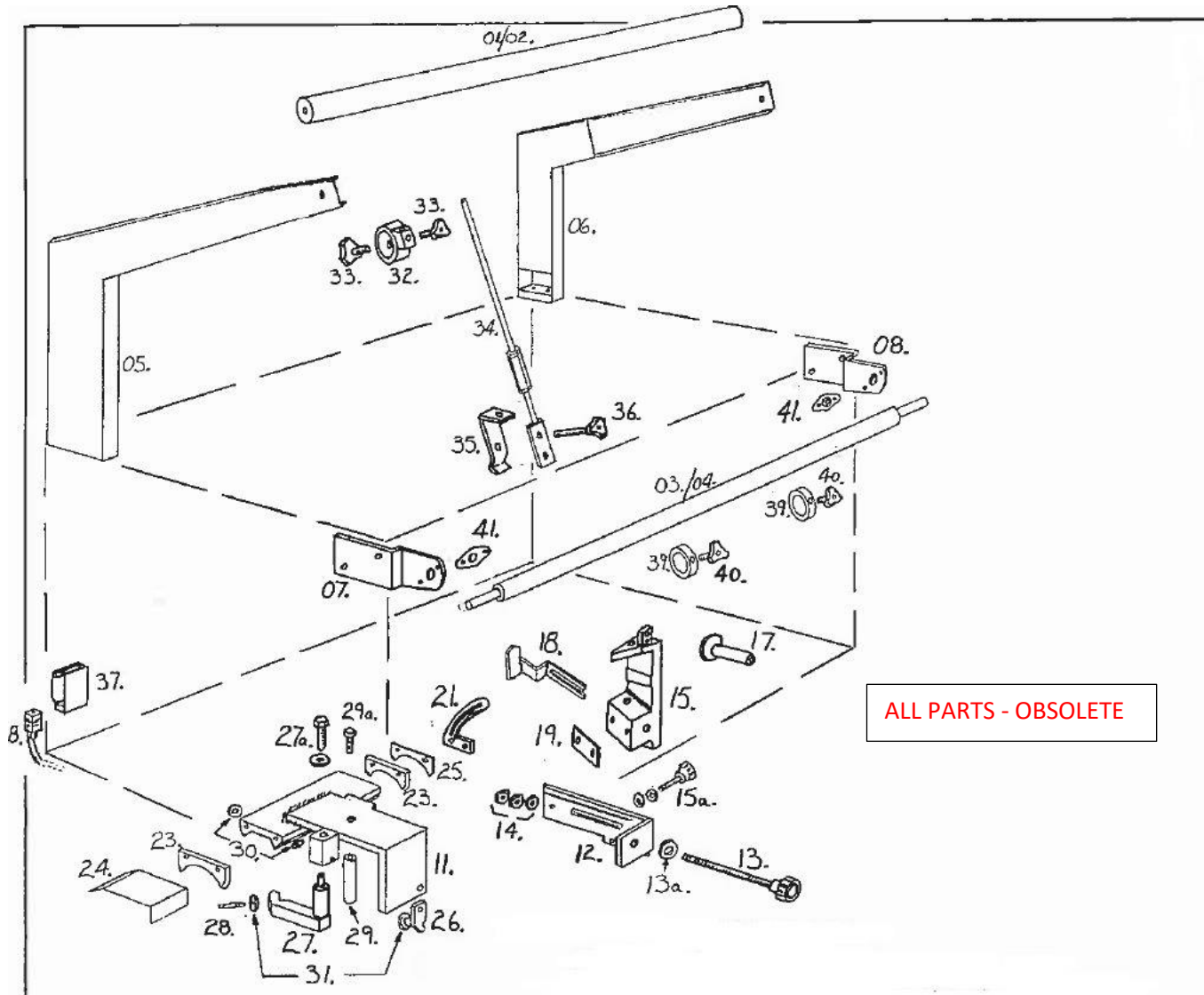
We can offer a complete set of multifix brackets that can be fitted to your machine. Depending on the holes on the front plate, new holes may need to be drilled. Please contact us for more information.



**A09502.000**  
**STANDARD UNIV.**  
**MOUNTING BRACKET**  
**ED**



### BLADE THINNING UNIT



TOOLS AND ACCESSORIES

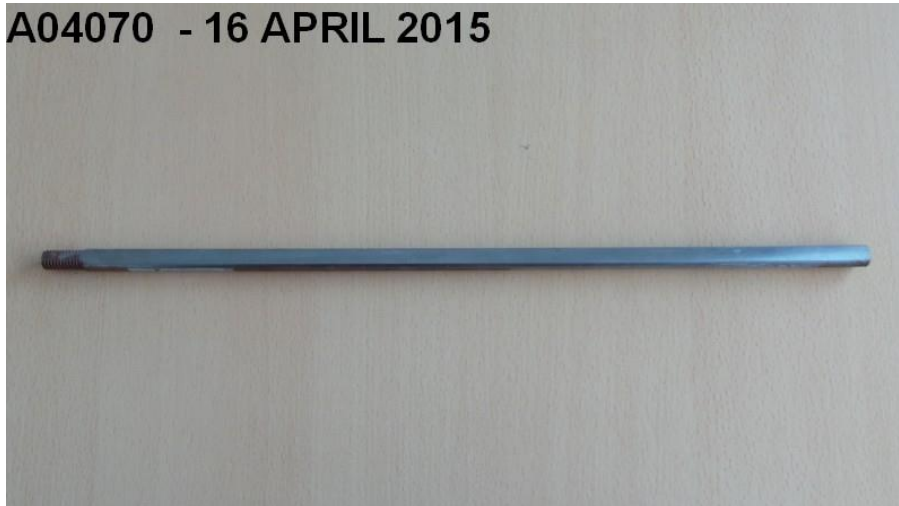
**A04068 – LONG DRIVE ROD - SQUARE**

A04068 - 16 APRIL 2015



**A04070 – LONG THREADED DRIVE ROD**

A04070 - 16 APRIL 2015



## **A04121 – SHORT DRIVE ROD – PLAIN**

A04121 - 16 APRIL 2015



## **A04120 – SHORT DRIVE ROD – SQUARE**

A04120 - 16 APRIL 2015



## **A02719 – GRINDING WHEEL NUT SPANNER**



## **A04063 – 2 PIN SPROCKET DRIVER A05209 - HOLDING SCREW**



## A04133 – SPLINE DRIVER SET



## A06847 – MOLYCOTE BRUSH



## A03492 – ANTI CORROSION PROTECTIVE OIL

A03492 - 07 APRIL 2014

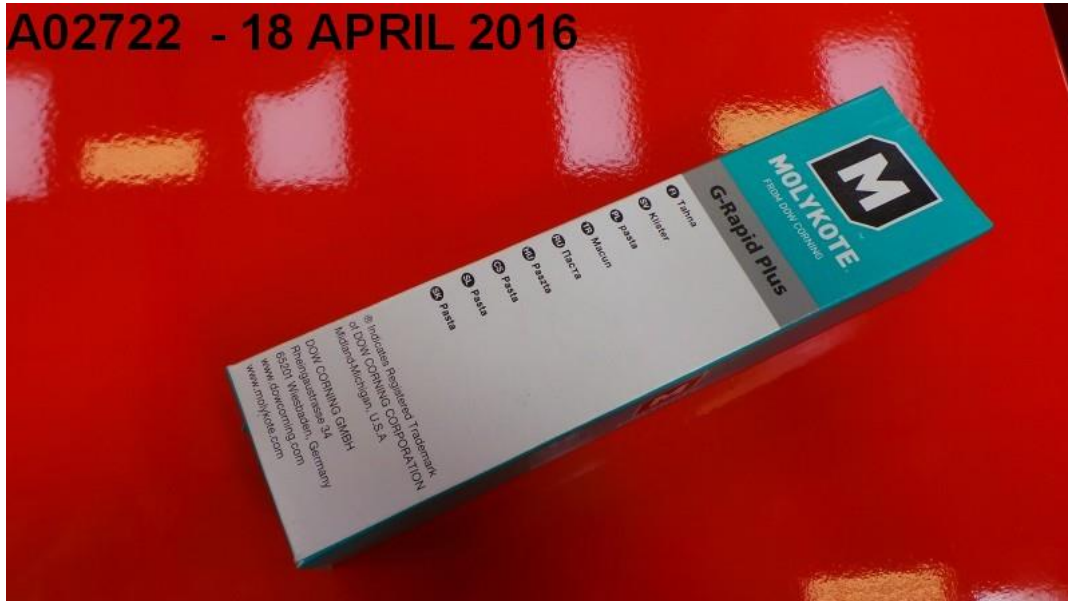


## A03493 – FINE CLEAN OIL

A03493 - 07 APRIL 2014



## A02722 – MOLYCOTE PASTE



## CONTACT US



### **Global Parts Service**

Telephone:

**1-800 392 2235** (Toll free from USA/Canada)

**+44 1440 702312** (Worldwide)

Email: [parts@bernhard.co.uk](mailto:parts@bernhard.co.uk)

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