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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
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Rearshaft with circlips – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Side Arm LH – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Side Arm RH – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Motor bolt retaining plates (2) – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Flanged oilite bush for 19 and 20 (2) – A07701</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Bearing unit LH – A07721</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Bearing unit RH – A07721</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Mainshaft – A09068</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Sleeve and nut – A09506</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Grinding stone – A06505</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>End guard LH – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>End guard RH – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>Cap for mainshaft end – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>Guard for main drive belt – (OBSOLETE)</td>
<td></td>
</tr>
</tbody>
</table>
# TRAVERSE PARTS

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>29, 29A, 30, 31</td>
<td>Fork assembly including seals and bearings – A09505</td>
</tr>
<tr>
<td>32</td>
<td>Shaft for fork driver (SEE FOLLOWING PAGES)</td>
</tr>
<tr>
<td>33</td>
<td>Bracket for shaft (2) – (OBSOLETE)</td>
</tr>
<tr>
<td>34, 35, 36</td>
<td>Traverse pickup including seals and bearings – A09509</td>
</tr>
<tr>
<td>37</td>
<td>Shaft for pickup (SEE FOLLOWING PAGES)</td>
</tr>
<tr>
<td>38</td>
<td>Engagement screw for pickup (SEE FOLLOWING PAGES)</td>
</tr>
<tr>
<td>39</td>
<td>Traverse chain (SEE FOLLOWING PAGES)</td>
</tr>
<tr>
<td>39A</td>
<td>Link for traverse chain – A07502</td>
</tr>
<tr>
<td>40</td>
<td>Idler sprocket – A07609</td>
</tr>
<tr>
<td>41</td>
<td>Oilite bush – A07704</td>
</tr>
<tr>
<td>42</td>
<td>Stud for idler sprocket – A09057</td>
</tr>
<tr>
<td>42A</td>
<td>Circlip for stud – A05602</td>
</tr>
<tr>
<td>43</td>
<td>Drive sprocket – A03320</td>
</tr>
<tr>
<td>44</td>
<td>Traverse motor – A04959</td>
</tr>
<tr>
<td>45</td>
<td>Mounting bracket for traverse motor – (OBSOLETE)</td>
</tr>
<tr>
<td>88</td>
<td>Guard for driver sprocket – (OBSOLETE)</td>
</tr>
<tr>
<td>89</td>
<td>Guard for idler sprocket – (OBSOLETE)</td>
</tr>
</tbody>
</table>
32 - TRAVERSE FORK SHAFT – A09049
(UP TO MACHINE NUMBER 8765)
(CHECK LENGTH IS 44 3/8” BEFORE ORDERING)

A09049 - 16 APRIL 2015

32 - TRAVERSE FORK SHAFT – A09050
(MACHINE NUMBER 8766 – 11954)
(CHECK LENGTH IS 49 ½” BEFORE ORDERING)

A09050 - 16 APRIL 2015
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)
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.
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
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 sleve – A09048
5 – Oilite bush for final drive – A077719
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
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
<table>
<thead>
<tr>
<th></th>
<th>Component Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cylinder drive motor – (SEE PAGE BELOW)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pulley for cylinder drive – (OBSOLETE)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Cylinder drive belt (A26) – A07101</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Layshaft bearing (2) – A07722</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SPA 80A section pulley – A07212</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Layshaft – (OBSOLETE)</td>
<td></td>
</tr>
</tbody>
</table>
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
EXPRESS DUAL FLEXI DRIVE SHAFT

Some early machines had a gearbox on top of the table between the flexi drive shaft and the cutting unit.

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

1 – Frame end LH – (OBSOLETE)
2 – Frame end RH – (OBSOLETE)
3 – Stays – (OBSOLETE)
4 – Front Channel – (OBSOLETE)
5 – Rear member – (OBSOLETE)
6 – Front bed – (OBSOLETE)
7 – Rear bed – (OBSOLETE)
8 – Top plate – (OBSOLETE)
91 – Name plate – (OBSOLETE)
TRAVERSING BAR

46 – Reversing bar – (OBSOLETE)
47 – Friction spring and screw – A06746 + A05156
48 – Stop for reversing bar – (2) - A04113
49 – Wingnuts for stop – A06131
50 – Microswitch for traverse – A08111
51 – Microswitch housing – (OBSOLETE)

MAIN MOTOR DRIVE

56 – Main motor (SEE NEXT PAGE)
57 – Main motor drive pulley (SEE NEXT PAGE)
58 – Main motor idle pulley (SEE NEXT PAGE)
59 – Main motor drive belt (SEE NEXT PAGE)
82 – Control box complete – (OBSOLETE)
56 - MAIN MOTOR 50HZ – A06015
REGIONS UK AND EUROPE

56 - MAIN MOTOR 60HZ – A06014
REGIONS USA AND CANADA
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.
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.
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

Length of belt 1270mm

59 – MAIN MOTOR DRIVE BELT – A07102

Length of belt 1212mm
CONTROL ARM

81A – Start button (3) – A07092
81B – Master stop button – A07091
ELECTRICAL BOX

- 82A – Contactor (3) – A08063
- 82B – Thermal overload - A08117
- 82C – Fuse holder (2) – A08173
- 82D – Fuse 2A (2) – A08085
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)
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
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>Spacer for mounting block (2)</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>53</td>
<td>Mounting block for LH end</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>54</td>
<td>Mounting block for RH end</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>55</td>
<td>Cap head screws for rest adjustment</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>130</td>
<td>Location guard</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>131</td>
<td>Chromium plate tube for 130</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>132</td>
<td>Extension V for 130</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>133</td>
<td>Retaining pin for 130</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>134</td>
<td>Securing screw (2)</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>135</td>
<td>Polystyrene pad for 130</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>136</td>
<td>Securing screw (2)</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>137</td>
<td>Radius pressure lever</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>138</td>
<td>Pressure bar</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>139</td>
<td>Pressure bar rubbers (2)</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>140</td>
<td>Pressure lever bracket</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>141</td>
<td>Pressure lever pin</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>142</td>
<td>Upper spring link</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>143</td>
<td>Pressure spring</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>144</td>
<td>Lower spring link</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>145</td>
<td>Spring Link Bobbin</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>146</td>
<td>Operating lever</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>147</td>
<td>Operating lever foot bar</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>148</td>
<td>Foot bar rubber</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>149</td>
<td>Operating lever latch</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>150</td>
<td>Operating lever location collar (2)</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>151</td>
<td>Operating lever catch</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>152</td>
<td>Operating lever catch collar LH</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>153</td>
<td>Operating lever catch collar RH</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>154</td>
<td>Operating lever catch spring</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>156</td>
<td>Shaft stay front</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>157</td>
<td>Shaft stay rear</td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>158</td>
<td>Multfix bracket (2)</td>
<td>SEE BELOW</td>
</tr>
</tbody>
</table>
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.
BLADE THINNING UNIT

ALL PARTS - OBSOLETE
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

A04120 – SHORT DRIVE ROD – SQUARE
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

A02722 - 18 APRIL 2016
Global Parts Service

Telephone:
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+44 1440 702312 (Worldwide)

Email: parts@bernhard.co.uk

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