Owners Manual

“Original Instruction”

Starter Kit

<table>
<thead>
<tr>
<th>Starter Kit</th>
<th>BOP20</th>
<th>BOP60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>BP20S-OLA</td>
<td>BP60S-OLA</td>
</tr>
<tr>
<td>US</td>
<td>BP20S-OLU</td>
<td>BP60S-OLU</td>
</tr>
<tr>
<td>UK</td>
<td>BP20S-OLB</td>
<td>BP60S-OLB</td>
</tr>
<tr>
<td>EU</td>
<td>BP20S-OLE</td>
<td>BP60S-OLE</td>
</tr>
</tbody>
</table>

BP-inst-issue1
Thank you for purchasing the Macnaught BOP battery operated pump.

Macnaught has designed and manufactured this pump to the highest quality standards using premium quality materials and workmanship.

PLEASE READ THIS SAFETY INFORMATION CAREFULLY BEFORE USE.
Read and retain this instruction manual to assist you in the operation of your new product.

INTRODUCTION

WARNING

Please read this important information carefully before use.
This product should only be used with automotive oils and lubricants.

- Visually inspect pump, charger and battery prior to use for any signs of damage, loose or missing parts. If equipment is worn or damaged, remove it from service (Replace if required).

- The BOP Battery operated pump must be used strictly in accordance with Macnaught’s terms and conditions.

- ‘WARNING’ listed throughout this manual to advise of actions which may cause damage to your equipment.

Failure to follow all instructions listed below may result in electric shock, fire, serious injury and/or damage to the power tool. The term “power tool” in all of the warnings listed refers to your battery operated (cordless) power tool.

- Make sure all operators have adequate access to the following instructions.

GENERAL SAFETY

DO NOT operate power tools in explosive areas, e.g; close to flammable liquids, gases or dust.

ELECTRICAL SAFETY

- Never modify electrical connections.
- DO NOT expose power tool to rain or wet conditions.
- DO NOT use product if the product is damaged or the switch does not turn the pump on.
- Only use “ORIGINAL” Macnaught replacement parts, battery or charger.

BATTERY and CHARGER SAFETY

Please follow instructions from battery and charger owners manual

- If “battery-pack” case is damaged DO NOT use - Danger of electric shock or electrocution.
- Battery charger MUST ONLY be used for charging the rechargeable batteries supplied with the BOP.
- DO NOT operate charger if charger, power cord or plug is damaged - replace immediately.
- DO NOT disassemble charger or battery.
- DO NOT store battery pack in locations where the temperature may reach or exceed 40°C/104°F.
- DO NOT use charger on any other voltage than designated on the charger.
Always place gun on hanger when pump is not in use, as oil spillage can cause a slipping hazard.

Keep plastic bag away from babies and children.

Do not lift the power head with locking lever. Handle power head with care. DO NOT DROP.

Make sure the power head is securely connected/attached to the stem.

Do not leave the power head sitting on top of the stem unlocked.

Stop operating the battery oil pump if any leakings at the joints are noticed.

Do not modify the pump in any way.

Only use a genuine Macnaught dispensing gun. Hand tighten the hose till its firm and check for any signs of leakage before use.

Do not use flammable fluid in this product. Only use fluid specified in this instruction manual.

Wear appropriate PPE for protection.

Do not use the product in potentially explosive atmosphere.

Do not expose the product to fire and source of heat.

Users should refer to MSDS of the fluid from supplier being used.

Use product in well ventilated area.

Never leave your dispensing gun unattended in open position. Do not attempt to use any means to lock the lever. Always ensure the switch is in off position after dispensing the oil.

Use pump in adequate lighting condition for safe operation. Do not use the product under poor illumination.

Avoid spillage of oil near water source as it may be harmful to the environment.

Only use genuine Macnaught battery and chargers with this product.

Battery pack, charger and power head should be protected from water.

Do not expose the power head to a nearby magnet as its performance will be adversely affected.

The battery operated pump should always be used in a vertical position.

The dispensing gun should always be facing up when dispensing fluid.

If the noise level changes check the hose to see if there is air present, if air is present stop the pump immediately as this indicates the drum is empty. Switch over to a new drum.
BATTERY DISPOSAL

NOTE: Dispose of old batteries properly. The battery contains rechargeable Lithium-ion and must be recycled or disposed of properly. Please refer to the local authorities for the correct method of battery disposal.

DO NOT incinerate the battery pack. The battery can explode in a fire.

DO NOT attempt to disassemble any battery.

CHARGE BATTERY

1) Insert battery
2) Power on (green light only)
3) Battery charging (red light only)

4) Battery charged (green light only)

Note: Red light flashes when battery voltage is low (trickling charging to prevent battery damage)

INSERT / REMOVE BATTERY

1) Insert battery
   a) lift handle
   b) push down

2) Remove battery
   a) lift handle
   b) press button
   c) pull up
ASSEMBLY

Note: Remove both the inlet and outlet plugs from the pump stem before use.

1) Pull down extender tube
2) Push the pump stem into container
3) Tighten bung adapter to secure pump stem

4) Attach hose and gun (ensure end gasket is in place)
5) Ensure switch is off, then place power head onto pump stem
6) Press handle down to lock power head

Note: Power head will not operate unless locked correctly into position.

7) Place gun onto hanger when finished
8) To remove power head, lift handle.
OPERATING INSTRUCTIONS

OPERATION

CAUTION

NOTE: Do not allow the pump to run dry or pump damage can occur

IMPORTANT:
For initial operation

1) Turn slot in shaft clockwise one complete turn with a flat head screwdriver.

2) First press the trigger on gun and then turn on the pump to prime. Release trigger when primed (fluid flows from gun).

Note:
Pump will not run when power head is not attached to pump stem correctly.
Pressure sensor will turn motor off when trigger is released and stall pressure is reached.

4) Power head can be moved from pump assembly to pump assembly.

5) Long storage periods:
a) Turn slot shaft 2 full turns counter clockwise using a flat head screwdriver.
b) When starting pump after a long storage period, turn slot shaft clockwise with a flat head screwdriver.

GENERAL OPERATION

1) Attach power head to stem

CAUTION

2) Remove nozzle cover before use

3) Press or Release trigger to adjust flow

4) Lift handle to transfer power head from stem to stem

CAUTION

NOTE
Remove nozzle cover before use
Replace nozzle cover after use
DIAPHRAGM AND SPRING REPLACEMENT

1) Turn anti-clockwise, remove drive gear
2) Remove 3 screws, pump cover and dispensing gun hanger
3) Remove 2 screws.

4) Remove assembly.
5) Remove circlip.
6) Replace spring.
7) Re-fit circlip.

8) Remove old diaphragm.
9) Fit new diaphragm. (ensure correct orientation)
10) Fit valve switch assembly.

11) Fit 2 screws.
12) Fit pump cover and dispensing gun hanger, using 3 screws.
13) Fit drive gear, turn clockwise to secure.
IMPELLER AND O’RING REPLACEMENT

1) Unscrew adapter
2) Remove o’ring.
3) Remove impeller housing.

4) Remove o’ring.
5) Carefully remove and replace impeller.
6) Replace o’ring.

7) Carefully insert impeller housing.
   (Note correct orientation of grooves)
8) Replace o’ring.
9) Firmly hand tighten pump tube.

Note: Impeller must be lubricated with oil or grease during assembly.
**Note:** Power head is factory sealed and would need to be replaced if found to be damaged internally or externally.

## Spare parts list

<table>
<thead>
<tr>
<th>Item no</th>
<th>Kit Ref</th>
<th>No off</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP20-1K</td>
<td>A</td>
<td></td>
<td>Pump Seal Kit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>Nut (M6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>Connector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>Screws (3.5 x 25)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>Top pump stem cover</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>Dispensing gun hanger</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>6</td>
<td>Circlip</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>7</td>
<td>Screws (3.6 x 16)</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>8</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>9</td>
<td>Plunger</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>10</td>
<td>Diaphragm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>Pressure switch housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>Housing - pump stem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>Ball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>Connector (outlet body)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>U-Clip</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>17</td>
<td>Impeller cover</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>18</td>
<td>Impeller</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>19</td>
<td>O’ring</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>20</td>
<td>Impeller housing</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>21</td>
<td>O’ring</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
<td>Bung adapter (type C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
<td>Suction tube assembly</td>
</tr>
<tr>
<td></td>
<td>BP-HG</td>
<td>24</td>
<td>Gun and hose set (not shown)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>Drive shaft</td>
</tr>
</tbody>
</table>

**Note:** Parts listed (A) are included in BP20-1K

Bung Adapter set 20ltr - order BP20-AK
Bung Adapter set 60ltr - order BP60-AK
# TROUBLESHOOTING GUIDE

<table>
<thead>
<tr>
<th>TROUBLE</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump does not turn on</td>
<td>a) Flat battery</td>
<td>a) Recharge battery</td>
</tr>
<tr>
<td></td>
<td>b) Power head not attached correctly to pump</td>
<td>b) Re-fit power head correctly</td>
</tr>
<tr>
<td></td>
<td>c) Faulty switch</td>
<td>c) Contact supplier</td>
</tr>
<tr>
<td></td>
<td>d) Pump stem failure</td>
<td>d) Contact supplier</td>
</tr>
<tr>
<td>Pump will not prime</td>
<td>a) Pump tube plug has not been removed before use.</td>
<td>Replace tube plug</td>
</tr>
<tr>
<td></td>
<td>b) Damaged or worn impeller</td>
<td>b) Fit new impeller</td>
</tr>
<tr>
<td></td>
<td>c) No oil in container</td>
<td>Note: Do not let the impeller run dry</td>
</tr>
<tr>
<td></td>
<td>d) Damaged gun or hose</td>
<td>c) Check oil level in container</td>
</tr>
<tr>
<td></td>
<td>e) Damaged diaphragm</td>
<td>d) Replace gun</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e) Replace diaphragm</td>
</tr>
<tr>
<td>Power head does not stop when gun trigger is released</td>
<td>Damaged diaphragm or spring</td>
<td>Replace damaged diaphragm or spring</td>
</tr>
<tr>
<td></td>
<td>Damaged or worn impeller</td>
<td>Replace impeller</td>
</tr>
<tr>
<td></td>
<td>Gun leaking</td>
<td>Replace gun</td>
</tr>
<tr>
<td></td>
<td>Damaged hose</td>
<td>Replace hose</td>
</tr>
</tbody>
</table>
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowrate</td>
<td>3.5 l/min (0W-40 @ 20 deg C)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C - 40°C (32°F - 104°F)</td>
</tr>
<tr>
<td>Container Size</td>
<td>BOP20 (20ltr) / BOP60 (60ltr)</td>
</tr>
<tr>
<td>Fluid compatibility</td>
<td>Automotive oils / Lubricants</td>
</tr>
<tr>
<td>Max Viscosity</td>
<td>0W40 to 75W90</td>
</tr>
<tr>
<td>Self Priming</td>
<td>Yes</td>
</tr>
<tr>
<td>Shut off Pressure</td>
<td>20psi</td>
</tr>
<tr>
<td>Hose</td>
<td>12.5mm x 1.5m (5ft) wire reinforced PVC</td>
</tr>
<tr>
<td>Warranty - Pump and Power Head</td>
<td>2 Years</td>
</tr>
<tr>
<td>Warranty - Battery</td>
<td>12 Months</td>
</tr>
<tr>
<td>Wetted components</td>
<td>Nitrile rubber, Mild steel, Stainless steel, Nylon, Brass, Polypropylene, Zinc plated steel</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>50% - 90%</td>
</tr>
</tbody>
</table>

## Available Kits and Packs

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>US</th>
<th>UK</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starter Kit - 20ltr</td>
<td>BP20S-OLA</td>
<td>BP20S-OLU</td>
<td>BP20S-OLB</td>
<td>BP20S-OLE</td>
</tr>
<tr>
<td>Starter Kit - 60ltr</td>
<td>BP60S-OLA</td>
<td>BP60S-OLU</td>
<td>BP60S-OLB</td>
<td>BP60S-OLE</td>
</tr>
<tr>
<td>Pump Stem - 20ltr</td>
<td>BP20X-OLA</td>
<td>BP20X-OLB</td>
<td>BP20X-OLB</td>
<td>BP20X-OLE</td>
</tr>
<tr>
<td>Pump Stem - 60ltr</td>
<td></td>
<td>BP60X-OLA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td></td>
<td>BPB-20AH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Head</td>
<td></td>
<td>BP20-PH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Charger</td>
<td>BPC-A</td>
<td>BPC-U</td>
<td>BPC-B</td>
<td>BPC-U</td>
</tr>
</tbody>
</table>
FCC:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.
EC Declaration of Conformity

We: Macnaught Pty. Ltd.  OE: 41-49 Henderson Street, Turrella NSW 2222, Australia.

Declare that:
Battery operated oil pump BP205-OL-AW (A-Z, i.e. B = Britain, E = Europe)
which consists the following assemblies/components:
Power Head BP20-PH
Stem Assemblies & Hose Set BP20X-OL-AZ (A-Z, i.e. B = Britain, E = Europe)
Li-Ion Battery Charger MBC-72x Fxy, & A-Z (i.e. AU = Australia, EU = Europe, US = USA)
Li-Ion Battery MRP200MAH

(Lower case w, x, y and z are used as variables to represent country specific models)

In accordance with:
Machinery Directive 2006/42/EC
Low Voltage Directive 2014/35/EU
Electromagnetic Compatibility Directive 2014/30/EU
Restriction of Hazardous Substances Directive 2011/65/EU as amended by 2015/863/EU
Waste Electrical and Electronic Equipment Directive 2012/19/EU
Battery Directive 2006/66/EC as amended by 2013/56/EU

have been designed and manufactured to the applicable harmonised standards below:

(BP205-OL-AW)
(EP20-PH)
(BP20X-OL-AZ)

(MBC-72x)

(MRP200MAH)

EN ISO 11100:2010
EN55014-1: 2017
EN55014-2: 2015
EN62283: 2018
EN55014-2: 2015
EN61000-3-2: 2014
EN61000-3-3: 2013
EN62133-2: 2017
EN55032: 2015
EN55035: 2017

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specification. The product complies with all essential requirements of the Directives.

Signature

Name: Marco Uccelletti  Position: Engineering Manager

Dated: 41-49 Henderson Street, Turrella NSW 2222, Australia.  Date: 26/Mar/2019
Notes:
Notes:
Note:
This product should be disposed of according to all applicable local and national government environment regulations and guidelines.

For Warranty Terms and Conditions see macnaught.com.au
For a list of Australian Service Centres see macnaught.com.au