



# HYDRAULIC BEARING SEPARATOR/PULLER SET

MODEL NOS: **PS980.V2, PS985.V2**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions



Wear eye protection



Wear protective gloves



Wear safety footwear



Wear protective clothing

## 1. SAFETY

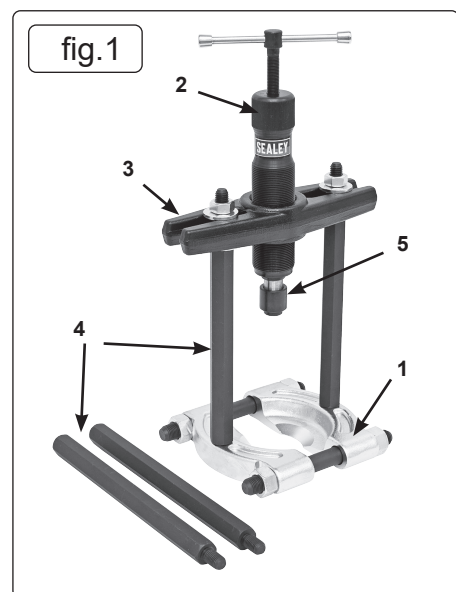
- ❑ **WARNING!** Ensure all Health and Safety, local authority, and general workshop practice regulations are strictly adhered to when using tools.
  - ✖ **DO NOT** use tools if damaged or worn.
  - ✓ Maintain the tools in good and clean condition for best and safest performance.
  - ✓ Ensure all threads are clean and well lubricated.
  - ✓ Always check that puller is correctly assembled and is square with the workpiece.
  - ✓ If vehicle is raised, ensure it is adequately supported with axle stands, ramps, etc. as appropriate.
  - ✓ Wear suitable clothing to avoid snagging. **DO NOT** wear jewellery. Tie back long hair.
  - ✓ Wear approved eye protection. A full range of personal safety equipment is available from your Sealey dealer.
  - ✓ Where possible shield workpiece with canvas or similar to provide protection against failed parts.
  - ✖ **DO NOT** heat puller jaws when heating a gear or bearing as this will affect the temper and, therefore, the strength of the material.
  - ✖ **DO NOT** use any tool or lever to turn the ram tommy bar, use hand effort only.
  - ✖ **DO NOT** hit workpiece, or ram, with a hammer if workpiece has not moved with maximum puller force applied. Use a larger capacity puller.
  - ✓ Account for all tools and parts being used and **DO NOT** leave them in or on the vehicle.
- IMPORTANT:** Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the correct procedure and data. These instructions for use are provided as a guide only.

## 2. INTRODUCTION

Cast puller yoke with forged separator. 10tonne Hydraulic ram interchangeable with other units in the series. Supplied with Ø75-105mm (PS980) or Ø105-200mm (PS985) bearing separator. Maximum puller depth 420mm. Supplied in steel case.

## 3. CONTENTS

Model PS980.V2 (fig.1)		
Item	Part No.	Description
1	PS988	Bearing Separator Ø75 to 105mm
2	PS990	Hydraulic Ram 10tonne
3	PS982/9014	Beam
4	PS982/9016	Rod, main (pair)(male/male)
5	PS982/8013	Centre Adaptor



Model PS985.V2 (fig.2)		
Item	Part No.	Description
1	PS989	Bearing Separator Ø105 to 200mm
2	PS990	Hydraulic Ram 10tonne
3	PS985/03	Beam
4	PS985/04	Main rod with nut (male thread both ends).
5	PS982/8013	Centre Adaptor
6	PS985/05	Plug
7	PS982/8014	Rod, extension (1x50mm)
8	PS982/8015	Rod, extension (1x100mm)

## 4. OPERATION

- **WARNING!** Ensure that you read, understand and apply the safety instructions in Section 1.
- 4.1. Confirm that the bearing is retained by interference fit (parallel or taper)..
  - 4.2. Assemble splitter around rear of bearing and clamp together using the studs and nuts fitted.
  - 4.3. Screw the fully threaded ends of the two puller rods (fig.1.4) into the splitter.
  - 4.4. Remove nuts from free ends of rods and place yoke (fig.1.3) over thread shanks.
  - 4.5. Retain yoke with flat washers provided and nuts but **DO NOT** tighten at this stage.
  - 4.6. Adjust ram T-handle (fig.3.A) so that tommy bar (fig.3.B) is approximately 80mm above ram end cap (see fig.2) and screw ram body into yoke until ram piston (fig.1.G) contacts end of shaft. If shaft has a 'centre' machining fit centre adaptor to piston before screwing ram down. If ram will not reach the shaft use extension piece(s).
 

**NOTE:** Only use centre adaptor where end of shaft has a matching 'centre' machining. PS985 contains a plug which provides a thrust pad for the piston in applications where the shaft is hollow.
  - 4.7. Adjust position of yoke to get ram piston on shaft centre and then tighten yoke retaining nuts.
  - 4.8. Turn T-handle clockwise, by hand only, to pull workpiece from shaft.
  - 4.9. **DO NOT** screw T-handle in further than 25mm (1") from end of the ram (see fig.3). If workpiece requires additional movement then unscrew T-handle to 80mm from end of ram, screw ram body down so that centre adaptor again contacts shaft and then continue to draw workpiece up shaft.
- IMPORTANT:** The maximum safe load for the puller can be achieved by hand effort alone. The use of tools or levers on the tommy bar to increase the load will damage the splitter and may result in injury. Such misuse will also invalidate the warranty.
- **WARNING!** If the workpiece does not move when maximum puller force is applied, **DO NOT** hit it, or the puller, in an attempt to jar it free. Damage to puller/workpiece and personal injury may result. Use a larger capacity puller.

## 5. MAINTENANCE

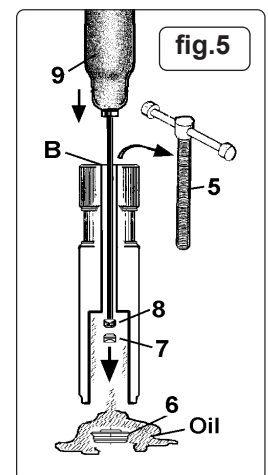
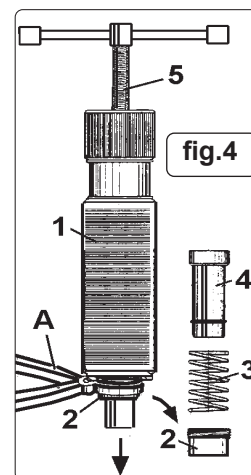
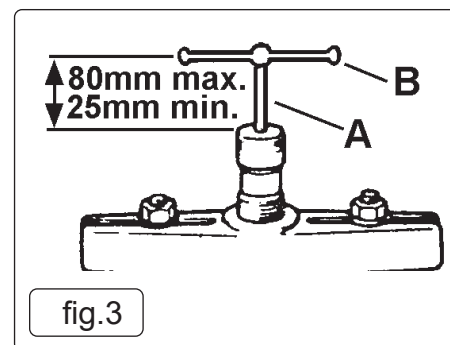
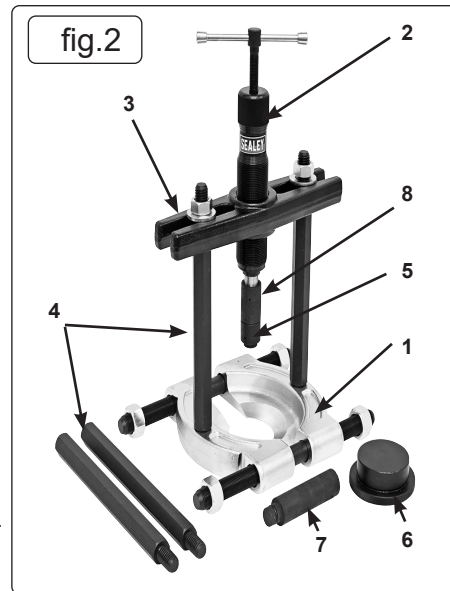
### 5.1. GENERAL

- 5.1.1. Keep all items clean and lightly oiled. Keep all threads free from grit and lubricate the ram regularly.
- 5.1.2. Store the ram in the closed position to prevent piston surface corrosion.

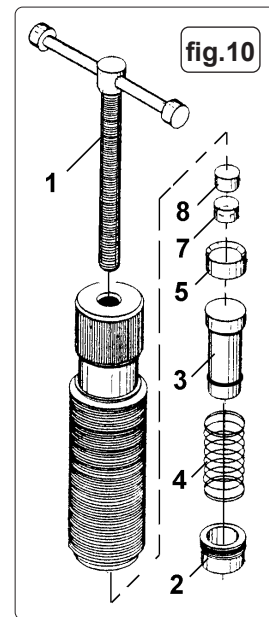
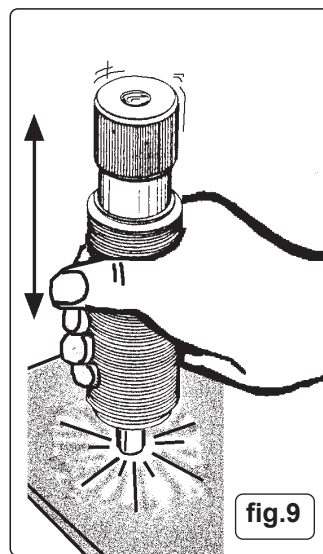
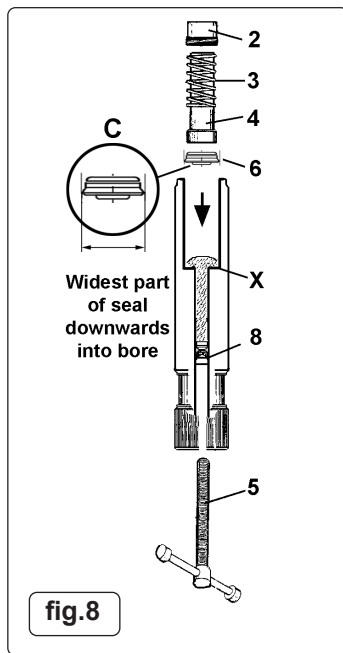
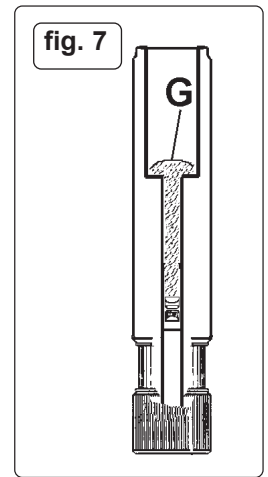
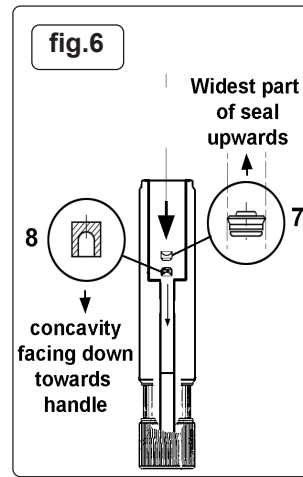
### 5.2. TO CHANGE OIL IN RAM

**IMPORTANT:** The hydraulic system operates on a specially formulated oil which must be replaced from time to time. Use Sealey Hydraulic Jack Oil, available from your authorised Sealey dealer. Quote model number: HJO500MLS for 1 x 500ml bottle or PS982/OIL for 15grms of oil for a single refill.

- **WARNING!** Use of any other oil in ram may cause ram to fail and will invalidate your warranty. Wear appropriate eye, face and hand protection.
- 5.2.1. Dismantle by removing the ram cover (fig.3.2) with soft jaw grips (fig.3.A) (body may have to be held in a soft jaw vice, ensure body thread is not damaged). Caution! The cover is spring loaded, take care when removing. Carefully remove components 2, 3, and 4 from the cylinder.
  - 5.2.2. Screw T-handle (fig.4.5) down as far as it will go, then unscrew and remove it from the body (fig.4.5).
  - 5.2.3. Push a narrow screw driver (fig.5.9), or a rod of appropriate diameter, down the small opening in head of ram (B), in order to push components 6, 7, and 8, plus the oil, out of the main cylinder. **NOTE:** A medium force may be required.
  - 5.2.4. Remove remaining oil from main cylinder, clean all components and replace any showing signs of damage or wear.



- 5.2.5. Take small seal and piston (fig.6.7 & 8) and gently push them down the narrow bore of the cylinder ensuring the metal piston is first, with the concave face pointing in the direction of the T-handle, and the seal (fig.6.7) second, with the widest part of the seal facing upwards towards the main cylinder (fig.6). Push into bore as far as possible.
- 5.2.6. Pour 15grms of oil into the bore (fig.7). Insert larger seal (fig.8.6) as shown, with the widest part of the seal facing downwards into the bore. Push down into main cylinder as far as 'X' (fig.8) followed by piston (fig.8.4) and spring (fig.8.3).
- 5.2.7. Refit (do not overtighten) cover (fig.8.2) and replace T-handle (fig.8.5.)
- ❑ **WARNING!** The correct orientation of pistons and seals in the ram is critical.
- 5.2.8. Screw T-handle into ram until it contacts small piston and then turn a further two or three times.
- 5.2.9. Remove T-handle and firmly bounce the ram piston (fig.9) on a hard, but non-damaging, surface 6 to 10 times to consolidate oil. Replace the T-handle, wipe clean and the ram is ready for use.



### 5.3. MAINTENANCE OF EARLY MODELS

Please note that earlier models of the **PS990** were filled with a hydraulic grease.

- ❑ **WARNING! DO NOT** put oil into units previously filled with grease as seals will be configured for grease only and will leak if used with oil.

### 5.4. CONVERTING OLD UNITS TO OIL

The old type grease filled **PS990** can be converted for use with oil by replacing the internal components with those supplied in the repair kit shown in fig.9 **PS982/8002**. **DO NOT** mix old and new components. A single 15grm refill of oil may be obtained by quoting Part No.PS982/OIL

Parts support is available for this product. Please email [sales@sealey.co.uk](mailto:sales@sealey.co.uk) or telephone 01284 757500



### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on [technical@sealey.co.uk](mailto:technical@sealey.co.uk) or 01284 757505.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk. IP32 7AR

01284 757500

01284 703534

[sales@sealey.co.uk](mailto:sales@sealey.co.uk)

[www.sealey.co.uk](http://www.sealey.co.uk)

Parts support is available for this product. Please email [sales@sealey.co.uk](mailto:sales@sealey.co.uk) or telephone 01284 757500



#### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on [technical@sealey.co.uk](mailto:technical@sealey.co.uk) or 01284 757505.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk. IP32 7AR



01284 757500



01284 703534



[sales@sealey.co.uk](mailto:sales@sealey.co.uk)



[www.sealey.co.uk](http://www.sealey.co.uk)