
















# 53622

## MULTI PURPOSE HYDRAULIC GEAR AND BEARING PULLER SET



### PARTS LIST

Part No.	Description		Part No.	Description		Part No.	Description	
8000	Hydraulic Ram (1 1/2" dia)		8002	Ram Ring		8004	Leg 4" (100MM)	
8006	Leg 6" (150MM)		8008	Leg 8" (200MM)		8011	Ram Prats	
8012	Twin Head		8013	Centre Adapter (1"x1 1/4")		8014	Extension rod	
8015	Extension rod (1"x4")		9013	Treile head		9014	Beam	
9015	Separator 3/3"-4 1/4 " (20-105MM)		9016	Main Rod (2pcs)		9017	Extension Rod (2pcs)	

## INSTRUCTIONS

### 1. INTRODUCTION:

The product, Hydraulic Puller Set, consist of gear puller and a forged steel bearing separator, all operated by a 10-ton hydraulic ram. The product is available to pull various of bearing, belt pulley, gear, round wheel or other tightened parts and accessories used in machinery of industry and family.

### 2. DIRECTIONS FOR USE:

□ **WARNING!** Ensure that you read, understand and wear appropriate eye, face and hand protection as operating.

2.1 Confirm that the workpiece is retained by interference fit (parallel or taper) only.

2.2 Assemble the appropriate puller, see fig.1, and adjust T-handle (fig.2.A) so that tommy bar (fig.2.B) is approximately 80mm (3") above top of ram, see fig.2.

2.3 Fit the puller claws behind the workpiece and then screw ram body down, with center adaptor (Part No.8013) over piston end, until center adaptor point locates in end of shaft from which workpiece is to be pulled. If necessary, use ram extension rod (Part No.8014&8015) to achieve.

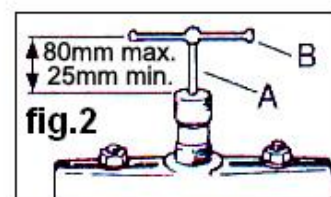
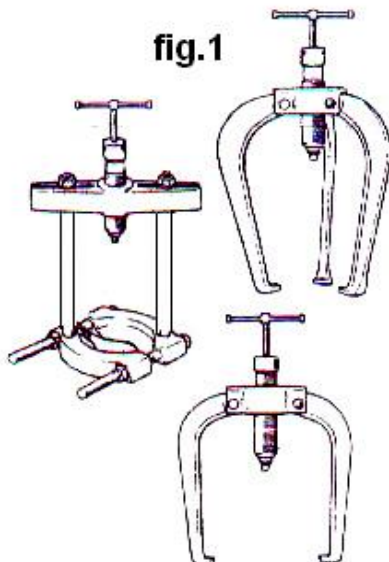
2.4 Turn T-handle clockwise, by hand only, to pull workpiece from shaft.

2.5 Do not screw T-handle in further than 25mm (1") from end of the ram (see fig.2).

If workpiece requires additional movement then unscrew T-handle to 80mm from end of ram, screw ram body down so that center adaptor again contacts shaft and then continue to draw workpiece up from 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 puller and may result in injury.** Such misuse will also invalidate the warranty.

If the workpiece does not move, with maximum puller force 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.



## 1. MAINTENANCE:

- 3.1 Keep all items clean and lightly oiled. Keep all threads free from grits and lubricate the ram regularly.
- 3.2 The ram piston is normally able to stretch out about 1/2 inch (15mm). In case of the stretch length of ram piston is not enough or ram piston can not stretch out, means the hydraulic oil inside the ram is not enough, then we shall maintenance it according to the following steps. If there is hydraulic oil leakage happened, it also require to dismantle the ram to examine it.
- Take out broken parts and replace new parts (the company supplies all kinds of parts).
- 3.4 TO CHANGE HYDRAULIC OIL OR SEAL IN THE RAM.

□ **WARNING! As undertaking the ram maintenance, please wear appropriate eye, face and hand protection.**

- 3.4.1 Dismantle by removing the ram cover (fig.3-2) with soft jaw grips (fig.3-A). (you may need to hold ram body in a soft jaw vice, ensure you do not damage the body). Unscrew anti-clockwise.

**Caution : the cover is spring loaded, take care when removing.**

Carefully remove components 3, and 4 out of the cylinder.

- 3.4.2 Screw the T-handle (fig.3-5) down as far as it will go, then unscrew and removed it from the body (fig.4-5).
- 3.4.3 Push a narrow screwdriver (fig.4-9) (or a rod with the approximate diameter of a pencil) down the small opening in head of ram (fig.4-B), in order to push PU seals 6, 7, and piston 8 out of cylinder with oil (fig.4-G).  
Note : A medium force may be required.

- 3.4.4 Clean the bore of the ram body with a clean cloth. remove remaining oil as much as possible , and clean the extracted components.

- 3.4.5 Take the small metal piston (fig.5-8) and gently push it down the narrow bore of the cylinder, ensure the concave face is pointing in the direction of the T-handle.

- 3.4.6 Gently push the ( new ) small PU seal (fig.5-7) also down the narrow bore of the cylinder, ensure the concave face is pointing back to the main cylinder. Gently push both components ( 7 & 8 ) down the narrow cylinder as far as possible.

- 3.4.7 Remove the cap from the oil bottle and fill all into the central bore of ram. The nominal fill of hydraulic oil is 13 ml (fig.6-G).

Note : Each bottle has been prepared for 13ml oil, thus refill one ram for a bottle.

- 3.4.8 Take the ( new ) large PU seal (fig.7-6) as shown, with cup end (C) towards the narrow bore, push it down the main cylinder as far as the narrow cylinder neck 'X' (fig.7-X) followed by piston (fig.7-4) and spring (fig.7-3).

**Note: Because the copper-PU seal with excellent sealing. it need a iron wire for venting the air when undertaking the above step. The copper-PU seal with a small notch on edge of the copper component, put the iron wire with approximate diameter of 0.8~1mm in the notch, then push the seal down the main cylinder until a little oil out through the notch for ensuring no more air inside the oil. Finally, remove the iron wire.**

- 3.4.9 Refit (do not overtighten ) ram cover (fig.7-2)

□ **WARNING! The correct orientation of the pistons and seals in the ram are critical.**

- 3.4.10 Screw T-Handle (fig.7-5) into ram head until it contacts small piston (fig.7-8) and then turn a further two or three times. Clean the ram body thread and then it is ready for use.

fig.3

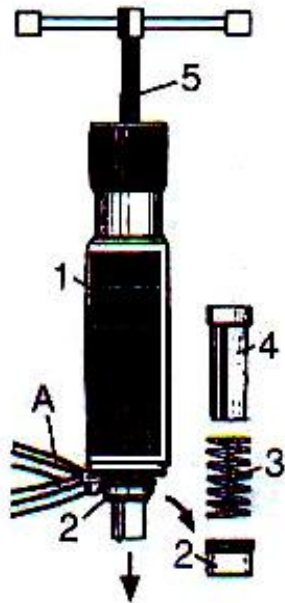


fig.4

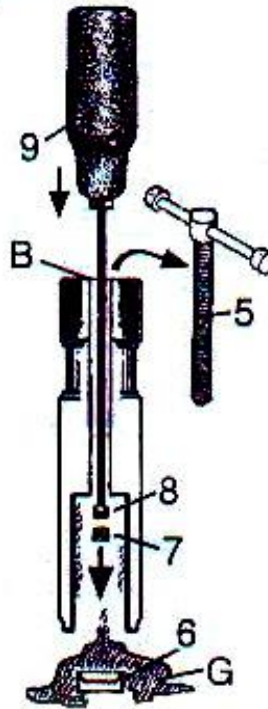


fig.5

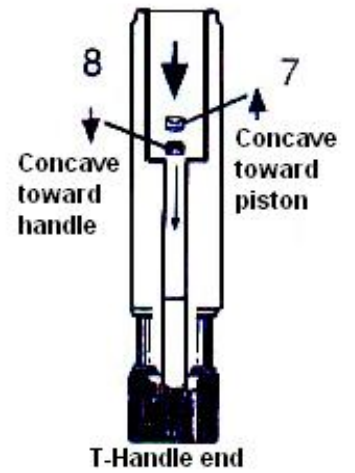
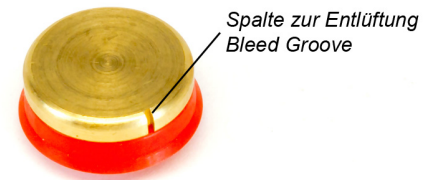
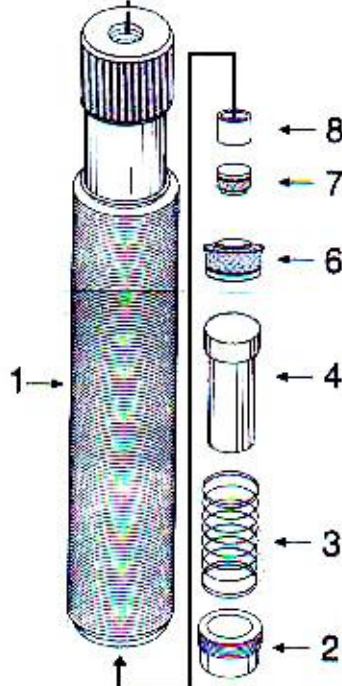
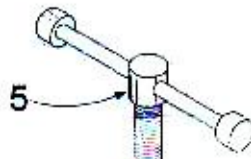
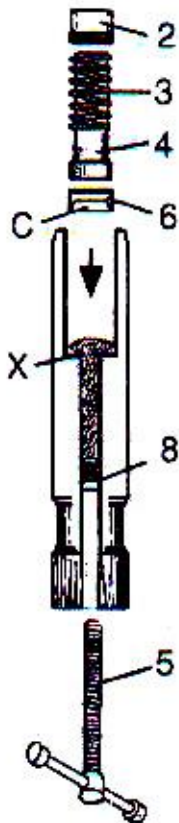


fig.6



fig.7



ROOM Assembly Figure

NO.	Part Name
1	Ram Body
2	Ram Cover
3	Spring
4	Ram Ring
5	T Screw Handle
6	PU Seal
7	PU Seal
8	Ram Ring