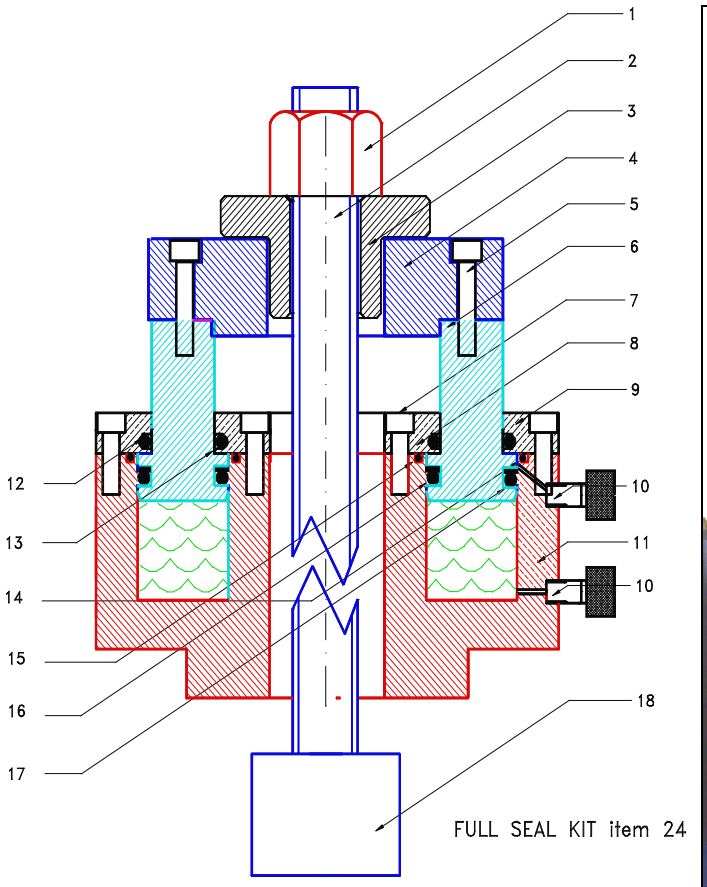
This sheet can be downloaded from our web site.

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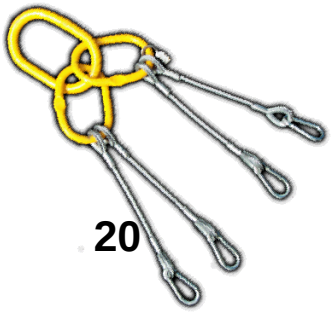
PRODUCT OPERATING INSTRUCTIONS & PART Nos. FOR ASSY. PART No. 10000000 HEAVY DUTY VALVE SEAT PULLER

ISSUED 26 November 2010









Parts List

Item	Part No.	Description	Qty/ Unit	Weight
0	10000000	Puller system complete assy. (includes all items 1-23)	1	160Kg
1	10000018	Nut	1	2Kg
2	10000017 10000036	(supplied) Standard heavy duty stem. (optional) Extra Long Stem – required for use with P-Quip valve cover 1300000D	1	23Kg
3	10000016	Adaptor	1	
4	10000006	Top cap	1	
5	10000008	Long cap screw	7	
6	01000001	Piston	1	
7	10000007	Short cap screw	18	
8	01000003	Inner ring	1	
9	10000005	Outer ring	1	
10	72000400	Special Modified Pressure fitting	2	
11	10000004	Body	1	
12	10000377	O'Ring 377	1	
13	10000358	O'Ring 358	1	
14	10000379	O'Ring 379	1	
15	10000353	O'Ring 353	1	
16	10000434 10001434	O'Ring 434 & back up ring 434	1	
17	10000682 10001682	O'Ring 682 & back up ring 682	1	
18	Puller Head	For correct ordering please advise P-Quip of your valve seat part No. & make	1	
19	10000011	Spacer for Jack	1	45Kg
20	10000012	Four Leg lifting sling	1	
21	10000013	Oil Return hose (including fittings and plug)	1	
22	10000014	Max Travel indicator	1	
23	10000009	Lifting Eye Bolt (4 in Jack body) (4 in spacer plate)	8	
24	10000020	Seal kit – Not shown (includes items 11,12,13,14,15,16,17)	N/A	

1. Select the puller head that is suitable for the valve seats being used.

2. Locate the puller head on the valve seat in the normal way and insure the stem (2) is fully screwed in position.

3. Lift the jack into position over the stem using the sling (20) provided and following local procedures. (NOTE If using P-Quip valve covers with long pistons the spacer plate (19) will be required and should be placed on first in the same way)

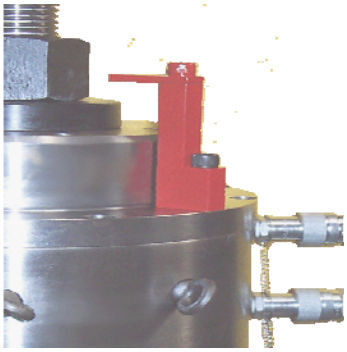
4. If required, the jack may be chained down using the eye bolts (23) fitted.

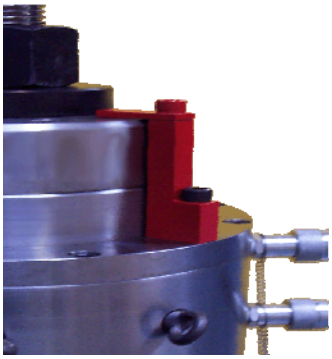
5. **It is essential** to ensure that the piston is in the **FULLY DOWN POSITION BEFORE EVERY USE,** this is to ensure that you are utilizing the jacks maximum stroke capability, connect the hyd pump to the **TOP** connector and pump until pressure begins to read/show on the gauge, then **immediately** release the pressure so that no pressure can be recorded/observed here. (if using the oil drain/return hose, connect it to the **bottom** hyd connector and ensure it is allowed to flow freely back to the pump or catch tank)

6. Fit the stem adapter (3) and nut (1) to the stem and hand tighten to **take up all the slack**.

7. Connect the hyd pump to the **BOTTOM** connector and energize to a ***MAXIMUM PRESSURE OF 7500 P.S.I***. please note **at this pressure the force on the valve seat will be 220 Tonnes and suitable safe working practices must be followed**. (if using the oil drain/return hose(21) connect it to the **top** hyd connector and ensure it is allowed to flow freely back to the pump or catch tank)

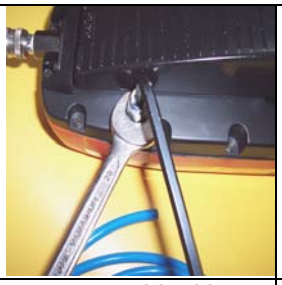
8. **Please note** – that the piston movement from fully down ***MUST NOT EXCEED 2" (50mm)*** or the seals will be damaged. Max travel indicator (22) Part # 10000014 is now available/supplied.





9. After seat has been released, safely remove the stem and jack system in the same manner it was located.

Fitting Oil Return Hose to air op Hyd. pump

				
To attach oil return hose (21) to pump	1. Remove blanking screw from refill valve	2. Remove push fit connector from hose and screw into refill valve	3. Insert hose back into connector	4. Remove hose and replace with plug when not in use.

Note - The system is a simple push pull jack and should never be used with both chambers being pressurized at the same time (**one chamber should always be venting to atmosphere or to a return tank**) The hydraulic connectors (10) on the Jack have been specially modified so they do not hold pressure, allowing the excess oil in the opposing chamber to vent to atmosphere. There is an oil return hose (21) now available/supplied Part # 10000013 this should be connected to the opposing connector of the jack and to the return point of the pump or catch tank always ensuring it is allowed to flow freely. (The hyd. Connectors (10) should never be replaced with standard of the shelf units)