INSTRUCTIONS
FOR REBUILDING "DSF" & "HBS" ANCHOR HEADS

1. Remove the chain (or cable) head catch mounts from the anchor head.
2. Remove aluminum anchor head assembly from the base unit.
3. Disassemble the head completely. To remove the 1 1/4 master piston use expanding snap ring pliers.
4. Remove all odd o-rings and wash all components in mineral spirits.
5. Inspect the pistons for raised burrs and polish if necessary using #400 grit production paper.
6. With clean hands install new o-rings in all grooves. Pre-lube the groove with "Hydraulic Jack Oil".
7. Pre-lube the valve body and piston bores.
8. Install the valves into the valve body turning them as the o-ring enters the bore.
9. Install the pistons into the anchor head from the number plate side.
10. Install a piston plug in each of the bores. Push in slowly to allow the o-ring to seat. Important!! Be sure that there is oil around the lip of the bore.
11. Bolt the number plate to the head. The #1 should be away from the operator.
12. Placing the head up-side down, install the spring plungers and retaining bar (or caps on older units).
13. While up-side down move the head to the edge of the bench so that the valve body mounting holes are accessible from the under side.
14. Place the valve body on the head insuring that the feed hole in the valve body (end hole with the small o-ring) will be matched up with the master bore closest to the operator.
15. Push all 5 valves into the head (closed) replace the 4 bolts. Make contact with all 4 bolts. Then lightly snug them
    starting with the one of the middle bolts. As you would with a cylinder head alternate bolts until all are tight.
16. Re-install the knobs on the valves and install the button head screws with the o-rings in the ends of the valve body. **Do Not Over Tighten These Screws, Over Tightening May Cause Permanent Damage.**
17. Stand the head on end with master bore facing up, fill the master bore with "Hydraulic Jack Oil".
18. Open the valve closest to the master bore, using a pair of needle nose pliers slowly pull out on that piston. The oil in the master bore will go down. Push the piston back in. The oil will rise and air will be expelled. Continue this until there is no air remaining. Close that valve.
19. Repeat this process with the other 4 valves and pistons. When all the air is out, refill the master bore to the top.
20. Place the master piston in the bore, (oil will be displaced and over flow) continue to slowly push the master piston into the bore. One or more of the 5 pistons will start to move out. Stop when the top of the piston is even with the head.

21. Install the feed knob assembly with the knob fully retracted.

22. Place the head up-side down on the work bench with the 5 pistons facing you. Put a block of wood or other suitable stop behind the head preventing it from moving back.

23. Loosen the button head screws at either end of the valve body. Using a second block of wood apply pressure to the 5 pistons. Oil will start to leak from the screws along with any leftover air. When the 5 pistons are retracted re-tighten the valve body screws.

24. Replace the datum plate o-rings and datum plate. Note!!! The o-rings used with the datum plate do not seal oil. They can be washed and re-used. **If New O-rings Are Needed Or Desired, A Kit Is Available.**

25. The anchor head is now ready to be re-installed on the base unit.

26. Trimming the datum plates after re-installation is recommended.

27. All the o-rings used are standard size Buna Rubber.

    1. 3/8" o.d. x 1/4" i.d. #010 Valve stems and button head screws.
    2. 5/8" o.d. x 1/2" i.d. #014 Anchor pins, pin plugs and valve body.
    3. 1" o.d. x 1 1/4" i.d. #214 Master Piston
    4. 7/16" o.d. x 5/8" i.d. #111 First datum plate seal in anchor head
    5. 5/8" o.d. x 13/16" i.d. #114 Second seal in datum plate.

28. Anchor heads made before 1997 had 2 o-rings on the valve stem, since 1997 there have been 3.

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