# IFP AP ALUMINUM PUMP ROTATION CHANGE PROCEDURE



#### **Direction of Rotation**

The direction of rotation is indicated by an arrow etched on the body adjacent to the drive shaft. Rotation is always specified as viewed on the drive shaft

### Dismantling the unit

Before starting work ensure that the unit, work area and all tools are thoroughly clean to prevent contaminant entering the unit.

- 1. Withdraw drive coupling from the drive shaft using a suitable puller. The coupling must not be levered or hammered off the shaft as this will result in internal damage.
- 2. Remove key (12, 13) and wire circlip (14), where fitted, from the drive shaft (11).
- 3. Lightly mark the end cover, body and mounting flange (3, 9 and 15) to ensure re-assembly in the correct position.
- 4. Stand the unit on the mounting flange (15), drive shaft down most in a suitable fixture. Remove the bolts / screws and spring washers (1;2).
- 5. Remove the end cover (3).
- 6. Slide the Housing (9) squarely off the drive shaft (11).
- 7. Remove the upper thrust block (7), drive shaft (11), driven gear (10). Remove the below thrust block. Keep the mounting flange (15) in this position.

## Re-Assembling the unit

Ensure all parts are perfectly clean and lubricate bushes and gears with clean hydraulic fluid (ensure 'O' ring recess and end faces of body remain dry).

This will assist assembly of components into the body bores.

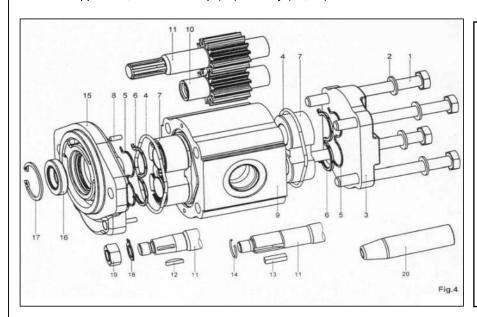
- 1. Fit the thrust block (7) 180° turned on the mounting flange, the seals (5, 6) facing to the mounting flange (15)
- 2. Refit the drive shaft and the driven gear (11,10) and. Fit the other thrust block (7) 180° turned on the shafts. Fit the sleeve assembly tool or

the assembly sleeve (20,21) to the drive shaft (11).

3. Fit the thrust blocks (7) and the gears (10,11) with the assembly sleeve (20) to the mounting flange (15). Make sure that the seals are

uppermost. See Fig. 2. Remove the assembly tool

- 4. Carefully refit the housing (9) 180° turned, the pins facing the mounting flange (15). Make sure that the Inlet side from housing and thrust
  - block (9, 7) are in the right position and the "O"-ring (4) is correctly fitted. See Fig. 3.
- 5. Fit end cover (3), taking care not to dislodge the back up seal (5), seal element (6) and body "O" ring (4) and bolt the unit together. Tighten the bolts / screws (1)
- 6. Pour a small amount of hydraulic oil into the inlet port and check that the drive shaft can be rotated.
- 7. Where applicable, refit wire circlip (17) and key (12, 13) to the shaft.



#### No.: Description

- 1. Screw 1 Bolt
- 2. Spring washer
- 3. End cover
- 4. Body O ring
- 5. Back up seal
- 6. Seal element
- 7. Thrust block
- 8. Pin
- 9. Body
- 10. Driven Gear
- 11. Drive shaft
- 12. Woodruff key
- 13. Square key
- 14. Circlip
- 15. Mounting flange
- 16. Shaft seal
- 17. Circlip
- 18. Tab washer
- 19. Nut
- 20. Sleeve assembly tool
- 21. Assembly sleeve (not shown)

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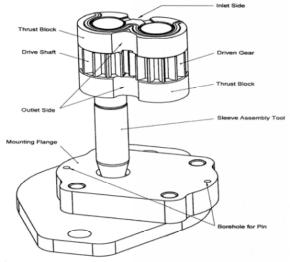
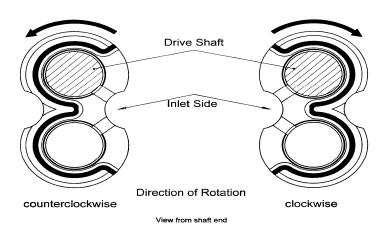
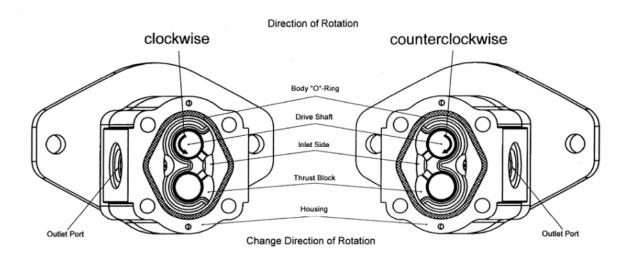


Fig. 2





Housing and Thrust Blocks turned 180°