7. Separately put the bearing shim (26) into the main/counter shaft after cooling the bearing, then lock the nut(27) with the bearing, gradually fasten the nut in place by rotating the main/counter shaft, and tighten the screw(28) at the same time.

8. Measure the axial channeling dynamic value of main/counter shaft with dial indicator, which shall be ≤ 0.03 mm.



4.4.3 Assembly for gearbox and pump body

4.4.3.1 Assembly for pump body and mechanical sealing

1. Before the mechanical sealing is assembled, it is necessary to clean up each component, ensure there is no any impurities entering.



2. Coat the O-groove of mechanical sealing seat (8) with a little silicone grease, then put the O-ring into the groove.

3. Align the notch of static ring to the two stop screws of the spring, then push it into the mechanical seal stand by hand.

4. Clean up the surface of static cloth with, and its surface coated with silicone grease.

5. Respectively put the O-ring, gasket of rotating ring into the into cavity of rotating ring, meanwhile, overlap the two friction surfaces of rotating ring and static ring.

6. Separately fix the two mechanical sealing seats (8) onto the pump body (9) with the screws (10), after installed, press the rotating ring with thumb, try to repeat up and down running for several times till it is normal.

4.4.3.2 Assembly of pump body and gear box

1. Put the front housing of gear box (22) onto the working table upwards, dry it with cleaning cloth, and coat the shaft stop with silicone grease, install the guide stock plate (11) on the main/counter shaft.

2. To set off the pump body to the horizontal position and put pump body (9) to end surface of gear box between two axis (Pay attention to the collapse between the inner cavity and Principal or secondary end)

3. To Aligning the upper and lower positioning hole, and then insert the positioning pin into the hole with a soft hammer (7), and screw up the pump body by screw (6).



4. 4. 3. 3 Assembly of rotor and shaft

1. To put principal axis and secondary axis in the right position according to the groove shape. If the direction is wrong, the rotor would not be assembled. Do not strike the axis and rotor, otherwise it will be damaged. (Note: two positioning pin of rotors must be inserted in two grooves of snap ring of mechanical seal.)



2. Insert a plastic or wood to prevent the rotor rotation between the two rotors, and then screw up the rotor and the nut according to the specified torque.



4.4.3.5 Clearance Determination

1. To aligning dial indicator with principal and secondary axis, resolve principal and secondary axis pros and cons by hand and observe axis-direction moving. Axis-direction moving can not be more than 0.03mm.

2. Check the clearance between end surfaces of A and B rotors by gauge. The range is $0,\,01{-}0,\,05\text{mm}.$

3. If super clearance is found after test, check if the position of adjustable tab is wrong. If it is wrong, correct the clearance. If the clearance of inner end surface of rotor is more than the clearance of outer end surface, its modified value of adjustable tab = (Clearance value of inner end surface—Clearance value of outer end surface)

4. The thickness will be increased or reduced on the adjustable tab of the principal and secondary axis (15) to adjust the clearance of rotors.



4.4.4 Assembly of Gears

1. Fix flat key (14) in the groove of secondary axis (12) and strike it lightly to keep it in the right place, lubricate the axle bumper, aligning the gear (30) with flat key of the axis, strike annular tubes by a soft hammer to make it tight enough to screw up the nut, and then install stop gasket (31) and resolve the gear and screw up the nut (32). Adjust the clearance between rotors and relationship of gear and expansion cover according to the following steps:



2. Clean the inner hold and axis shelf of the gear (29) and make lubrication on the surface. 3. Clean each part, make them dry, coat them with rustproof oil, and adjust the position of the screw, then insert expanding sleeve into inner hole of the gear before installation of expanding sleeve sets (33).

4. Insert the feeler gauge with same thickness of the clearance between rotors before installation of gear (29).

5. The gear (29) and expanding sleeve (33) will be applied in axle bumper of principal shaft and screwed up with bearing and nuts. Keep the nuts in expanding sleeve crossed over and over, screw up the expanding sleeve gradually. After installation, the gear is not allowed to have circular runout and unparallel end surface.

4.4.5 Assembly of the cover of back tank.



- 1. Apply frame oil seal (35) of back tank in the special tool, and then press it into the hole of back tank cover (36), and exit the special tool.
- 2. Blow wash the internal and external of back tank cover by compressed air and lubricate the groove of 0 ring of back tank cover (36), and then apply 0 ring (34) in the groove.
- 3. Fix the cover of back tank (36) on the back end surface of gear box by positioning pin (37) and screw up the cover of back tank with gear box by nuts (38), then tighten the oil plug.
- 4. Charge machine oil 46# by oil funnel. The oiling quantity refers to the middle line on oil-view mirror (21). Tighten the porous plug (25) after oiling.

4.4.6 Assembly of pump cover

- 1. Blow wash pump body and rotors by compressed air.
- 2. Clean the pump cover (2) by a clean cloth, apply a little of silicone grease inside 0 ring and then implant 0 ring (3) into the groove of pump cover.
- 3. Fix pump cover on pump body by nuts (1) according to corresponding marks.



4.4.7 Assembly of pump body and reducer.

- 1. Clean the input shaft and reducer output by clean cloth, then implant flat key in the key groove, and lubricate the surface of the shaft.
- 2. Insert the clean couplings on axis end respectively by soft hammer and keep plum pad in pump coupling.
- 3. Wash and dry reducer chassis of gear under-frame and public chassis
- 4. Fix gear box on public chassis by 4 screws.



Decomposed coupling

Drop location for angle square

9. Screw up the reducer and pump head and correct with motherboard10. Review the clearance again, if it is not qualified, adjust it again until it is qualified.11. Fix the shield on the motherboard by screw.

5.0 After-sale Service

Thank you for using our products. We will provide quality service, and hope you'll choose our company's products.

Hotline Service:

If you encounter any problem while using the product, your inquiry is welcome by dialing our technical advice hotline, fax and email. Our sales engineer provide a profession answer for you.

Part replacement service:

After warranty period, our company will provide a paid service or supply for sold products. Warranty: According to the contact, free repairing service will be provided in the period of warranty. If the product is damaged due to wrong installation, motor affected with damp, welding slag and sundries entry in pump cavity, repairing fee will be born by the user.