



DRY SUMP OIL PUMP REBUILD INSTRUCTIONS

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Start at the back of the pump using the following steps. Instructions are based on a new pump that haven't seen any damage.

Step 1: Unscrew the 4 nuts 12-point ½-28 and tap the studs forward through holes one scavenge section at a time or all the way out.

Step 2: Pull rear scavenge section off and then slide the two rotors off. It's not necessary to keep the rotors together in pairs with the scavenge sections.

Step 3: The two keys on the shafts are taken out by tapping them carefully forward with a hammer and regular screw driver until it starts to come out of groove. Then take a smaller screwdriver the width of the groove and pry the keys out carefully.

Step 4: Repeat the above procedure until you have taken off all the scavenge-sections up to the pressure sections including the sections with the bracket.

Step 5: Pressure section comes apart by sliding the front cover forward and off the drive shaft. Shafts and gears are pulled forward out of the pressure housing. The pump is now apart and you can take out the o-rings from scavenge housings and the two o-rings in the pressure housing. Reassembly is next.

Step 6: Start with the drive shaft/gear (the longest one) and slide it into the pressure housing with the first key groove pointing straight up. Then push in the idler shaft/gear with the first key groove pointing 90 degrees towards the drive shaft. See fig. This is IMPORTANT because it times the scavenge rotors!

Step 7: Now you can put the keys back in the grooves. Position them first by hand to make sure they go in straight. Take the special "smooth jaw" pliers and squeeze them down in the grooves carefully. The keys should be parallel with the shafts.

Step 8: Slide the rotors in place and then slide the scavenge housing with o-ring all the way forward. Check and make sure you haven't forgotten the o-ring without it in place you'll have a small gap between sections. If you have forgotten the o-ring the housing will lay too tight against the housing in front of it.

Step 9: Repeat this procedure with all the scavenge sections until complete. Stand the pump on its end and push the four studs through one by one. Put the nut on the end you are pushing on. If it's too tight use a rubber or plastic hammer and tap them through carefully. Finally put the nuts on at the end of the pump. Tighten them up crosswise so the pump is "pulled" together. Check that pumps turn over before torquing the nuts to 90-100 inch-lbs.

Squirt a little oil into each section and turn the pump over by hand or with a drill motor to “seat” rotors.