



MOROSO PART NO. 22572 - Rotor & Scroll Dry Sump Oil Pump - "4 1/2" Stage Drag Race - NHRA Pro-Stock or Small or Big Block Chevrolet w/drivers side mounting provisions

This pump is unique! There is a specific way that it must be plumbed to function properly. You must read the instructions thoroughly before you attempt to install the pump. It is critical that you do not deviate from the instructions as outlined in the "Oil Line Routing" paragraphs.

RELATED COMPONENTS

For the best in related Dry Sump components see the latest Moroso Performance catalog. In it you will find the latest in oil pans, drive kits, dry sump tanks, oil filter block-off and adapters, internal oil pump block off plates, in line & remote filters, oil pre-heaters, scavenge manifolds and many other quality components. Technical assistance is available by calling 203-453-6571 and stating that you have a question regarding a Pro-Stock dry sump pump.

MOUNTING

This Moroso Dry Sump Oil Pump is designed to fit small or big block Chevrolets, Oldsmobile DRCE, and most aftermarket blocks such as Merlin and Donovan. *The Rodeck with 5.000" bore spacing requires a different mounting bracket.* You can see that there are two sets of slotted holes on the mounting bracket which attaches the pump to the engine block.

Before installing the pump on a small block Chevrolet, install the bushing with the 3/8" I.D. into the mounting bracket. On big block Chevrolets, use the 7/16" I.D. bushing. The pump mounts on the drivers side of the engine from the two holes near the side of the timing chain cover.

OIL LINE ROUTING

Now that the pump is installed on the engine you are ready to add fittings and lines. On Moroso rotor & scroll dry sump pumps the inlets are on the bottom and the outlets are on top. Both inlet and outlet are tapped for -10 AN fitting. For -12 AN Oil lines use a -10 AN to -12 AN fitting, (Moroso #22606). On this pump the scavenge area is treated differently than on standard Gerotor oil pumps. There are 3 scavenge gerotors, but 4 fittings to supply them. The kidney shaped ports in the 2 mid-scavenge sections are machined through, or by-passed. This allows each of the gerotors to be fed from both sides, which greatly increases the pumping capability of each stage.

Inlets must be routed as follows ! For inlet, all 4 scavenge oil lines must be routed to the oil pan. Moroso builds specific oil pans that enable you to gain the most benefits from your "4 1/2" stage oil pump, but you can probably use another manufacturers oil pan if it has 4 pickup tubes in the pan. You might need to have an additional fitting installed in your current pan. ***All of the scavenge inlets must be plumbed to the oil pan.*** Under no circumstances can a scavenge line be plumbed to the cylinder head return galley or the lifter valley area.

Outlet routing of the scavenge sections is variable. One setup is to run the four outlet lines to the sump tank. This method works with Moroso tank #22667. However on our #22665 and #22670 tanks it would require adding one additional inlet to the Dry Sump Tank. Use Moroso P/N 22700 inlet fitting and weld it according to the instructions under the existing inlets on the Dry Sump Tank. A second setup is to run any two of the four scavenge outlets to a scavenge manifold P/N 23695. This allows for two outlets to be run into one, eliminating the need for an additional inlet on the tank. Since the outlet ports are internally by-passed, you may plug one of the scavenge outlets and redirect the return oil through the three remaining ports. It doesn't matter which of the scavenge outlet ports is plugged. Choose one that makes your plumbing job easier.

Starting at the front (pulley end) of the pump, the first upper and lower ports are for the front scavenge section. The second and third set of ports (going front to rear) are for the mid scavenge stages. The fourth set of ports (going front to rear) are for the rear scavenge stage. Attach all of the inlets to the oil pan, and the outlets to the tank according to your preference. A particular port in the pump doesn't have to go to a specific location on the pan or tank.

Pressure Section: The last set of holes at the rear of the pump are for the pressure section. The bottom hole is connected to a line running from the dry sump tank bottom pickup tube. The top hole feeds oil to the engine. It should be attached by a line to a remote oil filter and then to the oil filter block off plate. Be sure to use the appropriate oil pump blockoff plate when removing the old internal oil pump. Refer to our list of matched components at the beginning of these instructions.

PRESSURE ADJUSTMENT

The Moroso rotor & scroll dry sump pumps have an externally adjustable oil pressure relief valve at the bottom rear of the pump. This valve is pre-set at 50 psi. To increase the pressure loosen the lock nut and turn the allen set screw clockwise (tighten), counterclockwise to decrease oil pressure. Remember to tighten the locknut after adjusting the pressure

**For Technical Assistance, Call Moroso's Tech Line at
(203) 458-0542, 8:30am – 5:00pm Eastern Time**

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