

PTOs For Volvo I-Shift and Mack M-Drive

The available Muncie PTO for the I-shift and M-Drive are rear mounted PTOs with an internal ratio to provide optional output shaft speeds for the North American market. The PTOs are imported from our company, Hydrocar, in Italy and have been used on the manual transmission versions in Europe.

We currently carry the mechanically shifted P86 series PTOs but we have access to the other PTO versions offered by Hydrocar. These include the dual output shaft models and the air shift ClutchShift PTOs.


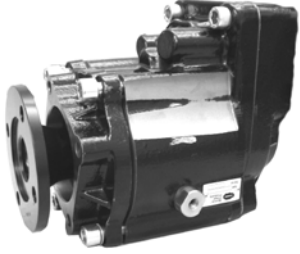

When offering the RS4S-P86VN-P1CX or RS4S-P86VM-P1CX series PTOs we suggest that the customer install the Volvo dash switch, wired for PTO operation and the solenoid for proper activation. These are available from the Dealer. We ask that the installer work with the Volvo or Mack dealer to make sure that the chassis is programmed for PTO use.

We recommend that pressure lubrication be added to the PTO when it is used in a continuous duty application.

P86 PTO Series Standard

The PTO we offer has two gears which change the rotation and speed ratio of the PTO output. The PTO is air shifted and has a port for lubrication when lubrication is needed. The PTO is standard with the DIN 5462 hydraulic pump mounting pad. It can be supplied with additional components to change this output to a Spicer type companion flange 1310 or SAE-B pump mount. Pump systems weighing over 30 lbs need to be supported.

The PTO has the extended input shaft to mate with the transmission countershaft internally within the transmission case.

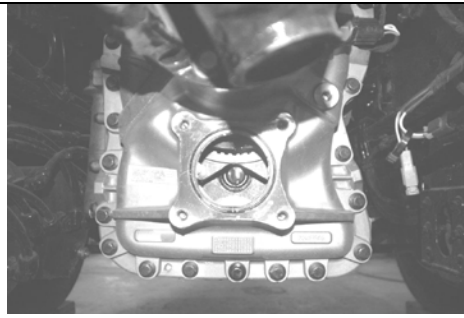
		
P86 SERIES	P87 SERIES	P93 SERIES
Single output	Single output	Dual output
Mechanical shift	ClutchShift	Mechanical shift

Installation: Read and understand the safety instructions found in the PTO owner's manual provided with this PTO. IN84-03

Make sure engine is OFF and vehicle wheels are chocked before going under the vehicle for PTO installation.

This instruction presumes you have worked with the dealer and have the dealer option for the PTO switch and solenoid valve installed and that the vehicle computer is programmed for PTO operation.

The PTO provided mounts to the rear of the transmission. After draining the transmission oil, remove the PTO cover on the rear of the transmission as shown in the photos.



The PTO supplied has a shaft which is inserted into the transmission. The PTO is sealed with the transmission o'ring which is found on the vehicle under the cover plate and is re-used for the PTO installation.

Connect the fittings and airline provided with the PTO to the solenoid provided by the dealer. Connect the airline to the port on the PTO.

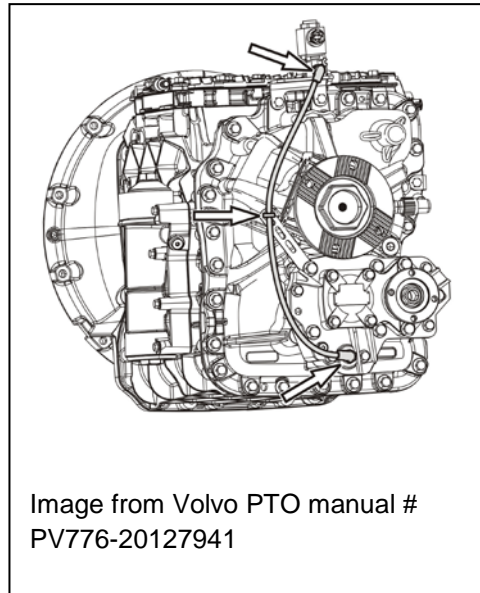


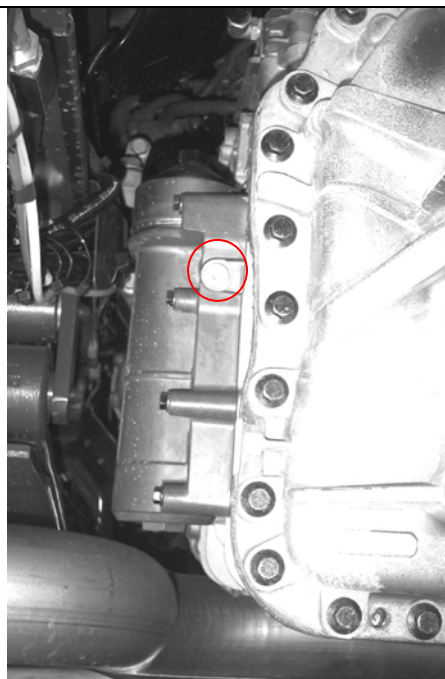
Image from Volvo PTO manual # PV776-20127941

The Muncie PTO is provided with an indicator switch. This switch is used to turn on a light mounted by the installer in the cab, in clear view of the operator when seated in the driver's seat. Order light kit 36MK1210-A.

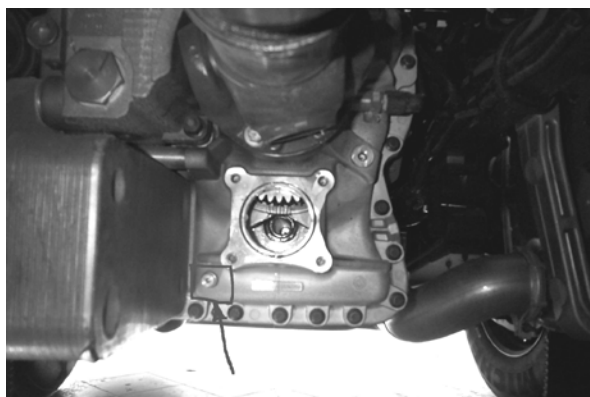
The wire connector 34T38909 has two wires, connect one wire to one side of the light and the other wire to vehicle ground. Connect the other side of the light to 12v DC.

For applications where continuous operation is desired then add lubrication kit #195KLB37000.

The lubrication port is shown in the photos.



Non-retarder

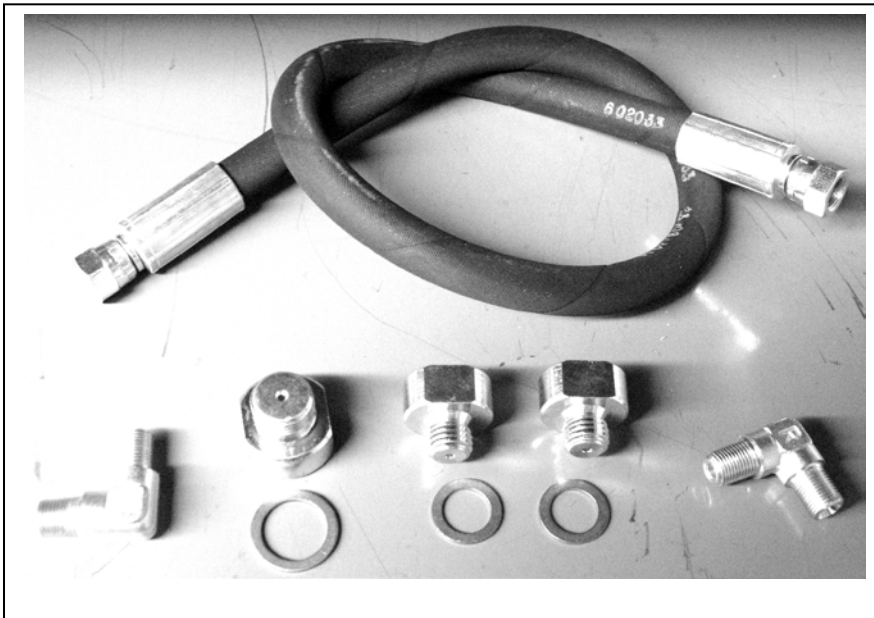


Retarder version

To complete the installation, install the safety labels as shown in the IN84-03. Refill the transmission with proper transmission fluid and check for leaks.

LUBRICATION KIT 195KLB37000 VOLVO/MACK I-SHIFT/M-DRIVE

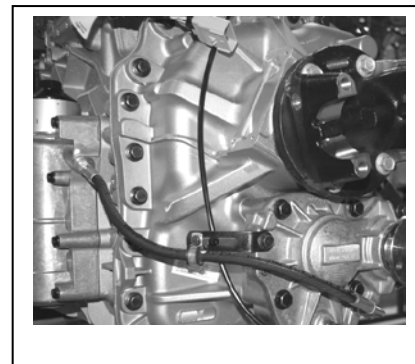
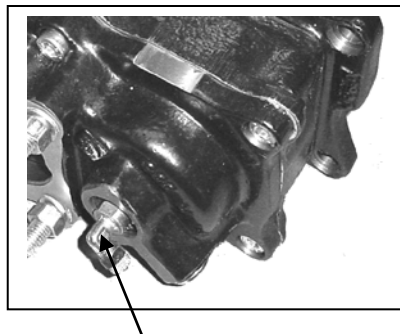
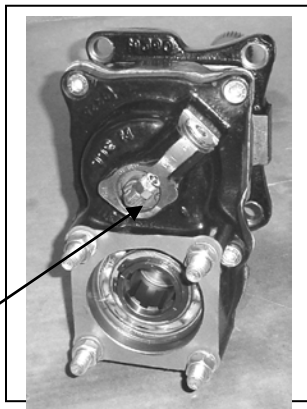
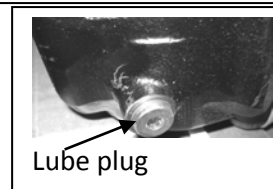
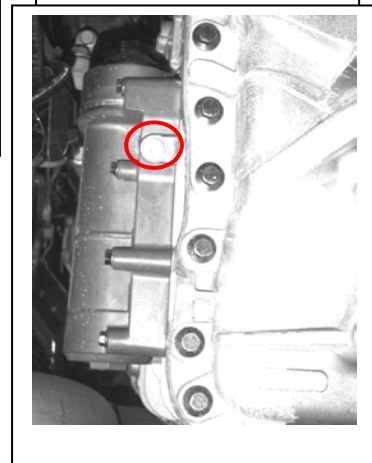
Optional kit required for continuous duty applications. The kit includes:



195KLB37000

- 2) Adapters 1/4G to 1/8 BSPT
- 2) Copper Washers for adapters
- 1) Adapter 1/2G to 1/8 BSPT
- 1) Copper Washer for adapter
- 2) Elbows
- 1) Hose Assembly

1. Locate the port on the rear of the filter assembly as shown in the photo for non-retarder version. (North America)
2. Remove the plug and o'ring from the port in the side of the filter housing.
3. Insert the adapter and copper washer which fits your transmission. There are 2 fittings for this port, only one is used.
4. Install the elbow fitting into this adapter.
5. Remove the plug and washer from the port in the side of the PTO housing.
6. Install the adapter and copper washer in the PTO port.
7. Install the elbow into the adapter.
8. Connect the hose to the JIC elbows.



9. Remove the air fitting from the PTO. The PTO is supplied with an adapter for the metric thread to a 1/4" NPT port for installation of the 1/4" NPT push-to-connect fitting supplied. This fitting accepts the 1/4" airline.