

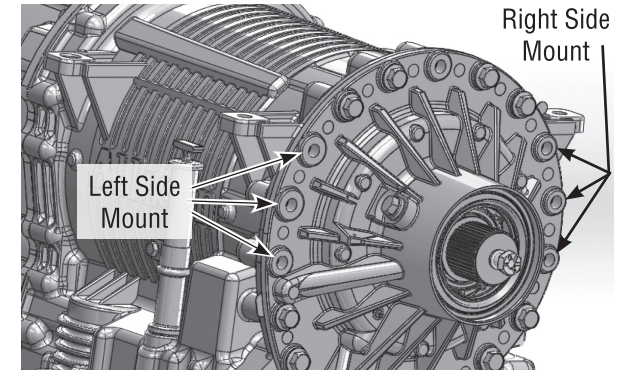
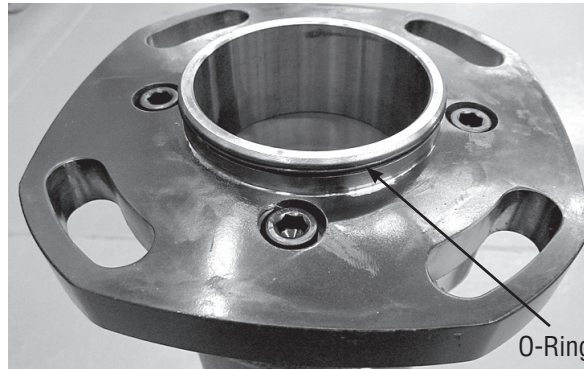


EXTENDED SHAFT SERIES WITH WET SPLINE OUTPUT FLANGE INSTALLATION INSTRUCTIONS

This extended shaft requires a PTO with an output flange option code "V" and will not connect to any other PTO output.

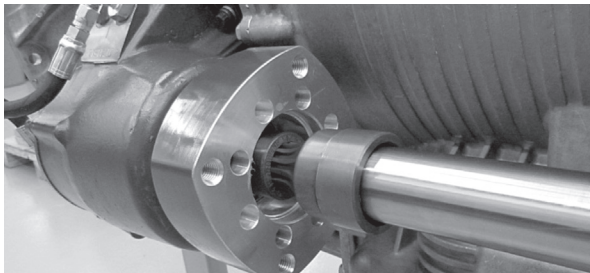
Step 1

INSTALL PTO. The PTO should be installed using its included instruction manual IN95-02.



Step 2

Remove the components from the extended shaft carton. This should include an installation kit with a 12TK5496 O-Ring kit. Lubricate and install the smallest O-Ring onto O-Ring groove of the input flange on the extended shaft housing as shown.



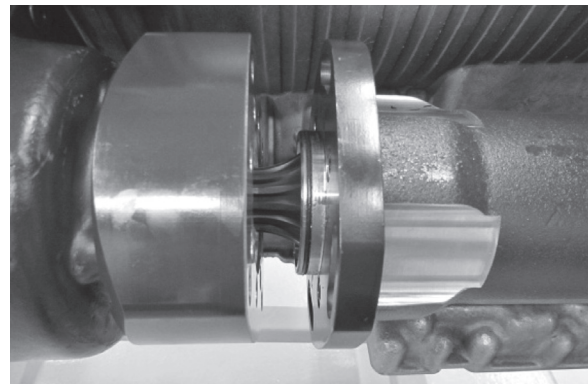
Step 4

Remove cap plug from PTO shaft.

If the vehicle is to be moved before pump is installed, do not install shaft. Install appropriate pump flange cap kit* on the Extended Shaft housing pump flange. Place the thru-shaft in the box and place the box in the vehicle for transport and skip to Step 5.

Locate the thru-shaft from kit. Align the splines of the shaft with the PTO output shaft. Slide the splines into the PTO shaft as far as possible.

*Cap Kits: 16TK5504 ("E" SAE C), 16TK5507 ("K", "P" SAE B, BB), 16TK5508 ("I" DIN 5462). Sold separately or can be ordered already installed.

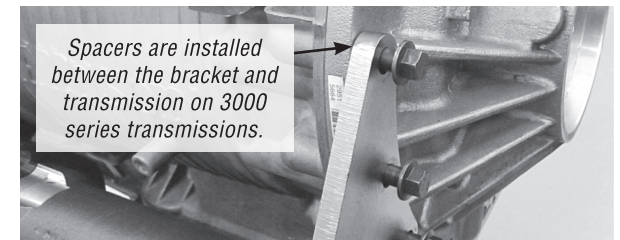


Step 5

Slide the Extended Shaft housing over the shaft and mate with the PTO flange.

Step 3

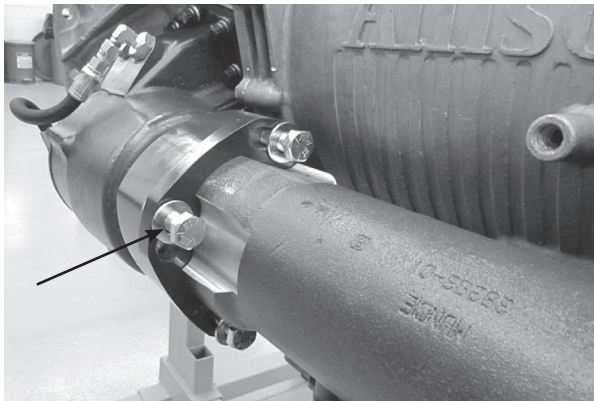
Remove the transmission capscrews from the rear of the transmission in the locations where the mounting bracket will install.



Step 6

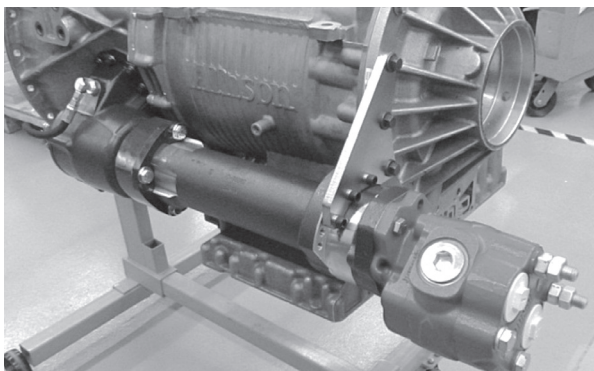
For installations on the Allison 3000 series, locate 3 spacers, 3 capscrews, and the Extended Shaft bracket. Install bracket bolts through the bracket and the spacers. For the Allison 4000 series, these spacers are not needed. (Torque 68 ft.lbs.).

The extended shaft is supplied with the transmission bracket installed. If it is removed and reinstalled, the capscrew torque is 25 ft.lbs.



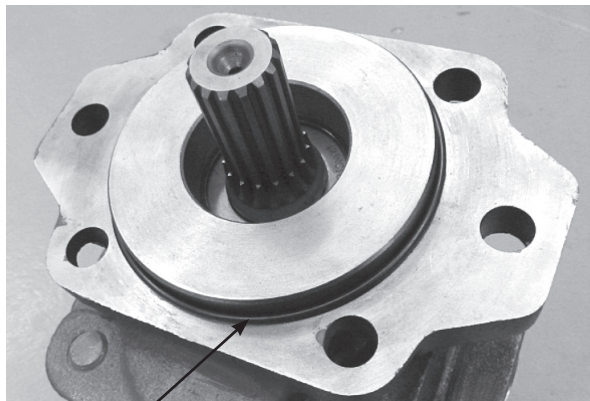
Step 7

Locate the 4 capscrews and flat washers. Install input flange bolts as shown (Torque 35 ft.lbs.).



Step 10

The Muncie Extended Shaft requires additional oil level checks after the PTO and pump installation. Once the hydraulic pump is properly plumbed to the hydraulic system, operate the engine. After one to two minutes of operation, stop the engine and check the transmission fluid level and add the correct transmission fluid as needed.



Step 8

Hydraulic Pump installations: it is recommended that the pumps mounted to wet spline applications be design for use with wet spline outputs. This is because the extended shaft is open to the transmission oil. Lubricate and install the correct O-Ring out of O-Ring kit (12TK5496) around pump pilot.

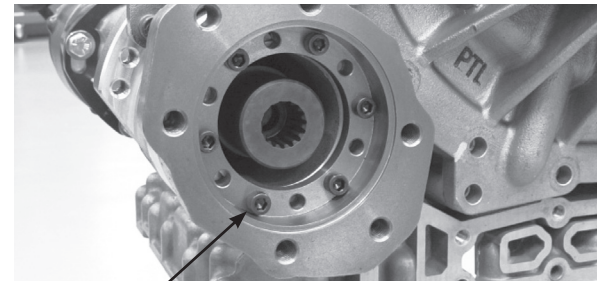
Do not operate the PTO with extended shaft without a hydraulic pump installed and connected to the hydraulic system. Operation without a pump or cover plate can cause damage to PTO system and/or transmission.

Cover plates are available.

16TK5504 SAE-C kit

16TK5507 SAE-B or BB kit

16TK5508 Din 5462 kit



Step 9

INSTALL PUMP. If vehicle was moved or driven prior to this step, the pump flange cap will need to be removed. Fluid may be present and will need to be caught with a drain pan. Locate the thru-shaft and carefully insert it in through the pump flange, male splines first, as far as possible. Using an appropriate device such as a piece of 5/8" bar stock, insert it into the female spline of the shaft and use it to lift and guide the shaft into the PTO splines. Pump can then be installed.

The pump flange can be oriented for clearance by removing the capscrews and rotating the flange. Re-install the capscrews and torque to 25 ft.lbs.

Pump weight not to exceed 111 lbs. and 12" in length without additional support. Tandem pumps require additional support.

If installing DIN mount pump with studs in the output of the extended shaft, it is helpful to pull the shaft of the ES rearward about 1 1/2" to help align the pump splines during assembly of the pump over the studs.