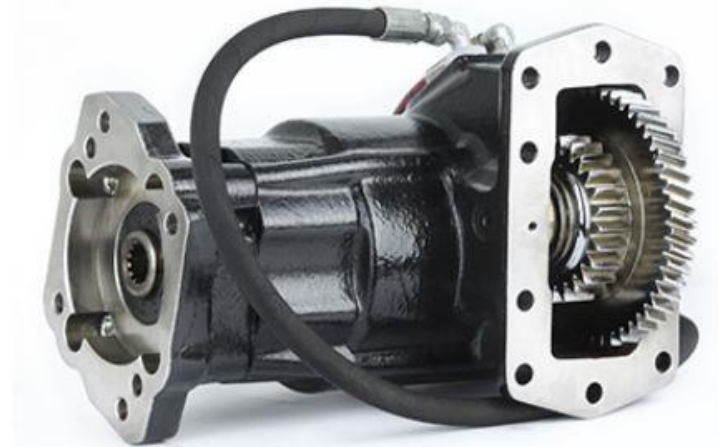


- PA10 Series Transmission PTO-Side Mount
- Allison 3000/4000 transmissions
- Different internal speed ratio's
- 289 lb. Ft max torque rating
- Standard Pressure Lubrication
- Rotatable direct mount flanges



Note: ProDrive is constantly engaged in improving its products and, therefore, reserves itself the right to modify without any further notice the characteristics shown in this material.

MODEL NUMBER CONSTRUCTION

PA - 10 - A10 - 07 - H - A

PA Series ←

10-bolt Mounting Pad ←

Code	Gear Data
A10	10.16P RH

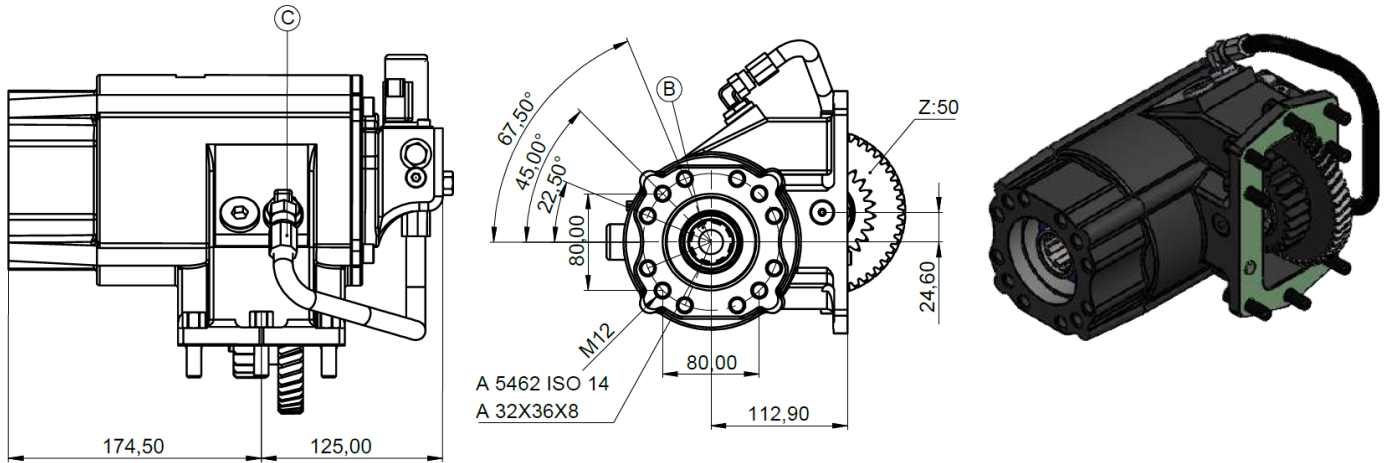
Code	Speed Ratio
07	1/0.72

Code	Shifter
H	12V Electro-Hydraulic
L	24V Electro-Hydraulic

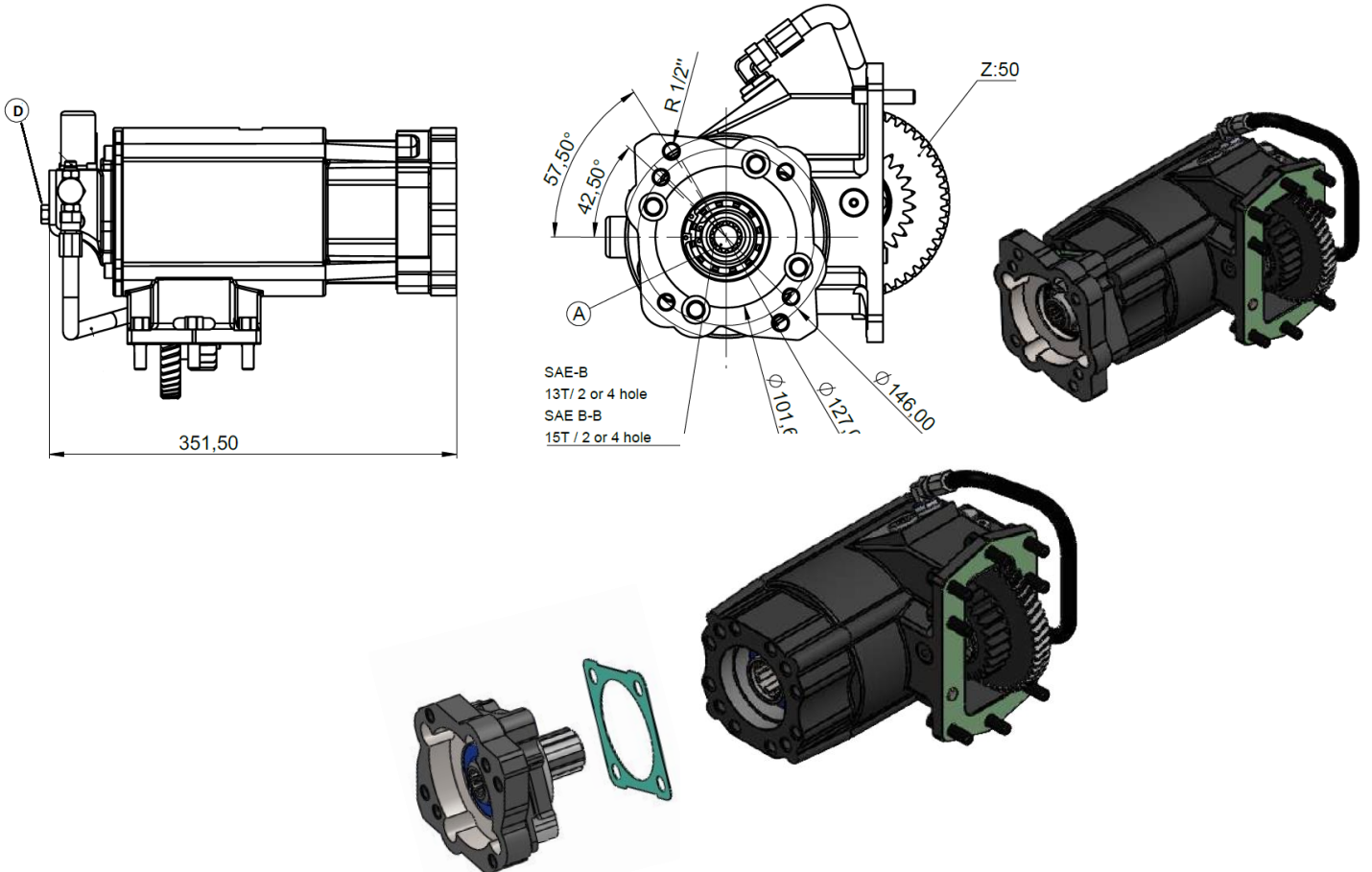
Code	Output
A	SAE-B 13T, 2 or 4 bolts
B	SAE-BB 15T, 2 or 4 bolts
C	1 ¼" Rd.-5/16" KW
D	1410 comp flange
E	DIN 5462 8x32x36 ISO 4 bolt

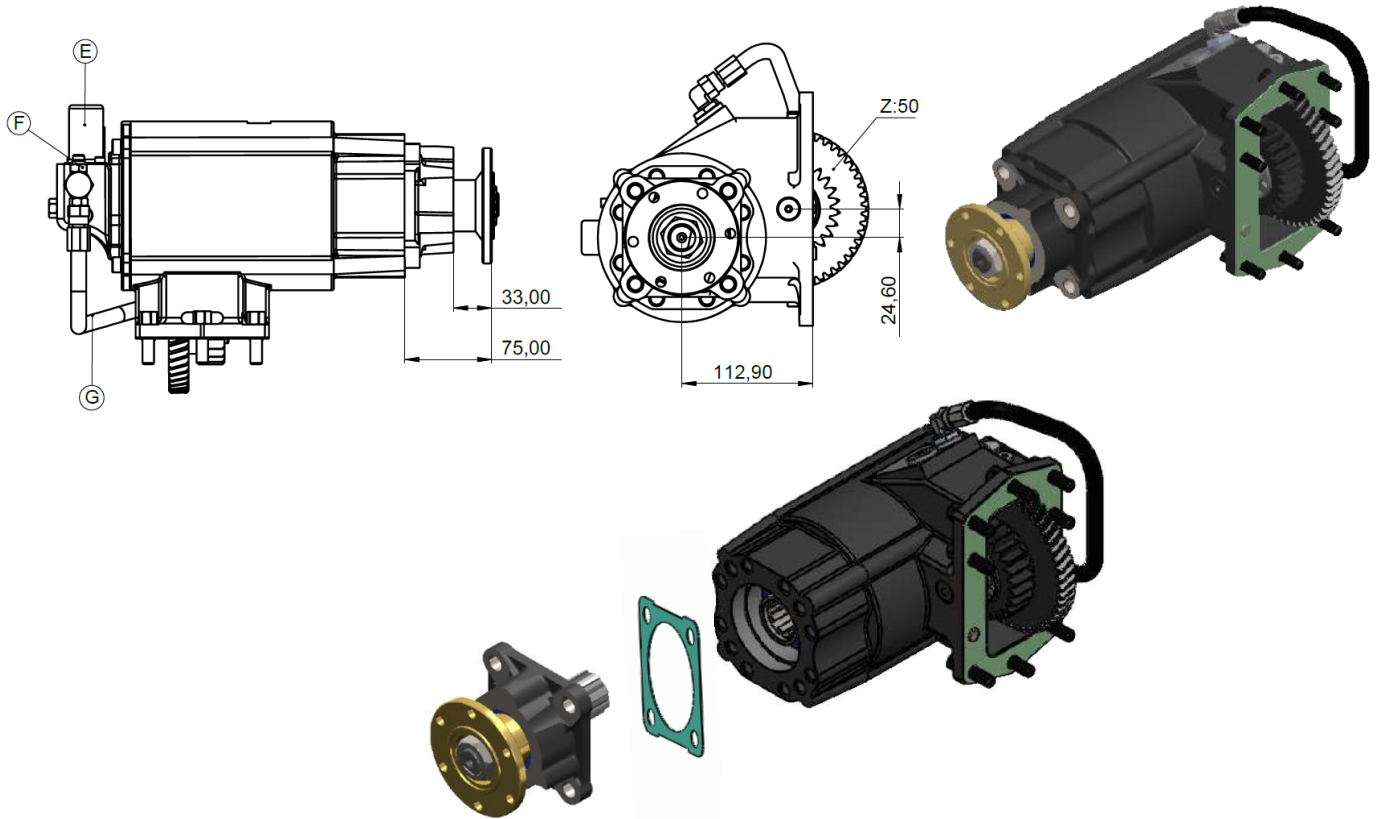
Note: Outputs A, B, C & D = E + Adapter

DIMENSIONS (mm) & Standard Components - OUTPUT E



DIMENSIONS (mm) & Standard Components - OUTPUT A/B



DIMENSIONS (mm) & Standard Components - OUTPUT C


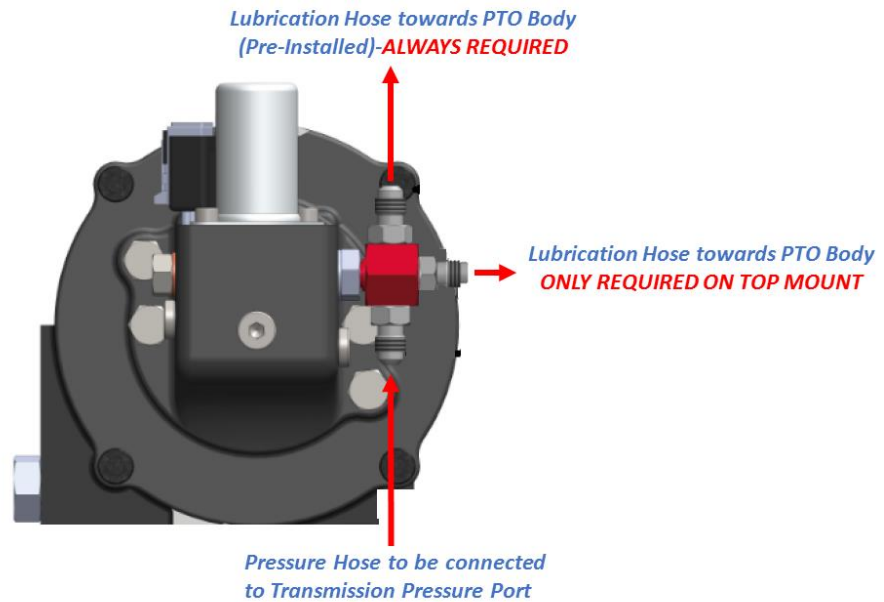
Code	Description
A1	SAE-B 7/8" 13T, 2 or 4 hole housing
A2	SAE-B 1" 15T, 2 or 4 hole housing
B	DIN 5462 / ISO 14 A 32x36x8
C	R1/2" Oil Input
D	Oil Pressure Sensor Connection
E	Electric shifter solenoid
F	Oil Pressure Connection Port
G	PTO Oil Hose

Output	SAE-B	DIN	FLANGE
Power @ 1000 RPM	38 hp	54 hp	54 hp
Max Torque - lb. Ft	205	289	289
Weight - lb.	66	64	66
Sense of Rotation	Engine Crank Shaft		

Final Speed Ratio - Compared to Engine %

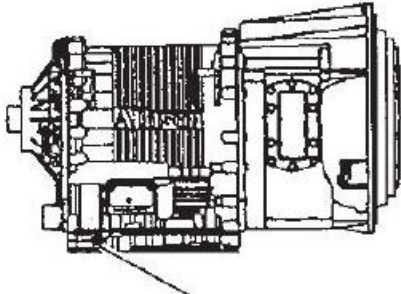
PTO	3000 series		4000 series	
	Side 68 tooth	Top 83 tooth	Side 97 tooth	Top 97 tooth
Speed Ratio 07	99%	121%	142%	142%

Hosing Installation



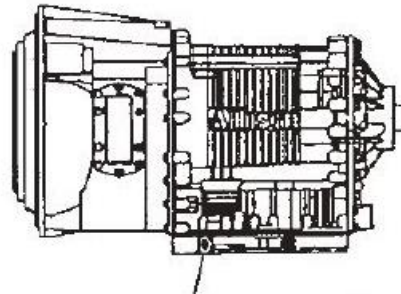
Pressure Port Location

3000 SERIES RIGHT SIDE



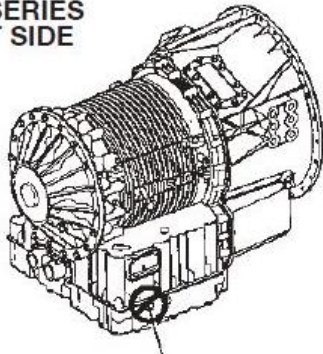
Main Pressure Port "P"
7/16-20-UNF-2A (-4) (210-300 PSI)

3000 SERIES LEFT SIDE



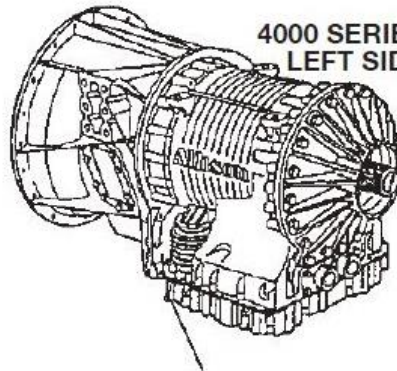
Main Pressure Port "P"
7/16-20-UNF-2A (-4) (210-300 PSI)

**4000 SERIES
RIGHT SIDE**



**4000 Series Only:
DO NOT USE**

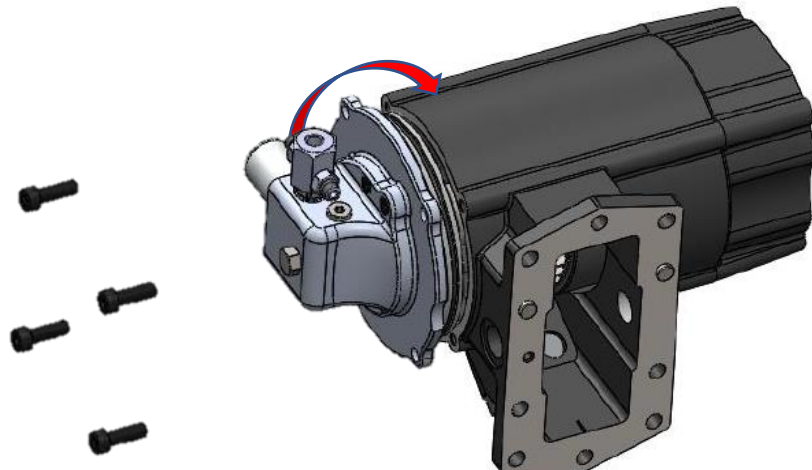
**4000 SERIES
LEFT SIDE**



Main Pressure Port "P"

Back Plate Rotation

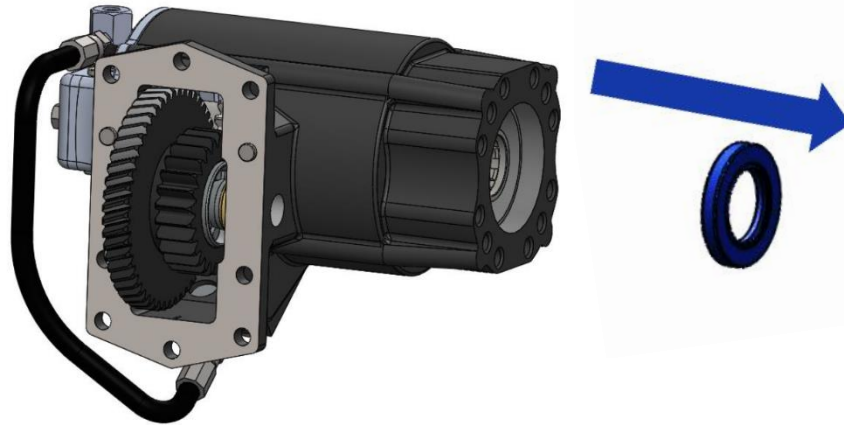
To rotate the back plate, simply remove the 4 bolts holding the back plate to the PTO main body without taking out the back plate itself. With the bolts out, the back plate can be rotated at its position.



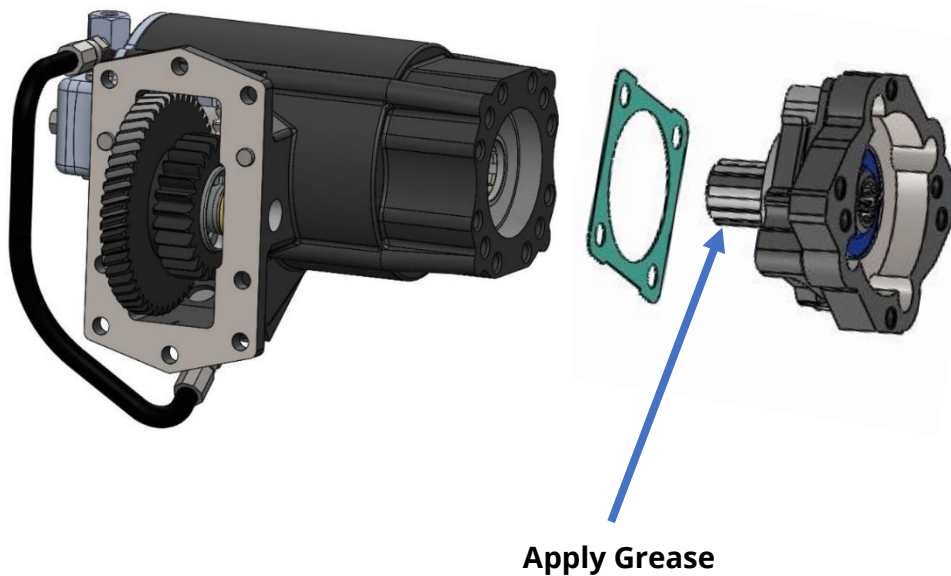
ADAPTER MOUNTING INSTRUCTIONS – Output Options A, B, C, D, E

NOTE: Failure to removing the seal will prevent proper lubrication of the adapter bearing and PTO failure.

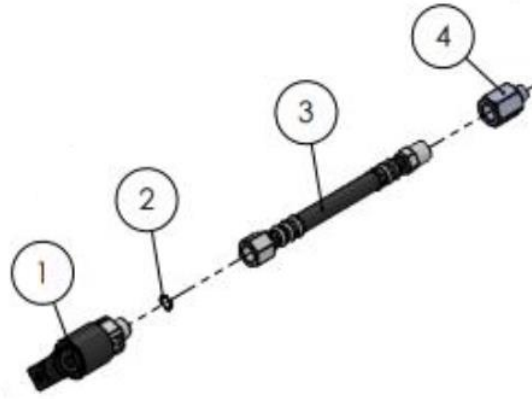
- 1) Remove seal from PTO



- 2) Apply high temp anti-fretting grease on splines.
- 3) Mount adapter flange using gasket to seal contact surface and tighten bolts at desired location.



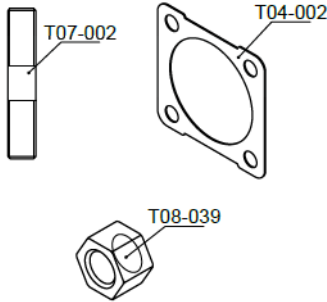
Pressure Sensor with extension hose



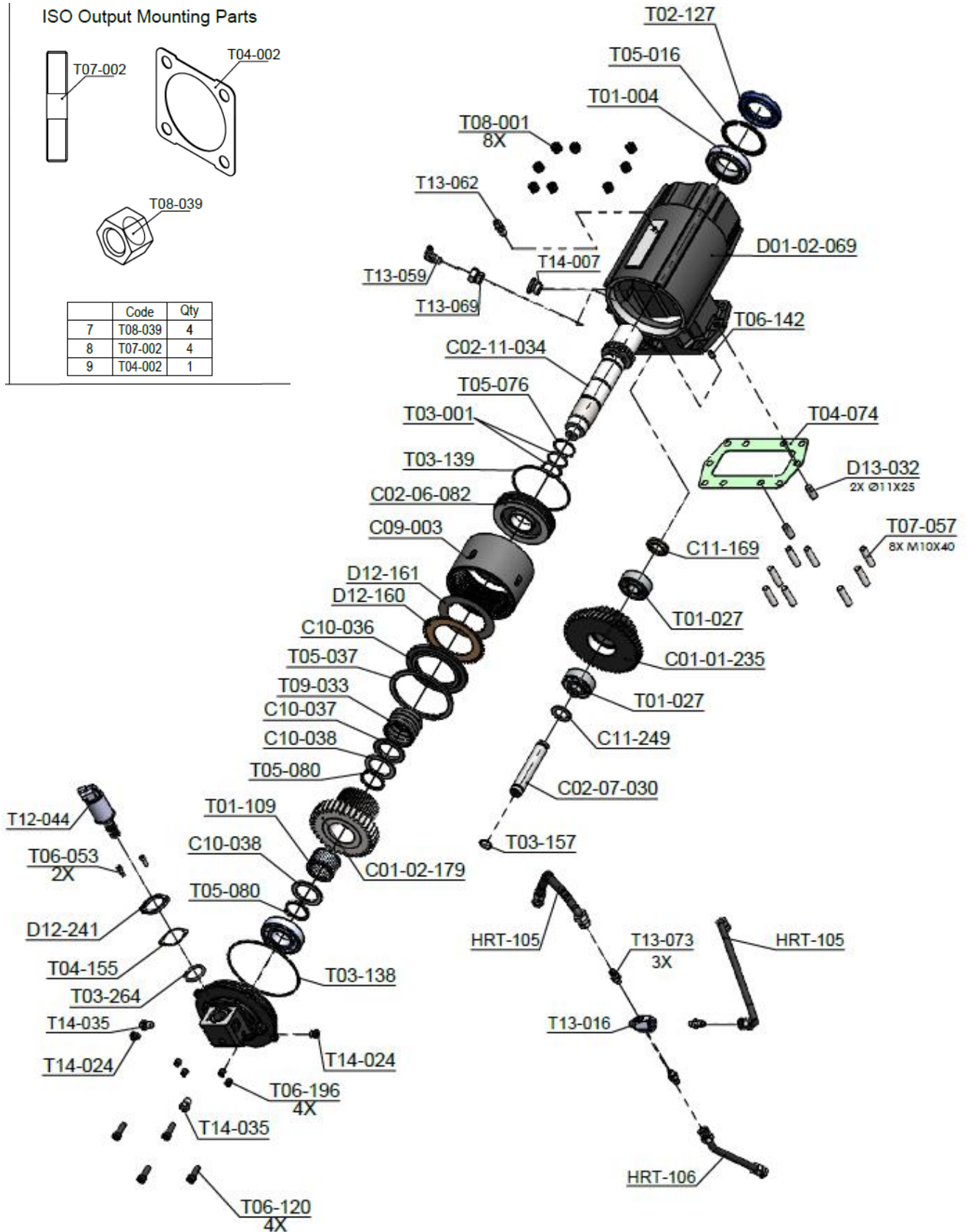
NO	PART CODE	DESCRIPTION
1	T12-046	ALISSON OIL PRESSURE SENSOR (FOX F4S1/M2 1>12 bar)
2	T03-266	7,5X1,5 O-RING
3	HRT-110	R1/4" FEMALE - R1/4" MALE HOSE 15CM (ALLISON SENSOR CONNECTION EXTENSION)
4	T13-133	M10X1 - R1/4" ADAPTER NIPPLE

Exploded View

ISO Output Mounting Parts



	Code	Qty
7	T08-039	4
8	T07-002	4
9	T04-002	1

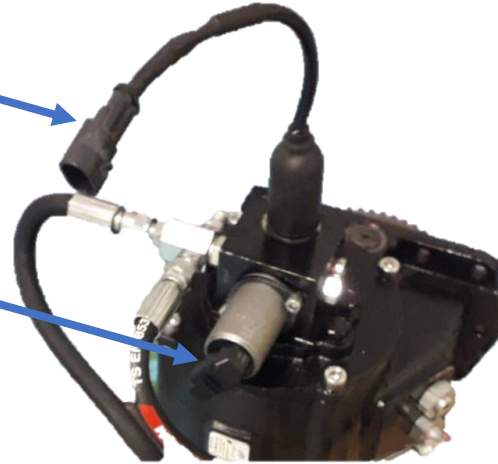


Installation Instructions

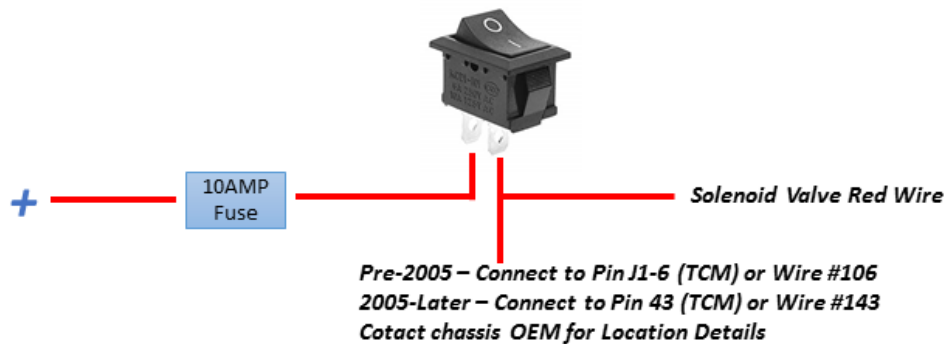
1- Electrical connector locations:

PTO Enable signal to Allison
ECU using factory harness

PTO activation signal to Allison
ECU using factory harness

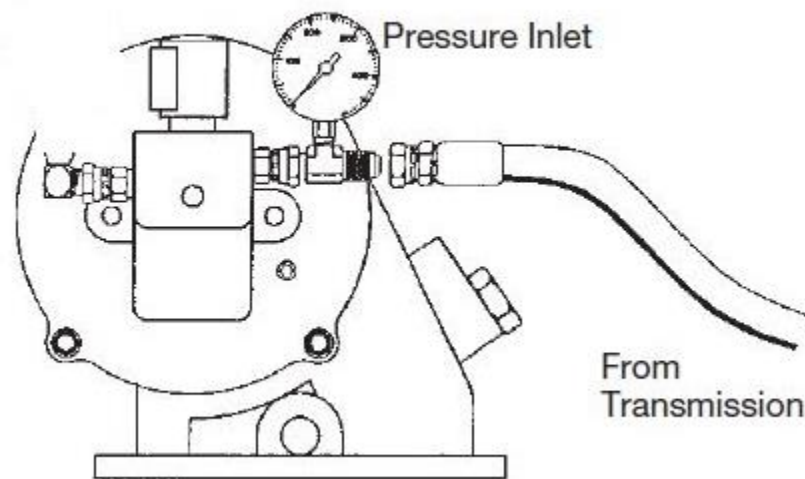


NOTE: Truck should be ordered from the factory with an electric PTO prep package which will provide two harnesses near the PTO opening ready to be connected to the PTO. If these harnesses are not available, proper wiring should be followed as follow:

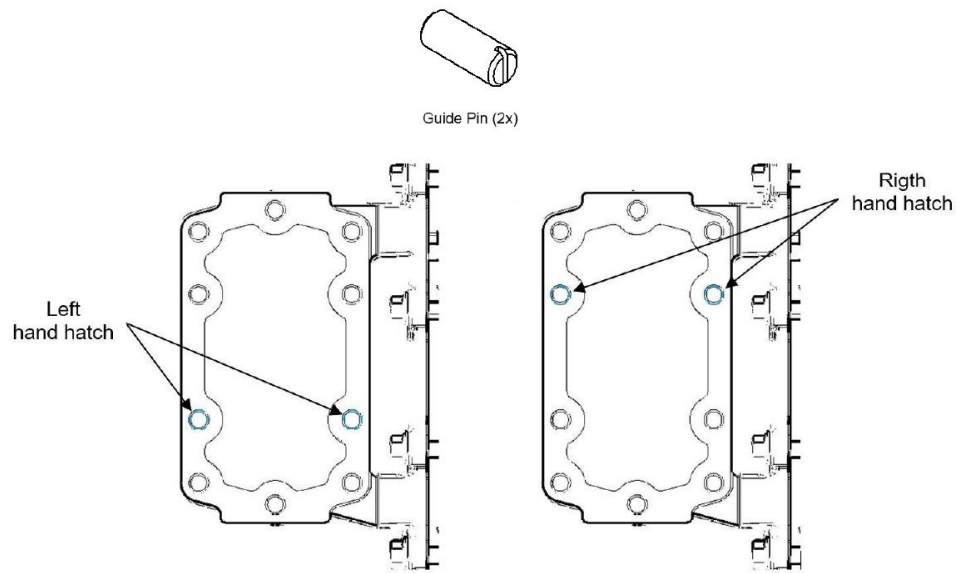


NOTE: Failure to do the proper wiring to the Allison TCM, there won't be enough pressure available for the PTO clutch plates and slippage will damage the plates leading to premature failure.

- 2- To verify proper wiring and adequate pressure on the PTO:
 - 2-1- Stop the engine.
 - 2-2- Install a 400 psi pressure gauge at the pressure inlet of PTO.
 - 2-3- Start engine. Stay clear of rotating components. Check gauge at inlet to PTO. If gauge registers less than 200 psi, check for obstructions in the hoses or you may be connected to the wrong port on the transmission. If plumbing is correct, then transmission should be inspected at an authorized Allison service center or dealer.
 - 2-4- Place PTO switch in engage position. Stay clear of rotating components. Check gauge at inlet to PTO. If gauge registers less than 200 psi both PTO and Allison transmission should be inspected at an authorized service center or dealer.



- 3- Empty transmission oil.
- 4- Remove PTO cover from transmission rear end and clean surface of any oil and residual material.
- 5- Mount the eight studs on the transmission using medium strength, thread locking product (such as Loctite 243) to prevent loosening due to vibration. Use the two guide pins for better alignment.



- 6- Place gasket on the mating surface before mounting the PTO.
- 7- Mount PTO on transmission and tighten bolts using medium strength, thread locking product (such as Loctite 243) to prevent loosening due to vibration.
- 8- Attach pressure lube hose to transmission using the guides on pages 3 & 4.
- 9- Rotate back plate if necessary, using the guide on pages 4.
- 10- Apply anti-fretting, high pressure, high temperature grease on spline before direct mounting any hydraulic pumps.
- 11- Refill transmission oil to OEM specified level before starting truck.
- 12- Direct Mount Pump Support Requirements:

When the combined weight of the pump and its fittings and hoses weighs 40 lbs (18.1 kg) or more and/or the combined length of the PTO and pump is equal or higher than 18" (457.2 mm) from the PTO centerline, it is necessary for the installer to provide a support bracket at the back of the pump to support its weight.



SAFETY



DO NOT check backlash with the engine on. This procedure has to be made with the engine off and the truck blocked with the parking.



DO NOT go under the vehicle if the engine is running.
DO NOT attempt to work on an installed power take off with the engine running.
DO NOT operate the controls of the power take off or other driven equipment from underneath the vehicle with the engine running.
DO NOT operate the controls of the power take off or other driven equipment in any position that could result in getting caught in the moving machinery.

The application of the PTOs must follow all the instructions hereby mentioned in order to assure the safety of all personal working with the equipment including its surroundings, assure a long life to the product and preserve the warranty of the brand. All applications that do not follow the hereby instruction are solely the users responsibility. If there should happen any malfunctioning, it is strictly forbidden the disassembly of the product except if it is being made by a qualified technician of the brand or if there is a special authorization to do that. If this specification should not be followed, all warranties might be lost.