SS66
SPLIT SHAFT PTO
INSTALLATION INSTRUCTIONS

The Muncie Split Shaft PTO
Model SS66-U2X3-A00XXX
(As shown, less PTO’s)

Muncie Power Products, Inc.
APPLICATION INFORMATION

THROUGHPUT TORQUE: 2900 FT-LBS [400 KGM]

Calculating Throughput Torque: Multiply Max engine torque by the deepest transmission ratio.
Example: Ford Super Duty F-450
Engine = 7.3L Diesel Engine 235GHP @ 2,600 RPM 500 Ft.Lbs. @ 1,800 RPM
Transmission = ZF S6-650 6 Speed OD

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Through Torque = 500 Ft-Lbs X 5.79 Ratio = 2,895 Ft-Lbs

MAXIMUM PTO TORQUE: 289 FT-LBS

The SS66 PTO drive gear has a maximum rated torque of 289 Ft.Lbs. PTO input gear loads must not exceed this value regardless of the number of PTOs used. PTO applications are limited to intermittent application only.
SPLIT-SHAFT INSTALLATION

SPLIT-SHAFT UNIT POSITIONING

The Muncie split-shaft unit should be located between the transmission and the rear axle, as near as possible to the transmission output flange. If possible locate the split-shaft unit in place of the midship bearing. Elastic suspension elements are recommended and are to be fitted between the split-shaft and the truck chassis.

Note: The SS66 Series is not available with a driveline brake. Vehicles with a driveline brake (parking brake) attached to the rear of the transmission will need to have this brake moved to the rear of the splitshaft or have a parking brake installed for use with stationary PTO applications.

MOUNTING THE SPLIT-SHAFT UNIT TO TRUCK FRAME

Welding to frame or cross members is not allowed. All brackets should be fastened to the truck frame using bolts. Existing holes should be used. Additional holes should only be made with the approval of the truck manufacturer. Mounting components are not provided with this unit and are the responsibility of the installer. Unit is to be mounted with breather located upright as shown in the diagram. PTO(s) should be mounted with the arrangement low as shown.
SPLIT-SHAFT INSTALLATION

DRIVE SHAFTS

Contact your local Driveline shop for driveshfts and driveshaft alterations. All shafts used in the vehicle’s driveline should be the same size and quality as the original ones. The same applies to flanges, bolts, and nuts. Self-locking nuts should never be used twice and should be replaced by new ones.

Balance - All drive shafts should be statically and dynamically balanced.

Angles - To prevent vibration and noise during operation all drive flanges must be parallel. Therefore it is necessary to incline the split-shaft unit and all other driven equipment at the same angle to the truck frame as the transmission. This angle varies with the truck model. Information should be obtained from the truck manufacturer.

Phase - Drivelines with slip joints should be used. Make sure enough compensation is allowed for length changes. When assembling, make sure all U-joints are correctly phased by ensuring that index markings are correctly aligned.

Protection - For safety reasons it is highly recommended to provide all accessible Drivelines with protection covers.

OIL LEVEL

Split Shaft must be filled with oil up to fill level plug before use. Remove fill plug and fill unit to this level with SAE 90 EP gearbox oil. Replace plug. Check oil level regularly every two weeks.
DIMENSIONAL INFORMATION

SS66 PTO

SIDE VIEW

REAR VIEW

BOTTOM VIEW

TOP VIEW

FRONT OF VEHICLE
MAIN SHAFT FLANGES

1410/DIN 20 FLANGE

PROFILE VIEW

FRONT VIEW

1480/1550 FLANGE

PROFILE VIEW

FRONT VIEW
SUPPORT BRACKET

OPTIONAL KIT — 2991970000
SS66 INSTALLATION KITS

SS66 ACTIVATION KIT INSTALLATION

To Truck Air Supply Tank

SS66 Split Shaft

MANUAL AIR 12V: “A” OPTION — 48TK4985

BACK OF VALVE ASSEMBLY

From Port 2

From Port 1

From Port 4

To Battery

To Pressure Switch

NOTE: Connect directly to the air tank. Do not use hose or tubing.

AIR VALVE ASSEMBLY

12V DC Battery

ITEM | QTY | PART NO. | DESCRIPTION
--- | --- | --- | ---
ACTIVATION KIT 48TK4985
1 | 1 | 30T37954 | Pressure Switch
2 | 1 | 44MB2252 | Fitting
3 | 2 | 44MB6842 | Fitting
4 | 1 | 44T35791 | Fitting
5 | 1 | 34T36941 | Pig Tail
6 | 1 | 31M15759 | Pressure Protection Valve
7 | 1 | 33T36299 | Fuse Assembly
8 | 1 | 45M44430 | Air Tubing (0.25" x 30ft.)
9 | 1 | 44MB2164 | 1/4" N.P.T. Nipple

ACTIVATION KIT 48M61261A (included in 48TK4985)
10 | 1 | 44MB6844 | Tube Fitting
11 | 2 | 44MB6942 | Tube Fitting (Elbow)
12 | 3 | 34M18002 | End Crimp
13 | 12.5’ | 37M18000 | Electrical Wire
14 | 1 | 35T37955 | Air Valve
15 | 1 | 32M12001 | PTO Light - 12VDC
16 | 1 | 36T38049 | Dash Bracket
17 | 1 | 36T38016 | Face Plate
N.S. | 1 | 34T38163 | Booted Connector
N.S. | 1 | 36MK1007 | Bolt Kit
### SS66 INSTALLATION KITS

#### ELECTRIC/AIR 12V: “E” OPTION — 48TK4986

#### Component List:

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<td>Ring Terminal</td>
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**Activation Kit 48TK4986**

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**Activation Kit 48TK37421A (included in 48TK4986)**

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<td>Ring Terminal</td>
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**Diagram:**

- Connect directly to the air tank.
- Do not use hose or tubing.

**To Truck Air Supply Tank**

**12V DC Battery**

**SS66 Split Shaft**
ENGAGING THE SPLIT SHAFT PTO

1. Stop the vehicle and put the transmission in neutral.
2. Apply the parking brake and block wheels (if the unit is to operate while the vehicle is stationary).
3. For stationary operation: Shift the main shaft air control (double acting) to disconnect the drive to the rear axle.
4. With the engine at idle, engage the required PTO output(s) by operating the relevant air control(s).
5. Depress the clutch pedal and select the required gear. The output shaft speeds are dependent on the main transmission gear selection. Use caution if placing the transmission into reverse as it may cause damage to the driven component(s).
6. Slowly release the clutch pedal. If Split Shaft is not disengaged from the rear axle, release parking brake to allow vehicle to be driven at application rate.
7. For stationary operation: Set the engine speed to the required R.P.M.

DISENGAGING THE SPLIT SHAFT

1. Return the engine speed to idle.
2. Depress the clutch pedal and place the transmission in neutral.
3. Set the parking brake if vehicle has been used in mobile application.
4. Disengage the PTO output(s) by operating the relevant air control(s).
5. Shift the main air control (double acting) to re-engage the drive to the rear axle.
6. Remove the wheel blocks, if stationary application.
7. All PTO outputs are now disengaged. The vehicle can be driven as normal.

AUTOMATIC TRANSMISSION

ENGAGING THE SPLIT SHAFT PTO

1. Stop the vehicle and put the transmission in neutral.
2. Apply the parking brake and block wheels (if the unit is to operate while the vehicle is stationary).
3. For stationary operation: Shift the main shaft air control (double acting) to disconnect the drive to the rear axle.
4. Engage the required PTO output(s) by operating the relevant air control(s).
5. Shift transmission into the required gear selection. Use caution if placing the transmission into reverse as it may cause damage to the driven component(s).
AUTOMATIC TRANSMISSION

6. Stationary application: Using a method specified by the transmission manufacturer, shift transmission into direct drive.
   
   Mobile application: If Split Shaft is not disengaged from the rear axle, release parking brake to allow vehicle to be driven at application rate.
   
    7. For stationary operation: Set the engine speed to the required R.P.M.

DISENGAGING THE SPLIT SHAFT

1. Be sure vehicle is stopped and apply parking brake.
2. Shut off the engine with transmission in drive mode.
3. Set the parking brake if vehicle has been used in mobile application.
4. Disengage the PTO output(s) by operating the relevant air control(s).
5. Shift transmission into neutral.
6. Remove the wheel blocks.
7. Restart the engine.
8. Shift the main air control (double acting) to re-engage the drive to the rear axle.
9. All PTO outputs are now disengaged. The vehicle can be driven as normal.

Failure to follow proper shifting or operating sequences will result in premature PTO failure with possible damage to the equipment.
POWER TAKE-OFF WARRANTY

The Muncie Power Take-Off is warranted to be free of defects in material or workmanship and to meet Muncie’s standard written specifications at the time of sale. Muncie’s obligation and liability under this warranty is expressly limited to repairing or replacing, at Muncie’s option, within one year after date of original installation any defective part or parts or any product not meeting the specifications.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. MUNCIE MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. MUNCIE’S OBLIGATION UNDER THIS WARRANTY SHALL NOT INCLUDE ANY TRANSPORTATION CHARGES OR COSTS OF INSTALLATION OR ANY LIABILITY FOR DIRECT, INDIRECT SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR DELAY. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE, AND MUNCIE’S LIABILITY WITH RESPECT TO ANY CONTRACT OR SALE OR ANYTHING DONE IN CONNECTION THEREWITH, WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY, OR OTHERWISE, SHALL NOT, EXCEPT AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE PRODUCT OR PART ON WHICH SUCH LIABILITY IS BASED.

If requested by Muncie, products or parts for which a warranty claim is made are to be returned transportation prepaid to a Muncie Service Center. Any installation or use not in accordance with catalogue or package instructions, other improper use, operation beyond capacity, substitution of parts not approved by Muncie, use with equipment other than the equipment on which the Power Take-Off is first installed, or alteration or repair made to the Power Take-Off other than at a Muncie Service Center shall void this warranty. No employee or representative of Muncie is authorized to change this warranty in any way or to grant any other warranty.