



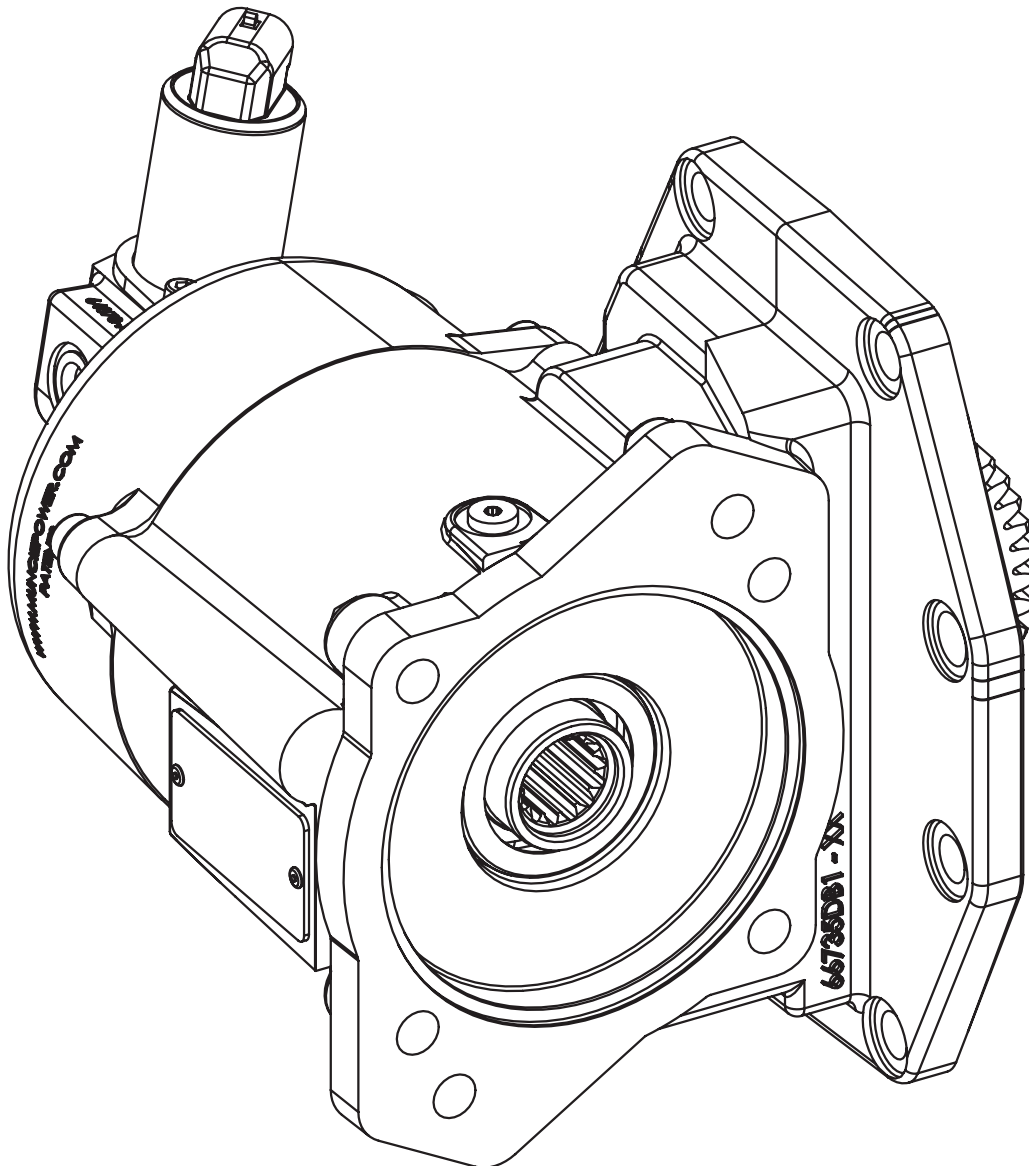
Muncie®  
Power  
Products

# F22 PTO

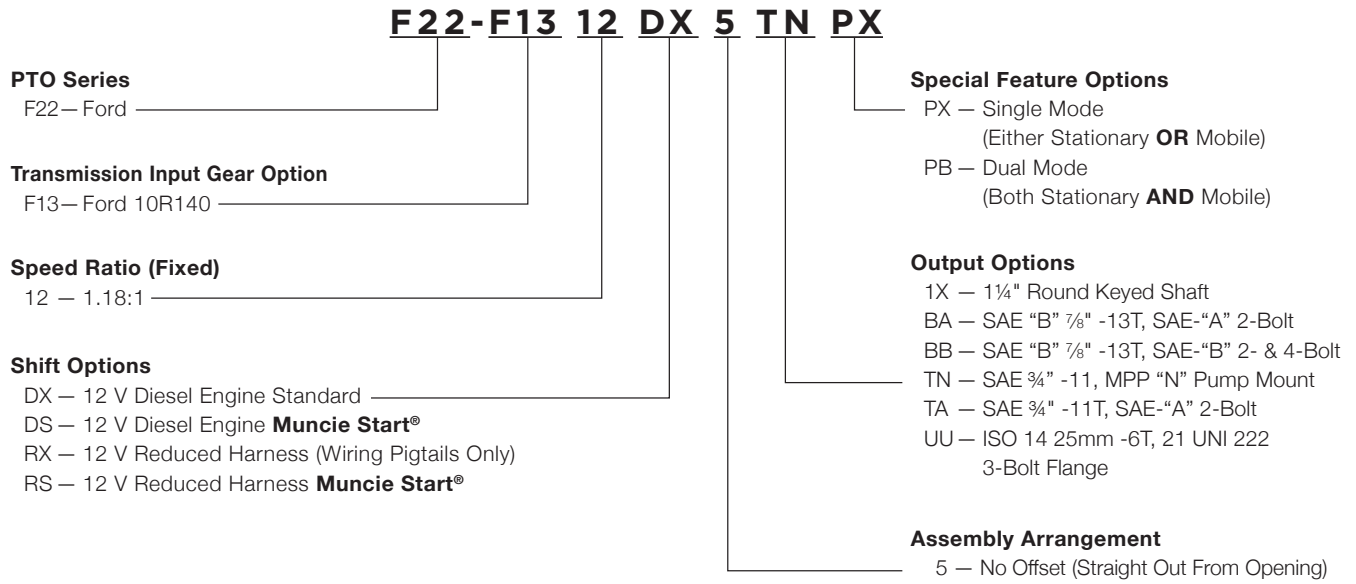
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## PARTS LIST AND SERVICE MANUAL

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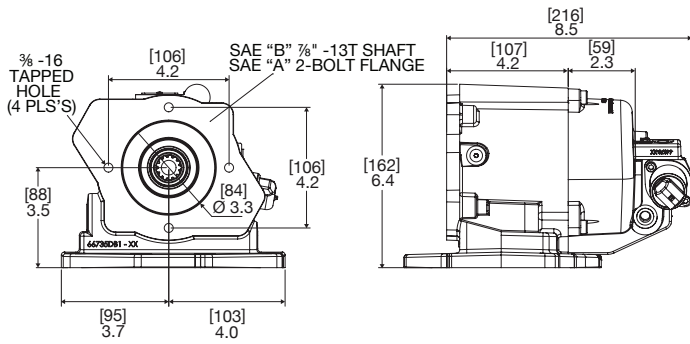


# MODEL NUMBER CONSTRUCTION

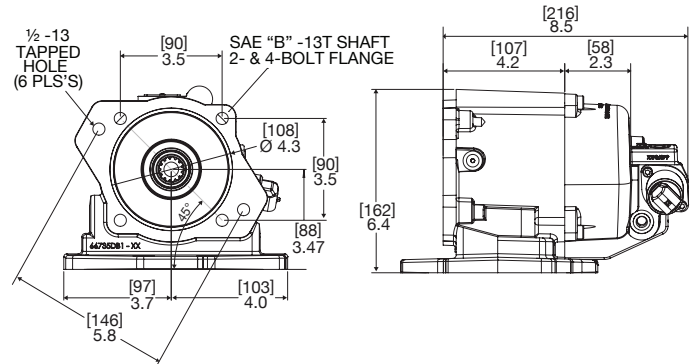


OTHER F22 LITERATURE	
IN17-04	All PTOs Operator's Manual
IN17-14	Muncie Start <sup>®</sup> Ford Installation Sheet
IN19-07	F20-F22 PTO Activation "R" Shift Code
IN22-08	Ford Module Activation
IN22-09	F22 Series Installation Instructions

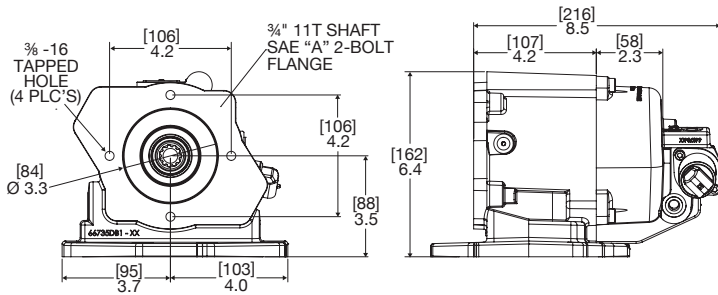
# DIMENSIONS



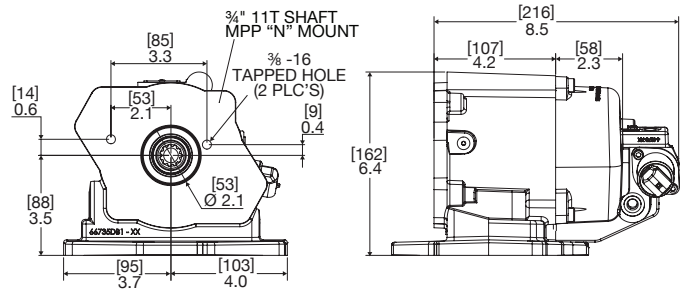
**BA – SAE “B” 7/8" -13T Shaft;  
SAE – “A” 2-Bolt Flange**



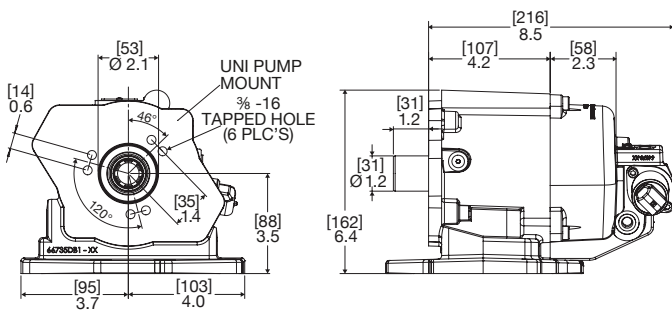
**BB – SAE “B” 7/8" -13T Shaft;  
SAE – “B” 2- & 4-Bolt Flange**



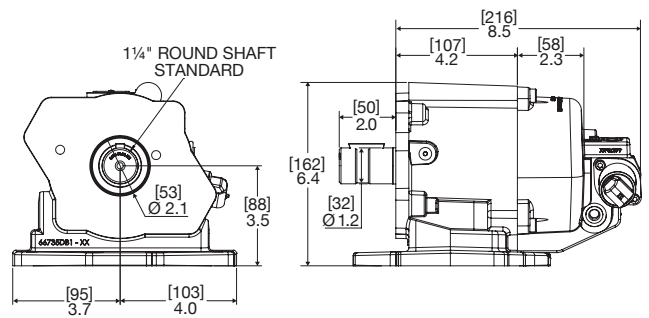
**TA – 3/4" -11T Shaft; SAE – “A” 2-Bolt Flange**



**TN – 3/4" -11T Shaft; MPP “N” Mount (Standard)**



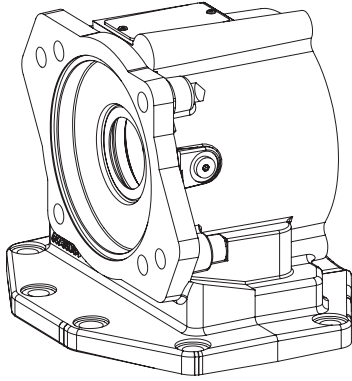
**UU – UNI Pump Mount**



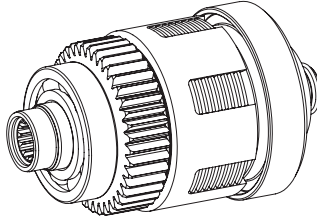
**1X – 1 1/4" Round Shaft (Standard)**

# F20 EXPLODED VIEWS

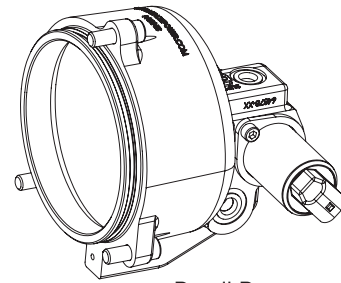
Detail B



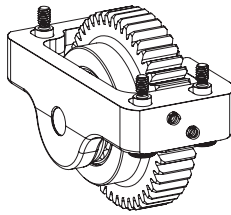
Detail A



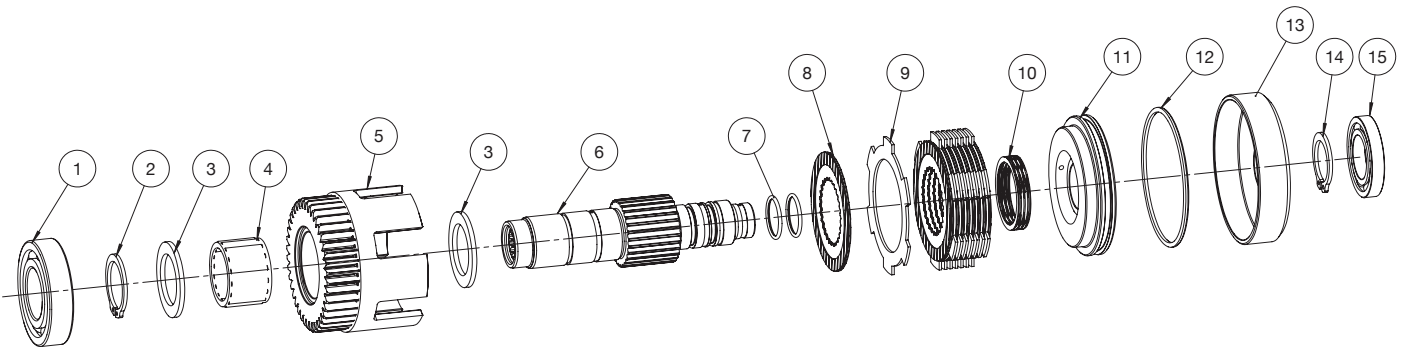
Detail D



Detail C



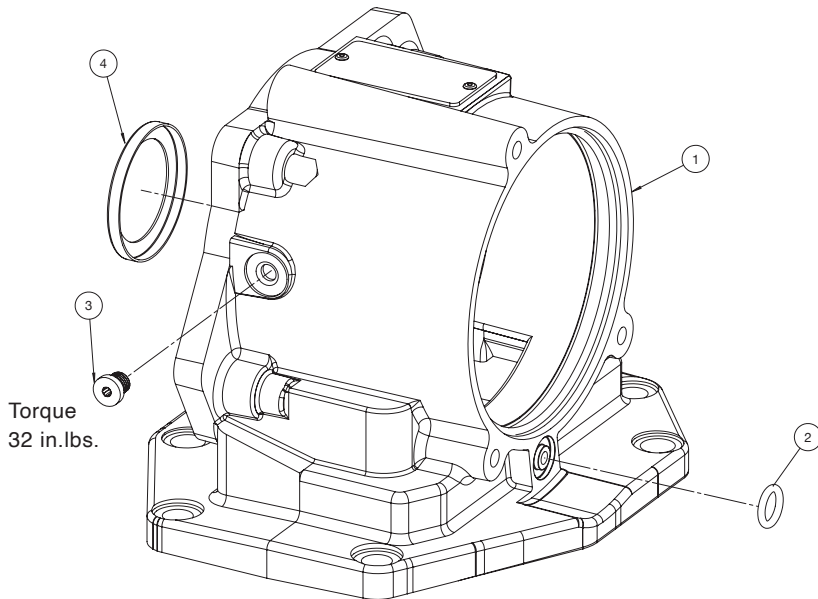
## DETAIL A - OUTPUT SHAFT ASSEMBLY



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	10T21017	Bearing
2	1	24T36470	Snap Ring, Output
3	2	21T62472	Thrust Washer
4	1	10T62471	Needle Bearing
5	1	02T64595	Gear Drive
6	1	06TA6477	Output Shaft: 7/8" -13T
		06TA6478	Output Shaft: 1.25" Round w/ 5/16" Key
		06TA6472	Output Shaft: 3/4" -11T
		06TA6630	Output Shaft: UNI 6T

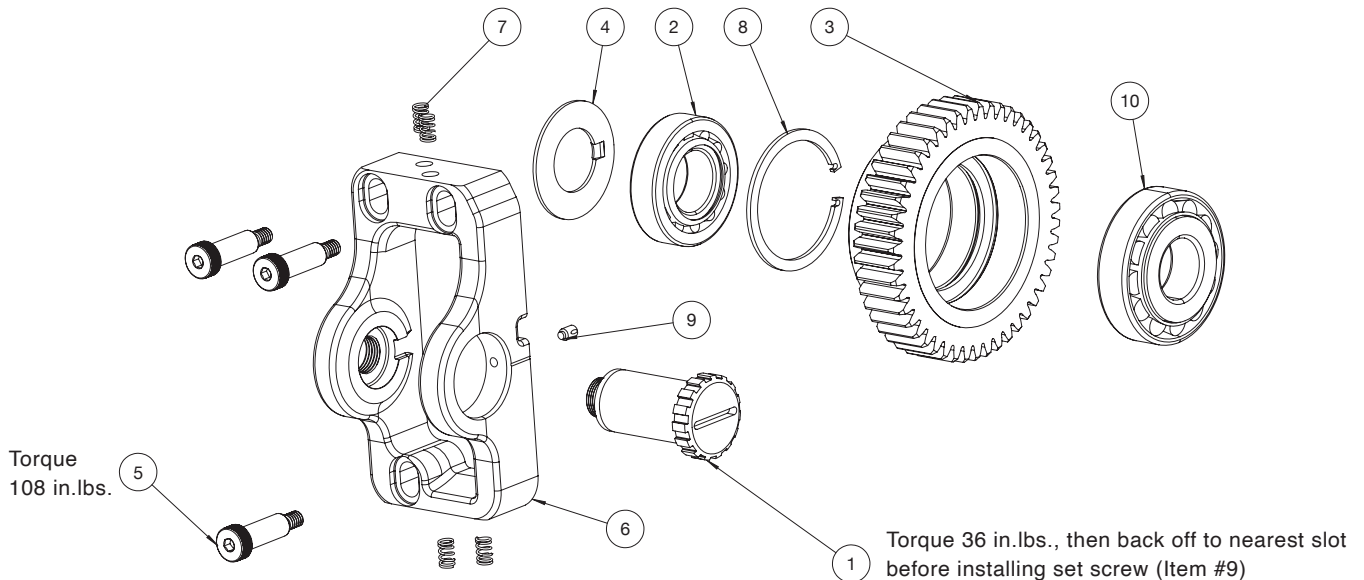
ITEM	QTY.	PART NO.	DESCRIPTION
7	2	12T39023	O-Ring
8	9	49T65367	Friction Disc
9	8	49T36258	Spacer Disc
10	1	27T61827	Spring
11	1	49T64056	Piston
12	1	12T64059	O-Ring
13	1	49T64057	Piston Cup
14	1	24T39182	Snap Ring
15	1	10T39072	Bearing
N.S.	1	26T01627	5/16" Woodruff Key

## DETAIL B - HOUSING ASSEMBLY



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	01T66140	Housing – “BB” Output
		01T66167	Housing – “TA”, “BA”, & “1X” Outputs
		01T66168	Housing – “TN” Output
		01T66324	Housing – “UU” Output
2	1	12T36878	O-Ring
3	1	25T65492	Plug – Not used on “TN” Output
4	1	11T63830	Oil Seal

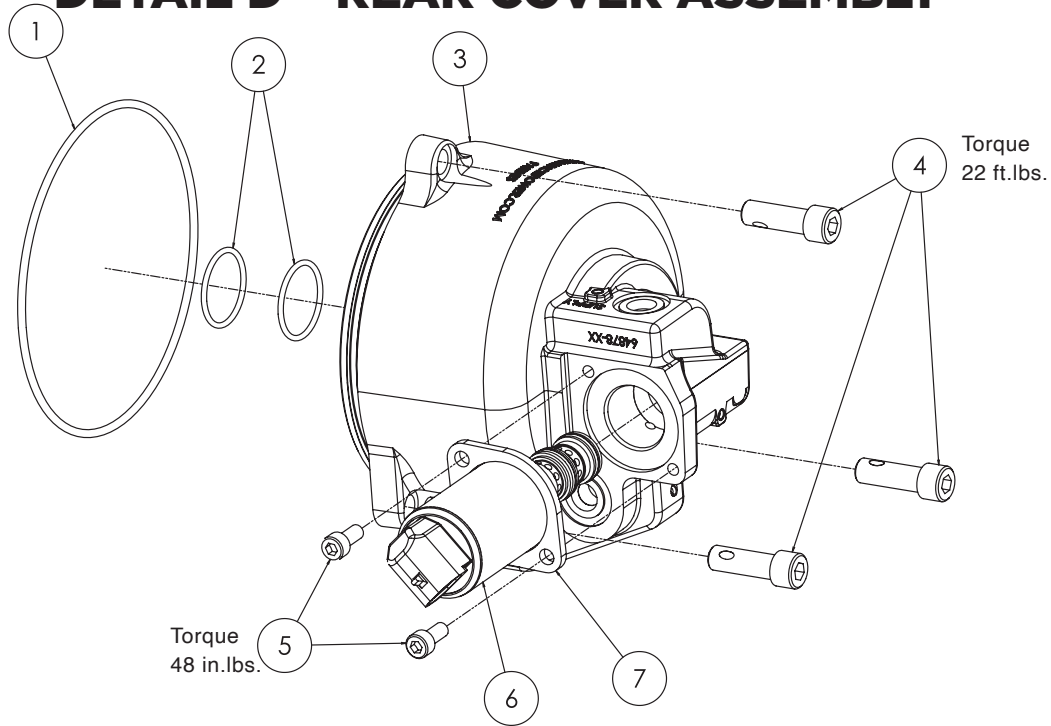
## DETAIL C - INPUT ASSEMBLY



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	07T64145	Input Shaft
2	1	10T65008	Tapered Roller Bearing
3	1	03T64153	Input Gear (47 Tooth)
4	1	21T62316	Washer
5	3	19T65087	Shoulder Bolt

ITEM	QTY.	PART NO.	DESCRIPTION
6	1	49T66139	Input Carrier
7	4	27T63431	Coil Spring
8	3	24T65083	Snap Ring
9	1	19T36846	Hex Socket Set Screw
10	1	10T65009	Tapered Roller Bearing

# DETAIL D - REAR COVER ASSEMBLY



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	12T36872	O-Ring
2	2	12T36280	O-Ring
3	1	15TA6474	Cover, Standard
		15TA6475	Cover, Muncie Start®
4	3	19T36588	Cap Screw

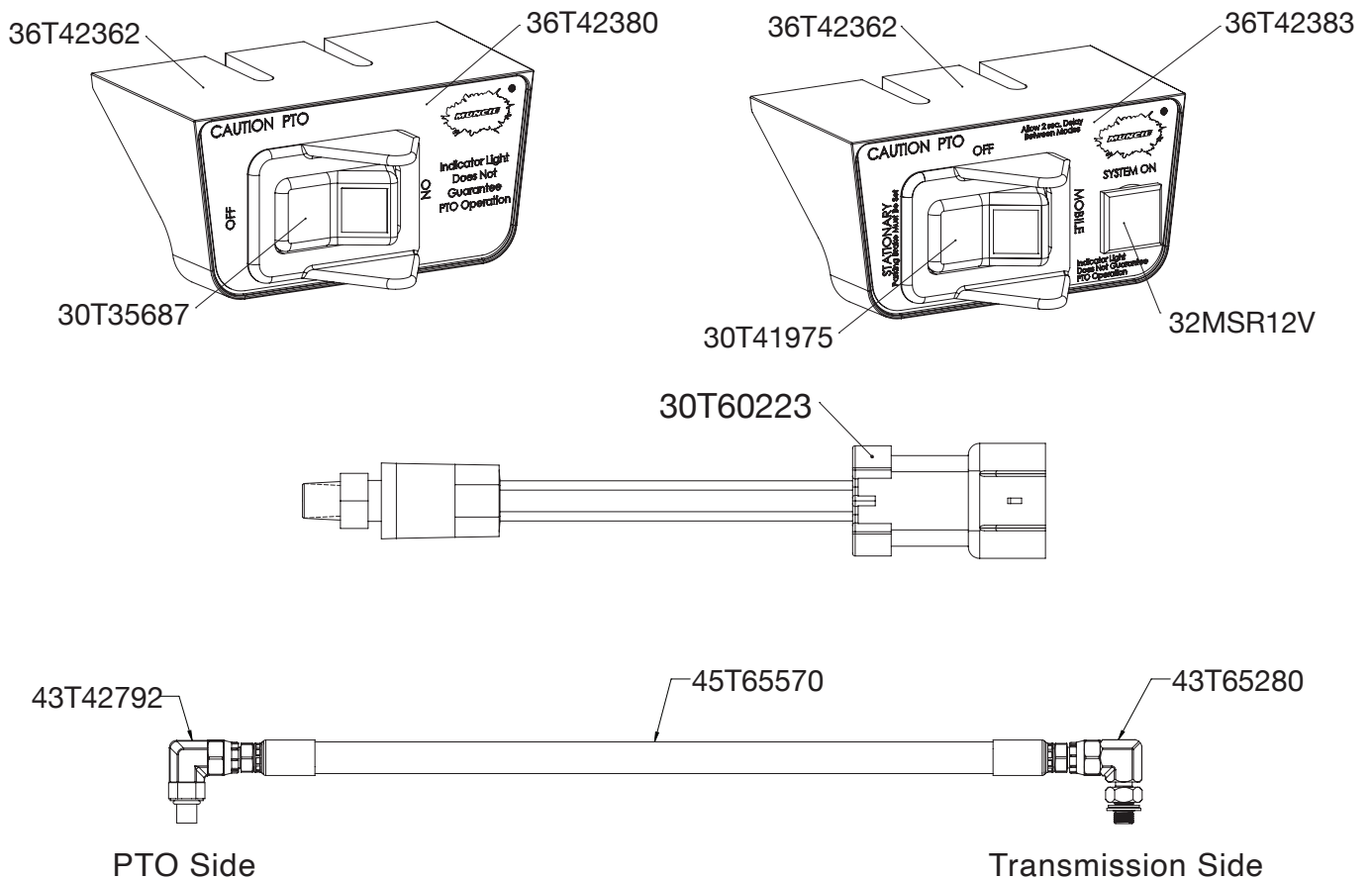
ITEM	QTY.	PART NO.	DESCRIPTION
5	2	19T62950	Cap Screw
6	1	35T43600	Solenoid Valve
		35T62496	Solenoid Valve (Muncie Start®)
7	1	49T62436	Solenoid Clamp Ring

PART NO.	DESCRIPTION	F20GSK (GASKET KIT)	F20RBK (REBUILD KIT)
		QTY.	QTY.
10T21017	Bearing	-	1
10T39072	Bearing	-	1
10T62471	Needle Bearing	-	1
10T65008	Bearing	-	1
10T65009	Bearing	-	1
11T63830	Shaft Seal	1	1
12T36280	O-Ring	2	2
12T36872	O-Ring	1	1
12T36878	Housing O-Ring	1	1
12T39023	O-Ring	2	2
12T64059	Piston O.D. O-Ring	1	1
13T64490*	Gasket	1	1
21T62472	Thrust Washer	-	2
21T62316	Tabbed Washer	-	1
24T36470	Snap Ring, Output	-	1
24T39182	Snap Ring	-	1
24T65083	Snap Ring	-	1
27T61827	Piston Return Spring	-	1
27T63431	Coil Spring	-	4
49T36258	Spacer Disc	-	8
49T36259	Friction Disc	-	9

**Note:** Part No. 13T64490 not used on F22, included for F20 applications only.

# INSTALLATION KITS

PART NO.	DESCRIPTION	QUANTITY IN KIT		
		48TK6664 DIESEL SINGLE D*-5**PX	48TK6665 DIESEL DUAL D*-5**PB	48TK6666 Reduced Harness R*-5**PX
20TK6669	F22 Stud Kit	1	1	1
48TK6670	F22 Single Mode Kit	1	-	-
48TK6671	F22 Dual Mode Kit	-	1	-
34T42527	Wiring Harness, Reduced	-	-	1
48TK6672	F22 Safety Label & Instruction Kit	1	1	1
28T35442	Zip Tie	6	6	-
30T60223	Pressure Switch	1	1	1
36T42362	Switch Dash Bracket	1	1	-
36MK5660	Bracket Bolt Kit	1	1	-
37T35674	Grommet	1	1	-
30T35687	2-Position Rocker Switch	1	-	-
30T41975	3-Position Rocker Switch	-	1	-
36T42380	Face Plate - Single Mode	1	-	-
36T42383	Face Plate - Dual Mode	-	1	-
43T42792	90 Elbow - SAE -4 ORB to -4 ORFS	1	1	1
43T65280	90 Elbow - M10 to -4 ORFS	1	1	1
45T65570	Hose Assembly	1	1	1
32MSR12V	12 V Light	-	1	-



### 48TK6670 – F22 Single Mode Kit

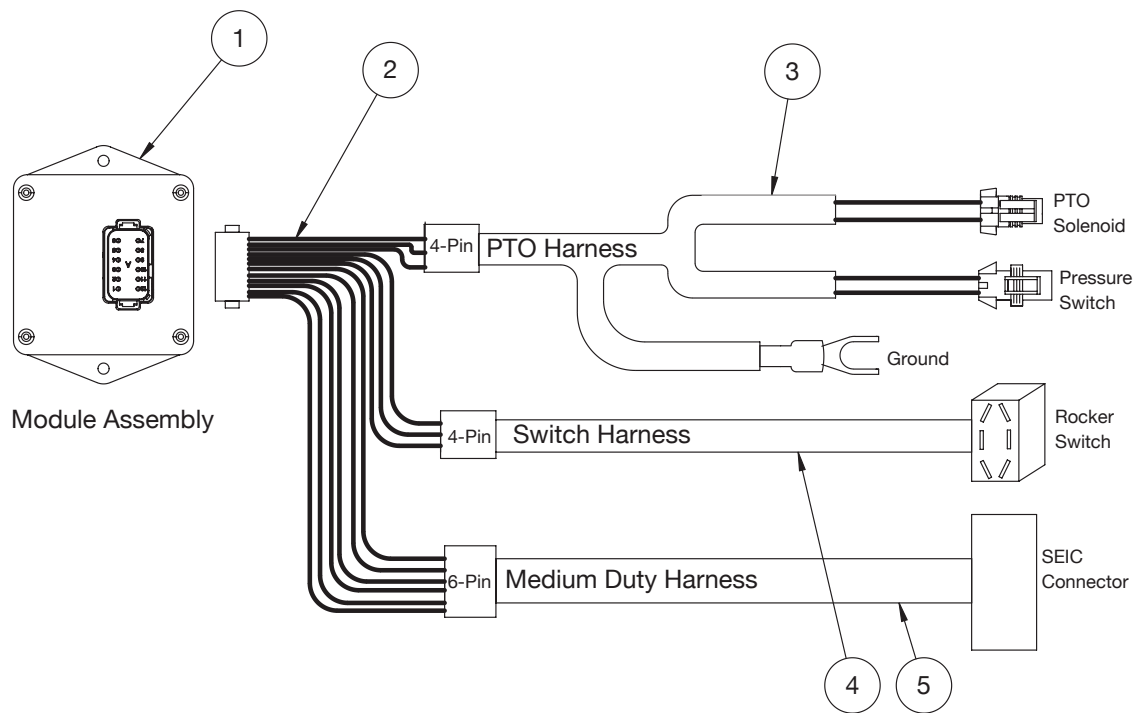
ITEM	PART NUMBER	QTY	DESCRIPTION
	IN22-08	1	Module Activation IN
1	EMFRD1	1	Module Assembly
2	34T43989	1	Module Harness
3	34T43990	1	PTO Harness
4	34T43992	1	Single Mode Switch Harness
5	34T43988	1	Medium Duty Harness

### 48TK6671 – F22 Dual Mode Kit

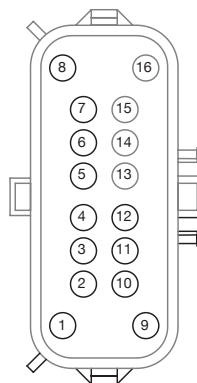
Item	PART NUMBER	QTY	DESCRIPTION
	IN22-08	1	Module Activation IN
1	EMFRD1	1	Module Assembly
2	34T43989	1	Module Harness
3	34T43990	1	PTO Harness
4	34T43987	1	Dual Mode Switch Harness
5	34T43988	1	Medium Duty Harness

## WIRING HARNESSES

### Module Assembly



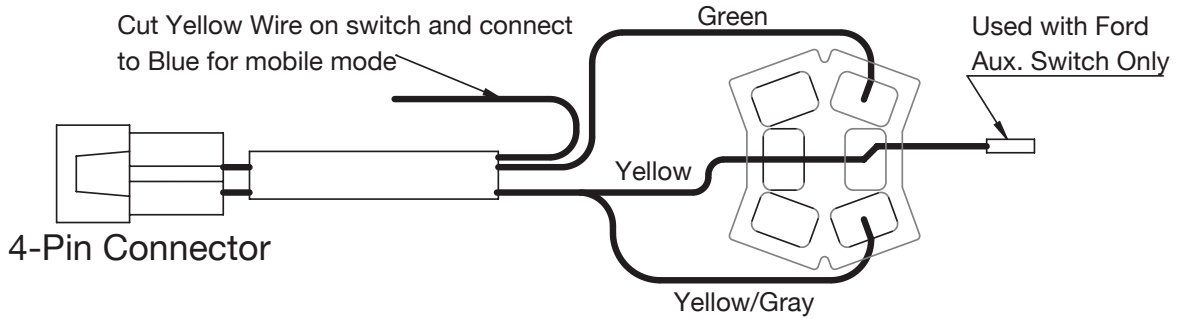
### MEDIUM DUTY (F-650 / F-750) SEIC CONNECTOR DETAILS





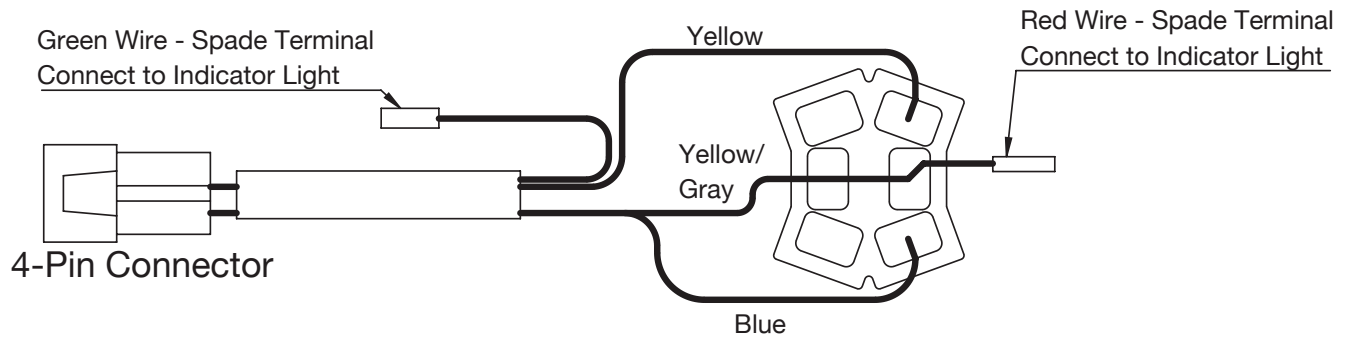
# SINGLE MODE SWITCH HARNESS (PX)

34T43992



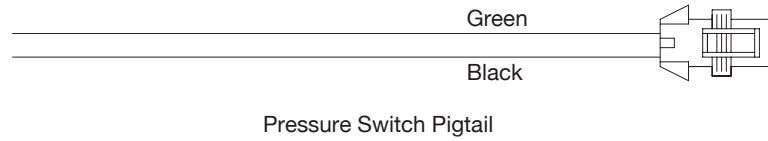
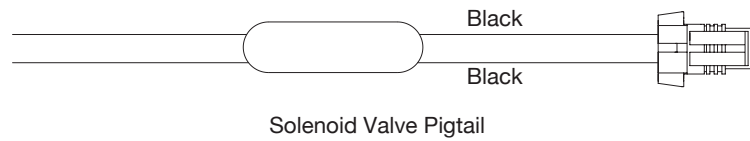
# DUAL MODE SWITCH HARNESS (PB)

34T43987



# R SHIFT HARNESS (R\*)

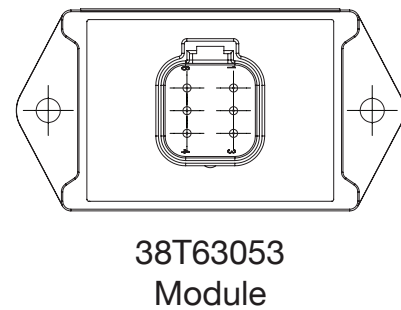
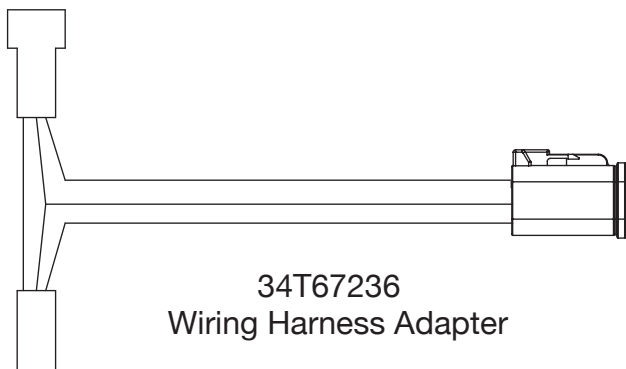
## 34T42527 (Includes both pigtail assemblies)



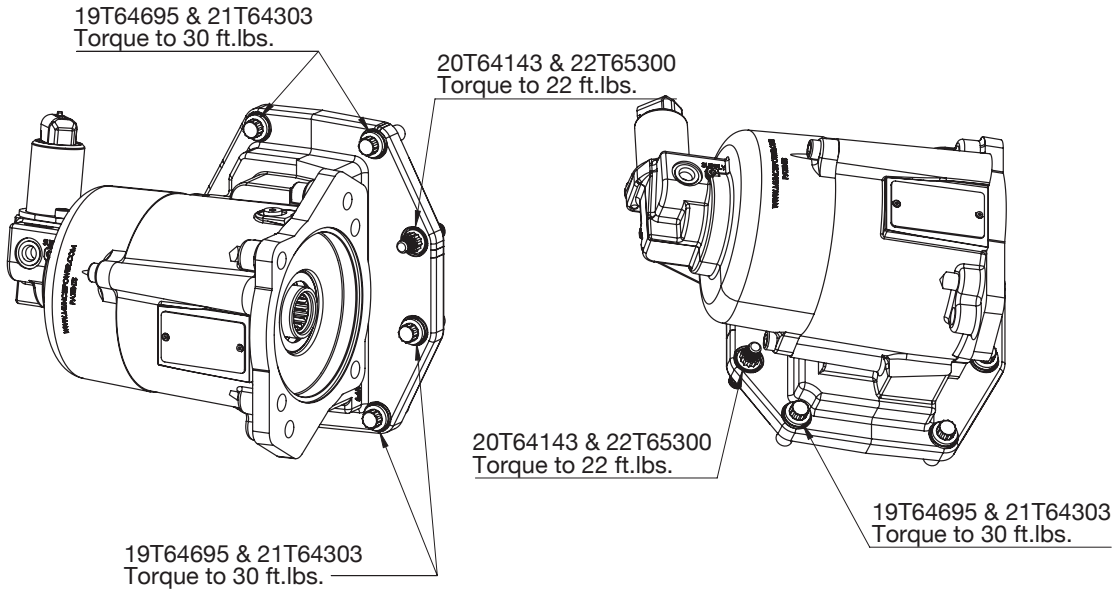
## MUNCIE START KIT PARTS LIST

(GS, DS, and RS Shift ONLY; Connects to included Wire Harness)

### 48TK6702



# BOLT KIT - 20TK6669



QTY.	PART NO.	DESCRIPTION
5	19T64695	PTO Mounting Bolt
5	21T64303	Flat Washer
2	20T64143	M10 x M8 Stud
2	22T65300	M8 Nut

# “UU” OUTPUT PUMP MOUNTING KIT - 48TK6631

QTY.	PART NO.	DESCRIPTION
1	12901552000	Gasket
3	19M15002	Cap Screw
4	21T20526	Lock Washer



A Member of the Interpump Group

SP22-06 (Rev. 01-24)

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