



Muncie<sup>®</sup>  
Power  
Products

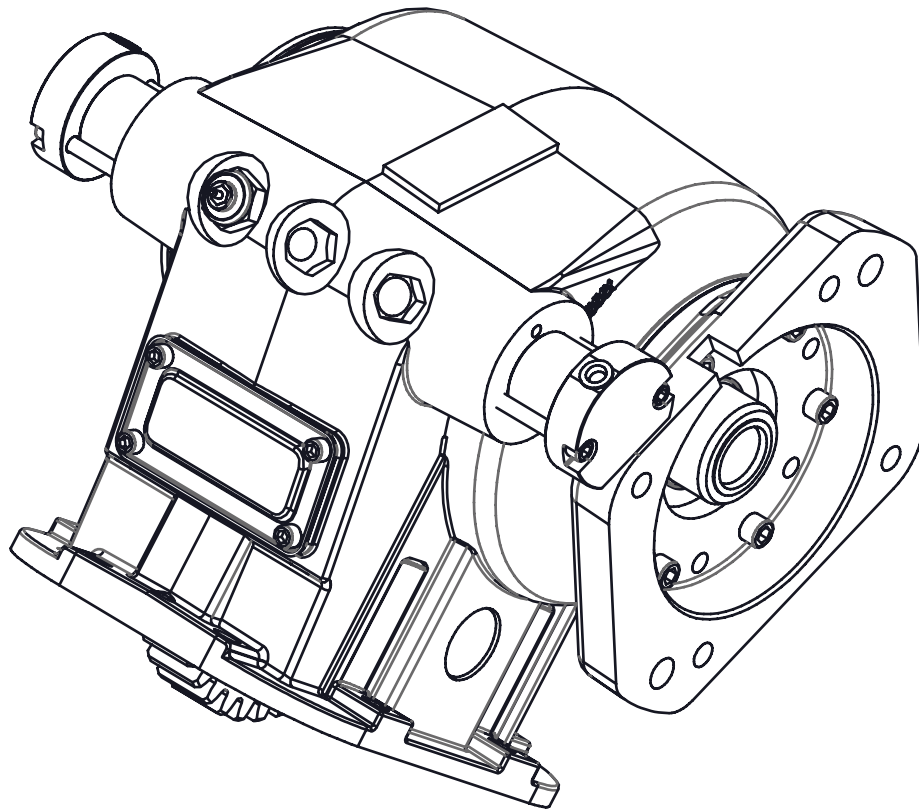
# 82 SERIES PTO

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## PARTS LIST AND SERVICE MANUAL

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BUILT AFTER NOVEMBER 2017  
OR WITH R, S OR T DUAL AIR SHIFT



# 82 SERIES PTO

## MODEL NUMBER CONSTRUCTION

**82    8S -   U68   05 -   R   1   C   X**

### PTO Type

8-Bolt 82 Series - 82

### Mounting

SAE 8-Bolt Std. Mount - 8S  
 SAE 8-Bolt Std. Mtg. Metric Stud Kit - 8B  
 SAE 8-Bolt Std. Mtg (Roller Bearing) - 8R

### Transmission - 82 Gear

Eaton	8.048P 20° PA 28.9 LH	- E80
Fuller	10.1P 21.5° PA SPUR	- F11
Fuller	6 or 6/8P 20 SPUR	- F68
Mack	6.48P 17.5 SPUR	- M65
Spicer	7P 17.5° PA 28 4' 23" LH	- S70
Universal	5 or 5/7P 20 SPUR	- U57
Universal	6P 25 SPUR	- U62
Universal	6P or 6/8P SPUR	- U68

### Speed Ratio

05 - .47:1	09 - .93:1	12 - 1.15:1	15 - 1.50:1
06 - .60:1	10 - 1.00:1	13 - 1.33:1	19 - 1.89:1
08 - .75:1			

### Special Features

X - None  
 P - Pressure Lube  
 G - Greaseable Shaft  
 Option (EG, PG, ZG)

### Output Type

C - 1410 Companion Flange  
 D - SAE-B  
 E - SAE-C  
 I - DIN 5462 (B8x32x36)  
 P - SAE-BB  
 U - SAE-C Double Output  
 (Special Order)\*  
 Z - SAE-C Shaft;  
 SAE-B Flange  
 2 - DIN Companion Flange

### Assembly Arrangement

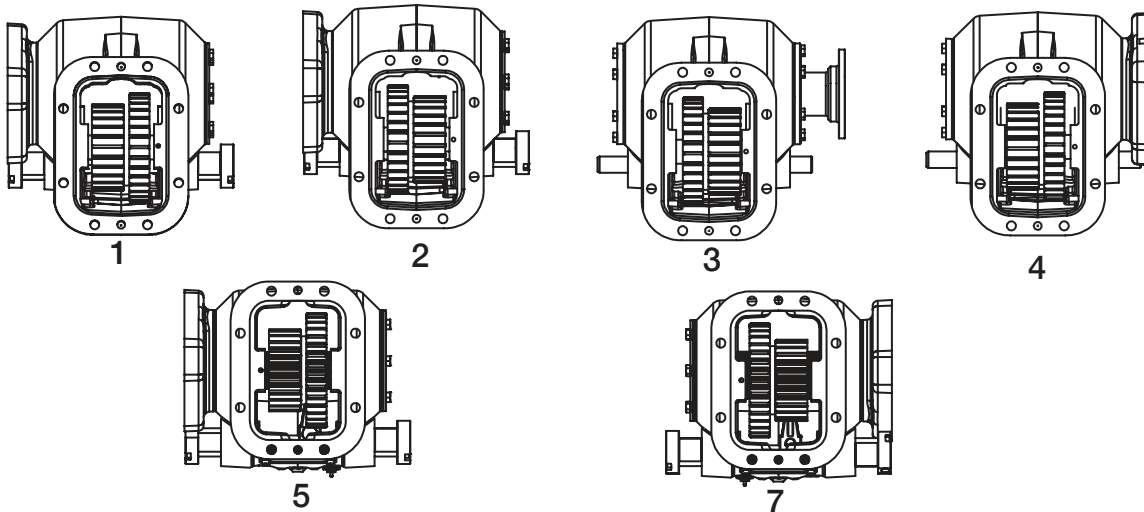
1, 2, 3, 4, 5, 7

### Shifter Type

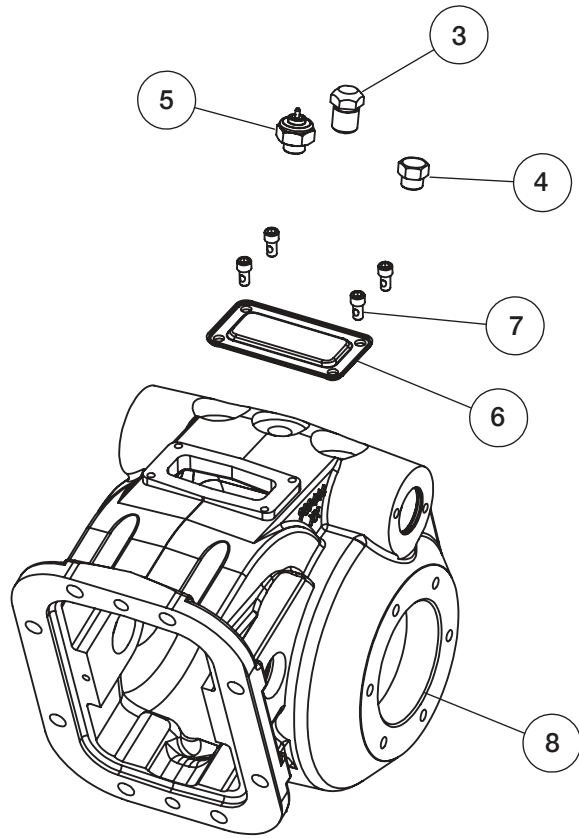
L - Lever  
 M - Constant Mesh  
 R - Double Acting - Dual Cyl.  
 S - Double Acting Elec/Air 12V  
 T - Double Acting Less  
 Activation Kit

\* Limited availability, contact  
 Muncie Power Products Customer Service

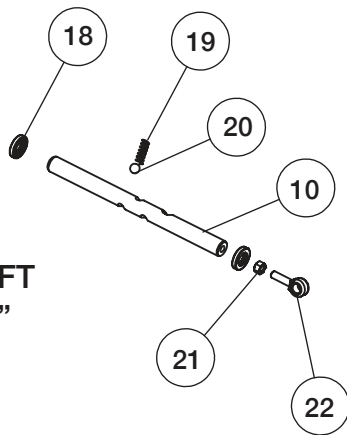
## ASSEMBLY ARRANGEMENTS



ITEM	QTY	PART NO	DESCRIPTION
1	1	28T20486	Poppet Ball
2	1	27T22021	Spring
3	1	28T22091	Poppet Retainer
4	1	25T32143	Plug, Shift Poppet
5	1	30T38111	Indicator Switch
6	1	16T41119	Cover, Inspection
7	4	19T41118	Socket Capscrew
8	1	01T62848 01T62243	Housing, STD (1, 2, 3, 4) Housing, 5/7 Arrangement

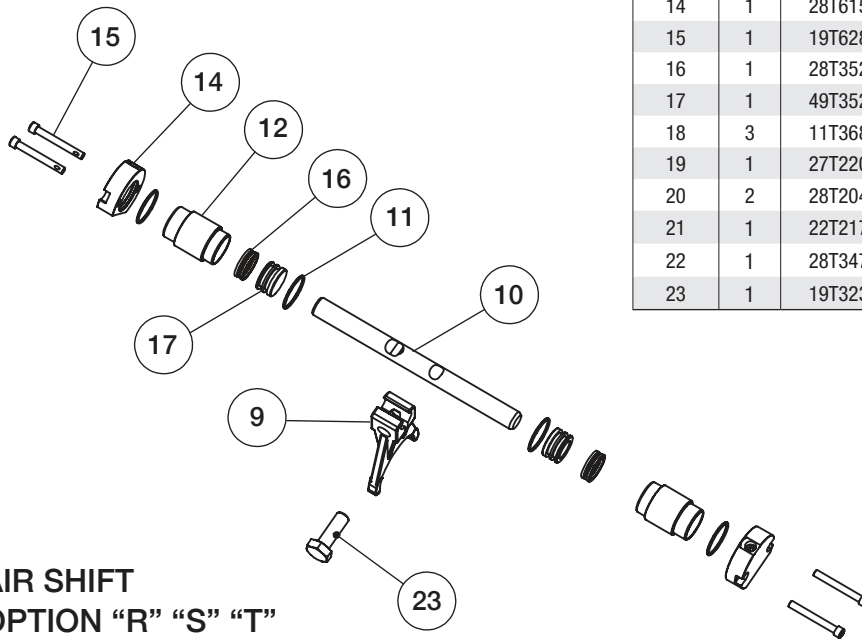


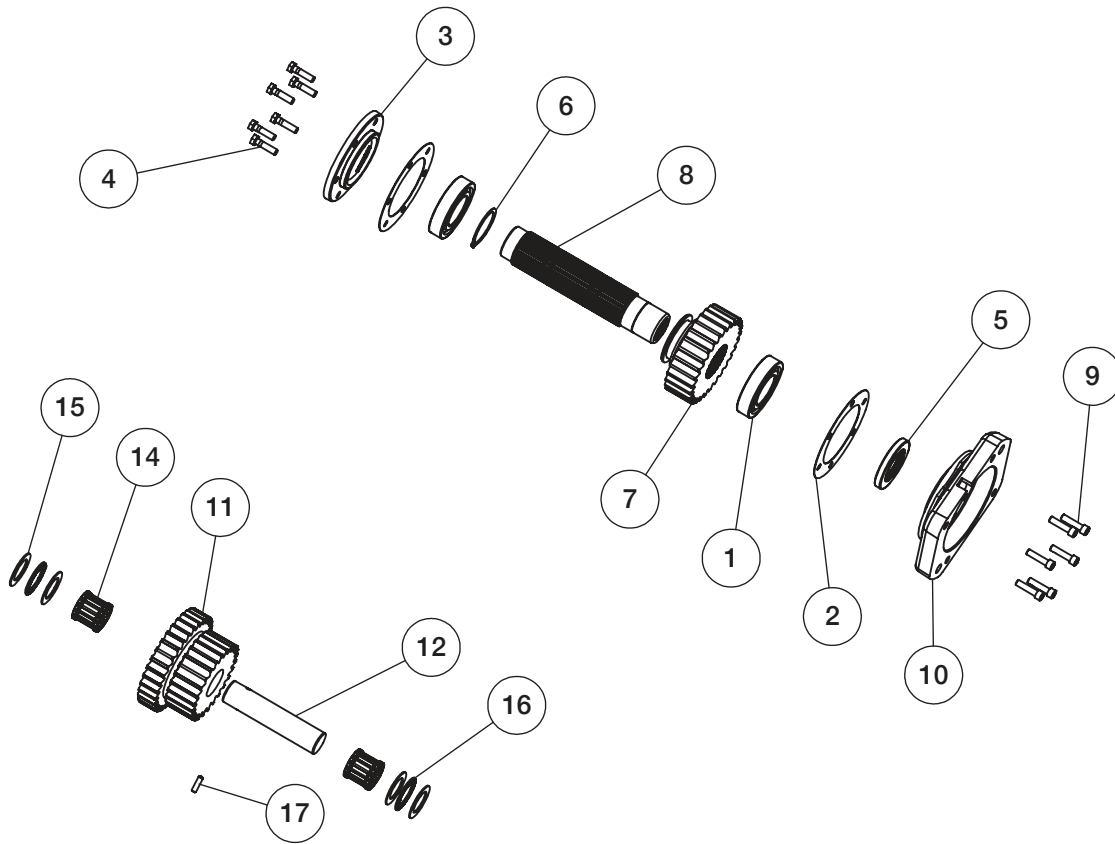
**LEVER SHIFT  
OPTION "L"**



ITEM	QTY	PART NO	DESCRIPTION
9	1	28T32756	Yoke
10	1	17T62353	Shaft-Shift Rail – Air
	1	17T36454	Shaft-Shift Rail Lever
11	1	12T36456	O-Ring (A Shift)
12	1	28T62392	Piston Housing (A Shift)
14	1	28T61531	Piston Cap (A Shift)
15	1	19T62814	SH Cap Screw (A Shift)
16	1	28T35205	V-Ring (A Shift)
17	1	49T35204	Piston (A Shift)
18	3	11T36865	Shaft Seal (L Shift Only)
19	1	27T22021	Spring (L Shift Only)
20	2	28T20486	Poppet Ball (L Shift)
21	1	22T21723	Jam Nut (L Shift Only)
22	1	28T34746	Eyebolt (L Shift Only)
23	1	19T32326	Capscrew

**AIR SHIFT  
OPTION "R" "S" "T"**





ITEM	QTY	PART NO	DESCRIPTION
11	1	See Below	Input Gear
12	1	07T35667	Shaft
14	2	10T29491	Bearing, Needle Roller
15	4	10T34715	Thrust Race
16	2	10T27068	Bearing, Needle Thrust
17	1	26T26112	Roll Pin

ITEM	QTY	PART NO	DESCRIPTION
1	2	10T35775	Ball Bearing
2	2	13T31494	Gasket
3	1	15T31492	Bearing Cover
4	6	19T34717	Capscrew
5	1	11T37795	Oil Seal
6	1	24T26980	Snap Ring
7	1	See Below	Output Gear
8	1	See Page 5	Output Shaft
9	6	19T31577 19T34717	Capscrew Hyd. Flg. Capscrew C, 2 Opt.
10	1	See Page 5	Output Flange

PTO MODEL	ITEM 11 INPUT GEAR (#T)	ITEM 7 OUTPUT GEAR (#T)
E8005	03T61935 (43/18)	02T34467 (38)
E8008	03T60803 (43/24)	02T34694 (32)
E8009	03T61936 (43/27)	02T37359( 29)
E8010	03T61937 (43/28)	02T34695 (28)
E8012	03T61938 (43/30)	02T35922( 26)
E8013	03T61940 (43/32)	02T32764 (24)
F1119	03T35670 (61)	02T35671 (32)
F6819	03T36562 (36)	02T35615 (19)
M6508	03T39283 (37/24)	02T34694 (32)
M6510	03T34706 (37/28)	02T34695 (28)
M6513	03T34707 (37/32)	02T32764 (24)
M6519	03T35616 (39)	02T35617 (21)
S7010	03T34713 (35/28)	02T34695 (28)
S7013	03T34714 (35/32)	02T34764 (24)

PTO MODEL	ITEM 11 INPUT GEAR (#T)	ITEM 7 OUTPUT GEAR (#T)
U5713	03T35158( 28/32)	02T35764 (24)
U6205	03T34698 (34/18)	02T34467 (38)
U6206	03T35313 (34/21)	02T35314 (35)
U6208	03T34699( 34/24)	02T34694 (24)
U6210	03T34700 (34/28)	02T34695 (28)
U6212	03T35921 (34/30)	02T35922 (26)
U6805	03T34701 (34/18)	02T34467 (38)
U6808	03T34702 (34/24)	02T34694 (32)
U6809	03T37358 (34/27)	02T37359 (29)
U6810	03T39281 (34/28)	02T34695 (28)
U6812	03T37356( 34/30)	02T35922 (26)
U6813	03T39282( 34/32)	02T32764 (24)
U6815	03T37354 (34/33)	02T37355 (22)
U6819	03T35614 (36)	02T35615 (19)

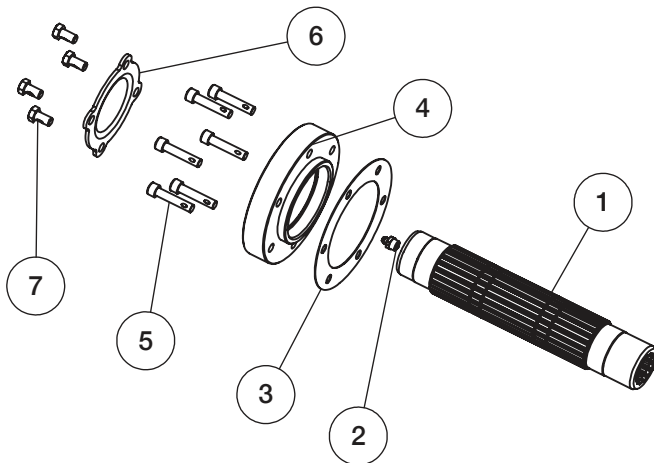
## OUTPUT SHAFT AND FLANGE OPTIONS

OUTPUT CODE	#8 SHAFT PART NUMBER	#10 FLANGE PART NUMBER	DESCRIPTION
C, 2	06T34722	15T34719	1½" 10T Spline
D	06T34691	14T34693	7/8" 13T SAE-B
E, Z	06T34690	14T42754	1¼" 14T SAE-C
I	06T38211	14T36834	DIN 5462
P	06T17327	14T34693	1" 15T SAE-BB
U*	06T35327	14T42754	1¼" 14T SAE-C Dual Output
PG	06T39307	14T34693	1" 15T SAE-BB Greaseable
EG	06T39308	14T42754	1¼" 14T SAE-C Greaseable

\* Limited availability, contact Muncie Power Products Customer Service

## OUTPUT C OR 2 COMPANION FLANGE

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
18	1	14T31499 14T37498	1410 Companion Flange DIN 100 Companion Flange
19	1	21T20092	Flat Washer
20	1	19T38266	Capscrew

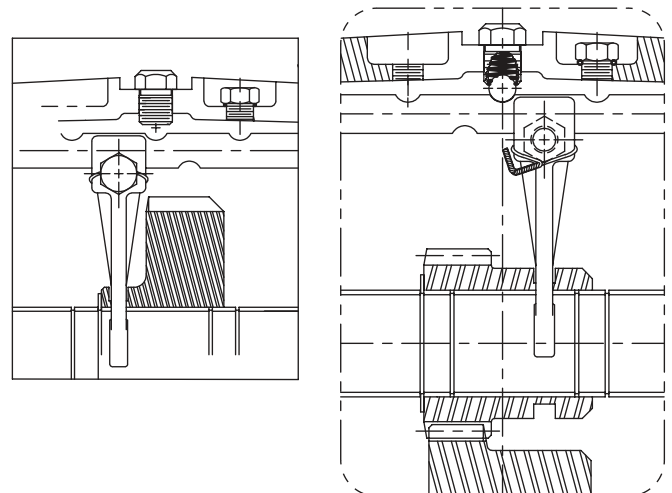


## GREASEABLE OUTPUT SHAFT OPTION

ITEM	QTY	PART NO	DESCRIPTION
1	1	06T39307 06T39308	Output Shaft, PG Output Shaft, EG, ZG
2	1	43T37236	Zerk, Grease
3	2	13T31494	Gasket
4	1	15T39321	Cover, Seal
5	6	19M84478	Socket Head Capscrew
6	1	15T34323	Cap, Bearing
7	4	19T33134	Hex Head Capscrew with Locking Patch

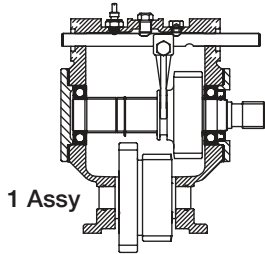
## 82 SERIES SHIFT FORK ASSEMBLY

The assembly of the 19-ratio 82 series PTO is unique because of the way this unit engages. The output gear engages directly with the input gear rather than with a cluster gear as on the other 82 series units. To assemble a 19-ratio unit, the shift fork is flipped 180 degrees and moved to the opposite side of the housing. The shift fork capscrew is installed by reaching through the output shaft/bearing hole. The output shaft has been modified to include four snap ring grooves. A snap ring is installed to serve as a gear stop. The drawing shows a comparison of the standard and 19-ratio units. The 1 and 4 assemblies are illustrated here.

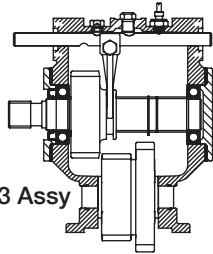


# 82 SERIES ASSEMBLY ARRANGEMENTS

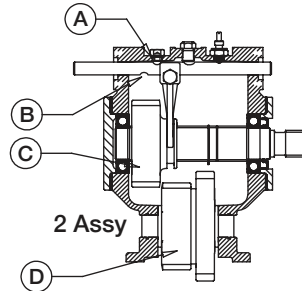
Relative locations of the shift rail and indicator switch compared to the output shaft and gear (C) and input gear (D) for the various 82 Series arrangements. Position the shift rail in the housing so that the positions of (A) and (B) notches on the rail are in the position shown for the appropriate assembly required.



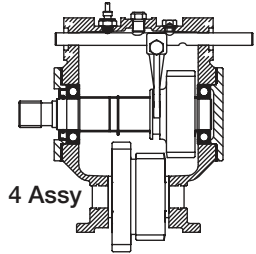
1 Assy



3 Assy



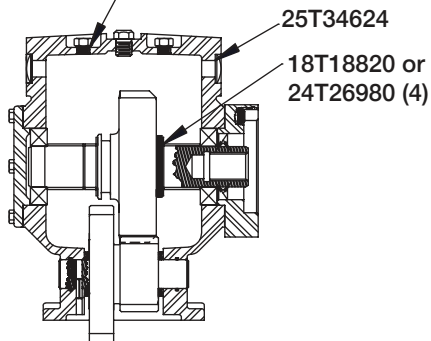
2 Assy



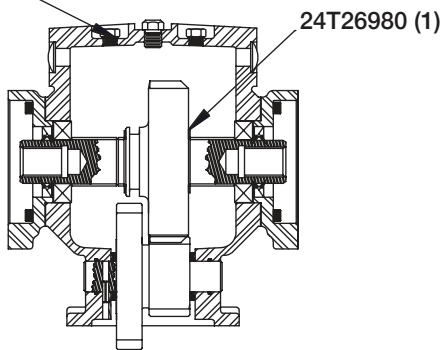
4 Assy

## CONSTANT MESH

Add Item 33 & 34



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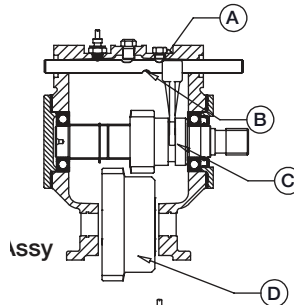


\* Dual Output, Limited availability, contact Muncie Power Products Customer Service

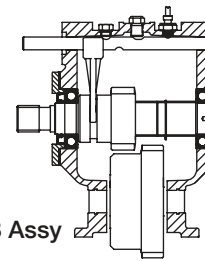
\*\* For Pressure Lube Add 43MK3474-U

## 19 RATIO ASSEMBLY

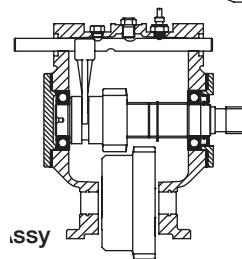
The 19 ratio requires the shift rail capscrew to be installed from the backside of the fork, as shown on page 5.



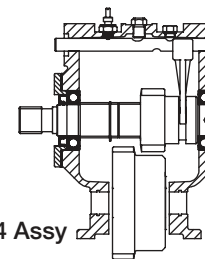
1 Assy



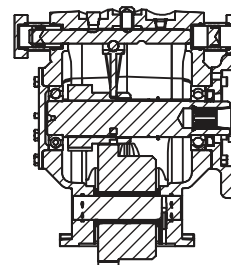
3 Assy



2 Assy

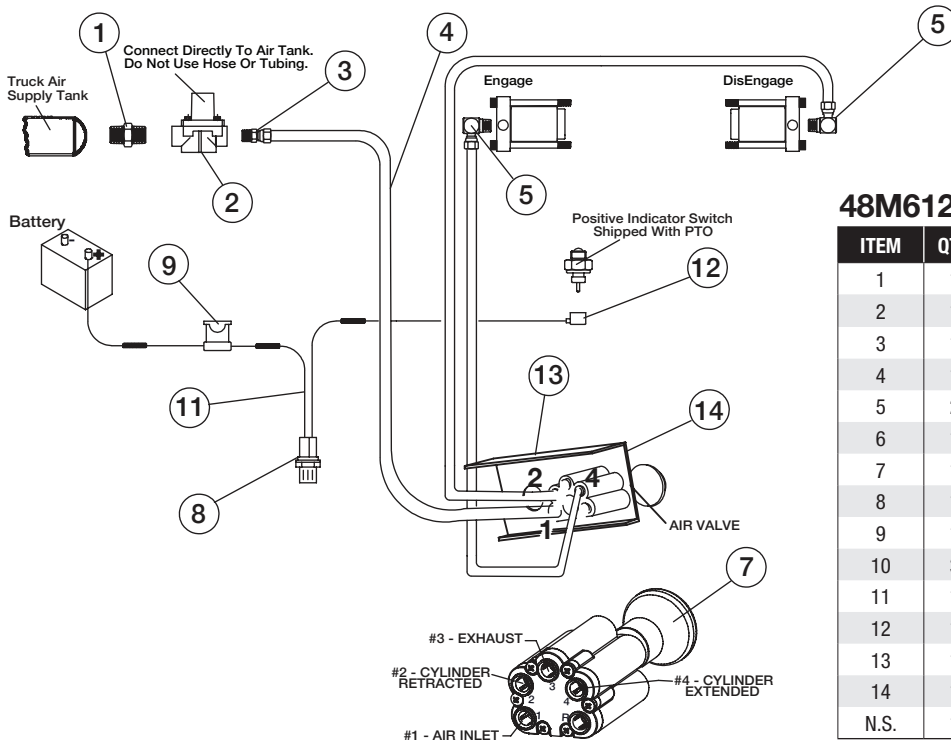


4 Assy



5 Assy - 19 Ratio

# 82 SERIES DOUBLE ACTING AIR SHIFT SYSTEM

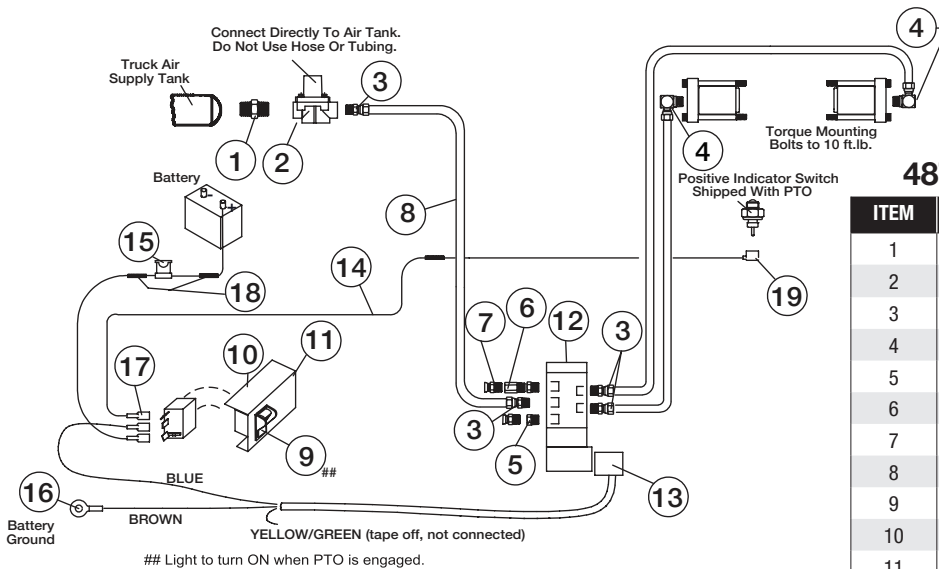


## 48M61261-A (12V LIGHT) (R OPTION)

ITEM	QTY	PART NO	DESCRIPTION
1	1	44MB2164	Nipple
2	1	31M15759	Pressure Protection Valve
3	1	44MB6844	Tube Fitting
4	1	45M44430	Air Tubing – 30'
5	2	44MB6942	Tube Fitting – Elbow
6	1	44MB6842	Tube Fitting
7	1	35T37955	Air Valve
8	1	32M12001	Light – 12v
9	1	33T36299	Fuse
10	3	34M18002	Butt Splice
11	1	37T42512	Electric Wire – 15'
12	1	34T38163	Booted Connector
13	1	36T38049	Dash Bracket
14	1	36T38016	Face Plate
N.S.	1	36MK1007	Bolt Kit – Bracket

# 82 SERIES DOUBLE ACTING ELECTRIC/AIR SHIFT SYSTEM (OPTION "S")

## 48T37421-A (12v Light)



## 48T37421-A (12V) (S OPTION)

ITEM	QTY	PART NO	DESCRIPTION
1	1	44MB2164	Nipple
2	1	31M15759	Pressure Protection Valve
3	4	44MB6844	Tube Fitting
4	2	44MB6942	Tube Fitting – Elbow
5	2	44MB0942	Reducer Fitting
6	1	43M02203	Orifice Fitting
7	2	44M30137	Breather
8	1	45M44430	Air Tubing – 30'
9	1	30T35687	Switch & Light Assembly
10	1	36MA1005	Dash Bracket
11	1	36M01007	Face Plate
12	1	35T41078	12v Solenoid Air Valve
13	1	34T41079S	Wire Harness
14	1	37T42512	Electric Wire – 15'
15	1	33T36299	Fuse
16	1	34M18009	Ring Terminal
17	3	34M18250	Spade Connector – Female
18	3	34T36362	End Crimp
19	1	34T38163	Booted Connector
N.S.	1	36MK1007	Bolt Kit – Bracket

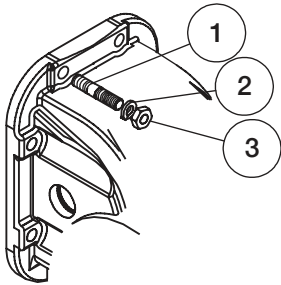
# PREVIOUS MODEL CODES FOR AIR SHIFT 82 SERIES PTOS

The table below shows the old style code and the new code which replaces it.

PREVIOUS CODE	DESCRIPTION	NEW CODE	COMMENT
B	Dual Cylinders – Manual Air Control	R	Also add 48T38574
D	Dual Cylinders – Manual Air Control	R	
G	Single Double Acting Cylinders – Electric/Air Control	S	Change to Dual Cylinders
P	Dual Cylinders – Less Activation Kit	T	
Q	Single Double Acting Cylinders – Manual Air Control	R	Change to Dual Cylinders
V	Dual Cylinders – Electric/Air Control	S	
5	Dual Cylinders – Less Activation Kit	T	Code “5” is Updated to “T”

**FOR OPTIONS NOT LISTED IN THIS MANUAL CONTACT  
MUNCIE POWER PRODUCTS CUSTOMER SERVICE: 1-800-367-7867.**

## MOUNTING KITS



### STANDARD 20MK8815

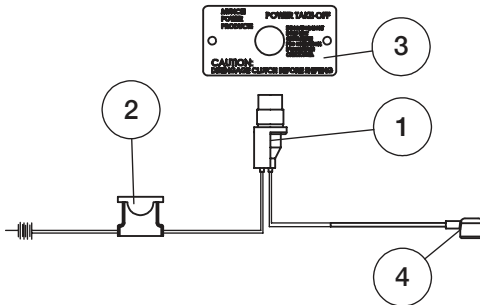
ITEM	QTY	PART NO	DESCRIPTION
1	8	20M44213	Stud
2	8	21ML4375	Lock Washer
3	8	22MX4420	Hex Nut

### ENDURANT METRIC STUD KIT 20TK6221

ITEM	QTY	PART NO	DESCRIPTION
1	8	20T64324	Stud M12x1.75
2	8	21ML4375	Lock Washer
3	8	22MX4420	Hex Nut

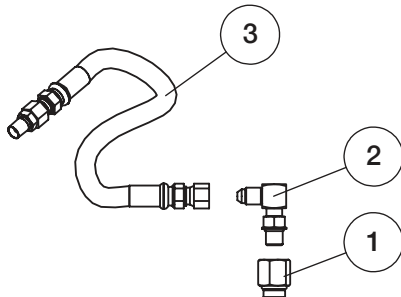
### METRIC 20MKM802

ITEM	QTY	PART NO	DESCRIPTION
1	8	20M47055	Stud
2	8	21ML4375	Lock Washer
3	8	22MX4420	Hex Nut



### DASH LIGHT 36MK1210-A

ITEM	QTY	PART NO	DESCRIPTION
1	1	32M12001	Indicator Light
2	1	33T36299	Fuse Holder
3	1	35M16818	Dash Faceplate
4	1	34T38163	Connector



### PRESSURE LUBE KIT 43MK3474

ITEM	QTY	PART NO	DESCRIPTION
1	1	43T42006	Reducer Fitting
2	1	43T42012	Orifice Elbow
3	1	45T42015	Hose
<b>43M3474-U (for “U” Option)</b>			
1	1	43M02203	Orifice Fitting
3	1	45M4R536	Hose
N.S.	1	43MBMP64	Adapter
N.S.	1	44M0942	Adapter