

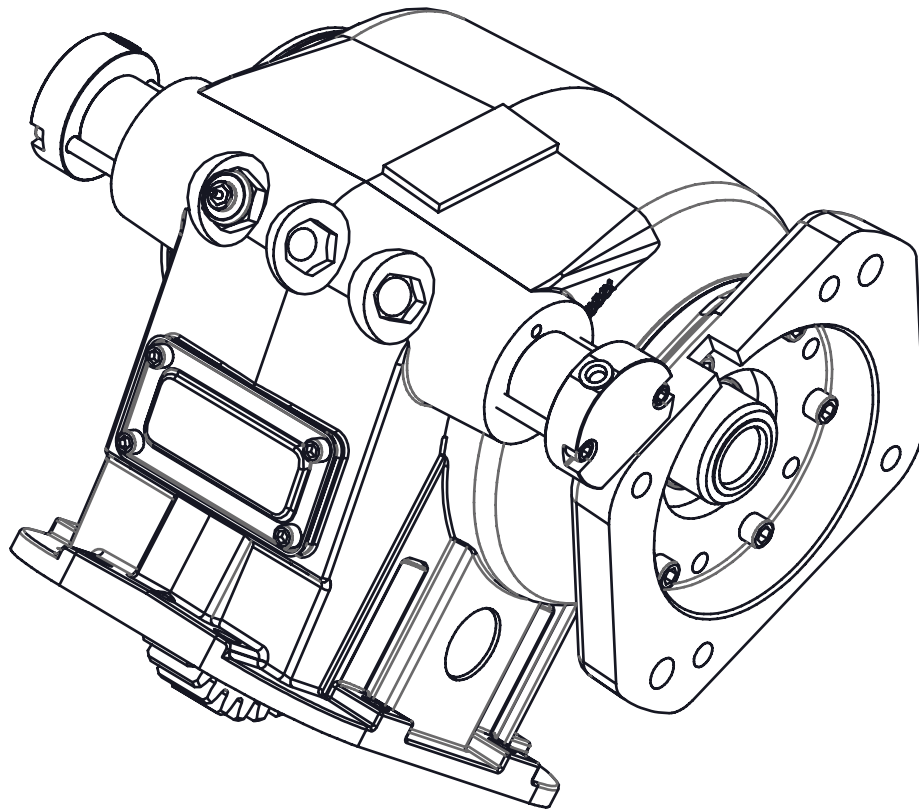


Muncie[®]
Power
Products

82 SERIES PTO

PARTS LIST AND SERVICE MANUAL

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

82 — 8-Bolt 82 Series

Mountings

8S — SAE 8-Bolt Std. Mount
 8B — SAE 8-Bolt Std. Mtg. — Metric Studs
 8L — SAE 8-Bolt Std. Mtg. — Less Stud Kit
 8F — SAE 8-Bolt Std. Mtg. — Eaton Endurant (E70 & E80)
 8R — SAE 8-Bolt Std. Mtg. — Special Roller Bearing

Transmission Input Gear Options

E70 — Eaton 7.055P 20° PA Spur
 E80 — Eaton 8.048P 20° PA 28.9 LH
 F11 — Fuller 10.1P 21.5° PA Spur
 F68 — Fuller 6 or 6/8P 20° Spur
 M65 — Mack 6.48P 17.5° Spur
 S70 — Spicer 7P 17.5° PA 28° 4' 23" LH
 U57 — Universal 5 or 5/7P 20° Spur
 U62 — Universal 6P 25° PA Spur
 U68 — Universal 6P or 6/8P 20° Spur

Speed Ratios

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

Note:

* Limited availability, contact
 Muncie Power Products Customer Service

Special Features

X — None
 P — Pressure Lube
 G — Greaseable Shaft Option (EG, PG, & ZG Only)
 8 — Greaseable Shaft Plus Pressure Lube

Output Types

C — 1410 Companion Flange
 D — SAE "B" 7/8"-13T, SAE "B" 2- & 4-Bolt
 E — SAE "C" 1 1/4"-14T SAE "C" 2- & 4-Bolt
 I — DIN 5462
 P — SAE "BB" 1"-15T, SAE "B" 2- & 4-Bolt
 U — SAE "C" Double Output Flanges*
 Z — SAE "C" 1 1/4"-14T, SAE "B" 2- & 4-Bolt
 2 — DIN 100 Companion Flange

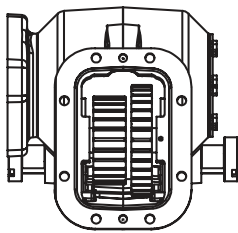
Assembly Arrangements

1 — Right Side Shaft Low
 2 — Right Side Shaft Low, Gear to Rear
 3 — Left Side Shaft Low
 4 — Left Side Shaft Low, Gear to Rear
 5 — Tall Housing—Right Side Shaft Low
 6 — Tall Housing—Right Side Shaft Low,
 Gear to Rear
 7 — Tall Housing—Left Side Shaft Low
 8 — Tall Housing—Left Side Shaft Low,
 Gear to Rear

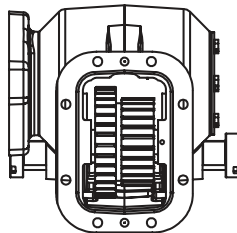
Shift Types

L — Lever
 M — Constant Mesh
 R — Double Acting Manual Air
 S — 12 V Double Acting Electric/Air
 T — Double Acting Air (Less Activation Kit)

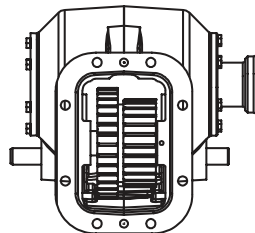
ASSEMBLY ARRANGEMENTS



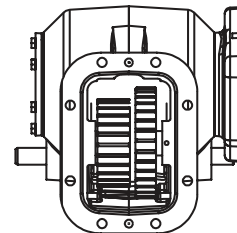
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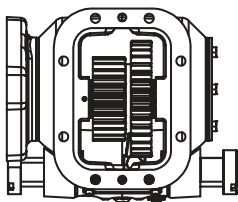
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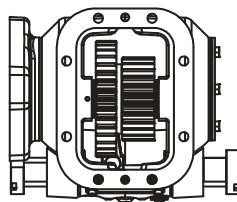
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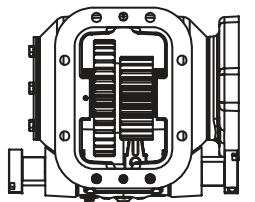
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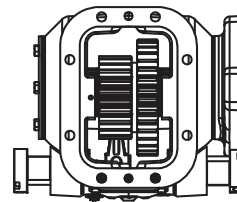
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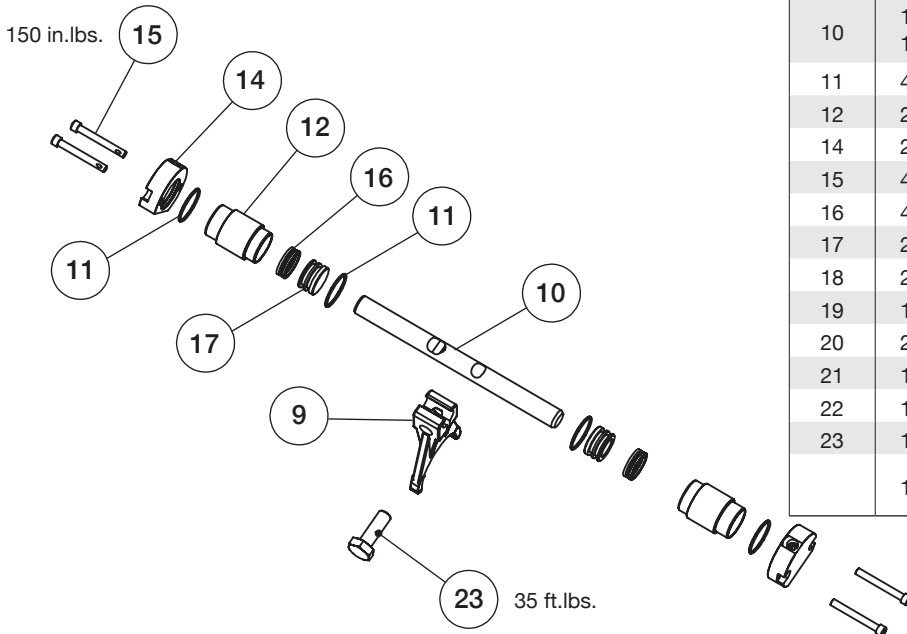
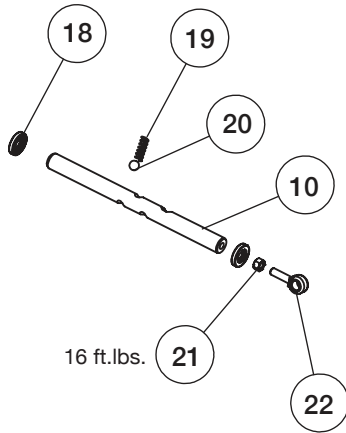
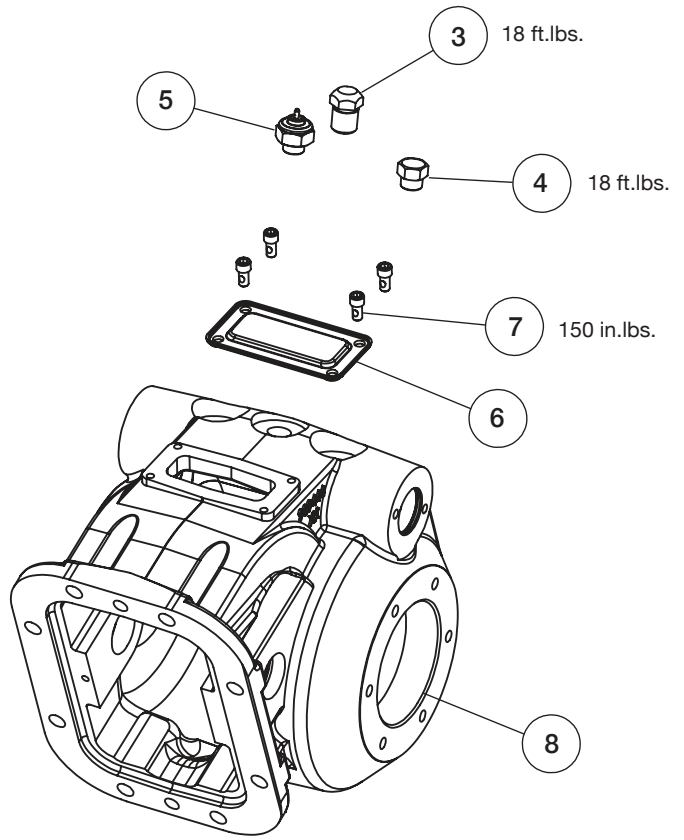


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Muncie Power Products, Inc.

Lever Shift – Option “L”

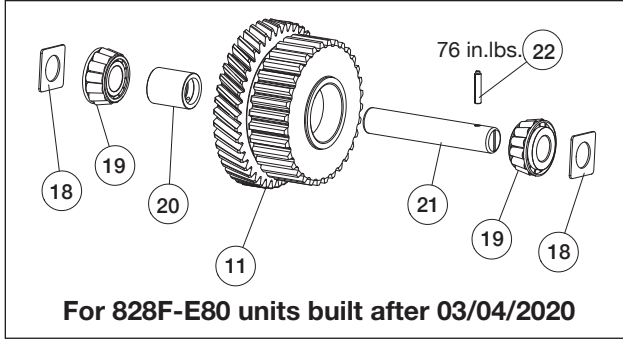
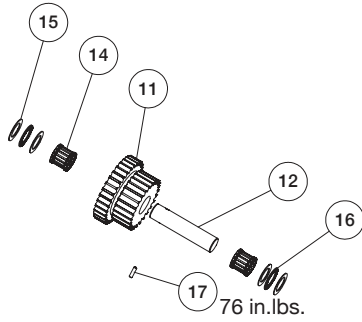
ITEM	QTY	PART NO	DESCRIPTION
1	1	28T20486	Poppet Ball
2	1	27T22021	Spring
3	1	28T22019	Poppet Retainer
4	1	25T32143	Plug, Shift Poppet
5	1	30T38111	Indicator Switch
6	1	16T41119	Cover, Inspection
7	4	19T41118	Socket Cap Screw
8	1	01T62848	Housing, STD 1/2/3/4 Arrangement
		01T62243	Housing, STD 5/6/7/8 Arrangement
		01T65249	E80 Housing, 1/2/3/4 Arrangement
		01T65533	E80 Housing, 5/6/7/8 Arrangement
N.S.	2	13M35151	Gasket .010 (Std. Mount)
	1	13M38152	Gasket .020 (Std. Mount)
	1	13T62705	Gasket Spl. Endurant E80



Air Shift – Options “R”, “S”, and “T”

ITEM	QTY	PART NO	DESCRIPTION
9	1	28T32756	Yoke
10	1	17T62353	Shaft-Shift Rail – Air
	1	17T36454	Shaft-Shift Rail Lever
11	4	12T36456	O-Ring (Air Shift)
12	2	28T62392	Piston Housing (Air Shift)
14	2	28T61531	Piston Cap (Air Shift)
15	4	19T62814	SH Cap Screw (Air Shift)
16	4	28T65140	U-Cup Seal (Air Shift)
17	2	49T35204	Piston (Air Shift)
18	2	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	Cap Screw
	1	47TK6172	Dual Cylinder Air Shift Kit – Includes Parts 11-17

Input Shaft Assembly

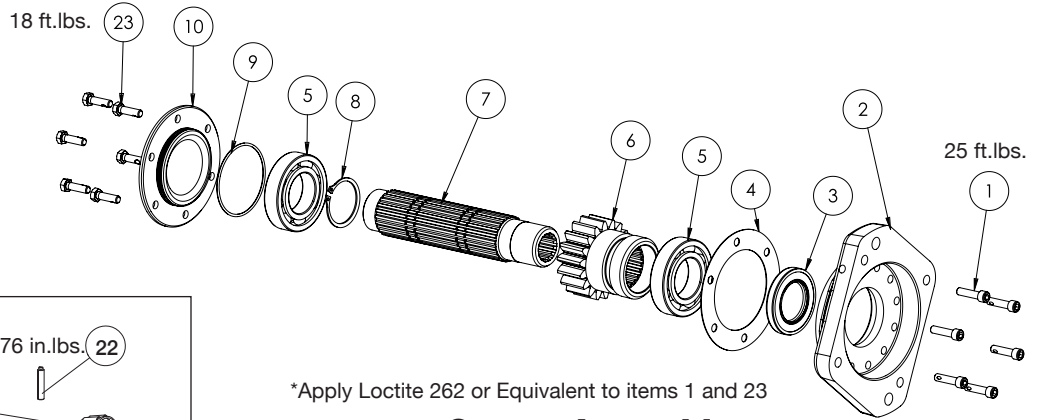


For 828F-E80 units built after 03/04/2020

PTO Model

PTO MODEL	ITEM 11 INPUT GEAR (#T)	ITEM 6 OUTPUT GEAR (#T)
E7005	03T64713 (39/18)	02T34467 (38)
E7008	02T64714 (39/24)	02T34694 (32)
E7009	03T64717 (39/27)	02T37359 (29)
E7010	03T64718 (39/28)	02T34695 (28)
E7012	03T64720 (39/30)	02T35922 (26)
E7013	03T64721 (39/32)	02T32764 (24)
E8005	03T65631 (43/18)	02T34467 (38)
E8008	03T65632 (43/24)	02T34694 (32)
E8009	03T65633 (43/27)	02T37359 (29)
E8010	03T65634 (43/28)	02T34695 (28)
E8012	03T65635 (43/30)	02T35922 (26)
E8013	03T65464 (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)
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 Assembly



*Apply Loctite 262 or Equivalent to items 1 and 23

Output Assembly

ITEM	QTY	PART NO	DESCRIPTION
1	6	19T31577	Cap Screw Hyd. Fig.
		19T34717	Cap Screw C, 2 Opt.
2	1	See Page 5	Output Flange
3	1	11T64141	Oil Seal
4	1	13T31494	Gasket
5	2	10T35775	Ball Bearing
		10T40301	828 Roller Bearing
6	1	See PTO Model Table	Output Gear
7	1	See Page 5	Output Shaft
8	1	24T26980	Snap Ring
9	1	12T36701	O-Ring
10	1	15T60757	Bearing Cover
23	6	19T39417	Cap Screw

Input Assembly

ITEM	QTY	PART NO	DESCRIPTION
11	1	See Table to the Left	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
18	2	18T42642	Shim
19	2	10T43096	Input Bearing
		18T65552	
		18T65553	
		18T65554	
		18T65606	
		18T65607	
		18T65608	
		18T65609	
		18T65610	
		18T65611	
20	1	18T65612	Cone Spacer
		18T65613	
		18T65614	
		18T65615	
		18T65616	
		18T65617	
21	1	07T65198	Idler Shaft
22	1	19T65486	Set Screw

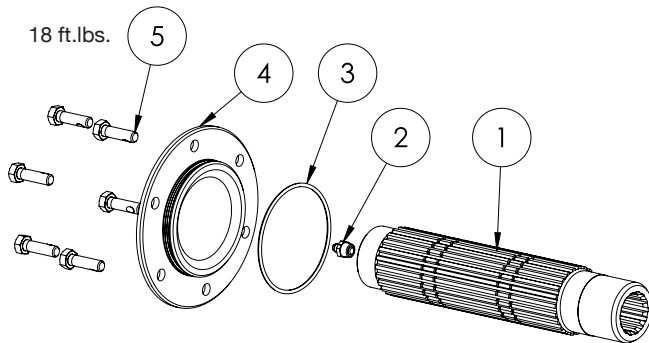
Output Shaft and Flange Options

OUTPUT CODE	#8 SHAFT PART NUMBER	#10 FLANGE PART NUMBER	DESCRIPTION
C, 2	06T34722	15T34719	1½"-10T Spline
D	06T34691	14T34693	⅞"-13T SAE "B"
E	06T34690	14T42754	1¼"-14T SAE "C"
Z	06T34690	14T34693	1¼"-14T SAE "C"/SAE "B" Flange
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

QTY	PART NUMBER	DESCRIPTION
1	14T31499 14T37498	1410 Companion Flange DIN 100 Companion Flange
1	21T20092	Flat Washer
1	19T38266	Capscrew

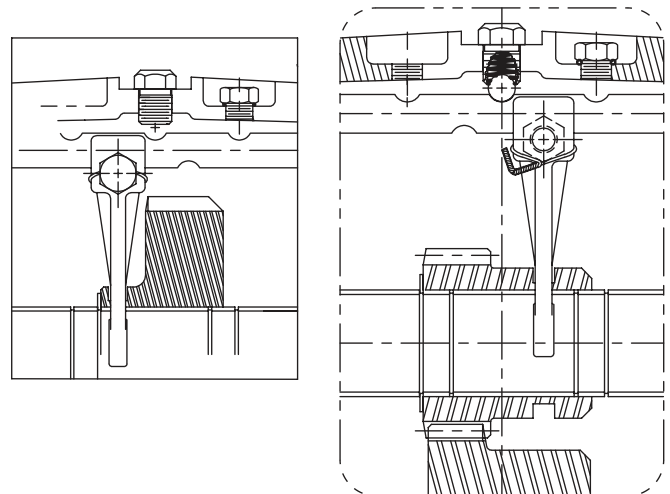


82 Series Shift Fork Assembly

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.

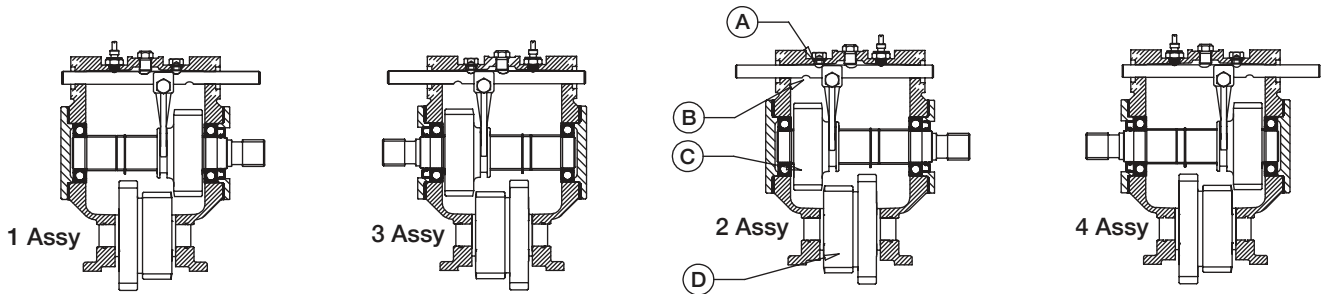
Greaseable Output Shaft Option

ITEM	QTY	PART NO	DESCRIPTION
1	1	06T39307 06T39308	Output Shaft, PG Output Shaft, EG, ZG
2	1	43T37236	Zerk, Grease
3	1	12T36701	O-Ring
4	1	15T60757	Cap, Bearing
5	6	12T36456	Hex Head Capscrew with Locking Patch

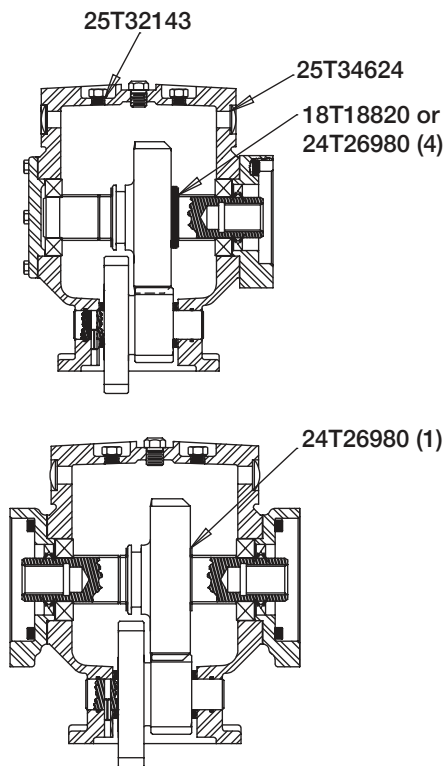


82 Series Assembly Arrangements

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.



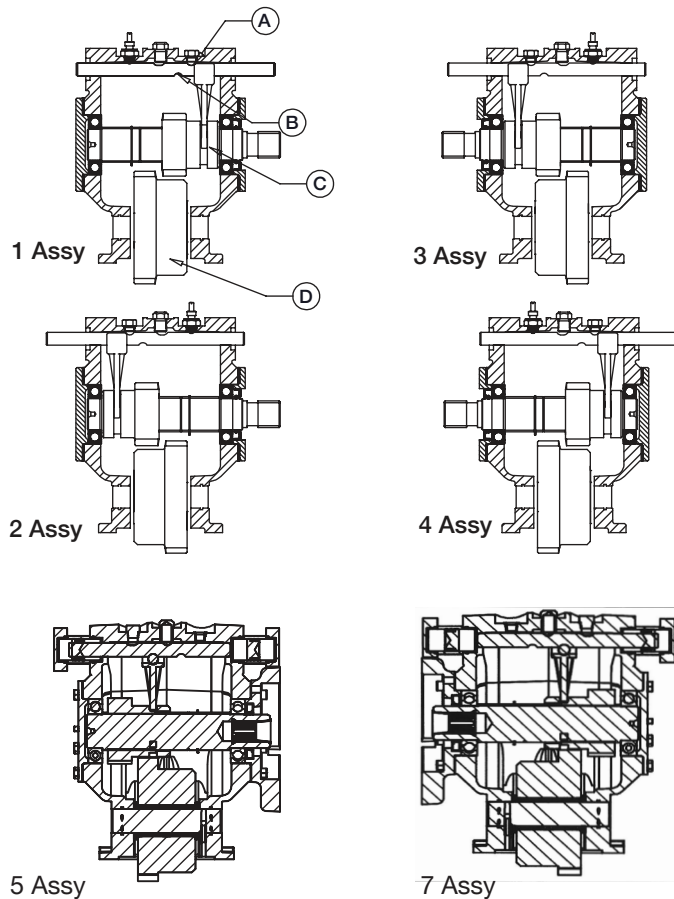
Constant Mesh



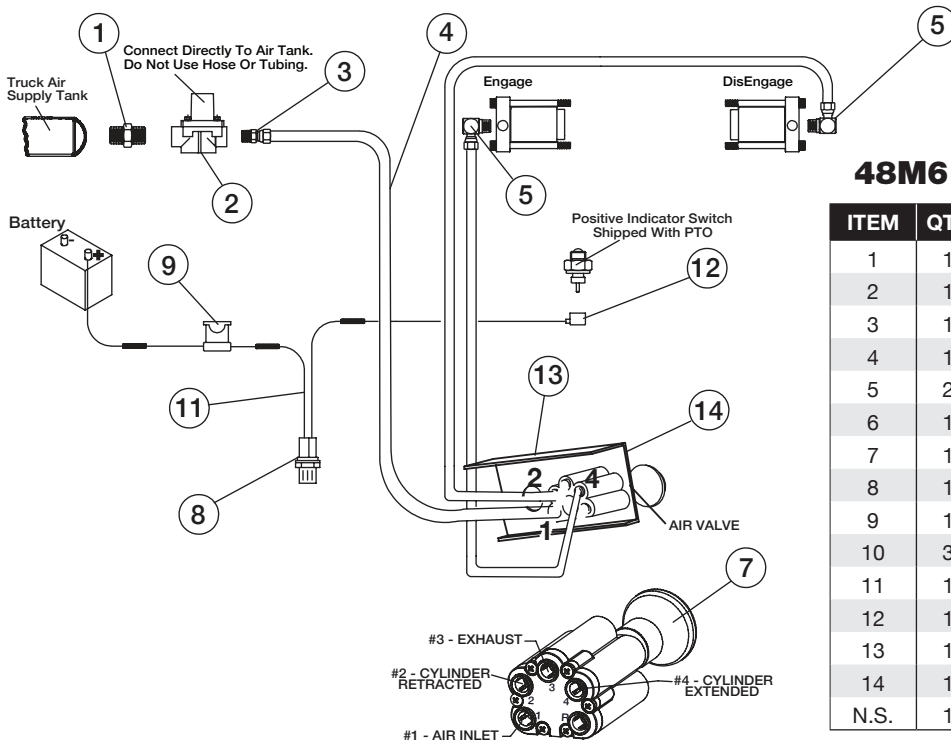
Dual output, limited availability,
contact Muncie Power Products
Customer Service

19 Ratio Assembly

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



82 Series Double Acting Air Shift System

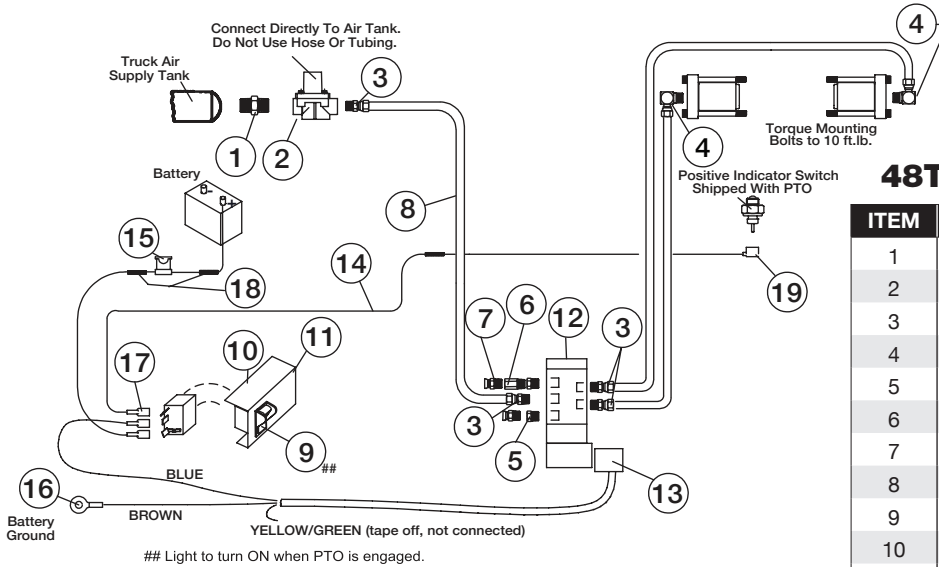


48M61261-A (12 V) (R Option)

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 – 12 V
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 (12 V Light)



48T37421-A (12 V) (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	12 V 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

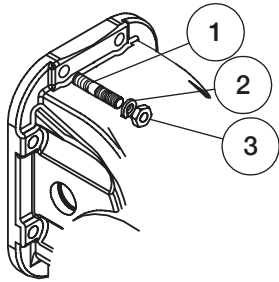
Previous Model Codes for Air Shift 82 Series PTOs

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

Metric 20MKM802

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

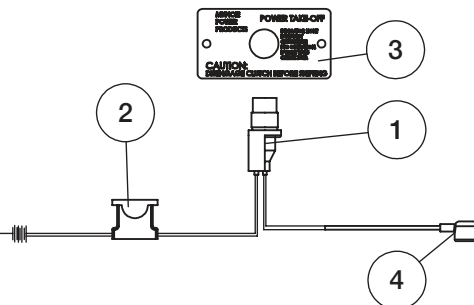
See PTO Installation manual for proper mounting fastener torque values

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

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



Gaskets/Spacers

82 Series Gaskets

QTY	PART NO	DESCRIPTION
2	13M35151	Gasket
1	13M35152	.02" 8-Bolt Gasket
1	13T62705	E80 Gasket

82 Series Spacers

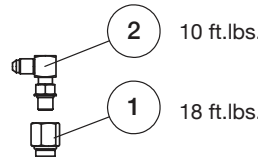
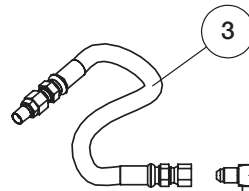
QTY	PART NO	DESCRIPTION
1	23M80248	19 Ratio Space (.248" thick)
2	23M80062	15 Ratio Spacers (.062" thick)

Pressure Lube Kit 43MK3474

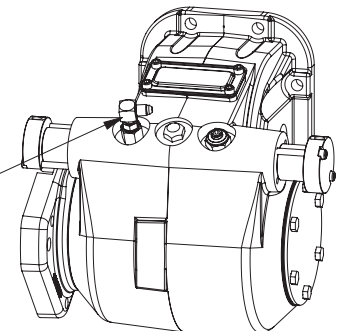
ITEM	QTY	PART NO	DESCRIPTION
1	1	43T42006	Reducer Fitting
2	1	43T42012	Orifice Elbow
3	1	45T42015	Hose

43M3474-U (for "U" Option)

1	1	43M02203	Orifice Fitting
3	1	45M4R536	Hose
N.S.	1	43MBMP64	Adapter
N.S.	1	44M0942	Adapter



Install reducer fitting (Item 1) and elbow (Item 2) shown into the port opposite the indicator switch.



A Member of the Interpump Group

SP18-03 (Rev. 06-22)

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