

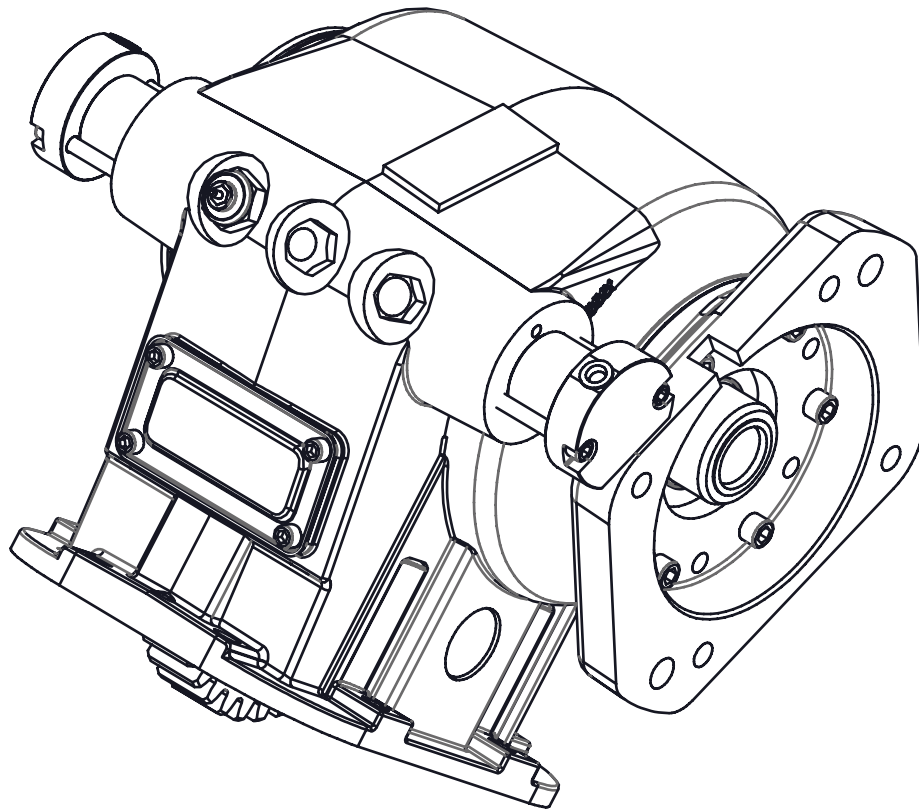


Muncie®
Power
Products

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 09 - 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 (Cannot be sold in kit form)

NOTES: * Gears and Ratios are obsolete. They are no longer available in assembled units.

Special Features

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

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
 Z — SAE "C" 1 1/4" -14T, SAE "B" 2- & 4-Bolt
 2 — DIN 100 Companion Flange

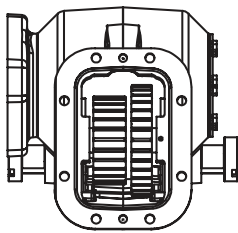
Assembly Arrangements

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

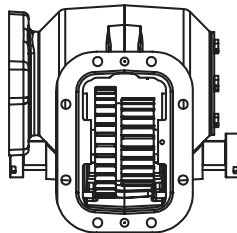
Shift Types

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

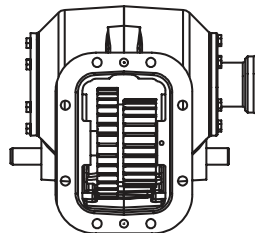
ASSEMBLY ARRANGEMENTS



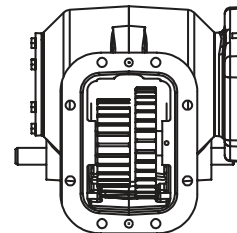
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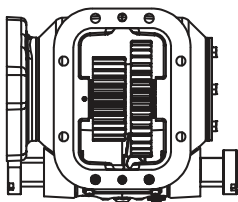
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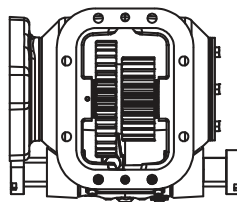
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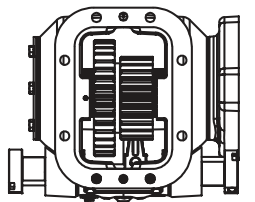
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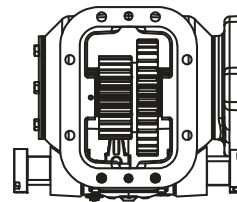
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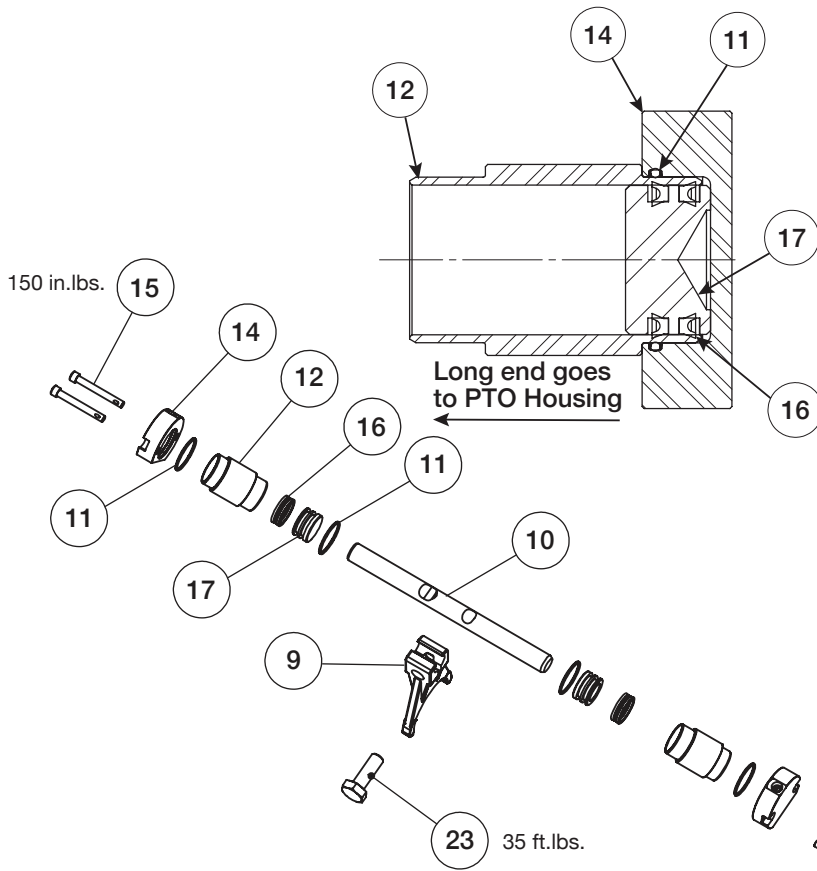
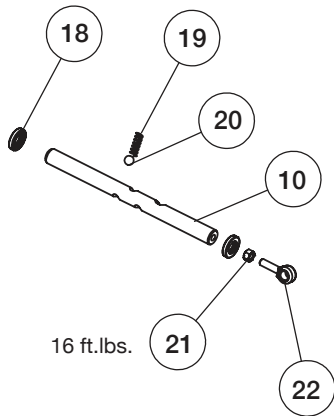
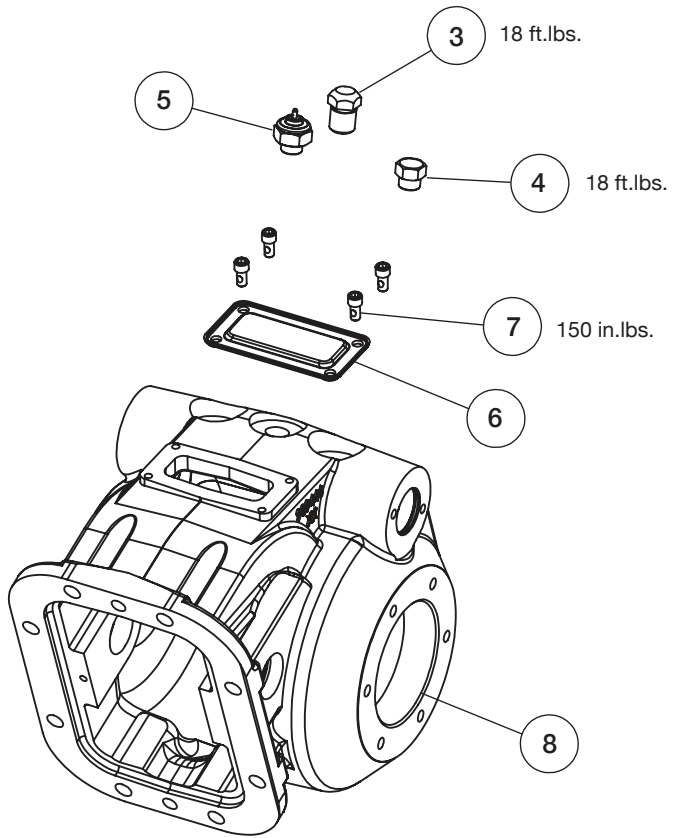


8

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Lever Shift - Option "L"

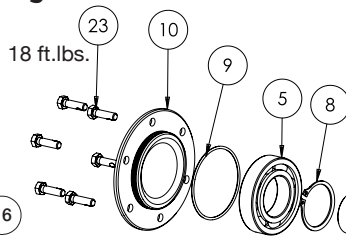
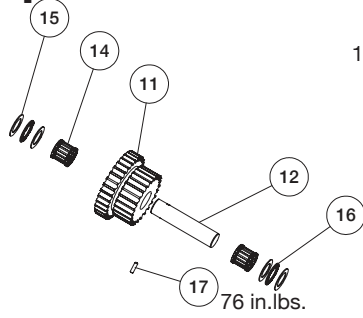
ITEM	QTY	PART NO	DESCRIPTION
1	1	28T20486	Poppet Ball
2	1	27T22021	Spring
3	1	28T22019	Poppet Retainer
4	1	25T32143	Plug, Shift Poppet
5	1	30T38110	Indicator Switch
6	1	16T41119	Cover, Inspection
7	4	19T41118	Socket Cap Screw
8	1	01T62848	Housing, STD 1/2/3/4 Arrangement
		01T62243	Housing, STD 5/6/7/8 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 Endurant E70, E80



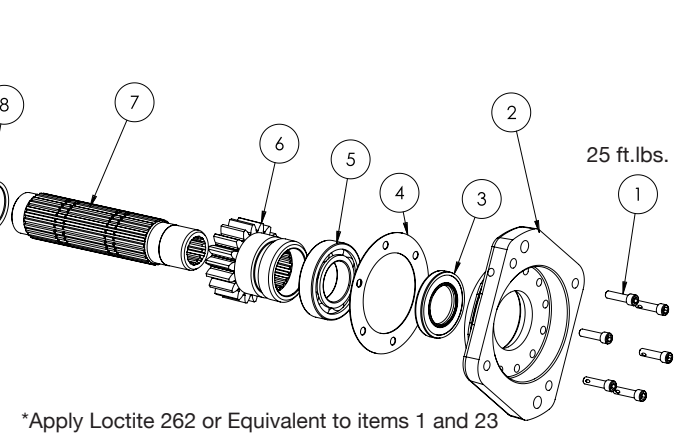
Air Shift - Options "R", "S", and "T"

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	Eye Bolt (L Shift Only)
23	1	19T32326	Cap Screw
		47TK6172	Shift Cylinder Kit -Includes Parts 11-17 For Both Sides

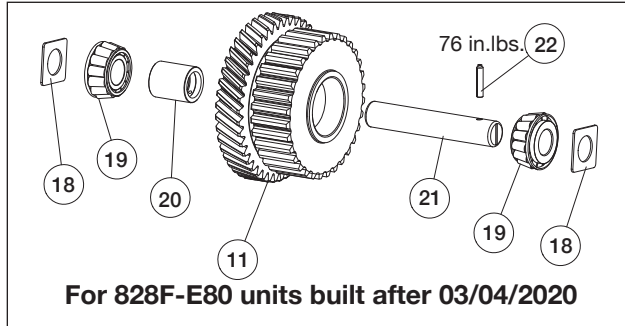
Input Shaft Assembly



Output Shaft Assembly



*Apply Loctite 262 or Equivalent to items 1 and 23



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	03T64714 (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)

NOTE: * Input Gears with an asterisk are obsolete. They will be available as service parts only, until inventory is depleted.

Output Assembly

ITEM	QTY	PART NO	DESCRIPTION
1	6	19T31577 19T34717	Cap Screw Hyd. Fig. Cap Screw C, 2 Opt.
2	1	See Page 5	Output Flange
3	1	11T64141	Oil Seal
4	1	13T31494	Gasket
5	2	10T35775 10T40301	Ball Bearing 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

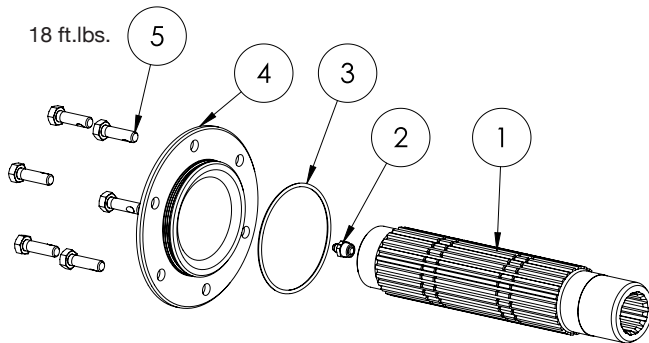
ITEM	QTY	PART NO	DESCRIPTION
11	1	See Table to the Left	Input Gear
12	1	07T35667	Shaft
14	2	10T29491	Bearing, Needle Roller
15	4	10T34715	Thrust Race
16	2	10T27068	Bearing, Needle Thrust
17	1	26T26112	Roll Pin
18	2	18T42642	Shim
19	2	10T43096	Input Bearing
		18T65552	
		18T65553	
		18T65554	
		18T65606	
		18T65607	
		18T65608	
20	1	18T65609	Cone Spacer
		18T65610	
		18T65611	
		18T65612	
		18T65613	
		18T65614	
		18T65615	
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"
PG	06T39307	14T34693	1" -15T SAE "BB" Greaseable
EG	06T39308	14T42754	1¼" -14T SAE "C" Greaseable
EW	06T346902	14TK4924	1¼" -14T SAE "C" Wet Spline
ZG	06T39308	14T34693	1¼" -14T SAE "C" Greaseable

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	Cap Screw

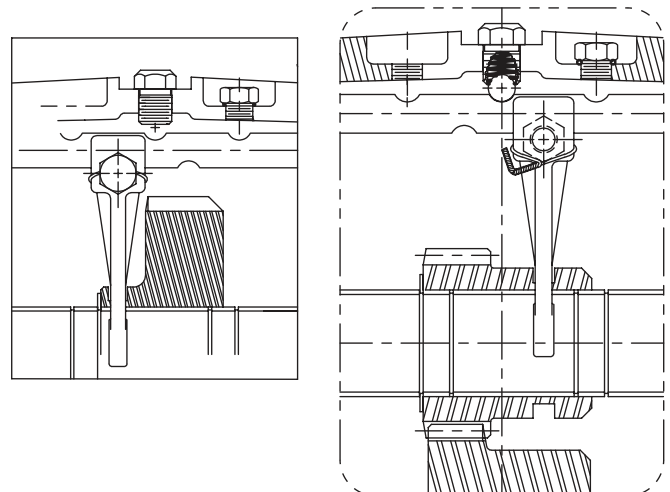


82 Series Shift Fork Assembly

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 cap screw 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.

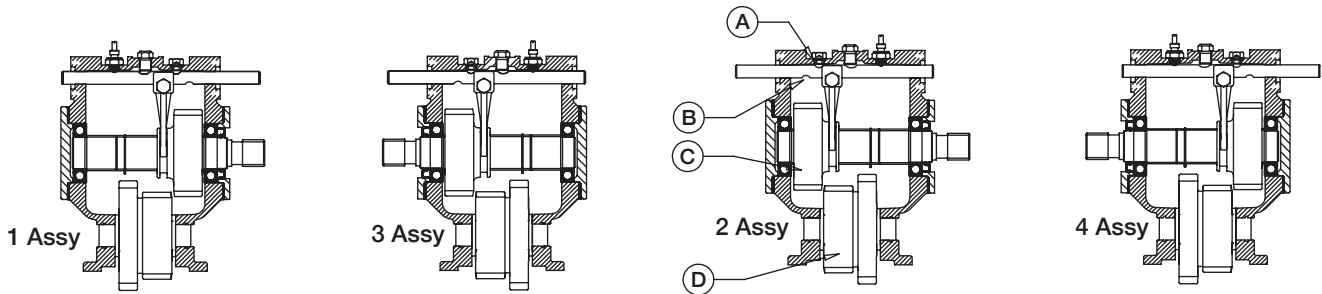
Greaseable Output Shaft Option

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 Cap Screw with Locking Patch

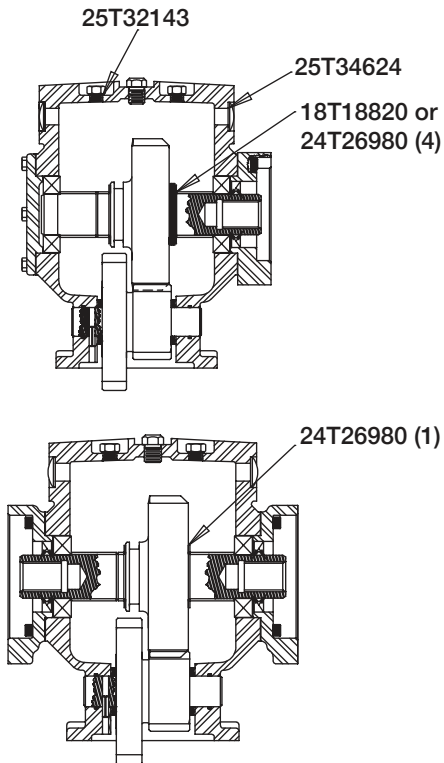


82 Series Assembly Arrangements

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.



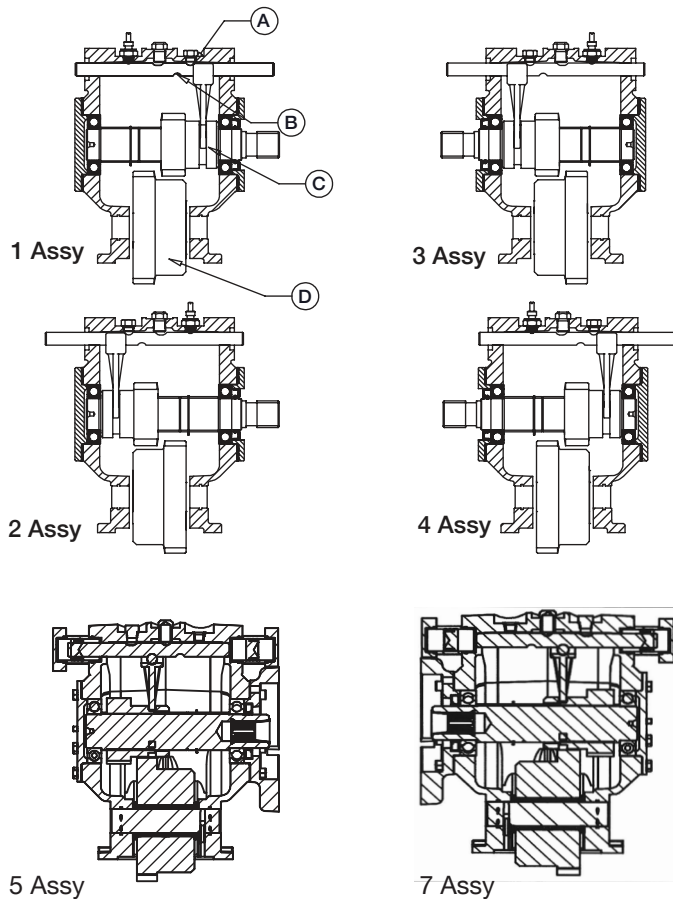
Constant Mesh



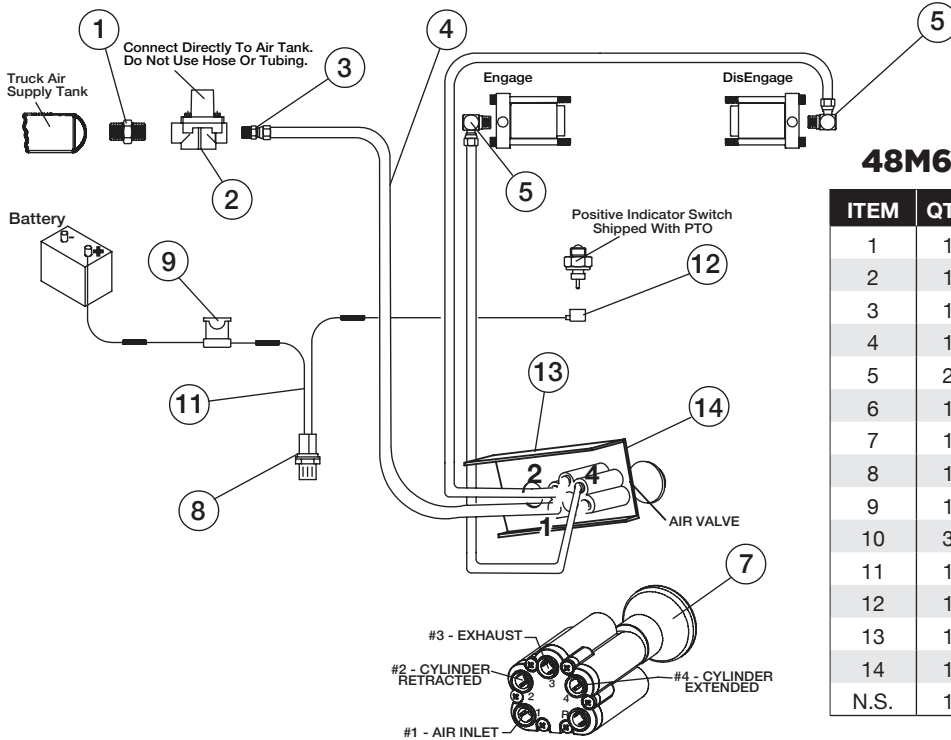
Dual output, limited availability,
contact Muncie Power Products
Customer Service

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

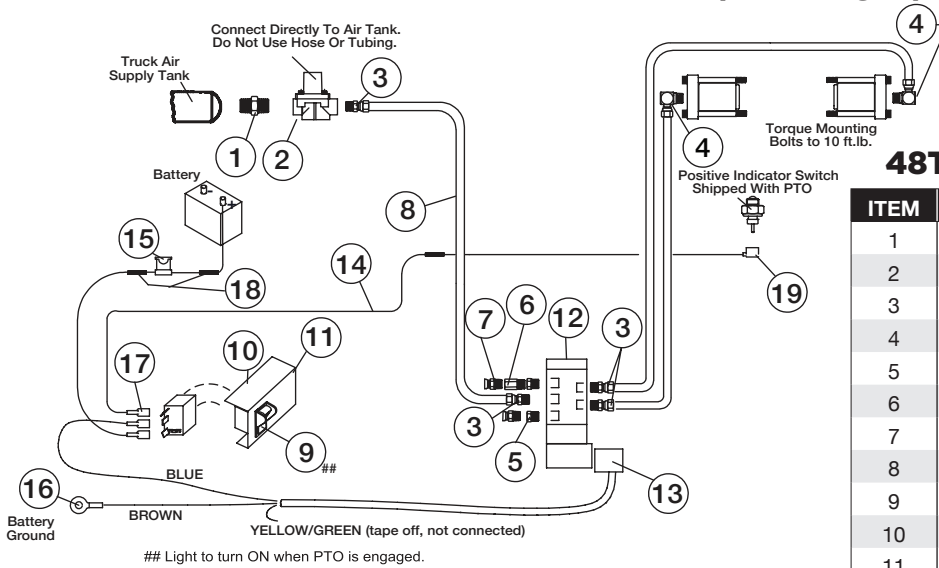


48M61261-A (12 V) (R Option)

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.

Gaskets/Spacers

82 Series Gaskets 82-GSK

QTY	PART NO	DESCRIPTION
1	LBL82GSK	Label
2	11T36865	Viton Seal
1	11T64141	Oil Seal
2	12T35622	O-Ring
2	12T36526	O-Ring
2	13M35151	Gasket
2	13M35152	.02" 8-Bolt Gasket
2	13M31494	Gasket
1	13T62705	E70/E80 Gasket
1	16T41119	Cover, Backlash
4	19T41118	Socket Head Cap Screw
2	25T34624	Plug
3	8X10003	Plastic Bag
4	12T36456	O-Ring
1	12T36701	O-Ring

82 Series Rebuild Kit 82-RBK

QTY	PART NO	DESCRIPTION
1	LBL82RBK	Label
2	10T27068	Bearing
4	10T34715	Thrust Race
2	10T35775	CD10-Bearing
2	10T65930	w/Bearing
2	11T36865	Viton Seal
1	11T64141	Oil Seal with Rubber
2	12T35622	O-Ring
2	12T36526	O-Ring
2	13M35151	Gasket
2	13M35152	.02" 8-Bolt Gasket
2	13M31494	Gasket
1	16T41119	Cover, Backlash
4	19T41118	Socket Head Cap Screw

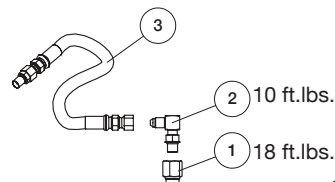
Rebuild Kit is for NOT for E80 units built after 03-04-2020

82 Series Spacers

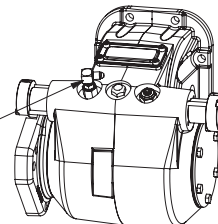
QTY	PART NO	DESCRIPTION
1	23M80248	19 Ratio Space (.248" thick)
2	23M80062	15 Ratio Spacers (.062" thick)

Pressure Lube Kit 43MK3474

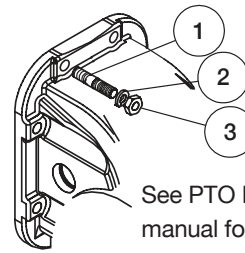
ITEM	QTY	PART NO	DESCRIPTION
1	1	43T42006	Reducer Fitting
2	1	43T42012	Orifice Elbow
3	1	45T42015	Hose
43M3474-U (for "U" Option)			
1	1	43M02203	Orifice Fitting
3	1	45M4R536	Hose
N.S.	1	43MBMP64	Adapter
N.S.	1	44M0942	Adapter



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



Mounting Kits



See PTO Installation manual for proper mounting fastener torque values

Standard 20MK8815

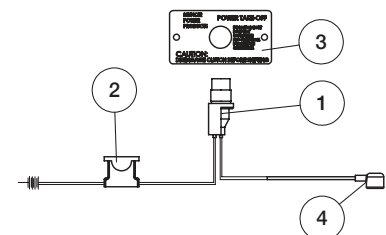
ITEM	QTY	PART NO	DESCRIPTION
1	8	20M44213	Stud
2	8	21ML4375	Lock Washer
3	8	22MX4420	Hex Nut

Metric 20MKM802

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

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



A Member of the Interpump Group

SP18-03 (Rev. 02-25)

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