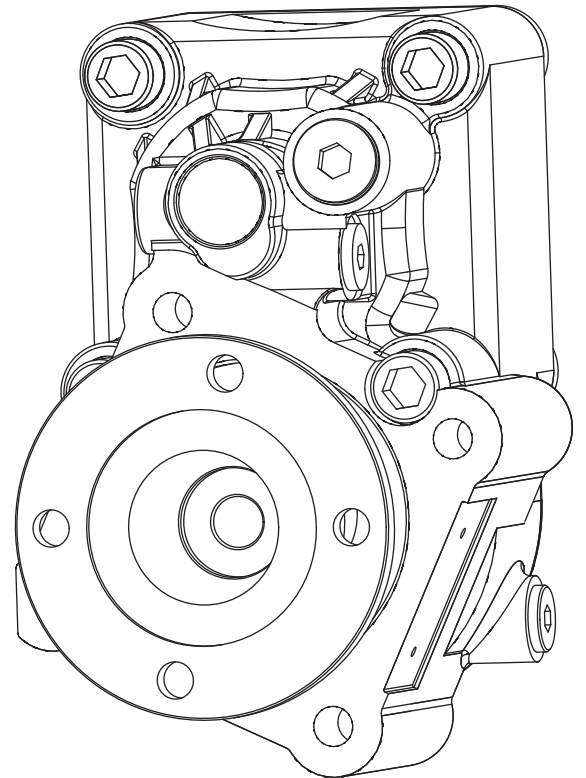
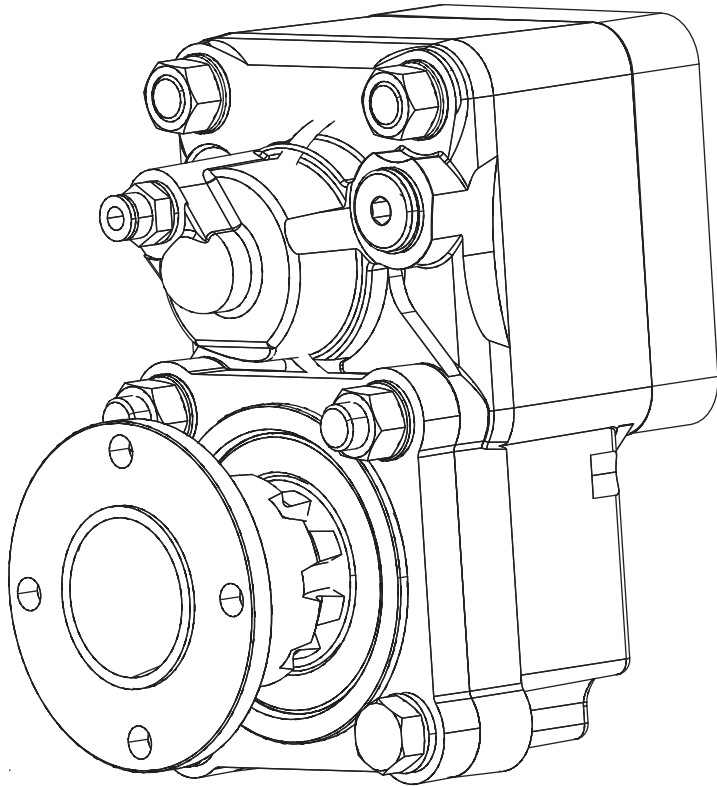


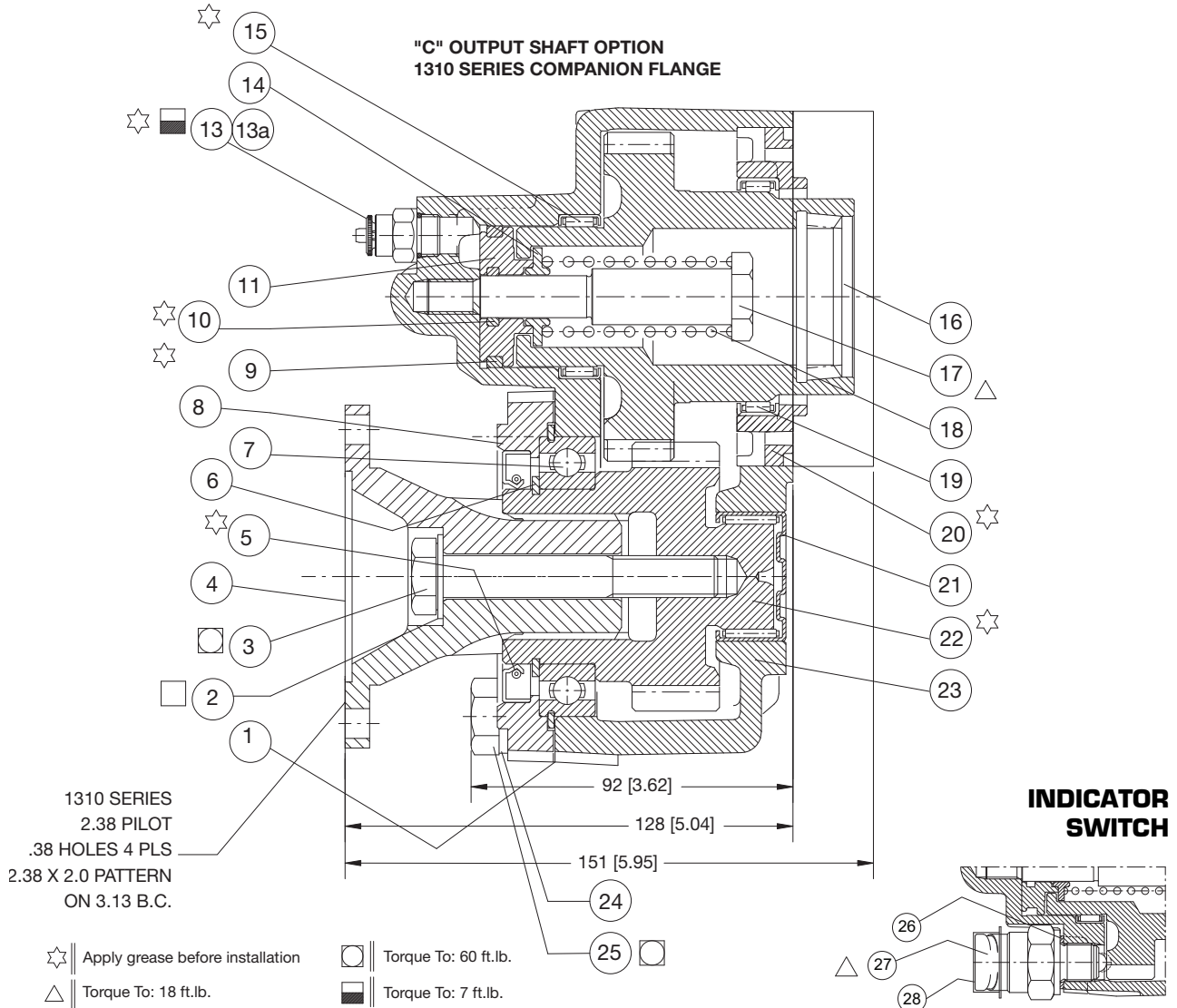


**RS4S-P86Z\* SERIES PTO**  
**RS4S-P82Z1 SERIES PTO**  
**FOR ZF/MERITOR FREEDOMLINE TRANSMISSION**  
**PARTS LIST AND SERVICE MANUAL**



# RS4S-P82Z1-E1CX

## PARTS LIST



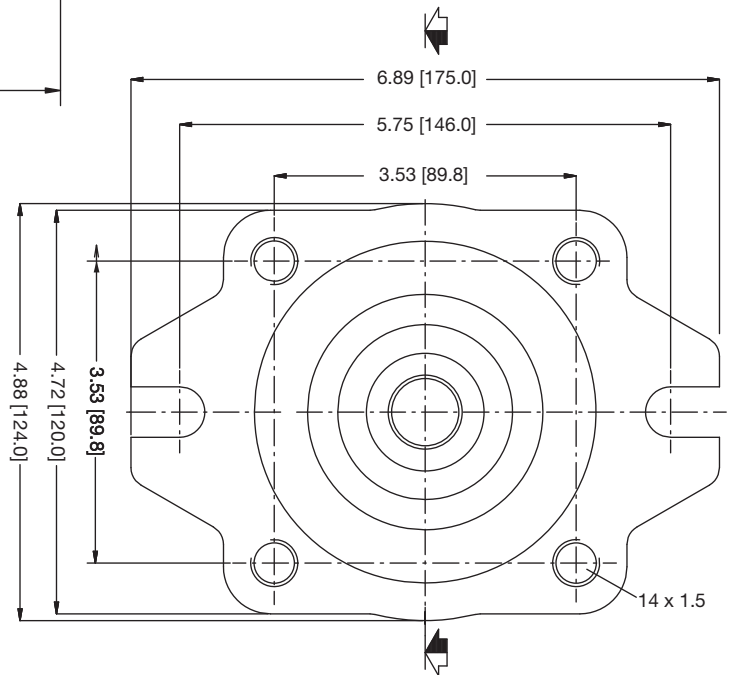
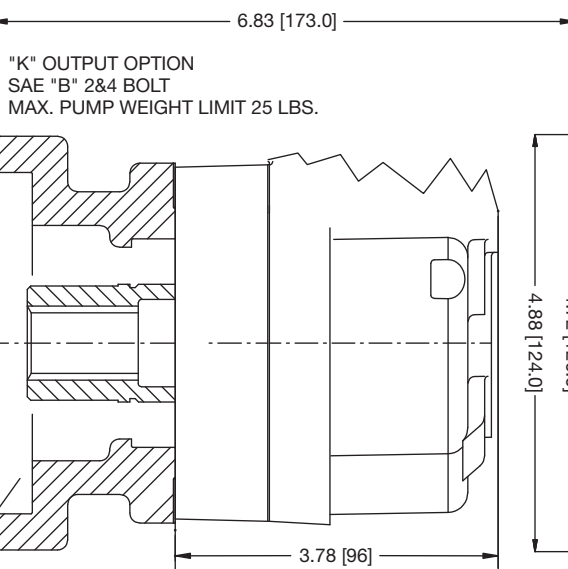
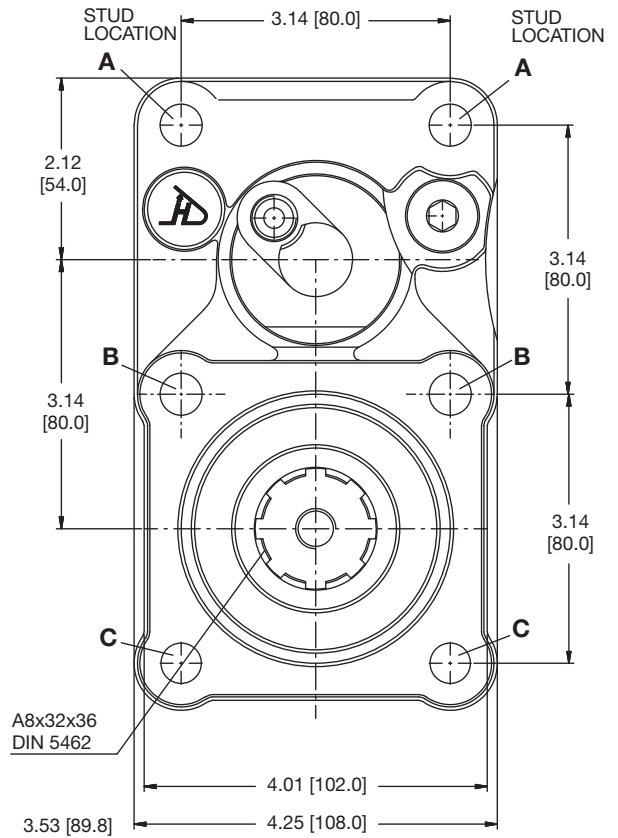
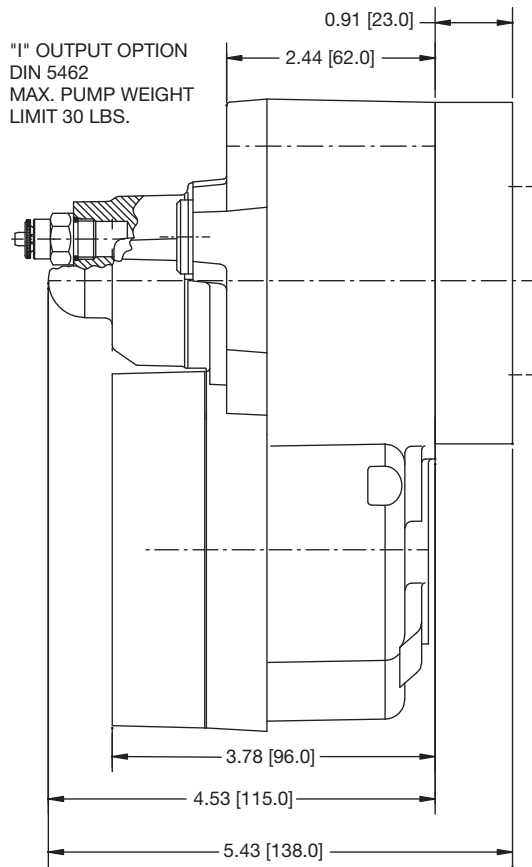
## RS4S-P82Z1-E1CX PARTS LIST & DESCRIPTION

ITEM	QTY	PART NUMBER	DESCRIPTION
01	1	11220082P00	Gasket 0.5 mm
02	1	5400013000	Washer 13
03	1	2212080000	Hex Head Bolt M12x80
04	1	12120082000	Output Flange Spicer 1300
05	1	3205072000	Shaft Seal 50x72x8
06	1	6200050000	Snap Ring 50e
07	1	11N6010000	Bearing 6010 NR
08	1	12140082P00	Output Cover For Flg. Version
09	1	3104131000	O-Ring 4131
10	1	3100115000	O-Ring 115
11	1	11710082P00	Air Piston
12	1	9901867000	Insert
13	1	44T39578	12mm Adapter
13a	1	44MB6844PTC	Fitting
14	1	11430082P00	Retaining Ring

ITEM	QTY	PART NUMBER	DESCRIPTION
15	1	1704012000	Bearing HK 4012
16	1	10340082P00	Input Gear
17	1	12820082P00	Control Screw
18	1	11610082P00	Spring
19	1	1706012000	Bearing HK 6012
20	1	11410082000	Pilot Ring With O-Ring
21	1	1603020000	Bearing BK 3020
22	1	10330082P00	Output Gear Z=22
23	1	10110082000	Housing
24	2	5100012000	Lock Washer 12
25	2	2112035000	Hex Head Bolt M12x35
	1	<b>194KSP19000</b>	<b>Merit N.C. Switch Kit</b>
26	1	5500016000	Shim
27	1	9901460000	Switch, Merit N.C.
28	1	9901440000	Switch Protector

# RS4S-P82Z1-E1CX

## DIMENSIONS



- "K" HYD. OUTPUT OPTION:  
1) 606X80A0000 FLANGE & SHAFT KIT SEE PAGE 7  
1) 12110082P00 ADAPTER SEE PAGE 7  
2) 8212055000 STUD (LOCATION C)  
2) 5100012000 LOCKWASHER  
2) 4212175000 NUT

# RS4S-P82Z1 MOUNTING KITS

## PARTS LIST & DESCRIPTION

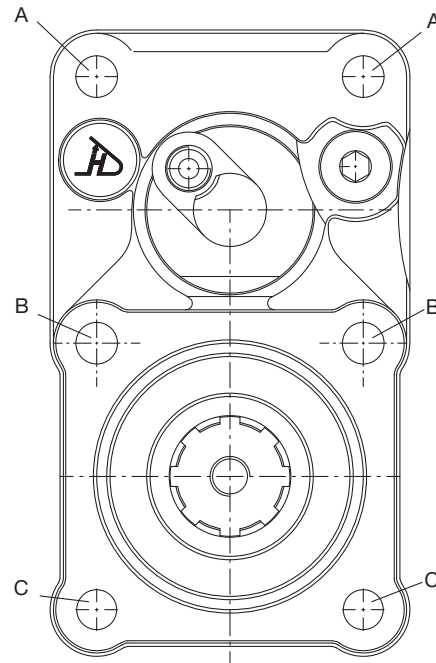
### MOUNTING KIT 199K3540000

QTY	PART NUMBER	DESCRIPTION	STUD LOCA
2	8212100000	M12 X 120 Stud	A
2	8212125000	M12 X 145 Stud	B
1	11232002000	Gasket	
4	4212175000	M12 Nut	
4	5100012000	M12 Lock Washer	

### MOUNTING KIT 199K7110000

QTY	PART NUMBER	DESCRIPTION	STUD LOCA
2	8212100000	M12 X 120 Stud	A
2	8212150000	M12 X 170 Stud	B
4	4212175000	M12 Nut	
4	5100012000	M12 Lock Washer	

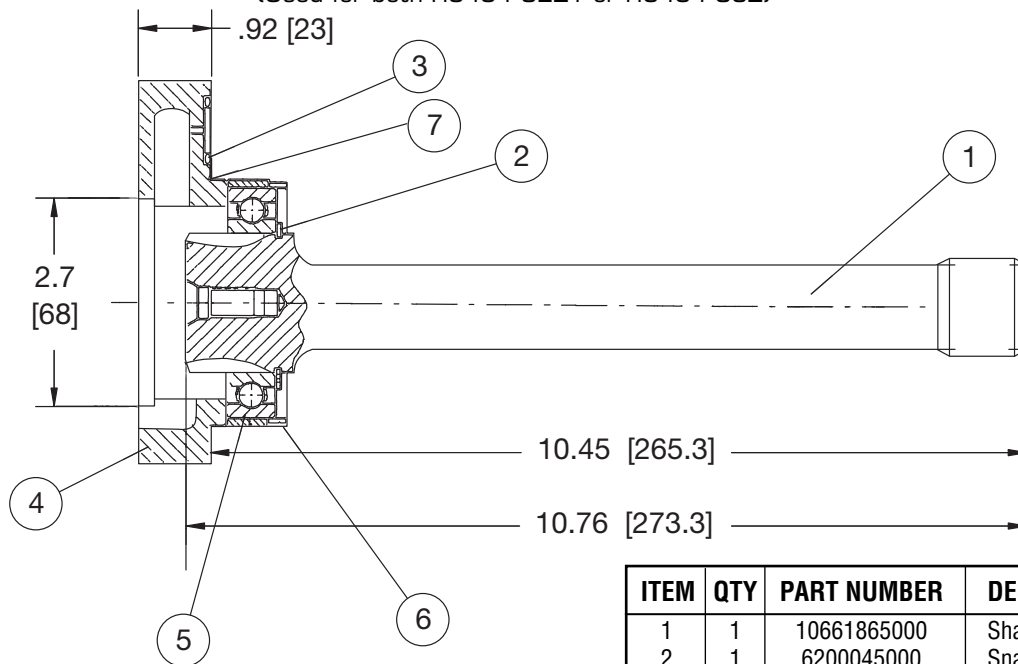
**STUD LOCATION** **STUD LOCATION**



## TRANSMISSION SHAFT KIT

601K5400000

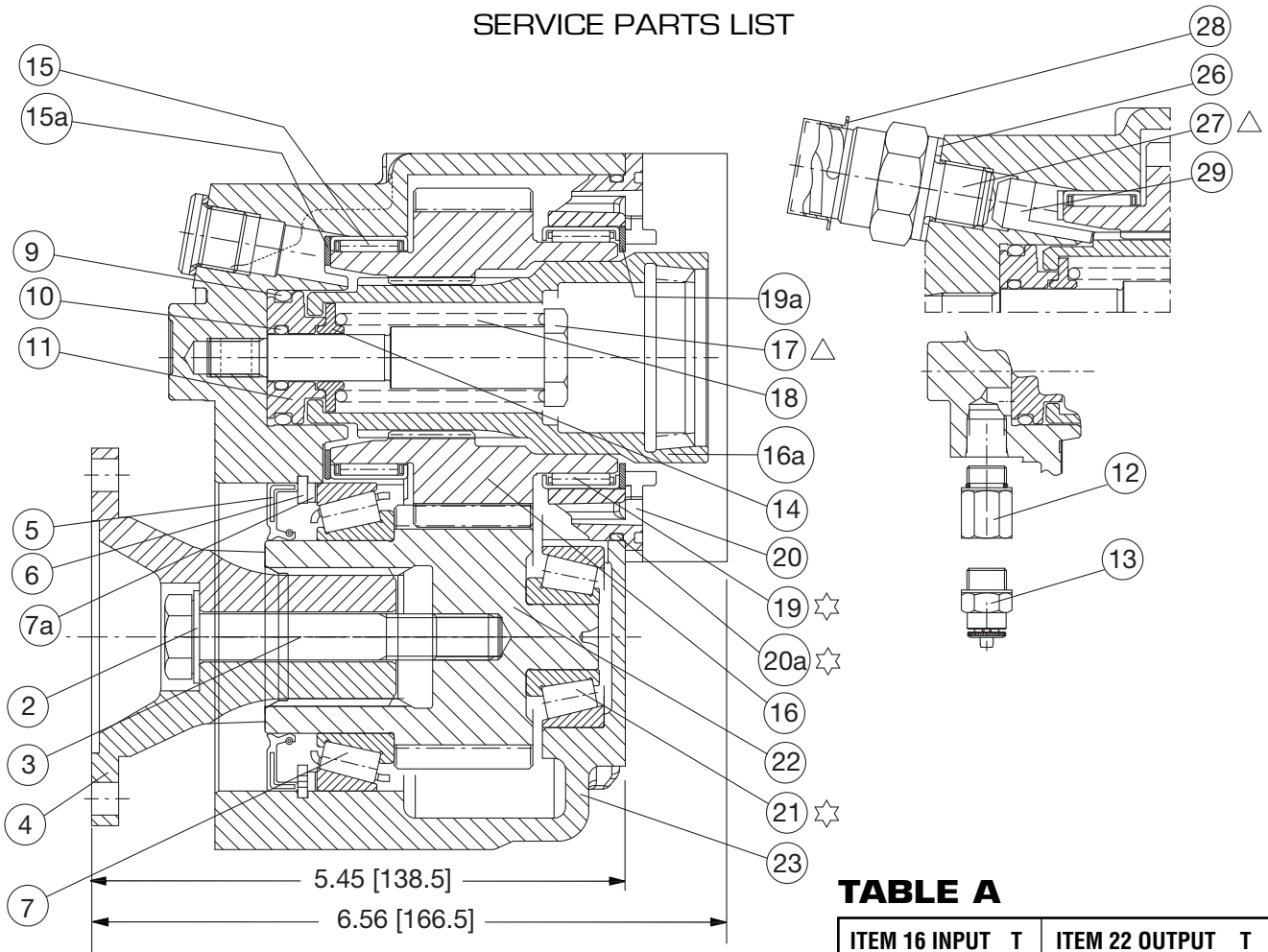
(Used for both RS4S-P82Z1 or RS4S-P86Z)



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	10661865000	Shaft
2	1	6200045000	Snap Ring
3	1	12T35611	O-Ring
4	1	12151800000	Adapter
5	1	10T38248	Bearing
6	1	11411865000	Spacer Ring
7	1	12930084000	Gasket

# RS4S-P86Z\*-Z1CX

## SERVICE PARTS LIST



☆ Apply grease before installation.

△ Torque to 18 ft.lb.

**TABLE A**

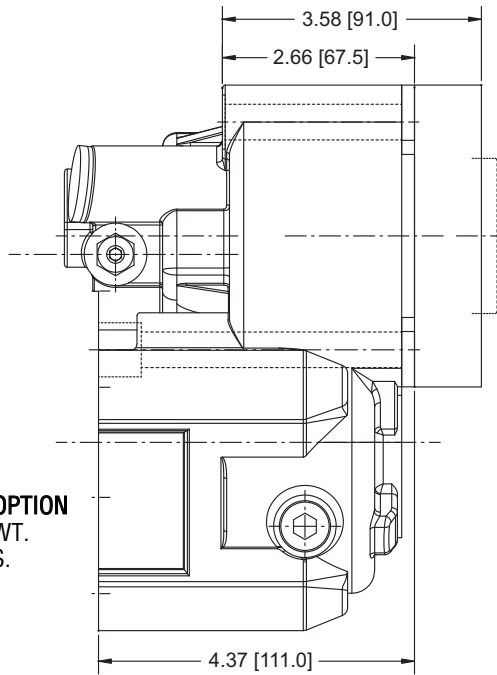
ITEM 16 INPUT	T	ITEM 22 OUTPUT	T
<b>*P86Z4</b>			
10270086P00	24	10280086P00	25
<b>*P86Z3</b>			
10210086P00	28	10220086P00	21

## RS4S-P86Z\*-Z1CX PARTS LIST & DESCRIPTION

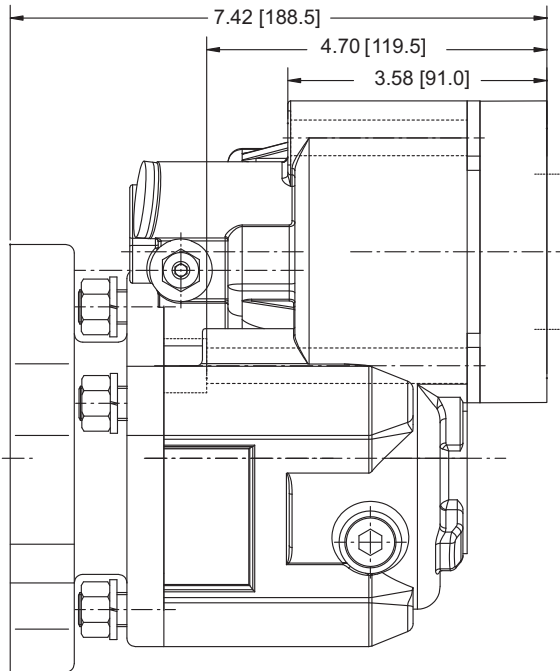
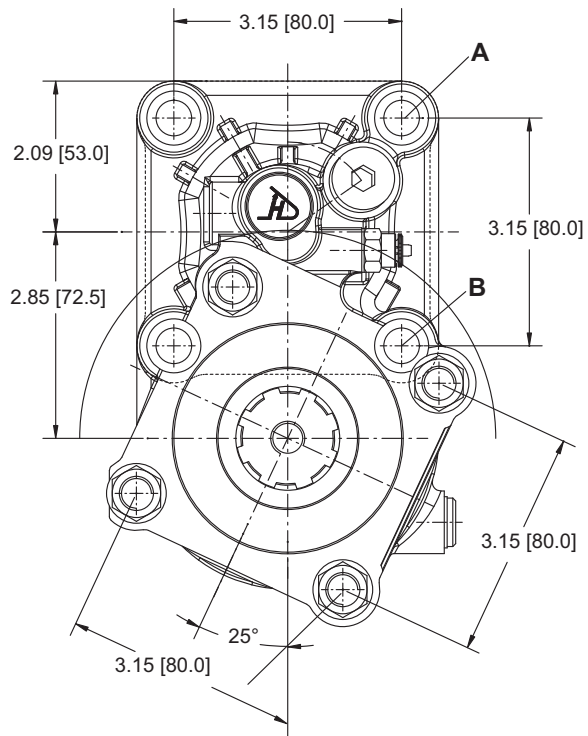
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
01		NA		15	1	1705520000	BEARING HK 5520
02	1	5400013000	WASHER 13	15a	1	11510086P00	THRUST WASHER
03	1	2212080000	HEX HEAD BOLT M12x80 UNI 5737	16	1	SEE CHART A	INPUT GEAR
04	1	12120082000	OUTPUT FLANGE SPICER 1300	16a	1	11910086P00	INPUT SHAFT
05	1	37V5080000	50X80X8	17	1	12820082P00	SCREW
06	1	6100080000	SNAP RING	18	1	11610082P00	SPRING
07	1	1332010000	BEARING 32010	19	1	1706020000	BEARING HK 6020
07a	1	5907020000	SHIM 70X80X2	19a	1	11520086P00	WASHER
		5907010000	SHIM 70X80X1	20	1	10140086P00	PILOT RING WITH O-RING
		5907005000	SHIM 70X80X0.5	20a	1	39V20900000	ORING
		5907003000	SHIM 70X80X0.3	21	1	1332303000	BEARING 32303
		5907002000	SHIM 70X80X0.2	22	1	SEE TABLE A	OUTPUT GEAR
		5907001000	SHIM 70X80X0.1	23	1	10110086P00	HOUSING
08		NA		24		NA	
09	1	31V4112000	O-RING 4112	25		NA	
10	1	31V0115000	O-RING 115		1	194KSP19000	MERIT N.C. SWITCH KIT
11	1	11710086P00	AIR PISTON	26	1	5500016000	WASHER
12	1	44T39578	FITTING 12MM	27	1	9901460000	SWITCH, MERIT N.C.
13	1	44MB6844PTC	AIR FITTING	28	1	9901440000	SWITCH PROTECTOR
14	1	11430084000	RING	29	1	12780070000	PIN

# RS4S-P86Z\*-Z1CX

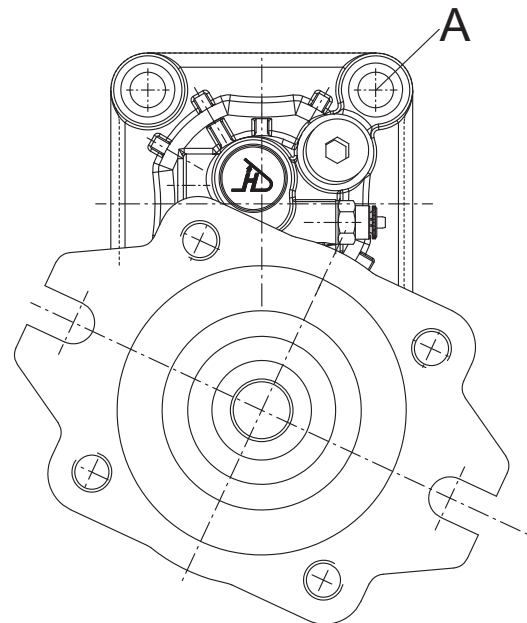
## DIMENSIONS



**DIN 5462**  
**"I" OUTPUT OPTION**  
 MAX. PUMP WT.  
 LIMIT 30 LBS.



**SAE "B"**  
**"K" OUTPUT OPTION**  
 MAX. PUMP WT.  
 LIMIT 25 LBS.



**SAE-B Kit to mount flange to PTO**  
**20MKM401**

QTY	PART NUMBER	DESCRIPTION
4	20M47050	Metric Stud
4	21ML4375	7/16 Lockwasher
4	22MX4420	7/16-20 Hex Nut

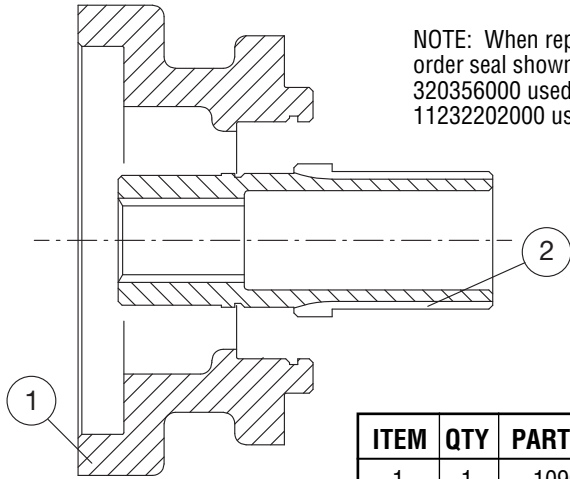
**PTO Mounting Kit to mount PTO to Transmission**  
**199K7930000**

QTY	PART NUMBER	DESCRIPTION	MOUNT LOC.
2	2312110000	Allen Bolt M12x110	A
2	2312140000	Allen Bolt M12x140	B
4	5300012000	Washer M12	
1	039V209000	O-ring 90x2	

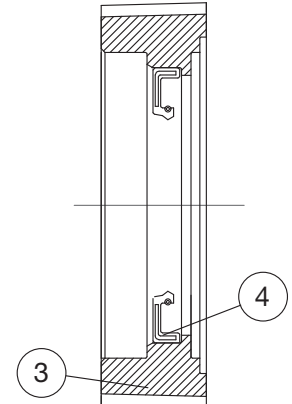
# DIRECT MOUNT PUMP FLANGE KIT

FLANGE KIT 606X80A0000 (P82Z OR P86Z)

SAE "B" - OUTPUT OPTION "K"



NOTE: When replacing the 12110082P00 adaptor, order seal shown below. This replaces the seal 320356000 used the output flange #1, and gasket 11232202000 used between the flange and adaptor.



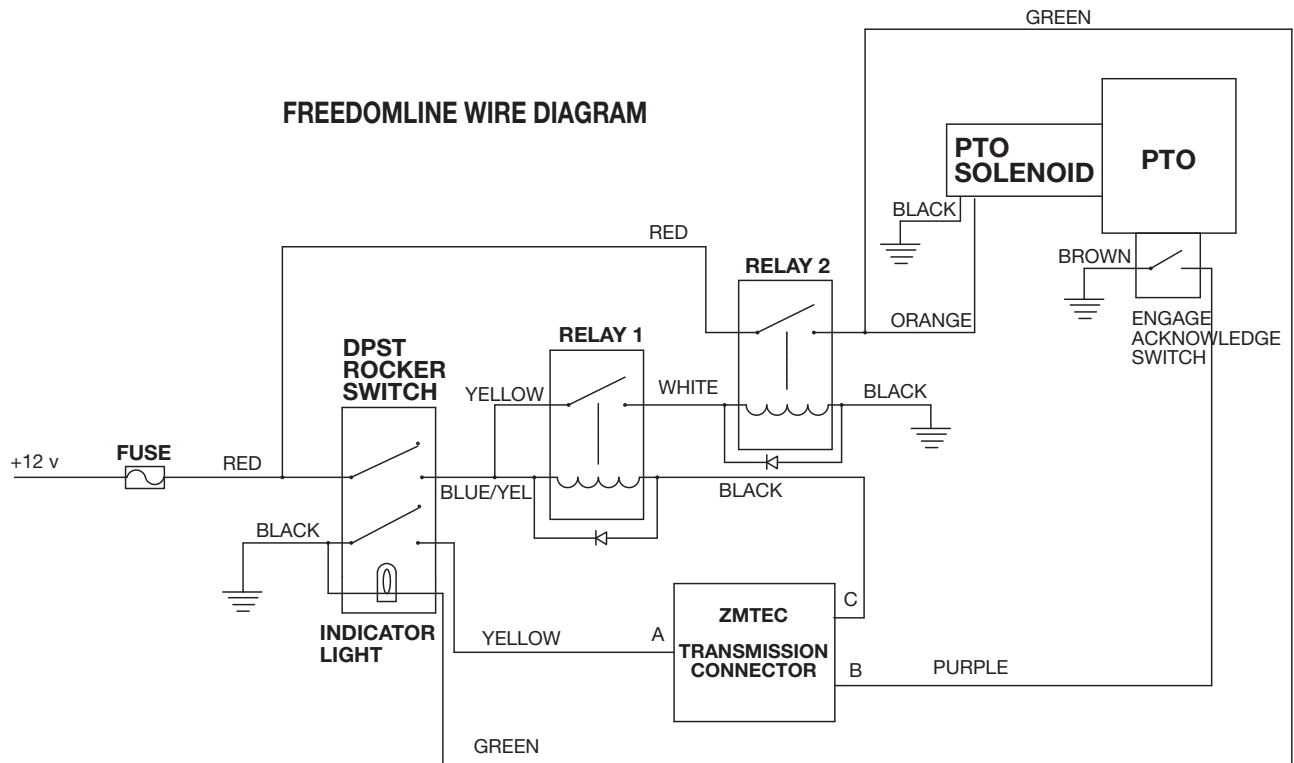
Used on P82Z1 Only

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1090105000	Hyd. Flange "K"
2	1	1170209200	Output Shaft "K"
<b>ITEM REQ. NOT INCLUDED IN MOUNTING KIT (P82Z1 only)</b>			
3	1	12110082P00	Adaptor
4	1	3205072000	Shaft Seal(incl. w/adp. #3)

# ELECTRICAL SCHEMATIC

ZF/MERITOR FREEDOMLINE TRANSMISSION

## FREEDOMLINE WIRE DIAGRAM



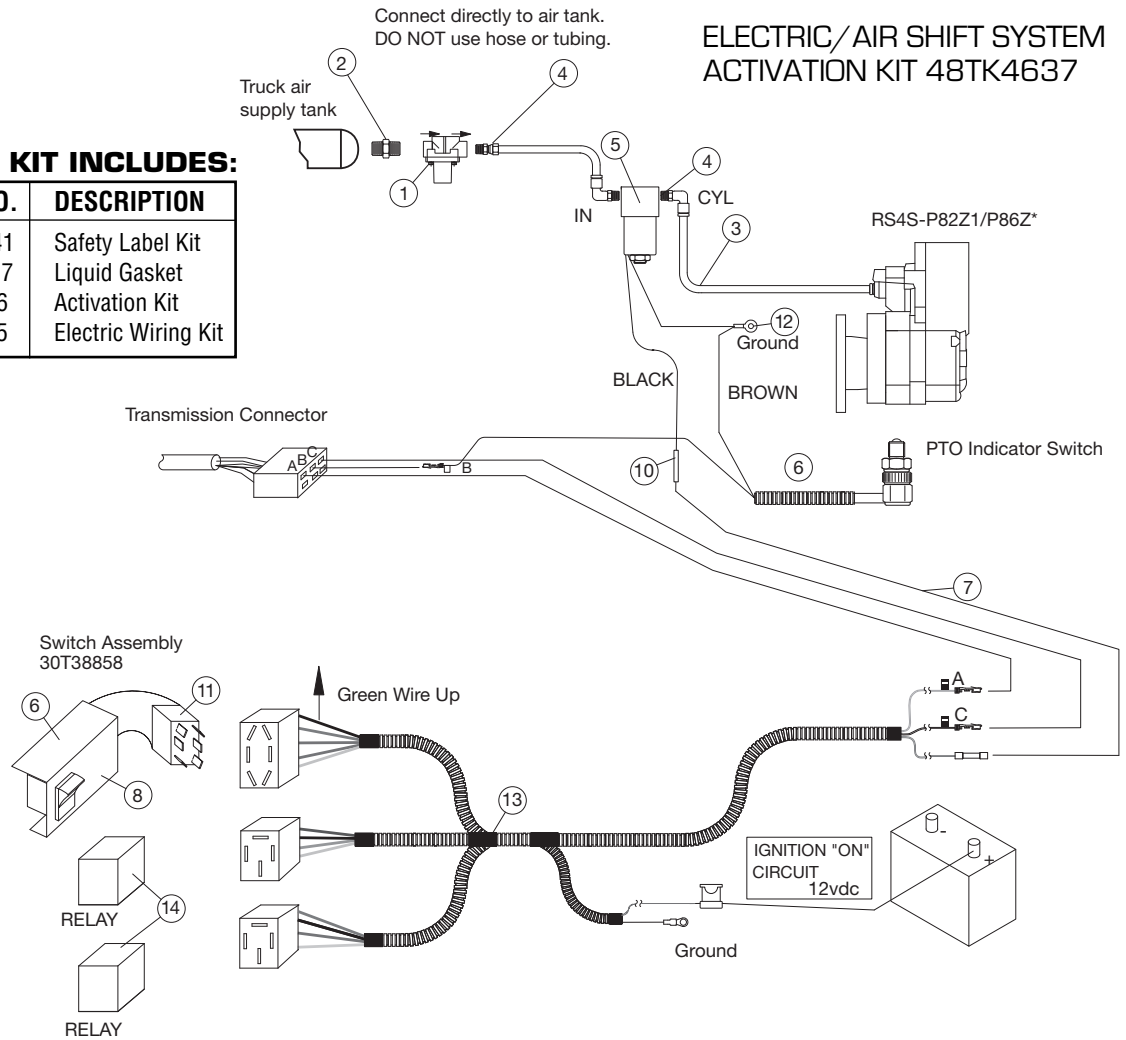
# INSTALLATION WIRING DIAGRAM

RS4S-P82Z1-E1CX and RS4S-P86Z\*-Z1CX

## ELECTRIC/AIR SHIFT SYSTEM ACTIVATION KIT 48TK4637

### 48TK4637 KIT INCLUDES:

QTY	PART NO.	DESCRIPTION
1	36MK3841	Safety Label Kit
1	13M51717	Liquid Gasket
1	48TK4636	Activation Kit
1	48TK4635	Electric Wiring Kit



## PARTS LIST & DESCRIPTION

### ELECTRIC/AIR ACTIVATION KIT 48TK4636

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	31M15759	Pressure Protection Valve
2	1	44MB2164	Nipple
3	1	45M44430	Airline
4	3	44MB6844PTC	Fitting
5	1	35M30692	12VDC Solenoid, Air
N.S.	1	48TA3953	Mounting Kit, Solenoid
N.S.	1	44T39578	Metric Adapter

### ELECTRICAL WIRING KIT 48TK4635

ITEM	QTY	PART NUMBER	DESCRIPTION
6	1	34T38909	Wire Harness, Indicator Swt
7	15	37M18000	Wire
8	1	36T36271	Face Plate
9	1	36MA1005	Bracket
10	3	34M18002	Butt Splice
11	1	30T38858	Rocker Switch
12	1	34M18009	Ring Terminal
13	1	34T38868	Wire Harness
14	2	37M52285	Relay



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