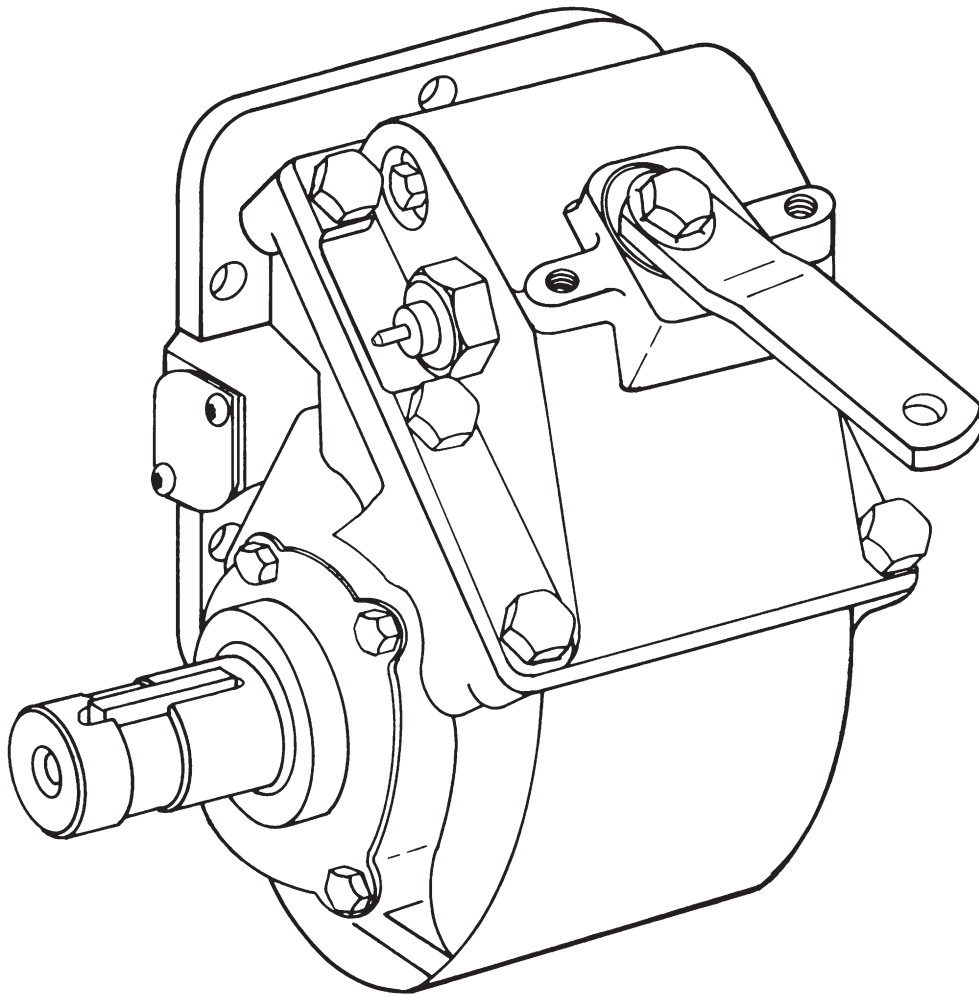




Muncie®
Power
Products

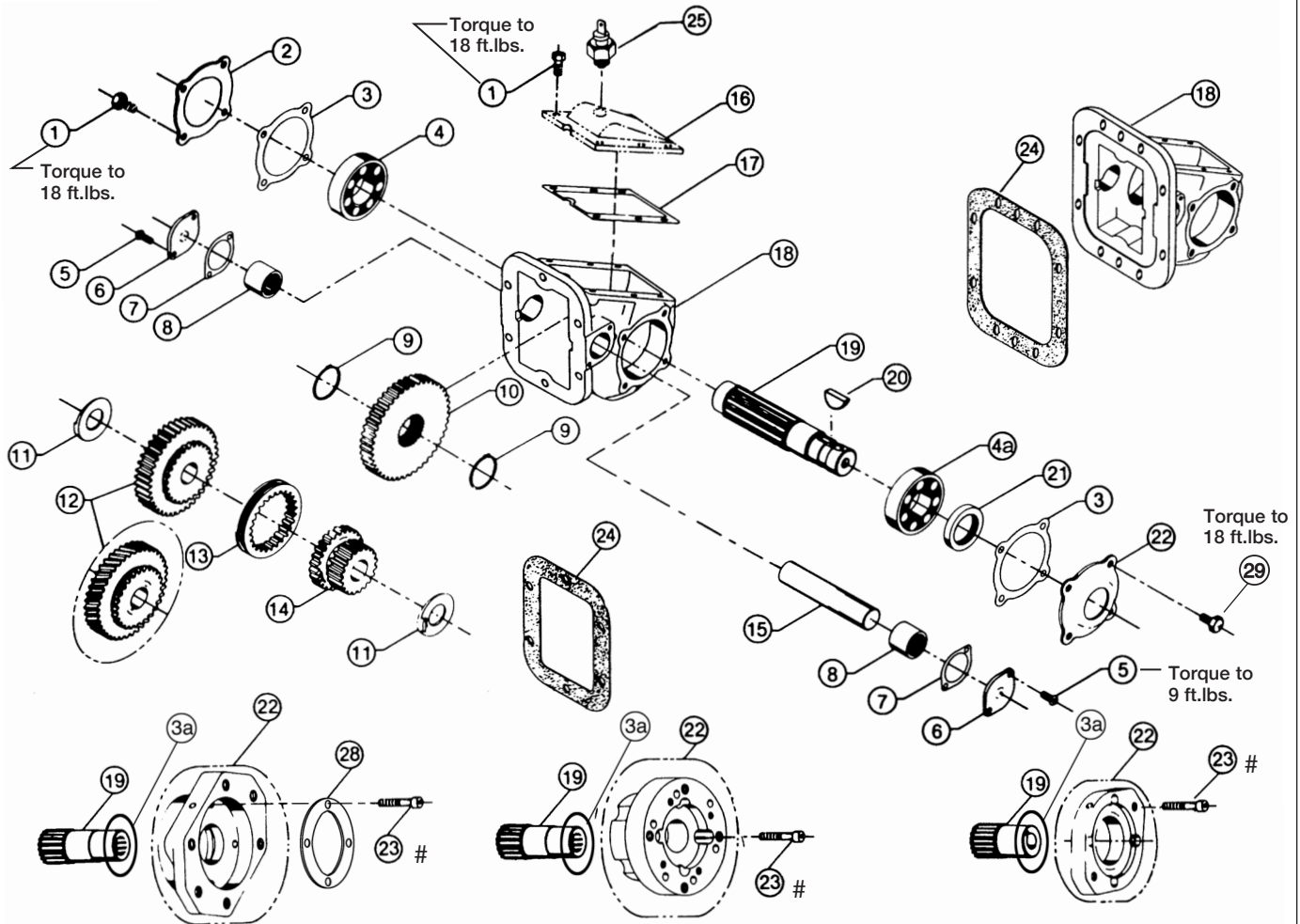
TG SERIES POWER TAKE-OFF

PARTS LIST AND SERVICE MANUAL



TG SERIES PTO

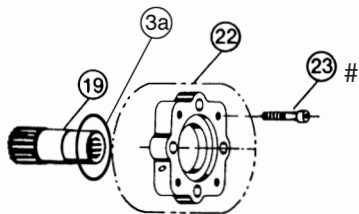
EXPLODED VIEW



"L", "K", & "P" HYD. FLANGE

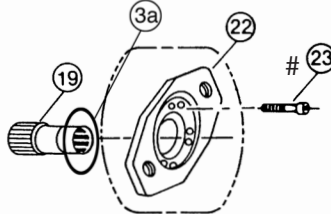
"M" HYD. FLANGE

"F", "Q", "R" & "T" HYD. FLANGE

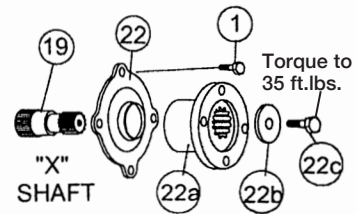


"G" HYD. FLANGE

Torque to 25 ft.lbs.



"S" HYD. FLANGE

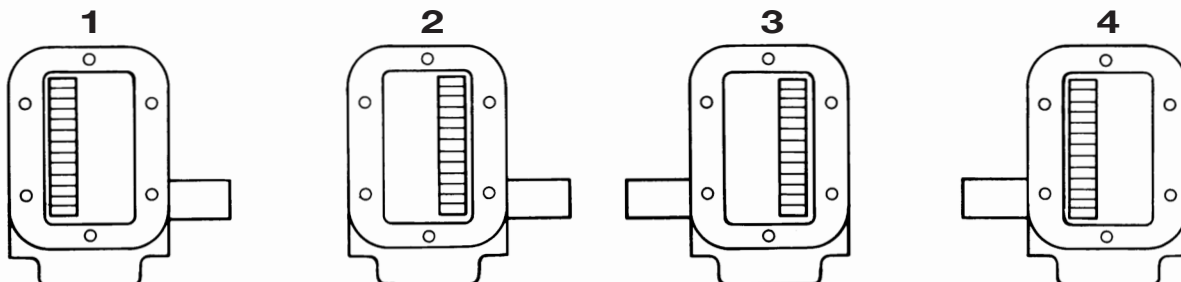


"C" & "2" COMP. FLANGE

Torque to 35 ft.lbs.

Note: For "I" and "Z" options, and "KG" and "PG" options, see page 15.

ASSEMBLY ARRANGEMENTS



PARTS LIST AND DESCRIPTION

ITEM	QTY	PART NUMBER	DESCRIPTION
1	10	19T33233	Cap Screw Std Assembly
	4	19T33233	Cap Screw T or 6 Shift Option
	6	19T39257	Cap Screw T or 6 Shift Option
2	1	15T34323	Closed Bearing Cap
	1	15T34576	Bearing Cap "KG" & "PG" Shaft
3	1	13T38542	Gasket
3a	1	12T36751	O-Ring (Output)
4	1	10T21017	Output Bearing
4a	1	10T38248	Output Bearing "I" & "Z"
5	4	19T34530	Button Head Cap Screw (Std.)
	1	19M2562S	Flat Cap Screw (I85, G85)
	1	19T34530	Button Head Cap Screw (I85)
	2	19T31664	Socket Cap Screw (I85)
	4	19T31664	Socket Cap Screw (S71)
	3	19T34530	Button Head Cap Screw (G85)
6	2	15T33977	Idler Shaft Cap
	2	15T35351	Idler Shaft Cap (TG6N-I85)
	2	15T35612	Idler Shaft Cap (TG6N-S71) (See page 21 for installation)
7	2	13T38286	Gasket
8	2	10T24175	Input Bearing
9	2	24T23937	Snap Ring (as required)
10	1	See Page 4	Output Gear
11	2	21T34281	Thrust Washer
	2	21T38375	Coated Washer (A) Gears
12	1	See Page 4	Input Gear
13	1	49T33959	Clutch
	1	49T38158	Clutch (A69)
14	1	See Page 4	Ratio Gear
15	1	07T33974	Idler Shaft
16	1	See Pg 6-10	Shift Cover Assembly
17	1	13T64246	Gasket
18	1	01T37765	Housings
	1	01T33958	6-Bolt (6F) Housing
	1	01T34461	6-Bolt Housing Std. (see page 24 if marked with "W")
	1	01T35032	8-Bolt 'M' Housing
	1	01T35342	6-Bolt (TG6N) Housing
19	1	06T41757	Output Shafts
	1	06T36857	"X", "C", & "2" Shaft
	1	06T35048	"B" Shaft
	1	06T35082	"Q" & "S" Shaft
	1	06T35082	"R" Shaft
	1	06T39143	"M", "K", & "6" Hyd. Shaft
	1	06T38373	"KG" Hyd. Shaft
	1	06T39140	"F" & "N" Hyd. Shaft
	1	06T39136	"G" Hyd. Shaft
	1	06T39139	"L" Hyd. Shaft
	1	06T36136	"P" Hyd. Shaft
	1	06T38374	"PG" Hyd. Shaft
	1	06T38261	"I" Hyd. Shaft
	1	06T37335	"T" Hyd. Shaft
	1	06T38242	"Z" Hyd. Shaft
		06T63182	TG8F-E80 Output Shafts
		06T63180	"X", "C", & "2" Shaft
		06T63061	"B" Shaft
		06T63184	"M", "K", & "6" Shaft
		06T63168	"KG" shaft
		06T63172	"F" & "N" Shaft
			"P" Shaft
20	1	26T01627	Woodruff Key (Std. Shaft)
	1	26T35254	Key ("F" Shaft Only)
21	1	11T37790	Shaft Seal (2 Req. for "KG" or "PG" Output)
	1	11T38247	Shaft Seal ("I" and "Z" Output)
22	1	15T41683	Bearing Caps
	1	14T39166	"B", "C", "2", & "X" Output***
	1	14T39165	"T", "Q", & "R" Hyd. Flange
	1	14T39163	"G" Hyd. Flange
	1	14T39167	"K", "KG", "L", "P", & "PG" Hyd. Flange
	1	14T39162	"M" Hyd. Flange
	1	14T38259	"S" Hyd. Flange
	1	14T38244	"I" Hyd. Flange
	1	14T39528	"Z" Hyd. Flange
	1	14T39538	"6", "6G" Hyd. Flange
	1		KW, PW Hyd. Flange Wet
	1		Spline w/o shaft seal 11T37790

ITEM	QTY	PART NUMBER	DESCRIPTION
22a	1	18T38246	Pilot Ring "I" & "Z" Hyd (See page 15)
	1	14T37357	"C" Companion Flange
	1	14T37378	"2" Companion Flange
	1	12T43185	KW, PW, Pump O-Ring
22b	1	21T20092	Flat Washer ("2", "C", & "X" Only)
22c	1	19T38266	Cap Screw ("2", "C", & "X" Only)
23	4	19T34462	Cap Screw (Hyd. "L", "K", "P", "KG", "PG" Assy. Only)
	4	19T38249	"M" Hyd. Flange Assy. Only
	4	19M84478	"N" Hyd. Flange Assy. Only
	4	19T39257	"F", "G", "Q", "R", "S", & "T" Hyd. Assy. Only (B Piloted Cover)
	4	19T41756	Cap Screw (Hyd. "I" & "Z" Only)
	4	19T96512	Cap Screw (Hyd. "I" & "Z" Only)
N.S.	1	19MK4717	Bolt Kit "G" Flange (Option)
N.S.	1	13M51717	Tube, Gasket Eliminator (For W80 Only)
38	4	19T41118	Cap Screw
24	1	13M35091	.010 6-Bolt Gasket
	1	13M35092	.020 6-Bolt Gasket
	1	13M13541	Allison Gasket (U60, A69)
	1	13M35151	.010 8-Bolt Gasket
	2	13M35152	.020 8-Bolt Gasket
	1	13T35198	.010 Gasket (TG6N-I85)
	1	13T35199	.020 Gasket (TG6N-I85)
	1	13T62705	Spl. Gasket (8F-E80)
25	1	30T38111	Positive Indicator Switch (includes O-Ring)
	1	30T38110	For 1 & 4 Assy. (White) N.O. For 2 & 3 Assy. (Black) N.C.
42	1	25T35724	Cap Plug F, G, K, M, N, Q, & S
	1	25T35725	Cap Plug L & P
	1	25T38309	Cap Plug I
	1	25T35520	Cap Plug R
	1	25T37387	Cap Plug T
	1	25T35936	Cap Plug Z
27	1	43T37236	Zerk ("KG" or "PG")
28	1	58T38789	Installation Ring (Output Flange "K", "L", "P", "KG", "PG", "Z", "6", & "6G")
29	4	19T41756	Cap Screw ("B", "C", "2", & "X" Output)
N.S.	2	26T37992	Dowel Pins (TG6F)
N.S.	1	30M91113	Two Terminal Switch N.O. (I option) (Silver)
	1	30M92247	Two Terminal Switch N.C. (I option) (Gold)
N.S.	1	12T32526	O-Ring
N.S.	1	30TK4123	Switch w/Booted Control N.C.
N.S.	1	30TK4124	Switch w/Booted Control N.O.
N.S.	1	36M111NP	Nameplate
N.S.	1	36MK3841	Label Packet
N.S.	1	TG-GSK-A1	Gasket & Seal Kit – Air Shift Items 3, 3a, 7, 17, & 21, (1) 12T36526 (See Air Cover Pg. 6, Items 10 & 4)
N.S.	1	TG-GSK-C	Gasket & Seal Kit – Cable Shift Items 3, 3a, 7, 17, & 21, (1) 12T36526 (See Cable Cover Pg. 7, Items 1, 5, 6, & 9)
N.S.	1	TG-GSK-S	Gasket & Seal Kit – Lectra Shift Items 3, 3a, 7, 17, & 21, (1) 12T36526 (See Lectra Shift Pg. 7, Items 10 & 4)
N.S.	1	TG-GSK-T	Gasket & Seal Kit – E-Hydra (before 12/07) Items 3, 3a, 7, 17, & 21, (1) 12T36526 (See E-Hydra Pg. 8, Items 8 & 14, 12T35345)
N.S.	1	TG-GSK-T1	Gasket & Seal Kit – E-Hydra (12/07 & later) Items 3, 3a, 7, 17, & 21, (1) 12T36526 (See E-Hydra Pg. 8, Items 2 & 11)
N.S.	1	TG-GSK-IA	Gasket & Seal Kit – Air – "I" or "Z" Output
N.S.	1	TG-RBK-A1	Rebuild Kit – Air Shift Items 3, 3a, 4, 7, 8, 9, 11*, 17, 20, & 21 (1) 12T36526 (See Air Cover Pg. 6, Items 10 & 4)
N.S.	1	TG-RBK-C	Rebuild Kit – Cable Shift Items 3, 3a, 4, 7, 8, 9, 11*, 17, 20, & 21 (1) 12T36526 (See Cable Cover Pg. 7, Items 10 & 4)
N.S.	1	TG-RBK-S	Rebuild Kit – Lectra Shift Items 3, 4, 7, 8, 9, 11*, 17, 20, & 21 (1) 12T36526 (See Lectra Shift Pg. 7, Items 10 & 4)
N.S.	1	TG-RBK-T	Rebuild Kit – E-Hydra (before 12/07) Items 3, 3a, 4, 7, 8, 9, 11*, 17, 20, & 21 (1) 12T36526 (See E-Hydra Pg. 8, Items 8, & 14, 12T35343)
N.S.	1	TG-RBK-T1	Rebuild Kit – E-Hydra (12/07 & later) Items 3, 3a, 4, 7, 8, 9, 11*, 17, 20, & 21 (1) 12T36526 (See E-Hydra Pg. 8, Items 2, & 11, 12T35343) *Use (2) 21T38375
N.S.	1	TG-RBK-IA	Rebuild Kit – Air "I" or "Z" Output

In assembly and disassembly the recommended torque value of all hex head cap screws is 18 ft.lbs.** and the recommended torque value on the button head cap screws is 9 ft.lbs. Should any cap screw loosen over time, the cap screw should be discarded and threads examined for damage. Use new cap screws with lock patch.

Notes: **Hydraulic flange cap screws are 25 ft.lbs. *** It is recommended to use Loctite #640 on outside of seal when replacing the shaft seal.

GEAR SET SELECTION CHART

TRANSMISSION & RATIO DESIGNATOR

U60 04

ITEM 12			
INPUT GEAR	TEETH	TRANS	NOTE
03T38783	(30T)	A69	3
03T34810 *	(18T)	C57	
03T34452 *	(23T)	C60	
03T34454 *	(20T)	C61	
03T34453 *	(24T)	C70	
03T34455 *	(28T)	C76	
03T40079 *	(37T)	D94	
03T64783	(27T)	E70	
03T62715	(33T)	E80	10
03T94192 *	(42T)	F10	
03T35189 *	(42T)	F11	
03T35031 *	(21T)	F61	
03T35613 *	(25T)	F62	
03T35024	(24T)	F63	
03T35025 *	(25T)	F65	
03T38140	(24T)	F66	
03T37657	(26T)	F70	
03T96626 *	(29T)	F75	
03T37740 *	(28T)	F84	2
03T43207 *	(31T)	F89	
03T34325 *	(27T)	G73	
03T35180 *	(30T)	G85	
03T37328 *	(34T)	I84	
03T34597	(26T)	M65	
03T38530 *	(31T)	M80	4
03T38531 *	(30T)	M83	

ITEM 12			
INPUT GEAR	TEETH	TRANS	NOTE
03T37655A *	(35T)	N10	9
03T35730 *	(16T)	N56	7
03T39158 *	(24T)	N70	5
03T35489A *	(30T)	N79	8, 9
03T35488A *	(28T)	N80	8, 9
03T34457 *	(28T)	N81	
03T34286 *	(21T)	S60	
03T96746 *	(22T)	S61	
03T38184 *	(22T)	S63	
03T94243	(26T)	S68	
03T34287 *	(24T)	S70	
03T35540	(29T)	S71	
03T37918 *	(28T)	S73	
03T38546 *	(29T)	T81	
03T35650 *	(28T)	T82	
03T34451 *	(20T)	U57	
03T34285	(24T)	U60	1
03T39495 *	(24T)	U62	
03T34284	(24T)	U68	
03T34326 *	(31T)	W80	6
03T96773 *	(24T)	X68	
03T17306A *	(38T)	Z10	9
03T39491A *	(32T)	Z90	9
03T37260A *	(32T)	Z92	9
03T35935A *	(37T)	Z98	9
03T17307A *	(31T)	Z99	9

ITEM 14			ITEM 10	
RATIO	RATIO GEAR	TEETH	OUTPUT GEAR	TEETH
04	04T34277	(13T)	02T34278	(36T)
05	04T34275	(16T)	02T34276	(34T)
06	04T34441	(19T)	02T34440	(31T)
07	04T34271	(21T)	02T34272	(29T)
08	04T35186	(23T)	02T35185	(26T)
09	04T34399	(24T)	02T34398	(26T)
12h	04T35155	(26T)	02T35162	(23T)
13h	04T35363	(27T)	02T35362	(21T)
15h	04T34598	(29T)	02T39172	(20T)
18h	04T34605	(31T)	02T34601	(18T)

Note-Item 10 and 14:

Input Ratio Gear & Output Gear must be used in pairs as shown above.

The TG Series PTO is designed to allow easy change from one model transmission to another by changing only one gear and to allow changing speeds by changing two gears.

The chart shows gear part numbers for each transmission designator (Ex: U60) and each speed ratio available (Ex: 04).

X68 INPUT GEAR:

Mack Trucks and TTC/Spicer provide 6-pitch spur gear drive gears which have a modified tooth profile and this profile makes it possible to have contact with the root of our standard U68 PTO gear as it is designed for the TG PTO. The X68 was design to eliminate this problem. The X68 gear can be used anywhere the U68 gear is used, but it must be used with the additional 23M60032S or 23M80032 spacer. The U68 gear should NOT be used on any application page showing the X68 input gear designator.

S68 INPUT GEAR:

The S68 input gear is a larger 6-pitch spur gear than the U68 or X68 input gear. This causes the gear to stick out of the housing further (or reach in deep into the transmission) thus the use of the "D" deep mount designator. The S68 is available in the TG Series as well as the SH/CS6/8 Series. (Note that the SH/CS Series with the S68 input gear are limited to the 07, 09, 12 ratios and the SH8D-S6813 or CS8D-S6814 ratios.)

The S68 is designed to fit either the U68 or X68 application without internal tooth interference. As an option, the S68 input gear can be used in place of the U68 or X68 when used with the additional spacer and stud kit as shown on the application page. Changing from the X68 or U68 to the larger S68 will change the output speed shown on the page, use multiplier .92 to determine the new PTO output percentage.

Notes:

- When using this gear, replace the gasket pack with 52MK1002 or add 13M13541 gasket/shim when used with 04 or 05 ratio on Allison transmissions. Note that the TG04 ratios kits from Muncie Power include this gasket (kit), but the TG05 ratio kits do not.
- With this gear a special housing (01T37765 w/(2) 26T37992 pins), a stud kit 20TK4049 (metric), and 52TK4113 packet is used. Use of any other housing is not approved.
- The TG Series PTO always uses a special shifter cover when this input gear is used. Requires 20MKM604 stud kit and 23M60270 spacer and 52TK4470 kit to be used with the installation of the PTO & shift collar (49T38158).
- Used only with special housing 01T35342 (N) and metric stud kit 20MKM602.
- When selling this gear include the visor seal decal, 36M35665TC, with the boxed gear. When assembling a unit mount this decal on the visor label included with the PTO before applying to vehicle visor.
- 13M51717 tube, gasket eliminator, is to be included with the boxed gear or when assembled into a unit.
- Requires adapter plate kit 29TK3863.
- Include special lube sheet MC94-02.
- Gears with "A" include (2) coated thrust washers 21T38375 (item 11).
- E80 requires special output shaft.

* Input Gears in italics and with an asterisk are obsolete.

They will be available as service parts only, until inventory is depleted.

TG MODEL NUMBER CONSTRUCTION

TG 6S — U60 04 — C 1 B X

PTO Type

TG — Triple Gear

Mounting Options

6S — SAE 6-Bolt Std. Mtg.
 6D — SAE 6-Bolt Non-Std. Mtg. (N81, S68 & W80)
 6N — SAE 6-Bolt Non-Std. Mtg. (Isuzu NPR, Spcr. S71, S73, & M80)
 8S — SAE 8-Bolt Std. Mtg.
 8D — SAE 8-Bolt Non-Std. Mtg.
 8F — SAE 8-Bolt Non-Std. Mtg. — Eaton Endurant (E70 & E80)
 8M — SAE 8-Bolt Extra Deep Mtg.
 6A — SAE 6-Bolt Std. Mtg. w/29TK3863 (for N56)
 6B — SAE 6-Bolt Std. Mtg. — Metric Studs
 6C — SAE 6-Bolt Non-Std. Mtg. — Metric Studs
 6F — SAE 6-Bolt Std. w/Dowel Pins — Metric Studs (F84)
 6K — SAE 6-Bolt Non-Std. Mtg. — Less Stud Kit
 6L — SAE 6-Bolt Std. Mtg. — Less Stud Kit
 8B — SAE 8-Bolt Std. Mtg. — Metric Studs
 8C — SAE 8-Bolt Non-Std. Mtg. — Metric Studs
 8K — SAE 8-Bolt Non-Std. Mtg. — Less Stud Kit
 8L — SAE 8-Bolt Std. Mtg. — Less Stud Kit

Transmission Input Gear Options

A69 — Allison 6.86P 20° PA Spur
 E70 — Eaton 7.055P 20° PA Spur
 E80 — Eaton 8.048P 20° PA 28.98 RH
 F63 — Fuller 6.35P 20° PA 22° LH
 F66 — Fuller 6.65P 20° PA 21.5° LH
 F70 — Fuller 7P 23° PA 26° LH
 M65 — Mack 6.48P 17° 30' PA Spur
 S71 — Trecmec/Spicer 7P 17.5° PA 18° LH
 S68 — Universal 6P or 6/8P 20° PA Spur Deep Reach
 U60 — Universal 6P 20° Spur, Full Addendum
 U68 — Universal 6P or 6/8P 20° PA Spur
 Kit — None Less Input Gear

OBSELETE Transmission Input Gears*

I84 — Aisin 8.46P 20° PA Spur *
 C57 — Clark 5.7P 25° PA 38.7° LH *
 C60 — Clark 6.100P 25° PA 18° 40' 48" RH *
 C61 — Clark 6.100P 25° PA 32° 16' 48" LH *
 C70 — Clark 7P 25° PA 30° 46' 48" LH *
 C76 — Clark 7.6168P 18° 29' 22" 23° 12' 57" LH *
 D94 — Dodge 9.41P 18.33° PA 26.47° RH *
 F10 — Fuller 10.1P 20° PA Spur *
 F11 — Fuller 10.1P 21.5° PA Spur *
 F61 — Fuller 6.1P 20.5° PA 29° LH *
 F62 — Fuller 6.27P 22.5° PA Spur *
 F65 — Fuller 6.5P 20° PA 23° LH *
 F75 — Fuller 7.5P 22° PA 15° LH *
 F84 — Fuller 8.38P 18° PA 33.1° LH *
 F89 — Fuller 8.97P 17° PA 30.25° LH *
 G73 — GMC 7.3449P 20° PA 24° LH *
 M80 — Mercedes 8.04P 17.5° PA 26.97° LH *
 M83 — Mercedes 8.38P 17.5° PA 24.97° LH *
 N81 — New Process 8.116P 20° PA 33° 30' LH *
 N10 — New Venture 10.4019P 20° PA 34.5° LH *
 N79 — New Venture 7.94P 22.5° PA 30° LH *
 N80 — New Venture 7.99P 22.19° PA 29° LH *
 N56 — Nissan 5.64P 20° PA Spur *
 S60 — Trecmec/Spicer 6P 17.5° PA 26° 10' 37" LH *
 S61 — Trecmec/Spicer 6P 17.5° PA 22.25° LH *
 S63 — Trecmec/Spicer 6.1P 20° PA 23.15° LH *
 S70 — Trecmec/Spicer 7P 17.5° PA 28° 4' 23" LH *
 S73 — Trecmec/Spicer 7P 22.5° PA 19° RH *
 T81 — Trecmec 8.1P 20° PA 29.47° RH *
 T82 — Trecmec 8.19P 20° PA 29.9° LH *
 U57 — Universal 5 or 5/7P 20° Spur *
 U62 — Universal 6P 25° PA Spur *
 X68 — Universal 6P or 6/8P 20° PA Spur, Full Dedendum *
 W80 — Warner 8.0829P 20° PA 30° LH *
 Z10 — Zed F 10.3673P 20° LH *
 Z92 — Zed F 9.2364P 20° PA 36° LH *
 Z98 — Zed F 9.96078P 20° RH *
 Z99 — Zed F 9.96078P 20° RH *

Notes: * Obsolete input gears will be available as service parts only, until inventory is depleted.

** Requires Special Kit

*** Obsolete shift options.

Special Feature Options

X — None
 A — Inverted Air Cover
 E — U60 w/Std. Gasket Pack
 F — Clearance Idler Cap
 G — Greaseable Shaft (K, P, & V Only)
 H — High Torque (12, 13, 15, & 18 Only) Std.
 I — Dual Terminal Indicator
 J — High Torque—Pressure Lube (12, 13, 15 & 18 Only)
 M — Clearance Idler Cap
 P — Pressure Lube (Optional)
 Q — Clearance Idler Cap—High Torque
 V — U60 w/Std. Gasket Pack, Milled Idler Cap
 7 — Remote Pressure Switch

Output Options

B — 1¼" Round Keyed Shaft
 C — 1410 Companion Flange
 F — SAE "A" 2-Bolt
 G — Special
 I — DIN 5462
 K — SAE "B" ⅞" -13T, SAE "B" 2- & 4-Bolt
 L — SAE "B" 2- or 4-Bolt, Low Box Mount
 M — SAE "A" ⅝" -9T, SAE "A" 2- & 6-Bolt
 P — SAE "BB" 1" -15T, SAE "BB" 2- & 4-Bolt
 Q — SAE "B" ⅞" -13T, SAE "A" 2-Bolt
 R — SAE "A" ⅝" -9T, SAE "A" 2-Bolt
 S — SAE "B" ⅞" -13T, SAE "B" 2-Bolt
 T — SAE ¾" -11T, SAE "A" 2-Bolt
 X — 1¼" -20T Spline for Companion Flange
 Z — SAE "C" 1¼" -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

Shift Options

A — 12 V Manual Air
 C — Cable Shift
 E — 12 V Electric/Air
 F — 24 V Electric/Air
 H — 12 V Hydraulic Shift
 J — 24 V Hydraulic Shift
 K — 24 V Manual Air
 M — Constant Mesh (U6004)
 P — Manual Air (Less Installation Kit)
 Z — Cable (A69)
 4 — 12 V Manual Air (A69)
 5 — 12 V Electric/Air (A69)
 9 — 12 V Hydraulic Shift (A69 Only)

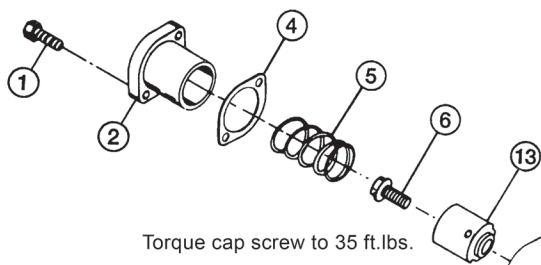
OBSELETE Shift Options*

N — Special Electric/Air (N56) **
 S — Lectra Shift ***
 T — E-Hydra ***
 6 — Lectra Shift (A69) ***

Speed Ratios

04 — .361:1
 05 — .470:1
 06 — .613:1
 07 — .724:1
 08 — .885:1
 09 — .923:1
 12 — 1.170:1
 13 — 1.333:1
 15 — 1.500:1
 18 — 1.720:1

AIR COVER OPTION "A" OR "E"



ASSEMBLY PART NUMBERS

16TA3803	For Assemblies 1 & 4 (Assembly Shown)
16TA3804	For Assemblies 2 & 3
16TA6522	1 Assembly Eaton Endurant
16TA6523	2 Assembly Eaton Endurant

Lubricate piston before installing in cover cup.



V-Ring installation

Torque cap screw to 9 ft.lbs.

AIR COVER PARTS LIST AND DESCRIPTIONS

ITEM	QTY.	PART NO.	DESCRIPTION
1	4	19T34494	Cap Screw
2	1	28T35675	Cover Cup (Closed End)
3	1	28T34480	Cover Cup
4	2	13T38286	Gasket*
5	1	27T35073	Spring
6	1	19T35681	Cap Screw
7	1	22T35682	Nut
8	1	16T35377	Cover Housing
9	1	49T35204	Piston
10	2	28T35205	V-Ring
11	1	25T34029	Cap Plug
12	1	28T34481	Yoke
13	2	28T35695	Guide

TG-ASSK-1

Air Cover Seal Kit – Items 4, 10 & (2) 12T35343 [From Page 3 – Item 17, (1) 12T36526]

RBK-3838

Air Cover Rebuild Kit – Items 1, 2, 3, 4, 5, 10, 12, (2) 12T35343 [From Page 3 – Item 17, (1) 12T36526]

* When repairing cover with O-Ring seals (4) use RTV with supplied gaskets.

DOUBLE ACTING

AIR SHIFT

OPTION 16TA3955

Add to Standard Air Cover Parts List:

(1) 28T34480,
(1) 49T35204,
(2) 28T35205

Delete: (1)
27T35073,
(1) 28T35675

CONSTANT MESH "M" SHIFT OPTION

For Assemblies 1 & 4 use: 16TA3804 Air Cover and: Replace (1) 28T34480 with (1) 28T35675; Remove (1) 49T35204 piston and (2) 28T35205 V-Rings; Install (1) 25T32143 plug w/12T36526 O-Ring into indicator switch hole.

For Assemblies 2 & 3 use: 16TA3803 Air Cover and change as indicated above.

When using the U6004 (03T34732) input gear use: (1) 16T35377 cover housing; Install (2) 15T33977 shaft caps with (2) 13T38286 gasket & (4) 19T34530 cap screws; Install (1) 25T32143 plug w/12T36526 O-Ring into indicator switch hole.

REVERSED COVER INSTALLATION

ASSEMBLED SHIFTER PART NUMBERS:

(Includes Adapter Plate and Hardware)

16TK3835 (Reversed Air Cover For Assys. 1 & 4)

16TK3836 (Reversed Air Cover For Assys. 2 & 3)

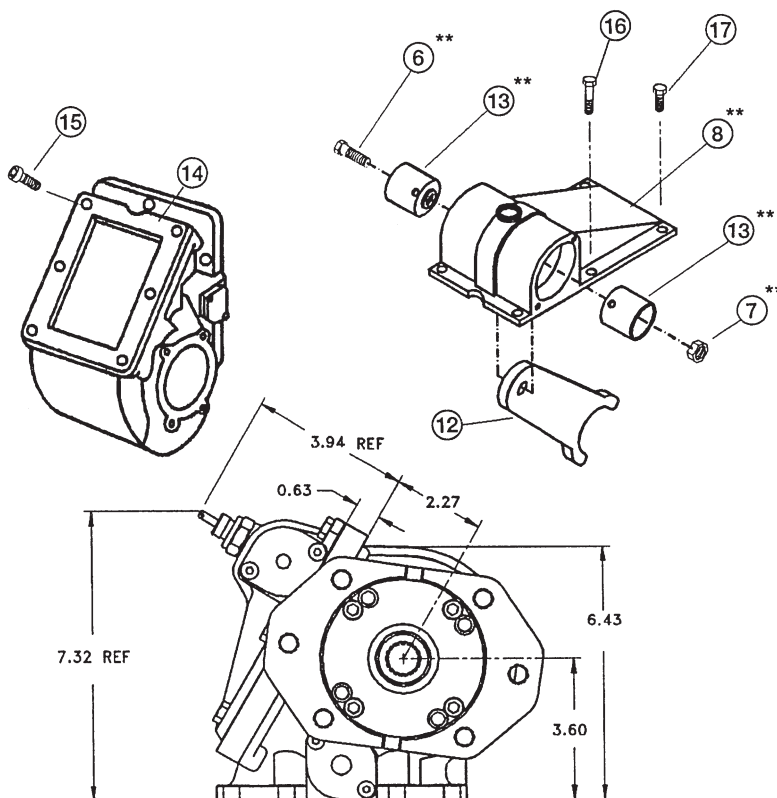
16TK3837 CONVERSION KIT (Requires Standard Cover – Used with Air or Lectra Shift Covers Only)

CONVERSION KIT INCLUDES

ITEM	QTY.	PART NO.	DESCRIPTION
12	1	28T35581	Yoke
14	1	28T35184	Adapter Plate
15	4	19T35237	Socket Cap Screw
16	2	19T35236	Hex Cap Screw
17	4	19T33233	Hex Cap Screw
N.S.	1	13T64246	Gasket

** Items are included with the standard cover and are reused in this assembly

NOTE: Change Indicator Switch from the original item 25 shown on page 3, Switch not included in Kit.



CABLE COVER OPTION "C"

CABLE COVER PARTS LIST AND DESCRIPTIONS			
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	12T36878	O-Ring
2	1	17T34495	Shifter Rail
3	2	19T34259	Cap Screw
4	1	17T34254	Shifter Lever
5	1	28T35061	Retainer Washer
6	1	12T36871	O-Ring
7	1	16T34473	Cable Cover Housing
8	1	28T34476	Yoke
9	1	21T35071	Copper Washer
10	1	27T34253	Spring
11	1	28T34252	Poppet
12	1	28T34474	Yoke Plate
13	1	28T34261	Trigger

ASSY PART NUMBER: 16TA3735 ALL ASSEMBLIES

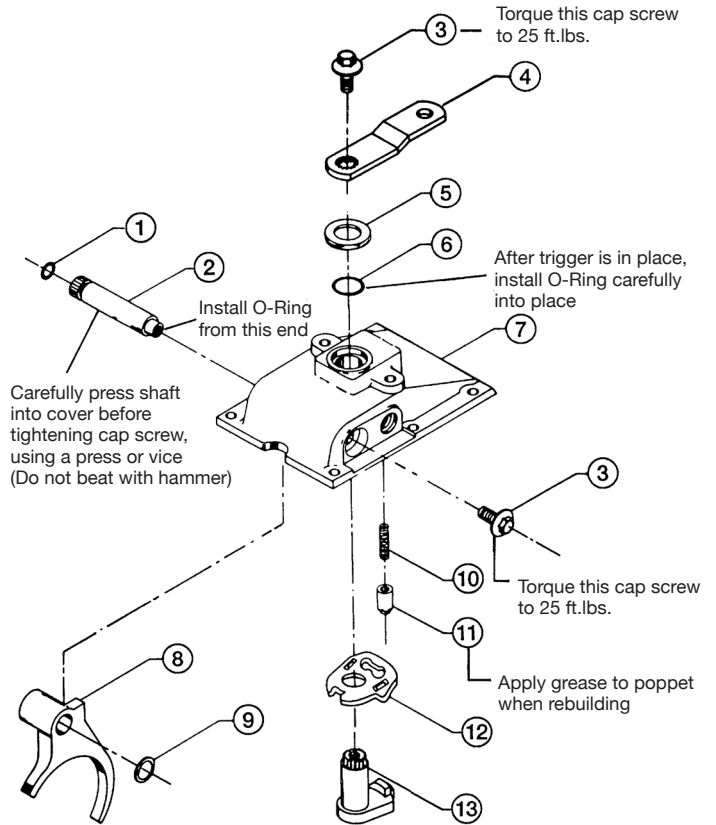
Indicator switch sold separately

TG-CSRK Cable Cover Rebuild Kit – Items 1, 2, 5, 6, 9, 10, & 11
[From Page 3 – Item 17, (1) 12T36526]

TG-CSSK Cable Cover Seal Kit – Items 1, 5, 6, & 9
[From Page 3 – Item 17, (1) 12T36526]

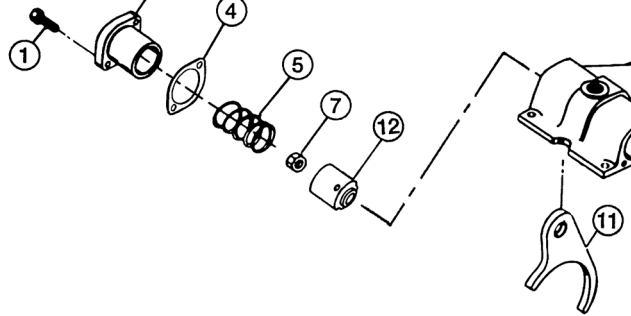
16TA3793 Cable Cover with Breather Port (W96)
(Item 7 – 16T35166)

NOTE: When rebuilding cover lubricate all O-Rings before installation.

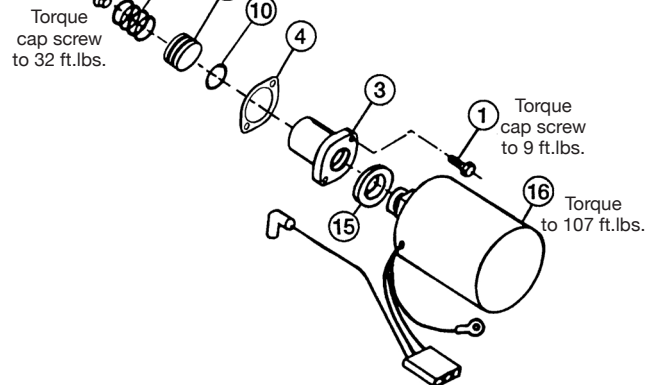


Cable Shift Option "C" Includes 28MCC120 Cable, 28MK0155 Knob, and 36MK1210A Light Kit

LECTRA SHIFT OPTION "S" – OBSOLETE



NOTICE: When assembling guides to the yoke, the cap screw #6 and the **shorter guide** #13 must be located on the solenoid side of the yoke. The Guide and cap screw location must be changed when changing the arrangement of the cover assembly. The Lectra Shift must be assembled so that the solenoid pushes to engage.



LECTRA SHIFT PARTS LIST AND DESCRIPTIONS			
ITEM	QTY.	PART NO.	DESCRIPTION
1	4	19T34494	Cap Screw
2	1	28T35675	Cover Cup (Spring End)
3	1	28T35387	Cover Cup (Solenoid)
4	2	13T38286	Gasket*
5	1	27T35073	Spring (Long – 2.75)
6	1	19T35680	Cap Screw
7	1	22T35683	Locknut
8	1	16T35377	Cover Housing
9	1	49T35389	Piston
10	1	12T35304	O-Ring
11	1	28T34481	Yoke
12	1	28T35695	Guide (Long)
13	1	28T35390	Guide (Short)
14	1	27T35391	Spring (Short – 1.09)
15	1	28T35392	Spacer
16	1	28TK4587	Solenoid (w/grd. wire kit)

ASSEMBLY PART NUMBERS: OBSOLETE

16TA3822-A For Assemblies 1 & 4 (Assembly Shown)

16TA3823-A For Assemblies 2 & 3

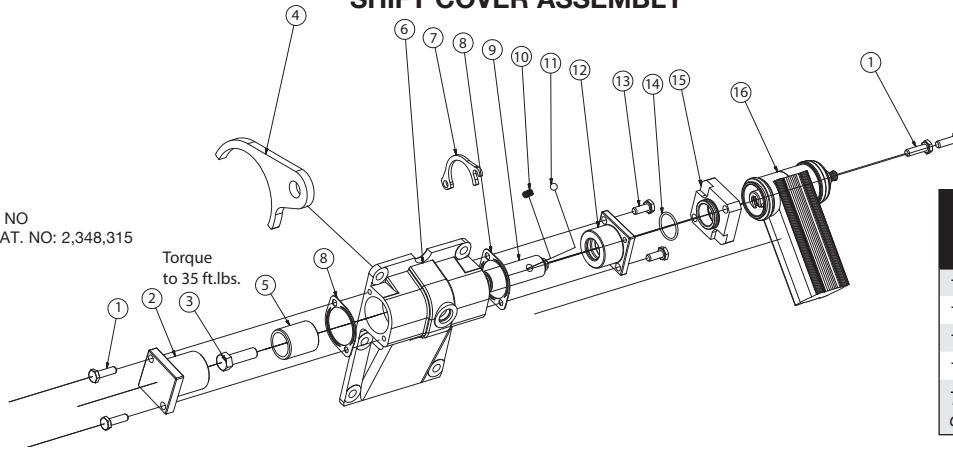
TG-SSSK Lectra Shift Seal Kit – Items 4 & 10, (2) 12T35343
[From Page 3 – Item 17, (1) 12T36526]

***When repairing cover with O-Ring seals (4) use RTV with supplied gaskets.**

E-HYDRA SHIFT TG PTO — OBSOLETE

SHIFT COVER ASSEMBLY

U.S. PATENT NO
CANADIAN PAT. NO: 2,348,315



OBSOLETE

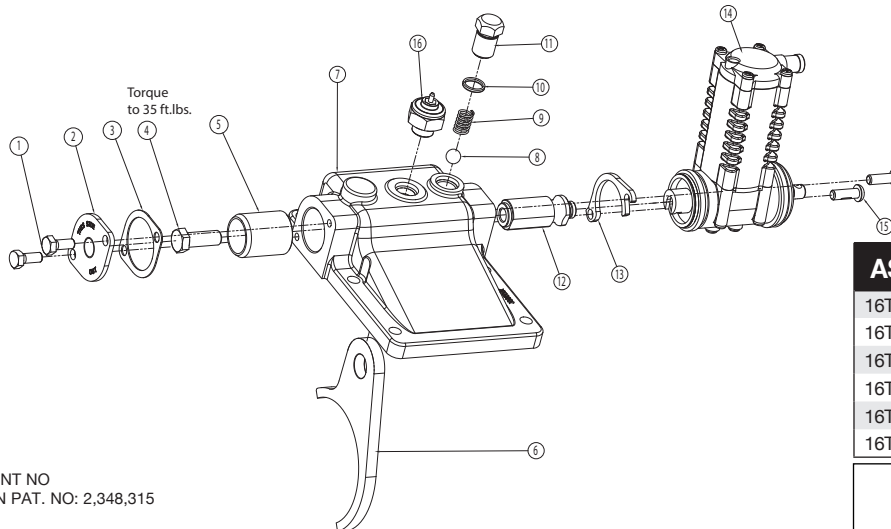
ASSEMBLY PART NUMBERS

16TA4682	Std. Kit 1 & 4
16TA4683	Std. Kit 2 & 3
16TA4844	A69 Kit 1 & 4
16TA4845	A69 Kit 2 & 3

These cover kits are replaced by cover built 12/07 & later.

SHIFT COVER ASSEMBLY PARTS LIST AND DESCRIPTIONS — E HYDRA BUILT BEFORE 12/7

ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION
1	4	19T34494	Cap Screw	10	1	27T39813	Spring
2	1	28T40052	Cup, Spring	11	1	28T39814	Ball
3	1	19T35681	Cap Screw	12	1	28T40051 28T40215	Adapter – STD 16TA4682 & 16TA4683 Adapter – Allison 1000/2000 (16TA4844 & 16TA4845)
4	1	28T38167 28T34481	Yoke – 1 or 4 Assembly – 2 or 3 Assembly	13	2	19T34028	Cap Screw
5	1	28T40053	Guide	14	1	12T36280	O-Ring
6	1	16T40050	Cover, Housing	15	1	28T39175	Adapter
7	1	1214KES5C00	Retainer – Included with 28TA4685	16	1	28TA4685	Cylinder Assembly- (REF# 194KES5E212) 12 V
8	2	13T40303	Gasket	N.S.	1	12T35343	O-Ring – Included with 28TA4685
9	1	28T39592 28T40214	Shift Shaft – STD 16TA4682 & 16TA4683 Shift Shaft – Allison 1000/2000 *16TA4844 & 16TA4845				



U.S. PATENT NO
CANADIAN PAT. NO: 2,348,315

OBSOLETE

ASSEMBLY PART NUMBERS

16TA5008	Reverse Assembly 1 & 4, Pg. 6
16TA5009	Reverse Assembly 2 or 3, Pg. 6
16TA4852	Standard Assembly 1 & 4
16TA4853	Standard Assembly 2 & 3
16TA4968	A69 Assembly 1 & 4
16TA4969	A69 Assembly 2 & 3

CONVERSION KITS

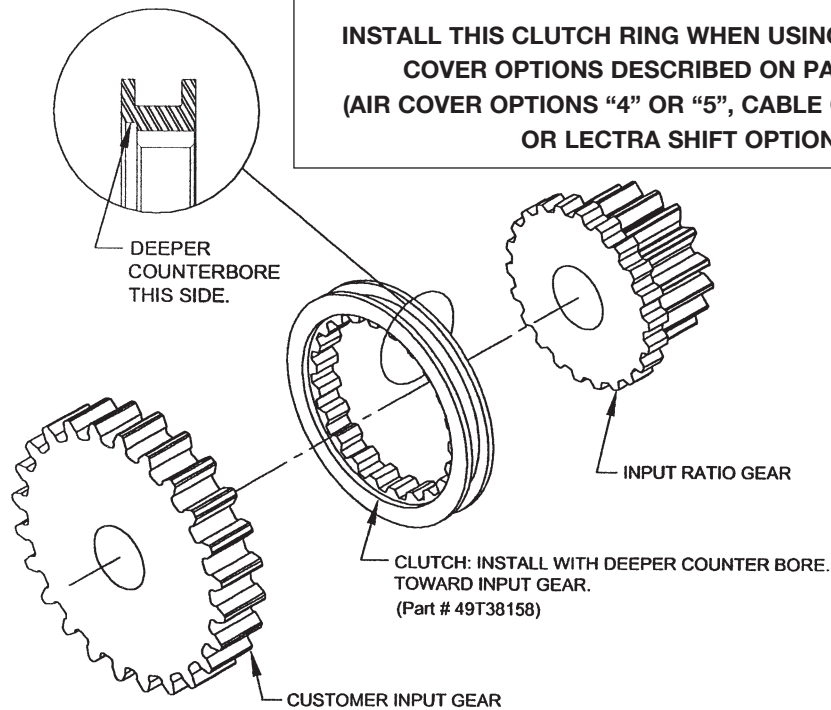
See Page 14

SHIFT COVER ASSEMBLY PARTS LIST AND DESCRIPTIONS — E HYDRA BUILT 04/10 AND CURRENT

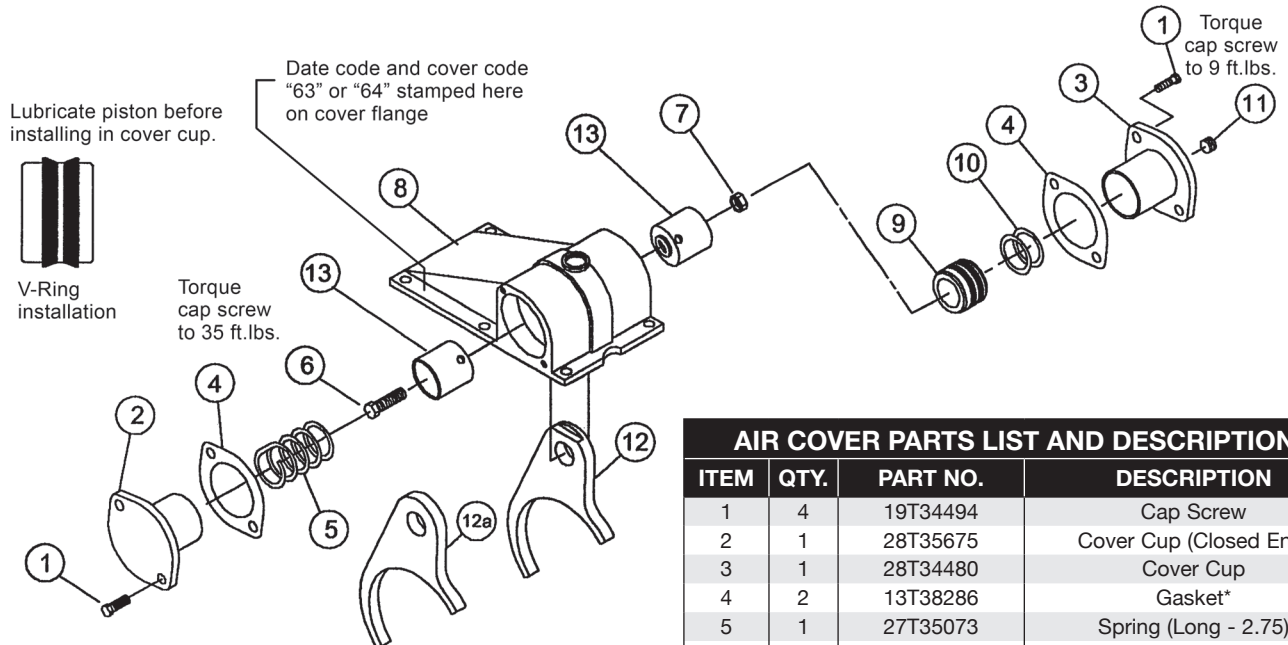
ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION
1	2	19T34028	Cap Screw, Hex Head 1/4-20 x 5/8	10	1	12T41760	O-Ring, Poppet
2	1	15T33977	Cap, Shaft	11	1	28T41383	Poppet
3	1	13T38286	Gasket			28T41694	Shifter Rod
4	1	19T40289	Cap Screw, Hex Head 3/8-24 UNF x 1.00	12	1	28T41721	Shifter Rod (Allison 1000/2000 16TA4968 & 16TA4969)
5	1	28T40053	Guide	13	1	1214ECO1000	Retainer
6	1	28T34481	Yoke	14	1	28TA4685	Cylinder Assembly
7	1	16T41696 16T41695	Cover, Housing (2 or 3 Assembly) Cover, Housing (1 or 4 Assembly)	15	2	19T34512	Cap Screw, Hexagon Socket Button Head
8	1	28T41391	3/8 Steel Ball			30T38110 30T38111	Indicator Switch (NC) 2 & 3 Assembly Indicator Switch (NC) 1 & 4 Assembly
9	1	27T41384	Spring	16	1		

Note: *Indicator switch is included with the PTO and not in any kit.

TG PTO CLUTCH RING INSTALLATION FOR ALLISON 1000/2000 TRANSMISSION



AIR COVER OPTION "4" OR "5"



ASSEMBLY PART NUMBERS:

16TA4063 For Assemblies 1 & 4 (Assembly Shown)

16TA4064 For Assemblies 2 & 3

TG-ASSK-1 Air Cover Seal Kit – Items 4 & 10

[From Page 3 – Item 17, (1) 12T36526]

***When repairing cover with O-Ring seals (4) use RTV with supplied gaskets.**

AIR COVER PARTS LIST AND DESCRIPTIONS

ITEM	QTY.	PART NO.	DESCRIPTION
1	4	19T34494	Cap Screw
2	1	28T35675	Cover Cup (Closed End)
3	1	28T34480	Cover Cup
4	2	13T38286	Gasket*
5	1	27T35073	Spring (Long - 2.75)
6	1	19T35681	Cap Screw
7	1	22T35683	Nut
8	1	16T35377	Cover Housing
9	1	49T38168	Piston
10	2	28T35205	V-Ring
11	1	25T34029	Cap Plug
12	1	28T38167	Yoke (1 or 4 Assy. w/notch)
12a	1	28T34481	Yoke (2 or 3 Assy.)
13	2	28T35695	Guide

CABLE COVER OPTION “Z”

CABLE COVER PARTS LIST AND DESCRIPTIONS

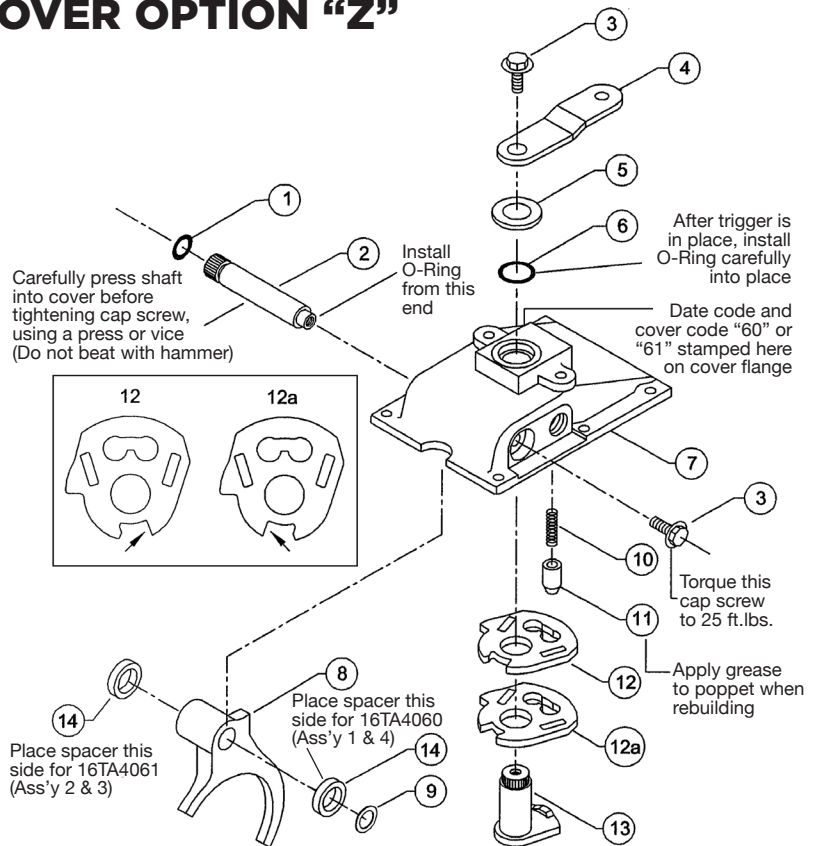
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	12T36878	O-Ring
2	1	17T34495	Shifter Rail
3	2	19T34259	Cap Screw
4	1	17T34254	Shift Lever
5	1	28T35061	Retainer Washer
6	1	12T36871	O-Ring
7	1	16T34473	Cable Cover Housing
8	1	28T34476	Yoke
9	1	21T35071	Copper Washer
10	1	27T34253	Spring
11	1	28T34252	Poppet
12	1	28T38164	Yoke Plate (Assy. 1 & 4)
12a	1	28T38165	Yoke Plate (Assy. 2 & 3)
13	1	28T34261	Trigger
14	1	18T38166	Spacer

ASSEMBLY PART NUMBERS:

16TA4060 For Assemblies 1 & 4

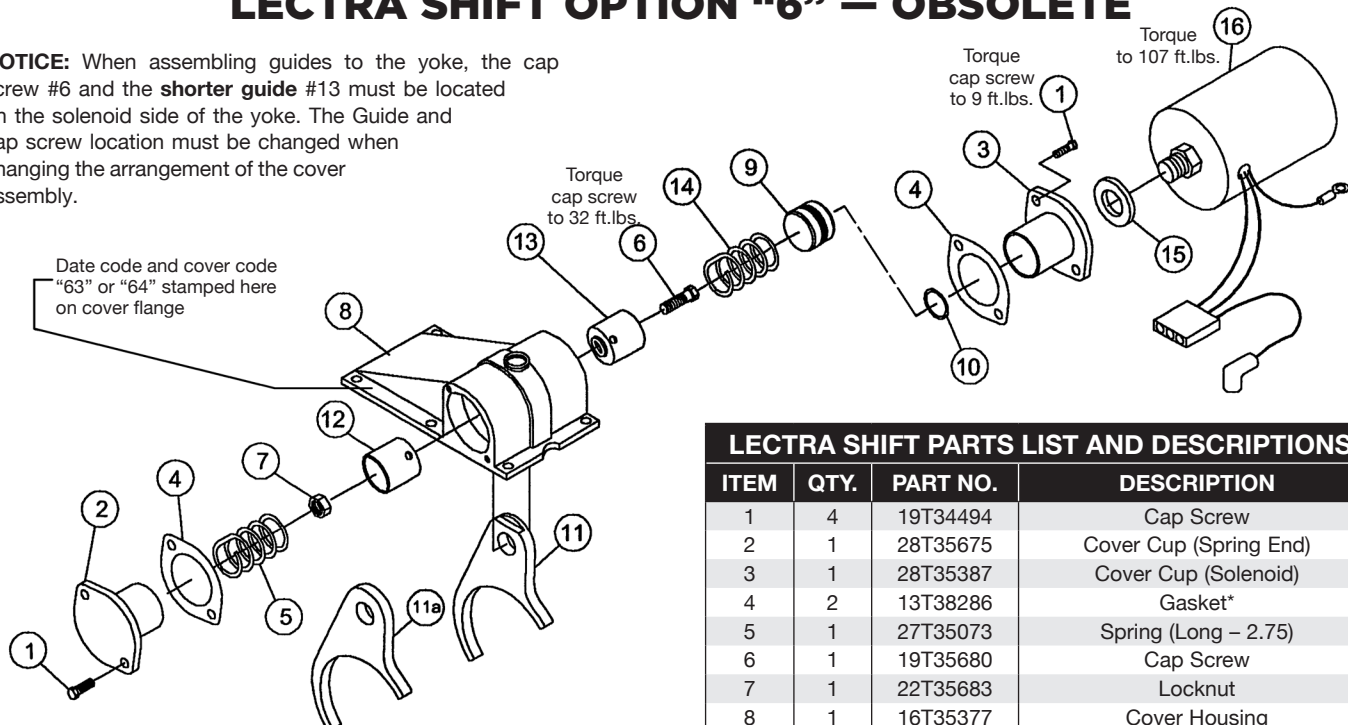
16TA4061 For Assemblies 2 & 3

**Cable Shift Option "Z" Includes 28MCC120 Cable,
28MK0155 Knob, and 36MK1210A Light Kit**



LECTRA SHIFT OPTION "6" – OBSOLETE

NOTICE: When assembling guides to the yoke, the cap screw #6 and the **shorter guide** #13 must be located on the solenoid side of the yoke. The Guide and cap screw location must be changed when changing the arrangement of the cover assembly.



ASSEMBLY PART NUMBERS: OBSOLETE

16TA4066 For Assemblies 1 & 4 (Assembly Shown)

16TA4067 For Assemblies 2 & 3

TG-SSSK Lectra Shift Seal Kit – Items 4 & 10

[From Page 3 – Item 17, (1) 12T36526]

* When repairing cover with O-Ring seals (4) use RTV with supplied gaskets.

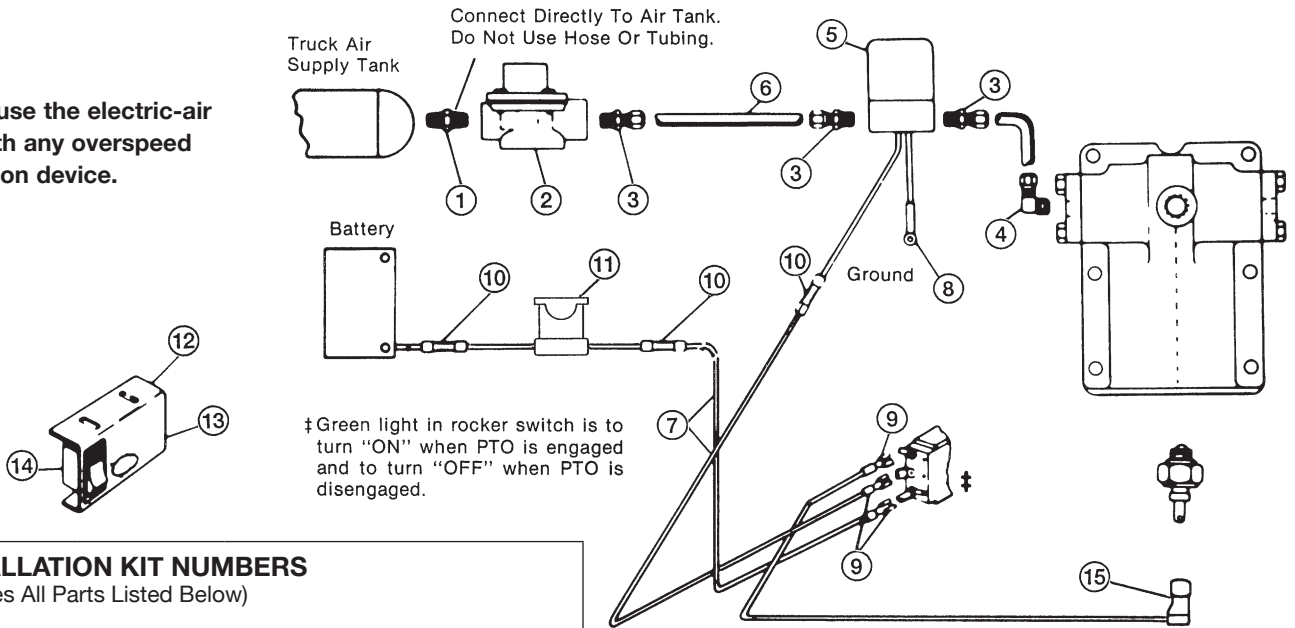
LECTRA SHIFT PARTS LIST AND DESCRIPTIONS

ITEM	QTY.	PART NO.	DESCRIPTION
1	4	19T34494	Cap Screw
2	1	28T35675	Cover Cup (Spring End)
3	1	28T35387	Cover Cup (Solenoid)
4	2	13T38286	Gasket*
5	1	27T35073	Spring (Long – 2.75)
6	1	19T35680	Cap Screw
7	1	22T35683	Locknut
8	1	16T35377	Cover Housing
9	1	49T38169	Piston
10	1	12T35304	O-Ring
11	1	28T38167	Yoke (1 & 4 Assy. w/notch)
11a	1	28T34481	Yoke (2 & 3 Assy.)
12	1	28T35695	Guide (Long)
13	1	28T35390	Guide (Short)
14	1	27T35391	Spring (Short – 1.09)
15	1	28T35392	Spacer
16	1	28TK4587	Solenoid (w/wrd. wire kit)

TG SERIES ELECTRIC-AIR SHIFT SYSTEM

PARTS LIST AND DESCRIPTION

Do not use the electric-air shift with any overspeed protection device.



INSTALLATION KIT NUMBERS

(Includes All Parts Listed Below)

48M61200-A (12 V Solenoid and Switch)

48M62400-A (24 V Solenoid and Switch)

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	44MB2164	Pipe Nipple
2	1	31M15759	Pressure Protection Valve
3	3	44MB6844	Tube Fitting
4	1	44MB6942	Tube Fitting (Elbow)
5	1	35M30692	12 V Solenoid Valve
	1	35M31692	24 V Solenoid Valve
6	1	45M44430	Air Tubing – 30 ft.
7	30	37M18000	Electric Wire – 30 ft.
8	1	34M18009	Eyelet Terminal
9	3	34M18250	Spade Terminal
10	3	34M18002	Butt Splice
11	1	33T36299	Fuse Assembly
12	1	36MA1005	Dash Bracket
13	1	36M01007	Face Plate
14	1	30T35687	12 V Switch
		30T35712	24 V Switch
15	1	34T38163	Booted Connector
N.S.	1	36MK1007	Bolt Kit (Includes: 6 Bolts, 6 Nuts, 6 Flat Washers, 6 Lock Washers)

Indicator switch sold separately – Not included in kit.

CONVERSION KIT NUMBERS – WIRE TO ELECTRIC AIR

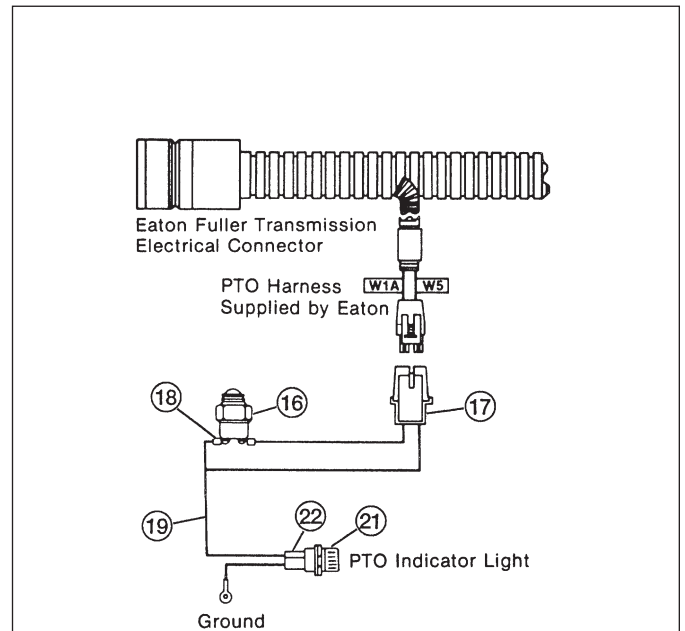
(12 Volt Only Listed)

16MK0200-A (For Assys. 1 & 4)

16MK1200-A (For Assys. 2 & 3)

Air System Users Only–You will not receive any air through the pressure protection valve to the PTO system until your main tank pressure exceeds 65 PSI. Some chassis have dual air systems; be sure to connect to the air supply at the location recommended by the vehicle manufacturer.

NOTE: Solenoid Valve (Item 5) should be mounted on firewall to protect it from corrosive environment.

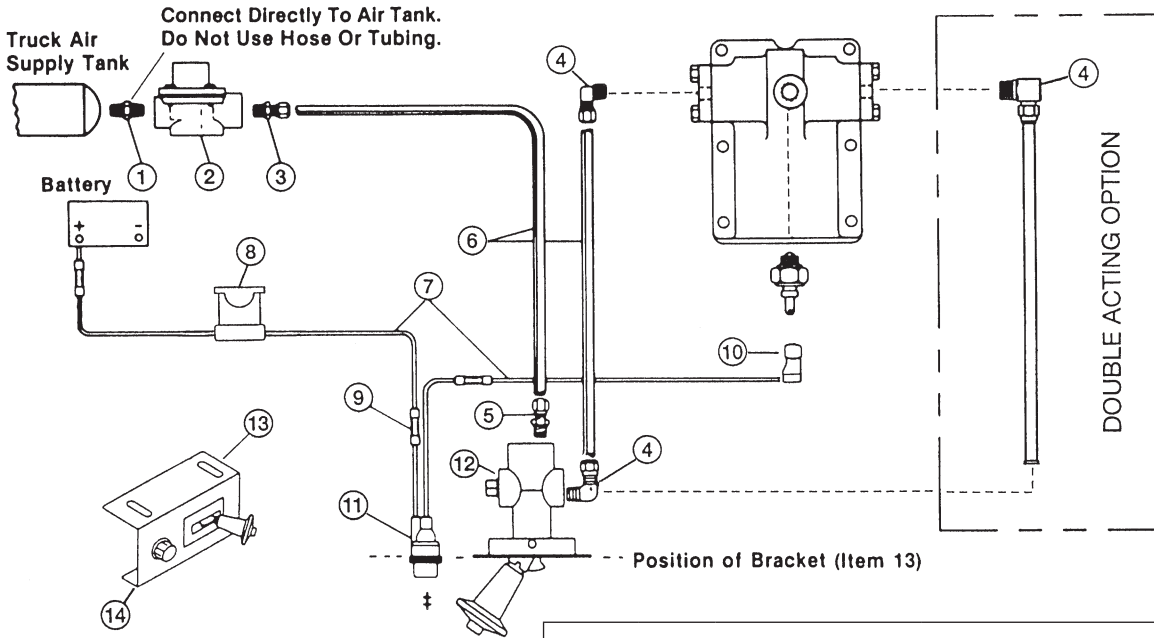


ITEM	QTY.	PART NO.	DESCRIPTION
13	1	36T35431	Face Plate
16	1	30M91113	Indicator Switch 1 or 4
	1	30M92247	Indicator Switch 2 or 3
17	1	34MA1420	Wiring Harness
18	2	34M18009	Ring Terminal
19	15	37M18000	Electric Wire
21	1	32MSR12V	12 V Light
22	2	34M18187	Spade Terminal

Eaton is requiring the installation of their wiring harness through a special connection from their harness to a special PTO indicator switch.

TG SERIES STANDARD AIR SHIFT SYSTEM

PARTS LIST AND DESCRIPTION



‡ Red indicator light is to turn "ON" when PTO is engaged, and is to turn "OFF" when PTO is disengaged.

INSTALLATION KIT NUMBERS

(Includes All Parts Listed Below)

48M61250-A (12 V Light)

48M62450-A (24 V Light)

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	44MB2164	Pipe Nipple
2	1	31M15759	Pressure Protection Valve
3	1	44MB6844	Tube Fitting
4	2	44MB6942	Tube Fitting (Elbow)
5	1	44MB6842	Tube Fitting
6	1	45M44430	Air Tubing – 30 ft.
7	12	37M18000	Electric Wire – 12 ft.
8	1	33T36299	Fuse Assembly
9	3	34M18002	Butt Splice
10	1	34T38163	Booted Connector
11	1	32M12001	12 V Light
	1	32M24001	24 V Light
12	1	35M18653	Air Valve
13	1	36MA1004	Dash Bracket
14	1	36M01005	Face Plate
N.S.	1	36MK1007	Bolt Kit (Includes: 6 Bolts, 6 Nuts, 6 Flat Washers, 6 Lock Washers)

Indicator switch sold separately – Not included in kit.

4838317-A (12 V LIGHT)

Same as 48M61250-A less Item 12 (35M18653 Air Valve).

CONVERSION KIT NUMBERS – WIRE TO ELECTRIC AIR

(12 Volt Only Listed)

16MK3803-A (For Assys. 1 & 4)

16MK3804-A (For Assys. 2 & 3)

DOUBLE ACTING KIT NO. 48M61261-A (12 V Light Shift Option "D")

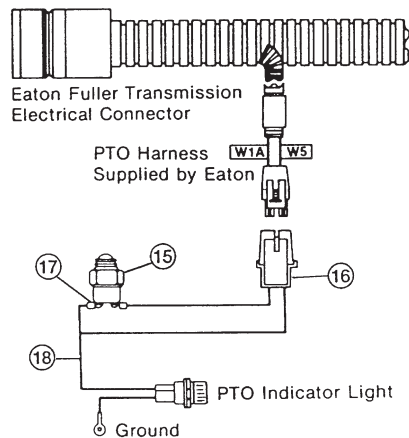
Includes parts listed in 48M61250-A with the exception of item numbers listed below.

ITEM	QTY.	PART NO.	DESCRIPTION
4	3	44MB6942	Tube Fitting (Elbow)
12	1	35T37955	Air Valve
13	1	36T38049	Dash Bracket
14	1	36T38016	Face Plate
N.S.	4	22MX2520	.25-20 Hex Nut
N.S.	4	19T34530	.25-20 x .5 Button Head
N.S.	1	36MK1011	Bolt Kit

EATON FULLER CEEMAT TRANSMISSIONS

48MK1434-14 (1 OR 4 ASSY); 48MK1434-23 (2 OR 3 ASSY)

(Used in addition to the kit above)



ITEM	QTY.	PART NO.	DESCRIPTION
15	1	30M91113	Indicator Switch 1 or 4
	1	30M92247	Indicator Switch 2 or 3
16	1	34MA1420	Wiring Harness
17	2	34M18009	Ring Terminal
18	1	37M18180	Electric Wire

Eaton is requiring the installation of their wiring harness through a special connection from their harness to a special PTO indicator switch.

TG SERIES AIR SHIFT SYSTEM FOR NISSAN MLS-61A OR B

OBSOLETE

BASE KIT 48TK4518 "N" SHIFT OPTION			
ITEM	QTY.	PART NO.	DESCRIPTION
9	1	23T35796	Solenoid Bracket
10	2	44MB6844	Compression Fitting
12	2	19T35800	Machine Screw
15	2	21T35901	Lock Washer
16	1	19T20522	Hex Head Cap Screw
17	1	22T35145	Hex Nut
19	1	44MB6842	Compression Fitting
20	1	44MB6942	Compression Fitting
21	1	45M44430	Tubing - 30 ft.
22	2	34T35436	.250" Male Spade Terminal
23	2	34T35908	.250" Female Spade Terminal
24	1	35M30692	12 V Solenoid
N.S.	1	37T42512	Wire 12.5 ft.
N.S.	4	34M18002	Butt Splice
N.S.	1	36MK1210A	Light Kit

OBSOLETE

Activation Kit Model Year 1999-2002

48TK4517 (Sold Separately)

Same as 48TK4516 except relay 30T37926
in place of 30T38973

OBSOLETE

ACTIVATION KIT 48TK4516 FOR NISSAN 2003-2004

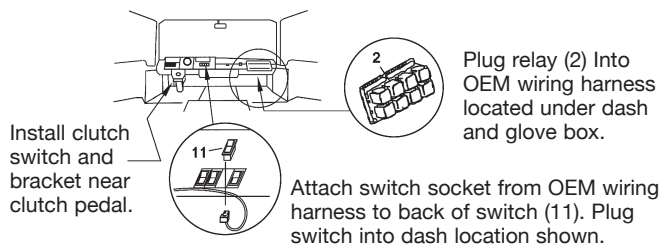
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	30T36232	Clutch Switch
2	1	30T38973	Relay (2003)
3	2	44T35790	Sleeve
4	1	44T35791	Pipe Coupling
5	2	44T35792	Nut
6	1	44T35793	Tee
7	1	23T36291	Switch Bracket
8	1	23T36264	Push Plate
11	1	30T36235	Switch
13	2	22T36293	Hex Nut
14	1	22T36297	Hex Nut
18	2	19T36292	Hex Head Cap Screw

OBSOLETE

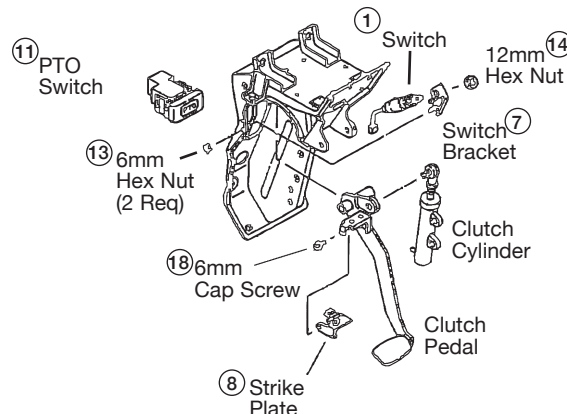
ACTIVATION KIT 48TK4693 FOR NISSAN 2005-2006

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	30T36232	Clutch Switch
2	1	30T38973	Relay (2003)
7	1	23T36291	Switch Bracket
8	1	23T36264	Push Plate
11	1	30T36235	Switch
13	2	22T36293	Hex Nut
14	1	22T36297	Hex Nut
18	2	19T36292	Hex Head Cap Screw
27	1	44TK4607	Plastic Airline Kit

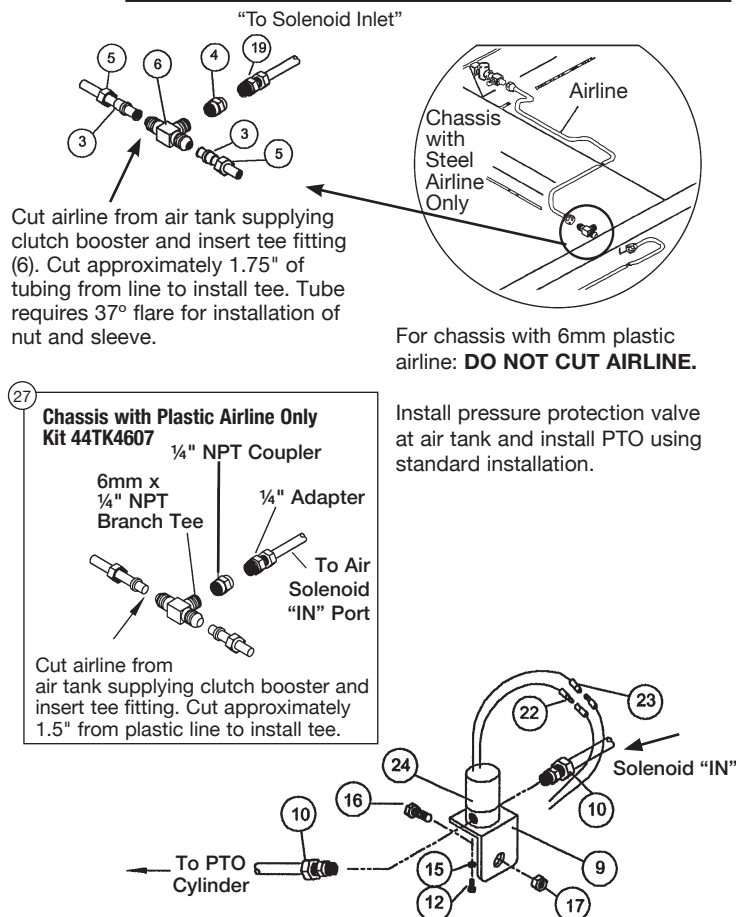
INSIDE CAB



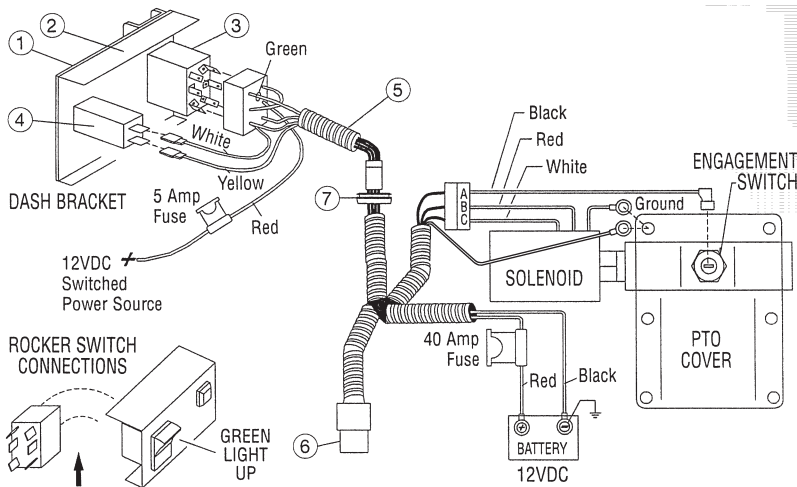
CLUTCH SWITCH INSTALLATION



CHASSIS CONNECTIONS



TG SERIES LECTRA SHIFT SYSTEM – OBSOLETE



CONVERSION KIT NUMBERS – WIRE TO LECTRA SHIFT

(12 V Only Listed) **16MK3848-A** (For Assys. 1 & 4)

16MK3849-A (For Assys. 2 & 3)

Service Kit: 48TK3976 Includes wire harness relay, rocker switch & Indicator Light

INSTALLATION KIT NUMBER 48TK3981

(Includes All Parts Listed Below)

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	36T35431	Face Plate
2	1	36MA1005	Dash Bracket
3	1	30T37620	Switch
4	1	32MSR12V	12 V Light
5	1	34T37751	Wire Harness
6*	1	37T43159	Relay
7	1	37T35674	Grommet
N.S.	1	19T35439	Sheet Metal Screw
N.S.	5	28T35442	Wire Tie
N.S.	1	36MK1007	Bolt Kit
N.S.	1	36T35710	Dash Label (MC92-01)

Indicator switch sold separately – Not incl. in above kit.

* Relay is supplied in the wire harness.

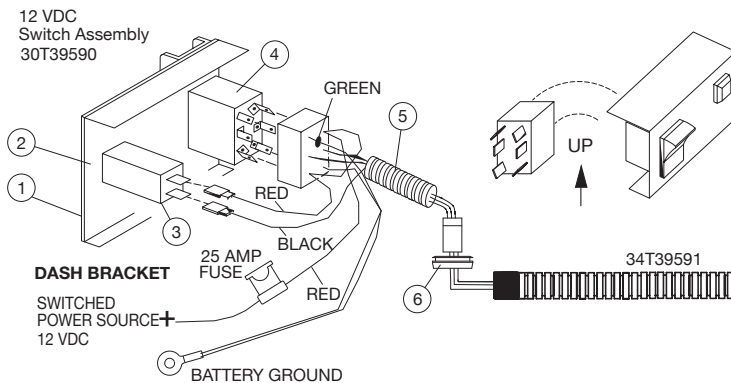
REPLACEMENT PARTS

Repl. fuses sold as service items.

ITEM	QTY.	PART NO.	DESCRIPTION
N.S.	1	33T37923	05 Amp Fuse
N.S.	1	33T36951	40 Amp Fuse
N.S.	1	37T38559	Relay Cover

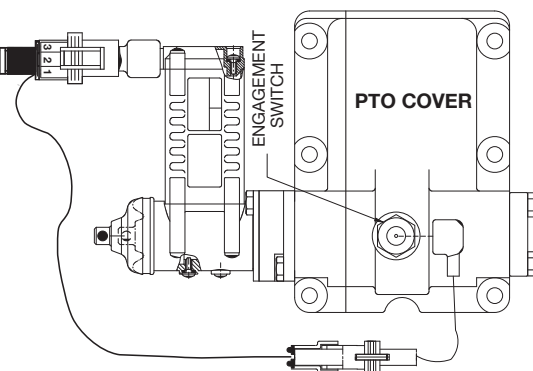
TG SERIES E-HYDRA SHIFT SYSTEM – OBSOLETE

WIRING DIAGRAM FOR ACTIVATION KIT 48TK4686



48TK4686 ACTIVATION KIT

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	36T35431	Faceplate
2	1	36MA1005	Bracket, Dash
3	1	32MSR12V	12 V Light
4	1	30T39590	Rocker Switch
5	1	34T39591	Wire Harness
6	1	37T39628	Grommet
N.S.	1	36MK1007	Bolt Kit
N.S.	1	36T39187	Dash Label
N.S.	1	36T40209	Caution Label
N.S.	1	IN05-04	Instruction Sheet



IMPORTANT:

Follow PTO installation instructions IN84-03

1. The rocker switch and dash bracket (if used) is to be mounted in the cab within easy reach of the operator.
2. PTO engagement is made by pushing the rocker switch fully to the engage position and releasing the switch immediately upon engagement. (indicator light will light)
3. Drill .750 dia. hole in the firewall install black plastic grommet (p/n 37T39628) in hole and run the three wire connector through the grommet and plug into cab harness portion of harness. Note the orientation of the connector to insure proper assembly.
4. Plug the rocker switch receptacle onto the switch so that the green wire is up as noted in diagram.

E-HYDRA SHIFTER KITS*

16TK5024 Standard 1 or 4 Assy.

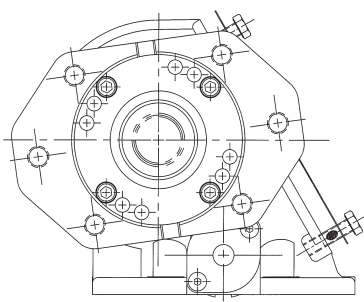
16TK5025 Standard 2 or 3 Assy.

16TK5026 Allison 1000/2000 1 or 4 Assy.

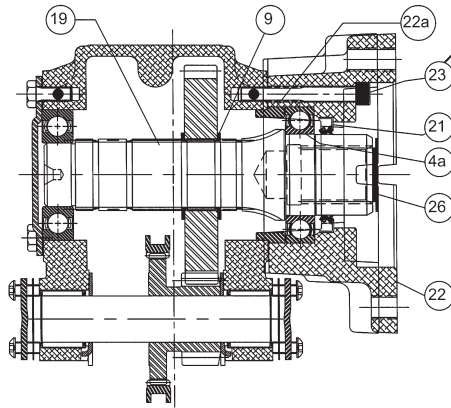
16TK5027 Allison 1000/2000 2 or 3 Assy.

NOTE: * Includes shifter, indicator switch, and activation kit.

SPECIAL OUTPUT SHAFT OPTIONS



“Z” OPTION



“I” OPTION

Torque to
25 ft.lbs.

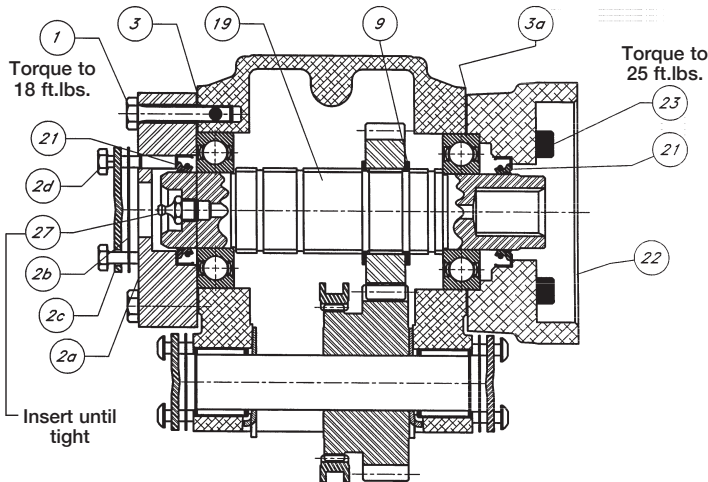
“Z” OPTION • KIT 14TA4423 SAE “B” FLANGE – SAE “C” 1¼" -14T SPLINE

ITEM	QTY.	PART NO.	DESCRIPTION
4a	1	10T38248	Bearing
9	2	24T23937	Snap Ring
19	1	06T38242	Shaft, Output
21	1	11T38247	Shaft Seal
22	1	14T38244	Hydraulic Flange
22a	1	18T38246	Pilot Ring
23	4	19T96512	Cap Screw
26	1	25T35936	Cap Plug

“I” OPTION • KIT 14TA4422 DIN 5462

ITEM	QTY.	PART NO.	DESCRIPTION
4a	1	10T38248	Bearing
9	2	24T23937	Snap Ring
19	1	06T38261	Shaft, Output
21	1	11T38247	Shaft Seal
22	1	14T38259	Hydraulic Flange
22a	1	18T38246	Pilot Ring
23	4	19T96512	Cap Screw
26	1	25T37767	Cap Plug

SPECIAL GREASE OPTION HYDRAULIC KITS



GREASE BEARING CAP • KIT 15TK4471

ITEM	QTY.	PART NO.	DESCRIPTION
1	4	19T38772	Cap Screw
2a	1	15TA4491	Bearing Cap Includes Seal 11T37790 + Cover 15T38771
2b	2	13T38286	Gasket
2c	2	15T33977	Cap
2d	2	19T34028	Cap Screw
3	1	13T38542	Gasket

TG HYDRAULIC FLANGE CONVERSION KIT: FOR “KG” TG SHAFT • KIT 14TA4551

ITEM	QTY.	PART NO.	DESCRIPTION
Kit	1	15TK4471	Grease Bearing Cap Kit
3a	1	12T36751	O-Ring
9	2	24T23937	Snap Ring
19	1	06T38373	Shaft
22	1	14TA4535	Flange
23	4	19T34462	Cap Screw
27	1	43T37236	Grease Fitting (Zerk)

CONVERSION KIT WITHOUT FLANGE: KIT 06TK4441
Same as **Kit 14TA4551** less Item 22 (14TA4535 Flange).

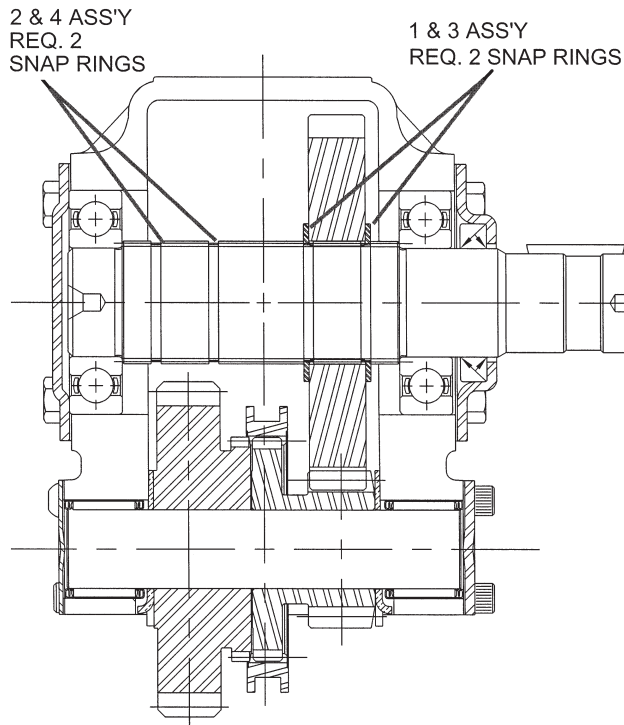
TG HYDRAULIC FLANGE CONVERSION KIT: FOR “PG” TG SHAFT • KIT 14TA4552

ITEM	QTY.	PART NO.	DESCRIPTION
Kit	1	15TK4471	Grease Bearing Cap Kit
3a	1	12T36751	O-Ring
9	2	24T23937	Snap Ring
19	1	06T38374	Shaft
22	1	14TA4535	Flange
23	4	19T34462	Cap Screw
27	1	43T37236	Grease Fitting (Zerk)

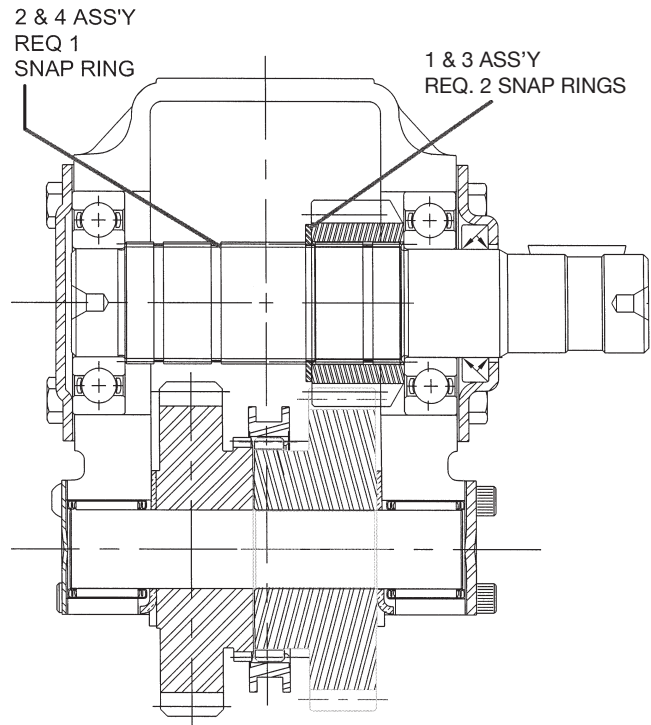
CONVERSION KIT WITHOUT FLANGE: KIT 06TK4442
Same as **Kit 14TA4551** less Item 22 (14TA4535 Flange).

OUTPUT GEAR INSTALLATION

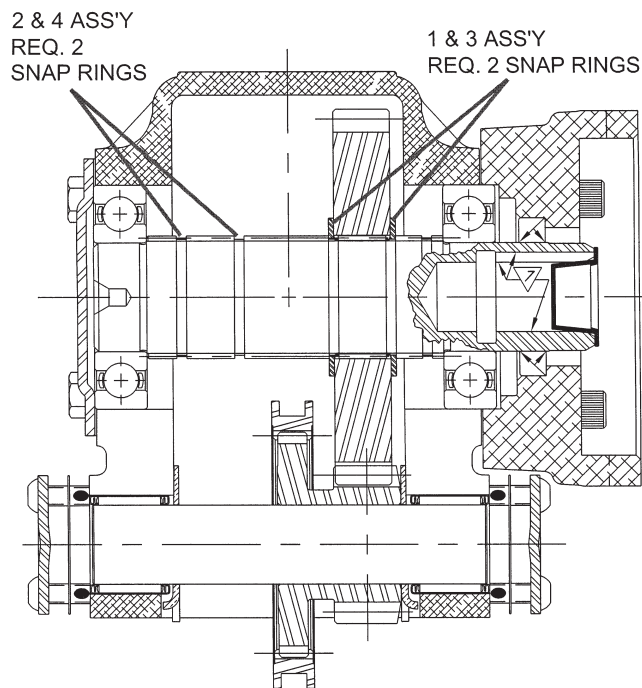
OUTPUT RATIO 04-13 REMOTE TYPE SHAFT



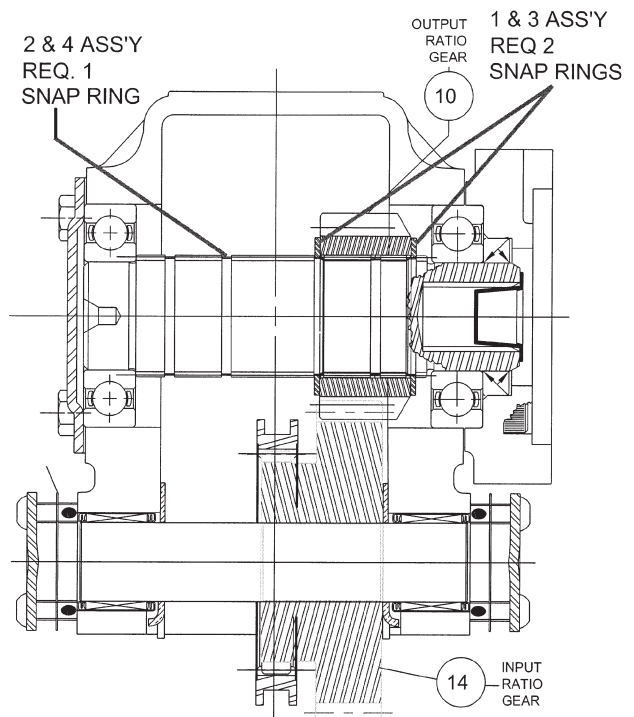
OUTPUT RATIO 15 & 18 REMOTE TYPE SHAFT



OUTPUT RATIO 04-13 HYDRAULIC TYPE SHAFT



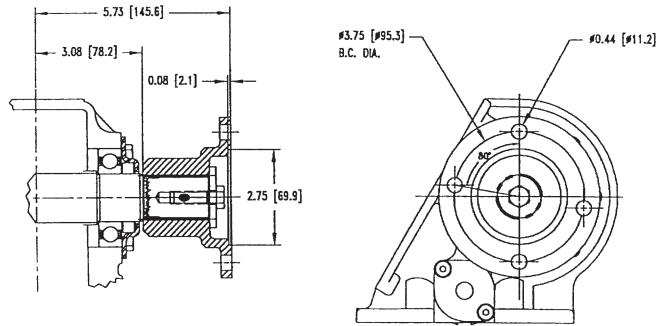
OUTPUT RATIO 15 & 18 HYDRAULIC TYPE SHAFT



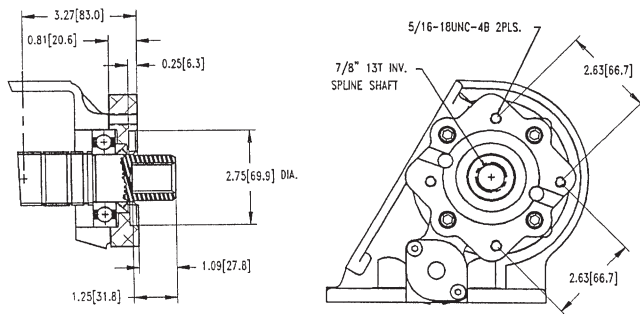
HYDRAULIC ASSEMBLIES

Conversion kits include Output Shaft, Hydraulic Flange, Cap Screws, Gasket, Shaft Seal, and Snap Ring.

CONVERSION KIT NUMBER 14TA3974 ("C" ASSEMBLY) 1410 OUTPUT ASSEMBLY

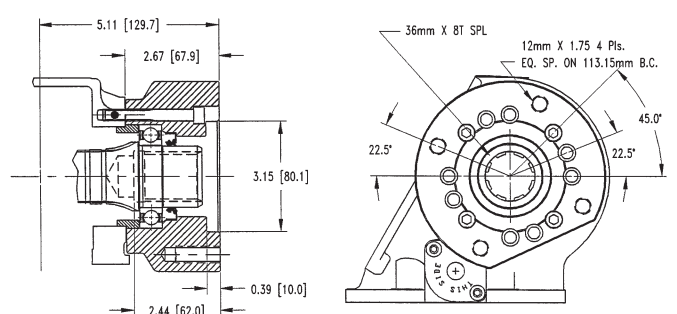


CONVERSION KIT NUMBER 14TA4528 ("G" ASSEMBLY)



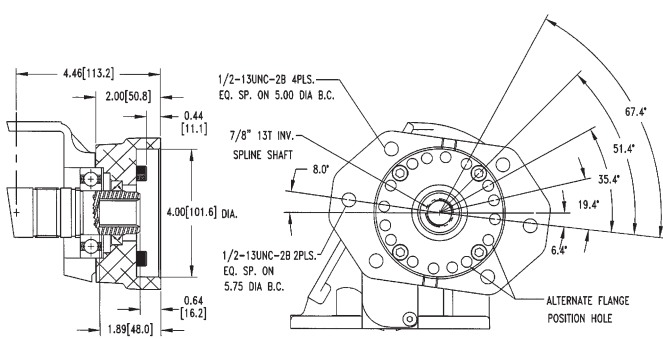
Pump Bolt Kit 19MK4717

CONVERSION KIT NUMBER 14TA4422 ("I" ASSEMBLY)

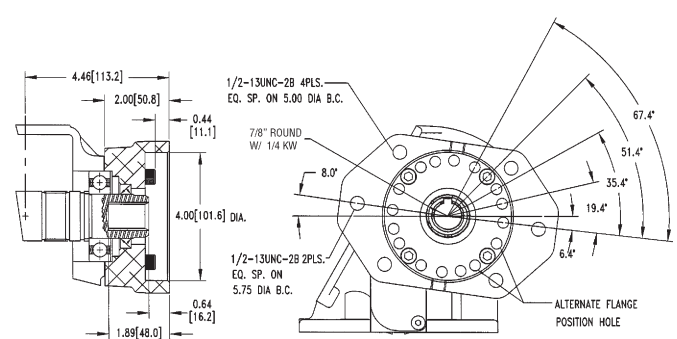


Flange and Seal – 14TA4424

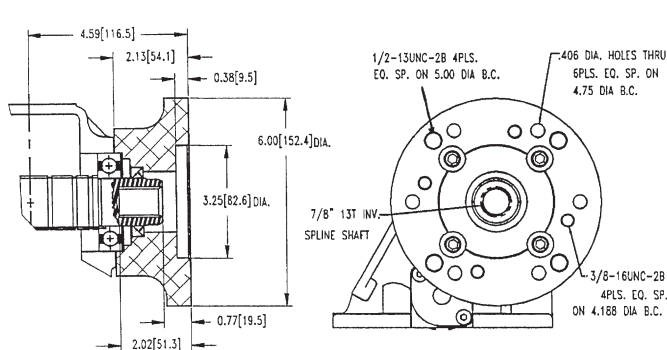
CONVERSION KIT NUMBER 14TA4531 ("K" ASSEMBLY)



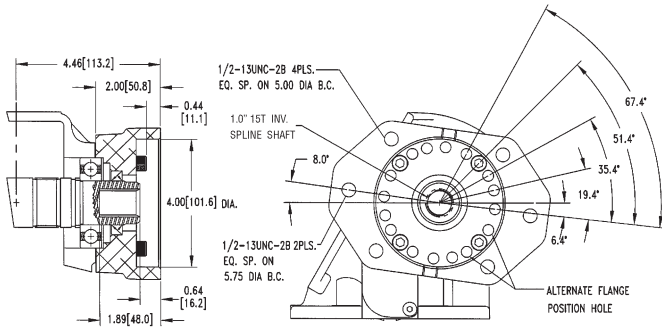
CONVERSION KIT NUMBER 14TA4550 ("L" ASSEMBLY)



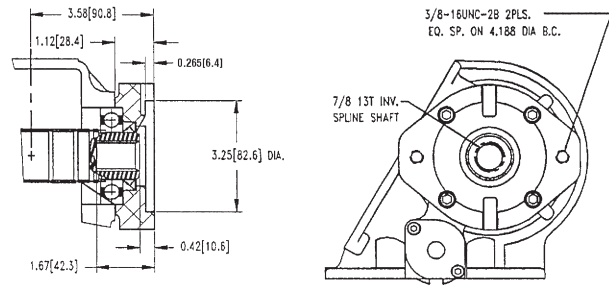
CONVERSION KIT NUMBER 14TA4553 ("M" ASSEMBLY)



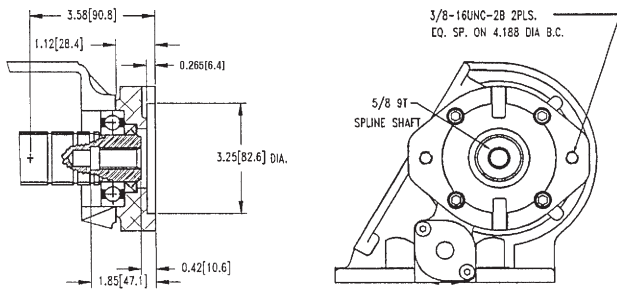
CONVERSION KIT NUMBER 14TA4532 ("P" ASSEMBLY)



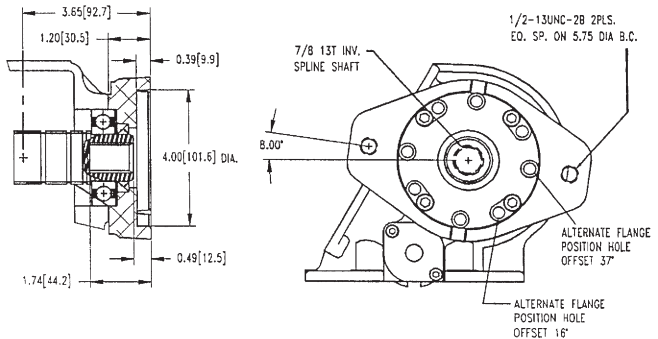
CONVERSION KIT NUMBER 14TA4529 ("Q" ASSEMBLY)



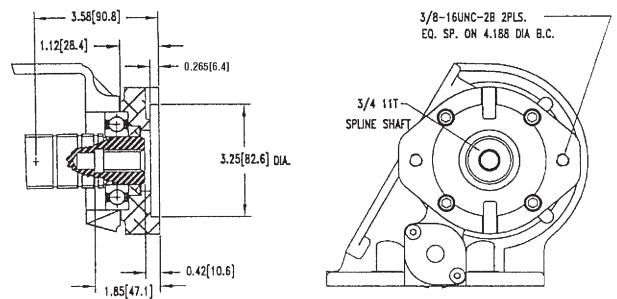
CONVERSION KIT NUMBER 14TA4541 ("R" ASSEMBLY)



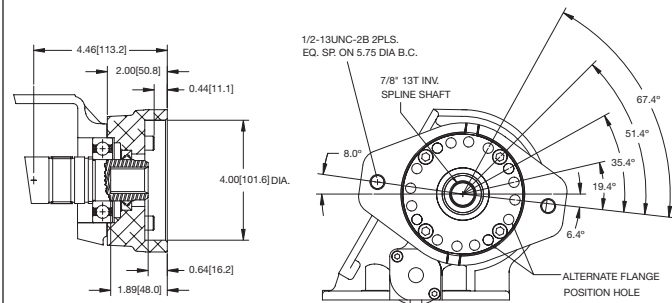
CONVERSION KIT NUMBER 14TA4530 ("S" ASSEMBLY)



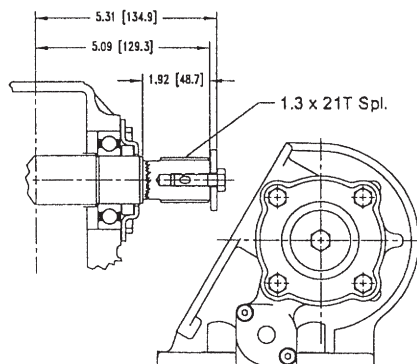
CONVERSION KIT NUMBER 14TA4533 ("T" ASSEMBLY)



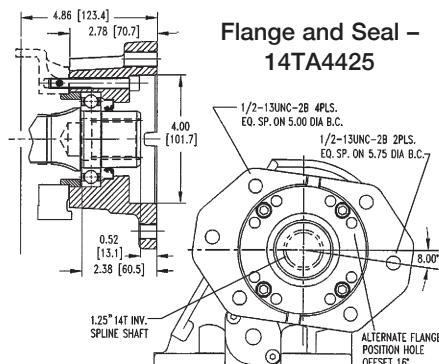
CONVERSION KIT NUMBER 14TA4915 ("6" ASSEMBLY)



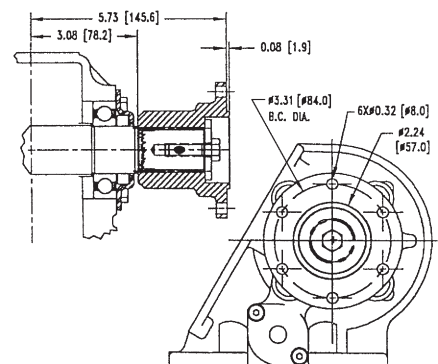
"X" BASE OUTPUT ASSEMBLY USED IN "C" & "2" OUTPUTS



CONVERSION KIT NUMBER 14TA4423 ("Z" ASSEMBLY)



CONVERSION KIT NUMBER 14TA3975 ("2" ASSEMBLY) DIN OUTPUT ASSEMBLY



Note: Output shafts are supplied with a pure copper anti-seize compound installed in the shaft cavity. PTO applications under severe duty cycles and/or high torque requirements may require servicing this shaft connection by periodically cleaning and re-greasing the shafts.

TG SERIES HYDRAULIC FLANGE CONVERSION KITS

The following charts show the part numbers for the TG Series hydraulic mount output flanges. These flanges have the O-Ring groove as shown in the photo for the 12T36751 O-Ring. Previous versions of the TG flanges did not have the O-Ring groove and were sealed with a gasket 13T38542. The CS6/8 flange shown are the previous versions of the TG flange without the groove. These flanges are still currently used in the CS6/8 line.

DESCRIPTION	TG FLANGE	CS6/8 FLANGE
F, Q, R, T Flg	14T39166	14T39141
G Flg	14T39165	14T39137
K, KG, L, P, PG Flg	14T39163	14T37779
M Flg	14T39167	14M39159
N Flg	14T39164	14M39130
S Flg	14T39162	14T35464
V Flg	Obsolete	Obsolete
I Flg	14T38259**	14T38259
Z Flg	14T38244**	14T38244
6 Flg	14T39528	14T38981



TG SERIES Flange

Note: ** These flanges still require the 13T38542 gasket and do not have the O-Ring groove.

TG SERIES SHAFT AND FLANGE KITS

SHAFT & FLG. KIT	TG KIT	FLG. W/SEAL QTY (1)	SHAFT QTY (1)	RING QTY (1)	CAP SCREW QTY (4)	O-RING QTY (1)	CAP PLUG QTY (1)	SNAP RING QTY (2)	GASKET QTY (1)
6	14TA4915	14TA4914	06T39143	58T38789	19T34462	12T36751	25T35724	24T23937	13T38542
G	14TA4528	14TA4537	06T39136	NA	19T39257	12T36751	25T35724	24T23937	13T38542
K	14TA4531	14TA4535	06T39143	58T38789	19T34462	12T36751	25T35724	24T23937	13T38542
L	14TA4550	14TA4535	06T39139	58T38789	19T34462	12T36751	25T35725	24T23937	13T38542
M	14TA4553	14TA4555	06T39143	NA	19M31200	12T36751	25T35724	24T23937	13T38542
P	14TA4532	14TA4535	06T36136	58T38789	19T34462	12T36751	25T35725	24T23937	13T38542
Q	14TA4529	14TA4536	06T35048	NA	19T39257	12T36751	25T35724	24T23937	13T38542
R	14TA4541	14TA4536	06T35082	NA	19T39257	12T36751	25T35520	24T23937	13T38542
S	14TA4530	14TA4538	06T35048	NA	19T39257	12T36751	25T35724	24T23937	13T38542
T	14TA4533	14TA4536	06T37335	NA	19T39257	12T36751	25T37387	24T23937	13T38542
V	Obsolete								
GREASEABLE SHAFT									
KG	14TA4551	14TA4535	06T38373	58T38789	19T34462	12T36751	25T35724	24T23937	13T38542
PG	14TA4552	14TA4355	06T38374	58T38789	19T34462	12T36751	25T35724	24T23937	13T38542

LRG OD SHAFT	TG KIT	FLG. W/SEAL QTY (1)	SHAFT QTY (1)	RING QTY (1)	CAP SCREW QTY (4)	O-RING QTY (1)	CAP PLUG QTY (1)	SNAP RING QTY (2)	GASKET QTY (1)
I **	14TA4422	14TA4424	06T38261	18T38246	19T96512	NA	25T38309	24T23937	13T38542
Z **	14TA4423	14TA4425	06T38242	18T38246	19T96512	NA	25T35936	24T23937	13T38542
LRG OD SHAFT	TG KIT	FLG. W/SEAL QTY (1)	SHAFT QTY (1)	COMP. FLG. QTY (1)	CAP SCREW QTY (4)	KEY/WASHER QTY (1)	FLG. CAP SCREW QTY (1)	SNAP RING QTY (2)	GASKET QTY (1)
B **	NA	15TA5220	06T36857	NA	19T41756	26T01627	NA	24T23937	13T38542
C **	14TA3974	15TA5220	06T41757	14T37357	19T41756	21T20092	19T38266	24T23937	13T38542
2 **	14TA3975	15TA5220	06T41757	14T37378	19T41756	21T20092	19T38266	24T23937	13T38542
X **	NA	15TA5220	06T41757	NA	19T41756	21T20092	19T38266	24T23937	13T38542

Flange Only w/Seal	TG SERIES	FLG. ONLY	SEAL
K, L, P Flg w/Seal	14TA4535	14T39163	11T37790
Q,R Flg w/Seal	14TA4536	14T39166	11T37790
G Flg w/Seal	14TA4537	14T39165	11T37790
S Flg w/Seal	14TA4538	14T39162	11T37790
V Flg w/Seal	Obsolete		
M Flg w/Seal	14TA4555	14T39167	11T37790
6 Flg w/Seal	NA	14T39528	11T37790
I Flg w/Seal	14TA4424	14T38259	11T38247
Z Flg w/Seal	14TA4425	14T38244	11T38247
B, C, 2, X w/Seal	15TA5220	15T41683	11T37790

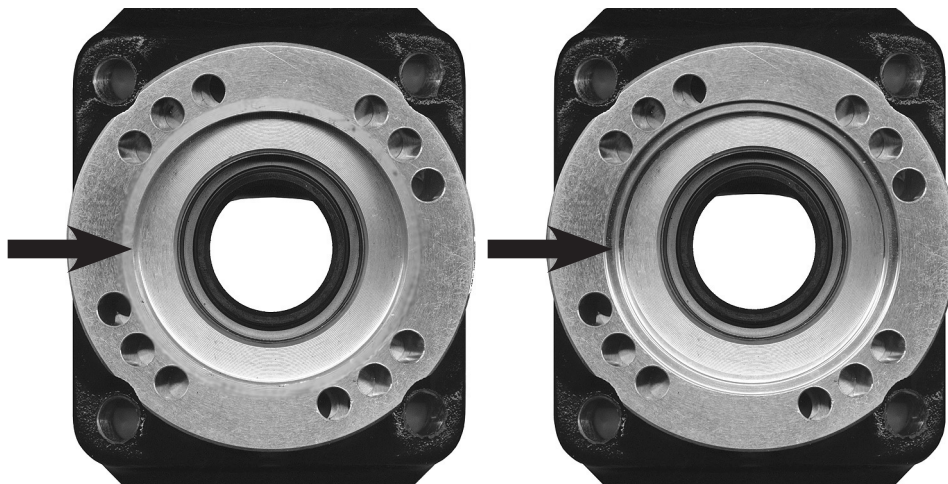
Note: ** These flanges still require the 13T38542 gasket and do not have the O-Ring groove.

TG SERIES SEAL KIT OR REBUILD KIT

FOR UNITS WITH DIRECT MOUNT PUMP FLANGE

Examine the under side of the hydraulic mounting flange. If there is an O-Ring groove as shown then use the O-Ring 12T36751 provided in the kit. If groove is not present, then use the 2nd gasket provided (13T38542).

Lubricate seals and O-Rings prior to installation. Place the O-Ring around the output shaft bearing which protrudes from the housing before installing the output flange.

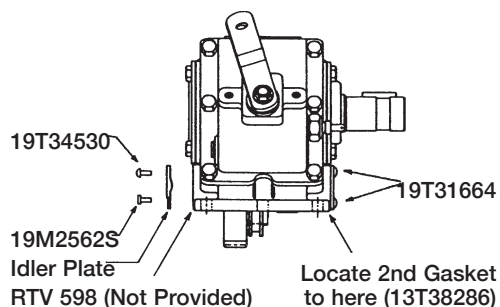


NO GROOVE IN FLANGE
(USE 13T38542 GASKET)

GROOVE FOR O-RING
(USE 12T36751 O-RING)

TG SERIES CLEARANCE IDLER CAP

1. The "Clearance Idler Cap" is to be installed on the TG Series in the location where interference occurs (typically on the side opposite of the output shaft).
2. If an idler cap already exists, remove the cap and gasket.
3. On the side with the "Standard Cap" mount with two gaskets.
4. Use RTV # 598 Black recommended (not provided). Place gasket material in a small bead around the surface close to the bearing leaving a gap to prevent RTV from getting into the bearing.
5. Install "Clearance Cap" with flat head cap screw closest to mounting pad and button-head cap Screw in upper position. Torque the flathead screw to 6 ft.lbs. and the button head to 8 ft.lbs.



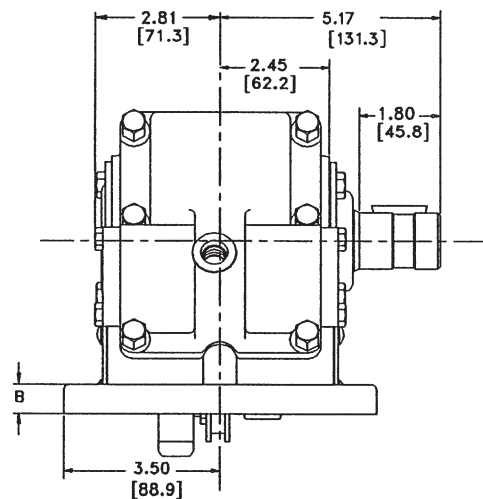
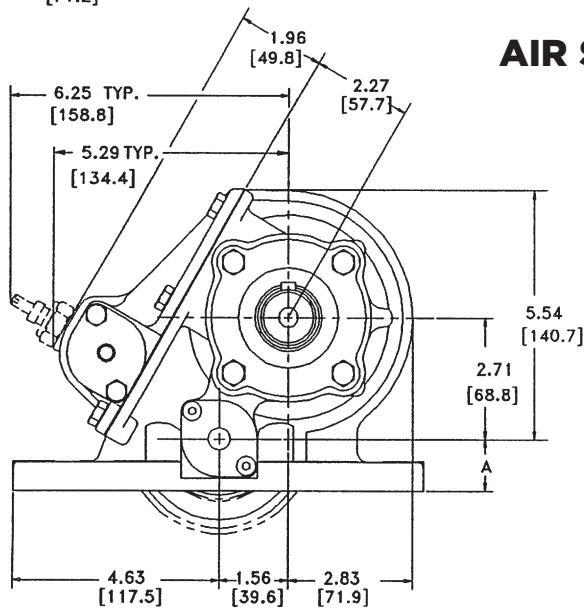
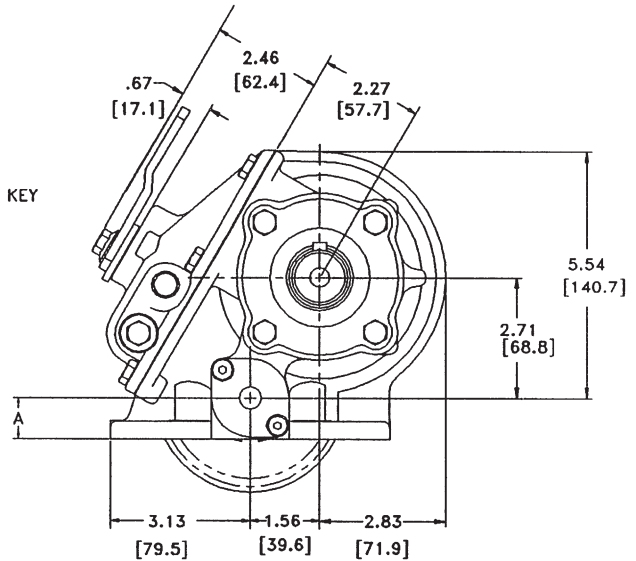
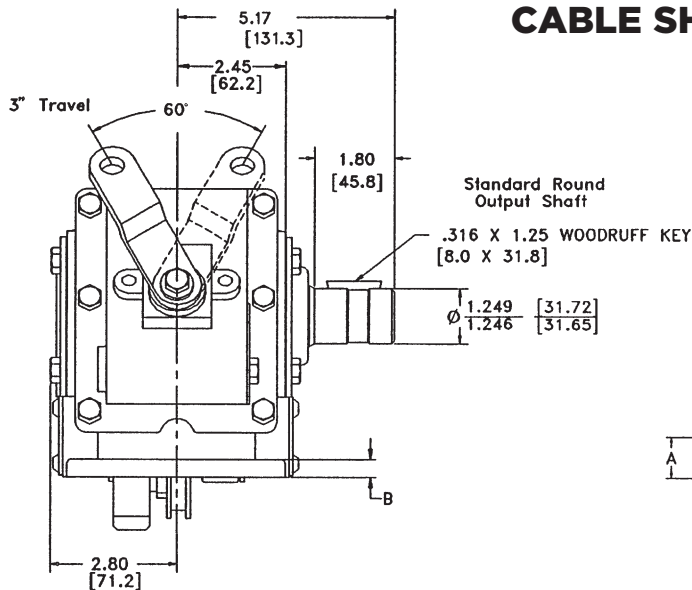
MOUNTING DIMENSIONS

IN INCHES (MM)

Shift covers (cable, air, lever, and Lectra Shift) are interchangeable with 6-Bolt or 8-Bolt housings as shown.

6-BOLT	DESIGNATOR	A	B
	TG6S	.895 (22.73)	.42 (10.7)
	TG6N	.826 (20.98)	.35 (8.9)

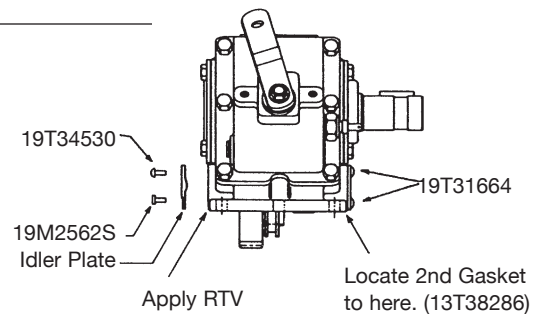
8-BOLT	DESIGNATOR	A	B
	TG8S	1.168 (29.67)	.66 (16.8)
	TG8M	1.068 (27.13)	.56 (14.2)



SPECIAL IDLER PLATE INSTALLATION

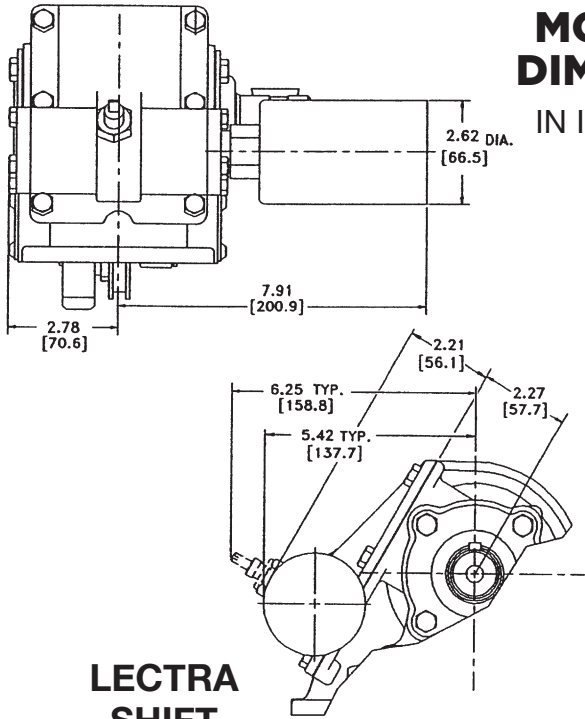
CONVERSION KIT	IDLER PLATE	CODE	CAP SCREW
15MK33977	15T35074	M, Q, E, V	(3) 19T34530/(1) 19M2562S
15MK35351	15T35351	F, TG6N-I85	See Illustration
N.A.	15T35612	TG6N-S71	(4) 19T31664

Locate onto appropriate side with interference at PTO mounting pad.

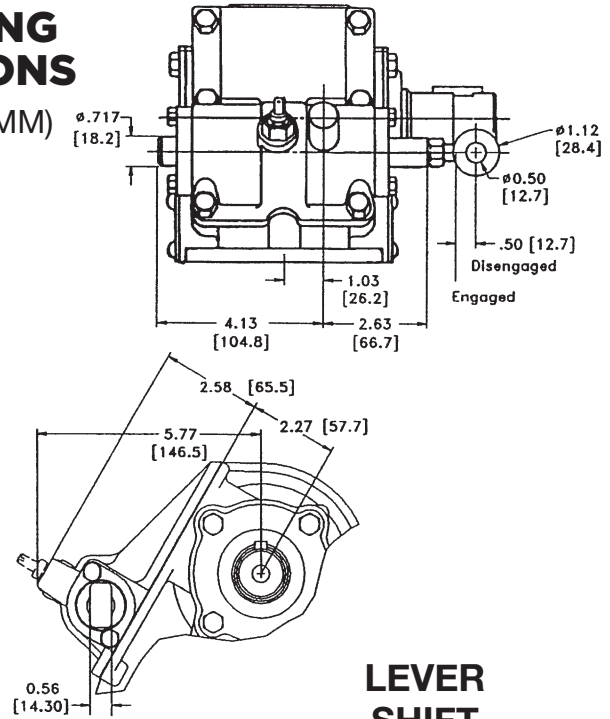


MOUNTING DIMENSIONS

IN INCHES (MM)

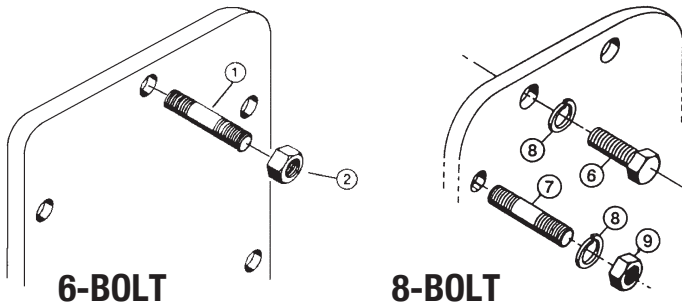


**LECTRA
SHIFT**



**LEVER
SHIFT**

MOUNTING KITS AND GASKET PACKS



6-BOLT

8-BOLT

6-BOLT MOUNTING KITS

ITEM	QTY.	PART NO.	DESCRIPTION
20MK6700 TG6S, TG6D, TG6N-S71, TG6N-S73			
1	6	20M38150	Stud
2	6	22T39282	Hex Nut
20MKM602 TG6B, TG6C			
1	6	20M39040	40mm Stud
2	6	22T39282	Hex Nut
20MKM104 TG6N-I85			
1	4	20M39040	40mm Stud
1	2	20M39045	45mm Stud
2	6	22T39282	Hex Nut
20TK4074 TG6B-I84			
1	6	20T37990	Stud, 1.5"
2	6	22T39282	Hex Nut
N.S.	1	IN99-06	Instruction Sheet

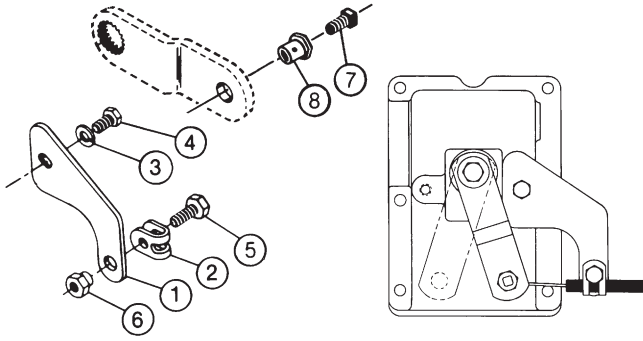
8-BOLT MOUNTING KITS

ITEM	QTY.	PART NO.	DESCRIPTION
20MK8801 TG8S, TG8D, TG8M			
6	6	19M44138	Cap Screw
7	2	20M44200	Stud
8	8	21ML4375	Lockwasher
9	2	22MX4420	Nut
20MKM802 TG8B, TG8C			
7	8	20M47055	55mm Stud
8	8	21ML4375	Lockwasher
9	8	22MX4420	Nut
20TK6221 TG8F			
7	8	20T64324	64mm Stud
8	8	21ML4375	Lockwasher
9	8	22MX4420	Nut

GASKET PACKS

QTY	PART NO.	DESCRIPTION
52TK4443 TG6S, TG6D, TG6B, TG6C (w/Std Input Gears), TG6N-S71, TG6N-S73		
1	IN84-03	PTO Manual
1	13M35091	.010" Gasket
1	13M35092	.020" Gasket
1	13T64246	Shifter Gasket
1	36M111NP	Nameplate
52TK4444 TG6S-U60, TG6B-A68		
1	IN84-03	PTO Manual
1	13M13541	.030" Gasket
1	13T64246	Shifter Gasket
1	36M111NP	Nameplate
52TK4447 TG6N-I85		
1	IN84-03	PTO Manual
2	13T35198	.010" Gasket
1	13T35199	.020" Gasket
1	13T64246	Shifter Gasket
52TK4445 TG8S, TG8D, TG8B, TG8C (w/Std Input Gears)		
1	IN84-03	PTO Manual
1	13M35151	.010" Gasket
2	13M35152	.020" Gasket
1	13T64246	Shifter Gasket
1	36M111NP	Nameplate
52TK4470 TG6B-A69		
1	IN84-03	PTO Manual
2	13M35091	.010" Gasket
5	13M35092	.020" Gasket
1	13T64246	Shifter Gasket
1	36M111NP	Nameplate

CABLE MOUNTING KIT 47M13802



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	28MZ5017	Flat Bracket
2	1	28MZ5019	Swivel Bracket
3	1	21M10000	Lock Washer
4	1	19M10001	Cap Screw
5	1	19M10000	Cap Screw
6	1	28MZ5018	Shoulder Nut
7	1	28M15020	Sq. Hd. Set Screw
8	1	22MZ8019	Pivot Pin
*	1	28MCC120	10' Cable
*	1	28MK0155	Knob

* Not included in Kit. Included with PTO with Cable Shift option.

OPTIONAL ACCESSORIES

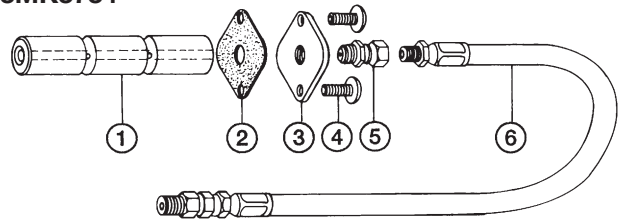
AWS-CT-12V Audible warning to indicate PTO engagement. Chime tone has various loudness (Db) adjustment. Attaches to standard PTO switch, not included.

47MGM165-3, 47MGM85-3, 47MGM55-3 Heavy duty cable shift bracket kits for push-pull type shift cables.

43MK8205 Lubrication Pump/Cooler System includes 12 V lube pump, oil cooler, temperature switch, hoses, connectors. For continuous duty applications on manual transmissions or transfer cases. 43TK6065P Same as above without oil cooler.

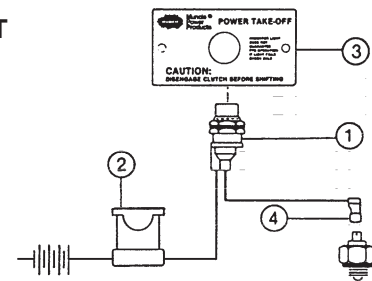
TG-RPS-A Air Pressure Switch Kit for indicator light when standard switch interferes with vehicle frame. Replaces mechanical switch on air shifted TG PTO with a pneumatic switch.

PRESSURE LUBE KIT 43MK3734



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	07T34511	Idler Shaft
2	2	13T38286	Gasket
3	1	15T34475	Cover Cap
4	2	19T37907	Cap Screw
5	1	43T37385	Orifice Fitting
6	1	45M4R536	Hose

DASH LIGHT KIT 36MK1210-A



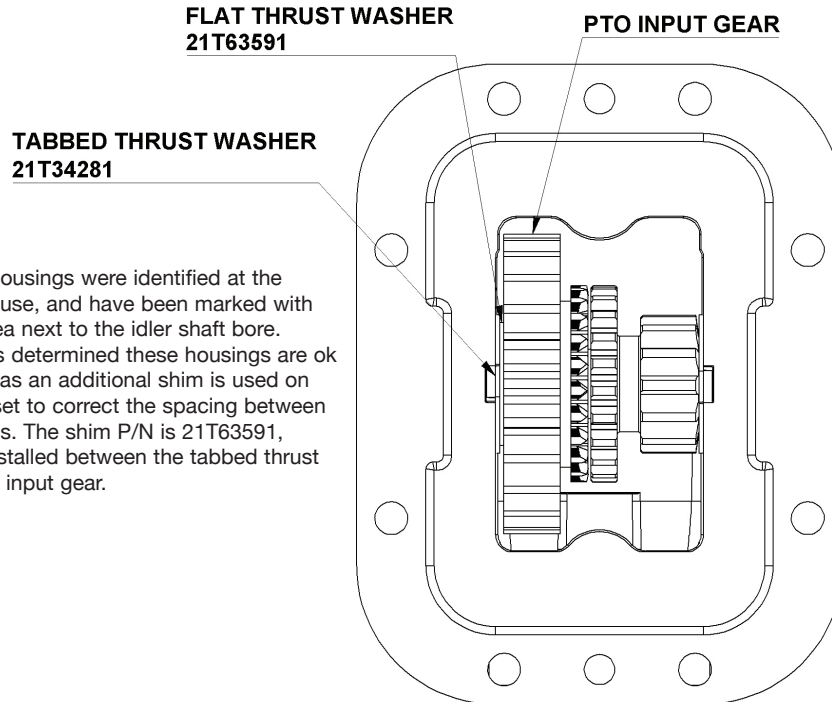
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	32M12001	Indicator Light
2	1	33T36299	Fuse Holder
3	1	36M16818	Dash Face Plate
4	1	34T38163	Booted Connector

LABEL PACKETS

QTY.	PART NO.	DESCRIPTION
LABEL PACKET (STD) 36MK3841		
2	36M35644	Frame Label
1	36T38634	Visor Label
1	36M35652	Dash Label
LABEL PACKET (I84, I85, A69, U60) 36TK4667		
2	36M35644	Frame Label
1	36T38634	Visor Label
1	36M35652	Dash Label
2	36T39562	Safety Label
1	IN91-05	Instructions

TG8 HOUSING WITH “W” MARKED

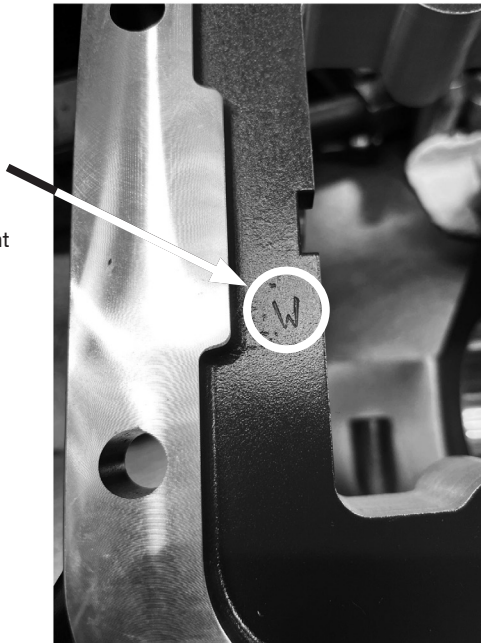
Muncie Power has identified a limited number of TG8 housings that have been found to have excessive width between the two surfaces where the input gear set thrust washers seat against the housing the affected housing P/N is 01T34461.



All discrepant housings were identified at the factory prior to use, and have been marked with a “W” in the area next to the idler shaft bore. Engineering has determined these housings are ok to use, as long as an additional shim is used on the input gear set to correct the spacing between the two surfaces. The shim P/N is 21T63591, and it will be installed between the tabbed thrust washer and the input gear.

Any PTO that bears the “W” mark in the are shown will always require the washer. The “W” was added internally on the PTO to help insure that the mark was protected and would be present when the PTO was disassembled.

For more information, contact Muncie Power Products Customer Service.



**Muncie®
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