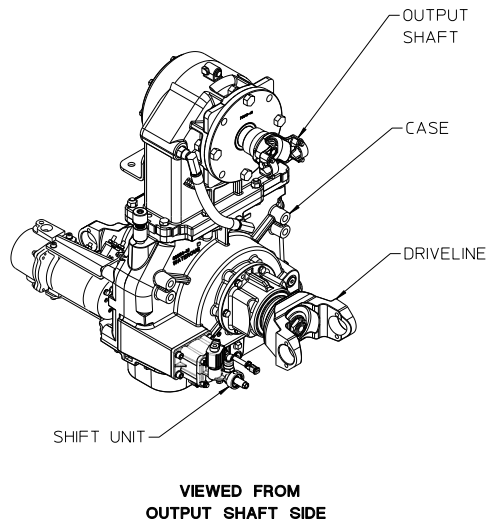
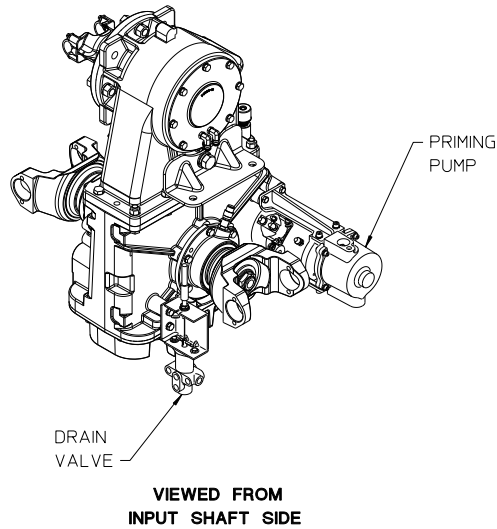


TC21 Series Power Take-Off Service Parts List

Index:



	Components			See Page
	Type	Front Shaft (Input Side of Case)	Rear Shaft (Output Side of Case)	
Output Shaft	Single	1550 Series End Yoke	None (Blank)	2, 3
		None (Blank)	1550 Series End Yoke	4, 5
	Dual	1550 Series End Yoke	Hydraulic Pump (SAE Class C 4-Bolt Hydraulic Flange)	6, 7
		Hydraulic Pump (SAE Class C 4-Bolt Hydraulic Flange)	1550 Series End Yoke	8, 9
Driveline	Input and Output Shafts		Exploded View	10, 11
			Cross-Section View	12, 13
Shift Unit	See Shift Unit Service Parts List			-
Case	Viewed from Input Side			14, 15
	Viewed from Output Side			16, 17
	Cap Sealant Application & Hardware		Front Facing Output Shaft	18, 19
			Rear Facing Output Shaft	20, 21
Optional Accessories (Fire Pump Applications Only)	PTO Mounted Drain Valve		See Drain Valve Service List	
	Model VPO Priming Pump		See Priming Pump Service Parts List	

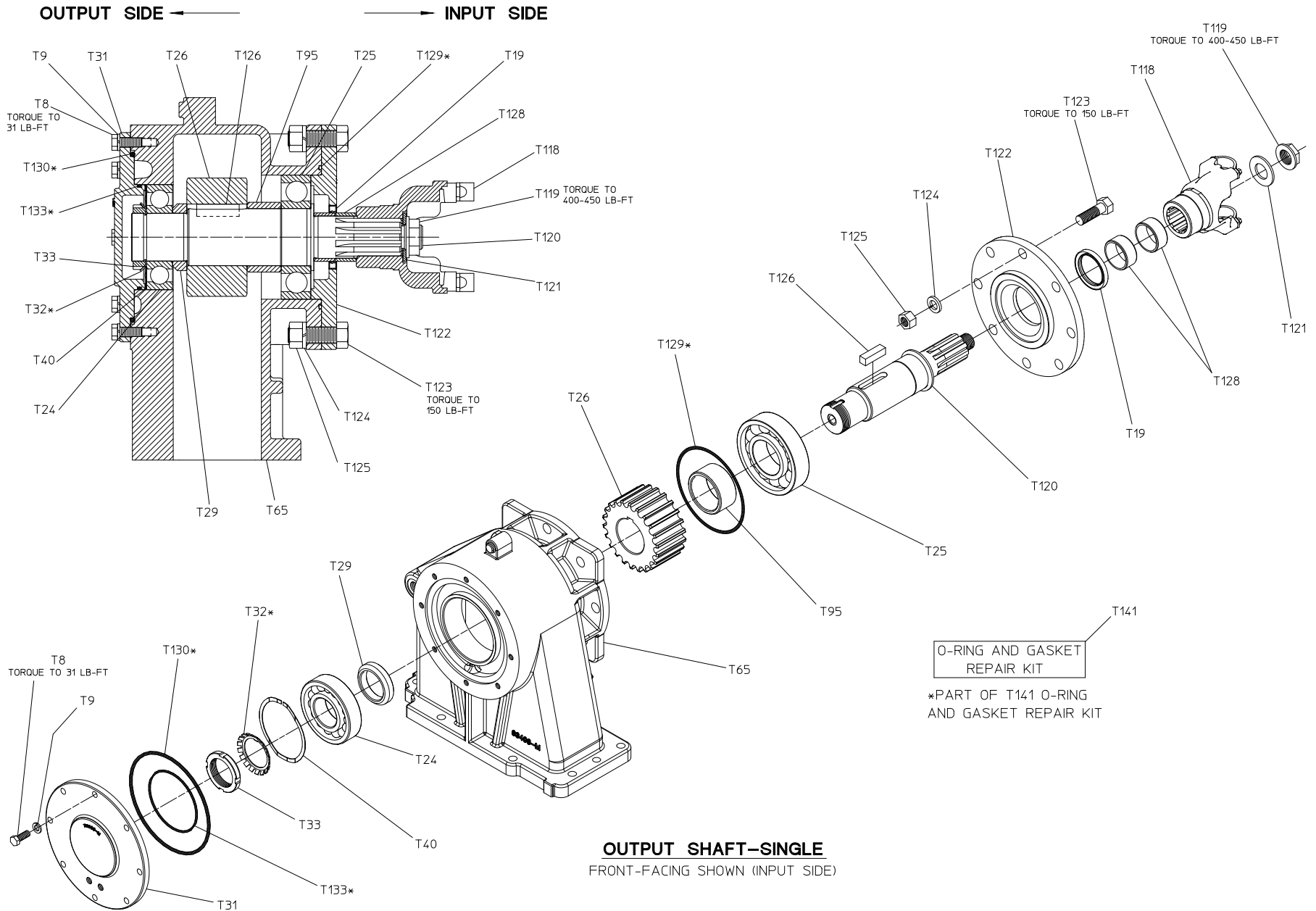
Output Shaft: Single – Facing Front (Input Side)

REF. NO.	DESCRIPTION
T8	Hex Hd Screw, 3/8-16 x 1 in.
T9	Lock Washer, 3/8 in.
T19	Oil Seal, 2 x 2-5/8 in.
T24	Single Row Ball Bearing
T25	Single Row Ball Bearing
T26	Driven Sprocket
T29	Bearing Spacer, .590 in. Long
T31	Bearing Cover
T32	Bearing Lock Nut Washer (W10)
T33	Bearing Lock Nut (N10)
T40	Wave Spring, 110 mm
T65	Transmission Cap, Front Facing
T95	Bearing Spacer, 1.405 in. Long
T118	End Yoke – 1550 Series

REF. NO.	DESCRIPTION
T119	Self-Locking Nut, 1-20 UNEF
T120	Driven Shaft
T121	Plain Washer, 1 in.
T122	Oil Seal Housing
T123	Hex Hd Screw, 5/8-11 x 2 in.
T124	Lock Washer, 5/8 in.
T125	Hex Nut, 5/8 in.
T126	Square Key, 1/2 x 1-3/4
T128	Oil Seal Sleeve
T129	O-ring, 5-5/8 x 5-7/8 in.
T130	O-ring, 6-3/4 x 7-1/8 in.
T133	O-ring, 4 x 4-1/4 in.
T141	O-ring and Gasket Repair Kit

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



OUTPUT SHAFT-SINGLE
FRONT-FACING SHOWN (INPUT SIDE)

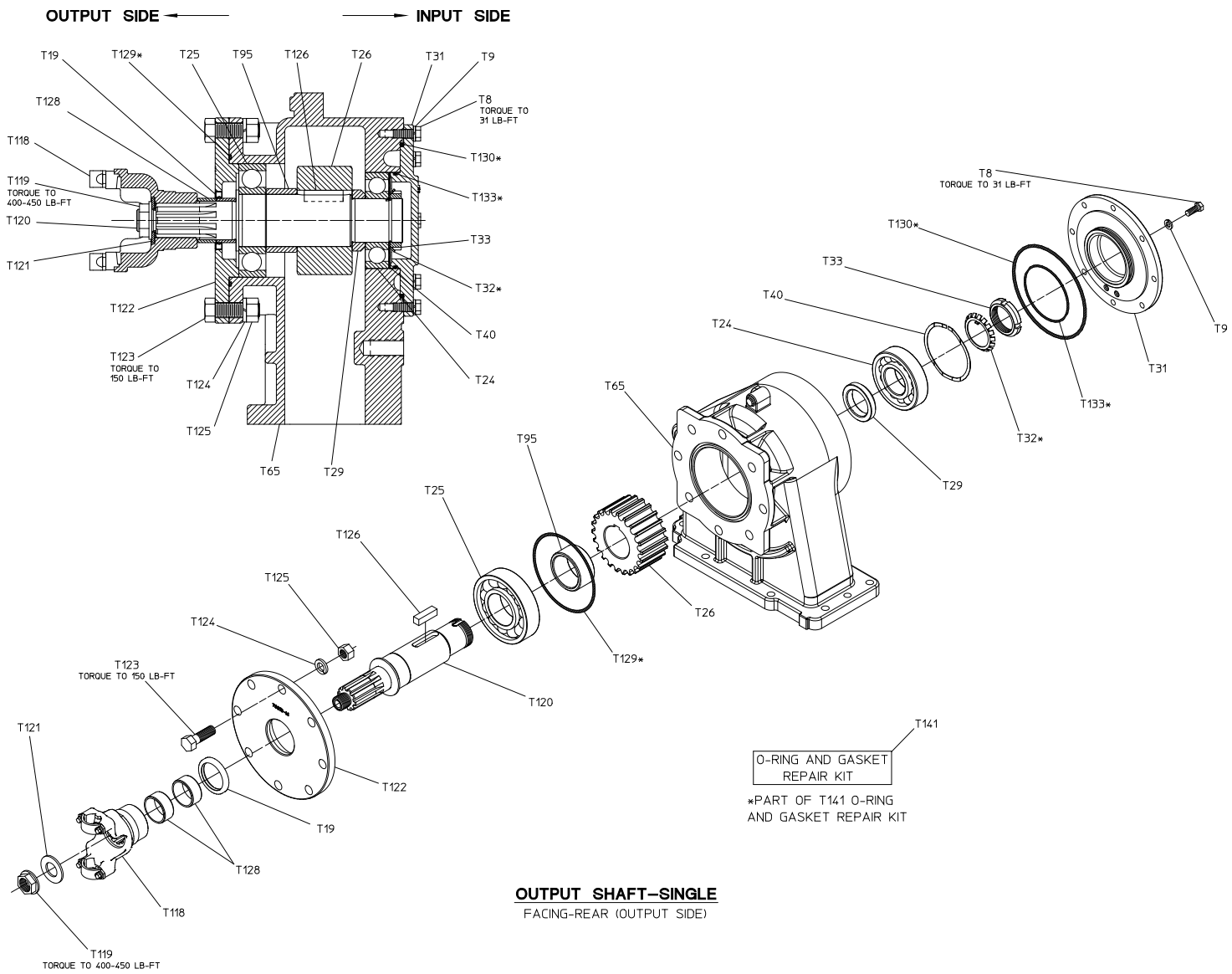
Output Shaft: Single – Facing Rear (Output Side)

REF. NO.	DESCRIPTION
T8	Hex Hd Screw, 3/8-16 x 1 in.
T9	Lock Washer, 3/8 in.
T19	Oil Seal, 2 x 2-5/8 in.
T24	Single Row Ball Bearing
T25	Single Row Ball Bearing
T26	Driven Sprocket
T29	Bearing Spacer, .590 in. Long
T31	Bearing Cover
T32	Bearing Lock Nut Washer (W10)
T33	Bearing Lock Nut (N10)
T40	Wave Spring, 110 mm
T65	Transmission Cap, Front Facing
T95	Bearing Spacer, 1.405 in. Long
T118	End Yoke – 1550 Series

REF. NO.	DESCRIPTION
T119	Self-Locking Nut, 1-20 UNEF
T120	Driven Shaft
T121	Plain Washer, 1 in.
T122	Oil Seal Housing
T123	Hex Hd Screw, 5/8-11 x 2 in.
T124	Lock Washer, 5/8 in.
T125	Hex Nut, 5/8 in.
T126	Square Key, 1/2 x 1-3/4
T128	Oil Seal Sleeve
T129	O-ring, 5-5/8 x 5-7/8 in.
T130	O-ring, 6-3/4 x 7-1/8 in.
T133	O-ring, 4 x 4-1/4 in.
T141	O-ring and Gasket Repair Kit

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



Output Shaft – Dual
 Front (Input Side) – End Yoke
 Rear (Output Side) – Hydraulic Flange

REF. NO.	DESCRIPTION
T19	Oil Seal, 3 x 3-3/4 in.
T21	Skt Hd Screw, 3/8-16 x 2-1/4
T22	Hydraulic Adapter
T23	Oil Seal, 1-25/32 x 2-5/8
T24	Single Row Ball Bearing
T25	Single Row Ball Bearing
T26	Driven Sprocket
T29	Bearing Spacer, .590 in. Long
T32	Bearing Lock Nut Washer (W10)
T33	Bearing Lock Nut (N10)
T40	Wave Spring, 110 mm
T65	Transmission Cap, Rear Facing
T95	Bearing Spacer, 1.405 in. Long
T118	End Yoke – 1550 Series

REF. NO.	DESCRIPTION
T119	Self-Locking Nut, 1-20 UNEF
T120	Driven Shaft
T121	Plain Washer, 1 in.
T122	Oil Seal Housing
T123	Hex Hd Screw, 5/8-11 x 2 in.
T124	Lock Washer, 5/8 in.
T125	Hex Nut, 5/8 in.
T126	Square Key, 1/2 x 1-3/4
T128	Oil Seal Sleeve
T129	O-ring, 5-5/8 x 5-7/8 in.
T130	O-ring, 6-3/4 x 7-1/8 in.
T133	O-ring, 4 x 4-1/4 in.
T141	O-ring and Gasket Repair Kit

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft

Output Shaft – Dual
Front (Input Side) – Hydraulic Flange
Rear (Output Side) – End Yoke

REF. NO.	DESCRIPTION
T19	Oil Seal, 2 x 2-5/8 in.
T21	Skt Hd Screw, 3/8-16 x 2-1/4
T22	Hydraulic Adapter
T23	Oil Seal, 1-25/32 x 2-5/8
T24	Single Row Ball Bearing
T25	Single Row Ball Bearing
T26	Driven Sprocket
T29	Bearing Spacer, .590 in. Long
T32	Bearing Lock Nut Washer (W10)
T33	Bearing Lock Nut (N10)
T40	Wave Spring, 110 mm
T65	Transmission Cap, Rear Facing
T95	Bearing Spacer, 1.405 in. Long
T118	End Yoke – 1550 Series

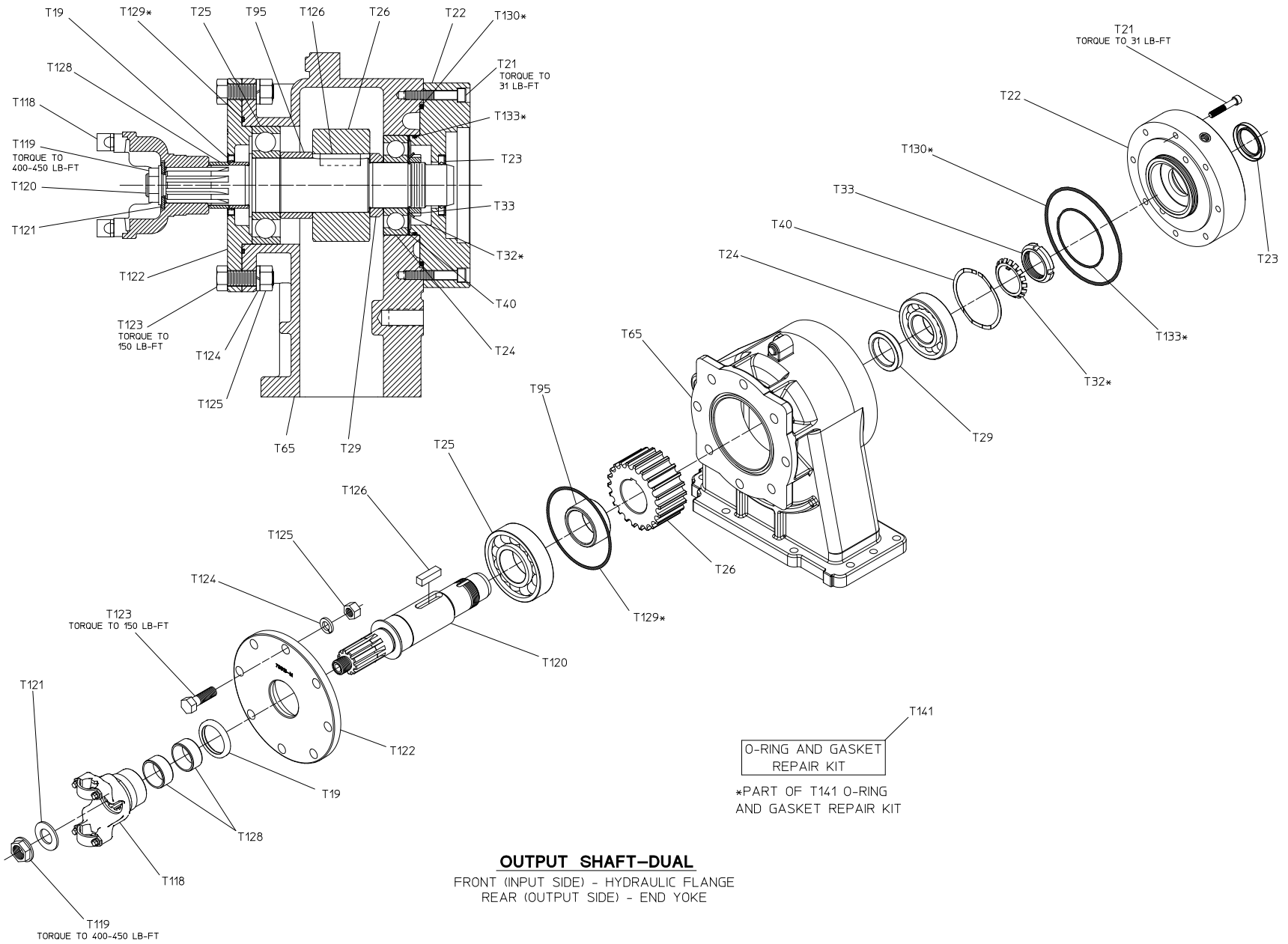
REF. NO.	DESCRIPTION
T119	Self-Locking Nut, 1-20 UNEF
T120	Driven Shaft
T121	Plain Washer, 1 in.
T122	Oil Seal Housing
T123	Hex Hd Screw, 5/8-11 x 2 in.
T124	Lock Washer, 5/8 in.
T125	Hex Nut, 5/8 in.
T126	Square Key, 1/2 x 1-3/4
T128	Oil Seal Sleeve
T129	O-ring, 5-5/8 x 5-7/8 in.
T130	O-ring, 6-3/4 x 7-1/8 in.
T133	O-ring, 4 x 4-1/4 in.
T141	O-ring and Gasket Repair Kit

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft

OUTPUT SIDE ←

→ INPUT SIDE



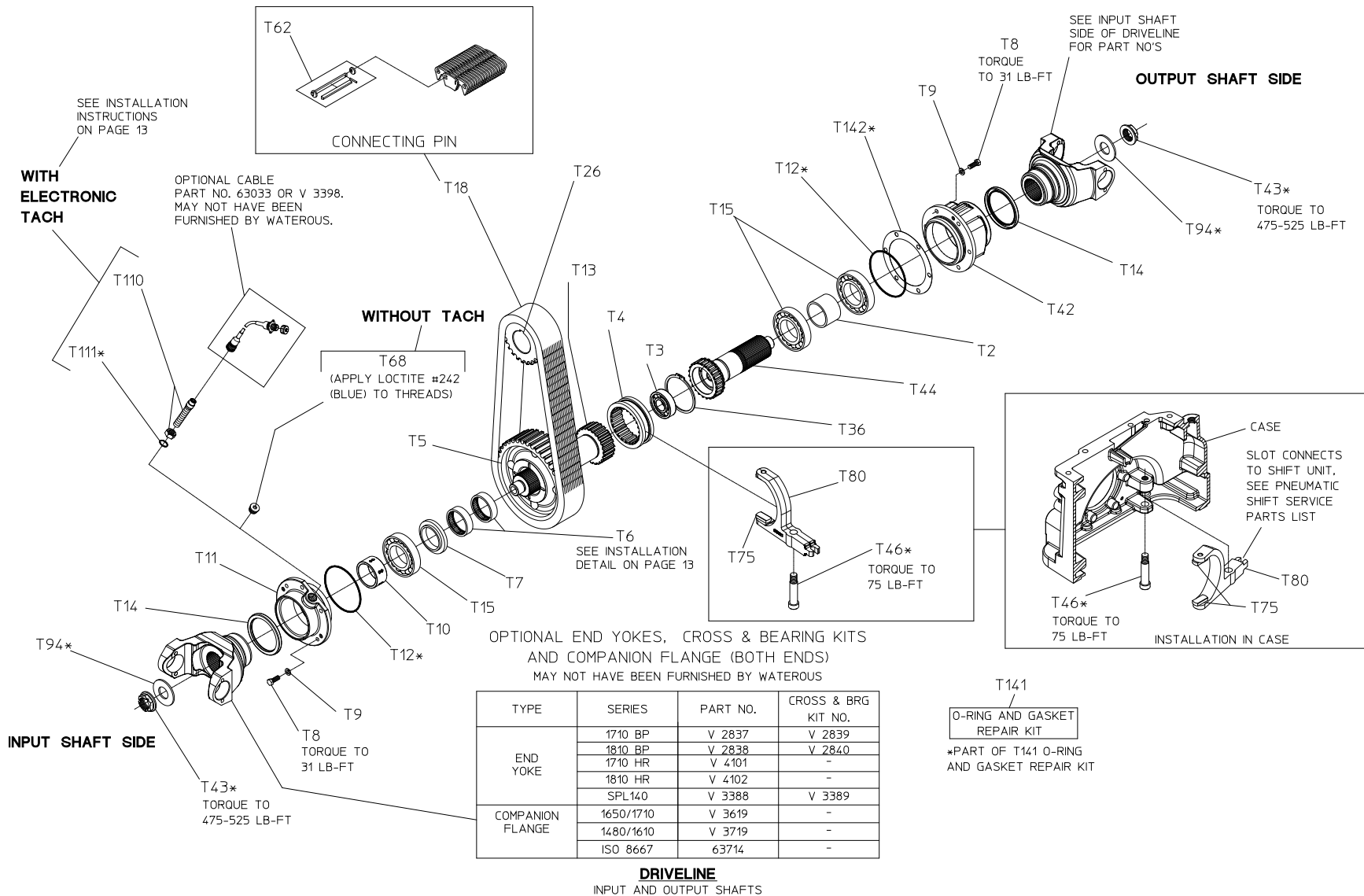
Drive Line – Input and Output Shafts
(Exploded View)

REF. NO.	DESCRIPTION
T2	Coupling Shaft Spacer
T3	Single Row Ball Bearing
T4	Shift Collar
T5	Drive Sprocket
T6	Needle Bearing
T7	Thrust Washer
T8	Hex Hd Screw, 3/8-16 x 1 in.
T9	Lock Washer, 3/8 in.
T10	Tachometer Pulse Generator
T11	Drive Shaft Housing
T12	O-ring, 4-3/4 x 5 in.
T13	Drive Shaft
T14	Oil Seal, 3-1/2 x 4-3/8 in.
T15	Single Row Ball Bearing
T18	Chain
T26	Driven Sprocket
T36	Retaining Ring
T42	Coupling Shaft Housing

REF. NO.	DESCRIPTION
T43	Self-Locking Nut, 1-1/4-18 in.
T44	Coupling Shaft (Includes T36)
T46	Shoulder Screw, 3/4 x 2-1/2
T62	Chain Connecting Pin Set
T68	Set Screw, 5/8-18 x 5/8 in.
T75	Shift Shoe
T80	Shift Fork
T94	Plain Washer, 1-1/4 in.
T110	Magnetic Tachometer Pick-up
T111	O-ring, 5/8 x 3/4 in.
T141	O-ring and Gasket Repair Kit
T142	Aluminum Shim

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



Drive Line – Input and Output Shafts
(Cross-Section View)

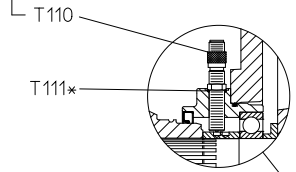
REF. NO.	DESCRIPTION
T2	Coupling Shaft Spacer
T3	Single Row Ball Bearing
T4	Shift Collar
T5	Drive Sprocket
T6	Needle Bearing
T7	Thrust Washer
T8	Hex Hd Screw, 3/8-16 x 1 in.
T9	Lock Washer, 3/8 in.
T10	Tachometer Pulse Generator
T11	Drive Shaft Housing
T12	O-ring, 4-3/4 x 5 in.
T13	Drive Shaft
T14	Oil Seal, 3-1/2 x 4-3/8 in.
T15	Single Row Ball Bearing
T18	Chain
T36	Retaining Ring

REF. NO.	DESCRIPTION
T42	Coupling Shaft Housing
T43	Self-Locking Nut, 1-1/4-18 in.
T44	Coupling Shaft (Includes T36)
T46	Shoulder Screw, 3/4 x 2-1/2
T68	Set Screw, 5/8-18 x 5/8 in.
T75	Shift Shoe
T80	Shift Fork
T94	Plain Washer, 1-1/4 in.
T110	Magnetic Tachometer Pick-up
T111	O-ring, 5/8 x 3/4 in.
T141	O-ring and Gasket Repair Kit
T142	Aluminum Shim

Hardware Torque Specifications

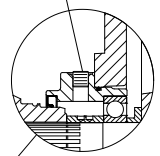
Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft

THREAD INTO HOUSING UNTIL CONTACT WITH PULSE GENERATOR IS MADE. BACK OFF 1/2 TURN AND TIGHTEN NUT

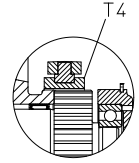


WITH TACH

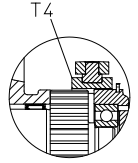
T68 (APPLY LOCTITE #242 (BLUE) TO THREADS)



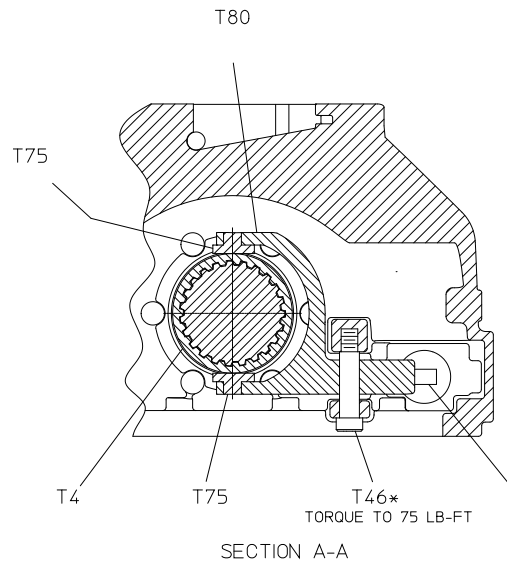
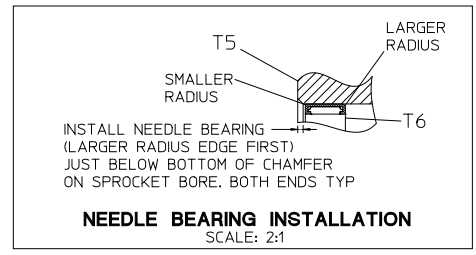
WITHOUT TACH



SHIFT COLLAR IN PUMP POSITION



SHIFT COLLAR IN ROAD POSITION



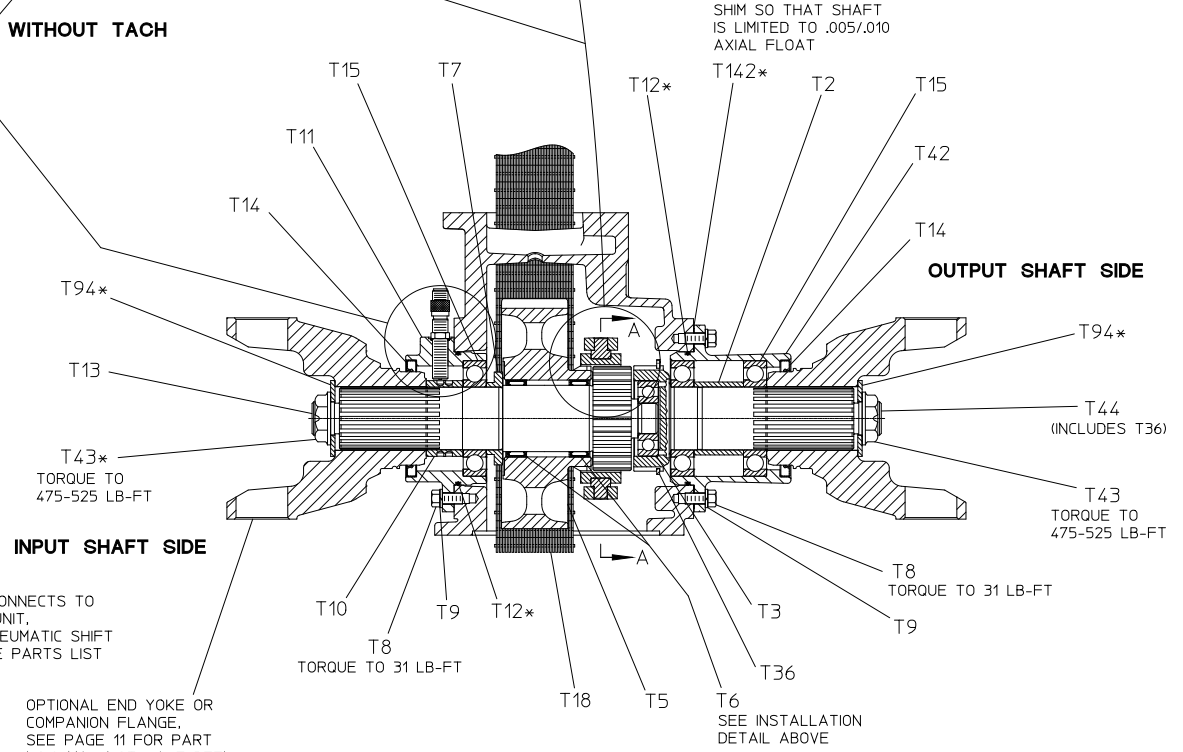
O-RING AND GASKET REPAIR KIT

*PART OF T141 O-RING AND GASKET REPAIR KIT

SLOT CONNECTS TO SHIFT UNIT. SEE PNEUMATIC SHIFT SERVICE PARTS LIST

OPTIONAL END YOKE OR COMPANION FLANGE. SEE PAGE 11 FOR PART NO'S MAY NOT HAVE BEEN FURNISHED BY WATEROUS

DRIVELINE
INPUT AND OUTPUT SHAFTS



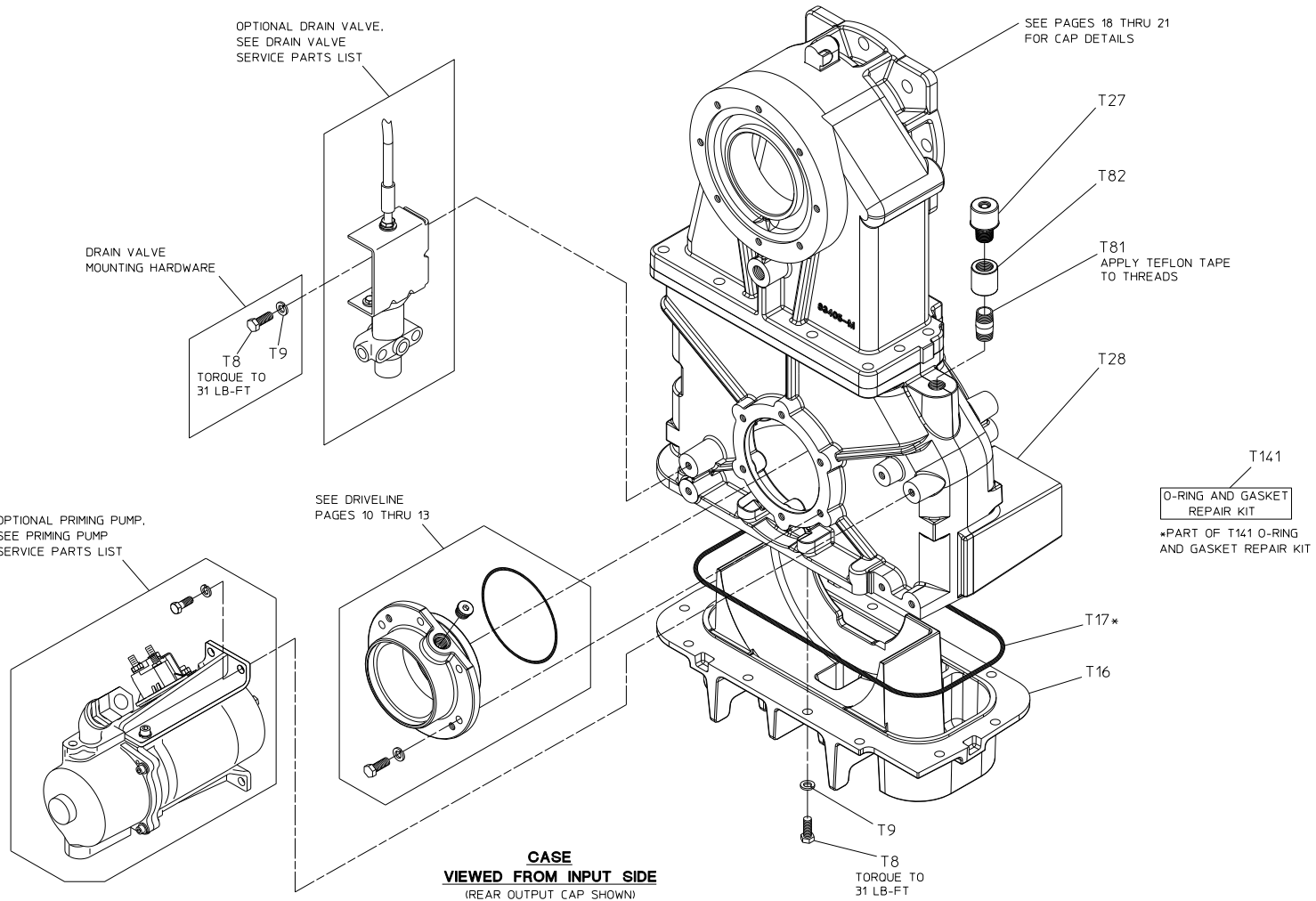
Case
Viewed from Input Side

REF. NO.	DESCRIPTION
T8	Hex Hd Screw, 3/8-16 x 1 in.
T9	Lock Washer, 3/8 in.
T16	Transmission Pan
T17	Transmission Pan O-ring, 13 x 13-3/8
T27	Breather, 1/2 NPT

REF. NO.	DESCRIPTION
T28	Case
T81	Pipe Nipple, 1/2 NPT x 1-1/2 in.
T82	Pipe Coupling, 1/2 NPT
T141	O-ring and Gasket Repair Kit

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



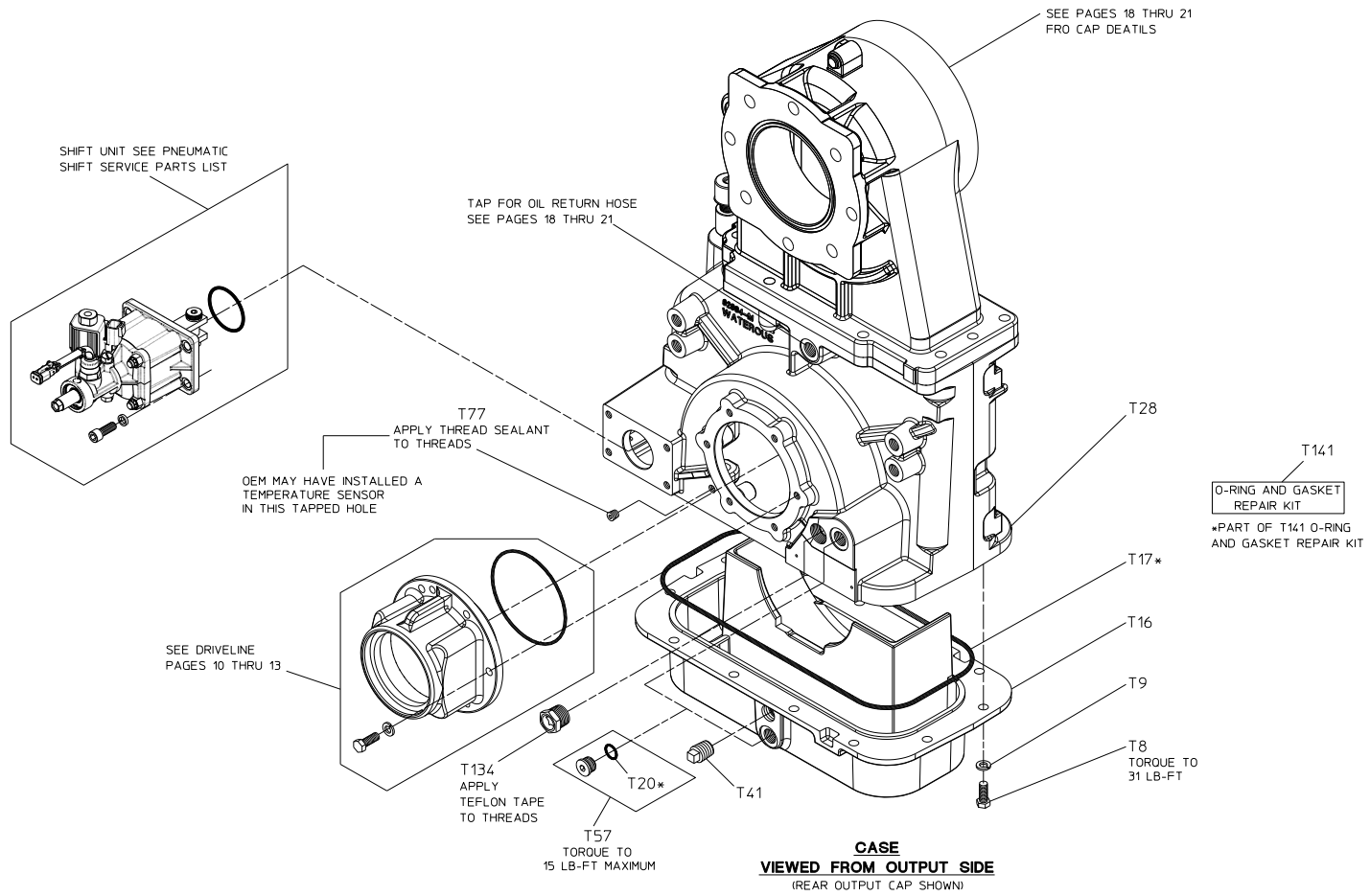
Case
Viewed from Output Side

REF. NO.	DESCRIPTION
T8	Hex Hd Screw, 3/8-16 x 1 in.
T9	Lock Washer, 3/8 in.
T16	Transmission Pan
T17	Transmission Pan O-ring, 13 x 13-3/8
T20	O-ring, 16.4 mm x 20.8 mm
T28	Case
T41	Pipe Plug, 1/2 NPT

REF. NO.	DESCRIPTION
T57	Magnetic Drain Plug, 3/4-16 (Includes T78)
T77	Headless Pipe Plug, 1/8 NPT
T134	Sight Plug, 3/4 NPT
T141	O-ring and Gasket Repair Kit

Hardware Torque Specifications

Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



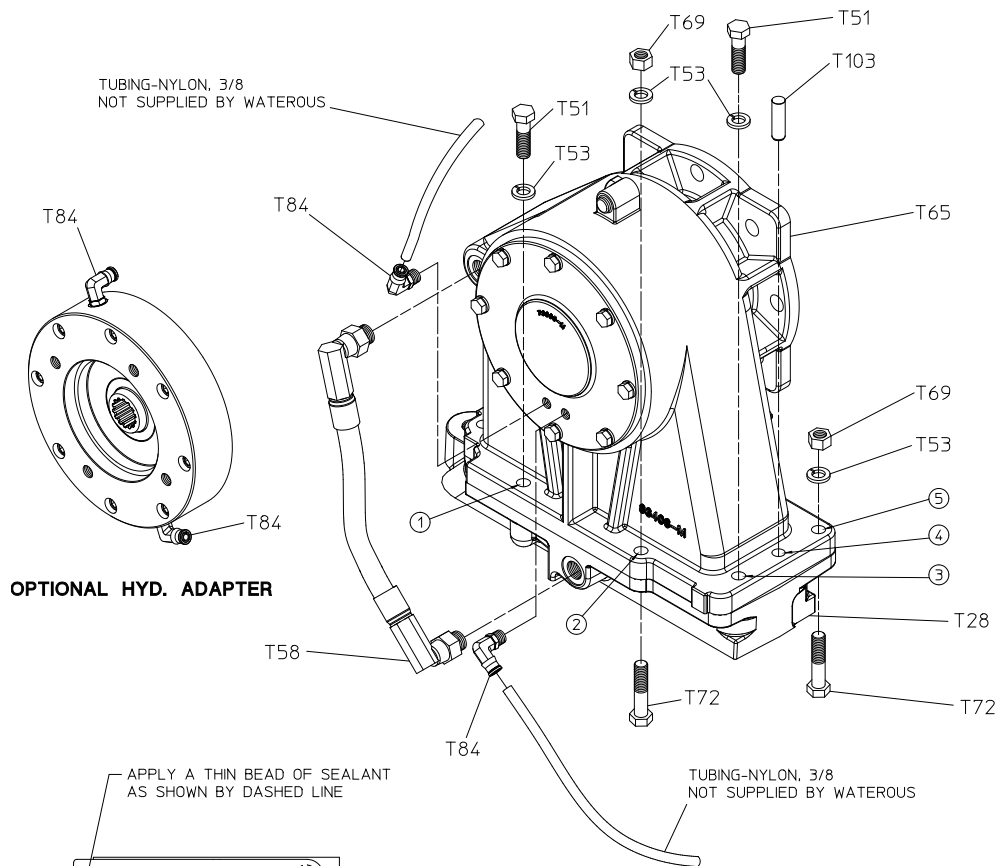
Case Cap
Front Facing Output Shaft

REF. NO.	DESCRIPTION
T28	Case
T51	Hex Hd Screw, 1/2-13 x 1-3/4 in.
T53	Lock Washer, 1/2
T58	Hose Assy

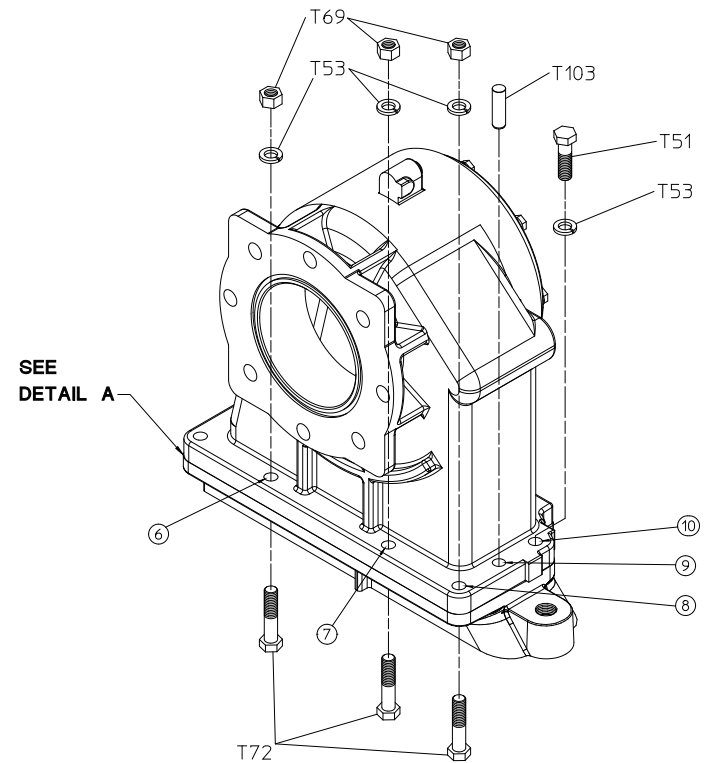
REF. NO.	DESCRIPTION
T65	Transmission Cap, Front Facing
T69	Hex Nut, 1/2-20
T72	Hex Hd Screw, 1/2-20 x 2-1/4 in.
T84	Elbow Adapter, 1/4 NPT x 3/8 Tube
T103	Dowel Pin, 1/2 x 1-3/4 in.

Hardware Torque Specifications

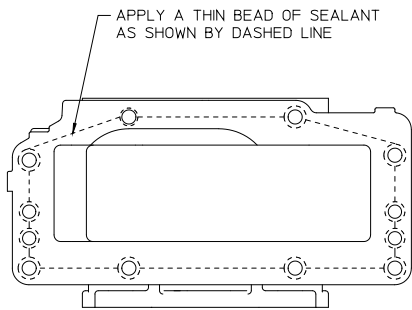
Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



VIEWED FROM OUTPUT SIDE OF CASE



VIEWED FROM INPUT SIDE OF CASE



DETAIL A
APPLY LOCTITE® 518 SEALANT OR EQUIVALENT TO MATING FLANGES

FLANGE HARDWARE BETWEEN CAP (T65) AND CASE (T28)

REF NO.	HARDWARE DESCRIPTION	HOLE NUMBER										QTY	TORQUE SPECIFICATION	
		1	2	3	4	5	6	7	8	9	10			
T51	SCREW-HEX HD, 1/2-13 X 1-3/4	1		1								1	3	75 LB-FT
T53	WASHER-LOCK, 1/2	1	1	1		1	1	1	1			1	8	-
T69	NUT-HEX, 1/2-20			1		1	1	1	1				5	85 LB-FT
T72	SCREW-HEX HD, 1/2-20 X 2-1/4			1		1	1	1	1				5	85 LB-FT
T103	PIN-DOWEL, 1/2 X 1-3/4					1						1	2	-

CASE - CAP
FRONT FACING OUTPUT SHAFT (INPUT SIDE)

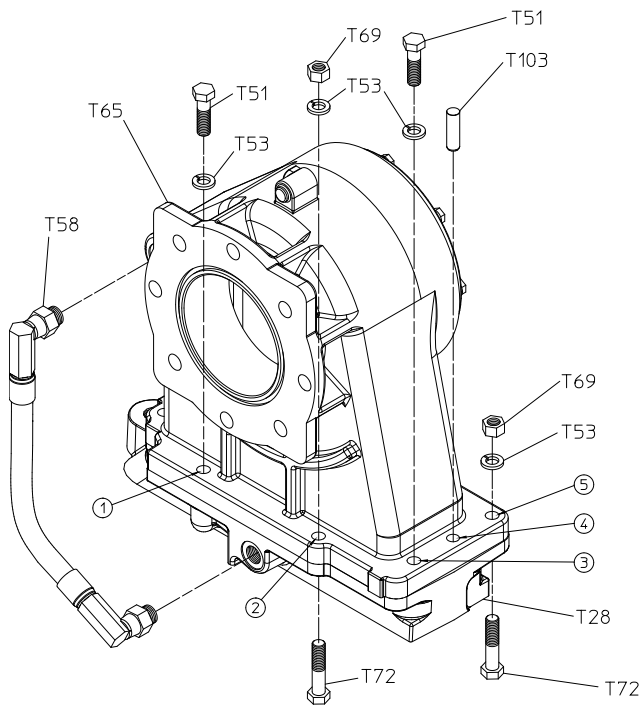
Case Cap
Rear Facing Output Shaft

REF. NO.	DESCRIPTION
T28	Case
T51	Hex Hd Screw, 1/2-13 x 1-3/4 in.
T53	Lock Washer, 1/2
T58	Hose Assy
T59	Case Mounting Bracket
T60	Plain Washer, 3/4 in.
T61	Lock Washer, 3/4 in.

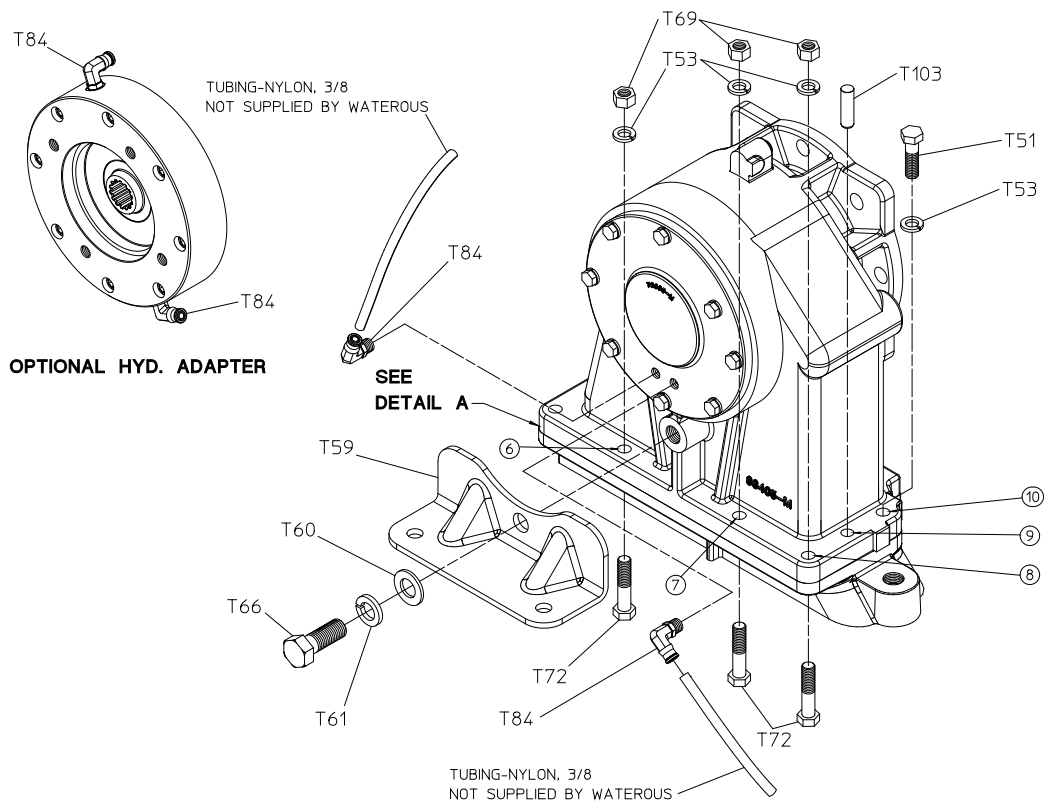
REF. NO.	DESCRIPTION
T65	Transmission Cap, Rear Facing
T66	Hex Hd Screw, 3/4-10 x 2 in.
T69	Hex Nut, 1/2-20
T72	Hex Hd Screw, 1/2-20 x 2-1/4 in.
T84	Elbow Adapter, 1/4 NPT x 3/8 Tube
T103	Dowel Pin, 1/2 x 1-3/4 in.

Hardware Torque Specifications

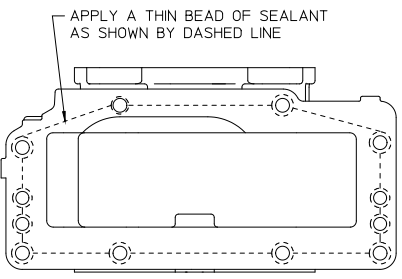
Screw Size	Torque Specification
5/16-18 UNC	17 lb-ft
3/8-16 UNC	31 lb-ft
1/2-13 UNC	75 lb-ft
1/2-20 UNF	85 lb-ft
5/8-11 UNC	150 lb-ft



VIEWED FROM OUTPUT SIDE OF CASE



VIEWED FROM INPUT SIDE OF CASE



DETAIL A
APPLY A THIN BEAD OF SEALANT AS SHOWN BY DASHED LINE
APPLY LOCTITE® 518 SEALANT OR EQUIVALENT TO MATING FLANGES

FLANGE HARDWARE BETWEEN CAP (T65) AND CASE (T28)

REF. NO.	HARDWARE DESCRIPTION	HOLE NUMBER										QTY	TORQUE SPECIFICATION	
		1	2	3	4	5	6	7	8	9	10			
T51	SCREW-HEX HD, 1/2-13 X 1-3/4	1		1								1	3	75 LB-FT
T53	WASHER-LOCK, 1/2	1	1	1		1	1	1	1			1	8	-
T69	NUT-HEX, 1/2-20			1		1	1	1					5	85 LB-FT
T72	SCREW-HEX HD, 1/2-20 X 2-1/4	1				1	1	1	1				5	85 LB-FT
T103	PIN-DOWEL, 1/2 X 1-3/4				1						1		2	-

CASE - CAP
REAR FACING OUTPUT SHAFT (OUTPUT SIDE)