



Document Number <b>SPL81616</b>	Issue Date <b>12/20/88</b>	Rev. Date <b>11/12/18</b>
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## Extra Heavy Duty K Transmission Service Parts List

Index:

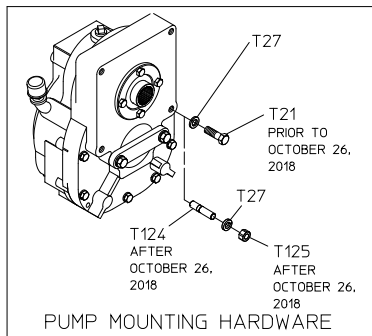
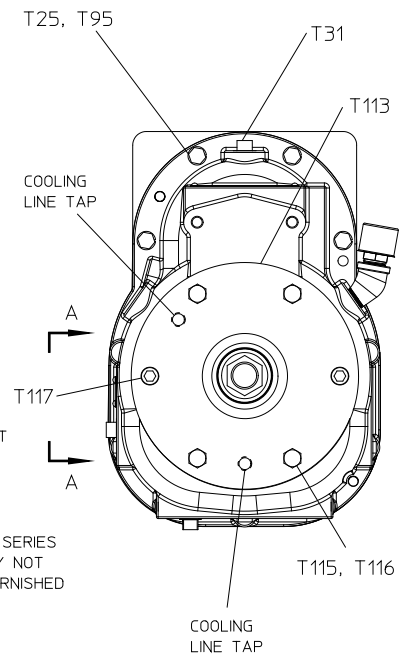
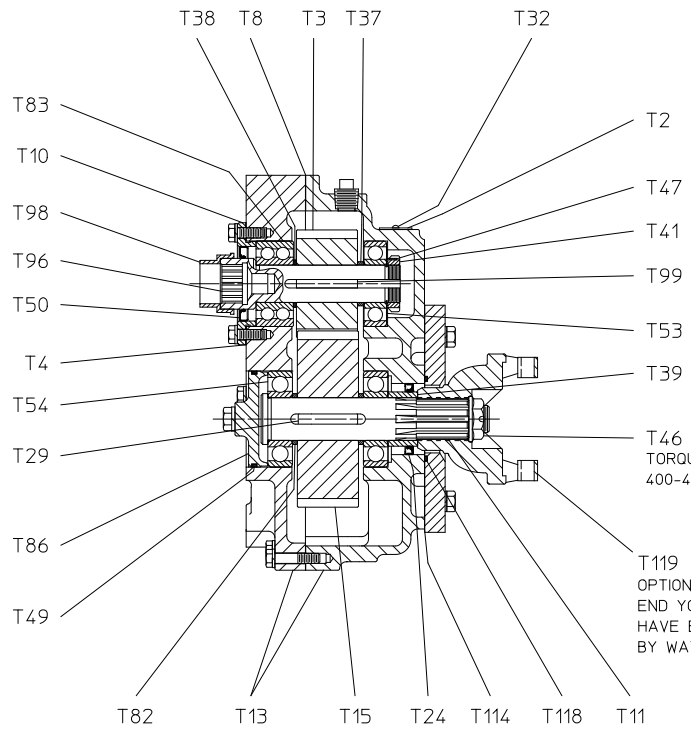
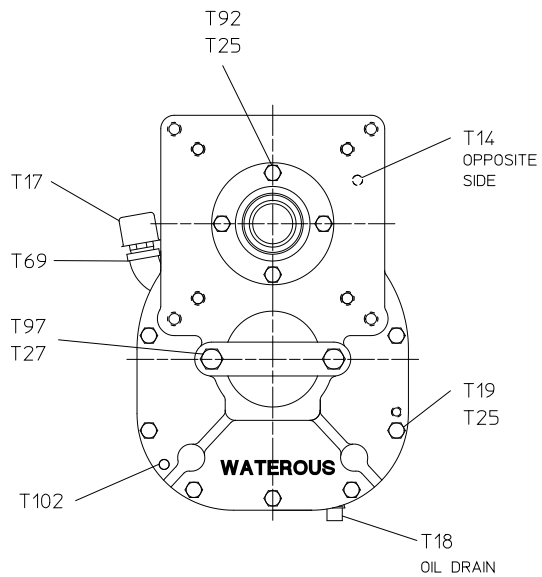
Pump Model <i>(Located on Serial Plate)</i>	Pump Impeller Shaft Design	Transmission		See Page		
		Input Shaft	Mounting	Transmission Components	Oil Cooler	
					Internal	External
CMUK, CSUK	Separable from Transmission	1-1/2-10 SAE Spline	Vertical	2, 3	N/A	14, 15
			Inverted	4, 5	N/A	N/A
		SAE Class D Hydraulic Adapter	Vertical	6, 7	N/A	N/A
CHK-4	One-Piece (Non-Separable)	1-1/2-10 SAE Spline	Vertical or Horizontal	8, 9	12, 13	N/A
	Separable from Transmission	1-1/2-10 SAE Spline	Vertical or Horizontal	10, 11		N/A

# Models CMUK, CSUK

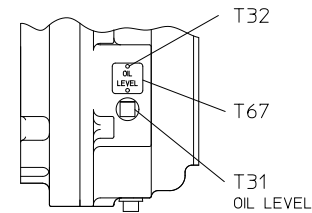
## 1-1/2-10 SAE Spline Input Shaft (1410 Series End Yoke) – Vertical Mounting

REF. NO.	DESCRIPTION
T2	Serial Plate
T3	Driven Gear
T4	Oil Seal Housing Gasket
T8	Gear Case Gasket
T10	Oil Seal Housing
T11	Drive Shaft
T13	Gear Case Subassembly
T14	Dowel Pin, 3/8 x 1 in.
T15	Drive Gear
T17	Breather, 1/2 NPT
T18	Magnetic Drain Plug, 1/2 NPT
T19	Hex Head Screw, 3/8-16 x 1-3/4 in.
T21	Hex Head Screw, 1/2-13 x 1-1/2 in., Grade 5 (Used Prior to October 26, 2018)
T24	Oil Seal, 2 x 2-5/8 in.
T25	Lock Washer, 3/8 in.
T27	Lock Washer, 1/2 in.
T29	Square Key, 3/8 x 3/8 x 2-3/16 in.
T31	Pipe Plug, 1/2 NPT
T32	Drive Screw, No. 6 x 1/4 in.
T37	Impeller Shaft Spacer (.245 in. Wide)
T38	Impeller Shaft Spacer (.115 in. Wide)
T39	Oil Seal Sleeve
T41	Bearing Locknut
T46	Shaft Nut, 1-20
T47	Bearing Lockwasher
T49	O-ring, 3-1/4 x 3-1/2 in.

REF. NO.	DESCRIPTION
T50	Oil Seal, 1-7/8 x 2-3/4 in.
T53	Single Row Impeller Shaft Ball Bearing
T54	Drive Shaft Ball Bearing
T67	Oil Level Plate
T69	Street Elbow, 45 Deg., 1/2 NPT
T82	Drive Shaft Spacer
T83	Double Row Impeller Shaft Ball Bearing
T86	Bearing Retainer
T92	Hex Head Screw, 3/8-16 x 1 in.
T95	Hex Head Screw, 1/2-13 x 1-1/4 in.
T96	Driven Shaft
T97	Hex Head Screw, 1/2-13 x 1 in.
T98	V-Ring Flinger (Used Prior to August 26, 1993)
	Sealing Boot (Used After August 26, 1993)
T99	Square Key, 5/16 x 5/16 x 2-3/16 in.
T102	Dowel Pin, 3/8 x 1-1/2 in.
T113	Cooling Plate
T114	Cooling Plate Gasket
T115	Hex Head Screw, 7/16-14 x 1-1/2 in.
T116	Lock Washer, 7/16 in.
T117	Socket Head Screw, 7/16-14 x 7/8 in.
T118	O-ring, 2-1/4 x 3 in.
T119	Yoke, 1410 Series (After October 28, 2013 Now a Line-Item on the Order)
T124	Stud, 1/2-13 x 2-1/4 in. (Used After October 26, 2018)
T125	Hex Nut, 1/2-13 (Used After October 26, 2018)



**MODEL CMUK, CSUK  
1-1/2-10 SAE SPLINE INPUT  
VERTICAL MOUNTING**



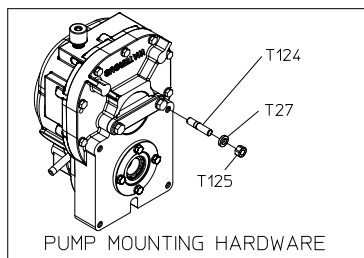
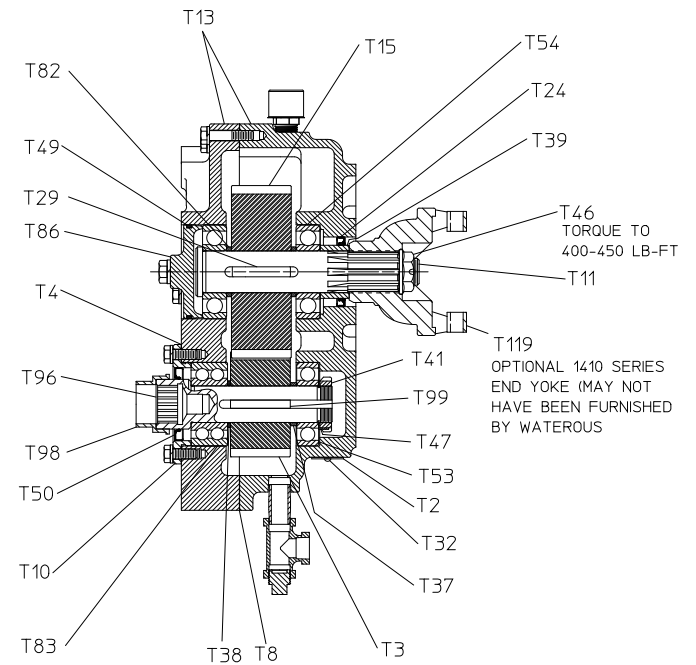
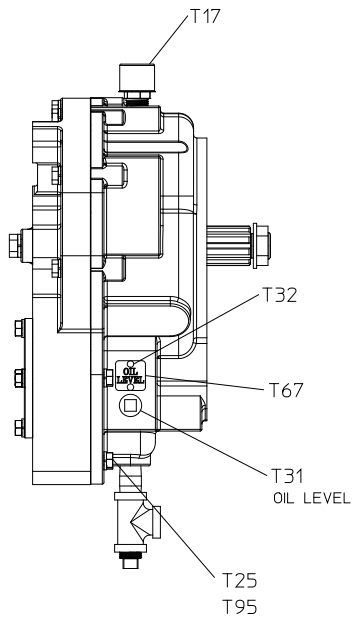
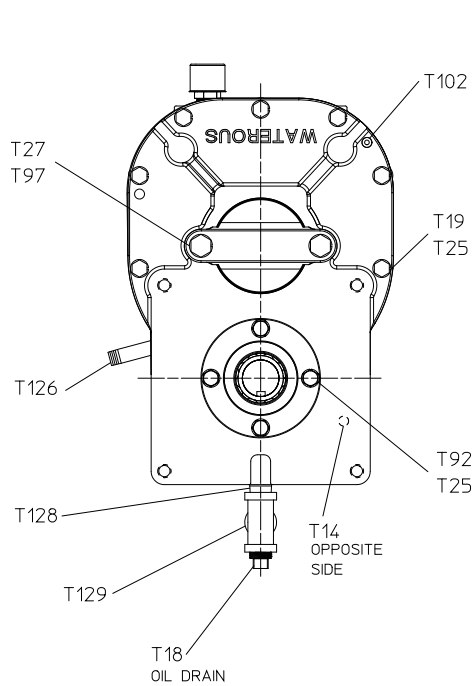
VIEW A-A

# Models CMUK, CSUK

## 1-1/2-10 SAE Spline Input Shaft (1410 Series End Yoke) – *Inverted Mounting*

REF. NO.	DESCRIPTION
T2	Serial Plate
T3	Driven Gear
T4	Oil Seal Housing Gasket
T8	Gear Case Gasket
T10	Oil Seal Housing
T11	Drive Shaft
T13	Gear Case Subassembly
T14	Dowel Pin, 3/8 x 1 in.
T15	Drive Gear
T17	Breather, 1/2 NPT
T18	Magnetic Drain Plug, 1/2 NPT
T19	Hex Head Screw, 3/8-16 x 1-3/4 in.
T24	Oil Seal, 2 x 2-5/8 in.
T25	Lock Washer, 3/8 in.
T27	Lock Washer, 1/2 in.
T29	Square Key, 3/8 x 3/8 x 2-3/16 in.
T31	Pipe Plug, 1/2 NPT
T32	Drive Screw, No. 6 x 1/4 in.
T37	Impeller Shaft Spacer (.245 in. Wide)
T38	Impeller Shaft Spacer (.115 in. Wide)
T39	Oil Seal Sleeve
T41	Bearing Locknut
T46	Shaft Nut, 1-20
T47	Bearing Lockwasher

REF. NO.	DESCRIPTION
T49	O-ring, 3-1/4 x 3-1/2 in.
T50	Oil Seal, 1-7/8 x 2-3/4 in.
T53	Single Row Impeller Shaft Ball Bearing
T54	Drive Shaft Ball Bearing
T67	Oil Level Plate
T82	Drive Shaft Spacer
T83	Double Row Impeller Shaft Ball Bearing
T86	Bearing Retainer
T92	Hex Head Screw, 3/8-16 x 1 in.
T95	Hex Head Screw, 1/2-13 x 1-1/4 in.
T96	Driven Shaft
T97	Hex Head Screw, 1/2-13 x 1 in.
T98	V-Ring Flinger (Used Prior to August 26, 1993)
	Sealing Boot (Used After August 26, 1993)
T99	Square Key, 5/16 x 5/16 x 2-3/16 in.
T102	Dowel Pin, 3/8 x 1-1/2 in.
T119	Yoke, 1410 Series (After October 28, 2013 Now a Line-Item on the Order)
T124	Stud, 1/2-13 x 2-1/4 in.
T125	Hex Nut, 1/2-13
T126	Nipple Pipe, 1/4 x 2-1/2 in.
T128	Nipple Pipe, 1/2 x 1-1/2 in.
T129	Tee, 1/2 NPT



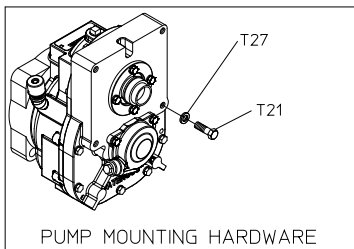
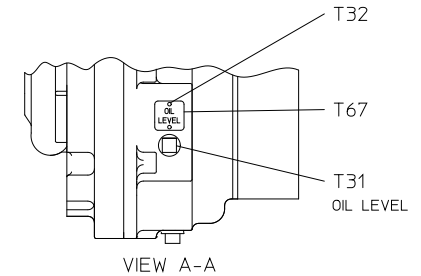
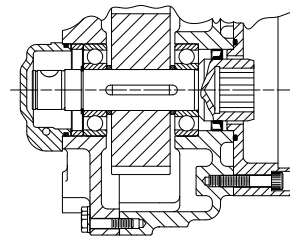
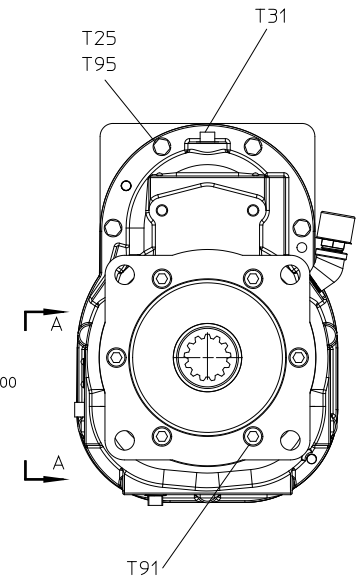
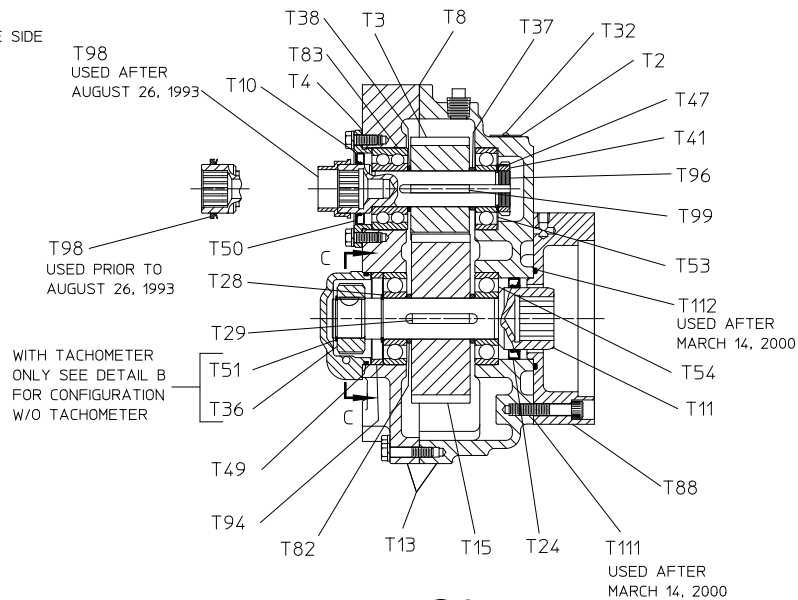
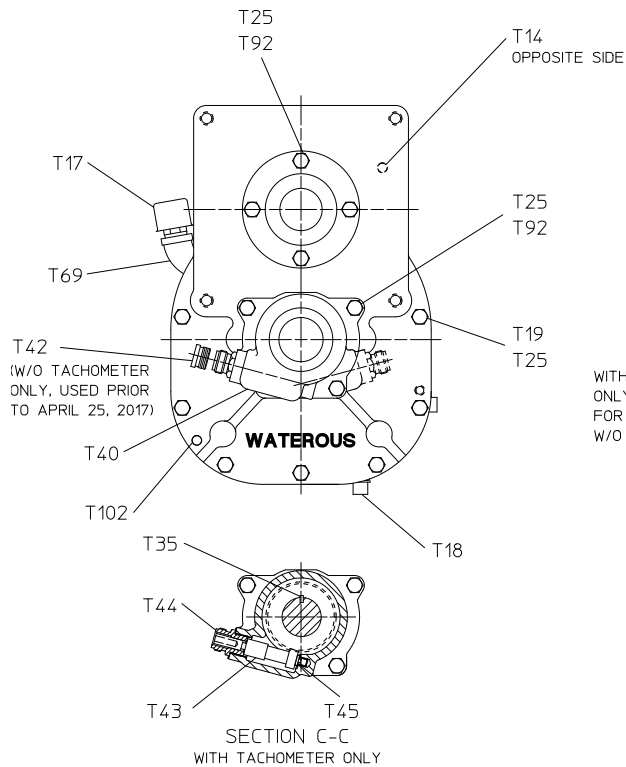
**MODEL CMUK, CSUK  
1-1/2-10 SAE SPLINE INPUT  
INVERTED MOUNTING**

# Models CMUK, CSUK

## SAE Class D Hydraulic Adapter Input

REF. NO.	DESCRIPTION
T2	Serial Plate
T3	Driven Gear
T4	Oil Seal Housing Gasket
T8	Gear Case Gasket
T10	Oil Seal Housing
T11	Drive Shaft
T13	Gear Case Subassembly
T14	Dowel Pin, 3/8 x 1 in.
T15	Drive Gear
T17	Breather, 1/2 NPT
T18	Magnetic Drain Plug, 1/2 NPT
T19	Hex Head Screw, 3/8-16 x 1-3/4 in.
T21	Hex Head Screw, 1/2-13 x 1-1/2 in. , Grade 5
T24	Oil Seal, 2-3/8 x 3-1/8 in.
T25	Lock Washer, 1/2 in.
T27	Lock Washer, 1/2 in.
T28	Retaining Ring
T29	Square Key, 3/8 x 3/8 x 2-3/16 in.
T31	Pipe Plug, 1/2 in. NPT
T32	Drive Screw, No. 6 x 1/4 in.
T35	Woodruff Key, 406
T36	Tachometer Drive Gear
T37	Impeller Shaft Spacer (.245 in. Wide)
T38	Impeller Shaft Spacer (.115 in. Wide)
T40	Tachometer Gear Housing
T41	Bearing Locknut

REF. NO.	DESCRIPTION
T43	Tachometer Driven Gear
T44	Tachometer Sleeve
T45	Tachometer Bushing
T47	Bearing Lockwasher
T49	O-ring, 3-1/4 x 3-1/2 in.
T50	Oil Seal, 1-7/8 x 2-3/4 in.
T51	Retaining Ring
T53	Single Row Impeller Shaft Ball Bearing
T54	Drive Shaft Ball Bearing
T67	Oil Level Plate
T69	Street Elbow, 45 Deg., 1/2 NPT
T82	Drive Shaft Spacer
T83	Double Row Impeller Shaft Ball Bearing
T88	Hydraulic Input Adapter
T91	Socket Head Screw, 7/16-14 x 1-1/4 in.
T92	Hex Head Screw, 3/8-16 x 1 in.
T94	Tachometer Housing Spacer
T95	Hex Head Screw, 1/2-13 x 1-1/4 in.
T96	Driven Shaft
T98	V-Ring Flinger (Used Prior to August 26, 1993)
	Sealing Boot (Used After August 26, 1993)
T99	Square Key, 5/16 x 5/16 x 2-3/16 in.
T102	Dowel Pin, 3/8 x 1-1/2 in.
T111	Hydraulic Input Adapter Gasket
T112	O-ring, 3-1/2 x 3-3/4 in.



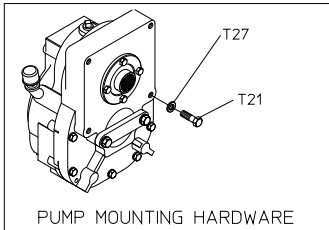
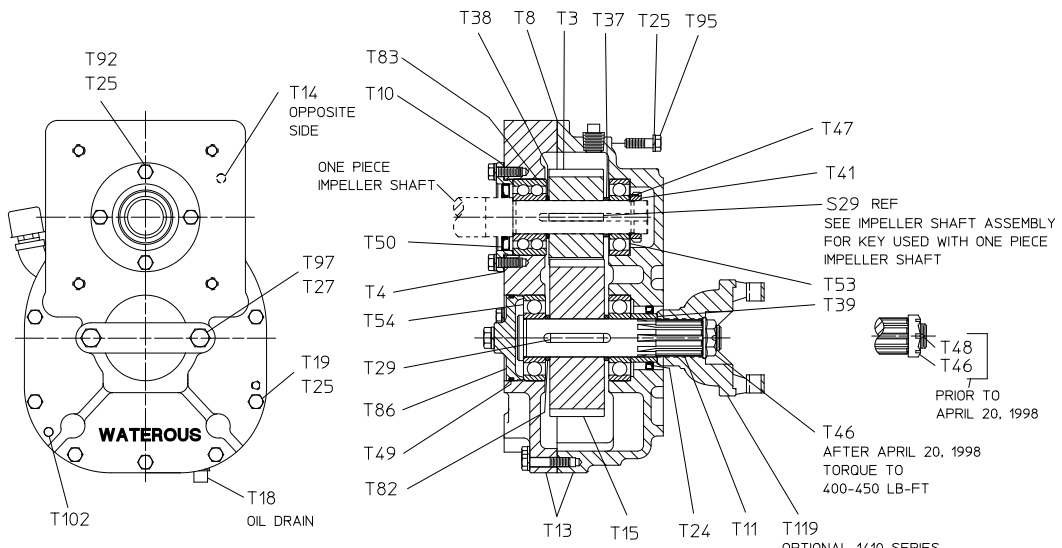
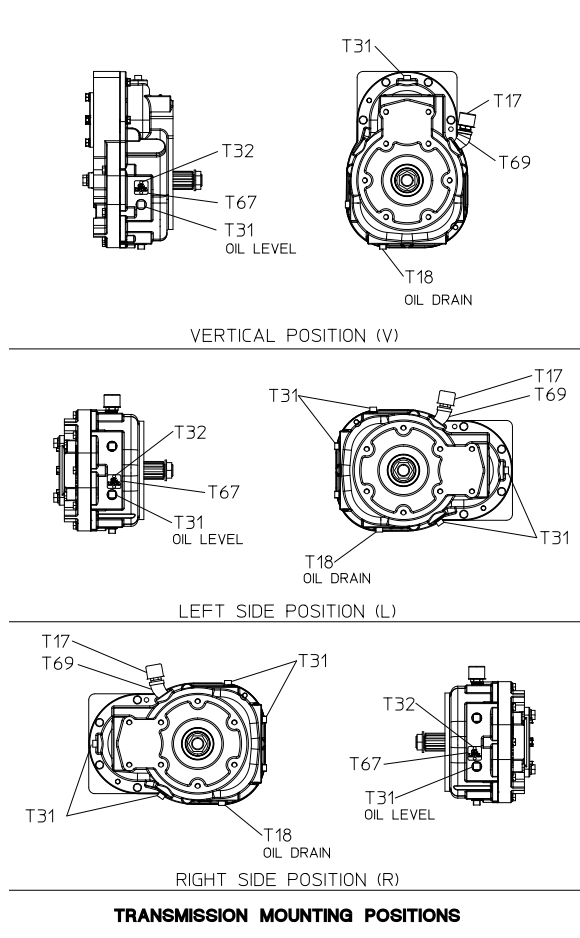
**MODEL CMUK, CSUK  
SAE CLASS D HYDRAULIC ADAPTER INPUT  
VERTICAL MOUNTING**

**Model CHK-4**  
**One-Piece (Non-Separable) Impeller Shaft Design**

REF. NO.	DESCRIPTION
T3	Driven Gear
T4	Oil Seal Housing Gasket
T8	Gear Case Gasket
T10	Oil Seal Housing
T11	Drive Shaft
T13	Gear Case Subassembly
T14	Dowel Pin, 3/8 x 1 in.
T15	Drive Gear
T17	Breather, 1/2 NPT
T18	Magnetic Drain Plug, 1/2 NPT
T19	Hex Head Screw, 3/8-16 x 1-3/4 in.
T21	Hex Head Screw, 1/2-13 x 1-1/2 in., Grade 5
T24	Oil Seal, 2 x 2-5/8 in.
T25	Lock Washer, 3/8 in.
T27	Lock Washer, 1/2 in.
T29	Square Key, 3/8 x 3/8 x 2-3/16 in.
T31	Pipe Plug, 1/2 in. NPT
T37	Impeller Shaft Spacer (.245 in. Wide)

REF. NO.	DESCRIPTION
T39	Oil Seal Sleeve
T41	Bearing Locknut
T46	Shaft Nut, 1-20
T47	Bearing Lockwasher
T48	Cotter Pin, 1/8 x 1-3/4 in. SS
T49	O-ring, 3-1/4 x 3-1/2 in.
T50	Oil Seal, 1-5/8 x 2-3/4 in.
T53	Single Row Impeller Shaft Ball Bearing
T54	Drive Shaft Ball Bearing
T67	Oil Level Plate
T69	Street Elbow, 45 Deg., 1/2 NPT
T82	Drive Shaft Spacer
T83	Double Row Impeller Shaft Ball Bearing
T86	Bearing Retainer
T92	Hex Head Screw, 3/8-16 x 1 in.
T95	Hex Head Screw, 1/2-13 x 1-1/4 in.
T97	Hex Head Screw, 1/2-13 x 1 in.
T102	Dowel Pin, 3/8 x 1-1/2 in.





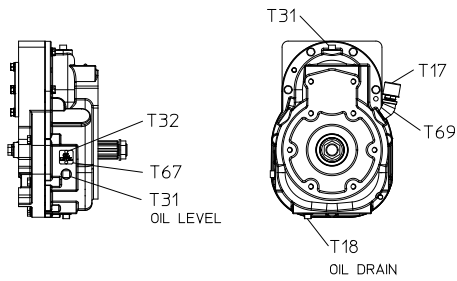
**MODEL CHK-4**  
**1-1/2-10 SAE SPLINE INPUT**  
**VERTICAL OR HORIZONTAL MOUNTING**  
 ONE-PIECE (NON-SEPARABLE IMPELLER SHAFT DESIGN)

## Model CHK-4

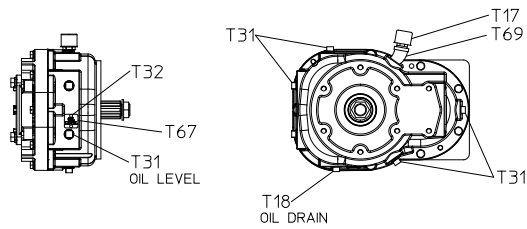
### Separable Impeller Shaft Design

REF. NO.	DESCRIPTION
T2	Serial Plate
T3	Driven Gear
T4	Oil Seal Housing Gasket
T8	Gear Case Gasket
T10	Oil Seal Housing
T11	Drive Shaft
T13	Gear Case Subassembly
T14	Dowel Pin, 3/8 x 1 in.
T15	Drive Gear
T17	Breather, 1/2 NPT
T18	Magnetic Drain Plug, 1/2 NPT
T19	Hex Head Screw, 3/8-16 x 1-3/4 in.
T21	Hex Head Screw, 1/2-13 x 1-1/2 in, Grade 5
T24	Oil Seal, 2 x 2-5/8 in.
T25	Lock Washer, 3/8 in.
T27	Lock Washer, 1/2 in.
T29	Square Key, 3/8 x 3/8 x 2-3/16 in.
T31	Pipe Plug, 1/2 in. NPT
T32	Drive Screw, No. 6 x 1/4 in.
T37	Impeller Shaft Spacer (.245 in. Wide)
T38	Impeller Shaft Spacer (.115 in. Wide)
T39	Oil Seal Sleeve
T41	Bearing Locknut

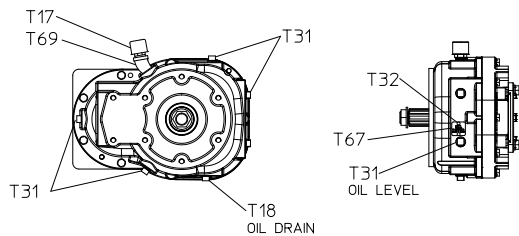
REF. NO.	DESCRIPTION
T46	Shaft Nut, 1-20
T47	Bearing Lockwasher
T48	Cotter Pin, 1/8 x 1-3/4 in. S.S.
T49	O-ring, 3-1/4 x 3-1/2 in.
T50	Oil Seal, 1-7/8 x 2-3/4 in.
T53	Single Row Impeller Shaft Ball Bearing
T54	Drive Shaft Ball Bearing
T67	Oil Level Plate
T69	Street Elbow, 45 Degree, 1/2 NPT
T82	Drive Shaft Spacer
T83	Double Row Impeller Shaft Ball Bearing
T86	Bearing Retainer
T92	Hex Head Screw, 3/8-16 x 1 in.
T95	Hex Head Screw, 1/2-13 x 1-1/4 in.
T96	Driven Shaft
T97	Hex Head Screw, 1/2-13 x 1 in.
T98	V-Ring Flinger (Used Prior to August 26, 1993)
	Sealing Boot (Used After August 26, 1993)
T99	Square Key, 5/16 x 5/16 x 2-3/16 in.
T102	Dowel Pin, 3/8 x 1-1/2 in.



VERTICAL POSITION (V)

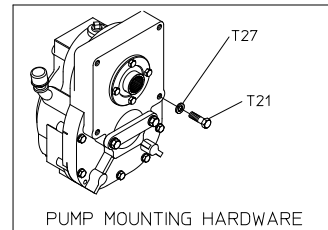
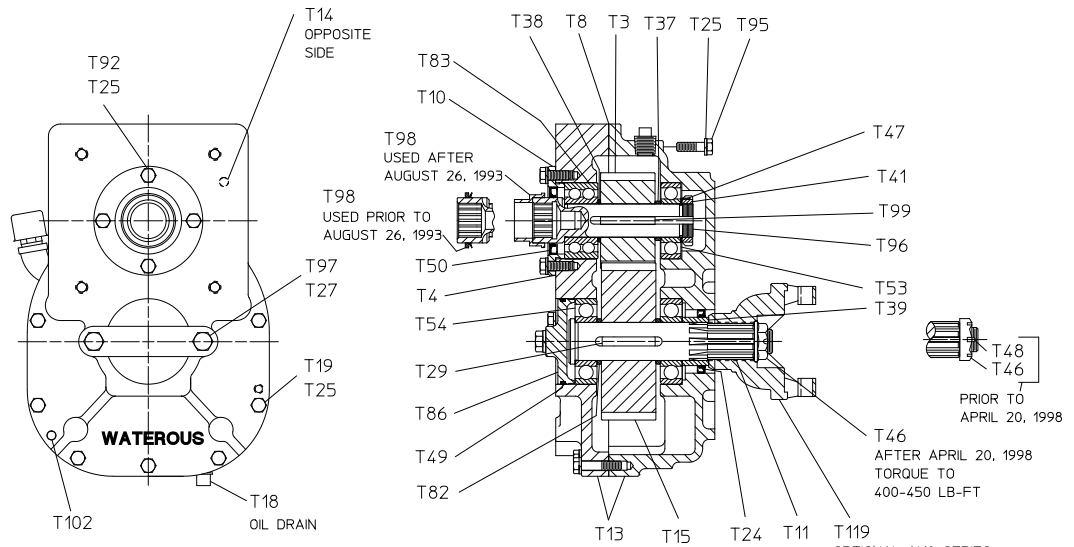


LEFT SIDE POSITION (L)



RIGHT SIDE POSITION (R)

**TRANSMISSION MOUNTING POSITIONS**



PUMP MOUNTING HARDWARE

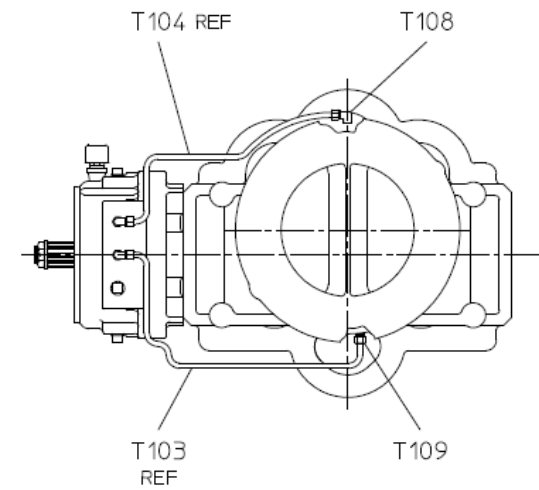
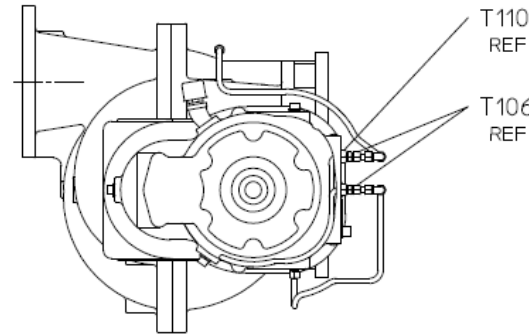
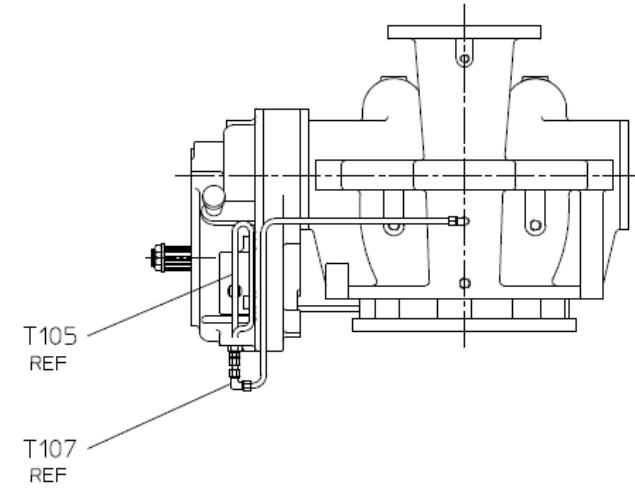
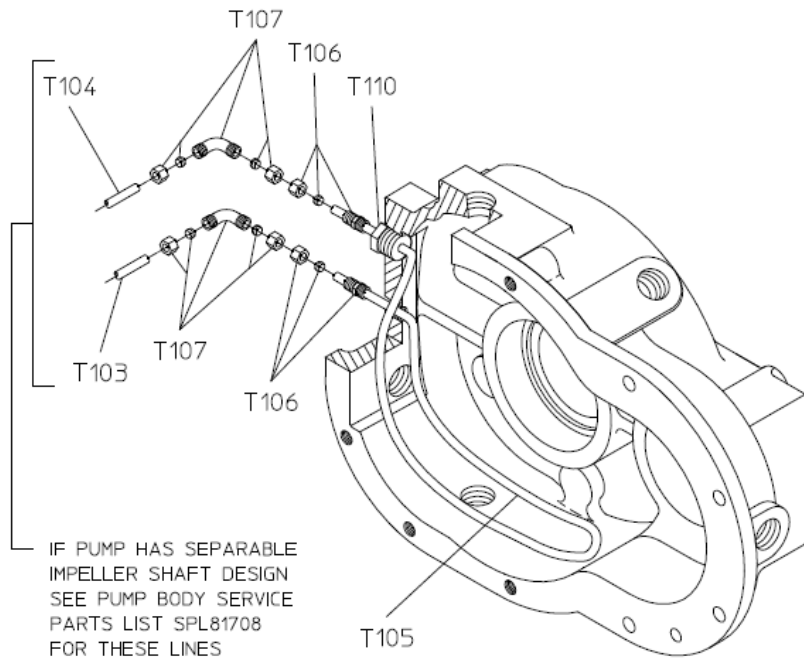
**MODEL CHK-4**  
**1-1/2-10 SAE SPLINE INPUT**  
**VERTICAL OR HORIZONTAL MOUNTING**  
 SEPARABLE IMPELLER DESIGN

## Model CHK-4

### Optional Internal Oil Cooler

REF. NO.	DESCRIPTION
T103	Copper Tube, 5/16 x 19 in.
T104	Copper Tube, 5/16 x 23 in.
T105	Copper Tube, 30 in.
T106	Tube Connector, 5/16 x 1/4 in. NPT

REF. NO.	DESCRIPTION
T107	Union Elbow, 90 Degrees, 5/16 in.
T108	Compression Elbow, 90 Degrees, 5/16 in.
T109	Tube Connector, 5/16 x 1/4 in. NPT
T110	Reducing Bushing, 1/2 x 1/4 in. NPT



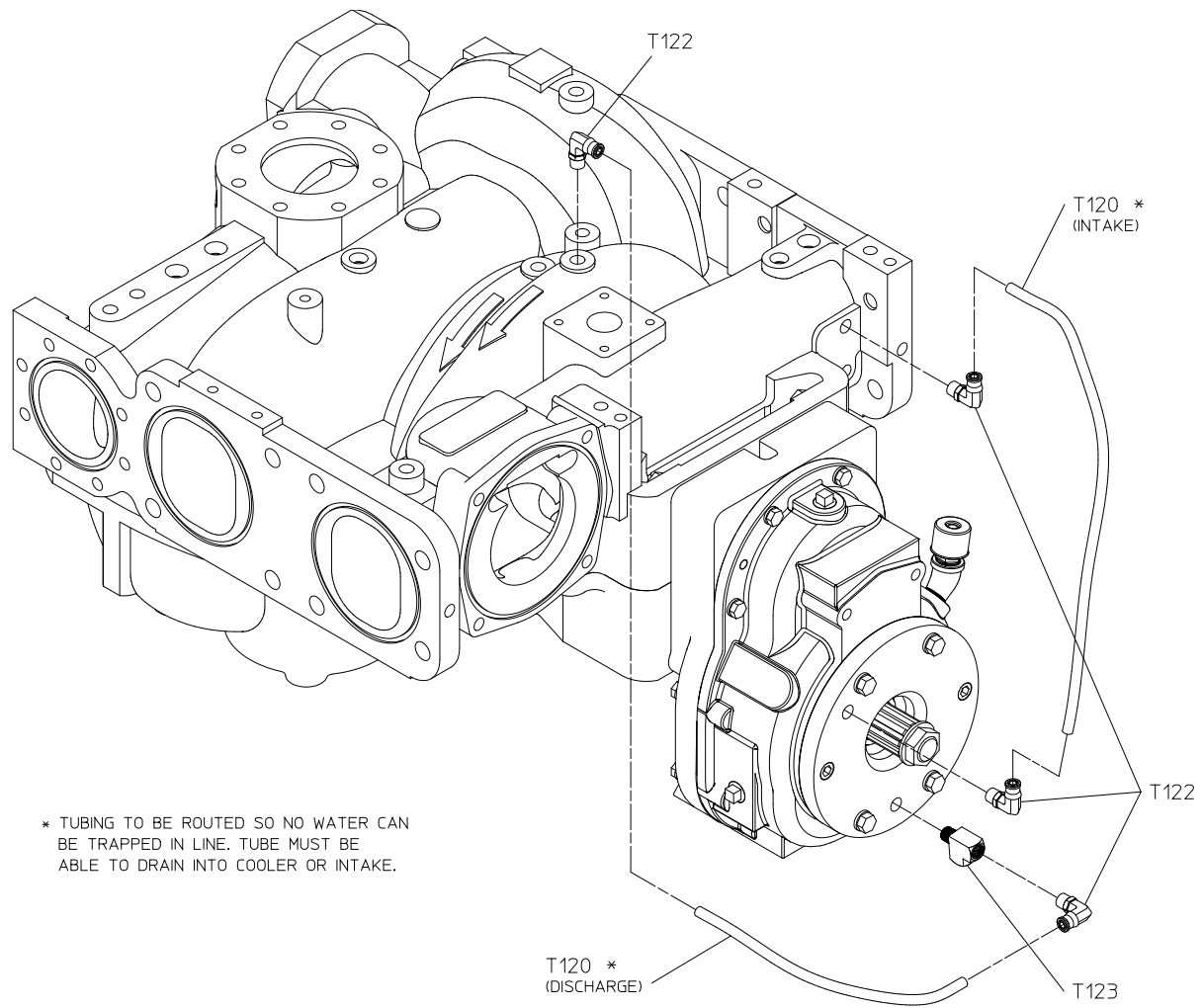
**MODEL CHK-4**  
**OPTIONAL INTERNAL OIL COOLER**  
 NOTE: REPLACEMENT TUBING MUST BE FORMED AT THE TIME OF INSTALLATION. THE TUBE INSIDE THE GEAR CASE MUST CLOSELY FOLLOW THE WALL TO PROVIDE CLEARANCE FOR THE DRIVE GEAR.

# Models CMUK, CSUK

## Optional External Oil Cooler

REF. NO.	DESCRIPTION
T120	Green Tubing, 3/8 x 72 in.
T122	90 Degree Elbow, 3/8 PTC x 1/4 NPT

REF. NO.	DESCRIPTION
T123	Street Tee, 1/4 NPT



\* TUBING TO BE ROUTED SO NO WATER CAN BE TRAPPED IN LINE. TUBE MUST BE ABLE TO DRAIN INTO COOLER OR INTAKE.

**MODEL CMUK, CSUK WITH EXTERNAL OIL COOLER WITH HARDWARE AND TUBING**  
(CMUK SHOWN)