

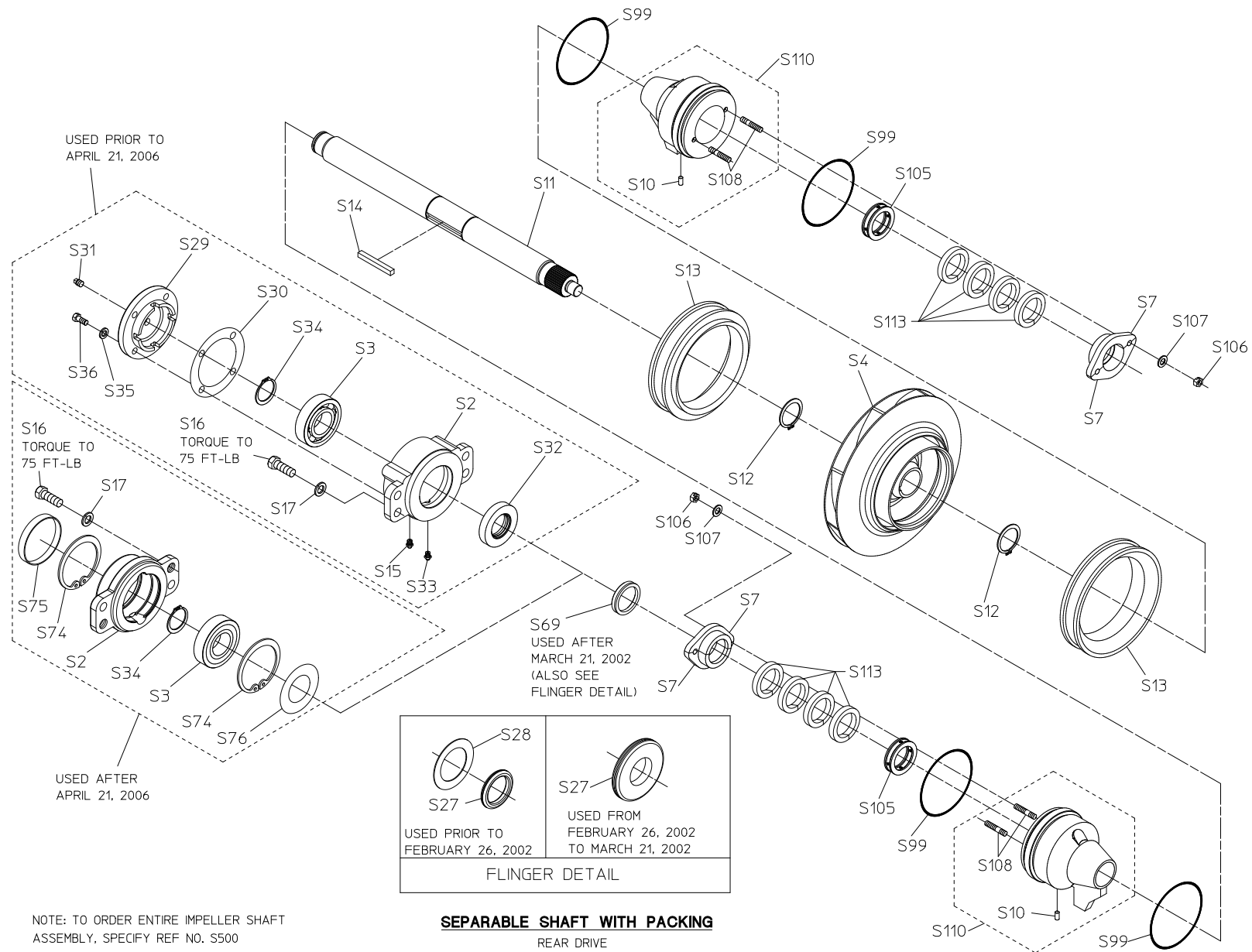


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CS Series Impeller Shaft Assembly Service Parts List

Index:

SINGLE STAGE PUMPS – CS, CSU SERIES																
Pump Type	Complete Pump and Transmission Model <i>(Located on Pump Serial Plate)</i>							Shaft			See Page					
	C10 Series	C20 Series	D Series (Direct Drive)	K Series	P Series	W Series	Y Series	Type	Drive	Tachometer	Seal Type		Impeller Rotation	Mechanical Seal Kits		Packing Arrangements
											Packing	Mechanical Seal		Outboard End Pages 28 & 29	Drive End Pages 30 & 31	
Single Stage (CS, CSU Series)	CSC10B	CSC20B	-	CSK CSUK	CSPA CSUPA	CSWB CSW BX CSWK	CSYB, CSYBX	Separable	Rear	Without	2, 3	4, 5	26	Details A & B	Detail D	32, 33
	CSC10C	CSC20C					CSYC, CSYCX									
	CSC10D	CSC20D					CSYD, CSYDX									
	CSC10E	CSC20E					CSYE, CSYEX									
	CSC10F	CSC20F					CSYF, CSYFX		Front	Without	6, 7	8, 9	27			
	CSUC10B	CSUC20B					CSUYB, CSUYBX		Front	Without	6, 7	8, 9	27	Details A & B	Detail D	32, 33
	CSUC10C	CSUC20C					CSUYC, CSUYCX									
	CSUC10D	CSUC20D					CSUYD, CSUYDX		Front or Rear	Without	16, 17	18, 19	26, 27	Details A & B	Detail E	32, 33
	CSUC10E	CSUC20E					CSUYE, CSUYEX									
	CSUC10F	CSUC20F					CSUYF, CSUYFX	One-Piece	Front	Without	10, 11	-	27	-	-	
	-	-	-	CSK-1	-	-	-	One-Piece	Front	With	12, 13	14, 15	27	Detail C	Detail F	
	-	-	CSD CSUD	-	-	-	-	One-Piece	Front or Rear	Without	16, 17	18, 19	26, 27	Details A & B	Detail E	
Two Stage (CSH, CSUH Series)	CSHC10B	CSHC20B	-	CSHK	-	CSHWB CSHW BX CSHWK	CSHYB, CSHYBX	One-Piece	Rear	Without	20, 21	-	26	-	-	32, 33
	CSHC10C	CSHC20C					CSHYC, CSHYCX									
	CSHC10D	CSHC20D					CSHYD, CSHYDX									
	CSHC10E	CSHC20E					CSHYE, CSHYEX									
	CSHC10F	CSHC20F					CSHYF, CSHYFX		Front	With	22, 23	-	27	-	-	32, 33
	CSUHC10B	CSUHC20B					CSUHYB, CSUHYBX									
	CSUHC10C	CSUHC20C					CSUHYC, CSUHYCX		Rear	Without	24, 25	-	26, 27	-	-	32, 33
	CSUHC10D	CSUHC20D					CSUHYD, CSUHYDX									
	CSUHC10E	CSUHC20E					CSUHYE, CSUHYEX		Front	With	22, 23	-	27	-	-	32, 33
	CSUHC10F	CSUHC20F					CSUHYF, CSUHYFX									
	-	-	CSHD CSUHD	-	-	-	-	One-Piece	Front	With	22, 23	-	27	-	-	
								One-Piece	Rear	Without	24, 25	-	26, 27	-	-	

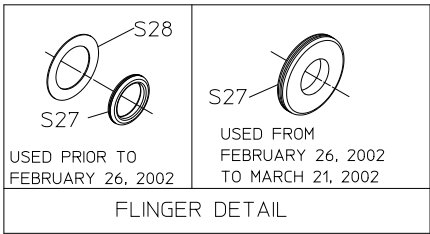


USED PRIOR TO
APRIL 21, 2006

S16
TORQUE TO
75 FT-LB

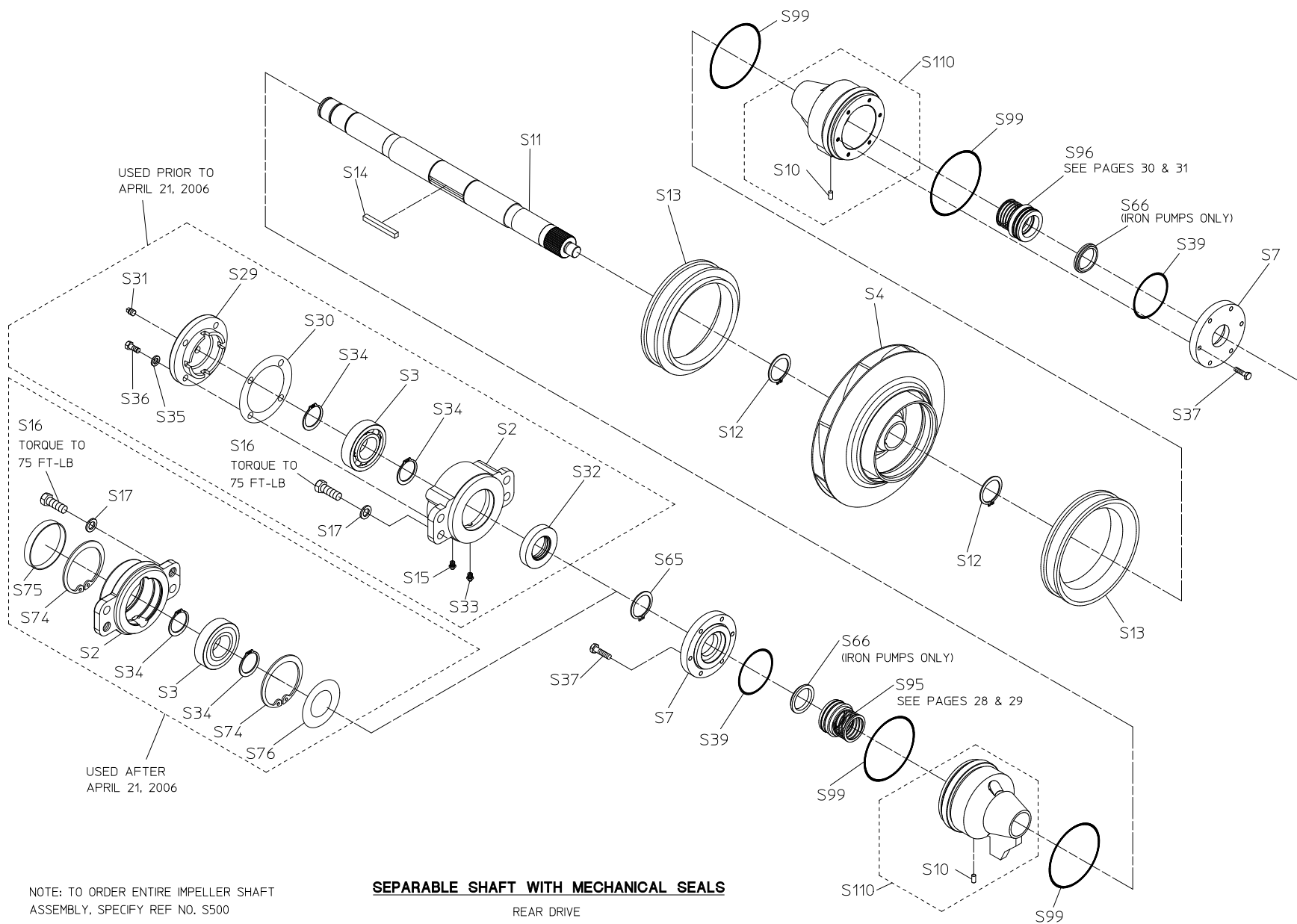
S16
TORQUE TO
75 FT-LB

USED AFTER
APRIL 21, 2006



SEPARABLE SHAFT WITH PACKING
REAR DRIVE

NOTE: TO ORDER ENTIRE IMPELLER SHAFT
ASSEMBLY, SPECIFY REF NO. S500



NOTE: TO ORDER ENTIRE IMPELLER SHAFT
ASSEMBLY, SPECIFY REF NO. S500

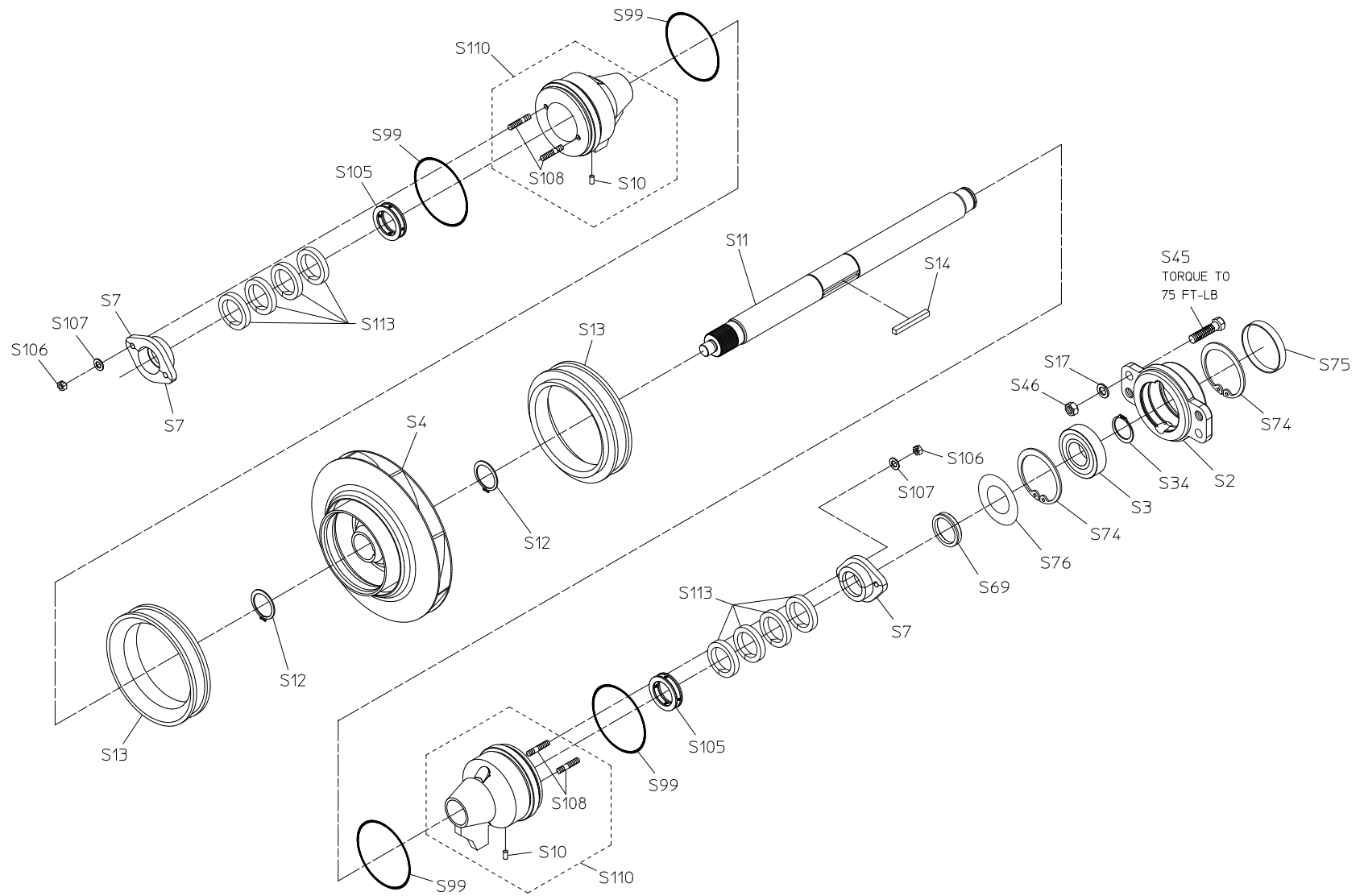
SEPARABLE SHAFT WITH MECHANICAL SEALS

REAR DRIVE

Separable Shaft with Packing, Front Drive

REF NO.	DESCRIPTION
S2	Bearing housing
S3	Ball bearing
S4	Impeller
S7	Packing gland
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S17	Lock washer, 1/2 in.
S34	Retaining ring
S45	Hex hd screw, 1/2-20 x 2 in.
S46	Hex nut, 1/2-20
S69	Flinger

REF NO.	DESCRIPTION
S74	Retaining ring
S75	Seal housing plug
S76	Bearing shield
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S108	Stud, 5/16-18 x 1-5/8 in.
S110	Seal housing subassembly (includes S10 and S108)
S113	Packing kit, split ring (BFG rings) or individual flexible graphite (Grafoil®) ring, see page 32.
S500	Complete impeller shaft assembly



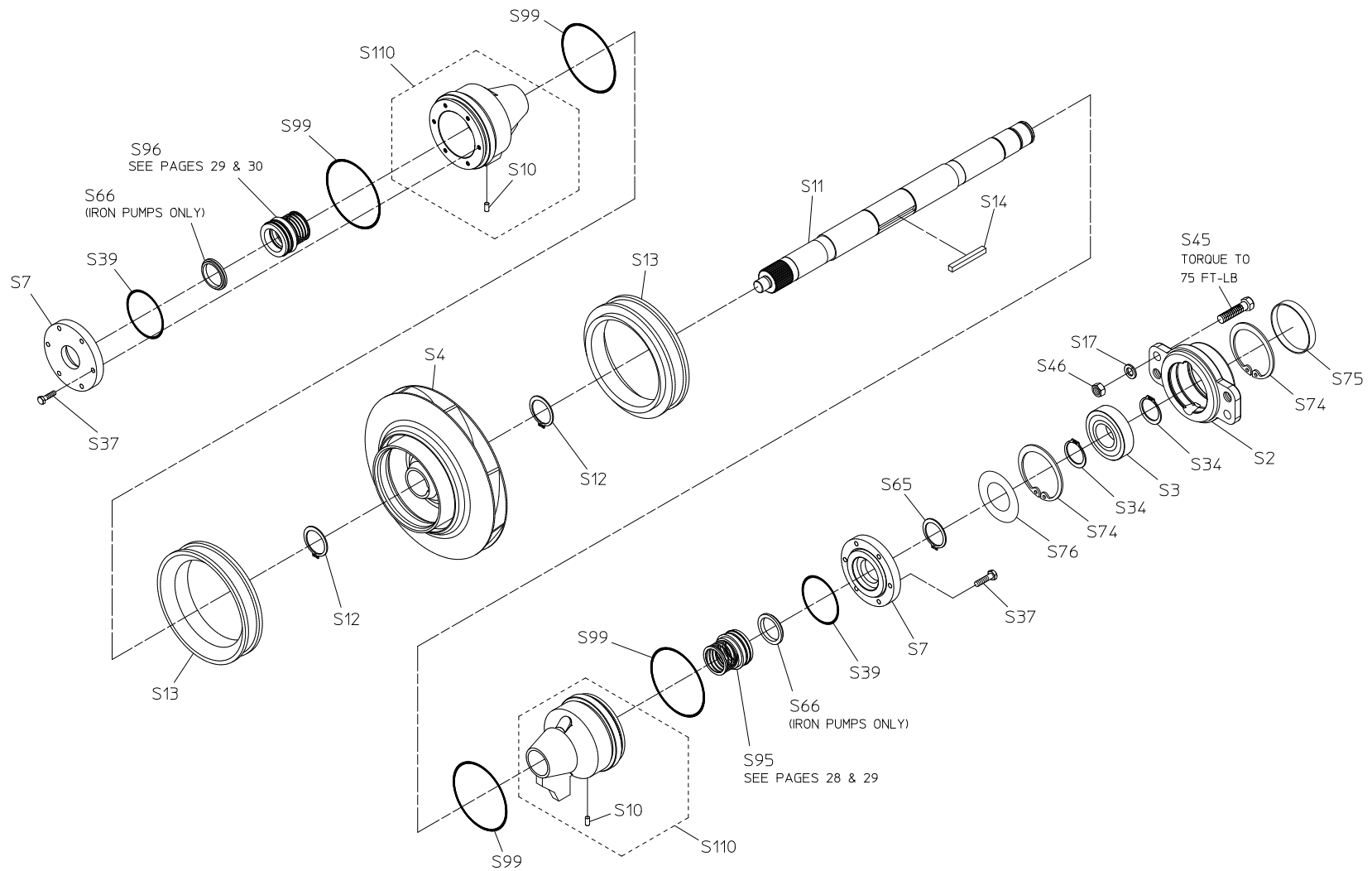
NOTE: TO ORDER ENTIRE IMPELLER SHAFT ASSEMBLY, SPECIFY REF NO. S500

SEPARABLE SHAFT WITH PACKING
FRONT DRIVE

Separable Shaft with Mechanical Seals, Front Drive

REF NO.	DESCRIPTION
S2	Bearing housing
S3	Ball bearing
S4	Impeller
S7	Seal chamber cover
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S17	Lock washer, 1/2 in.
S34	Retaining ring
S37	Hex hd screw, SS, 1/4-20 x 1 in.
S39	O-ring, 3 x 3-1/4 in.
S45	Hex hd screw, 1/2-20 x 2 in.

REF NO.	DESCRIPTION
S46	Hex nut, 1/2-20
S65	Retaining ring
S66	Throttle bushing
S74	Retaining ring
S75	Seal housing plug
S76	Bearing shield
S95	Repair kit, mechanical seal outboard end (see kit details A & B)
S96	Repair kit, mechanical seal, drive end (see kit detail D)
S99	Seal housing gasket
S110	Seal housing subassembly (includes S10)
S500	Complete impeller shaft assembly



NOTE: TO ORDER ENTIRE IMPELLER SHAFT ASSEMBLY, SPECIFY REF NO. S500

SEPARABLE SHAFT WITH MECHANICAL SEALS

FRONT DRIVE

One-Piece Shaft with Packing

Front Drive

Model CSK-1

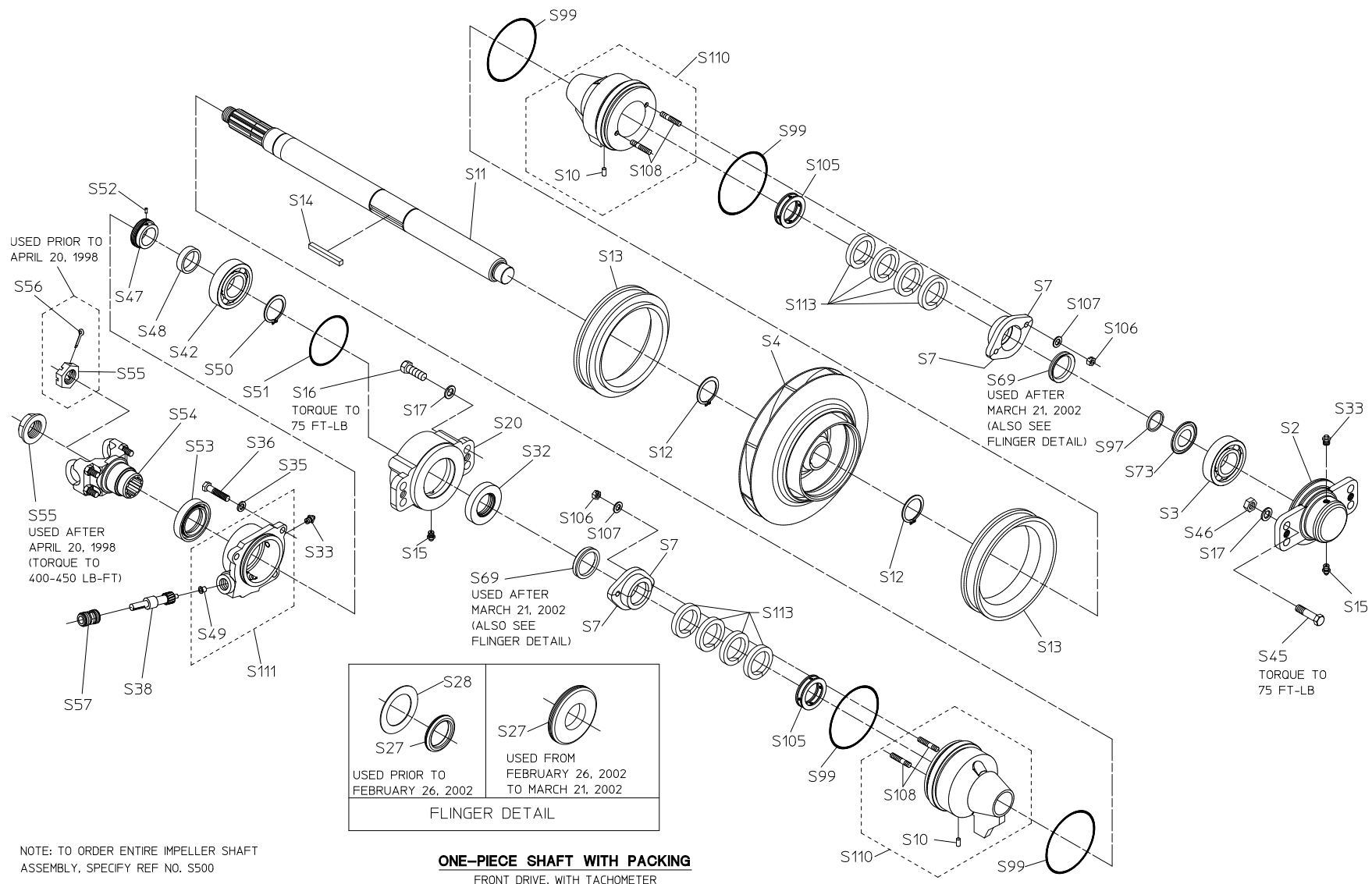
REF NO.	DESCRIPTION
S2	Bearing housing
S3	Ball bearing
S4	Impeller
S7	Packing gland
S9	Key, 5/16 x 1-9/16
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S17	Lock washer, 1/2 in.
S27	Flinger grommet
S28	Flinger disc
S33	Lube relief fitting, 1/8 in.

REF NO.	DESCRIPTION
S45	Hex hd screw, 1/2-20 x 1-3/4 in.
S46	Hex nut, 1/2-20
S69	Flinger
S73	Bearing seal
S97	Bearing spacer
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S108	Stud, 5/16-18 x 1-5/8 in.
S110	Seal housing subassembly (includes S10 and S108)
S113	Packing kit, split ring (BFG)
S500	Complete impeller shaft assembly

**One-Piece Shaft with Packing
Front Drive with Tachometer
Models CSD & CSUD**

REF NO.	DESCRIPTION
S2	Bearing housing
S3	Ball bearing
S4	Impeller
S7	Packing gland
S9	Key, 5/16 x 1-9/16
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S17	Lock washer, 1/2 in.
S20	Bearing housing
S27	Flinger grommet
S28	Flinger disc
S32	Oil seal, 1-5/8 x 2-3/4 in.
S33	Lube relief fitting, 1/8 in.
S35	Lock washer, 3/8 in.
S36	Hex hd screw, 3/8-16 x 1 in.
S38	Tachometer driven gear
S42	Ball bearing
S45	Hex hd screw, 1/2-20 x 1-3/4 in.
S46	Hex nut, 1/2-20

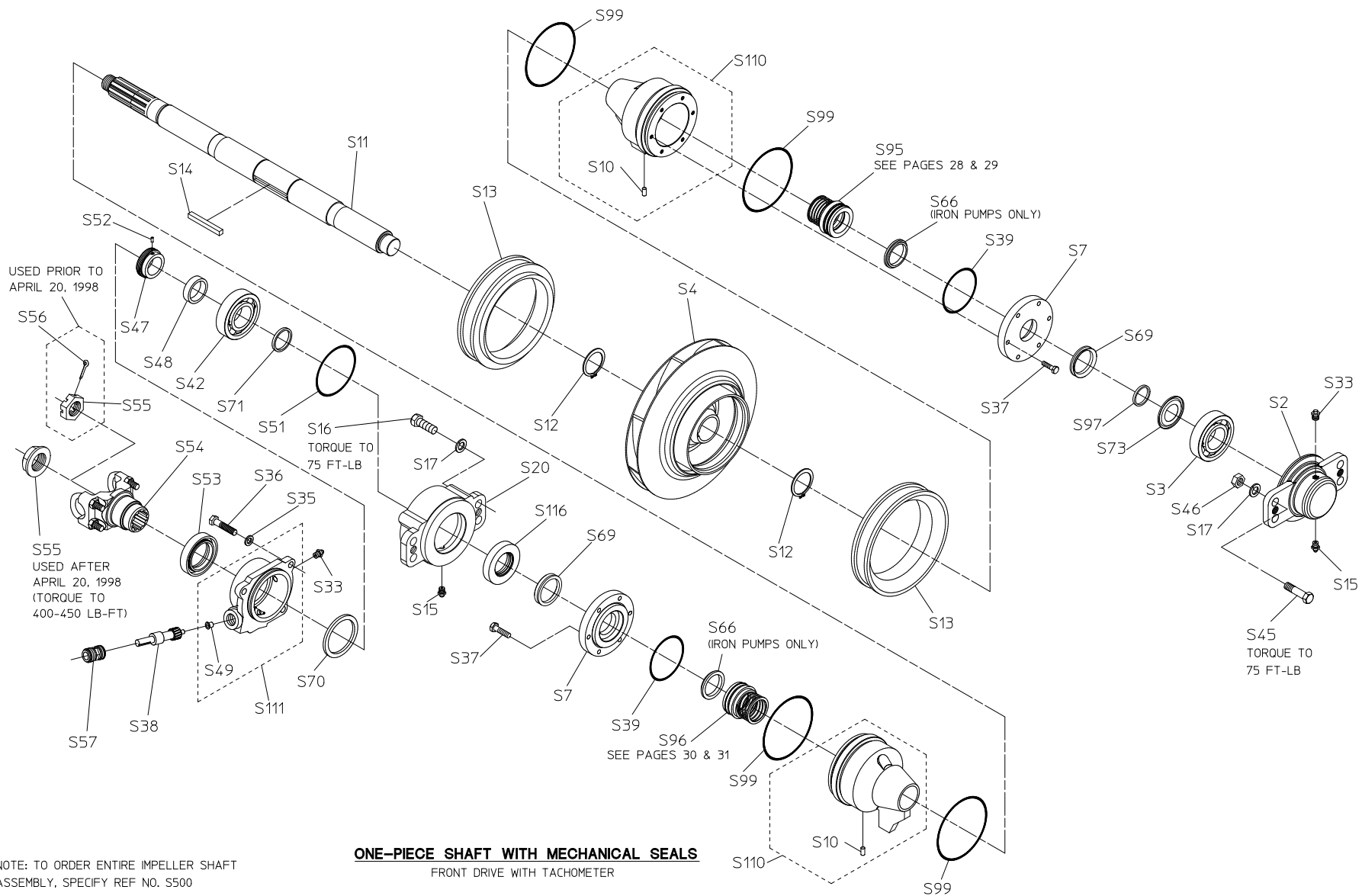
REF NO.	DESCRIPTION
S47	Tachometer drive gear
S48	Tachometer gear spacer
S49	Tachometer gear bushing
S50	Retaining ring
S51	O-ring, 3-1/4 x 3-1/2 in.
S52	Spring pin, 3/16 x 1/2 in.
S53	Oil seal, 1-23/32 x 2-3/4 in.
S54	End yoke with U-bolts
S55	Shaft nut, 1-20
S56	Cotter pin, 1/8 x 1-3/4 in. (prior to April 20, 1998)
S57	Tachometer sleeve
S69	Flinger
S73	Bearing seal
S97	Bearing spacer
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S108	Stud, 5/16-18 x 1-5/8 in.
S110	Seal housing subassembly (includes S10 and S108)
S113	Packing kit, split ring (BFG)
S500	Complete impeller shaft assembly



**One-Piece Shaft with Mechanical Seals
Front Drive with Tachometer
Models CSD & CSUD**

REF NO.	DESCRIPTION
S2	Bearing housing
S3	Ball bearing
S4	Impeller
S7	Seal chamber cover
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S16	Hex hd screw, 1/2-13 x 1-1/4 in., grade 5
S17	Lock washer, 1/2 in.
S20	Bearing housing
S33	Lube relief fitting, 1/8 in.
S35	Lock washer, 3/8 in.
S36	Hex hd screw, 3/8-16 x 1 in.
S37	Hex hd screw, SS, 1/4-20 x 1 in.
S38	Tachometer driven gear
S42	Ball bearing
S45	Hex hd screw, 1/2-20 x 1-3/4 in.
S46	Hex nut, 1/2-20
S47	Tachometer drive gear

REF NO.	DESCRIPTION
S48	Tachometer gear spacer
S51	O-ring, 3-1/4 x 3-1/2 in.
S52	Spring pin, 3/16 x 1/2 in.
S53	Oil seal, 1-23/32 x 2-3/4 in.
S54	End yoke with U-bolts
S55	Shaft nut, 1-20
S56	Cotter pin, 1/8 x 1-3/4 in. (prior to April 20, 1998)
S57	Tachometer sleeve
S66	Throttle bushing
S69	Flinger
S70	Bearing housing spacer
S71	Bearing spacer
S73	Bearing seal
S95	Repair kit, mechanical seal, outboard end (see kit detail C)
S96	Repair kit, mechanical seal, drive end (see kit detail F)
S97	Bearing spacer
S99	Seal housing gasket
S110	Seal housing subassembly (includes S10)
S111	Tachometer gear housing assembly (includes S49)
S116	Oil seal, 1-1/2 x 2-3/4 (formerly S32)
S500	Complete impeller shaft assembly



NOTE: TO ORDER ENTIRE IMPELLER SHAFT ASSEMBLY, SPECIFY REF NO. S500

One-Piece Shaft with Packing
Front or Rear Drive without Tachometer
Models CSD & CSUD

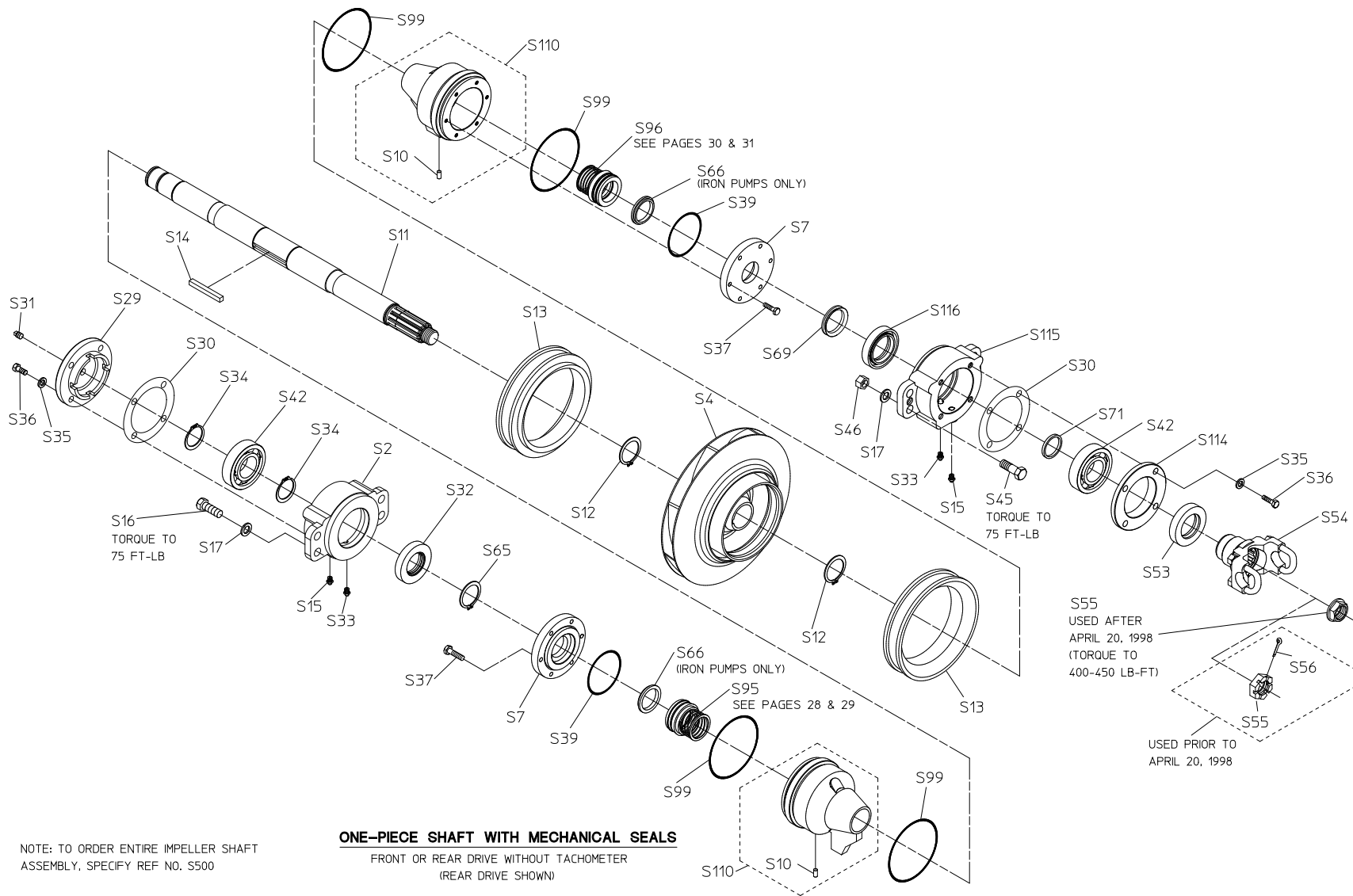
REF NO.	DESCRIPTION
S2	Bearing housing
S3	Ball bearing
S4	Impeller
S7	Packing gland
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S16	Hex hd screw, 1/2-13 x 1-1/4 in., grade 5
S17	Lock washer, 1/2 in.
S27	Flinger grommet
S28	Flinger disc
S29	Outboard bearing housing cap
S30	Gasket
S31	Square hd pipe plug, steel, 1/4 in.
S32	Oil seal, 1-5/8 x 2-3/4 in.
S33	Lube relief fitting, 1/8 in.
S34	Retaining ring
S35	Lock washer, 3/8 in.
S36	Hex hd screw, 3/8-16 x 1 in.

REF NO.	DESCRIPTION
S37	Hex hd screw, SS, 1/4-20 x 1 in.
S38	Tachometer driven gear
S42	Ball bearing
S45	Hex hd screw, 1/2-20 x 2 in.
S46	Hex nut, 1/2-20
S53	Oil seal, 1-23/32 x 2-3/4 in.
S54	End yoke with U-bolts
S55	Shaft nut, 1-20
S56	Cotter pin, 1/8 x 1-3/4 in. (prior to April 20, 1998)
S69	Flinger
S71	Bearing spacer
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S108	Stud, 5/16-18 x 1-5/8 in.
S110	Seal housing subassembly (includes S10 and S108)
S113	Packing kit, split ring (BFG ring) or individual flexible graphite (Grafoil®) ring, see page 32.
S114	Oil seal housing
S115	Bearing housing
S500	Complete impeller shaft assembly

**One-Piece Shaft with Mechanical Seals
Front or Rear Drive without Tachometer
Models CSD & CSUD**

REF NO.	DESCRIPTION
S2	Bearing housing
S4	Impeller
S7	Seal chamber cover
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S16	Hex hd screw, 1/2-13 x 1-1/4 in., grade 5
S17	Lock washer, 1/2 in.
S29	Outboard bearing housing cap
S30	Gasket
S31	Square hd pipe plug, steel, 1/4 in.
S32	Oil seal, 1-7/16 x 2-3/4 in.
S33	Lube relief fitting, 1/8 in.
S34	Retaining ring
S35	Lock washer, 3/8 in.
S36	Hex hd screw, 3/8-16 x 1 in.
S37	Hex hd screw, SS, 1/4-20 x 1 in.
S39	O-ring, 3 x 3-1/4 in.

REF NO.	DESCRIPTION
S42	Ball bearing
S45	Hex hd screw, 1/2-20 x 2 in.
S46	Hex nut, 1/2-20
S53	Oil seal, 1-23/32 x 2-3/4 in.
S54	End yoke with U-bolts
S55	Shaft nut, 1-20
S56	Cotter pin, 1/8 x 1-3/4 in. (prior to April 20, 1998)
S65	Retaining ring
S66	Throttle bushing
S69	Flinger
S71	Bearing spacer
S95	Repair kit, mechanical seal, outboard end (see kit details A & B)
S96	Repair kit, mechanical seal, drive end (see kit detail E)
S99	Seal housing gasket
S110	Seal housing subassembly (includes S10)
S114	Oil seal housing
S115	Bearing housing
S116	Oil seal, 1-1/2 x 2-3/4 (formerly S32)
S500	Complete impeller shaft assembly



One-Piece Shaft with Packing

Rear Drive

Two Stage Pumps

REF NO.	DESCRIPTION
S4	Impeller, main stage
S7	Packing gland
S9	Key, 5/16 x 2-5/16 in.
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S18	Hex castle nut, SS, 3/4-16
S19	Cotter pin, SS, 1/8 x 1 in.
S21	Impeller, extra pressure stage
S23	Ball bearing, double row

REF NO.	DESCRIPTION
S24	Retaining ring, SS
S25	Impeller spacer
S27	Flinger grommet
S28	Flinger disc
S69	Flinger
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S110	Seal housing subassembly (includes S10 and S108)
S113	Packing kit, split ring (BFG ring) or individual flexible graphite (Grafoil®) ring, see page 32.
S500	Complete impeller shaft assembly

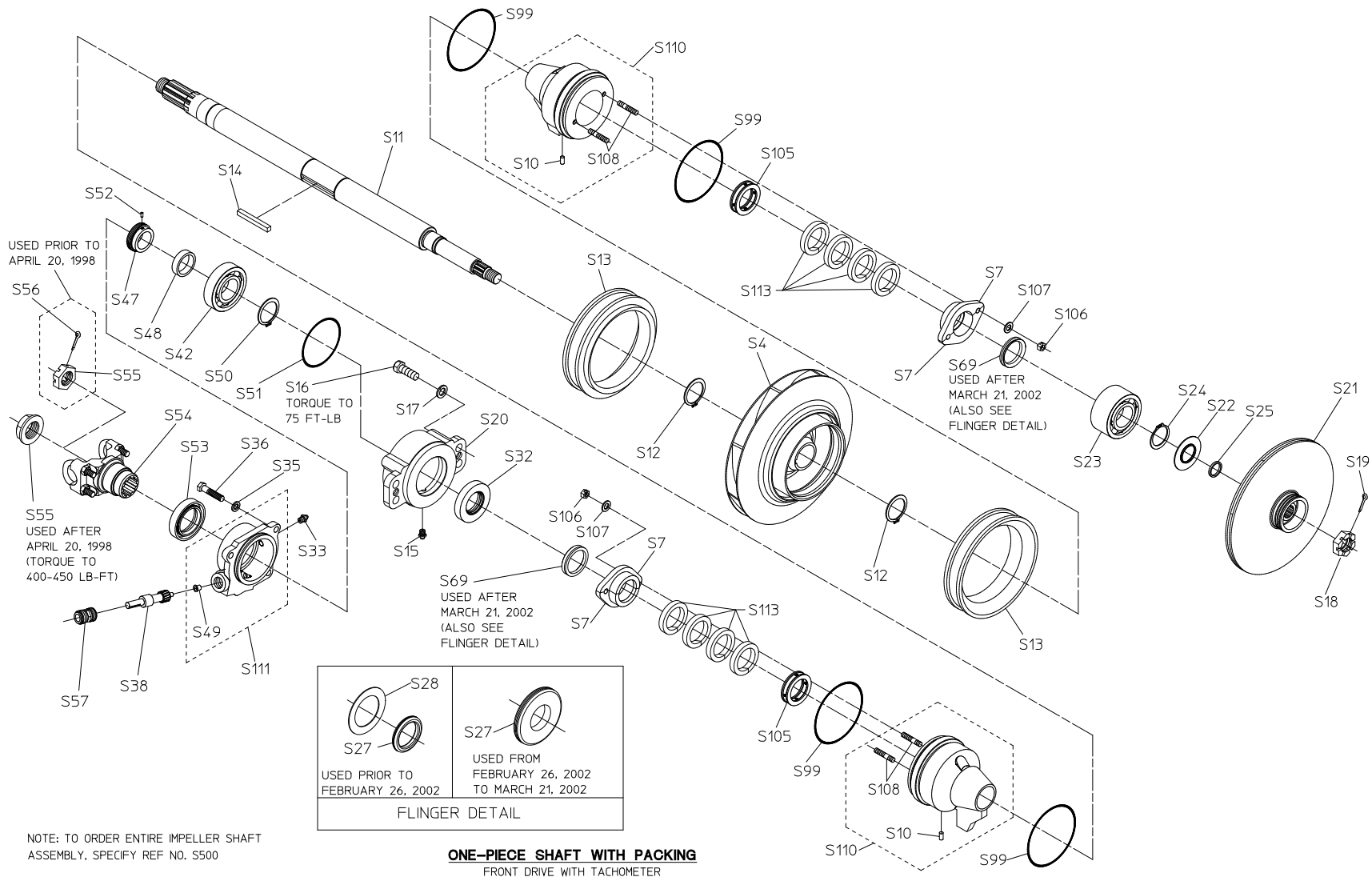
Note: For extra pressure stage components not shown, see extra pressure stage body service parts list.

**One-Piece Shaft with Packing
Front Drive with Tachometer
Models CSHD & CSUHD**

REF NO.	DESCRIPTION
S4	Impeller, main stage
S7	Packing gland
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S16	Hex hd screw, 1/2-13 x 1-1/4 in., grade 5
S17	Lock washer, 1/2 in.
S18	Hex castle nut, SS, 3/4-16
S19	Cotter pin, SS, 1/8 x 1 in.
S20	Bearing housing
S21	Impeller, extra pressure stage
S22	Flinger ring
S23	Ball bearing, double row
S24	Retaining ring, SS
S25	Impeller spacer
S27	Flinger grommet
S28	Flinger disc
S32	Oil seal, 1-5/8 x 2-3/4 in.
S33	Lube relief fitting, 1/8 in.
S35	Lock washer, 3/8 in.
S36	Hex hd screw, 3/8-16 x 1 in.

REF NO.	DESCRIPTION
S38	Tachometer driven gear
S42	Ball bearing
S47	Tachometer drive gear
S48	Tachometer gear spacer
S49	Tachometer gear bushing
S50	Retaining ring
S51	O-ring, 3-1/4 x 3-1/2 in.
S52	Spring pin, 3/16 x 1/2 in.
S53	Oil seal, 1-23/32 x 2-3/4 in.
S54	End yoke with U-bolts
S55	Shaft nut, 1-20
S56	Cotter pin, 1/8 x 1-3/4 in. (prior to April 20, 1998)
S57	Tachometer sleeve
S69	Flinger
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S108	Stud, 5/16-18 x 1-5/8 in.
S110	Seal housing subassembly (includes S10 and S108)
S111	Tachometer gear housing assembly (includes S49)
S113	Packing kit, split ring (BFG ring) or individual flexible graphite (Grafoil®) ring, see page 32.
S500	Complete impeller shaft assembly

Note: For extra pressure stage components not shown, see extra pressure stage body service parts list.

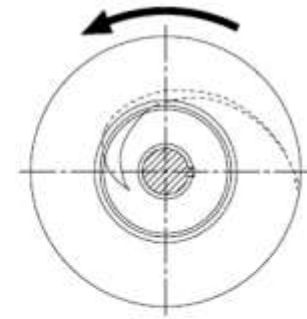
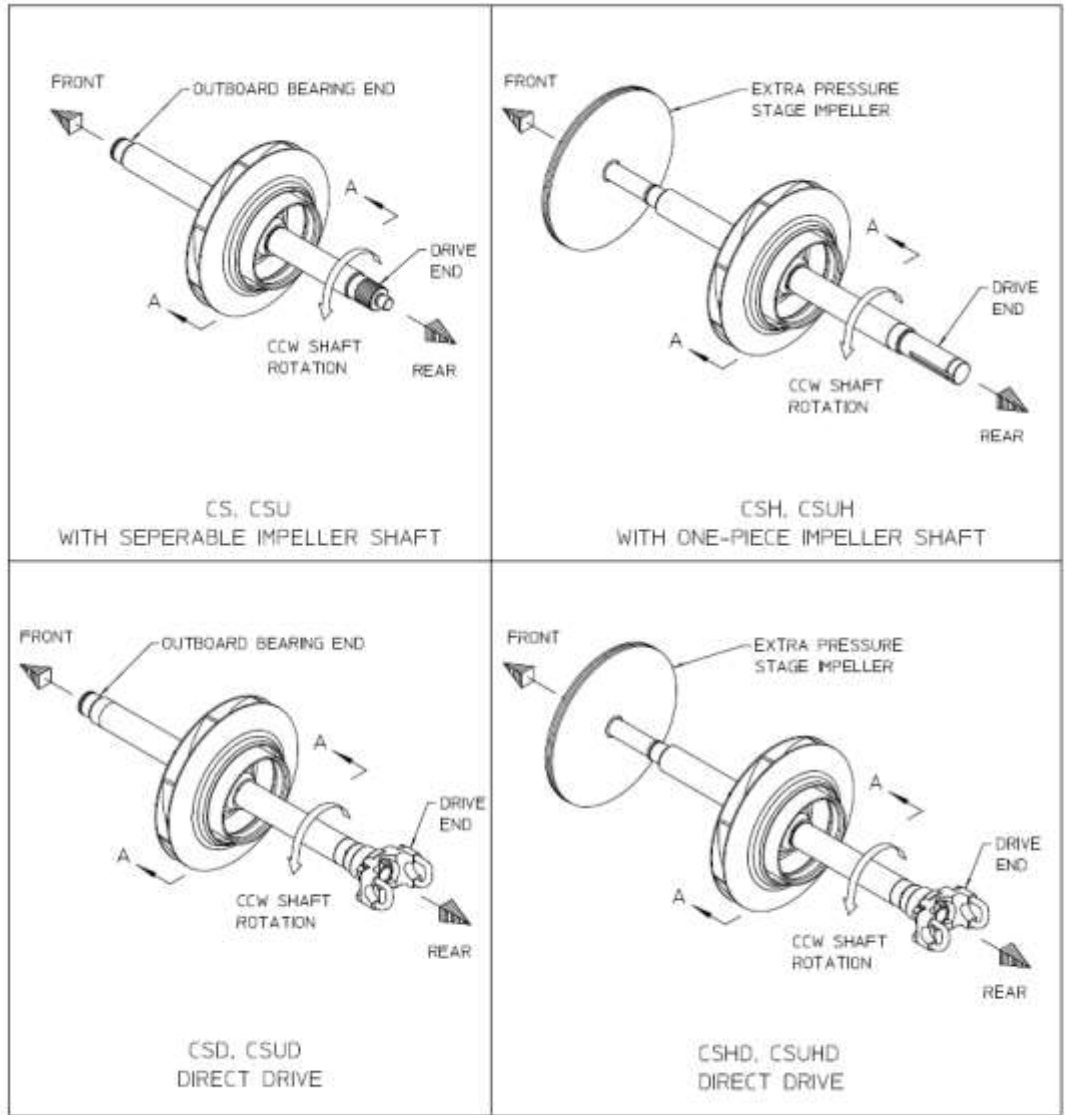


**One-Piece Shaft with Packing
Front or Rear Drive without Tachometer
Models CSHD & CSUHD**

REF NO.	DESCRIPTION
S4	Impeller, main stage
S7	Packing gland
S10	Dowel pin, 1/4 x 1/2 in.
S11	Impeller shaft
S12	Retaining ring
S13	Wear ring (available in original size or 0.025, 0.050 and 0.075 in. undersize)
S14	Square key, SS, 5/16 x 2-3/4 in.
S15	Lubrication fitting, 1/8 in.
S16	Hex hd screw, 1/2-13 x 1-1/4 in., grade 5
S17	Lock washer, 1/2 in.
S18	Hex castle nut, SS, 3/4-16
S19	Cotter pin, SS, 1/8 x 1 in.
S20	Bearing housing
S21	Impeller, extra pressure stage
S22	Flinger ring
S23	Ball bearing, double row
S24	Retaining ring, SS
S25	Impeller spacer
S27	Flinger grommet
S28	Flinger disc
S32	Oil seal, 1-5/8 x 2-3/4 in.
S33	Lube relief fitting, 1/8 in.

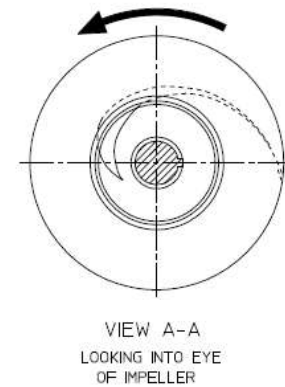
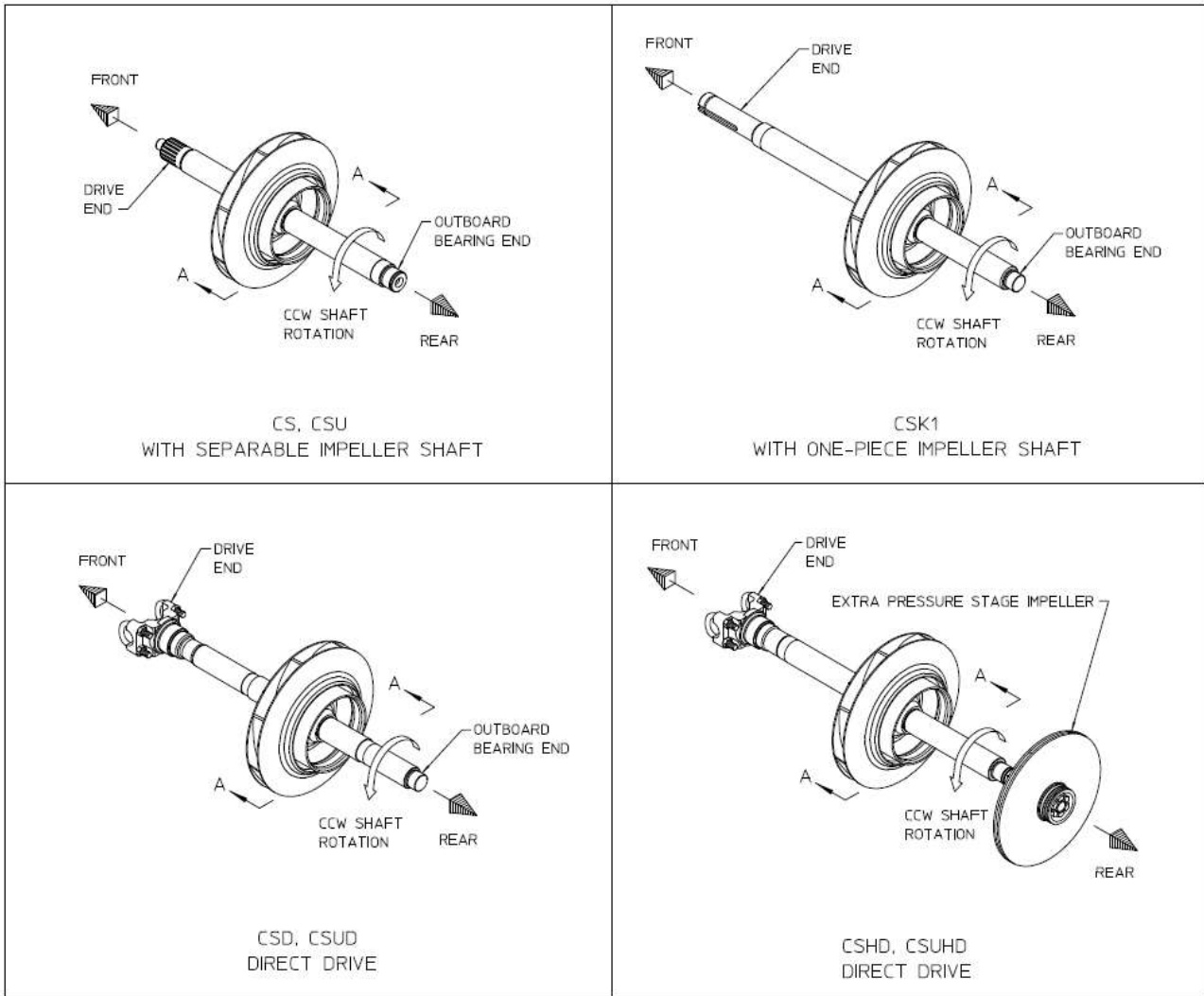
REF NO.	DESCRIPTION
S35	Lock washer, 3/8 in.
S36	Hex hd screw, 3/8-16 x 1 in.
S42	Ball bearing
S45	Hex hd screw, 1/2-20 x 2 in.
S46	Hex nut, 1/2-20
S50	Retaining ring
S51	O-ring, 3-1/4 x 3-1/2 in.
S53	Oil seal, 1-23/32 x 2-3/4 in.
S54	End yoke with U-bolts
S55	Shaft nut, 1-20
S56	Cotter pin, 1/8 x 1-3/4 in. (prior to April 20, 1998)
S68	Bearing housing
S69	Flinger
S71	Bearing spacer
S99	Seal housing gasket
S105	Lantern ring
S106	Unbalanced nut, 5/16-18
S107	Flat brass washer, 5/16 in.
S110	Seal housing subassembly (includes S10 and S108)
S113	Packing kit, split ring (BFG ring) or individual flexible graphite (Grafoil®) ring, see page 32.
S500	Complete impeller shaft assembly

Note: For extra pressure stage components not shown, see extra pressure stage body service parts list.



VIEW A-A
LOOKING INTO EYE
OF IMPELLER

REAR DRIVE IMPELLER ROTATIONS

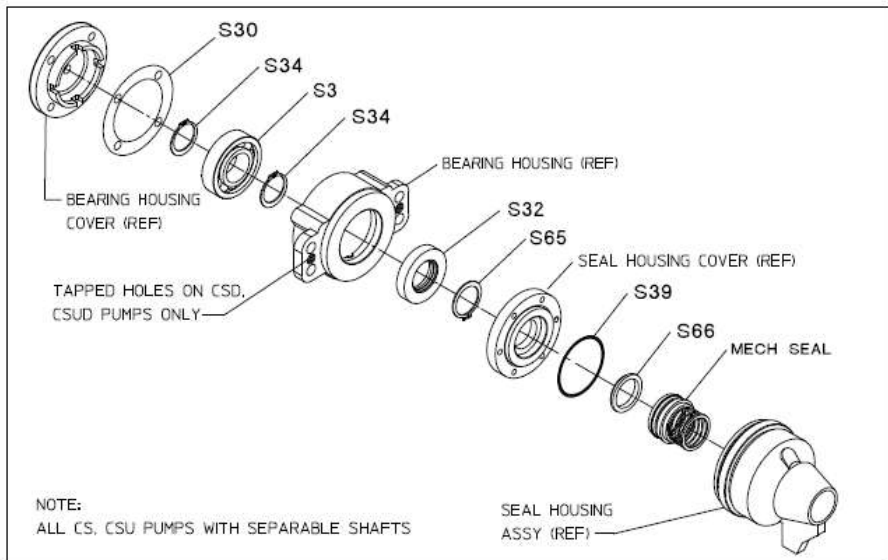


FRONT DRIVE IMPELLER ROTATIONS

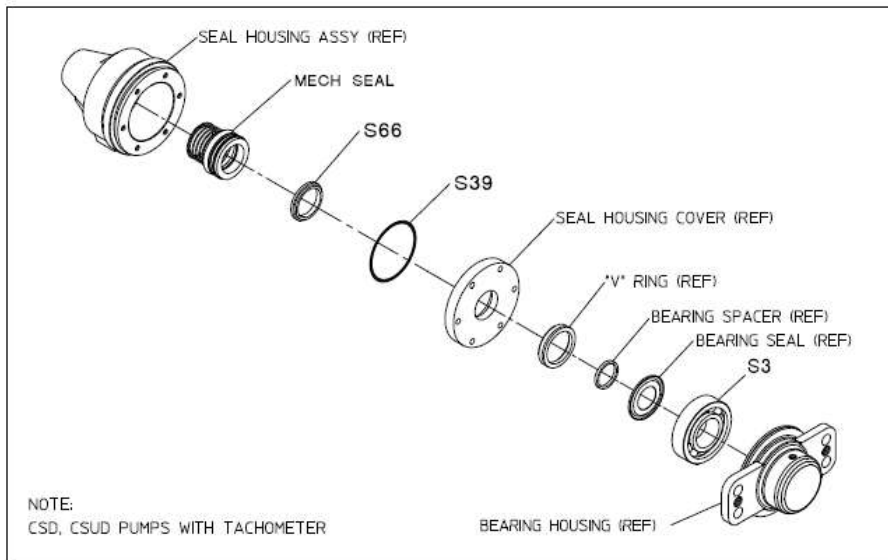
S95 Outboard End Mechanical Seal Kits

REF NO.	DESCRIPTION
S3	Ball bearing
S30	Gasket
S32	Oil seal
S34	Retaining ring
S39	O-ring, 3 x 3-1/4 in.
S65	Retaining ring

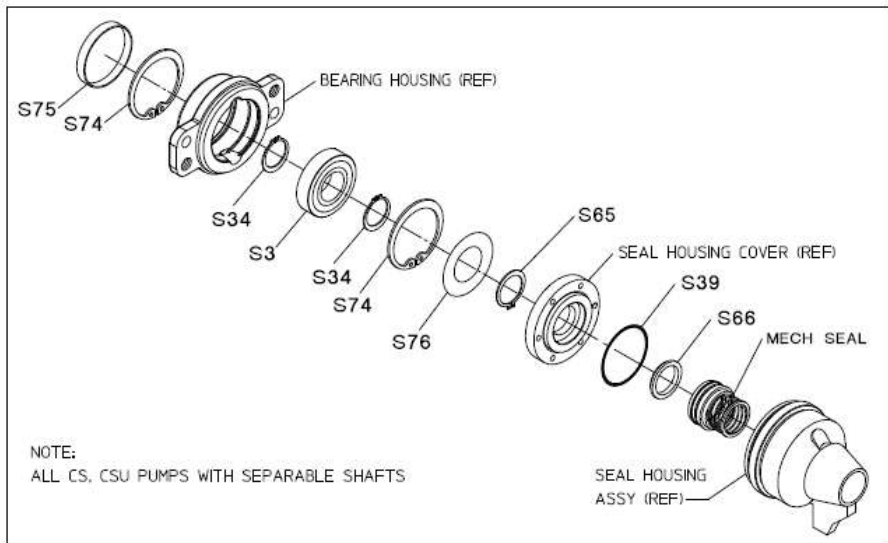
REF NO.	DESCRIPTION
S66	Throttle bushing
S74	Retaining ring
S75	Seal housing plug
S76	Bearing shield
S95	Repair kit, mechanical seal outboard end



DETAIL A
PUMPS BUILT PRIOR TO APRIL 21, 2006



DETAIL C
PUMPS WITH TACHOMETER, BUILT ALL YEARS



DETAIL B
PUMPS BUILT AFTER APRIL 21, 2006 (SEALED OUTBOARD BEARING)

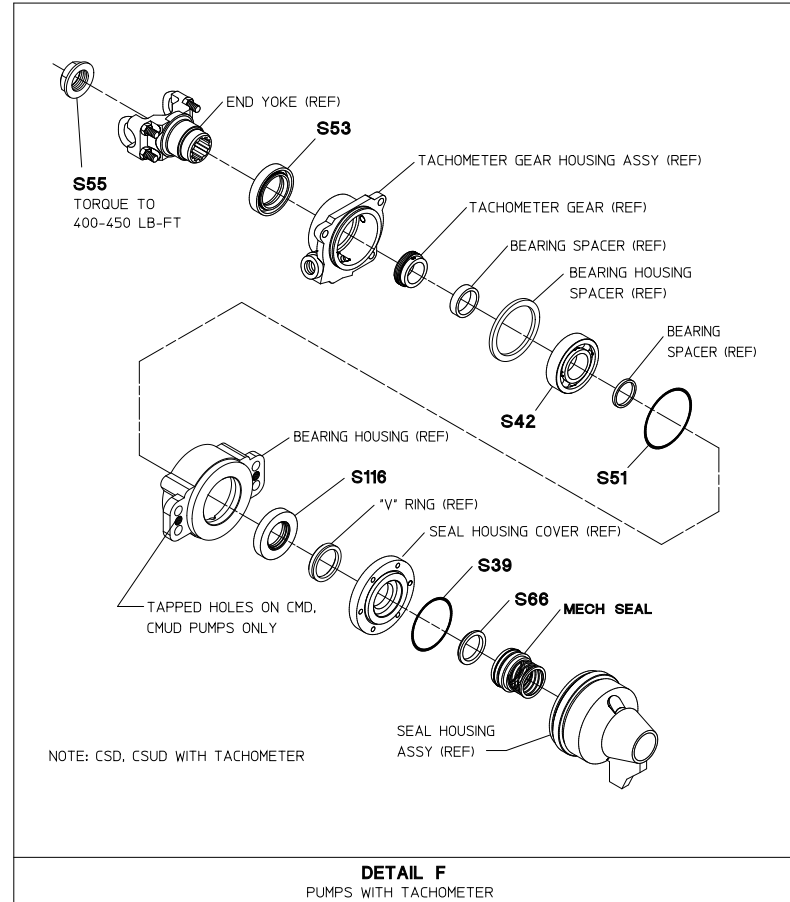
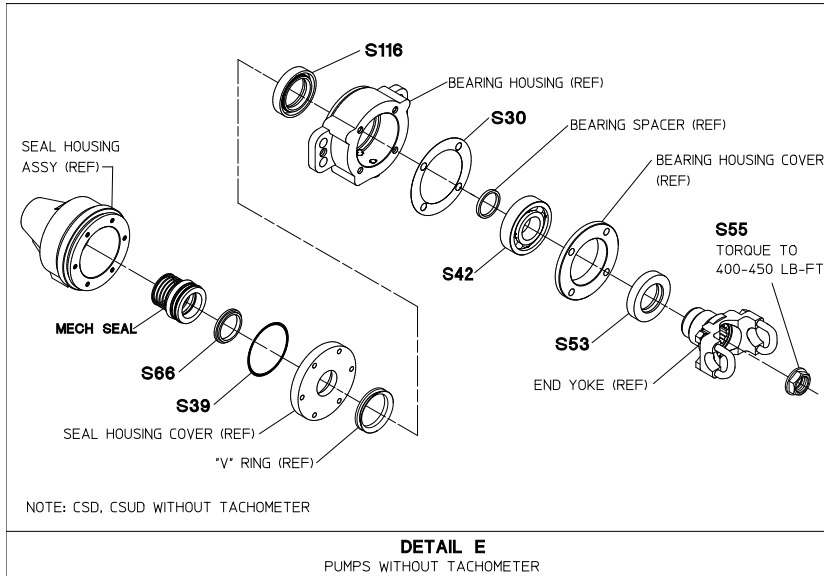
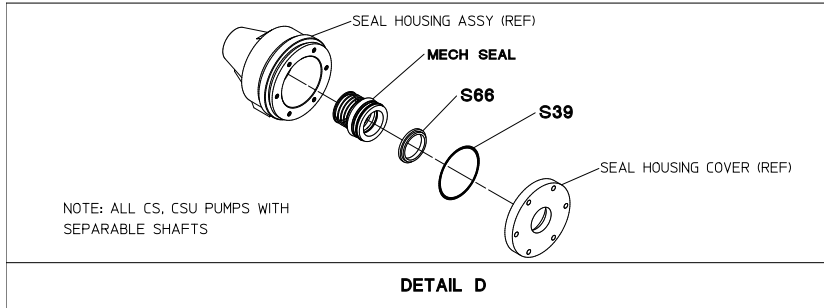
S95 OUTBOARD END MECHANICAL SEAL KITS

NOTE: PARTS SHOWN IN BOLD TEXT INCLUDED IN MECHANICAL SEAL KIT.

S96 Drive End Mechanical Seal Kits

REF NO.	DESCRIPTION
S30	Gasket
S39	O-ring, 3 x 3-1/4
S42	Ball bearing
S51	O-ring, 3-1/4 x 3-1/2 in.
S53	Oil seal, 1-23/32 x 2-3/4 in.

REF NO.	DESCRIPTION
S55	Shaft nut, 1-20
S66	Throttle bushing
S96	Repair kit, mechanical seal, drive end
S116	Oil seal, 1-1/2 x 2-3/4 (formerly S32)



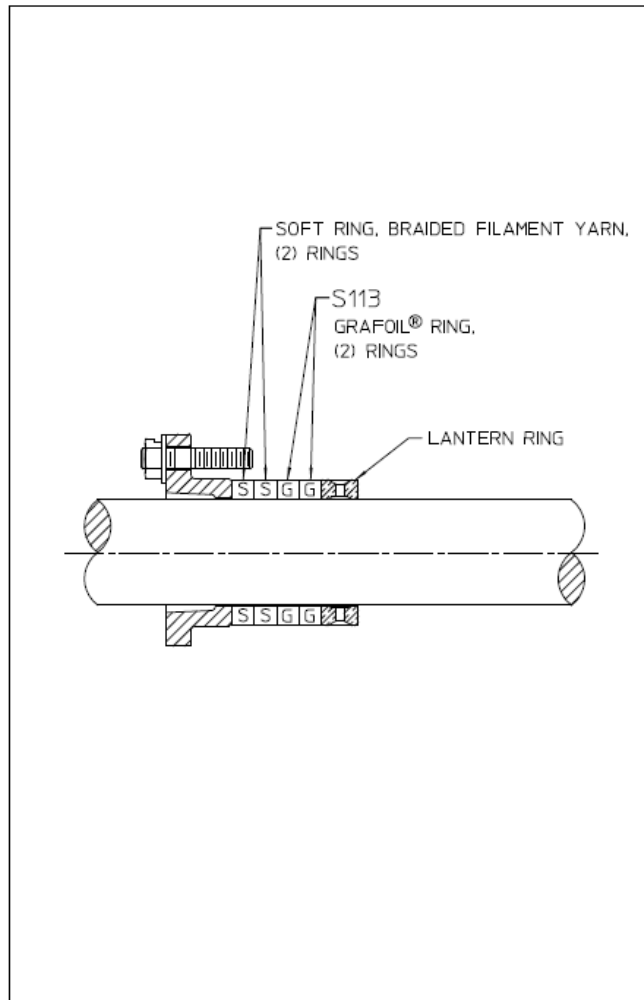
S96 DRIVE END MECHANICAL SEAL KITS

NOTE: PARTS SHOWN IN BOLD TEXT INCLUDED IN MECHANICAL SEAL KIT.

Packing Arrangements

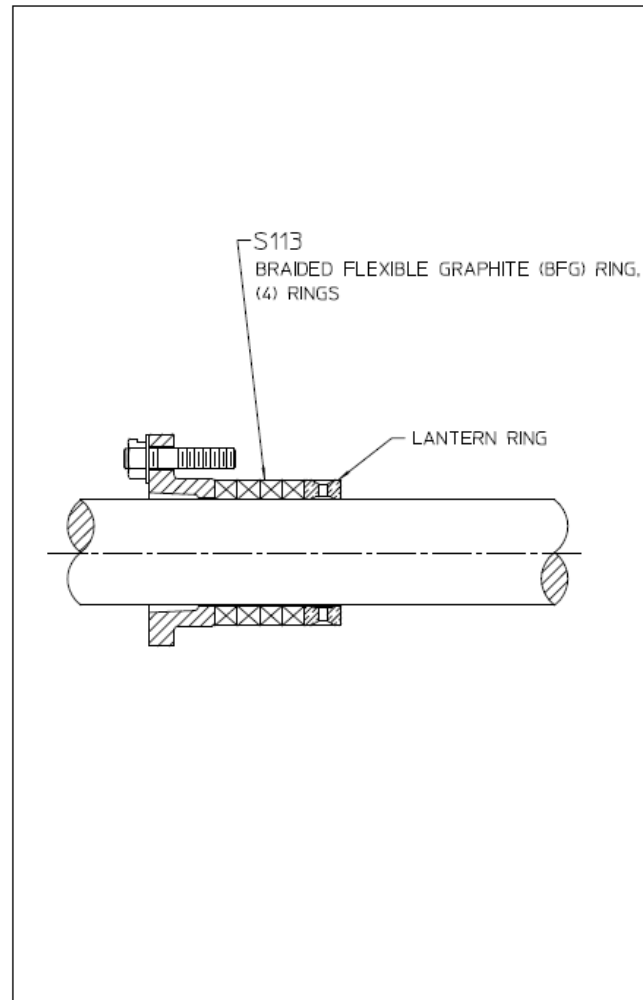
REF NO.	DESCRIPTION
S113	Split ring packing kit (BFG rings) or individual flexible graphite (Grafoil®) ring

REF NO.	DESCRIPTION



ARRANGEMENT A
 FLEXIBLE GRAPHITE (GRAFOIL®) RINGS
 USED JANUARY 31, 1985 TO JULY 10, 2002

*REPLACED BY ARRANGEMENT B.
 ARRANGEMENT B WILL BE FURNISHED FOR REPAIRS.
 (INDIVIDUAL S113 GRAFOIL® RINGS ARE STILL AVAILABLE)



ARRANGEMENT B
 BRAIDED FLEXIBLE GRAPHITE (BFG) RINGS
 CURRENT CONFIGURATION

PACKING ARRANGEMENTS

NOTE: ALWAYS STAGGER JOINTS IN PACKING RINGS