DATA SHEET 18 FRAME BLOCK-STYLE PLUNGER PUMPS



Stainless Steel Model:

1810

Stainless Steel Flushed Model:

1810K

Manifolds and cylinders are 17-4SS stainless steel. Discharge valve assemblies are made from 17-4SS stainless steel with a ceramic ball. Internal packing assembly includes bronze cylinder supports and UHMW V-packings.

See Parts List to confirm material compatibility with the fluid pumped before use.



Model 1810 Shown (Mounting rails sold separately)

FEATURES

- Triplex plunger design ensures high efficiency and low pulsation.
- V-packings and low-pressure seals are completely lubricated and cooled, greatly increasing service life.
- Special UHMW or PTFE V-packings with bronze cylinder supports provide extra stability at high-pressure and extend seal life.
- Low upswept volume maximizes volumetric efficiency.
- Model 1810K offers external flush for higher temperature or lowlubricity liquids.
- Special high-density, polished, concentric ceramic plungers provide a true wear surface and extended seal life.

SPECIFICATIONS	U.S. Measure	Metric Measure				
Flow	3.0 gpm	11.4 lpm				
Pressure Range	100–10,000 psi	6.9–689 bar				
Pump RPM*	1500 rpm	1500 rpm				
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar				
Max. Liquid Temp. (NBR)	160° F	71°C				
Alternative seals available for higher temperatures up to 200°F						
Bore	0.433"	11 mm				
Stroke	1.181"	30 mm				
Crankcase Capacity	42 oz	1.261				
Inlet Ports (2)	1/2" NPT(F)	1⁄2" NPT(F)				
Flushing Ports (2) "C"	1⁄4" NPT(F)	1⁄4" NPT(F)				
Discharge Ports (3)	3⁄8" NPT(F)	3⁄8" NPT(F)				
Shaft Diameter	1.181"	30 mm				
Pulley Mounting	Either Side	Either Side				
Weight	60 lbs	27.2 kg				
Dimensions	19.53 x 12.99 x 6.45"	496 x 330 x 164 mm				

*Pump minimum is 100 RPM.

ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE			
NBR	—	160° F	(71° C)		
FPM	.0110	180° F	(82° C)		
PTFE	.0710	200° F	(93° C)		

See Tech Bulletin 002 for inlet conditions and RPM at high-temperature.

DETERMINING	Rated gpm	=	Desired gpm
THE PUMP RPM	Rated rpm		Desired rpm
DETERMINING	hp	=	gpm x psi
THE REQUIRED HP	(Electric Brake)		1460
DETERMINING	Motor Pulley OD	=	Pump Pulley OD
MOTOR PULLEY SIZE	Pump rpm		Motor rpm

Refer to pump Service Manual for repair procedure and additional technical information.

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PARTS LIST

s 44951 S Screw HHC Sens MHz 20) (see Tach Bulletins 724, 128) 8 8 134805 ALE Cove, Barning Gae Tach Bulletins 118, 128) 2 0 855043 FRB Solito Sing Gae Tach Bulletins 118, 128) 2 11 43495 NBR O-Ring Gae Tach Bulletins 118, 128) 2 11 43964 NBR O-Ring Gae Tach Bulletin 128) 2 12 855044 SS Split Shim, Baraing Cove, 2-Pace (See Tach Bulletin 128) 2 13 30060 TNR Read Saembly, Connecting (See Tach Bulletin 074) 31 13 14177 NBR O-Ring, Eller Cap-200 11 13 14177 NBR O-Ring, Eller Cap-200 11 14 2952 Screw, HHC Semy Mbr 20) (See Tach Bulletin 074) 14 14 2952 Screw, HBC Semy Mbr 20) (See Tach Bulletin 074) 11 14 14848 NBR Gaage CA, Bulletin WB Cape See Da 11 14 1952 Screw, HBC Semy Abr 20) (See Tach Bulletin 074) 14 14	ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
9 855043 FBR Split Shim, Bearing Coxe, 2-Place (See Tech Bulletin 128) 2 10 11840 NER Seal, OL Carakkath 2 11 4.945 NEB Seal, OL Carakkath 2 12 85504 SS Split Shim, Bearing Coxe, 2-Prece (See Tech Bulletin 128) 2 12 98600 TIM Red Assembly, Connecting (See Tech Bulletin 127) 3 13 14177 NER Carakkath - Dual End (M30) 1 13 14177 NER O-Bing, Ellin Cap-200 1 13 14177 NER O-Bing, Clin Cap-200 1 14 92424 NEG Cauye, Clin Abacte - Who (See Tech Bulletin 074) 4 14 22170 NER O-Bing, Drain (W1 198 (SA) (See Tech Bulletin 074) 1 13 14484 NEG Coree, Rear Case Tech Bulletin 128) 1 14 13356 ALE Coree, Rear Case Tech Bulletin 518, 128) 1 14 13489 ALE Carakkase, Seal 01, Gaakeseeeeeee 3					
9 855043 FBR Split Shim, Baaring Cover, 2-Rece (See Tech Bulletin 128) 2 10 11340 MRR O-Ring, Bearing Cover, 2-Rece (See Tech Bulletin 128) 2 11 44987 NRR Soil, OL Carakkahn 2 12 855044 SS Split Shim, Bearing Cover, 2-Rece (See Tech Bulletin 128) 2 12 44800 TNM Rod Ascentbly, Correcting (See Tech Bulletin 074) 3 13 14177 NBR Rod Ascentbly, Correcting (See Tech Bulletin 074) 1 13 14177 NBR O-Ring, Bearder, 2000 1 14 92241 PC Cauge, OL, Batelete, MCD (See Tech Bulletin 074) 4 14 25055 STCP, Pugg Drin (Kr 1959) 1 1 14 123576 ALE Cover, Rear Geser-DD 1 13 14489 NBR C-Ring, Rear-Cover-DD 1 14 24348 NBR C-Ring, Rear-Cover-DD 1 15 143443 NBR C-Ring, Rear-Cover-DD 1 15 </td <td>8</td> <td>134805</td> <td>ALE</td> <td>Cover, Bearing (See Tech Bulletins 118, 128)</td> <td>2</td>	8	134805	ALE	Cover, Bearing (See Tech Bulletins 118, 128)	2
10 11340 NBR 0-Ring, Bearing Case-70D 2 11 43495 NBR Seal, Oll, Carakhaft 2 12 855044 55 SPIE Shim, Bearing Cover, P-Prec (See Tech Bulletin 128) 2 12 855040 55 SPIE Shim, Bearing Cover, P-Prec (See Tech Bulletin 074) 3 13 14177 NBR 6 Assembly, Connecting (See Tech Bulletin 074) 1 13 14177 NBR 6 Aing, Filler Cap-70D 1 13 14177 NBR 6 aake, Cup-20D 1 14 44428 NBR 6 aake, Tech XD (Bi cap-70D 1 13 14177 NBR 6 aake, Tech XD (Bi cap-70D 1 14 25625 STCP Plug, Drain (W 2 x0 See Tech Bulletin 074) 4 14 25625 STCP Plug, Drain (W 2 x0 See Tech Bulletin 074) 1 13 14884 NBR 6 aaker, Fact XD Bulletin 113, 128) 1 14 44834 NBR 6 aaker, Fact XD Bulletin 113, 128) 1 14	9	855043	FBR		2
11 43495 NBR Seal, Ol, Crankshaft 2 12 855044 SS Split Shim, Bearing, Cover, 2-Prece (See Tech Bulletin 128) 2 12 48600 TNM Rod Assembly, Connecting (See Tech Bulletin 074) 3 12 43494 FCM Crankshaft – Dual End (M30) 1 13 41477 NBR O-Ring, Biller Cap-70D 1 14 PC Gauge, Ol, Bubble with Gasket-B0 (See Tech Bulletin 074) 1 14 VEX NBR Gauge, Old, Bubble with Gasket-B0 (See Tech Bulletin 074) 1 14 VEX NBR Gauge, Old, Bubble with Gasket-B0 (See Tech Bulletin 074) 1 14 4842 NBR Gauge, Old, Bubble with Gasket-B0 (See Tech Bulletin 074) 1 15 M4484 NBR O-Ring, Drain (Vix Ya 9857) 1 1 16 443577 NLR O-Ring, Drain (Vix Ya 9857) 1 1 16 44848 NBR O-Ring, Drain (Vix Ya 9857) 1 1 17 144869 ALE Cover	10	11340	NBR		2
15 39060 STL Bearing, Roller 2 20 48600 TNM Rod Assembly, Connecting (See Tech Bulletin 074) 3 13 443211 ABS Cap, Oll Filler (Anshoft – Challe Find M30) 1 13 14177 NBR O-Ring, Filler Cap-70D 1 14 ABS Cauge, Oll Bubble with Casket-ROD (See Tech Bulletin 074) 1 18 44428 NBR Gasket, Fist, Oll Gauge-30D 1 19 92542 S Screw, HHC Sens (Mox 20) See Tech Bulletin 074) 4 48 25525 SCTCP Plug, Danin (Plug-70D 1 19 133576 ALE Cover, Roar (See Tech Bulletin 12, 128) 1 10 133576 ALE Cover, Roar (See Tech Bulletins 118, 128) 1 11 44384 NBR O-Ring, Rear Cover-70D 1 13 134889 ALE Cankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128) 1 14 43502 SFCP R Washer, Seal 3 16 44390 SSEZ Rod, Plunger, Short 3 17 43200 NBR Sach, OL Canckase 3 18 24489 SSEZ Singe, Barier 3 <	11	43495	NBR		2
15 39060 STL Bearing, Roller 2 20 48000 TNM Rod Assembly, Connecting (See Tech Bulletin 074) 3 32 43211 ABS Cankhaft – Dual End (M30) 1 33 14177 NBR O-Ring, Filler Cap -70D 1 34 14177 NBR O-Ring, Filler Cap -70D 1 38 44428 NBR Gaugo, Oli, Bubble with Gasket-80D (See Tech Bulletin 074) 1 38 44428 NBR Gaugo, Oli, Bubble with Gasket-80D (See Tech Bulletin 074) 1 48 25525 STCP, P Mug, Dain (Yuz, YB SP) 1 1 49 23170 NBR O-Ring, Bear Concer-7DD 1 50 133576 ALE Cover, Rear (See Tech Bulletin 118, 128) 1 51 44438 NBR O-Ring, Bear Concer-7DD 1 53 134889 ALE Cankcase 3 64 43507 CM Pin, Coulde 43 7 43500 NBR Seal, Oli, Cank	12	855044	SS	Split Shim, Bearing Cover, 2-Piece (See Tech Bulletin 128)	2
25 43494 FCM Crankishär-Dual End (M30) 1 32 43211 ABS Cap, Oli Filler 1 33 1417 NBR O-Ring, Filler Cap70D 1 34 44428 NBR Gasket, FBA, Oli Gauge-BOI 1 38 44428 NBR Gasket, FBA, Oli Gauge-BOI 4 48 25623 STCP Plug, Drain (Vir X 19 BSP) 1 49 23370 NBR O-Ring, Drain Plug-70D 1 51 44834 NBR O-Ring, Rear Cover-70D 1 53 134889 ALE Crankcase, Assembly (Includes: 540 (See Tech Bulletins 118, 128) 1 54 27848 S Pin, Guide 3 3 65 48892 STSER Rod, Plunger, Short 3 3 70 43500 NBR Seal, Oli, Crankcase 3 3 70 43500 NBR Sal, Oli, Crankcase 3 3 70 43500 NBR Sal,	15	39060	STL	Bearing, Roller	2
32 43211 ABS Cap, OIF Filler 1 33 14177 NBR O-Ring, Filler Cap-70D 1 34 14428 NBR Gasket, Fill. OI Gauge-80D 1 40 92542 S Screw, HHC Sens (Ms x 20) (See Tech Bulletin 074) 4 48 25625 STCP Plug, Drain (W'x 19 85P) 1 49 23170 NBR O-Ring, Drain (Wy 19 85P) 1 50 133576 ALE Cover, Rear (See Tech Bulletin 074) 1 51 44834 NBR O-Ring, Drain (W'x 19 85P) 1 51 44834 NBR O-Ring, Drain (War 19 85P) 1 51 44834 NBR O-Ring, Drain (War 19 85P) 1 53 13489 ALE Conckase-Nearby/Includes:540 (See Tech Bulletins 118, 128) 1 54 42842 SER Fora, Guade 2 2 64 43507 CM Pin, Crosshead 3 3 70 43500 NBR Seal, OLI Carnkcase 3 3 71 43505 Stud, Carn	20	48600	TNM	Rod Assembly, Connecting (See Tech Bulletin 074)	3
33 14177 NBR O-Ring, Filler Cap-70D 1 37 92241 PC Gauge, 01, Bubble with Gasket-80D (See Tech Bulletin 074) 1 38 44428 NBR Gasket, Fat, Ol Gauge-80D 1 40 92542 S crew, HHC Sems (Ms x 20) (See Tech Bulletin 074) 4 48 25625 STCP Plup, Drain (X* 19 BSP) 1 49 23170 NBR O-Ring, Drain (X* 19 BSP) 1 50 133757 ALE Cover, Rear Gree Tech Bulletin 118, 128) 1 51 44834 NBR O-Ring, Rear Cover-70D 1 54 27488 S Fin, Guide 2 64 43507 CM Pin, Crosshead 3 65 48892 SSEZ Rod, Plunger, Short 3 69 126592 STCPR Washer, Seal 3 70 43506 S Slinger, Barrier 3 71 34500 NBR Seal, OIL (Crankasee 3 70	25	43494	FCM	Crankshaft – Dual End (M30)	1
37 92241 PC Gauge, Oil, Bubble with Gasket-80D (See Tech Bulletin 074) 1 38 44428 NBR Gasket, Flat, Oil Gauge-80D 1 44 2525 STCP Plug, Drain (Vix 19 BSP) 1 48 2525 STCP Plug, Drain (Vix 19 BSP) 1 50 133576 ALE Cover, Rear (See Tech Bulletins 118, 128) 1 51 44834 NBR O-Ring, Rear Cover-70D 1 53 133489 ALE Correkase, Assembly (Includes: 54) (See Tech Bulletins 118, 128) 1 54 27488 S Pin, Guade 2 2 64 43507 CM PinA, Coashead 3 65 48892 SSB2 Rod, Plunger, Short 3 70 43500 NBR Salinger, Barrier 3 70 43500 S Slinger, Barrier 3 3 70 7595 CC Assembly, Plunger, M1 x 80, with Stainless Steel Holder 3 70 75950 PDP	32	43211	ABS	Cap, Oil Filler	1
38 44428 NBR Gasket, Flat, Oli Gauge-80D 1 40 92542 S Screw, HHC Sem; (Ms 20) (See Tech Bulletin 074) 4 48 25625 STCP Plug, Drain (Va''x 19 BSP) 1 49 23170 NBR O-Ring, Drain (Va''x 19 BSP) 1 50 133576 ALE Cover, Rear (See Tech Bulletins 118, 128) 1 51 44834 NBR O-Ring, Drain (Va''x 19 BSP) 1 54 27488 S Pin, Guide 2 64 43507 CM Pin, Crosshead 3 65 43892 SSEZ Rod, Plunger, Short 3 70 43500 NBR Seal, Oil, Crankcase 3 75 43506 S Singer, Barrier 3 70 43500 NBR Seal, Oil, Crankcase 3 71 43505 S Stud, Plunger, M11 x 80, with Stainless Steel Holder 3 76 43505 Seal, Cuy-Pressure 3 76850 <td< td=""><td>33</td><td>14177</td><td>NBR</td><td>O-Ring, Filler Cap–70D</td><td>1</td></td<>	33	14177	NBR	O-Ring, Filler Cap–70D	1
40 92542 S Screw, HHC Sems (M6 x 20) (See Tech Bulletin 074) 4 48 25625 STCP Plug, Drain (Vx' x 19 85P) 1 49 23170 NBR O-Ring, Drain (Vx' x 19 85P) 1 50 13376 ALE Cover, Feer (See Tech Bulletins 118, 128) 1 51 44834 NBR O-Ring, Rear Cover-70D 1 54 27488 S Pin, Guide 2 64 43507 CM Pin, Crosshead 3 65 48892 SSEZ Rod, Plunger, Short 3 66 43500 NBR Seal, OL, Crankcase 3 70 76395 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 70 76450 S Study, Plunger, M11 x 80, with Stainless Steel Holder	37	92241	PC	Gauge, Oil, Bubble with Gasket–80D (See Tech Bulletin 074)	1
48 25625 STCP Plug, Drain (W_x 19 BSP) 1 49 23170 NBR O-Ring, Drain Plug-70D 1 50 133576 ALE Cover, Rear (See Tech Bulletins 18, 128) 1 51 44484 NBR O-Ring, Rear Cover-70D 1 53 134889 ALE Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128) 1 54 27488 S Pin, Guide 2 64 43507 CM Pin, Crosshead 3 65 48892 SSEZ Rod, Plunger, Short 3 66 126592 STCP R Washer, Seal 3 70 43500 NBR Seal, Ol, Crankcase 3 74 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 100 995590 POP Ruteriner, Seal 3 1 111 72 Seal, Low-Prescure 3 1	38	44428	NBR	Gasket, Flat, Oil Gauge–80D	1
49 23170 NBR O-Ring, Drain Plug-70D 1 50 133576 ALE Cover, Rear (See Tech Bulletins 118, 128) 1 51 44834 NBR O-Ring, Rear Cover-70D 1 53 134889 ALE Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128) 1 54 27488 S Pin, Guide 2 64 43507 CM Pin, Crosshead 3 65 48892 SSB2 ROd, Plunger, Short 3 70 43500 NBR Seal, Oil, Crankcase 3 75 43506 S Slinger, Barrier 3 76 43506 S Slinger, Barrier 3 71 43506 S Stare, Sea 3 75 43506 S Study (Mo x 20) 3 76 76840 S Study (Mo x 20) 3 76 76840 S Study (Mo x 20) 1 76 S Study Hunger (M11	40	92542	S	Screw, HHC Sems (M6 x 20) (See Tech Bulletin 074)	4
50 133576 ALE Cover, Rear (See Tech Bulletins 118, 128) 1 51 44834 NBR O-Ring, Rear Cover-70D 1 53 134889 ALE Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128) 1 54 27488 \$ Pin, Grosshead 3 65 48892 SSEZ Rod, Plunger, Short 3 66 43500 CM Pin, Crosshead 3 67 43500 NBR Seal, Oil, Crankcase 3 70 43500 NBR Seal, Oil, Crankcase 3 75 43506 \$ Slinger, Barrier 3 76 76595 CC Assembly, Plunger (M6 x 20) 3 70 90 7059 POP Retainer, Seal 3 76 76840 \$FS5 Block, Housing (Model 1810K) 1 76 76850 \$Sr55 Block, Housing (Model 1810K) 1 71 31695 \$Sr55 Screw, HSH (M10 x 100) (See Tech Bulletin 074)	48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
51 44834 NBR O-Ring. Rear Cover-70D 1 53 134889 ALE Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128) 1 54 27488 S Pin, Guide 2 64 43507 CM Pin, Cooshead 3 65 48892 SSEZ Rod, Plunger, Short 3 69 126592 STCP R Washer, Seal 3 70 43500 NBR Seal, Oli, Crankcase 3 71 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger (M6 x 20) 3 100 995590 POP Retainer, Seal 3 110 76840 SFSS Block, Housing 1 116 31545 S Study, Hounger (M1 x 80, with Stainless Steel Holder 3 120 995590 POP Retainer, Seal 3 3 110 76840 SFSS Block, Housing (Model 1810K) 1 1 116 31545 S Washer, Flat (M10) 4 4	49	23170	NBR	O-Ring, Drain Plug–70D	1
53 134889 ALE Crankcase, Assembly (includes: 54) (See Tech Bulletins 118, 128) 1 54 27488 S Pin, Guide 2 64 43507 CM Pin, Crosshead 3 65 48892 SSBZ Rod, Plunger, Short 3 69 126592 STCPR Washer, Seal 3 70 43500 NBR Seal, Oil, Crankcase 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger (M6 x 20) 3 100 995900 POP Retainer, Seal 3 110 76840	50	133576	ALE	Cover, Rear (See Tech Bulletins 118, 128)	1
54 27488 S Pin, Guide 2 64 43507 CM Pin, Crosshead 3 65 48892 SSEZ Rod, Plunger, Short 3 69 126592 STCP R Washer, Seal 3 70 43500 NBR Seal, Oli, Grankcase 3 75 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 90 76595 CC Assembly, Plunger, M1 x 80, with Stainless Steel Holder 3 910 995590 POP Retainer, Seal 3 100 995590 POP Retainer, Seal 3 110 76840	51	44834	NBR	O-Ring, Rear Cover–70D	1
64 43507 CM Pin, Crosshead 3 65 48892 SSBZ Rod, Plunger, Short 3 69 126592 STCPR Washer, Seal 3 70 43500 NBR Seal, Oli, Crankcase 3 70 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger, M11 x 80, with Stainless Steel Holder 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 91 76840 S Slinger, Barrier 3 92 75845 S Stud, Plunger, M11 x 80, with Stainless Steel Holder 3 93 100 995590 POP Retainer, Seal 3 106 76111 ST2 Seal, Low-Pressure 3 110 768400 \$FSS Block, Housing 1 116 31545 S Stack, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder, Smaller-70D 3 123 314475 NBR </td <td>53</td> <td>134889</td> <td>ALE</td> <td>Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128)</td> <td>1</td>	53	134889	ALE	Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128)	1
65 48892 SSBZ Rod, Plunger, Short 3 69 126592 STCP R Washer, Seal 3 70 43500 NBR Seal, Oil, Crankcase 3 75 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger (M6 x 20) 3 100 995590 PCP Retainer, Seal 3 100 995590 PCP Retainer, Seal 3 101 76840 SFSS Block, Housing 3 110 76840 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S crew, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder, Saaller-70D 3 122 31485 NBR O-Ring, Rear Cylinder, Samaller-70D 3 124	54	27488	S	Pin, Guide	2
69 126592 STCP R Washer, Seal 3 70 43500 NBR Seal, Oil, Crankcase 3 75 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger (M6 x 20) 3 100 995590 POP Retainer, Seal 3 100 995590 POP Retainer, Seal 3 106 76111 S12 Seal, Low-Pressure 3 106 76111 S12 Seal, Low-Pressure 3 106 76113 S12 Seal, Low-Pressure 3 106 76840 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 121 31665 STES Strew, HSH (M10 x 100) (See Tech Bulletin 074) 4 122 31485 NBR O-Ring, Rear Cylinder, Smaller-70D 3 <t< td=""><td>64</td><td>43507</td><td>CM</td><td>Pin, Crosshead</td><td>3</td></t<>	64	43507	CM	Pin, Crosshead	3
70 43500 NBR Seal, Oll, Crankcase 3 75 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger (M6 x 20) 3 100 995590 POP Retainer, Seal 3 100 76540 SFSS Block, Housing 3 110 76840 SFSS Block, Housing (Model 1810K) 1 76850 SS S Screw, HSH (M10) 1 116 31545 S Washer, Flat (M10) 1 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder (Model 1810K) 3 <	65	48892	SSBZ	Rod, Plunger, Short	3
75 43506 S Slinger, Barrier 3 90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger (M6 x 20) 3 100 995590 POP Retainer, Seal 3 106 76111 ST2 Seal, Low-Pressure 3 106 76111 ST2 Seal, Low-Pressure 3 106 76111 ST2 Seal, Low-Pressure 3 107 76850 SFSS Block, Housing (Model 1810K) 1 116 31545 S Wash, Flat (M10) 14 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder Model 1810K) 3 123 31475 NBR O-Ring, Rear Cylinder Support 3 124 76490 SFSS Cylinder Model 1810K) 3 125 76115 PET Retainer, Inlet	69	126592	STCP R	Washer, Seal	3
90 76595 CC Assembly, Plunger, M11 x 80, with Stainless Steel Holder 3 95 31585 S Stud, Plunger (M6 x 20) 3 100 995590 POP Retainer, Seal 3 106 76111 ST2 Seal, Low-Pressure 3 110 76840 SFSS Block, Housing 1 76850 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder 3 127 76310 UHAW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet <td>70</td> <td>43500</td> <td>NBR</td> <td>Seal, Oil, Crankcase</td> <td>3</td>	70	43500	NBR	Seal, Oil, Crankcase	3
95 31585 S Stud, Plunger (M6 x 20) 3 100 995590 POP Retainer, Seal 3 106 76111 ST2 Seal, Low-Pressure 3 110 76840 SFS5 Block, Housing 1 76850 SFS5 Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Rear Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 76490 SFS5 Cylinder (Model 1810K) 3 76490 SFS5 Cylinder Model 1810K) 3 124 76490 SFS5 Cylinder Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 </td <td>75</td> <td>43506</td> <td>S</td> <td>Slinger, Barrier</td> <td>3</td>	75	43506	S	Slinger, Barrier	3
100 995590 POP Retainer, Seal 3 106 76111 ST2 Seal, Low-Pressure 3 110 76840 SFSS Block, Housing 1 76850 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3	90	76595	CC	Assembly, Plunger, M11 x 80, with Stainless Steel Holder	3
106 76111 ST2 Seal, Low-Pressure 3 110 76840 SFSS Block, Housing 1 - 76850 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder (Model 1810K) 3 76495 SFSS Cylinder Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 </td <td>95</td> <td>31585</td> <td>S</td> <td>Stud, Plunger (M6 x 20)</td> <td>3</td>	95	31585	S	Stud, Plunger (M6 x 20)	3
110 76840 SFSS Block, Housing 1 76850 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder (Model 1810K) 3 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Marifold, Inlet/Discharge, Block-Style	100	995590	POP	Retainer, Seal	3
76850 SFSS Block, Housing (Model 1810K) 1 116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller–70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger–70D 3 124 76490 SFSS Cylinder Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See	106	76111	ST2	Seal, Low-Pressure	3
116 31545 S Washer, Flat (M10) 4 117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder 3 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHWW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 136 31575 S Spring, Inlet Valve 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	110	76840	SFSS	Block, Housing	1
117 31695 S Screw, HSH (M10 x 100) (See Tech Bulletin 074) 4 121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder 3 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 136 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 144 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 136 31575 S Spring, Inlet Valve 3 136 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S S		76850	SFSS	Block, Housing (Model 1810K)	1
121 31565 PTFE Ring, Cylinder Sealing 9 122 31485 NBR O-Ring, Front Cylinder, Smaller–70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger–70D 3 124 76490 SFSS Cylinder 3 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	116	31545	S	Washer, Flat (M10)	4
122 31485 NBR O-Ring, Front Cylinder, Smaller-70D 3 123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder 3 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHWW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	117	31695	S	Screw, HSH (M10 x 100) (See Tech Bulletin 074)	4
123 31475 NBR O-Ring, Rear Cylinder, Larger-70D 3 124 76490 SFSS Cylinder 3 - 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	121	31565	PTFE	Ring, Cylinder Sealing	9
124 76490 SFSS Cylinder 3 76495 SFSS Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	122	31485	NBR	O-Ring, Front Cylinder, Smaller–70D	3
76495 SFSs Cylinder (Model 1810K) 3 127 76310 UHMW Assembly, V-Packing with Bronze Cylinder Support 3 134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	123	31475	NBR	O-Ring, Rear Cylinder, Larger–70D	3
12776310UHMWAssembly, V-Packing with Bronze Cylinder Support313476350S455Valve, Inlet313576115PETRetainer, Inlet Spring313631575SSpring, Inlet Valve316476915SFSSSeat, Ball Assembly with Ceramic Ball318576885SFSSManifold, Inlet/Discharge, Block-Style118831692SScrew, HSH (M10 x 140) (See Tech Bulletin 074)8	124	76490	SFSS	Cylinder	3
134 76350 S455 Valve, Inlet 3 135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8		76495	SFSS	Cylinder (Model 1810K)	3
135 76115 PET Retainer, Inlet Spring 3 136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	127	76310	UHMW	Assembly, V-Packing with Bronze Cylinder Support	3
136 31575 S Spring, Inlet Valve 3 164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	134	76350	S455	Valve, Inlet	3
164 76915 SFSS Seat, Ball Assembly with Ceramic Ball 3 185 76855 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	135	76115	PET	Retainer, Inlet Spring	3
185 76885 SFSS Manifold, Inlet/Discharge, Block-Style 1 188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	136	31575	S	Spring, Inlet Valve	3
188 31692 S Screw, HSH (M10 x 140) (See Tech Bulletin 074) 8	164	76915	SFSS	Seat, Ball Assembly with Ceramic Ball	3
	185	76885	SFSS	Manifold, Inlet/Discharge, Block-Style	1
250855046NYProtector, Shaft with 2–Stainless Steel Screws (See Tech Bulletin 128)1	188	31692	S	Screw, HSH (M10 x 140) (See Tech Bulletin 074)	8
	250	855046	NY	Protector, Shaft with 2–Stainless Steel Screws (See Tech Bulletin 128)	1

Bold Part numbers are unique to a particular pump model. Italics are optional items. R Components comply with RoHS Directive.

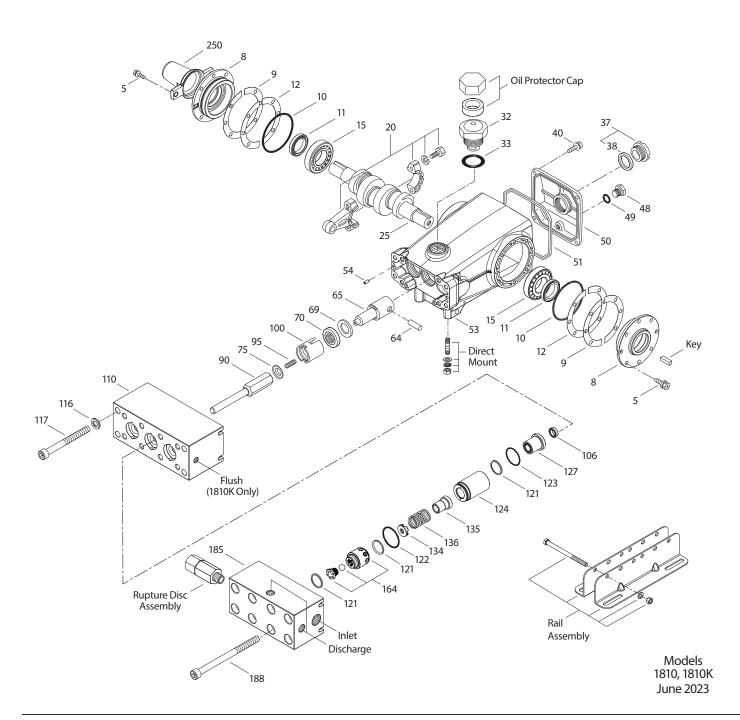
*Review individual parts in each kit for material code identification. For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic ALE=Aluminum Epoxy CC=Ceramic CM=Chrome-Moly F=Cast Iron FBR=Fiber FCM=Forged Chrome-Moly FPM=Flourocarbon NBR=Medium Nitrile (Buna-N) NY=Nylon PC=Poly Carbonate PE=Polyethylene PET=Polyethelyne Terephthalate POP=Polypropylene PTFE=Pure Polyethylene S=304SS

SFSS=17-4SS SS=316SS SSBZ=316SS /Bronze ST=Polyetheretherketon ST2=Special PTFE STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated

TNM=Special High Strength UHMW=Ultra High Molecular Weight Polyethylene

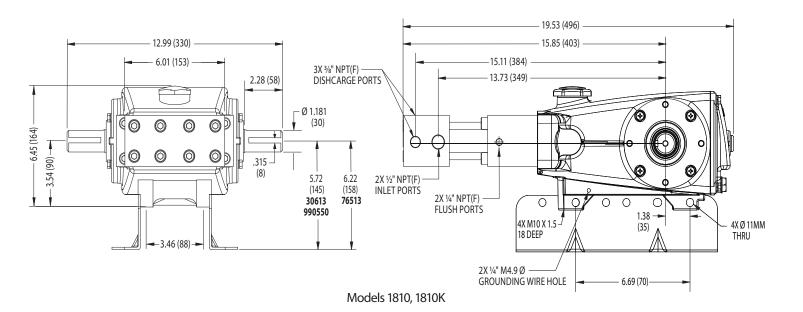
EXPLODED VIEW



OPTIONAL PARTS AND ACCESSORIES				
PART	DESCRIPTION	QTY		
30067	Key (M8 x 7.5 x 25)	1		
30613	Assembly, Rail (5.72" See Dimensional Drawing)	1		
990550	Assembly, Rail (5.72" See Dimensional Drawing)	1		
76513	Assembly, Rail (6.22" See Dimensional Drawing)	1		
30264	Mount, Direct	1		
828710	Protector, Oil Cap	1		
30059	Hub, "H", 30 mm (Not Shown)	1		
30206	Pulley, 10" 2-Groove H (Not Shown)	2		
34334	Kit, Oil Drain (¾" x 24") (Not Shown)	1		
9920	Assembly, Rupture Disc (¾" NPT[M] x ¾" NPT[F])	1		

SERVICE PARTS					
PART	DESCRIPTION	QTY			
76810	Kit, Seal – Standard NBR	1			
76820	Kit, Valve – Standard NBR	1			
6107	Oil, Bottle (21.0 oz) ISO-68 Hydraulic	2			
	(Fill to Specified Crankcase Capacity Prior to Start-up)				
6124	Gasket, Liquid (3 oz)	1			
6139	Lubricant, Anti-Seize (8 oz) (See Tech Bulletin 095)	1			
992810	Head, Complete with NBR Seals and O-Rings (Model 1810)	1			
992820	Head, Complete with NBR Seals and O-Rings (Model 1810K)	1			

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SEAL KITS o	ne (1) seal kit required per pump
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PUMP MODEL	NBR (STD)	FPM (.0110)	PTFE (.0710)		
1810, 1810K	76810*	76811*	76827*		
ITEM (Included in Seal Kits)				DESCRIPTION	QTY
106	76111	76111	76111	Seal, Low-Pressure with S-Spring	3
121	31565	31565	31565	Ring, Cylinder Sealing	9
122	31485	76113	76113	O-Ring, Front Cylinder	3
123	31475	31476	31476	O-Ring, Rear Cylinder	3
127	76310	76310	76431	Assembly, V-Packing with Bronze Cylinder Support	3

* Review material codes for individual items (UHMW generally may be used as alternative)

VALVE KITS One (1) valve kits required per pump

PUMP MODEL	NBR (STD)	FPM (.0110)	PTFE (.0710)		
1810, 1810K	76820	76852	76852]	
ITEM (Included in Valve Kit	s)			DESCRIPTION	QTY
121	31565	31565	31565	Ring, Cylinder Sealing	6
122	31485	76113	76113	O-Ring, Front Cylinder	3
123	31475	31476	31476	O-Ring, Rear Cylinder	3
134	76350	76350	76350	Valve, Inlet	3
136	31575	31575	31575	Spring	3
164	76915	76915	76915	Seat, Ball Assembly with Ceramic Ball	3

\triangle CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system. Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty