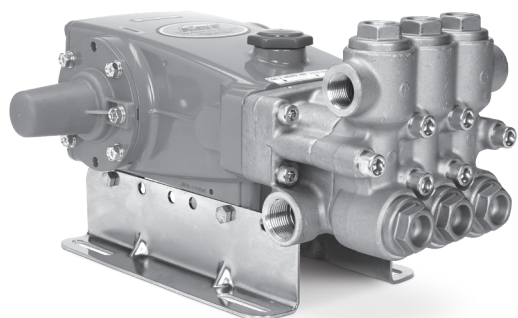


# DATA SHEET

## 15 FRAME PLUNGER PUMPS



**Brass Model: 1730**



(Mounting rails sold separately)

### FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Special concentric, high-density, polished, solid ceramic plungers provide a true wear surface and extended seal life.
- Compact direct-drive with bell housing and flexible coupler assembly. NEMA or IEC electric motor or SAE hydraulic options available.
- Belt-driven option provides precision flow setting.
- Standard NBR seals with alternative options for temperature and chemical compatibility.

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	15.8 gpm	59.8 lpm
Pressure Range	100 – 1500 psi	6.9 – 103 bar
Pump RPM*	1750 rpm	1750 rpm
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
Max. Liquid Temp. (NBR)	140°F	60°C
<b>Alternate seals available for higher temperatures up to 180° F</b>		
Bore	0.984"	25 mm
Stroke	0.984"	25 mm
Crankcase Capacity	42 oz.	1.26 l
Inlet Ports (2)	1" NPT(F)	1" NPT(F)
Discharge Ports (2)	¾" NPT(F)	¾" NPT(F)
Pulley Mounting	Either Side	Either Side
Shaft Diameter	1.181"	30 mm
Weight	55 lbs.	25 kg
Dimensions	17.24 x 12.99 x 7.40"	438 x 330 x 188 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)
EPDM	.0220	160° F (71° C)

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

$$\text{DETERMINING THE PUMP R.P.M.} \quad \frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$$

$$\text{DETERMINING THE REQUIRED H.P.} \quad \text{HP (Electric Brake)} = \frac{\text{gpm} \times \text{psi}}{1460}$$

$$\text{DETERMINING MOTOR PULLEY SIZE} \quad \frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

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

# PARTS LIST

ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
5	126540	STCP R	Screw, Sems HHC (M8 x 20) (See Tech Bulletin 074)	8
8	134805	ALE	Cover, Bearing	2
9	855043	FBR	Shim, Split 2-piece, Bearing Cover	0-2
10	11340	NBR	O-Ring, Bearing Cover – 70D	2
11	43495	NBR	Seal, Oil, Crankshaft – 70D	2
12	855044	S	Shim, Split 2-piece, Bearing Cover	0-2
15	39060	STL	Bearing, Roller	2
20	48600	TNM	Rod, Connecting Assembly (See Tech Bulletin 074)	3
25	670009	FCM	Crankshaft, Dual-End (M25)	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Filler Cap – 70D	1
37	92241	PC	Gauge, Oil, Bubble with Gasket – 80D	1
38	44428	NBR	Gasket, Flat, Oil Gauge – 80D	1
40	126541	STCP R	Screw, Sems HHC (M6 x 20) (See Tech Bulletin 074)	4
48	25625	STCP	Plug, Drain (1/4" x 19BSP)	1
49	23170	NBR	O-Ring, Drain Plug – 70D	1
50	133576	ALE	Cover, Rear	1
51	44834	NBR	O-Ring, Rear Cover – 70D	1
53	134889	ALE	Crankcase (Includes: 54)	1
54	27488	S	Pin, Guide	3
56	44664	POP	Pan, Oil	1
64	43507	CM	Pin, Crosshead	3
65	49223	SBZ	Rod, Plunger	3
69	126592	STCP R	Washer, Oil Seal	3
70	43500	NBR	Seal, Oil Crankcase – 80D	3
75	43506	S	Slinger, Barrier	3
90	48606	CC	Plunger, Ceramic (M25 x 92)	3
96	43235	PTFE	Back-up Ring, Plunger Retainer	3
97	17399	NBR	O-Ring, Plunger Retainer – 80D	3
98	45891	CU	Gasket, Plunger Retainer (See Tech Bulletin 074)	3
99	104360	S	Retainer, Plunger	3
100	899509	POP	Retainer, Seal 2-Piece	3
101	48716	—	Wick, Long Tab	3
106	44086	NBR	Seal, LPS with SS-Spring	3
110	48608	FBB	Manifold, Inlet	1
112	14200	NBR	O-Ring, Inlet Manifold – 70D	3
117	126515	STCP R	Screw, HSH (M10 x 55) (See Tech Bulletin 074)	4
126	48538	BB	Adapter, Female	3
127	44610	STG	V-Packing	6
128	48539	BB	Adapter, Male	3
141	48672	SS	Spring, Coil	18
142	48550	BB	Spacer with Coil Springs	3
155	17629	NBR	O-Ring, Spacer – 80D	6
156	28243	PTFE	Back-up Ring, Spacer	6
162	48363	D	Back-up Ring, Seat	6
163	26142	NBR	O-Ring, Seat – 80D	6
164	48596	S	Seat, Q.V. Stepped	6
166	48686	SS	Valve, Q.V.	6
167	48687	SS	Spring, Valve	6
168	44735	PVDF	Retainer, Spring	6
170	44794	SS	Washer, Spring Retainer	6
171	48689	SS	Spring, Coil	6
172	17629	NBR	O-Ring, Valve Plug – 80D	6
174	48597	FBB	Plug, Valve (See Tech Bulletin 074)	6
185	48610	FBB	Manifold, Discharge	1
188	126519	STCP R	Screw, HSH (M12 x 70) (See Tech Bulletin 074)	6
250	855046	NY	Protector, Shaft with 2-Screws	1

*Italics are optional items.*

◆ Silicone oil/grease required R Components comply with RoHS Directive.

\* Review material codes for individual items (STG generally may be used as alternate). For additional technical information see [www.catpumps.com/literature/tech-bulletins](http://www.catpumps.com/literature/tech-bulletins).

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic ALE=Aluminum Epoxy BB=Brass BZ=Bronze CC=Ceramic CM=Chrome-moly CU=Copper D=Acetal

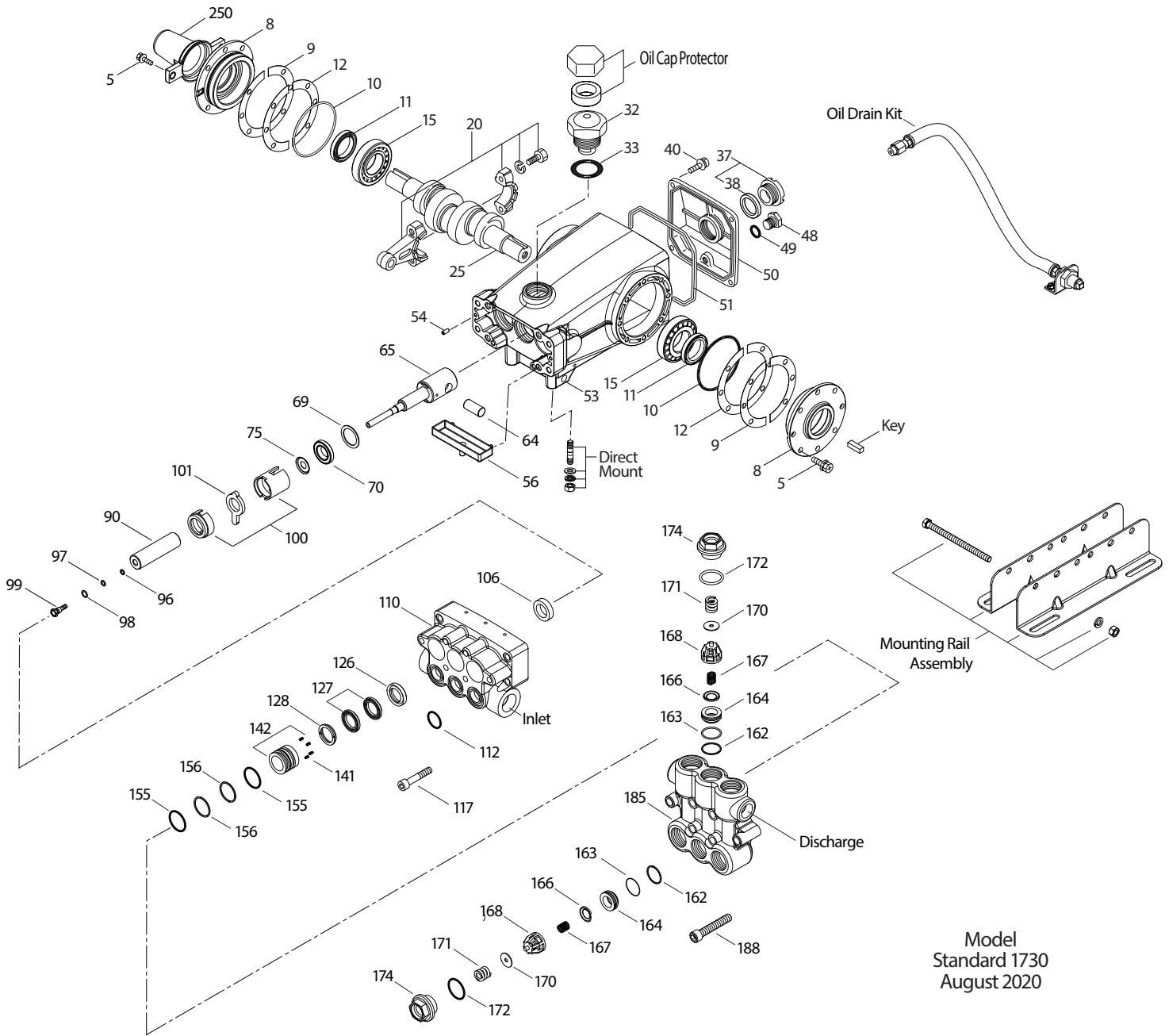
EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBB=Forged Brass FBR=Fiber FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N)

NY=Nylon PC=Poly Carbonate PE=Polyethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS

SBZ=304SS/Bronze SS=316SS SSZZ=316SS/Zamak STCP=Steel/Chrome Plated STG=Special Blend PTFE White

STL=Steel STZP=Steel/Zinc Plated TNM=Special High Strength

# EXPLODED VIEW



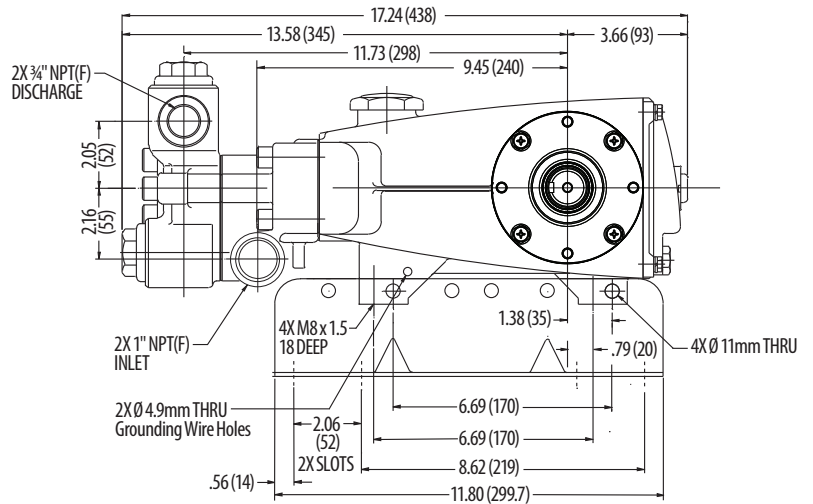
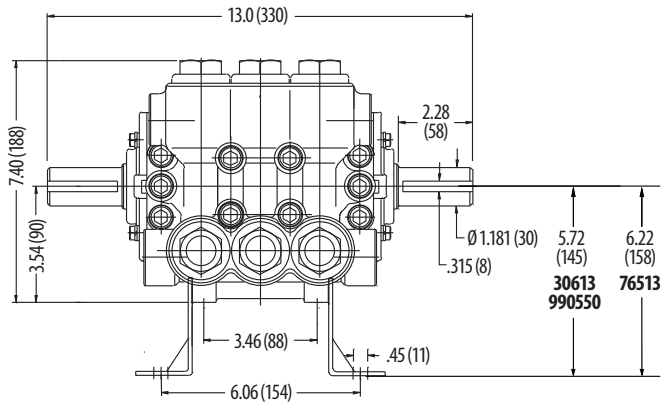
Model  
Standard 1730  
August 2020

## OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30067	Key, M8 x 7.5 x 25	1
990036	Key, M8 x 7 x 40	1
30613	Mount, Rail Assembly (5.72" See Dimensional Drawing)	1
76513	Mount, Rail Assembly (6.22" See Dimensional Drawing)	1
990550	Mount, Rail Assembly, Diesel (5.72" See Dimensional Drawing)	1
30264	Mount, Direct	1
828710	Protector, Oil Cap	1
34334	Kit, Oil Drain	1
30206	Pulley, 10", 2 Groove H	1
30059	Hub, H, 30mm	1
990012	Hub, B, 30mm	1

## SERVICE PARTS

PART	DESCRIPTION	QTY
31355	Kit, Seal	1
31360	Kit, Valve	2
6107	Oil, Bottle (21 oz.)	1-2
6124	Gasket, Liquid (3 oz.)	1
816762	Head, Complete with NBR Seals and O-Rings	1



## SEAL KITS One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220)◆
1730	31355	31455*	31753

ITEM (Included in Seal Kits)				DESCRIPTION	QTY
97	17399	14160	46204	O-Ring, Plunger Retainer	3
106	44086	45846	49196	Seal, LPS w/SS-Spring	3
112	14200	11719	48907	O-Ring, Inlet Manifold	3
127	44610	44610	44610	V-Packing	6
155	17629	14183	701491	O-Ring, Spacer	6
156	28243	28243	28243	Back-up Ring, Spacer	6

◆ Silicone oil/grease required

\*Review material codes for individual items (STG generally maybe used as alternative)

## VALVE KITS Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220)◆
1730	31360	31460	31773

ITEM (Included in Valve Kits)				DESCRIPTION	QTY
162	48363	48363	48363	Back-up Ring, Seat	3
163	26142	14330	701493	O-Ring, Valve Seat	3
164	48596	48596	48688	Seat	3
166	48686	48686	48686	Valve	3
167	48687	48687	48687	Spring	3
168	44735	44735	44735	Retainer, Spring	3
170	44794	44794	44794	Washer, Spring Retainer	3
172	17629	14183	701491	O-Ring, Valve Plug	3

◆ Silicone oil/grease required

### ⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. 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](http://www.catpumps.com/dynamic-literature/cautions-and-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)