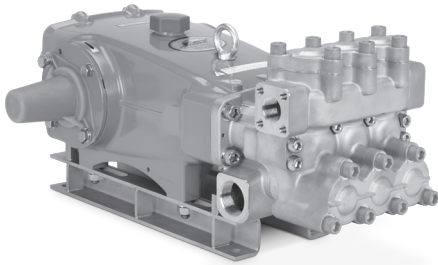


DATA SHEET

36 FRAME PLUNGER PUMPS



Stainless Models: 3621X, 3621XD



Model 3621X Shown
(Shaft protector included, mounting rails sold separately)

FEATURES

- Innovative X-Series high-pressure packings offer up to three times the lifespan of standard packings.
- Corrosion-resistant cast duplex discharge and 316 stainless steel inlet manifolds provide superior durability compared to chrome-plated or brass alternatives.
- Advanced connecting rods and plunger rod materials optimize the drive end's performance for continuous-duty applications.
- Delrin plunger sleeves provide enhanced separation between the packing spring and the ceramic plunger, providing a longer operational life for both plungers and packings.
- High-strength valve plate cover design eliminates the need for threaded stainless steel valve plugs, making servicing easier.
- Precision-machined 316 stainless steel valves and seats deliver extended service life and reliable performance across a broad range of fluids.
- High-strength coated screws help reduce the risk of galling while preventing corrosion in harsh environments.
- Specialized low-pressure seals in the XD models are engineered for low-lubricity fluids, such as deionized water, eliminating the need for freshwater flushing.

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	25 gpm	94.6 lpm
Pump Pressure Range	100–2000 psi	6.9–138 bar
Pump RPM*	870 rpm	870 rpm
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
Max. Liquid Temp. (NBR)	140° F	60° C
Bore	1.260"	32 mm
Stroke	1.890"	48 mm
Crankcase Capacity	4.2 qts	4 l
Inlet Ports (2)	1½" NPT(F)	1½" NPT (F)
Discharge Ports (2)	1" NPT (F)	1" NPT (F)
Shaft Diameter	1.378"	35 mm
Pulley Mounting	Either Side	Either Side
Weight	140 lbs	63.6 kg
Dimensions	25.35 x 18.11 x 10.28"	644 x 460 x 261 mm

*Pump minimum is 100 RPM.

DETERMINING THE PUMP RPM	$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{Desired gpm}}{\text{Desired rpm}}$
DETERMINING THE REQUIRED HP	$\frac{\text{hp (Electric Brake)}}{1460} = \frac{\text{gpm} \times \text{psi}}{1460}$
DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$

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

PARTS LIST

ITEM	P/N	MATL	P/N	MATL	DESCRIPTION	QTY
	3621X		3621XD			
5	96049	S	96049	S	Screw, HHC Sems (M10 x 25) (See Tech Bulletins 074)	8
8	134604	ALE	134604	ALE	Cover, Bearing	2
9	815279	FBR	815279	FBR	Shim, Split, 2-Piece	2
10	12398	NBR	12398	NBR	O-Ring, Bearing Cover	2
11	13296	NBR	13296	NBR	Seal, Oil, Crankshaft	2
12	855049	S	855049	S	Shim, Split, 2-Piece	0-2
15	29326	STL	29326	STL	Bearing, Roller	2
20	126725	BZ R	126725	BZ R	Rod, Connecting Assembly (Includes: 21, 22, 23) (See Tech Bulletin 074)	3
21	126749	STCP R	126749	STCP R	Washer, Locking	3
22	126593	STCP R	126593	STCP R	Washer, Flat (M10.5)	6
23	122045	STZP	122045	STZP	Screw, HH (M10 x 55)	6
25	29325	FCM	29325	FCM	Crankshaft, Dual-End (M48)	1
31	828710	PE	828710	PE	Protector, Oil Cap with Foam Gasket	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Oil Filler Cap	1
34	126743	STCP R	126743	STCP R	Bolt, Eye (M12 x 1.75) (For Lifting Pump Only)	1
37	92241	PC	92241	PC	Gauge, Oil, Bubble with Gasket (See Tech Bulletin 074)	1
38	44428	NBR	44428	NBR	Gasket, Flat Oil Gauge	1
40	125753	S	125753	S	Screw, HHC Sems (M8 x 25) (See Tech Bulletin 074)	8
48	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug	1
50	45936	ALE	45936	ALE	Cover, Rear	1
51	16612	NBR	16612	NBR	O-Ring, Cover	1
53	134784	ALE	134784	ALE	Crankcase Assembly (Includes: 54)	1
54	27488	S	27488	S	Pins, Guide	2
64	43864	CM	43864	CM	Pin, Crosshead	3
65	49166	SSHB	49166	SSHB	Rod, Plunger	3
69	126587	STCP R	126587	STCP R	Washer, Oil Seal	3
70	100488	NBR	100488	NBR	Seal, Oil, Crankcase	3
75	43865	S	43865	S	Slinger, Barrier	3
88	45676	S	45676	S	Washer, Keyhole (M16)	3
90	43957	CC	43957	CC	Plunger (M32 x 145)	3
95	89778	SS	89778	SS	Stud, Plunger Retainer (M10 x 135)	3
96	20189	PTFE	20189	PTFE	Backup Ring, Plunger Retainer	3
97	11345	NBR	11345	NBR	O-Ring, Plunger Retainer	3
98	44085	SS	44085	SS	Gasket, Retainer	3
99	44084	SS	44084	SS	Retainer, Plunger (M10) (See Tech Bulletin 074)	3
100	44119	PPG	44119	PPG	Retainer, Seal	3
104	43875	NBR	43875	NBR	O-Ring, Inlet Adapter	3
105	45562	SS	45562	SS	Adapter, Inlet	3
106	44098	NBR	76298	ST 2	Seal, Low-Pressure, with SS-Spring	3
107	44101	SS	44101	SS	Washer, Low-Pressure Seal	3
110	77365	SS	77365	SS	Manifold, Inlet	1
112	11379	NBR	11379	NBR	O-Ring, Inlet Manifold	3
117	44585	S	44585	S	Screw, HSH (M14 x 40) (See Tech Bulletin 074)	4
122	665435	SS	665435	SS	Spacer	3
123	12391	NBR	12391	NBR	O-Ring, Packing Cylinder	3
124	670197	SS	670197	SS	Cylinder, Packing	3
126	665431	PVDF	665431	PVDF	Backup Ring, Packing	3
127	670333	PFB	670333	PFB	Packing, Square	3
128	670196	SS	670196	SS	Washer, Spring	3
129	670195	D	670195	D	Sleeve, Plunger	3
141	49743	SS	49743	SS	Spring, Coil	3
155	48860	NBR	48860	NBR	O-Ring, Packing Cylinder	3
156	48362	D	48362	D	Backup Ring, Packing Cylinder	6
162	48363	D	48363	D	Backup Ring, Valve Seat	6
163	26142	NBR	26142	NBR	O-Ring, Seat	6
164	44612	SS	44612	SS	Seat, Stepped	6
166	44108	SS	44108	SS	Valve	6
167	44109	SS	44109	SS	Spring	6
168	44728	PVDF	44728	PVDF	Retainer, Spring	6
170	44729	SS	44729	PVDF	Washer, Spring Retainer	6
171	44644	SS	44644	SS	Coil Spring (70 kg), Valve Plug	6
172	89827	NBR	89827	NBR	O-Ring, Valve Plug	6
173	48364	D	48364	D	Backup Ring, Valve Plug	12
174	670143	SS	670143	SS	Plug, Valve	6
176	129759	SSD	129759	SSD	Plate	2
177	32393	STZF	32393	STZF	Screw, HSH (M14 x 70) (See Tech Bulletin 074)	8
185	129754	SSD	129754	SSD	Manifold, Discharge	1
188	89981	S	89981	S	Screw, HSH (M12 x 70) (See Tech Bulletin 074)	8
250	855042	POP	855042	POP	Protector, Shaft with Two (2) Screws, Lockwashers and Washers	1

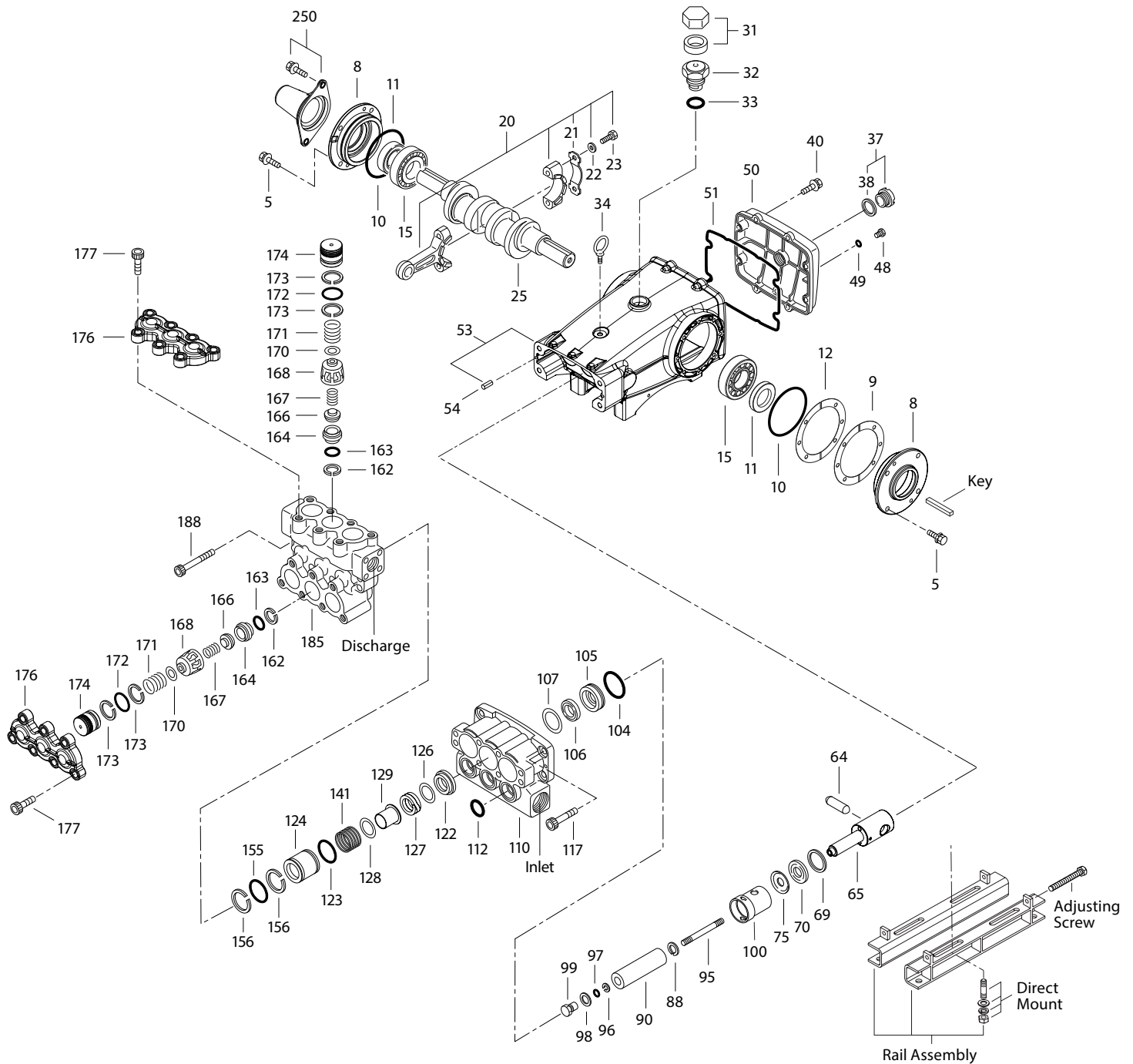
Bold print part numbers are unique to a particular pump model. *Italics are optional items.*

R Components comply with RoHS Directive. For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Pump Number): ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy BZ=Bronze CC=Ceramic CM=Chrome-Moly D=Acetal
 EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBR=Fiber FCM=Forged Chrome-moly FFKM=Perfluoroelastomer FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N)
 NBR=Silicone Free PC=Poly Carbonate PE=Polyethylene PFB=Proprietary Fiber Blend POP=Polypropylene PPG=Glass Filled Polypropylene
 PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SSD=Duplex Stainless Steel ST 2=Special PTFE 2
 STCP=Steel/Chrome Plated STL=Steel STZF=Steel/Zinc Flake Coated STZP=Steel/Zinc Plated SSHB=316SS/High Strength Brass

Optional Parts and Accessories and Service Parts listed on page 3. Standard Seal and Valve Kits listed on page 4.

EXPLODED VIEW



Models
3621X, 3621XD
September 2025

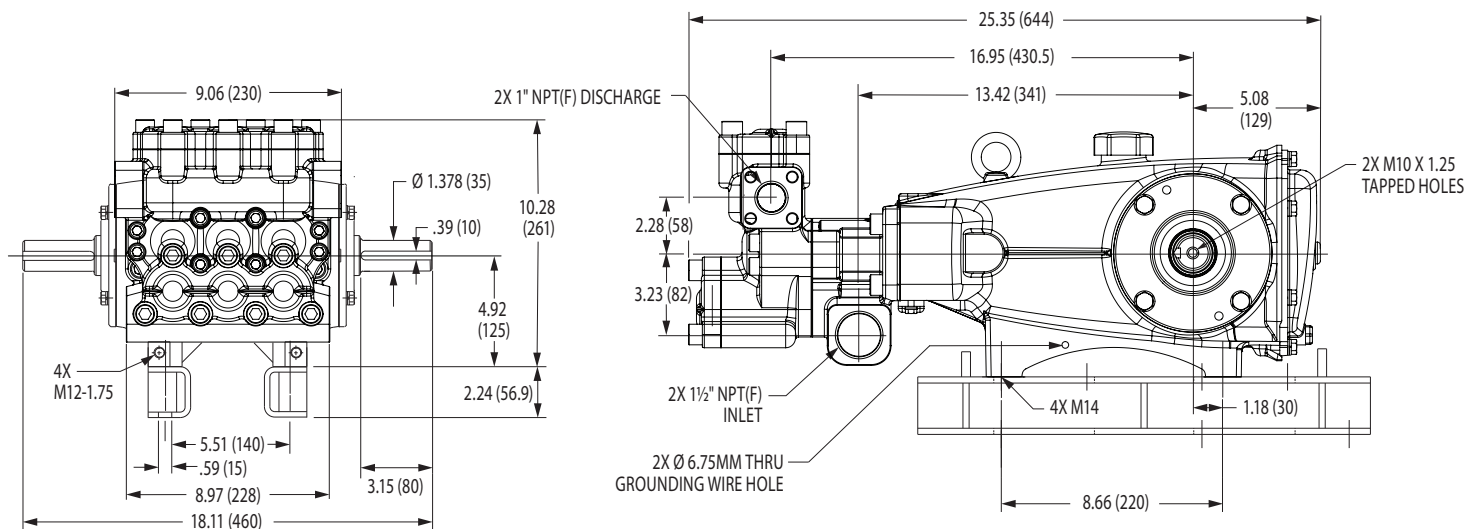
OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
34021	Key (M10 x 8 x 70)	1
76514	Mount, Rail Assembly (S) (Includes: 34039)	1
34039	Mount, Direct (S)	1
990013	Hub, "B", 35 mm (STL) (Not Shown)	1
80540	Screwing, Adjusting (M12 x 100)	2
34314	Kit, Oil Drain (3/8" x 48") (Not Shown)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
32522	Seal Kit - Standard NBR (Model 3621X)	1
77077	Seal Kit - Standard NBR (Model 3621XD)	1
77078	Valve Kit - Standard NBR	2
6100	Oil, Case (12-21 oz bottles) (Fill to Specified Crankcase Capacity Prior to Start-up)	1
6124	Gasket, Liquid (3 oz)	1
6139	Lubricant, Anti-Seize (8 oz) (See Tech Bulletin 095)	1
32273	Crankcase Oil Seal Removal and Installation Kit (Not Shown) (Includes: Oil Seals, Guide Tool, Screws, Washers, Driver)	1
30696	Reverse Pliers (Not Shown)	1
910620	Head Complete with NBR & PFB Seals, NBR O-Rings (Model 3621X)	1
910621	Head Complete with ST2 & PFB Seals, NBR O-Rings (Model 3621XD)	1

Kits - NBR listed on page 4.



Models 3621X, 3621XD

SEAL KITS

One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	NBR (STD)
3621X	32522*	—
3621XD	—	77077*

ITEM (Included in Seal Kits)			DESCRIPTION	QTY
97	11345	11345	O-Ring, Plunger Retainer	3
104	43875	43875	O-Ring, Inlet Adapter	3
106	44098	76298	Seal, Low-Pressure, with SS-Spring	3
112	11379	11379	O-Ring, Inlet Manifold	3
123	12391	12391	O-Ring, Packing Cylinder	3
126	665431	665431	Backup Ring, Packing	3
127	670333	670333	Packing, Square	3
129	670195	670195	Sleeve, Plunger	3
155	48860	48362	O-Ring, Packing Cylinder	3
156	48362	48860	Backup Ring, Packing Cylinder	6

* Review material codes for individual items (PFB, ST 2 may be used as alternative)

VALVE KITS

Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)
3621X, 3621XD	77078

ITEM (Included in Valve Kits)		DESCRIPTION	QTY
162	48363	Backup Ring, Valve Seat	3
163	26142	O-Ring, Valve Seat	3
164	44612	Seat, Stepped	3
166	44108	Valve	3
167	44109	Spring	3
168	44728	Retainer, Spring	3
170	44729	Washer, Spring Retainer	3
172	89827	O-Ring, Valve Plug	3
173	48364	Backup Ring, Valve Plug	6

◆ Silicone oil/grease required

⚠ 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