

Optional Oilers Shown

60 Frame Piston Pump

Models

6020 6040

FEATURES

Superior Design

- Triplex Uniflow design provides continuous forward liquid flow for smooth operation.
- Wetted cups and floating pistons are lubricated and cooled by pumped liquid for long cup life.
- Mechanically actuated inlet valves give strong lift and easy prime.
- 304 stainless steel discharge valves for wear resistance.
- Oil bath crankcase assures optimum lubrication.
- 100% wetted seal design allows pumped liquid to cool and lubricate for longer life.

Quality Materials

- Cylinder and sleeve wear surfaces are hard chrome plated 304 stainless steel for maximum durability and abrasion resistance.
- Chrome plated, brass manifolds and optional stainless steel manifolds are strong and corrosion resistant.
- Precision design 304 stainless steel valves and seats are hardened and polished for ultimate seating and extended valve life.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.

Easy Maintenance

- Stepped stainless steel piston rod with chrome-plated, stainless steel sleeve allows easy replacement from front of pump.
- All wet-end wear parts are easily serviced without entering crankcase, requiring less time and effort.
- Wear parts are available in convenient kits.

⚠ WARNING

All systems require both a primary pressure regulating device (i.e., regulator, unloader) and a secondary pressure safety relief device (i.e., pop-off valve, safety valve). Failure to install such relief devices could result in personal injury or damage to the pump or to system components. CAT PUMPS does not assume any liability or responsibility for the operation of a customer's high pressure system.

SPECIFICATIONS

U.S. Measure

Metric Measure

MODEL 6020

Flow60 GPM (227 L/M)
 Pressure Range.....100 to 1000 PSI (7 to 70 BAR)
 Bore.....2.205" (56 mm)

MODEL 6040

Flow40 GPM (151 L/M)
 Pressure Range.....100 to 1500 PSI (7 to 105 BAR)
 Bore.....1.811" (46 mm)

COMMON SPECIFICATIONS

RPM500 RPM (500 RPM)
 Stroke2.461" (62.5 mm)
 Crankcase Capacity10 Qts. (9.46 L)
 Maximum Liquid Temperature160°F (71°C)

Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations.

Inlet Pressure Range-8.5 to +40 PSI (-0.6 to +2.8 BAR)
 Inlet Port (1)2" NPTF (2" NPTF)
 Discharge Ports (3).....1-1/4" NPTF (1-1/4" NPTF)
 Pulley MountingEither Side (Either Side)
 Shaft Diameter1.772" (45 mm)
 Weight.....235 lbs. (107 kg)
 Dimensions.....31.4x24.0x12.05" (796.5x610x306 mm)

ELECTRIC HORSEPOWER REQUIREMENTS

MODEL	FLOW		PRESSURE				RPM	DRIVE
	U.S. GPM	L/M	PSI 800	PSI 1000	PSI 1200	PSI 1500		
6020	60	227	32.9	41.1	N/A	N/A	500	Consult CAT PUMPS for Pump & Motor Pulley sizes
	50	189	27.4	34.3	N/A	N/A	417	
	40	151	22.0	27.4	N/A	N/A	333	
6040	40	151	22.0	27.4	32.9	41.1	500	Consult CAT PUMPS for Pump & Motor Pulley sizes
	36	136	19.8	24.7	29.7	37.0	478	
	30	114	16.5	20.6	24.7	30.9	375	

DETERMINING THE PUMP R.P.M. $\frac{\text{Rated G.P.M.}}{\text{Rated R.P.M.}}$ = "Desired" G.P.M. / "Desired" R.P.M.

DETERMINING THE REQUIRED H.P. $\frac{\text{GPM} \times \text{PSI}}{1460}$ = Electric Brake H. P. Required

DETERMINING MOTOR PULLEY SIZE $\frac{\text{Motor Pulley O.D.}}{\text{Pump R.P.M.}}$ = $\frac{\text{Pump Pulley O.D.}}{\text{Motor R.P.M.}}$

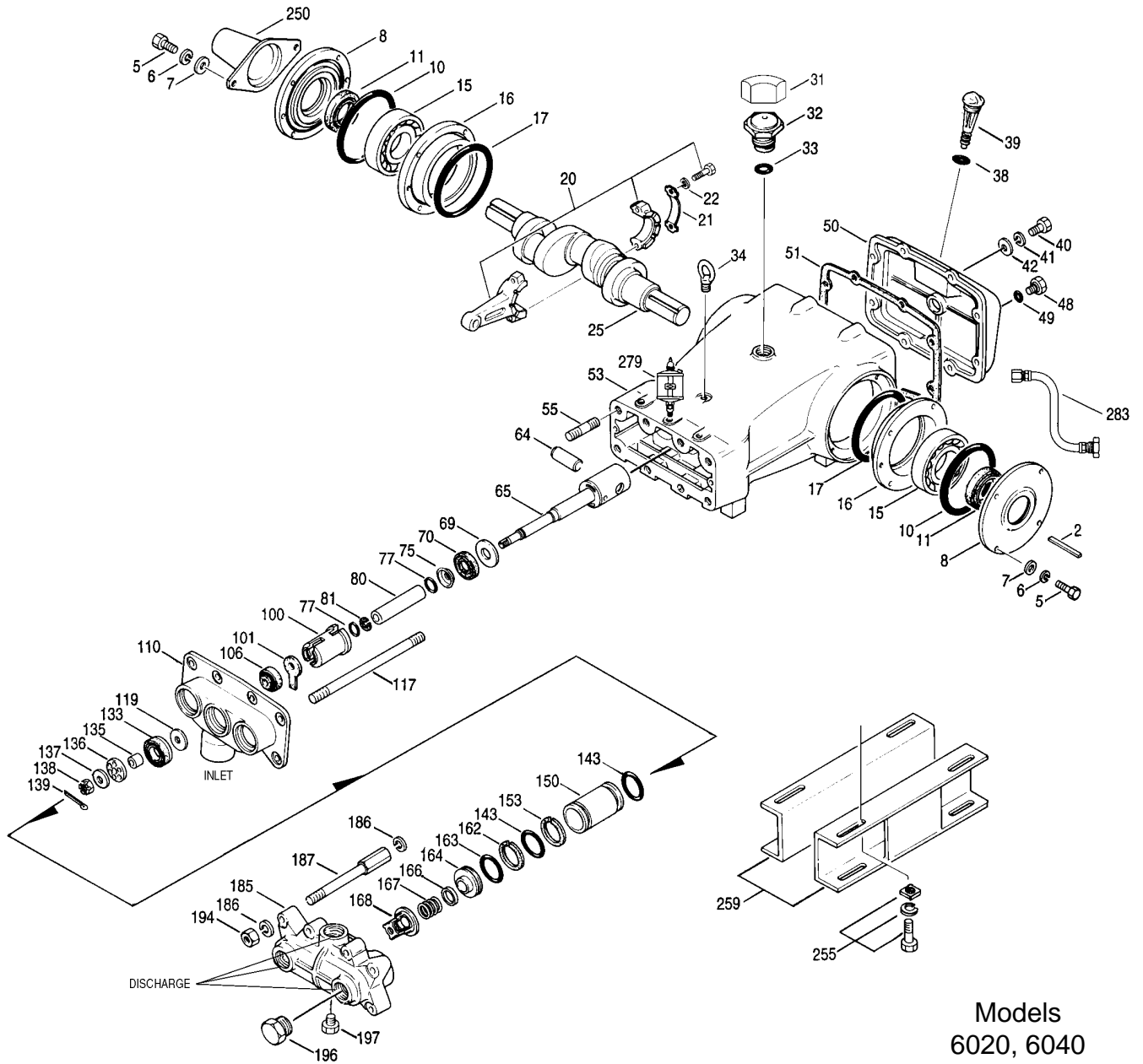
See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003. Refer to pump Service Manual for repair procedure, additional technical information and pump warranty.

"Customer confidence is our greatest asset"

PARTS LIST

ITEM	PART NUMBER		DESCRIPTION	QTY	
	6020	MATL 6040	MATL		
2	43048	STL	43048 STL	Key (M14x9x90)	1
5	126532	STCP R	126532 STCP R	Screw, HH (M10x40)	8
6	12503	STZP	12503 STZP	Lockwasher (M10)	8
	126231	STCP R	126231 STCP R	Lockwasher (M10)	8
7	12490	STZP	12490 STZP	Washer, Flat (M10)	8
	126574	STCP R	126574 STCP R	Washer, Flat (M10)	8
8	29443	AL	29443 AL	Case, Bearing, Outer	2
10	29444	NBR	29444 NBR	O-Ring, Bearing Case - 70D	2
11	11443	NBR	11443 NBR	Seal, Oil, Crankshaft - 70D	2
15	29441	STL	29441 STL	Bearing, Roller	2
16	29442	AL	29442 AL	Case, Bearing, Inner	2
17	29444	NBR	29444 NBR	O-Ring, Bearing Case - 70D	2
20	126612	BBHS	126612 BBHS	Rod, Connecting (Incls: 21, 22)	3
21	126560	STCP R	126560 STCP R	Washer, Locking	3
22	126593	STCP R	126593 STCP R	Washer, Shim	6
25	29440	FCM	29440 FCM	Crankshaft, M62.5	1
31	828710	—	828710 —	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	43211 ABS	Cap, Oil Filler	1
33	14177	NBR	14177 NBR	O-Ring, Cap - 70D	1
34	126743	STCP R	126743 STCP R	Bolt, Eye (M12) (For lifting pump only)	1
38	11338	NBR	11338 NBR	O-Ring, Dipstick - 70D	1
39	27769	ABS	27769 ABS	Dipstick	1
40	80288	STZP	80288 STZP	Screw, HH (M10x30)	8
	126531	STCP R	126531 STCP R	Screw, HH (M10x30)	8
41	12503	STZP	12503 STZP	Lockwasher (M10)	8
	126231	STCP R	126231 STCP R	Lockwasher (M10)	8
42	12490	STZP	12490 STZP	Washer, Flat (M10)	8
	126574	STCP R	126574 STCP R	Washer, Flat (M10)	8
48	25625	STCP	25625 STCP	Plug, Drain (1/4x19BSP)	1
49	23170	NBR	23170 NBR	O-Ring, Drain Plug - 70D	1
50	29438	AL	29438 AL	Cover, Rear	1
51	29439	NBR	29439 NBR	Gasket, Rear Cover	1
53	45303	AL	45303 AL	Crankcase w/Guide Pins (Incls: 34, 54)	1
55	126554	STCP R	126554 STCP R	Stud (M16x72)	4
64	29481	CM	29481 CM	Pin, Crosshead	3
65	43809	SSZZ	43809 SSZZ	Rod, Piston	3
69	126588	STCP R	126588 STCP R	Washer, Oil Seal	3
70	29454	NBR	29454 NBR	Seal, Oil, Crankcase - 80D	3
75	29340	S	29340 S	Slinger, Barrier	3
77	13967	NBR	13967 NBR	O-Ring, Sleeve	6
	14308	FPM	14308 FPM	O-Ring, Sleeve	6
80	43129	SCP	43129 SCP	Sleeve (M25)	3
	43271	S	43271 S	Sleeve (M25) (Unchromed)	3
81	29455	PTFE	29455 PTFE	Back-up-Ring, Sleeve	3
100	29456	AL	29456 AL	Retainer, Seal	3
101	43136	—	43136 —	Wick, Oil (M25)	3
106	43130	NBR	43130 NBR	Seal, LPS Ungreased (M25)	3
	43132	FPM	43132 FPM	Seal, LPS Ungreased (M25)	3
110	43283	BBCP	43283 BBCP	Manifold, Inlet	1
	29805	SS	29805 SS	Manifold, Inlet	1
117	88902	STZP	88902 STZP	Stud (M16x277)	4
119	29460	S	43200 S	Valve, Inlet	3
133	29461	NBR	43201 NBR	Cup-Piston Assy w/S-Piston	3
	30609	TG	30837 TG	Cup-Piston Assy w/FPM O-Ring (1000 PSI Max)	3
	30646	TR	—	Cup-Piston Assy w/FPM O-Ring (1000 PSI Max)	3
135	29463	S	29463 S	Spacer, Piston	3
136	29464	S	43203 S	Retainer, Piston	3
137	44272	SS	44272 SS	Washer, Conical (M14)	3
	88582	SS	88582 SS	Washer, Conical (M14)	3
138	29465	S	29465 S	Nut, Slotted (M14)	3
139	29354	S	29354 S	Cotterpin (M2.5x25)	3
143	12392	NBR	12392 NBR	O-Ring, Cylinder - 70D	6
	13279	FPM	13279 FPM	O-Ring, Cylinder - 70D	6
150	29466	SCP	43204 SCP	Cylinder	3
	43279	S	43392 S	Cylinder (Unchromed)	3
153	23116	PTFE	23116 PTFE	Back-up-Ring, Cylinder	3
162	—	—	43206 PTFE	Back-up-Ring, Seat	3
163	29471	NBR	29471 NBR	O-Ring, Seat	3
	29479	FPM	29479 FPM	O-Ring, Seat	3
164	43205	S	43205 S	Seat	3
166	29468	S	29468 S	Valve	3
167	29469	S	29469 S	Spring	3
168	43143	S	43143 S	Retainer, Spring	3
185	29472	BBCP	29472 BBCP	Manifold, Discharge	1
	29806	SS	29806 SS	Manifold, Discharge	1
186	12504	STZP	12504 STZP	Lockwasher (M16)	12
	126569	STCP R	126569 STCP R	Lockwasher (M16)	12
187	29473	STCP	29473 STCP	Bolt (M16x225)	4
194	88853	STCP	88853 STCP	Nut, Hex (M16)	8
196	29476	BBCP	29476 BBCP	Plug (1-1/4" NPT)	1
197	22187	BBCP	22187 BBCP	Plug (3/8" NPT)	1

EXPLODED VIEW



Models
6020, 6040
February 2008

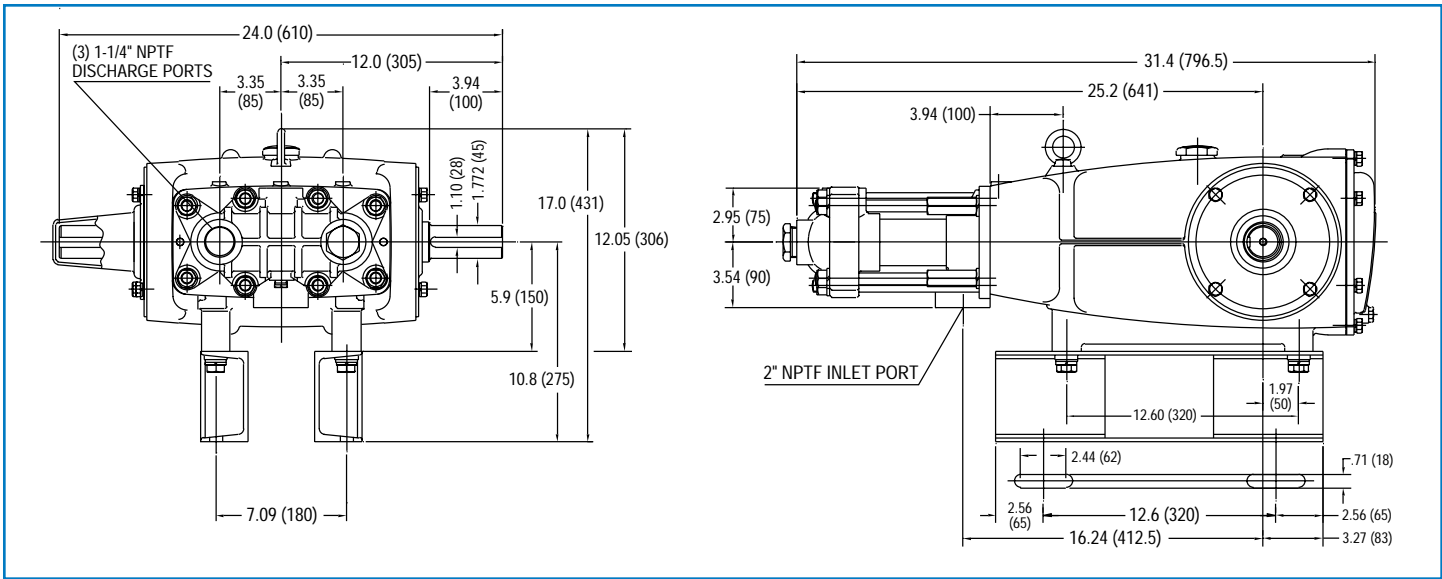
	6020	MATL	6040	MATL		
250	29445	AL	29445	AL	Protector, Shaft (Included with Pump)	1
255	33243	STZP	33243	STZP	Mount, Direct (Included with Pump)	1
259	29477	STZP	29477	STZP	Mounting, Rail (Included 2 with Pump)	2
275	—	—	—	—	Hub & Key Assy [See complete Drive Packages, Tech Bulletin 003]	1
279	30429	STZP	30429	STZP	Oilers (10 oz.)	3
281	30969	—	30969	—	Oilers, Glass (10 oz.)	3
282	10070	NBR	10070	NBR	Gasket, Oiler (10 oz.)	3
283	34314	—	34314	—	Kit, Oil Drain	1
300	30440	NBR	30433	NBR	Kit, Cup (Incls: 133,139,143)	1
302	30439	NBR	—	—	Kit, Piston (Incls: 119,133,135,136,137,138,139,143)	1
305	30485	NBR	30485	NBR	Kit, Sleeve & Seal (Incls: 75,77,80,81,101,106,139)	1
306	30484	NBR	30484	NBR	Kit, Seal (Incls: 101,106,139)	1
310	30441	NBR	30441	NBR	Kit, Valve (Incls: 143,162,163,164,166,167,168)	1
—	717500	SS	714500	SS	C.A.T. (Captive Acceleration Tube)	1
—	717508	SS	714508	SS	Adapter (2 per C.A.T.) (See Data Sheet for complete selection)	2
—	6105	—	6105	—	Oil, Twin Pack (2-2.5 gal) ISO 68 Multi-Viscosity Hydraulic (Fill to specified crankcase capacity prior to start-up)	1

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

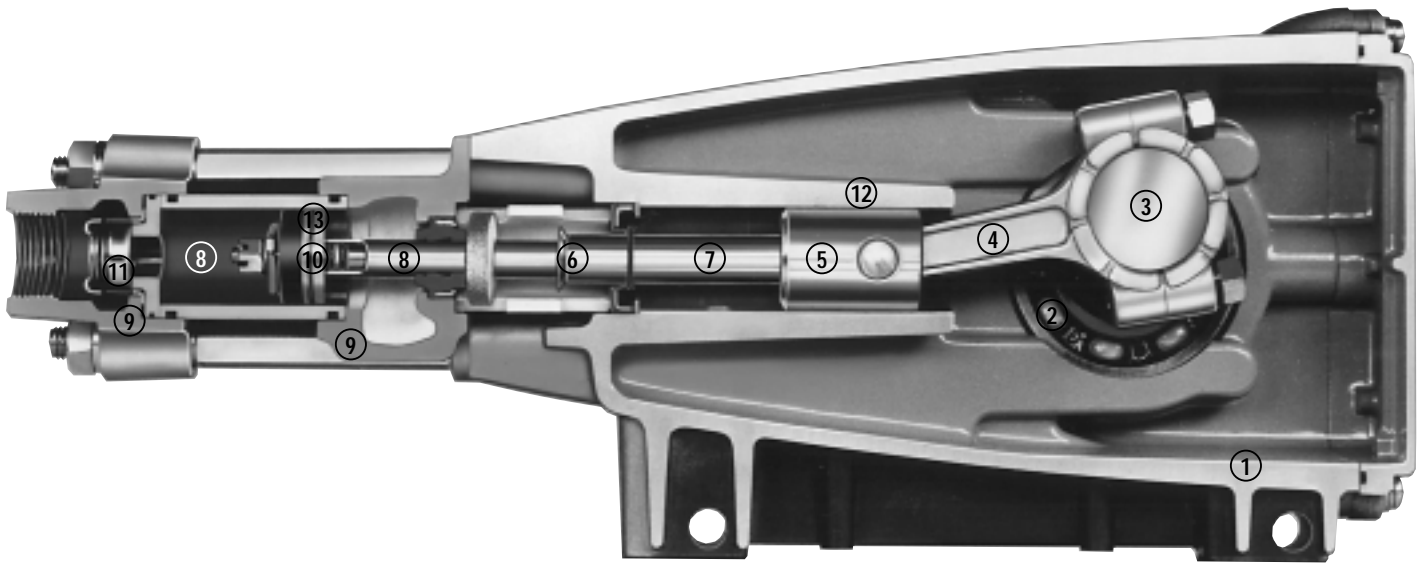
See Tech Bulletins 002, 003, 024, 035, 036, 074, 077, 083 and 084 for additional information.

C.A.T. highly recommended for pressurized inlet, R.O. and Industrial applications.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BBBC=Brass/Chrome Plated BBHS=Brass/High Strength CM=Chrome-Moly
FCM=Forged Chrome-Moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene S=304SS SCP=304SS/Chrome Plated SS=316SS
SSZZ=316SS/Zamak STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated TG=PTFE Graphite Compound (GIT) TR=PTFE-RLN



Models 6020, 6040



- 1 Die cast aluminum **crankcase** means high strength, lightweight, and excellent tolerance control.
- 2 Oversized crankshaft **bearings** provide extended bearing life and pump performance.
- 3 Chrome-moly **crankshaft** provides unmatched strength and surface hardness for long life.
- 4 Matched oversized high strength **connecting rods** are noted for superior tensile strength and bearing quality.
- 5 The **piston rods** are high tensile strength 316 stainless steel with Zamak crossheads.
- 6 The stainless steel **slinger** provides back-up protection for the crankcase seal, keeping pumped liquids out of the crankcase.
- 7 The **patented stepped piston rod** with stainless steel **sleeves** provides a durable wear surface and easy wet-end servicing.
- 8 The **cylinder** and **sleeve** wear surfaces are hard chrome-plated 304 stainless steel for longer service life.
- 9 **Manifolds** are of high tensile strength chrome-plated brass or 316 stainless steel for special corrosion resistance.
- 10 100% wet **cup/seal** design adds to service life by allowing pumped liquids to cool and lubricate the elastomers on both sides.
- 11 304 stainless steel **valves, seats, and springs** provide corrosion-resistance, ultimate seating and extended life.
- 12 **Crossheads** are 360° supported for uncompromising alignment.
- 13 Mechanically actuated **inlet valves** provide strong lift and easy prime.

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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