



## Technical specifications and instructions



Model 820 shown

### **10 Frame Piston pump**

**Standard brass models**

**623, 820, 1010**

**Stainless steel model**

**621, 821, 1011**

**Pulse pump manifold models**

**625, 825, 1015**

### Specifications (\*)

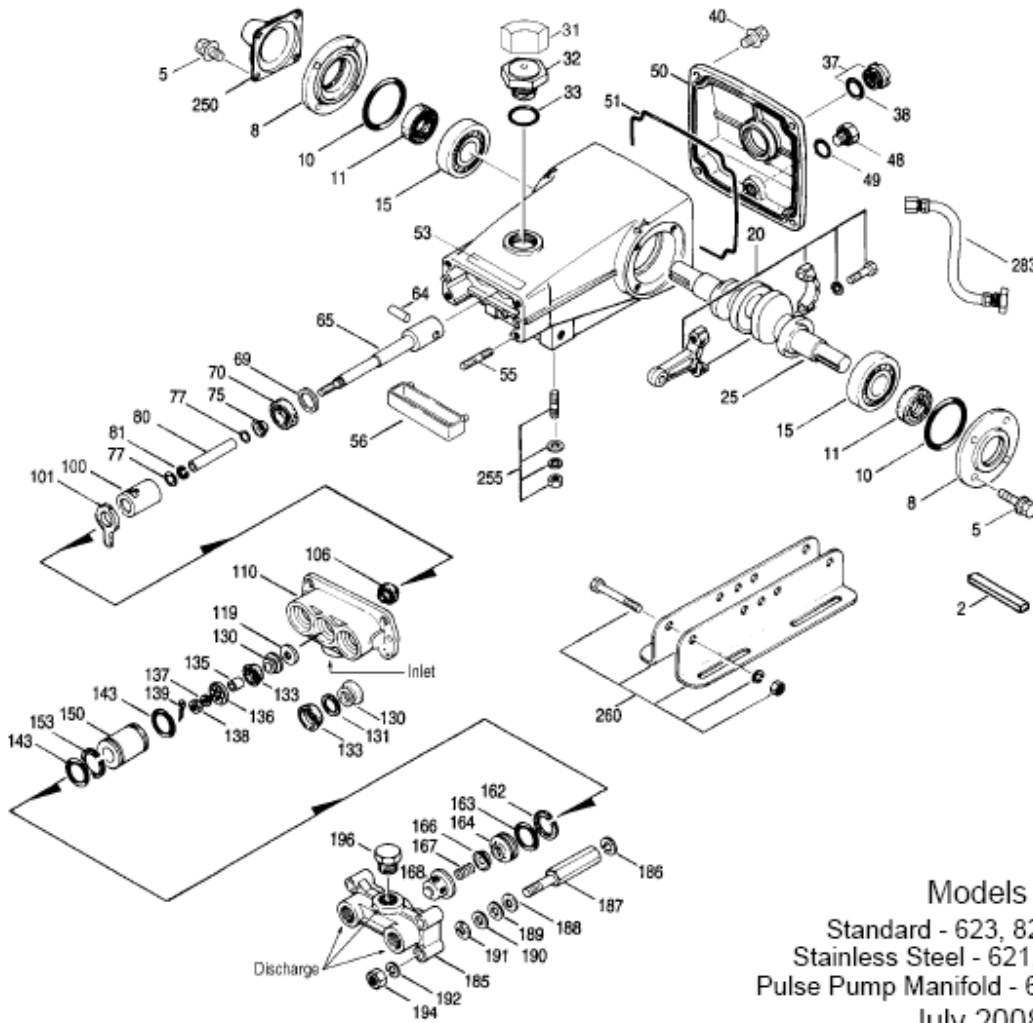
	<b>Model 623,621,625</b>	<b>Model 820,821,825</b>	<b>Model 1010,1011,1015</b>
<b>Flow</b>	23 L/min	38 L/min	49 L/min
<b>Pressure range</b>	7 to 85 bar	7 to 70 bar	7 to 50 bar
<b>RPM</b>	850 RPM	940 RPM	900 RPM
<b>Bore</b>	20 mm	25 mm	28,5 mm
<b>Stroke</b>	28,5 mm	28 mm	28 mm

### Common specifications

<b>Crankcase capacity</b>	1,2 L
<b>Maximum liquid temperature</b>	71° C
<b>Inlet pressure range</b>	-0,6 to + 2,8 bar
<b>Inlet ports (1)</b>	1" NPTF
<b>Discharge ports (3)</b>	3/4" NPTF
<b>Shaft diameter</b>	25 mm
<b>Weight</b>	15,7 kg
<b>Dimensions</b>	439 x 290 x 160 mm

(\*) Abnormalities permitted only after consultation and written confirmation from Cat Pumps.

# Exploded View



Models  
 Standard - 623, 820, 1010  
 Stainless Steel - 621, 821, 1011  
 Pulse Pump Manifold - 625, 825, 1015  
 July 2008

# Parts list

lt.	Num.	Mat.	Num.	Mat.	Num.	Mat.	Description	Qt
	<b>623</b>		<b>820</b>		<b>1010</b>			
	<b>621</b>		<b>821</b>		<b>1011</b>			
	<b>625</b>		<b>825</b>		<b>1015</b>			
2	50146	STL	50146	STL	50146	STL	Key (M7x7x40)	1
5	<b>92519</b>	<b>STZP</b>	<b>92519</b>	<b>STZP</b>	<b>92519</b>	<b>STZP</b>	Screw, HHC sems (M6x16)	8
	<b>125824</b>	<b>STCP R</b>	<b>125824</b>	<b>STCP R</b>	<b>125824</b>	<b>STCP R</b>	Screw, HHC sems (M6x16)	8
8	27331	AL	27331	AL	27331	AL	Cover, bearing	2
10	26965	NBR	26965	NBR	26965	NBR	O-ring, bearing cover – 70D	2
11	27330	NBR	27330	NBR	27330	NBR	Seal, oil, crankshaft – 80D	2
15	47080	STL	47080	STL	47080	STL	Bearing, ball	2
20	48733	TNM	48733	TNM	48733	TNM	Rod, connecting assy {05/02}	3
25	27329	CM	27329	CM	27329	CM	Crankshaft, dual end	1
31	828710	-	828710	-	828710	-	Protector, oil cap w/foam gasket	1
32	43211	ABS	43211	ABS	43211	ABS	Cap, oil filler	1
33	14177	NBR	14177	NBR	14177	NBR	O-ring, oil filler cap – 70D	1
37	92241	-	92241	-	92241	-	Gauge, oil, bubble w/gasket – 80D	1
38	44428	NBR	44428	NBR	44428	NBR	Gasket, flat, oil gauge – 80D	1
40	92520	STZP	92520	STZP	92520	STZP	Screw, HHC sems (M6x20)	4
	<b>126541</b>	<b>STCP R</b>	<b>126541</b>	<b>STCP R</b>	<b>126541</b>	<b>STCP R</b>	Screw, HHC sems (M6x20)	4
48	25625	STCP	25625	STCP	25625	STCP	Plug, drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	O-ring, drain plug – 70D	1
50	43491	AL	43491	AL	43491	AL	Cover, rear	1
51	44834	NBR	44834	NBR	44834	NBR	O-ring, cover – 70D	1
53	44641	AL	44641	AL	44641	AL	Crankcase w/guide pins	1
55	126545	STCP R	126545	STCP R	126545	STCP R	Stud (M10x45)	4
56	27911	POP	27911	POP	27911	POP	Pan, oil (use with items 100,101,106)	1
64	20251	CM	20251	CM	20251	CM	Pin, crosshead	3
65	27337	SZZ	27337	SSZZ	27337	SSZZ	Rod, piston	3
69	126585	STCP R	126585	STCP R	126585	STCP R	Washer, oil seal	3
70	27339	NBR	27339	NBR	27339	NBR	Seal, oil, crankcase – 80D	3
75	25327	S	25327	S	25327	S	Slinger, barrier	3
77	25392	NBR	25392	NBR	25392	NBR	O-ring, sleeve – 70D	6
	<b>27881</b>	<b>FPM</b>	<b>27881</b>	<b>FPM</b>	<b>27881</b>	<b>FPM</b>	O-ring, sleeve	6
80	27340	SCP	27340	SCP	27340	SCP	Sleeve	3
	<b>28782</b>	<b>S</b>	<b>28782</b>	<b>S</b>	<b>28782</b>	<b>S</b>	Sleeve (unchromed)	3
81	29003	PTFE	29003	PTFE	29003	PTFE	Back-up-ring, sleeve	3
100	27341	PVDF	27341	PVDF	27341	PVDF	Retainer, seal	3
101	27910	-	27910	-	27910	-	Wick, long tab (use with items 56,100,106)	3
106	30315	NBR	30315	NBR	30315	NBR	Seal, LPS, Prrrrrm-A-Lube (greased)	3
	<b>30325</b>	<b>FPM</b>	<b>30325</b>	<b>FPM</b>	<b>30325</b>	<b>FPM</b>	Seal, LPS, Prrrrrm-A-Lube (greased)	3
	<b>25153</b>	<b>NBR</b>	<b>25153</b>	<b>NBR</b>	<b>25153</b>	<b>NBR</b>	Seal, Blue-Dot (ungreased) (use with 56,100,101)	3
	<b>100015</b>	<b>FPM</b>	<b>100015</b>	<b>FPM</b>	<b>100015</b>	<b>FPM</b>	Seal, Blue-Dot (ungreased) (use with 56,100,101)	3
119	<b>27347</b>	<b>S</b>	<b>27497</b>	<b>S</b>	<b>27813</b>	<b>S</b>	Valve, inlet	3
130	<b>30543</b>	<b>S</b>	<b>27820</b>	<b>S</b>	<b>27814</b>	<b>S</b>	Piston	3
131	<b>30544</b>	<b>PTFE</b>	-	-	-	-	Ring, bac-cup	3
133	<b>43172</b>	<b>FPM</b>	<b>27821</b>	<b>FPM</b>	<b>27815</b>	<b>FPM</b>	Cup, piston	3
	<b>43474</b>	<b>FPM</b>	-	-	-	-	Bac-cup assy (43172,30543,30544)	3
	<b>30340</b>	<b>NBR</b>	-	-	-	-	Cup, piston, machined	3
	<b>29089</b>	<b>SNG</b>	<b>29091</b>	<b>SNG</b>	<b>29092</b>	<b>SNG</b>	Cup, V-Hot (70 bar max)	3
	<b>30145</b>	<b>TG</b>	<b>30333</b>	<b>TG</b>	<b>30189</b>	<b>TG</b>	Piston-cup assy (70 bar max)	3
135	<b>27348</b>	<b>S</b>	<b>27499</b>	<b>S</b>	<b>27499</b>	<b>S</b>	Spacer, piston	3
136	<b>27002</b>	<b>S</b>	<b>27500</b>	<b>S</b>	<b>20324</b>	<b>S</b>	Retainer, piston	3
137	27006	S	27006	S	27006	S	Washer, conical (M6)	3
138	27000	S	27000	S	27000	S	Nut, slotted (M6)	3
139	14158	S	14158	S	14158	S	Cotterpin (M1,6x10)	3
143	26969	NBR	26969	NBR	26969	NBR	O-ring, cylinder – 70D	6
	<b>28459</b>	<b>FPM</b>	<b>28459</b>	<b>FPM</b>	<b>28459</b>	<b>FPM</b>	O-ring, cylinder	6
150	<b>28342</b>	<b>SCP</b>	<b>28340</b>	<b>SCP</b>	<b>28341</b>	<b>SCP</b>	Cylinder (M50)	3
	<b>28776</b>	<b>S</b>	<b>28778</b>	<b>S</b>	<b>28780</b>	<b>S</b>	Cylinder (M50) (unchromed)	3
153	<b>28204</b>	<b>PTFE</b>	<b>28204</b>	<b>PTFE</b>	-	-	Back-up-ring, cylinder	3

162	43062	PTFE	43062	PTFE	43062	PTFE	Back-up-ring, seat	3
163	26966	NBR	26966	NBR	26966	NBR	O-ring, seat – 70D	3
	28458	FPM	28458	FPM	28458	FPM	O-ring, seat – 70D	3
164	43428	S	43428	S	43428	S	Seat, Q.V.	3
	43063	S	43063	S	43063	S	Seat, F.V.	3
166	43721	S	43721	S	43721	S	Valve, Q.V.	3
	20262	S	20262	S	20262	S	Valve, F.V.	3
167	43251	S	43251	S	43251	S	Spring, Q.V.	3
	20265	S	20265	S	20265	S	Spring, F.V.	3
168	43429	S	43429	S	43429	S	Retainer, spring, Q.V.	3
	43135	S	43135	S	43135	S	Retainer, spring, F.V.	3
185	43046	BBCP	43046	BBCP	43046	BBCP	Manifold, discharge	1
	30248	SS	30248	SS	30248	SS	Manifold, discharge	1
	6410	BB	6410	BB	6410	BB	Manifold, pulse pump (70 bar max) (625,825,1015)	1
186	126593	STCP R	126593	STCP R	126593	STCP R	Washer, shim (M10.5x1.5)	4/8
187	43047	STCP	43047	STCP	43047	STCP	Stud, hex, manifold "B"	4
188	126582	STCP R	126582	STCP R	126582	STCP R	Washer, shim (M10.5x1.0)	4/8
189	126583	STCP R	126583	STCP R	126583	STCP R	Washer, shim (M10x0.5)	4/8
190	126584	STCP R	126584	STCP R	126584	STCP R	Washer, shim (M10x0.3)	4/8
191	27357	STZP	27357	STZP	27357	STZP	Lockwasher (M10)	4
192	12503	STZP	12503	STZP	12503	STZP	Lockwasher (M10)	4
	126231	STCP R	126231	STCP R	126231	STCP R	Lockwasher (M10)	4
194	126522	STCP R	126522	STCP R	126522	STCP R	Nut, hex (M10x1.5)	4
196	20326	BBCP	20326	BBCP	20326	BBCP	Plug, discharge manifold (3/4" NPT)	1
250	43139	STCP	43139	STCP	43139	STCP	Protector, shaft	1
255	30264	STZP	30264	STZP	30264	STZP	Kit, direct mount	1
260	30613	STZP	30613	STZP	30613	STZP	Mount, rail, assy	1
265	30653	-	30653	-	30653	-	Kit, mounting (incl.30613,30206,30284,43139)	1
270	30206	F	30206	F	30206	F	Pulley (10") (see TB 003)	1
274	30234	STL	30234	STL	30234	STL	Hub "H" M25 (keyway M7) (see TB 003)	1
275	30284	STL	30284	STL	30284	STL	Hub & Key assy (see TB 003)	1
283	34334	-	34334	-	34334	-	Kit, oil drain	1
295	<b>6300</b>	<b>BBSS</b>	<b>6300</b>	<b>BBSS</b>	<b>6300</b>	<b>BBSS</b>	Pump, pulse (see individual datasheet)	1
	<b>6305</b>	<b>BBSS</b>	<b>6305</b>	<b>BBSS</b>	<b>6305</b>	<b>BBSS</b>	Pump, pulse (see individual datasheet)	1
300	<b>30220</b>	<b>NBR</b>	<b>30222</b>	<b>NBR</b>	<b>30224</b>	<b>NBR</b>	Kit, cup (incl. 133,139,143,153) (355 for 820&1010)	1
301	<b>30822</b>	<b>NBR</b>	-	-	-	-	Kit, bac-cup (incl. 133,139,143,355)	1
302	<b>30219</b>	<b>NBR</b>	<b>30221</b>	<b>NBR</b>	<b>30223</b>	<b>NBR</b>	Kit, piston (119,130,133,135-139,143,153) (355: 820 & 1010)	1
	<b>30843</b>	<b>NBR</b>	-	-	-	-	Kit, bac-cup piston (incl. 119,133,139,143,153,355)	1
305	30397	NBR	30397	NBR	30397	NBR	Kit, sleeve and Prrrrm-A-Lube seal (75,77,80,106,139)	1
	30227	NBR	30227	NBR	30227	NBR	Kit, sleeve and Blue-Dot seal (75,77,80,101,106,139)	1
306	30305	NBR	30305	NBR	30305	NBR	Kit, Prrrrm-A-Lube seal (incl. 106,139)	1
	30226	NBR	30226	NBR	30226	NBR	Kit, Blue-dot seal (incl. 101,106,139)	1
310	30687	NBR	30687	NBR	30687	NBR	Kit, valve, Q.V. (incl. 143,153,162-168)	1
	30449	NBR	30449	NBR	30449	NBR	Kit, valve, F.V. (incl. 143,153,162-168)	1
355	<b>22130</b>	<b>NY</b>	<b>16981</b>	<b>NY</b>	<b>15770</b>	<b>NY</b>	Insertor, cup	1
352	44050	STZP	44050	STZP	44050	STZP	Tool, oil gauge removal	1
360	25082	STZP	25082	STZP	25082	STZP	T-wrench (M10)	1
	25083	STZP	25083	STZP	25083	STZP	T-wrench (M17)	1

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

{ } Date of latest production change. R components comply with RoHS Directive.

See 'Tech Bulletins' 001, 002, 003, 005, 016, 017, 020, 024, 026, 034, 036, 037, 038, 042, 074, 077 and 083 for additional information.

When replacing Prrrrm-A-Lube seals with Blue-Dot seals, wick must be installed.

Material codes: (not part or part number)

ABS	ABS plastic	NBR	Medium nitrile (Buna-N)	SS	316SS
AL	Aluminium	NY	Nylon	STCP	Steel / chrome plated
BB	Brass	POP	Polypropylene	STL	Steel
BBCP	Brass/chrome plated	PTFE	Pure polytetrafluorethylene	STZP	Steel / zinc plated
CM	Chrome-moly	PVDF	Polyvinylidene fluoride	SZZ	304 SS / zamak
F	Cast iron	S	304SS	TG	PTFE graphite compound GIT
FCM	Forged chrome-moly	SCP	304SS / chrome plated	TNM	Special high strength
FPM	Fluorocarbon	SNG	Special blend Buna		