



## Technical specifications and instructions



### **5 Frame Piston pump**

### **Models**

**323**  
**390**

### Specifications (\*)

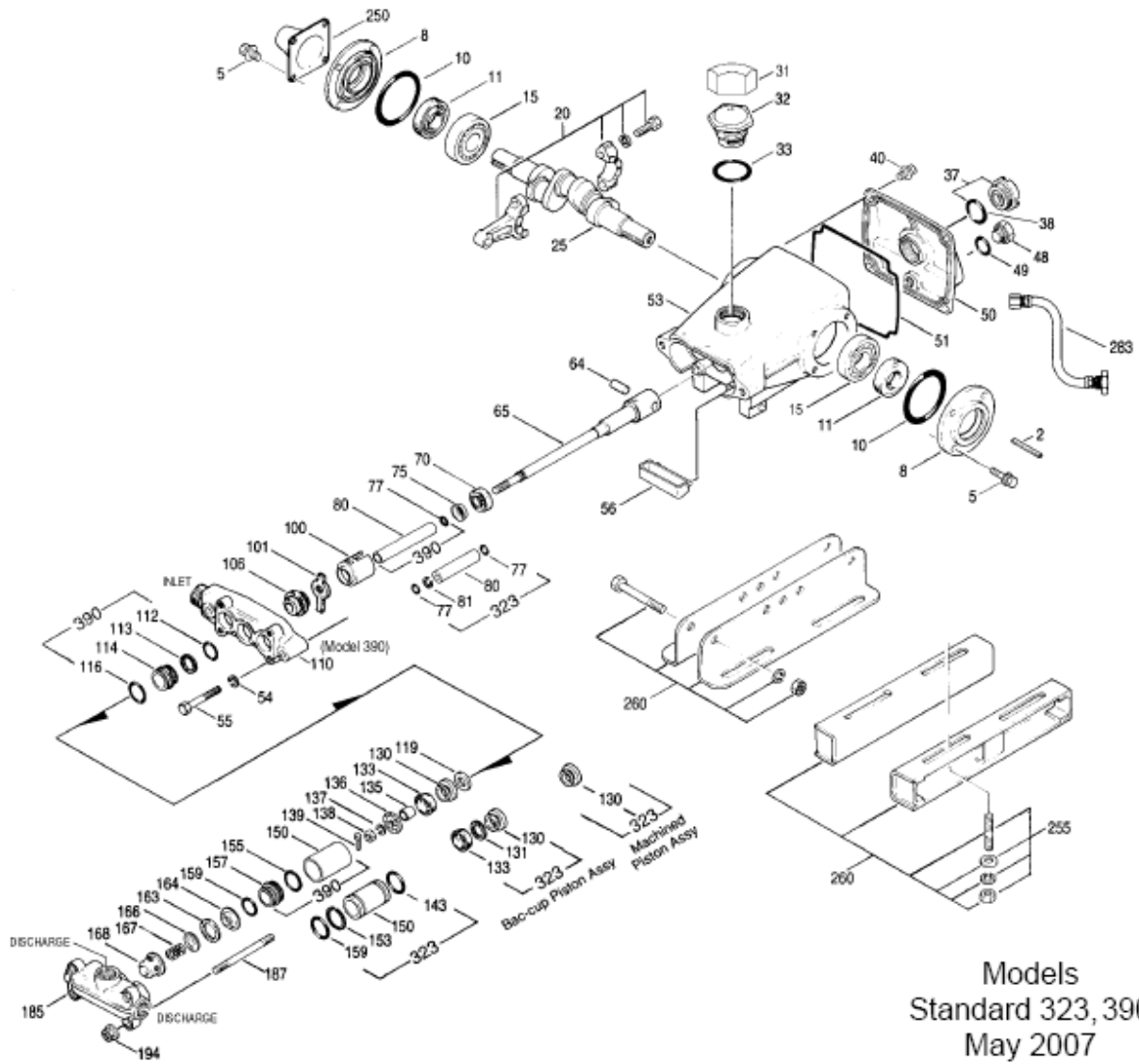
	<b>Model 323</b>	<b>Model 390</b>
<b>Flow</b>	19 l/min	45 l/min
<b>Pressure range</b>	7 to 105 bar	7 to 40 bar
<b>Inlet pressure range</b>	-0,6 to + 2,8 bar	-0,6 to + 2,8 bar (up to 30 L) Flooded to + 2,8 bar (30 to 45 L)
<b>RPM</b>	1000 RPM	1200 RPM
<b>Bore</b>	22 mm	32 mm
<b>Stroke</b>	17 mm	16 mm
<b>Maximum liquid temperature</b>	71°C	60° C
<b>Inlet ports (1)</b>	1/2" NPTF	1" NPTM
<b>Injection port (1)</b>	1/4" NPTF	
<b>Weight</b>	7,5 kg	8,5 kg
<b>Dimensions</b>	315 x 254 x 134 mm	363 x 254 x 134 mm

### Common specifications

<b>Crankcase capacity</b>	0,6 L
<b>Discharge ports (3)</b>	1/2" NPTF
<b>Shaft diameter</b>	20 mm

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

# Exploded View



Models  
Standard 323, 390  
May 2007

# Parts list

Item	Num.	Mat.	Num.	Mat.	Description	Qty
	<b>323</b>		<b>390</b>			
2	30057	STL	30057	STL	Key (M6x6x25)	1
5	92519	STZP	92519	STZP	Screw, HHC sems (M6x16)	8
	125824	STCP R	125824	STCP R	Screw, HHC sems (M6x16)	8
8	43344	AL	43344	AL	Cover, bearing	2
10	43343	NBR	43343	NBR	O-ring, bearing cover – 70D	2
11	43222	NBR	43222	NBR	Seal, oil – 70D	2
15	14480	STL	14480	STL	Bearing, ball	2
20	45883	HS	45883	HS	Rod, connecting	3
25	43342	FCM	43342	FCM	Crankshaft	1
31	828710	-	818710	-	Protector, oil cap w/foam gasket	1
32	43211	ABS	43211	ABS	Cap, oil filler	1
33	14177	NBR	14177	NBR	O-ring, oil filler cap – 70D	1
37	92241	-	92241	-	Gauge, oil, bubble w/gasket	1
38	44428	NBR	44428	NBR	Gasket, flat flex, oil gauge – 80D	1
40	92520	STZP	92520	STZP	Screw, HHC sems (M6x20)	4
	126541	STCP R	126541	STCP R	Screw, HHC sems (M6x20)	4
48	25625	STCP	25625	STCP	Plug, drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	O-ring, drain plug – 70D	1
50	48772	AL	48772	AL	Cover, rear {10/01}	1
51	48773	NBR	48773	NBR	O-ring, rear cover {10/01}	1
53	48769	AL	48769	AL	Crankcase {10/01}	1
54	12503	STZP	12503	STZP	Lockwasher (M10)	2
	126231	STCP R	126231	STCP R	Lockwasher (M10)	2
55	<b>80288</b>	<b>STZP</b>	<b>87936</b>	<b>STZP</b>	Screw, (HH-M10x30) (HSH-M10x50)	2
	<b>126531</b>	<b>STCP R</b>	<b>126516</b>	<b>STCP R</b>	Screw, (HH-M10x30) (HSH-M10x50)	2
56	43355	POP	43355	POP	Pan, oil	1
64	43351	CM	43351	CM	Pin, crosshead	3
65	<b>43775</b>	<b>SZZ</b>	<b>44312</b>	<b>SZZ</b>	Rod, piston	3
70	43527	NBR	43527	NBR	Seal, oil	3
75	25327	S	25327	S	Slinger, barrier	3
77	25392	NBR	25392	NBR	O-ring, sleeve – 70D	6/3
	28771	FPM	28771	FPM	O-ring, sleeve	6/3
80	<b>25299</b>	<b>SCP</b>	<b>44311</b>	<b>SCP</b>	Sleeve	3
	<b>28460</b>	<b>S</b>	<b>44625</b>	<b>S</b>	Sleeve	3
81	<b>29003</b>	<b>PTFE</b>	-	-	Back-up-ring, sleeve	3/0
100	43530	PVDF	43530	PVDF	Retainer, seal	3
101	43532	-	43532	-	Wick, long tab	3
106	<b>25153</b>	<b>NBR</b>	-	-	Seal, LPS, Blue Dot	3
	-	-	<b>100015</b>	<b>FPM</b>	Seal, LPS, Ungreased	3
	30315	NBR	30315	NBR	Seal, LPS, Prrrrm-A-Lube	3
	30325	FPM	30325	FPM	Seal, LPS, Prrrrm-A-Lube	3
110	<b>43767</b>	<b>BBCP</b>	<b>44286</b>	<b>BBCP</b>	Manifold, inlet (323 bottom port) (390 sideport)	1
112	-	-	<b>43781</b>	<b>NBR</b>	O-ring, inlet adapter, inner – 75D	3
	-	-	<b>11337</b>	<b>FPM</b>	O-ring, inlet adapter, inner – 75D	3
113	-	-	<b>11261</b>	<b>FBR</b>	Spacer, cylinder (center only)	0/1
114	-	-	<b>44287</b>	<b>BB</b>	Adapter, inlet	0/3
116	-	-	<b>27536</b>	<b>NBR</b>	O-ring, inlet adapter, outer – 70D	0/6
	-	-	<b>43174</b>	<b>FPM</b>	O-ring, inlet adapter, outer – 70D	0/6
119	<b>43533</b>	<b>S</b>	<b>27944</b>	<b>S</b>	Valve, inlet	3
130	-	-	<b>27945</b>	<b>S</b>	Piston	0/3
	<b>103741</b>	<b>NBR</b>	-	-	Cup-piston, machined	3/0
	<b>43787</b>	<b>S</b>	-	-	Piston, bac-cup	3/0
131	<b>43788</b>	<b>PTFE</b>	-	-	Ring, bac-cup	3/0
133	<b>43792</b>	<b>NBR</b>	-	-	Bac-cup	3/0
	<b>43789</b>	<b>FPM</b>	-	-	Bac-cup	3/0
	-	-	<b>27946</b>	<b>FPM</b>	Cup	0/3
	-	-	<b>29093</b>	<b>SNG</b>	Cup-piston, V-hot	0/3
135	<b>27983</b>	<b>S</b>	<b>27796</b>	<b>S</b>	Spacer, piston	3
136	<b>29588</b>	<b>S</b>	<b>27947</b>	<b>S</b>	Retainer, piston	3

137	<b>27006</b>	<b>S</b>	<b>15850</b>	<b>S</b>	Washer	3
138	<b>27000</b>	<b>S</b>	<b>26546</b>	<b>S</b>	Nut, slotted	3
139	14158	S	14158	S	Cotterpin	3
143	<b>43781</b>	<b>NBR</b>	-	-	O-ring, cylinder – 75D	3
	<b>11337</b>	<b>FPM</b>	-	-	<i>O-ring, cylinder – 75D</i>	3
150	<b>43768</b>	<b>SCP</b>	<b>44288</b>	<b>SCP</b>	Cylinder	3
	<b>43835</b>	<b>S</b>	<b>44627</b>	<b>S</b>	<i>Cylinder</i>	3
153	<b>21986</b>	<b>PTFE</b>	-	-	Back-up-ring, cylinder	3
155	-	-	<b>27536</b>	<b>NBR</b>	O-ring, adapter, inner – 70D	3
157	-	-	<b>44310</b>	<b>BB</b>	Adapter, discharge	0/3
159	43781	NBR	43781	NBR	O-ring, adapter (390), cylinder (323) – 75D	3
	11337	FPM	11337	FPM	<i>O-ring, adapter (390), cylinder (323) – 75D</i>	3
163	43793	NBR	43793	NBR	O-ring, seat – 90D	3
	43791	FPM	43791	FPM	<i>O-ring, seat – 90D</i>	3
164	<b>43779</b>	<b>S</b>	<b>103956</b>	<b>S</b>	Seat	3
166	<b>43721</b>	<b>S</b>	<b>104302</b>	<b>S</b>	Valve	3
167	43251	S	43251	S	Spring	3
168	<b>43780</b>	<b>S</b>	<b>103957</b>	<b>S</b>	Retainer, spring	3
185	43770	BBCP	43770	BBCP	Manifold, discharge	1
187	85661	STZP	85191	STZP	Stud, discharge manifold (323 M8x100) (390 M8 x 110)	4
	<b>126782</b>	<b>STCP R</b>	<b>126551</b>	<b>STCP R</b>	<i>Stud, discharge manifold (323 M8x100) (390 M8 x 110)</i>	4
194	101804	STZP	101804	STZP	Nut, hex flange	4
	126201	STCP R	126201	STCP R	<i>Nut, hex flange</i>	4
250	118672	STCP	118672	STCP	Protector, shaft	1
255	30243	STZP	30243	STZP	Kit, direct mount	1
	30633	STL	30633	STL	<i>Assembly, pulley (incl. 30058,30057)</i>	1
260	30611	STZP	30611	STZP	<i>Assembly, angle rail</i>	1
	30241	STZP	30241	STZP	<i>Assembly, box rail (incl. 23950,30243)</i>	1
265	30659	-	30659	-	<i>Kit, mounting (incl. 30611,30633,118672)</i>	1
275	30944	STL	30944	STL	<i>Assembly, Hub &amp; Key (incl. 30945,30057)</i>	1
283	34334	-	34334	-	<i>Kit, oil drain</i>	1
300	<b>30993</b>	<b>NBR</b>	<b>31822</b>	<b>FPM</b>	<i>Kit, cup standard (323: 130,139,143) (390: 116,133,139,143,355)</i>	1
301	<b>30858</b>	<b>NBR</b>	-	-	<i>Kit, bac-cup (incl. 133,139,143,355)</i>	1/0
302	<b>30992</b>	<b>NBR</b>	-	-	<i>Kit, piston standard (323: 119,130,135,136,137,138,139,143,153)</i>	1/0
	-	-	<b>31823</b>	<b>NBR</b>	<i>Kit, piston standard (390: 116,119,130,133,135,136,137,138,139,155,355)</i>	0/1
	<b>30857</b>	<b>NBR</b>	-	-	<i>Kit, bac-cup piston (incl. 119,130,131,133,135,136,137,138,139,143,153)</i>	1/0
306	<b>30305</b>	<b>NBR</b>	-	-	<i>Kit, Prrrrm-A-Lube seal (incl. 106,139)</i>	1/0
	<b>34011</b>	<b>NBR</b>	-	-	<i>Kit, seal, Blue Dot (incl. 101,106,139)</i>	1/0
	-	-	<b>31825</b>	<b>FPM</b>	<i>Kit, seal LPS, ungreased (incl. 101,106,139)</i>	0/1
	<b>30312</b>	<b>NBR</b>	-	-	<i>Kit, sleeve and seal, Prrrrm-A-Lube (incl. 75,77,80,106,139)</i>	1/0
	-	-	<b>31824</b>	<b>NBR</b>	<i>Kit, sleeve and seal, ungreased (incl. 75,77,80,101,106,139)</i>	0/1
310	<b>30859</b>	<b>NBR</b>	-	-	<i>Kit, valve, Q.V. std for 323 (incl. 163,164,166,167,168)</i>	1/0
	-	-	<b>34010</b>	<b>NBR</b>	<i>Kit, valve, F.V. std for 390 (incl. 143,164,166,167,168)</i>	0/1
355	<b>43548</b>	<b>NY</b>	<b>27964</b>	<b>NY</b>	Cup, inserter	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' 024, 034, 036, 037, 038, 039, 064, 074, 083 and 090 for additional information.

Material codes: (not part or part number)

ABS	ABS plastic	FPM	Fluorocarbon	S	304 stainless steel
AL	Aluminum	HS	High strength	SCP	304 SS / chrome plated
BB	Brass	NBR	Medium nitrile (Buna-N)	SNG	Special blend (Buna)
BBCP	Brass/chrome plated	NY	Nylon	STCP	Steel/chrome plated
CM	Chrome-moly	POP	Polypropylene	STL	Steel
FBR	Fiber	PTFE	Pure polytetrafluorethylene	STZP	Steel/zinc plated
FCM	Forged chrome-moly	PVDF	Polyvinylidene fluoride	SZZ	304 SS / zamak