



## Technical specifications and instructions



**4 Frame  
Piston pump**

**Standard Brass Models**

**333-430**

**Stainless steel models**

**331-431**

**Pulse Pump models**

**335-435**

### Specifications (\*)

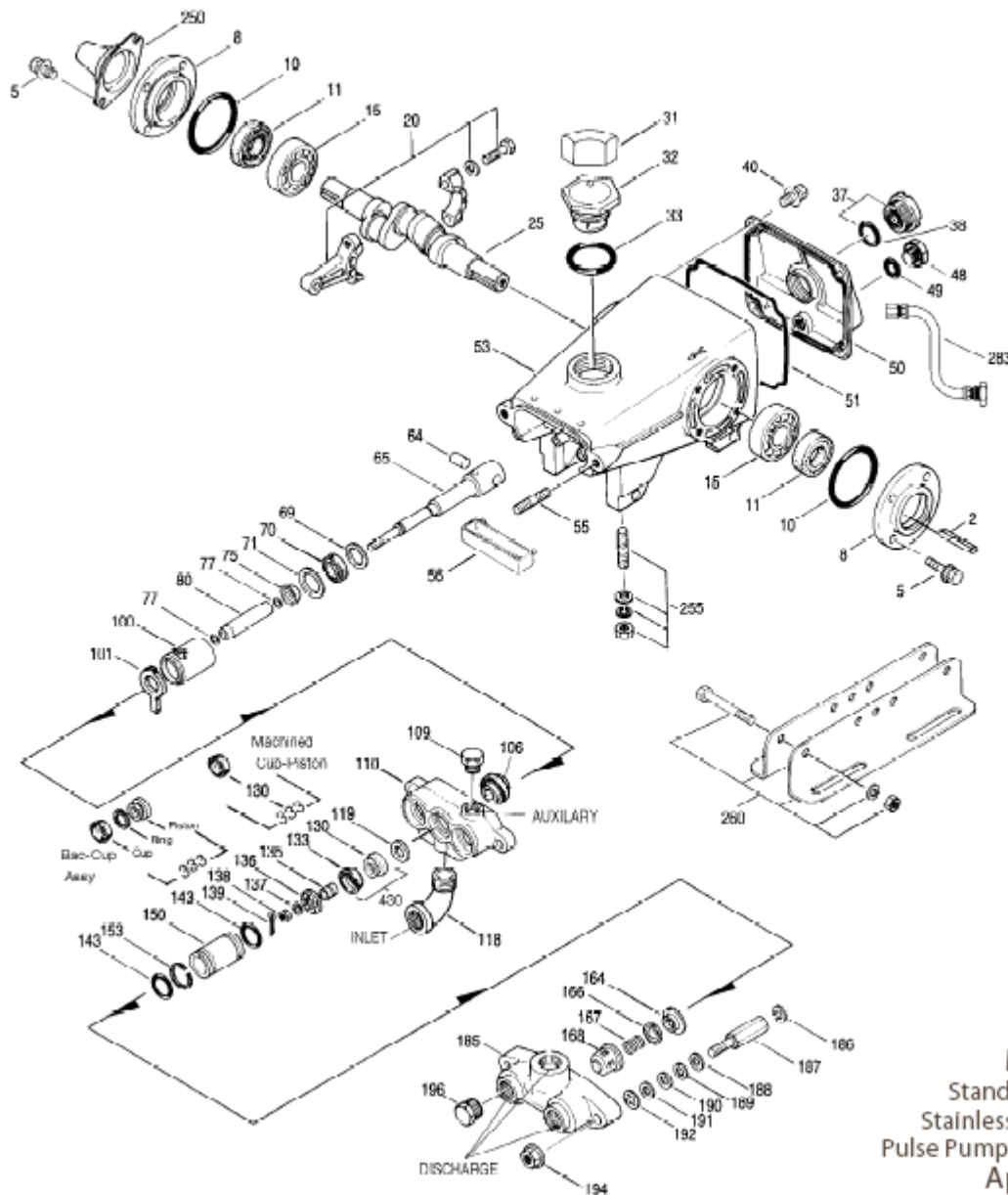
	<b>Model 333,331,335</b>	<b>Model 430,431,435</b>
<b>Flow</b>	15 l/min	19 l/min
<b>Pressure range</b>	7 to 85 bar	7 to 70 bar
<b>RPM</b>	1070 RPM	1040 RPM
<b>Bore</b>	18 mm	20 mm

### Common specifications

<b>Inlet pressure range</b>	-0,6 to+ 2,8 bar
<b>Stroke</b>	19,5 mm
<b>Crankcase capacity</b>	0,6 l
<b>Maximum liquid temperature</b>	71° C
<b>Inlet ports (1)</b>	1/2" NPTF
<b>Auxiliary port (1)</b>	1/4" NPTF
<b>Discharge ports (2)</b>	3/8" NPTF
<b>Discharge port (1)</b>	1/2" NPTF
<b>Shaft diameter</b>	16,5 mm
<b>Weight</b>	8 kg
<b>Dimensions</b>	319 x 223 x 135,5 mm

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

# Exploded View



Models  
 Standard - 333, 430  
 Stainless Steel - 331, 431  
 Pulse Pump Manifold - 335, 435  
 April 2011

# Parts list

Item	Num.	Mat.	Num.	Mat.	Description	Qty
	<b>333</b>		<b>430</b>			
	<b>331</b>		<b>431</b>			
	<b>335</b>		<b>435</b>			
2	30047	STL	30047	STL	Key (M5x5x24)	1
5	92519	STZP	92519	STZP	Screw, HHC sems (M6x16)	8
	125824	STCP R	125824	STCP R	Screw, HHC sems (M6x16)	8
8	27950	AL	27950	AL	Cover, bearing	2
10	26536	NBR	26536	NBR	O-ring, bearing cover – 70D	2
11	24159	NBR	24159	NBR	Seal, oil	2
15	14487	STL	14487	STL	Bearing, ball	2
20	48734	TNM	48734	TNM	Rod, connecting {3/02}	3
25	43163	FCM	43163	FCM	Crankshaft, dual end, tapped (M8x1,25)	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 – 80D	1
38	44428	NBR	44428	NBR	Gasket, flat, 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 {10/04}	1
51	48773	NBR	48773	NBR	O-ring, rear cover {10/04}	1
53	76953	AL	76953	AL	Crankcase {10/04}	1
55	126546	STCP R	126546	STCP R	Stud (M8x41.4)	2
56	27712	POP	27712	POP	Pan, oil (use with bleu-dot seals and wick)	1
64	16948	CM	16948	CM	Pin, crosshead	3
65	27981	SZZ	27981	SZZ	Rod, piston, stepped	3
69	126259	STCP R	126259	STCP R	Washer, oil seal	3
70	25301	NBR	25301	NBR	Seal, oil, crankcase – 80D	3
71	126189	STCP R	126189	STCP R	Washer, oil seal	3
75	25327	S	25327	S	Slinger, barrier	3
77	25392	NBR	25392	NBR	O-ring, sleeve – 70D	6
	28771	FPM	28771	FPM	O-ring, sleeve	6
	28772	PTFE	28772	PTFE	O-ring, sleeve	6
80	25299	SCP	25299	SCP	Sleeve	3
	28460	S	28460	S	Sleeve	3
100	27710	PVDF	27710	PVDF	Retainer, seal	3
101	27711	-	27711	-	Wick, long tab (use with blue-dot seals and oil pan)	3
106	30315	NBR	30315	NBR	Seal, LPS, Prrrrm-A-Lube – 80D	3
	30325	FPM	30325	FPM	Seal, LPS, Prrrrm-A-Lube	3
	25153	NBR	25153	NBR	Seal, LPS, Blue-dot (use with wick and oil pan)	3
109	22177	BBCP	22177	BBCP	Plug (1/4" NPT)	1
110	25128	BBCP	25128	BBCP	Manifold, inlet	1
	25635	SS	25635	SS	Manifold, inlet (331,431)	1
118	22160	BBCP	22160	BBCP	Elbow, street (1/2" NPTM)	1
119	<b>28339</b>	<b>S</b>	<b>27004</b>	<b>S</b>	Valve, inlet	3
130	-	-	<b>22021</b>	<b>S</b>	Piston	3
133	-	-	<b>43172</b>	<b>FPM</b>	Cup, piston	3
133	<b>28955</b>	<b>NBR</b>	-	-	Cup-piston, machined w/304S	3
133	<b>43826</b>	<b>FPM</b>	-	-	Assy, bac-cup (incls: 43784, 43719, 43717)	3
133	<b>29088</b>	<b>SNG</b>	<b>29089</b>	<b>SNG</b>	Cup-piston, V-hot	3
133	<b>34019</b>	<b>TG</b>	<b>30145</b>	<b>TG</b>	Cup-piston, w/O-ring (1000 psi max)	3
135	27983	S	27983	S	Spacer, piston	3
136	27002	S	27002	S	Retainer, piston	3
137	27006	S	27006	S	Washer, conical (M6)	3
138	27000	S	27000	S	Nut, slotted (M6)	3
139	14158	S	14158	S	Cotterpin (M1.6x10)	3
143	23172	NBR	23172	NBR	O-ring, cylinder – 70D	6
	11377	FPM	11377	FPM	O-ring, cylinder – 80D	6

	26961	PTFE	26961	PTFE	O-ring, cylinder	6
150	<b>25660</b>	<b>SCP</b>	<b>24285</b>	<b>SCP</b>	Cylinder	3
	-	-	<b>29044</b>	<b>S</b>	Cylinder	3
153	<b>21985</b>	<b>PTFE</b>	-	-	Back-up-ring, cylinder	3
164	43434	S	43434	S	Seat, quiet valve	3
	29487	S	29487	S	Seat, flat valve	3
166	43723	S	43723	S	Valve, quiet valve	3
	22842	S	22842	S	Valve, flat valve	3
167	43360	S	43360	S	Spring, quiet valve	3
	22031	S	22031	S	Spring, flat valve	3
168	43442	S	43442	S	Retainer, spring, quiet valve	3
	22841	S	22841	S	Retainer, spring, flat valve	3
185	24459	BBCP	24459	BBCP	Manifold, discharge	1
	25634	SS	25634	SS	Manifold, discharge ( <b>331,431</b> )	1
	6400	BB	6400	BB	Manifold, pulse pump ( <b>335,435</b> )	1
	6300	BBSS	6300	BBSS	Pump, pulse ( <b>335,435</b> )	1
186	126232	STCP R	126232	STCP R	Lockwasher (M8)	2
187	126564	STCP R	126564	STCP R	Bolt, cylinder (M8)	2
188	126591	STCP R	126591	STCP R	Washer, shim (M13x8x2)	2-4
189	126813	STCP R	126813	STCP R	Washer, shim (M13x8x1)	2-4
190	126576	STCP R	126576	STCP R	Washer, shim (M13x8x0.5)	2-4
191	126590	STCP R	126590	STCP R	Washer, shim (M18x8x0.3)	2-4
192	26676	S	26676	S	Lockwasher (M8)	2
194	126201	STCP R	126201	STCP R	Nut, hex flange (M8)	2
196	22187	BBCP	22187	BBCP	Plug (3/8"NPT)	1
250	25130	STCP	25130	STCP	Protector, shaft	1
255	30243	STZP	30243	STZP	Kit, direct mount	1
260	30611	STZP	30611	STZP	Assy, rail mount	1
265	30652	-	30652	-	Assy, mount (incl. 30611,30048,30047,25130)	1
270	30244	STL	30244	STL	Assy, pulley (incl. 30048, 30047)	1
283	34334	-	34334	-	Kit, oil drain	1
300	<b>30239</b>	<b>NBR</b>	-	-	Kit, mach cup (incl. 133,139,143,153)	1
	-	-	<b>30023</b>	<b>FPM</b>	Kit, cup (incl. 133,139,143)	1
301	<b>30841</b>	<b>FPM</b>	-	-	Kit, bac-cup (incl. 133,139,143,153)	1
302	<b>30240</b>	<b>NBR</b>	-	-	Kit, piston (incl. 119,133,135-139,143,153)	1
	-	-	<b>30210</b>	<b>NBR</b>	Kit, piston (incl. 119,130,133,135-139,143)	1
	<b>30842</b>	<b>NBR</b>	-	-	Kit, bac-cup piston (incl. 119,133,135-139,143,153)	1
304	-	-	<b>30272</b>	<b>NBR</b>	Kit, hot cup (incl. 133,139,143)	1
305	30312	NBR	30312	NBR	Kit, sleeve & Prrrrm-A-Lube seal (incl. 75,77,80,106,139)	1
	30230	NBR	30230	NBR	Kit, sleeve & Blue-dot seal (incl. 75,77,80,101,106,139)	1
306	30305	NBR	30305	NBR	Kit, Prrrrm-A-Lube seal (incl. 106,139)	1
	30229	NBR	30229	NBR	Kit, Blue-dot seal (incl. 101,106,139)	1
310	30686	NBR	30686	NBR	Kit, valve, Quiet Valves (incl. 143,164,166,167,168)	1
	30024	NBR	30024	NBR	Kit, valve, Flat Valves (incl. 143,164,166,167,168)	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' 002, 016, 017, 020, 024, 025, 026, 030, 034, 036, 037, 038, 043, 074, 077, 083 and 090 for additional information.

Material codes: (not part or part number)

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