



## Technical specifications and instructions



### **38 Frame Block-Style Stainless Steel Plunger pump**

**Standard model**

**3831**

**Flushed model**

**3831K**

### Specifications (\*)

#### **Model 3831-3831K**

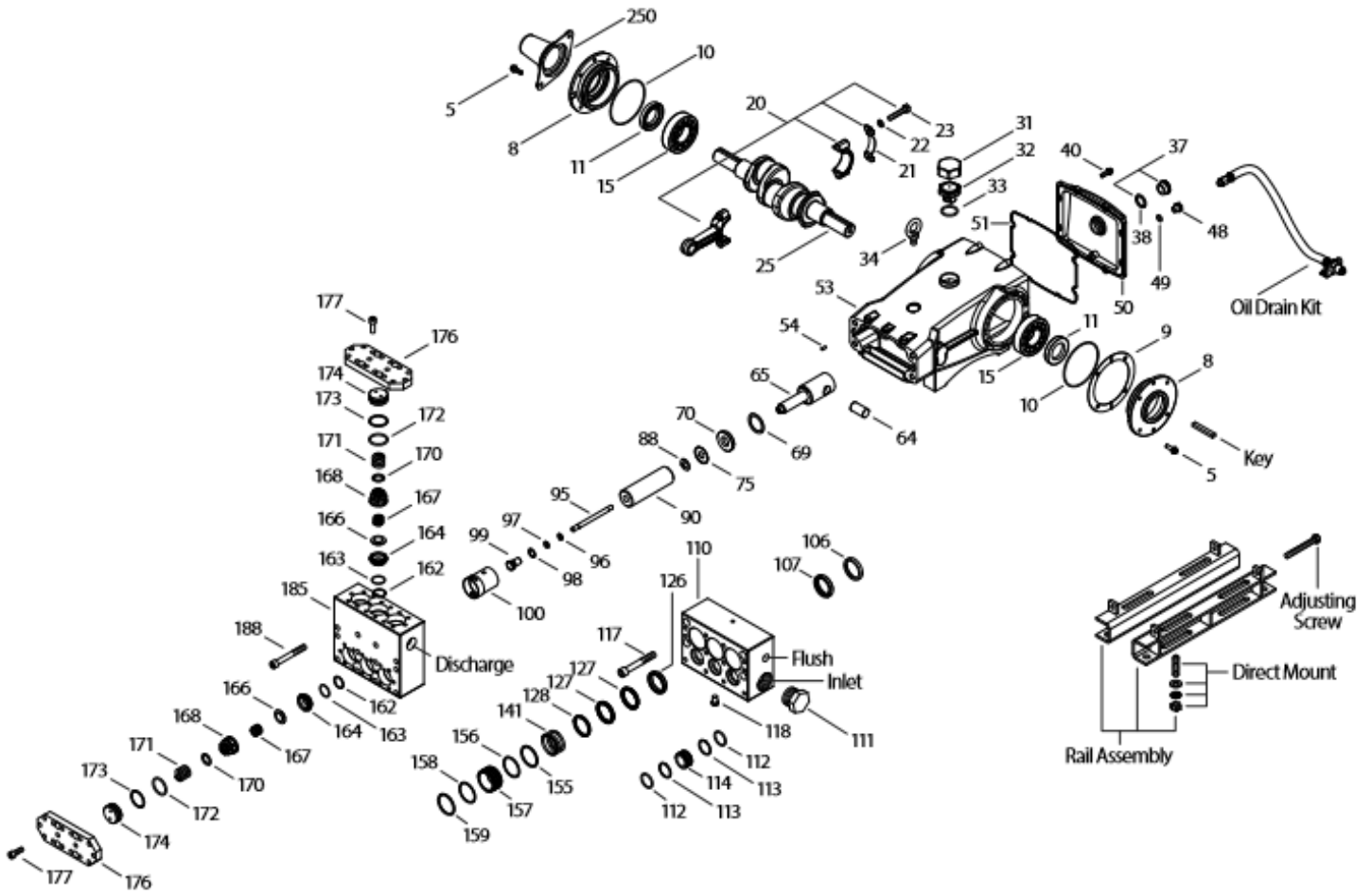
<b>Flow</b>	136 l/min
<b>Pressure range</b>	7 to 85 bar
<b>RPM</b>	800 RPM
<b>Bore</b>	40 mm

### Common specifications

<b>Inlet pressure range</b>	Flooded to 4,8 bar
<b>Stroke</b>	48 mm
<b>Crankcase capacity</b>	4 L
<b>Maximum liquid temperature</b>	71° C
<b>Inlet ports (2)</b>	1-1/2" NPTF
<b>Flushing ports (2)</b>	1/2" NPTF
<b>Discharge ports (2)</b>	1" NPTF
<b>Shaft diameter</b>	35 mm
<b>Weight</b>	75 kg
<b>Dimensions</b>	620 x 460 x 238 mm

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

# Exploded View



Models  
Standard - 3831  
Flushed - 3831K  
September 2018

# Parts list

Item	Num. 3831	Mat.	Num. 3831K	Mat.	Description	Qty
5	96049	S	96049	S	Screw, HH sems (M10x25) (see TB 125) {06/18}	8
8	134604	AL	134604	AL	Cover, bearing (see TB 118,125) {06/18}	2
9	815279	FBR	815279	FBR	Shim, split 2-pc (see TB 125) {06/18}	4
10	12398	NBR	12398	NBR	O-ring, bearing cover – 70D	2
11	13296	NBR	13296	NBR	Seal, oil, crankshaft	2
15	29326	STL	29326	STL	Bearing, roller	2
20	121467	TNM	121467	TNM	Rod, connecting assy (incl 21,22,23)	3
21	126749	STCP R	126749	STCP R	Washer, locking (M10)	3
22	126593	STCP R	126593	STCP R	Washer, flat (M10)	6
23	122045	STZP	122045	STZP	Screw, HH (M10x55)	6
25	29325	FCM	29325	FCM	Crankshaft, dual end (M48)	1
31	828710	PE	828710	PE	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
34	126743	STCP R	126743	STCP R	Bolt, eye (M12x1,75) (for lifting pump only)	1
37	92241	-	92241	-	Gauge, oil, bubble w/gasket	1
38	44428	NBR	44428	NBR	Gasket, flat, oil gauge – 80D	1
40	125753	S	125753	S	Screw, HH sems (M8 x 25)	8
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	45936	AL	45936	AL	Cover, rear (see TB 118)	1
51	16612	NBR	16612	NBR	O-ring, cover – 70D	1
53	134784	AL	134784	AL	Crankcase assy (incl 34,54) (see TB 118,125) {06/18}	1
54	27488	S	27488	S	Pin, guide	2
56	27790	POP	27790	POP	Pan, oil	1
59	92538	S	92538	S	Screw, HHC sems (M6x16)	2
64	43864	CM	43864	CM	Pin, crosshead	3
65	45116	SSZZ	45116	SSZZ	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	43921	CC	43921	CC	Plunger (M40x145)	3
95	89778	SS	89778	SS	Stud, plunger retainer (M10x135)	3
96	20189	PTFE	20189	PTFE	Back-up-ring, plunger retainer	3
97	11345	NBR	11345	NBR	O-ring, plunger retainer – 70D	3
98	44085	SS	44085	SS	Gasket, plunger retainer	3
99	44084	SS	44084	SS	Retainer, plunger (M10)	3
100	814279	PVDF	814279	PVDF	Retainer, seal, 2-pc	3
101	44112	-	44112	-	Wick, long tab	3
106	44113	NBR	44113	NBR	Seal, LPS w/SS-Spg	3
107	45381	SS	45381	SS	Washer, LPS seal	3
110	701286	SSL	-	-	Manifold, inlet, block-style	1
	-	-	701408	SSL	Manifold, inlet, block-style, flushed	1
111	701116	SS	701116	SS	Plug, inlet (1-1/2" NPTM)	1
112	701794	NBR	701794	NBR	O-ring, inlet spacer – 70D	6
113	701319	PTFE	701319	PTFE	Back-up-ring, inlet spacer	6
114	701317	SS	701317	SS	Spacer, inlet	3
117	701252	SS	701252	SS	Screw HSH (M14x100)	4
118	701077	SS	-	-	Plug (1/4" NPTM)	1
126	45367	SS	45367	SS	Adapter, female	3
127	44609	STG	44609	STG	V-packing	6
128	45368	SS	45368	SS	Adapter, male	3
141	49519	SS	49519	SS	Spring, coil	3
155	48860	NBR	48860	NBR	O-ring, V-packing spacer – 90D	3
156	48362	D	48362	D	Back-up-ring, V-packing spacer	3
157	49520	SS	49520	SS	Spacer, V-packing	3
158	48362	D	48362	D	Back-up-ring, V-packing spacer	3
159	48860	NBR	48860	NBR	O-ring, V-packing spacer – 90D	3
162	48363	D	48363	D	Back-up-ring, seat	6
163	26142	NBR	26142	NBR	O-ring, seat – 80D	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	SS	Washer, spring retainer	6
171	44644	SS	44644	SS	Spring, coil (70 kg), valve plug	6
172	89827	NBR	89827	NBR	O-ring, valve plug – 90D	6

173	48364	D	48364	D	Back-up-ring, valve plug	6
174	701278	SS	701278	SS	Plug, valve	6
176	701316	SS	701316	SS	Cover, valve	2
177	87951	S	87951	S	Screw, HSH (M10x30)	32
185	701315	SSL	701315	SSL	Manifold, discharge, block-style	1
188	701279	S	701279	S	Screw HSH (M12x100)	12
196	701342	SS	701342	SS	Plug, discharge (1" NPT)	1
250	855042	NY	855042	NY	Protector, shaft (w/2 screws, lockwashers, washers) (incl with pump)(see TB 125) (06/18)	1

**Bold print part numbers are unique to a particular pump model. Italics are optional items. { }** Date of latest production change. + Production parts are different than replacement parts. R Components comply with RoHS directive. \* Review individual parts in each kit for material identification. See 'Tech Bulletins' 024, 035, 036, 041, 043, 053, 074, 083, 095, 105, 108, 114, 118, 125 and 127 for additional information.

Material codes: (not part or part number)

ABS	ABS plastic	NBR	Medium nitrile (Buna-N)	SSL	316SS / low carbon
AL	Aluminum	NBRs	Buna, silicone free	SSHB	316SS / High strength brass
CC	Ceramic	NY	Nylon	SSZZ	316SS / zamak
CM	Chrome-moly	PE	Polyethylene	STCP	Steel/chrome plated
D	Acetal	POP	Polypropylene	STG	Special blend PTFE white
EPDM	Ethylene propylene diene mon.	PTFE	Pure polytetrafluoroethylene	STL	Steel
F	Cast iron	PVDF	Polyvinylidene fluoride	STZP	Steel / zinc plated
FBR	Fiber	S	304SS	TNM	Special high strength
FCM	Forged chrome-moly	SFG	Special blend FPM	ZP	Zinc plated
FPM	Fluorocarbon	SS	316SS		

**OPTIONAL PARTS & ACCESSORIES**

PART	DESCRIPTION	QTY
701698	Kit, seal - standard	1
34017	Kit, valve, preassembled – standard	2
92674	Mount, rail assy	1
34039	Assy, direct mount	1
80540	Screw, HH (M12x100) (rail adjusting screw)	1
30278	Oiler	3
34314	Kit, oil drain (3/8x48")	1

**SERVICE PARTS**

PART	DESCRIPTION	QTY
34021	Key, M10 x 8 x 70	1
6119	Lubricant, anti-seize	1
901400	Head, complete w/NBR seals & O-rings – model 3831	1
901404	Head, complete w/NBR seals & O-rings – model 3831K	1
819000	Assy, crankcase, cast iron conversion	1

**SEAL KITS - 1 seal kit required per pump**

Pump model	NBR standard)	FPM (0.0110)	EPDM (0.0220) #		
3831, 3831K	701698	33268	701797		
<b>Items incl.</b>				<b>Description</b>	<b>Qty</b>
97	11345	11375	701490	O-ring, plunger retainer	3
106	44113	44740	46955	Seal, LPS w/SS-spg	3
112	701794	701318	701495	O-ring, inlet spacer	6
113	701319	701319	701319	Backup-ring, inlet spacer	6
127	44609	44741	44609	V-packing	6
155	48860	20137	701492	O-ring, V-packing spacer	3
156	48362	48362	48362	Backup-ring, V-packing spacer	3
158	48362	48362	48362	Backup-ring, V-packing spacer	3
159	48860	20137	701492	O-ring, V-packing spacer	3

# Silicone oil/grease required \* Review material codes for individual items (STG generally may be used as alternative)

**VALVE KITS - : 2 valve kits required per pump**

Pump model	NBR (standard)	FPM (0.0110)	EPDM 0.0220) #		
3831, 3831K	34017	31955	31952		
<b>Items incl.</b>				<b>Description</b>	<b>Qty</b>
162	48363	48363	48363	Backup ring, valve seat	3
163	26142	14330	701493	O-ring, valve seat	3
164	44612	44612	44612	Seat, stepped	3
166	44108	44108	44108	Valve	3
167	44109	44109	44109	Spring	3
168	44728	44728	44728	Retainer, spring	3
170	44729	44729	44729	Washer, spring retainer	3
172	89827	11747	701494	O-ring, valve plug	3
173	48364	48364	48364	Backup-ring, valve plug	3

# Silicone oil/grease required