



## Technical specifications and instructions



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

**Standard model**

**3821HS**

**Flushed model**

**3821KHS**

### Specifications (\*)

#### **Model 3821HS-3821KHS**

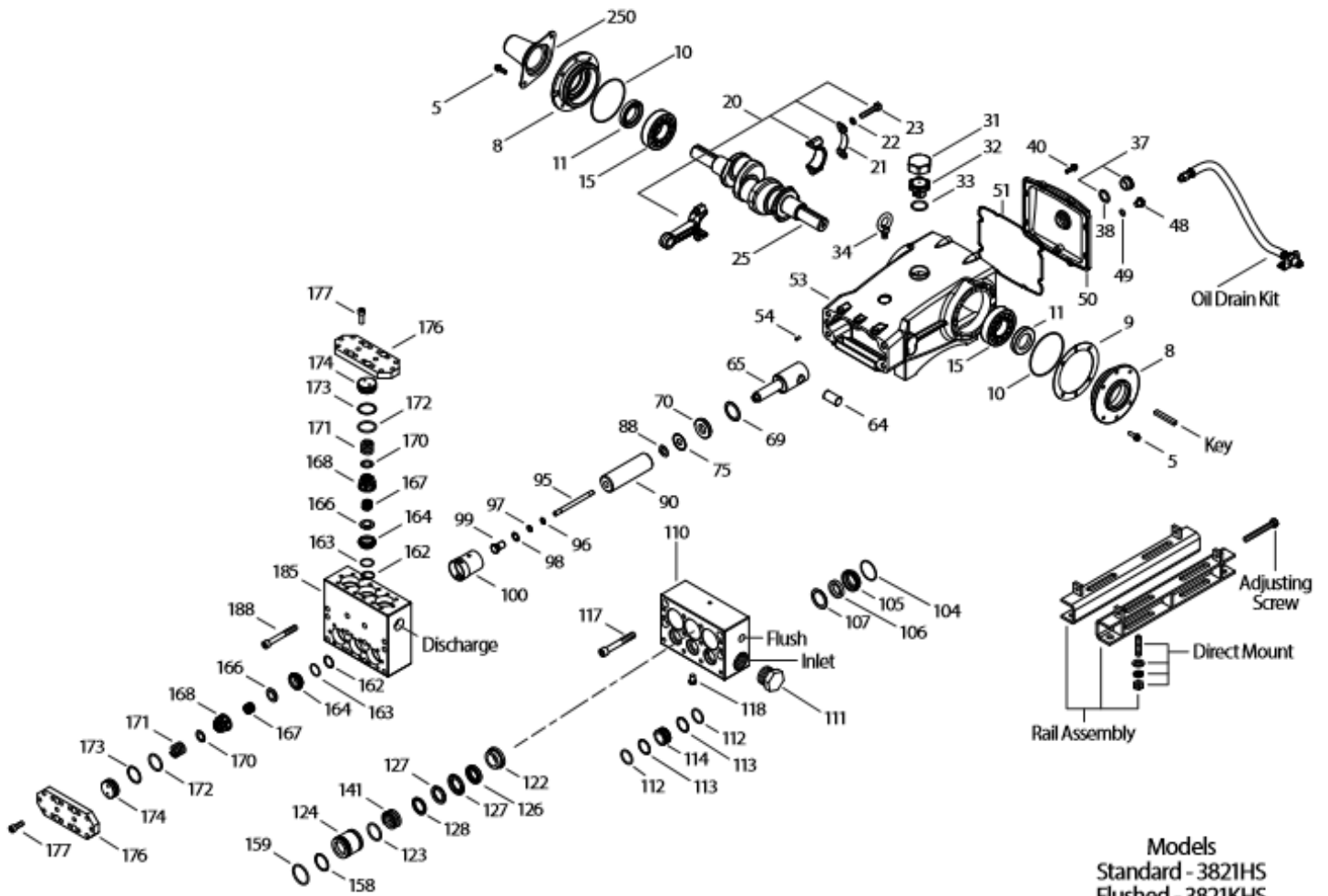
<b>Flow</b>	95 l/min
<b>Pressure range</b>	7 to 140 bar
<b>RPM</b>	870 RPM
<b>Bore</b>	32 mm

### 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 - 3821HS  
 Flushed - 3821KHS  
 September 2018

# Parts list

Item	Num. 3821HS	Mat.	Num. 3821KHS	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	126725	BZ	126725	BZ	Rod, connecting assy (incl 21,22,23) {10/00} (see TB 127)	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 118,125,127) {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	49166	SSHB	49166	SSHB	Rod, plunger (see TB 127)	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	43957	CC	43957	CC	Plunger (M32x145)	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	44106	-	44106	-	Wick, long tab	3
104	43875	NBR	43875	NBR	O-ring, inlet adapter – 70D	3
105	45562	SS	45562	SS	Adapter, inlet	3
106	44098	NBR	44098	NBR	Seal, LPS w/SS-Spg	3
107	44101	SS	44101	SS	Washer, LPS seal	3
110	<b>701286</b>	<b>SSL</b>	-	-	Manifold, inlet, block-style	1
	-	-	<b>701408</b>	<b>SSL</b>	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	<b>701077</b>	<b>SS</b>	-	-	Plug (1/4" NPTM)	1
122	49782	SS	49782	SS	Spacer, V-packing	3
123	12391	NBR	12391	NBR	O-ring, V-packing cylinder – 70D	3
124	49783	SS	49783	SS	Cylinder, V-packing	3
126	45564	SS	45564	SS	Adapter, female	3
127	44608	STG	44608	STG	V-packing	6
128	45565	SS	45565	SS	Adapter, male	3
141	49743	SS	49743	SS	Spring, coil	3
158	48362	D	48362	D	Back-up-ring, V-packing cylinder	3
159	48860	NBR	48860	NBR	O-ring, V-packing cylinder – 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 125,127) (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. See service bulletin 001.

Material codes: (not part or part number)

ABS	ABS plastic	FPM	Fluorocarbon	SS	316SS
AL	Aluminum	NBR	Medium nitrile (Buna-N)	SSL	316SS / low carbon
BZ	Bronze	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

**OPTIONAL PARTS & ACCESSORIES**

PART	DESCRIPTION	QTY
701699	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
901401	Head, complete w/NBR seals & O-rings – model 3821HS	1
901405	Head, complete w/NBR seals & O-rings – model 3821KHS	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) #		
3821HS, 3821KHS	701699*	33269	701714*		
Items incl.				Description	Qty
97	11345	11375	701490	O-ring, plunger retainer	3
104	43875	44826	701656	O-ring, inlet adapter	3
106	44098	44827	48244	Seal, LPS w/SS-spg	3
112	701794	701318	701495	O-ring, inlet spacer	6
113	701319	701319	701319	Backup-ring, inlet spacer	6
123	12391	13266	701657	O-ring, V-packing cylinder	3
127	44608	44829	44608	V-packing	6
158	48362	48362	48362	Backup-ring, V-packing cylinder	3
159	48860	20137	701492	O-ring, V-packing cylinder	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) #		
3821HS, 3821KHS	34017	31955	31952		
Items incl.				Description	Qty
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