



## Technical specifications and instructions



### **35 Frame Plunger pump**

**Brass – standard & flushed  
3520, 3520C**

**SS – standard & flushed  
3521, 3521C**

**Nickel aluminum bronze  
3527**

### Specifications (\*)

#### **Model 3520 (C) 3521 (C) 3527**

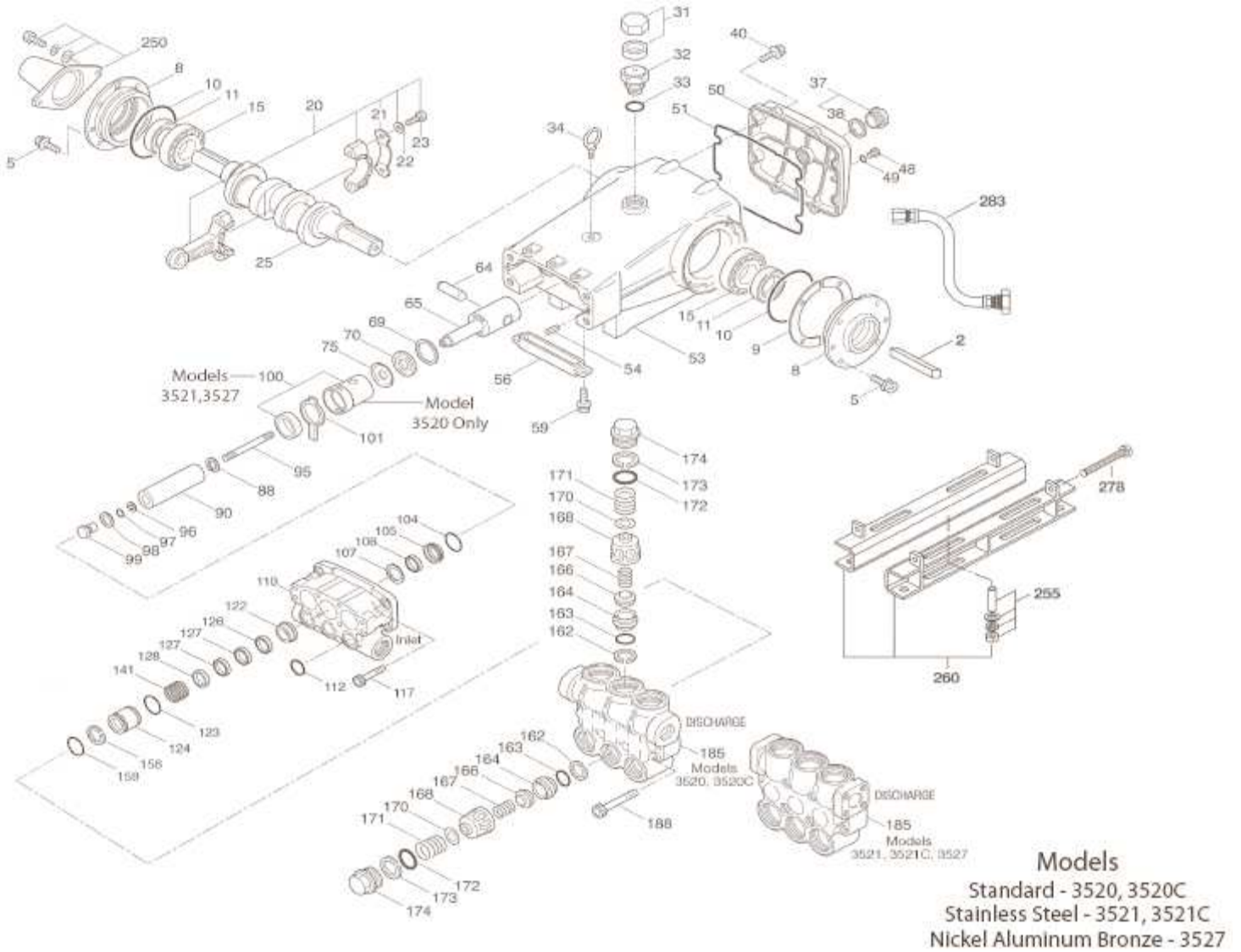
<b>Flow</b>	88 L/min
<b>Pressure range</b>	7 to 140 bar
<b>RPM</b>	800 RPM
<b>Inlet pressure range</b>	Flooded to 4,9 bar
<b>Stroke</b>	48 mm

### Common specifications

<b>Bore</b>	32 mm
<b>Crankcase capacity</b>	4 L
<b>Maximum liquid temperature</b>	71°C
<b>Inlet ports (2)</b>	1-1/2" NPTF
<b>Flushed ports (2)</b>	1/4" NPTF
<b>Discharge ports (2)</b>	1 NPTF
<b>Shaft diameter</b>	35mm
<b>Weight</b>	63 kg
<b>Dimensions (3520, 3520C)</b>	606 x 460 x 247 mm
<b>Dimensions (3521,3521C,3527)</b>	618 x 460 x 247 mm

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

# Exploded View



# Parts list

lt.	Num. 3520	Mat.	Num. 3521	Mat.	Num. 3527	Mat.	Description	Qt
2	34021	STL	34021	STL	34021	STL	Key (M10x8x70)	1
5	125753	S	125753	S	125753	S	Screw, HHC sems (M8x25)	8
8	44542	AL	44542	AL	44542	AL	Cover, bearing	2
9	815279	FBR	815279	FBR	815279	FBR	Shim, split, 2-pc	2
10	12398	NBR	12398	NBR	12398	NBR	O-ring, bearing cover – 70D	2
11	13296	NBR	13296	NBR	13296	NBR	Seal, oil, crankshaft	2
15	29326	STL	29326	STL	29326	STL	Bearing, roller	2
20	121467	TNM	121467	TNM	121467	TNM	Rod, connecting assy (incl. 21,22,23) (10/00)	3
21	126749	STCP R	126749	STCP R	126749	STCP R	Washer, locking	3
22	126593	STCP R	126593	STCP R	126593	STCP R	Washer, flat (M10)	6
23	122045	STZP	122045	STZP	122045	STZP	Screw, HH (M10x55)	6
25	29325	FCM	29325	FCM	29325	FCM	Crankshaft, dual end	1
31	828710	PE	828710	PE	828710	PE	Protector, oil cap w/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
34	126743	STCP R	126743	STCP R	126743	STCP R	Bolt, eye (M12x1,75) (for lifting pump only)	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	125753	S	125753	S	125753	S	Screw, HHC sems (M8x25)	8
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	45936	AL	45936	AL	45936	AL	Cover, rear	1
51	16612	NBR	16612	NBR	16612	NBR	O-ring, cover – 70D	1
53	44487	AL	44487	AL	44487	AL	Crankcase assy (incl. 34,54)	1
54	27488	S	27488	S	27488	S	Pins, guide	2
56	27790	POP	27790	POP	27790	POP	Pan, oil	1
59	92538	S	92538	S	92538	S	Screw, HHS sems (M6x16)	2
64	43864	CM	43864	CM	43864	CM	Pin, crosshead	3
65	+ 45116	SSZZ	+ 45116	SSZZ	+ 45116	SSZZ	Rod, plunger	3
69	126587	STCP R	126587	STCP R	126587	STCP R	Washer, oil seal	3
70	100488	NBR	100488	NBR	100488	NBR	Seal, oil, crankcase	3
	44739	FPM	44739	FPM	44739	FPM	Seal, oil, crankcase	3
75	43865	S	43865	S	43865	S	Slinger, barrier	3
88	45676	S	45676	S	45676	S	Washer, keyhole (M16)	3
90	43957	CC	43957	CC	43957	CC	Plunger (M32x145)	3
95	+ 89778	SS	+ 89778	SS	+ 89778	SS	Stud, plunger retainer (M10x135)	3
96	20189	PTFE	20189	PTFE	20189	PTFE	Back-up-ring, plunger retainer	3
97	11345	NBR	11345	NBR	11345	NBR	O-ring, plunger retainer – 70D	3
	11375	FPM	11375	FPM	11375	FPM	O-ring, plunger retainer	3
	#701490	EPDM	# 701490	EPDM	# 701490	EPDM	O-ring, plunger retainer	3
	702961	IPFE	702961	IPFE	702961	IPFE	O-ring, plunger retainer – 70D	3
98	44085	SS	44085	SS	44085	SS	Gasket, retainer	3
99	44084	SS	44084	SS	44084	SS	Retainer, plunger (M10)	3
100	44119	PPG	814279	PVDF	814279	PVDF	Retainer, seal (see TB 105)	3
101	44106	-	44106	-	44106	-	Wick, long tab	3
104	43875	NBR	43875	NBR	43875	NBR	O-ring, inlet adapter – 70D	3
	44826	FPM	44826	FPM	44826	FPM	O-ring, inlet adapter – 70D	3
	# 701656	EPDM	# 701656	EPDM	# 701656	EPDM	O-ring, inlet adapter – 70D	3
	702977	IPFE	702977	IPFE	702977	IPFE	O-ring, inlet adapter	3
105	49741	BB	45562	SS	45562	SS	Adapter, inlet	3
106	44098	NBR	44098	NBR	44098	NBR	Seal, LPS w/SS-spg	3
	44827	FPM	44827	FPM	44827	FPM	Seal, LPS w/SS-spg	3
	# 48244	EPDM	# 48244	EPDM	# 48244	EPDM	Seal, LPS w/SS-spg	3
	76298	ST 2	76298	ST 2	76298	ST 2	Seal, LPS w/S-Spg	3
107	43962	S	44101	SS	44101	SS	Washer	3
110	49464	BBCP R	45365	SS	45124	NAB	Manifold, inlet	1
	49434	BBCP R	125397	SS	-	-	Manifold, inlet, flushed (1/4" flush ports)	1
112	11379	NBR	11379	NBR	11379	NBR	O-ring, inlet manifold – 70D	3
	14183	FPM	14183	FPM	14183	FPM	O-ring, inlet manifold	3
	# 701491	EPDM	# 701491	EPDM	# 701491	EPDM	O-ring, inlet manifold – 70D	3
	702705	IPFE	702705	IPFE	702705	IPFE	O-ring, inlet manifold	3
117	44585	S	44585	S	44585	S	Screw, HSH (M14x40)	4
122	49744	BB	49782	SS	49782	SS	Spacer (See TB 114)	3
123	12391	NBR	12391	NBR	12391	NBR	O-ring, V-packing cylinder – 70D	3
	13266	FPM	13266	FPM	13266	FPM	O-ring, V-packing cylinder – 70D	3
	# 701657	EPDM	# 701657	EPDM	# 701657	EPDM	O-ring, V-packing cylinder – 70D	3
	703481	IPFE	703481	IPFE	703481	IPFE	O-ring, V-packing cylinder	3

124	<b>49742</b>	<b>BB</b>	<b>49783</b>	<b>SS</b>	<b>49783</b>	<b>SS</b>	Cylinder, V-packing (see TB 114)	3
126	<b>43963</b>	<b>BB</b>	<b>48390</b>	<b>D</b>	<b>48390</b>	<b>D</b>	Adapter, female	3
	-	-	<b>45564</b>	<b>SS</b>	<b>45564</b>	<b>SS</b>	Adapter, female	3
127	<b>+ 44608</b>	<b>STG*</b>	<b>44608</b>	<b>STG*</b>	<b>44608</b>	<b>STG*</b>	V-packing	6
	<i>44829</i>	<i>SFG</i>	<i>44829</i>	<i>SFG</i>	<i>44829</i>	<i>SFG</i>	V-packing	6
128	<b>43965</b>	<b>BB</b>	<b>45565</b>	<b>SS</b>	<b>45565</b>	<b>SS</b>	Adapter, male	3
141	49743	SS	49743	SS	49743	SS	Spring, coil (see TB 114)	3
158	48362	D	48362	D	48362	D	Back-up-ring, V-packing spacer	3
159	48860	NBR	48860	NBR	48860	NBR	O-ring, V-packing cylinder – 90D	3
	<i>20137</i>	<i>FPM</i>	<i>20137</i>	<i>FPM</i>	<i>20137</i>	<i>FPM</i>	O-ring, V-packing cylinder – 70D	3
	<b># 701492</b>	<b>EPDM</b>	<b># 701492</b>	<b>EPDM</b>	<b># 701492</b>	<b>EPDM</b>	O-ring, V-packing cylinder	3
	<i>702963</i>	<i>IPFE</i>	<i>702963</i>	<i>IPFE</i>	<i>702963</i>	<i>IPFE</i>	O-ring, V-packing cylinder – 70D	3
162	48363	D	48363	D	48363	D	Back-up-ring, valve seat	6
163	26142	NBR	26142	NBR	26142	NBR	O-ring, seat – 80D	6
	<i>14330</i>	<i>FPM</i>	<i>14330</i>	<i>FPM</i>	<i>14330</i>	<i>FPM</i>	O-ring, seat	6
	<b># 701493</b>	<b>EPDM</b>	<b># 701493</b>	<b>EPDM</b>	<b># 701493</b>	<b>EPDM</b>	O-ring, seat	6
	<i>702808</i>	<i>IPFE</i>	<i>702808</i>	<i>IPFE</i>	<i>702808</i>	<i>IPFE</i>	O-ring, seat	6
164	<b>44727</b>	<b>S</b>	<b>44612</b>	<b>SS</b>	<b>44612</b>	<b>SS</b>	Seat, stepped	6
166	<b>43932</b>	<b>S</b>	<b>44108</b>	<b>SS</b>	<b>44108</b>	<b>SS</b>	Valve	6
167	44109	SS	44109	SS	44109	SS	Spring	6
168	44728	PVDF	44728	PVDF	44728	PVDF	Retainer, spring	6
170	44729	SS	44729	SS	44729	SS	Washer, spring retainer	6
171	44644	SS	44644	SS	44644	SS	Coil spring (70 kg), valve plug	6
172	89827	NBR	89827	NBR	89827	NBR	O-ring, valve plug – 90D	6
	<i>11747</i>	<i>FPM</i>	<i>11747</i>	<i>FPM</i>	<i>11747</i>	<i>FPM</i>	O-ring, valve plug – 90D	6
	<b># 701494</b>	<b>EPDM</b>	<b># 701494</b>	<b>EPDM</b>	<b># 701494</b>	<b>EPDM</b>	O-ring, valve plug – 70D	6
	<i>703169</i>	<i>IPFE</i>	<i>703169</i>	<i>IPFE</i>	<i>703169</i>	<i>IPFE</i>	O-ring, valve plug	6
173	48364	D	48364	D	48364	D	Back-up-ring, valve plug	6
174	<b>46444</b>	<b>FBB</b>	<b>49300</b>	<b>SSD</b>	<b>44643</b>	<b>NAB</b>	Plug, valve {02/06}	6
185	<b>49465</b>	<b>BBCP R</b>	<b>49299</b>	<b>SSD</b>	<b>49249</b>	<b>NAB</b>	Manifold, discharge (see TB 109)	1
188	89981	S	89981	S	89981	S	Screw, HSH (M12x70)	8
250	44516	NY	44516	NY	44516	NY	Protector, shaft w/2 screws, lockwashers, washers	1
255	34018	STZP	34018	STZP	34018	STZP	Kit, direct mount	1
	<i>34039</i>	<i>S</i>	<i>34039</i>	<i>S</i>	<i>34039</i>	<i>S</i>	Kit, direct mount	1
260	92674	STZP	92674	STZP	92674	STZP	Mounting, box assy (incl. 34018)	1
275	990013	STL	990013	STL	990013	STL	Hub "B" 35mm w/keyway (see TB 003)	1
278	80540	ZP	80540	ZP	80540	ZP	Screw, HH (M12x100) (rail adjusting screw)	1
279	30278	STZP	30278	STZP	30278	STZP	Oiler	3
281	30967	-	30967	-	30967	-	Glass, oiler	3
282	10069	NBR	10069	NBR	10069	NBR	Gasket, oiler	3
283	34314	-	34314	-	34314	-	Kit, oil drain (3/8"x48")	1
299	<b>818473</b>	<b>BBCP</b>	<b>818373</b>	<b>SS</b>	<b>815438</b>	<b>NAB</b>	Head, complete	1
300	76841	NBR*	76841	NBR*	76841	NBR*	Kit, seal (97,104,106,112,123,127,158,159)	1
	<i>76842</i>	<i>FPM</i>	<i>76842</i>	<i>FPM</i>	<i>76842</i>	<i>FPM</i>	Kit, seal (97,104,106,112,123,127,158,159)	1
	<b># 76843</b>	<b>EPDM*</b>	<b># 76843</b>	<b>EPDM*</b>	<b># 76843</b>	<b>EPDM*</b>	Kit, seal (97,104,106,112,123,127,158,159)	1
	<i>76844</i>	<i>IPFE*</i>	<i>76844</i>	<i>IPFE*</i>	<i>76844</i>	<i>IPFE*</i>	Kit, seal (97,104,106,112,123,127,158,159)	1
310	<b>34235</b>	<b>NBR</b>	<b>34017</b>	<b>NBR</b>	<b>34017</b>	<b>NBR</b>	Kit, valve (162,163,164,166,167,168,170,172,173)	2
	<i>31955</i>	<i>FPM</i>	<i>31955</i>	<i>FPM</i>	<i>31955</i>	<i>FPM</i>	Kit, valve (162,163,164,166,167,168,170,172,173)	2
	<b># 31952</b>	<b>EPDM</b>	<b># 31952</b>	<b>EPDM</b>	<b># 31952</b>	<b>EPDM</b>	Kit, valve (162,163,164,166,167,168,170,172,173)	2
	<i>76617</i>	<i>IPFE</i>	<i>76617</i>	<i>IPFE</i>	<i>76617</i>	<i>IPFE</i>	Kit, valve (162,163,164,166,167,168,170,172,173)	2
-	819000	F	819000	F	819000	F	Assy, crankcase, cast iron conversion	1
390	714500	SS	714500	SS	714500	SS	C.A.T.	1
391	714506	SS	714506	SS	714506	SS	Adapter (2 per C.A.T.)	2
392	701828	SS	701828	SS	701828	SS	Elbow assy used with adapter 714506	1

**Bold print part numbers are unique to a particular pump model. Italics are optional items.** { } Date of latest production change. # silicone/grease required. + Production parts are different from service parts. R Components comply with RoHS directive. \* Review material codes for individual items (STG generally may be used as alternate). See 'Tech Bulletins' 002, 003, 024, 040, 041, 050, 052, 053, 064, 069, 074, 077, 083, 100 and 114 for additional information.

**Material codes:** (not part or part number)

ABS	ABS plastic	NAB	Nickel aluminum bronze	SSD	Duplex stainless steel
AL	Aluminum	NBR	Medium nitrile (Buna-N)	SSL	316 SS / low carbon
BB	Brass	NBRs	Buna, silicone free	SSZZ	316 SS / zamak
BBCP	Brass/chrome plated	NY	Nylon	ST 2	Special PTFE 2
CC	Ceramic	PE	Polyethylene	STCP	Steel / chrome plated
CM	Chrome-moly	POP	Polypropylene	STG	Special blend PTFE white
D	Acetal	PPG	Glass filled polypropylene	STL	Steel
EPDM	Ethylene propylene diene mon.	PTFE	Pure polytetrafluoroethylene	STZP	Steel / zinc plated
F	Cast iron	PVDF	Polyvinylidene fluoride	TNM	Special high strength
FBR	Fiber	S	304 SS	ZP	Zinc plated
FPM	Fluorocarbon	SFG	Special blend FPM		
FCM	Forged chrome-moly	SS	316 SS		