

# MODEL 3831KM.CO<sub>2</sub>



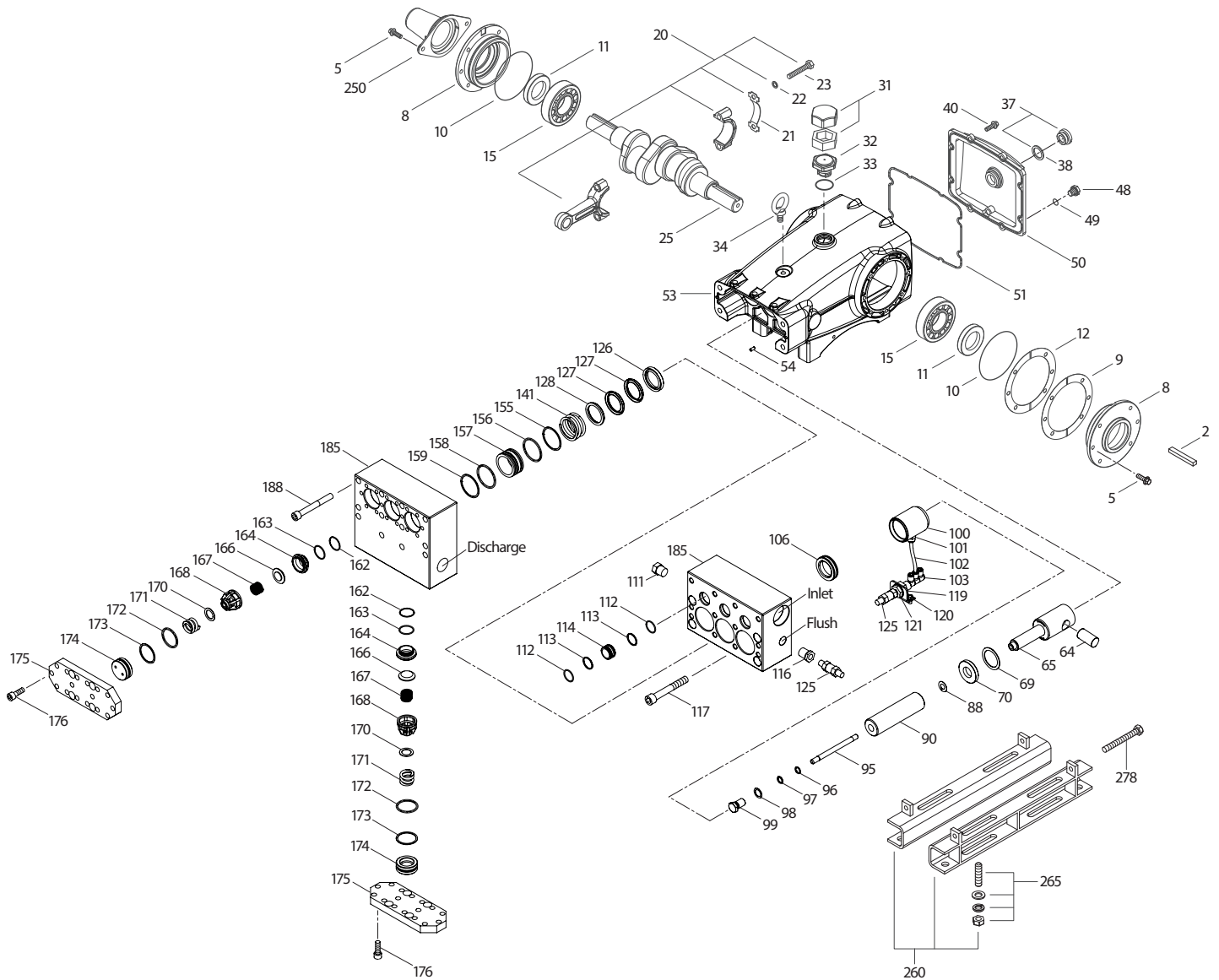
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	19.4 gpm	73.4 lpm
Pressure Range	400–1200 psi	27.5–83 bar
Pump RPM*	450	450
Inlet Pressure Range**	300–800 psi	21–55 bar
Min. Liquid Temperature	-20°F	-29°C
Bore	1.575"	40 mm
Stroke	1.890"	48 mm
Crankcase Capacity	4.2 qts	4 l

SPECIFICATIONS	U.S. Measure	Metric Measure
Inlet Ports (2)	1 ½" NPT(F)	1 ½" NPT(F)
Flush Ports (2)	½" NPT(F)	½" NPT(F)
Discharge Ports (2)	1" NPT(F)	1" NPT(F)
Shaft Diameter	1.378"	35 mm
Pulley Mounting	Either Side	Either Side
Weight	167 lbs	75 kg
Dimensions	24.4 x 18.11 x 9.37"	620 x 460 x 238 mm

\* Pump minimum is 100 RPM.

\*\* Temperature and pressure must be maintained to keep incoming CO<sub>2</sub> in a liquid state.

## EXPLODED VIEW



(Parts List on Reverse Side)

November 2020

## PARTS LIST

ITEM	PN	MATL	DESCRIPTION	QTY
2	34021	STL	Key (M10 x 8 x 70)	1
5	96049	S	Screw, (M10 x 25) (See Tech Bulletin 074, 125)	8
8	134604	ALE	Covering, Bearing (See Tech Bulletin 118, 125)	2
9	815279	FBR	Shim, Split 2-Piece (See Tech Bulletin 125)	0-2
10	12398	NBR	O-Ring, Bearing Cover – 70D	2
11	13296	NBR	Seal, Oil, Crankshaft	2
12	855049	S	Shim, Split 2-Piece	0-2
15	29326	STL	Bearing, Roller	2
20	761467	TNM	Assembly, Connecting Rod (Includes: 21, 22, 23) (See Tech Bulletin 074)	3
21	126749	STCPR	Washer, Locking (M10)	3
22	126593	STCPR	Shim, Washer (M10.5 x 1.5)	6
23	122045	STZP	Screw, HH (M10 x 55)	6
25	29325	FCM	Crankshaft, Dual End (M48)	1
31	828710	PE	Protector, Oil Cap with Polyurethane Gasket	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Oil Filler Cap – 70D	1
34	126743	STCPR	Bolt, Eye (M12 x 1.75) (For Lifting Pump Only)	1
37	92241	PC	Gauge, Oil, Bubble with Gasket (See Tech Bulletin 074)	1
38	44428	NBR	Gasket, Flat, Oil Gauge	1
40	125753	S	Screw, HH Sems (M8 x 25) (See Tech Bulletin 074)	8
48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	O-Ring, Drain Plug – 70D	1
50	45936	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	16612	NBR	O-Ring, Rear Cover – 70D	1
53	134784	ALE	Crankcase Assembly (Includes: 34, 54) (See Tech Bulletin 118, 125)	1
54	27488	S	Pin, Guide	2
64	763864	CM	Pin, Crosshead	3
65	765116	SSZZ	Rod, Plunger	3
69	126587	STCPR	Washer, Oil Seal	3
70	100488	NBR	Seal, Oil, Crankcase	3
88	45676	S	Washer, Keyhole	3
90	43921	CC	Plunger (M40 x 145)	3
95	89778	SS	Stud, Plunger Retainer (M10 x 135)	3
96	20189	PTFE	Backup Ring, Plunger Retainer	3
97	11345	NBR	O-Ring, Plunger Retainer – 70D	3
98	44085	SS	Gasket, Plunger Retainer	3
99	44084	SS	Retainer, Plunger (M10) (See Tech Bulletin 074)	3
100	999324	AL	Retainer, Seal	3
101	999490	D	Adapter, 1/4"	3
102	999492	NY	Tubing, 1/4"	3
103	999491	PLM	Manifold (3" x 1/4" NPT[M])	1
106	701066	SFTB	Seal, LPS, with S-Spring	3
110	701408	SS	Manifold, Inlet, Block-Style Flushed	1
111	45156	SS	Plug (1/2" NPT[M])	1

ITEM	PN	MATL	DESCRIPTION	QTY
112	701794	NBR	O-Ring, Inlet Spacer – 70D	6
113	701319	PTFE	Backup Ring, Inlet Spacer	6
114	701317	SS	Spacer, Inlet	3
116	998032	SS	Bushing (1/2" NPT[M] x 1/4" NPT[F])	1
117	701252	SS	Screw, HSH (M14 x 100) (See Tech Bulletin 074)	4
119	34347	STZP	Bracket	1
120	990776	STZP R	Screw, HHC (1/4" - 20 x 1/2")	2
121	34338	BB	Union (1/4" NPT[M])	1
125	33937	SS	Valve, Check (1/4" NPT[M])	2
126	48391	D	Adapter, Female	3
127	44609	STG	V-Packing	6
128	45368	SS	Adapter, Male	3
141	49519	SS	Spring, Large Coil (See Tech Bulletin 108)	3
155	48860	NBR	O-Ring, V-Packing Spacer – 90D	3
156	20464	PTFE	Backup Ring, V-Packing Spacer	3
157	49520	SS	Spacer, V-Packing (See Tech Bulletin 108)	3
158	20464	PTFE	Backup Ring, V-Packing Spacer	3
159	48860	NBR	O-Ring, V-Packing Spacer – 90D	3
162	44614	PTFE	Backup Ring, Seat	6
163	26142	NBR	O-Ring, Seat – 80D	6
164	44612	SS	Seat	6
166	44108	SS	Valve	6
167	44109	SS	Spring	6
168	44728	PVDF	Retainer, Spring	6
170	44729	SS	Washer, Spring	6
171	44644	SS	Spring, Coil	6
172	89827	NBR	O-Ring, Valve Plug – 90D	6
173	48364	D	Backup Ring, Valve Plug	6
174	701278	SS	Plug, Valve	6
175	701316	SS	Cover, Valve	2
176	87951	S	Screw, HSH (M10 x 30) (See Tech Bulletin 074)	32
185	701315	SS	Manifold, Discharge, Block-Style	1
188	701279	S	Screw, HSH (M12 x 100) (See Tech Bulletin 074)	12
250	855042	NY	Protector, Shaft (See Tech Bulletin 125)	1
255	34039	S	Mount, Direct	1
260	76514	S	Mount, Rail Assembly	1
278	80540	ZP	Screw, HH (M12 x 100) (Rail Adjusting Screw)	2
290	6124	—	Gasket, Liquid (3 oz)	1
299	—	SS	Head, Complete	1
300	702243	NBR *	Kit, Seal (Includes: 97, 106, 112, 113, 127, 155, 156, 158, 159)	1
310	34017	NBR	Kit, Valve Preassembled (Includes: 162–164, 166–168, 170–173)	2
—	6100	—	Oil, Case (12 - 21 oz Bottles) ISO-68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1
—	6119	—	Lubricant, Anti-Sieze (2 oz)	1

\*Review individual parts in each kit for material code identification. Italics are optional items.

R Components comply with RoHS Directive. For additional technical information see [www.catpumps.com/literature/tech-bulletins](http://www.catpumps.com/literature/tech-bulletins).

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy BB=Brass CC=Ceramic CM=ChromeMoly D=Acetal FBR=Fiber

FCM=Forged Chrome-Moly NBR=Medium Nitrile (Buna-N) NBRs=Buna,Silicone Free NY=Nylon PC=Poly Carbonate PLM=Unspecified Poly

PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride PE=Polyethylene S=304SS SS=316SS SFTB=Special Blend PTFE Black

STG=Special Blend PTFE White SSZZ=316SS/Zamak STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated

TNM=Special High Strenght ZP=Zinc Plated

### ⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at [www.catpumps.com/dynamic-literature/cautions-and-warnings](http://www.catpumps.com/dynamic-literature/cautions-and-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)