

# MODEL 2831KM.CO<sub>2</sub>



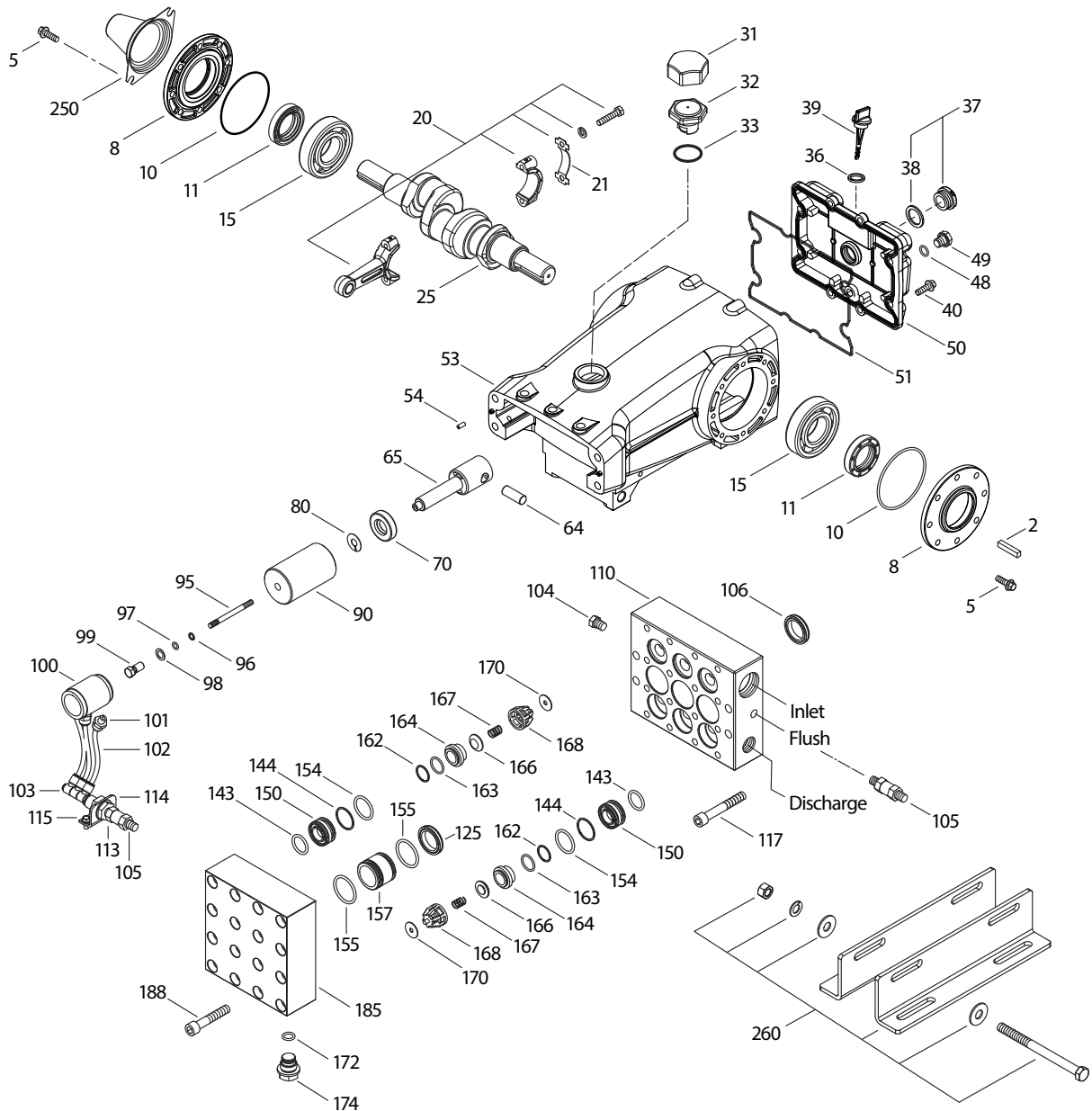
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	10.0 gpm	38 lpm
Pressure Range	400–1200 psi	27.5–83 bar
Pump RPM*	450 rpm	450 rpm
Inlet Pressure Range**	300–800 psi	21–55 bar
Min. Liquid Temperature**	-20° F	-29° C
Bore	1.260"	32 mm
Stroke	1.516"	38.5 mm
Crankcase Capacity	84 oz	2.5 l

SPECIFICATIONS	U.S. Measure	Metric Measure
Inlet Ports (2)	1 ¼" NPT(F)	1 ¼" NPT(F)
Flushing Ports (2)	¼" NPT(F)	¼" NPT(F)
Discharge Ports (2)	¾" NPT(F)	¾" NPT(F)
Shaft Diameter	1.181"	30 mm
Pulley Mounting	Either side	Either side
Weight	104 lbs	42.7 kg
Dimensions	18.98 x 15.04 x 8.03"	482 x 382 x 204 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)

June 2021

## PARTS LIST

ITEM	PN	MATL	DESCRIPTION	QTY
2	990036	STL	Key (M8 x 7 x 40)	1
5	125753	S	Screw, HHC Sems (M8 x 25) (See Tech Bulletin 074)	8
8	134966	ALE	Covering, Bearing (See Tech Bulletin 118, 135)	2
10	27772	NBR	O-Ring, Bearing Cover-70D	2
11	27771	NBR	Seal, Oil, Crankshaft	2
15	26512	STL R	Bearing, Ball	2
20	76755	TNM	Assembly, Connecting Rod (Includes: Locking Washer, Washer, Screws) (See Tech Bulletin 074)	3
21	126562	STCP R	Washer, Locking (M10)	3
25	49795	FCM	Crankshaft, Dual End (M38.5)	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
36	129343	RBR	Gasket, Dipstick	1
37	92241	PC	Gauge, Oil, Bubble with Gasket-80D	1
38	44428	NBR	Gasket, Flat, Oil Gauge-80D	1
39	27769	ABS	Dipstick	1
40	125753	S	Screw, HHC 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	133582	ALE	Cover, Rear (See Tech Bulletin 118, 126)	1
51	27767	NBR	O-Ring, Rear Cover-70D	1
53	133609	ALE	Assembly, Crankcase (Includes Guide Pins) (See Tech Bulletin 118, 135)	1
54	27488	S	Pin, Guide	2
64	76758	CM	Pin, Crosshead	3
65	76756	SSHS	Rod, Plunger	3
70	27785	NBR	Seal, Oil, Crankcase	3
88	110670	S	Washer, Keyhole	3
90	45749	CC	Plunger (M32 x 93)	3
95	89835	SS	Stud, Plunger Retainer (M7 x 87)	3
96	20184	PTFE	Backup Ring, Plunger Retainer	3
97	14190	NBR	O-Ring, Plunger Retainer-70D	3
98	44069	SS	Gasket, Plunger Retainer	3
99	44068	SS	Retainer, Plunger (M7) (See Tech Bulletin 074)	3
100	997701	AL	Retainer, Seal	3
101	999490	D	Adapter, 1/4"	3
102	999492	NY	Tubing, 1/4"	3

ITEM	PN	MATL	DESCRIPTION	QTY
103	999491	PLM	Manifold (3" x 1/4" NPT)	1
104	701077	SS	Plug, Inlet Manifold (1/4" NPT)	1
105	33937	SS	Valve, Check (1/4" NPT)	2
106	76298	ST2	Seal, LPS, with S-Spring	3
110	701719	SS	Manifold, Inlet/Discharge with Flush Port	1
113	34338	BB	Union (1/4" NPT)	1
114	34347	STZP	Bracket	1
115	990776	STZP R	Screw, HHC (1/4"-20 x 1/2")	2
117	701693	S	Screw, HSH (M12 x 80) (See Tech Bulletin 074)	4
125	76832	ST4	Seal, HPS with S	3
143	14200	NBR	O-Ring, Valve Adapter, Rear-70D	6
144	28243	PTFE	Backup Ring, Valve Adapter	6
150	701675	SS	Adapter, valve	6
154	11379	NBR	O-Ring, Valve Adapter, Front-70D	6
155	14520	NBR	O-Ring, High-Pressure Seal Spacer	6
157	701692	SS	Spacer, High-Pressure Seal	3
162	21985	PTFE	Backup Ring, Seat	6
163	26089	NBR	O-Ring, Seat-80D	6
164	44080	SS	Seat	6
166	44081	SS	Valve	6
167	44082	SS	Spring	6
168	44735	PVDF	Retainer, Spring	6
170	44794	SS	Washer, Spring Retainer	6
172	700008	NBR	O-Ring, Valve Plug	3
174	701694	SS	Plug, Valve (See Tech Bulletin 074)	3
185	701662	SS	Manifold, Valve, Block-Style	1
188	89628	S	Screw, HSH (M12 x 65) (See Tech Bulletin 074)	8
250	26516	STCP	Protector, Shaft	1
260	30614	STZP R	Mount, Rail Assembly	1
290	6124	—	Gasket, Liquid (3 oz)	1
299	—	SS	Head, Complete	1
300	76604	NBR*	Kit, Seal (Includes: 96, 97, 106, 125, 143, 144, 154, 155)	1
310	701732	NBR	Kit, Valve Preassembled (Includes: 143, 144, 154, 155, 162-164, 166-168, 170, 172)	1
	6100	—	Oil, Bottle (21 oz) ISO-68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	4
	6119	—	Lubricant, Antiseize (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 FCM=Forged Chrome-Moly NBR=Medium Nitrile (Buna-N) NY=Nylon PC=Poly Carbonate PE=Polyethylene PLM=Unspecified Poly  
 PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride RBR=Rubber S=304SS SS=316SS SSHS=316SS/High Strength  
 STCP=Steel/Chrome Plated ST2=Special PTFE 2 ST4=Special PTFE 4 STL=Steel  
 STZP=Steel/Zinc Plated TNM=Special High Strength

### ⚠ 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 online at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)

**CAT PUMPS** 1681 94th Lane N.E., Minneapolis, MN 55449-4324 P: (763) 780-5440 F: (763) 780-2958 E: [techsupport@catpumps.com](mailto:techsupport@catpumps.com) [www.catpumps.com](http://www.catpumps.com)

©2021 Cat Pumps Inc. All rights reserved. All data contained in this document are based on the latest product information available at the time of publication. Cat Pumps reserves the right to make changes at any time without notice.