

# MODELS

## 781KM.CO<sub>2</sub>, 781KMRS.CO<sub>2</sub>

## 784KM.CO<sub>2</sub>



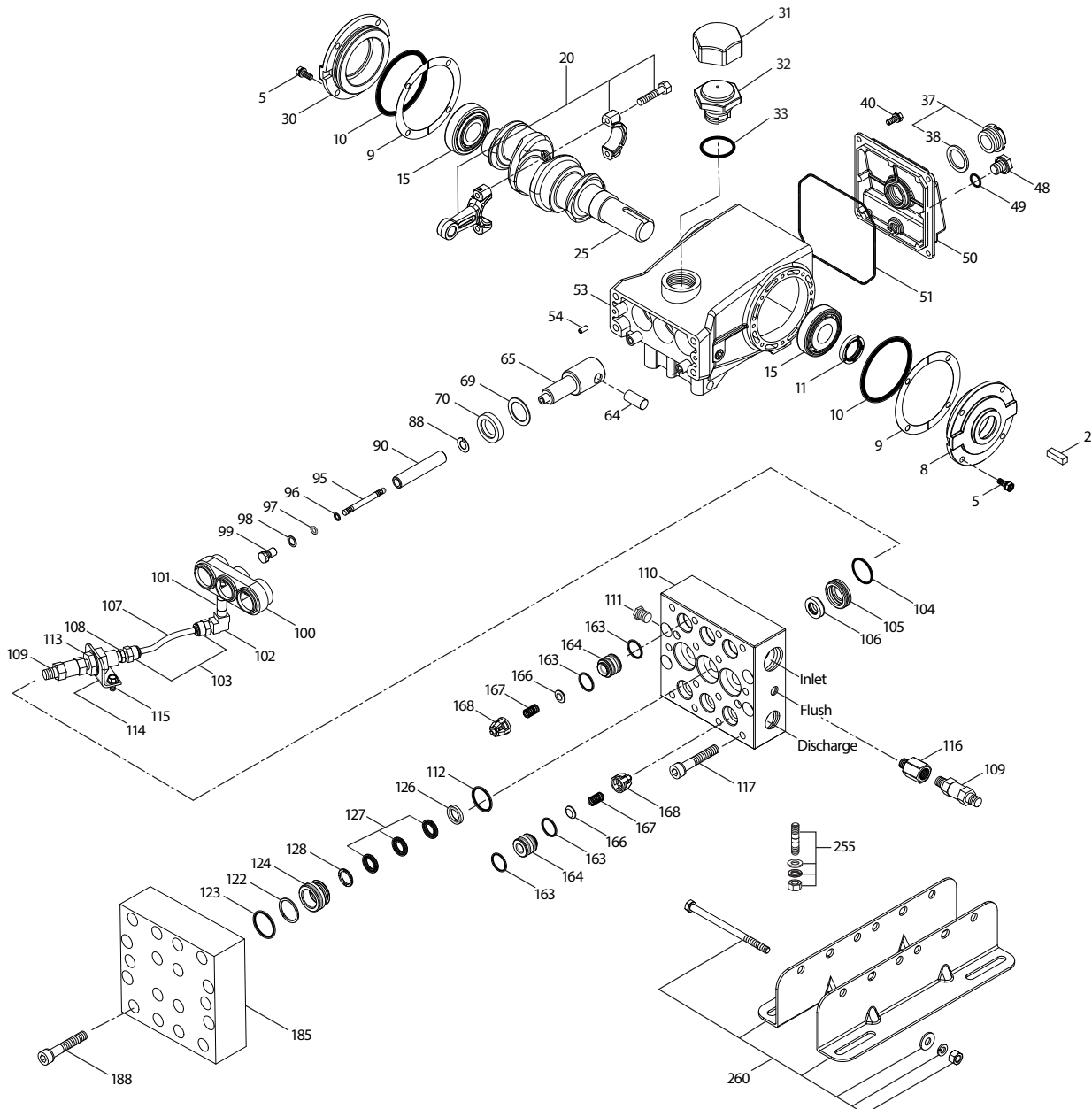
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow (781KM.CO <sub>2</sub> , 781KMRS. CO <sub>2</sub> )	0.82 gpm	3.1 lpm
Flow (784KM.CO <sub>2</sub> )	0.34 gpm	1.29 lpm
Pressure Range	100–5000 psi	6.9–345 bar
Pump RPM*	450 rpm	450 rpm
Inlet Pressure Range**	300–800 psi	21–55 bar
Minimum Liquid Temperature**	-20° F	-29° C
Bore	0.551"	14 mm
Stroke (781KM.CO <sub>2</sub> , 781KMRS. CO <sub>2</sub> )	0.945"	24 mm
Stroke (784KM.CO <sub>2</sub> )	0.590"	15 mm

SPECIFICATIONS	U.S. Measure	Metric Measure
Crankcase Capacity	25 oz	0.75 l
Inlet Ports (2)	½" NPT(F)	½" NPT(F)
Flush Ports (2)	⅛" NPT(F)	⅛" NPT(F)
Discharge Ports (2)	⅜" NPT(F)	⅜" NPT(F)
Shaft Diameter	0.945"	24 mm
Weight	48.1 lbs	21.8 kg
Dimensions	13.15 x 9.25 x 6.06"	334 x 235 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)

March 2021

## PARTS LIST

ITEM	PN	MATL DESCRIPTION	QTY
2	30067	STL Key (M8 x 7.5 x 25)	1
5	92538	S Screw, HHC, Sems (M6 x 16) (See Tech Bulletin 074)	8
8	133571	ALE Cover, Bearing (See Tech Bulletin 118, 123)	1
9	815280	FBR Split Shim, 2-Piece	1-2
10	12393	NBR O-Ring, Bearing Cover	2
11	43222	NBR Seal, Oil, Crankshaft	1
15	43221	STL Bearing, Roller	2
20	768863	AL Rod Assembly, Connecting (with POM Bushing)	3
25	<b>119234</b>	FCM Crankshaft – Single End (M24 with 60 mm Extension) (781KM.CO <sub>2</sub> , 781KMRS.CO <sub>2</sub> )	1
	<b>44591</b>	FCM Crankshaft – Single End (M15 with 34 mm Extension) (784KM.CO <sub>2</sub> )	1
30	133572	ALE Cover, Blind Bearing	1
31	828710	PE Protector, Oil Cap with Foam Gasket	1
32	44666	RTP Cap, Oil Filler, Domed	1
33	14177	NBR O-Ring, Filler Cap–70D	1
37	92241	PC Gauge, Oil, Bubble with Gasket–80D (See Tech Bulletin 074)	1
38	44428	NBR Gasket, Flat Flex., Oil Gauge–80D	1
40	92538	S Screw, HHC, Sems (M6 x 16) (See Tech Bulletin 074, 106)	4
48	25625	STCP Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR O-Ring, Drain Plug–70D	1
50	133569	ALE Cover, Rear (See Tech Bulletin 118)	1
51	14047	NBR O-Ring, Rear Cover–70D (See Tech Bulletin 106)	1
53	133593	ALE Crankcase with Guide Pins (See Tech Bulletin 118, 123)	1
54	27488	S Pin, Guide	2
64	763237	SS Pin, Crosshead	3
65	768913	AL Rod, Plunger, Short (with Set Screws)	3
69	126589	STCP R Washer, Oil Seal	3
70	43228	NBR Seal, Oil, Crankcase	3
88	45697	S Washer, Keyhole (M18)	3
89	43505	BB Spacer, Plunger	3
90	45890	CC Plunger (M14 x 72)	3
95	89653	SS Stud, Plunger Retainer (M6 x 58)	3
96	43235	PTFE Backup Ring, Plunger Retainer	3
97	30139	NBR O-Ring, Plunger Retainer–90D	3
98	44041	SS Gasket, Plunger Retainer	3
99	49665	SS Retainer, Plunger (M6) (See Tech Bulletin 074)	3
100	999703	AL Retainer, Seal, Vented	1
101	999701	BB Nipple [1/8" NPT(M) x 2"]	1

ITEM	PN	MATL DESCRIPTION	QTY
102	999702	BB Elbow [1/8" NPT(M)]	1
103	999490	D Adapter (1/4")	2
104	702988	URTH Q-Ring, Inlet Adapter	3
105	701587	SS Adapter, Inlet	3
106	704649	ST4 Seal, LPS with NIH–Spring	3
107	999492	NY Tubing	1
108	34633	BB Bushing [1/4" NPT(M) x 1/8" NPT(F)]	1
109	33937	SS Valve, Check [1/4" NPT(M)]	2
110	49241	SS Manifold, Inlet/Discharge Block-Style (1/8" Flushed Port)	1
111	34507	BB Plug [1/8" NPT(F)]	1
112	702991	URTH Q-Ring, V.P. Spacer	3
113	34338	BB Union [1/4" NPT(M)]	1
114	34347	STZP Bracket	1
115	990776	STZP R Screw, HHC (1/4"- 20 x 1/2")	2
116	34148	BB Adapter [1/4" NPT(F) x 1/8" NPT(M)]	1
117	702736	SS Screw, HSH (M10 x 55) (See Tech Bulletin 074)	4
123	702994	URTH Q-Ring, V.P. Cylinder	3
124	701589	SS Cylinder V.P.	3
126	701682	SS Adapter, Female	3
127	704666	ST4 V-Packing	9
128	701683	SS Adapter, Male	3
163	702989	URTH Q-Ring, Seat	12
164	701591	SS Seat	6
166	701751	SS Valve	6
167	44056	SS Spring	6
168	44565	PVDF Retainer, Spring	6
185	49214	SS Manifold, Valve, Block-Style	1
188	702736	SS Scw, HSH, (M10 x 55) (See Tech Bulletin 074)	14
255	30243	STZP Kit, Direct Mount	1
260	30645	STZP R Mount, Rail, Assembly (2.95 x 11.81)	1
	30611	STZP R Mount, Rail, Assembly (2.09 x 9.45)	1
265	30660	— Kit, Complete Mounting	1
	—	— Head, Complete, Block-Style, Flushed	1
300	701883.C02	NBR* Kit, Seal (Includes: 96, 97, 104, 106, 112, 123, 127)	1
310	701884.C02	NBR* Kit, Valve (Includes: 163, 164, 166, 167, 168)	2
	6107	— Oil, Bottle (21 oz) ISO 68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	1-2
	6119	— Lubricant, Antiseize (1 oz)	1

**Bold part numbers are unique to a particular pump model. Italics are optional items.**

[ ] Date of latest production change. R Components comply with RoHS Directive. \*Review material codes for individual items (SFTA generally may be used as alternate).

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):

AL=Aluminum ALE=Aluminum Epoxy BB=Brass CC=Ceramic D=Acetal FBR=Fiber FCM=Forged Chrome-Moly

NBR=Medium Nitrile (Buna-N) PC=Poly Carbonate PE=Polyethylene PTFE=Pure Polytetrafluoroethylene

PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite S=304SS NY=NylonSS=316SS

ST4=Special PTFE4 STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated

URTH=Urethane

### ⚠ 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)

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