

# MODELS

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

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



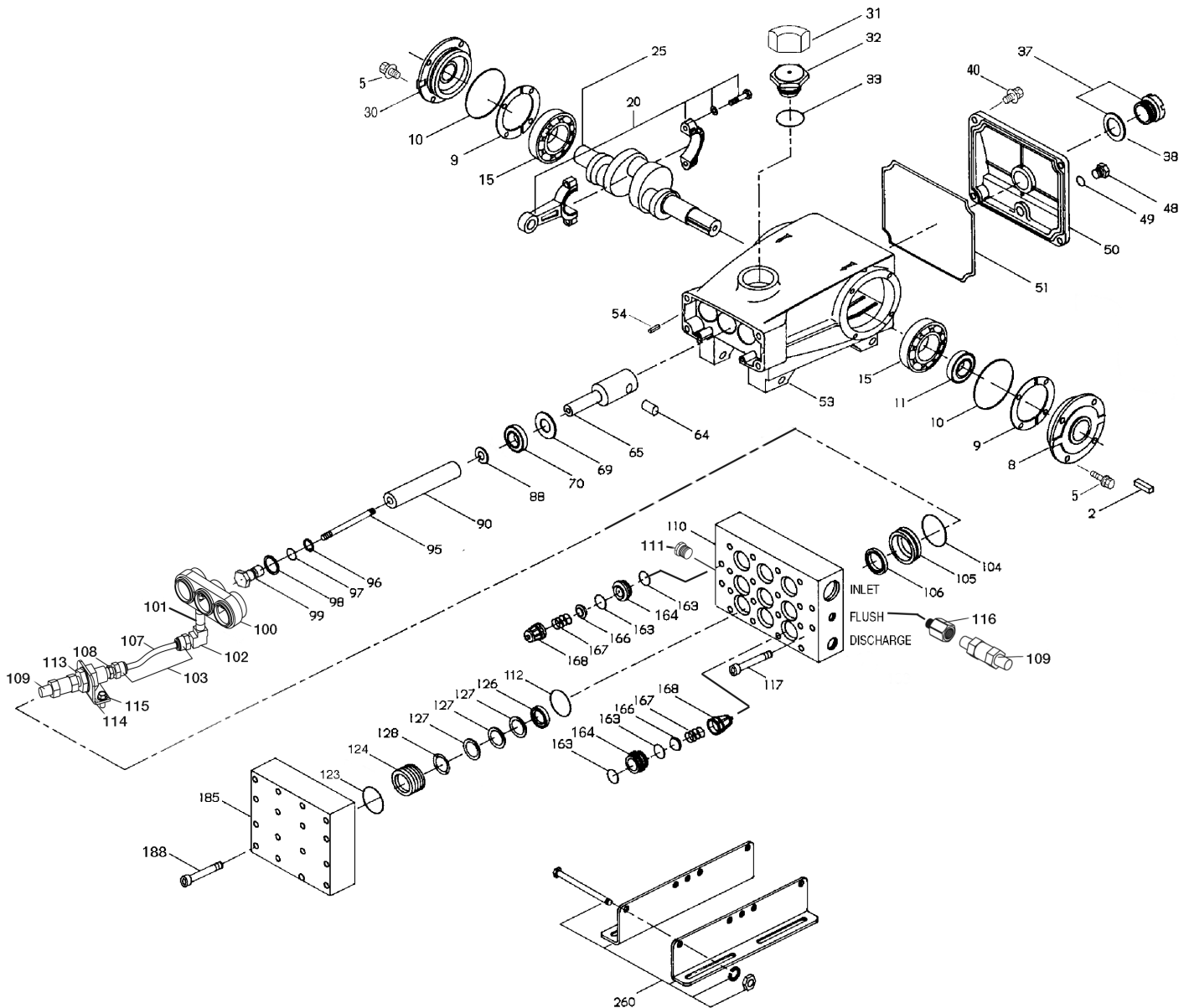
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow (781KM.CO <sub>2</sub> , 781KMRS. CO <sub>2</sub> )	0.82 gpm	3.1 lpm
Flow (784KM.CO <sub>2</sub> )	0.34 gpm	1.29 lpm
Pressure Range	100 to 5000 psi	6.9 to 345 bar
Pump RPM*	450 rpm	450 rpm
Inlet Pressure Range**	300 to 800 psi	21 to 55 bar
Min. Liquid Temperature**	-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)	1/2" NPT(F)	1/2" NPT(F)
Flushing Ports (2)	1/8" NPT(F)	1/8" NPT(F)
Discharge Ports (2)	3/8" NPT(F)	3/8" 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)

May 2019

## PARTS LIST

ITEM PN	MATL	DESCRIPTION	QTY	ITEM PN	MATL	DESCRIPTION	QTY
2	30067	STL Key (M8x7.5x25)	1	101	999701	BB Nipple [1/8" NPT(M)x2"]	1
5	92538	S Screw, HHC, Sems (M6x16)	8	102	999702	BB Elbow [1/8" NPT(M)]	1
8	133571	ALE Cover, Bearing (See Tech Bulletin 118)	1	103	999490	D Adapter (1/4")	2
9	815280	FBR Split Shim, 2 Pc.	1/2	104	702988	URTH Q-Ring, Inlet Adapter	3
10	12393	NBR O-Ring, Bearing Cover	2	105	701587	SS Adapter, Inlet	3
11	43222	NBR Seal, Oil, Crankshaft	1	106	704649	ST4 Seal, LPS w/NIH-Spg	3
15	43221	STL Bearing, Roller	2	107	999492	NY Tubing	1
20	768863	AL Rod Assy, Connecting (w/POM Bushing)	3	108	34633	BB Bushing [1/4" NPT(M)x1/8" NPT(F)]	1
25	<b>119234</b>	<b>FCM</b> Crankshaft - Single End (M24 w/60 mm extension) (781KM.CO <sub>2</sub> , 781KMRS.CO <sub>2</sub> )	1	109	33937	SS Valve, Check [1/4" NPT(M)]	2
	<b>44591</b>	<b>FCM</b> Crankshaft - Single End (M15 w/34 mm extension) (784KM.CO <sub>2</sub> )	1	110	49241	SS Manifold, Inlet/Discharge Block-Style (1/8" Flushed Port)	1
30	133572	ALE Cover, Blind Bearing	1	111	34507	BB Plug [1/8" NPT(F)]	1
31	828710	PE Protector, Oil Cap w/Foam Gasket	1	112	702991	URTH Q-Ring, V.P. Spacer	3
32	44666	RTP Cap, Oil Filler, Domed	1	113	34338	BB Union [1/4" NPT(M)]	1
33	14177	NBR O-Ring, Filler Cap - 70D	1	114	34347	STZP Bracket	1
37	92241	— Gauge, Oil, Bubble w/Gasket - 80D	1	115	990776	STZP R Screw, HHC (1/4"- 20x1/2")	2
38	44428	NBR Gasket, Flat Flex., Oil Gauge - 80D	1	116	34148	BB Adapter [1/4" NPT(F) x1/8" NPT(M)]	1
40	92538	S Screw, HHC, Sems (M6x16) (See Tech Bulletin 106)	4	117	702736	SS Screw, HSH (M10x55)	4
48	25625	STCP Plug, Drain (1/4"x19BSP)	1	123	702994	URTH Q-Ring, V.P. Cylinder	3
49	23170	NBR O-Ring, Drain Plug - 70D	1	124	701589	SS Cylinder V.P.	3
50	133569	ALE Cover, Rear (See Tech Bulletin 118)	1	126	701682	SS Adapter, Female	3
51	14047	NBR O-Ring, Rear Cover - 70D (See Tech Bulletin 106)	1	127	704666	ST4 V-Packing	9
53	133593	ALE Crankcase w/Guide Pins (See Tech Bulletin 118)	1	128	701683	SS Adapter, Male	3
54	27488	S Pin, Guide	2	163	702989	URTH Q-Ring, Seat	12
64	763237	SS Pin, Crosshead	3	164	701591	SS Seat	6
65	768913	AL Rod, Plunger, Short (w/Set Screws)	3	166	701751	SS Valve	6
69	126589	STCP R Washer, Oil Seal	3	167	44056	SS Spring	6
70	43228	NBR Seal, Oil, Crankcase	3	168	44565	PVDF Retainer, Spring	6
88	45697	S Washer, Keyhole (M18)	3	185	49214	SS Manifold, Valve, Block-Style	1
89	43505	BB Spacer, Plunger	3	188	702736	SS Scw, HSH, (M10x55)	14
90	45890	CC Plunger (M14x72)	3	255	30243	STZP Kit, Direct Mount	1
95	89653	SS Stud, Plunger Retainer (M6x58)	3	260	30645	STZP R Mount, Rail, Assy (2.95x11.81)	1
96	43235	PTFE Back-up-Ring, Plunger Retainer	3		30611	STZP R Mount, Rail, Assy (2.09x9.45)	1
97	30139	NBR O-Ring, Plunger Retainer - 90D	3	265	30660	— Kit, Complete Mounting	1
98	44041	SS Gasket, Plunger Retainer	3		—	Head, Complete, Block-Style, Flushed	1
99	49665	SS Retainer, Plunger (M6)	3	300	701883.C02	NBR* Kit, Seal (Incls: 96,97,104,106,112,123,127)	1
100	999703	AL Retainer, Seal, Vented	1	310	701884.C02	NBR* Kit, Valve (Incls: 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).

See Tech Bulletins 024, 035, 036, 043, 053, 054, 061, 064, 067, 074, 083, 106 and 118 for additional information.

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)PE=Polyethylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite S=304SS NY=Nylon SS=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/cautions-warnings](http://www.catpumps.com/cautions-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

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



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