

MODELS

781KM.CO2, 781KMRS.CO2

784KM.CO2



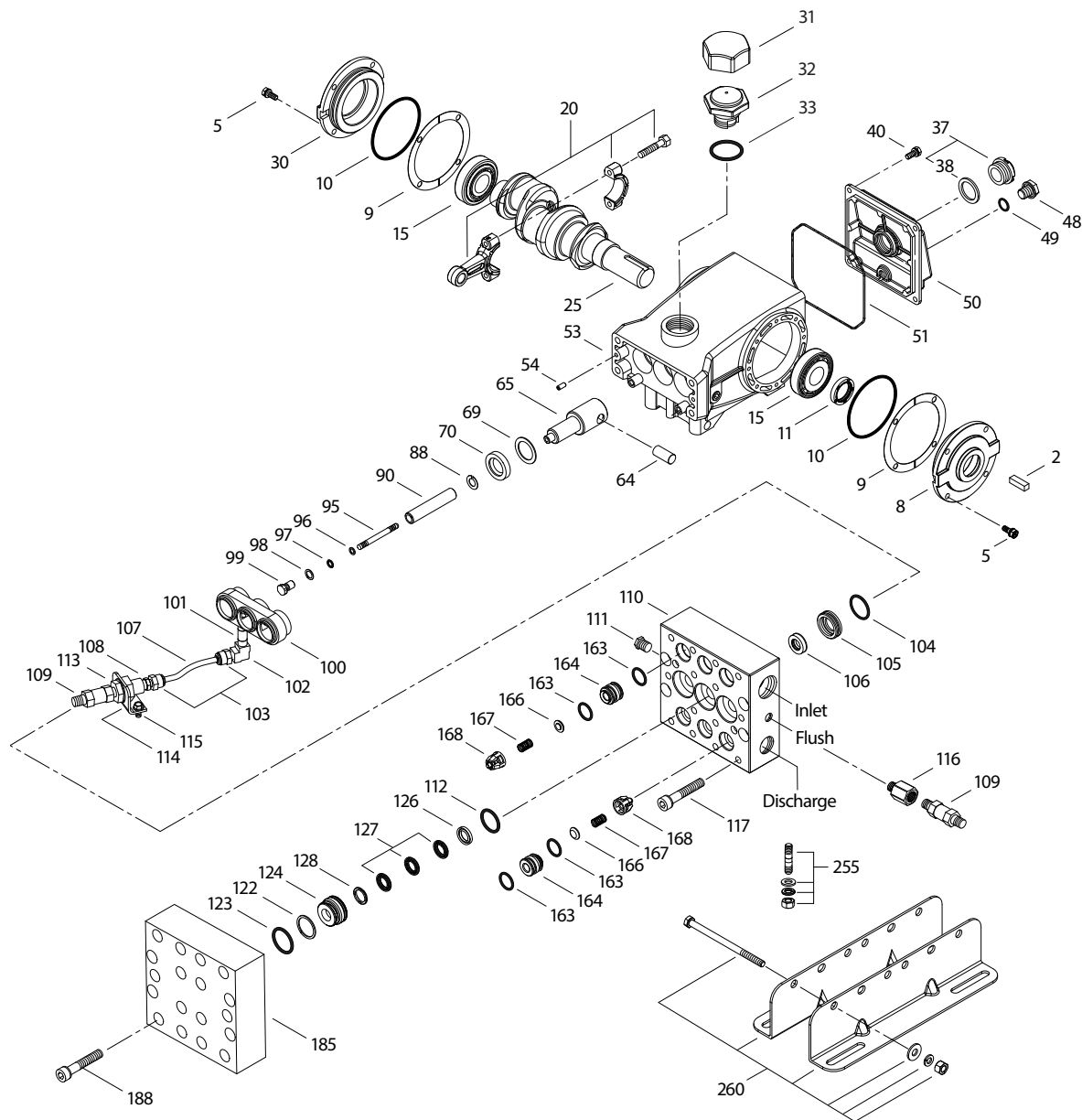
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow (781KM.CO2, 781KMRS.CO2)	0.82 gpm	3.1 lpm
Flow (784KM.CO2)	0.34 gpm	1.29 lpm
Pressure Range	100–5000 psi	6.9–345 bar
Pump RPM*	450 rpm	450 rpm
Inlet Pressure Range**	300–800 psi	21–55 bar
Minimum Liquid Temperature**	-20° F	-29° C
Bore	0.551"	14 mm
Stroke (781KM.CO2, 781KMRS.CO2)	0.945"	24 mm
Stroke (784KM.CO2)	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 CO₂ in a liquid state

EXPLODED VIEW



(Parts List on Reverse Side)

March 2023

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 Bulletins 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	TNM	Rod Assembly, Connecting (With POM Bushing)	3
25	119234	FCM	Crankshaft – Single End (M24 with 60 mm Extension) (781KM.CO2, 781KMRS.CO2)	1
	44591	FCM	Crankshaft – Single End (M15 with 34 mm Extension) (784KM.CO2)	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 Flexible, Oil Gauge–80D	1
40	92538	S	Screw, HHC, Sems (M6 x 16) (See Tech Bulletins 074, 106)	4
48	25625	STCP	Plug, Drain (¼" 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 Bulletins 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
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 (½" NPT[M] x 2")	1

ITEM	PN	MATL	DESCRIPTION	QTY
102	999702	BB	Elbow (½" NPT[M])	1
103	999490	D	Adapter (¼")	2
104	702988	URTH	Q-Ring, Inlet Adapter	3
105	701587	SS	Adapter, Inlet	3
106	704649	ST4	Seal, Low-Pressure with NIH–Spring	3
107	999492	NY	Tubing	1
108	34633	BB	Bushing (¼" NPT[M] x ½" NPT[F])	1
109	33937	SS	Valve, Check (¼" NPT[M])	2
110	49241	SS	Manifold, Inlet/Discharge Block-Style (½" Flushed Port)	1
111	34507	BB	Plug (½" NPT[F])	1
112	702991	URTH	Q-Ring, V-Packing Spacer	3
113	34338	BB	Union (¼" NPT[M])	1
114	34347	STZP	Bracket	1
115	990776	STZP R	Screw, HHC (¼"–20 x ½")	2
116	34148	BB	Adapter (¼" NPT[F] x ½" NPT[M])	1
117	87952	S	Screw, HSH (M10 x 55) (See Tech Bulletin 074)	4
123	702994	URTH	Q-Ring, V-Packing Cylinder	3
124	701589	SS	Cylinder V-Packing	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	49213	SS	Manifold, Valve, Block-Style	1
188	87952	S	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
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
	6139	—	Lubricant, Antiseize (8 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 (ST4 generally may be used as alternate).

For additional technical information see 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) NY=Nylon PC=Poly Carbonate PE=Polyethylene PTFE=Pure Polytetrafluoroethylene

PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite S=304SS SS=316SS ST4=Special PTFE4

STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated TNM=Special High Strength

URTH=Urethane

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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 or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty