

MODELS

781KM.CO2, 781KMRS.CO2

784KM.CO2



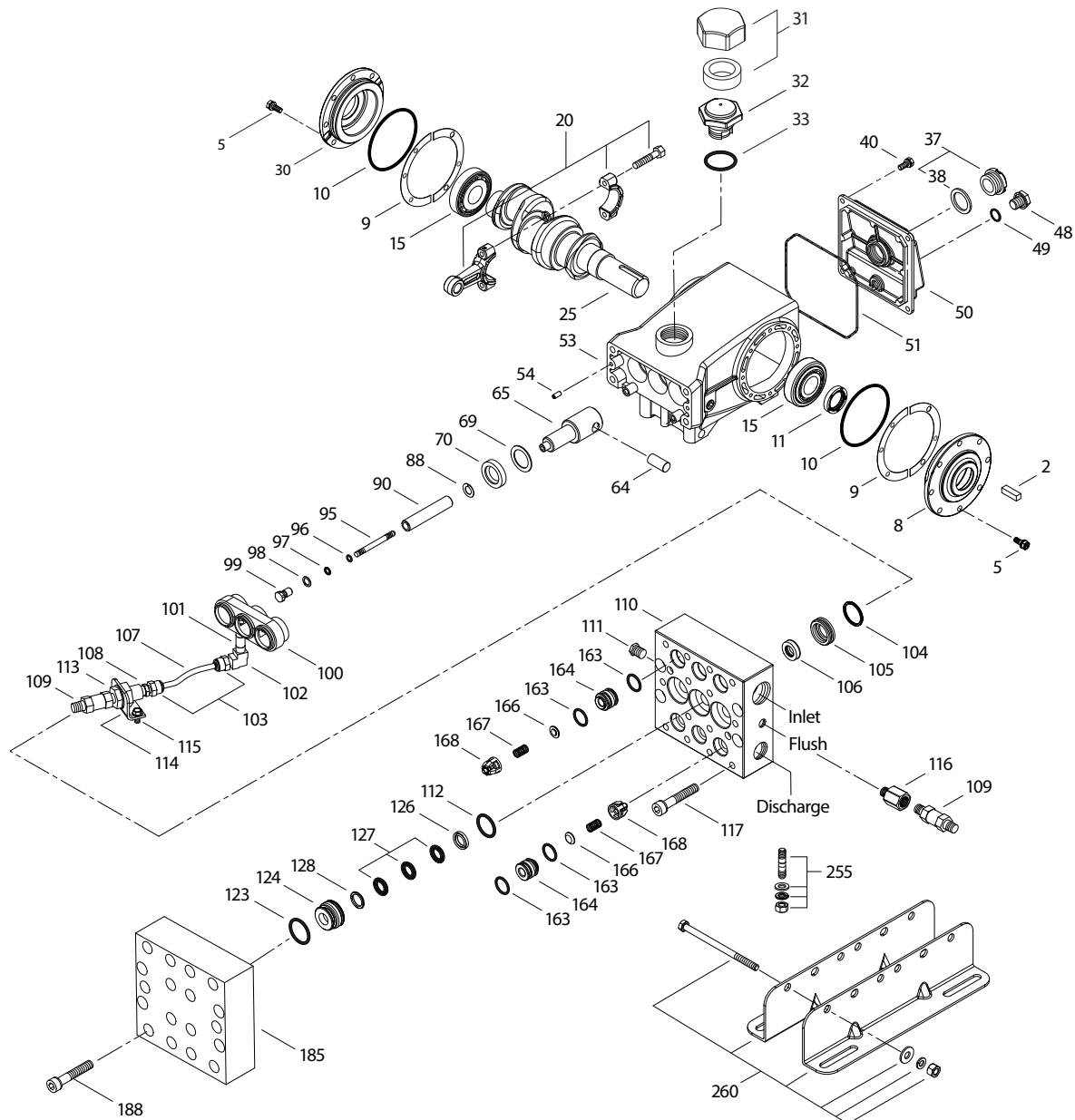
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow (781KM.CO2, 781KMRS.CO2)	0.82 gpm	3.1 lpm
Flow (784KM.CO2)	0.34 gpm	1.29 lpm
Pressure Range	100–5000 psi	6.9–345 bar
Pump RPM*	450 rpm	450 rpm
Inlet Pressure Range**	300–800 psi	21–55 bar
Minimum Liquid Temperature**	-20° F	-29° C
Bore	0.551"	14 mm
Stroke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

November 2024

PARTS LIST

ITEM	PN	MATL	DESCRIPTION	QTY	ITEM	PN	MATL	DESCRIPTION	QTY
2	30067	STL	Key (M8 x 7.5 x 25)	1	101	999701	BB	Nipple (1/8" NPT[M] x 2")	1
5	92538	S	Screw, HHC, Sems (M6 x 16) (See Tech Bulletin 074)	8	102	999702	BB	Elbow (1/8" NPT[F])	1
8	133571	ALE	Cover, Bearing	1	103	999490	D	Adapter (1/4")	2
9	815280	FBR	Split Shim, 2-Piece	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, Low-Pressure with NIH-Spring	3
15	43221	STL	Bearing, Roller	2	107	999492	NY	Tubing	1
20	768863	TNM	Rod Assembly, Connecting (With POM Bushing)	3	108	34633	BB	Bushing (1/4" NPT[M] x 1/8" NPT[F])	1
25	119234	FCM	Crankshaft, Single-End (M24 with 60 mm Extension) (781KM.CO2, 781KMRS.CO2)	1	109	33937	SS	Valve, Check (1/4" NPT[M])	2
	44591	FCM	Crankshaft, Single-End (M15 with 34 mm Extension) (784KM.CO2)	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[M])	1
31	828710	PE	Protector, Oil Cap With Foam Gasket	1	112	702991	URTH	Q-Ring, V-Packing Cylinder	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	PC	Gauge, Oil, Bubble with Gasket-80D (See Tech Bulletin 074)	1	115	990776	STZP R	Screw, HHC (1/4"-20 x 1/2")	2
38	44428	NBR	Gasket, Flat Flexible, Oil Gauge-80D	1	116	34148	BB	Adapter (1/4" NPT[F] x 1/8" NPT[M])	1
40	92538	S	Screw, HHC, Sems (M6 x 16) (See Tech Bulletin 074)	4	117	87952	S	Screw, HSH (M10 x 55) (See Tech Bulletin 074)	4
48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1	123	702994	URTH	Q-Ring, V-Packing Cylinder	3
49	23170	NBR	O-Ring, Drain Plug-70D	1	124	701589	SS	Cylinder, V-Packing	3
50	133569	ALE	Cover, Rear	1	126	701682	SS	Adapter, Female	3
51	14047	NBR	O-Ring, Rear Cover-70D	1	127	704666	ST4	V-Packing	9
53	133593	ALE	Crankcase with Guide Pins	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 (with 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 x M10)	3	185	49213	SS	Manifold, Valve, Block-Style (Includes: Inserts, Valve Plugs)	1
90	45890	CC	Plunger (M14 x 72)	3	188	87952	S	ScREW, HSH, (M10 x 55) (See Tech Bulletin 074)	14
95	89653	SS	Stud, Plunger Retainer (M6 x 58)	3	255	30243	STZP	Mount, Direct	1
96	43235	PTFE	Backup Ring, Plunger Retainer	3	260	30645	STZP R	Rail Assembly (2.95 x 11.81)	1
97	30139	NBR	O-Ring, Plunger Retainer-90D	3		30611	STZP R	Rail Assembly (2.09 x 9.45)	1
98	44041	SS	Gasket, Plunger Retainer	3	300	701883.CO2	NBR*	Kit, Seal (Includes: 96, 97, 104, 106, 112, 123, 127)	1
99	49665	SS	Retainer, Plunger (M6) (See Tech Bulletin 074)	3	310	701884.CO2	NBR*	Kit, Valve (Includes: 163, 164, 166, 167, 168)	2
100	999703	AL	Retainer, Seal, Vented	1		6107	—	Oil, Bottle (21 oz) (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.

R Components comply with RoHS Directive. *Review material codes for individual items (ST4 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