



5 Frame Plunger Pumps

Models

30.CO2 30RS.CO2



Model 30RS.CO2 Shown
(Rails Sold Separately)

FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Durable high pressure seals are lubricated and cooled by pumped liquid.
- Pre-set Lo-Pressure seals provide secondary protection against external leaks and require no packing adjustment.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Special formulated seals offer unmatched performance and extended life.
- Wet-end easily serviced without entering crankcase.

SPECIFICATIONS

U.S. Measure

Metric Measure

MODELS 30.CO2, 30RS.CO2

Flow	0.68 gpm	(2.57 lpm)
Pressure Range.....	100 to 2200 psi	(7 to 155 bar)
RPM.....	450 RPM	(450 RPM)
Inlet Pressure Range.....	300 to 400 psi	(21 to 27 bar)
Note: Temperature and pressure must be maintained to keep incoming CO2 in liquid state.		
Minimum Liquid Temperature	-20°F	(-29°C)
Bore	0.787"	(20 mm)
Stroke.....	0.315"	(8 mm)
Crankcase Capacity.....	18 oz.	(.55 l)
Inlet Ports (2)	1/2" NPTF	(1/2" NPTF)
Discharge Ports (2).....	3/8" NPTF	(3/8" NPTF)
Shaft Diameter	0.787"	(20 mm)
Weight.....	20.1 lbs.	(9.1 kg)
Dimensions.....	11.69 x 8.35 x 5.28"	(297 x 212 x 134 mm)

ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE				RPM
		psi 1200	psi 1500	psi 2000	psi 2200	
U.S. gpm	l/m	bar 85	bar 105	bar 140	bar 155	450
0.68	2.57	.56	.70	.93	1.02	

**DETERMINING
THE PUMP R.P.M.**

$$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$$

**DETERMINING
THE REQUIRED H.P.**

$$\frac{\text{gpm} \times \text{psi}}{1460} = \text{Electric Brake H. P. Required}$$

**DETERMINING
MOTOR PULLEY SIZE**

$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

⚠ 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 or can be requested directly from CAT PUMPS.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.
Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
2	30057	STL	Key (M6x6x25)	1
5	125824	STCP R	Screw, HHC Sems (M6x16)	8
8	43745	AL	Cover, Bearing	1
10	43343	NBR	O-Ring, Bearing Case - 70D	2
11	43222	NBR	Seal, Oil, Crankshaft - 70D	1
15	14480	STL	Bearing, Ball	2
20	45883	HS	Rod, Connecting, Assy	3
25	44923	FCM	Crankshaft, Single End	1
30	44944	AL	Cover, Blind Shaft	1
31	828710	PE	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Filler Cap - 70D	1
37	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	126541	STCP R	Screw, HHC Sems (M6x20)	4
48	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	O-Ring, Drain Plug - 70D	1
50	48772	AL	Cover, Rear	1
51	48773	NBR	O-Ring, Crankcase Cover	1
53	48774	AL	Crankcase	1
64	43351	CM	Pin, Crosshead	3
65	45908	ZZCP	Rod, Plunger, Short	3
70	43228	NBR	Seal, Oil, Crankcase	3
75	43328	S	Slinger, Barrier	3
88	45697	S	Washer, Keyhole (M18)	3
90	43367	CC	Plunger (M20x72)	3
95	126558	STCP R	Stud, Plunger Retainer (M6x64.5)	3
96	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	17399	NBR	O-Ring, Plunger Retainer - 80D	3
98	45891	CU	Gasket	3
99	46504	S	Retainer, Plunger (M6)	3
100	701765	SS	Retainer, Seal	3
106	701763	SFTA	Seal, LPS w/NIH-Spg	3
120	45679	BB	Case, Seal	3
121	14200	NBR	O-Ring, Seal Case - 70D	3
125	701764	SFTA	Seal, HPS w/SS	3
139	22179	BBCP	Plug, Inlet (1/2" NPT) (Not Shown)	1
162	48361	D	Back-up-Ring, Seat	6
163	43358	NBR	O-Ring, Seat - 70D	6
164	43725	S	Seat	6
166	43723	S	Valve	6
167	43750	S	Spring	6
168	44565	PVDF	Retainer, Spring	6
172	17615	NBR	O-Ring, Valve Plug - 75D	6
174	46756	BB	Plug, Valve	6
185	45062	BB	Head, Manifold	1
188	126520	STCP R	Screw, HSH Sems (M10x35)	2
196	43633	BB	Plug, Discharge, (3/8" NPT) (Not Shown)	1
260	30611	STZP	Rail Mounting, Angle - B	1
270	30633	STL	Pulley & Key Assy (Incls: 30058, 30057)	1
275	30944	STL	Hub & Key Assy (Incls: 30945, 30057)	1
300	76152	NBR*	Kit, Seal (Incls: 97,106,121,125)	1
310	30821	NBR	Kit, Valve (Incls: 162,163,164,166,167,168,172)	2
350	30696	STZP	Plier, Reverse	1
351	33004	STZP	Seal Case Socket, 1/2" Drive	1
—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1

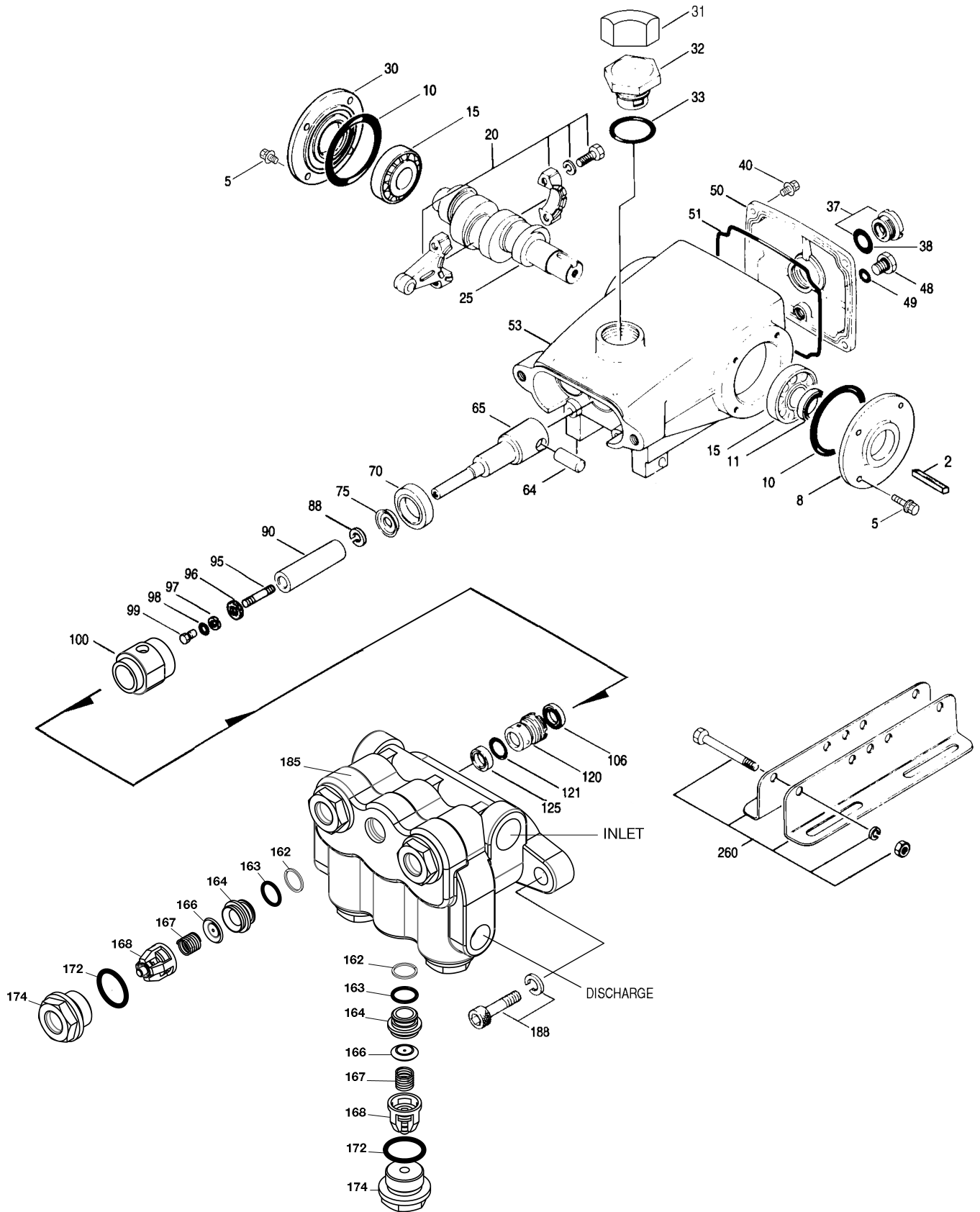
Italics are optional items. R Components comply with RoHS Directive.

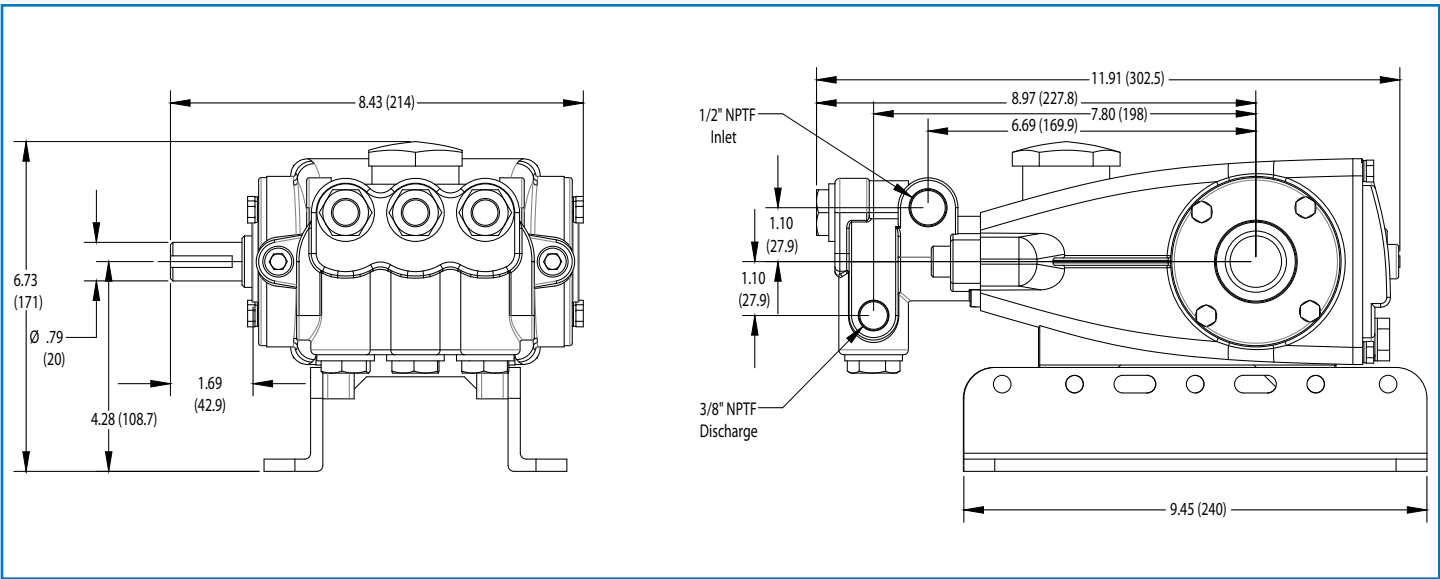
[] Date of latest production change. See Tech Bulletins 003, 024, 036, 074, 077, 078, 083 and 090 for additional information.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass

BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly CU=Copper D=Acetal FBB=Forged Brass FCM=Forged Chrome-moly
 HS=High Strength NBR=Medium Nitrile (Buna-N) PE= Polyethylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride
 S=304SS SFTA= Special Blend PTFE (Tan) SNG=Special Blend (Buna) SS= 316 Stainless Steel STL=Steel STCP=Steel/Chrome Plated
 STZP=Steel/Zinc Plated ZZ/CP=Zamak/Chrome Plated

EXPLODED VIEW





Models 30.C02, 30RS.C02



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