

DATENBLATT

5 FRAME PLUNGERPUMPEN



**Edelstahl
Modelle**

301

**Edelstahl
gespülte Modelle**

301C

**Nickel Aluminium
Bronze Modelle**

307



Model 301 Shown
(Mounting rails sold separately)

EIGENSCHAFTEN

- Triplex plunger design ensures high efficiency and low pulsation.
- Durable high-pressure seals are lubricated and cooled by pumped liquid.
- Pre-set low-pressure seals provide secondary protection against external leaks and require no packing adjustment.
- Model 301C offers an external flush for high-temperature liquids or low-lubricity liquids.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	2.6 gpm	10 lpm
Pressure Range	up to 2176 psi	up to 150 bar
Pump RPM*	1420 rpm	1420 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.315"	8 mm
Bore	0.787"	20 mm
Max. Liquid Temperature	160°F	71°C

Alternative seals available for high temp up to 93,3°C (200 °F)

Crankcase Capacity	18 oz.	0.53 l
Inlet Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Flushing Ports (2) (301C)	1/8" NPT(F)	1/8" NPT(F)
Discharge Ports (2)	3/8" NPT(F)	3/8" NPT(F)
Shaft Diameter	0.787"	20 mm
Weight	19.8 lbs.	9 kg
Dimensions	11.81 x 8.26 x 5.24"	300 x 210 x 133 mm

*Pump minimum is 100 RPM.

ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE	
NBR	—	160°F	(71°C)
FPM	.0110	180°F	(82°C)
EPDM	.0220	160°F	(71°C)
FFKM	.0770	200°F	(93°C)
HT	.3000	180°F	(82°C)
STHT	.3400	190°F	(88°C)

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.

$$\frac{\text{Hp (Electric Brake)}}{1460} = \frac{\text{gpm x psi}}{1460}$$

DETERMINING MOTOR PULLEY SIZE

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

Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	301, 301C		307			
5	92538	S	92538	S	Screw, Sems HHC (M6x16) (See Tech Bulletin 074)	8
8	43344	AL	43344	AL	Cover, Bearing	1
10	43343	NBR	43343	NBR	O-Ring, Bearing Cover	2
11	43222	NBR	43222	NBR	Seal, Oil, Crankshaft	1
15	14480	STL	14480	STL	Bearing, Ball	2
20	45883	HS	45883	HS	Rod, Connecting Assembly (See Tech Bulletin 074)	3
25	44923	FCM	44923	FCM	Crankshaft, Single-End (M8) (30_RS - Shaft end left side)	1
30	44949	AL	44949	AL	Cover, Blind Shaft	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Filler Cap	1
37	92241	PC	92241	PC	Gauge, Oil, Bubble with Gasket (See Tech Bulletin 074)	1
38	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge	1
40	92542	S	92542	S	Screw, Sems HHC (M6x20) (See Tech Bulletin 074)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19 BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug	1
50	48772	AL	48772	AL	Cover, Rear	1
51	48773	NBR	48773	NBR	O-Ring, Rear Cover	1
53	48769	AL	48769	AL	Crankcase	1
56	43355	POP	43355	POP	Pan, Oil	1
64	43351	CM	43351	CM	Pin, Crosshead	3
65	45256	SSZZ	45256	SSZZ	Rod, Plunger	3
70	43228	NBR	43228	NBR	Seal, Oil, Crankcase	3
75	43328	S	43328	S	Slinger, Barrier	3
88	45697	S	45697	S	Washer, Keyhole (M18 x 10)	3
90	43367	CC	43367	CC	Plunger (M20x72)	3
95	89653	SS	89653	SS	Stud, Plunger Retainer (M6x58)	3
96	43235	PTFE	43235	PTFE	Backup Ring, Plunger Retainer	3
97	17399	NBR	17399	NBR	O-Ring, Plunger Retainer	3
98	44041	SS	44041	SS	Gasket	3
99	44031	SS	44031	SS	Retainer, Plunger (See Tech Bulletin 074)	3
100	45688	PVDF	45688	PVDF	Retainer, Seal 2-Piece	3
101	43302	—	43302	—	Wick, Long Tab	3
106	44127	NBR	44127	NBR	Seal, Low-Pressure with SS-Spring	3
120	45680	SS	45680	SS	Case, Seal	3
121	14200	NBR	14200	NBR	O-Ring, Seal Case	3
125	44649	SNG	44649	SNG	Seal, High-Pressure with SS-Support	3
139	45156	SS	44563	NAB	Plug, Inlet [1/2" NPT(M)]	1
162	48361	D	48361	D	Backup Ring, Seat	6
163	43358	NBR	43358	NBR	O-Ring, Seat	6
164	44128	SS	44128	SS	Seat	6
166	44057	SS	44057	SS	Valve	6
167	44056	SS	44056	SS	Spring, Valve	6
168	44565	PVDF	44565	PVDF	Retainer, Valve Spring	6
171	44832	S	44832	S	Spring, Coil	6
172	49382	NBR	49382	NBR	O-Ring, Valve Plug	6
174	49296	SS	44833	NAB	Plug, Valve (See Tech Bulletin 074)	6
185	45151	SS	44124	NAB	Head Manifold	1
	49583	SS	—	—	Head Manifold, Flushed (301C)	1
186	15847	S	15847	S	Lockwasher (M10)	2
188	87950	S	87950	S	Screw HSH (M10x35) (See Tech Bulletin 074)	2

Bold print part numbers are unique to a particular pump model.

Italics are optional items. *Review individual parts in each kit for material code information.

For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum CC=Ceramic CM=Chrome-moly D=Acetal EPDM=Ethylene Propylene Diene Monomer

FCM=Forged Chrome-moly FFKM=Perfluoroelastomer FPM=Fluorocarbon HS=High Strength HT=High Temp (EPDM Alternative)

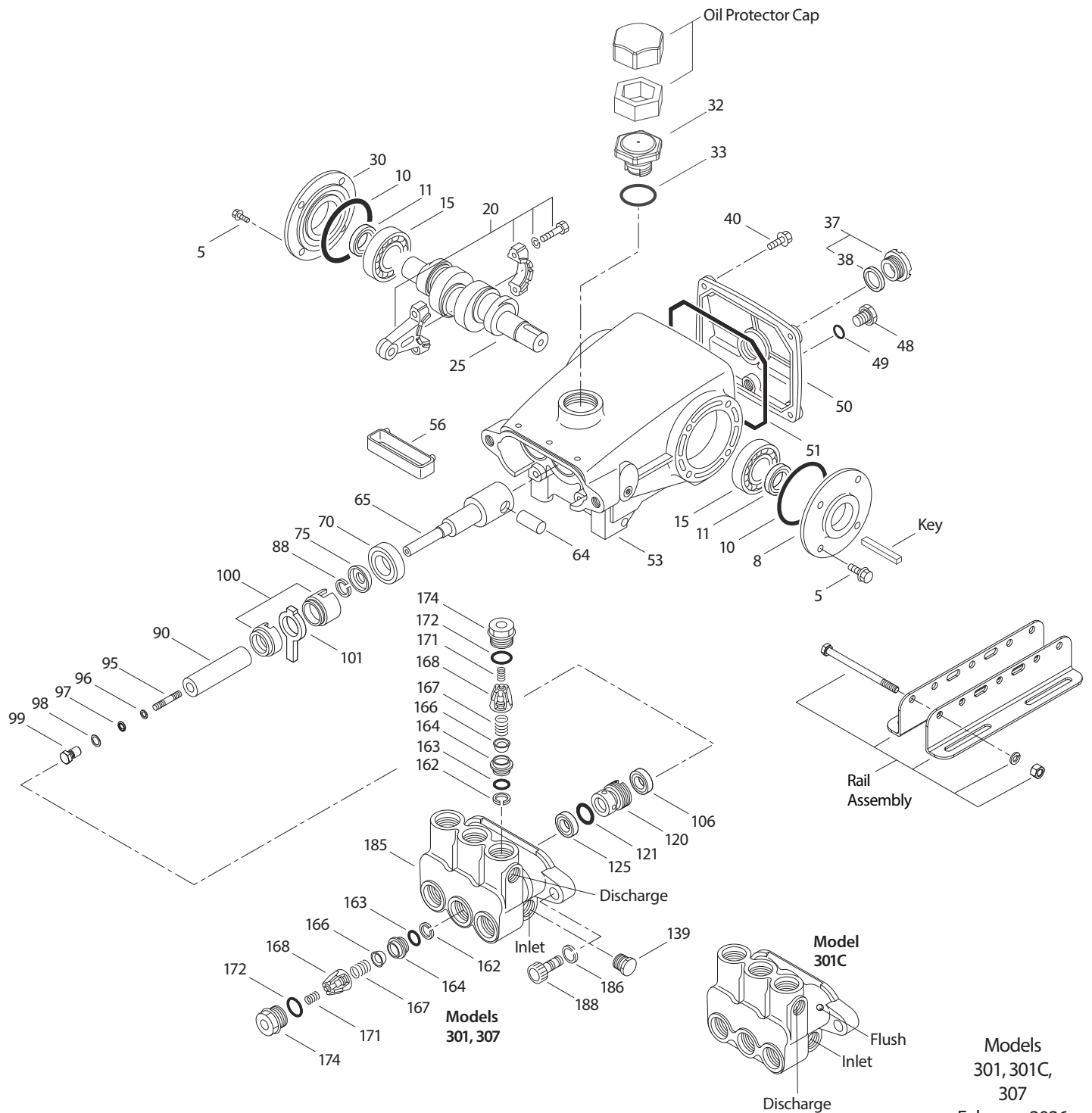
NAB=Nickel Aluminum Bronze NBR=AMedium Nitrile (Buna-N) PC=Poly Carbonate POP=Polypropylene PTFE=Pure Polytetrafluoroethylene

PVDF=Polyvinylidene Fluoride S=304SS SFTA=Special Blend PTFE Tan SNG=Special Blend (Buna) SS=316SS

SSZZ=316SS/Zamak ST2=Special PTFE 2 STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated

Optional Parts and Accessories and Service Parts listed on page 3. Standard and optional Seal and Valve Kits listed on page 4.

EXPLODED VIEW



Models
301, 301C,
307
February 2026

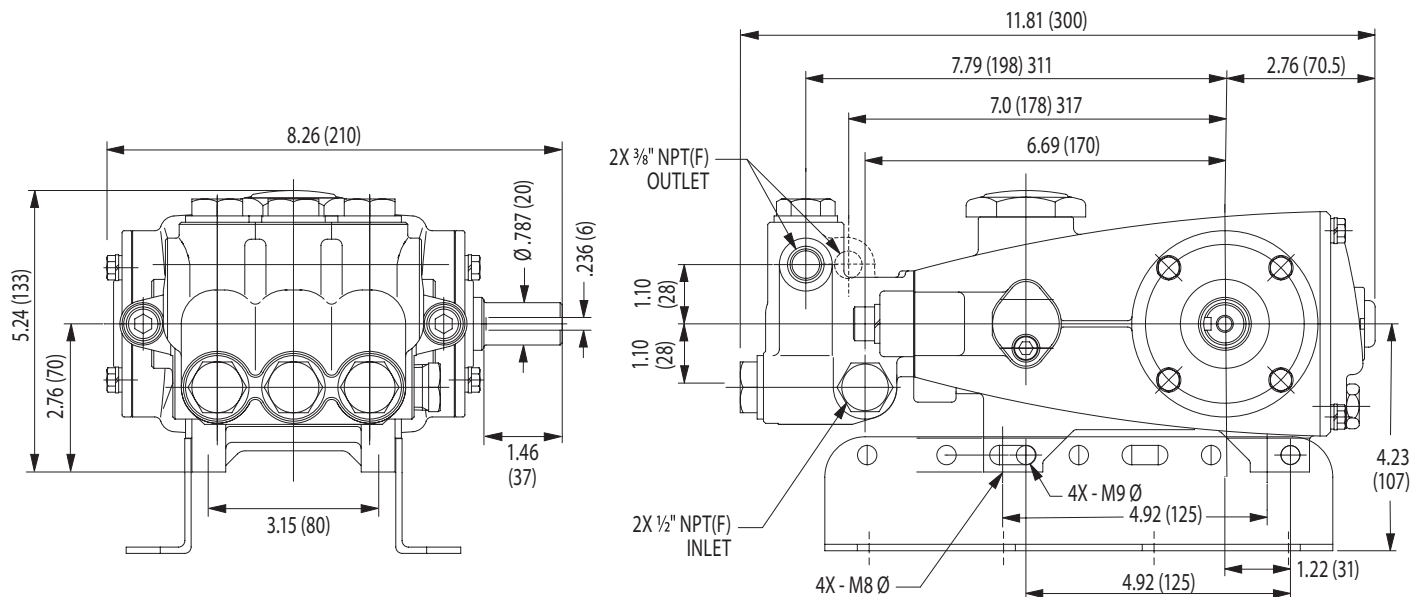
OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30057	Key (M6 x 6 x 25)	1
30659	Kit, Complete Mounting	1
126610	Assembly, Mount, Rail	1
30243	Mount, Direct	1
828710	Protector, Oil Cap	1
34334	Kit, Oil Drain (3/8" x 24") (Not Shown)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
34153	Kit, Seal - Standard NBR	1
31152	Kit, Valve - Standard NBR	2
6107	Oil, Bottle (0,62 l / 21 oz) ISO 68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	1
6139	Lubricant, Anti-Seize (0,24 l / 8 oz) (See Tech Bulletin 095)	1
30696	Reverse Pliers (Not Shown)	1
33004	Socket, Seal Case (Not Shown)	1
812207	Pumpenkopf, komplett m/NBR Dichtungen und O-Ringen (Modelle 301)	1
818444	Pumpenkopf, komplett m/NBR Dichtungen und O-Ringen (Modelle 301C)	1
814559	Pumpenkopf, komplett m/NBR Dichtungen und O-Ringen (Modelle 307)	1

Kits - NBR (.0110), EPDM (.0220), FFKM (.0770), HT (.3000) and STHT (.3400) listed on page 4.



Models 301, 307

SEAL KITS One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220)◆	FFKM (.0770)	HT (.3000)	STHT (.3400)
301, 301C, 307	34153	34155	31163*	76623*	33623	77031

ITEM (Included in Seal Kits)							DESCRIPTION	QTY
97	17399	14160	46204	701715	17399	17399	O-Ring, Plunger Retainer	3
101	43302	43302	43302	43302	43302	43302	Wick, Long Tab	3
106	—	—	—	—	43305	76305	Seal, Low-Pressure with S-Spring	3
	44127	45153	48429	—	—	—	Seal, Low-Pressure with SS-Spring	3
	—	—	—	701763	—	—	Seal, Low-Pressure with NIH-Spring	3
121	14200	11719	48907	701716	14200	14200	O-Ring, Seal Case	3
125	44649	44936	—	—	—	—	Seal, High-Pressure with SS-Support	3
	—	—	46667	—	46667	46667	Seal, High-Pressure with 2-Piece Support	3
	—	—	—	701764	—	—	Seal, High-Pressure with NIH-Spring	3

◆ Silicone oil/grease required

*Review material code for individual items (HT, SFTA may be used as an alternative)

VALVE KITS Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220)◆	FFKM (.0770)	HT (.3000)	STHT (.3400)
301, 301C, 307	31152	34152	76148	76821	31152	31152

ITEM (Included in Valve Kits)							DESCRIPTION	QTY
162	48361	48361	48361	48361	48361	48361	Backup Ring, Seat	3
163	43358	44938	48908	701717	43358	43358	O-Ring, Seat	3
164	44128	44128	44128	44128	44128	44128	Seat	3
166	44057	44057	44057	44057	44057	44057	Valve	3
167	44056	44056	44056	44056	44056	44056	Spring, Valve	3
168	44565	44565	44565	44565	44565	44565	Retainer, Valve Spring	3
171	44832	44832	44832	44832	44832	44832	Spring, Coil	3
172	49382	15855	48431	701718	49382	49382	O-Ring, Valve Plug	3

◆ Silicone oil/grease required

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.de or can be requested directly from CAT PUMPS.