

DATA SHEET

25 FRAME PISTON PUMPS



**Brass
Model**

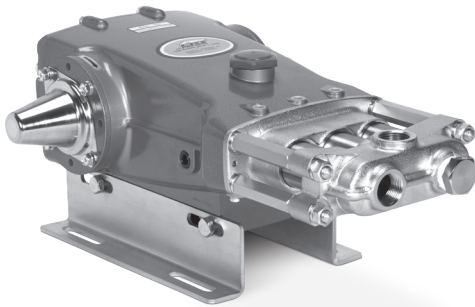
2520

**Pulse Pump Manifold
Model**

2525

**High-Temperature
Model**

2520C



Model 2520 Shown
(Shaft protector and mounting rails sold separately)

FEATURES

- Triplex Uniflow design provides continuous forward liquid flow for smooth operation.
- Wetted cups and floating pistons are lubricated and cooled by pumped liquid for long cup life.
- Mechanically actuated inlet valves give strong lift and prime easier.
- 100% wetted seal design increases life by allowing pumped liquid to cool and lubricate for longer life.
- Model 2520C offers external flushing and dual inlet seals for high-temperature fluids up to 210° F.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	25 gpm	94.6 lpm
Pump Pressure Range	100–800 psi	6.9–55 bar
Pump RPM*	772 rpm	772 rpm
Inlet Pressure Range	-8.5 to 40 psi	-0.6 to 2.8 bar
Max. Liquid Temp. (NBR) (2520, 2525)	160° F	71° C
Alternative seals available for higher temperatures up to 180° F		
Max. Liquid Temp. (2520C)	210° F	98° C
Bore	1.490"	38 mm
Stroke	1.417"	36 mm
Crankcase Capacity	84 oz	2.5 l
Inlet Ports (1)	1 ¼" NPT(F)	1 ¼" NPT(F)
Flush Ports (2) (2520C)	¼" NPT(F)	¼" NPT(F)
Discharge Ports (3)	1" NPT(F)	1" NPT(F)
Shaft Diameter	1.181"	30 mm
Pulley Mounting	Either Side	Either Side
Weight	54 lbs	24.5 kg
Dimensions (2520, 2525)	21.93 x 15.04 x 7.8"	557 x 382 x 198 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)
HT	.3000	180° F	(82° C)

See **Tech Bulletin 002** for inlet conditions and RPM at high-temperature.

DETERMINING THE PUMP RPM	Rated gpm	=	Desired gpm
	Rated rpm	=	Desired rpm
DETERMINING THE REQUIRED HP	hp	=	gpm x psi
	(Electric Brake)	=	1460
DETERMINING MOTOR PULLEY SIZE	Motor Pulley OD	=	Pump Pulley OD
	Pump rpm	=	Motor rpm

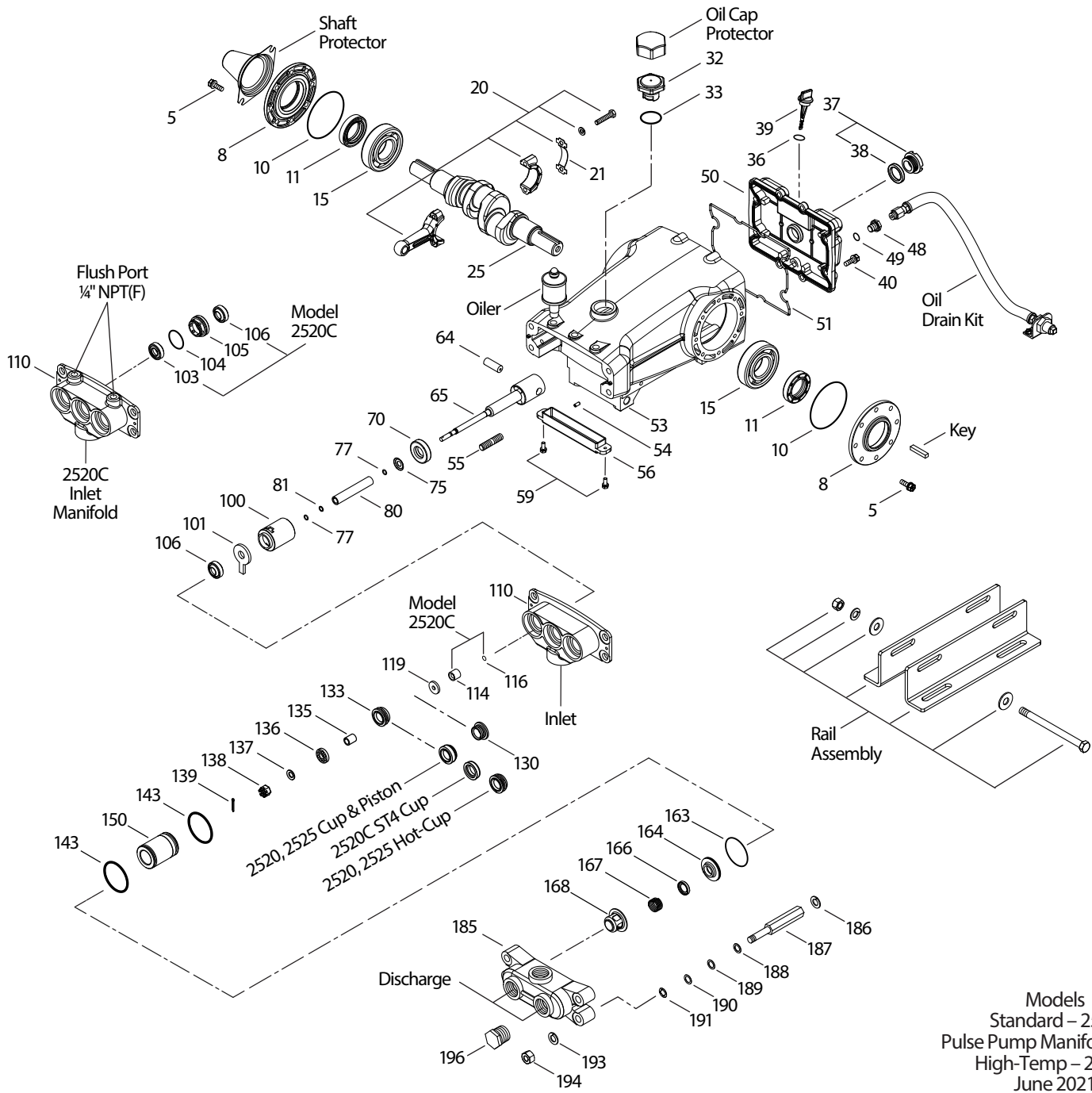
Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	P/N	MATL	P/N	MATL	DESCRIPTION	QTY
	2520, 2525		2520C			
5	126544	STCP R	126544	STCP R	Screw, HHC, Sems (M8 x 25) (See Tech Bulletin 074)	8
8	134966	ALE	134966	ALE	Cover, Bearing (See Tech Bulletin 118, 135)	2
10	27772	NBR	27772	NBR	O-Ring, Bearing Cover-70D	2
11	27771	NBR	27771	NBR	Seal, Oil, Crankshaft	2
15	26512	STL R	26512	STL R	Bearing, Ball	2
20	48613	TNM	48613	TNM	Assembly, Rod, Connecting (Includes: Lockwasher, Washer, Screws) (See Tech Bulletin 074)	3
21	126562	STCP R	126562	STCP R	Washer, Locking	3
25	49795	FCM	49795	FCM	Crankshaft Dual-End (M38.5)	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Oil Filler Cap-70D	1
36	129343	RBR	129343	RBR	Gasket, Flat	1
37	92241	PC	92241	PC	Gauge, Oil Bubble with Gasket-80D	1
38	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge-80D	1
39	27769	ABS	27769	ABS	Dipstick	1
40	126544	STCP R	126544	STCP R	Screw, HHC, Sems (M8 x 25) (See Tech Bulletin 074)	8
48	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug-70D	1
50	133582	ALE	133582	ALE	Cover, Rear (See Tech Bulletin 118, 126)	1
51	27767	NBR	27767	NBR	O-Ring, Rear Cover-70D	1
53	133609	ALE	133609	ALE	Crankcase, with Guide Pins (See Tech Bulletin 118, 135)	1
54	27488	S	27488	S	Pin, Guide	2
55	126547	STCP R	126547	STCP R	Stud (M12 x 53)	4
56	27790	POP	27790	POP	Pan, Oil	1
59	125824	STCP R	125824	STCP R	Screw, HHC, Sems (M6 x 16)	2
64	27784	CM	27784	CM	Pin, Crosshead	3
65	29229	SZZ	43266	SZZ	Rod, Piston (M8)	3
70	27785	NBR	27785	NBR	Seal, Oil, Crankcase	3
75	27786	S	27786	S	Slinger, Barrier	3
77	26531	NBR	14198	FPM	O-Ring, Sleeve	6
80	43122	SCP	43122	SCP	Sleeve (M16)	3
	43123	S	43123	S	<i>Sleeve (M16)-Unchromed</i>	3
81	29246	PTFE	29246	PTFE	Backup Ring, Sleeve	3
100	27788	PVDF	27788	PVDF	Retainer, Seal	3
101	43126	—	43126	—	Wick, Long Tab (M16)	3
103	—	—	43269	FPM	Seal with Lip	3
104	—	—	14178	NBR	O-Ring, Seal Adapter	3
105	—	—	43268	S	Adapter, LPS	3
106	43124	NBR	43272	FPM	Seal (M16)-Seal with Grease Pocket	3
110	27791	BBCP	43270	BBCP	Manifold, Inlet	1
	28595	SS	—	—	<i>Manifold, Inlet</i>	1
114	—	—	46148	S	Spacer, Inlet Valve	3
116	—	—	14198	FPM	O-Ring, Spacer	3
119	29240	S	29240	S	Valve, Inlet (M8)	3
130	27840	S	—	—	Piston	3
133	28409	FPM	76498	ST4	Cup, Piston	3
135	29231	S	29231	S	Spacer, Piston (M8)	3
136	29239	S	29239	S	Retainer, Piston (M8)	3
137	27871	S	27871	S	Washer, Conical (M8)	3
138	27510	S	27510	S	Nut, Slotted (M8) (See Tech Bulletin 074)	3
139	29589	S	29589	S	Cotterpin (M2 x 18)	3
143	25495	NBR	11748	FPM	O-Ring, Cylinder-70D	6
150	27844	SCP	27844	SCP	Cylinder, (M65)	3
	29049	S	29049	S	<i>Cylinder, (M65)-Unchromed</i>	3
163	28395	NBR	28769	FPM	O-Ring, Valve Seat	3
164	28396	S	28396	S	Seat	3
166	43133	S	43133	S	Valve	3
167	26548	S	26548	S	Spring	3
168	43134	S	43134	S	Retainer, Spring	3
185	27805	BBCP	27805	BBCP	Manifold, Discharge	1
	6425	BB	—	—	<i>Manifold, Pulse Pump, Ported (Not Shown)</i>	1
186	126570	STCP R	126570	STCP R	Lockwasher (1/2")	4
187	27803	STCP	43277	STCP	Bolt, Cylinder	4
188	126586	STCP R	126586	STCP R	Shim, Washer (M12.5 x 0.3)	4-8
189	126580	STCP R	126580	STCP R	Shim, Washer (M12 x 0.5)	4-8
190	126581	STCP R	126581	STCP R	Shim, Washer (M12.5 x 1.0)	4-8
191	27933	STZP	27933	STZP	Lockwasher (M12)	4
193	126570	STCP R	126570	STCP R	Lockwasher (1/2")	4
194	126523	STCP R	126523	STCP R	Nut, Hex (M12) (See Tech Bulletin 074)	4
196	27807	BBCP	27807	BBCP	Plug [1" NPT(M)]	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. For additional technical information see www.catpumps.com/literature/tech-bulletins.
MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic ALE=Aluminum Epoxy BBCP=Brass/Chrome Plated CM=Chrome-Moly
FCM=Forged Chrome-Moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PC=Poly Carbonate POP=Polypropylene
PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SCP=304SS/Chrome Plated
ST4=Specia PTFE4 STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated
SZZ=304SS/Zamak TNM=Special High Strength

EXPLODED VIEW



Models
Standard – 2520
Pulse Pump Manifold – 2525
High-Temp – 2520C
June 2021

OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
990036	Key (M8 x 7 x 40)	1
30614	Assembly, Rail	1
30206	Pulley, 10" 2 – Groove	1
30059	Hub, "H" 30mm	1
828710	Protector, Oil Cap	1
26516	Protector, Shaft	1
34334	Kit, Oil Drain	1
30278	Oiler, (1 oz)	3
6300	Pump, Pulse (1 quart – 1000psi)	1
6305	Pump, Pulse (1 gallon – 1000psi)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
30482	Kit, Seal – Standard NBR	1
30767	Kit, Valve – Standard NBR	1
6107	Oil, Bottle (21 oz) ISO 68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	4
6124	Gasket, Liquid (3 oz)	1

SEAL KITS One (1) seal kit required per pump

PUMP MODELS	NBR (STD)		
2520, 2525	30482		
ITEM (Included in Seal Kits)		DESCRIPTION	QTY
106	43124 *	Seal, Low-Pressure	3
139	29589	Cotterpin	3
101	43126	Wick	3

*Use PN 43125 for FPM

No seal kit for model 2520C – use 43272,43269,14178,14198 with 30482 (except 43124)

SLEEVE AND SEAL KIT One (1) sleeve and seal kit required per pump

PUMP MODELS	NBR (STD)		
2520, 2525	30819		
ITEM (Included in Sleeve and Seal Kits)		DESCRIPTION	QTY
75	27786	Slinger, Barrier	3
77	26531 *	O-Ring, Sleeve	6
80	43122	Sleeve	3
101	43126	Wick	3
106	43124	Seal, Low-Pressure	3
139	29589	Cotterpin	3

* Use PN 14198 for FPM

No sleeve and seal kit for model 2520C – use 43272, 43269, 14178, 14198 and 30819

CUP KITS One (1) cup kit required per pump

Pump Models	NBR (STD)	NBR (HOT)	ST4 (CUP-Piston)		
2520, 2525	30256	29094**	76498**		
ITEM (Included in Cup Kits)				DESCRIPTION	QTY
133	28409	29094	76498	Cup	3
139	29589			Cotterpin	3
143	25495 *			O-Ring, Cylinder	6
355	27853			Insertor, Cup	1

* Use PN 11748 for FPM, ** 29094 and 76498 are CUP only

No cup kit for model 2520C – use parts: 29589, 11748 with 76498

PISTON KITS One (1) piston kit required per pump

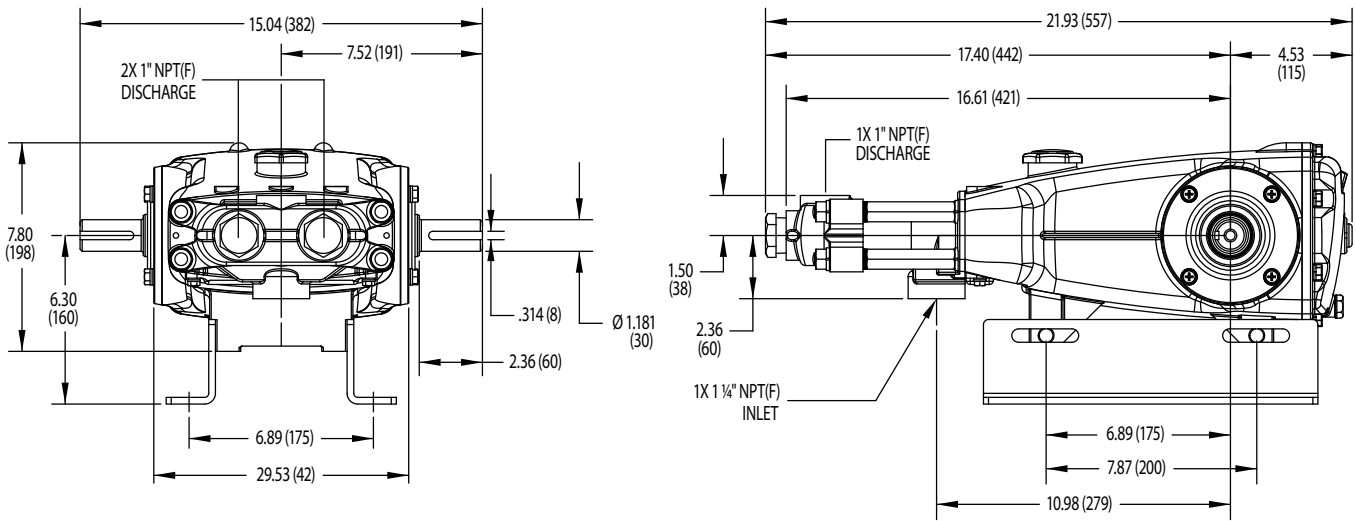
PUMP MODELS	NBR (STD)			
2520, 2525	30252			
ITEM (Included in Piston Kits)		DESCRIPTION	QTY	
119	29240	Valve, Inlet	3	
130	27840	Piston	3	
133	28409	Cup	3	
135	29231	Spacer, Piston	3	
136	29239	Retainer, Piston	3	
137	27871	Washer, Conical	3	
138	27510	Nut, Slotted	3	
139	29589	Cotterpin	3	
143	25495 *	O-Ring, Cylinder	6	
355	27853	Insertor, Cup	1	

* Use PN 11748 for FPM or PN 703244 for PTFE

No piston kit for model 2520C – use individual parts as listed above, except for cup PN 28409, replace with cup PN 76498

VALVE KITS One (1) valve kit required per pump

PUMP MODELS	NBR (FLAT)			
2520, 2525, 2520C	30767			
ITEM (Included in Valve Kits)		DESCRIPTION	QTY	
143	25495	O-Ring, Cylinder (Use PN 11748 for FPM)	6	
163	28395	O-Ring, Seat (Use PN 28769 for FPM)	3	
164	28396	Seat	3	
166	43133	Valve	3	
167	26548	Spring	3	
168	43134	Retainer, Spring	3	



Model 2520

⚠ 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/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

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