HCP3010 OPERATING INSTRUCTIONS & PARTS MANUAL

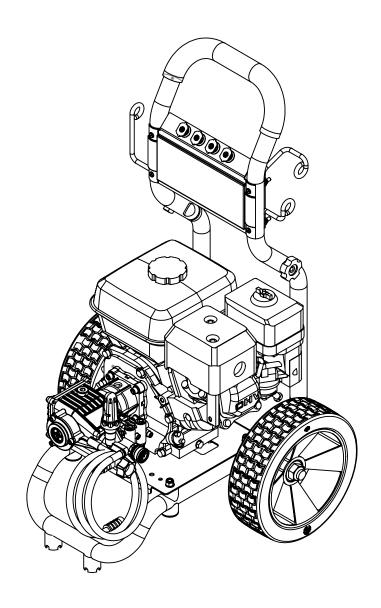


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EXTREMELY HAZARDOUS OR
DANGEROUS SITUATION THAT WILL
RESULT IN DEATH OR SERIOUS INJURY IF
NOT OBEYED OR AVOIDED.



DO NOT FILL OR REFILL THE ENGINE WITH FUEL WHILE THE ENGINE IS RUNNING. STOP THE ENGINE, RELEASE THE PRESSURE IN THE HOSE AND ALLOW THE ENGINE TO COOL FOR AT LEAST 5 MINUTES BEFORE REFUELING.

DO NOT SMOKE WHEN REFILLING ANY FUEL TANKS.

DO NOT REFUEL INDOORS.

REFILL ONLY IN A WELL VENTILATED AREA.

DO NOT OVER FILL TANKS. REFILL TANKS SLOWLY TO AVOID SPILLING FUEL. **DO NOT** RESTART MACHINE UNTILL ALL FUEL SPILLS HAVE BEEN THROUGHLY CLEANED UP AND ANY RESIDUAL FUEL HAS EVAPORATED.

DO NOT STORE THE MACHINE NEAR OPEN FLAME, HEAT SOURCE OR ANY DEVICE THAT COULD CREATE A SPARK.



DO NOT SPRAY FLAMMABLE LIQUIDS.

DO NOT OPERATE PRESSURE WASHER IN THE PRESENCE OF FLAMMABLE LIQUIDS, VAPORS, GASSES, COMBUSTIBLE DUST OR ANY OTHER COMBUSTIBLE MATERIALS.

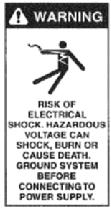
DO NOT USE CRANKCASE OR WASTE OIL.

DO NOT PUT GASOLINE IN ANY TANK INTENDED FOR FUEL OIL.

USE ONLY No.1 OR No.2 HEATING OIL OR DIESEL FUEL IN THE BURNER TANK.



DO NOT OPERATE PRESSURE WASHER IN AN ENCLOSED AREA. **USE ONLY IN A WELL VENTILATED AREA**. PROPER VENTILATION AND
OXYGEN SUPPLY IS NEED TO SUSTAIN YOUR LIFE AND FOR THE
SAFE AND EFFICIENT OPERATION OF THIS MACHINE.



DO NOT DIRECT THE WATER STREAM OR SPRAY AT ANY ELECTRICAL INSTALLATION OF ANY KIND INCLUDING LIGHTS.

DO NOT USE THE WATER STREAM TO CLEAN THE PRESSURE WASHER.

DO NOT USE EXTENSION CORDS. USE ADDITIONAL HOSES. **DO NOT** USE THE PRESSURE WASHER IF THE GFCI, CIRCUIT BREAKER OR THERMAL OVERLOAD PROTECTOR TRIPS.

DO NOT USE WHILE RAINING.

DO NOT USE IF POWER SUPPLY CORD IS DAMAGED.

DO NOT REPAIR POWER SUPPLY CORD. REPLACE IT.

DO NOT ALLOW POWER CORD TO LAY IN STANDING WATER.

USE ONLY FACTORY SUPPLIED CORD SET WITH A PROPERLY GROUNDED RECEPTACLE THAT IS EQUIPPED WITH A GROUND FAULT CIRCUIT INTERRUPTER. **USE ONLY** A PROPERLY SIZED AND ISOLATED ELECTRICAL SUPPLY CAPABLE OF THE FULL LOAD AMPERAGE THAT THE PRESSURE WASHER REQUIRES.



DO NOT USE THE PRESSURE WASHER WHILE STANDING ON A LADDER OR SCAFFOLDING.

DO NOT USE WHILE STANDING ON PITCHED ROOFS.
WET SURFACE IS SLIPPERY. DANGER OF SLIP AND FALL.



DO NOT POINT THE WATER STREAM AT ANY PERSONS OR ANIMALS.

DO NOT OPERATE IN THE VICINITY OF CHILDREN. **DO NOT** USE THE WATER STREAM TO CLEAN ANY PROTECTIVE CLOTHING OR BOOTS.



USE ONLY FACTORY APPROVED IDENTICAL REPLACEMENT PARTS. **DO NOT** CHANGE OR TAMPER WITH FACTORY PRESET

ADJUSTMENTS. NEVER DEFEAT OR DISABLE ANY SAFETY DEVICES
ON THE MACHINE.



DO NOT OPERATE THE UNIT WITH A
MALFUNCTIONING BURNER OR BURNER
CONTROL. INSPECT BURNER AND BURNER
CONTROL OPERATION BEFORE EACH USE.
FAILURE TO DO SO MAY RESULT IN AN
EXPLOSION OR FIRE. IF YOU SUSPECT A

PROBLEM WITH THE BURNER, DISCONTINUE USE IMMEDIATELY AND CONTACT YOUR LOCAL AUTHORIZED DISTRIBUTOR.

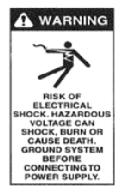
WARNING! (Liquid Petroleum or Natural Gas Fired Units)

FOR YOUR SAFETY, IF YOU SMELL GAS:

- 1. OPEN WINDOWS.
- 2. DO NOT TOUCH ELECTRICAL SWITCHES.
- TURN OFF BREAKER SWITCH SUPPLYING POWER TO UNIT. CLOSE GAS SUPPLY VALVE TO UNIT.
- 4. EXTINGUISH ANY OPEN FLAME.
- 5. IMMEDIATELY EVACUATE PREMISES AND CALL YOUR GAS SUPPLIER.
- 6. MACHINES CAN CAUSE AN EXPLOSION WHEN OPERATED NEAR FLAMMABLE MATERIALS AND VAPORS. DO NOT- USE THIS MACHINE WITH OR NEAR FUELS, GRAIN DUST, SOLVENTS, THINNERS OR OTHER FLAMMABLE MATERIALS.
- 7. THIS UNIT MUST BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE GAS CODES. FAILURE TO DO SO COULD RESULT IN INJURY OR DEATH TO YOU OR TO OTHER PERSONNEL.
- 8. USE NO. 1 OR NO. 2 FUEL OIL ONLY IN OIL FIRED MACHINES. NEVER INTRODUCE GASOLINE TO THE FUEL OIL TANK. DOING SO COULD RESULT IN AN EXPLOSION OR FIRE. KEEP THE PROPER FUEL IN THE PROPER TANK.



POTENTIALLY HAZARDOUS SITUATION
THAT COULD RESULT IN DEATH OR
SERIOUS INJURY IF NOT OBEYED OR
AVOIDED.



DISCONNECT POWER BEFORE SERVICING THE PRESSURE WASHER.

DISCONNECT SPARK PLUG BEFORE SERVICING THE PRESSURE WASHER.

DO NOT DIRECT THE WATER STREAM OR SPRAY AT ANY ELECTRICAL INSTALLATION OF ANY KIND INCLUDING LIGHTS.



DO NOT TOUCH HOT SURFACES. EG. MUFFLER, BURNER, ENGINE, HEAT EXCHANGER, EXHAUST HEAD.

USE ONLY INSULATED EXTENSION WAND WITH HOT WATER.

DO NOT ALLOW HOSES TO TOUCH HOT SURFACE.



DO NOT USE PRESSURE WASHER WITHOUT PROPER PROTECTIVE WEAR. USE EYE PROTECTION, RUBBER GLOVES, RUBBER BOOTS, AND PROTECTIVE CLOTHING.

DO NOT USE CORROSIVE OR AGGRESSIVE CHEMICALS WITHOUT PROPER PROTECTIVE WEAR.

THIS MACHINE PRODUCES HOT WATER AT VERY HIGH PRESSURES.
USE ONLY APPROVED ACCESSORIES RATED FOR HOT WATER AND HIGH
PRESSURE.



POTENTIALLY HAZARDOUS SITUATION
THAT COULD RESULT IN PERSONAL
INJURY OR PROPERTY DAMAGE IF NOT
OBEYED OR AVOIDED.

DO NOT LEAVE THE PRESSURE WASHER RUNNING UNATTENDED. TURN THE MACHINE OFF AND RELEASE ALL PRESSURE FROM THE SYSTEM.

DO NOT DEFEAT THE TRIGGER GUN SAFETY

DO NOT LOCK THE TRIGGER IN THE OPEN POSITION IN ANY WAY.

KNOW THE MACHINE CONTROLS AND HOW TO QUICKLY SHUT DOWN AND RELEASE ALL PRESSURE IN THE SYSTEM.

DO NOT OPERATE THE MACHINE WITHOUT ALL GUARDS AND PROTECTIVE COVERS IN PLACE.

DO NOT ALLOW ANY PART OF PERSONS OR HOSES TO CONTACT HOT SURFACES.

DO NOT HAVE ENGINE EXHAUST POINTING AT FLAMMABLE MATERIALS.

INSPECT THE PRESSURE WASHER AND HOSES FOR DAMAGED PARTS DAILY.

REPAIR LEAKS AS THEY HAPPEN TO PREVENT FURTHER DAMAGE.

DO NOT OPERATE WITH ANTY FAULTY OR DAMAGED COMPONENTS.

DISCONNECT POWER CORD, BATTERY NEGATIVE AND SPARK PLUG BEFORE PERFORMING ANY SERVICE ON THE PRESSURE WASHER.

KEEP ALL HOSES AND POWER CORDS AWAY FROM VEHICLE TRAFFIC.

DO NOT MOVE THE MACHINE BY PULLING ON THE HOSE.

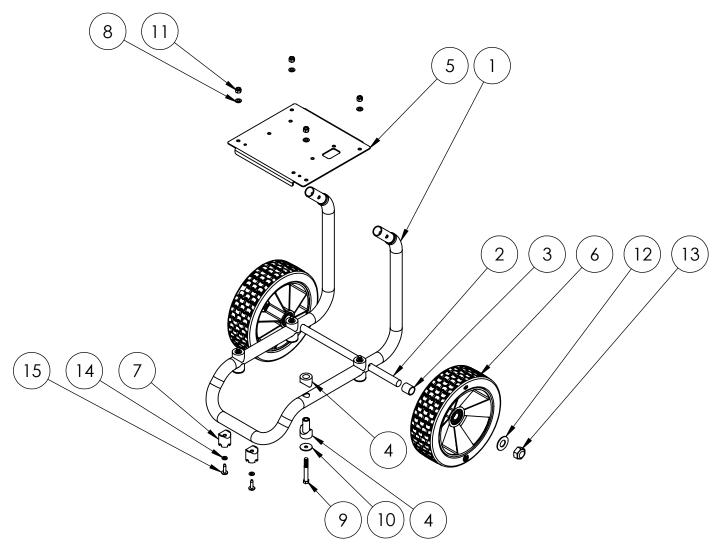
DO NOT LEAVE THE MACHINE EXPOSED TO HARSH ENVIROMENTS.

DO NOT OPERATE THE MACHINE IN THE RAIN.

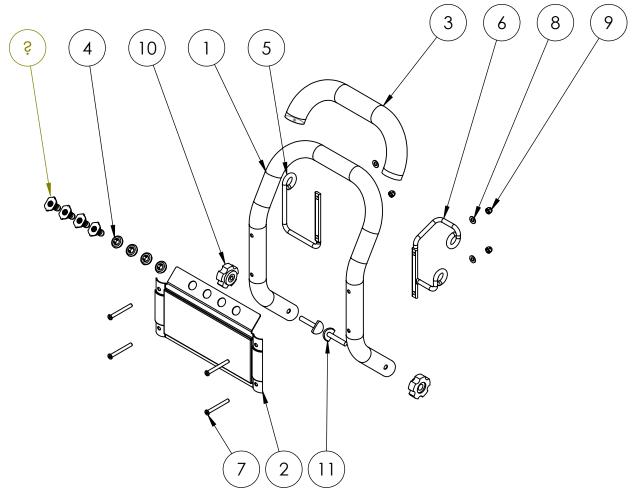
DO NOT DIRECT THE HIGH PRESSURE WATER STREAM AT FRAGILE OBJECTS.

DO NOT USE ANY ACCESSORIES UNLESS THEY ARE RATED AT OR ABOVE THE WORKING PRESSURE AND TEMPERATURE OF THE MACHINE.

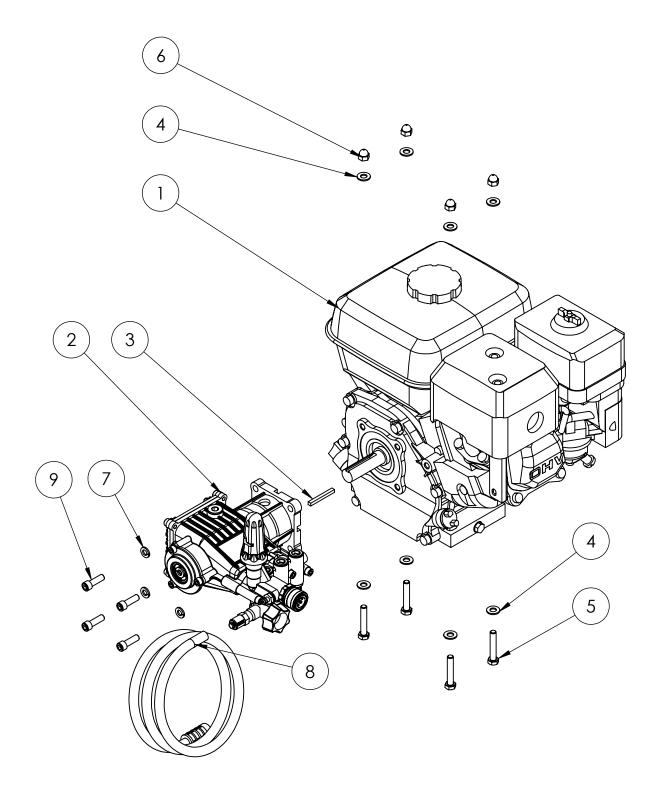
ALWAYS USE EYE, FACE, HAND, FOOT, HEARING, AND BODY PROTECTIVE WEAR. **DO NOT** OPERATE PRESSURE WASHER IF FATIGUED OR UNDER THE INFLUENCE OF ALCOHOL OR DRUGS. **BE ALERT AT ALL TIMES**.



ITEM NO PART NUMBER DESCRIPTION QTY. 1 00100 FRAME, BASE TUBE 1 2 00104 AXLE, 495MM, THREADED 1 3 00105 SPACER, WHEEL 2 4 00132 VIBRATION ISOLATOR, 60 DURO 4 5 00106 BASE PLATE 1 6 * PP 00107 WHEEL ASSY, FLAT FREE, 10.3" DIA 2 7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4 10 00116 FLAT WASHER, M8 X 32 4				
2 00104 AXLE, 495MM, THREADED 1 3 00105 SPACER, WHEEL 2 4 00132 VIBRATION ISOLATOR, 60 DURO 4 5 00106 BASE PLATE 1 6 * PP 00107 WHEEL ASSY, FLAT FREE, 10.3" DIA 2 7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	ITEM NO	PART NUMBER	DESCRIPTION	QTY.
3 00105 SPACER, WHEEL 2 4 00132 VIBRATION ISOLATOR, 60 DURO 4 5 00106 BASE PLATE 1 6 * PP 00107 WHEEL ASSY, FLAT FREE, 10.3" DIA 2 7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	1	00100	FRAME, BASE TUBE	1
4 00132 VIBRATION ISOLATOR, 60 DURO 4 5 00106 BASE PLATE 1 6 * PP 00107 WHEEL ASSY, FLAT FREE, 10.3" DIA 2 7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	2	00104	AXLE, 495MM, THREADED	1
5 00106 BASE PLATE 1 6 * PP 00107 WHEEL ASSY, FLAT FREE, 10.3" DIA 2 7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	3	00105	SPACER, WHEEL	2
6 * PP 00107 WHEEL ASSY, FLAT FREE, 10.3" DIA 2 7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	4	00132	VIBRATION ISOLATOR, 60 DURO	4
7 * PP 00108 RUBBER FOOT 2 8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	5	00106	BASE PLATE	1
8 00114 FLAT WASHER, M8 4 9 00115 HEX BOLT, M8-1 X 70 4	6 *	PP 00107	WHEEL ASSY, FLAT FREE, 10.3" DIA	2
9 00115 HEX BOLT, M8-1 X 70 4	7 *	PP 00108	RUBBER FOOT	2
	8	00114	flat Washer, M8	4
10 00116 FLAT WASHER, M8 X 32 4	9	00115	HEX BOLT, M8-1 X 70	4
	10	00116	FLAT WASHER, M8 X 32	4
11 00117 NYLON LOCK NUT, M8-1 4	11	00117	NYLON LOCK NUT, M8-1	4
12 00118 FLAT WASHER, 19MM 2	12	00118	FLAT WASHER, 19MM	2
13 00119 M18 X 1.5 NYLON LOCK NUT 2	13	00119	M18 X 1.5 NYLON LOCK NUT	2
14 00120 FLAT WASHER, M6 2	14	00120	FLAT WASHER, M6	2
15 00121 1/4-20 X 1 TORX SCREW 2	15	00121	1/4-20 X 1 TORX SCREW	2

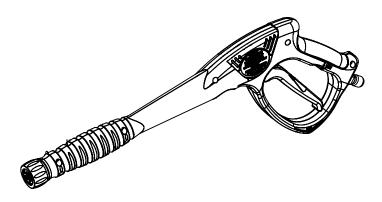


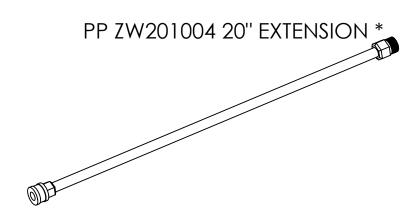
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	00101	HANDLE, UPPER, TUBE	1
2	00110	DASHBOARD	1
3	00111	FOAM GRIP	1
4	00133	GROMMET, BLACK RUBBER	4
5	00112	HANGER, HOSE	1
6	00113	HANGER, GUN	1
7	00122	BHCS, M6-1 X 55	4
12 *	PP D00027	RED NOZZLE Zero degree	1
12 *	PP D15027	YELLOW NOZZLE 15 degree	1
12 *	PP 925030Q	GREEN NOZZLE 25 degree	1
12 *	PP D40030	WHITE NOZZLE 40 degree	1
12 *	PP 965400Q	BLACK DUMP NOZZLE	1



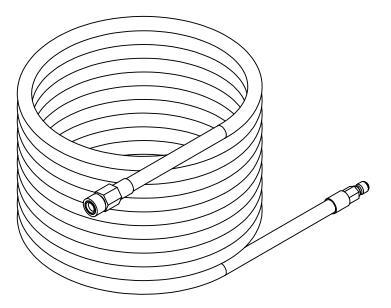
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	P. O. A.	ENGINE, HONDA, 6.5 HP	1
2 *	CP 4PPX30GSI	CAT PUMP, CRANKSHAFT, 2.5GPM, 3400 PSI	1
3	0187	KEYSTOCK, 3/16 X 1 3/4 LONG	1
4	111 031 200 100	FLAT WASHER, USS, 5/16	8
5	105 051 801 750	HHCS, 5/16-18 X 1 3/4	4
6	130 051 800 000	NUT, NYLOCK, 5/16-18	4
7	131 031 200 100	LOCK WASHER, 5/16	4
8 *	PP ACI900	INJECTOR HOSE ASSEMBLY	1
9	006 052 401 000	SOCKET HEAD CAP SCREW, 5/16-24 X 1"	4

PP ZG45RS02 GUN VALVE *





PP AHSZ025 HOSE ASSY 7.5 METRES *







Gas engine must be purchased separately.

FEATURES

- Triplex plunger design provides a smooth liquid flow.
- Specially formulated high pressure seals and concentric solid ceramic plungers assure true wear surface and extended seal life.
- Stacked valve design for ease in servicing.
- Ultra-compact, hollow-shafted pump for direct mounting to gas engine.
- Integral Pressure Unloader with built-in by-pass standard on all units to assure system pressure control and pump protection.
- Fixed chemical injector standard on all units offers cleaning flexibility.

⚠ 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.

Direct-Drive Plunger Pumps

Models

4PPX25GSI 4PPX30GSI

SPECIFICATIONS	U.S. Measure	Metric Measure
MODEL 4PPX25GSI		
Flow	2.5 gpm	(9.5 lpm)
Maximum Discharge Pressure	3300 psi	(228 bar)
Maximum RPM	3450 rpm	(3450 rpm)
Stroke	0.268"	(6.8 mm)
MODEL 4PPX30GSI		
Flow	2.7 gpm	(10.2 lpm)
Maximum Discharge Pressure	3000 psi	(310 bar)
Maximum RPM	3450 rpm	(3450 rpm)
Stroke	0.280"	(7.2 mm)

COMMON PUMP SPECIFICATIONS

Inlet Pressure RangeFlooded to 60 psi	(Flooded to 4 bar)
Bore	(14 mm)
Crankcase Capacity 8.5 oz.	(0.25 l)
Maximum Liquid Temperature 140°F	(60°C)
Above 130°F call Cat Pumps for inlet conditions and elastomer	recommendations.
Inlet Ports (1)3/8" NPTF	(3/8" NPTF)
Accessory Port (1) (Inlet)1/4" NPTF	(1/4" NPTF)
Discharge Port w/Chemical Injector (1)3/8" NPTM	(3/8" NPTM)
Chemical Injection Hose Barb1/4"	(1/4")
Shaft Diameter (Hollow)3/4"	(19.0 mm)
Weight10.7 lbs.	(4.9 kg)
Dimensions	(204 x 199 x 168 mm)

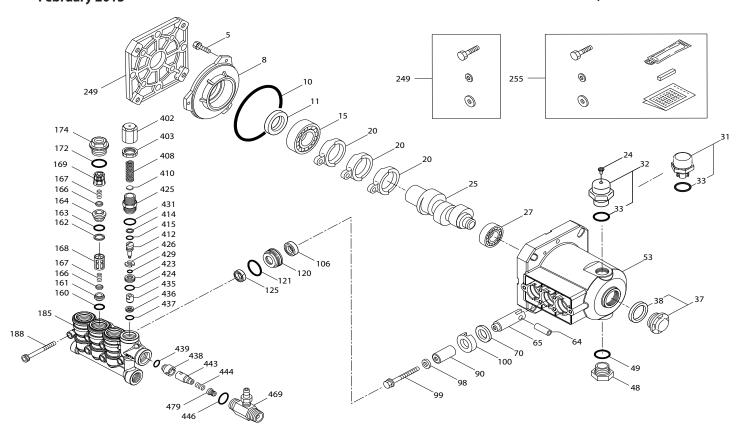
ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	FLO)W		PR	ESSUR	E		RPM	
			psi	psi	psi	psi	psi		ĺ
			1500	2000	2850	3000	3300		
	U.S.		bar	bar	bar	bar	bar		ĺ
	gpm	lpm	105	140	196	310	228		
4PPX25GSI	2.5	9.5	2.6	3.4	4.9	5.1	5.6	3450	
4PPX30GSI	2.7	10.2	2.8	3.7	5.3	5.5	6.1	3450	

DETERMINING	Rated gpm	=	"Desired" gpm
THE PUMP R.P.M.	Rated rpm		"Desired" rpm
DETERMINING THE REQUIRED H.P.	gpm x psi 1460	=	Electric Brake
THE REQUIRED H.P.	1460		H. P. Required

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

PLUNGER PUMP MODELS 4PPX25GSI, 4PPX30GSI



PARTS LIST

ITEN	I P/N	MATL	DESCRIPTION	QTY	ITEM	P/N	MATL	DESCRIPTION	QTY
5	549360	STCP R	Screw, HH (M6x14)	3	106	49816	NBR	Seal, LPS	3
8	547153	AL	Cover, Bearing	1	120	49804	BB	Case, Seal	3
10	14041	NBR	O-Ring, Bearing Cover - 70D	1	121	13976	NBR	O-Ring, Seal Case - 70D	3
11	55337	NBR	Seal, Oil - 70D	1	125	49824	BP	Seal, HPS	3
15	14488	STL	Bearing, Ball - Inner	1	160	17428	NBR	O-Ring, Inlet Seat - 80D	3
20	547048	TNM	Rod, Connecting	3	161	547077	S	Seat, Inlet	3
24	549608	LDPE	Plug, Oil Cap	1	162	48361	D	Back-up Ring, Discharge Seat	3
25	49883	CM	Crankshaft, 3450 RPM, 3/4", 6.8 mm (4PPX25GSI)	1	163	43358	NBR	O-Ring, Discharge Seat - 70D	3
	49882	CM	Crankshaft, 3450 RPM, 3/4", 7.2 mm (4PPX30GSI)	1	164	547076	S	Seat, Discharge	3
27	15710	STL	Bearing, Ball	1	166	547098	S	Valve	6
31	549726	_	Cap, Vented w/O-Ring (Rain Cap)	1	167	46865		Spring	6
32	547961	RTP	Cap, Oil Filler w/O-Ring	1	168	543988	PVDF	Retainer, Spring, Inlet	3
33	14179	NBR	O-Ring, Oil Filler Cap - 70D	1	169	49764		Retainer, Spring, Discharge	3
37	92241	_	Gauge, Bubble Oil w/Gasket	1		142807		O-Ring, Plug - 90D	3
38	44428	NBR	Gasket, Flat Flex, Oil Gauge - 80D	1	174	547104		Plug, Valve w/O-Ring (M20x1.5)	3
48	44842	NY	Plug, Drain	1	185	49763	BB	Head, Manifold w/Integral Unloader Body	1
49	14179	NBR	O-Ring, Drain Plug - 70D	1	188	549357	STCP R	Screw, HSH (M6x60)	6
53	49801	AL	Crankcase	1	249	30520	_	Assy, Adapter Mount	1
64	46229	STL	Pin, Crosshead	3	255	30516	STZP R	Assy, Bolt Mount	1
65	542402	BB	Rod, Plunger	3	283	990394	_	Kit, Oil Drain (Not Shown)	1
70	47215	NBR	Seal, Oil - 70D	3	300	76124	NBR	Kit, Seal (Inclds: 106 and 125)	1
90	547091	CC	Plunger (M14x25.5)	3	310	76134	NBR	Kit, Valve (Inclds: 160,161,162,163,164,166,167,168,169,	<i>172)</i> 1
98	46730	NBR	Washer, Seal - 90D	3	400	_	_	Unloader, Integral (See Individual Parts)	1
99	542405	S	Retainer, Plunger (M6x35)	3	469	7332	BB	Injector, Chemical Fixed	1
100	46233	D	Retainer, Seal	3					

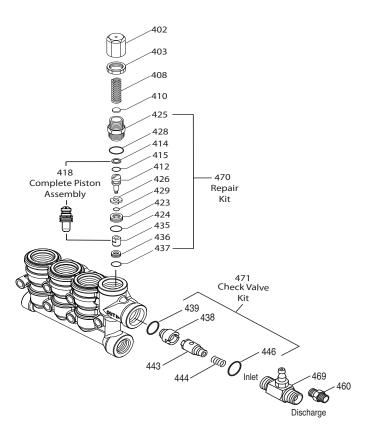
Bold Part Numbers are unique to a particular pump model. *Italics are optional items.* [] Date of latest production change. R Components comply with RoHS Directive. View Tech Bulletins 002, 024, 036, 043, 055, 074 and 083 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BP=Special Poly-Blend CC=Ceramic CM-Chrome-moly D=Acetal LDPE=Low Density Polyethylene NBR=Medium Nitrile (Buna-N) NY=Nylon PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite S=304SS STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength

NOTE: Discard Key which may come standard with most motors and use only the key included in this kit.

INTEGRAL UNLOADER

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	3.0 gpm	(11.4 lpm)
PSI Range	100-3300 psi	(7-228 bar)
Inlet Port	3/8" NPTF	(3/8" NPTF)
Discharge Port w/Chemical Inject	or3/8" NPTM	(3/8" NPTM)



PARTS LIST

ITEM	PN	MATL	DESCRIPTION	QTY
402	547798	BB	Cap, Adjusting	1
403	45070	BB	Nut, Lock (M18 x 1)	1
408	32094	STZP R	Spring, Pressure	1
410	549352	STCP R	Retainer, Spring	1
412	45694	S	Stem, Piston	1
414	20184	PTFE	Back-up-Ring, Piston Stem	1
415	14190	NBR	O-Ring, Piston Stem - 70D	1
418	_	BB	Assy, Piston Included In Repair Kit	1
423	46249	BB	Retainer, Valve	1
424	13966	NBR	O-Ring, Valve Retainer (Outer) - 70D	1
425	547799	BB	Retainer, Piston	1
426	46250	S	Washer	1
428	26133	NBR	O-Ring, Piston Retainer - 80D	1
429	17399	NBR	O-Ring, Valve Retainer (Inner) - 80D	1
435	547800	S	Valve	1
436	49664	S	Seat	1
437	13963	NBR	O-Ring, Seat - 70D	1
438	46254	NY	Seat, Check Valve	1
439	13963	NBR	O-Ring, Check Valve Seat - 70D	1
443	49765	D	Valve, Check	1
444	45924	S	Spring	1
446	26133	NBR	O-Ring, Body - 80D	1
460	107681	BB	Fitting, Discharge (3/8″ NPTM)	1
468	31767	NBR	Kit, O-Ring (Inclds:414,415,424,428,429,437,439,446)	1
469	7332	BB	Injector, Chemical Fixed	1
470	76179	NBR	Kit, Repair	
			(Inclds:412,414,415,423,424,425,426,428,429,435,436,437)	1
471	76146	NBR	Kit, Check Valve (Inclds:438,439,443,444,446)	1

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

MATERIAL CODES (Not Part of Part Number):

MATERIAL CODES (Not Part of Part Number):

BB=Brass D=Acetal NBR=Medium Nitrile (Buna-N) NY=Nylon

PTFE=Pure Polytetrafluoroethylene S=304SS STCP=Steel/Chrome Plated

STZP=Steel/Zinc Plated

UNLOADER TYPE

An integral unloader with built-in by-pass is part of the discharge manifold to provide system pressure regulation and pump protection. This pump also includes a fixed chemical injector for chemical application.

OPERATION:

Pump should be purged of air before commencing operation. Liquid must flow through the pump without discharge restriction to assure full system pressure is reached.

Install a pressure gauge close to the manifold head of the pump to assist in setting system pressure and to periodically monitor system pressure.

Setting and adjusting the regulator pressure must be done with the system turned on. Start the system with the unloader backed off to the lowest pressure setting (counterclockwise direction). Squeeze the trigger and read the pressure on the gauge at the pump. Do not read pressure at the gun or nozzle. If more pressure is desired, turn adjusting cap one quarter turn in a clockwise direction. Squeeze the trigger and read the pressure. Repeat this process until the desired system pressure is reached. Thread locking nut up to adjusting cap.

NOTE: Pressure is not set at the factory.

SERVICE:

The unloader should be serviced on the same schedule as the seals in the pump. Refer to the Service Manual for start-up, servicing of seals and valves, torque requirements and diagnosis and maintenance chart.

7332 FIXED CHEMICAL INJECTOR

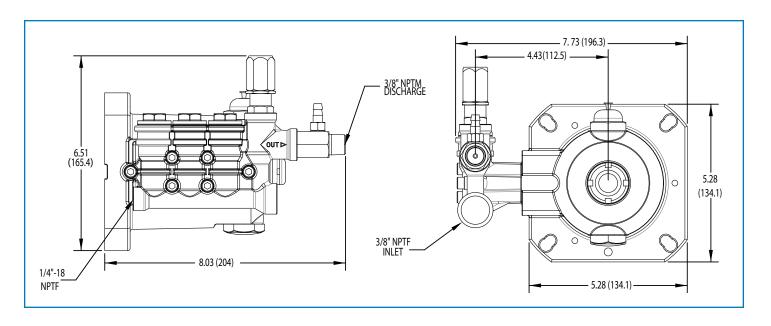
SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	3.0 gpm	(11.4 lpm)
Nozzle Orifice	2.1 mm	(2.1 mm)
Hose Barb	1/4″	(1/4")
Inlet Port	M18 x 1.0	(M18 x 1.0)
Discharge Port	3/8" NPTM	(3/8" NPTM)
Weight	5.3 oz.	(0.15kg)
Dimensions	2 x 1 x 1.75"	(52 x 25 x 45 mm)

CHEMICAL INJECTOR PERFORMANCE CHART Ovifice Maximum Maximum Pressure Drop Across

Orifice Size	Maximum Injecting Pressure	Maximum Chemical Draw	Pressure Drop Across Injector At System Pressure (2850 psi)
2.1 mm	250 psi	37.2 oz/min	141 psi

Optimum performance of chemical injector occurs with 35 ft. high pressure hose and a minimum 3/8" I.D. The type of hose, extended lenghts, reduced I.D. and fittings may create back pressure in excess of the low pressure nozzle rating and prevent the injector from drawing chemical. See hose friction loss Chart in Service Manual. **Deduct hose friction loss from above low psi nozzle. Contact Cat Pumps for assistance with other options.**

CAUTION: Deduct the pressure drop shown in the performance chart from your desired system pressure to arrive at the maximum high pressure nozzle rating. This is essential to avoid over-pressurizing the pump.



Models 4PPX25GSI, 4PPX30GSI



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