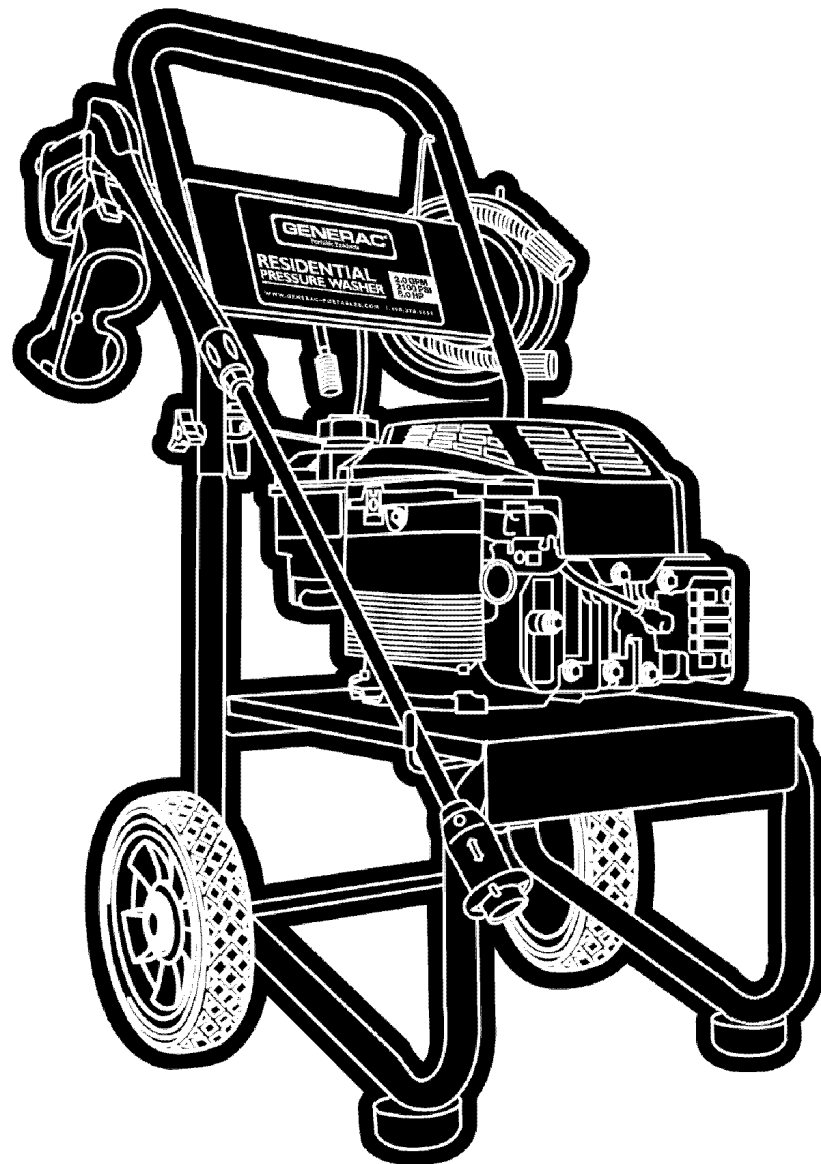


Parts Manual

Mfg. No: 1439-1
2,100 PSI



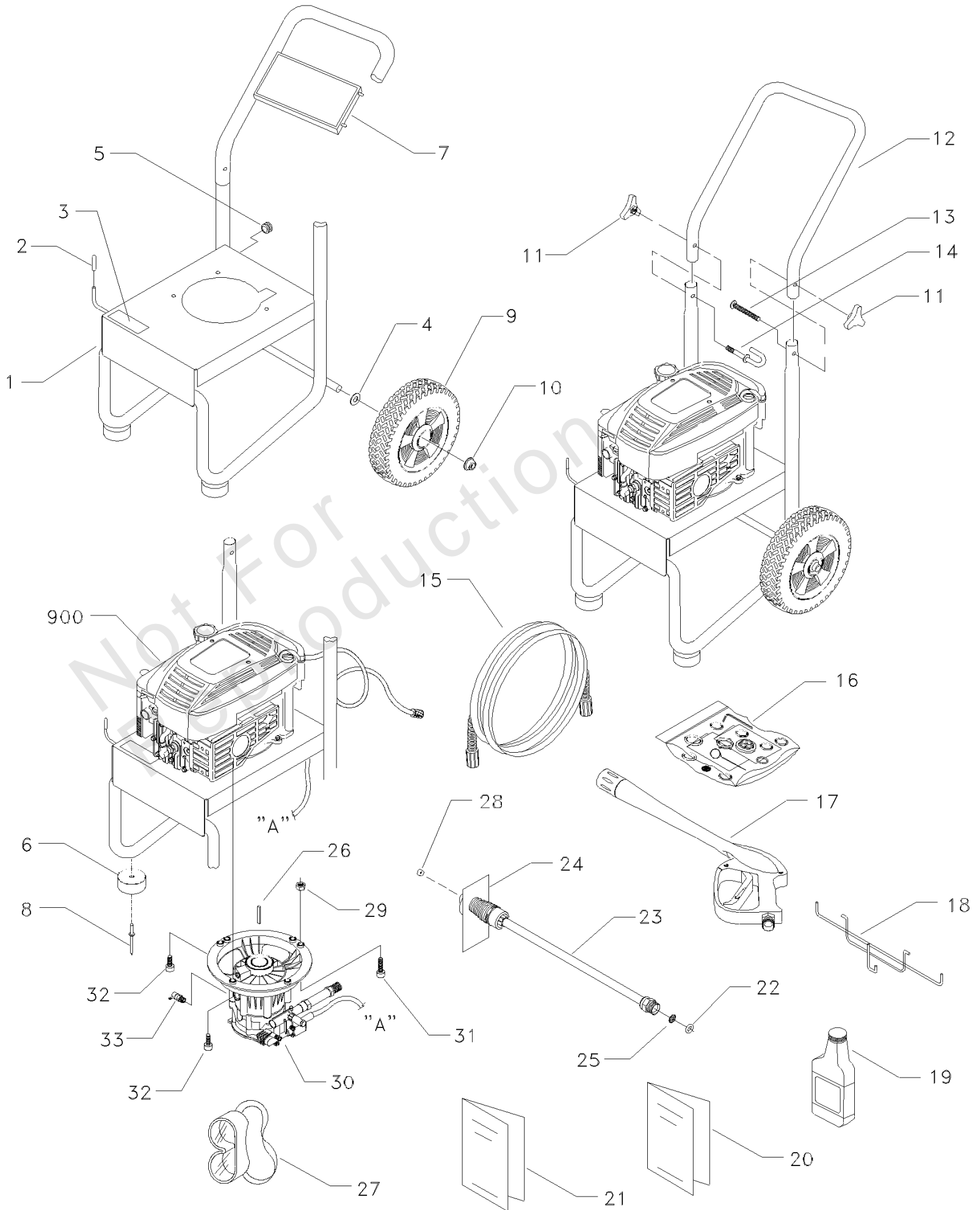
Model Components	Page
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Not For
Reproduction

Main Unit

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1439-1



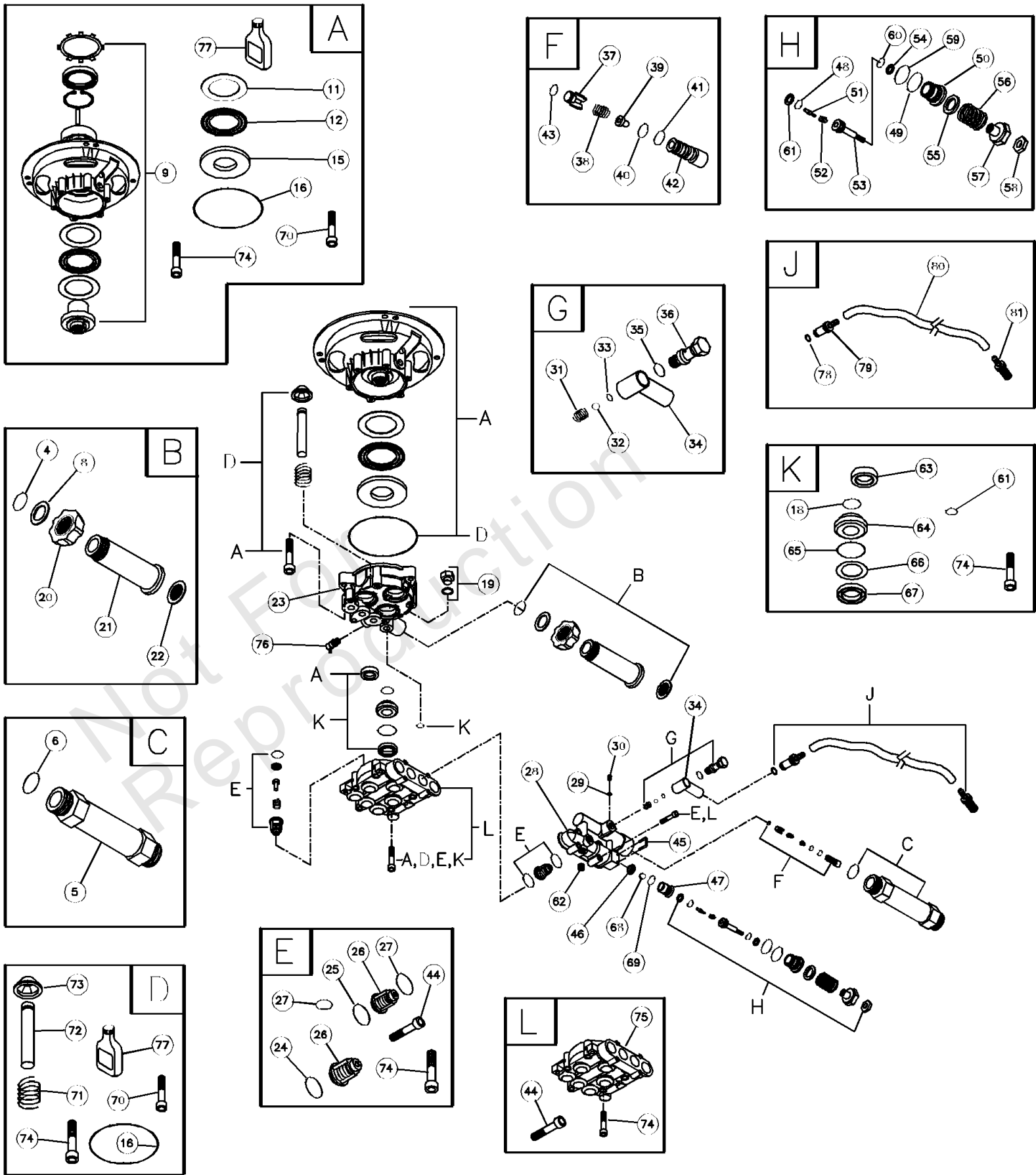
Main Unit

REF NO	PART NO	QTY	DESCRIPTION
1	AB5697GS	1	BASE
2	B1460GS	1	CAP, Vinyl
3	187952GS	1	DECAL, Cool Down
4	49808GS	2	WASHER
5	30809GS	1	GROMMET
6	191413GS	2	MOUNT, Vibe
7	191049GS	1	ASSY, Billboard
8	188194GS	2	RIVET, Blind
9	B2142GS	2	TIRE
10	190146GS	2	NUT, Push
11	97178GS	2	KNOB, Handle
12	AB1945GS	1	HANDLE
13	31669GS	1	BOLT, Carriage
14	B1730GS	1	BOLT, Eye
15	B5693GS	1	HOSE
16	190862GS	1	KIT, Maintenance
17	B3263GS	1	GUN, High Pressure
18	B1953AGS	1	WIREFORM
19	BB3061BGS	1	OIL
20	B5700GS	1	MANUAL, Owners
21	191457GS	1	MANUAL, Engine
22	97837GS	1	O-RING, Hi - Pressure
23	B3335HGS	1	WAND, Adjustable Nozzle
24	97566GS	1	HANG TAG, Nozzle
25	B4224GS	1	SCREEN, Gun Inlet
26	23139GS	1	KEY
27	87815GS	1	GOGGLES, Safety
28	21760GS	1	NOZZLE
29	52858GS	3	NUT
30	189940GS	1	ASSY, Pump -(See "Pump" illustration and parts list.)
31	A2013GS	1	SCREW
32	190750GS	2	SCREW
33	21783GS	1	VALVE, Thermal Relief
900	~NSP	1	ENGINE

Pump

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1439-1



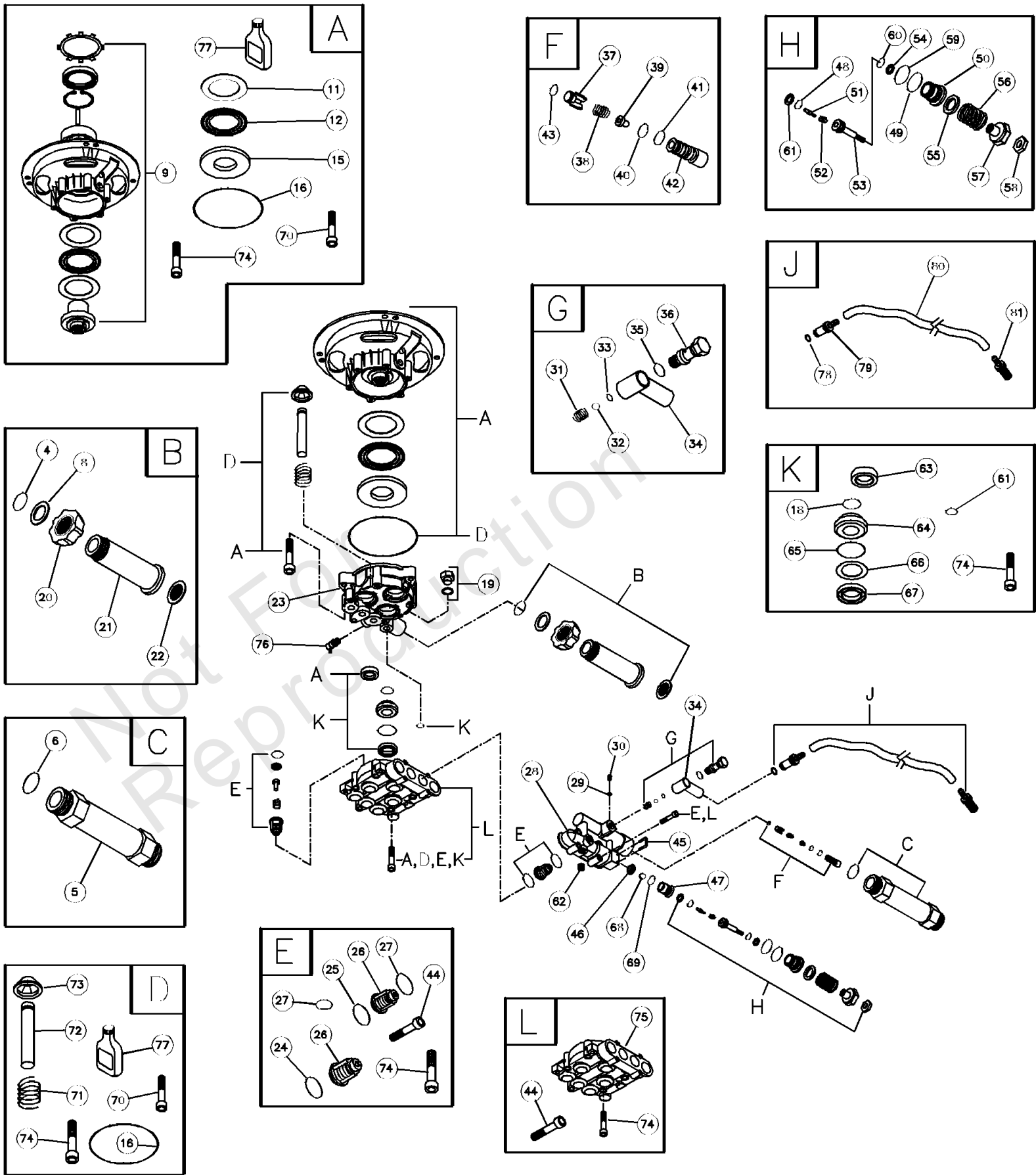
Pump

REF NO	PART NO	QTY	DESCRIPTION
19	190571GS	1	CAP, Oil
23	190626GS	1	CARTER
28	190627GS	1	MANIFOLD
29	190575GS	1	O-RING
30	190576GS	1	SCREW
34	190577GS	1	CONNECTION, Chemical Inlet
45	190578GS	1	PIN
46	190579GS	1	VALVE, Seat Plate, Brass
47	190580GS	1	VALVE, Seat, Stainless
62	190581GS	1	CAP
68	190582GS	1	BALL, Stainless Steel
69	190584GS	1	O-RING
76	21783GS	1	THERMO RELIEF
77	190586GS	1	OIL BOTTLE
A	190709GS	0	KIT, WOBBLE PLATE BEARING -Service kit includes all parts shown within the box.
9	-----	1	ASSY, Engine Adapter
11	-----	1	FLAT BEARING DISC
12	-----	1	ROLLER BEARING
15	-----	1	FLAT BEARING DISC
16	-----	1	O-RING
70	-----	3	SCREW
74	-----	5	SCREW
77	-----	1	OIL BOTTLE
B	190632GS	0	KIT, WATER INLET, ALUM -Service kit includes all parts shown within the box.
4	-----	1	O-RING
8	-----	1	WASHER
20	-----	1	GARDEN HOSE w/ FINGER GRIP
21	-----	1	EXTENSION, INLET
22	-----	1	WASHER w/ FILTER
C	190634GS	0	KIT, OUTLET, ALUM -Service kit includes all parts shown within the box.
5	-----	1	OUTLET EXTENSION
6	-----	1	O-RING
D	190710GS	0	KIT, PISTON -Service kit includes all parts shown within the box.
16	-----	1	O-RING
70	-----	3	SCREW
71	-----	3	SPRING
72	-----	3	PISTON, Stainless Steel
73	-----	3	SPRING PLATE
74	-----	5	SCREW
77	-----	1	OIL BOTTLE
E	190591GS	0	KIT, CHECK VALVES -Service kit includes all parts shown within the box.
24	-----	3	O-RING
25	-----	3	O-RING
26	-----	6	ASSY, Valve Group
27	-----	4	O-RING
44	-----	4	SCREW
74	-----	5	SCREW
F	190592GS	0	KIT, INLET CHECK -Service kit includes all parts shown within the box.

Pump

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 1439-1



Pump

REF NO	PART NO	QTY	DESCRIPTION
37	-----	1	VALVE, Non-Return
38	-----	1	SPRING
39	-----	1	INJECTION NOZZLE
40	-----	1	O-RING
41	-----	1	O-RING
42	-----	1	INJECTION NIPPLE
43	-----	1	O-RING
G	190593GS	0	KIT, CHEMICAL INJECTION -Service kit includes all parts shown within the box.
31	-----	1	SPRING
32	-----	1	BALL
33	-----	1	O-RING
34	-----	1	CONNECTION, Chemical Inlet
35	-----	1	O-RING
36	-----	1	SCREW, Fitting
H	190594GS	0	KIT, UNLOADER STEM -Service kit includes all parts shown within the box.
48	-----	1	BACK RING
49	-----	1	O-RING
50	-----	1	VALVE, By Pass, Brass
51	-----	1	PISTON
52	-----	1	SPRING, Easy Start
53	-----	1	PISTON, Body
54	-----	1	RING, Back
55	-----	1	SPACER
56	-----	1	SPRING, Regulation Press
57	-----	1	NUT, Regulation Press
58	-----	1	NUT
59	-----	1	O-RING
60	-----	1	O-RING
61	-----	1	O-RING
J	189971GS	0	KIT, CHEMICAL HOSE -Service kit includes all parts shown within the box.
78	-----	1	O-RING
79	-----	1	TUBE, Inlet Support
80	-----	1	TUBE, Chemical
81	-----	1	FILTER
K	190595GS	0	KIT, SEAL SET -Service kit includes all parts shown within the box.
18	-----	3	O-RING
61	-----	1	O-RING
63	-----	3	SEAL
64	-----	3	PILOT SPACER, Brass
65	-----	3	O-RING
66	-----	3	WASHER
67	-----	3	SEAL, H.P.
74	-----	5	SCREW
L	190596GS	0	KIT, HEAD BRASS -Service kit includes all parts shown within the box.
44	-----	4	SCREW
74	-----	5	SCREW
75	-----	1	HEAD, Pump

Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs		ft/lbs	
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs	
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

The guides and ruler furnished below are designed to help you select the appropriate hardware.

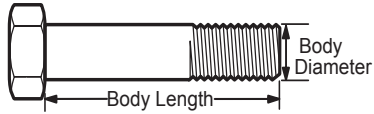


Nut, M8

Thread Diameter (mm)

Inside Diameter (in) Threads per inch

Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm) Distance between threads (mm) Body Length (mm)

Body Diameter Threads per inch Body Length (in)

Screw, 1/2- 16 x 2



Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

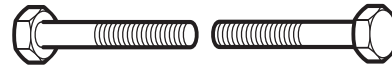
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - for prevailing torque locknuts - use 65% of grade 5 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

Common Hardware Types

Hex Head Capscrew



Washer



Carriage Bolt



Hex Nut

Wrench & Fastener Size Guide

1/4" Bolt or Nut Wrench—7/16"	5/16" Bolt or Nut Wrench—1/2"	3/8" Bolt or Nut Wrench—9/16"	7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

