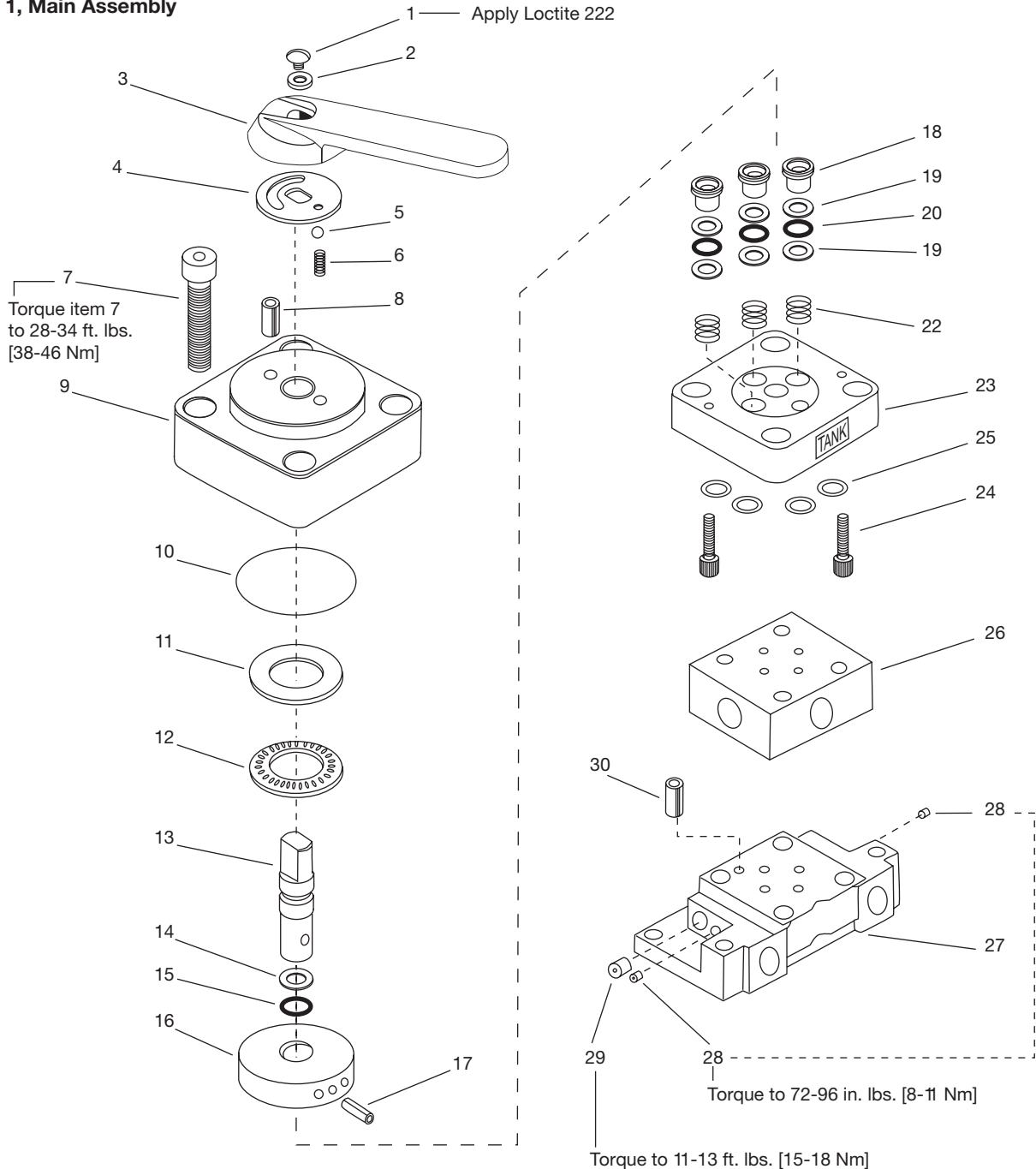


To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.

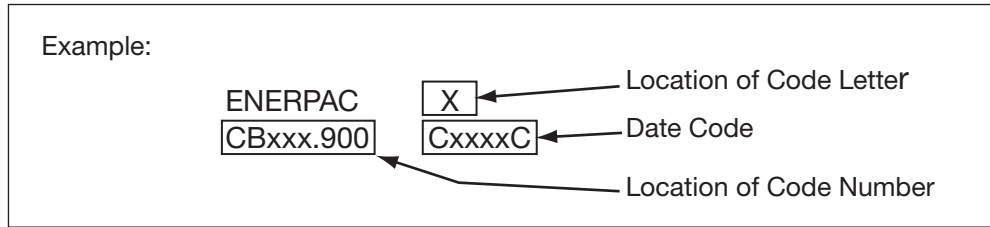
Energac recommends that all kit components be installed to insure optimum performance of the repaired product.

Figure 1, Main Assembly



Identification - Early Production Manual Valves

Early production manual valves contain both a valve code letter and valve code number. This letter and number are used to identify the valve model. See Table A.

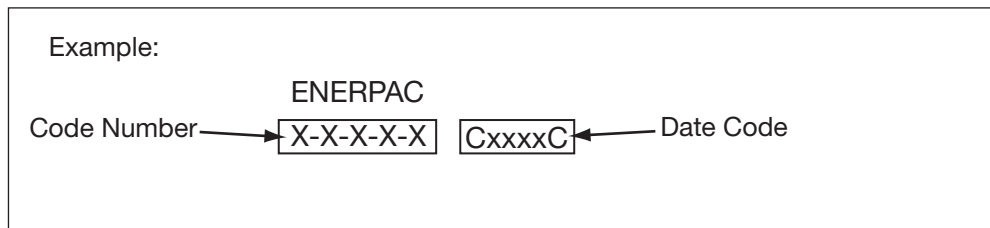


Model Number	Previous Valve Code		Equivalent Present Valve Code Number (see Table B)	Disc Assembly Fig. 1, Item 16	Model Number	Previous Valve Code		Equivalent Present Valve Code Number (see Table B)	Disc Assembly Fig. 1, Item 16
	Letter	Number				Letter	Number		
VM-4	A	CB317900	4-O-P-B-O	CH542950	VM-3	G	CB318900	3-O-P-B-O	CH538950
VC-4	B	CB317900	4-O-R-B-O	CH542950	VC-3	H	CB318900	3-O-R-B-O	CH538950
VM-4L	C	CB317900	4-O-P-B-X	CH542950	VC-20	I	CB319900	4-C-R-B-O	CH537950
VC-4L	D	CB317900	4-O-R-B-X	CH542950	VC-20L	J	CB319900	4-C-R-B-X	CH537950
VM-3L	E	CB317900	3-O-P-B-X	CH542950	VC-15L	K	CB319900	3-C-R-B-X	CH537950
VC-3L	F	CB317900	3-O-R-B-X	CH542950	VC-15	L	CB320900	3-C-R-B-O	CH541950

Identification - Recent Production Manual Valves

Recent production manual valves contain an alphanumeric valve code number. This number is used to identify the valve model.

See Table B for valve code number information. Then refer to Table A to determine the valve model number and disc assembly.



1st Position		2nd Position		3rd Position		4th Position		5th Position	
3	3- Way Valve								
4	4-Way Valve								
		O	Open Center						
		C	Closed Center						
				P	Pump Mounted				
				R	Remote				
						B	Buna		
						V	Viton		
						E	EPA		
								X	Locking Valve Section
								O	No Locking Valve Section

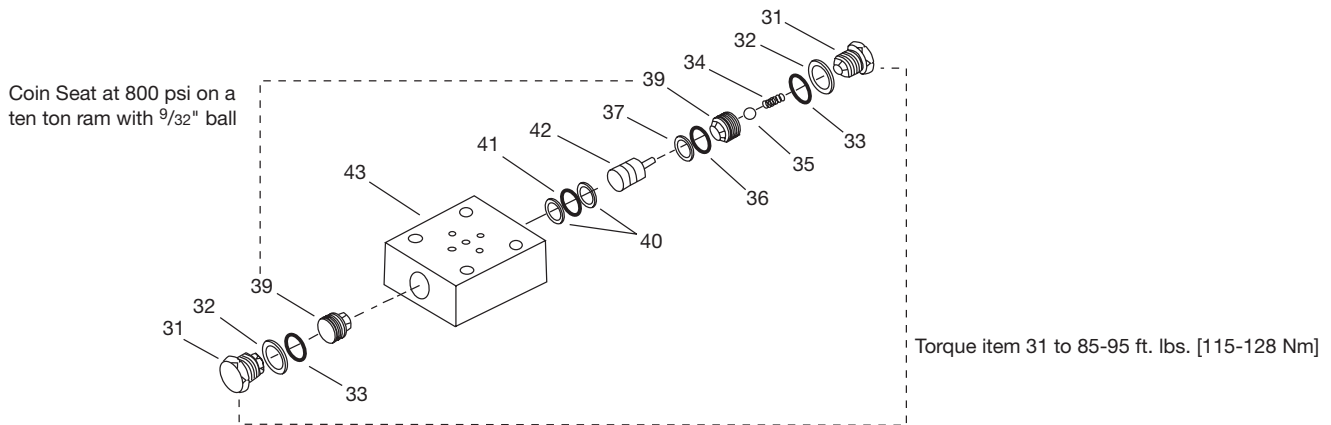
Note: Refer to Table 1 to determine valve model number based on code.

Repair Parts List for Figure 1							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
1	★A8076048	1	Screw	16	CH537950SR	1	Disk Assembly (see chart on page 2)
2	★B1086108	1	Washer		CH541950SR	1	Disk Assembly (see chart on page 2)
3	Y325070	1	Handle	17	★B1109057	1	Roll Pin
4	A8005071	1	Disk	18	※DA9560041SR	3	Metal Seal (incl. items 10, 19, 20, 22)
5	★B1006016	1	7/32" Ball	19	※★B1011564	6	Back-Up Washer
6	★A8039110	1	Spring	20	※★B1006503	3	O-Ring
7	B1389028	4	Bolt (for non-locking valve)	22	※★CB28110	3	Spring
	B1401028	4	Bolt (for locking valve)	23	CH539190	1	Body
8	★B1126057	1	Roll Pin	24	B1326028	2	Bolt
9	CB324001	1	Valve Cap	25	B1111803	4	O-Ring (non-locking valve)
10	※★B1269503	1	O-Ring		★B1111803	8	O-ring (for locking valve)
11	CB327101	1	Bearing Plate	26	CB325005	1	Base (Remote mounted)
12	CB328281	1	Bearing	27	CB303038	1	Base (Pump mounted)
13	CH536104	1	Shaft	28	A1006245	2	Pipe Plug
14	★B1012564	1	Back-up Washer	29	A1007245	1	Pipe Plug
15	★B1007503	1	O-Ring	30	B1051057	1	Pin
16	CH542950SR	1	Disk Assembly (see chart on page 2)	31	★F786167	1	Gasket (not shown)
	CH538950SR	1	Disk Assembly (see chart on page 2)				

★ Items included in and available only as part of Repair Kit VM4K3.

※ Items included in and available only as part of Repair Kit DA9560041SR.

Figure 2, 3-Way Locking Block Assembly



Note: Use with valve codes starting with 3O and 3C and ending with "X"

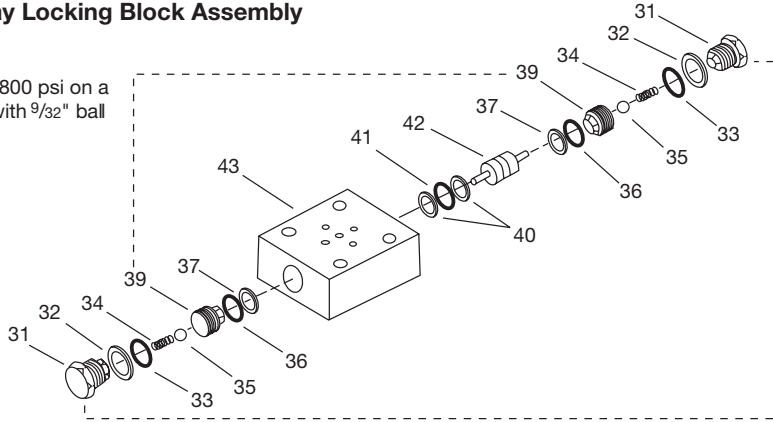
Repair Parts List for Figure 2							
Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
31	+★ CR356013SR	2	Spring Guide (Incl #32, 33)	37	+★ B1113564	1	Washer
32	+★ CR355167	2	Gasket	39	+ Y126290SR	2	Seat (Incl. #36, 37)
33	+★ B1116803	2	O-Ring	40	+★ B1111564	2	Back-Up Washer
34	+★ CJ656110	1	Spring	41	+★ B1009503	1	O-Ring
35	+★ B1008016	1	9/32" Ball	42	+ CK598900SR	1	Piston
36	+★ B1011503	1	O-Ring	43	+ DA1267900SR	1	Valve Body

★ Items included in and available only as part of Repair Kit VM4K3.

+ Items included in and available only as part of 3-Way Locking Block Service Kit Y383900SR.

Figure 3, 4-Way Locking Block Assembly

Coin Seat at 800 psi on a ten ton ram with 9/32" ball



Torque item 31 to 85-95 ft. lbs. [115-128 Nm]

Note: Use with valve codes starting with 4O and 4C and ending with "X"

Repair Parts List for Figure 2

Item	Part Number	Qty.	Description	Item	Part Number	Qty.	Description
31	**CR356013	2	Spring Guide	37	** B1113564	2	Washer
32	**CR355167	2	Gasket	39	* Y126290SR	2	Seat (Incl. #36, 37)
33	**B1116803	2	O-Ring	40	** B1111564	2	Back-Up Washer
34	**CJ656110	2	Spring	41	** B1009503	1	O-Ring
35	**B1008016	2	9/32" Ball	42	* Y128900W	1	Piston
36	**B1011503	2	O-Ring	43	* DA1268900SR	1	Valve Body

★ Items included in and available only as part of Repair Kit VM4K3.

* Items included in and available only as part of 4-Way Locking Block Service Kit Y123900SR.

NOTES:

A large rectangular box with a thin black border, containing 18 horizontal lines for writing. The lines are evenly spaced and extend across the width of the box. The top of the box is empty, and the bottom is also empty, leaving space for text to be written on each line.

Enerpac Worldwide Locations

◆ e-mail: info@enerpac.com

◆ internet: www.enerpac.com

Australia and New Zealand

Actuant Australia Ltd.
Block V Unit 3
Regents Park Estate
391 Park Road
Regents Park NSW 2143
(P.O. Box 261) Australia
T +61 (0)2 9743 8988
F +61 (0)2 9743 8648
sales-au@enerpac.com

Brazil

Power Packer do Brasil Ltda.
Rua Luiz Lawrie Reid, 548
09930-760 - Diadema (SP)
T +55 11 5687 2211
F +55 11 5686 5583
Toll Free: 0800 891 5770
vendasbrasil@enerpac.com

Canada

Actuant Canada Corporation
6615 Ordan Drive, Unit 14-15
Mississauga, Ontario L5T 1X2
T +1 905 564 5749
F +1 905 564 0305
Toll Free:

T +1 800 268 4987
F +1 800 461 2456
customer.service@actuant.com

China

Actuant (China) Industries Co. Ltd.
No. 6 Nanjing East Road,
Taicang Economic Dep Zone
Jiangsu, China
T +86 0512 5328 7500
F +86 0512 5335 9690
Toll Free: +86 400 885 0369
sales-cn@enerpac.com

France, Switzerland, North Africa and French speaking African countries

ENERPAC
Une division d'ACTUANT France S.A.
ZA de Courtaboeuf
32, avenue de la Baltique
91140 VILLEBON /YVETTE
France
T +33 1 60 13 68 68
F +33 1 69 20 37 50
sales-fr@enerpac.com

Germany and Austria

ENERPAC GmbH
P.O. Box 300113
D-40401 Düsseldorf
Willstätterstrasse 13
D-40549 Düsseldorf, Germany
T +49 211 471 490
F +49 211 471 49 28
sales-de@enerpac.com

India

ENERPAC Hydraulics Pvt. Ltd.
No. 1A, Peenya Industrial Area
IInd Phase, Bangalore, 560 058, India
T +91 80 40 792 777
F +91 80 40 792 792
sales-in@enerpac.com

Italy

ENERPAC S.p.A.
Via Canova 4
20094 Corsico (Milano)
T +39 02 4861 111
F +39 02 4860 1288
sales-it@enerpac.com

Japan

Applied Power Japan LTD KK
Besshocho 85-7
Kita-ku, Saitama-shi 331-0821, Japan
T +81 48 662 4911
F +81 48 662 4955
sales-jp@enerpac.com

Middle East, Egypt and Libya

ENERPAC Middle East FZE
Office 423, LOB 15
P.O. Box 18004, Jebel Ali, Dubai
United Arab Emirates
T +971 (0)4 8872686
F +971 (0)4 8872687
sales-ua@enerpac.com

Russia

Rep. office Enerpac
Russian Federation
Admiral Makarova Street 8
125212 Moscow, Russia
T +7 495 98090 91
F +7 495 98090 92
sales-ru@enerpac.com

Southeast Asia, Hong Kong and Taiwan

Actuant Asia Pte Ltd.
83 Joo Koon Circle
Singapore 629109
T +65 68 63 0611
F +65 64 84 5669 7722
Toll Free: +1800 363
sales-sg@enerpac.com

South Korea

Actuant Korea Ltd.
3Ba 717, Shihwa Industrial Complex
Jungwang-Dong, Shihung-Shi,
Kyunggi-Do
Republic of Korea 429-450
T +82 31 434 4506
F +82 31 434 4507
sales-kr@enerpac.com

Spain and Portugal

ENERPAC SPAIN, S.L.
Avda. Los Frailes, 40 – Nave C & D
Pol. Ind. Los Frailes
28814 Daganzo de Arriba
(Madrid) Spain
T +34 91 884 86 06
F +34 91 884 86 11
sales-es@enerpac.com

Sweden, Denmark, Norway, Finland and Iceland

Enerpac Scandinavia AB
Fabriksgatan 7
412 50 Gothenburg
Sweden
T +46 (0) 31 799 0281
F +46 (0) 31 799 0010
scandinavianinquiries@enerpac.com

The Netherlands, Belgium, Luxembourg, Central and Eastern Europe, Baltic States, Greece, Turkey and CIS countries

ENERPAC B.V.
Galvanistraat 115
6716 AE Ede
P.O. Box 8097
6710 AB Ede
The Netherlands
T +31 318 535 911
F +31 318 535 848
sales-nl@enerpac.com

Enerpac Integrated Solutions B.V.

Opaalstraat 44
7554 TS Hengelo
P.O. Box 421
7550 AK Hengelo
The Netherlands
T +31 74 242 20 45
F +31 74 243 03 38
integratedsolutions@enerpac.com

South Africa and other English speaking African countries

Enerpac Africa Pty Ltd.
No. 5 Bauhinia Avenue
Cambridge Office Park
Block E
Highveld Techno Park
Centurion 0157
South Africa
T: +27 12 940 0656

United Kingdom and Ireland

ENERPAC Ltd.,
Bentley Road South
Darlaston, West Midlands
WS10 8LQ
England
T +44 (0)121 50 50 787
F +44 (0)121 50 50 799
sales-uk@enerpac.com

USA, Latin America and Caribbean

ENERPAC
P.O. Box 3241
Milwaukee WI 53201 USA
T +1 262 293 1600
F +1 262 293 7036
User inquiries:
T +1 800 433 2766
Distributor inquiries/orders:
T +1 800 558 0530
F +1 800 628 0490
Technical inquiries:
techservices@enerpac.com
sales-us@enerpac.com

All Enerpac products are guaranteed
against defects in workmanship and
materials for as long as you own them.

For the location of your nearest authorized
Enerpac Service Center, visit us at
www.enerpac.com

012313