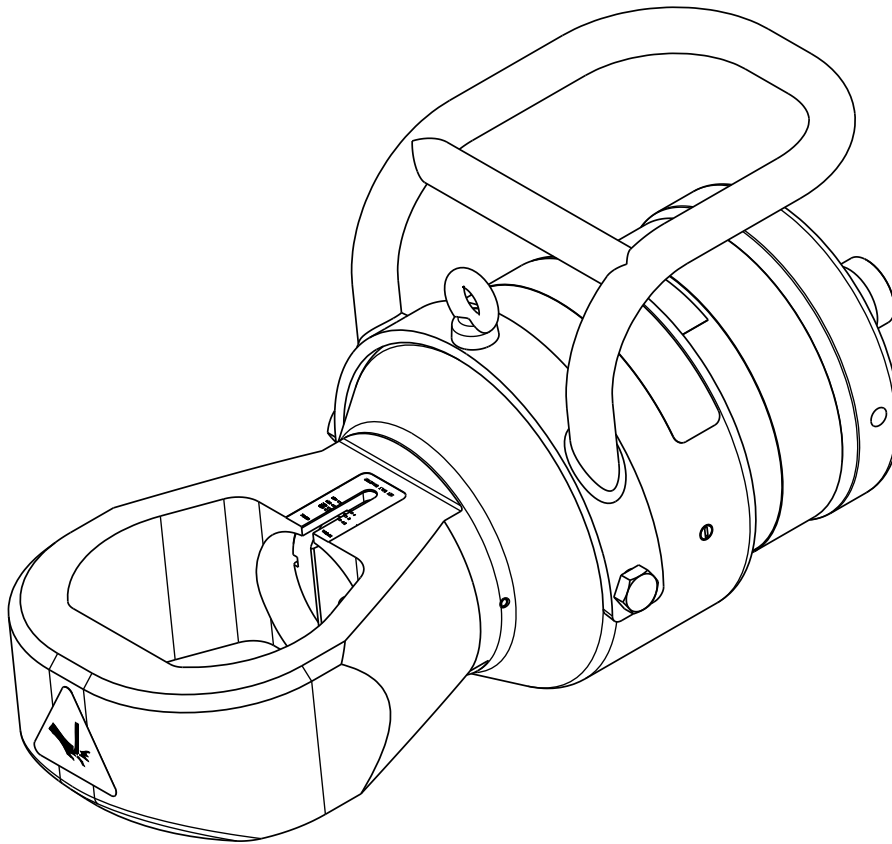


To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.

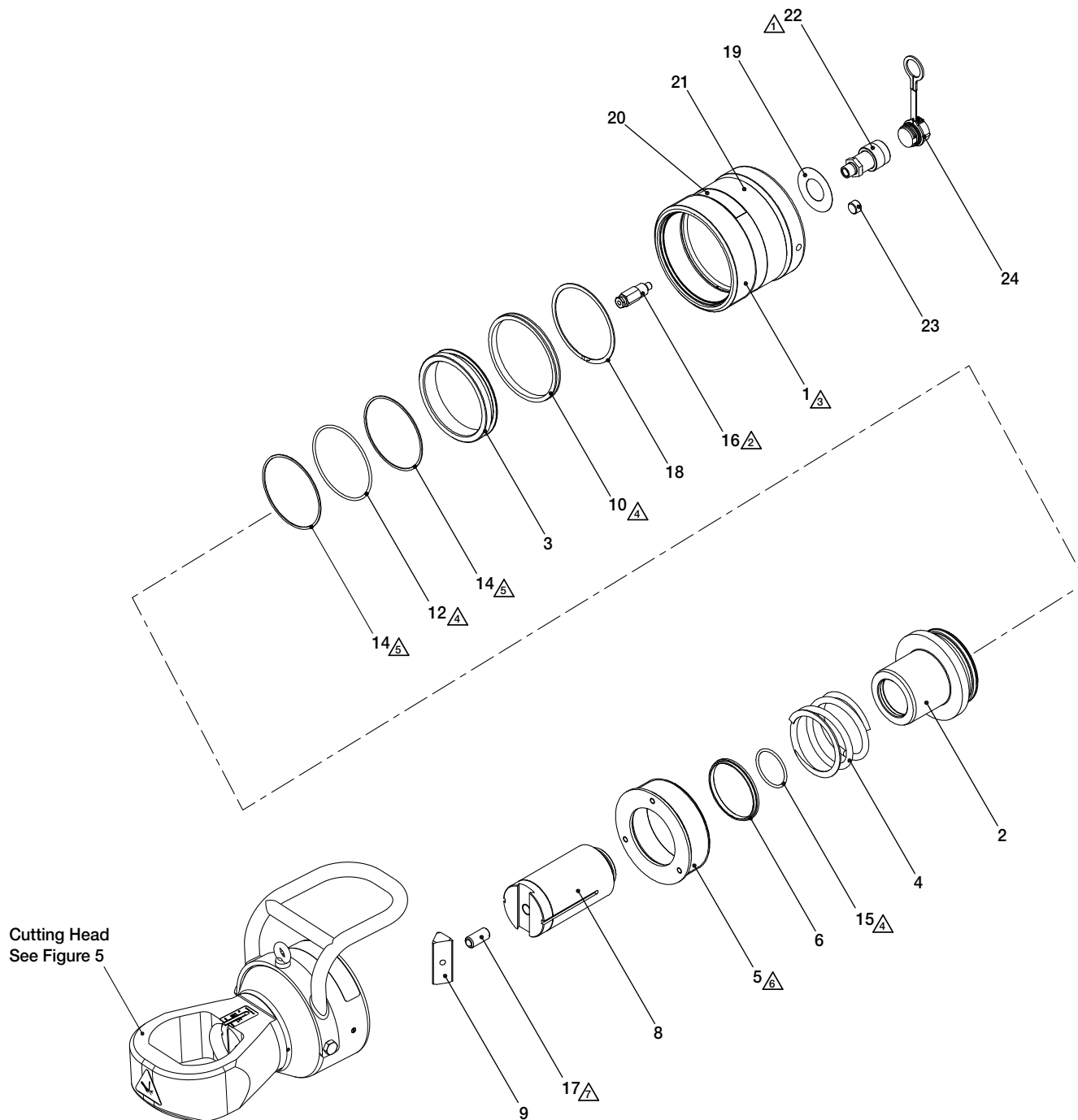
Enerpac recommends that all kit components be installed to insure optimum performance of the repaired product.



Contents:

Page:

Figure 1, Single Acting Cylinder Subassembly, Model NSC-70	2-3
Figure 2, Double Acting Cylinder Subassembly, Model NSC-70D	4-5
Figure 3, Single Acting Cylinder Subassembly, Model NSC-110	6-7
Figure 4, Double Acting Cylinder Subassembly, Model NSC-110D	8-9
Figure 5, Cutting Head Subassemblies, NSH Models	10-11



Notes:

- △ Apply Loctite 577 to coupler threads. Torque to 52-59 ft-lbs [70-80 Nm].
- △ Apply Loctite 577 to relief valve threads. Torque to 52-59 ft-lbs [70-80 Nm].
- △ Apply Dow Corning DC4 silicone to cylinder bore before installing piston assembly.
- △ Apply Dow Corning DC4 silicone to all O-rings and seals before installation.
- △ Insert back-up rings on either side of O-ring. Concave surface of each back-up ring must face the O-ring.
- △ Screw down cylinder stop ring until it is snug tight and flush with end of cylinder. Do not overtighten.
- △ Coat the central part of the external thread of the spring plunger with a small amount of grease.

Figure 1, Single Acting Cylinder Subassembly, Model NSC-70

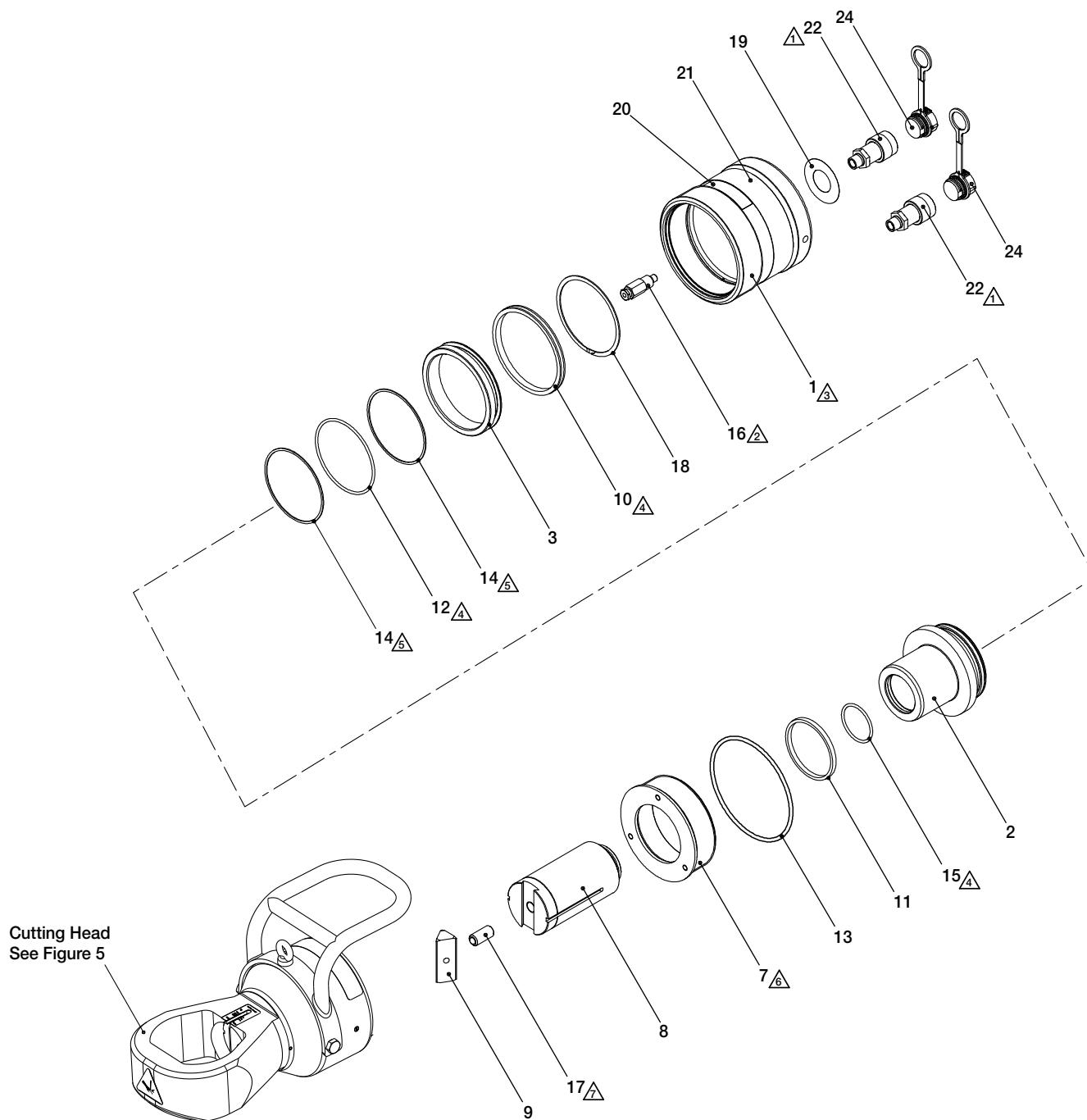
**Repair Parts List for Figure 1
Single Acting Cylinder Subassembly, Model NSC-70**

Item	Part No.	Qty.	Description
1	DM0032030	1	Cylinder
2	SNS10S-002A	1	Piston
3	SNS10S-003	1	Bushing, Piston
4	E3-089	1	Spring, Compression
5	SNS10-008	1	Stop Ring, Cylinder
6	SNS10-007	1	Bushing, Stop Ring
8	SNS10-005	1	Blade Holder
9	NSB-70	1	Blade
10	★ E2-274	1	T-Seal, Piston
12	★ E2-262	1	O-Ring
14	★ E2-263	2	Seal Ring, Back-up
15	★ E2-258	1	O-Ring
16	SPX111B	1	Relief Valve
17	* E4-319	1	Spring Plunger
18	E4-316	1	Retaining Ring, Spiral
19	DM0017026	1	Label, Data
20	SL100080	1	Label, Warning
21	E11-19D	1	Tape, Anti-slip
22	CR-400	1	Coupler, 3/8"
23	A1009245	1	Plug, 3/8"
24	CD-411	1	Cap, Dust

★ Items included as part of Seal Kit NSSK70.

* Items included as part of Repair Kit NSPK1.

Note: Except as indicated, kit components are not sold separately and must be purchased as part of a kit. Enerpac recommends that all kit components be installed to assure optimum performance of the repaired product.



Notes:

- ⚠ Apply Loctite 577 to coupler threads. Torque to 52-59 ft-lbs [70-80 Nm].
- ⚠ Apply Loctite 577 to relief valve threads. Torque to 52-59 ft-lbs [70-80 Nm].
- ⚠ Apply Dow Corning DC4 silicone to cylinder bore before installing piston assembly.
- ⚠ Apply Dow Corning DC4 silicone to all O-rings and seals before installation.
- ⚠ Insert back-up rings on either side of O-ring. Concave surface of each back-up ring must face the O-ring.
- ⚠ Screw down cylinder gland assembly until it is snug tight and flush with end of cylinder. Do not overtighten.
- ⚠ Coat the central part of the external thread of the spring plunger with a small amount of grease.

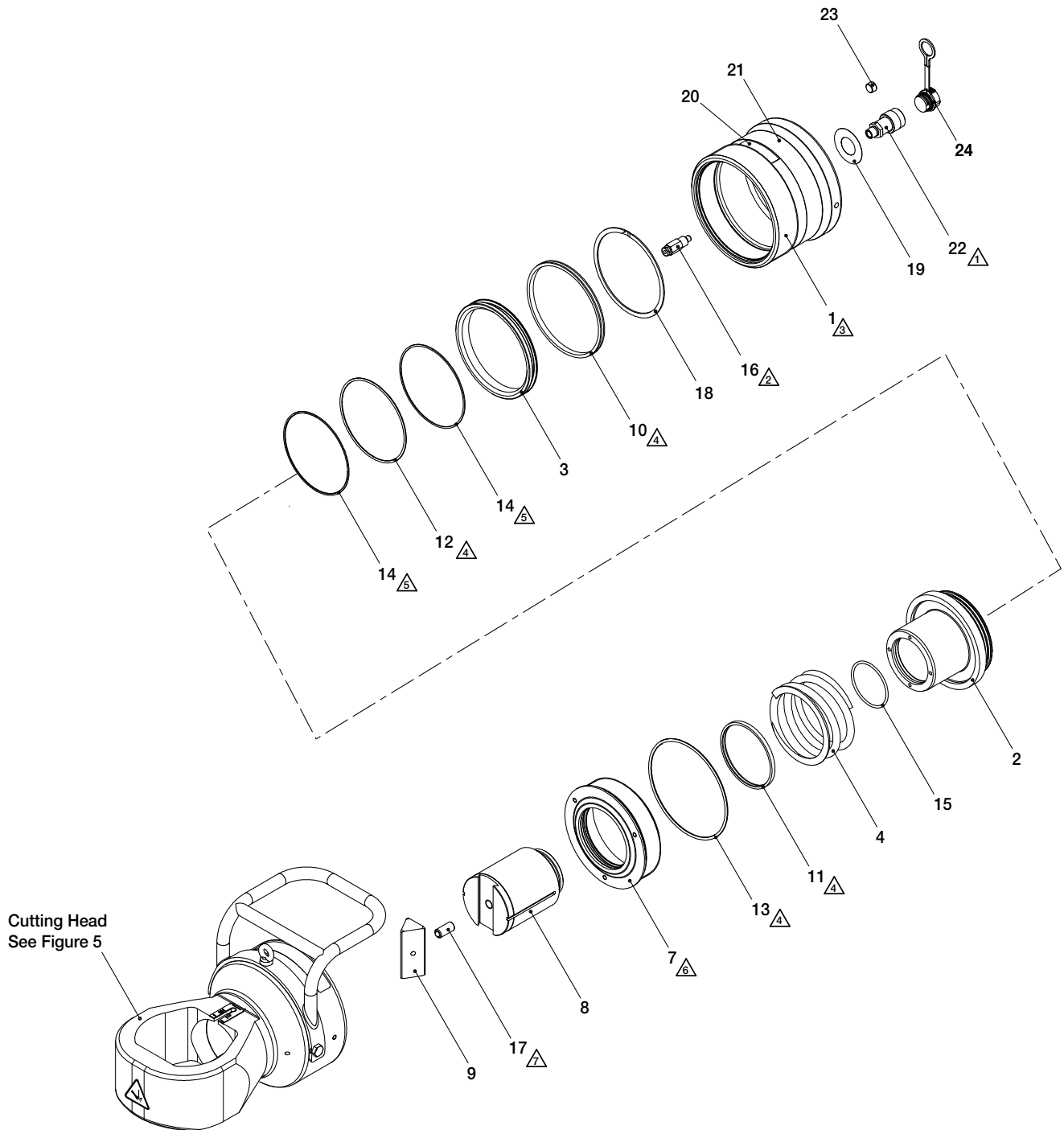
Figure 2, Double Acting Cylinder Subassembly, Model NSC-70D

Repair Parts List for Figure 2			
Double Acting Cylinder Subassembly, Model NSC-70D			
Item	Part No.	Qty.	Description
1	DM0032030	1	Cylinder
2	SNS10S-002A	1	Piston
3	SNS10S-003	1	Bushing, Piston
7	SNS10-004	1	Gland Assembly
8	SNS10-005	1	Blade Holder
9	NSB-70	1	Blade
10	★ E2-274	1	T-Seal, Piston
11	★ E2-008	1	T-Seal, Rod
12	★ E2-262	1	O-Ring
13	★ E2-261	1	O-Ring
14	★ E2-263	2	Seal Ring, Back-up
15	★ E2-258	1	O-Ring
16	SPX111B	1	Relief Valve
17	* E4-319	1	Spring Plunger
18	E4-316	1	Retaining Ring, Spiral
19	DM0017026	1	Label, Data
20	SL100080	1	Label, Warning
21	E11-19D	1	Tape, Anti-slip
22	CR-400	2	Coupler, 3/8"
24	CD-411	2	Cap, Dust

★ Items included as part of Seal Kit NSSK70.

* Items included as part of Repair Kit NSPK1.

Note: Except as indicated, kit components are not sold separately and must be purchased as part of a kit. Enerpac recommends that all kit components be installed to assure optimum performance of the repaired product.

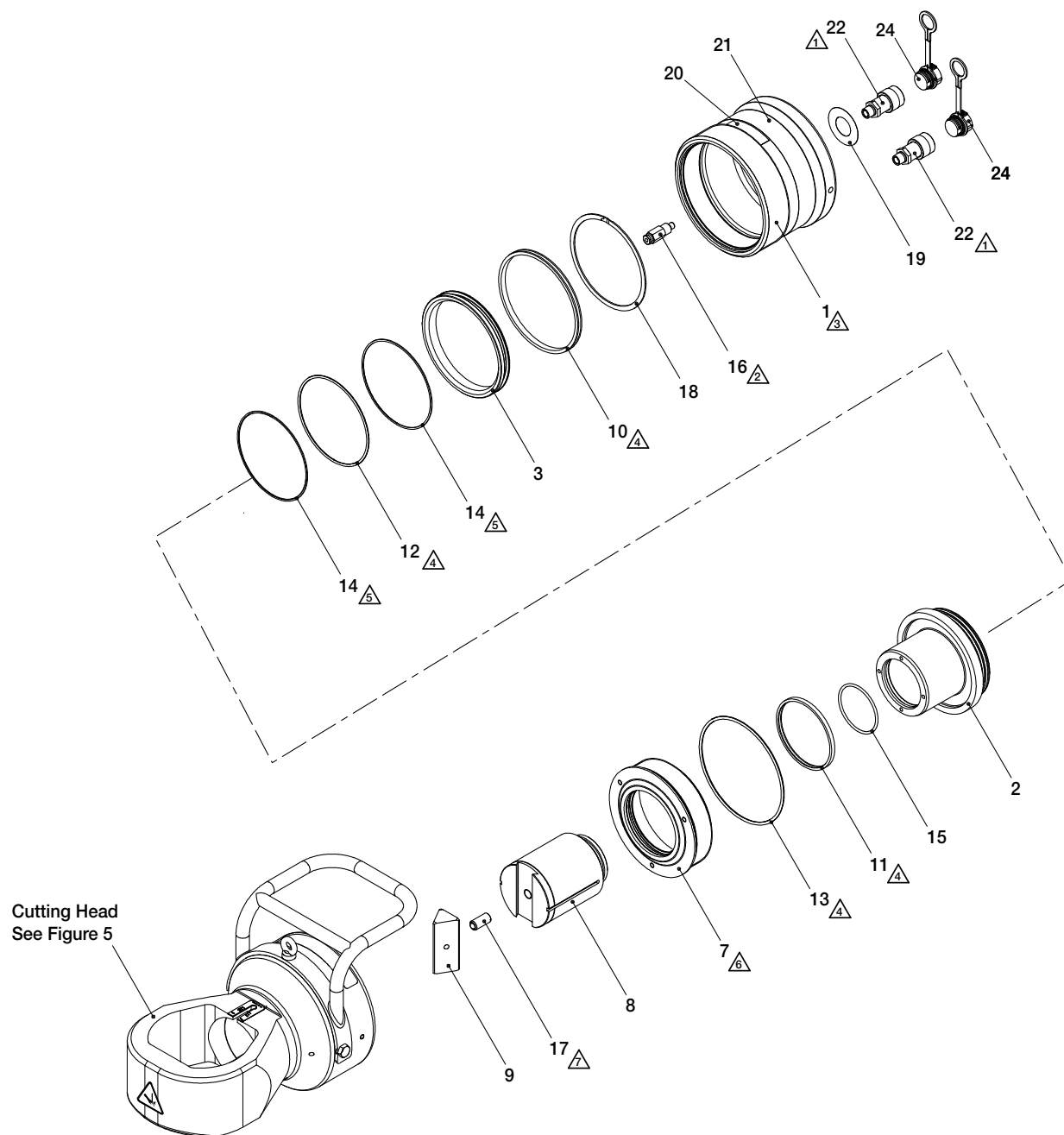


Notes:

- △ Apply Loctite 577 to coupler threads. Torque to 52-59 ft-lbs [70-80 Nm].
- △ Apply Loctite 577 to relief valve threads. Torque to 52-59 ft-lbs [70-80 Nm].
- △ Apply Dow Corning DC4 silicone to cylinder bore before installing piston assembly.
- △ Apply Dow Corning DC4 silicone to all O-rings and seals before installation.
- △ Insert back-up rings on either side of O-ring. Concave surface of each back-up ring must face the O-ring.
- △ Screw down cylinder gland assembly until it is snug tight and flush with end of cylinder. Do not overtighten.
- △ Coat the central part of the external thread of the spring plunger with a small amount of grease.

Figure 3, Single Acting Cylinder Subassembly, Model NSC-110

Repair Parts List for Figure 3 Single Acting Cylinder Subassembly, Model NSC-110			
Item	Part No.	Qty.	Description
1	DM0033030	1	Cylinder
2	SNS17S-002A	1	Piston
3	SNS17-003A	1	Bushing, Piston
4	E3-067	1	Spring, Compression
7	SNS17-006B	1	Gland Assembly
8	SNS17-005	1	Blade Holder
9	NSB-110	1	Blade
10	✦ E2-353	1	T-Seal, Piston
11	✦ E2-354	1	T-Seal, Rod
12	✦ E2-356	1	O-Ring
13	✦ E2-355	1	O-Ring
14	✦ E2-357	2	Seal Ring, Back-up
15	✦ E2-257	1	O-Ring
16	SPX111B	1	Relief Valve
17	* E4-319	1	Spring Plunger
18	E4-656	1	Retaining Ring, Spiral
19	DM0040026	1	Label, Data
20	SL100080	1	Label, Warning
21	E11-19D	1	Tape, Anti-slip
22	CR-400	1	Coupler, 3/8"
23	DM0043006	1	Vent Plug, 3/8"
24	CD-411	1	Cap, Dust
✦ Items included as part of Seal Kit NSSK110. * Items included as part of Repair Kit NSPK1. Note: Except as indicated, kit components are not sold separately and must be purchased as part of a kit. Enerpac recommends that all kit components be installed to assure optimum performance of the repaired product.			



Notes:

- ① Apply Loctite 577 to coupler threads. Torque to 52-59 ft-lbs [70-80 Nm].
- ② Apply Loctite 577 to relief valve threads. Torque to 52-59 ft-lbs [70-80 Nm].
- ③ Apply Dow Corning DC4 silicone to cylinder bore before installing piston assembly.
- ④ Apply Dow Corning DC4 silicone to all O-rings and seals before installation.
- ⑤ Insert back-up rings on either side of O-ring. Concave surface of each back-up ring must face the O-ring.
- ⑥ Screw down cylinder gland assembly until it is snug tight and flush with end of cylinder. Do not overtighten.
- ⑦ Coat the central part of the external thread of the spring plunger with a small amount of grease.

Figure 4, Double Acting Cylinder Subassembly, Model NSC-110D

Repair Parts List for Figure 4 Double Acting Cylinder Subassembly, Model NSC-110D			
Item	Part No.	Qty.	Description
1	DM0033030	1	Cylinder
2	SNS17S-002A	1	Piston
3	SNS17-003A	1	Bushing, Piston
7	SNS17-006B	1	Gland Assembly
8	SNS17-005	1	Blade Holder
9	NSB-110	1	Blade
10	❖ E2-353	1	T-Seal, Piston
11	❖ E2-354	1	T-Seal, Rod
12	❖ E2-356	1	O-Ring
13	❖ E2-355	1	O-Ring
14	❖ E2-357	2	Seal Ring, Back-up
15	❖ E2-257	1	O-Ring
16	SPX111B	1	Relief Valve
17	* E4-319	1	Spring Plunger
18	E4-656	1	Retaining Ring, Spiral
19	DM0040026	1	Label, Data
20	SL100080	1	Label, Warning
21	E11-19D	1	Tape, Anti-slip
22	CR-400	2	Coupler, 3/8"
24	CD-411	2	Cap, Dust
❖ Items included as part of Seal Kit NSSK110. * Items included as part of Repair Kit NSPK1. Note: Except as indicated, kit components are not sold separately and must be purchased as part of a kit. Enerpac recommends that all kit components be installed to assure optimum performance of the repaired product.			

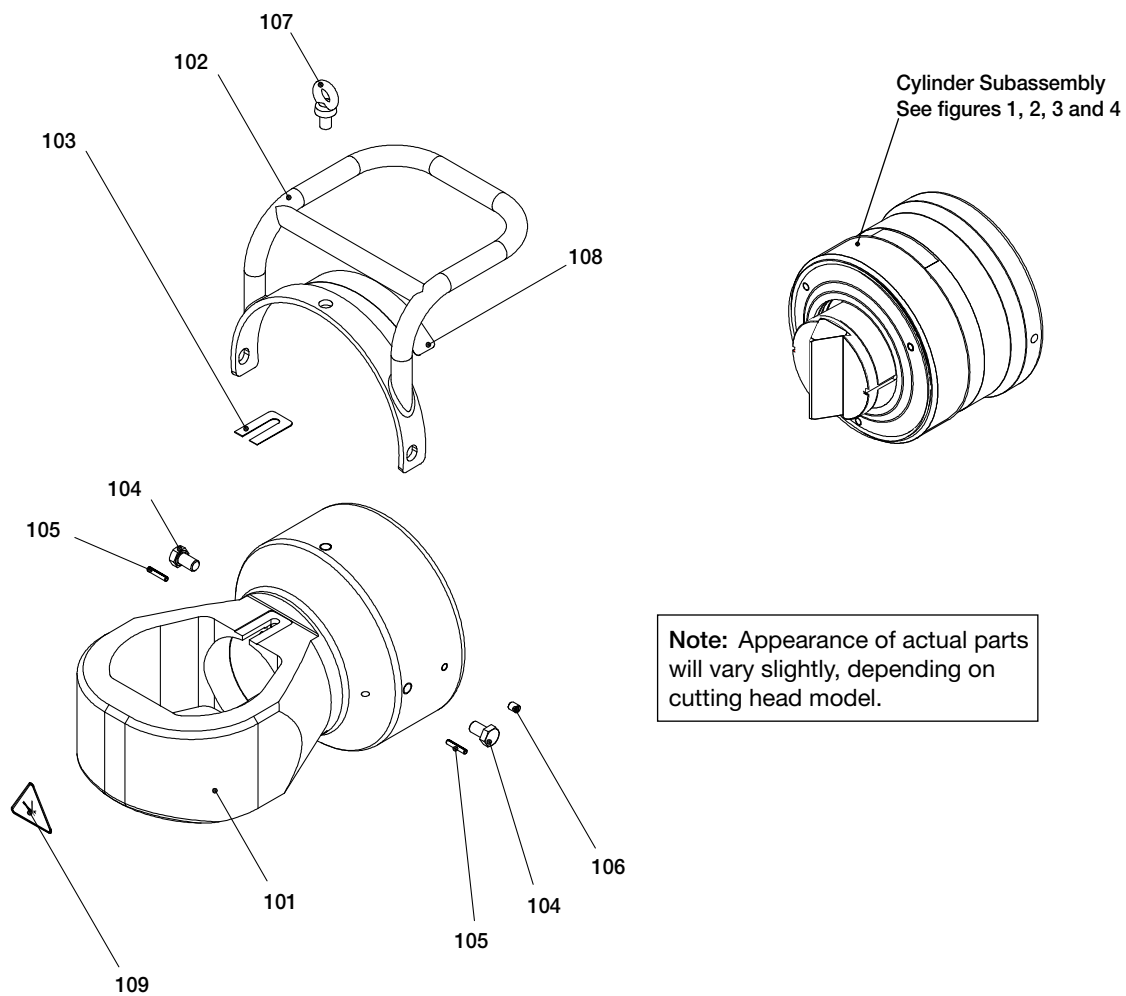


Figure 5, NSH Cutting Head Subassembly

Repair Parts List for Figure 5
NSH Cutting Heads Rated at 103 Ton [918 kN]

Item	Part Number				Qty.	Description
	Model NSH-7080	Model NSH-7085	Model NSH-7095	Model NSH-70105		
101	SNSH-005	SNSH-006	SNSH-007	SNSH-008	1	Head
102	SNSH-013	SNSH-013	SNSH-013	SNSH-013	1	Lifting Frame
103	* SL100070	* SL100071	* SL100072	* SL100073	1	Label, Bolt Scale
104	E4-325	E4-325	E4-325	E4-325	2	Bolt, Hex Head, M12 x 1.75" x 20mm
105	* E4-442	* E4-442	* E4-442	* E4-442	2	Pin, Spring Tension
106	* E4-053	* E4-053	* E4-053	* E4-053	1	Screw, Set Slotted
107	E5-010	E5-010	E5-010	E5-010	1	Bolt, Lifting Eye, M12 x 1.75"
108	DM0015026	DM0015026	DM0015026	DM0015026	1	Label, Enerpac
109	DM0016026	DM0016026	DM0016026	DM0016026	1	Label, Warning

* Items included as part of Repair Kit NSPK1.

A complete set of labels (item 103) is included in the kit. Use the label for your cutting head size.

Notes:

The above cutting head models must be used only with cylinder subassemblies NSC-70 and NSC-70D. See figures 1 and 2.

Except as indicated, kit components are not sold separately and must be purchased as part of a kit.

Enerpac recommends that all kit components be installed to assure optimum performance of the repaired product.

Repair Parts List for Figure 5
NSH Cutting Heads Rated at 192 Ton [1712 kN]

Item	Part Number		Qty.	Description
	Model NSH-110115	Model NSH-110130		
101	SNSH-009	SNSH-010	1	Head
102	SNSH-014	SNSH-014	1	Lifting Frame
103	* SL100074	* SL100075	1	Label, Bolt Scale
104	E4-325	E4-325	2	Bolt, Hex Head, M12 x 1.75" x 20mm
105	* E4-442	* E4-442	2	Pin, Spring Tension
106	* E4-053	* E4-053	1	Screw, Set Slotted
107	E5-010	E5-010	1	Bolt, Lifting Eye, M12 x 1.75"
108	DM0015026	DM0015026	1	Label, Enerpac
109	DM0016026	DM0016026	1	Label, Warning

* Items included as part of Repair Kit NSPK1.

A complete set of labels (item 103) is included in the kit. Use the label for your cutting head size.

Notes:

The above cutting head models must be used only with cylinder subassemblies NSC-110 and NSC-110D. See figures 3 and 4.

Except as indicated, kit components are not sold separately and must be purchased as part of a kit.

Enerpac recommends that all kit components be installed to assure optimum performance of the repaired product.

Enerpac Worldwide Locations

◆ e-mail: info@enerpac.com

◆ internet: www.enerpac.com

Africa

ENERPAC Middle East FZE
Office 423, JAFZA 15
P.O. Box 18004
Jebel Ali, Dubai
United Arab Emirates
Tel: +971 (0)4 8872686
Fax: +971 (0)4 8872687

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
Tel: +61 297 438 988
Fax: +61 297 438 648

Brazil

Power Packer do Brazil Ltda.
Rua dos Inocentes, 587
04764-050 - Sao Paulo (SP)
Tel: +55 11 5687 2211
Fax: +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
Tel: +1 905 564 5749
Fax: +1 905 564 0305
Toll Free:
Tel: +1 800 268 4987
Fax: +1 800 461 2456
Technical Inquiries:
techservices@enerpac.com

China

Actuant Industries Co. Ltd.
No.76 Nanjing Road,
Taicang Economic Dep Zone
Jiangsu, China
Tel: +86 0512 5328 7529
+86 0512 5328 7500 7529
Fax: +86 0512 5335 9690

Actuant China Ltd. (Peking)

709B Diyang Building
Xin No. 2, Dong San Huan North Rd.
Beijing City, 100028 China
Tel: +86 10 845 36166
Fax: +86 10 845 36220

France, Switzerland francophone

ENERPAC
Une division de ACTUANT France
S.A.
ZA de Courtaboeuf
32, avenue de la Baltique
91140 VILLEBON /YVETTE
France
Tel: +33 1 60 13 68 68
Fax: +33 1 69 20 37 50

Germany, Austria, Switzerland, Greece, Baltic States, Central and Eastern Europe

ENERPAC GmbH
P.O. Box 300113
D-40401 Düsseldorf
Willstätterstrasse 13
D-40549 Düsseldorf Germany
Tel: +49 211 471 490
Fax: +49 211 471 49 28

India

ENERPAC Hydraulics Pvt. Ltd.
No. 1A, Peenya Industrial Area
IInd Phase, Bangalore, 560 058
India
Tel: +91 80 40 792 777
Fax: +91 80 40 792 792

Italy

ENERPAC S.p.A.
Via Canova 4
20094 Corsico (Milano)
Tel: +39 02 4861 111
Fax: +39 02 4860 1288

Japan

Applied Power Japan LTD KK
Besshocho 85-7
Kita-ku, Saitama-shi 331-0821
Japan
Tel: +81 48 662 4911
Fax: +81 48 662 4955

Middle East, Turkey and Caspian Sea

ENERPAC Middle East FZE
Office 423, JAFZA 15
P.O. Box 18004
Jebel Ali, Dubai
United Arab Emirates
Tel: +971 (0)4 8872686
Fax: +971 (0)4 8872687

Russia and CIS

(excl. Caspian Sea Countries)
Actuant LLC
Admiral Makarov Street 8
125212 Moscow
Russia
Tel: +7-495-9809091
Fax: +7-495-9809092

Singapore

Actuant Asia Pte Ltd.
37C, Benoi Road Pioneer Lot,
Singapore 627796
Tel: +65 68 63 0611
Fax: +65 64 84 5669
Toll Free:
Tel: +1800 363 7722
Technical Inquiries:
techsupport@enerpac.com.sg

South Korea

Actuant Korea Ltd.
3Ba 717,
Shihwa Industrial Complex
Jungwang-Dong, Shihung-Shi,
Kyunggi-Do
Republic of Korea 429-450
Tel: +82 31 434 4506
Fax: +82 31 434 4507

Spain and Portugal

ENERPAC SPAIN, S.L.
Avda. Los Frailes, 40 – Nave C & D
Pol. Ind. Los Frailes
28814 DAGANZO DE ARRIBA
(Madrid) Spain
Tel: +34 91 661 11 25
Fax: +34 91 661 47 89

Sweden, Denmark, Norway, Finland and Iceland

Enerpac Scandinavia AB
Fabriksgatan 7
412 50 Gothenburg
Sweden
Tel: +46 (0) 31 7990281
Fax: +46 (0) 31 7990010
Inquiries:
Scandinavianinquiries@enerpac.com

The Netherlands, Belgium and Luxembourg

ENERPAC B.V.
Galvanistraat 115, 6716 AE Ede
P.O. Box 8097, 6710 AB Ede
The Netherlands
Tel: +31 318 535 800
Fax: +31 318 525 613
+31 318 535 848
Inquiries:
beneluxinquiries@enerpac.com

United Kingdom and Ireland

ENERPAC Ltd.,
Bentley Road South
Darlaston, West Midlands
WS10 8LQ, England
Tel: +44 (0)121 50 50 787
Fax: +44 (0)121 50 50 799

USA, Latin America and Caribbean

ENERPAC
P.O. Box 3241
6100 N. Baker Road
Milwaukee, WI 53209 USA
Tel: +1 262 781 6600
Fax: +1 262 783 9562
User inquiries:
+1 800 433 2766
Distributor inquiries/orders:
+1 800 558 0530
Technical Inquiries:
techservices@enerpac.com

ENERPAC
704 W. Simonds
Dallas, TX 75159, USA
Tel: +1 972 287 2390
Fax: +1 972 287 4469

073109

**All Enerpac products are guaranteed against defects in workmanship and materials for as long as you own them.
For your nearest authorized Enerpac Service Center, visit us at www.enerpac.com**