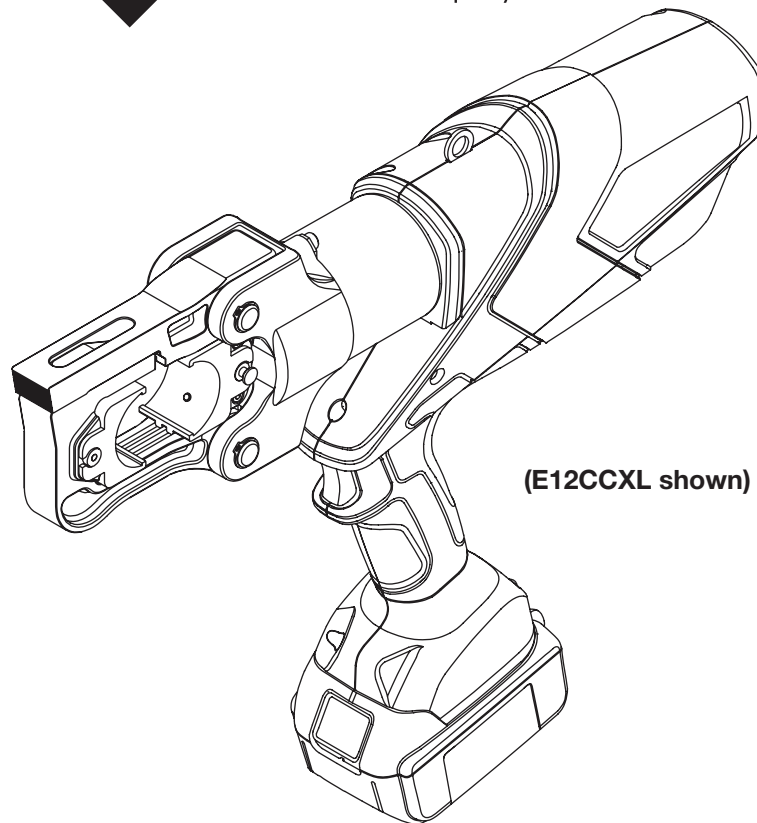


# SERVICE MANUAL



## **GATOR**<sup>®</sup> **Battery-powered Pistol Grip X Tools**



**Read and understand** all of the instructions and safety information in this manual before operating or servicing this tool.

Register this product at [www.greenlee.com](http://www.greenlee.com)

## Table of Contents

|   |    |
|---|----|
| Safety .....  | 2  |
| Purpose of this Manual .....  | 2  |
| Other Publications .....  | 2  |
| Main Illustration—All Tools .....   | 4  |
| Main Parts List—All Tools.....  | 5  |
| Motor Illustration and Parts List—All Tools .....   | 6  |
| Release Lever Illustration and Parts List—All Tools .....   | 6  |
| Pump Illustration and Parts List  |    |
| E6CCXL, EK6ATL, EK6FTL,<br>EK622PL, ESC85L, ESG50L.....   | 7  |
| E12CCXL, EK12IDL, EK1230L, EK1240L,<br>EK1240CL, EK1240KL, EK1550L, EK1550FL,<br>ESC105L, ESG55L, ESG105L ..... | 8  |
| Relief Valve Illustration and Parts List—All Tools .....  | 9  |
| Piston Pump Illustration and Parts List—All Tools .....   | 9  |
| Head and Ram Illustration and Parts List  |    |
| E6CCXL .....  | 10 |
| E12CCXL .....   | 11 |
| EK6ATL .....  | 12 |
| EK6FTL .....  | 13 |
| EK12IDL.....  | 14 |
| Indenter and Head Replacement .....   | 15 |
| EK425PL .....   | 16 |
| EK622PL .....   | 19 |
| EK1230L .....   | 20 |
| EK1240L, EK1240CL .....   | 21 |
| EK1240KL.....   | 22 |
| EK1550L .....   | 23 |
| EK1550FL .....  | 24 |
| ESC85L.....   | 25 |
| ESC105L.....  | 26 |
| ESG50L.....   | 27 |
| ESG55L.....   | 28 |
| ESG105L.....  | 29 |
| Accessories—E6CCXL and E12CCXL .....  | 30 |

## Safety

Safety is essential in the use and maintenance of Greenlee tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

## Purpose of this Manual

This manual is intended to familiarize authorized Greenlee service personnel with the service parts for the Greenlee Battery-powered Pistol Grip X Tools listed on this page.

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge at [www.greenlee.com](http://www.greenlee.com).

## Other Publications

### Operation Manuals

- E6CCXLX 52080026
- E12CCXLX 52080025
- EK6ATLX 52080022
- EK6FTLX 52080023
- EK12IDLX 52080024
- EK425PLX 52081374
- EK622PLX 52080014
- EK1230LX 52080017
- EK1240LX 52080016
- EK1240CLX 52080016
- EK1240KLX 52080018
- EK1550LX 52080020
- EK1550FLX 52080019
- ESC85LX 52080033
- ESC105LX 52080033
- ESG50LX 52080033
- ESG55LX 52080033
- ESG105LX 52080033



**Do not discard this product or throw away!**

For recycling information, go to [www.greenlee.com](http://www.greenlee.com).

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products. GATOR is a registered trademark of Textron Innovations Inc.

# KEEP THIS MANUAL

**IMPORTANT SAFETY INFORMATION**



**SAFETY ALERT SYMBOL**

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

**⚠ DANGER**

Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

**⚠ WARNING**

Hazards which, if not avoided, **COULD** result in severe injury or death.

**⚠ CAUTION**

Hazards or unsafe practices which, if not avoided, **MAY** result in injury or property damage.



**⚠ WARNING**

Skin injection hazard:  
Do not use hands to check for oil leaks. Oil under pressure easily punctures skin. If injured, seek medical attention immediately to remove oil.  
Failure to observe this warning could result in serious injury, gangrene, or death.



**⚠ WARNING**

Do not use solvents or flammable liquids to clean the tool body. Solvents or flammable liquids could ignite and cause serious injury or property damage.

**⚠ WARNING**

Do not dispose of batteries in a fire. They will vent fumes and may explode.  
Failure to observe this warning could result in severe injury from harmful fumes or burns from flying debris.

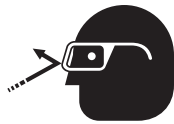


**⚠ WARNING**

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool. Refer also to the Operation Manual, which is listed under "Other Publications."  
Failure to observe this warning could result in severe injury or death.

**⚠ CAUTION**

Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.  
Failure to observe this precaution may result in injury and property damage.

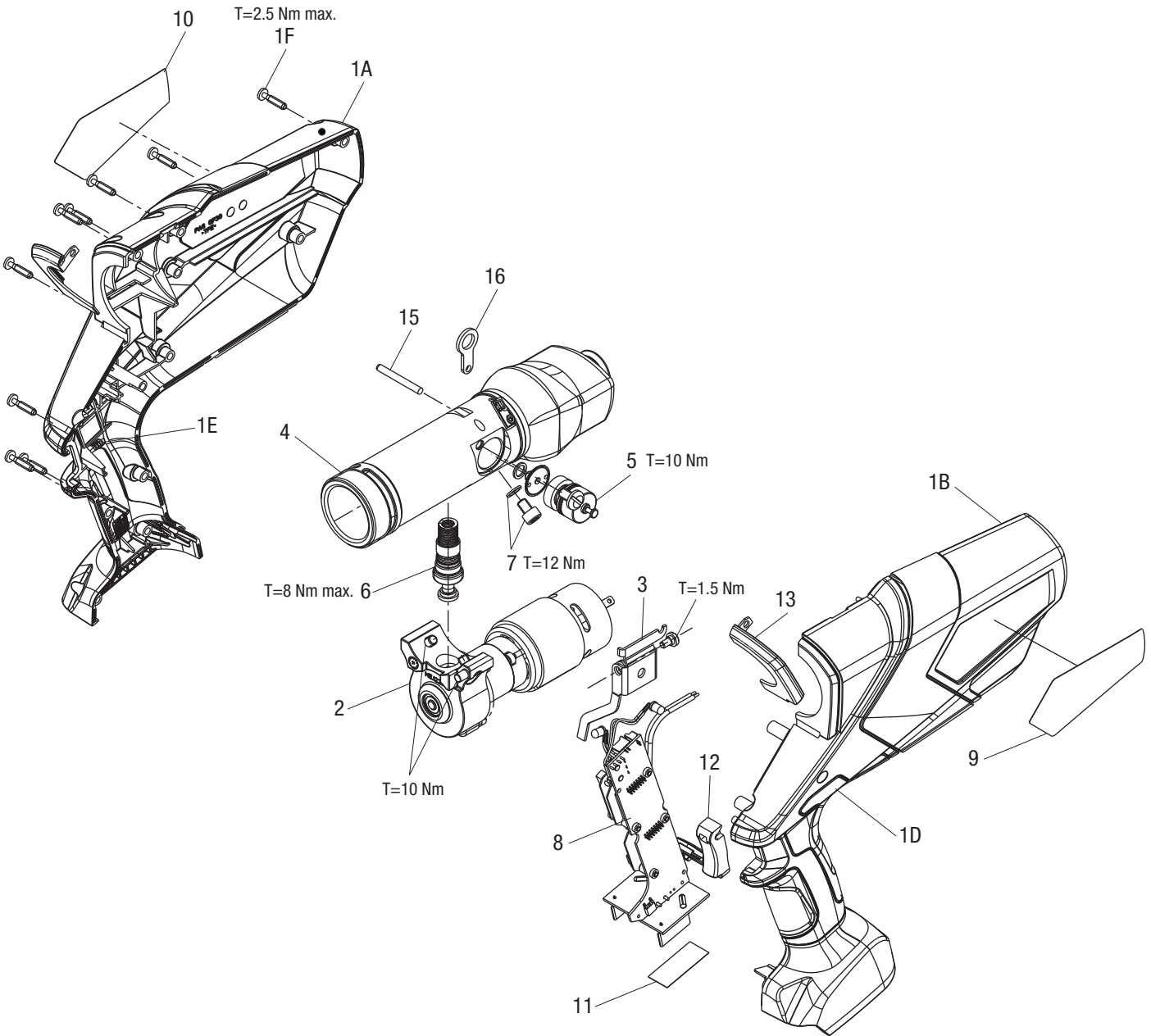


**⚠ WARNING**

Wear eye protection when operating or servicing this tool.  
Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.

*Note: Keep all decals clean and legible, and replace when necessary.*

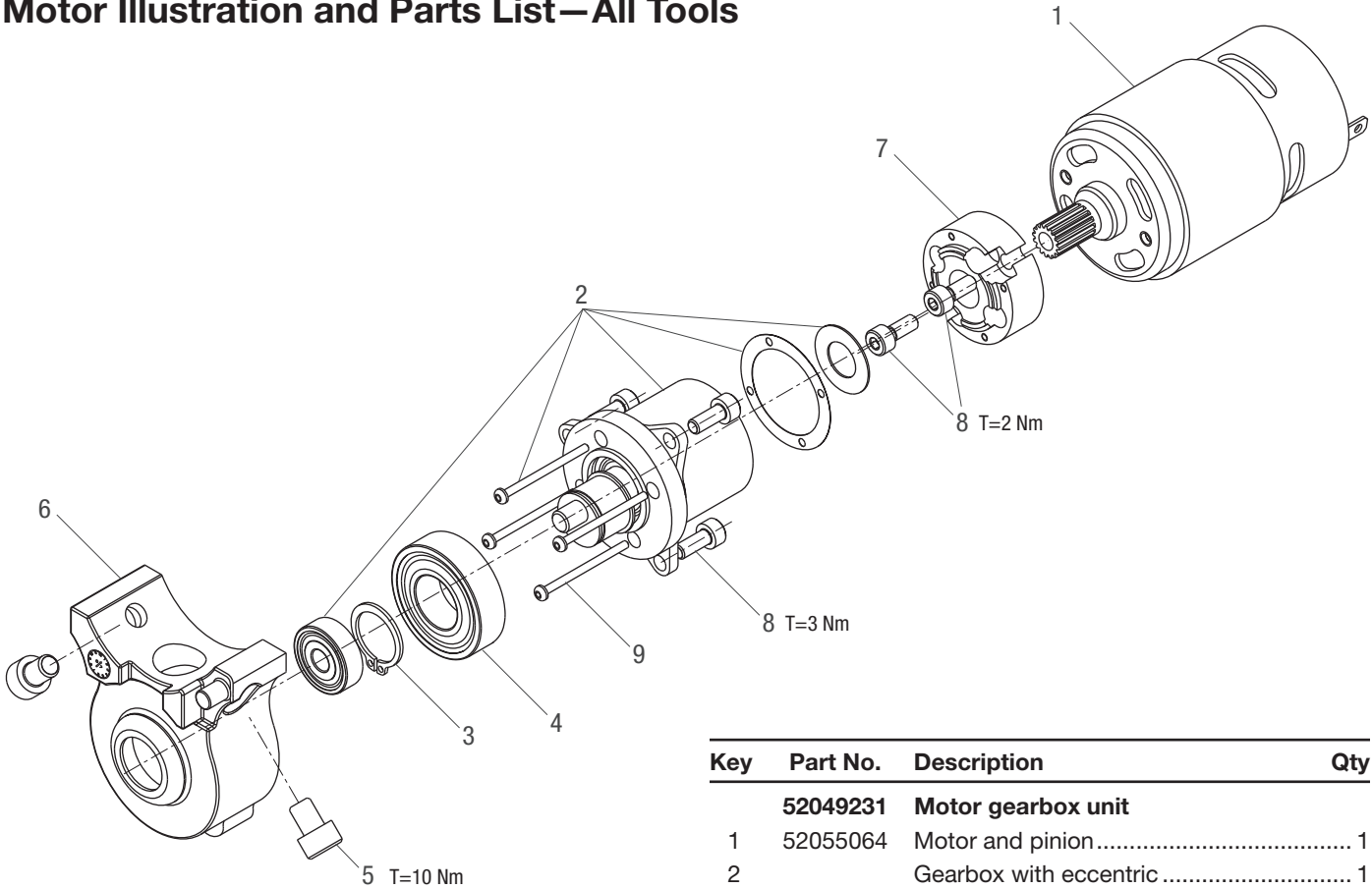
**Main Illustration—All Tools**



## Main Parts List—All Tools

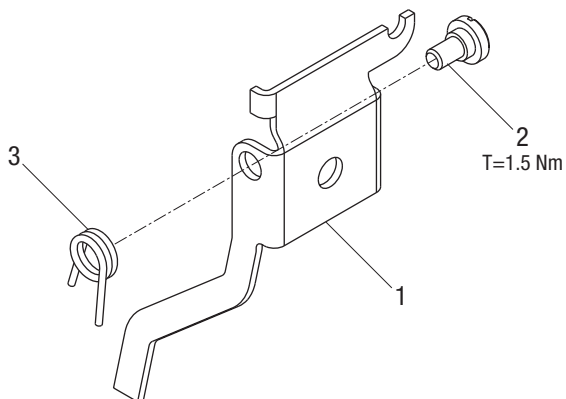
| Key | Part No. | Description  | Qty | Key | Part No. | Description   | Qty |
|-----|----------|--|-----|-----|----------|---|-----|
| 1   | 52080593 | Housing unit, 6-ton.....   | 1   |     | 52079279 | Identification decal (E12CCXLX) .....                       | 1   |
|     | 52080360 | Housing unit, 12-ton.....  | 1   |     | 52079277 | Identification decal (EK12IDLX).....                        | 1   |
| 1A  |          | Left housing.....  | 1   |     | 52079261 | Identification decal (EK1230LX) .....                       | 1   |
| 1B  |          | Right housing .....  | 1   |     | 52079259 | Identification decal (EK1240LX) .....                       | 1   |
| 1D  |          | Retract button .....   | 1   |     | 52079263 | Identification decal (EK1240CLX).....                       | 1   |
| 1E  |          | Spring.....  | 2   |     | 52079265 | Identification decal (EK1240KLX).....                       | 1   |
| 1F  |          | Screw .....  | 12  |     | 52079269 | Identification decal (EK1550LX) .....                       | 1   |
| 2   | 52049231 | Motor gearbox unit.....  | 1   |     | 52079267 | Identification decal (EK1550FLX) .....                      | 1   |
| 3   | 52049233 | Release lever unit .....   | 1   |     | 52079295 | Identification decal (ESG50LX).....                         | 1   |
| 4   | 52080590 | Pump housing unit (E6CCXL, EK622FL) ...  | 1   |     | 52079305 | Identification decal (ESG55LX).....                         | 1   |
|     | 52080848 | Pump housing unit<br>(EK6ATL, EK6FTL) .....  | 1   |     | 52079301 | Identification decal (ESC85LX).....                         | 1   |
|     | 52080356 | Pump housing unit<br>(E12CCXL, EK12IDL, EK1230L,<br>EK1240L, EK1240CL, EK1240KL).....                                      | 1   |     | 52079299 | Identification decal (ESC105LX).....                        | 1   |
|     | 52080595 | Pump housing unit<br>(EK1550L, EK1550FL) .....   | 1   |     | 52081365 | Identification decal (EK425PLX).....                        | 1   |
|     | 52080849 | Pump housing unit (ESC85L, ESG50L).....  | 1   |     | 52080505 | Decal, FCC, X version                                       |     |
|     | 52080609 | Pump housing unit (ESC105L, ESG55L) ...  | 1   | 12  | 52055897 | Trigger   |     |
|     | 52080911 | Pump housing unit (ESG105L) .....  | 1   | 13  | 52080357 | Ring  |     |
|     | 52082635 | Pump Housing unit (EK425PL).....   | 1   | 15  | 52080300 | Pin   |     |
| 5   | 52049232 | Relief valve unit (all except ESC85L,<br>ESC105L, ESG50L, ESG55L, ESG105L) ...   | 1   | 16  | 52080351 | Ring, hang  |     |
|     | 52080622 | Relief valve unit (ESC85L, ESC105L,<br>ESG50L, ESG55L, ESG105L).....   | 1   |     | 52080041 | Carrying case (EK1550FL)                                    |     |
| 6   | 52024191 | Piston pump unit.....  | 1   |     | 52082146 | Carrying case (E6CCXL, E12CCXL)                             |     |
| 7   | 52049205 | Sensor (EK6ATL, EK6FTL, EK622PL,<br>EK12IDL, EK1230L, EK1240L,<br>EK1240CL, EK1240KL,<br>EK1550L, EK1550FL, EK425PL) ..... | 1   |     | 52080045 | Carrying case (ESC105L, ESG105L)                            |     |
|     | 50121839 | Screw (E6CCXL, ESG50L, ESG55L,<br>E12CCXL, ESC85L, ESC105L).....   | 1   |     | 52082145 | Carrying case (all others)                                  |     |
|     |          | Seal (included in 52054906 seal kit).....  | 1   |     | 52081370 | Connector compatibility decal (E6CCXL,<br>EK622PL, EK425PL) |     |
| 8   | 52080601 | Circuit board (X version).....   | 1   |     | 52081371 | Connector compatibility decal (EK6ATL)                      |     |
|     | 52082654 | Control Board (EK622PLX).....  | 1   |     | 52081372 | Connector compatibility decal (EK6FTL)                      |     |
|     | 52082653 | Control Board (EK425PLX).....  | 1   |     | 50112171 | Connector compatibility decal<br>(12 & 15 Ton Tools)        |     |
|     | 52082188 | Control board (EK1230LX, EK1240LX, .....   | 1   |     | 52061815 | Connector chart decal (E12CCXL—UA12ID)                      |     |
|     |          | EK1240CLX, EK1240KLX, EK12IDLX)  |     |     | 52070279 | Connector chart decal (EK12IDL)                             |     |
|     | 52082189 | Control board (EK1550LX, EK1550FLX)....  | 1   |     | 52054906 | Seal kit  |     |
|     | 52082191 | Control board (EK6ATLX, EK6FTLX, .....   | 1   |     | 52047087 | 120 VAC corded adapter                                      |     |
|     | 52082192 | Control board (E12CCXLX, E6CCXLX).....   | 1   |     | 52047088 | 230 VAC corded adapter                                      |     |
|     | 52082195 | Control board (ESG50LX, ESC85LX).....  | 1   |     | 52070023 | 18 V, 4 Ah lithium-ion battery                              |     |
|     | 52082196 | Control board (ESG105LX).....  | 1   |     | 52049201 | 120 VAC, 18 V charger                                       |     |
|     | 52082197 | Control board (ESC105LX, ESG55LX).....   | 1   |     | 52049202 | 230 VAC, 18 V charger                                       |     |
| 9   | 52079314 | Decal, 6-ton, brand .....  | 1   |     | 52049204 | 12 VDC, 18 V charger  |     |
|     | 52079313 | Decal, 12-ton, brand .....   | 1   |     | 50122746 | Carrying strap  |     |
| 10  | 52079281 | Identification decal (E6CCXLX) .....   | 1   |     | 52057878 | Biodegradable hydraulic fluid (1 qt)                        |     |
|     | 52079273 | Identification decal (EK6ATLX) .....   | 1   |     |          |   |     |
|     | 52079275 | Identification decal (EK6FTLX) .....   | 1   |     |          |   |     |
|     | 52079257 | Identification decal (EK622PLX).....   | 1   |     |          |   |     |

## Motor Illustration and Parts List—All Tools



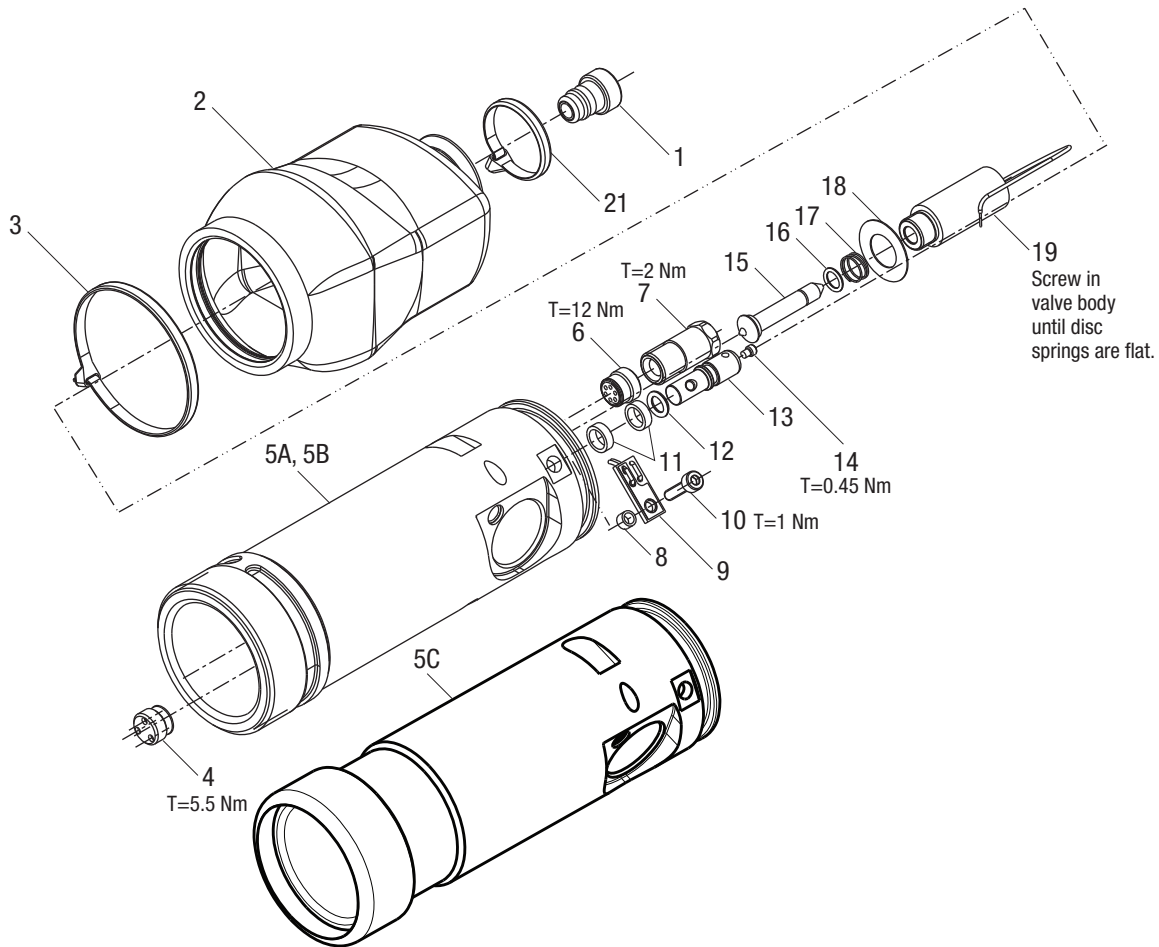
| Key | Part No.        | Description                 | Qty |
|-----|-----------------|-----------------------------|-----|
|     | <b>52049231</b> | <b>Motor gearbox unit</b>   |     |
| 1   | 52055064        | Motor and pinion.....       | 1   |
| 2   |                 | Gearbox with eccentric..... | 1   |
| 3   |                 | Retaining ring.....         | 1   |
| 4   |                 | Grooved ball bearing.....   | 1   |
| 5   |                 | Screw.....                  | 2   |
| 6   |                 | Eccentric case.....         | 1   |
| 7   |                 | Flange.....                 | 1   |
| 8   |                 | Screw.....                  | 5   |
| 9   | 52028323        | Gear box screw.....         | 4   |

## Release Lever Illustration and Parts List—All Tools



| Key | Part No.        | Description               | Qty |
|-----|-----------------|---------------------------|-----|
|     | <b>52049233</b> | <b>Release lever unit</b> |     |
| 1   |                 | Release lever.....        | 1   |
| 2   |                 | Socket head screw.....    | 1   |
| 3   |                 | Compression spring.....   | 1   |

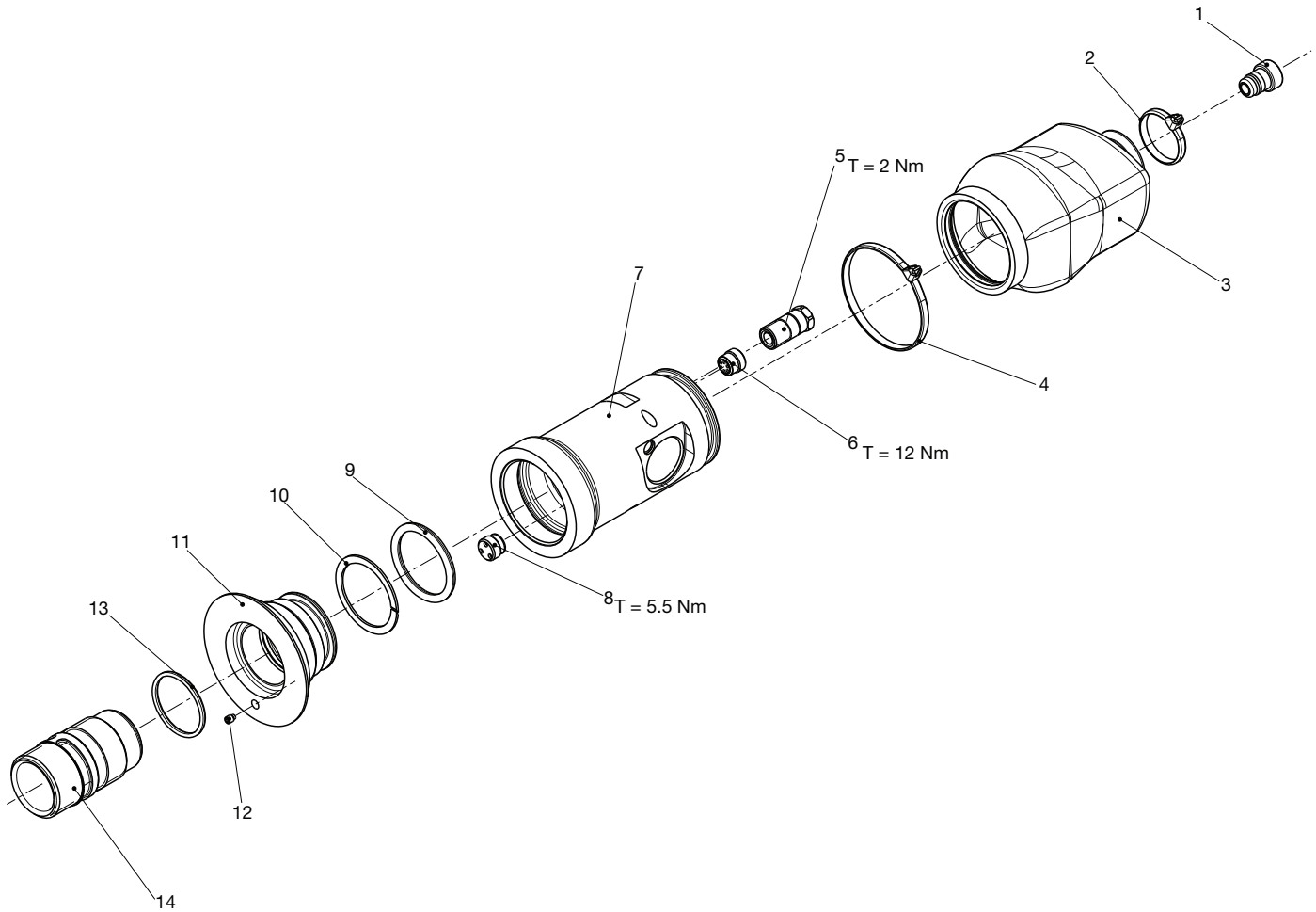
## Pump Illustration and Parts List—E6CCXL, EK6ATL, EK6FTL, EK622PL, ESC85L, ESG50L



| Key | Part No.        | Description                                       | Qty |
|-----|-----------------|---|-----|
|     | <b>52080849</b> | <b>Pump housing unit (A)</b><br>(ESC85L, ESG50L)  |     |
|     | <b>52080590</b> | <b>Pump housing unit (B)</b><br>(E6CCXL, EK622PL) |     |
|     | <b>52080848</b> | <b>Pump housing unit (C)</b><br>(EK6ATL, EK6FTL)  |     |
| 1   |                 | Reservoir plug .....                              | 1   |
| 2   | 52080625        | Reservoir .....                                   | 1   |
| 3   |                 | Cable tie (included in 52054906).....             | 1   |
| 4   | 50109308        | Threaded bushing .....                            | 1   |
| 5A  |                 | Pump housing .....                                | 1   |
| 5B  |                 | Pump housing .....                                | 1   |
| 6   | 50109162        | Threaded bushing .....                            | 1   |
| 7   |                 | Filter .....                                      | 1   |
| 8   |                 | Bearing .....                                     | 1   |
| 9   |                 | Switch lever.....                                 | 1   |
| 10  |                 | Screw .....                                       | 1   |

| Key | Part No. | Description   | Qty |
|-----|----------|---|-----|
| 11  |          | Bearing .....   | 2   |
| 12  |          | O-ring (included in 52054906).....                    | 1   |
| 13  |          | Pin .....   | 1   |
| 14  |          | Screw .....   | 1   |
| 15  |          | Needle valve.....                                     | 1   |
| 16  |          | O-ring .....  | 1   |
| 17  |          | Compression spring .....                              | 1   |
| 18  |          | Disc spring .....                                     | 1   |
| 19  |          | Solenoid .....  | 1   |
| 21  |          | Cable tie (included in 52054906).....                 | 1   |
|     | 52080610 | Solenoid kit, cutters<br>[includes 15–17, 18 (2), 19] |     |
|     | 52054907 | Solenoid kit, crimpers (includes 15–19)               |     |
|     | 52055065 | Switch lever kit (includes 8–10)                      |     |
|     | 52055068 | Wrench, bushing                                       |     |

## Pump Illustration and Parts List—EK425PL

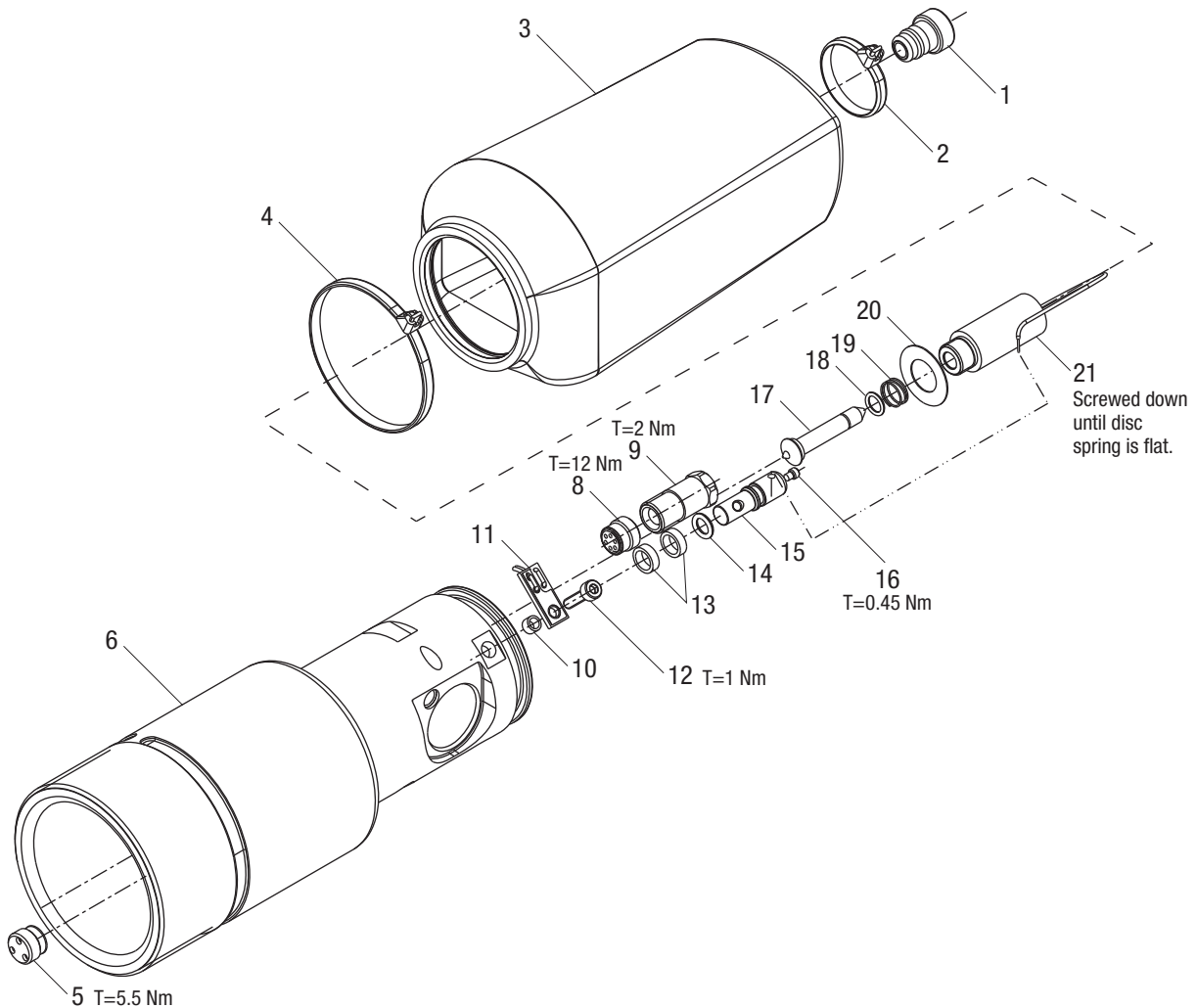


| Key | Part No.        | Description                           | Qty |
|-----|-----------------|---------------------------------------|-----|
|     | <b>52082635</b> | <b>Pump housing unit</b>              |     |
| 1   |                 | Reservoir plug .....                  | 1   |
| 2   |                 | Cable tie (included in 52054906)..... | 1   |
| 3   | 52080625        | Reservoir .....                       | 1   |
| 4   |                 | Cable tie (included in 52054906)..... | 1   |
| 5   |                 | Filter .....                          | 1   |
| 6   | 50109162        | Threaded bushing .....                | 1   |
| 7   |                 | Pump housing .....                    | 1   |
| 8   | 50109308        | Threaded bushing .....                | 1   |

| Key | Part No. | Description                          | Qty |
|-----|----------|--------------------------------------|-----|
| 9   |          | O-ring (included in 52054906).....   | 1   |
| 10  |          | BO-ring (included in 52054906) ..... | 2   |
| 11  |          | Cylinder Adaptor .....               | 1   |
| 12  |          | Screw .....                          | 1   |
| 13  |          | O-Ring.....                          | 1   |
| 14  |          | Cylinder Liner .....                 | 1   |
|     | 52055068 | Wrench, bushing                      |     |



## Pump Illustration and Parts List—E12CCXL, EK12IDL, EK1230L, EK1240L, EK1240CL, EK1240KL, EK1550L, EK1550FL, ESC105L, ESG55L, ESG105L

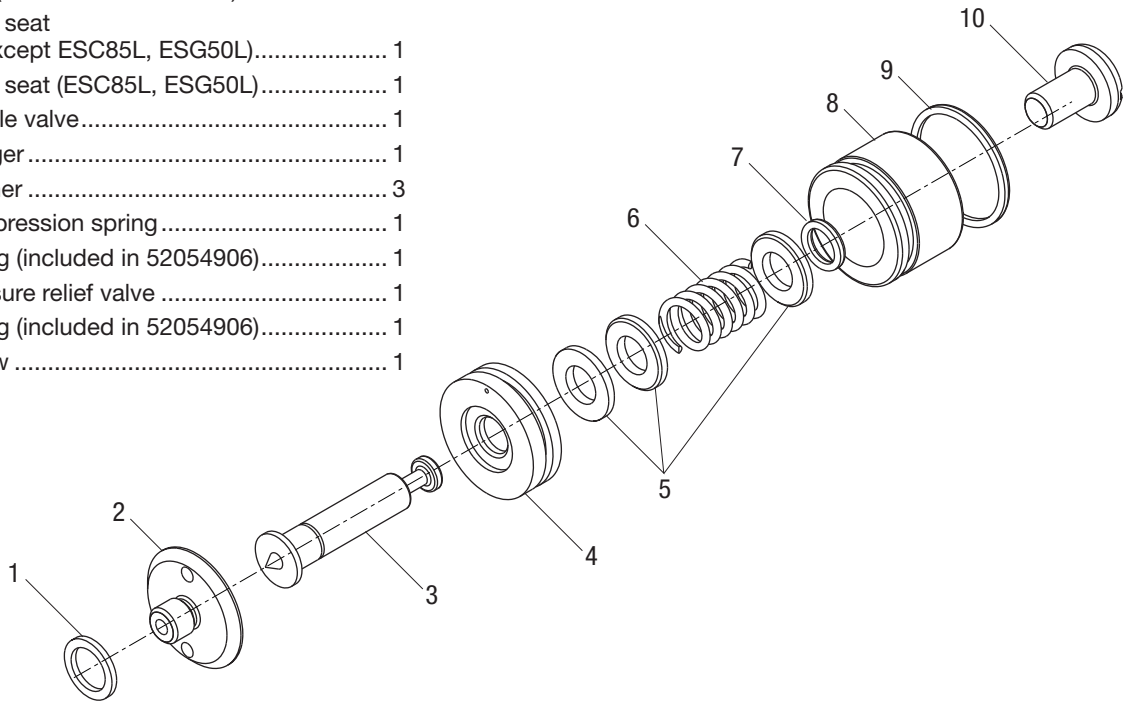


| Key | Part No.        | Description                                   | Qty |
|-----|-----------------|---|-----|
|     | <b>52080356</b> | <b>Pump housing unit</b><br>(12-Ton Crimper)  |     |
|     | <b>52080595</b> | <b>Pump housing unit</b><br>(15-Ton Crimper)  |     |
|     | <b>52080609</b> | <b>Pump housing unit</b><br>(ESC105L, ESG55L) |     |
|     | <b>52080911</b> | <b>Pump housing unit</b><br>(ESG105L)         |     |
| 1   |                 | Reservoir plug .....                          | 1   |
| 2   |                 | Cable tie (included in 52054906).....         | 1   |
| 3   | 52080624        | Reservoir .....                               | 1   |
| 4   |                 | Cable tie (included in 52054906).....         | 1   |
| 5   | 50109308        | Threaded bushing .....                        | 1   |
| 6   |                 | Pump housing .....                            | 1   |
| 8   | 50109162        | Threaded bushing .....                        | 1   |
| 9   |                 | Filter .....                                  | 1   |
| 10  |                 | Bearing .....                                 | 1   |
| 11  |                 | Switch lever.....                             | 1   |

| Key | Part No. | Description   | Qty |
|-----|----------|---|-----|
| 12  |          | Screw .....   | 1   |
| 13  |          | Bearing .....   | 2   |
| 14  |          | O-ring (included in 52054906).....                    | 1   |
| 15  |          | Pin .....   | 1   |
| 16  |          | Screw .....   | 1   |
| 17  |          | Needle valve.....                                     | 1   |
| 18  |          | O-ring .....  | 1   |
| 19  |          | Compression spring.....                               | 1   |
| 20  |          | Disc spring .....                                     | 1   |
| 21  |          | Solenoid .....  | 1   |
|     | 52080610 | Solenoid kit, cutters<br>[includes 17–19, 20 (2), 21] |     |
|     | 52054907 | Solenoid kit, crimpers (includes 17–21)               |     |
|     | 52055065 | Switch lever kit (includes 10–12)                     |     |
|     | 52055068 | Wrench, bushing                                       |     |

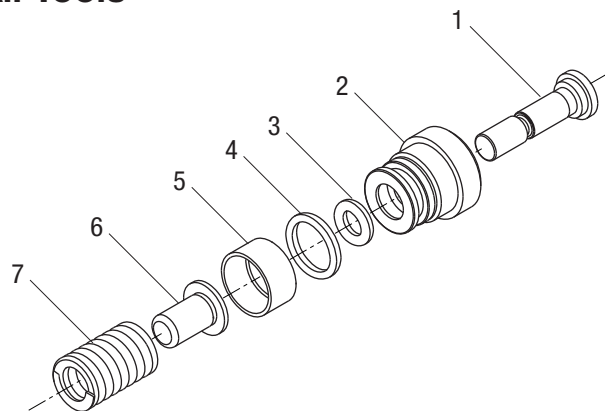
## Relief Valve Illustration and Parts List—All Tools

| Key | Part No.        | Description   | Qty |
|-----|-----------------|---|-----|
|     | <b>52049232</b> | <b>Relief valve unit</b><br>(all except ESC85L, ESG50L) |     |
|     | <b>52068741</b> | <b>Relief valve unit</b><br>(ESC85L, ESG50L)            |     |
| 1   |                 | Seal (included in 52054906).....                        | 1   |
| 2   | 50053630        | Valve seat<br>(all except ESC85L, ESG50L).....          | 1   |
|     | 52068743        | Valve seat (ESC85L, ESG50L).....                        | 1   |
| 3   |                 | Needle valve.....                                       | 1   |
| 4   |                 | Plunger .....   | 1   |
| 5   |                 | Washer .....  | 3   |
| 6   |                 | Compression spring.....                                 | 1   |
| 7   |                 | O-ring (included in 52054906).....                      | 1   |
| 8   |                 | Pressure relief valve .....                             | 1   |
| 9   |                 | O-ring (included in 52054906).....                      | 1   |
| 10  |                 | Screw .....   | 1   |

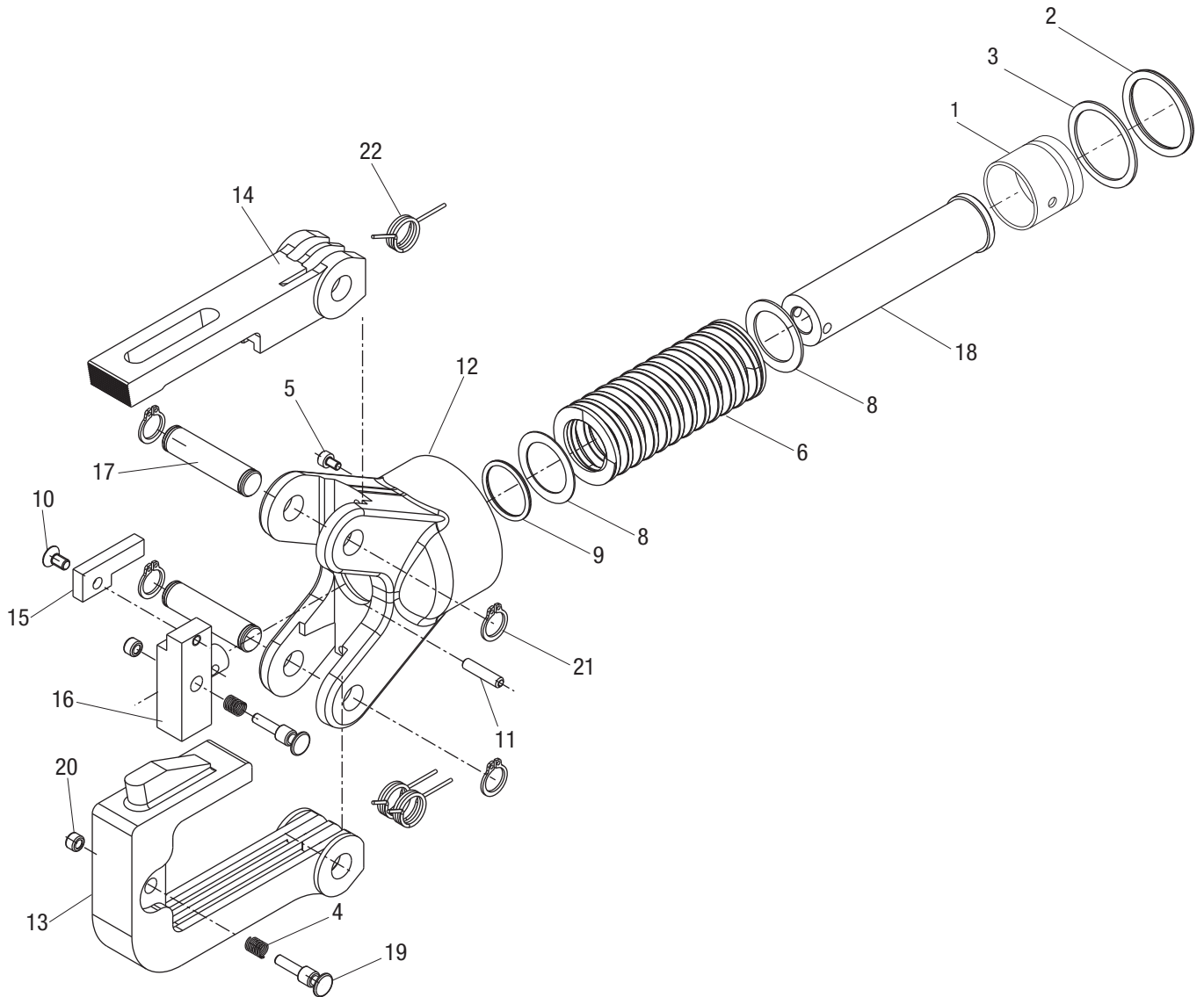


## Piston Pump Illustration and Parts List—All Tools

| Key | Part No.        | Description                              | Qty |
|-----|-----------------|--|-----|
|     | <b>52024191</b> | <b>Piston pump unit</b>                  |     |
| 1   |                 | Pump piston.....                         | 1   |
| 2   |                 | Screw plug .....                         | 1   |
| 3   |                 | Piston seal (included in 52054906) ..... | 1   |
| 4   |                 | Washer (included in 52054906).....       | 1   |
| 5   |                 | Pump piston.....                         | 1   |
| 6   |                 | Valve stem.....                          | 1   |
| 7   |                 | Spring.....                              | 1   |



## Head and Ram Illustration and Parts List—E6CCXL

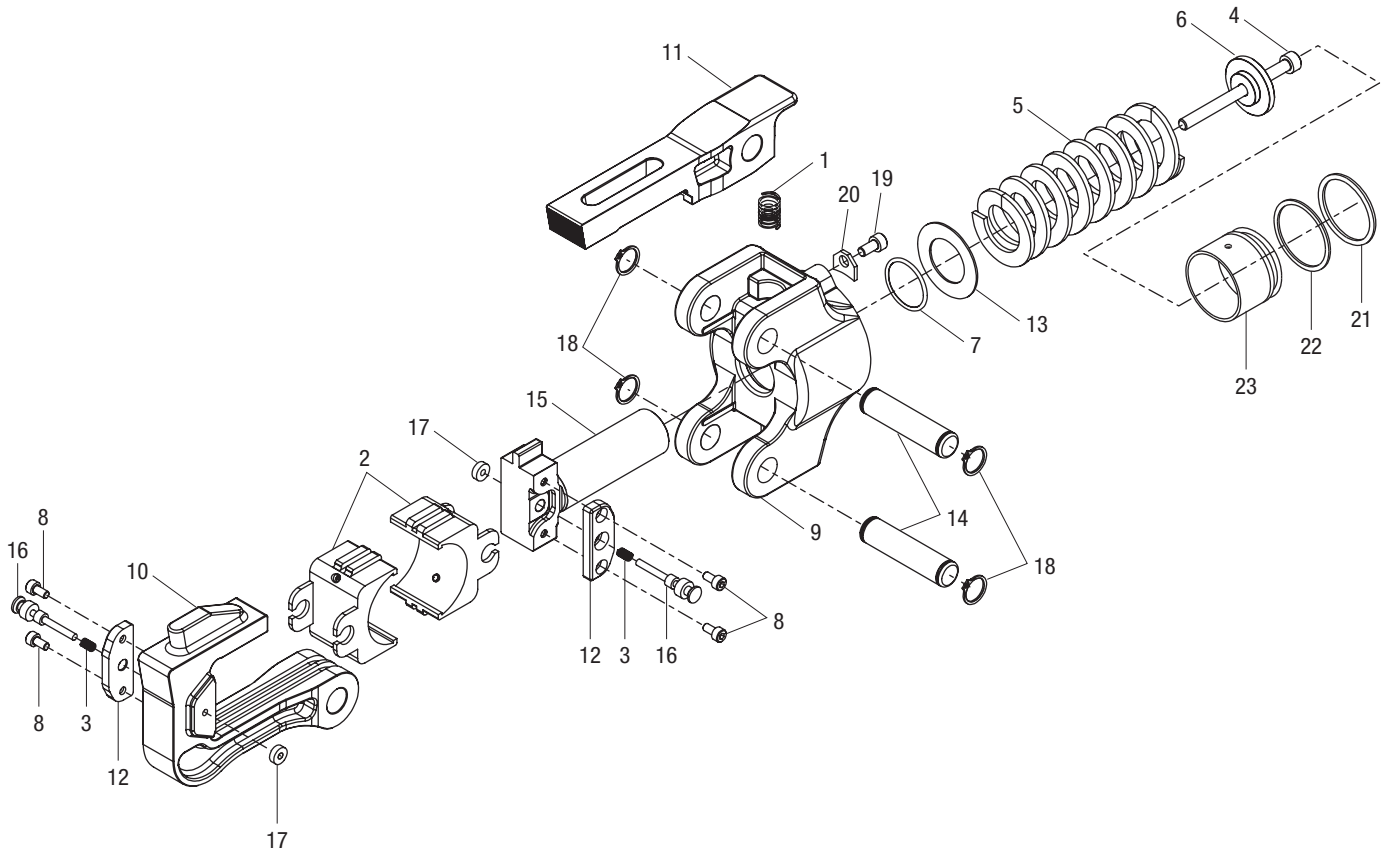


| Key | Part No.        | Description                                    | Qty |
|-----|-----------------|--|-----|
|     | <b>52080621</b> | <b>Head and ram unit (includes 4–22)</b>       |     |
| 1   | 52020648        | Piston cup .....                               | 1   |
| 2   |                 | O-ring (included in 52054906).....             | 1   |
| 3   |                 | Piston backup ring (included in 52054906)..... | 1   |
| 4   |                 | Compression spring.....                        | 2   |
| 5   | 52057106        | Screw .....                                    | 2   |
| 6   | 50058258        | Compression spring.....                        | 1   |
| 8   | 52080214        | Adapter disk.....                              | 2   |
| 9   |                 | O-ring (included in 52054906).....             | 1   |
| 10  | 50067257        | Screw, M4 x 8.....                             | 1   |
| 11  | 50071220        | Pin, 3 x 18 .....                              | 1   |
| 12  | 50067150        | Fixed head.....                                | 1   |

| Key | Part No. | Description                           | Qty |
|-----|----------|---------------------------------------|-----|
| 13  |          | Movable head.....                     | 1   |
| 14  |          | Latch .....                           | 1   |
| 15  | 50067214 | Guide plate.....                      | 1   |
| 16  | 50067192 | Adapter ram .....                     | 1   |
| 17  | 50067184 | Pin, 10 x 40.5 mm .....               | 2   |
| 18  | 52080626 | Piston .....                          | 1   |
| 19  |          | Adapter lock pin.....                 | 2   |
| 20  |          | Bushing .....                         | 2   |
| 21  | 50034308 | Retaining ring .....                  | 4   |
| 22  | 50043838 | Spring.....                           | 3   |
|     | 50017500 | Head set (includes 13, 14)            |     |
|     | 50103750 | Adapter lock kit (includes 4, 19, 20) |     |

## Head and Ram Illustration and Parts List—E12CCXL

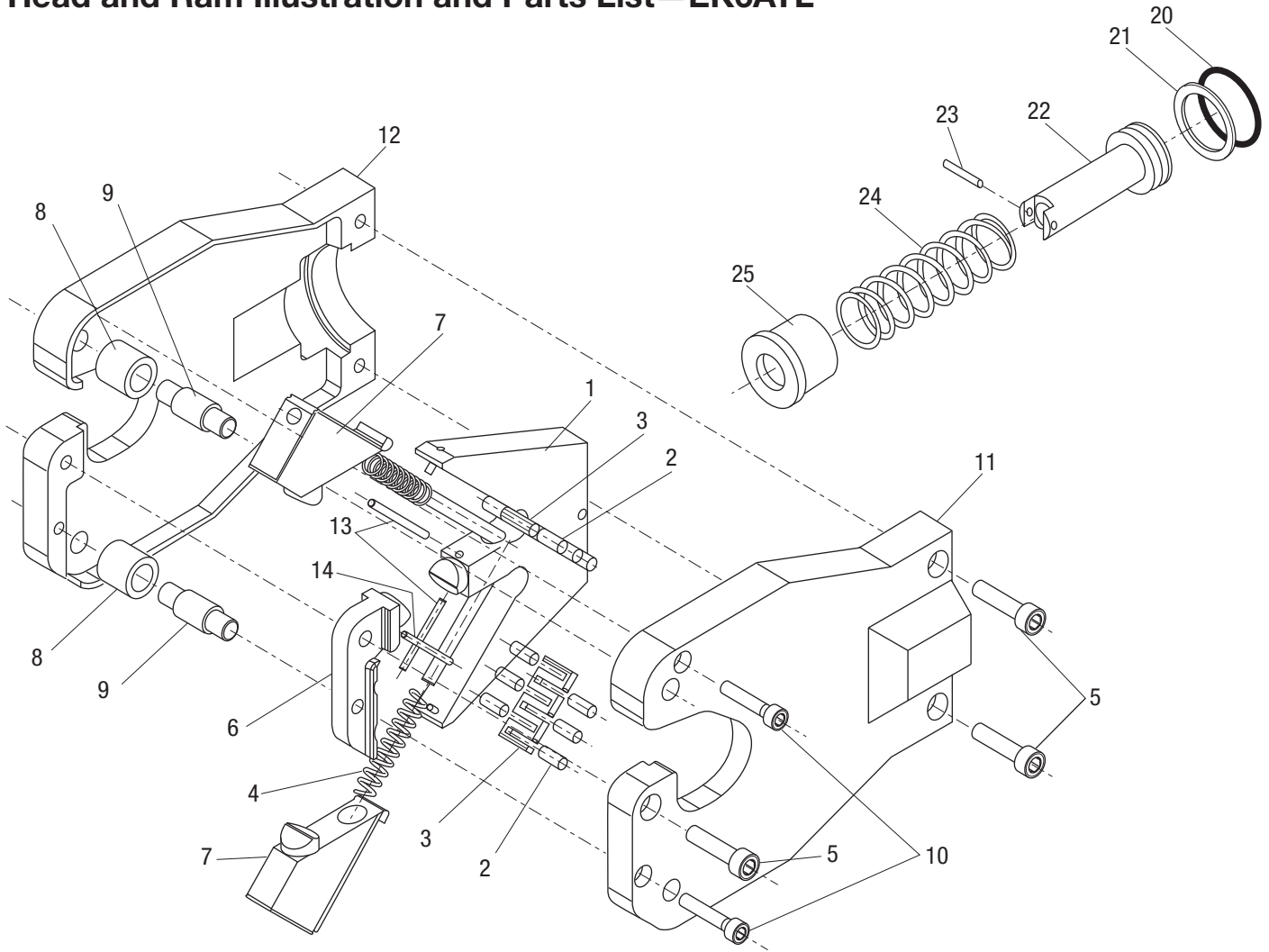
For units manufactured after June 2012—items 9, 10, 11, and 15 will show  (date stamp)



| Key | Part No.        | Description   | Qty |
|-----|-----------------|---|-----|
|     | <b>52045319</b> | <b>Head and ram unit</b><br>(includes 1–3, 8–12, 14–18) |     |
| 1   |                 | Compression spring.....                                 | 1   |
| 2   |                 | Adapter, U-type die.....                                | 2   |
| 3   |                 | Compression spring.....                                 | 2   |
| 4   |                 | Screw, M6-1.0 x 75 mm skt head cap.....                 | 1   |
| 5   | 50066919        | Compression spring.....                                 | 1   |
| 6   | 50066900        | End cap.....  | 1   |
| 7   |                 | O-ring (included in 52054906).....                      | 1   |
| 8   |                 | Screw, M4-0.7 x 8 mm skt head cap.....                  | 4   |
| 9   |                 | Fixed head.....   | 1   |
| 10  |                 | Movable head.....                                       | 1   |
| 11  |                 | Latch.....  | 1   |
| 12  | 52062835        | Plate.....  | 2   |
| 13  |                 | Adapter disk.....                                       | 1   |

| Key | Part No. | Description   | Qty |
|-----|----------|---|-----|
| 14  |          | Pin, pivot.....   | 2   |
| 15  | 52062834 | Ram.....  | 1   |
| 16  |          | Pin, adapter lock.....                                    | 2   |
| 17  |          | Bushing.....  | 2   |
| 18  |          | Retaining ring.....                                       | 4   |
| 19  |          | Screw, M5-0.8 x 10 mm skt head cap.....                   | 1   |
| 20  | 50066943 | Stop.....   | 1   |
| 21  |          | O-ring (included in 52054906).....                        | 1   |
| 22  |          | Backup ring (included in 52054906).....                   | 1   |
| 23  | 50067796 | Piston.....   | 1   |
|     | 50118374 | Adapter lock kit (includes 3, 16, 17)                     |     |
|     | 52020102 | UA12T, U-type die adapter set<br>(includes two of item 2) |     |
|     | 52063244 | Pin kit (includes 14 and two of item 18)                  |     |

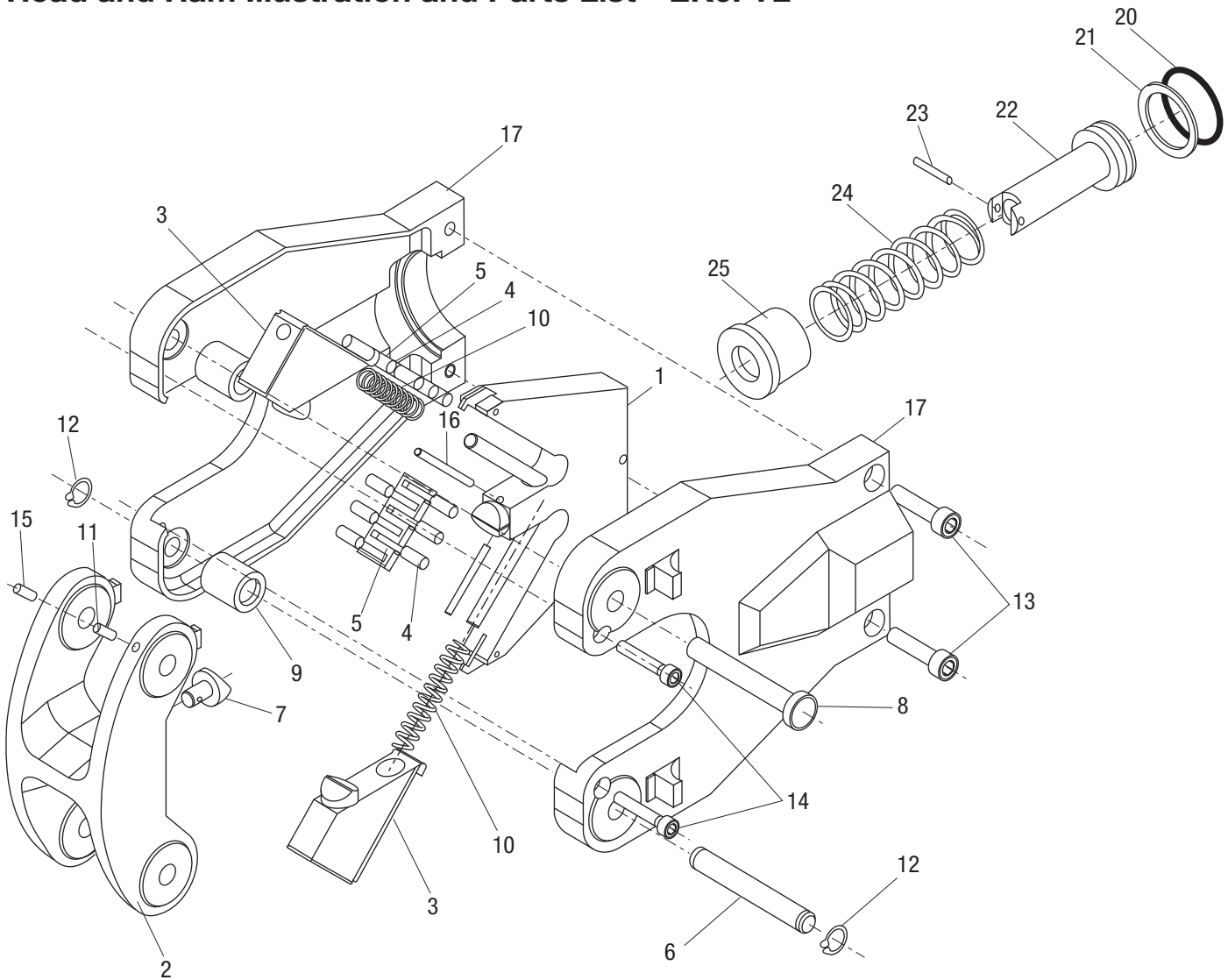
## Head and Ram Illustration and Parts List—EK6ATL



| Key | Part No.        | Description  | Qty |
|-----|-----------------|--|-----|
|     | <b>50017284</b> | <b>Quad point head assembly</b><br>(includes 1–14) |     |
| 1   | 50017292        | Cam yoke assembly.....                             | 1   |
| 2   |                 | Roller bearings .....                              | 12  |
| 3   |                 | Bearing retainers .....                            | 2   |
| 4   | 50060910        | Compression spring.....                            | 3   |
| 5   | 50061003        | Screw .....  | 2   |
| 6   | 50060848        | Fixed jaw .....                                    | 1   |
| 7   | 50060856        | Moving jaw .....                                   | 2   |
| 8   | 50060864        | Pivot roller .....                                 | 2   |
| 9   | 50060872        | Pivot pin .....                                    | 2   |
| 10  | 50061011        | Screw .....  | 2   |

| Key | Part No. | Description                             | Qty |
|-----|----------|---|-----|
|     | 50060953 | Head kit (includes 11, 12)              |     |
| 11  |          | Head cover (LH) .....                   | 1   |
| 12  |          | Head cover (RH).....                    | 1   |
| 13  | 50017276 | Spring pin.....                         | 2   |
| 14  | 50017349 | Spring pin.....                         | 1   |
| 20  |          | O-ring (included in 52054906).....      | 1   |
| 21  |          | Backup ring (included in 52054906)..... | 1   |
| 22  | 50063812 | Piston .....                            | 1   |
| 23  | 50063405 | Pin .....                               | 1   |
| 24  | 50058398 | Compression spring.....                 | 1   |
| 25  | 50063820 | Sleeve.....                             | 1   |
|     | 50061291 | Bearing retainer kit (includes 2, 3)    |     |

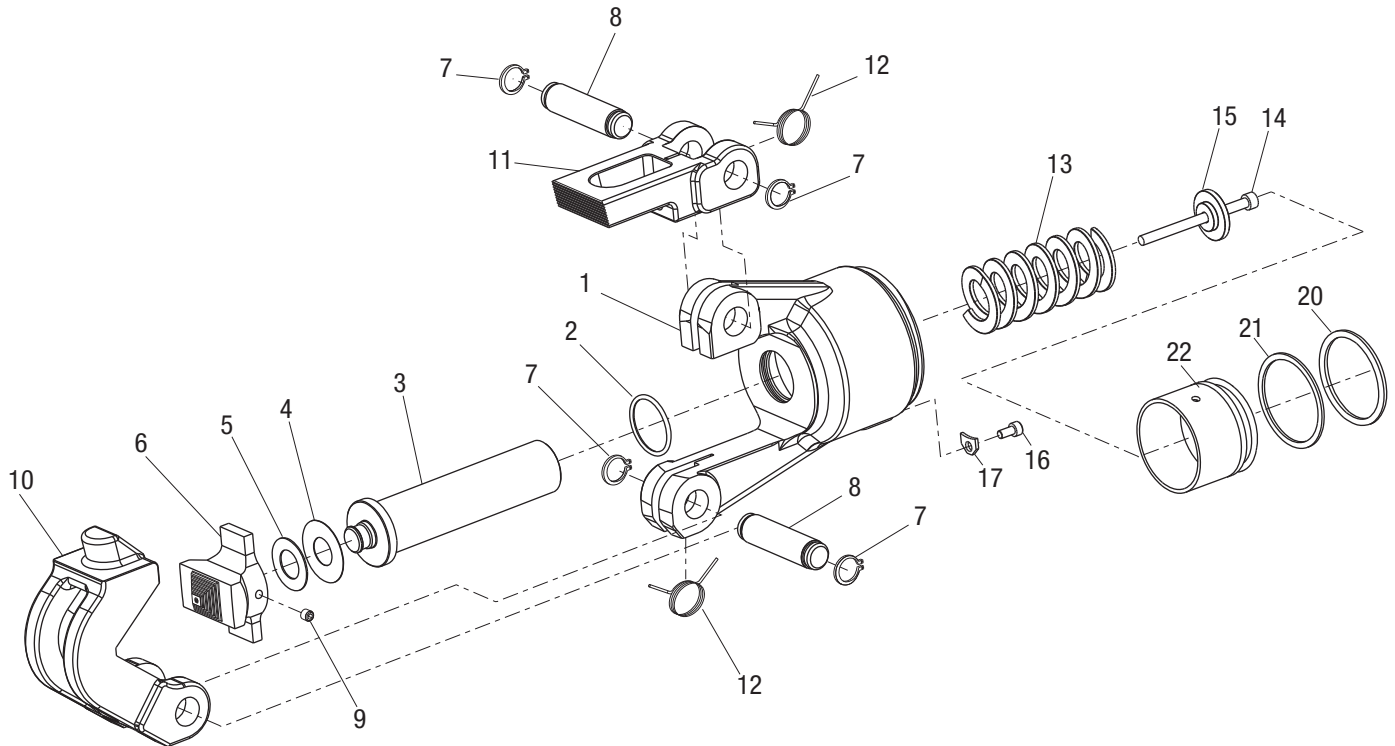
## Head and Ram Illustration and Parts List—EK6FTL



| Key | Part No.        | Description   | Qty |
|-----|-----------------|---|-----|
|     | <b>50017225</b> | <b>Quad point flip-top head assembly</b><br>(includes 1–17) |     |
| 1   | 50017233        | Cam yoke assembly.....                                      | 1   |
| 2   | 50061178        | Latch (includes 7).....                                     | 1   |
| 3   | 50061275        | Moving jaw.....   | 2   |
| 4   |                 | Roller bearing.....   | 12  |
| 5   |                 | Bearing retainer.....                                       | 2   |
| 6   | 50061216        | Latch mounting pin.....                                     | 1   |
| 7   |                 | Latch nib (included in 50061178).....                       | 1   |
| 8   | 50061240        | Lock pin.....   | 1   |
| 9   | 50061160        | Side jaw roller.....  | 2   |
| 10  | 50060910        | Compression spring.....                                     | 2   |
| 11  | 50060961        | Ball screw.....   | 1   |

| Key | Part No. | Description                             | Qty |
|-----|----------|---|-----|
| 12  | 50061224 | Snap ring.....                          | 2   |
| 13  | 50061003 | Screw.....                              | 2   |
| 14  | 50061038 | Screw.....                              | 2   |
| 15  | 50103458 | Set screw.....                          | 1   |
| 16  | 50017276 | Spring pin.....                         | 2   |
| 17  | 52023662 | Head cover.....                         | 2   |
| 20  |          | O-ring (included in 52054906).....      | 1   |
| 21  |          | Backup ring (included in 52054906)..... | 1   |
| 22  | 50063812 | Piston.....                             | 1   |
| 23  | 50063405 | Pin.....                                | 1   |
| 24  | 50058398 | Compression spring.....                 | 1   |
| 25  | 50063820 | Sleeve.....                             | 1   |
|     | 50061291 | Bearing retainer kit (includes 4, 5)    |     |

## Head and Ram Illustration and Parts List—EK12IDL



| Key | Part No.        | Description                                   | Qty |
|-----|-----------------|---|-----|
|     | <b>52024011</b> | <b>Head and ram unit (includes 1–5, 7–17)</b> |     |
| 1   | 52020271        | Yoke.....                                     | 1   |
| 2   |                 | O-ring (included in 52054906).....            | 1   |
| 3   | 52020510        | Ram.....                                      | 1   |
| 4   | 52020512        | Spacer, .010 x 1.181 x .531.....(as needed)   |     |
| 5   | 50337300        | Spacer, .025 x .997 x .549.....(as needed)    |     |
| 6   | 52025013        | Indenter.....                                 | 1   |
| 7   | 90513533        | Retaining ring.....                           | 4   |
| 8   | 52020513        | Pivot pin.....                                | 2   |
| 9   |                 | Screw, #10-32 x .25 skt set cone pt.....      | 1   |
| 10  | 52064268        | Crimp head.....                               | 1   |
| 11  | 52020273        | Latch.....                                    | 1   |

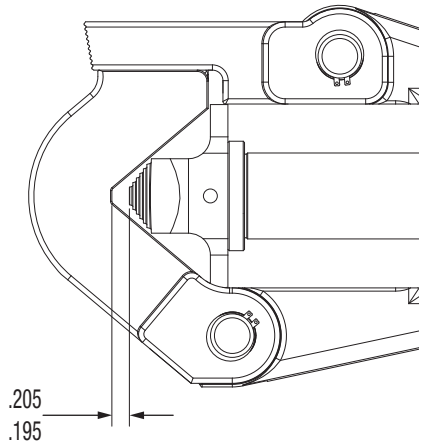
| Key | Part No. | Description                             | Qty |
|-----|----------|---|-----|
| 12  | 50111230 | Torsion spring.....                     | 2   |
| 13  |          | Spring.....                             | 1   |
| 14  |          | Screw, M6-1.0 x 80 mm skt head cap..... | 1   |
| 15  |          | End cap.....                            | 1   |
| 16  |          | Screw, M5-0.8 x 10 mm skt head cap..... | 1   |
| 17  |          | Stop.....                               | 1   |
| 20  |          | O-ring (included in 52054906).....      | 1   |
| 21  |          | Backup ring (included in 52054906)..... | 1   |
| 22  | 50067796 | Piston.....                             | 1   |
|     | 52021550 | Spring kit (includes 2, 13–17)          |     |

## Indenter and Head Replacement—EK12IDL

This procedure is separated into two sections, one for the indenter and one for the head.

### Indenter

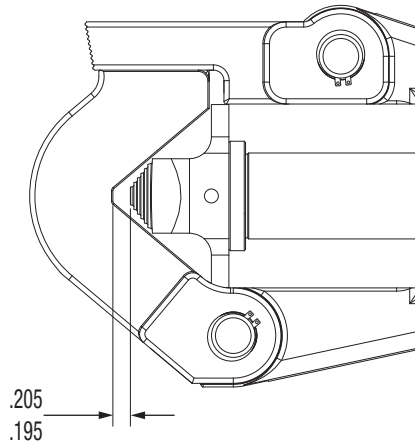
1. Lift the latch and open the crimping head.
2. Remove set screw (9), indenter (6), and any spacers (4 and 5).
3. Lubricate indenter tangs that slide against the yoke. Reinstall spacers (4 and 5) and indenter (6).
4. Close crimping head and check that latch and head are fully engaged.
5. Reinstall the battery and advance the indenter to full stroke. Release trigger when the sound of motor speed begins to slow down.
6. Measure the distance between the bottom of the indenter and head as shown below. The distance should measure 4.953 mm to 5.207 mm (.195" to .205"). If the dimension is outside this range, remove set screw (9) and indenter (6).
  - to increase distance, remove a spacer (4, 5).
  - to decrease distance, add a spacer (4, 5).



7. Install indenter (6) and secure with set screw (9).

### Head

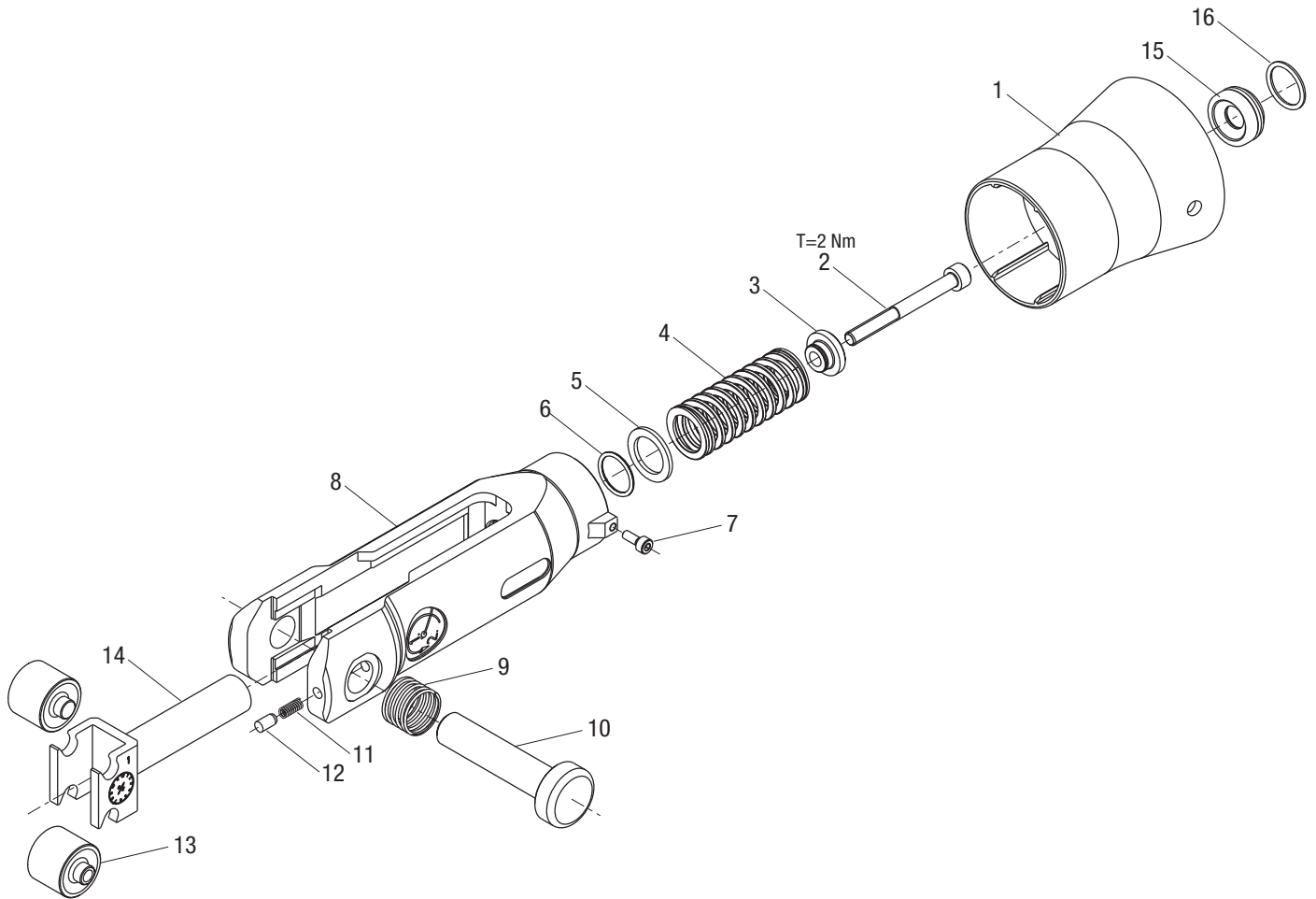
1. Lift the latch and open the crimping head.
2. Remove the retaining ring (7), pin (8), head (10), and spring (12).
3. Install spring (12) with long end into the yoke hole. Reinstall head (10), pin (8), and retaining ring (7).
4. Close crimping head and check that latch and head are fully engaged.
5. Reinstall the battery and advance the indenter to full stroke. Release trigger when the sound of motor speed begins to slow down.
6. Measure the distance between the bottom of the indenter and head as shown below. The distance should measure 4.953 mm to 5.207 mm (.195" to .205"). If the dimension is outside this range, remove set screw (9) and indenter (6).
  - to increase distance, remove a spacer (4, 5).
  - to decrease distance, add a spacer (4, 5).



7. Install indenter (6) and secure with set screw (9).

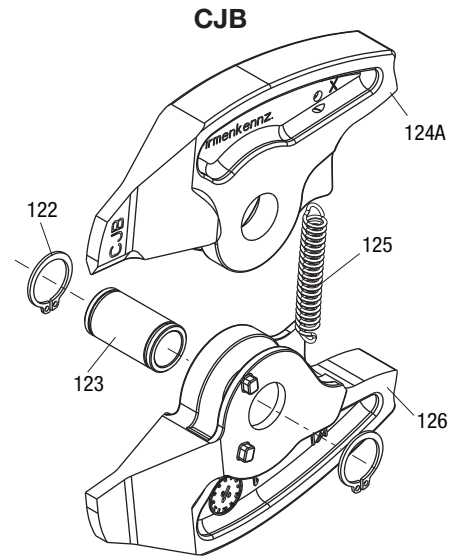
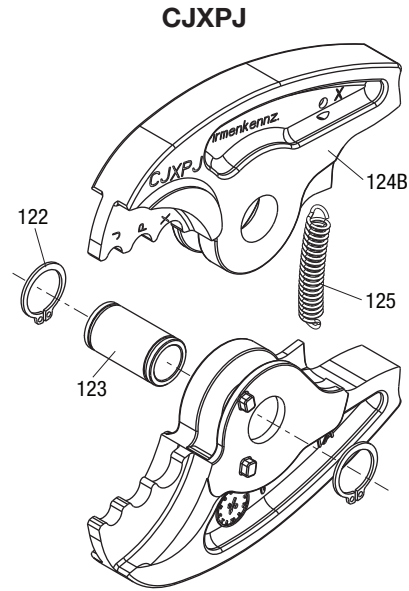
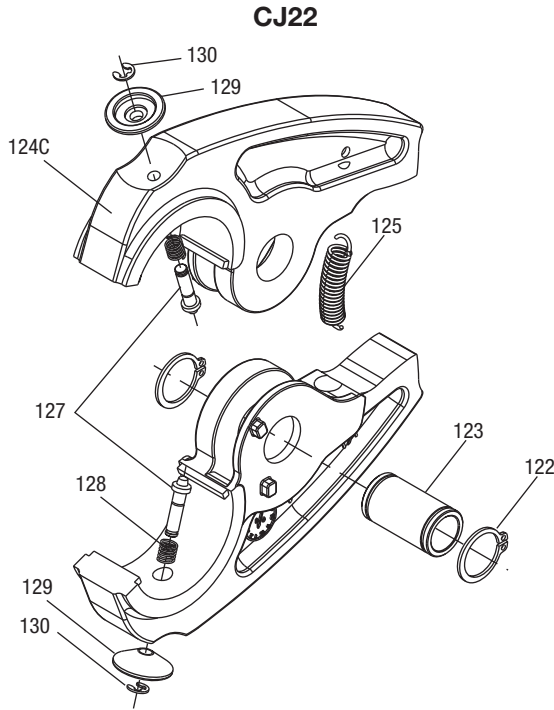


## Ram Illustration and Parts List—EK425PL



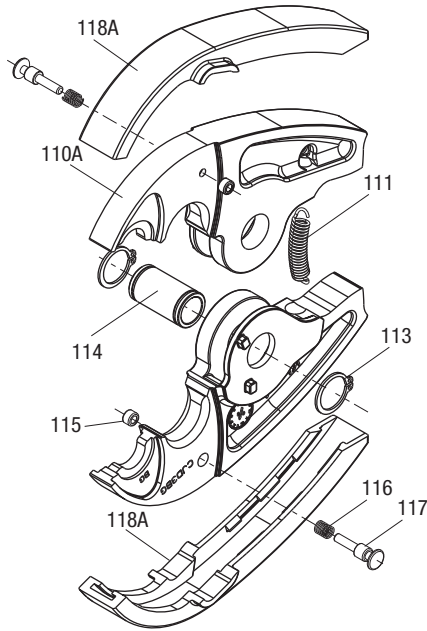
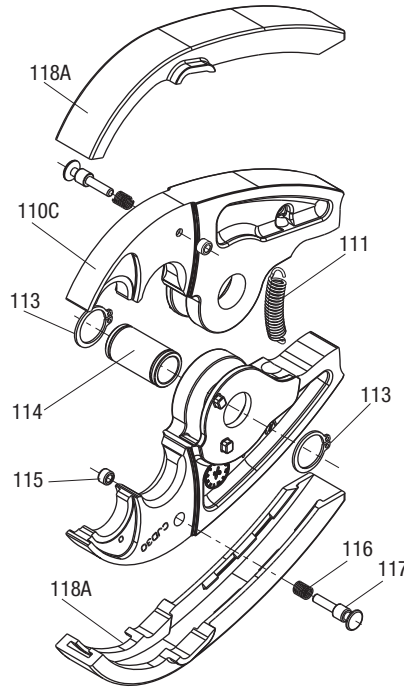
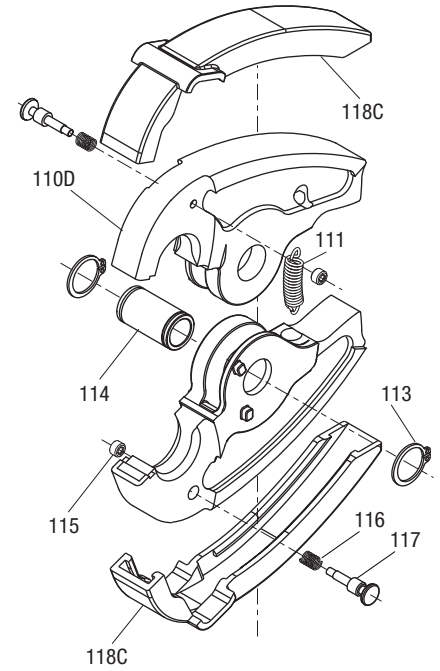
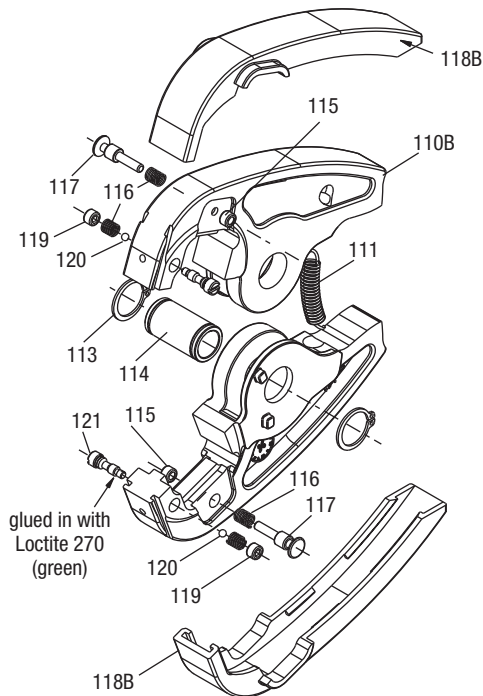
| Key | Part No. | Description                        | Qty | Key | Part No. | Description                               | Qty |
|-----|----------|------------------------------------|-----|-----|----------|---|-----|
|     | 52080600 | Ram unit (includes 1–14).....      | 1   |     | 52049400 | Latch kit (includes 9–12)                 |     |
| 1   | 52080623 | Sheath .....                       | 1   | 9   |          | Compression spring .....                  | 1   |
|     | 52049399 | Spring kit (includes 2–6)          |     | 10  |          | Locking pin.....                          | 1   |
| 2   |          | Shoulder bolt.....                 | 1   | 11  |          | Compression spring .....                  | 1   |
| 3   |          | Disc .....                         | 1   | 12  |          | Pin .....                                 | 1   |
| 4   |          | Compression spring .....           | 1   |     | 52049401 | Roller kit (includes 13, 14)              |     |
| 5   |          | Washer .....                       | 1   | 13  |          | Roller .....                              | 2   |
| 6*  |          | O-ring (included in 50047957)..... | 1   | 14  |          | Ram.....                                  | 1   |
| 7   | 52057496 | Screw .....                        | 1   | 15  | 50120050 | Bushing with seal .....                   | 1   |
| 8   |          | Jaw holder.....                    | 1   | 16* |          | Seal bushing (included in 50047957) ..... | 1   |

## Jaw Units Illustration and Parts List



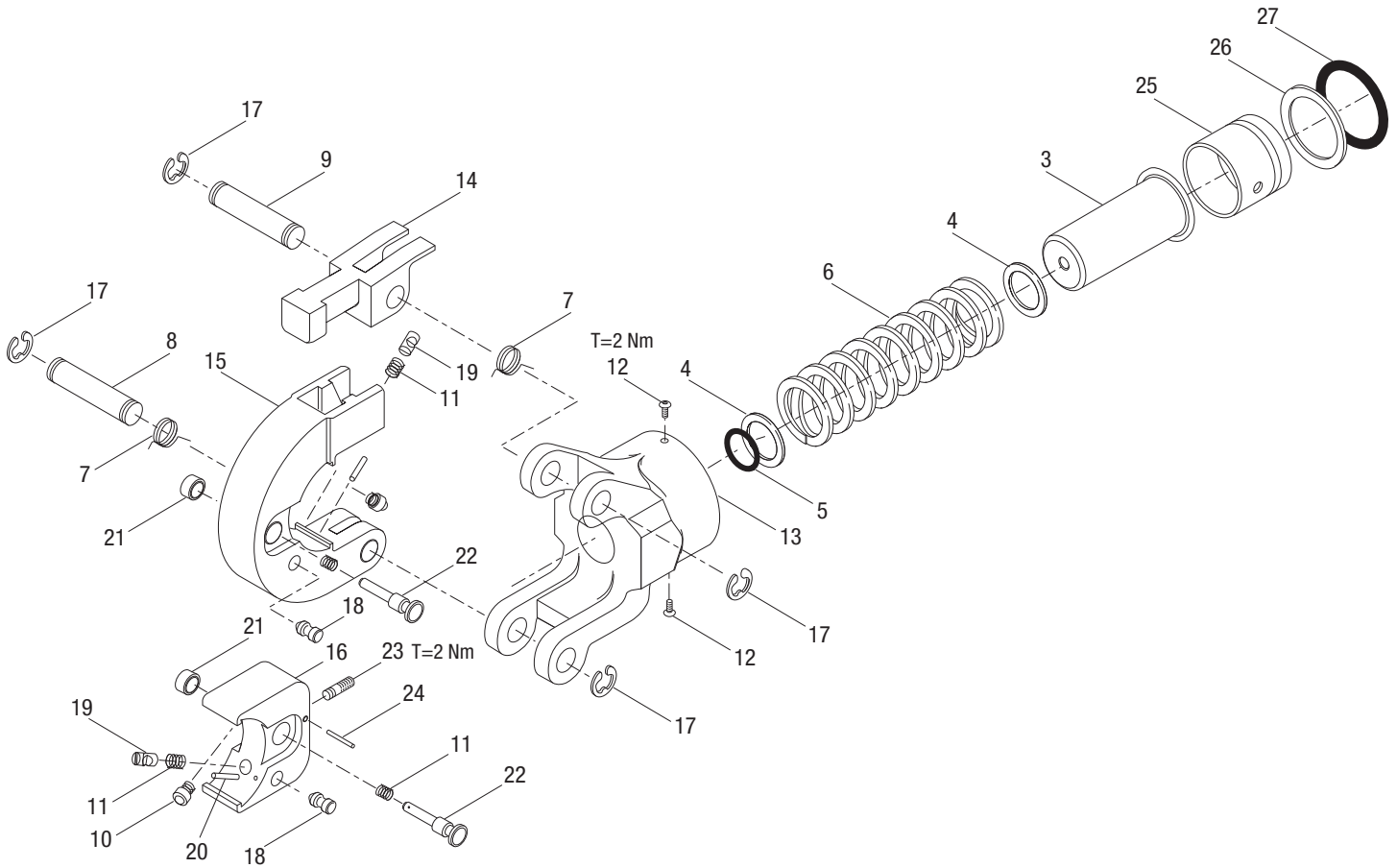
| Key  | Part No. | Description  | Qty |
|------|----------|--|-----|
|      | 52024683 | <b>CJ22 crimping jaw unit</b> for cUL and UL classified crimps |     |
|      | 52025649 | <b>CJXPJ crimping jaw unit</b><br>(includes 122-125)           |     |
|      | 52025648 | <b>CJB single-use lock cutter</b><br>(includes 122-126)        |     |
|      | 52049402 | Jaw pivot kit (includes 122, 123)                              |     |
| 122  |          | Retaining ring .....   | 2   |
| 123  |          | Pivot pin .....  | 1   |
| 124A |          | Jaw, sharp—CJB .....   | 1   |
| 124B |          | Jaw, CJXPJ .....   | 2   |
| 124C |          | Jaw, CJ22.....   | 2   |
| 125  | 52022544 | Extension spring.....  | 1   |
| 126  |          | Jaw, flat—CJB.....   | 1   |
|      | 52023623 | Die retaining pin kit (includes 127–130)                       |     |
| 127  |          | Die retaining pin .....  | 2   |
| 128  |          | Compression spring .....                                       | 2   |
| 129  |          | Release button .....   | 2   |
| 130  |          | Retaining ring .....   | 2   |

## Jaw Units Illustration and Parts List (cont'd)

**CJD3BG**

**CJD30**

**CJD3**

**CJK Kearney**


| Key  | Part No. | Description   | Qty |
|------|----------|---|-----|
|      | 52027121 | <b>CJD3BG crimping jaw unit</b><br>(includes 110–118)               |     |
|      | 52027122 | <b>CJD30 crimping jaw unit</b><br>(includes 110–118)                |     |
|      | 52024068 | <b>CJD3 crimping jaw unit</b> (includes 110–118)                    |     |
|      | 52020114 | <b>CJK Kearney crimping jaw unit</b><br>(includes 110–118, 119–121) |     |
| 110A |          | Jaw, CJD3BG.....  | 2   |
| 110B |          | Jaw, CJK.....   | 2   |
| 110C |          | Jaw, CJD30.....   | 2   |
| 110D |          | Jaw, CJD3.....  | 2   |
| 111  | 52022544 | Extension spring.....   | 1   |
|      | 52049402 | Jaw pivot kit (includes 113, 114)                                   |     |
| 113  |          | Retaining ring.....   | 2   |
| 114  |          | Pin pivot.....  | 1   |
| 115  |          | Bushing.....  | 2   |
| 116  |          | Compression spring.....   | 2   |
| 117  |          | Lock adapter.....   | 2   |
| 118A | 52025125 | Jaw covers, CJD30/CJD3BG (set of 2)....                             | 1   |
| 118B | 52022386 | Jaw covers, CJK (set of 2).....                                     | 1   |
| 118C | 52021086 | Jaw covers, CJD3 (set of 2).....                                    | 1   |
| 119  |          | Bushing.....  | 2   |
| 120  |          | Ball, 3 mm.....   | 2   |
| 121  |          | Locking pin.....  | 1   |
|      | 50103750 | Die pin kit, "W"-style dies<br>(includes 115–117)                   |     |
|      | 50105108 | Die pin kit, Kearney-style dies<br>(includes 116, 119–121)          |     |

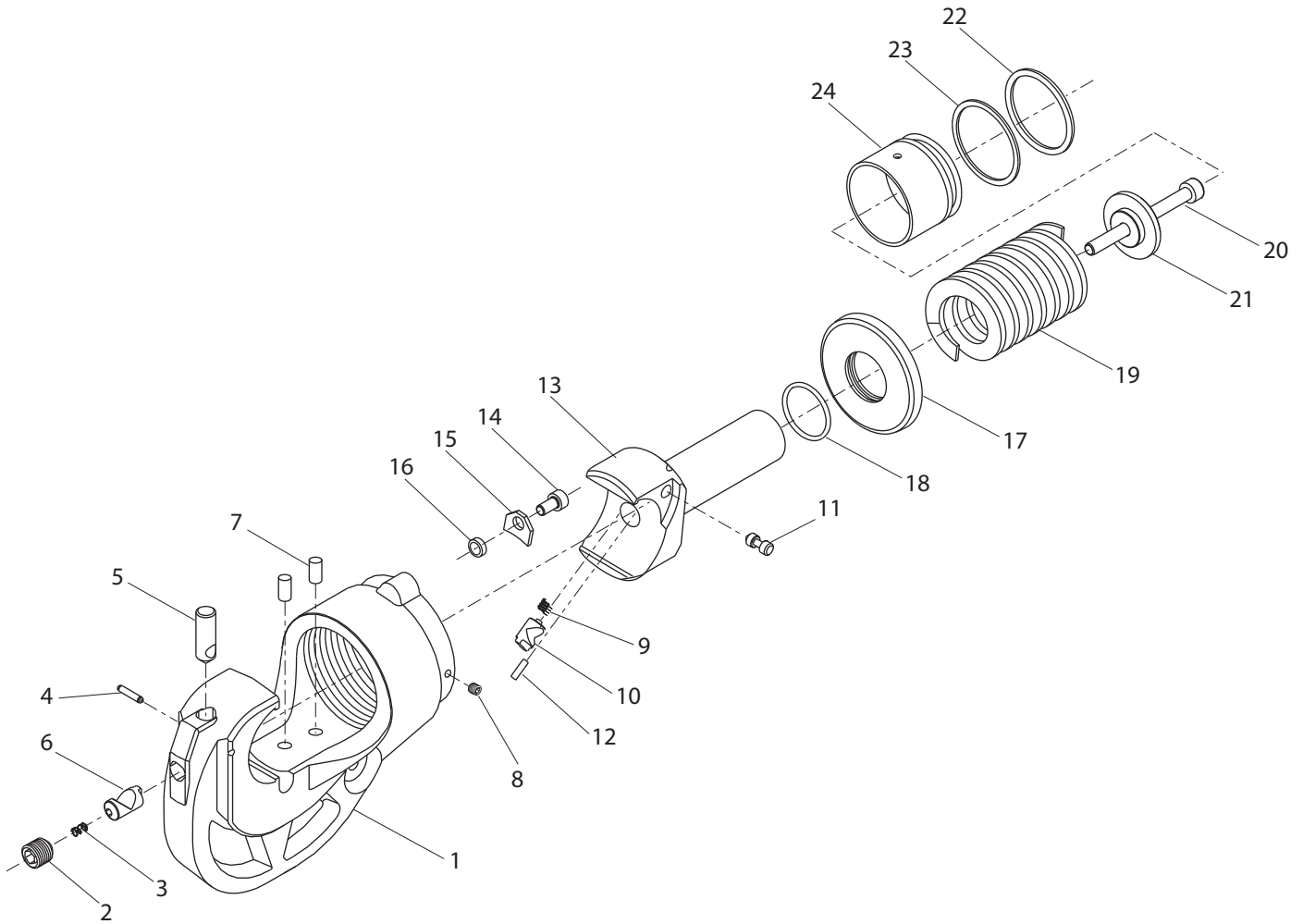
## Head and Ram Illustration and Parts List—EK622PL



| Key | Part No.        | Description                               | Qty |
|-----|-----------------|---|-----|
|     | <b>52054798</b> | <b>Head assembly</b> (includes 3–24)      |     |
| 3   | 52055797        | Ram .....                                 | 1   |
| 4   | 52080214        | Adapter disk .....                        | 2   |
| 5*  |                 | O-ring (included in 50047957) .....       | 1   |
| 6   | 50058398        | Compression spring .....                  | 1   |
|     | 52055866        | Pin kit (includes 7–9, 17)                |     |
| 7   |                 | Spring .....                              | 2   |
| 8   |                 | Pin .....                                 | 1   |
| 9   |                 | Pin .....                                 | 1   |
|     | 52055867        | Die retainer kit (includes 10, 11, 18–22) |     |
| 10  |                 | Die retainer .....                        | 2   |
| 11  |                 | Compression spring .....                  | 4   |
| 12  | 52057106        | Screw .....                               | 2   |
| 13  | 50058304        | Bottom crimp head .....                   | 1   |
| 14  | 50121693        | Latch .....                               | 1   |

| Key | Part No. | Description                              | Qty |
|-----|----------|--|-----|
| 15  | 50121731 | Top die holder .....                     | 1   |
| 16  | 50121715 | Bottom die holder .....                  | 1   |
| 17  |          | Retaining ring .....                     | 4   |
| 18  |          | Die release button .....                 | 2   |
| 19  |          | Die retainer .....                       | 2   |
| 20  |          | Roll Pin .....                           | 2   |
| 21  |          | Die release button .....                 | 2   |
| 22  |          | Locking pin .....                        | 2   |
|     | 52055865 | Die holder kit (includes 23, 24)         |     |
| 23  |          | Threaded stud .....                      | 1   |
| 24  |          | Pin .....                                | 1   |
| 25  | 52020648 | Piston cup .....                         | 1   |
| 26* |          | Backup ring (included in 50047957) ..... | 1   |
| 27* |          | O-ring (included in 50047957) .....      | 1   |

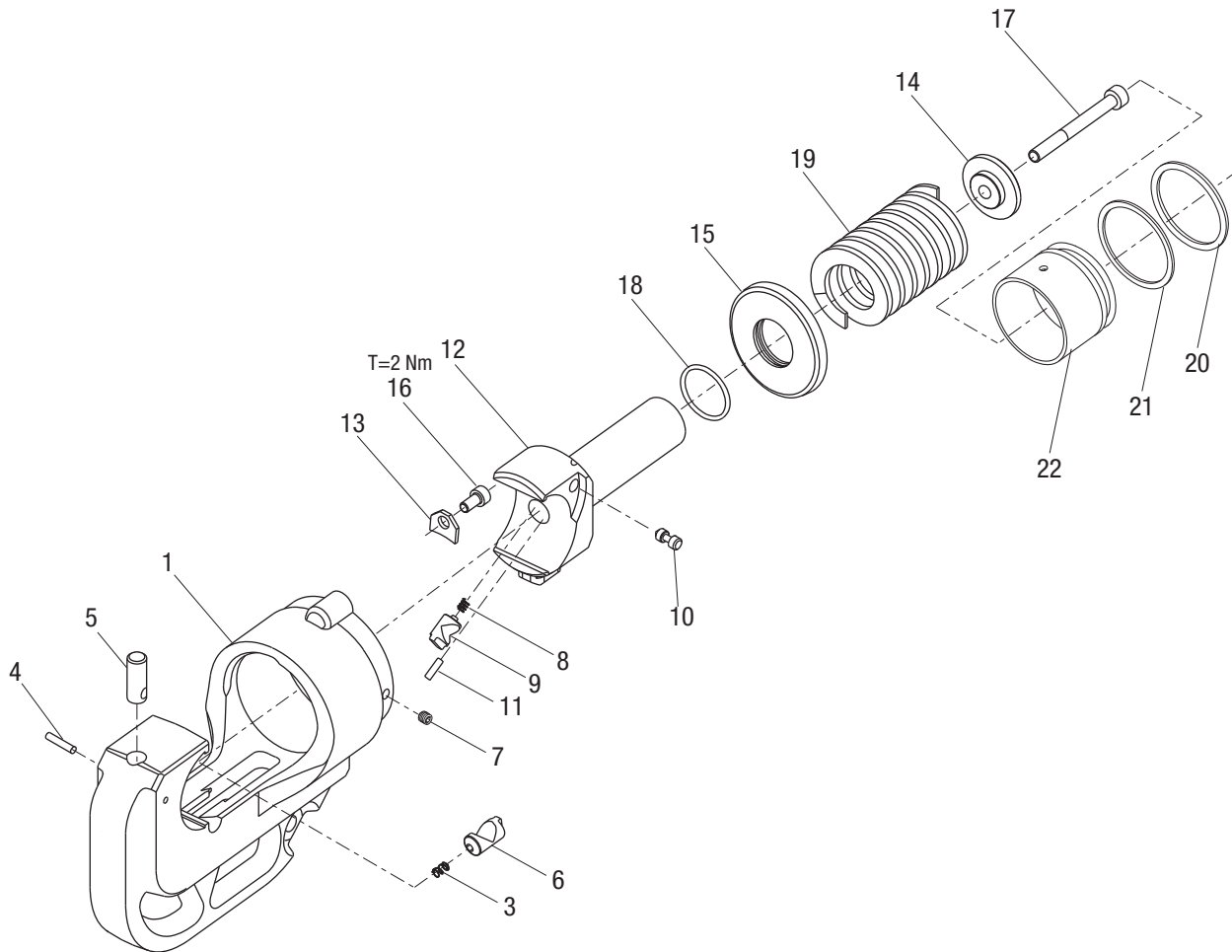
## Head and Ram Illustration and Parts List—EK1230L



| Key | Part No.        | Description                                     | Qty |
|-----|-----------------|---|-----|
|     | <b>50053728</b> | <b>C-head assembly, 30 mm</b><br>(includes 1–8) |     |
| 1   |                 | C-head .....                                    | 1   |
| 2   | 90550609        | Set screw .....                                 | 1   |
| 3   | 50038214        | Compression spring .....                        | 1   |
| 4   | 90550633        | Groove pin .....                                | 1   |
| 5   | 50053175        | Die release button .....                        | 1   |
| 6   | 50053191        | Die release pin .....                           | 1   |
| 7   | 90550625        | Groove pin .....                                | 2   |
| 8   | 90550617        | Set screw .....                                 | 1   |
|     | <b>50053779</b> | <b>Ram assembly (includes 9–13)</b>             |     |
| 9   | 50038214        | Compression spring .....                        | 1   |
| 10  | 50053167        | Die release pin .....                           | 1   |
| 11  | 50053183        | Release shaft .....                             | 1   |
| 12  | 90550641        | Spring pin .....                                | 1   |
| 13  |                 | Ram .....                                       | 1   |

| Key | Part No. | Description                              | Qty |
|-----|----------|--|-----|
|     | 50067079 | Spring kit (includes 14–21)              |     |
| 14  |          | Screw, M5-0.8 x 10 mm skt head cap ..... | 1   |
| 15  |          | Stop .....                               | 1   |
| 16  |          | Bushing, 5 x 9 x 3T .....                | 1   |
| 17  |          | Spring stop .....                        | 1   |
| 18  |          | O-ring (included in 52054906) .....      | 1   |
| 19  |          | Ram spring .....                         | 1   |
| 20  |          | Screw, M6-1.0 x 70 mm skt head cap ..... | 1   |
| 21  |          | Disc .....                               | 1   |
| 22  |          | O-ring (included in 52054906) .....      | 1   |
| 23  |          | Backup ring (included in 52054906) ..... | 1   |
| 24  | 50067796 | Piston .....                             | 1   |

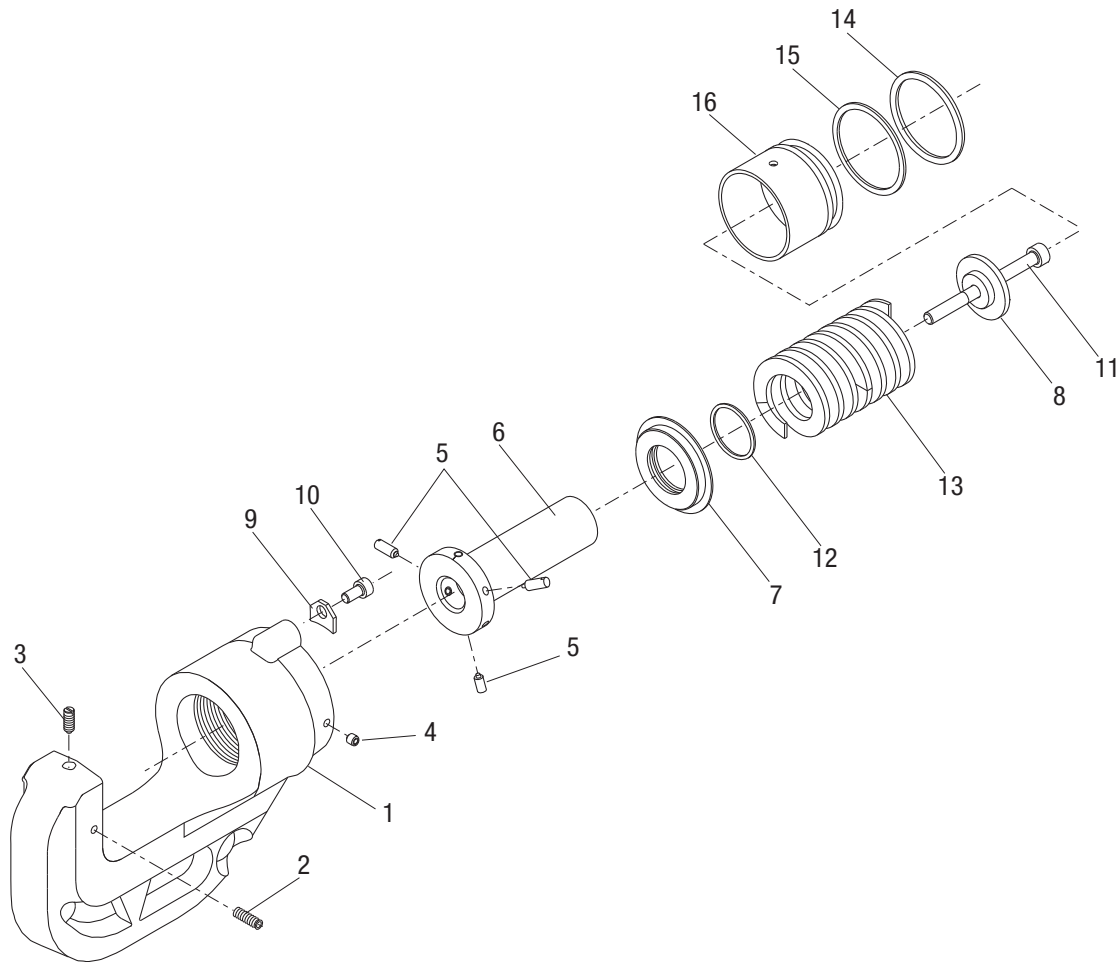
## Head and Ram Illustration and Parts List—EK1240L, EK1240CL



| Key | Part No.        | Description   | Qty |
|-----|-----------------|---|-----|
|     | <b>50766056</b> | <b>C-head assembly, 42 mm</b><br>(includes 1-7)               |     |
|     | <b>50766063</b> | <b>C-head assembly, 42 mm,<br/>PVC-covered</b> (includes 1-7) |     |
| 1   |                 | C-head, 42 mm .....   | 1   |
| 3   | 50038214        | Compression spring .....                                      | 1   |
| 4   | 90550633        | Groove pin .....  | 1   |
| 5   | 50053175        | Die release button .....                                      | 1   |
| 6   | 50053191        | Die release pin .....   | 1   |
| 7   |                 | Set screw, M5-0.8 x 5 mm skt cup pt .....                     | 1   |
|     | <b>50053787</b> | <b>Ram assembly</b> (includes items 8-12)                     |     |
| 8   | 50038214        | Compression spring .....                                      | 1   |
| 9   | 50053167        | Die release pin .....   | 1   |
| 10  | 50053183        | Release shaft .....   | 1   |
| 11  | 90550641        | Spring pin .....  | 1   |
| 12  |                 | Ram .....   | 1   |

| Key | Part No. | Description                              | Qty |
|-----|----------|--|-----|
|     | 50067087 | Spring kit (includes 13-19)              |     |
| 13  |          | Stop .....                               | 1   |
| 14  |          | Disc .....                               | 1   |
| 15  |          | Spring stop .....                        | 1   |
| 16  |          | Screw, M5-0.8 x 10 mm skt head cap ..... | 1   |
| 17  |          | Screw, M6-1.0 x 80 mm skt head cap ..... | 1   |
| 18  |          | O-ring (included in 52054906) .....      | 1   |
| 19  |          | Ram spring .....                         | 1   |
| 20  |          | O-ring (included in 52054906) .....      | 1   |
| 21  |          | Backup ring (included in 52054906) ..... | 1   |
| 22  | 50067796 | Piston .....                             | 1   |

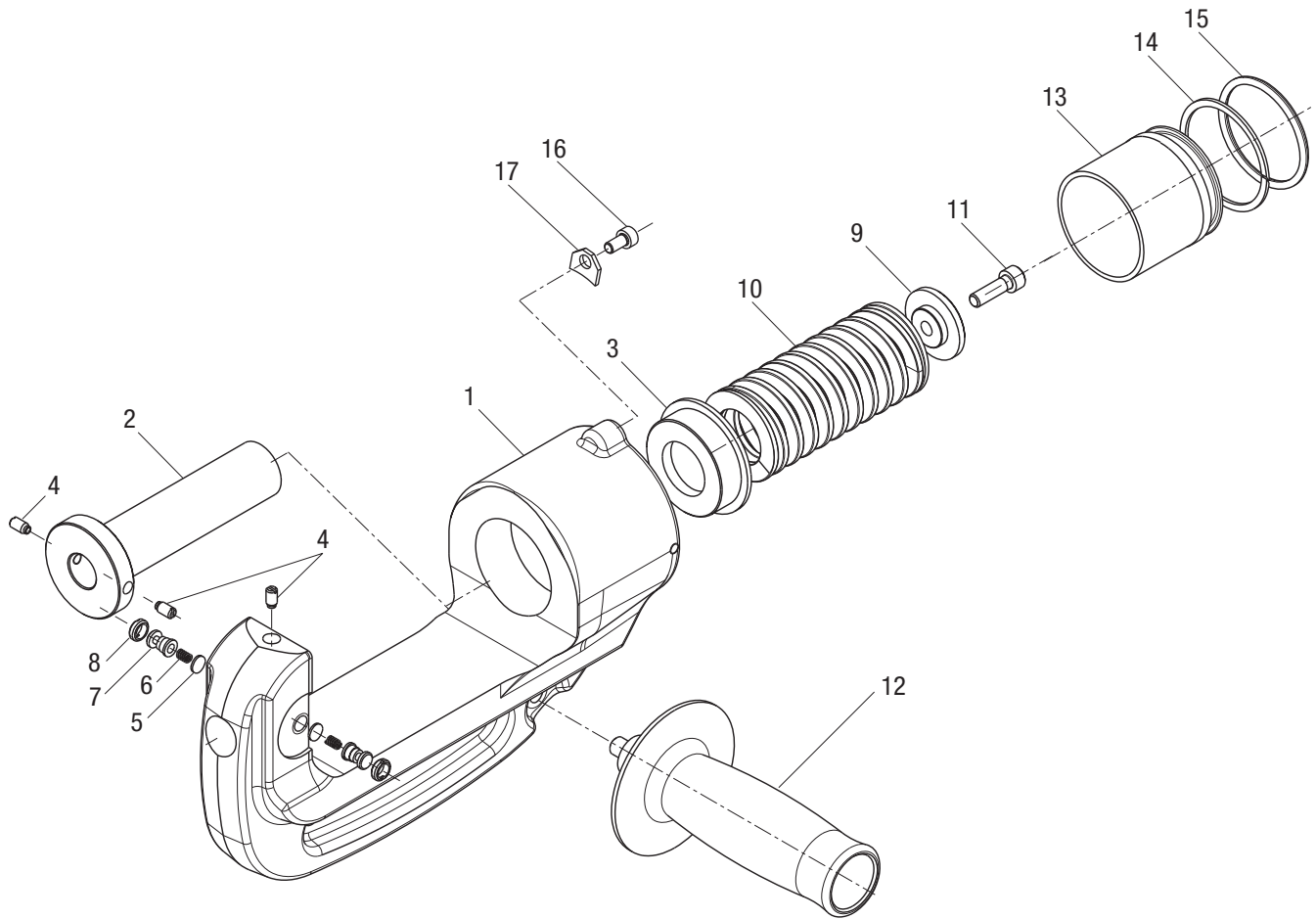
## Head and Ram Illustration and Parts List—EK1240KL



| Key | Part No.        | Description  | Qty |
|-----|-----------------|--|-----|
|     | <b>50054767</b> | <b>C-head assembly, Kearney</b><br>(includes 1–4)  |     |
|     | <b>52080188</b> | <b>C-head assembly, Kearney</b><br>(includes 1–13) |     |
| 1   |                 | C-head .....                                       | 1   |
| 2   | 90507932        | Set screw .....                                    | 1   |
| 3   | 90539621        | Ball detent .....                                  | 1   |
| 4   | 90550617        | Set screw .....                                    | 1   |
| 5   | 90539621        | Ball detent .....                                  | 3   |
| 6   | 50066714        | Ram .....  | 1   |

| Key | Part No. | Description                              | Qty |
|-----|----------|--|-----|
|     | 50067095 | Spring kit (includes 7–13)               |     |
| 7   |          | Stop spring.....                         | 1   |
| 8   |          | Disc .....                               | 1   |
| 9   |          | Stop.....                                | 1   |
| 10  |          | Screw, M5-0.8 x 10 mm skt head cap ..... | 1   |
| 11  |          | Screw, M6-1.0 x 70 mm skt head cap ..... | 1   |
| 12  |          | O-ring (included in 52054906).....       | 1   |
| 13  |          | Ram spring.....                          | 1   |
| 14  |          | O-ring (included in 52054906).....       | 1   |
| 15  |          | Backup ring (included in 52054906).....  | 1   |
| 16  | 50067796 | Piston .....                             | 1   |

## Head and Ram Illustration and Parts List—EK1550L

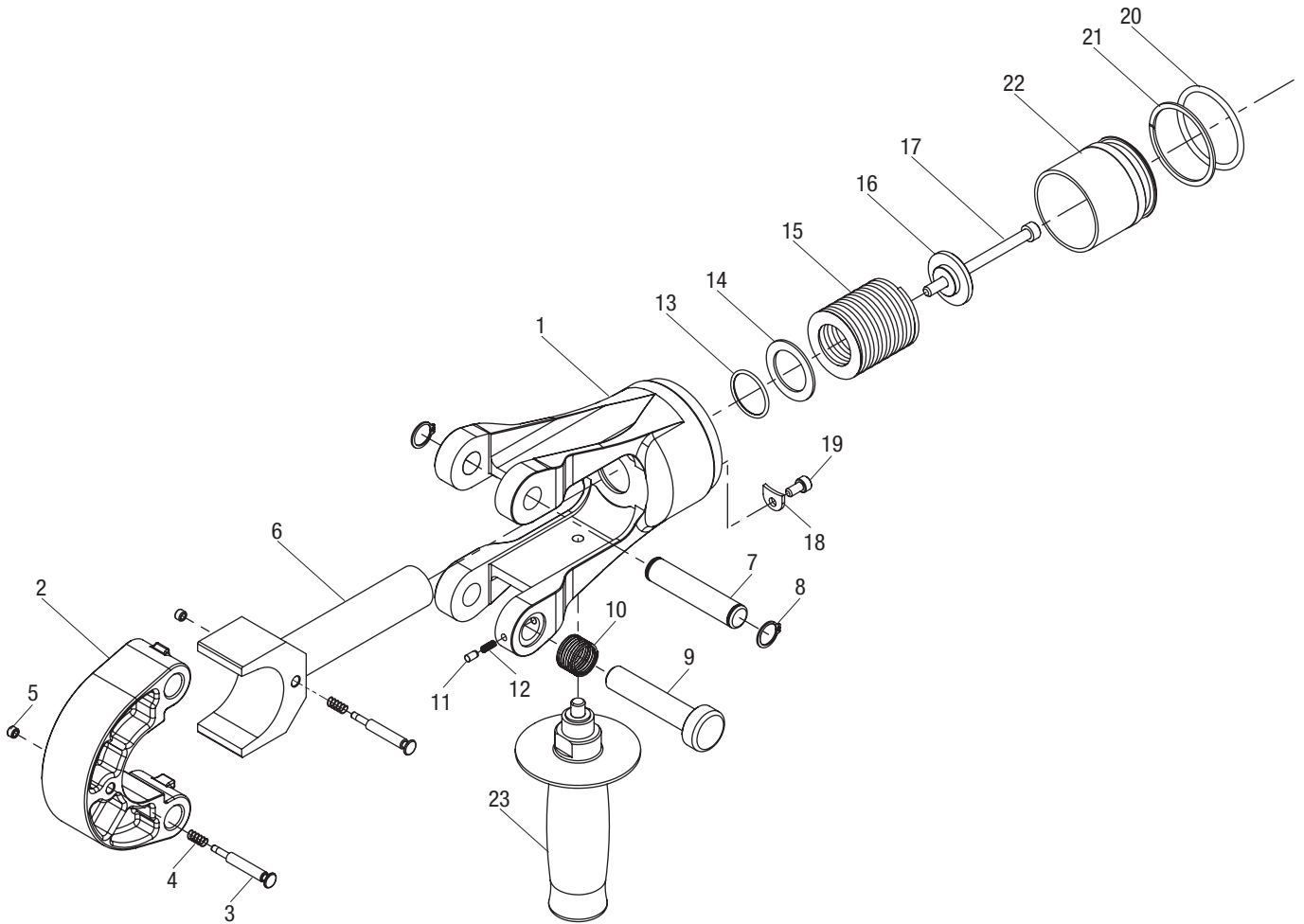


| Key | Part No.        | Description                      | Qty |
|-----|-----------------|----------------------------------|-----|
|     | <b>52048139</b> | <b>Head unit (includes 1–11)</b> |     |
| 1   |                 | Crimp head.....                  | 1   |
| 2   |                 | Ram.....                         | 1   |
| 3   |                 | Piston guide .....               | 1   |
| 4   | 90539621        | Ball plunger .....               | 3   |
|     | 52047036        | Die retainer kit (includes 5–8)  |     |
| 5   |                 | Disk .....                       | 2   |
| 6   |                 | Spring.....                      | 2   |
| 7   |                 | Die pin .....                    | 2   |
| 8   |                 | Nut.....                         | 2   |

| Key | Part No. | Description                              | Qty |
|-----|----------|--|-----|
| 9   | 50066900 | End cap .....                            | 1   |
| 10  |          | Spring.....                              | 1   |
| 11  |          | Screw, M6-1.0 x 20 mm skt head cap ..... | 1   |
| 12  | 52020646 | Handle .....                             | 1   |
| 13  | 52047044 | Piston .....                             | 1   |
| 14  |          | Backup ring (included in 52054906).....  | 1   |
| 15  |          | O-ring (included in 52054906).....       | 1   |
| 16  | 50043767 | Screw .....                              | 1   |
| 17  | 52061362 | Stop.....                                | 1   |



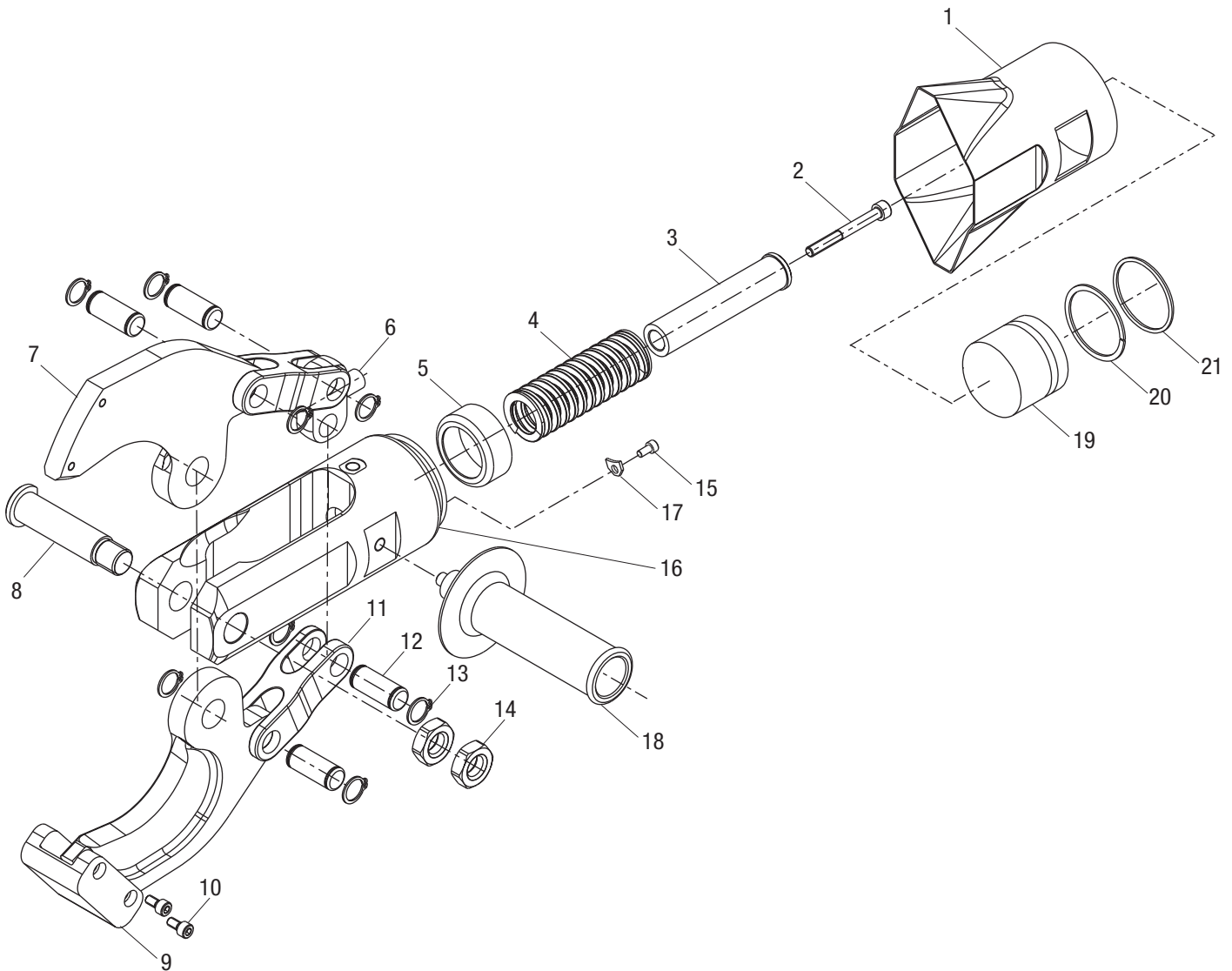
## Head and Ram Illustration and Parts List—EK1550FL



| Key | Part No.        | Description                          | Qty |
|-----|-----------------|--------------------------------------|-----|
|     | <b>52061348</b> | <b>Head assembly (includes 1–19)</b> |     |
| 1   |                 | Crimping head base.....              | 1   |
| 2   |                 | Head, movable.....                   | 1   |
| 3   |                 | Die retaining pin.....               | 2   |
| 4   |                 | Compression spring.....              | 2   |
| 5   |                 | Die releasing button.....            | 2   |
| 6   |                 | Ram.....                             | 1   |
| 7   |                 | Pin.....                             | 1   |
| 8   |                 | Retaining ring.....                  | 2   |
| 9   |                 | Pull pin.....                        | 1   |
| 10  |                 | Compression spring.....              | 1   |
| 11  |                 | Lock pin.....                        | 1   |
| 12  |                 | Compression spring.....              | 1   |
| 13  |                 | O-ring.....                          | 1   |

| Key | Part No. | Description                             | Qty |
|-----|----------|---|-----|
| 14  |          | Washer.....                             | 1   |
| 15  |          | Spring.....                             | 1   |
| 16  |          | End cap.....                            | 1   |
| 17  |          | Screw, M6 x 80 mm socket head cap.....  | 1   |
| 18  | 50066943 | Stop.....                               | 1   |
| 19  |          | Screw, M5 x 10 mm socket head cap.....  | 1   |
| 20  |          | O-ring (included in 52054906).....      | 1   |
| 21  |          | Backup ring (included in 52054906)..... | 1   |
| 22  | 52047044 | Piston cup.....                         | 1   |
| 23  | 52020646 | Handle.....                             | 1   |
|     | 52062270 | Die pin kit (includes two each of 3–5)  |     |
|     | 52062271 | Pivot pin kit (includes 7–12)           |     |
|     | 52062272 | Seal kit (includes 13, 20, 21)          |     |
|     | 52062273 | Ram kit (includes 6, 15–17)             |     |

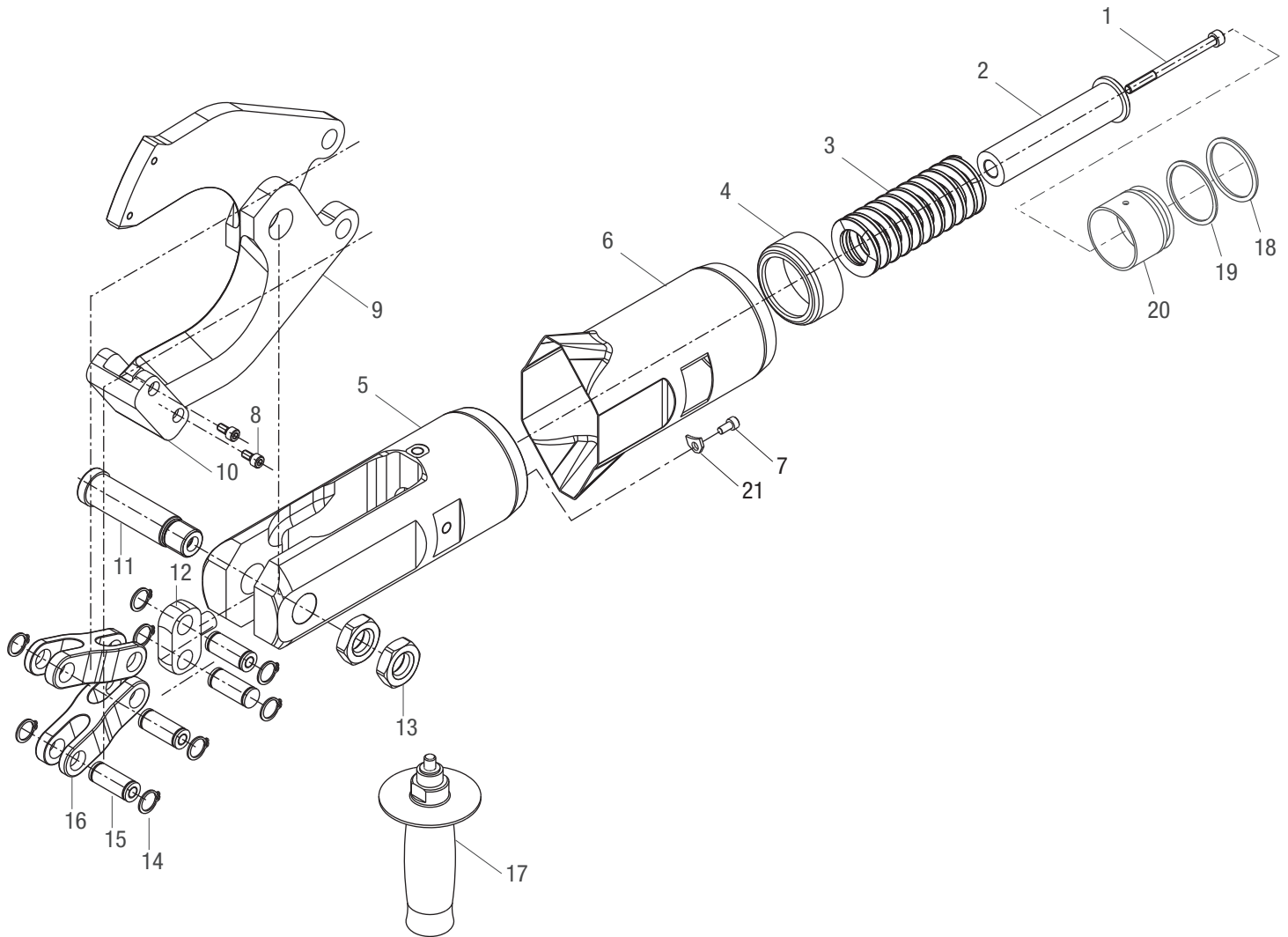
## Head and Ram Illustration and Parts List—ESC85L



| Key | Part No.        | Description                            | Qty |
|-----|-----------------|--|-----|
|     | <b>52057512</b> | <b>Cutting head (includes 1–17)</b>    |     |
| 1   |                 | Shrink cover .....                     | 1   |
| 2   |                 | M6 x 55 mm socket head cap screw ..... | 1   |
| 3   | 52020641        | Piston rod .....                       | 1   |
| 4   | 50058258        | Return spring .....                    | 1   |
| 5   | 52057514        | Spring cup .....                       | 1   |
| 6   |                 | Bearing block .....                    | 1   |
| 7   | 52057513        | Blade .....                            | 2   |
| 8   | 52020643        | Clevis pin .....                       | 1   |
| 9   | 52046709        | Blade guide .....                      | 1   |
| 10  | 50043676        | M5 socket head cap screw .....         | 2   |
| 11  |                 | Link .....                             | 2   |

| Key | Part No. | Description  | Qty |
|-----|----------|--|-----|
| 12  |          | Pin .....  | 4   |
| 13  |          | Retaining ring .....                               | 8   |
| 14  | 52020644 | M16 hex nut .....                                  | 2   |
| 15  |          | Screw .....  | 1   |
| 16  |          | Yoke .....   | 1   |
| 17  | 50066943 | Stop .....   | 1   |
| 18  | 52020646 | Handle .....                                       | 1   |
| 19  | 52020648 | Piston .....                                       | 1   |
| 20  |          | Piston backup ring<br>(included in 52054906) ..... | 1   |
| 21  |          | O-ring (included in 52054906) .....                | 1   |
|     | 52046857 | Pin kit (includes 12,13)                           |     |

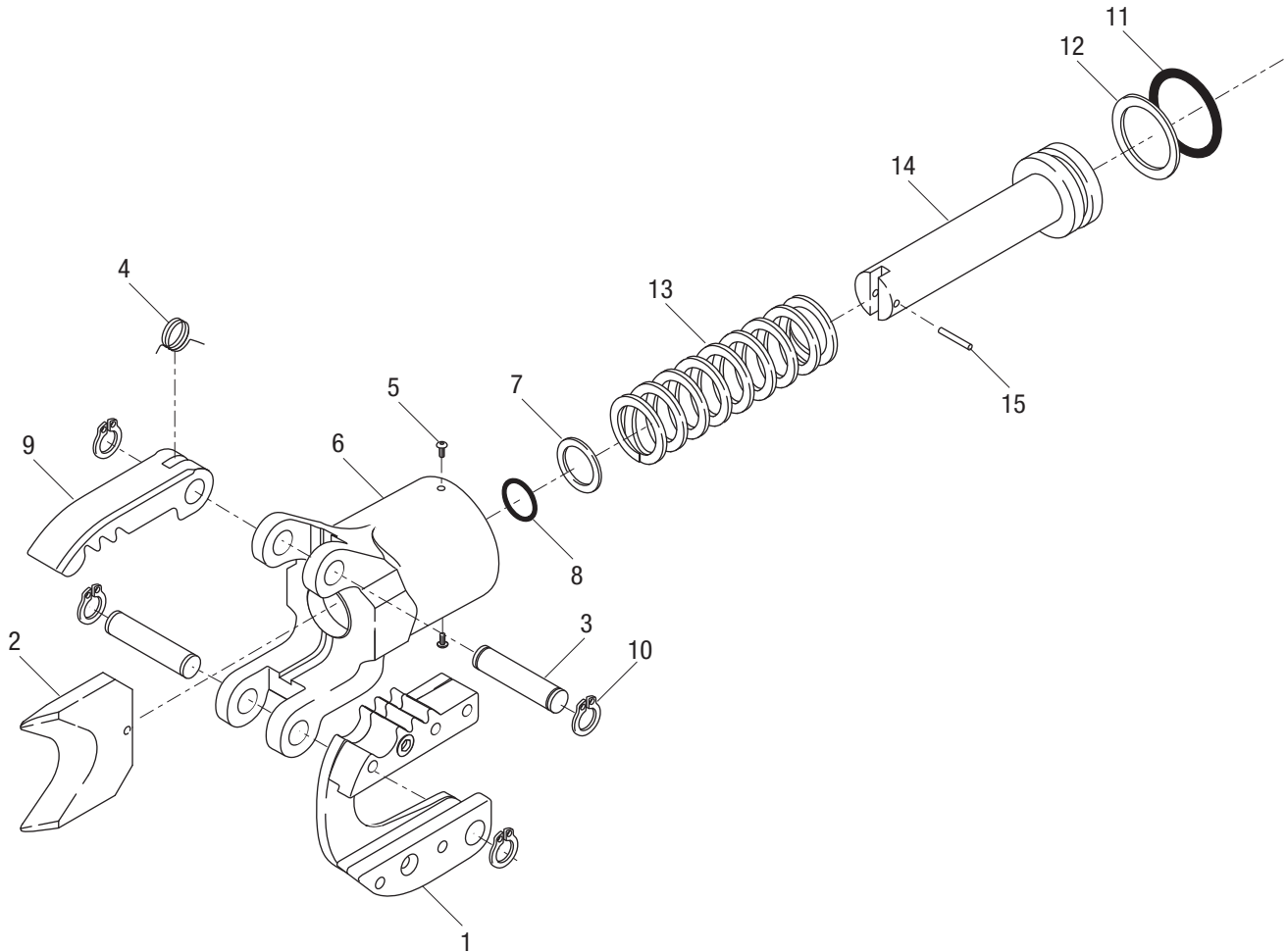
## Head and Ram Illustration and Parts List—ESC105L



| Key | Part No.        | Description                         | Qty |
|-----|-----------------|-------------------------------------|-----|
|     | <b>52046698</b> | <b>Cutting head (includes 1-16)</b> |     |
| 1   |                 | Screw .....                         | 1   |
| 2   |                 | Piston rod .....                    | 1   |
| 3   |                 | Spring .....                        | 1   |
| 4   |                 | Cylinder sleeve .....               | 1   |
| 5   |                 | Cutter body .....                   | 1   |
| 6   |                 | Tubing .....                        | 1   |
| 7   | 50049216        | Socket head cap screw .....         | 1   |
| 8   |                 | Socket head cap screw .....         | 2   |
| 9   |                 | Cutter blade .....                  | 2   |
| 10  |                 | Blade guide .....                   | 1   |
| 11  |                 | Pivot pin .....                     | 1   |
| 12  |                 | Attachment block .....              | 1   |

| Key | Part No. | Description                              | Qty |
|-----|----------|--|-----|
| 13  |          | Hex nut .....                            | 2   |
| 14  |          | Retaining ring .....                     | 8   |
| 15  |          | Pin .....                                | 4   |
| 16  |          | Double fork .....                        | 2   |
| 17  | 52020646 | Handle .....                             | 1   |
| 18  |          | O-ring (included in 52054906) .....      | 1   |
| 19  |          | Backup ring (included in 52054906) ..... | 1   |
| 20  | 50067796 | Piston .....                             | 1   |
| 21  | 52056967 | Stop .....                               | 1   |
|     | 52046856 | Blade kit (includes 8-10)                |     |
|     | 52046857 | Pin kit (includes 14, 15)                |     |
|     | 52046858 | Attachment block kit (includes 1, 12)    |     |

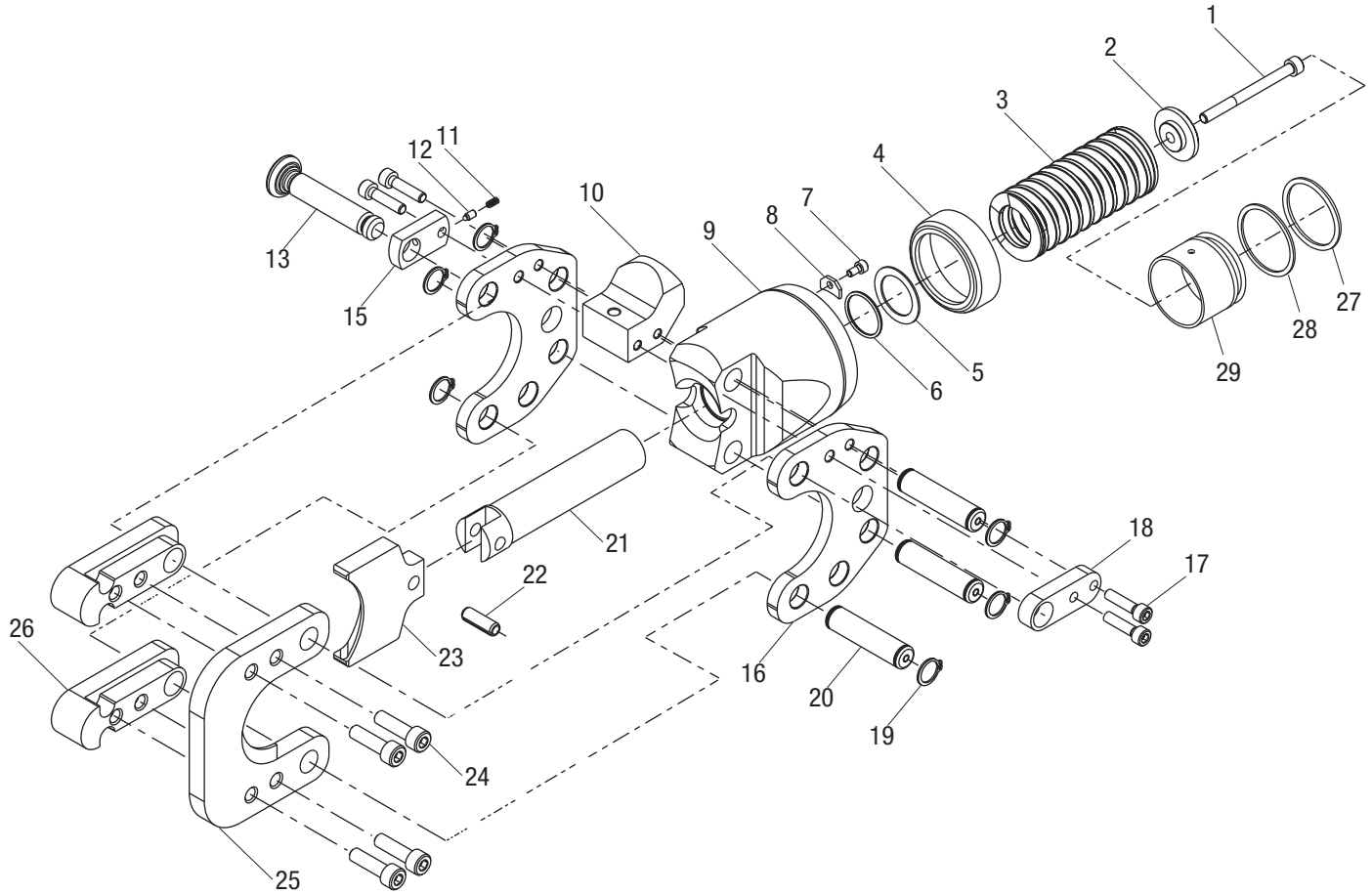
## Head and Ram Illustration and Parts List—ESG50L



| Key | Part No.        | Description                        | Qty |
|-----|-----------------|------------------------------------|-----|
|     | <b>50014145</b> | <b>Head unit</b> (includes 1–10)   |     |
| 1   | 50041843        | Cutting head.....                  | 1   |
| 2   | 50041819        | Cutting blade.....                 | 1   |
| 3   | 50041797        | Pin .....                          | 2   |
| 4   | 50041746        | Spring.....                        | 1   |
| 5   | 50041681        | Screw .....                        | 2   |
| 6   | 50058240        | Cutting head base.....             | 1   |
| 7   | 50058371        | Adapter disk.....                  | 1   |
| 8   |                 | O-ring (included in 52054906)..... | 1   |
| 9   | 50041789        | Latch .....                        | 1   |
| 10  | 50034308        | Retaining ring .....               | 4   |

| Key | Part No. | Description  | Qty |
|-----|----------|--|-----|
| 11  |          | O-ring (included in 52054906).....                 | 1   |
| 12  |          | Piston backup ring<br>(included in 52054906) ..... | 1   |
| 13  | 50058258 | Compression spring .....                           | 1   |
| 14  | 50058266 | Piston .....                                       | 1   |
| 15  | 50041967 | Pin .....  | 1   |

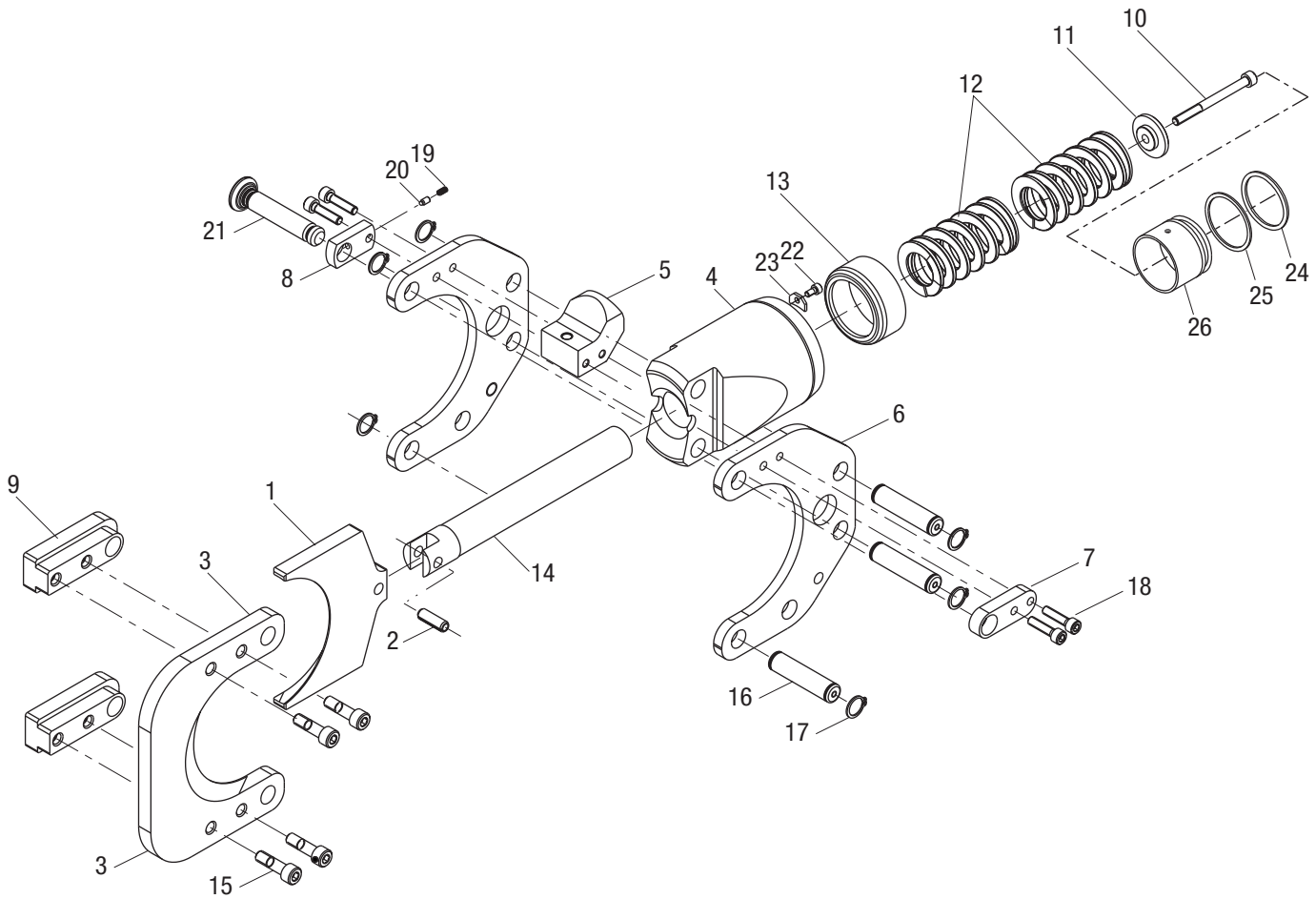
## Head and Ram Illustration and Parts List—ESG55L



| Key | Part No.        | Description                              | Qty |
|-----|-----------------|--|-----|
|     | <b>52056980</b> | <b>Head and ram unit (includes 1–26)</b> |     |
| 1   | 50066951        | Spring bolt.....                         | 1   |
| 2   | 50066900        | End cap.....                             | 1   |
| 3   |                 | Spring.....                              | 1   |
| 4   |                 | Spring guide.....                        | 1   |
| 5   |                 | Adapter disk.....                        | 1   |
| 6   |                 | O-ring (included in 52054906).....       | 1   |
| 7   |                 | Screw.....                               | 1   |
| 8   |                 | Stop.....                                | 1   |
| 9   |                 | Cutting head base.....                   | 1   |
| 10  |                 | Handle block.....                        | 1   |
| 11  |                 | Compression spring.....                  | 1   |
| 12  |                 | Ball pin indent.....                     | 1   |
| 13  |                 | Pin assembly.....                        | 1   |
| 15  |                 | Pin guide.....                           | 1   |
| 16  |                 | Frame plate.....                         | 2   |
| 17  |                 | Screw.....                               | 4   |
| 18  |                 | Spacer.....                              | 1   |

| Key | Part No. | Description  | Qty |
|-----|----------|--|-----|
| 19  |          | Retaining ring.....                                      | 6   |
| 20  |          | Pin.....   | 3   |
| 21  |          | Blade holder.....  | 1   |
| 22  |          | Pin.....   | 1   |
| 23  | 52056976 | Cutting blade.....                                       | 1   |
| 24  |          | Screw.....   | 4   |
| 25  | 52056978 | Cutting head.....  | 1   |
| 26  |          | Blade guide.....   | 2   |
| 27  |          | O-ring (included in 52054906).....                       | 1   |
| 28  |          | Backup ring (included in 52054906).....                  | 1   |
| 29  | 50067796 | Piston.....  | 1   |
|     | 52065181 | Fastener kit (includes 7, 8, 11, 12, 17, 19, 20, 22, 24) |     |
|     | 52065827 | Plate kit (includes 9, 10, 15, 16, 18, 26)               |     |
|     | 52065829 | Spring kit (includes 1-6, 21)                            |     |

## Head and Ram Illustration and Parts List—ESG105L



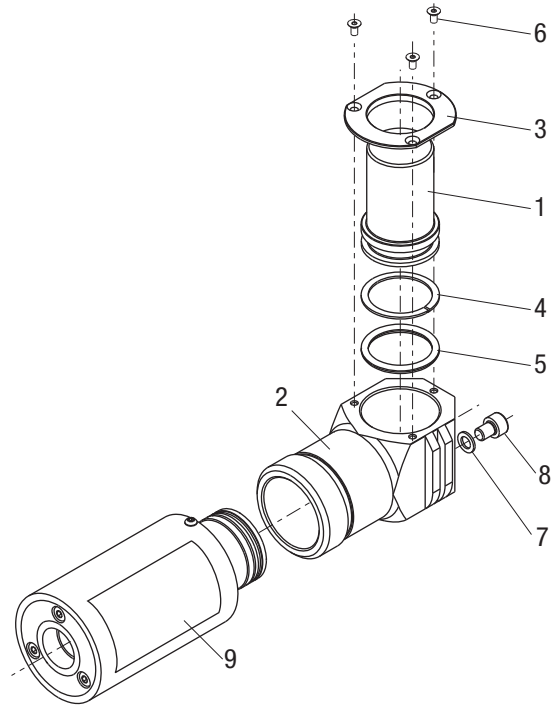
| Key | Part No.        | Description                         | Qty |
|-----|-----------------|-------------------------------------|-----|
|     | <b>52065118</b> | <b>Cutting head (includes 1–23)</b> |     |
| 1   | 52065125        | Movable cutting blade.....          | 1   |
| 2   | 52056975        | Pin .....                           | 1   |
| 3   | 52065124        | Fixed cutting blade.....            | 1   |
| 4   |                 | Cutting head base.....              | 1   |
| 5   |                 | Handle block .....                  | 1   |
| 6   |                 | Frame plate .....                   | 2   |
| 7   |                 | Spacer .....                        | 1   |
| 8   |                 | Pin guide .....                     | 1   |
| 9   |                 | Blade guide .....                   | 2   |
| 10  |                 | Socket head cap screw.....          | 1   |
| 11  |                 | End cap.....                        | 1   |
| 12  |                 | Spring, 40 mm.....                  | 2   |
| 13  |                 | Cylinder sleeve.....                | 1   |
| 14  |                 | Blade holder .....                  | 1   |
| 15  |                 | Screw .....                         | 4   |

| Key | Part No. | Description                             | Qty |
|-----|----------|---|-----|
| 16  |          | Pin .....                               | 3   |
| 17  |          | Retaining ring .....                    | 6   |
| 18  |          | Screw .....                             | 4   |
| 19  |          | Compression spring.....                 | 1   |
| 20  |          | Ball pin detent .....                   | 1   |
| 21  |          | Pin assembly .....                      | 1   |
| 22  |          | Fillister head screw.....               | 1   |
| 23  |          | Stop.....                               | 1   |
| 24  |          | O-ring .....                            | 1   |
| 25  |          | Backup ring (included in 52054906)..... | 1   |
| 26  | 50067796 | Piston                                  |     |
|     | 52065149 | Plate kit (includes 4–9)                |     |
|     | 52065150 | Spring kit (includes 10–14)             |     |
|     | 52065181 | Fastener kit (includes 2, 15–23)        |     |

## Accessories—E6CCXL and E12CCXL

### Punch Driver Adapter—UA12P Illustration and Parts List

| Key                                      | Part No. | Description  | Qty |
|--|----------|--|-----|
| <b>50118900 Punch driver adapter CCX</b> |          |  |     |
| 1  |          | Piston .....                                       | 1   |
| 2  |          | Housing .....                                      | 1   |
| 3  |          | Piston stop ring .....                             | 1   |
| 4  |          | Piston backup ring<br>(included in 52054906) ..... | 2   |
| 5  |          | O-ring (included in 52054906).....                 | 2   |
| 6  | 50041576 | Screw .....  | 3   |
| 7  |          | Lock washer.....                                   | 1   |
| 8  |          | Cap screw, M6x8 .....                              | 1   |
| 9  | 50120085 | Decal, identification.....                         | 1   |
|  | 50017420 | Seal kit, UA6P punch adapter<br>(includes 4, 5, 7) |     |



### Cylinder Assembly Illustration and Parts List

| Key                               | Part No. | Description  | Qty |
|-----------------------------------|----------|--|-----|
| <b>50017403 Cylinder assembly</b> |          |  |     |
| 1                                 | 50058282 | Ram housing .....                                  | 1   |
| 2                                 | 50049267 | Ram .....  | 1   |
| 3                                 | 50058274 | Piston .....                                       | 1   |
| 4                                 |          | Compression spring .....                           | 1   |
| 5                                 | 50041681 | Screw .....  | 2   |
| 6                                 | 50049275 | Spacer .....                                       | 3   |
| 7                                 | 50049291 | Cap screw, M4x60 .....                             | 3   |
| 8                                 |          | Piston backup ring<br>(included in 52054906) ..... | 1   |
| 9                                 |          | O-ring (included in 52054906).....                 | 1   |

