

**LABOUNTY**



# **PARTS MANUAL**

## **MSD 2500 MODEL SHEARS**

520236 8/2025 Ver. 14





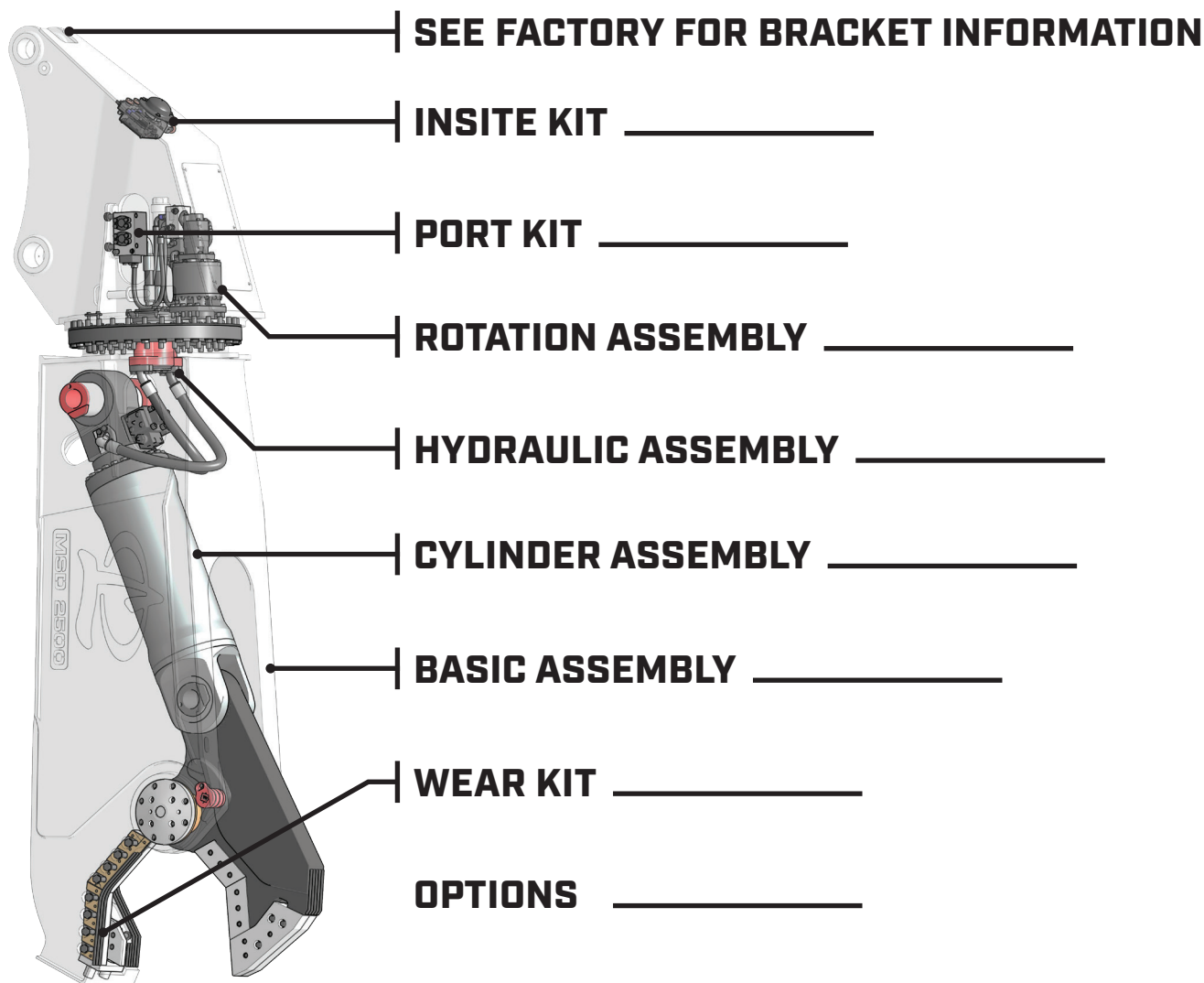
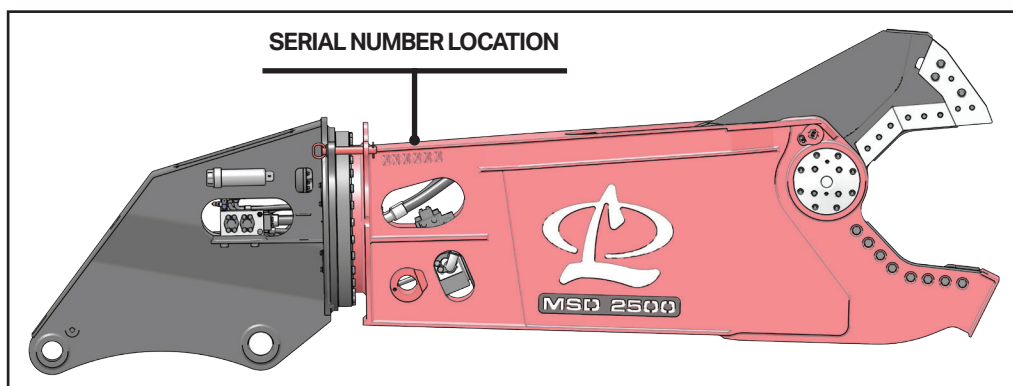
# READ THIS FIRST

This parts manual contains part diagrams for most configurations of the MSD Legend 2500 model shear. Your shear will not have all the parts listed in this manual. The information below shows the exact assembly numbers for your shear and the pages where those diagrams can be found.

If you have questions, contact LaBounty Customer Service at (833) 723-1843.

## ATTACHMENT INFORMATION

### SERIAL NUMBER



## **SAFETY FIRST**

**Read the Safety, Operation and  
Maintenance Manual before  
operating or servicing the equipment.**

**Keep the manual with the attachment  
so it is available for reference.**

This manual contains information for the safe and proper operation and maintenance of the attachment. Read the entire manual and the manual provided with the carrier machine before the initial start-up of the attachment. It is important to know the correct operating procedures of the attachment and all safety precautions to prevent the possibility of property damage and personal injury.

The LaBounty attachment has been designed and manufactured with high quality materials and care in workmanship. The instructions in this manual have been prepared to ensure that, when followed properly, the attachment will provide efficient and reliable service.

Continuing product development and improvement may have caused changes in the attachment which are not reflected in this manual. If a question arises regarding the operation or maintenance of the attachment, contact a LaBounty dealer for the most current information available.,

|                                                                                   |                                                                                                                                                  |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|  | The Safety Alert Symbol alerts you to potential personal injury hazards. Obey all safety messages that follow to avoid possible injury or death. |
|  | Indicates an imminently hazardous situation which will result in death or serious injury.                                                        |
|  | Indicates a potentially hazardous situation which could result in death or serious injury.                                                       |
|  | Indicates hazards that could result in damage to the equipment or personal injury.                                                               |
|  | Indicates important procedures.                                                                                                                  |



Your safety and the safety of others is a direct result of how you operate and maintain your equipment. Read and understand this manual and other safety information provided with the base machine and be sure that you understand all controls and operating instructions before attempting to operate this equipment. Failure to follow the safety precautions can result in personal injury, death or property damage.

Carefully read all safety messages in this manual and on your equipment safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs.

Because LaBounty cannot foresee all hazardous circumstances, the precautions listed in this manual and on the equipment are not all-inclusive. If a procedure, method, tool or part is not specifically recommended by LaBounty, determine whether it is safe for you and others, and that the equipment will not be damaged or made unsafe as a result of your decision to implement it.

The basic rules are summarized in this section of the manual. They also appear throughout the manual along with additional specific rules for safety and operation.

## GENERAL

- If the attachment is not functioning properly, shut down the machine, follow proper Lock-out / Tag-out procedures and follow proper repair procedures.
- Remove and replace any damaged or worn parts with parts recommended by LaBounty. Use of parts that are not factory approved may cause damage or unnecessary downtime and may void the warranty.
- NEVER operate equipment without the original safety guards in place.
- DO NOT process material with the attachment over the operator's cab. Doing so will result in severe personal injury or death from falling debris.
- DO NOT attempt to process brittle materials, such as axles and railroad rail. DO NOT process any material in a position that may propel it toward the operator, other workers, buildings or equipment.
- Clear all persons and equipment from the area of operation and machine movement. NEVER move loads over people or equipment. When viewing the operation of the attachment, maintain a safe distance of at least 75 feet (23 meters).
- NEVER approach power lines with any part of the machine. Keep clear at a minimum of 15 feet (5 meters).
- DO NOT close the attachment on a structure and reverse the excavator in an attempt to pull down material.
- Use of this tool on certain materials could generate dust potentially containing a variety of hazardous substances, such as, asbestos, silica or lead. Inhalation of dust containing these, or other hazardous substances could result in serious injury, cancer or death. Protect yourself and those around you. Research and understand the materials you are processing. Follow safety procedures and comply with all applicable national, state or provisional health and safety regulations relating to them. If appropriate, arrange for the safe disposal of the materials by a qualified person.
- Disassembly of any pin-connected attachment can be hazardous. NEVER remove any pin unless the attachment is on the ground and blocked up. Serious injury or death could result. Metal chips or debris may

fly when a connecting pin is struck. Use a brass drift when striking pins and always wear protective clothing and proper eye protection. Pins may fly when struck with force to drive them in or out. Always keep people clear when removing or installing pins.

- Do not operate this, or any other equipment, under the influence of drugs or alcohol.
- DO NOT modify LaBounty equipment without factory authorization. This equipment is designed to do a specific job and alterations could result in injury.
- ALWAYS lower the boom to the ground before leaving the cab. If it is necessary to work on an attachment off the ground, securely support the machine and attachment. DO NOT support the machine on cinder blocks, hollow tiles or props that may crumble under continuous load. DO NOT rely on a cylinder to hold the attachment in the air. If a control is moved or hydraulic pressure is otherwise released, the attachment may drop. DO NOT work under a machine that is supported only by a jack.
- DO NOT weld on any structural member unless specifically authorized by LaBounty. Unauthorized welding will void the warranty, may cause structural failure and could result in personal injury.
- Keep clear of potential pinch points, including the moving upper jaw, cylinder connections, bucket linkages and other moving parts.
- Before operating the attachment, read and observe all safety instructions in the Operation & Maintenance manual. If you are unfamiliar with any operation or maintenance procedure, seek instruction before proceeding.
- Inspect the attachment daily. Do not operate a poorly maintained or damaged attachment.
- Never operate a machine if an unsafe condition exists. Attach a "Do Not Operate" tag to the machine.

## BASE MACHINE

- Ensure that the cab is equipped with the proper safety guards for LaBounty applications. The cab MUST be equipped with an approved Falling Object Protection Structure (FOPS) and cab guarding. The FOPS must meet the requirements of SAE standard J1356. A transparent, shatter-resistant shield covering the front of the cab, is also required. Contact your base machine equipment dealer or manufacturer for more information on the availability of FOPS and cab guarding. Lack of proper FOPS and guards may result in injury or death.
- Avoid tipping. The attachment will alter the lift capacities of the base machine. DO NOT overload the excavator or serious injury could result. Lift capacities will vary if the base machine is not on level ground. Lifting incorrectly can cause severe injury or machine damage. Use the recommended excavator counterweight. Use short slings and lift the load only as high as necessary.
- DO NOT allow riders on the machine. Riders are

subject to serious injuries, such as being struck by foreign objects or being thrown off the machine. Riders also distract and obstruct the operator, resulting in the machine being operated in an unsafe manner. NEVER use the attachment as a work platform or personnel carrier.

- Check ground conditions before operating. Avoid unstable or slippery areas and position the base machine on firm, level ground. If level ground is not possible, position the base machine to use the attachment to the front or back of the carrier. Avoid working over the side of the base machine.

## SAFELY OPERATE EQUIPMENT

- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool or attachment unless thoroughly trained or under the supervision of a qualified operator or instructor.
- Know and obey all OSHA regulations, local laws, and other professional guidelines for your operation.
- Know your work site safety rules. When in doubt on any safety issue, contact your supervisor or safety coordinator.
- Assess risks to yourself and others around you before operating the tool or attachment. Start in a work area without bystanders and assess the risks to bystanders including, but not limited to, the risk of serious injury or death caused by the tool or accessories dropped from an elevated height.
- Do not operate the equipment from anywhere other than the correct operator's position.
- Do not alter or remove any safety feature from the excavator or attachment.
- Stay alert, watch what you are doing and use common sense when operating the tool. Do not operate the tool or attachment if you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating the tool may result in serious injury.

## HYDRAULIC

- Do not operate at temperatures above 120°F or below -10° F (-23° C).
- Use only clean hydraulic oil, filling equipment, and lubricants.
- Hydraulic oil becomes hot during operation. DO NOT come in contact with hot hydraulic oil as it could cause severe burns. Wear adequate protective clothing and safety equipment.
- DO NOT tamper with hydraulic lines or components while they are pressurized. Escaping fluid under pressure can penetrate the skin, causing serious injury. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard to search for leaks. If ANY fluid is injected into the skin, seek immediate medical assistance.



## **PPE**

- ALWAYS wear close-fitting clothing and safety equipment appropriate to the job. Safety equipment should be worn at all times when viewing, operating or maintaining the attachment. Safety equipment includes eye protection, hard hat, steel toe shoes, gloves, hearing protection and respirator.

## **INSITE COMPLIANCE**

- This device can be expected to comply with Part 15 of the FCC Rules provided it is assembled in exact accordance with the instructions provided with this kit. Operation is subject to the following conditions:
  1. this device may not cause harmful interference, and
  2. this device must accept any interference received including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- 
- This device complies with Industry Canada ICES-003 standard(s). Operation is subject to the following two conditions:
  1. This device may not cause harmful interference, and
  2. This device must accept any interference received, including interference that may cause undesired operation.

## **INSITE ELECTRICAL**

- Never open any InSite component or attempt to access the inside of any component. Risk of electric shock. If you suspect tool damage, contact your dealer for service.
- Do not use damaged cords or plugs with this tool. Damaged cords increase the risk of electric shock. Check all cords and plugs regularly.
- To reduce the risk of electric shock, disconnect and lock-out / tag-out all electrical power sources before attempting to install or clean the tool.
- Do not weld on the attachment or excavator with InSite connected to power. Damage to the InSite electronics may result. Disconnect the InSite power cable before welding.

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INSITE KITS

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227854

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227866

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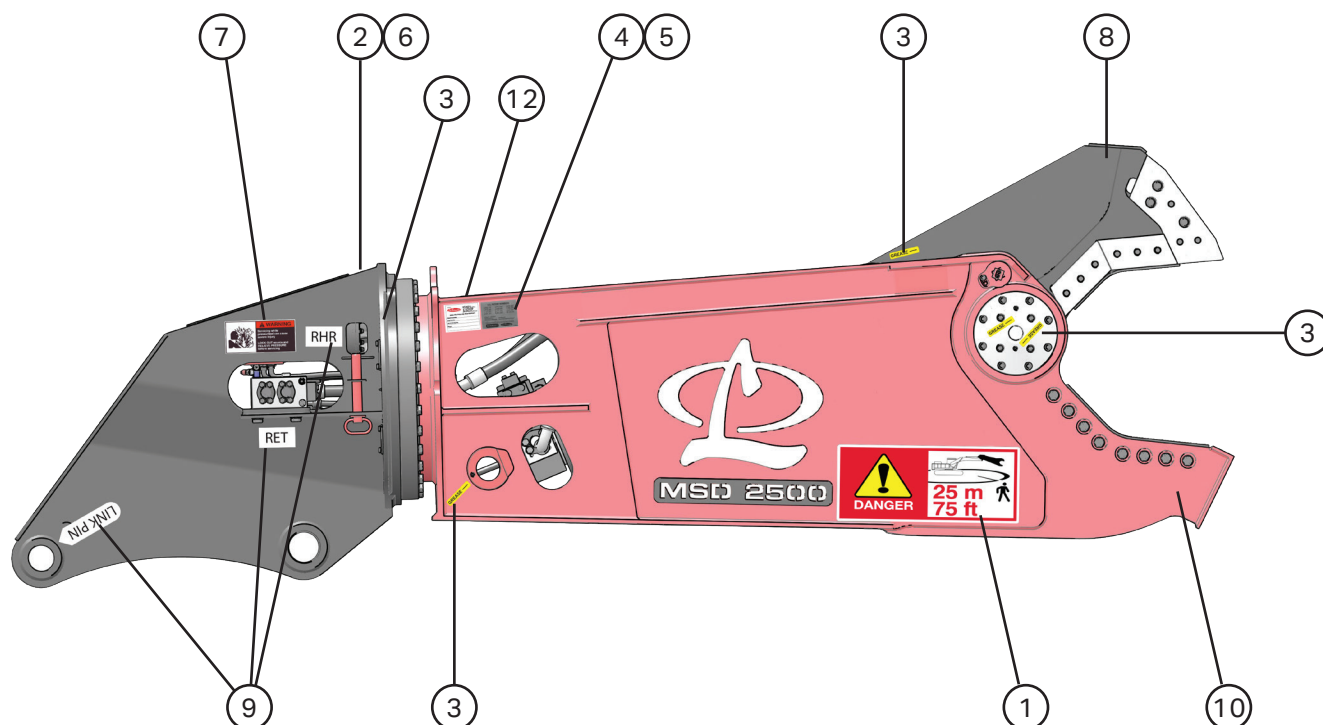
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# DECALS



| Decal List |             |                               |     |
|------------|-------------|-------------------------------|-----|
| Item       | Part Number | Description                   | Qty |
| 1          | 116389      | EBLM WRNG 75' 13" X 30"       | 2   |
| 2          | 503647      | EBLM WRNG CAB GUARD           | 1   |
| 3          | 116388      | EBLM GREASE YELLOW&BLACK      | 13  |
| 4          | 511045      | EBLM PLT MODEL/SN             | 1   |
| 5          | 116404      | EBLM PLT PATN METAL           | 1   |
| 6          | 512554      | EBLM NOTICE CYLINDER BLEED    | 2   |
| 7          | 512572      | EBLM WRNG PRESSURE RELIEF     | 2   |
| 8          | 512713      | EBLM NOSE BUILD-UP            | 1   |
| 9          | 513800      | KIT EBLM ROT DECALS           | 1   |
| 10         | 513886      | EBLM WELD HARD SRF W/ AMALLOY | 1   |
| 12         | 516648      | EBLM INSITE 12" X 4.33"       | 1   |
| 13         | 229034      | ASSY TUBE MAIL 12" X 3.25"    | 1   |

# BASIC ASSEMBLY

**223705 REV. 6**

This exploded view diagram illustrates the assembly of a mechanical component, likely a pump or motor housing. The main housing (38) is the central component. Key parts include:

- Shaft and Coupling:** A shaft (22) passes through the housing, with a coupling (1) and a pulley (3) mounted on it. A bracket (A) is shown at the top right.
- Gears and Belts:** A gear (7) is mounted on the shaft, and a belt (36) is shown around it. A pulley (3) is also shown.
- Fasteners:** Numerous screws (28), bolts (26), and washers (24) are shown, along with a large number of screws (30) used to secure the base plate (9).
- Other Components:** A red ring (19), a red cap (32), a red cap (33), a red cap (35), a red cap (36), a red cap (37), a red cap (38), a red cap (39), a red cap (40), a red cap (41), a red cap (42), a red cap (43), a red cap (44), a red cap (45), a red cap (46), a red cap (47), a red cap (48), a red cap (49), a red cap (50), a red cap (51), a red cap (52), a red cap (53), a red cap (54), a red cap (55), a red cap (56), a red cap (57), a red cap (58), a red cap (59), a red cap (60), a red cap (61), a red cap (62), a red cap (63), a red cap (64), a red cap (65), a red cap (66), a red cap (67), a red cap (68), a red cap (69), a red cap (70), a red cap (71), a red cap (72), a red cap (73), a red cap (74), a red cap (75), a red cap (76), a red cap (77), a red cap (78), a red cap (79), a red cap (80), a red cap (81), a red cap (82), a red cap (83), a red cap (84), a red cap (85), a red cap (86), a red cap (87), a red cap (88), a red cap (89), a red cap (90), a red cap (91), a red cap (92), a red cap (93), a red cap (94), a red cap (95), a red cap (96), a red cap (97), a red cap (98), a red cap (99), a red cap (100).



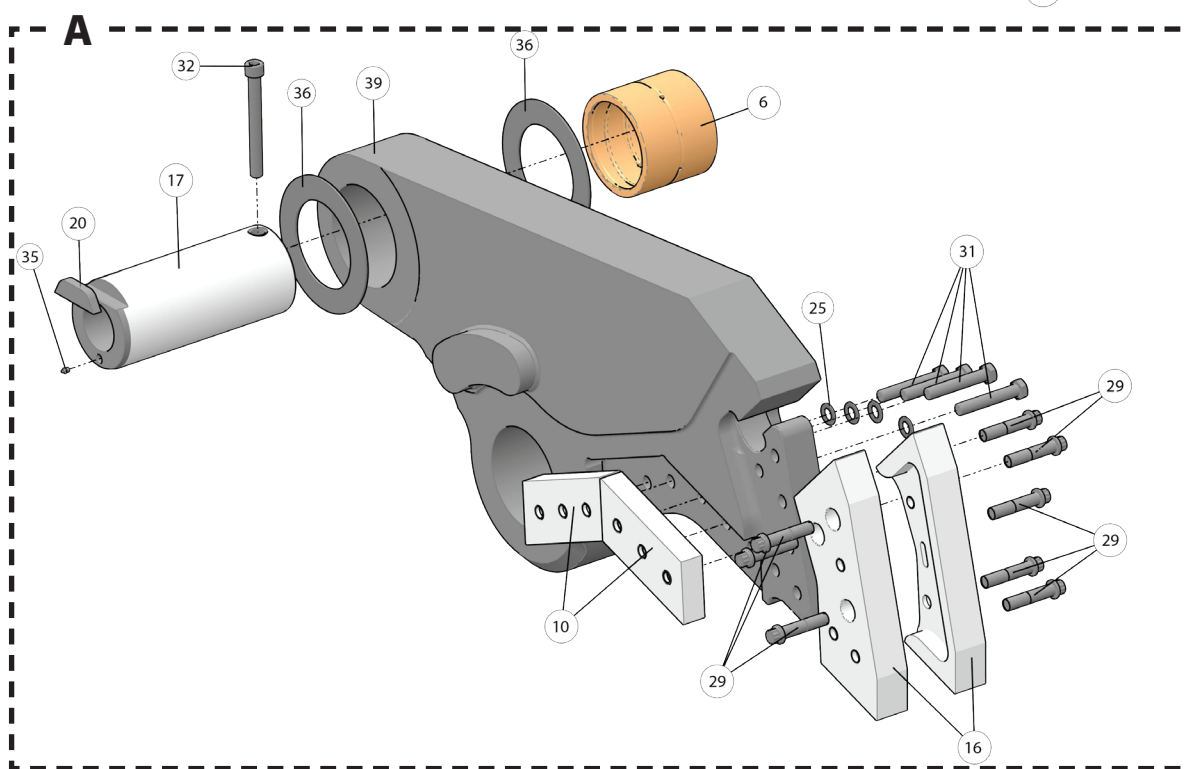
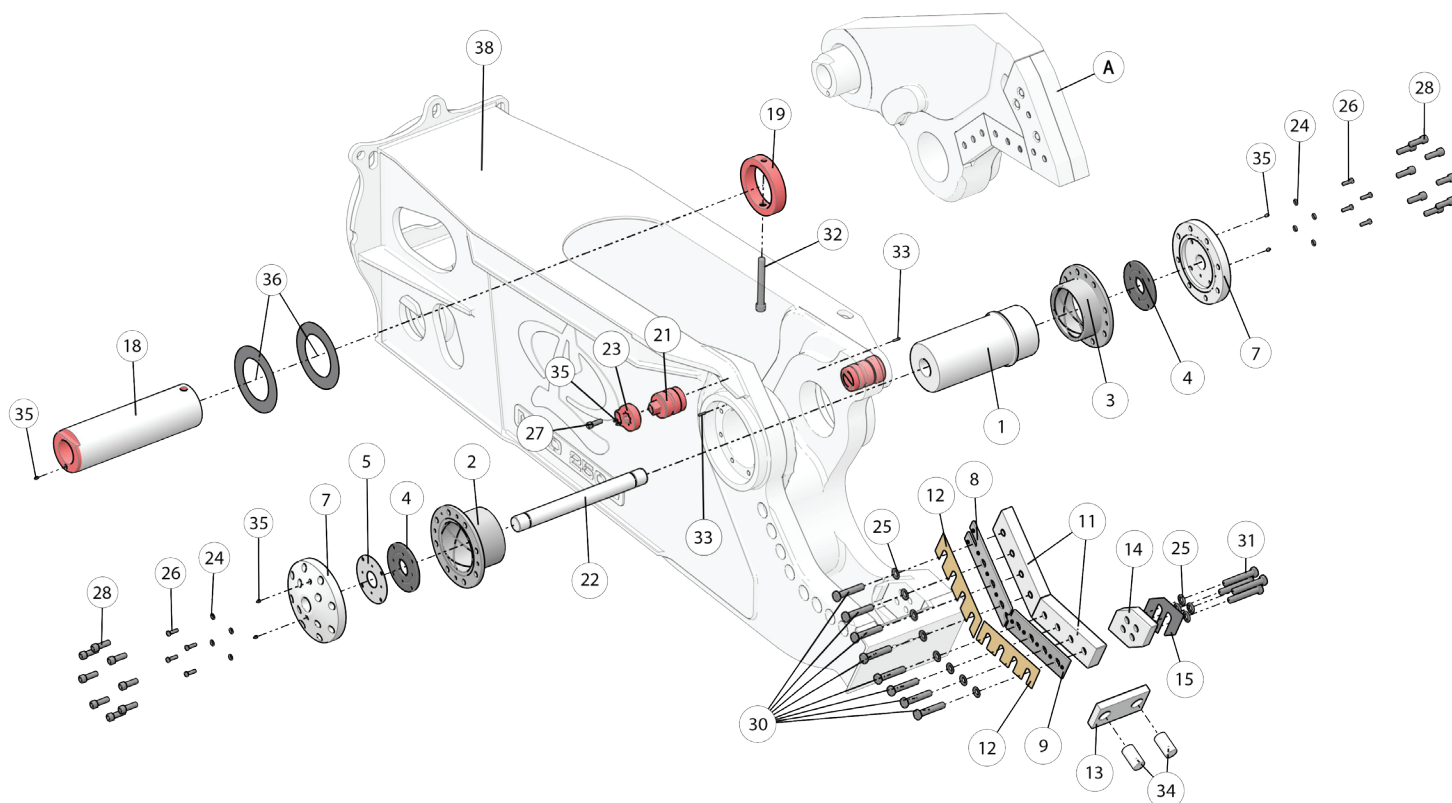


Basic Assembly 223705 Parts List

| Item | Part Number | Description                     | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------------------------|-----------------|------------------------|---------|-----|
| 1    | 223742      | Shaft                           | -               | -                      | -       | 1   |
| 2    | 516436      | Bearing                         | -               | -                      | -       | 1   |
| 3    | 516437      | Bearing                         | -               | -                      | -       | 1   |
| 4    | 516438      | Thrust Washer                   | -               | -                      | -       | 2   |
| 5    | 140394      | Shim                            | -               | -                      | -       | 1   |
| 6    | 516596      | Bushing                         | -               | -                      | -       | 1   |
| 7    | 164922      | End Cap                         | -               | -                      | -       | 2   |
| 8    | See Factory | Primary Adjustment Plate        | -               | -                      | -       | 1   |
| 9    | See Factory | Secondary Adjustment Plate      | -               | -                      | -       | 1   |
| 10   | 516594      | Blade                           | -               | -                      | -       | 2   |
| 11   | 516593      | Blade                           | -               | -                      | -       | 2   |
| 12   | 516595      | Shim Kit                        | -               | -                      | -       | 2   |
| 13   | 514631      | Cross Blade                     | -               | -                      | -       | 1   |
| 14   | 511992      | Guide Blade                     | -               | -                      | -       | 1   |
| 15   | 510765      | Guide Blade Shim Kit            | -               | -                      | -       | 1   |
| 16   | 223741      | Piercing Tip Blade              | -               | -                      | -       | 2   |
| 17   | 174679      | Front Pin                       | -               | -                      | -       | 1   |
| 18   | 164845      | Rear Pin                        | -               | -                      | -       | 1   |
| 19   | 175176      | Collar                          | -               | -                      | -       | 1   |
| 20   | 164846      | Stop Plate                      | -               | -                      | -       | 1   |
| 21   | 193933      | Slide Screw                     | -               | -                      | -       | 2   |
| 22   | 163688      | Tie Rod                         | -               | -                      | -       | 1   |
| 23   | 223649      | Lock Plate                      | -               | -                      | -       | 2   |
| 24   | 501446      | Washer                          | M12             | -                      | -       | 8   |
| 25   | 501445      | Washer                          | M24             | -                      | -       | 16  |
| 26   | 502493      | Cap Screw                       | M12 x 1.75 x 40 | 71 (95)                | 242     | 8   |
| 27   | 514815      | Cap Screw                       | M16 x 2 x 50    | 210 (280)              | 262     | 2   |
| 28   | 503573      | Cap Screw                       | M20 x 2.5 x 60  | 400 (550)              | 243     | 16  |
| 29   | 516311      | Bolt                            | M24 x 3 x 110   | 900 (1,200)            | -       | 8   |
| 30   | 501626      | Cap Screw                       | M24 x 3 x 120   | 900 (1,200)            | -       | 8   |
| 31   | 501732      | Cap Screw                       | M24 x 3 x 140   | 900 (1,200)            | -       | 8   |
| 32   | 512587      | Cap Screw                       | M24 x 3 x 220   | 580 (780)              | 277     | 2   |
| 33   | 511086      | Dowel Pin                       | -               | -                      | -       | 2   |
| 34   | 512390      | Dowel Pin                       | -               | -                      | -       | 2   |
| 35   | 503857      | Grease Fitting                  | -               | -                      | -       | 10  |
| 36   | 512499      | Shim                            | -               | -                      | -       | 4   |
| 37   | 227066      | Label and Decal Kit (Not Shown) | -               | -                      | -       | 1   |
| 38   | See Factory | Stick                           | -               | -                      | -       | 1   |
| 39   | See Factory | Upper Weldment                  | -               | -                      | -       | 1   |

**231802 REV. 1**

\* See factory for bracket information



Basic Assembly 231802 Parts List

| Item | Part Number | Description                     | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------------------------|-----------------|------------------------|---------|-----|
| 1    | 223742      | Shaft                           | -               | -                      | -       | 1   |
| 2    | 516436      | Bearing                         | -               | -                      | -       | 1   |
| 3    | 516437      | Bearing                         | -               | -                      | -       | 1   |
| 4    | 516438      | Thrust Washer                   | -               | -                      | -       | 2   |
| 5    | 140394      | Shim                            | -               | -                      | -       | 1   |
| 6    | 516596      | Bushing                         | -               | -                      | -       | 1   |
| 7    | 164922      | End Cap                         | -               | -                      | -       | 2   |
| 8    | See Factory | Primary Adjustment Plate        | -               | -                      | -       | 1   |
| 9    | See Factory | Secondary Adjustment Plate      | -               | -                      | -       | 1   |
| 10   | 519853      | Blade                           | -               | -                      | -       | 2   |
| 11   | 519854      | Blade                           | -               | -                      | -       | 2   |
| 12   | 516595      | Shim Kit                        | -               | -                      | -       | 2   |
| 13   | 514631      | Cross Blade                     | -               | -                      | -       | 1   |
| 14   | 511992      | Guide Blade                     | -               | -                      | -       | 1   |
| 15   | 510765      | Guide Blade Shim Kit            | -               | -                      | -       | 1   |
| 16   | 223741      | Piercing Tip Blade              | -               | -                      | -       | 2   |
| 17   | 174679      | Front Pin                       | -               | -                      | -       | 1   |
| 18   | 164845      | Rear Pin                        | -               | -                      | -       | 1   |
| 19   | 175176      | Collar                          | -               | -                      | -       | 1   |
| 20   | 164846      | Stop Plate                      | -               | -                      | -       | 1   |
| 21   | 193933      | Slide Screw                     | -               | -                      | -       | 2   |
| 22   | 163688      | Tie Rod                         | -               | -                      | -       | 1   |
| 23   | 223649      | Lock Plate                      | -               | -                      | -       | 2   |
| 24   | 501446      | Washer                          | M12             | -                      | -       | 8   |
| 25   | 501445      | Washer                          | M24             | -                      | -       | 16  |
| 26   | 502493      | Cap Screw                       | M12 x 1.75 x 40 | 71 (95)                | 243     | 8   |
| 27   | 514815      | Cap Screw                       | M16 x 2 x 50    | 210 (280)              | -       | 2   |
| 28   | 503573      | Cap Screw                       | M20 x 2.5 x 60  | 400 (550)              | 243     | 16  |
| 29   | 516311      | Bolt                            | M24 x 3 x 110   | 900 (1,200)            | -       | 8   |
| 30   | 501626      | Cap Screw                       | M24 x 3 x 120   | 900 (1,200)            | -       | 8   |
| 31   | 501732      | Cap Screw                       | M24 x 3 x 140   | 900 (1,200)            | -       | 8   |
| 32   | 512587      | Cap Screw                       | M24 x 3 x 220   | 580 (780)              | 262     | 2   |
| 33   | 511086      | Dowel Pin                       | -               | -                      | -       | 2   |
| 34   | 512390      | Dowel Pin                       | -               | -                      | -       | 2   |
| 35   | 503857      | Grease Fitting                  | -               | -                      | -       | 10  |
| 36   | 512499      | Shim                            | -               | -                      | -       | 4   |
| 37   | 227066      | Label and Decal Kit (Not Shown) | -               | -                      | -       | 1   |
| 38   | See Factory | Stick                           | -               | -                      | -       | 1   |
| 39   | See Factory | Upper Weldment                  | -               | -                      | -       | 1   |

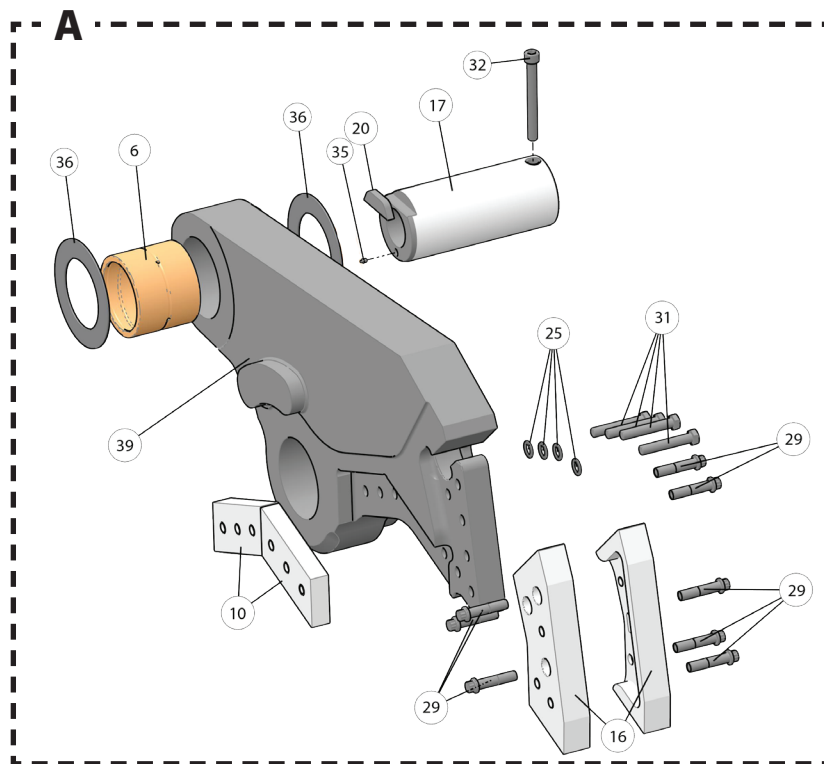
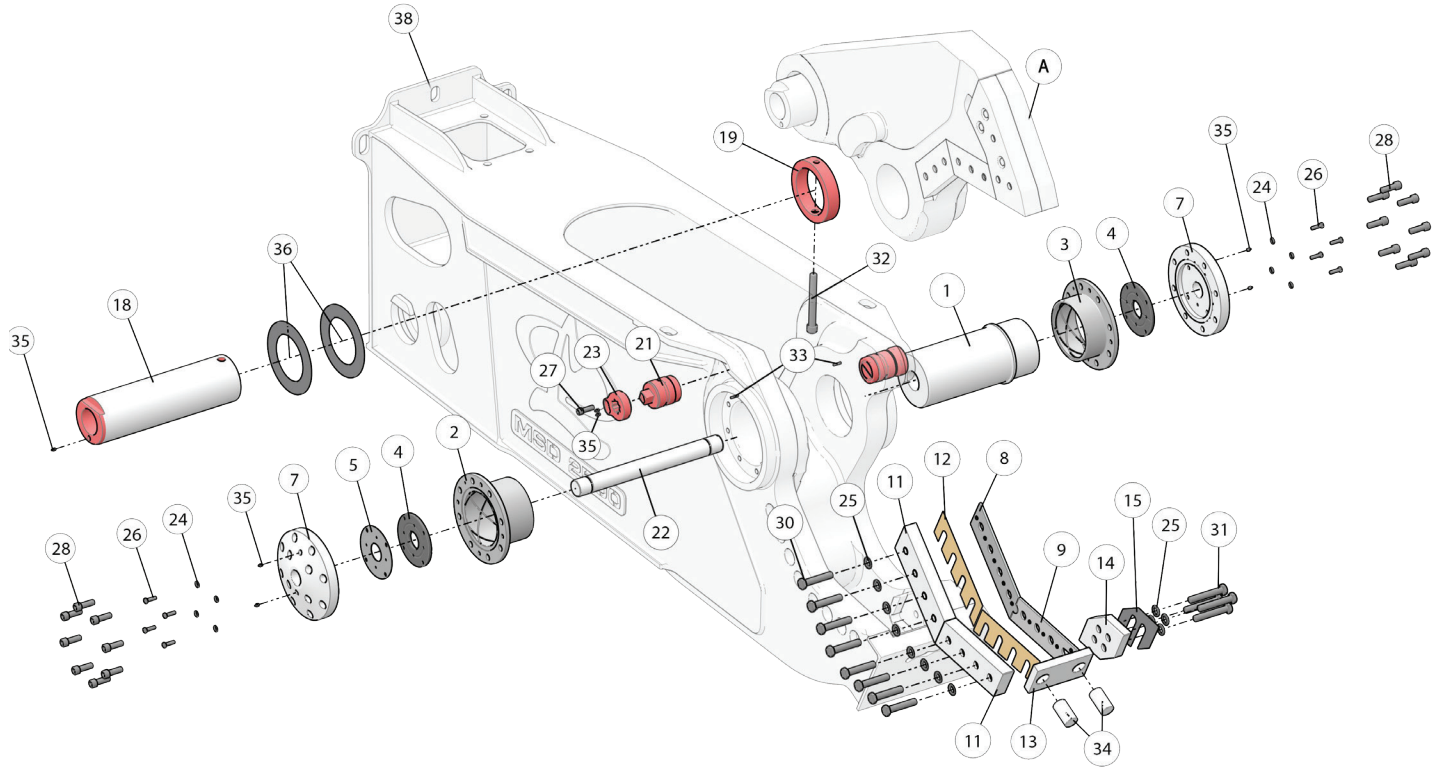
# BASIC ASSEMBLY - NON-ROTATING SHEAR

[See "Read this first" on page 3]

227208 REV. 7

BASIC  
ASSEMBLY

\* See factory for bracket information



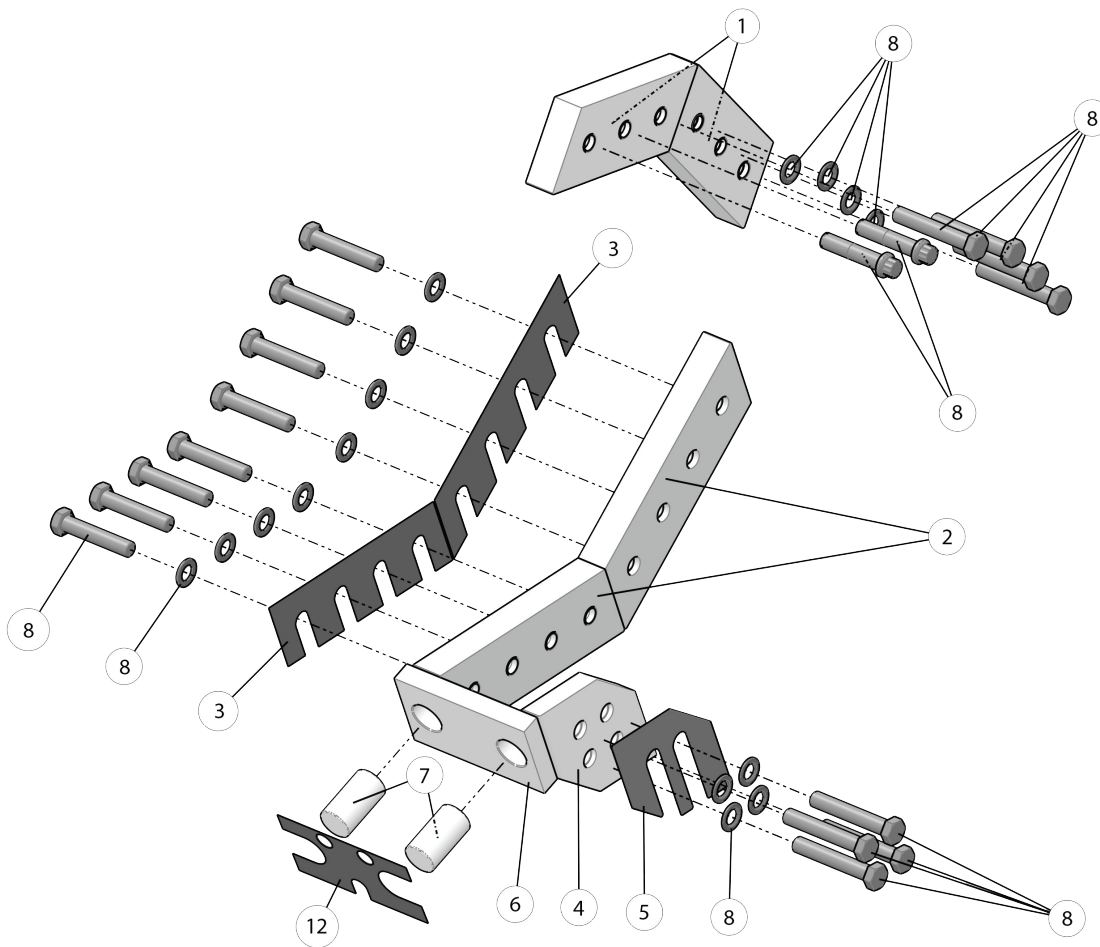
Basic Assembly 227208 Parts List

| Item | Part Number | Description                    | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|--------------------------------|-----------------|------------------------|---------|-----|
| 1    | 223742      | Shaft                          | -               | -                      | -       | 1   |
| 2    | 516436      | Bearing                        | -               | -                      | -       | 1   |
| 3    | 516437      | Bearing                        | -               | -                      | -       | 1   |
| 4    | 516438      | Thrust Washer                  | -               | -                      | -       | 2   |
| 5    | 140394      | Shim                           | -               | -                      | -       | 1   |
| 6    | 516596      | Bushing                        | -               | -                      | -       | 1   |
| 7    | 164922      | End Cap                        | -               | -                      | -       | 2   |
| 8    | See Factory | Primary Adjustment Plate       | -               | -                      | -       | 1   |
| 9    | See Factory | Secondary Adjustment Plate     | -               | -                      | -       | 1   |
| 10   | 516594      | Blade                          | -               | -                      | -       | 2   |
| 11   | 516593      | Blade                          | -               | -                      | -       | 2   |
| 12   | 516595      | Shim Kit                       | -               | -                      | -       | 2   |
| 13   | 514631      | Cross Blade                    | -               | -                      | -       | 1   |
| 14   | 511992      | Guide Blade                    | -               | -                      | -       | 1   |
| 15   | 510765      | Guide Blade Shim Kit           | -               | -                      | -       | 1   |
| 16   | 223741      | Piercing Tip Blade             | -               | -                      | -       | 2   |
| 17   | 174679      | Pin                            | -               | -                      | -       | 1   |
| 18   | 164845      | Rear Pin                       | -               | -                      | -       | 1   |
| 19   | 175176      | Collar                         | -               | -                      | -       | 1   |
| 20   | 164846      | Stop Plate                     | -               | -                      | -       | 1   |
| 21   | 193933      | Slide Screw                    | -               | -                      | -       | 2   |
| 22   | 163688      | Tie Rod                        | -               | -                      | -       | 1   |
| 23   | 223649      | Lock Plate                     | -               | -                      | -       | 2   |
| 24   | 501446      | Washer                         | M12             | -                      | -       | 8   |
| 25   | 501445      | Washer                         | M24             | -                      | -       | 16  |
| 26   | 502493      | Cap Screw                      | M12 x 1.75 x 40 | 71 (95)                | 243     | 8   |
| 27   | 514815      | Cap Screw                      | M16 x 2 x 50    | 210 (280)              | 262     | 2   |
| 28   | 503573      | Cap Screw                      | M20 x 2.50 x 60 | 400 (550)              | 243     | 16  |
| 29   | 516311      | Bolt                           | M24 x 3 x 110   | 900 (1,200)            | -       | 8   |
| 30   | 501626      | Cap Screw                      | M24 x 3 x 120   | 900 (1,200)            | -       | 8   |
| 31   | 501732      | Cap Screw                      | M24 x 3 x 140   | 900 (1,200)            | -       | 8   |
| 32   | 512587      | Cap Screw                      | M24 x 3 x 220   | 580 (780)              | 277     | 2   |
| 33   | 511086      | Dowel Pin                      | -               | -                      | -       | 2   |
| 34   | 512390      | Dowel Pin                      | -               | -                      | -       | 2   |
| 35   | 503857      | Grease Fitting                 | -               | -                      | -       | 10  |
| 36   | 512499      | Shim                           | -               | -                      | -       | 4   |
| 37   | 227066      | Label and Deal Kit (Not Shown) | -               | -                      | -       | 1   |
| 38   | See factory | Stick                          | -               | -                      | -       | 1   |
| 39   | See factory | Upper Weldment                 | -               | -                      | -       | 1   |

**FULL BLADE REPLACEMENT KIT**

[See “Read this first” on page 3]

Full blade kits contain all the parts of the Cutting Blade Kit and the Tip Blade Kit. Use part number 227085 for the full Blade Kit.

**CUTTING BLADE KIT  
227086 REV. 2**

Cutting Blade Kit 227086 Parts List

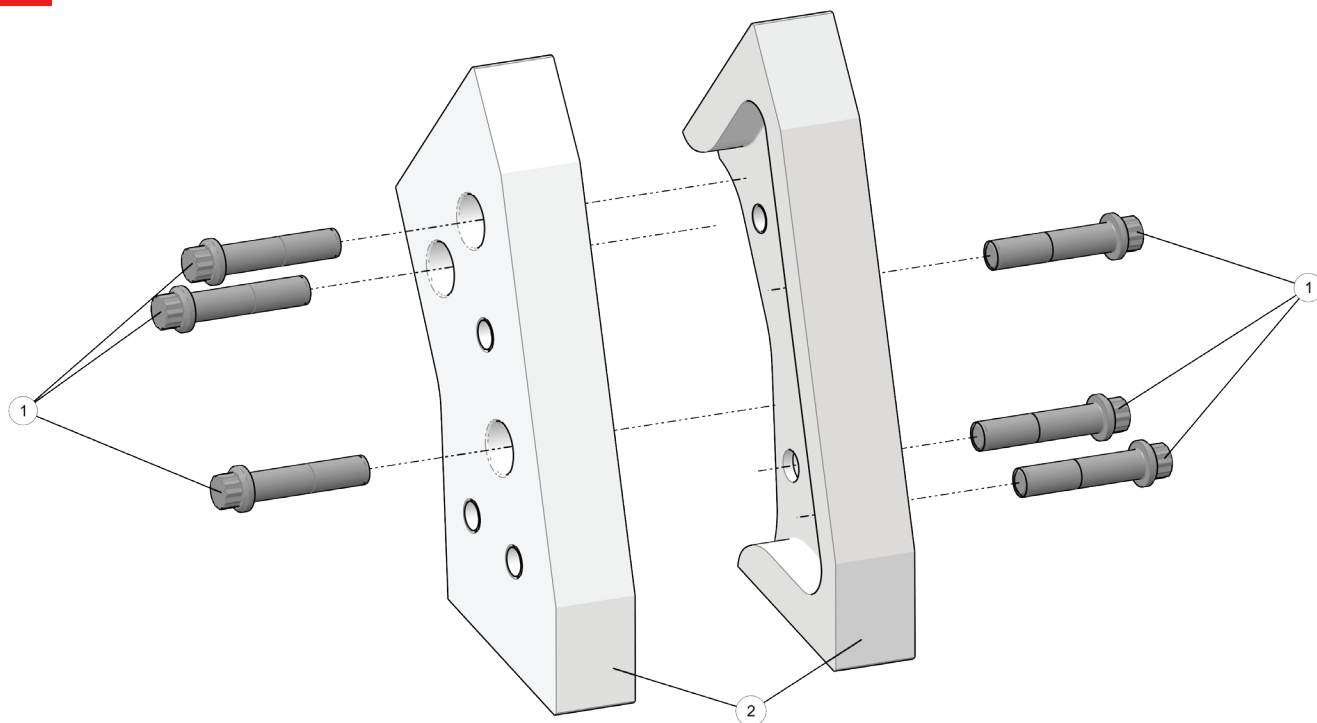
| Item | Part Number | Description | Size | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|------|------------------------|---------|-----|
| 1    | 516594      | Blade       | -    | -                      | -       | 2   |
| 2    | 516593      | Blade       | -    | -                      | -       | 2   |
| 3    | 516595      | Shim Kit    | -    | -                      | -       | 2   |
| 4    | 511992      | Guide Blade | -    | -                      | -       | 1   |
| 5    | 510765      | Shim Kit    | -    | -                      | -       | 1   |
| 6    | 514631      | Cross Blade | -    | -                      | -       | 1   |
| 7    | 512390      | Dowel Pin   | -    | -                      | -       | 2   |
| 8    | 518100      | Bolt Kit    | -    | -                      | -       | 1   |
| 12   | 514638      | Shim        | -    | -                      | -       | 1   |



# **TIP BLADE KIT**

[See “Read this first” on page 3]

## **227087 REV. 1**



Tip Blade Kit 227087 Parts List

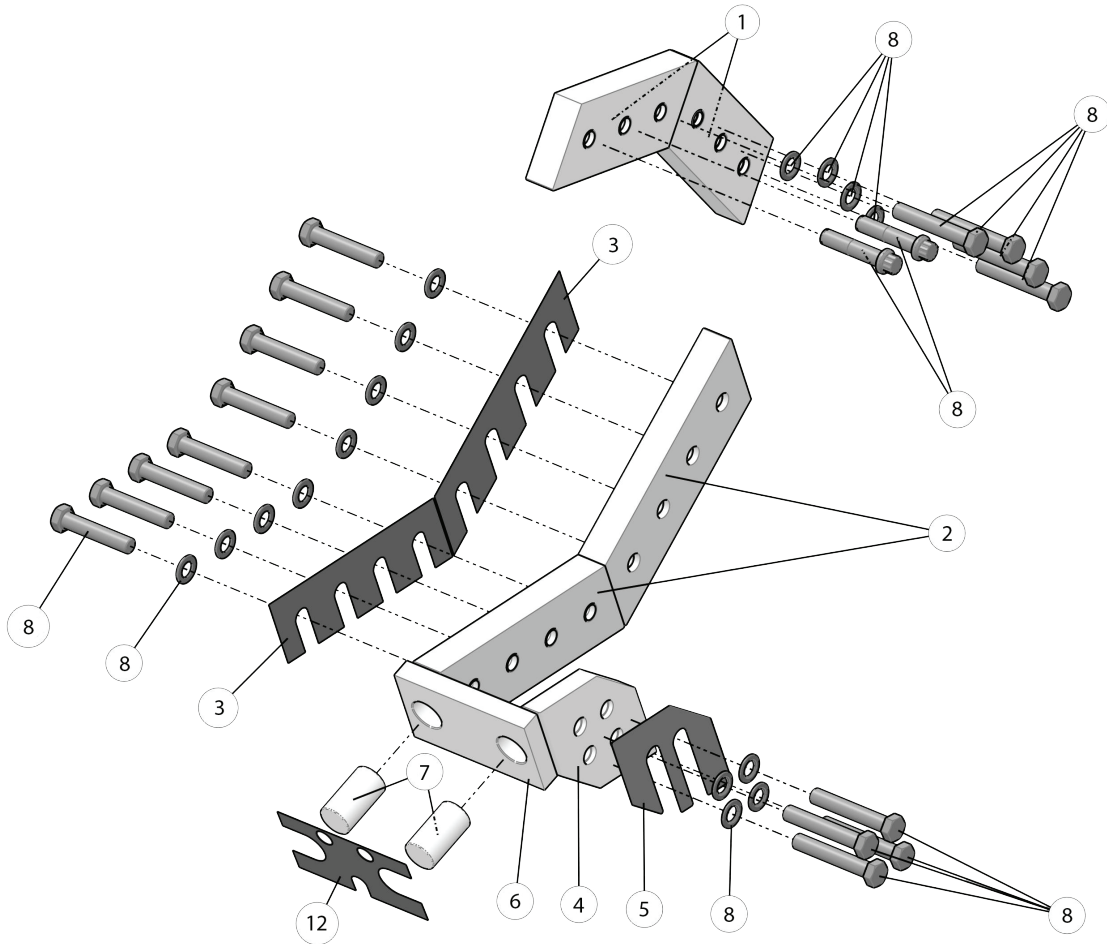
| Item | Part Number | Description | Size          | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|---------------|------------------------|---------|-----|
| 1    | 223741      | Blade       | -             | -                      | -       | 2   |
| 2    | 518102      | Bolt Kit    | M24 x 3 x 110 | 900 (1,200)            | -       | 1   |

# FULL BLADE REPLACEMENT KIT

[See "Read this first" on page 3]

Full blade kits contain all the parts of the Cutting Blade Kit and the Tip Blade Kit. Use part number 231654 for the full Blade Kit.

## CUTTING BLADE KIT 231655 REV. 1



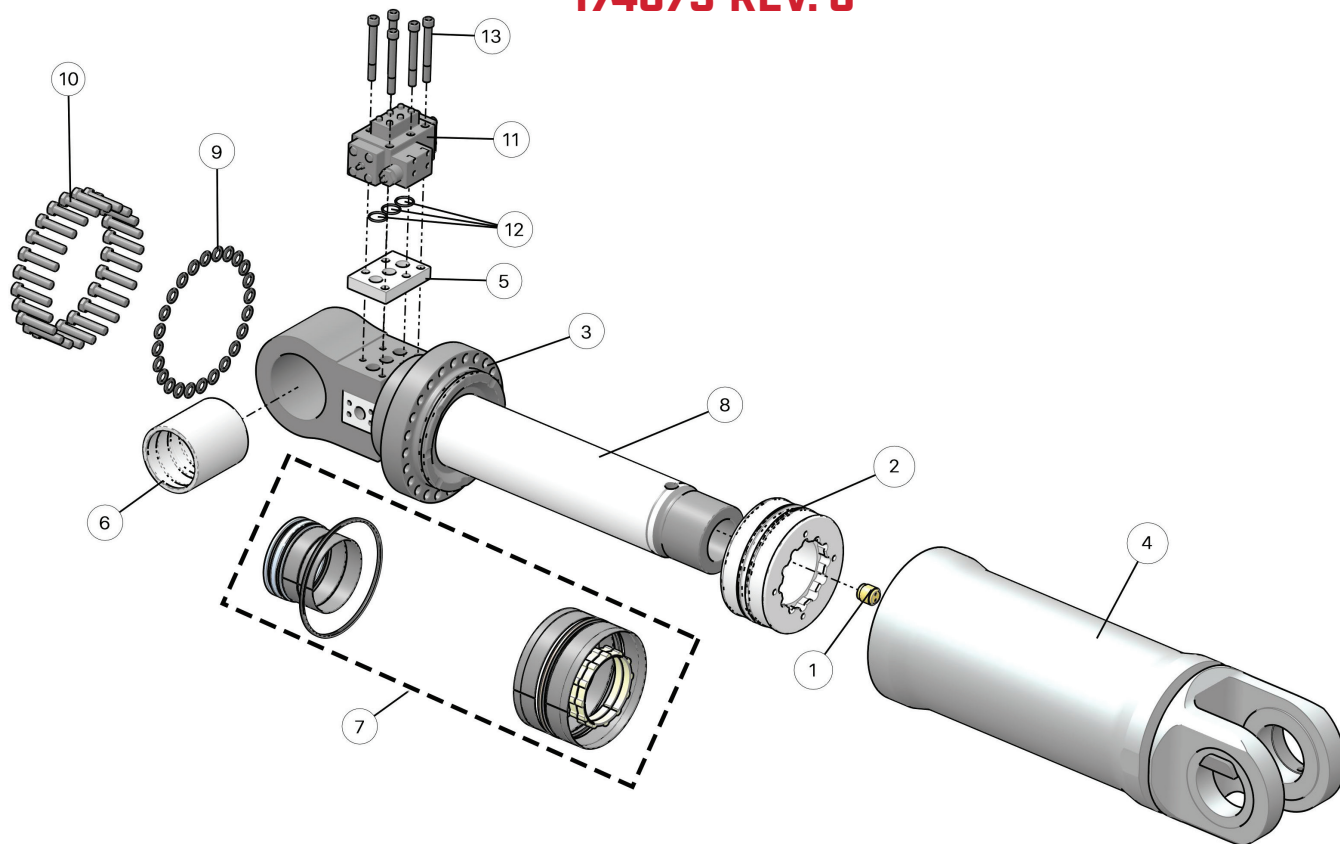
Cutting Blade Kit 231655 Parts List

| Item | Part Number | Description | Size | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|------|------------------------|---------|-----|
| 1    | 519853      | Blade       | -    | -                      | -       | 2   |
| 2    | 519854      | Blade       | -    | -                      | -       | 2   |
| 3    | 516595      | Shim Kit    | -    | -                      | -       | 2   |
| 4    | 511992      | Guide Blade | -    | -                      | -       | 1   |
| 5    | 510765      | Shim Kit    | -    | -                      | -       | 1   |
| 6    | 514631      | Cross Blade | -    | -                      | -       | 1   |
| 7    | 512390      | Dowel Pin   | -    | -                      | -       | 2   |
| 8    | 518100      | Bolt Kit    | -    | -                      | -       | 1   |
| 12   | 514638      | Shim        | -    | -                      | -       | 1   |



# CYLINDER

## CYLINDER [See "Read this first" on page 3] 174673 REV. 6



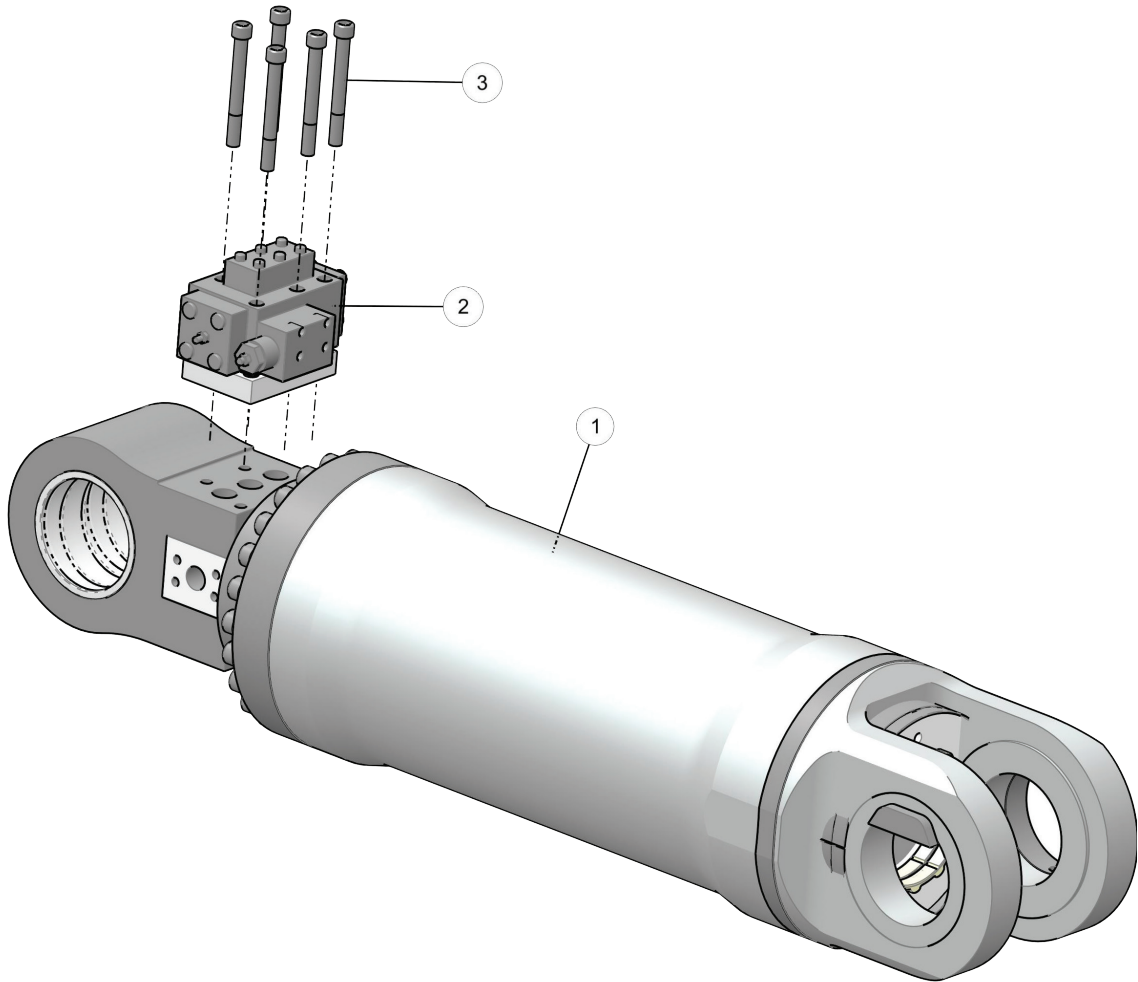
CYLINDER

Cylinder 174673 Parts List

| Item | Part Number | Description               | Size            | Torque<br>Ft. Lbs (Nm)     | Loctite | Qty |
|------|-------------|---------------------------|-----------------|----------------------------|---------|-----|
| 1    | 158806      | Plug                      | -               | -                          | -       | 1   |
| 2    | 164894      | Piston Machining          | -               | 14,900 +/- 300<br>(20,200) | -       | 1   |
| 3    | 172195      | Head                      | -               | -                          | -       | 1   |
| 4    | 174677      | Tube Assembly             | -               | -                          | -       | 1   |
| 5    | 163332      | Spacer                    | -               | -                          | -       | 1   |
| 6    | 164727      | Bushing                   | -               | -                          | -       | 1   |
| 7    | 172196      | Seal Kit (see page 24)    | -               | -                          | -       | 1   |
| 8    | 174674      | Rod                       | -               | -                          | -       | 1   |
| 9    | 501445      | Washer                    | M24             | -                          | -       | 24  |
| 10   | 510824      | Cap Screw                 | M24 x 3 x 110   | 750 (1016)                 | -       | 24  |
| 11   | 513029      | Regen Valve (see page 25) | -               | -                          | -       | 1   |
| 12   | 500101      | Seal                      | -               | -                          | -       | 3   |
| 13   | 512046      | Cap Screw<br>Torque to    | M20 x 2.5 x 180 | 370 (500)                  | -       | 5   |

**CYLINDER ASSEMBLY**

[See "Read this first" on page 3]

**223792 REV. 2**

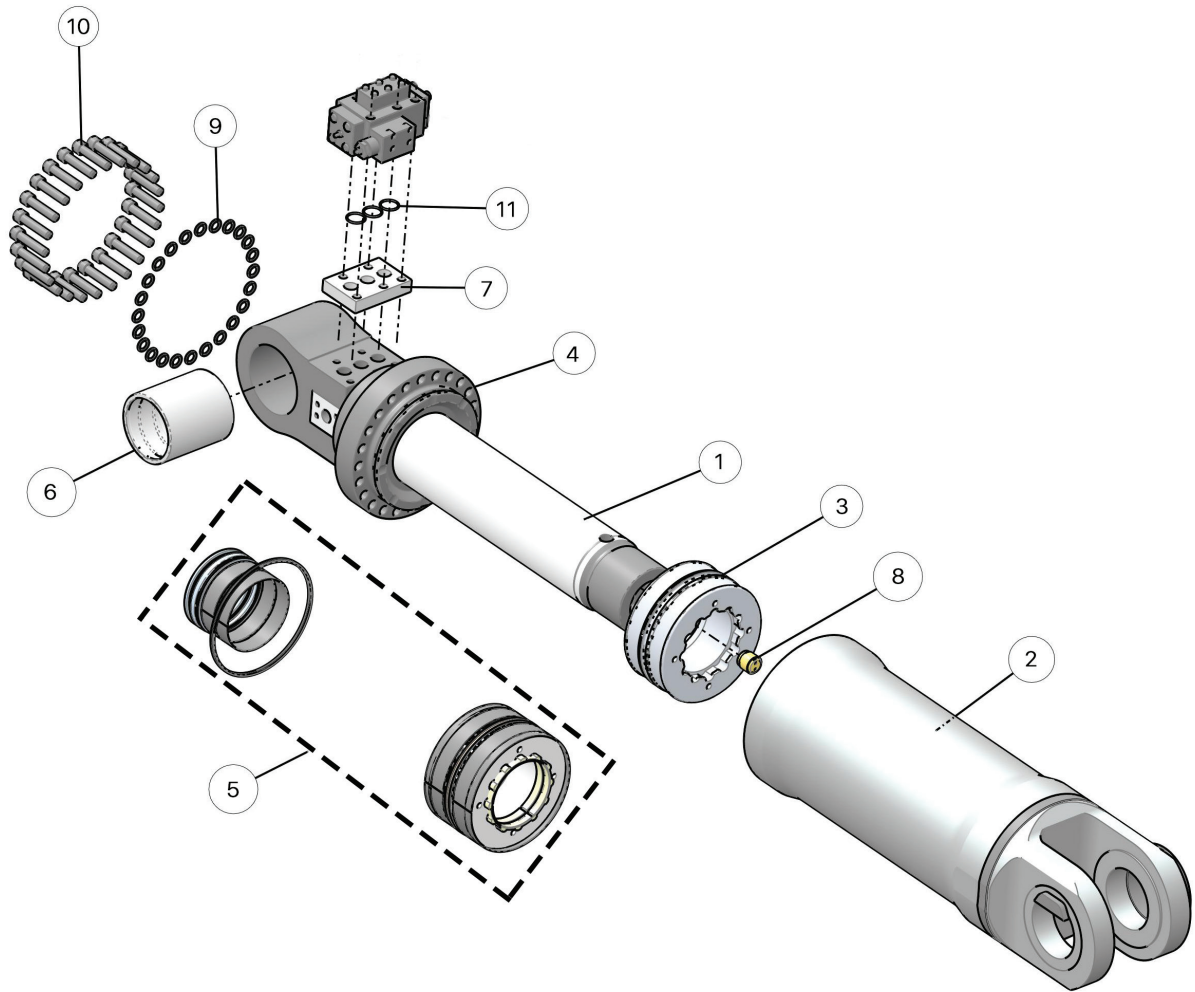
Cylinder 223792 Parts List

| Item | Part Number | Description               | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------------------|-----------------|------------------------|---------|-----|
| 1    | 516321      | Cylinder (See page 23)    | -               | -                      | -       | 1   |
| 2    | 513029      | Regen Valve (See page 25) | -               | -                      | -       | 1   |
| 3    | 512046      | Cap Screw                 | M20 x 2.5 x 180 | 370 (500)              | 243     | 1   |

# CYLINDER

[See “Read this first” on page 3]

## 516321 REV. 2



CYLINDER

Cylinder 516321 Parts List

| Item | Part Number | Description            | Size          | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|------------------------|---------------|------------------------|---------|-----|
| 1    | 516342      | Rod                    | -             | -                      | -       | 1   |
| 2    | 516337      | Tube Assembly          | -             | -                      | -       | 1   |
| 3    | 516325      | Piston Machining       | -             | -                      | -       | 1   |
| 4    | 516334      | Head                   | -             | -                      | -       | 1   |
| 5    | 172196      | Seal Kit (see page 24) | -             | -                      | -       | 1   |
| 6    | 516341      | Bushing                | -             | -                      | -       | 1   |
| 7    | 517979      | Spacer                 | -             | -                      | -       | 1   |
| 8    | 516322      | Plug                   | -             | -                      | -       | 1   |
| 9    | 517970      | Washer                 | M24           | -                      | -       | 24  |
| 10   | 503586      | Cap Screw              | M24 x 3 x 110 | -                      | -       | 24  |
| 11   | 500101      | Seal                   | -             | -                      | -       | 3   |

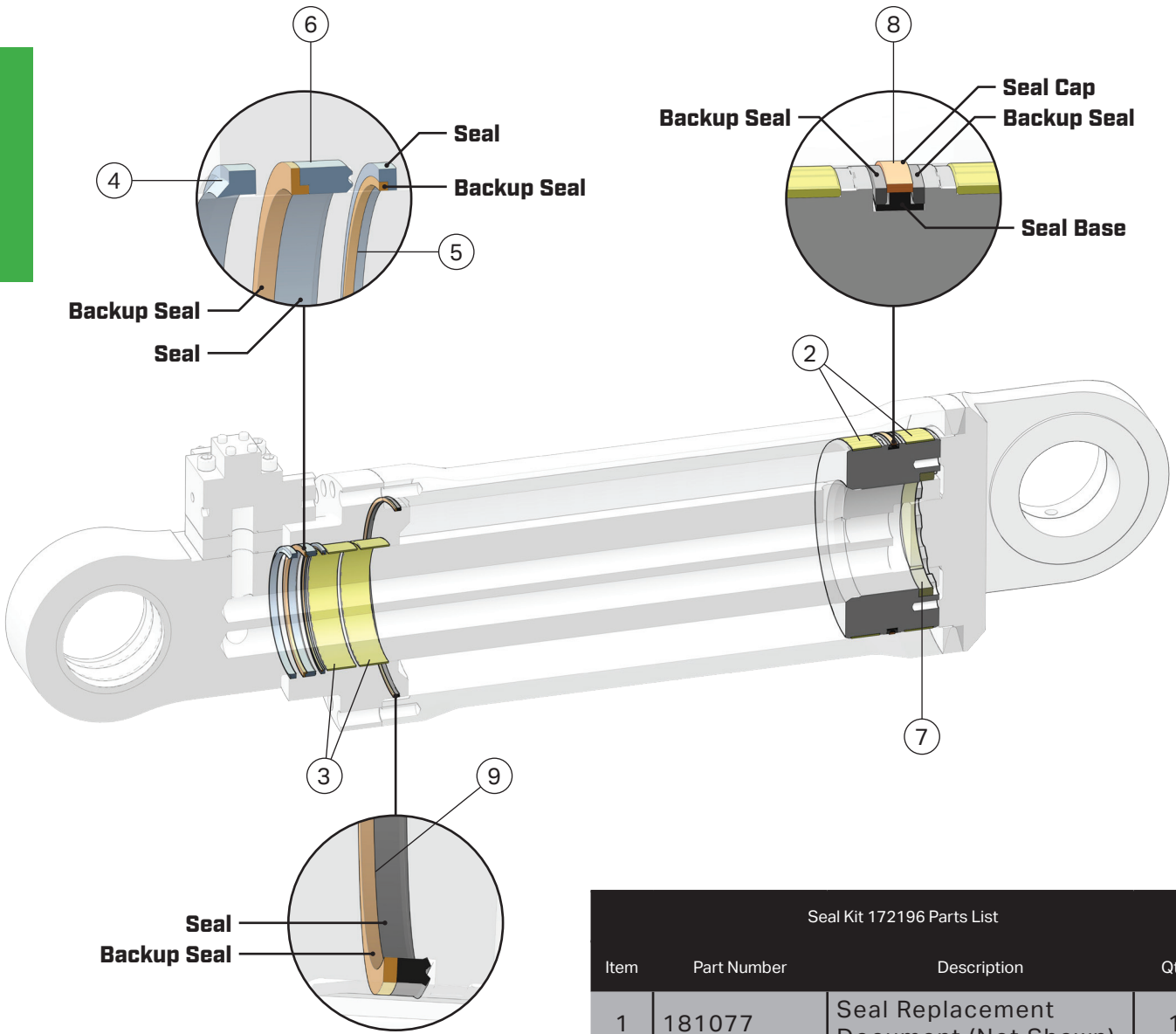


SEAL KIT FOR CYLINDER 174673 & 223792

[See “Read this first” on page 3]

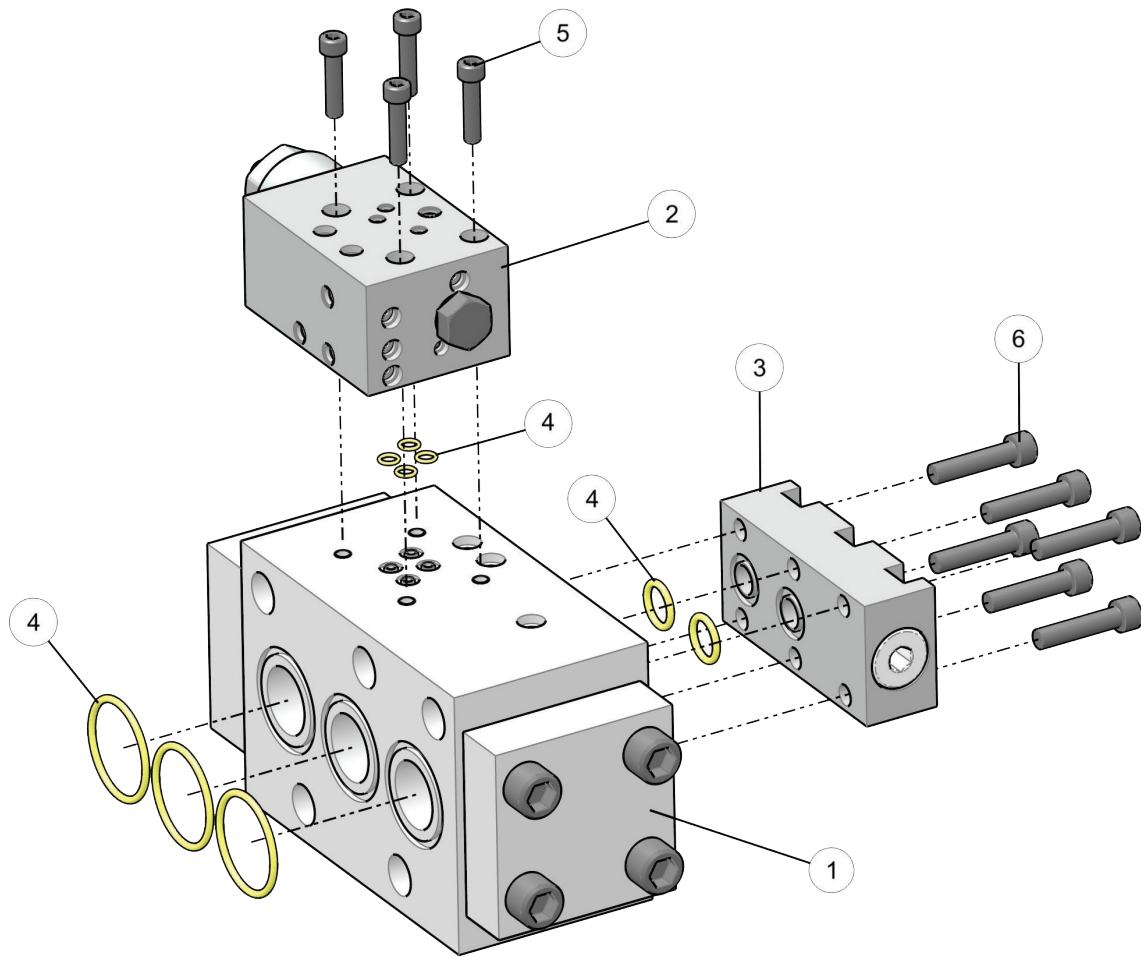
172196 REV. 5

CYLINDER



| Seal Kit 172196 Parts List |             |                                       |     |
|----------------------------|-------------|---------------------------------------|-----|
| Item                       | Part Number | Description                           | Qty |
| 1                          | 181077      | Seal Replacement Document (Not Shown) | 1   |
| 2                          | 511084      | Wear Ring                             | 2   |
| 3                          | 511100      | Wear Ring                             | 2   |
| 4                          | 511684      | Wiper Seal                            | 1   |
| 5                          | 511910      | Buffer Seal Assembly                  | 1   |
| 6                          | 512377      | Rod Seal Assembly                     | 1   |
| 7                          | 512789      | Lock Ring                             | 1   |
| 8                          | 512876      | Piston Seal Assembly                  | 1   |
| 9                          | 513104      | Head Seal Assembly                    | 1   |

# **REGEN VALVE** [See "Read this first" on page 3] **513029 REV. 1**



CYLINDER

Regen Valve 513029 Parts List

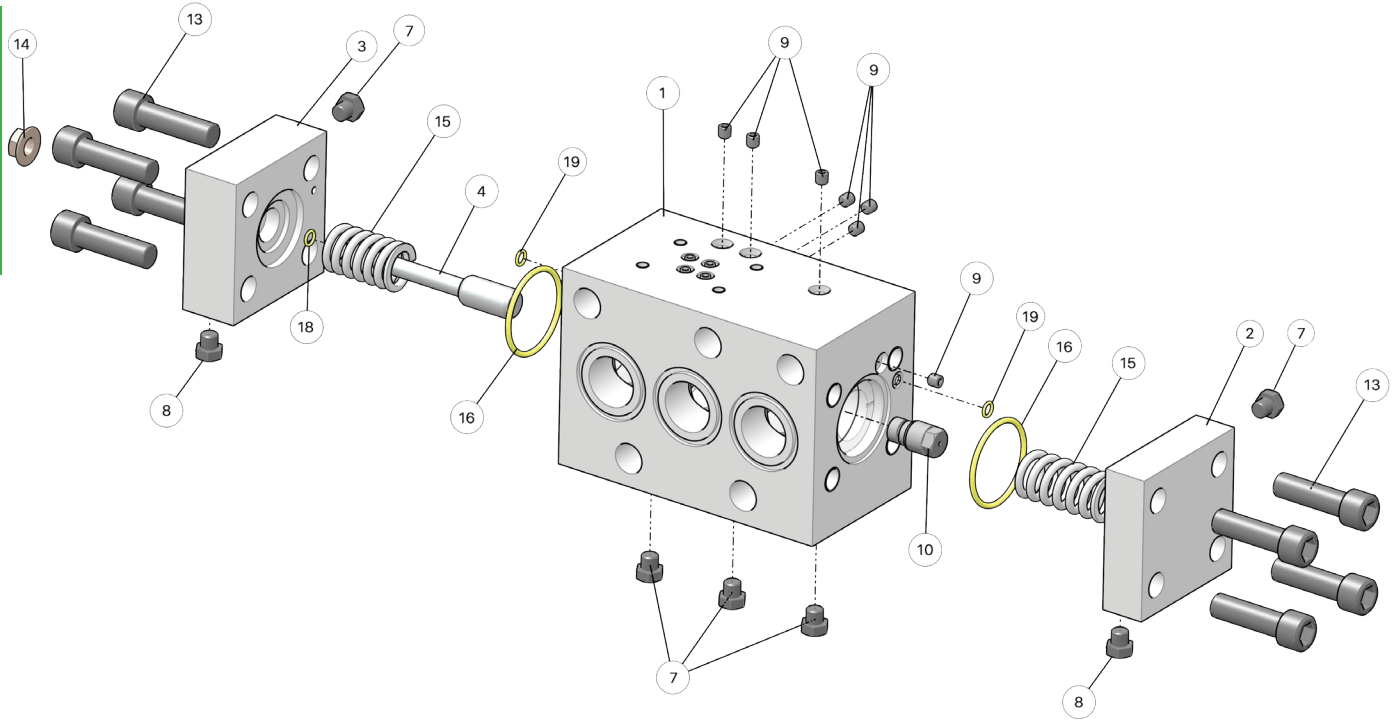
| Item | Part Number | Description                                                      | Size     | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|------------------------------------------------------------------|----------|------------------------|---------|-----|
| 1    | 513080      | Main Valve Assembly (See page 22)                                | -        | -                      | -       | 1   |
| 2    | 512288      | Piloting Section Assembly (See page 23)                          | -        | -                      | -       | 1   |
| 3    | 511540      | Check Valve (see page 25)                                        | -        | -                      | -       | 1   |
| 4    | 512464      | Seal Kit - Includes all seals for main, pilot, and check valves. | -        | -                      | -       | 1   |
| 5    | 512210      | Cap Screw                                                        | M8 x 35  | -                      | -       | 4   |
| 6    | 513133      | Cap Screw                                                        | M10 x 45 | -                      | -       | 6   |

# MAIN VALVE ASSEMBLY

[See "Read this first" on page 3]

513080 REV. 1

CYLINDER

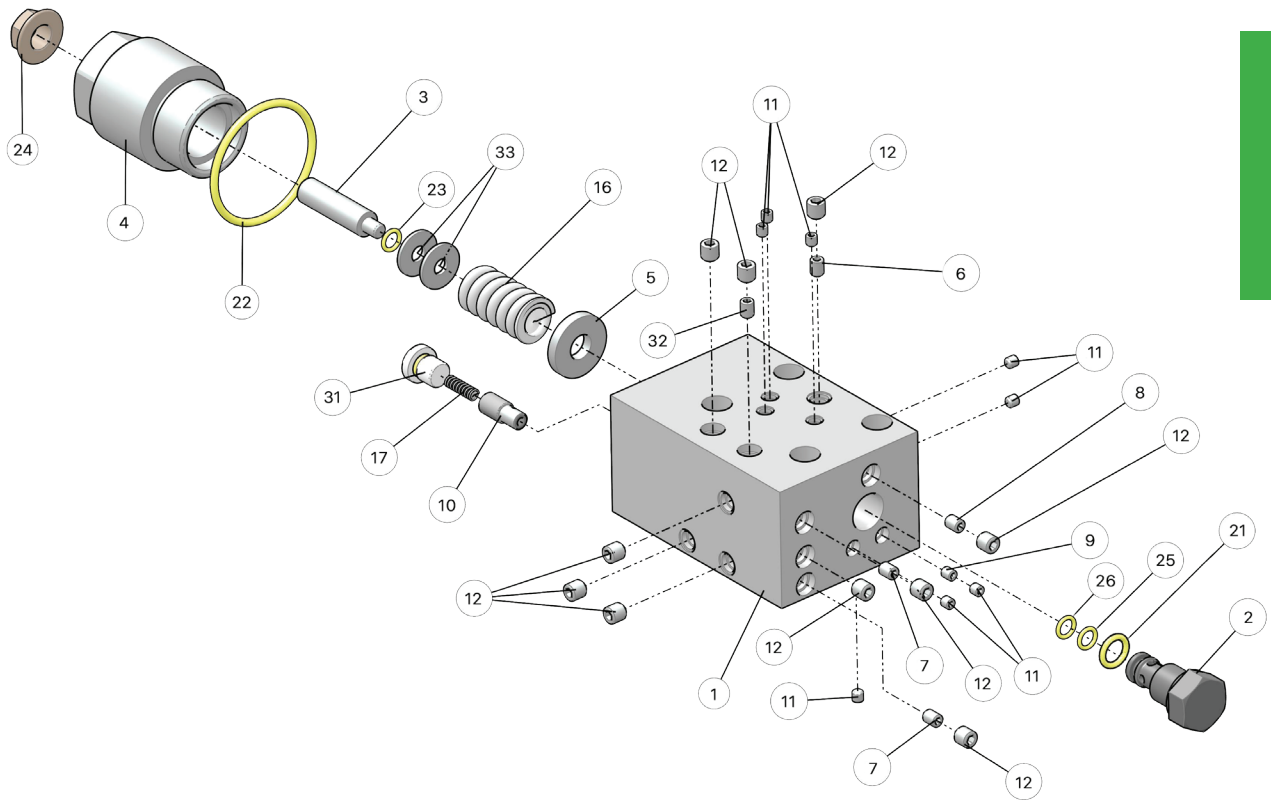


Main Valve 513080 Parts List

| Item | Part Number | Description        | Size     | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|--------------------|----------|------------------------|---------|-----|
| 1    | 513876      | Main Valve Housing | -        | -                      | -       | 1   |
| 2    | 511568      | Valve Cap          | -        | -                      | -       | 1   |
| 3    | 511569      | Valve Cap          | -        | -                      | -       | 1   |
| 4    | 511548      | End Stop           | -        | -                      | -       | 1   |
| 7    | 511515      | Screw Plug         | -        | -                      | -       | 5   |
| 8    | 513086      | Screw Plug         | -        | -                      | -       | 2   |
| 9    | 513087      | Screw Plug         | -        | -                      | -       | 7   |
| 10   | 513877      | Check Valve        | -        | -                      | -       | 1   |
| 13   | 513878      | Cap Screw          | M16 x 55 | -                      | -       | 8   |
| 14   | 511504      | Grommet Nut        | -        | -                      | -       | 1   |
| 15   | 511550      | Spring             | -        | -                      | -       | 2   |
| 16   | 511503      | O-ring             | -        | -                      | -       | 2   |
| 18   | 511505      | Thread Seal        | -        | -                      | -       | 1   |
| 19   | 512347      | O-ring             | -        | -                      | -       | 2   |

Seals for this assembly are included in the master seal kit 512464

**PILOTING SECTION**  
[See "Read this first" on page 3]  
**512288 REV. 1**



**CYLINDER**

Pilot Valve 512288 Parts List

| Item | Part Number | Description | Size       | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|------------|------------------------|---------|-----|
| 1    | 512316      | Housing     | -          | -                      | -       | 1   |
| 2    | 512317      | Valve Seat  | -          | -                      | -       | 1   |
| 3    | 511555      | Thread Pin  | M12 x 50   | -                      | -       | 1   |
| 4    | 512318      | Spring Cap  | D50 x 72   | -                      | -       | 1   |
| 5    | 511558      | Washer      | D30 x 5    | -                      | -       | 1   |
| 6    | 512319      | Orifice     | M6 x 8     | -                      | -       | 1   |
| 7    | 512320      | Orifice     | M6 x 8     | -                      | -       | 2   |
| 8    | 512321      | Orifice     | M6 x 8     | -                      | -       | 1   |
| 9    | 512322      | Orifice     | M5 x 6     | -                      | -       | 1   |
| 10   | 511562      | Valve Seat  | D10.1 x 23 | -                      | -       | 1   |
| 11   | 512323      | Cap Screw   | M5         | -                      | -       | 8   |
| 12   | 511514      | Cap Screw   | M8 x 1     | -                      | -       | 10  |
| 16   | 512324      | Spring      | -          | -                      | -       | 1   |
| 17   | 511565      | Spring      | -          | -                      | -       | 1   |
| 21   | 511507      | O-ring      | -          | -                      | -       | 1   |

| Pilot Valve 512288 Parts List |             |                                                                                                                   |        |                        |         |     |
|-------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------|--------|------------------------|---------|-----|
| Item                          | Part Number | Description                                                                                                       | Size   | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 22                            | 512325      | O-ring                                                                                                            | -      | -                      | -       | 1   |
| 23                            | 511505      | Thread Seal Ring                                                                                                  | -      | -                      | -       | 1   |
| 24                            | 511504      | Seal Nut                                                                                                          | M12    | -                      | -       | 1   |
| 25                            | 511508      | Quadring                                                                                                          | -      | -                      | -       | 1   |
| 26                            | 511509      | Support Ring                                                                                                      | -      | -                      | -       | 1   |
| 31                            | 511563      | Screw Cap                                                                                                         | -      | -                      | -       | 1   |
| 32                            | 512326      | Thread Pin                                                                                                        | M6 x 8 | -                      | -       | 1   |
| 33                            | 511556      | Washer                                                                                                            | -      | -                      | -       | 2   |
| 34                            | 513793      | Poppet Seal Kit - Includes items 2,21,25 & 26. (these items are also included in the master seal kit P/N 512464). |        |                        |         | 1   |

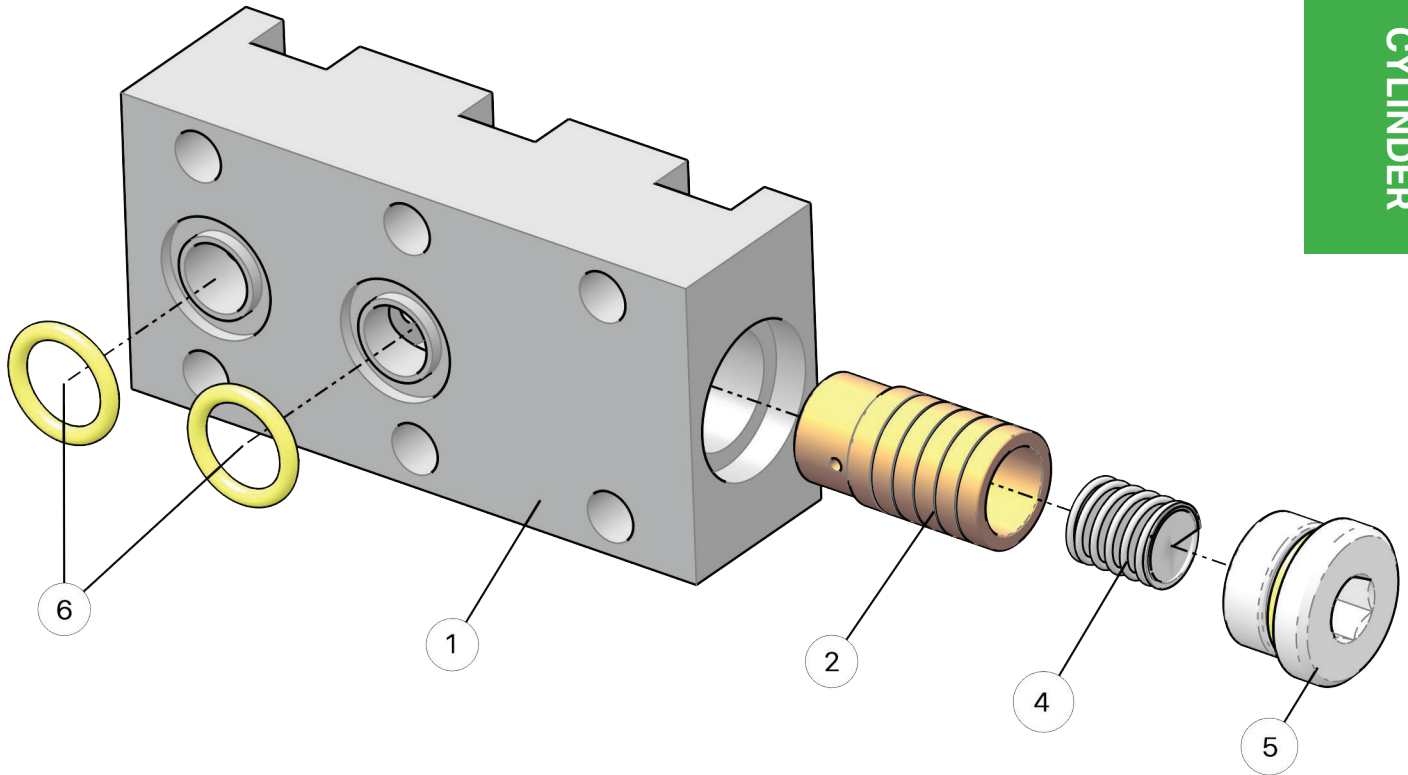
Seals for this assembly are included in the master seal kit 512464

# CHECK VALVE

[See "Read this first" on page 3]

## 511540 REV. 1

CYLINDER



Pilot Valve 511540 Parts List

| Item | Part Number | Description         | Size | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------------|------|------------------------|---------|-----|
| 1    | 513875      | Check Valve Housing | -    | -                      | -       | 1   |
| 2    | 511580      | Plunger             | -    | -                      | -       | 1   |
| 4    | 511578      | Spring              | -    | -                      | -       | 1   |
| 5    | 511579      | Screw Plug          | -    | -                      | -       | 1   |
| 6    | 513085      | O-ring              | -    | -                      | -       | 2   |

Seals for this assembly are included in the master seal kit 512464

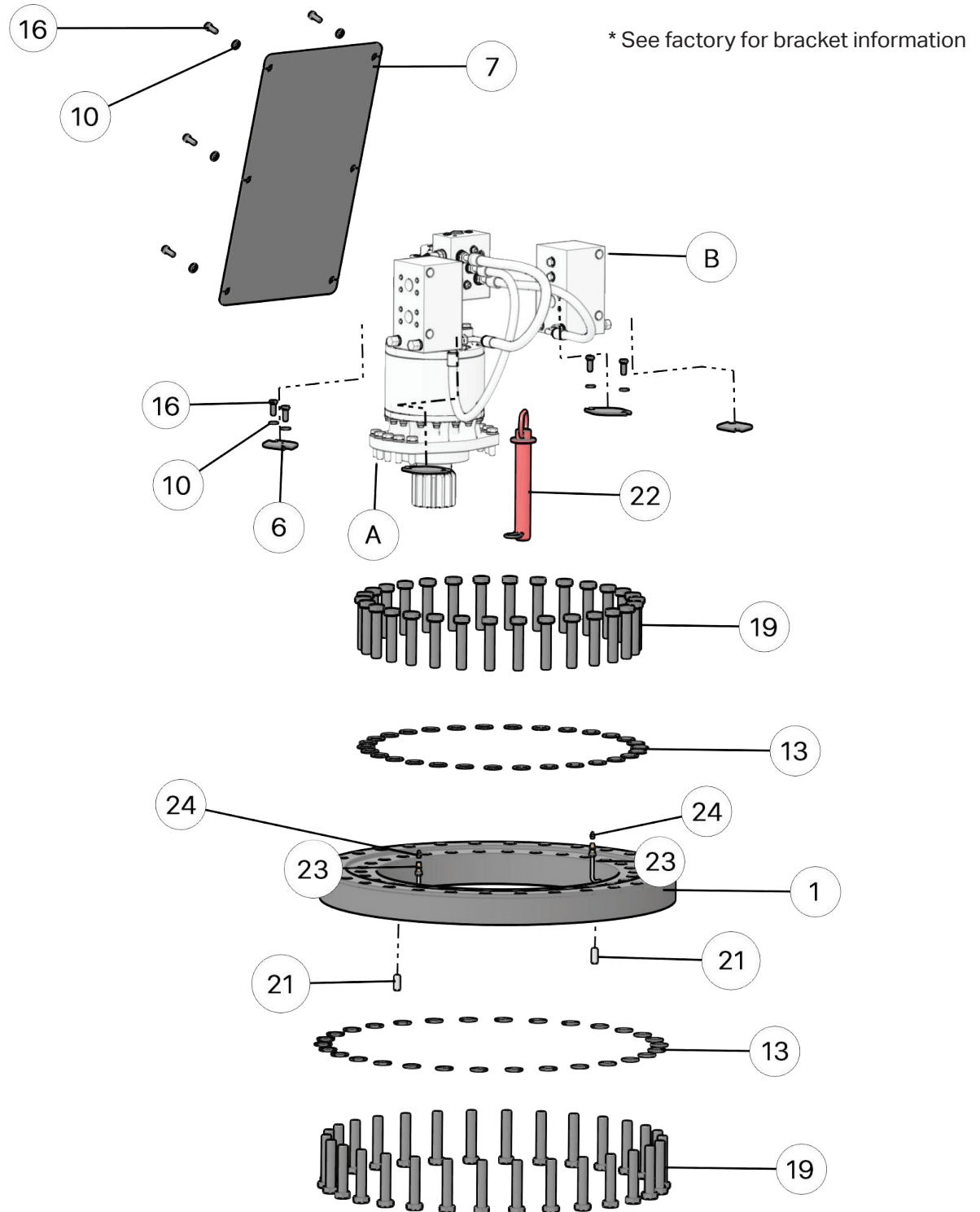
# ROTATION

## ROTATION ASSEMBLY

[See "Read this first" on page 3]

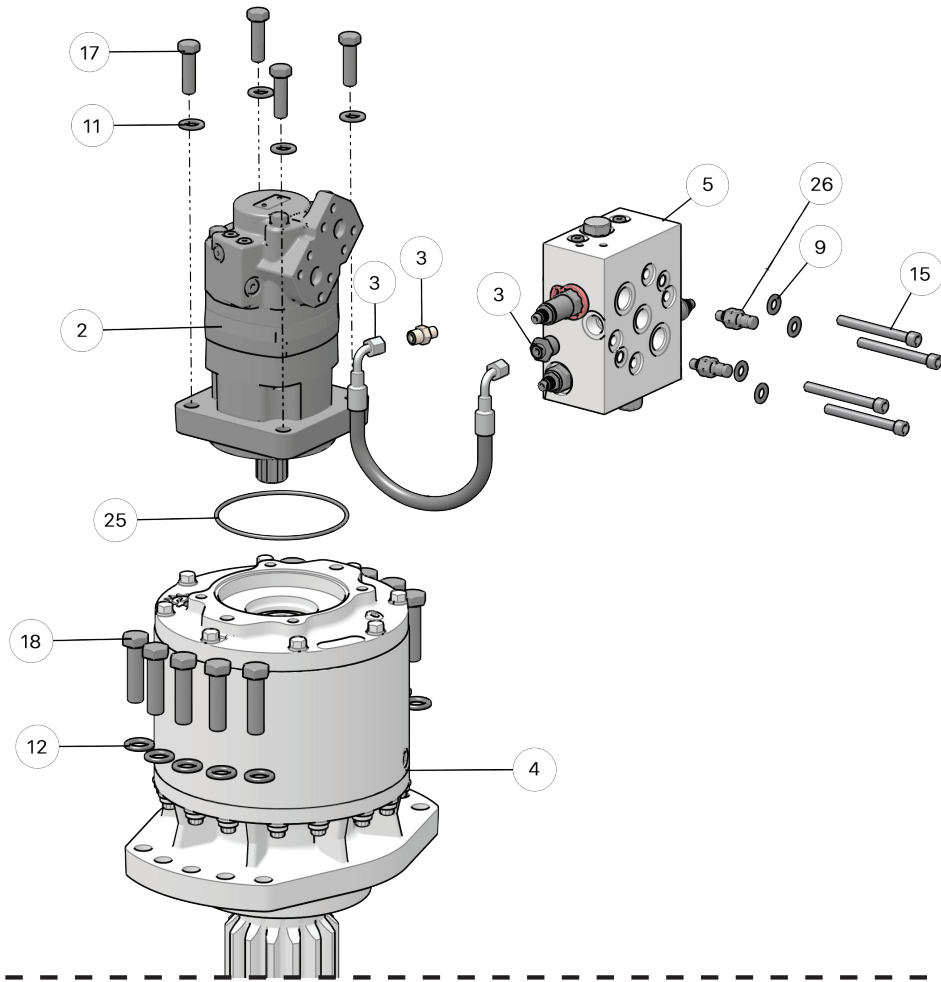
228278 REV. 4

ROTATION



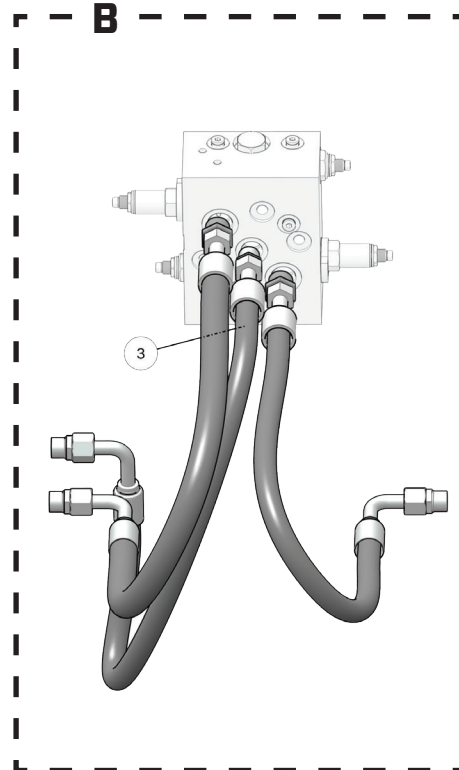


**A**



ROTATION

**B**

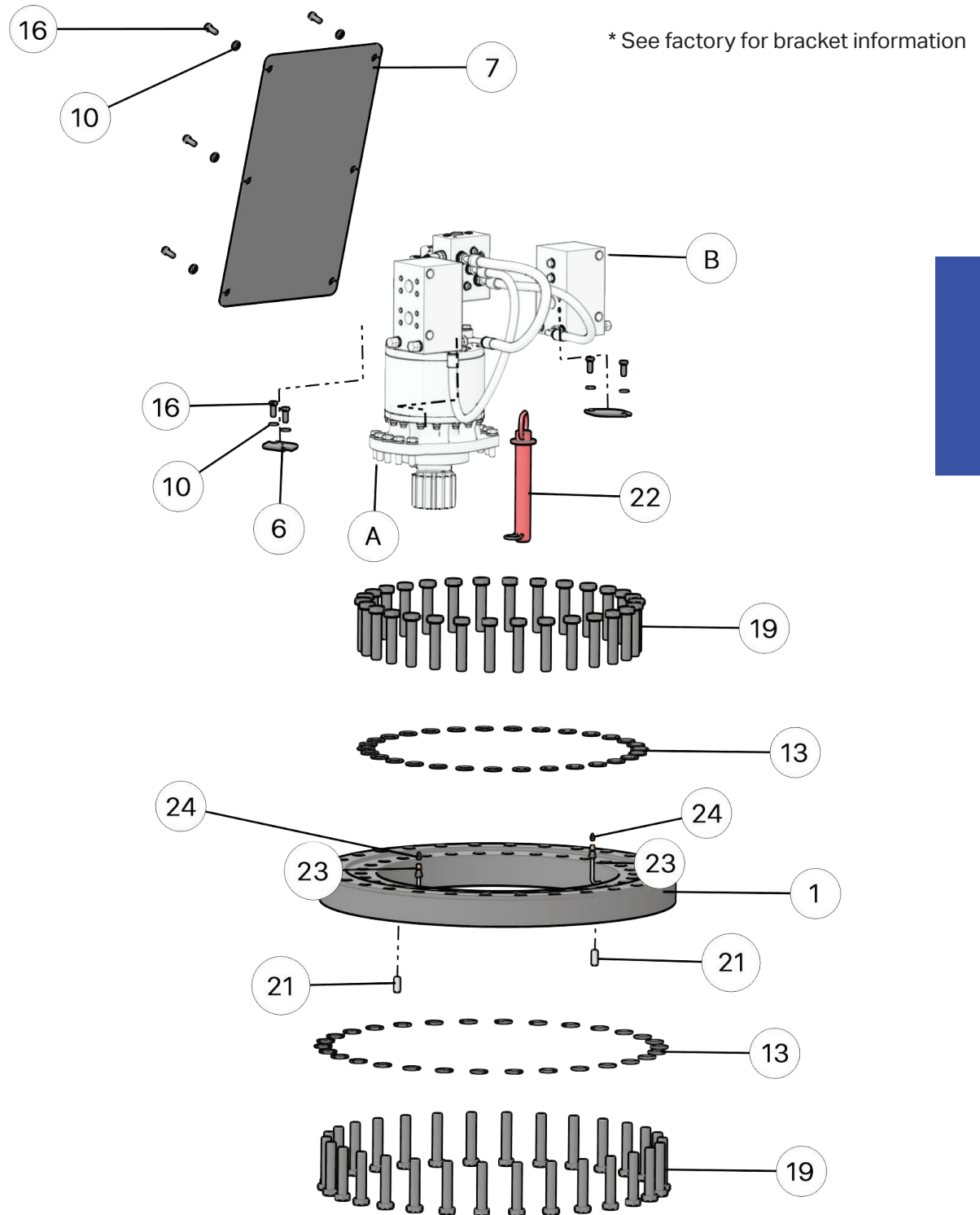


| Rotation 228278 Parts List |             |                                |                 |                        |                    |     |
|----------------------------|-------------|--------------------------------|-----------------|------------------------|--------------------|-----|
| Item                       | Part Number | Description                    | Size            | Torque<br>Ft. Lbs (Nm) | Loctite            | Qty |
| 1                          | 501347      | Turntable Bearing              | -               | -                      | -                  | 1   |
| 2                          | 503340      | Motor                          | -               | -                      | -                  | 1   |
| 3                          | 518040      | Hose Kit (See page 39)         | -               | -                      | -                  | 1   |
| 4                          | 511491      | Gear Box                       | -               | -                      | -                  | 1   |
| 5                          | 513198      | Valve Assembly                 | -               | -                      | -                  | 1   |
| 6                          | 151404      | Cover                          | -               | -                      | -                  | 4   |
| 7                          | 134906      | Cover                          | -               | -                      | -                  | 1   |
| 9                          | 500237      | Washer                         | -               | -                      | -                  | 4   |
| 10                         | 501446      | Washer                         | M12             | -                      | -                  | 14  |
| 11                         | 503852      | Washer                         | -               | -                      | -                  | 4   |
| 12                         | 501554      | Washer                         | M16             | -                      | -                  | 10  |
| 13                         | 501445      | Washer                         | M24             | -                      | -                  | 60  |
| 15                         | 503077      | Cap Screw                      | -               | 44 (60)                | 263                | 4   |
| 16                         | 501581      | Cap Screw                      | M12 x 1.75 x 30 | 70 (95)                | 243                | 14  |
| 17                         | 503853      | Cap Screw                      | -               | 105 (140)              | 263                | 4   |
| 18                         | 502385      | Bolt                           | M16 x 2 x 60    | 170 (230)              | 263                | 10  |
| 19                         | 501626      | Cap Screw -<br>CRITICAL TORQUE | M24 x 3 x 120   | 750 (1,000)            | 263                | 30  |
| 21                         | 510796      | Dowel Pin                      | -               | -                      | -                  | 2   |
| 22                         | 515025      | Transport Pin                  | -               | -                      | -                  | 1   |
| 23                         | 107435      | Grease Tube<br>Assembly        | -               | -                      | -                  | 2   |
| 24                         | 503857      | Grease Fitting                 | -               | -                      | -                  | 2   |
| 25                         | 500271      | Seal O-ring                    | -               | -                      | 518<br>7649 Primer | 1   |
| 26                         | 502290      | Adapter                        | -               | -                      | -                  | 2   |

# ROTATION ASSEMBLY

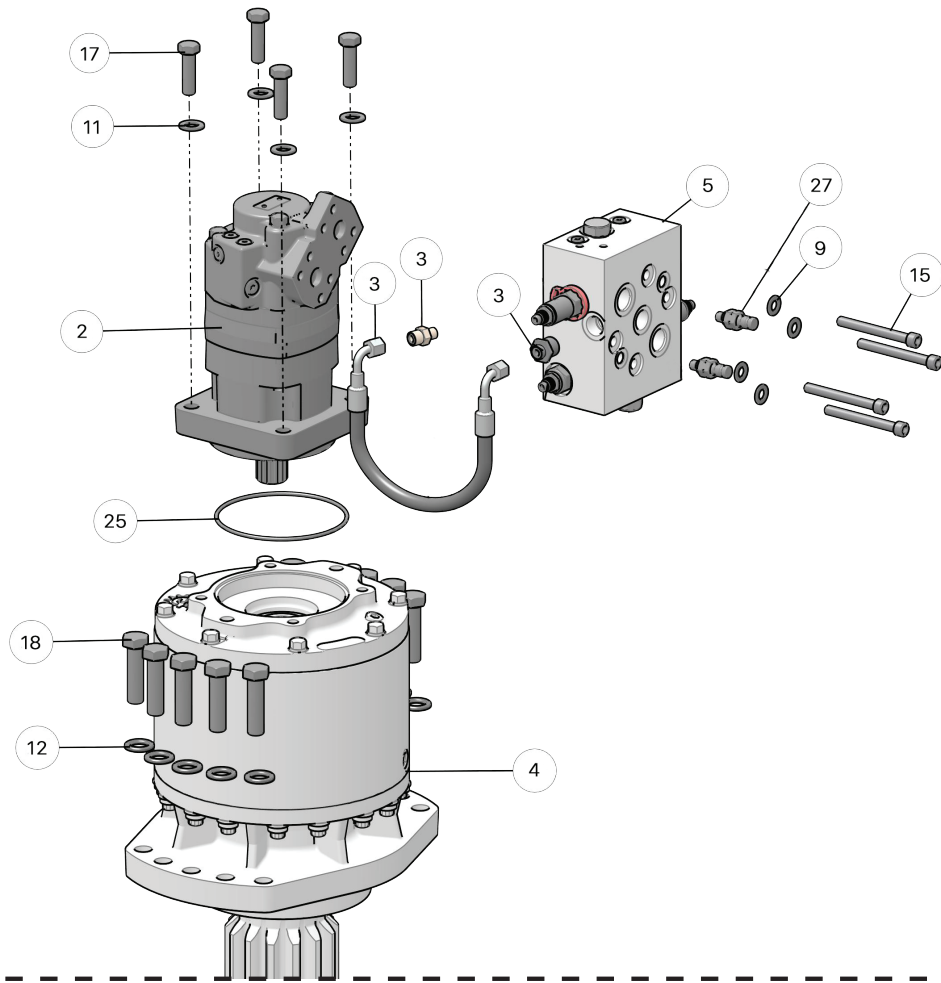
[See "Read this first" on page 3]

228797 REV. 4

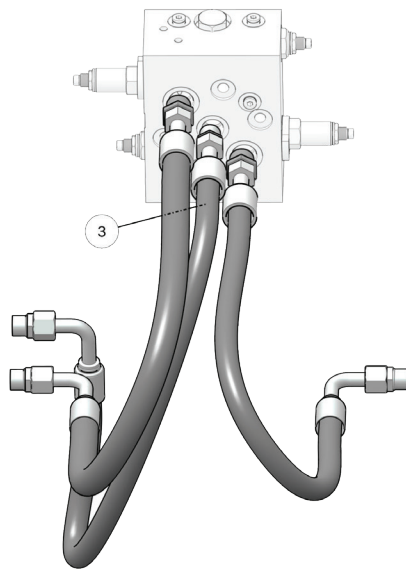


ROTATION

**A**



**B**



| Rotation 228797 Parts List |             |                                |                 |                        |                    |     |
|----------------------------|-------------|--------------------------------|-----------------|------------------------|--------------------|-----|
| Item                       | Part Number | Description                    | Size            | Torque<br>Ft. Lbs (Nm) | Loctite            | Qty |
| 1                          | 501347      | Turntable Bearing              | -               | -                      | -                  | 1   |
| 2                          | 503340      | Motor                          | -               | -                      | -                  | 1   |
| 3                          | 518040      | Hose Kit (See page 39)         | -               | -                      | -                  | 1   |
| 4                          | 511491      | Gear Box                       | -               | -                      | -                  | 1   |
| 5                          | 513198      | Valve Assembly                 | -               | -                      | -                  | 1   |
| 6                          | 151404      | Cover                          | -               | -                      | -                  | 2   |
| 7                          | 134906      | Cover                          | -               | -                      | -                  | 1   |
| 9                          | 500237      | Washer                         | -               | -                      | -                  | 4   |
| 10                         | 501446      | Washer                         | M12             | -                      | -                  | 10  |
| 11                         | 503852      | Washer                         | -               | -                      | -                  | 4   |
| 12                         | 501554      | Washer                         | M16             | -                      | -                  | 10  |
| 13                         | 501445      | Washer                         | M24             | -                      | -                  | 60  |
| 15                         | 503077      | Cap Screw                      | -               | 44 (60)                | 263                | 4   |
| 16                         | 501581      | Cap Screw                      | M12 x 1.75 x 30 | 70 (95)                | 243                | 10  |
| 17                         | 503853      | Cap Screw                      | -               | 105 (140)              | 263                | 4   |
| 18                         | 502385      | Bolt                           | M16 x 2 x 60    | 170 (230)              | 263                | 10  |
| 19                         | 501626      | Cap Screw -<br>CRITICAL TORQUE | M24 x 3 x 120   | 750 (1,000)            | 263                | 60  |
| 21                         | 510796      | Dowel Pin                      | -               | -                      | -                  | 2   |
| 22                         | 515025      | Transport Pin                  | -               | -                      | -                  | 1   |
| 23                         | 107435      | Grease Tube<br>Assembly        | -               | -                      | -                  | 2   |
| 24                         | 503857      | Grease Fitting                 | -               | -                      | -                  | 2   |
| 25                         | 500271      | Seal O-ring                    | -               | -                      | 518<br>7649 Primer | 1   |
| 27                         | 502290      | Adapter                        | -               | -                      | -                  | 2   |

ROTATION

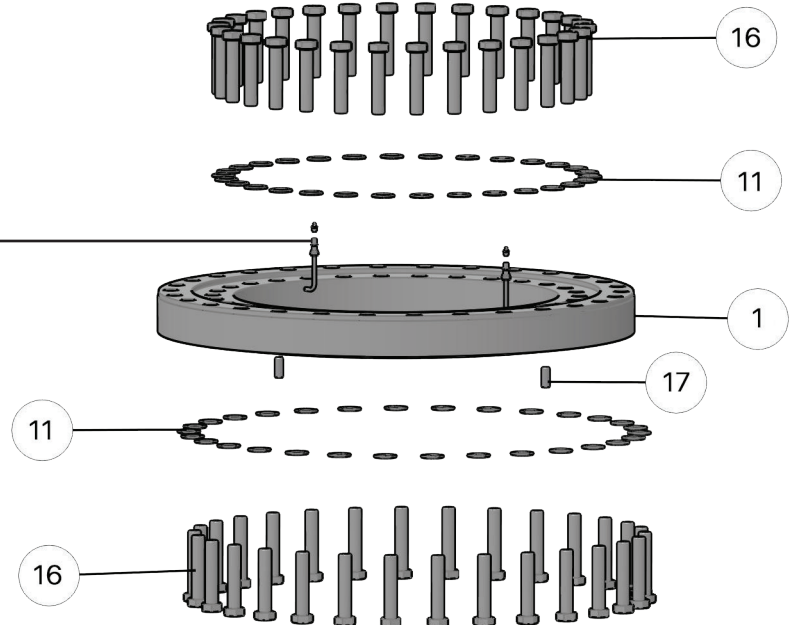
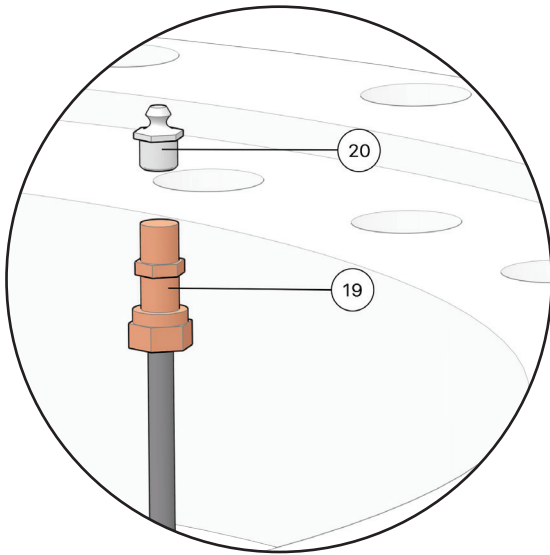
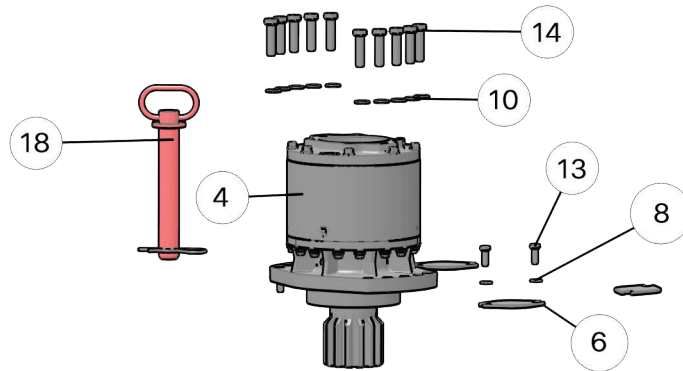
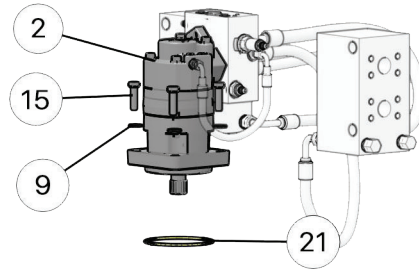
# ROTATION ASSEMBLY

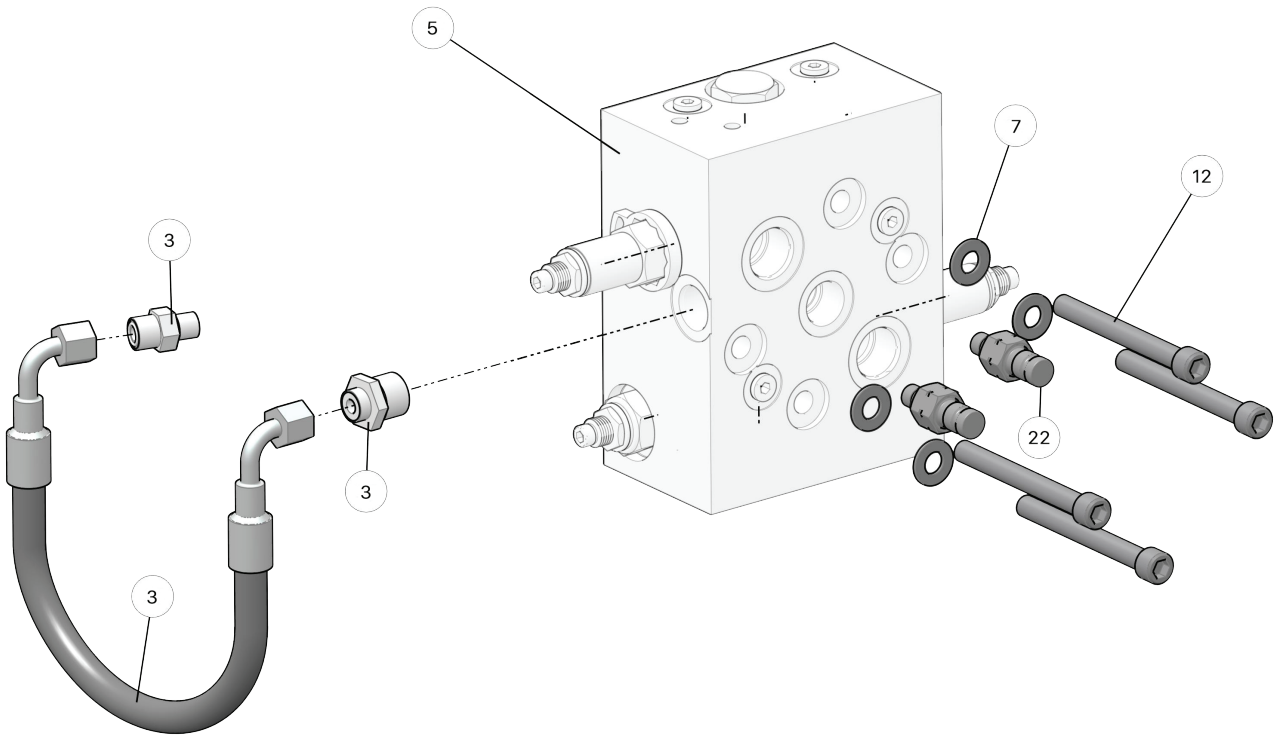
[See "Read this first" on page 3]

**229669 REV. 3**

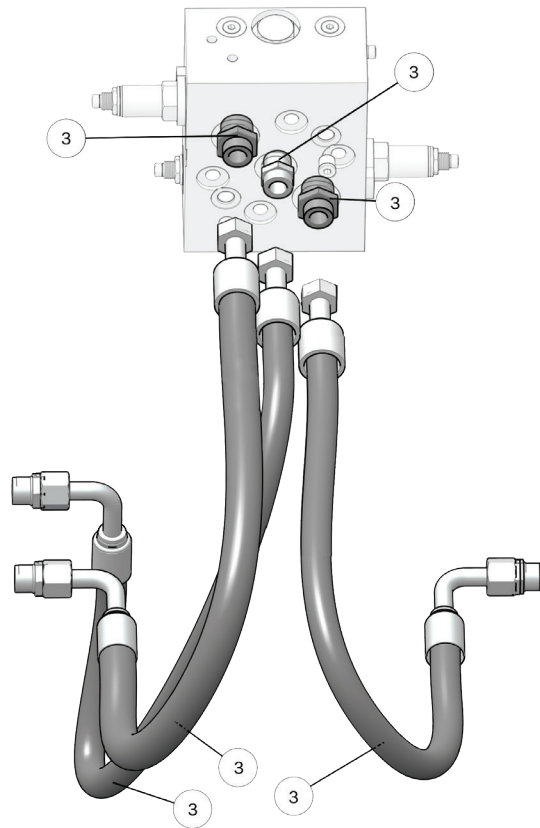
\* See factory for bracket information

ROTATION





ROTATION



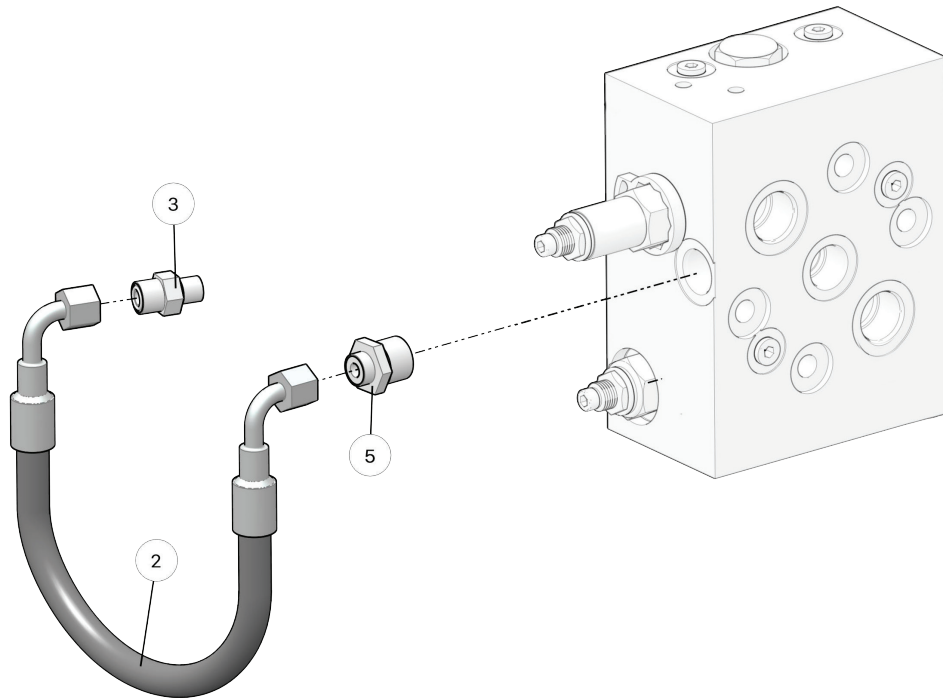


| Rotation 229669 Parts List |             |                                |                 |                        |                    |     |
|----------------------------|-------------|--------------------------------|-----------------|------------------------|--------------------|-----|
| Item                       | Part Number | Description                    | Size            | Torque<br>Ft. Lbs (Nm) | Loctite            | Qty |
| 1                          | 501347      | Turntable Bearing              | -               | -                      | -                  | 1   |
| 2                          | 503340      | Motor Assembly                 | -               | -                      | -                  | 1   |
| 3                          | 518040      | Hose Kit (See page 39)         | -               | -                      | -                  | 1   |
| 4                          | 511491      | Gear Box                       | -               | -                      | -                  | 1   |
| 5                          | 513198      | Valve Assembly                 | -               | -                      | -                  | 1   |
| 6                          | 151404      | Cover                          | -               | -                      | -                  | 4   |
| 7                          | 500237      | Washer                         | -               | -                      | -                  | 4   |
| 8                          | 501446      | Washer                         | M12             | -                      | -                  | 4   |
| 9                          | 503852      | Washer                         | -               | -                      | -                  | 4   |
| 10                         | 501554      | Washer                         | M16             | -                      | -                  | 10  |
| 11                         | 501445      | Washer                         | M24             | -                      | -                  | 60  |
| 12                         | 503077      | Cap Screw                      | -               | 44 (60)                | 263                | 4   |
| 13                         | 501581      | Cap Screw                      | M12 x 1.75 x 30 | 70 (95)                | 243                | 4   |
| 14                         | 502385      | Cap Screw                      | M16 x 2 x 60    | -                      | -                  | 10  |
| 15                         | 503853      | Cap Screw                      | -               | 170 (230)              | 263                | 4   |
| 16                         | 501626      | Cap Screw -<br>CRITICAL TORQUE | M24 x 3 x 120   | 750 (1,000)            | 263                | 60  |
| 17                         | 510796      | Dowel Pin                      | -               | -                      | -                  | 2   |
| 18                         | 515025      | Transport Pin                  | -               | -                      | -                  | 1   |
| 19                         | 107435      | Grease Tube<br>Assembly        | -               | -                      | -                  | 2   |
| 20                         | 503857      | Grease Fitting                 | -               | -                      | -                  | 2   |
| 21                         | 500271      | O-ring                         | -               | -                      | 518<br>7649 Primer | 1   |
| 22                         | 502290      | Quick Connect<br>Fitting       | -               | -                      | -                  | 2   |

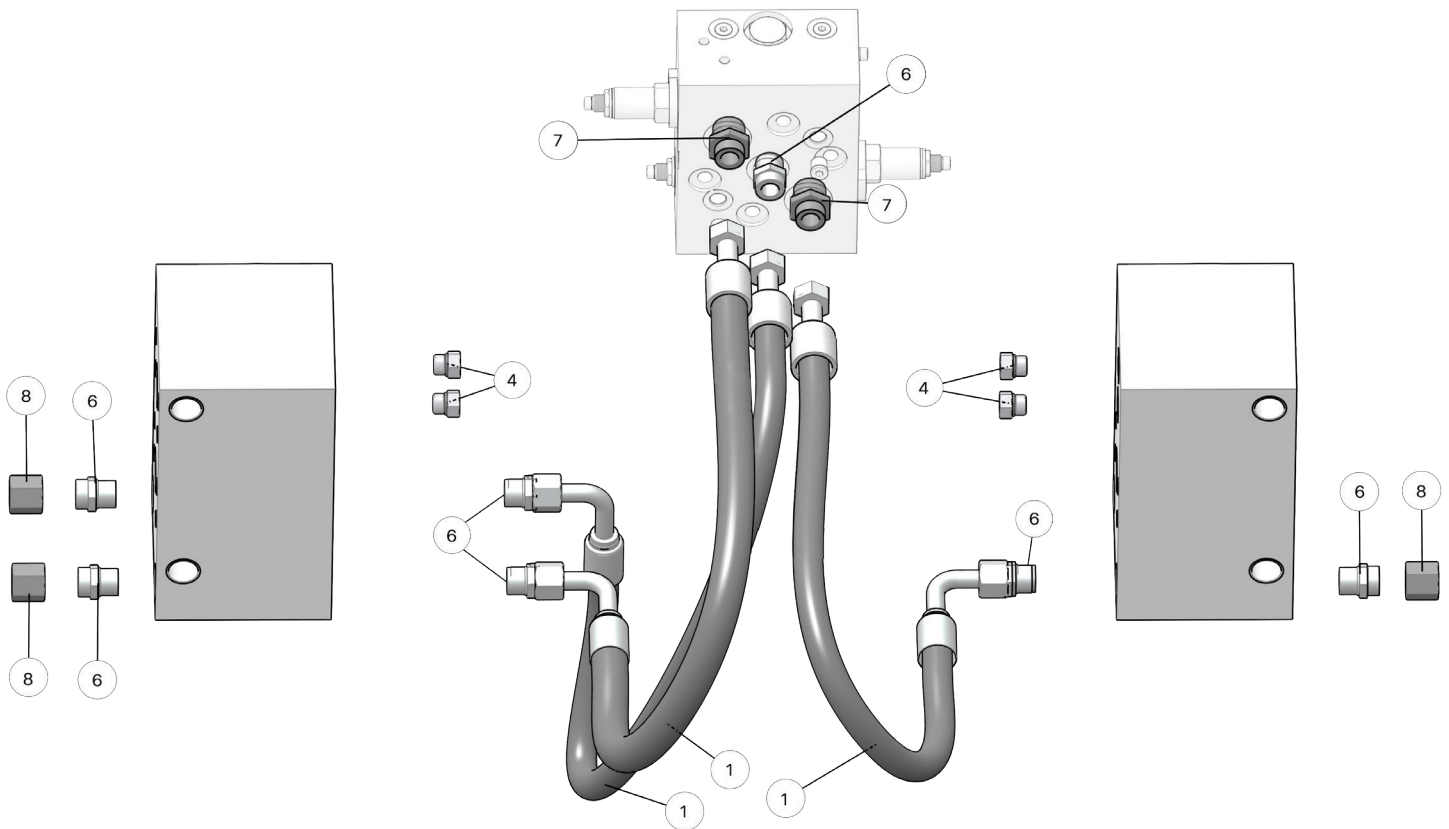
# HOSE KIT

[See "Read this first" on page 3]

## 518040 REV. 4



ROTATION



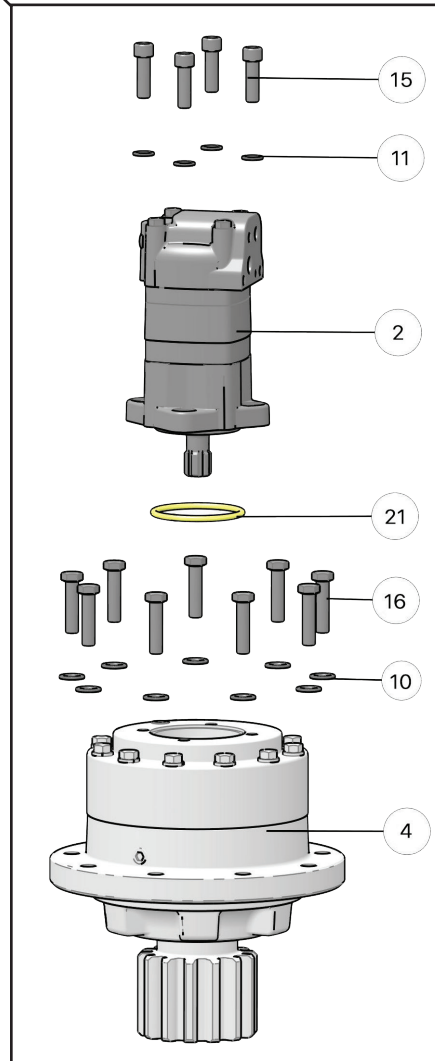
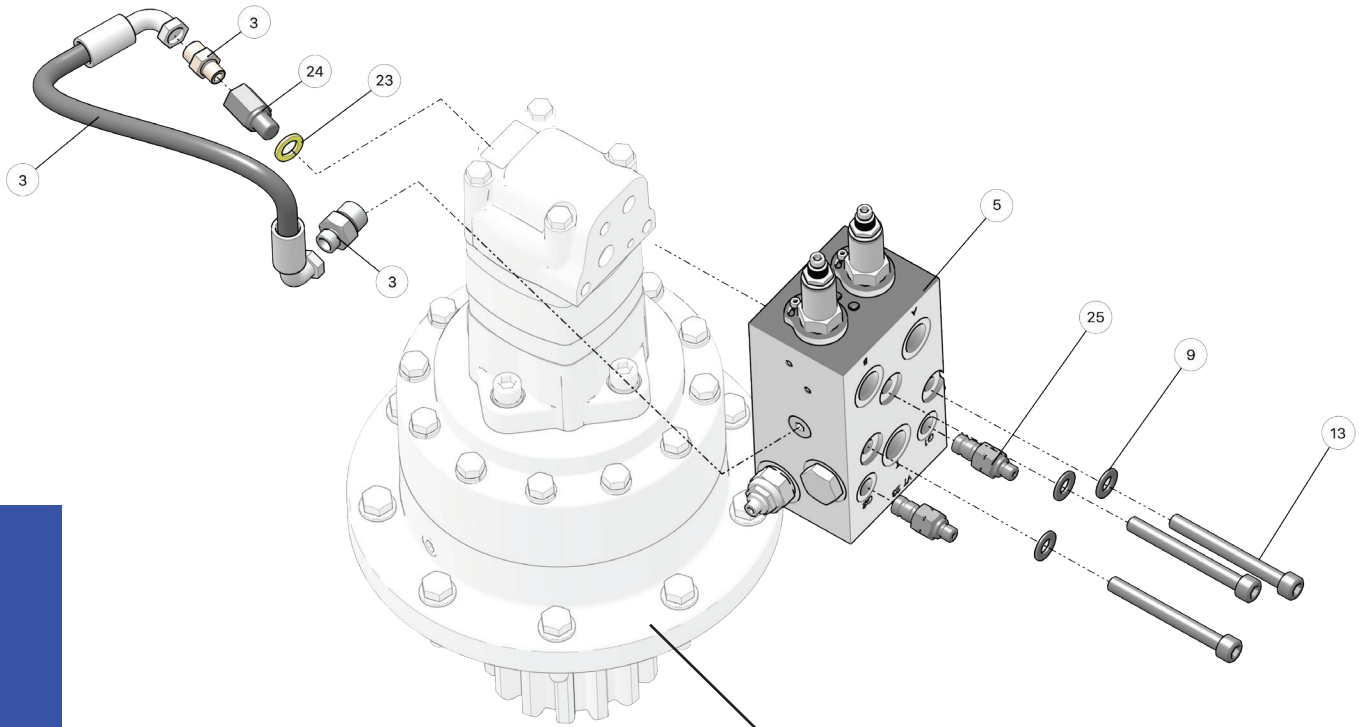
| Hose Kit 518040 Parts List |             |                                   |          |                        |         |     |
|----------------------------|-------------|-----------------------------------|----------|------------------------|---------|-----|
| Item                       | Part Number | Description                       | Size     | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 518511      | Hose Assembly -<br>Straight-90°   | -        | -                      | -       | 3   |
| 2                          | 108939      | Motor Case Drain<br>Hose Assembly | -4 FFORX | 13 (17)                | 243     | 1   |
| 3                          | 500916      | Hydraulic Adapter                 | -4 SAE   | 22 (30)                | 243-    | 1   |
| 4                          | 516287      | Hydraulic Plug                    | -6 SAE   | 30 (40)                | 243     | 4   |
| 5                          | 500940      | Hydraulic Adapter                 | -8 SAE   | 34 (45)                | 243     | 1   |
| 6                          | 500917      | Hydraulic Adapter                 | -8 SAE   | 50 (70)                | 243     | 7   |
| 7                          | 500947      | Hydraulic Adapter                 | -        | -                      | -       | 2   |
| 8                          | 501026      | Hydraulic Adapter<br>Cap          | -8 FFORX | 40 (55)                | 243     | 3   |

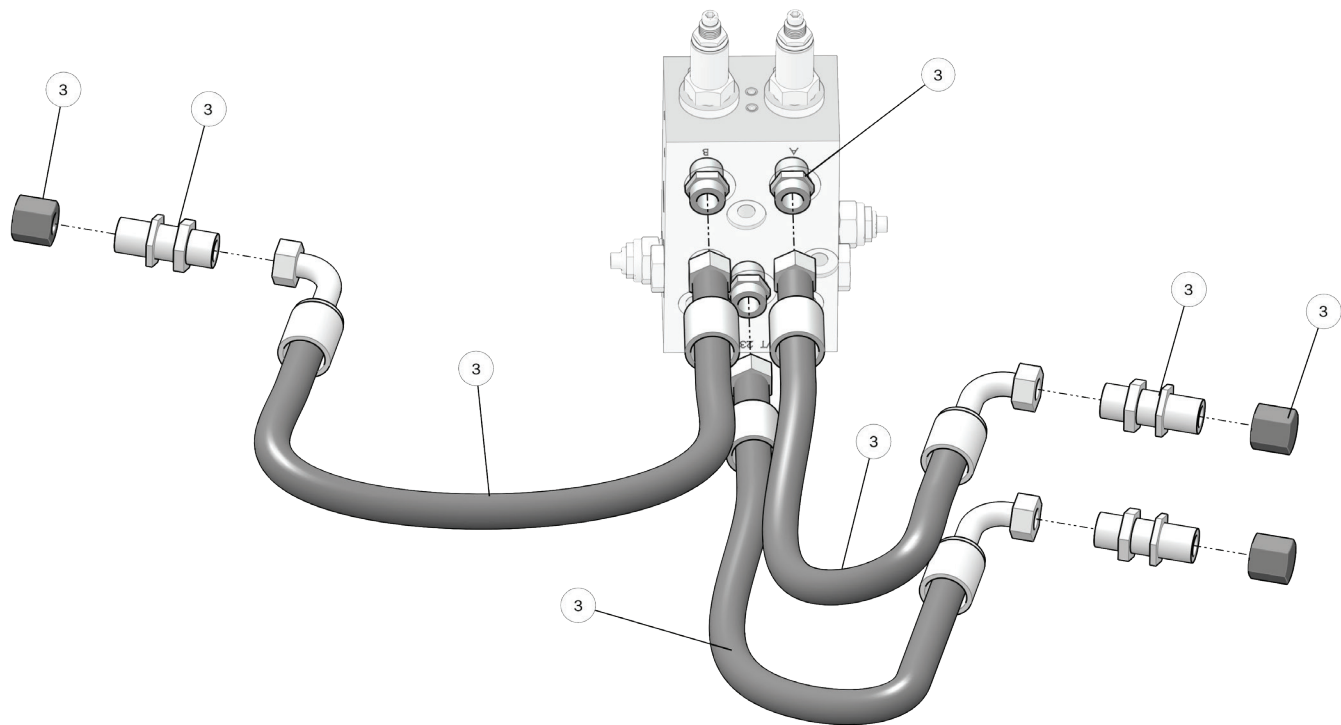
**229910 REV. 1**



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ROTATION





ROTATION

Rotation 229910 Parts List

| Item | Part Number | Description                    | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|--------------------------------|-----------------|------------------------|---------|-----|
| 1    | 501347      | Turntable Bearing              | -               | -                      | -       | 1   |
| 2    | 514585      | Motor                          | -               | -                      | -       | 1   |
| 3    | 518150      | Hose Kit (See page 48)         | -               | -                      | -       | 1   |
| 4    | 511488      | Gear Box                       | -               | -                      | -       | 1   |
| 5    | 513260      | Valve Assembly                 | -               | -                      | -       | 1   |
| 6    | 229506      | Cover                          | -               | -                      | -       | 1   |
| 7    | 229507      | Cover                          | -               | -                      | -       | 1   |
| 8    | 151404      | Cover                          | -               | -                      | -       | 2   |
| 9    | 500237      | Washer                         | -               | -                      | -       | 3   |
| 10   | 501446      | Washer                         | M12             | -                      | -       | 21  |
| 11   | 510105      | Washer                         | M12             | -                      | -       | 4   |
| 12   | 501445      | Washer                         | M24             | -                      | -       | 60  |
| 13   | 500860      | Cap Screw                      | M10 x 15 x 90   | 49 (66)                | 243     | 3   |
| 14   | 501581      | Cap Screw                      | M12 x 1.75 x 30 | 71 (96)                | 243     | 12  |
| 15   | 501584      | Cap Screw                      | M12 x 1.75 x 40 | 85 (115)               | 243     | 4   |
| 16   | 501549      | Cap Screw                      | M12 x 1.75 x 50 | 71 (96)                | 243     | 9   |
| 17   | 501626      | Cap Screw -<br>CRITICAL TORQUE | M24 x 3 x 120   | 750 (1,000)            | 263     | 60  |
| 18   | 510796      | Dowel Pin                      | -               | -                      | -       | 2   |
| 19   | 515025      | Transport Pin                  | -               | -                      | -       | 1   |
| 20   | 107435      | Grease Tube<br>Assembly        | -               | -                      | -       | 2   |

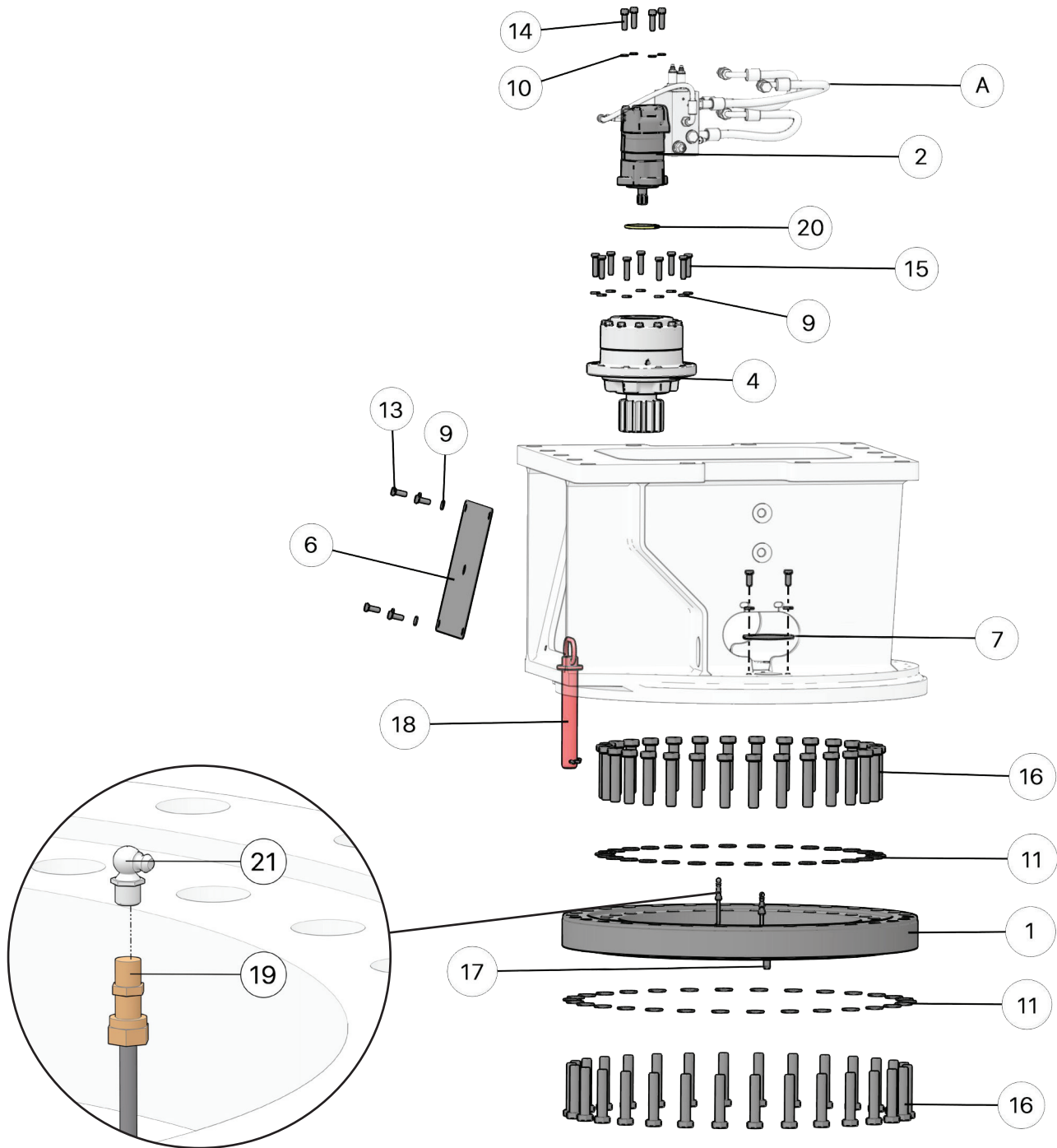
| Rotation 229910 Parts List |             |                          |      |                        |                    |     |
|----------------------------|-------------|--------------------------|------|------------------------|--------------------|-----|
| Item                       | Part Number | Description              | Size | Torque<br>Ft. Lbs (Nm) | Loctite            | Qty |
| 21                         | 512391      | O-ring                   | -    | -                      | 518<br>7649 Primer | 1   |
| 22                         | 502172      | Grease Adapter           | -    | -                      | -                  | 2   |
| 23                         | 501684      | Seal                     | -    | -                      | -                  | 1   |
| 24                         | 501685      | Adapter                  | -    | -                      | -                  | 1   |
| 25                         | 502290      | Quick Connect<br>Fitting | -    | -                      | -                  | 2   |

# ROTATION ASSEMBLY

[See "Read this first" on page 3]

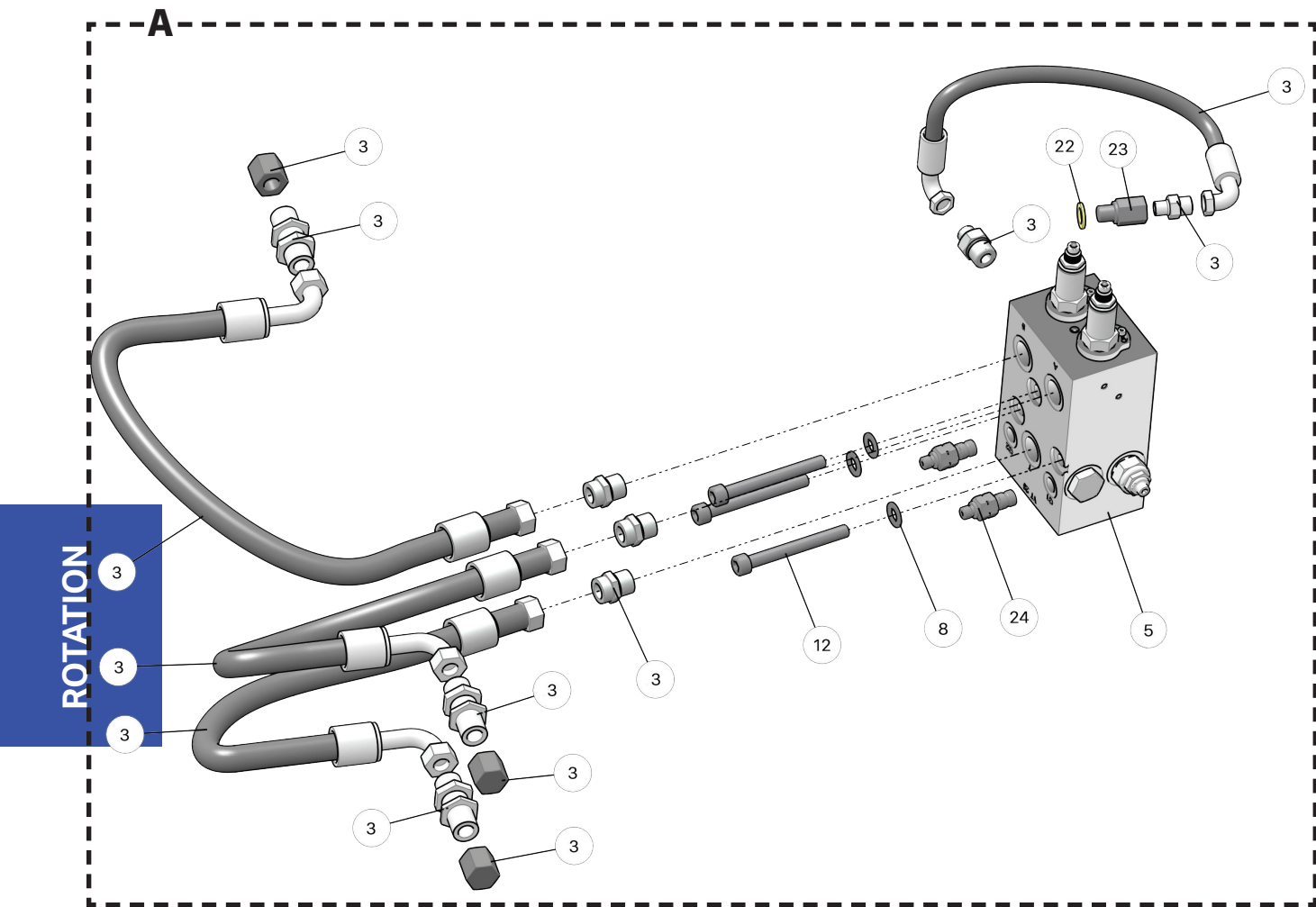
229758 REV. 1

ROTATION



\* See factory for bracket information





| Rotation 229758 Parts List |             |                          |                 |                        |         |     |
|----------------------------|-------------|--------------------------|-----------------|------------------------|---------|-----|
| Item                       | Part Number | Description              | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 501347      | Turntable Bearing        | -               | -                      | -       | 1   |
| 2                          | 514585      | Motor                    | -               | -                      | -       | 1   |
| 3                          | 518150      | Hose Kit (See page 48)   | -               | -                      | -       | 1   |
| 4                          | 511488      | Gear Box                 | -               | -                      | -       | 1   |
| 5                          | 513260      | Valve Assembly           | -               | -                      | -       | 1   |
| 6                          | 229506      | Cover                    | -               | -                      | -       | 1   |
| 7                          | 151404      | Turntable Fastener Cover | -               | -                      | -       | 2   |
| 8                          | 500237      | Washer                   | -               | -                      | -       | 3   |
| 9                          | 501446      | Washer                   | M12             | -                      | -       | 17  |
| 10                         | 510105      | Washer                   | M12             | -                      | -       | 4   |
| 11                         | 501445      | Washer                   | M24             | -                      | -       | 60  |
| 12                         | 500860      | Cap Screw                | M10 x 1.5 x 90  | 49 (66)                | -       | 3   |
| 13                         | 501581      | Cap Screw                | M12 x 1.75 x 30 | 71 (96)                | 243     | 8   |
| 14                         | 501584      | Cap Screw                | M12 x 1.75 x 40 | 85 (115)               | 243     | 4   |
| 15                         | 501549      | Cap Screw                | M12 x 1.75 x 50 | 71 (96)                | 243     | 9   |

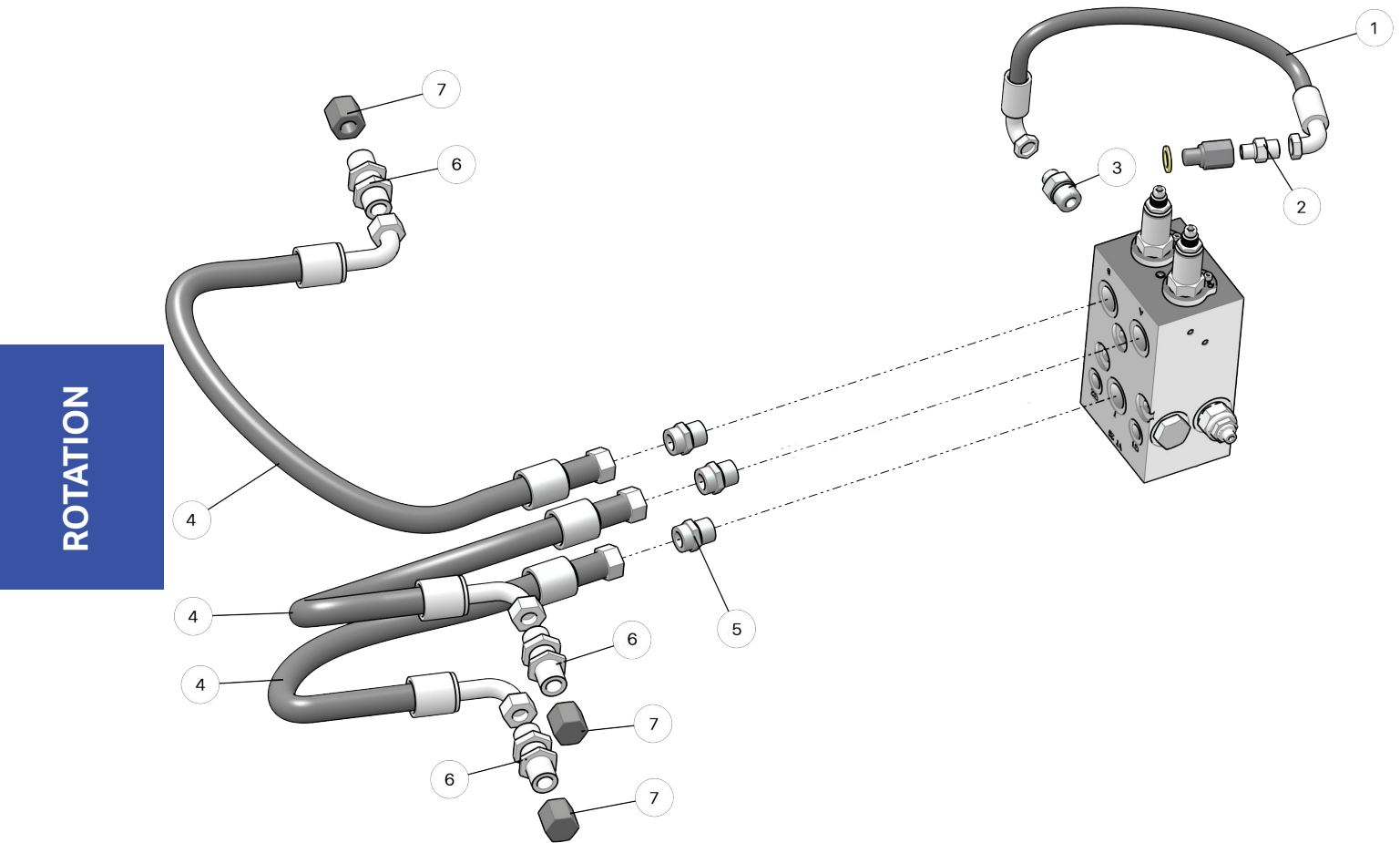
| Rotation 229758 Parts List |             |                                |               |                        |                    |     |
|----------------------------|-------------|--------------------------------|---------------|------------------------|--------------------|-----|
| Item                       | Part Number | Description                    | Size          | Torque<br>Ft. Lbs (Nm) | Loctite            | Qty |
| 16                         | 501626      | Cap Screw -<br>CRITICAL TORQUE | M24 x 3 x 120 | 750 (1,000)            | 263                | 60  |
| 17                         | 510796      | Dowel Pin                      | -             | -                      | -                  | 2   |
| 18                         | 515025      | Transport Pin                  | -             | -                      | -                  | 1   |
| 19                         | 107435      | Grease Tube<br>Assembly        | -             | -                      | -                  | 2   |
| 20                         | 512391      | O-ring                         | -             | -                      | 518<br>7649 Primer | 1   |
| 21                         | 502172      | Grease Adapter                 | -             | -                      | -                  | 2   |
| 22                         | 501684      | Seal                           | -             | -                      | -                  | 1   |
| 23                         | 501685      | Adapter                        | -             | -                      | -                  | 1   |
| 24                         | 502290      | Quick Connect<br>Fitting       | -             | -                      | -                  | 2   |

ROTATION

# HOSE KIT

[See "Read this first" on page 3]

## 518150 REV. 1



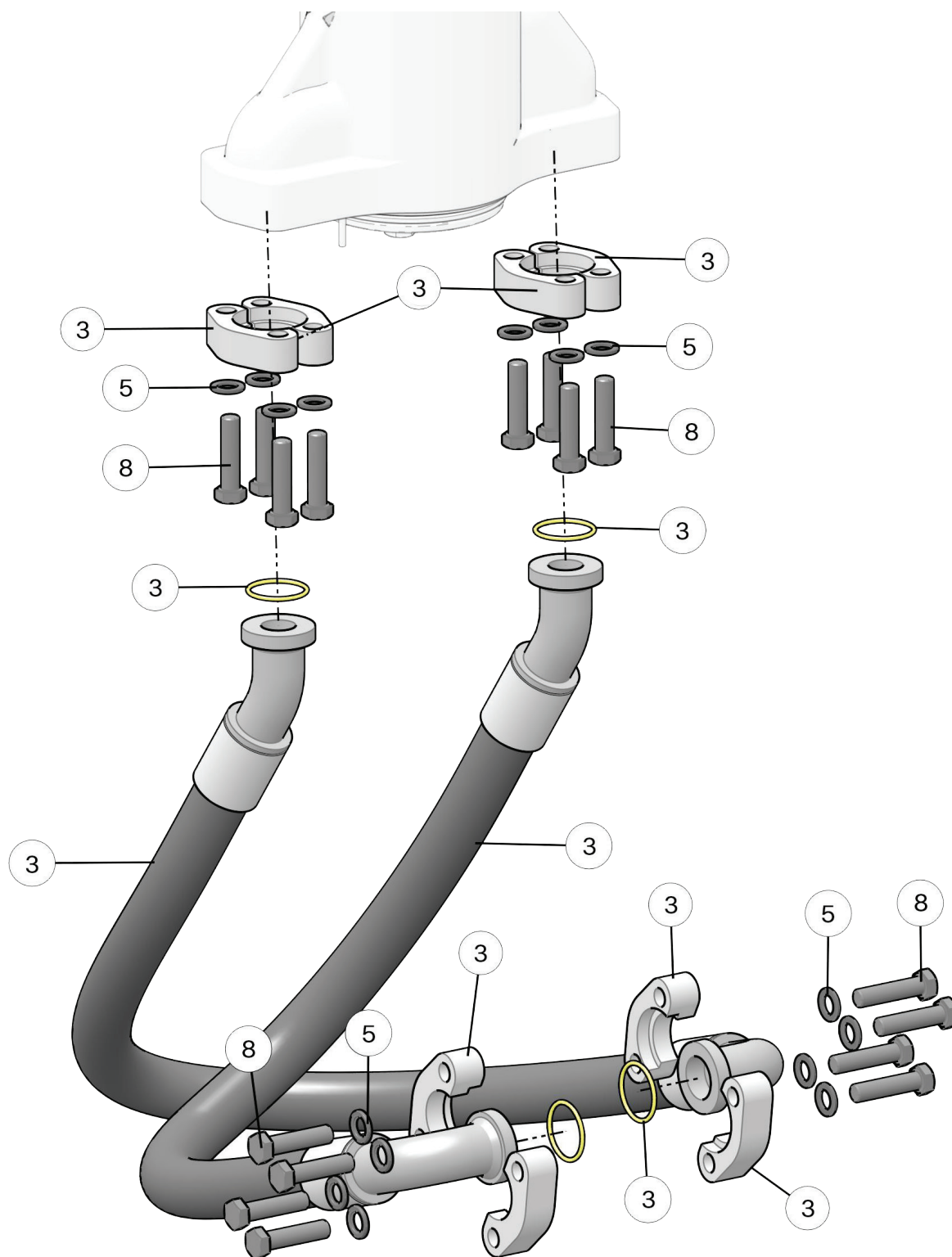
| Hose Kit 518150 Parts List |             |                        |                         |                        |         |     |
|----------------------------|-------------|------------------------|-------------------------|------------------------|---------|-----|
| Item                       | Part Number | Description            | Size                    | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 108573      | Motor Case Drain Hose  | -                       | 18 (25)                | 243     | 1   |
| 2                          | 500916      | Hydraulic Adapter      | -4 M FFORX to -4 SAE MB | 22 (30)                | 243     | 1   |
| 3                          | 500940      | Hydraulic Adapter      | -4 M FFORX to -8 SAE MB | 52 (70)                | 243     | 1   |
| 4                          | 518149      | Hose Assembly          | -                       | 40 (55)                | 243     | 3   |
| 5                          | 500917      | Hydraulic Adapter      | -8 ORS to -8 M FFORX    | 52 (70)                | 243     | 3   |
| 6                          | 500919      | Hydraulic Adapter      | -8 M FFORX              | -                      | -       | 3   |
| 7                          | 501026      | Hydraulic Adapter Plug | -8 F FFORX              | -                      | -       | 3   |

# HYDRAULIC ASSEMBLY

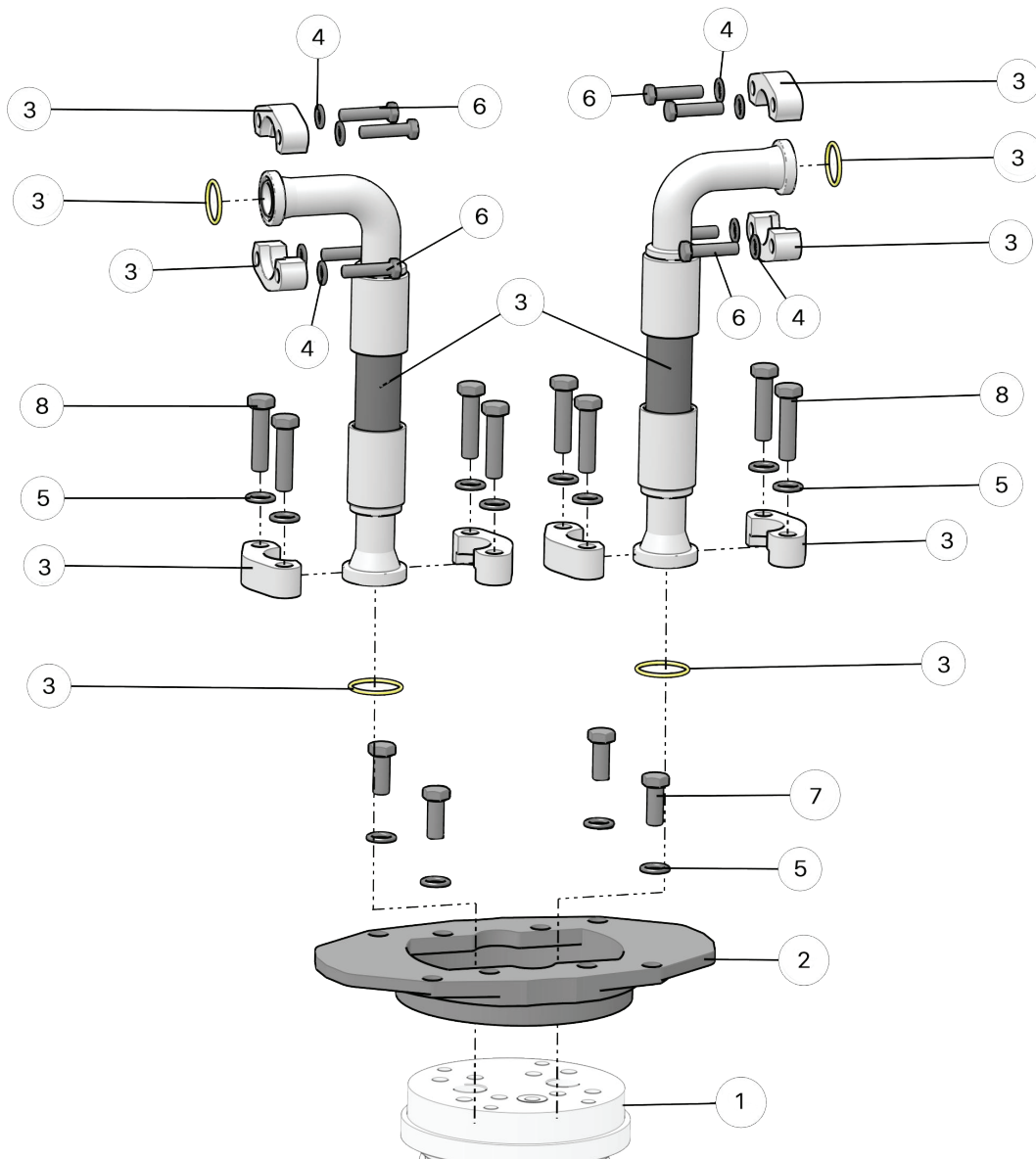
## HYDRAULIC ASSEMBLY

[See "Read this first" on page 3]

222769 REV. 1



HYDRAULIC



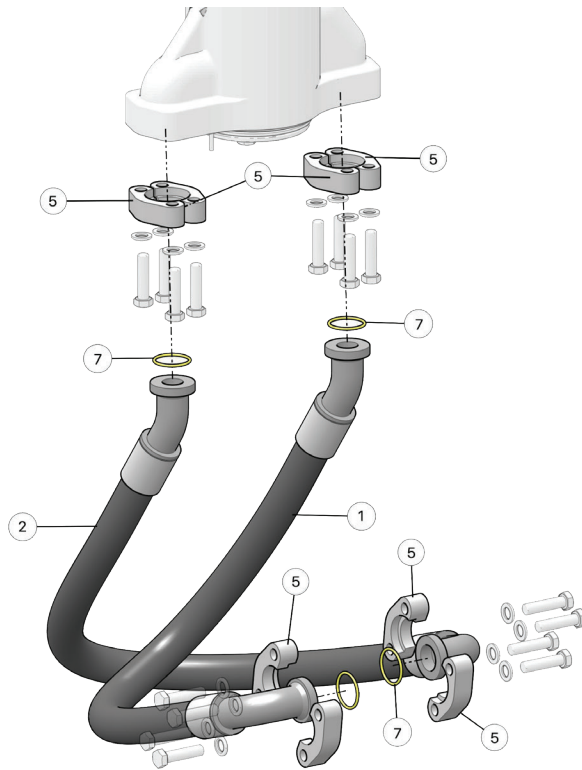
Hydraulic Assembly 222769 Parts List

| Item | Part Number | Description                         | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------------------------------|-----------------|------------------------|---------|-----|
| 1    | 512753      | Hydraulic Manifold<br>(See page 55) | -               | -                      | -       | 1   |
| 2    | 207674      | Swivel Bracket                      | -               | -                      | -       | 1   |
| 3    | 516439      | Hose Kit (See page 51)              | -               | -                      | -       | 1   |
| 4    | 501446      | Washer                              | M12             | -                      | -       | 8   |
| 5    | 501554      | Washer                              | M16             | -                      | -       | 28  |
| 6    | 501549      | Cap Screw                           | M12 x 1.75 x 50 | 95 (130)               | 243     | 8   |
| 7    | 501548      | Cap Screw                           | M16 x 2 x 40    | 175 (235)              | 243     | 4   |
| 8    | 501553      | Cap Screw                           | M16 x 2 x 65    | 215 (300)              | 243     | 24  |

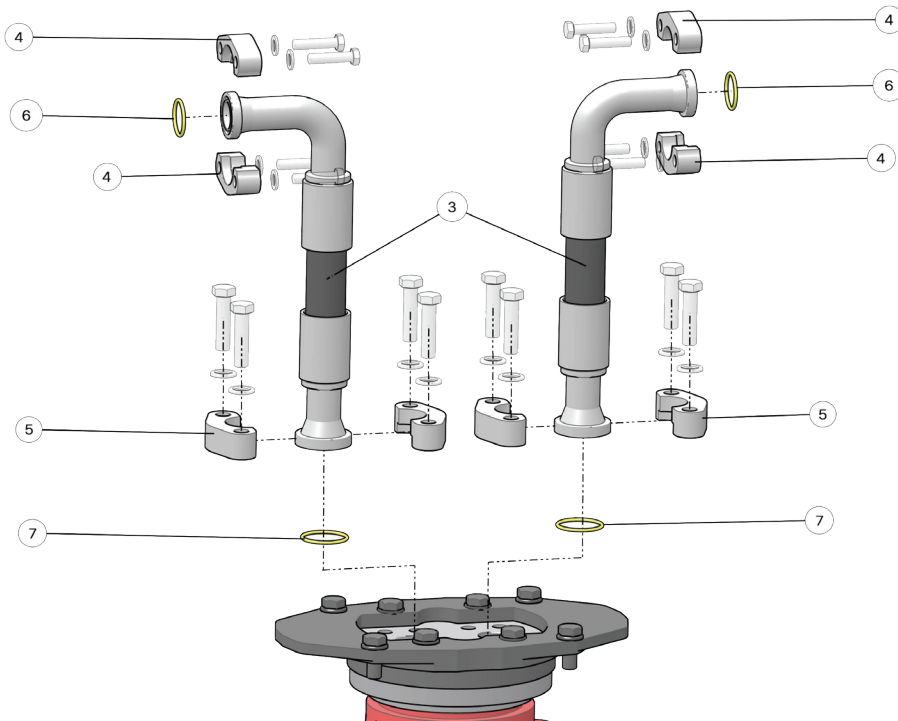
# HOSE KIT

[See "Read this first" on page 3]

## 516439 REV. 1



HYDRAULIC

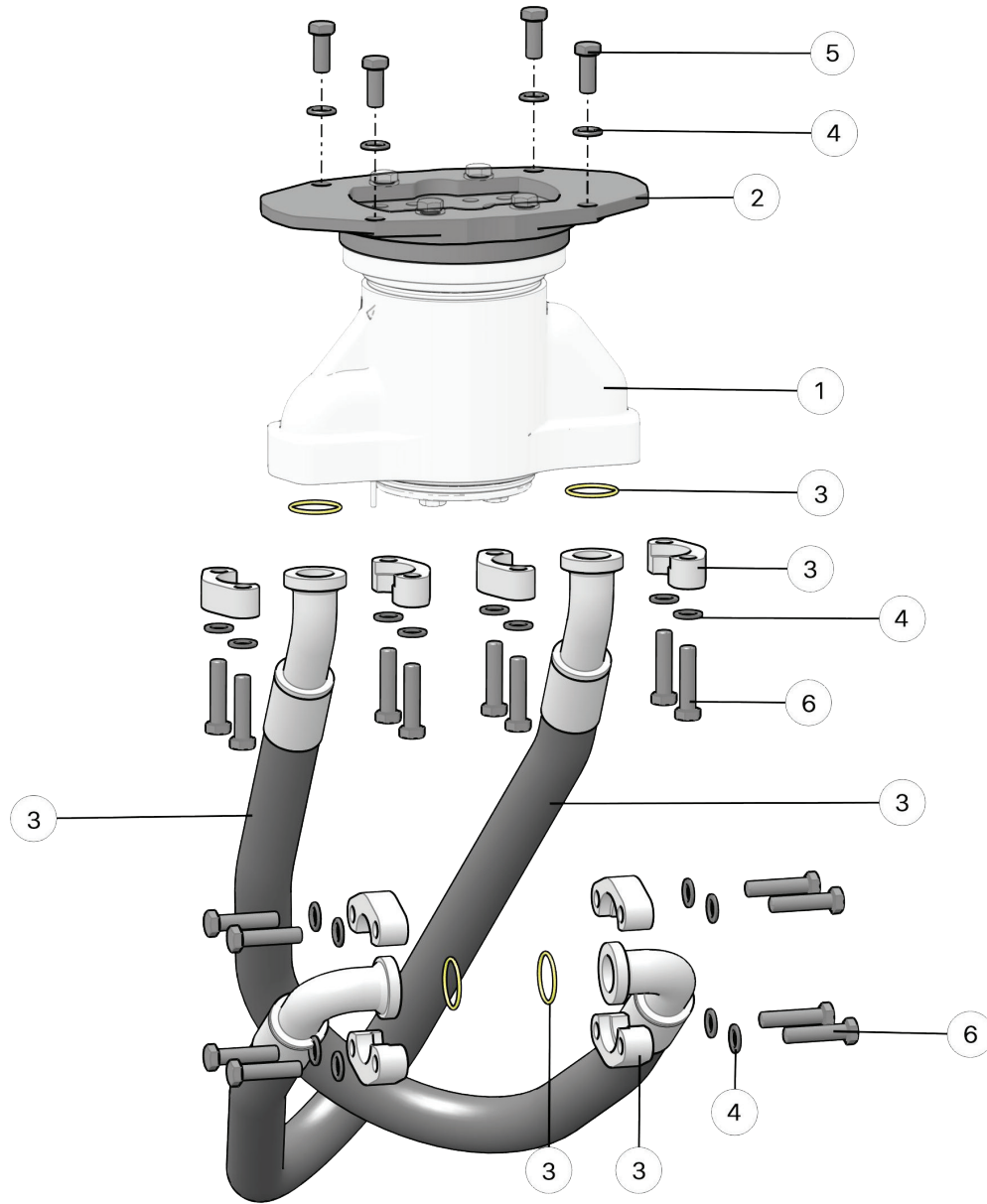


| Hose Kit 516439 Parts List |             |                              |                                    |                        |         |     |
|----------------------------|-------------|------------------------------|------------------------------------|------------------------|---------|-----|
| Item                       | Part Number | Description                  | Size                               | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 164954      | Retract Hose Assembly (Long) | -                                  | -                      | -       | 1   |
| 2                          | 164953      | Extend Hose Assembly (Short) | -                                  | -                      | -       | 1   |
| 3                          | 516424      | Swivel to Port Block Hose    | -                                  | -                      | -       | 2   |
| 4                          | 500090      | Split Flange Half            | 1.25" SAE<br>Code 62               | -                      | -       | 4   |
| 5                          | 500098      | Split Flange Half            | 1.50" SAE<br>Code 62               | -                      | -       | 12  |
| 6                          | 500100      | O-ring Seal                  | SAE 222-90<br>SAE 1.25" Code<br>62 | -                      | -       | 2   |
| 7                          | 500101      | O-ring Seal                  | SAE 225-90<br>SAE 1.50" Code<br>62 | -                      | -       | 6   |

# HYDRAULIC ASSEMBLY

[See "Read this first" on page 3]

229508 REV. 1



HYDRAULIC

Hydraulic Assembly 229508 Parts List

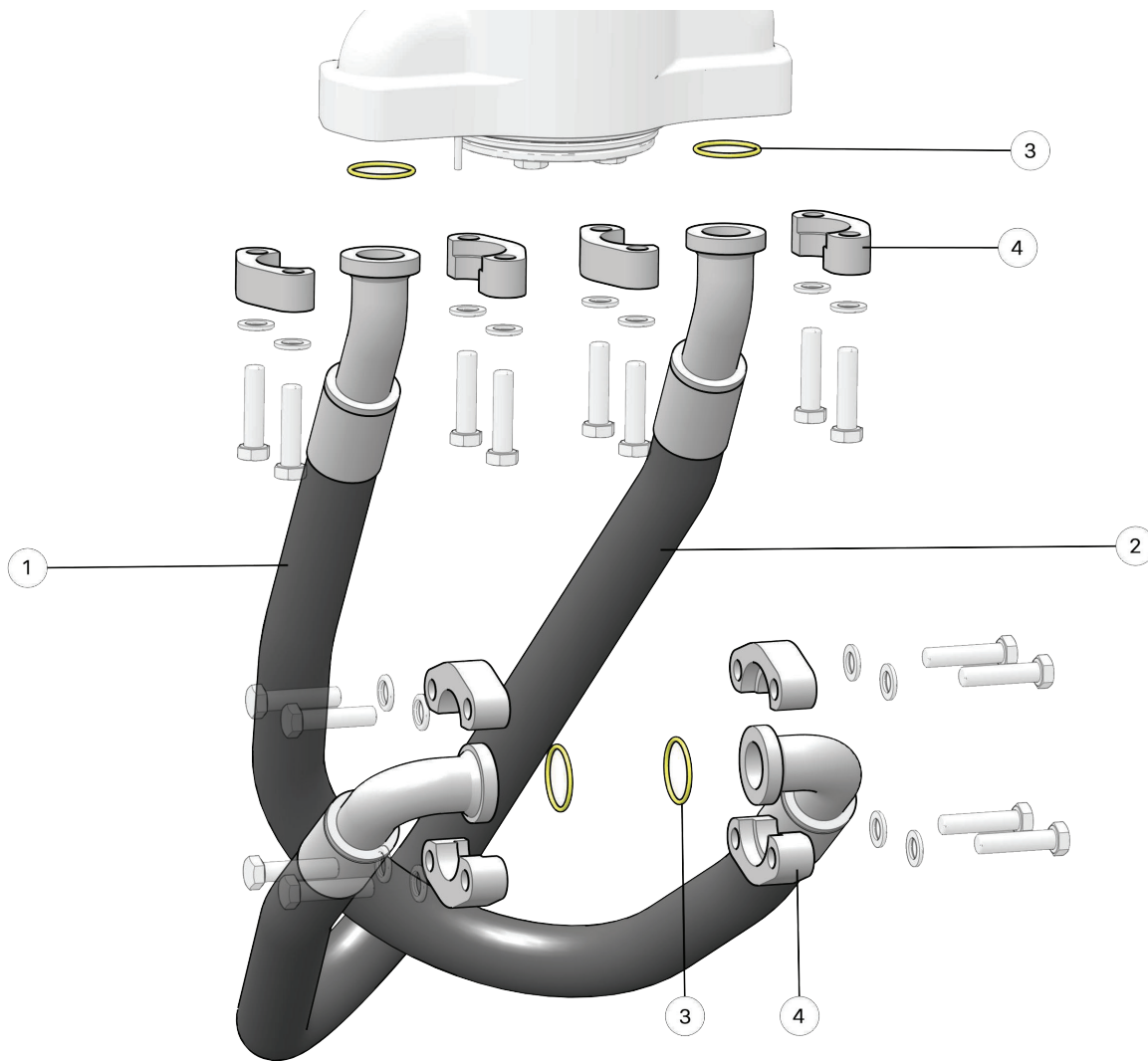
| Item | Part Number | Description                         | Size         | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------------------------------|--------------|------------------------|---------|-----|
| 1    | 512753      | Hydraulic Manifold<br>(See page 55) | -            | -                      | -       | 1   |
| 2    | 207674      | Swivel Bracket                      | -            | -                      | -       | 1   |
| 3    | 166579      | Hose Kit                            | -            | -                      | -       | 1   |
| 4    | 501554      | Washer                              | M16          | -                      | -       | 20  |
| 5    | 501548      | Cap Screw                           | M16 x 2 x 40 | 175 (235)              | 243     | 4   |
| 6    | 501553      | Cap Screw                           | M16 x 2 x 65 | 215 (300)              | 243     | 16  |



# HOSE KIT

[See "Read this first" on page 3]

## 166579 REV. 5



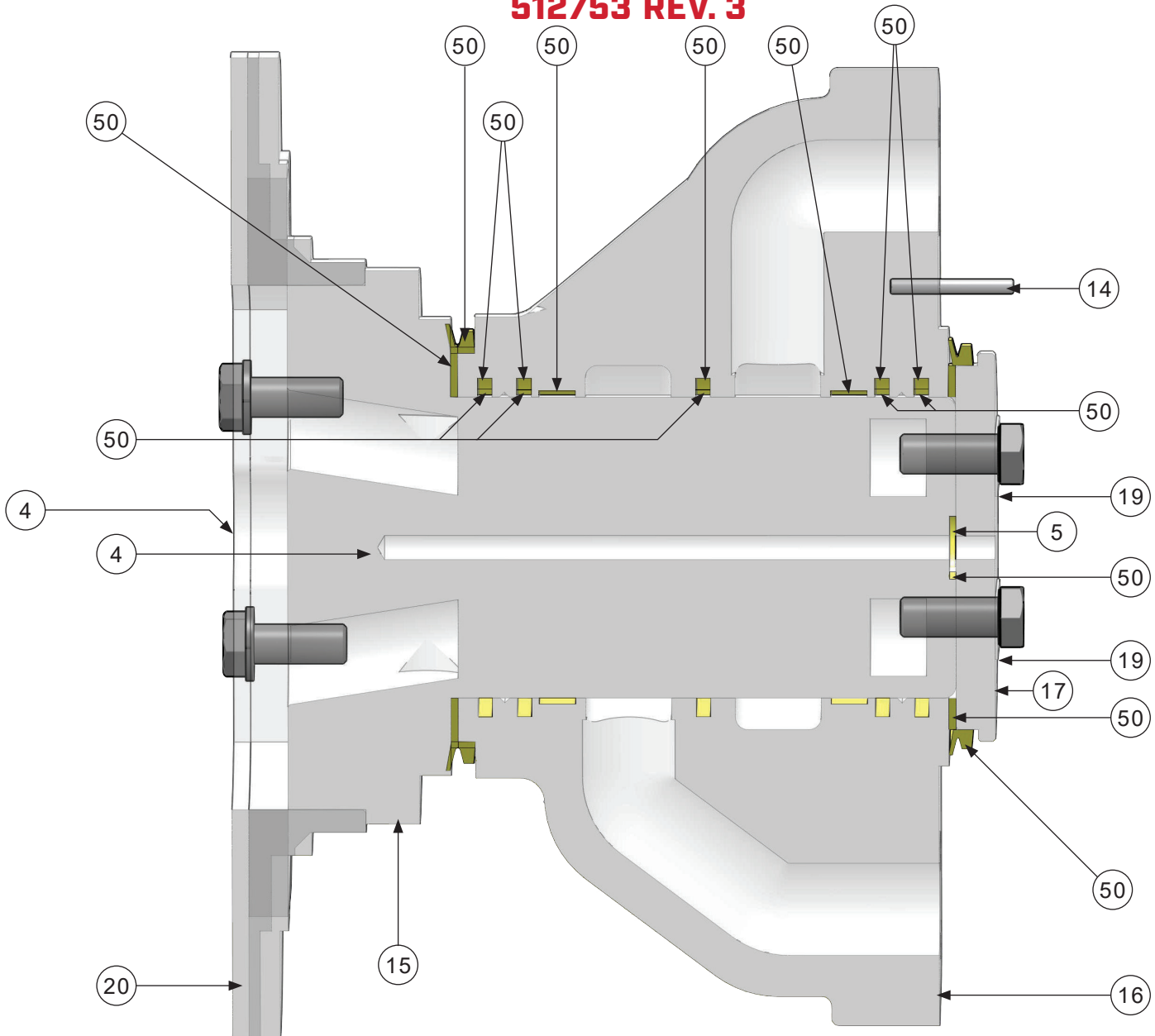
HYDRAULIC

| Hose Kit 166579 Parts List |             |                   |                                    |                        |         |     |
|----------------------------|-------------|-------------------|------------------------------------|------------------------|---------|-----|
| Item                       | Part Number | Description       | Size                               | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 512753      | Hose Assembly     | -                                  | -                      | -       | 1   |
| 2                          | 501554      | Hose Assembly     | -                                  | -                      | -       | 16  |
| 3                          | 501553      | O-ring Seal       | SAE 225-90<br>SAE 1.50" Code<br>62 | -                      | -       | 16  |
| 4                          | 166579      | Split Flange Half | 1.50" SAE<br>Code 62               | -                      | -       | 1   |

# HYDRAULIC MANIFOLD

[See "Read this first" on page 3]

512753 REV. 3



HYDRAULIC

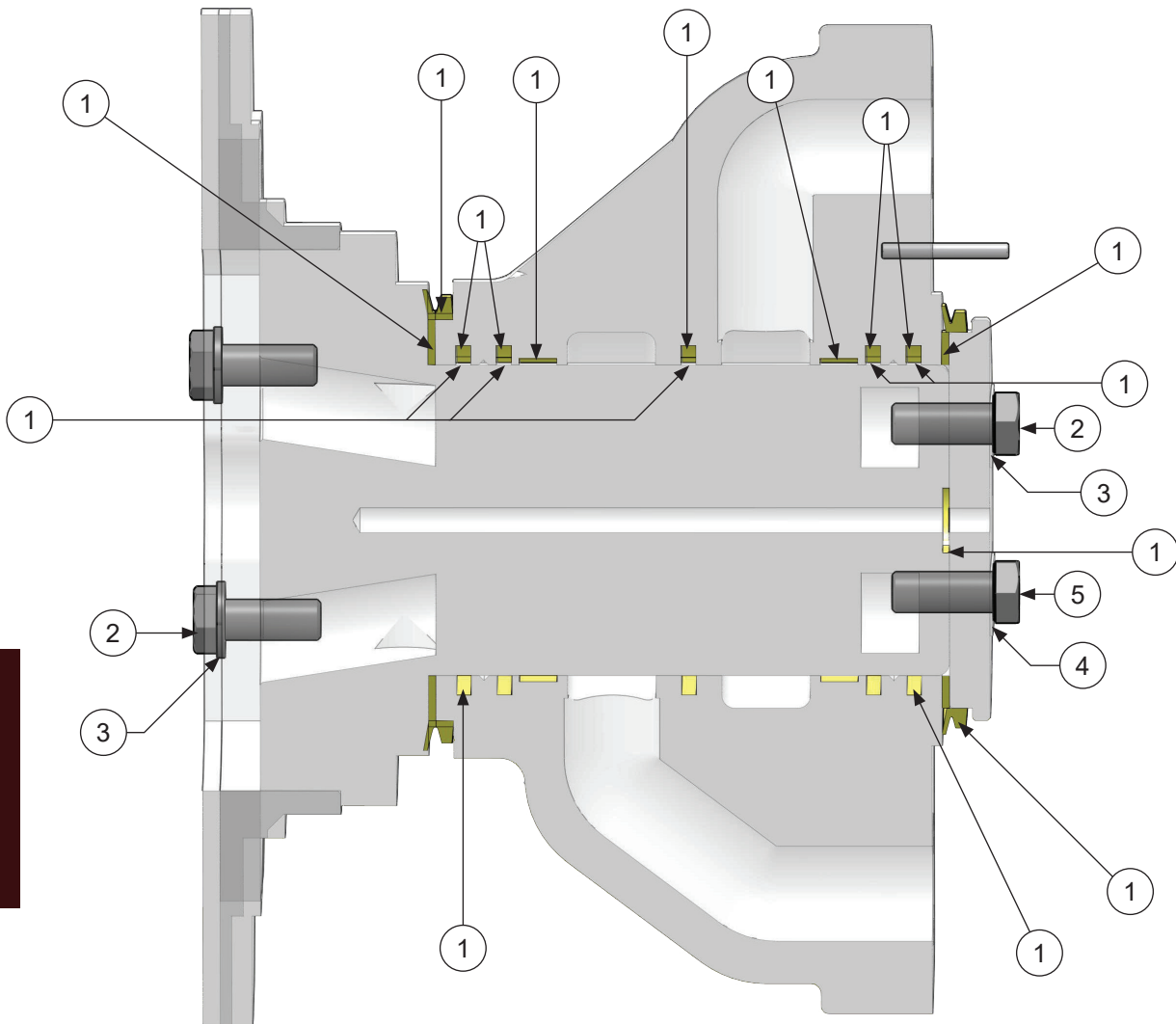
| Hydraulic Manifold 512753 Parts List |             |                                   |     |
|--------------------------------------|-------------|-----------------------------------|-----|
| Item                                 | Part Number | Description                       | Qty |
| 2                                    | 514185      | Expander ball                     | 1   |
| 4                                    | 502739      | Plug                              | 1   |
| 5                                    | 514187      | O-ring Seal                       | 1   |
| 14                                   | 514194      | Locating Pin                      | 1   |
| 15                                   | 514195      | Spool Machining                   | 1   |
| 16                                   | 514191      | Housing Machining                 | 1   |
| 17                                   | 514192      | Cap Machining                     | 1   |
| 19                                   | 514193      | Plate                             | 2   |
| 20                                   | 512198      | Stop Machining                    | 1   |
| 50                                   | 175359      | Seal Kit with Bolts (See page 56) | 1   |

# HYDRAULIC MANIFOLD SEAL KIT WITH BOLTS

[See "Read this first" on page 3]

175359 REV. 2

HYDRAULIC



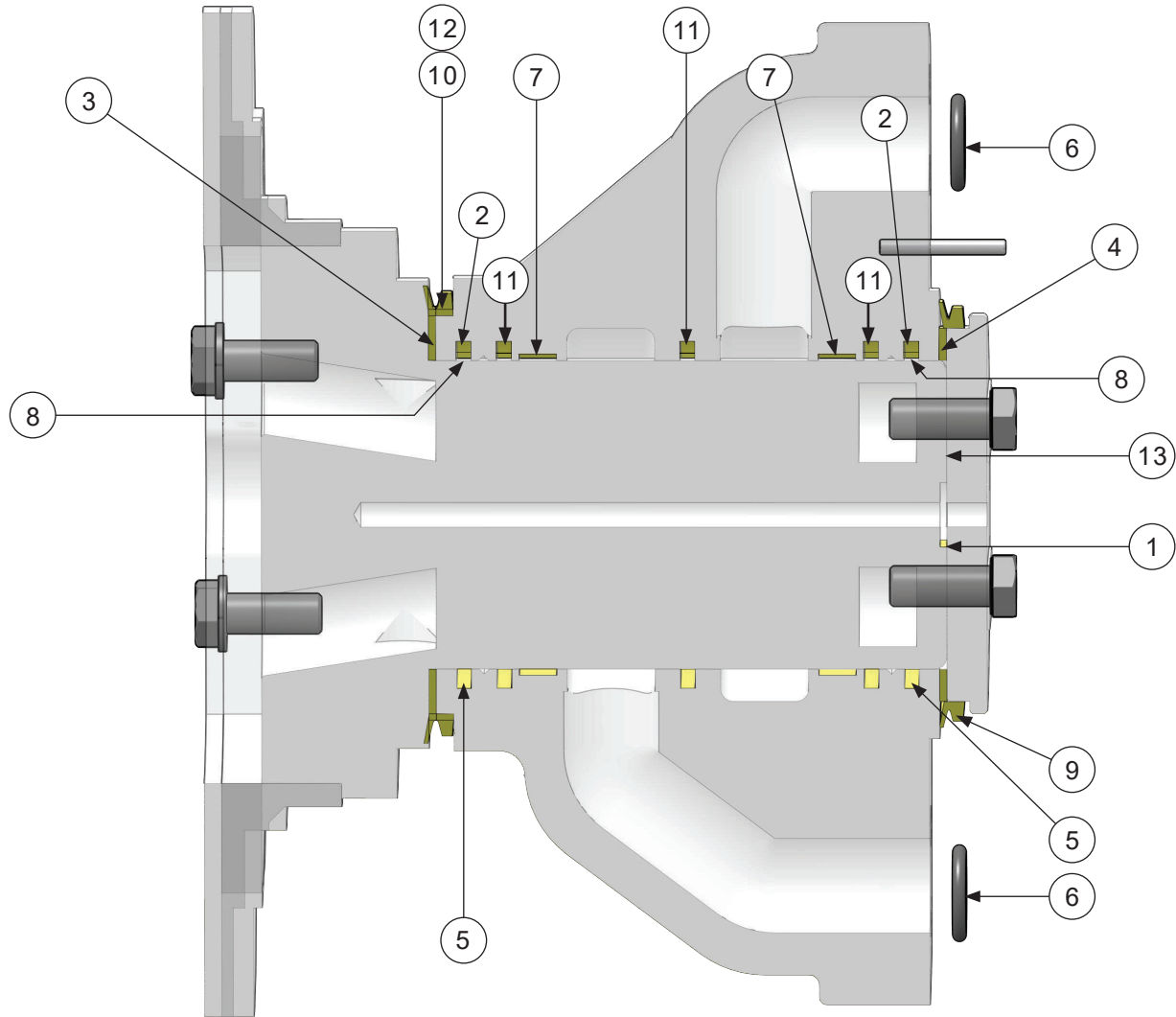
Hydraulic Manifold Seal Kit with Bolts 175359 Parts List

| Item | Part Number | Description                               | Size           | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------------------------------------|----------------|------------------------|---------|-----|
| 1    | 512068      | Hydraulic Manifold Seal Kit (See page 57) | -              | -                      | -       | 1   |
| 2    | 501548      | Cap Screw                                 | M16 x 2 x 40   | -                      | -       | 8   |
| 3    | 501589      | Lock Washer                               | M16            | -                      | -       | 8   |
| 4    | 501193      | Lock Washer                               | M10            | -                      | -       | 4   |
| 5    | 502137      | Cap Screw                                 | M10 x 1.5 x 30 | -                      | -       | 4   |

# HYDRAULIC MANIFOLD SEAL KIT

[See "Read this first" on page 3]

**512068 REV. 7**



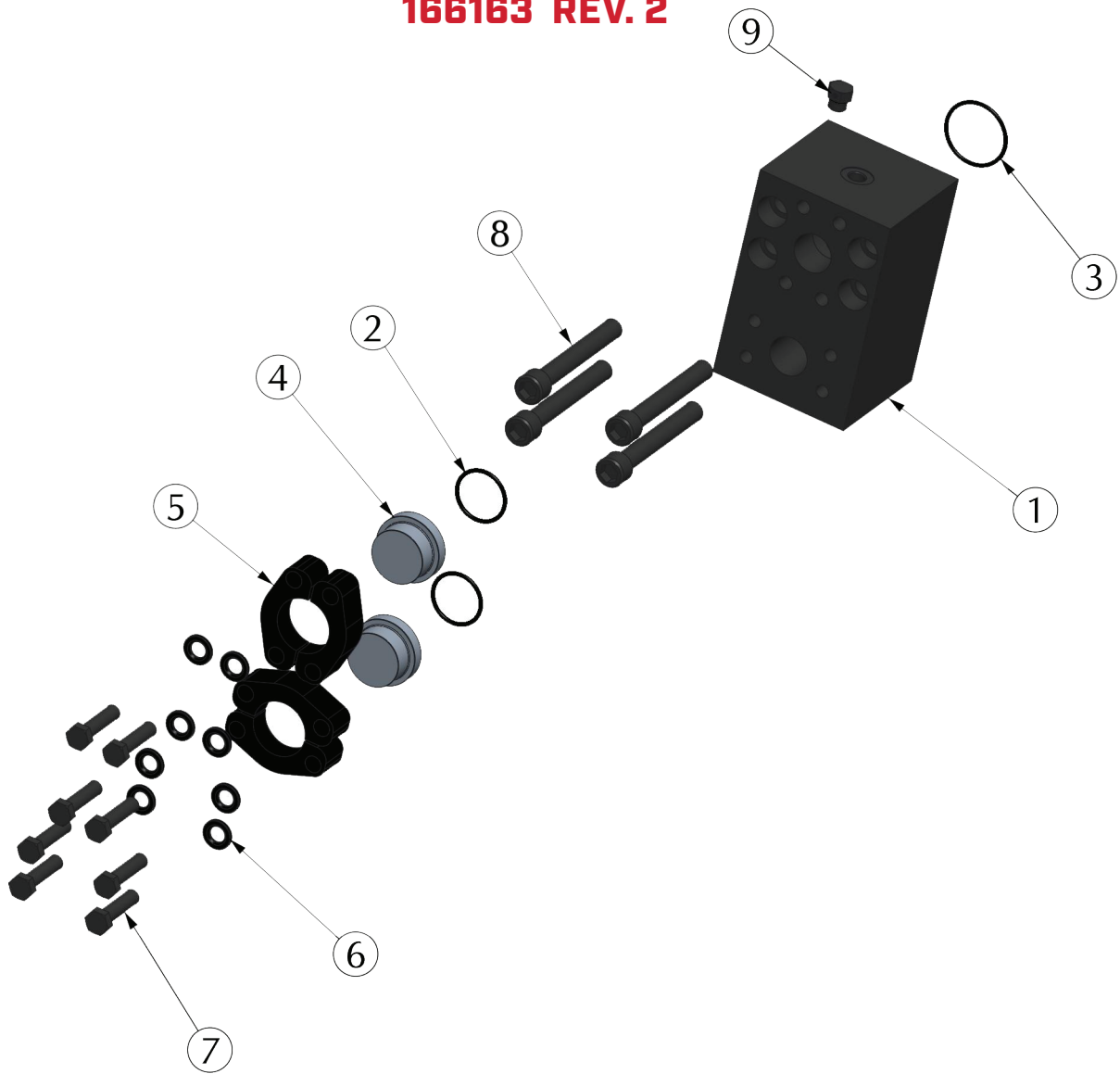
HYDRAULIC

Hydraulic Manifold Seal Kit 512068 Parts List

| Item | Part Number | Description                                         | Qty |
|------|-------------|-----------------------------------------------------|-----|
| 1    | 500344      | O-ring                                              | 1   |
| 2    | 513378      | Square Seal                                         | 2   |
| 3    | 513379      | Thrust Washer                                       | 1   |
| 4    | 513380      | Thrust Washer                                       | 1   |
| 5    | 513381      | Shaft Seal                                          | 2   |
| 6    | 513382      | O-ring Seal                                         | 2   |
| 7    | 513383      | Wear Ring Seal                                      | 2   |
| 8    | 513384      | Rotary Seal                                         | 2   |
| 9    | 513385      | V-ring Seal                                         | 1   |
| 10   | 513386      | V-ring Seal (Swivel 512753, 512672)                 | 1   |
| 11   | 514211      | Rotary Seal                                         | 3   |
| 12   | 514212      | V-ring Seal (Swivel 512201, 512133, 512080, 512067) | 1   |
| 13   | 514213      | O-ring Seal                                         | 1   |

# PORT KITS

**PORT KIT**  
[See “Read this first” on page 3]  
**166163 REV. 2**

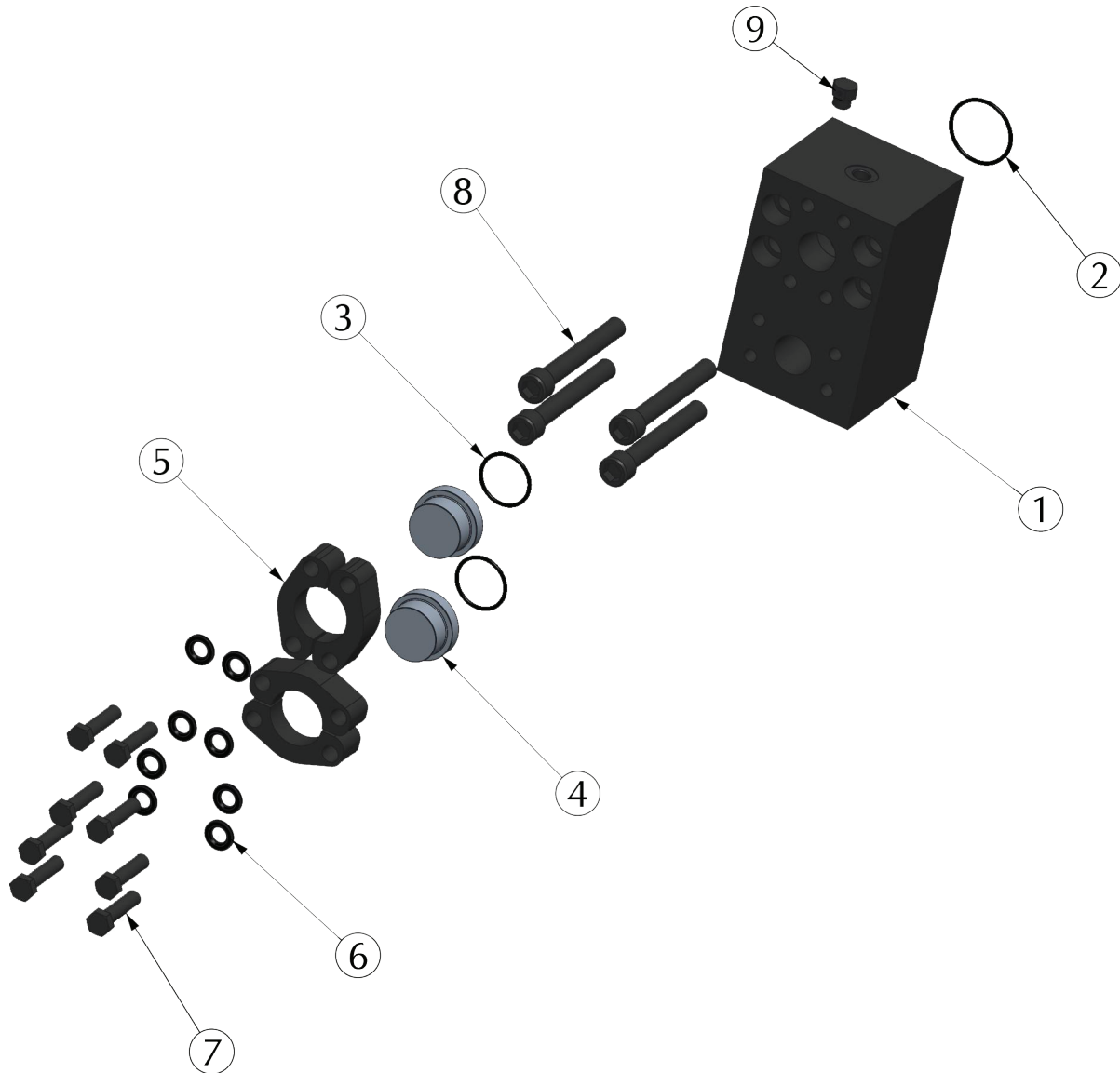


PORT KITS

Port Kit 166163 Parts List

| Item | Part Number | Description | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|-----------------|------------------------|---------|-----|
| 1    | 165030      | Manifold    | -               | -                      | -       | 2   |
| 2    | 500100      | O-ring      | -               | -                      | -       | 4   |
| 3    | 500101      | O-ring      | -               | -                      | -       | 2   |
| 4    | 500091      | Plug        | -               | -                      | -       | 4   |
| 5    | 500090      | Flange Half | -               | -                      | -       | 8   |
| 6    | 501446      | Washer      | M12             | -                      | -       | 16  |
| 7    | 501549      | Cap Screw   | M12 x 1.75 x 50 | 95 (130)               | 242     | 16  |
| 8    | 510953      | Cap Screw   | M16 x 2 x 120   | 210 (280)              | 262     | 8   |
| 9    | 500346      | Plug        | -               | 30 (40)                | 262     | 2   |

**PORT KIT**  
 [See “Read this first” on page 3]  
**166258 REV. 3**



**PORT KITS**

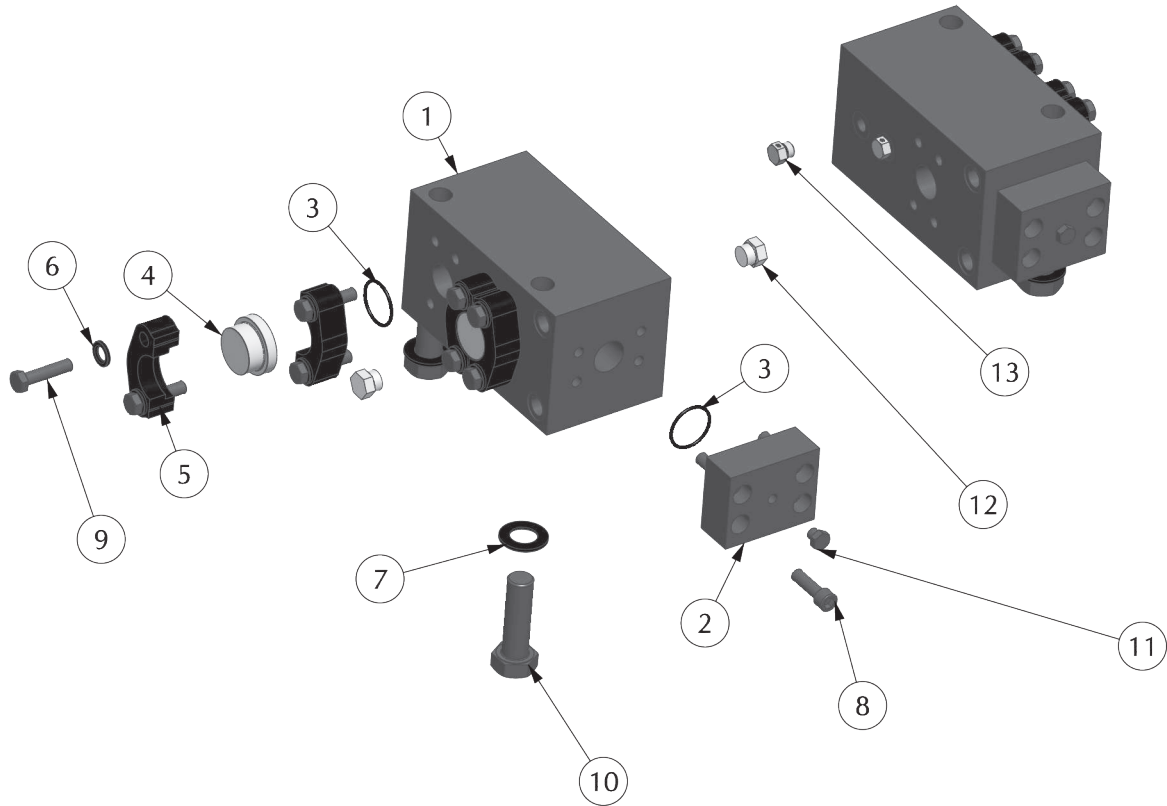
Port Kit 166258 Parts List

| Item | Part Number | Description | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|-----------------|------------------------|---------|-----|
| 1    | 165030      | Manifold    | -               | -                      | -       | 2   |
| 2    | 500101      | O-ring      | -               | -                      | -       | 2   |
| 3    | 500017      | D-ring Seal | -               | -                      | -       | 4   |
| 4    | 110434      | Plug        | -               | -                      | -       | 4   |
| 5    | 500018      | Flange Half | -               | -                      | -       | 8   |
| 6    | 501446      | Washer      | M12             | -                      | -       | 16  |
| 7    | 501549      | Cap Screw   | M12 x 1.75 x 50 | 95 (130)               | 242     | 16  |
| 8    | 510953      | Cap Screw   | M16 x 2 x 120   | 210 (280)              | 262     | 8   |
| 9    | 500346      | Plug        | -               | 30 (40)                | 262     | 2   |

# PORT KIT

[See "Read this first" on page 3]

## 222897 REV. 4

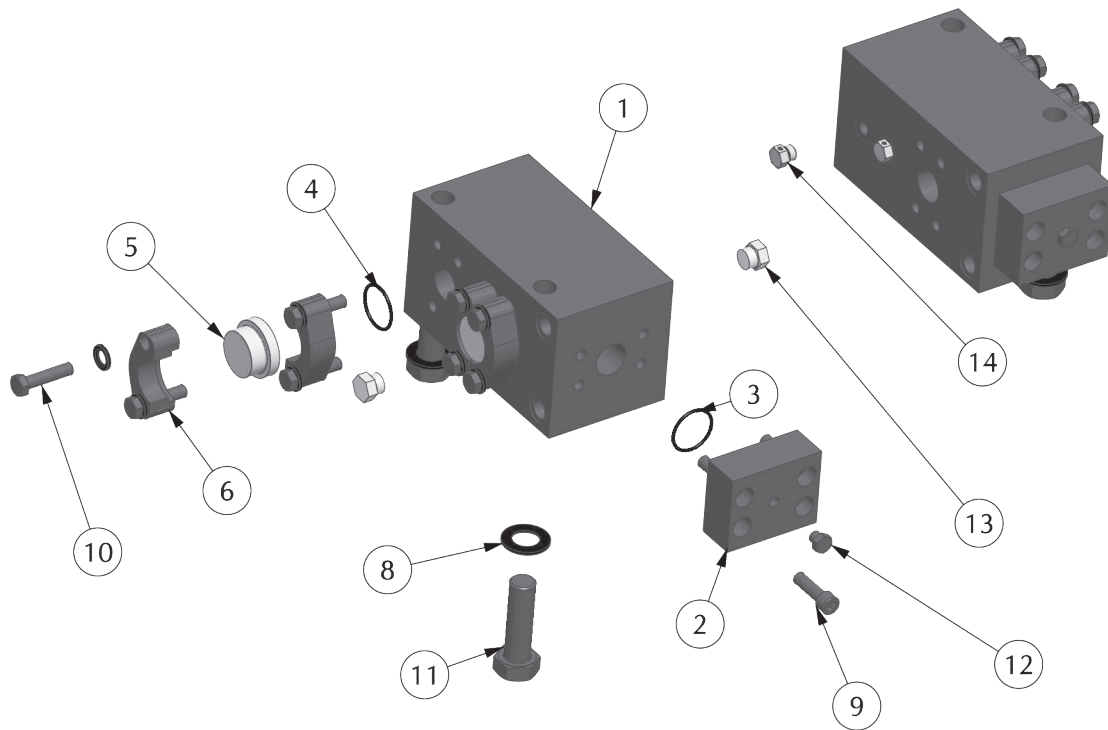


### PORT KITS

Port Kit 222897 Parts List

| Item | Part Number | Description | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|-----------------|------------------------|---------|-----|
| 1    | 222767      | Port Block  | -               | -                      | -       | 2   |
| 2    | 516435      | Adapter     | -               | -                      | -       | 2   |
| 3    | 500100      | O-ring      | -               | -                      | -       | 6   |
| 4    | 500091      | Plug        | -               | -                      | -       | 4   |
| 5    | 500090      | Flange Half | -               | -                      | -       | 8   |
| 6    | 501446      | Washer      | M12             | -                      | -       | 16  |
| 7    | 501445      | Washer      | M24             | -                      | -       | 4   |
| 8    | 501584      | Cap Screw   | M12 x 1.75 x 40 | 85 (116)               | 243     | 8   |
| 9    | 501549      | Cap Screw   | M12 x 1.75 x 50 | 95 (130)               | 243     | 16  |
| 10   | 502116      | Cap Screw   | M24 x 3 x 80    | 580 (790)              | 263     | 4   |
| 11   | 501890      | Plug        | -               | 22 (30)                | 263     | 2   |
| 12   | 501207      | Plug        | -               | 52 (71)                | 263     | 2   |
| 13   | 516287      | Plug        | -               | 30 (40)                | 263     | 4   |

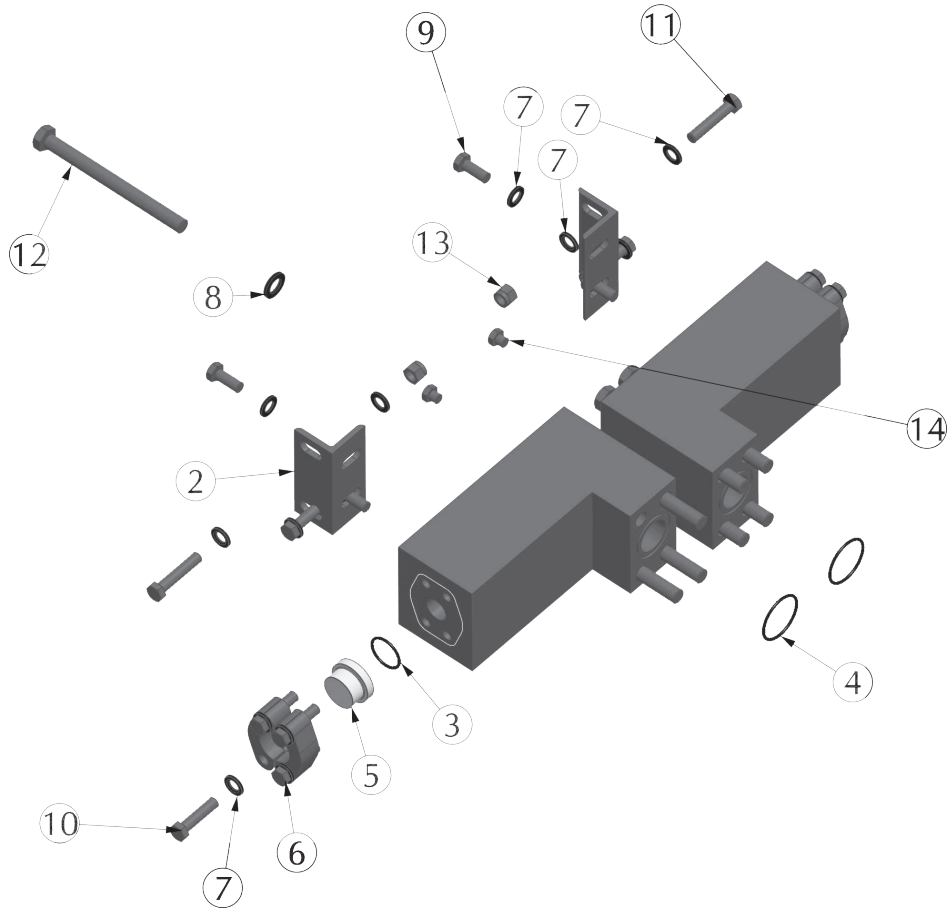
**PORT KIT**  
[See “Read this first” on page 3]  
**222898 REV. 4**



| Port Kit 222898 Parts List |             |             |                 |                        |         |     |
|----------------------------|-------------|-------------|-----------------|------------------------|---------|-----|
| Item                       | Part Number | Description | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 222767      | Port Block  | -               | -                      | -       | 2   |
| 2                          | 516435      | Adapter     | -               | -                      | -       | 2   |
| 3                          | 500100      | O-ring      | -               | -                      | -       | 2   |
| 4                          | 500017      | D-ring Seal | -               | -                      | -       | 4   |
| 5                          | 110434      | Plug        | -               | -                      | -       | 4   |
| 6                          | 500018      | Flange Half | -               | -                      | -       | 8   |
| 7                          | 501446      | Washer      | M12             | -                      | -       | 16  |
| 8                          | 501445      | Washer      | M24             | -                      | -       | 4   |
| 9                          | 501584      | Cap Screw   | M12 x 1.75 x 40 | 95 (130)               | 243     | 8   |
| 10                         | 501549      | Cap Screw   | M12 x 1.75 x 50 | 95 (130)               | 243     | 16  |
| 11                         | 502116      | Cap Screw   | M24 x 3 x 80    | 580 (790)              | 262     | 4   |
| 12                         | 501890      | Plug        | -               | 22 (30)                | 262     | 2   |
| 13                         | 501207      | Plug        | -               | 52 (71)                | 263     | 2   |
| 14                         | 516287      | Plug        | -               | 30 (40)                | 263     | 4   |



**PORT KIT**  
 [See "Read this first" on page 3]  
**229907 REV. 1**

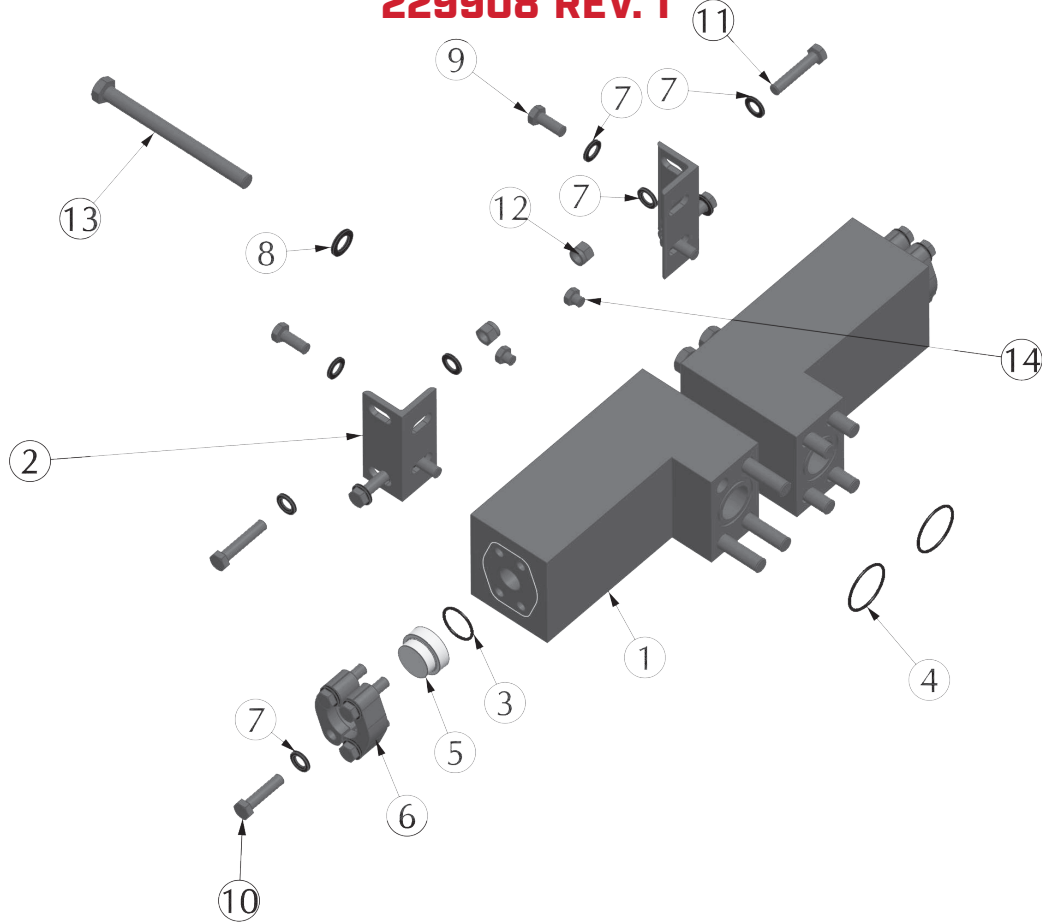


**PORT KITS**

Port Kit 229907 Parts List

| Item | Part Number | Description   | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------|-----------------|------------------------|---------|-----|
| 1    | 229909      | Manifold      | -               | -                      | -       | 2   |
| 2    | 108796      | Angle Bracket | -               | -                      | -       | 2   |
| 3    | 500266      | O-ring        | -               | -                      | -       | 2   |
| 4    | 500101      | O-ring        | -               | -                      | -       | 2   |
| 5    | 501484      | Plug          | -               | -                      | -       | 2   |
| 6    | 500267      | Flange Half   | -               | -                      | -       | 4   |
| 7    | 501446      | Washer        | M12             | -                      | -       | 20  |
| 8    | 501554      | Washer        | M16             | -                      | -       | 8   |
| 9    | 501581      | Cap Screw     | M12 x 1.75 x 30 | 70 (95)                | 263     | 4   |
| 10   | 501549      | Cap Screw     | M12 x 1.75 x 50 | 85 (116)               | 243     | 8   |
| 11   | 502383      | Cap Screw     | M12 x 1.75 x 60 | 70 (95)                | 263     | 4   |
| 12   | 502118      | Cap Screw     | M16 x 2 x 180   | 170 (230)              | 263     | 8   |
| 13   | 502133      | Nut           | M12 x 1.75      | -                      | -       | 4   |
| 14   | 501890      | Plug          | -               | 22 (30)                | 263     | 2   |

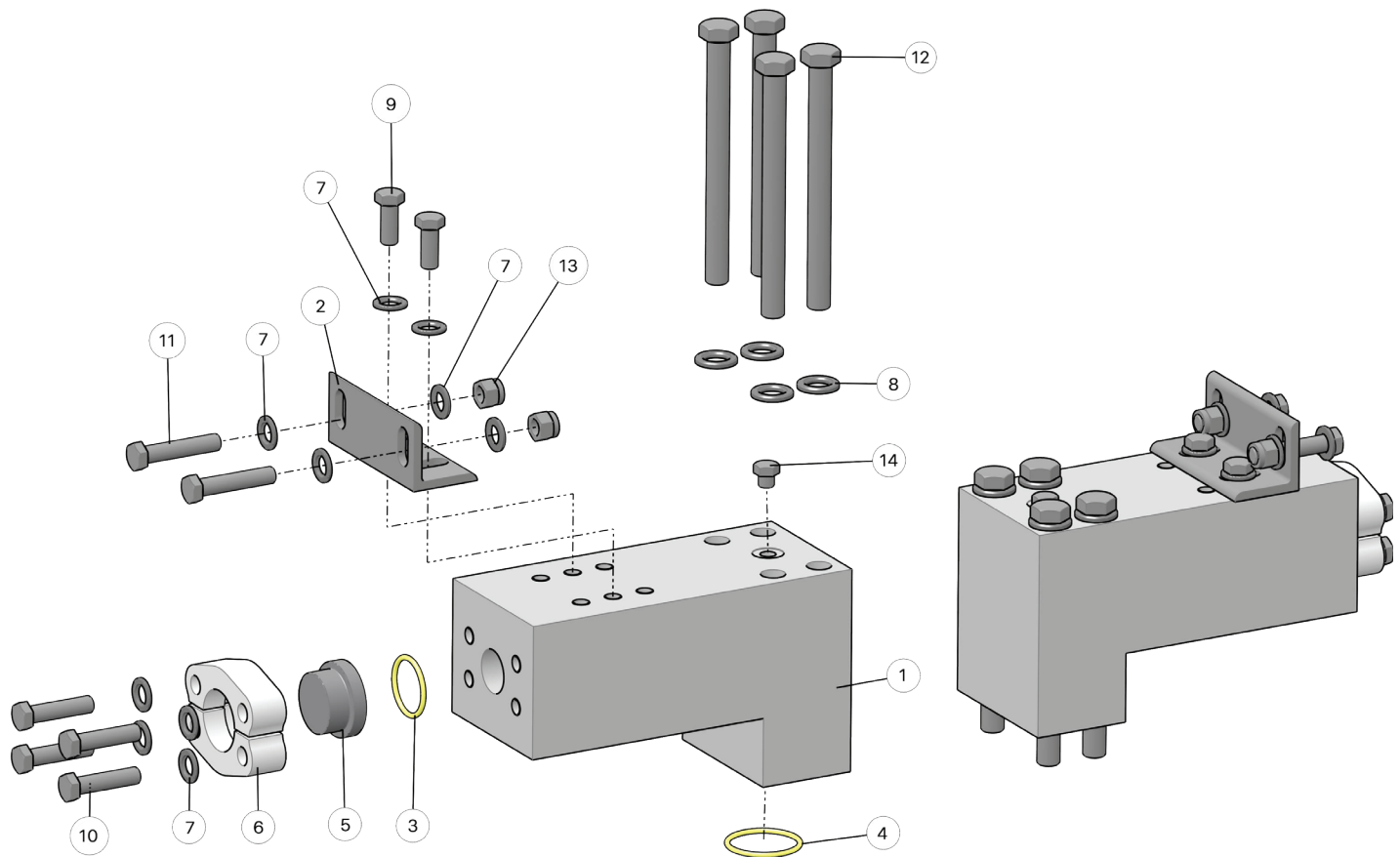
**PORT KIT**  
[See “Read this first” on page 3]  
**229908 REV. 1**



Port Kit 229908 Parts List

| Item | Part Number | Description   | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------|-----------------|------------------------|---------|-----|
| 1    | 229909      | Manifold      | -               | -                      | -       | 2   |
| 2    | 108796      | Angle Bracket | -               | -                      | -       | 2   |
| 3    | 500021      | D-ring Seal   | -               | -                      | -       | 2   |
| 4    | 500101      | O-ring        | -               | -                      | -       | 2   |
| 5    | 503812      | Plug          | -               | -                      | -       | 2   |
| 6    | 503968      | Flange Half   | -               | -                      | -       | 4   |
| 7    | 501446      | Washer        | M12             | -                      | -       | 20  |
| 8    | 501554      | Washer        | M16             | -                      | -       | 8   |
| 9    | 501581      | Cap Screw     | M12 x 1.75 x 30 | 70 (95)                | 263     | 4   |
| 10   | 501549      | Cap Screw     | M12 x 1.75 x 50 | 95 (130)               | 243     | 8   |
| 11   | 502383      | Cap Screw     | M12 x 1.75 x 60 | 70 (95)                | 263     | 4   |
| 12   | 502133      | Nut           | M12 x 1.75      | -                      | -       | 4   |
| 13   | 502118      | Cap Screw     | M16 x 2 x 180   | 170 (230)              | 263     | 8   |
| 14   | 501890      | Plug          | -               | 22 (30)                | 263     | 2   |

# **PORT KIT** **[See "Read this first" on page 3]** **168973 REV. 4**

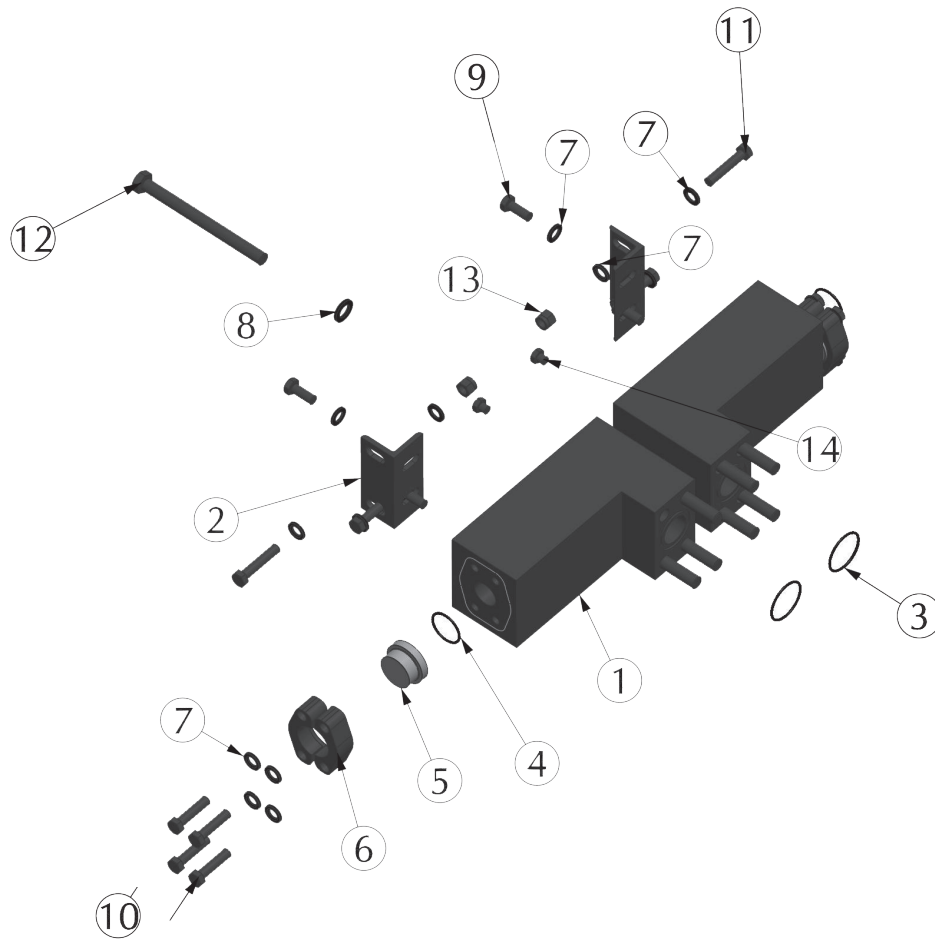


## **PORT KITS**

Port Kit 168973 Parts List

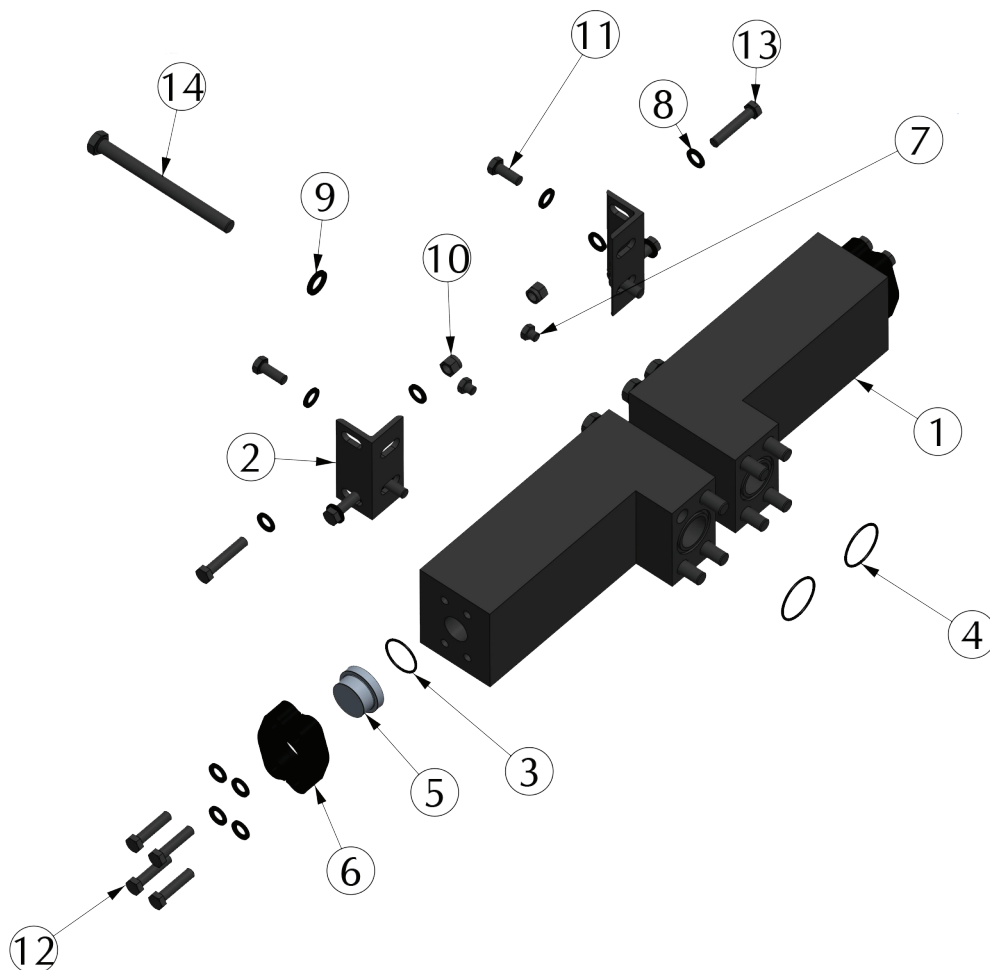
| Item | Part Number | Description   | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------|-----------------|------------------------|---------|-----|
| 1    | 168979      | Manifold      | -               | -                      | -       | 2   |
| 2    | 108796      | Angle Bracket | -               | -                      | -       | 2   |
| 3    | 500100      | O-ring        | -               | -                      | -       | 2   |
| 4    | 500101      | O-ring        | -               | -                      | -       | 2   |
| 5    | 500091      | Plug          | -               | -                      | -       | 2   |
| 6    | 500090      | Flange Half   | -               | -                      | -       | 4   |
| 7    | 501446      | Washer        | M12             | -                      | -       | 20  |
| 8    | 501554      | Washer        | M16             | -                      | -       | 8   |
| 9    | 501581      | Cap Screw     | M12 x 1.75 x 30 | 70 (95)                | 263     | 4   |
| 10   | 501549      | Cap Screw     | M12 x 1.75 x 50 | 95 (130)               | 243     | 8   |
| 11   | 502383      | Cap Screw     | M12 x 1.75 x 60 | 70 (95)                | 263     | 4   |
| 12   | 502118      | Cap Screw     | M16 x 2 x 180   | 170 (230)              | 263     | 8   |
| 13   | 502133      | Nut           | M12 x 1.75      | -                      | -       | 4   |
| 14   | 501890      | Plug          | -               | 22 (30)                | 263     | 2   |

**PORT KIT**  
[See “Read this first” on page 3]  
**229906 REV. 1**



| Port Kit 229906 Parts List |             |               |                 |                        |         |     |
|----------------------------|-------------|---------------|-----------------|------------------------|---------|-----|
| Item                       | Part Number | Description   | Size            | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 168979      | Manifold      | -               | -                      | -       | 2   |
| 2                          | 108796      | Angle Bracket | -               | -                      | -       | 2   |
| 3                          | 500101      | O-ring        | -               | -                      | -       | 2   |
| 4                          | 500017      | D-ring Seal   | -               | -                      | -       | 2   |
| 5                          | 110434      | Plug          | -               | -                      | -       | 2   |
| 6                          | 500018      | Flange Half   | -               | -                      | -       | 4   |
| 7                          | 501446      | Washer        | M12             | -                      | -       | 20  |
| 8                          | 501554      | Washer        | M16             | -                      | -       | 8   |
| 9                          | 501581      | Cap Screw     | M12 x 1.75 x 30 | 70 (95)                | 263     | 4   |
| 10                         | 501549      | Cap Screw     | M12 x 1.75 x 50 | 95 (130)               | 243     | 8   |
| 11                         | 502383      | Cap Screw     | M12 x 1.75 x 60 | 70 (95)                | 263     | 4   |
| 12                         | 502118      | Cap Screw     | M16 x 2 x 180   | 170 (230)              | 263     | 8   |
| 13                         | 502133      | Nut           | M12 x 1.75      | -                      | -       | 4   |
| 14                         | 501890      | Plug          | -               | 22 (30)                | 263     | 2   |

# **PORT KIT** [See "Read this first" on page 3] **232685 REV. 1**

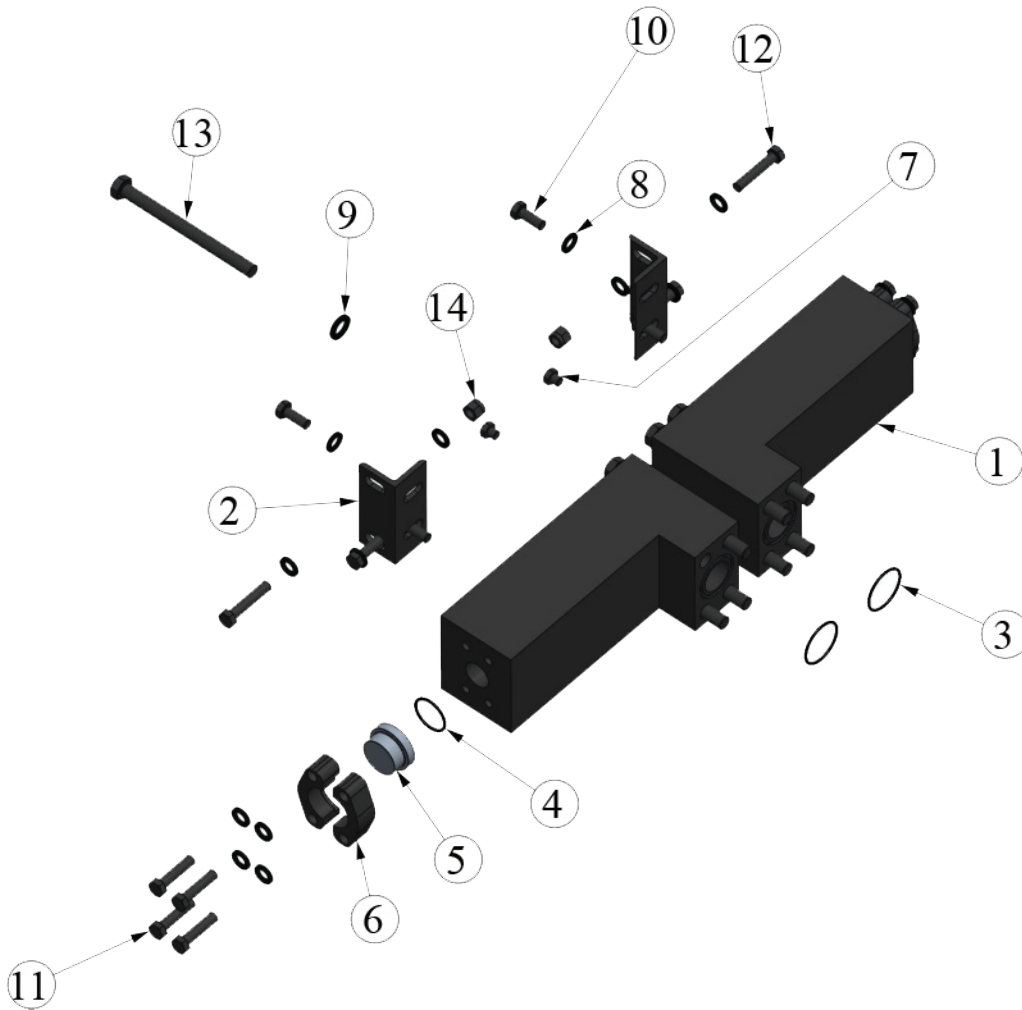


## **PORT KITS**

Port Kit 232685 Parts List

| Item | Part Number | Description   | Size             | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|---------------|------------------|------------------------|---------|-----|
| 1    | 232686      | Manifold      | -                | -                      | -       | 2   |
| 2    | 108796      | Angle Bracket | -                | -                      | -       | 2   |
| 3    | 500100      | O-ring        | -                | -                      | -       | 2   |
| 4    | 500101      | O-ring        | -                | -                      | -       | 2   |
| 5    | 500091      | Plug          | -                | -                      | -       | 2   |
| 6    | 500090      | Flange Half   | -                | -                      | -       | 4   |
| 7    | 501890      | Plug          | -                | 22 (30)                | 263     | 2   |
| 8    | 501446      | Washer        | M12              | -                      | -       | 20  |
| 9    | 501554      | Washer        | M16              | -                      | -       | 8   |
| 10   | 502133      | Nut           | M12 x 1.75       | -                      | -       | 4   |
| 11   | 501581      | Cap Screw     | M12 x 1.75 x 30  | 70 (95)                | 263     | 4   |
| 12   | 501549      | Cap Screw     | M12 x 1.75 x 50  | 95 (130)               | 243     | 8   |
| 13   | 502383      | Cap Screw     | M12 x 1.75 x 60  | 70 (95)                | 263     | 4   |
| 14   | 502118      | Cap Screw     | M16 x 2.00 x 180 | 170 (230)              | 263     | 8   |

**PORT KIT**  
 [See "Read this first" on page 3]  
**241667 REV. 1**

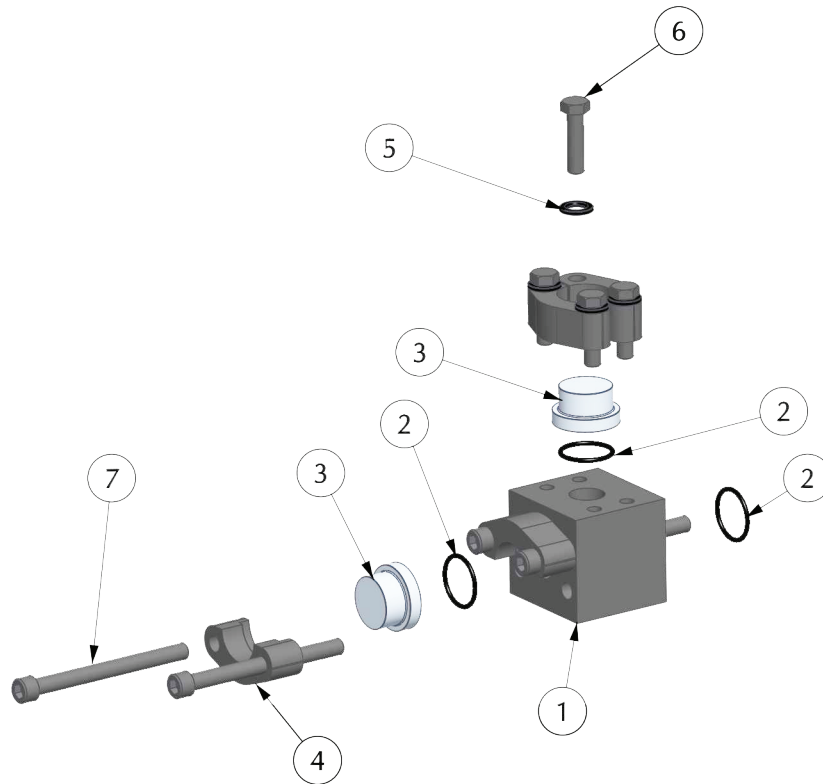


| Port Kit 241667 Parts List |             |               |                  |                        |         |     |
|----------------------------|-------------|---------------|------------------|------------------------|---------|-----|
| Item                       | Part Number | Description   | Size             | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 232686      | Manifold      | -                | -                      | -       | 2   |
| 2                          | 108796      | Angle Bracket | -                | -                      | -       | 2   |
| 3                          | 500101      | O-ring        | -                | -                      | -       | 2   |
| 4                          | 500017      | O-ring        | -                | -                      | -       | 2   |
| 5                          | 110434      | Plug          | -                | -                      | -       | 2   |
| 6                          | 500018      | Flange Half   | -                | -                      | -       | 4   |
| 7                          | 501890      | Plug          | -                | 22 (30)                | 263     | 2   |
| 8                          | 501446      | Washer        | M12              | -                      | -       | 20  |
| 9                          | 501554      | Washer        | M16              | -                      | -       | 8   |
| 10                         | 501581      | Cap Screw     | M12 x 1.75 x 30  | 70 (95)                | 263     | 4   |
| 11                         | 501549      | Cap Screw     | M12 x 1.75 x 50  | 95 (130)               | 243     | 8   |
| 12                         | 502383      | Cap Screw     | M12 x 1.75 x 60  | 70 (95)                | 263     | 4   |
| 13                         | 502118      | Cap Screw     | M16 x 2.00 x 180 | 170 (230)              | 263     | 8   |
| 14                         | 502133      | Nut           | M12 x 1.75       | -                      | -       | 4   |

# PORT KIT

[See "Read this first" on page 3]

## 229935 REV. 2



### PORT KITS

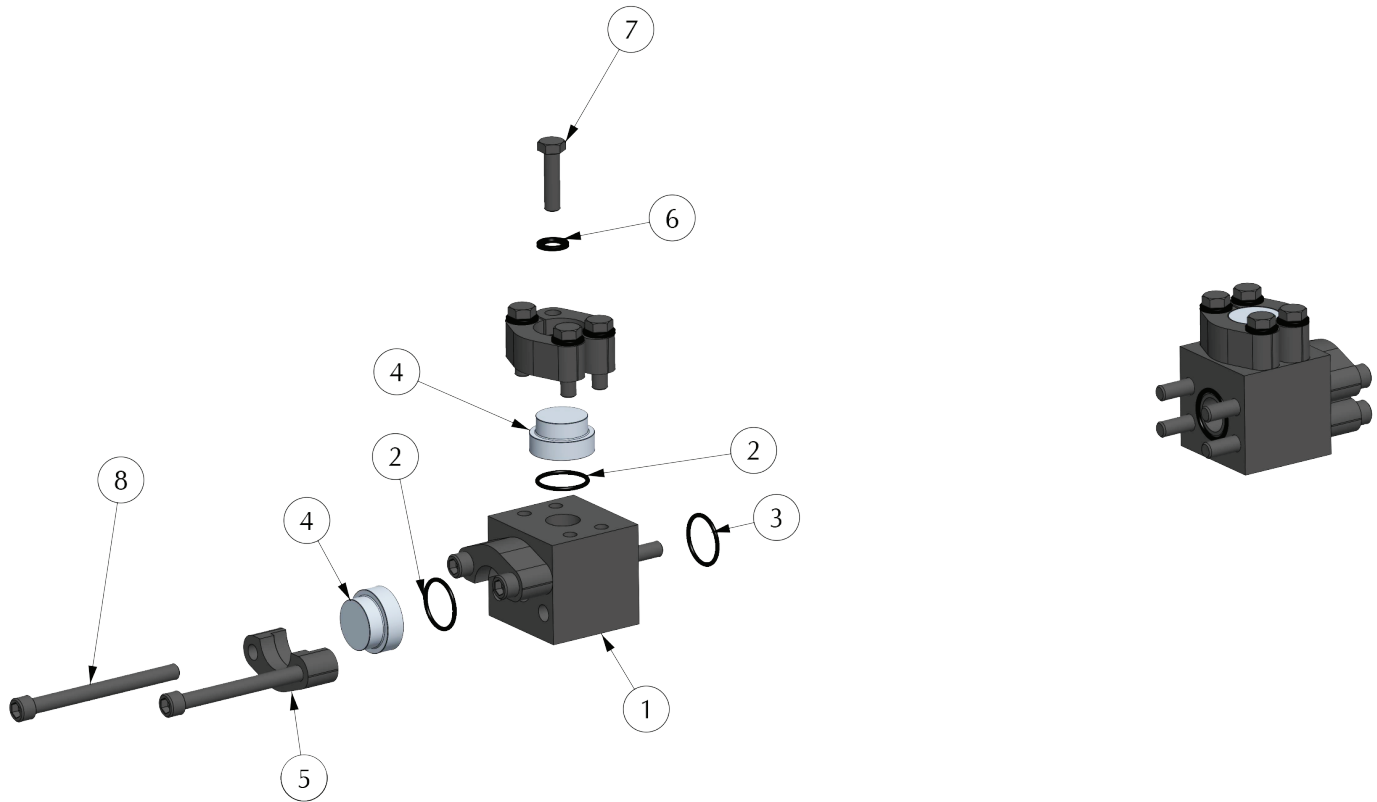
Port Kit 229935 Parts List

| Item | Part Number | Description | Size             | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
|------|-------------|-------------|------------------|------------------------|---------|-----|
| 1    | 518284      | Manifold    | -                | -                      | -       | 2   |
| 2    | 500266      | O-ring      | -                | -                      | -       | 6   |
| 3    | 501484      | Plug        | -                | -                      | -       | 4   |
| 4    | 500267      | Flange Half | -                | -                      | -       | 8   |
| 5    | 501446      | Washer      | M12              | -                      | -       | 8   |
| 6    | 501550      | Cap Screw   | M12 x 1.75 x 45  | 95 (130)               | 243     | 8   |
| 7    | 511387      | Cap Screw   | M12 x 1.75 x 130 | 95 (130)               | 243     | 8   |

# PORT KIT

[See "Read this first" on page 3]

## 229936 REV. 2



| Port Kit 229936 Parts List |             |             |                  |                        |         |     |
|----------------------------|-------------|-------------|------------------|------------------------|---------|-----|
| Item                       | Part Number | Description | Size             | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 518284      | Manifold    | -                | -                      | -       | 2   |
| 2                          | 500021      | D-ring Seal | -                | -                      | -       | 4   |
| 3                          | 500266      | O-ring      | -                | -                      | -       | 2   |
| 4                          | 503812      | Plug        | -                | -                      | -       | 4   |
| 5                          | 503968      | Flange Half | -                | -                      | -       | 8   |
| 6                          | 501446      | Washer      | M12              | -                      | -       | 8   |
| 7                          | 501550      | Cap Screw   | M12 x 1.75 x 45  | 95 (130)               | 243     | 8   |
| 8                          | 511387      | Cap Screw   | M12 x 1.75 x 130 | 95 (130)               | 243     | 8   |

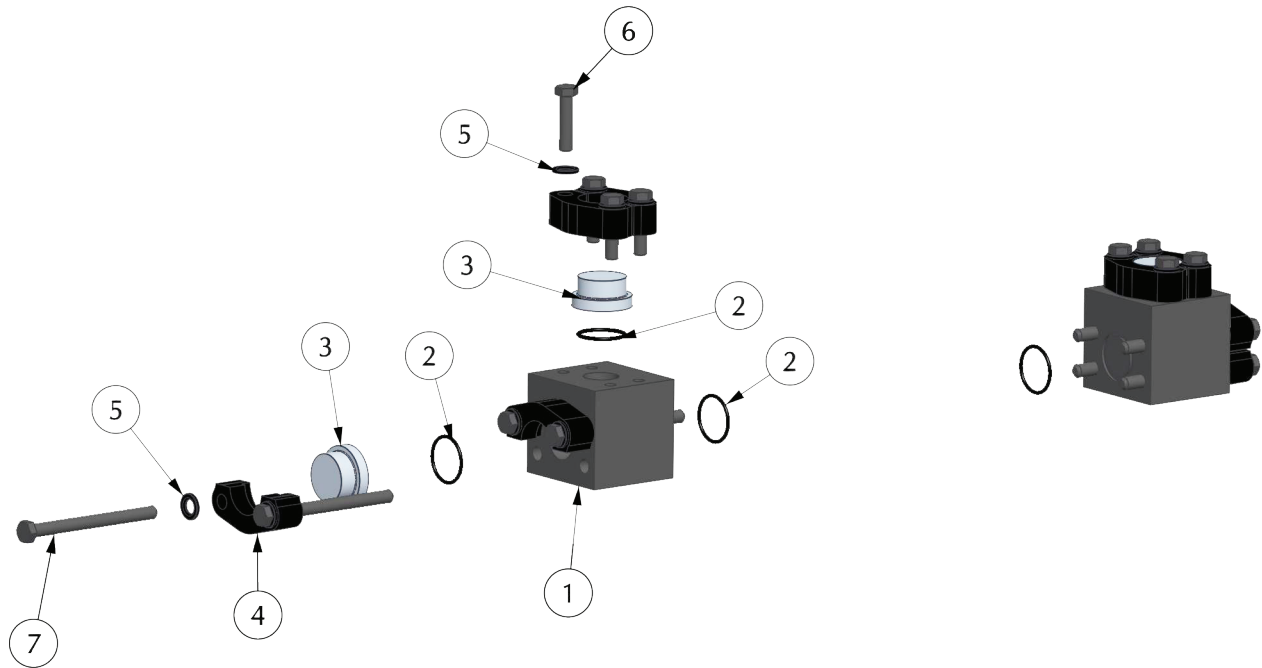
PORT KITS



# PORT KIT

[See "Read this first" on page 3]

## 229937 REV. 1



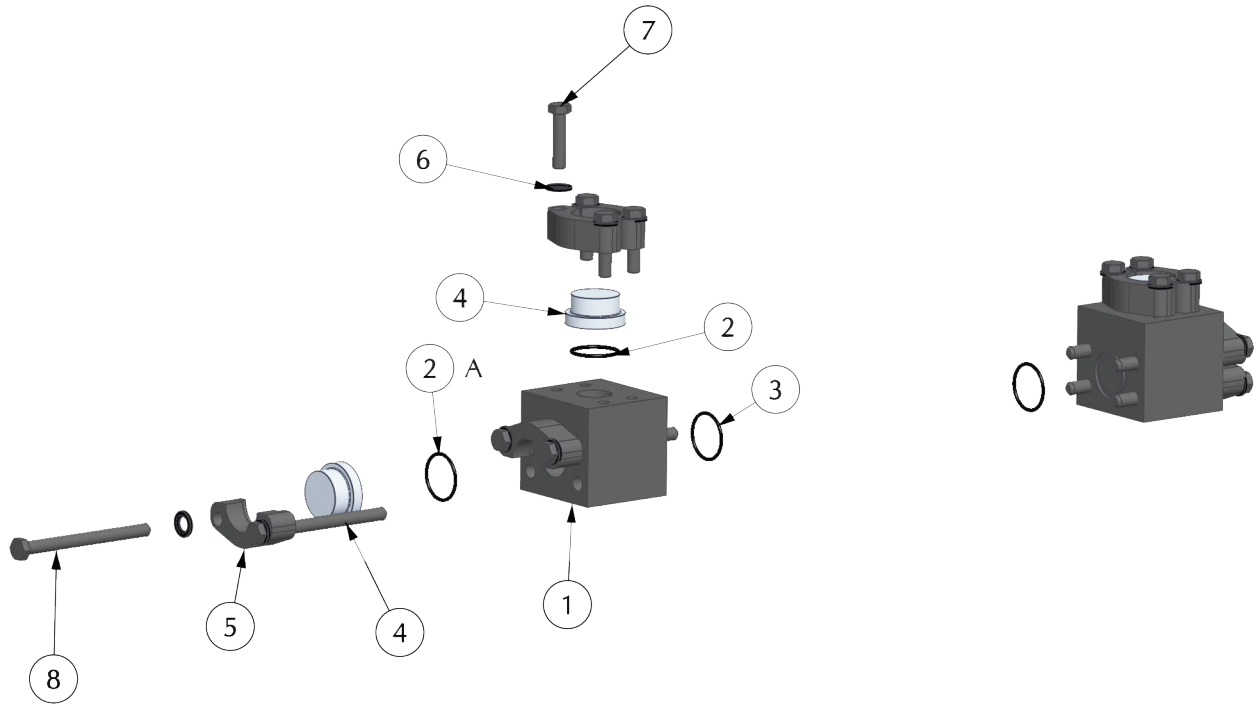
### PORT KITS

| Port Kit 229937 Parts List |             |             |                  |                        |         |     |
|----------------------------|-------------|-------------|------------------|------------------------|---------|-----|
| Item                       | Part Number | Description | Size             | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 518285      | Manifold    | -                | -                      | -       | 2   |
| 2                          | 500100      | O-ring      | -                | -                      | -       | 6   |
| 3                          | 500091      | Plug        | -                | -                      | -       | 4   |
| 4                          | 500090      | Flange Half | -                | -                      | -       | 8   |
| 5                          | 501446      | Washer      | M12              | -                      | -       | 16  |
| 6                          | 501549      | Cap Screw   | M12 x 1.75 x 50  | 95 (130)               | 243     | 8   |
| 7                          | 502101      | Cap Screw   | M12 x 1.75 x 140 | 95 (130)               | 243     | 8   |

# PORT KIT

[See "Read this first" on page 3]

## 229939 REV. 1

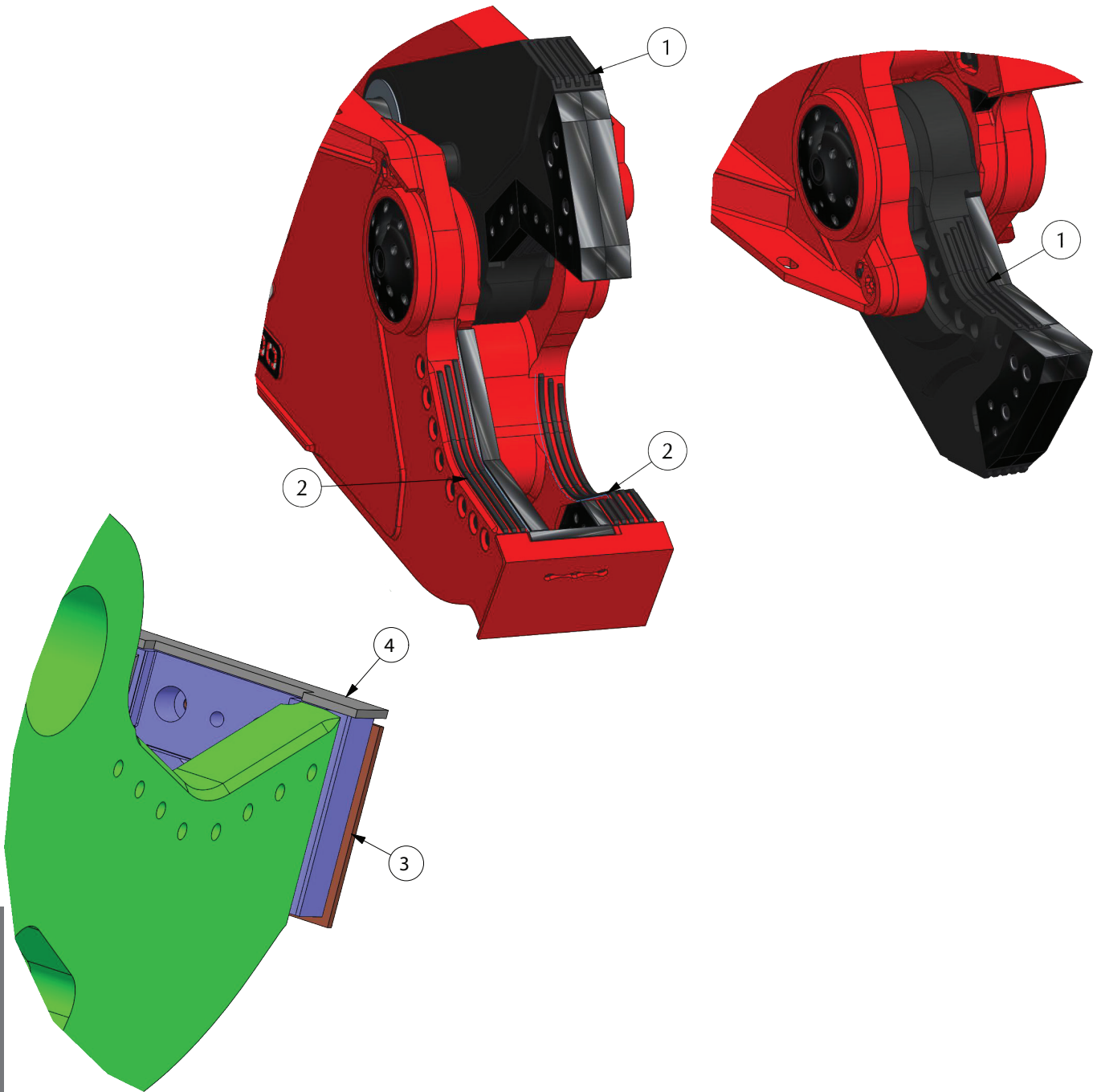


| Port Kit 229939 Parts List |             |             |                  |                        |         |     |
|----------------------------|-------------|-------------|------------------|------------------------|---------|-----|
| Item                       | Part Number | Description | Size             | Torque<br>Ft. Lbs (Nm) | Loctite | Qty |
| 1                          | 518285      | Manifold    | -                | -                      | -       | 2   |
| 2                          | 500017      | D-ring Seal | -                | -                      | -       | 4   |
| 3                          | 500100      | O-ring      | -                | -                      | -       | 2   |
| 4                          | 110434      | Plug        | -                | -                      | -       | 4   |
| 5                          | 500018      | Flange Half | -                | -                      | -       | 8   |
| 6                          | 501446      | Washer      | M12              | -                      | -       | 16  |
| 7                          | 501549      | Cap Screw   | M12 x 1.75 x 50  | 95 (130)               | 243     | 8   |
| 8                          | 502101      | Cap Screw   | M12 x 1.75 x 140 | 95 (130)               | 243     | 8   |

PORT KITS

# WEAR KITS

## WEAR KIT [See “Read this first” on page 3] 227089 REV. 3



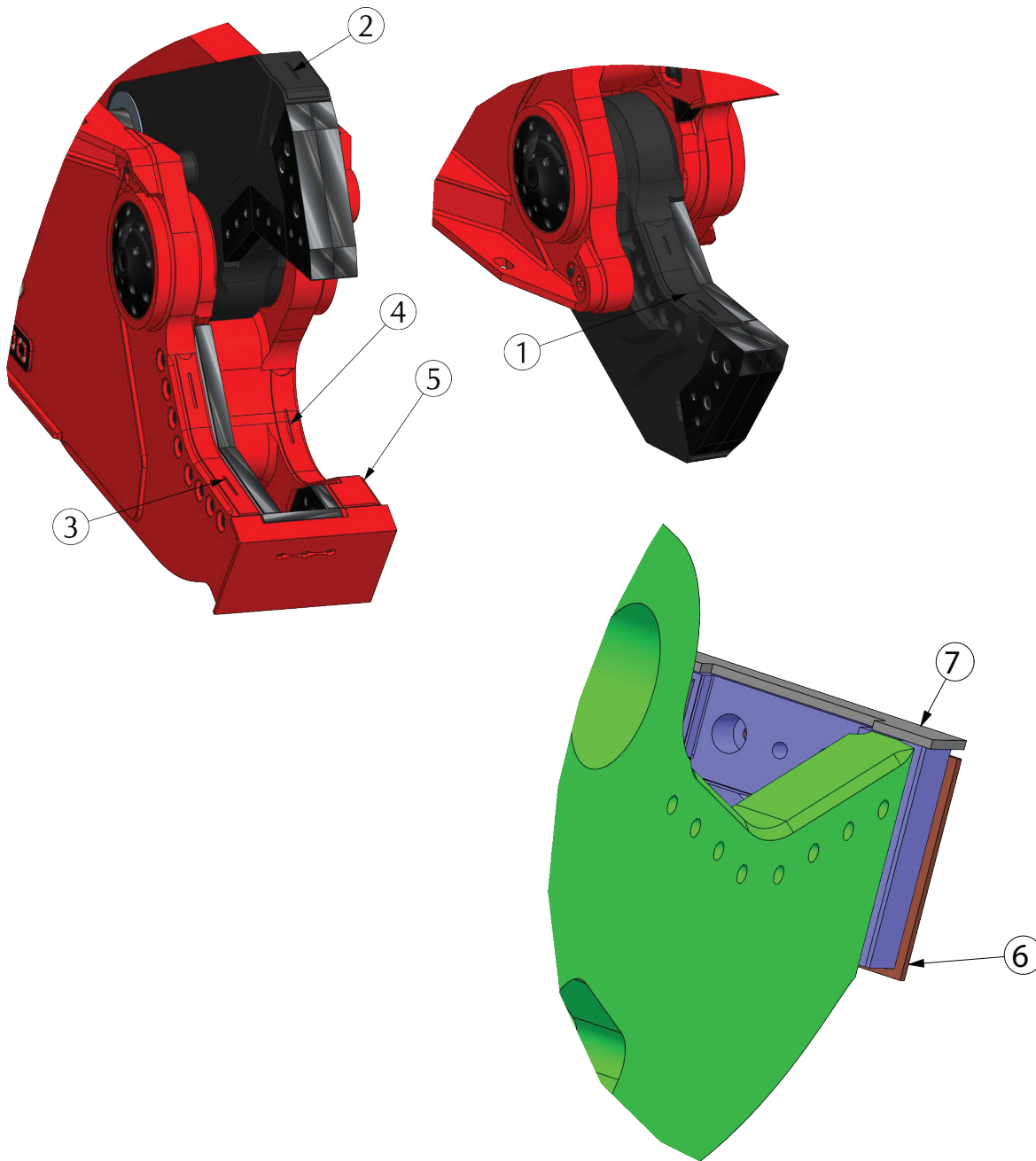
WEAR KITS

| Wear Kit 227089 Parts List |             |                    |     |
|----------------------------|-------------|--------------------|-----|
| Item                       | Part Number | Description        | Qty |
| 1                          | 227091      | Upper Wear Bar Kit | 1   |
| 2                          | 227092      | Lower Wear Bar Kit | 1   |
| 3                          | 223728      | Front Wear Plate   | 1   |
| 4                          | 223729      | Top Wear Plate     | 1   |

# WEAR KIT

[See "Read this first" on page 3]

## 227093 REV. 2

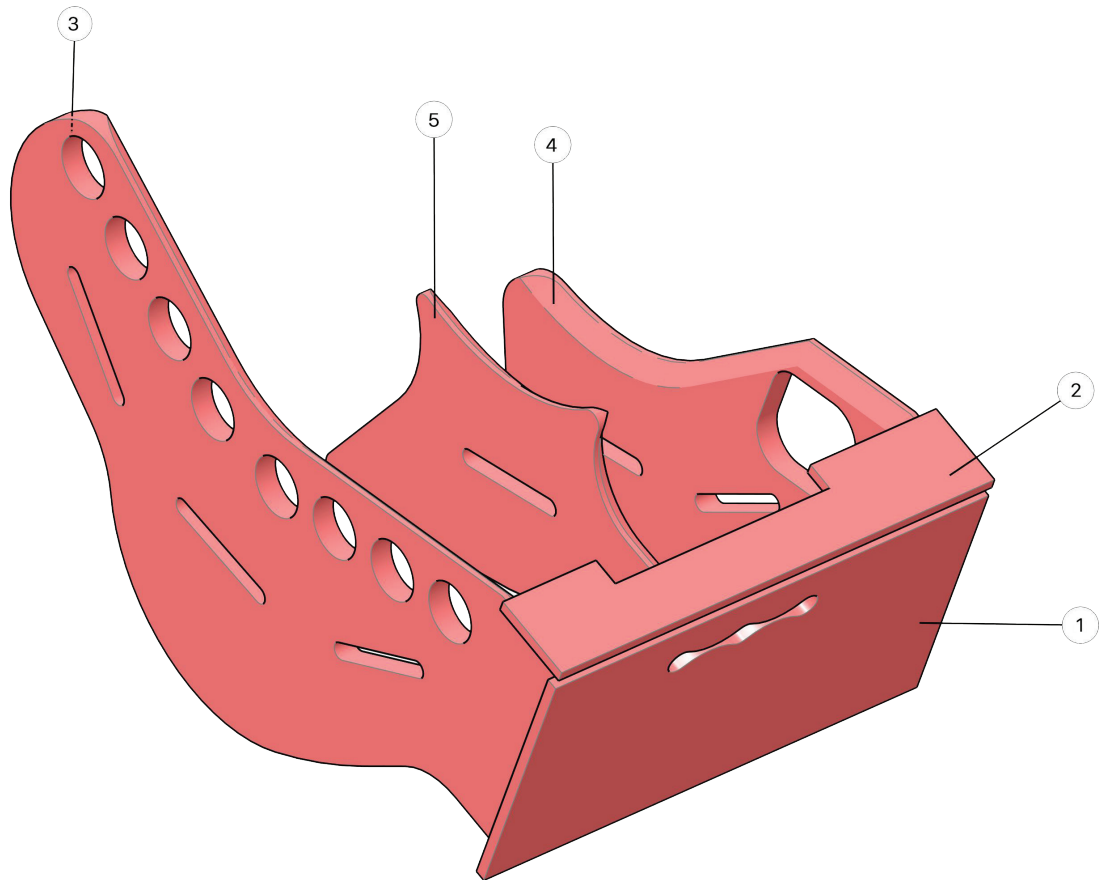


| Wear Kit 227093 Parts List |             |                              |     |
|----------------------------|-------------|------------------------------|-----|
| Item                       | Part Number | Description                  | Qty |
| 1                          | 227094      | Upper Blade Seat Wear Plate  | 1   |
| 2                          | 227146      | Upper Top Surface Wear Plate | 1   |
| 3                          | 227095      | Lower Blade Side Wear Plate  | 1   |
| 4                          | 227096      | Lower Main Guide Wear Plate  | 1   |
| 5                          | 227097      | Lower Guideseat Wear Plate   | 1   |
| 6                          | 223728      | Front Wear Plate             | 1   |
| 7                          | 223729      | Top Wear Plate               | 1   |

# WEAR KIT

[See “Read this first” on page 3]

## 229545 REV. 2



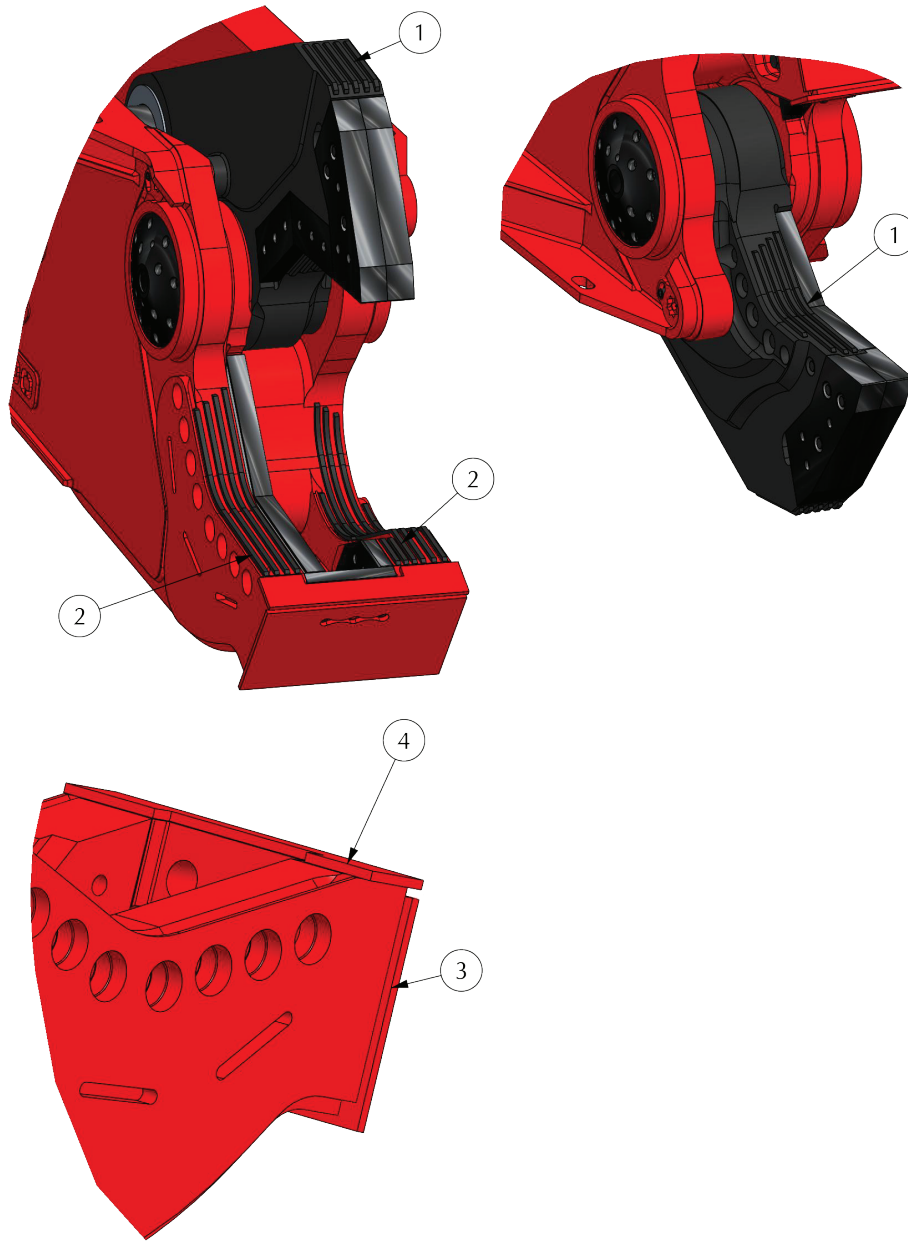
Wear Kit 229545 Parts List

| Item | Part Number | Description      | Qty |
|------|-------------|------------------|-----|
| 1    | 229546      | Front Wear Plate | 1   |
| 2    | 229547      | Top Wear Plate   | 1   |
| 3    | 229548      | Wear Plate       | 1   |
| 4    | 229549      | Wear Plate       | 1   |
| 5    | 229550      | Wear Plate       | 1   |

# WEAR KIT

[See "Read this first" on page 3]

## 229647 REV. 1

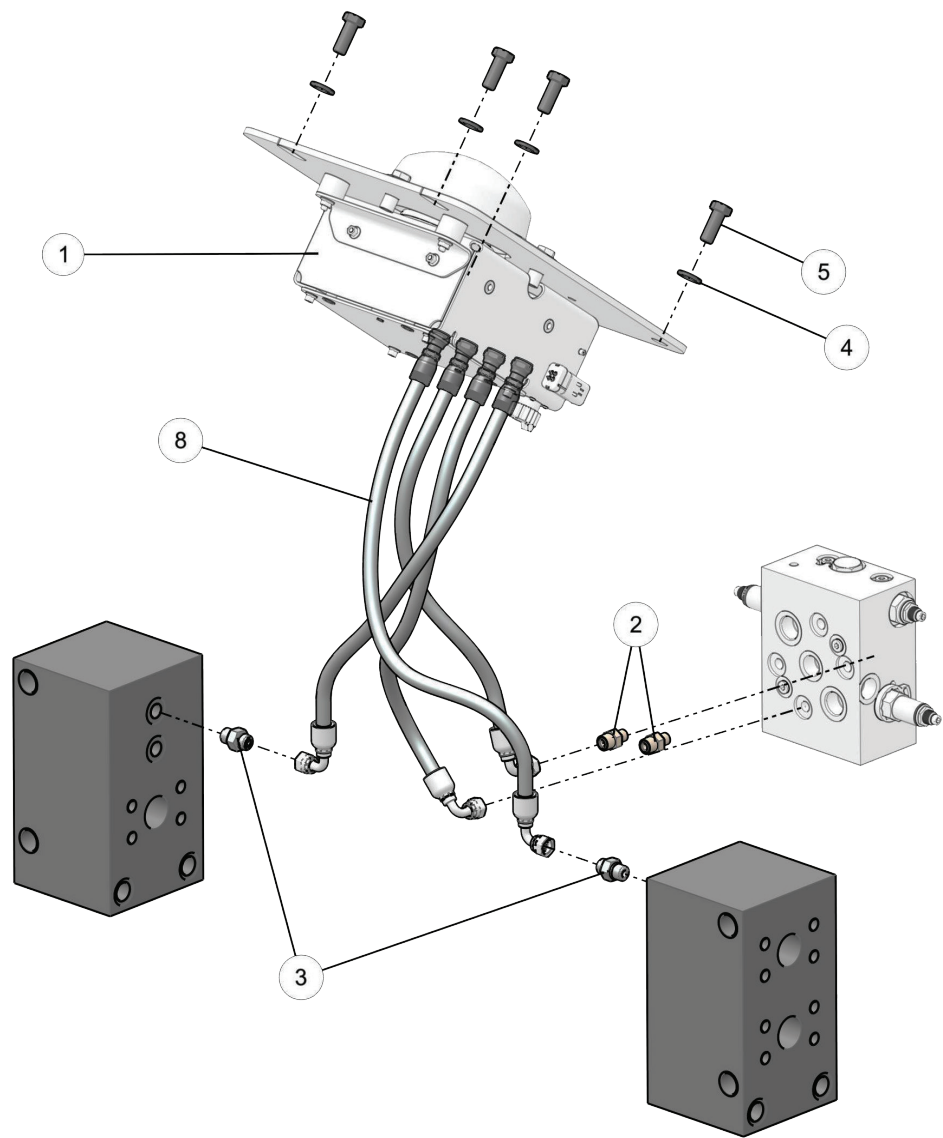


| Wear Kit 229647 Parts List |             |                    |     |
|----------------------------|-------------|--------------------|-----|
| Item                       | Part Number | Description        | Qty |
| 1                          | 227091      | Upper Wear Bar Kit | 1   |
| 2                          | 229648      | Lower Wear Bar Kit | 1   |
| 3                          | 229546      | Front Wear Plate   | 1   |
| 4                          | 229547      | Top Wear Plate     | 1   |

WEAR KITS

# INSITE KITS

## INSITE KIT [See “Read this first” on page 3] 227841 REV. 2



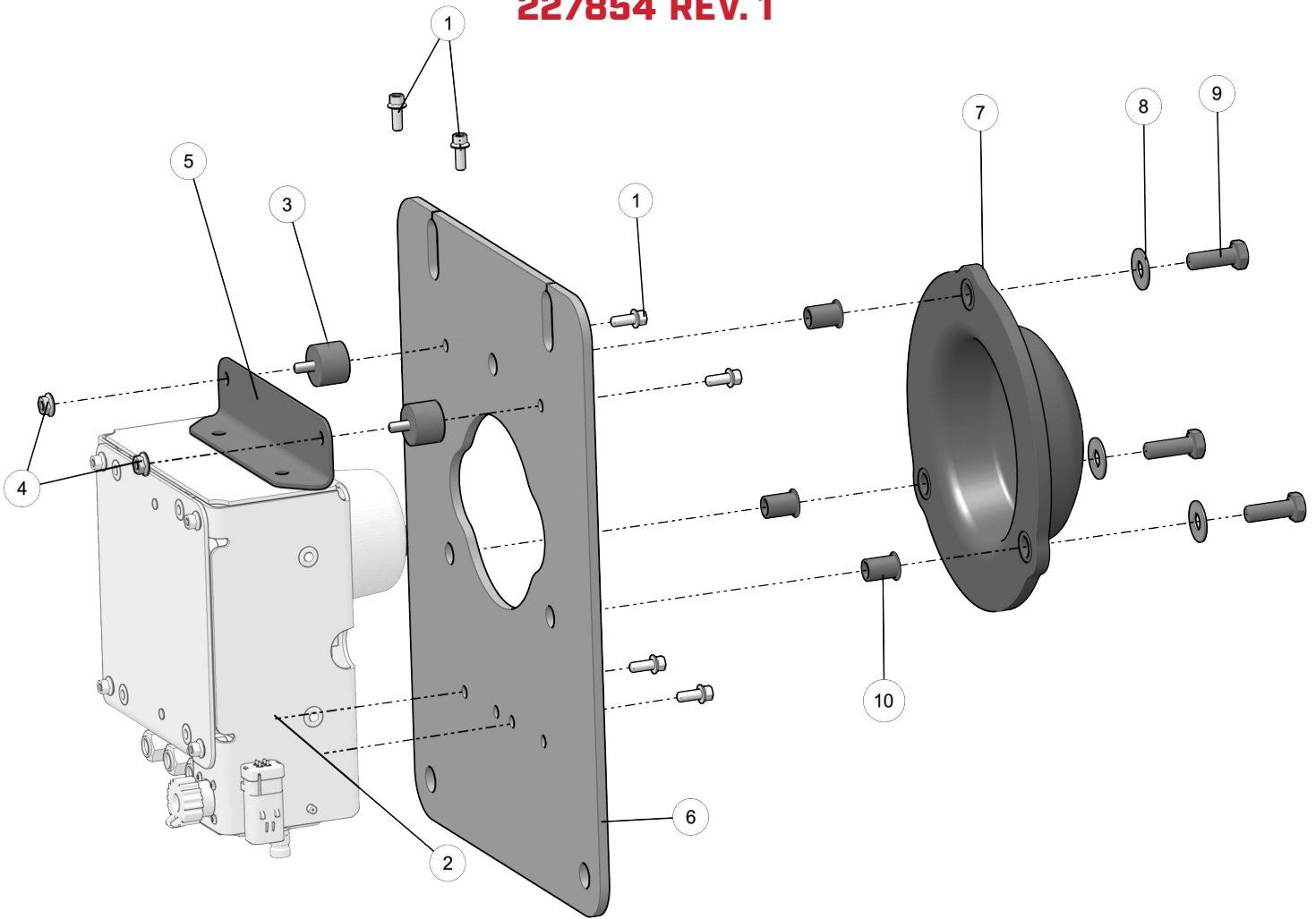
InSite Kit 227841 Parts List

| Item | Part Number | Description                      | Size            | Qty |
|------|-------------|----------------------------------|-----------------|-----|
| 1    | 227854      | InSite Control Box (See page 77) | -               | 1   |
| 2    | 500916      | Adapter                          | -               | 2   |
| 3    | 500939      | Adapter                          | -               | 2   |
| 4    | 501446      | Washer                           | M12             | 4   |
| 5    | 501581      | Cap Screw                        | M12 x 1.75 x 30 | 4   |
| 6    | 516554      | 10 Ft. Power Cable (Not Shown)   | -               | 1   |
| 7    | 518440      | Dust Cap (Not Shown)             | -               | 1   |
| 8    | 518512      | Hose Assembly                    | -               | 4   |

# INSITE CONTROL BOX

[See "Read this first" on page 3]

**227854 REV. 1**



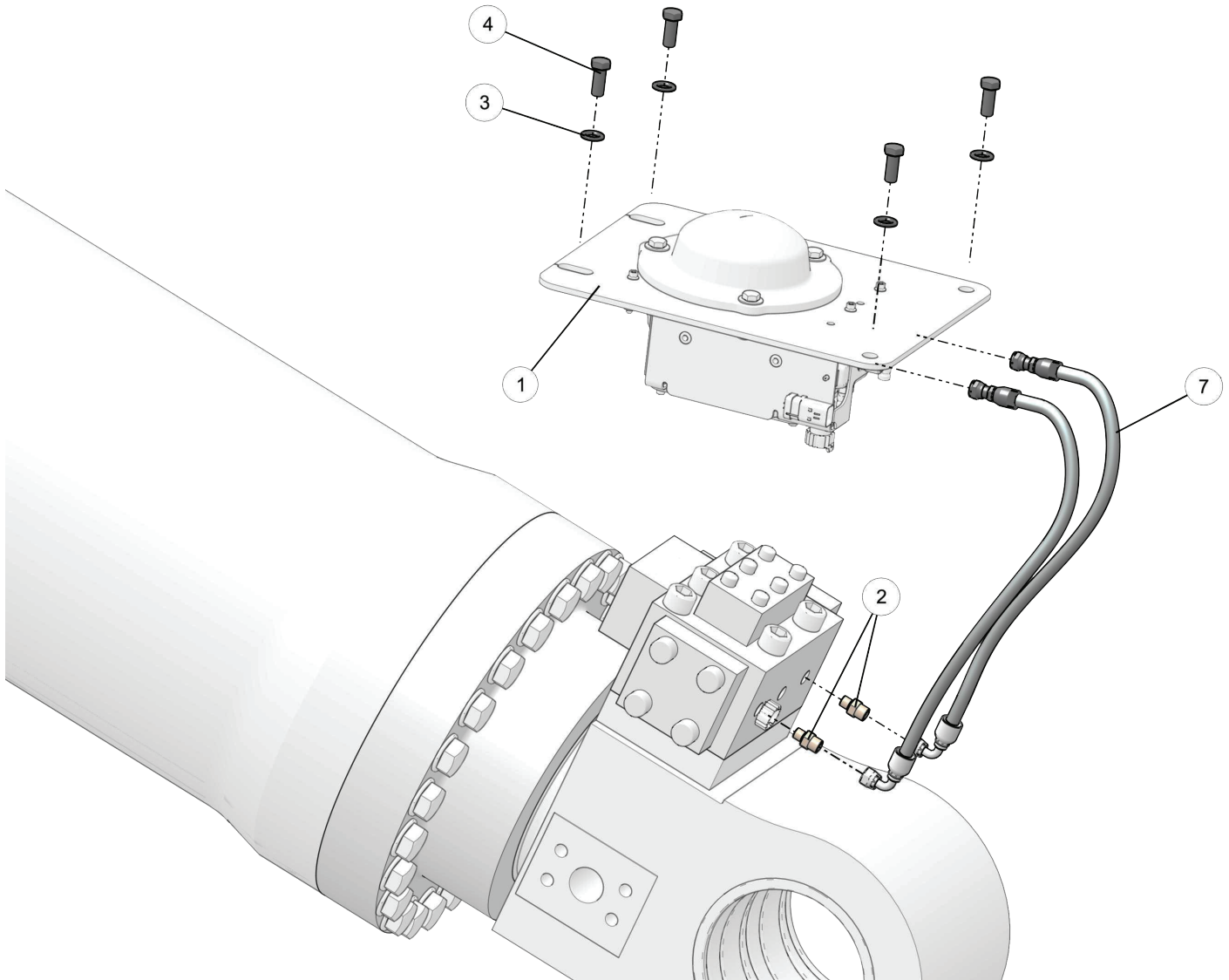
InSite Control Box 227854 Parts List

| Item | Part Number | Description        | Size           | Torque                 | Loctite | Qty |
|------|-------------|--------------------|----------------|------------------------|---------|-----|
| 1    | 60972       | Cap Screw          | M6 x 1 x 15    | 36 In. Lbs.<br>(4.1Nm) | 243     | 6   |
| 2    | 83012       | InSite Control Box | -              | -                      | -       | 1   |
| 3    | 83018       | Isolator           | -              | 36 In. Lbs.<br>(4.1Nm) | 243     | 2   |
| 4    | 83023       | Nut                | M6             | 36 In. Lbs.<br>(4.1Nm) | 243     | 2   |
| 5    | 227807      | Bracket            | -              | -                      | -       | 1   |
| 6    | 227847      | Cover              | -              | -                      | -       | 1   |
| 7    | 228700      | Antenna Shroud     | -              | -                      | -       | 1   |
| 8    | 518457      | Washer             | M10            | -                      | -       | 3   |
| 9    | 518473      | Cap Screw          | M10 x 1.5 x 30 | 16 Ft. Lbs.<br>(22 Nm) | -       | 3   |
| 10   | 518479      | Rivet Nut          | M10            | -                      | -       | 3   |

INSITE KITS



**INSITE KIT**  
 [See "Read this first" on page 3]  
**227842 REV. 2**



InSite Kit 227842 Parts List

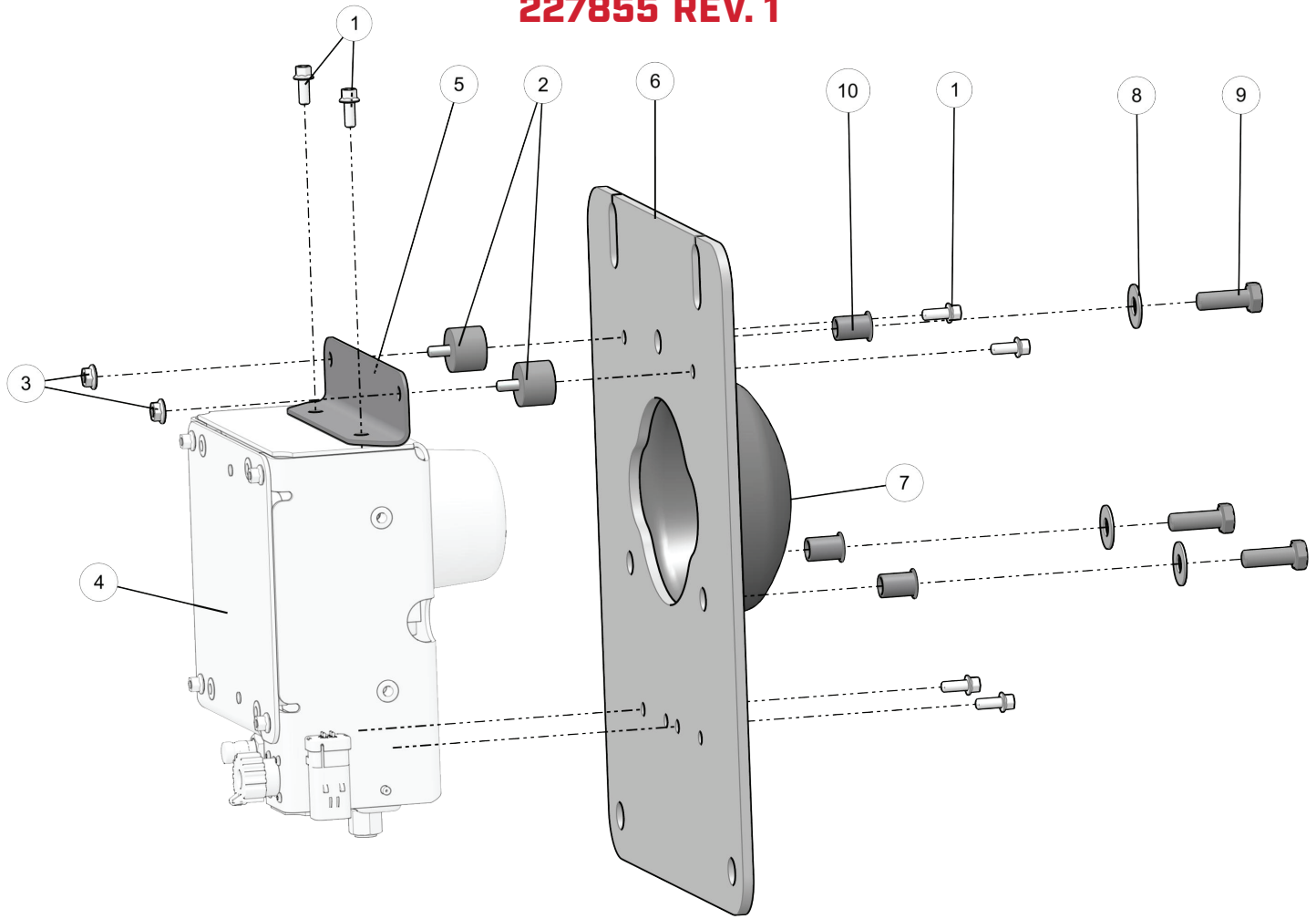
| Item | Part Number | Description                         | Size            | Torque                 | Loctite | Qty |
|------|-------------|-------------------------------------|-----------------|------------------------|---------|-----|
| 1    | 227855      | InSite Control Box<br>(See page 79) | -               | -                      | -       | 1   |
| 2    | 500916      | Adapter                             | -               | 16 Ft. Lbs.<br>(22 Nm) | 243     | 2   |
| 3    | 501446      | Washer                              | M12             | -                      | -       | 4   |
| 4    | 501581      | Cap Screw                           | M12 x 1.75 x 30 | 70 Ft. Lbs.<br>(95 Nm) | 243     | 4   |
| 5    | 516554      | 10 Ft. Power Cable<br>(Not Shown)   | -               | -                      | -       | 1   |
| 6    | 518440      | Dust Cap (Not Shown)                | -               | -                      | -       | 1   |
| 7    | 518512      | Hose Assembly                       | -               | 16 Ft. Lbs.<br>(22 Nm) | 243     | 2   |

INSITE KITS

# INSITE CONTROL BOX

[See "Read this first" on page 3]

**227855 REV. 1**



InSite Control Box 227855 Parts List

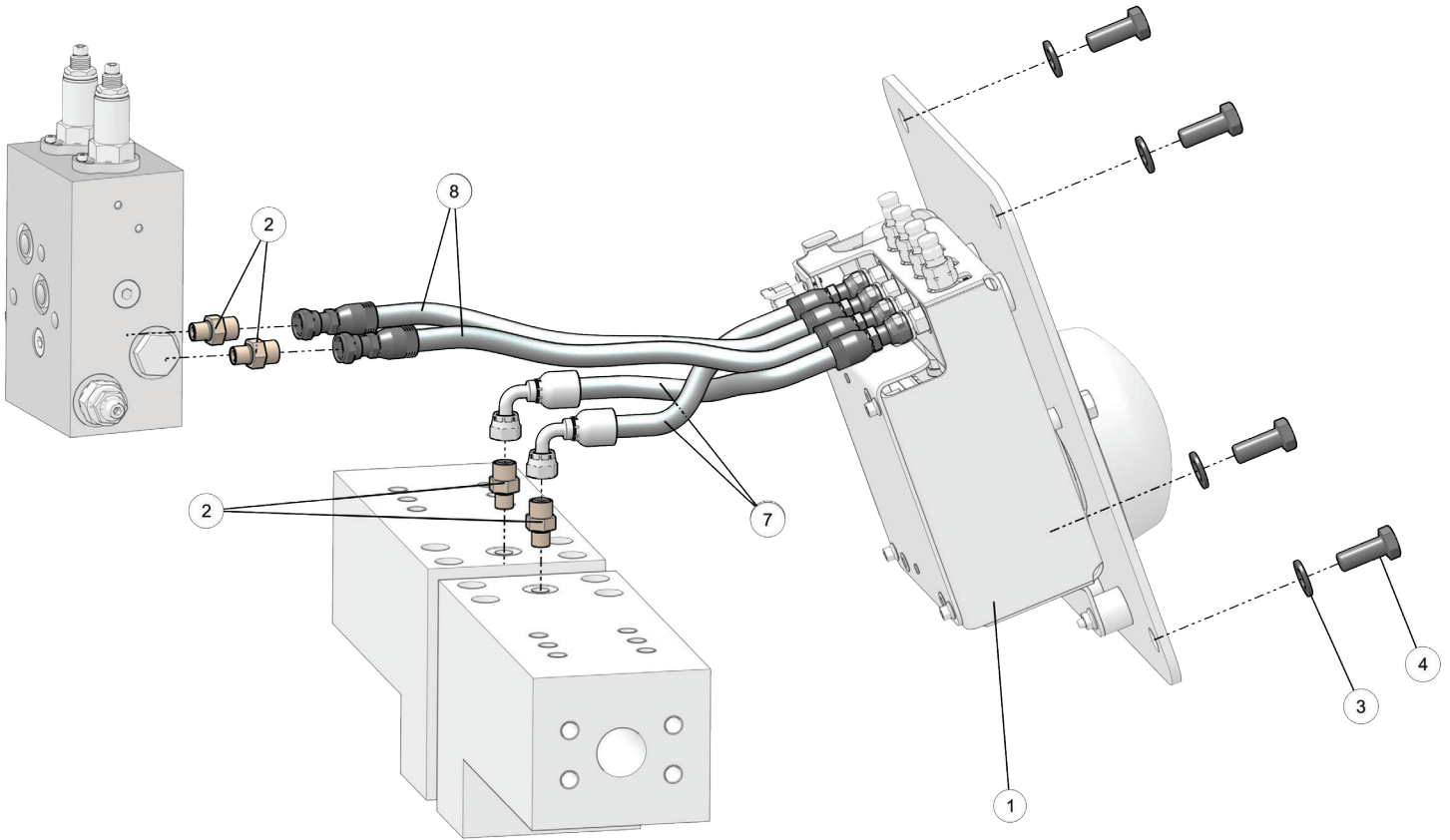
| Item | Part Number | Description        | Size           | Torque                 | Loctite | Qty |
|------|-------------|--------------------|----------------|------------------------|---------|-----|
| 1    | 60972       | Cap Screw          | M6 x 1 x 15    | 36 In. Lbs.<br>(4.1Nm) | 243     | 6   |
| 2    | 83018       | Isolator           | -              | -                      | -       | 2   |
| 3    | 83023       | Nut                | M6             | 36 In. Lbs.<br>(4.1Nm) | 243     | 2   |
| 4    | 83038       | InSite Control Box | -              | -                      | -       | 1   |
| 5    | 227807      | Bracket            | -              | -                      | -       | 1   |
| 6    | 227847      | Cover              | -              | -                      | -       | 1   |
| 7    | 228700      | Antenna Shroud     | -              | -                      | -       | 1   |
| 8    | 518457      | Washer             | M10            | -                      | -       | 3   |
| 9    | 518473      | Cap Screw          | M10 x 1.5 x 30 | 16 Ft. Lbs.<br>(22 Nm) | -       | 3   |
| 10   | 518479      | Rivet Nut          | -              | -                      | -       | 3   |

INSITE KITS

# INSITE KIT

[See "Read this first" on page 3]

## 227858 REV. 0



InSite Kit 227858 Parts List

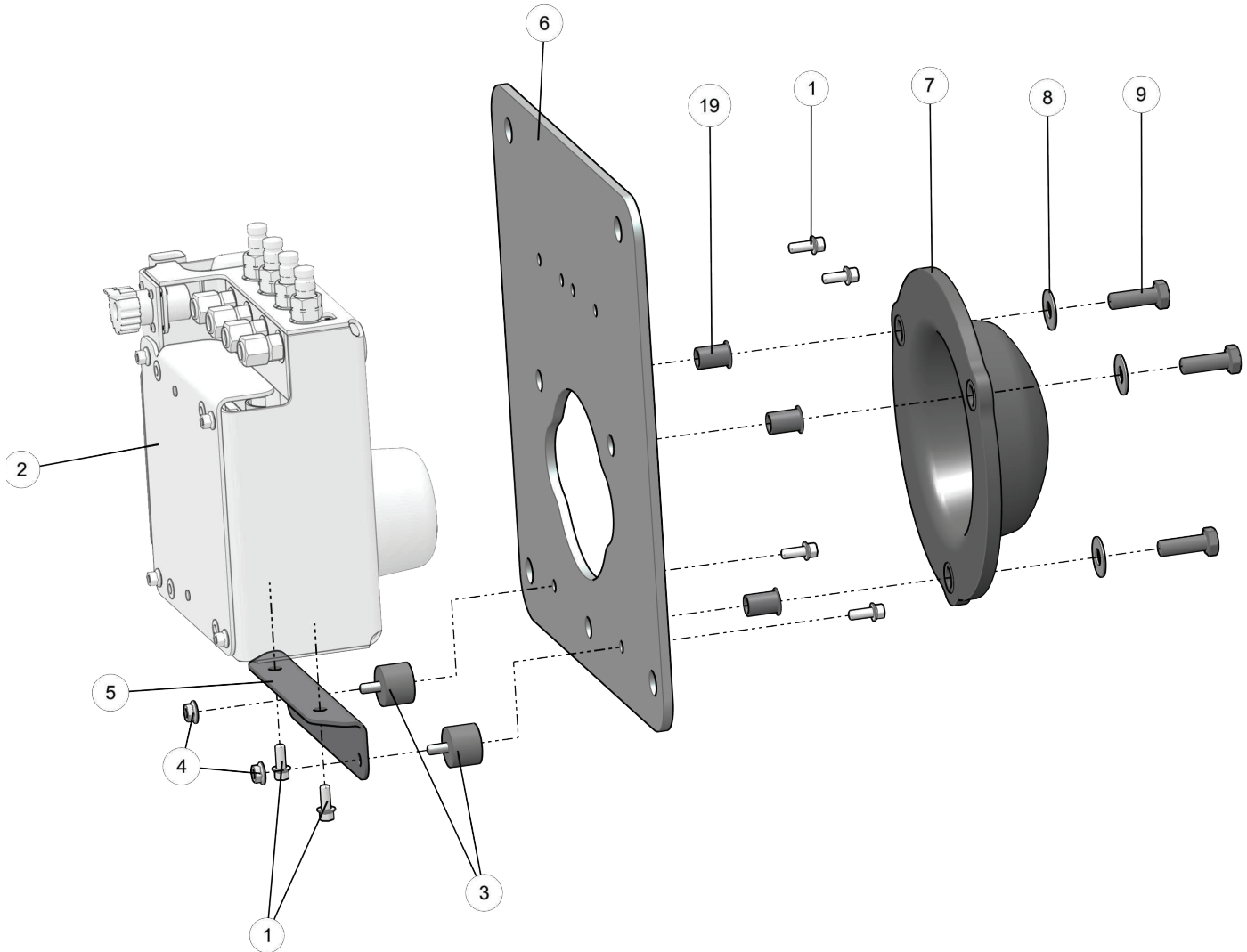
| Item | Part Number | Description                         | Size            | Torque                 | Loctite | Qty |
|------|-------------|-------------------------------------|-----------------|------------------------|---------|-----|
| 1    | 227866      | InSite Control Box<br>(See page 81) | -               | -                      | -       | 1   |
| 2    | 500916      | Adapter                             | -               | 16 Ft. Lbs.<br>(22 Nm) | 243     | 4   |
| 3    | 501446      | Washer                              | M12             | -                      | -       | 4   |
| 4    | 501581      | Cap Screw                           | M12 x 1.75 x 30 | 70 Ft. Lbs.<br>(95 Nm) | 243     | 4   |
| 5    | 516554      | 10 Ft. Power Cable<br>(Not Shown)   | -               | -                      | -       | 1   |
| 6    | 518440      | Dust Cap (Not Shown)                | -               | -                      | -       | 1   |
| 7    | 518451      | Hose Assembly                       | -               | 16 Ft. Lbs.<br>(22 Nm) | 243     | 2   |
| 8    | 518516      | Hose Assembly                       | -               | 16 Ft. Lbs.<br>(22 Nm) | 243     | 2   |

INSITE KITS

# INSITE CONTROL BOX

[See "Read this first" on page 3]

**227866 REV. 0**



InSite Control Box 227866 Parts List

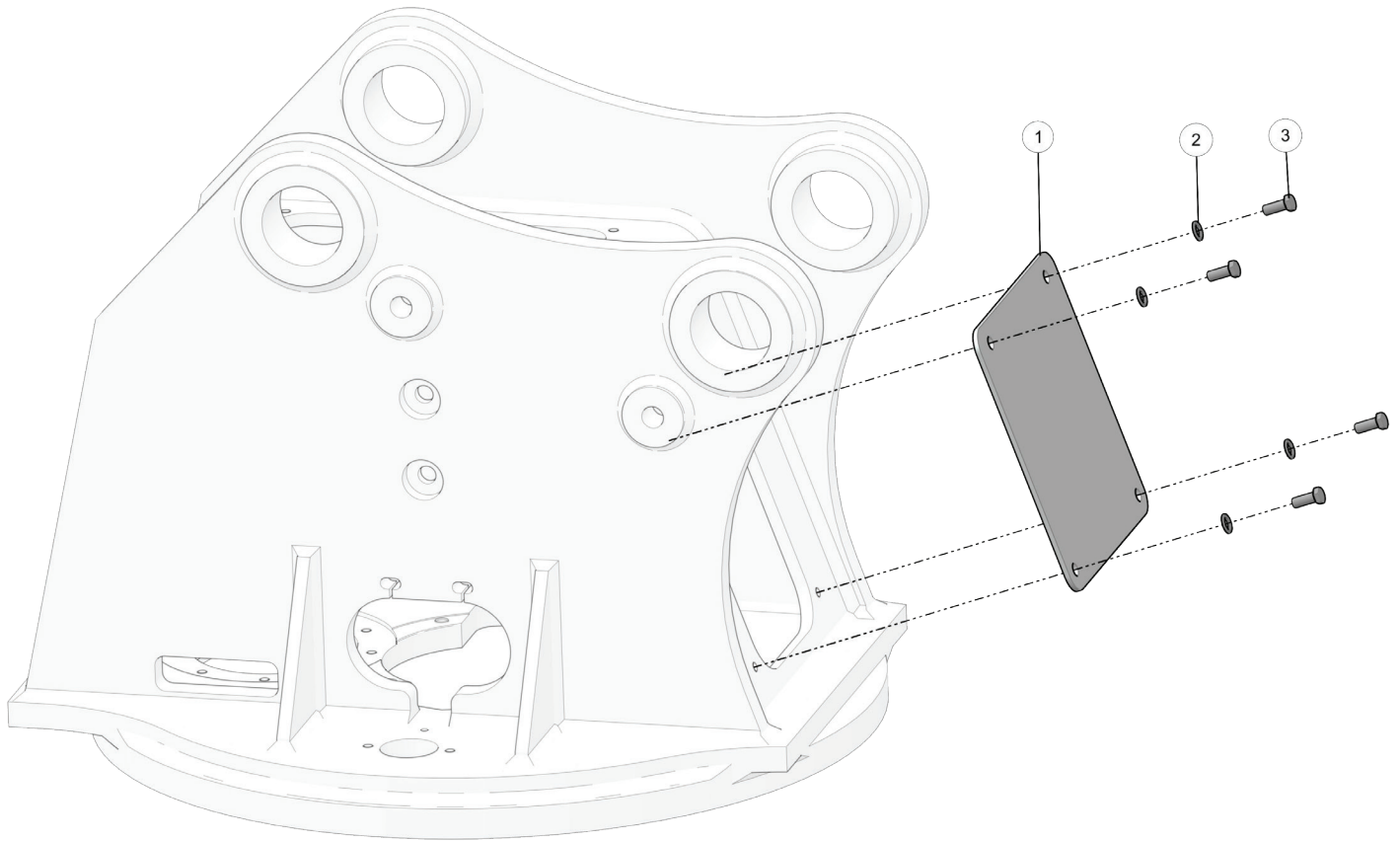
| Item | Part Number | Description        | Size           | Torque                  | Loctite | Qty |
|------|-------------|--------------------|----------------|-------------------------|---------|-----|
| 1    | 60972       | Cap Screw          | M6 x 1 x 15    | 36 In. Lbs.<br>(4.1 Nm) | 243     | 6   |
| 2    | 83012       | InSite Control Box | -              | -                       | -       | 1   |
| 3    | 83018       | Isolator           | -              | -                       | -       | 2   |
| 4    | 83023       | Nut                | -              | 36 In. Lbs.<br>(4.1 Nm) | 243     | 2   |
| 5    | 227807      | Bracket            | -              | -                       | -       | 1   |
| 6    | 227864      | Cover              | -              | -                       | -       | 1   |
| 7    | 228700      | Antenna Shroud     | -              | -                       | -       | 1   |
| 8    | 518457      | Washer             | M10            | -                       | -       | 3   |
| 9    | 518473      | Cap Screw          | M10 x 1.5 x 30 | 16 Ft. Lbs.<br>(22 Nm)  | 243     | 3   |
| 19   | 518479      | Rivet Nut          | -              | -                       | -       | 3   |

INSITE KITS

## 3RD MEMBER - NO INSITE KIT

[See "Read this first" on page 3]

229912 REV. 1



\* See factory for bracket information

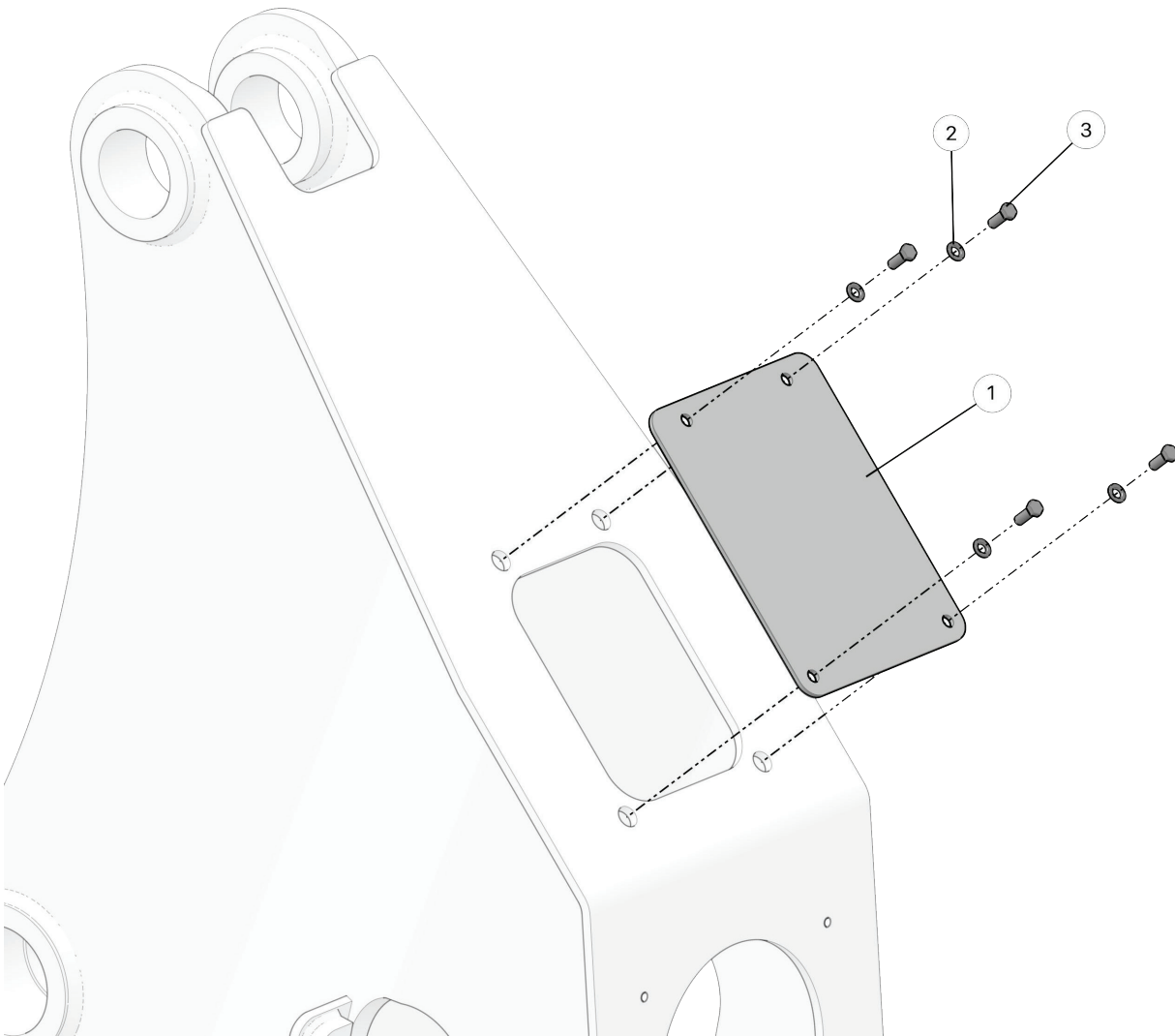
3rd Member - No InSite Kit 229912 Parts List

| Item | Part Number | Description | Size            | Torque                 | Loctite | Qty |
|------|-------------|-------------|-----------------|------------------------|---------|-----|
| 1    | 229913      | Cover       | -               | -                      | -       | 1   |
| 2    | 501446      | Washer      | M12             | -                      | -       | 4   |
| 3    | 501581      | Cap Screw   | M12 x 1.75 x 30 | 71 Ft. Lbs.<br>(96 Nm) | 243     | 4   |

## 2ND MEMBER - NO INSITE KIT

[See "Read this first" on page 3]

**227856 REV. 0**



\* See factory for bracket information

| 2nd Member - No InSite Kit 227856 Parts List |             |             |                 |                        |         |     |
|----------------------------------------------|-------------|-------------|-----------------|------------------------|---------|-----|
| Item                                         | Part Number | Description | Size            | Torque                 | Loctite | Qty |
| 1                                            | 227857      | Cover       | -               | -                      | -       | 1   |
| 2                                            | 501446      | Washer      | M12             | -                      | -       | 4   |
| 3                                            | 501581      | Cap Screw   | M12 x 1.75 x 30 | 70 Ft. Lbs.<br>(95 Nm) | 243     | 4   |

INSITE KITS







# LABOUNTY®

Additional copies of this manual are available by contacting your dealer or the LaBounty parts department,. You must include the attachment model number and serial number.