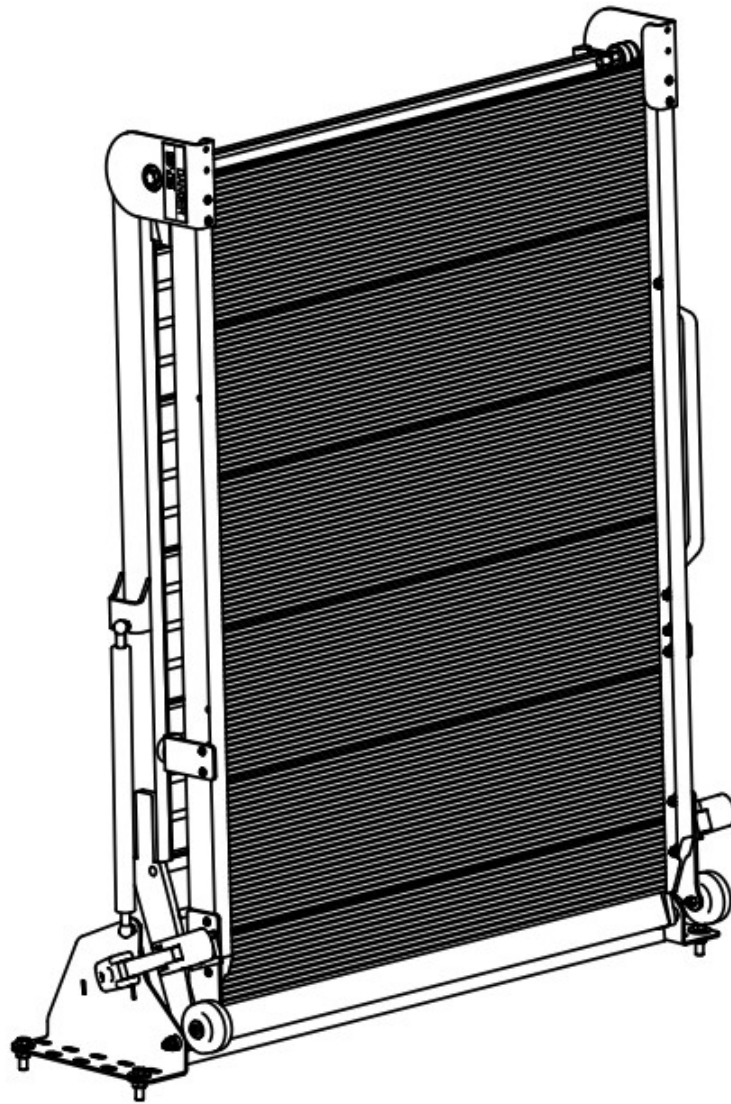


LINK[®]

**Cargo
Management**

INSTALLATION/OPERATION INSTRUCTIONS

LB20 SERIES RAMPS



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Sioux Center, IA USA
51250-2120
www.linkmfg.com

**QUESTIONS?
CALL CUSTOMER
SERVICE
1-800-222-6283**

IMPORTANT: IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH THE INSTALLATION.






1. INTRODUCTION

Thank you for choosing a Link Manufacturing LB20 Ramp. We want to help you get the best results from the ramp and to operate it safely. This manual contains information to assist you with the installation, operation, and maintenance of the LB20 Ramp. This instruction is intended solely for use with this product.

All information in this instruction is based on the latest information available at the time of printing. Link Manufacturing reserves the right to change its products or manuals at any time without notice. Contact Link Manufacturing at (800) 248-3057 for information on recent changes to products.


Damaged components should be returned to Link with a pre-arranged Returned Materials Authorization (RMA) number through the Customer Service Department. The damaged component may then be replaced if in compliance with warranty conditions.

2. SAFETY SYMBOLS, TORQUE SYMBOL, and NOTES

 DANGER	DANGER indicates a hazardous situation which if not avoided, will result in death or serious injury.
 WARNING	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
 NOTICE	NOTICE indicates a potentially hazardous situation which, if not avoided, may result in property damage.
 TORQUE	TORQUE indicates named fasteners are to be tightened to a specified torque value.
NOTE:	A Note provides information or suggestions that help you correctly perform a task.

3. SAFE WORKING PRACTICES

 **CAUTION** When handling parts, wear appropriate gloves, eyeglasses, ear protection, and other safety equipment.

 **CAUTION** Proper tightening of fasteners is important to the performance and safety of the ramp. Follow all torque specifications throughout the instructions.

3.1

WARNING

Link products must be installed by a trained technician when being placed into an Electric Vehicle (EV). Electric Vehicles have higher voltage batteries and cables, and drilling into Electric Vehicles may cause serious bodily harm and possible death.

Note: Link is not responsible for optional configurations or equipment that restrict the installation of the product in any way. Consult OEM body builder guides for additional installation guidelines.

3.2

CAUTION

- The operation of the LB20 Ramp involves moving parts.
- During the course of travel pinch points may exist between components.
- Keep hands and fingers clear of moving components during operation.

3.3

CAUTION

- Practice safe lifting procedures
- The ramp weldments are heavy and can cause injury if lifted improperly or dropped. Consider size, shape, and weight of objects being moved
- Obtain help or the assistance of a crane when lifting heavy assemblies. Make certain the path of travel is clear.

4. INSTALLATION

⚠ CAUTION

- Refer to the OEM Body Builder Guide books for restrictions on drilling through the vehicle floor.

NOTE: The installation of the LB20 will vary depending on the vehicle model and configuration. Due to variables in vehicles, the fit of the LB20 should be evaluated before beginning the installation.

4.1 Ramp Installation

1. Park the vehicle on a flat, level surface and engage the parking brake.
2. Remove the packaging from the ramp and remove it from the shipping pallet.
3. Use a forklift or assistance to position the ramp in the rear of the vehicle.
4. Confirm clearances between the ramp and the van components. The ramp should be placed as close to the rear door as possible while insuring proper door closure and clearance. (See Fig. 1)

NOTE: Do not position the ramp too far into the vehicle or the ramp will not deploy properly.

NOTE: The ramp may block access to the spare tire. A hole can be drilled in the baseplate to maintain access to the spare tire

5. Mark the (4) slots to be used for mounting the ramp. Space out the bolts across the mount pattern.

NOTE: Check under the van to verify that the holes will be accessible and will not damage important van components before drilling.

6. Drill (4) 29/64" holes. Use etching primer on the raw surfaces of the holes.

NOTE: Rivet nuts can be used instead of the supplied fasteners. (2) 1/4" PLUSNUT® or equivalent fasteners can be used instead of (1) 7/16" fastener.

7. Bolt the ramp to the van using the supplied 7/16" x 1 1/2" bolts and hardware.
8. Confirm smooth operation and clearances.

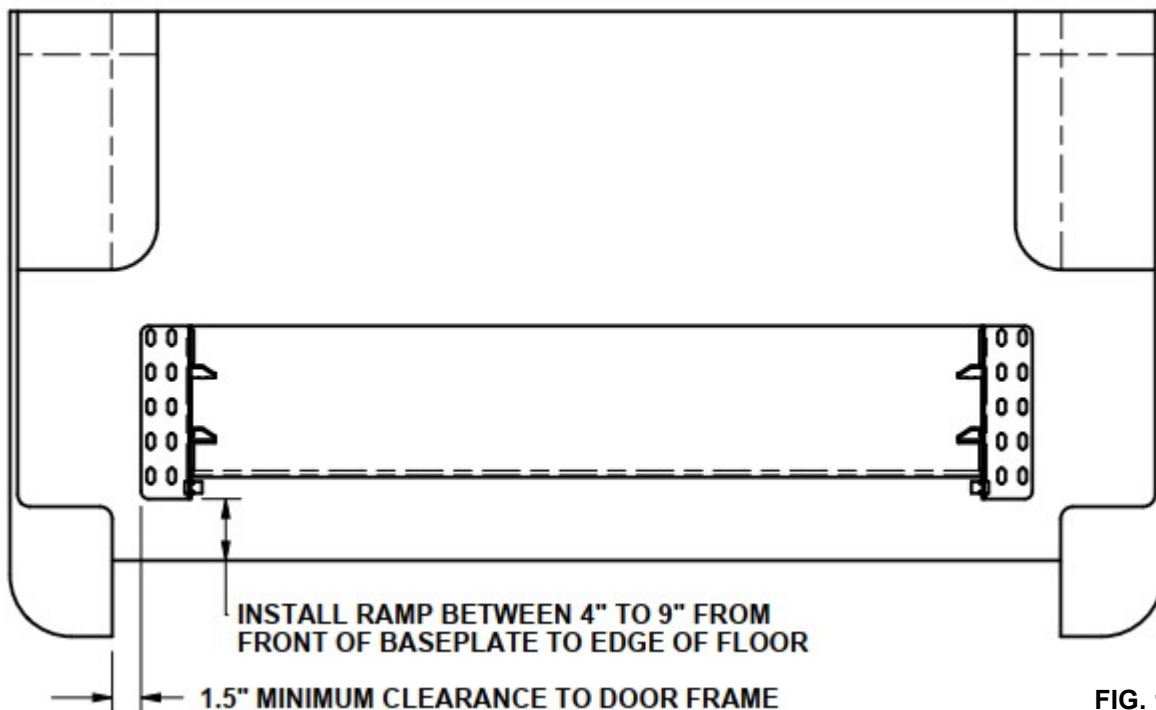


FIG. 1

5. OPERATION GUIDELINES

- 5.1 In order for this ramp to operate properly, it must operate in the parameters specified by Link.
- 5.2 No alterations of any Link ramp component is permitted without proper authorization from qualified Link personnel.

6. OPERATION

WARNING

- Make certain the vehicle is in park and the parking brake is engaged before loading / unloading the vehicle.
- Vehicle movement during loading / unloading could cause operator injury or death.

WARNING

- Loading beyond the capacity may result in equipment damage or failure that may result in severe injury or death.

6.1 Ramp Operation

1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
2. Release the draw latches on either side of the vehicle.
3. Fold ramp out of the rear of the vehicle.

7. MAINTENANCE

CAUTION

- Park the vehicle in a level, flat area, and apply the parking brake before performing any maintenance.

The LB20 is designed to last for many years without any major maintenance. Periodically, check the following items:

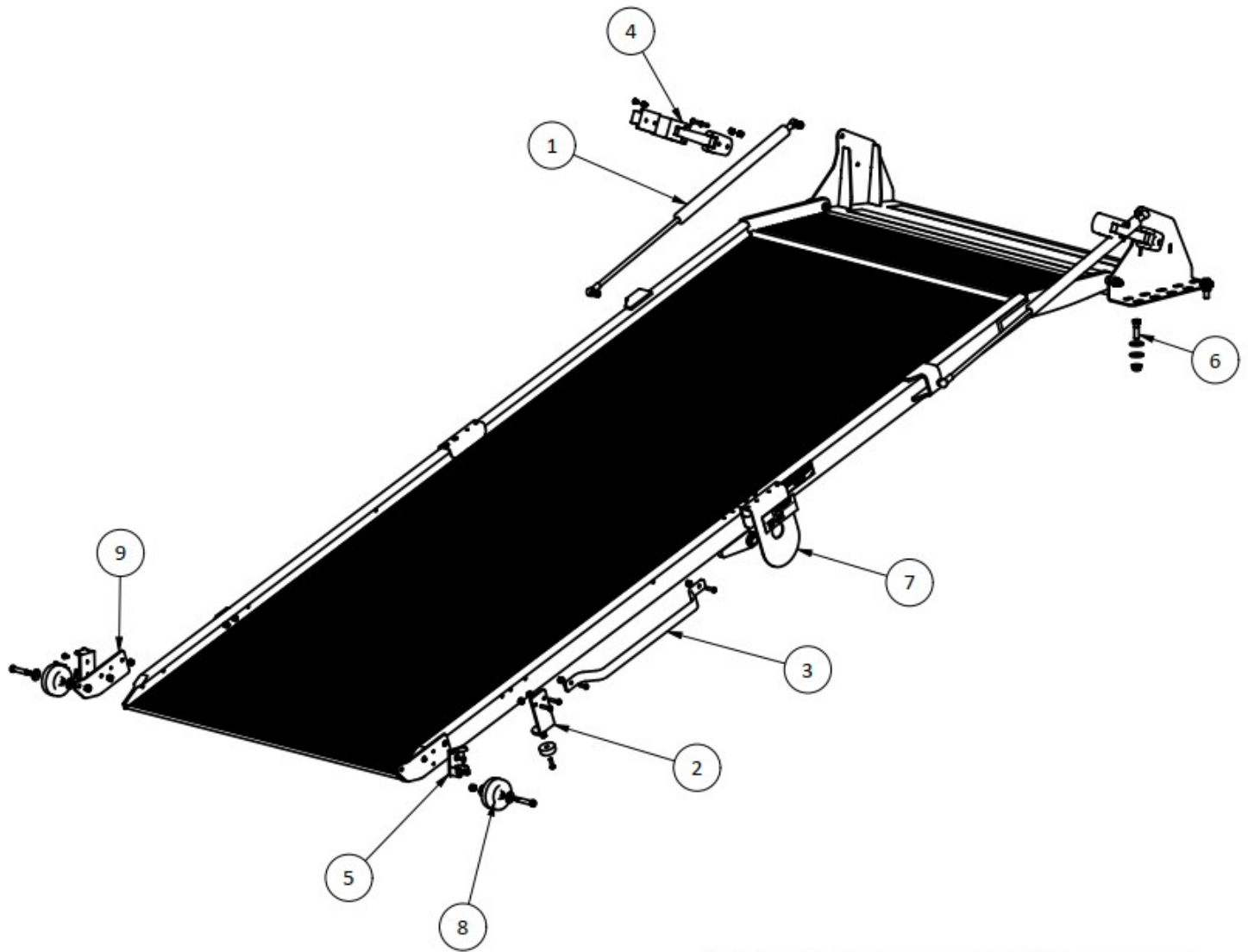
Each Time the Ramp is Used:

- Listen for unusual noises and watch to ensure proper movement of the ramp. If there is a problem, correct it before continuing to use the system.

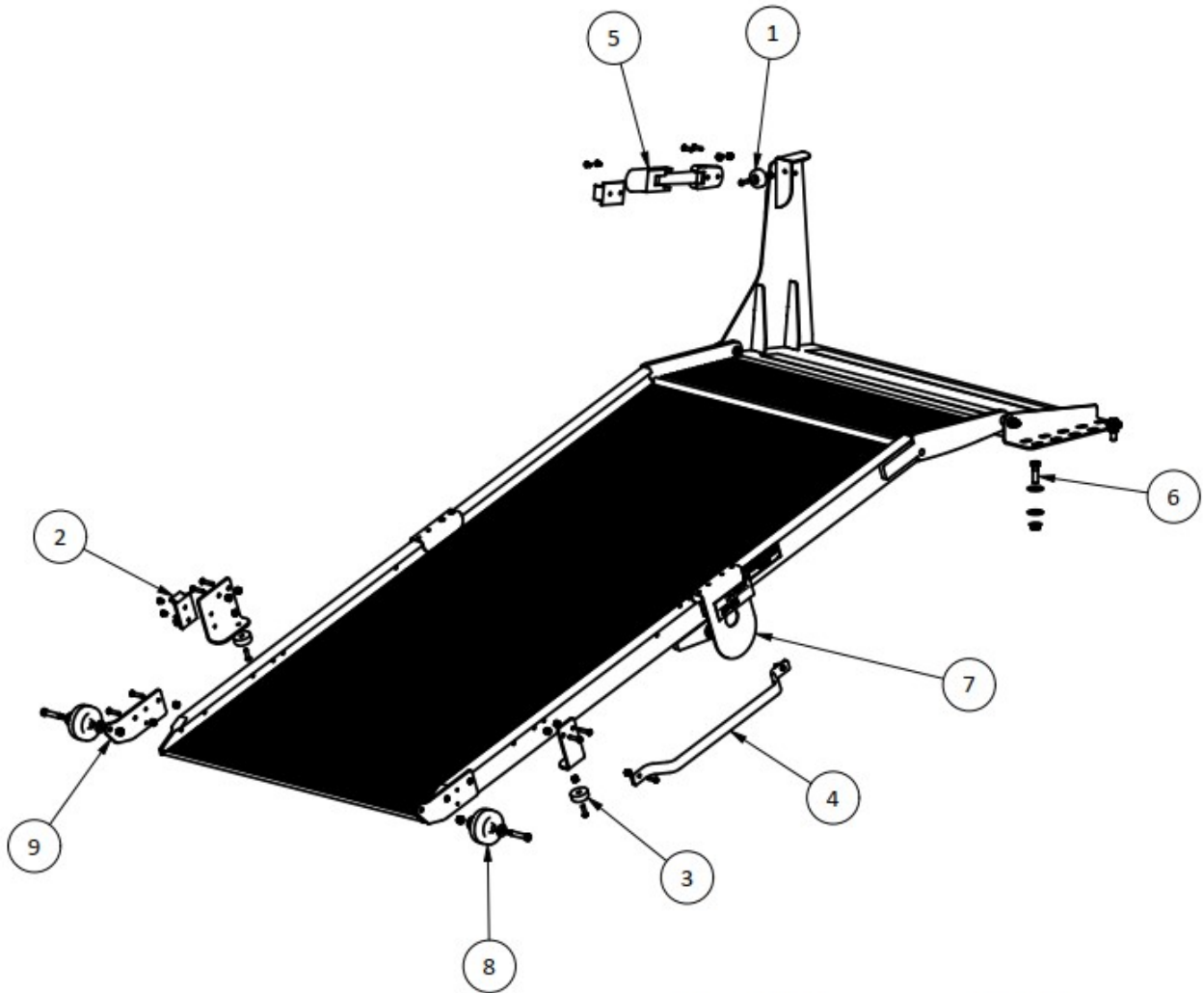
Annually:

- Check tightness of all fasteners. (Refer to Torque Table below)
- Visually inspect for cracks or damage at all pivots on the framework and replace if necessary.

TORQUE TABLE	
FASTENER	TORQUE
3/8-UNC NUTS	20-30 FT-LBS
7/16-UNC NUTS	40-50 FT -LBS
1/2-UNC NUTS	55-75 FT-LBS



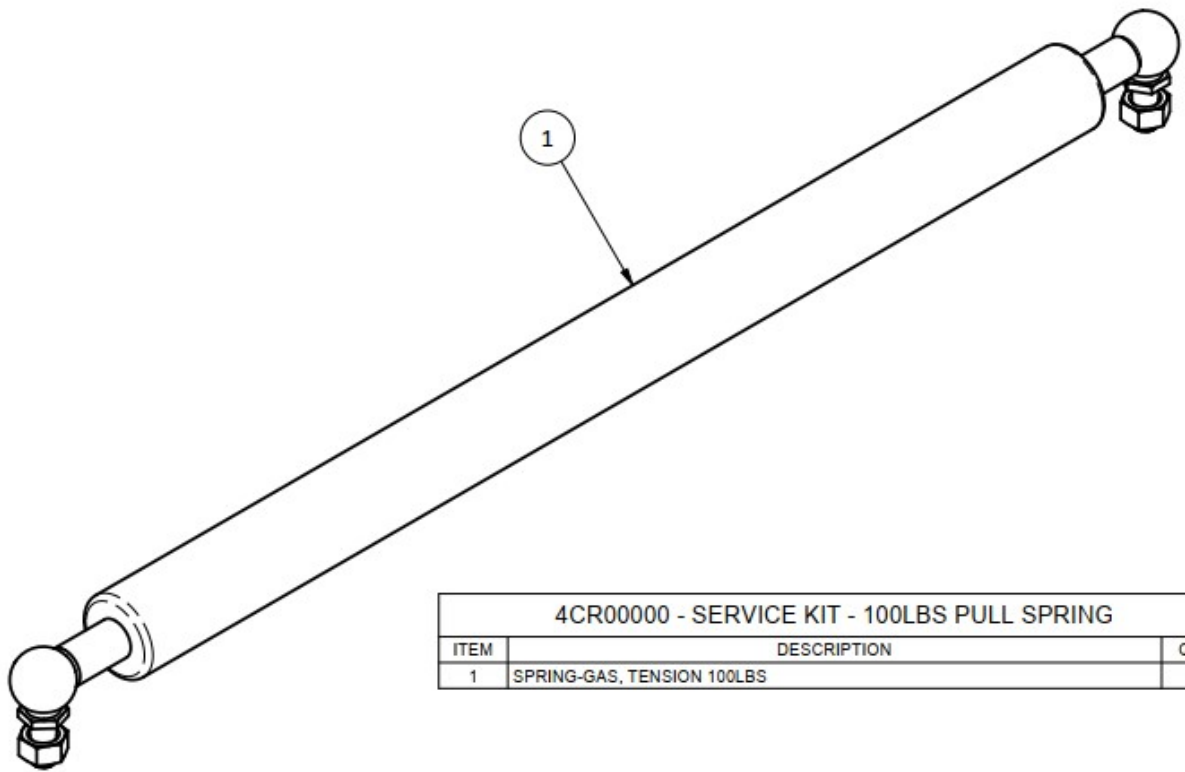
ITEM	PART NUMBER	DESCRIPTION
1	4CR00000	SERVICE KIT - 100LBS PULL SPRING
2	4CR00009	SERVICE KIT - BUMPER MOUNT
3	4CR00007	SERVICE KIT - HANDLE
4	4CR00004	SERVICE KIT - LATCH
5	4CR00014	SERVICE KIT - LATCH PLATE
6	4CR00012	SERVICE KIT - MOUNT FASTENERS
7	4CR00008	SERVICE KIT - PINCH GUARD
8	4CR00005	SERVICE KIT - WHEEL
9	4CR00006	SERVICE KIT - WHEEL MOUNT



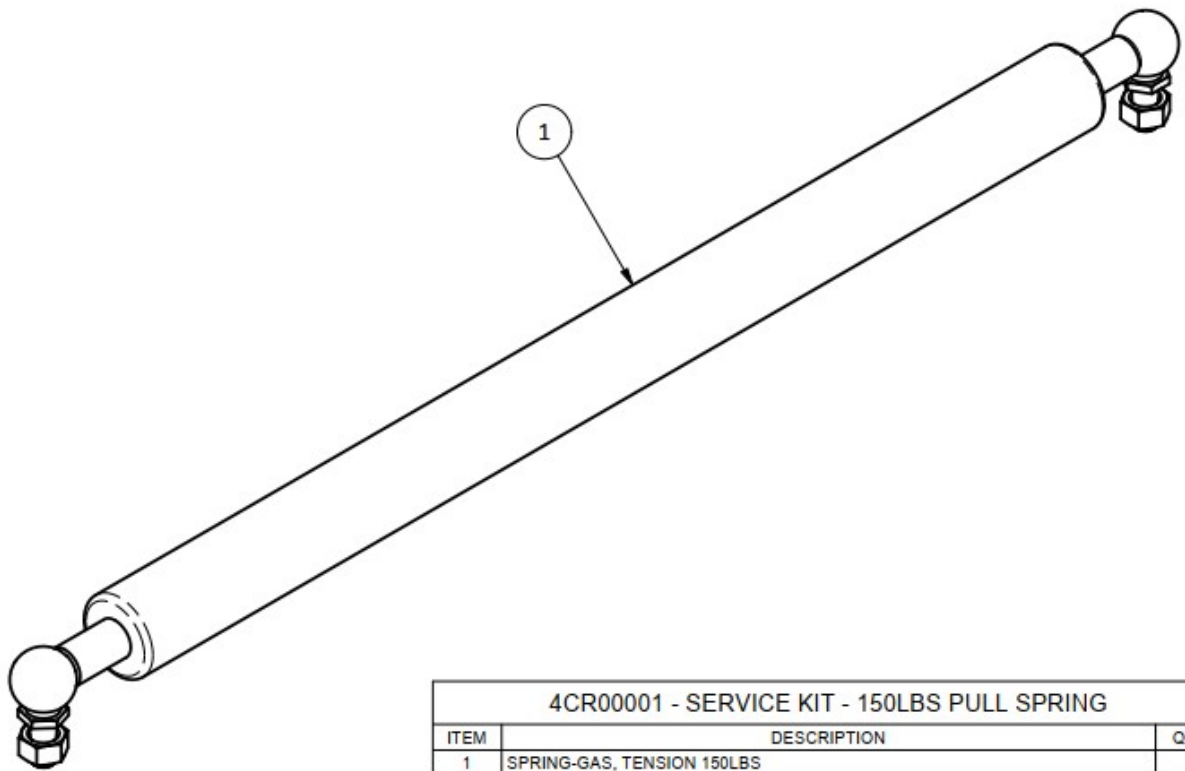
ITEM	PART NUMBER	DESCRIPTION
1	4CR00011	SERVICE KIT - BUMPER
2	4CR00010	SERVICE KIT - BUMPER LATCH
3	4CR00009	SERVICE KIT - BUMPER MOUNT
4	4CR00007	SERVICE KIT - HANDLE
5	4CR00004	SERVICE KIT - LATCH
6	4CR00012	SERVICE KIT - MOUNT FASTENERS
7	4CR00008	SERVICE KIT - PINCH GUARD
8	4CR00005	SERVICE KIT - WHEEL
9	4CR00013	SERVICE KIT - WHEEL MOUNT

SERVICE ITEMS FOR LB20 RAMP

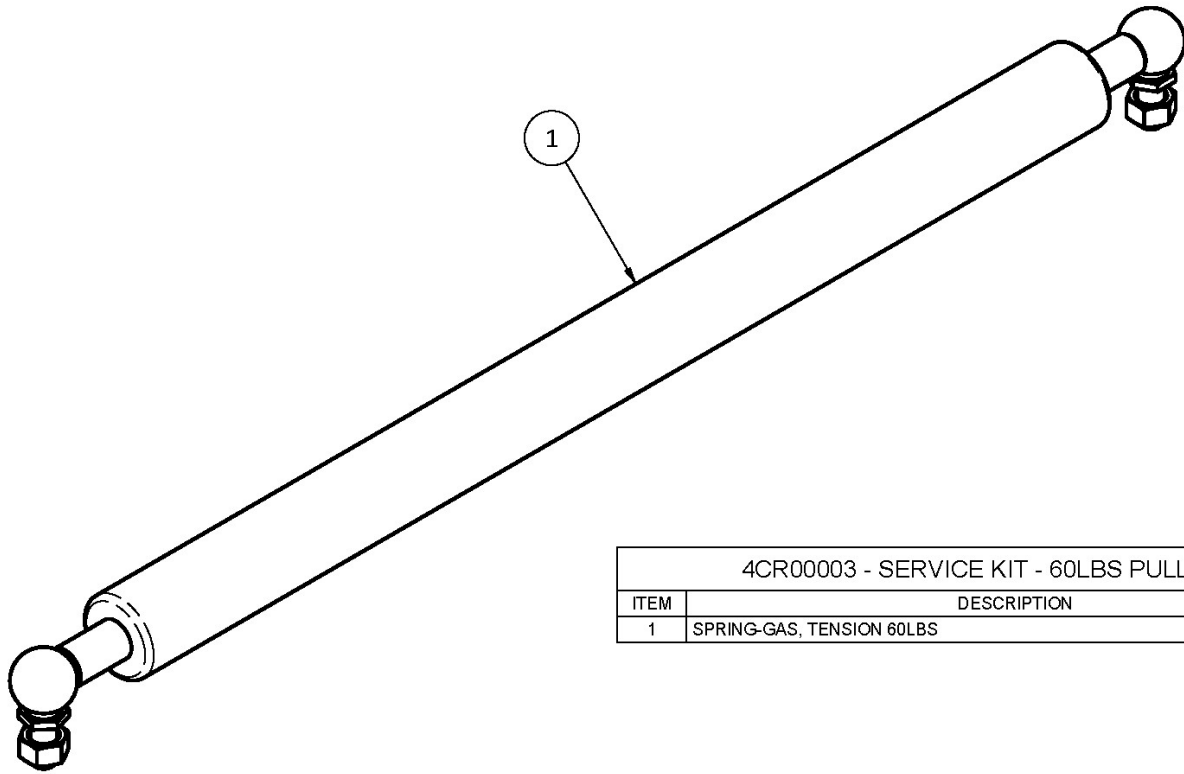
ITEM NUMBER	DESCRIPTION
4CR0000	SERVICE KIT - 100LBS PULL SPRING
4CR00001	SERVICE KIT - 150LBS PULL SPRING
4CR00003	SERVICE KIT - 60LBS PULL SPRING
4CR00004	SERVICE KIT - LATCH
4CR00005	SERVICE KIT - WHEEL
4CR00006	SERVICE KIT - WHEEL MOUNT
4CR00007	SERVICE KIT - HANDLE
4CR00008	SERVICE KIT - PINCH GUARD
4CR00009	SERVICE KIT - BUMPER MOUNT
4CR00010	SERVICE KIT - BUMPER LATCH
4CR00011	SERVICE KIT - BUMPER
4CR00012	SERVICE KIT - MOUNT FASTENERS
4CR00013	SERVICE KIT - WHEEL MOUNT
4CR00014	SERVICE KIT - LATCH



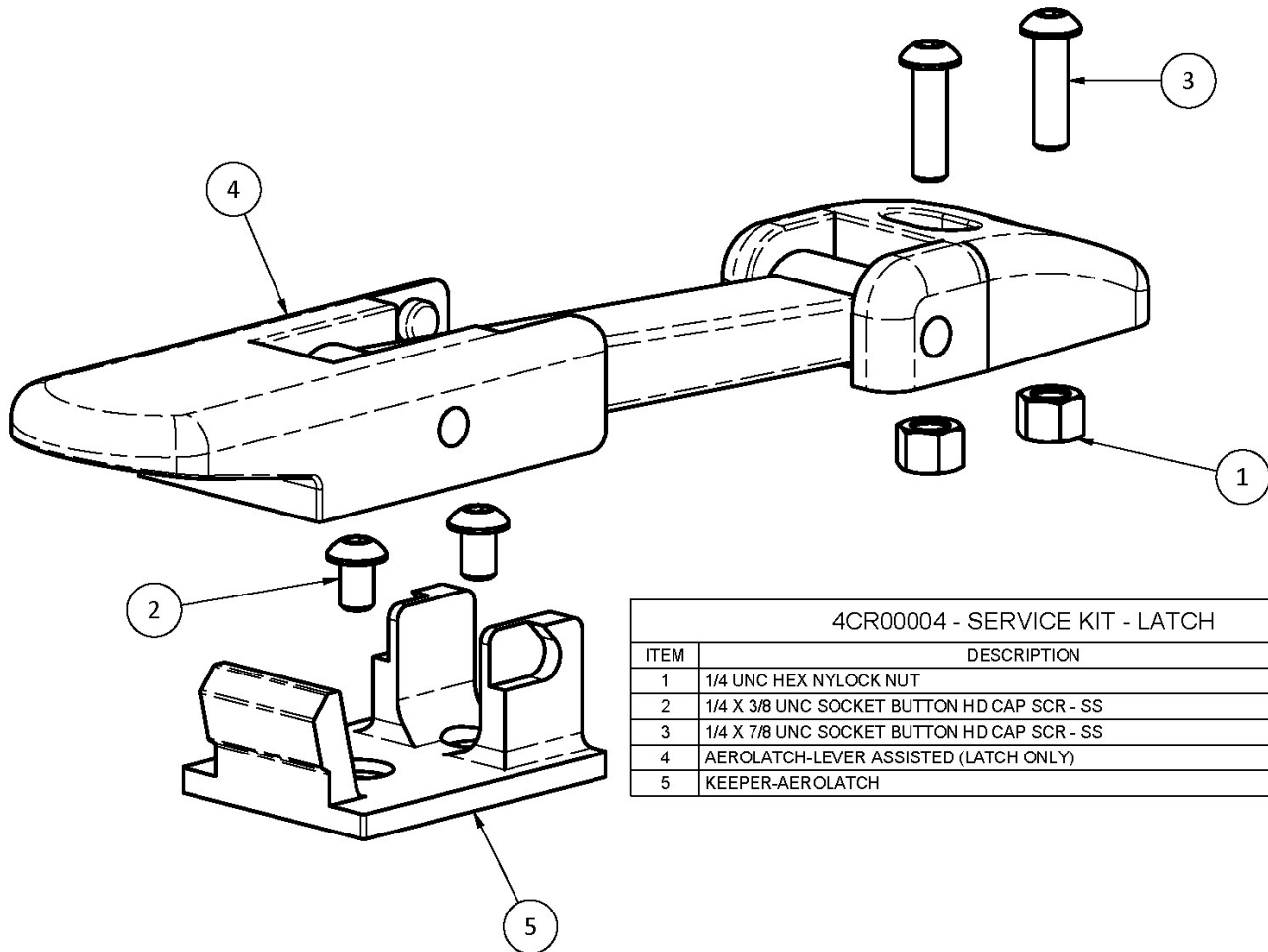
4CR00000 - SERVICE KIT - 100LBS PULL SPRING		
ITEM	DESCRIPTION	QTY
1	SPRING-GAS, TENSION 100LBS	1



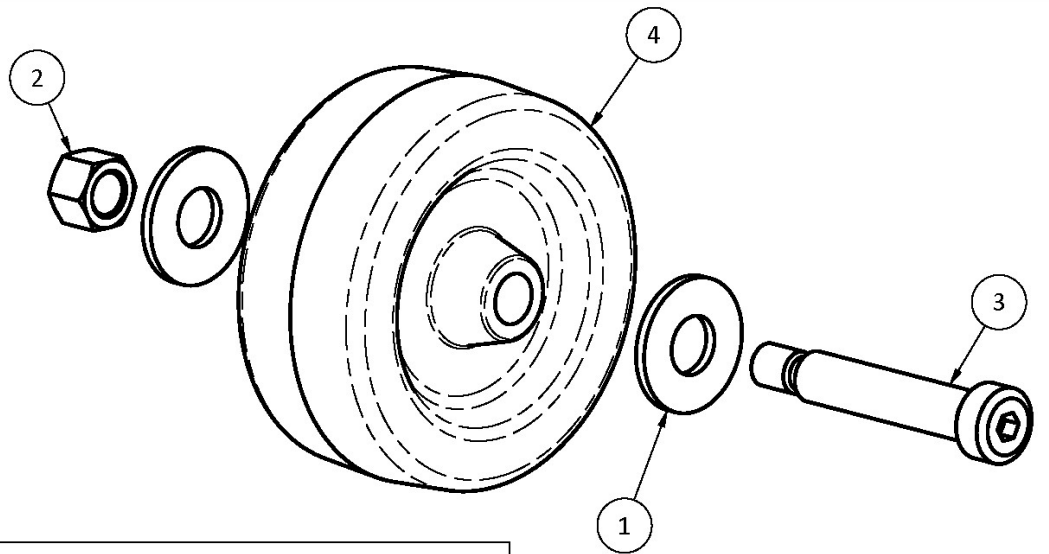
4CR00001 - SERVICE KIT - 150LBS PULL SPRING		
ITEM	DESCRIPTION	QTY
1	SPRING-GAS, TENSION 150LBS	1



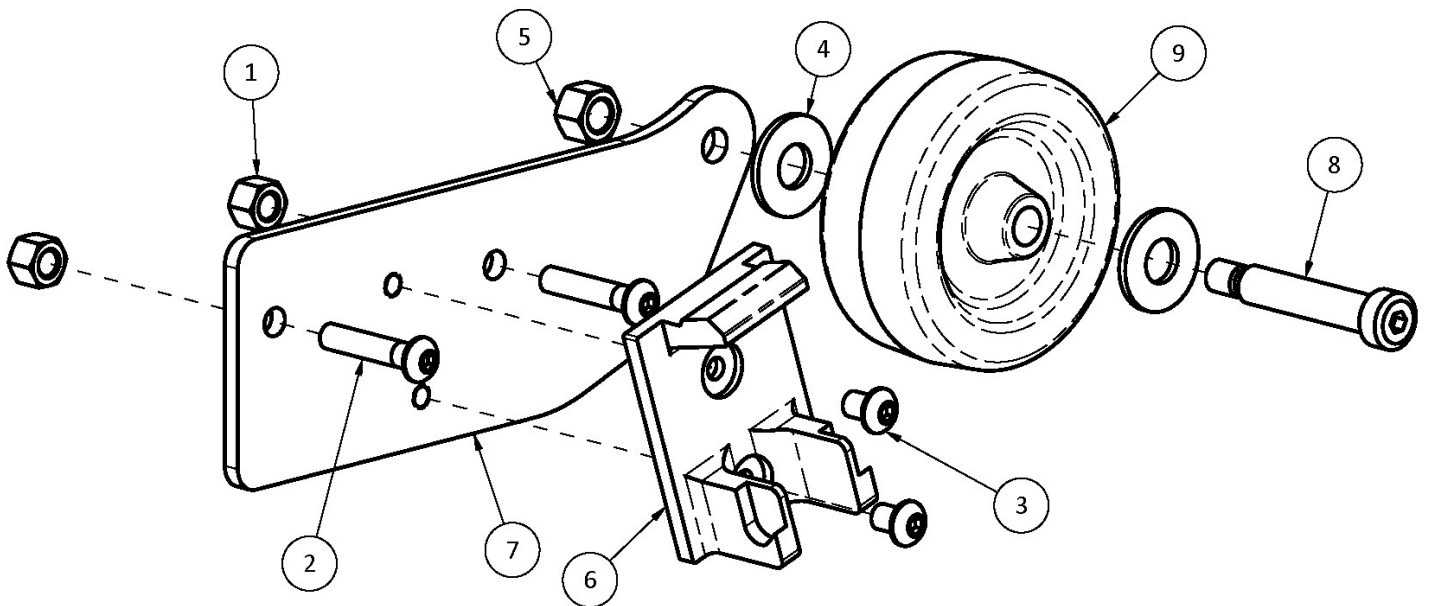
4CR00003 - SERVICE KIT - 60LBS PULL SPRING		
ITEM	DESCRIPTION	QTY
1	SPRING-GAS, TENSION 60LBS	1



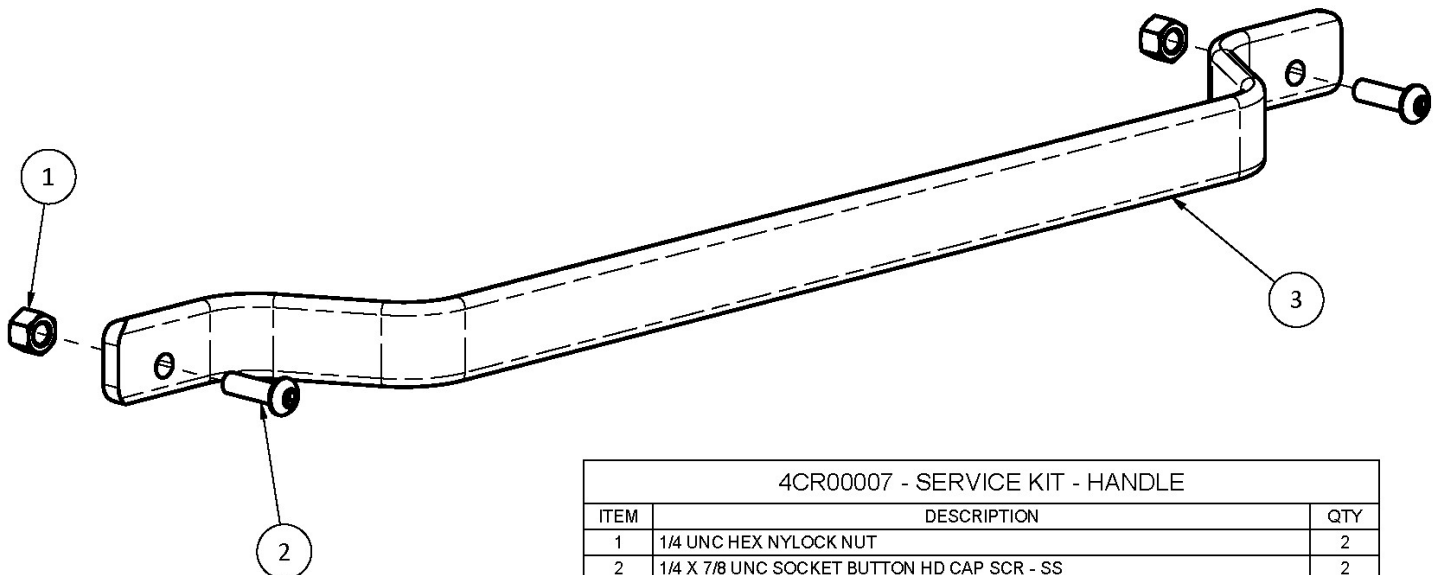
4CR00004 - SERVICE KIT - LATCH		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	2
2	1/4 X 3/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
3	1/4 X 7/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
4	AEROLATCH-LEVER ASSISTED (LATCH ONLY)	1
5	KEEPER-AEROLATCH	1



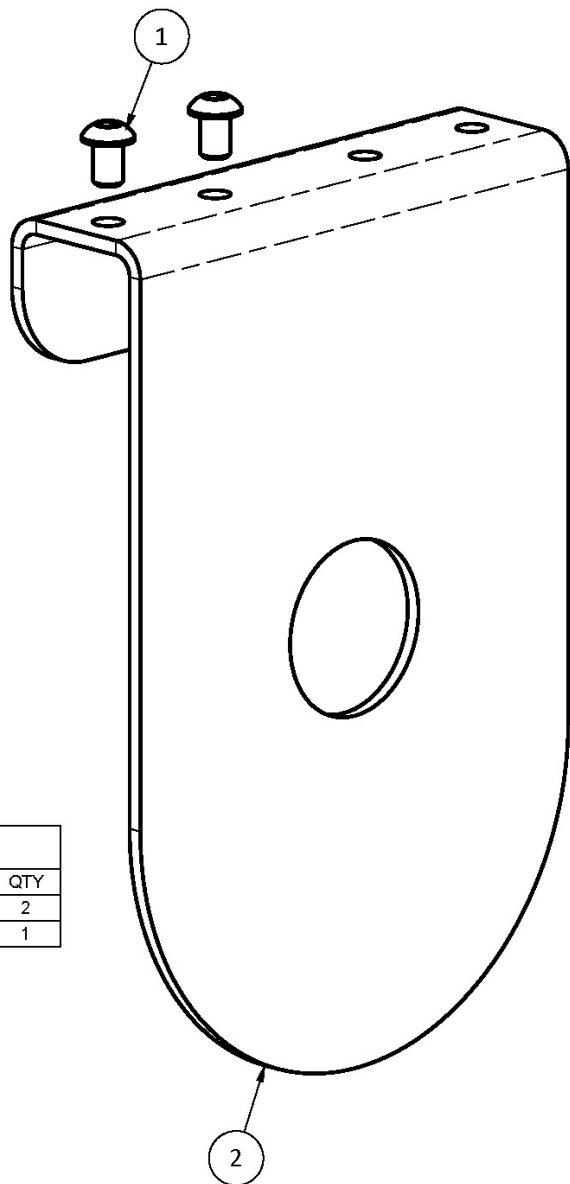
4CR00005 - SERVICE KIT - WHEEL		
ITEM	DESCRIPTION	QTY
1	3/8 TYPE A PLAIN WASHER	2
2	5/16 UNC HEX NYLOCK NUT	1
3	SHSCS-.375X1.750	1
4	WHEEL-RAMP	1



4CR00006 - SERVICE KIT - WHEEL MOUNT		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	2
2	1/4 X 1 1/4 UNC SOCKET BUTTON HD CAP SCR - SS	2
3	1/4 X 3/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
4	3/8 TYPE A PLAIN WASHER	2
5	5/16 UNC HEX NYLOCK NUT	1
6	KEEPER-AEROLATCH	1
7	MOUNT-WHEEL	1
8	SHSCS-.375X1.750	1
9	WHEEL-RAMP	1

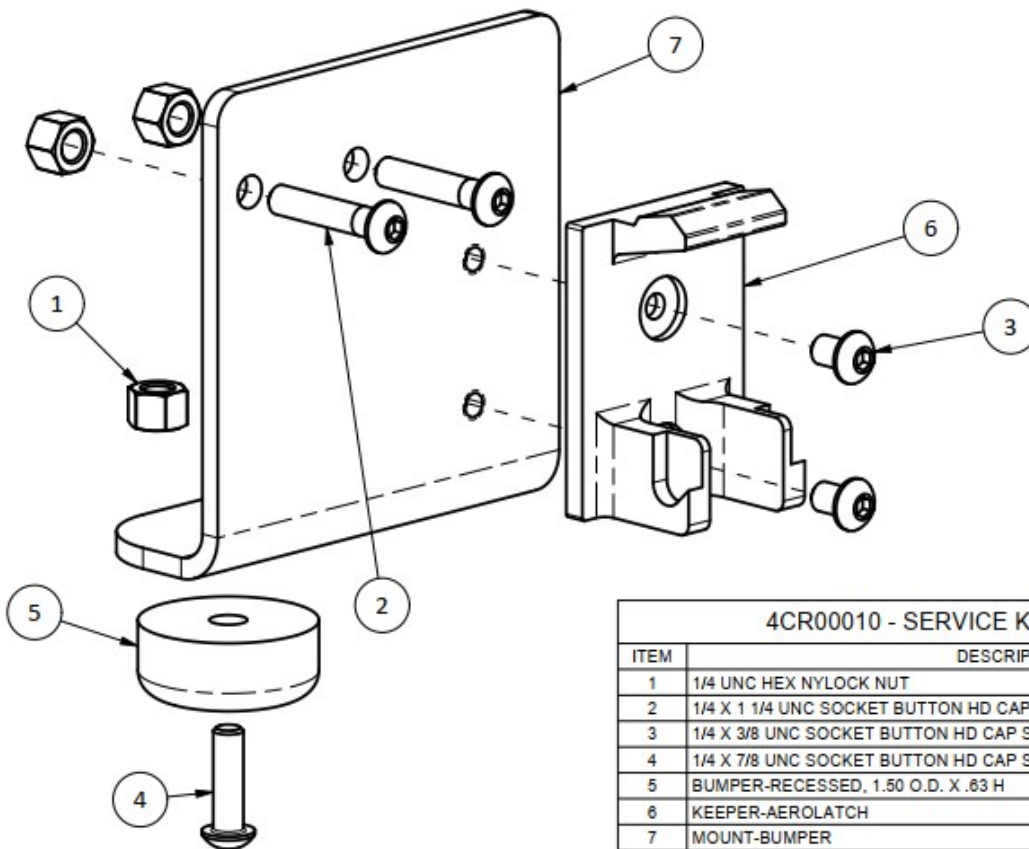
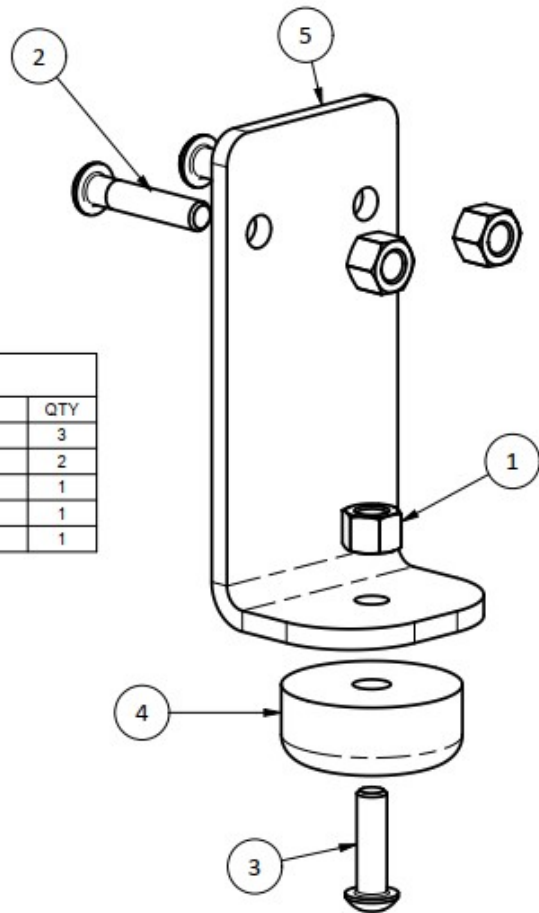


4CR00007 - SERVICE KIT - HANDLE		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	2
2	1/4 X 7/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
3	HANDLE-LB10	1

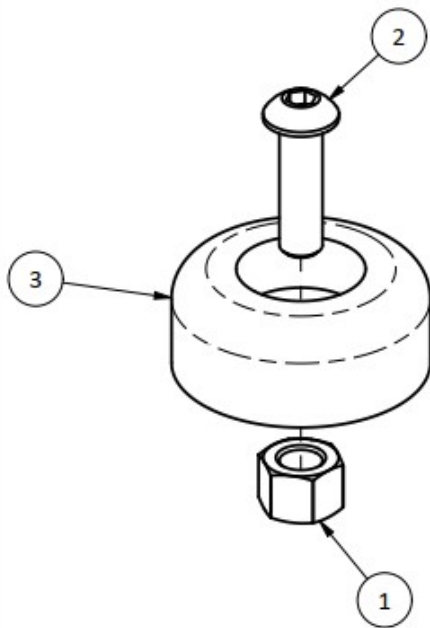


4CR00008 - SERVICE KIT - PINCH GUARD		
ITEM	DESCRIPTION	QTY
1	1/4 X 3/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
2	GUARD-PINCH	1

4CR00009 - SERVICE KIT - BUMPER MOUNT		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	3
2	1/4 X 1 1/4 UNC SOCKET BUTTON HD CAP SCR - SS	2
3	1/4 X 7/8 UNC SOCKET BUTTON HD CAP SCR - SS	1
4	BUMPER-RECESSED, 1.50 O.D. X .63 H	1
5	MOUNT-BUMPER	1

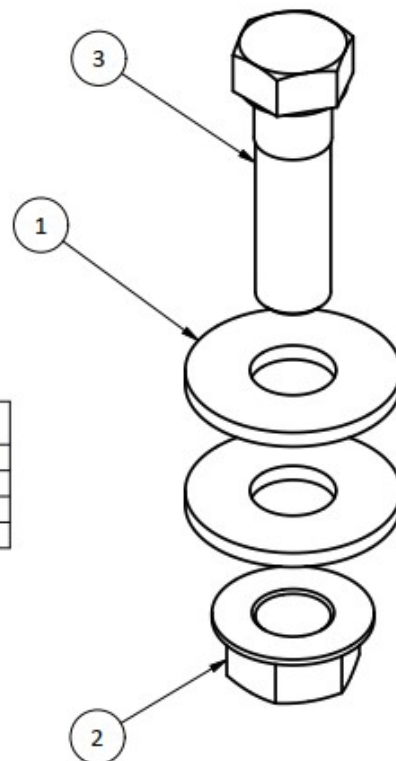


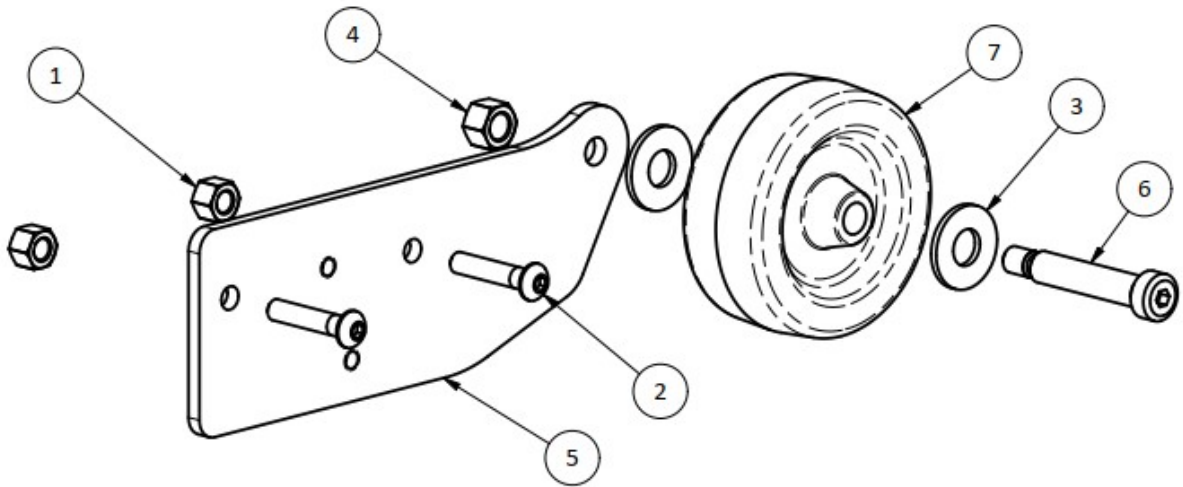
4CR00010 - SERVICE KIT - BUMPER LATCH		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	3
2	1/4 X 1 1/4 UNC SOCKET BUTTON HD CAP SCR - SS	2
3	1/4 X 3/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
4	1/4 X 7/8 UNC SOCKET BUTTON HD CAP SCR - SS	1
5	BUMPER-RECESSED, 1.50 O.D. X .63 H	1
6	KEEPER-AEROLATCH	1
7	MOUNT-BUMPER	1



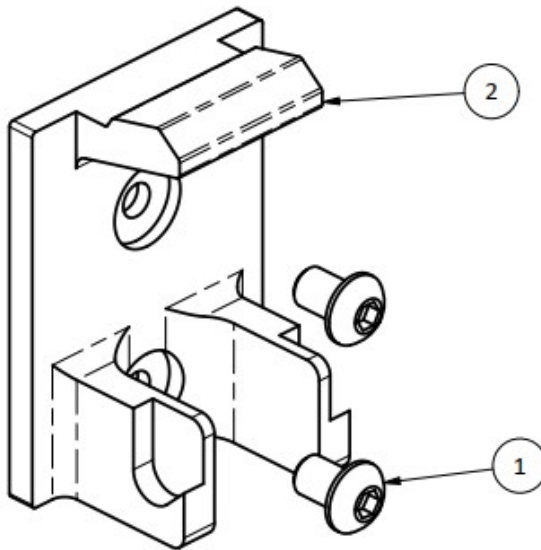
4CR00011 - SERVICE KIT - BUMPER		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	1
2	1/4 X 7/8 UNC SOCKET BUTTON HD CAP SCR - SS	1
3	BUMPER-RECESSED, 1.50 O.D. X .63 H	1

4CR00012 - SERVICE KIT - MOUNT FASTENERS		
ITEM	DESCRIPTION	QTY
1	7/16 TYPE A PLAIN WASHER	8
2	7/16 UNC SERRATED FLANGE NUT	4
3	7/16 X 1 1/2 UNC HEX CAP SCR (GR 5)	4





4CR00013 - SERVICE KIT - WHEEL MOUNT		
ITEM	DESCRIPTION	QTY
1	1/4 UNC HEX NYLOCK NUT	2
2	1/4 X 1 1/4 UNC SOCKET BUTTON HD CAP SCR - SS	2
3	3/8 TYPE A PLAIN WASHER	2
4	5/16 UNC HEX NYLOCK NUT	1
5	MOUNT-WHEEL	1
6	SHSCS-.375X1.750	1
7	WHEEL-RAMP	1



4CR00014 - SERVICE KIT - LATCH PLATE		
ITEM	DESCRIPTION	QTY
1	1/4 X 3/8 UNC SOCKET BUTTON HD CAP SCR - SS	2
2	KEEPER-AEROLATCH	1



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