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**QUESTIONS?
CALL CUSTOMER
SERVICE**
1-800-248-3057
www.linkmfg.com

MAINTENANCE INSTRUCTIONS

LSR90 SERIES RAMPS



The **LSR 90** fits Mercedes Benz Sprinters, Ford Transits mid and high roof, Nissan NV high roof, and Ram Promasters.

UNIT WEIGHT: 300-350 LB.

1. INTRODUCTION





Thank you for choosing a Link Cargo Management Products LSR 90 Ramp. We want to help you to get the best results from the ramp and to operate it safely. This manual contains information to introduce you to the Link LSR90 Ramp and to assist you with its operation. The manual is intended solely for use with this product.

All information in this manual 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 CMP at (800) 248-3057 for information on recent changes to products.

Damaged components should be returned to Link with a pre-arranged Returned Goods Authorization (RGA) 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

IMPORTANT: IT IS IMPORTANT THAT THE ENTIRE OPERATION INSTRUCTIONS BE READ THOROUGHLY BEFORE USING THIS SYSTEM.

| | |
|--|---|
|  | This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death. |
|  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. |
|  | The torque symbol alerts you to tighten fasteners to a specified torque value. |


3. SAFE WORKING PRACTICES:

3.1

 **CAUTION**

- The operation of the LSR90 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.

3.2

 **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. OPERATION GUIDELINES

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

5. 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.

5.1 Ramp Operation

1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
2. Release the rotatory latch (midway up the side of ramp on the passenger side near the handle).
3. Fold ramp out of the rear of the vehicle.

5.2 Ramp Swivel Out Operation

1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
2. To swivel the ramp out of vehicle.
3. Release the latch on the passenger side of vehicle by pulling the rear yellow handle upward.
4. Swing the ramp out till the ramp swivel lock engages.
5. To release ramp pull the swivel lock and swing ramp until latched into latch.

5.3 Ramp Swivel In Operation

WARNING

- Do not use ramp if not locked into latch. Damage or failure of ramp may occur that may result in severe injury or death.

1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
2. To swivel the ramp into vehicle.
3. Release the latch on the passenger side of vehicle by pulling the forward yellow handle upward.
4. Swing the ramp in till the ramp swivel lock engages and the ramp is resting on the inside deck catch .
5. To release ramp pull the swivel lock and swing ramp outwards until latched into latch.

WARNING

- Do not use ramp if not locked into latch. Damage or failure of ramp may occur that may result in severe injury or death.

6. MAINTENANCE

The LSR90 is designed to last for many years without any

CAUTION

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

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.

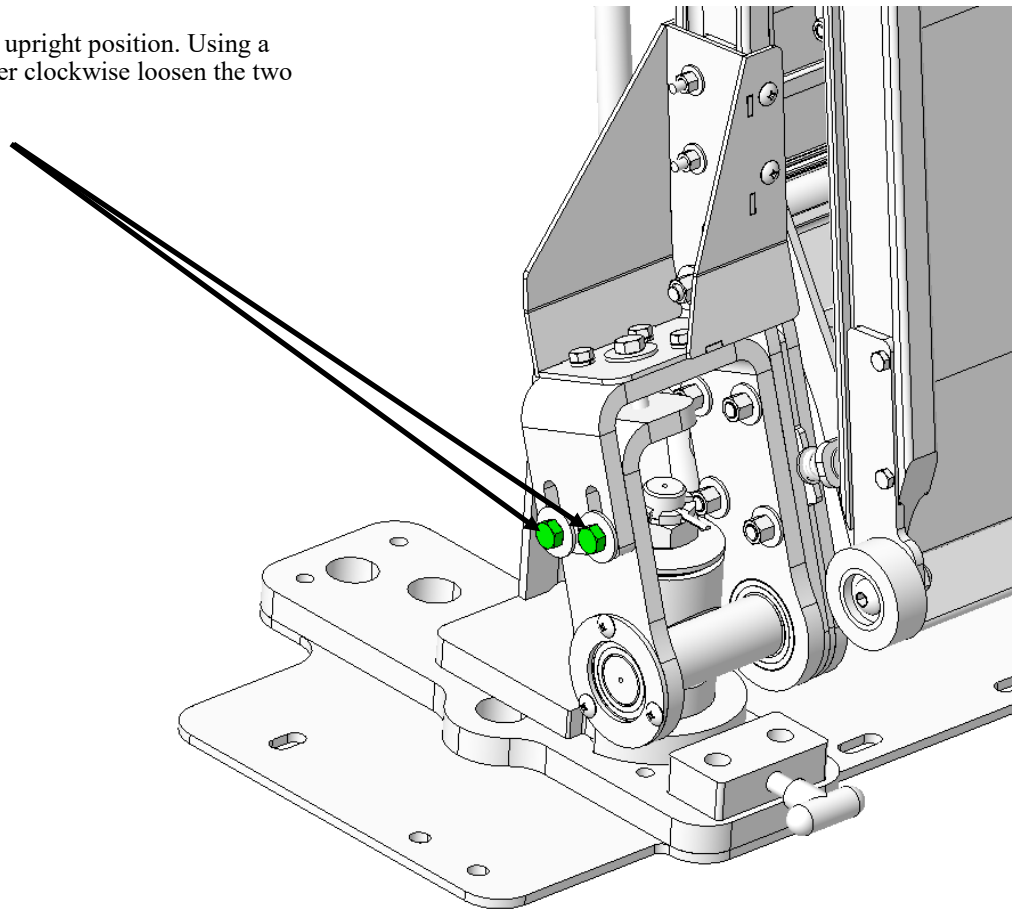
Annually:

- 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.

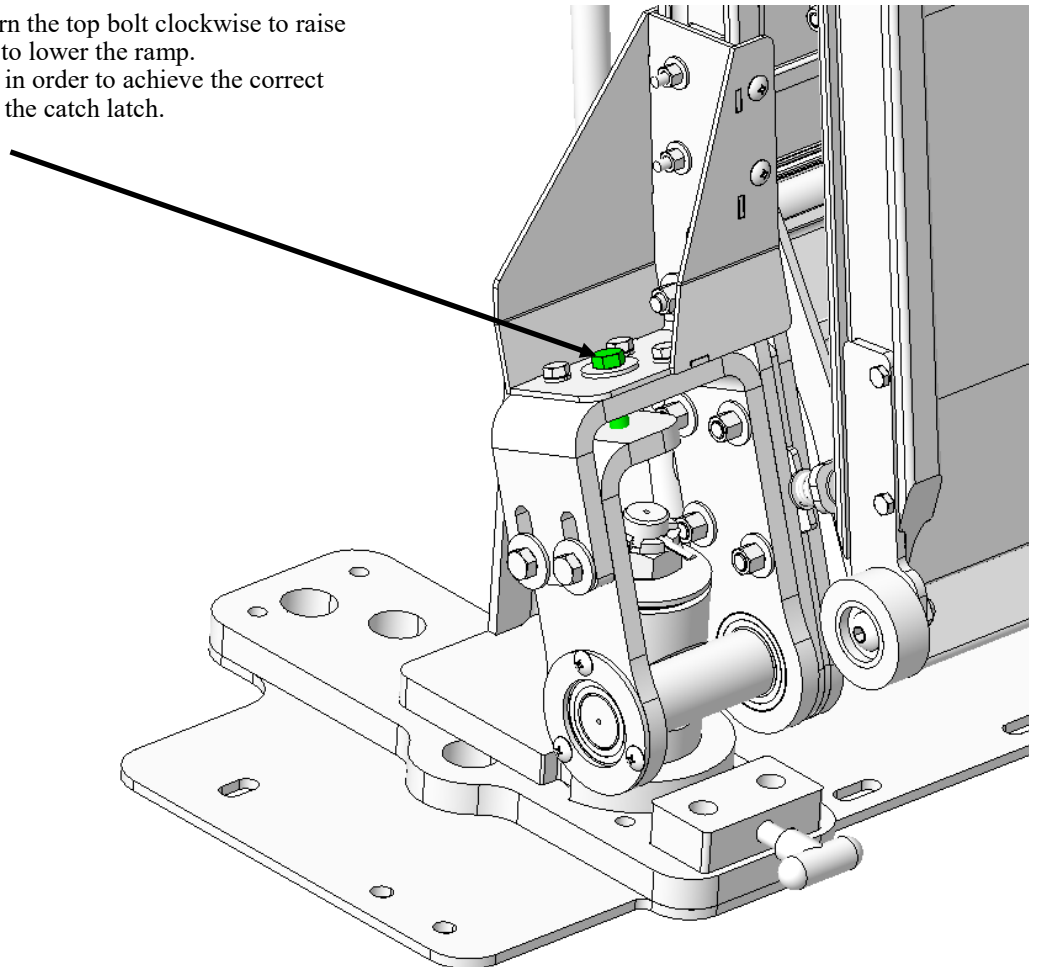
| TORQUE TABLE | |
|---------------|---------------|
| FASTENER | TORQUE |
| 3/8-UNC NUTS | 30-40 FT-LBS |
| 7/16-UNC NUTS | 50-60 FT -LBS |
| 1/2-UNC NUTS | 80-100 FT-LBS |

RAMP ADJUSTMENT PROCEDURE

With the ramp in the folded upright position. Using a 9/16" wrench turning counter clockwise loosen the two 7/16" bolts two full turns.

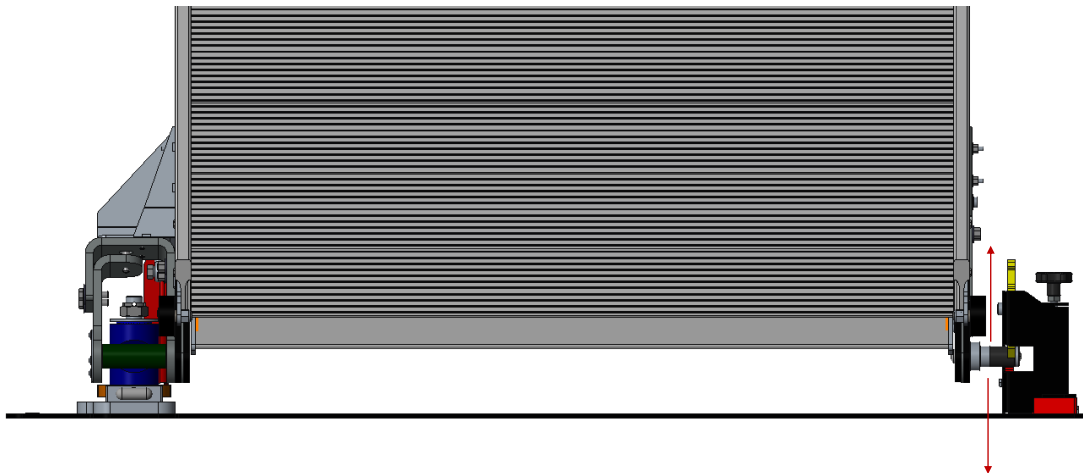
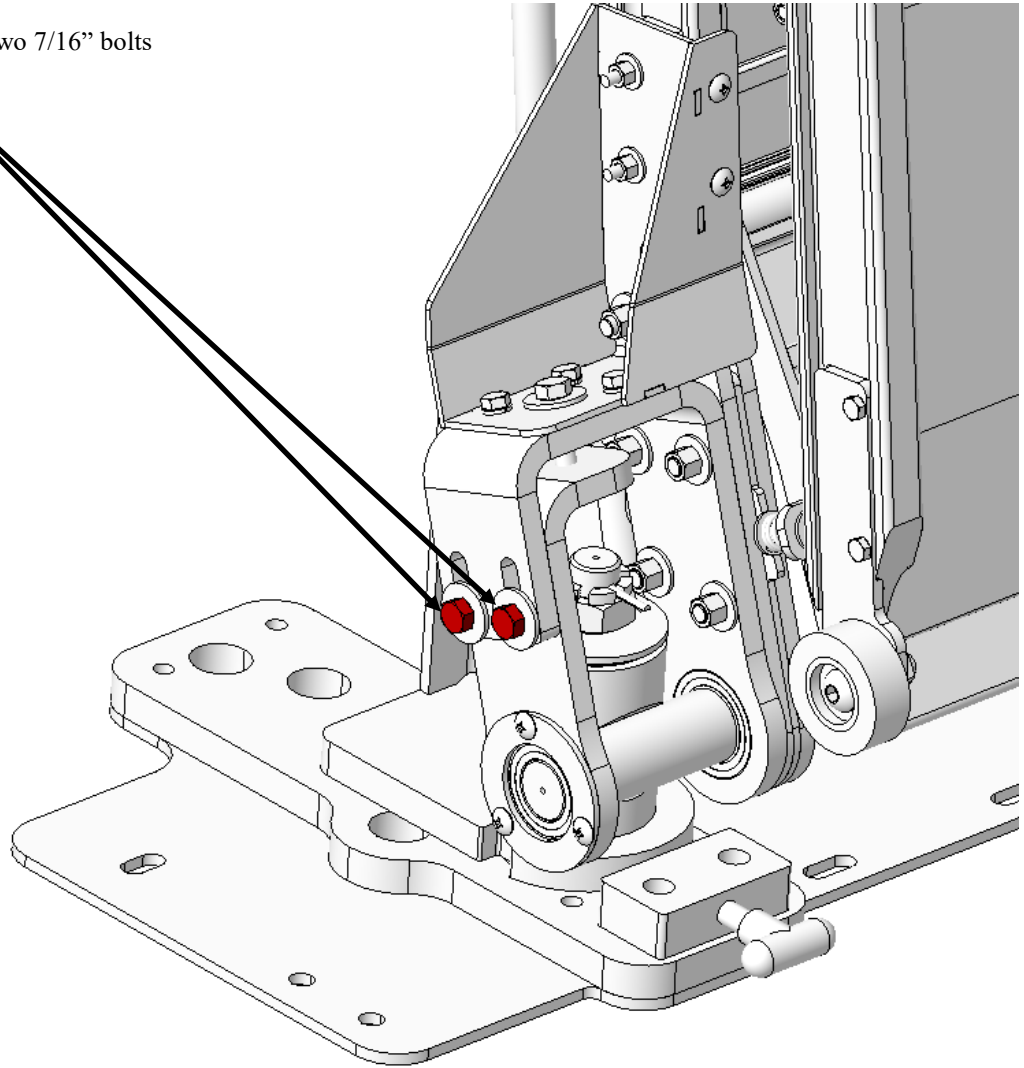


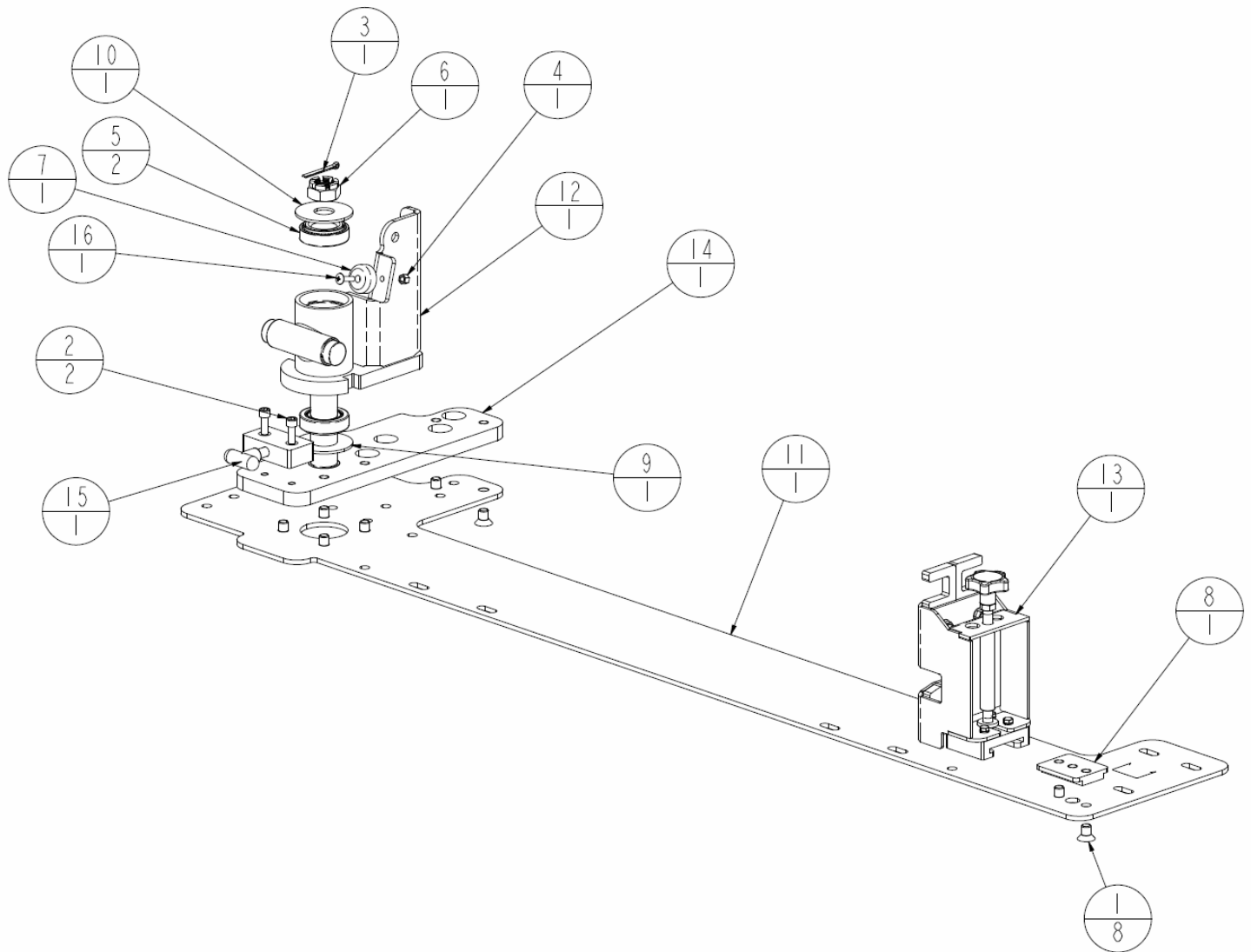
Using the same 9/16" wrench turn the top bolt clockwise to raise the ramp and counter clockwise to lower the ramp. Turn the bolt in 1/4" increments in order to achieve the correct height that the ramp swings into the catch latch.



RAMP ADJUSTMENT PROCEDURE CONT.

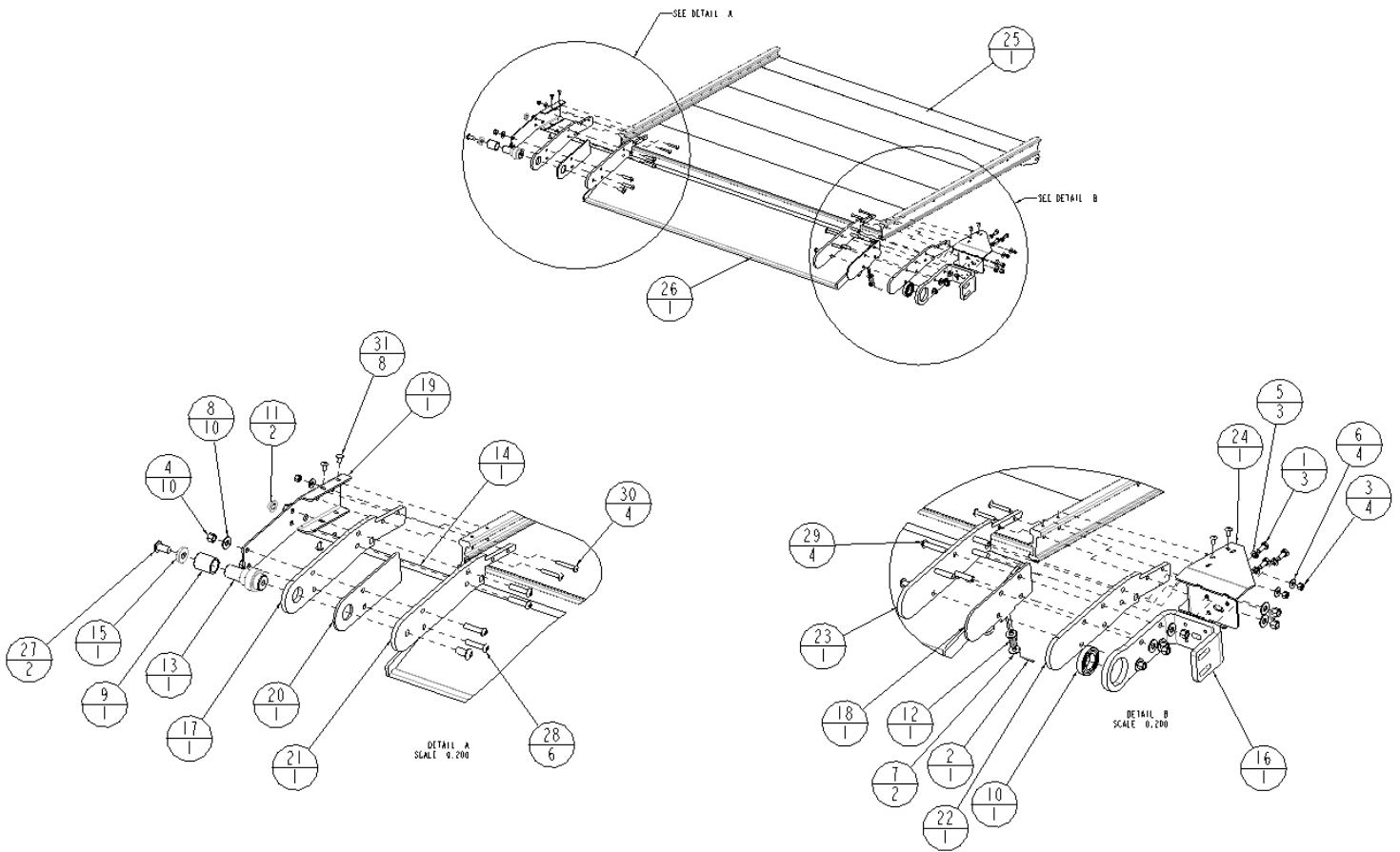
Turning clockwise tighten the two 7/16" bolts





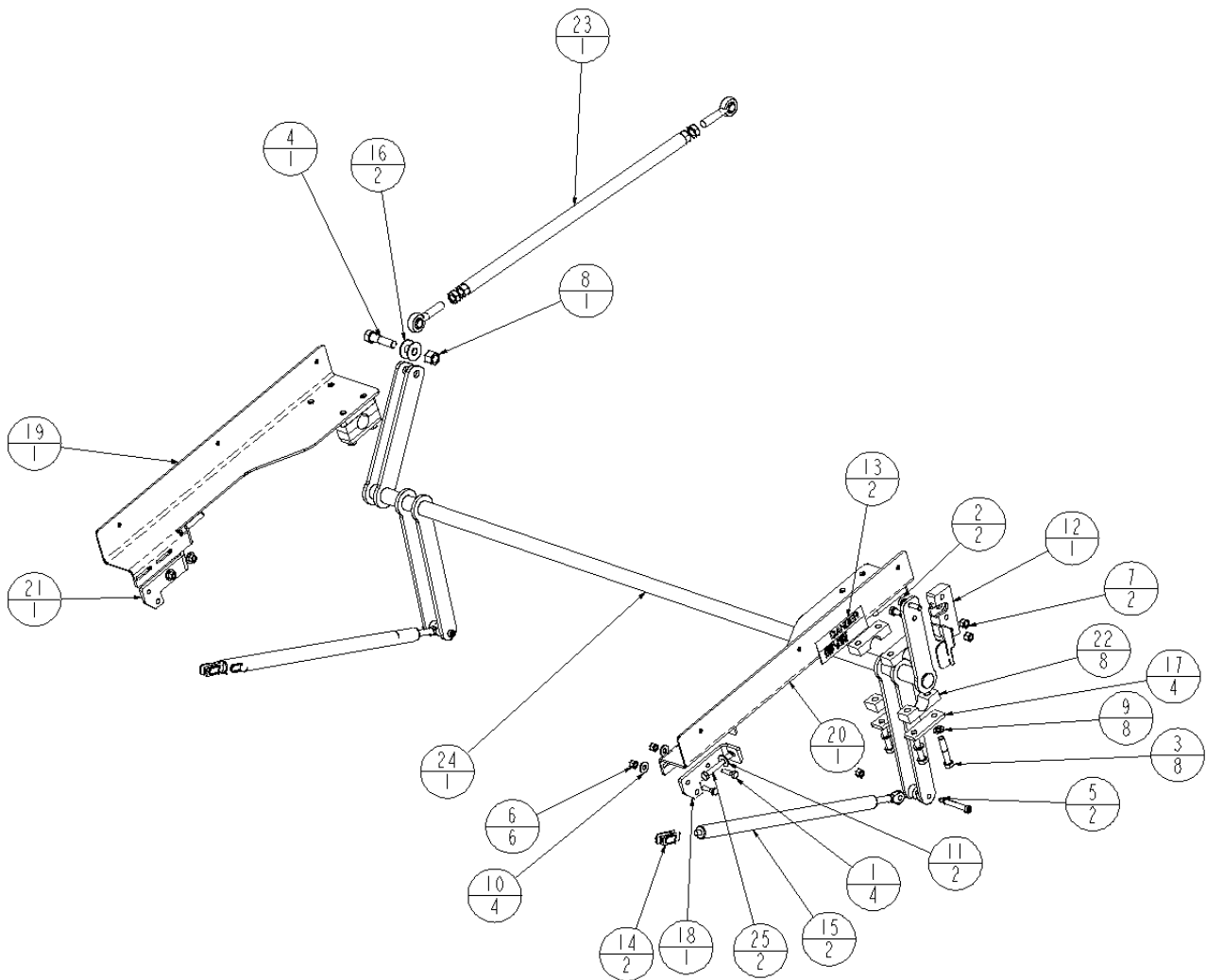
| ITEM | PART # | DESCRIPTION | QTY |
|------|----------|---|-----|
| 1 | 14171606 | 1/2 X 3/4 UNC SOC FLAT CSK HD CAP SCREW | 8 |
| 2 | 14261208 | 3/8 X 1 UNC SOCKET HEAD CAP SCREW (GRADE 8) | 2 |
| 3 | 14490003 | PIN-COTTER, .1875 X 2.00 | 1 |
| 4 | 14780800 | 1/4 UNC HEX NYLOCK NUT (GR B) | 1 |
| 5 | 15000962 | BEARING-ROLLER, TAPERED | 2 |
| 6 | 15060568 | LOCKNUT-SLOTTED, 1"-14 | 1 |
| 7 | 15070407 | BUMPER-RECESSED, 1.50 O.D. X .63 H | 1 |
| 8 | 78590019 | BRACKET-MOUNT, T-BAR | 1 |
| 9 | 78590095 | PLATE-UPPER, HOLD DOWN | 1 |
| 10 | 78590100 | PLATE-UPPER, HOLD DOWN | 1 |
| 11 | ** | PLATE-MOUNT | 1 |
| 12 | 78591002 | WELDMENT-SWIVEL | 1 |
| 13 | 78591012 | ASSEMBLY-LATCH | 1 |
| 14 | 78591013 | ASSEMBLY-PIN, MOUNT | 1 |
| 15 | 78591016 | ASSEMBLY-SWIVEL LOCK | 1 |
| 16 | 144C0808 | 1/4 X 1 UNC TRUSS HD PH MACH SCR, SS | 1 |

** CONTACT CUSTOMER SERVICE FOR CORRECT PART NUMBER FOR YOUR RAMP



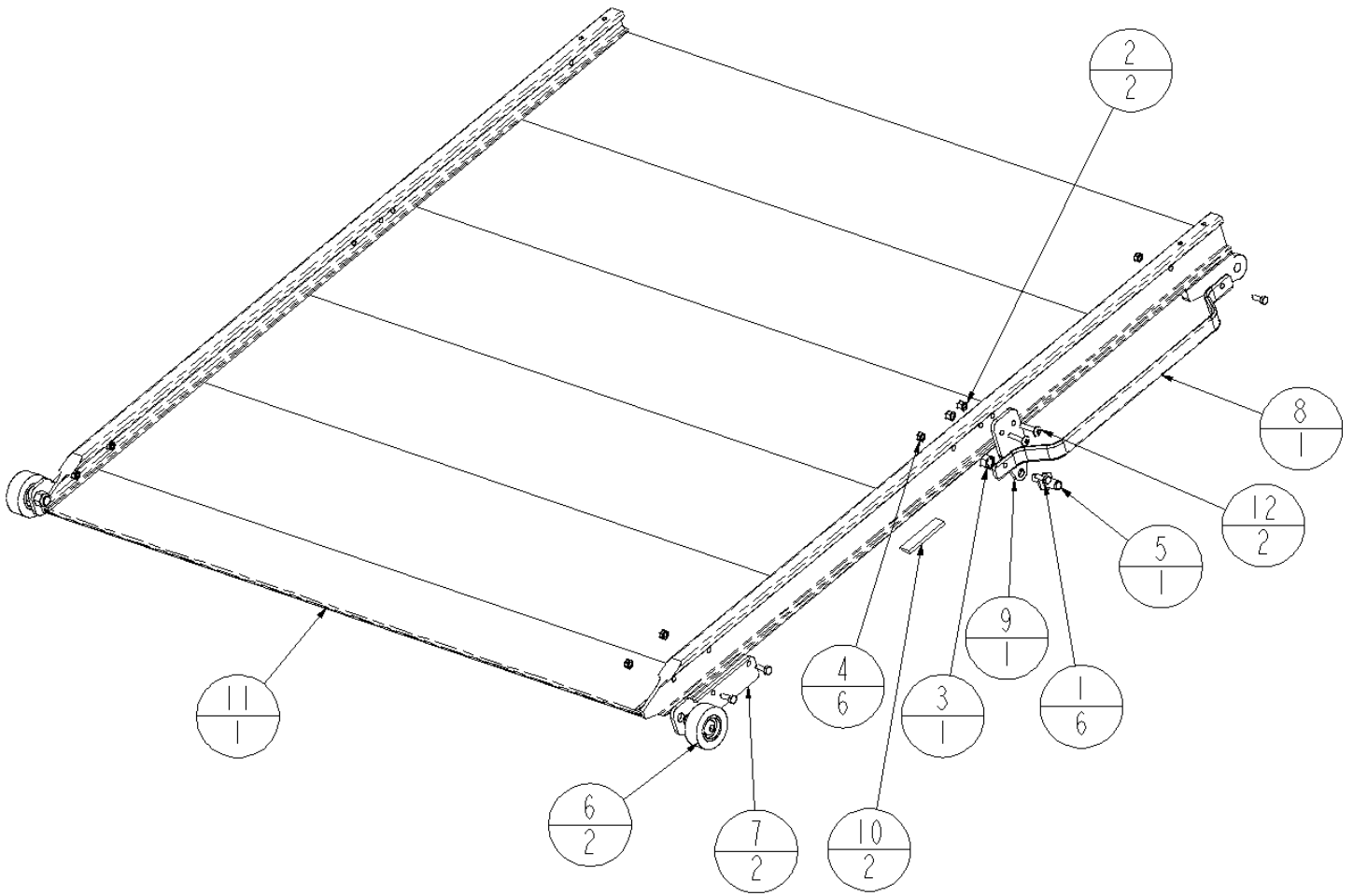
| ITEM | PART # | DESCRIPTION | QTY | ITEM | PART # | DESCRIPTION | QTY |
|------|----------|---------------------------------------|-----|------|-----------|--|-----|
| 1 | 14011006 | 5/16 X 3/4 UNC HEX CAP SCR (GR 5) | 3 | 17 | 78590042 | MOUNT- OUTSIDE,LEFT | 1 |
| 2 | 14490006 | PIN-COTTER, .072 X 1.09 | 1 | 18 | 78590047 | MOUNT-SPACER,LEFT | 1 |
| 3 | 14780800 | 1/4 UNC HEX NYLOCK NUT (GR B) | 4 | 19 | 78590048 | SUPPORT- MOUNT, RIGHT | 1 |
| 4 | 14781200 | 3/8 UNC HEX NYLOCK NUT (GR B) | 10 | 20 | 78590049 | MOUNT-SPACER, RIGHT | 1 |
| 5 | 14851000 | 5/16 LOCK WASHER | 3 | 21 | 78590050 | MOUNT-INSIDE, RIGHT | 1 |
| 6 | 14870800 | 1/4 TYPE A PLAIN WASHER | 4 | 22 | 78590053 | MOUNT- OUTSIDE,LEFT | 1 |
| 7 | 14871000 | 5/16 TYPE A PLAIN WASHER | 2 | 23 | 78590054 | MOUNT-INSIDE, LEFT | 1 |
| 8 | 14871200 | 3/8 TYPE A PLAIN WASHER | 10 | 24 | 78591010 | GUSSET-SIDE, SWIVEL | 1 |
| 9 | 15000961 | BEARING-NYLON, 1.00 ID X 1.50 | 1 | 25 | ** | WELDMENT-DECK,UPPER | 1 |
| 10 | 15000965 | BEARING-DOUBLE SHIELDED, 1 1/4" SHAFT | 1 | 26 | ** | WELDMENT-HINGE PLATE | 1 |
| 11 | 15000966 | CAP-PUSH NUT, UNTHREADED | 2 | 27 | 142C1608 | 1/2 X 1 UNC SOCKET BUTTON HD CAP SCR | 2 |
| 12 | 60002107 | SPRING-COMPRESSION | 1 | 28 | 142D1414 | HEXAGON SOCKET BUTTON HEAD CAP SCREW, SS, 3/8 X 1.75 UNC | 6 |
| 13 | 78590016 | PIN-HINGE, RIGHT | 1 | 29 | 142D1416 | HEXAGON SOCKET BUTTON HEAD CAP SCREW, SS, 3/8 X 2.00 UNC | 4 |
| 14 | ** | ROD-HINGE | 1 | 30 | 144C0814 | 1/4 X 1 3/4 UNC TRUSS HD PH MACH SCR, SS | 4 |
| 15 | 78590024 | CAP-HINGE PIN | 1 | 31 | 144C-0804 | 1/4 X 1/2 UNC TRUSS HD PH MACH SCR, SS | 8 |
| 16 | 78590030 | MOUNT-BEARING,INSIDE | 1 | | | | |

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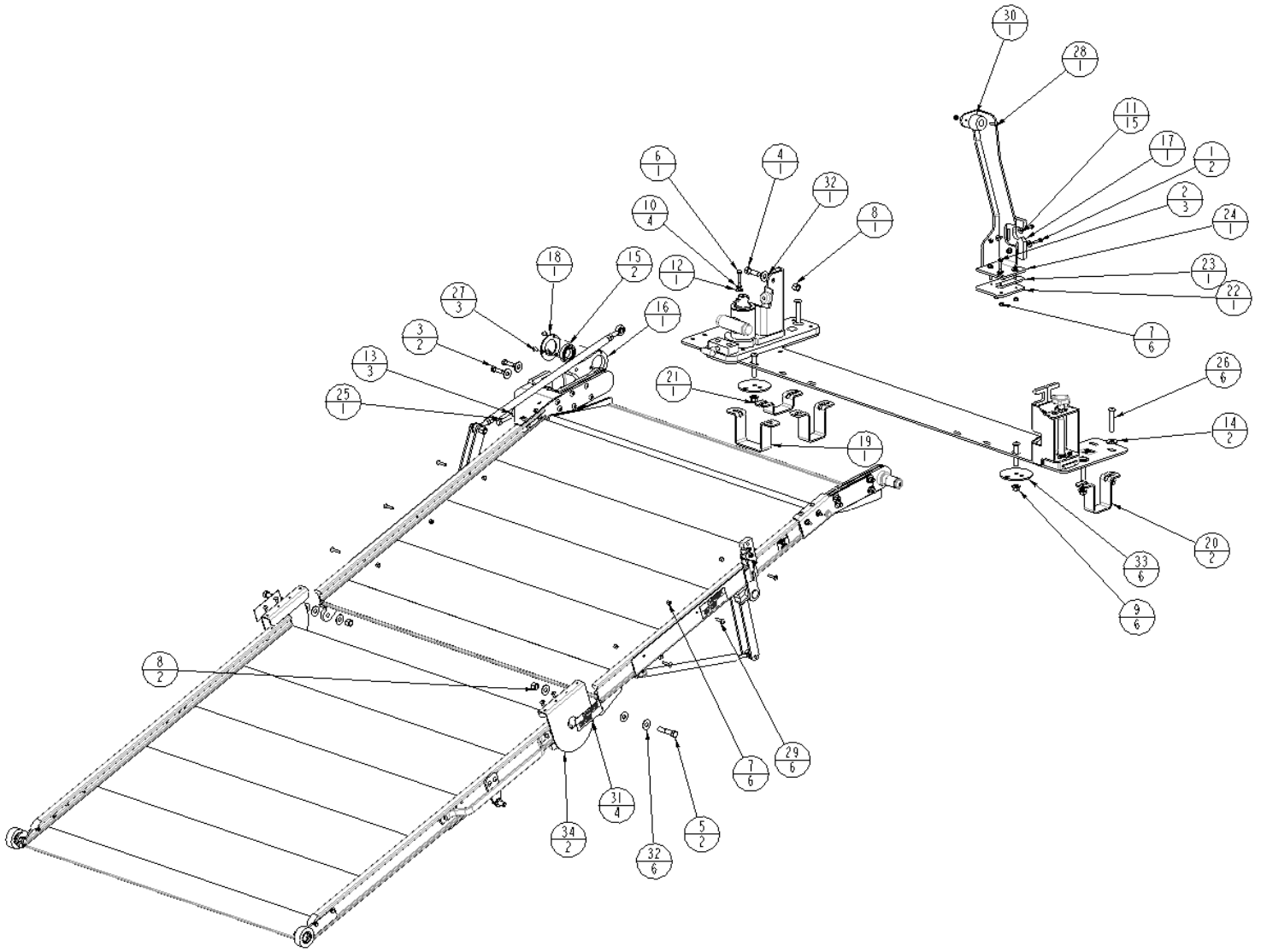
| ITEM | PART # | DESCRIPTION | QTY |
|------|----------|--|-----|
| 1 | 14010808 | 1/4 X 1 UNC HEX CAP SCR (GR 5) | 4 |
| 2 | 14011012 | 5/16 X 1 1/2 UNC HEX CAP SCR (GR 5) | 2 |
| 3 | 14011216 | 3/8 X 2 UNC HEX CAP SCR (GR 5) | 8 |
| 4 | 14011616 | 1/2 X 2 UNC HEX CAP SCR (GR 5) | 1 |
| 5 | 14300013 | SHSCS-.312X2.000 | 2 |
| 6 | 14780800 | 1/4 UNC HEX NYLOCK NUT (GR B) | 6 |
| 7 | 14781000 | 5/16 UNC HEX NYLOCK NUT (GR B) | 2 |
| 8 | 14781600 | 1/2 UNC HEX NYLOCK NUT (GR B) | 1 |
| 9 | 14851200 | 3/8 LOCK WASHER | 8 |
| 10 | 14870800 | 1/4 TYPE A PLAIN WASHER | 4 |
| 11 | 14871000 | 5/16 TYPE A PLAIN WASHER | 2 |
| 12 | 15000968 | LOCK-ROTARY, RIGHT HAND | 1 |
| 13 | 15001311 | DECAL-PINCH POINT | 2 |
| 14 | 15040317 | CLEVIS-DOUBLE | 2 |
| 15 | 15040337 | SPRING-GAS (250LB) | 2 |
| 16 | 15080112 | WASHER-PLASTIC, .53 ID X 1.25 OD X .063 THK | 2 |
| 17 | 78420016 | CAP - BEARING | 4 |
| 18 | 78425103 | PLATE-SPRING, ADJUSTER | 1 |
| 19 | 78425106 | WELDMENT-SPRING MOUNT, LEFT | 1 |
| 20 | 78425107 | WELDMENT-SPRING MOUNT, RIGHT | 1 |
| 21 | 78425108 | PLATE-SPRING, ADJUSTER | 1 |
| 22 | 78590065 | BEARING - HALF, 1" | 8 |
| 23 | 78591009 | ASSEMBLY-TIE ROD | 1 |
| 24 | ** | ARM - TORQUE 47" | 1 |
| 25 | 141C1020 | 5/16 X 2 1/2 UNC HEX FULLY THREADED CAP SCR (GR 5) | 2 |

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| ITEM | PART # | DESCRIPTION | QTY |
|------|----------|--|-----|
| 1 | 14090806 | 1/4 X 3/4 UNC HEX CAP SCR, SS | 6 |
| 2 | 14780800 | 1/4 UNC HEX NYLOCK NUT (GR B) | 2 |
| 3 | 14781400 | 7/16 UNC HEX NYLOCK NUT (GR B) | 1 |
| 4 | 14840810 | 1/4 UNC HEX CTR LOCK NUT, SS | 6 |
| 5 | 15000969 | STRIKER-.55 | 1 |
| 6 | 15070478 | ROLLER-IDLER, ASSEMBLY | 2 |
| 7 | 78425111 | MOUNT, SUPPORT WHEEL | 2 |
| 8 | 78500004 | HANDLE-LB10 | 1 |
| 9 | 78590105 | PLATE-MOUNT, STRIKER | 1 |
| 10 | 78590108 | BUMPER-RUBBER, SWIVEL RAMP | 2 |
| 11 | ** | WELDMENT-DECK, LOWER 47" X 99" | 1 |
| 12 | 144C0810 | 1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR, SS | 2 |

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| ITEM | PART # | DESCRIPTION | QTY | ITEM | PART # | DESCRIPTION | QTY |
|------|----------|--|-----|------|-----------|--|-----|
| 1 | 14010810 | 1/4 X 1 1/4 UNC HEX CAP SCR (GR 5) | 2 | 18 | 78590056 | PLATE-COVER, BEARING | 1 |
| 2 | 14010814 | 1/4 X 1 3/4 UNC HEX CAP SCR (GR 5) | 3 | 19 | 78590061 | CHANNEL-SUPPORT | 1 |
| 3 | 14011412 | 7/16 X 1 1/2 UNC HEX CAP SCR (GR 5) | 2 | 20 | 78590062 | CHANNEL-SUPPORT | 2 |
| 4 | 14011614 | 1/2 X 1 3/4 UNC HEX CAP SCR (GR 5) | 1 | 21 | 78590064 | CHANNEL-SUPPORT | 1 |
| 5 | 14011620 | 1/2 X 2 1/2 UNC HEX CAP SCR (GR 5) | 2 | 22 | 78590104 | SUPPORT- UNDER FLOOR, INSIDE CATCH | 1 |
| 6 | 14050812 | HEX CAP SCREW, M8 X 1.25 X 60, CLASS 8.8 | 1 | 23 | 78590106 | SUPPORT- UNDER FLOOR, INSIDE CATCH | 1 |
| 7 | 14780800 | 1/4 UNC HEX NYLOCK NUT (GR B) | 5 | 24 | 78591014 | CATCH-INSIDE, SWIVEL RAMP | 1 |
| 8 | 14781600 | 1/2 UNC HEX NYLOCK NUT (GR B) | 4 | 25 | 141C1416 | 7/16 X 2 UNC HEX FULLY THREADED CAP SCR (GR 5) | 1 |
| 9 | 14821601 | 1/2 UNC FLANGE NUT (GR G) | 6 | 26 | 142C1622 | 1/2 X 2 3/4 UNC SOCKET BUTTON HD CAP SCR | 6 |
| 10 | 14851000 | 5/16 LOCK WASHER | 1 | 27 | 144C0804 | 1/4 X 1/2 UNC TRUSS HD PH MACH SCR, SS | 7 |
| 11 | 14870800 | 1/4 TYPE A PLAIN WASHER | 7 | 28 | 144C0808 | 1/4 X 1 UNC TRUSS HD PH MACH SCR, SS | 1 |
| 12 | 14871000 | 5/16 TYPE A PLAIN WASHER | 1 | 29 | 144C0810 | 1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR, SS | 8 |
| 13 | 14871400 | 7/16 TYPE A PLAIN WASHER | 3 | 30 | 1500-0071 | BUMPER-JOUNCE, 1.25 | 1 |
| 14 | 14871600 | 1/2 TYPE A PLAIN WASHER | 2 | 31 | 1500-1311 | DECAL-PINCH POINT | 4 |
| 15 | 15000965 | BEARING-DOUBLE SHIELDED, 1 1/4" SHAFT | 1 | 32 | 1508-0112 | WASHER-PLASTIC, .53 ID X 1.25 OD X.063 THK | 9 |
| 16 | 78590007 | MOUNT-BEARING, OUTSIDE | 1 | 33 | 7000-0031 | WASHER-FLOOR SUPPORT | 6 |
| 17 | 78590051 | BLOCK-REST,INSIDE | 1 | 34 | 7850-3005 | GUARD-PINCH POINT | 2 |



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