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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 indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	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.

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.

5.3 Ramp Swivel In Operation

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

CAUTION

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

The LSR90 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.

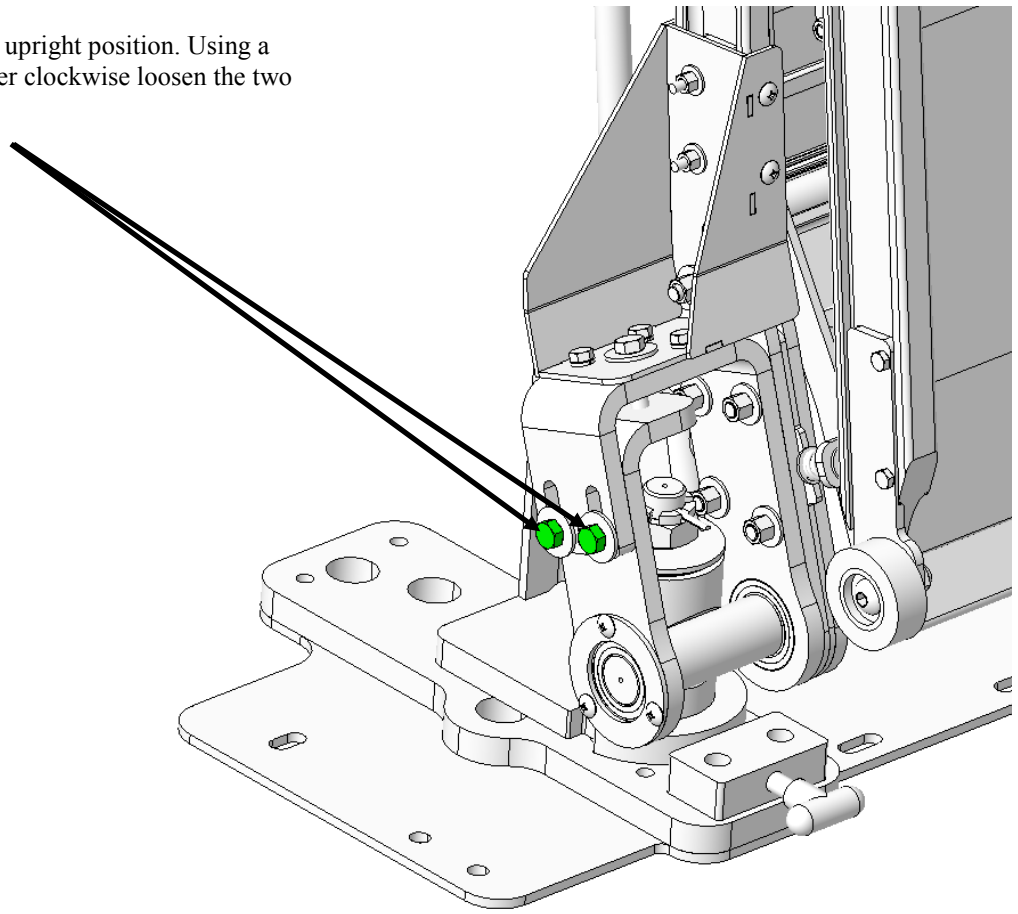
Annually:

- 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.

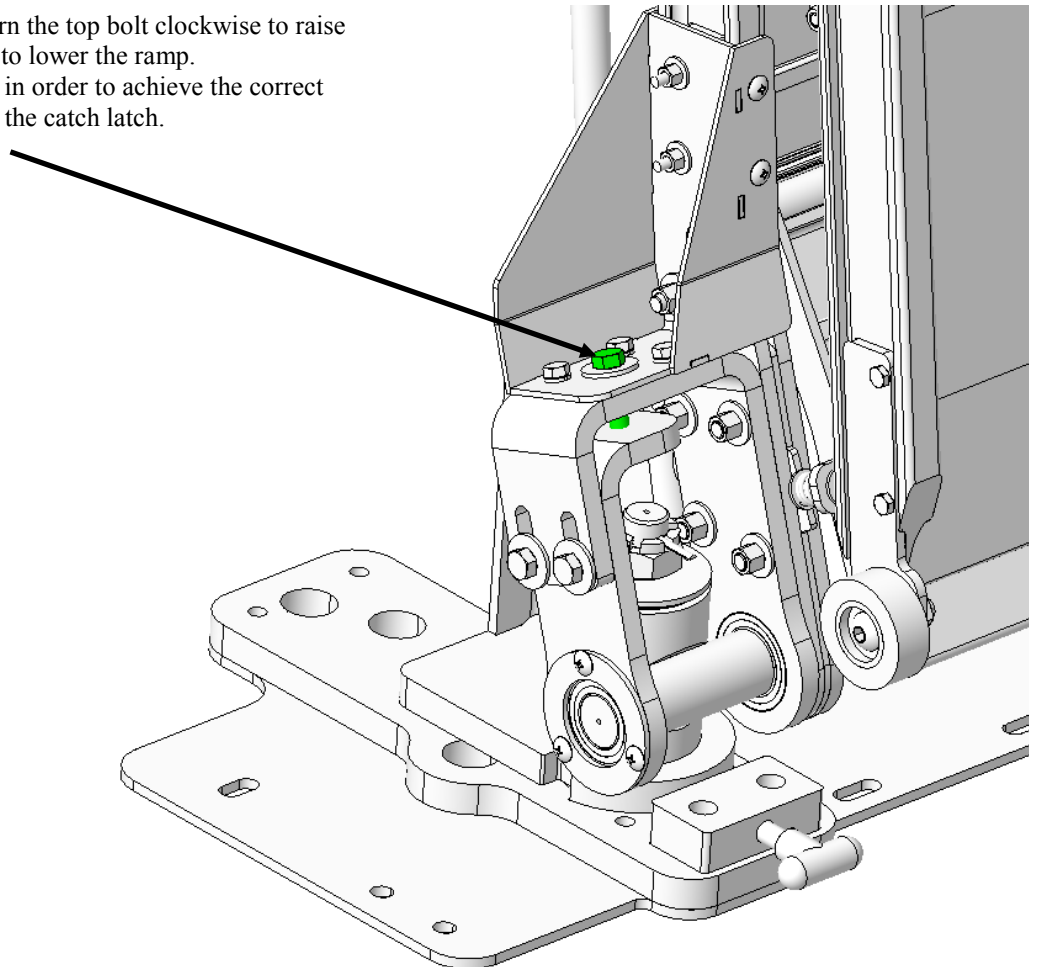
TORQUE TABLE	
FASTENER	TORQUE
3/8-UNC NUTS	30-40 FT-LBS
7/16-UNC NUTS	50-60 FT -LBS
1/2-UNC NUTS	80-100 FT-LBS

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.

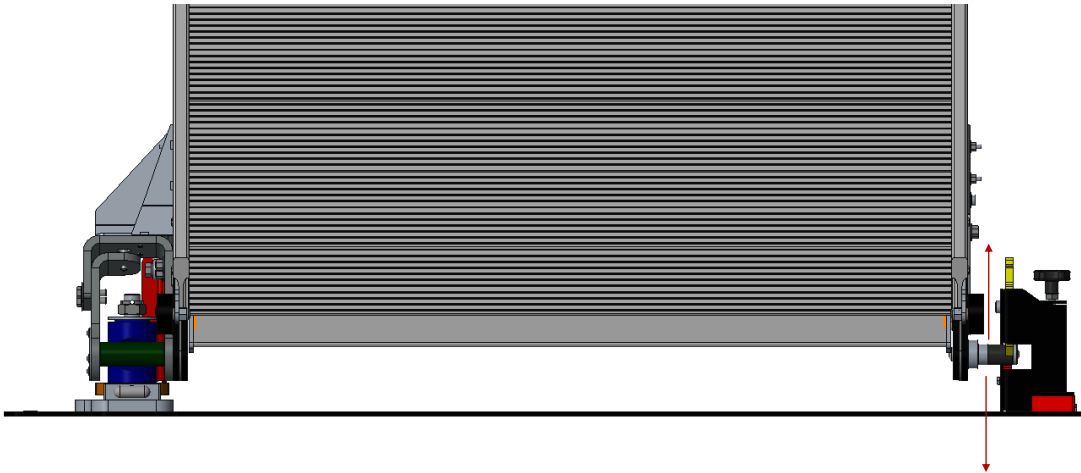
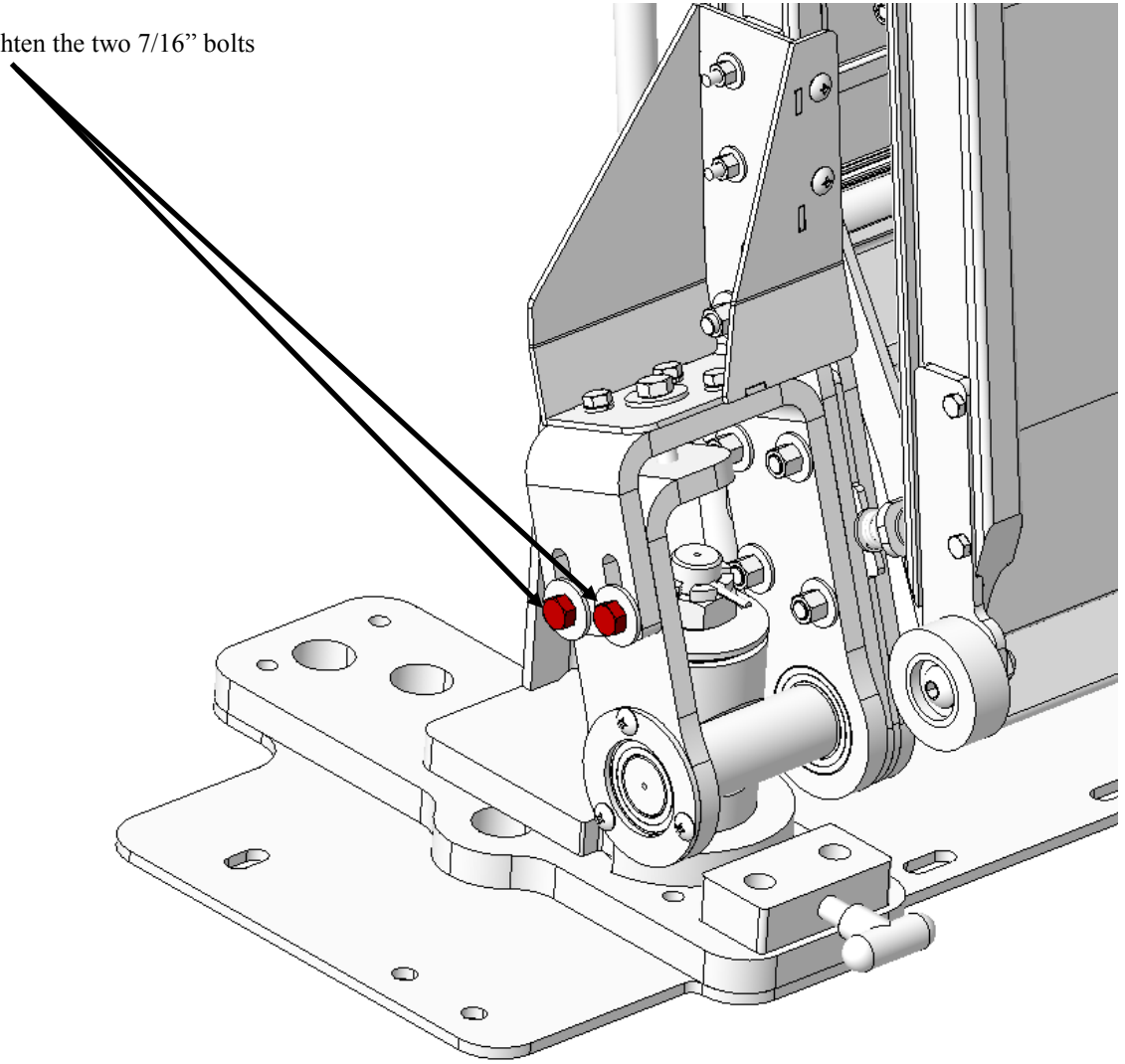


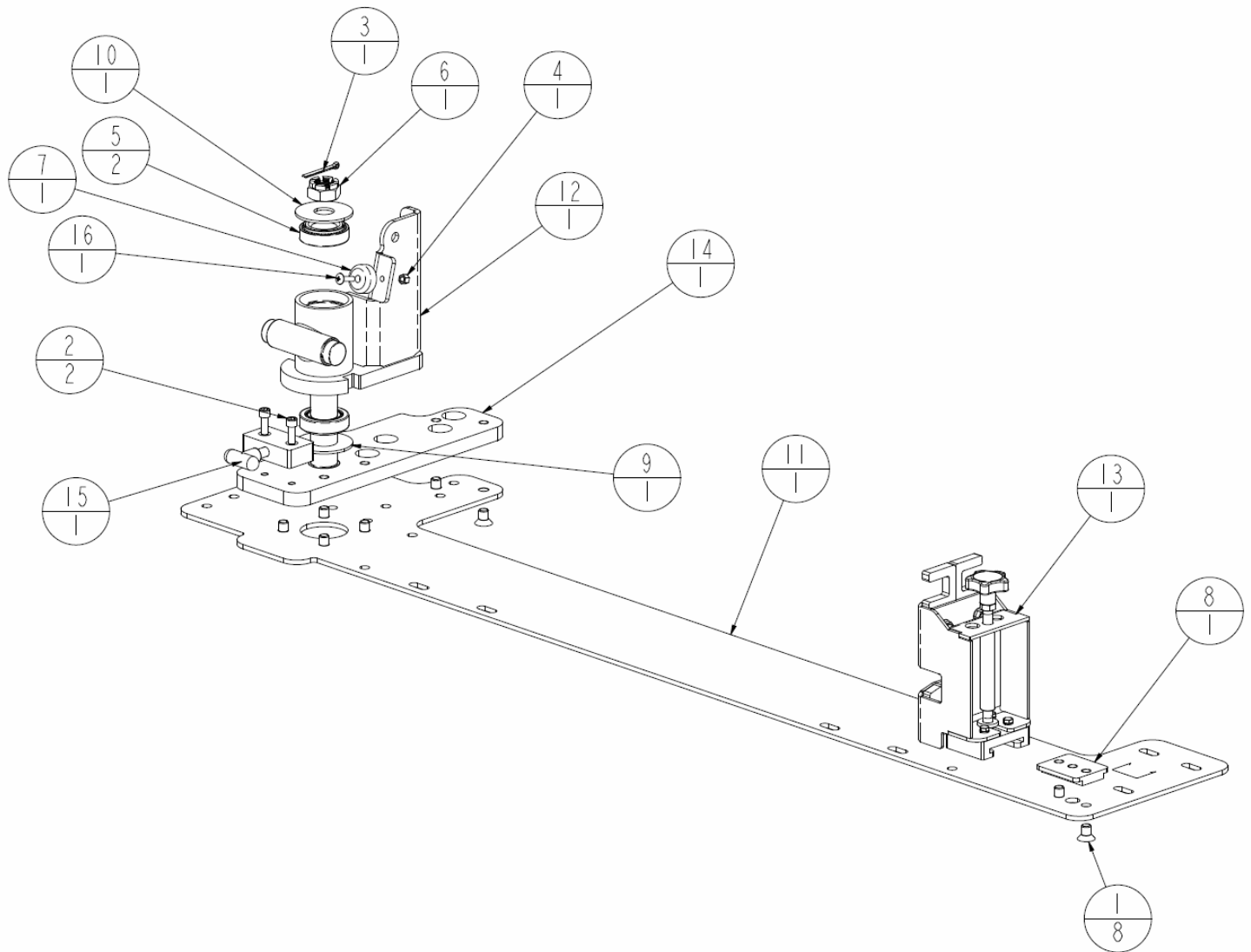
Using the same 9/16" wrench turn the top bolt clockwise to raise the ramp and counter clockwise to lower the ramp. Turn the bolt in 1/4" increments in order to achieve the correct height that the ramp swings into the catch latch.



RAMP ADJUSTMENT PROCEDURE CONT.

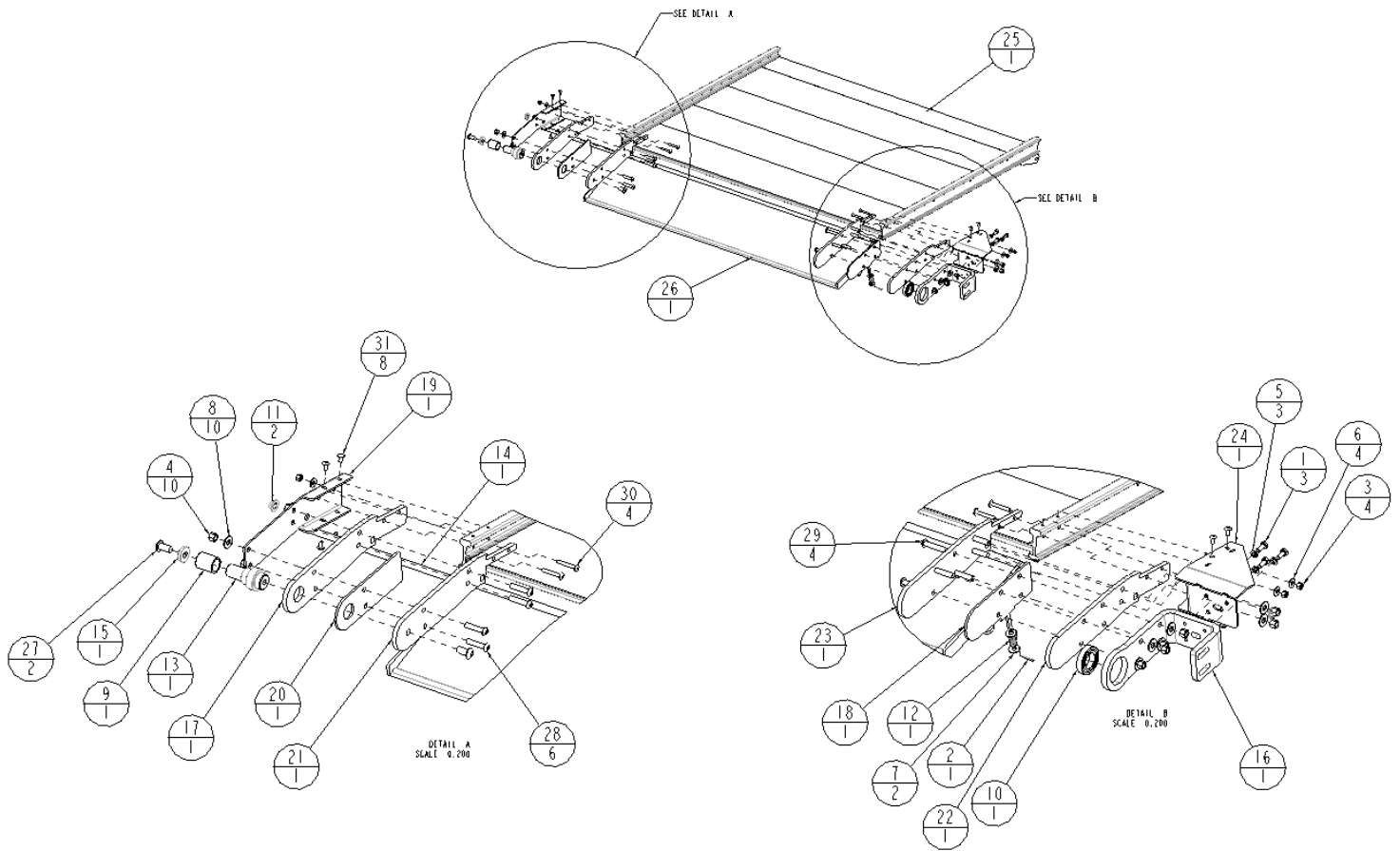
Turning clockwise tighten the two 7/16" bolts





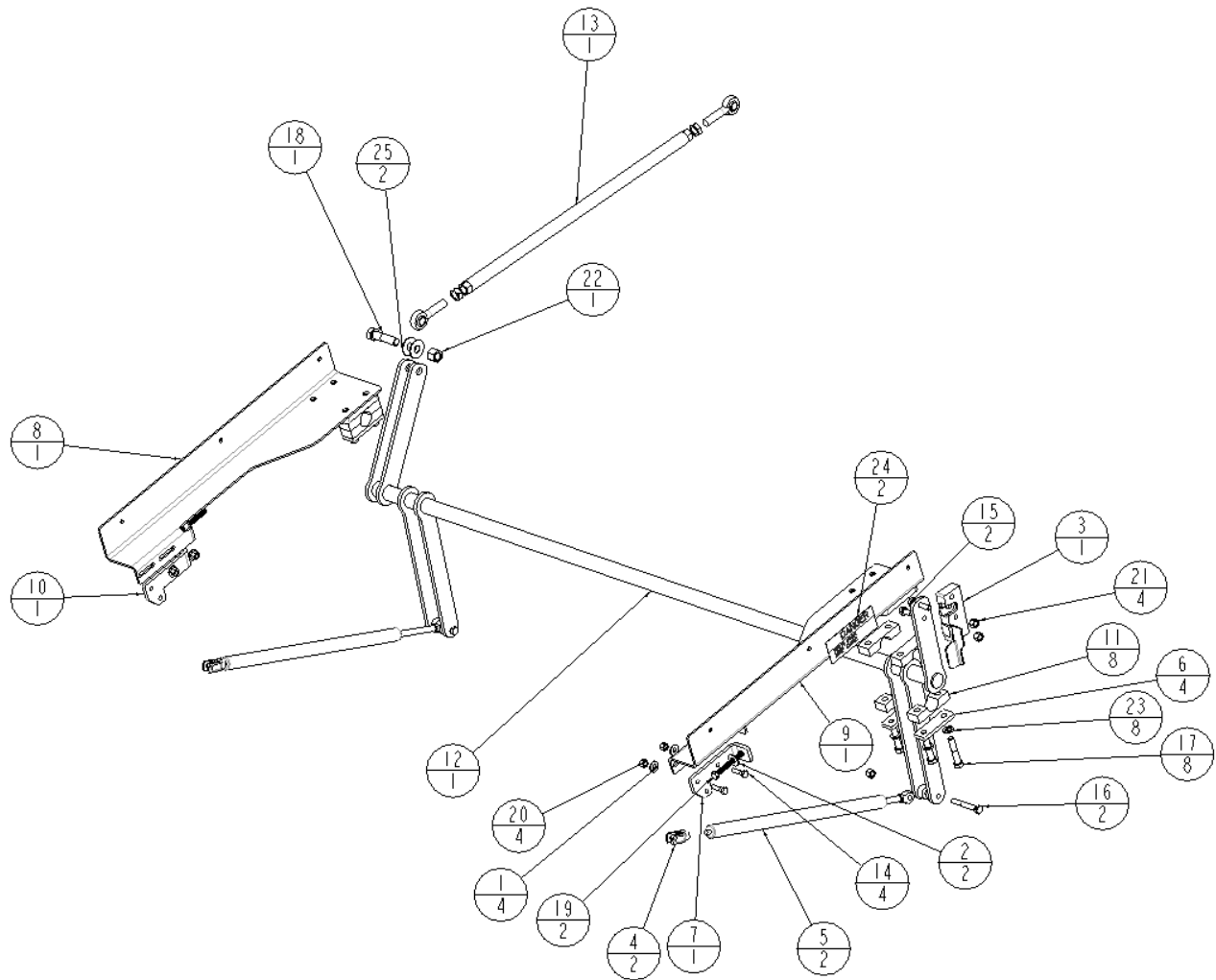
ITEM	PART #	DESCRIPTION	QTY
1	14171606	1/2 X 3/4 UNC SOC FLAT CSK HD CAP SCREW	8
2	14261208	3/8 X 1 UNC SOCKET HEAD CAP SCREW (GRADE 8)	2
3	14490003	PIN-COTTER, .1875 X 2.00	1
4	14780800	1/4 UNC HEX NYLOCK NUT (GR B)	1
5	15000962	BEARING-ROLLER, TAPERED	2
6	15060568	LOCKNUT-SLOTTED, 1"-14	1
7	15070407	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



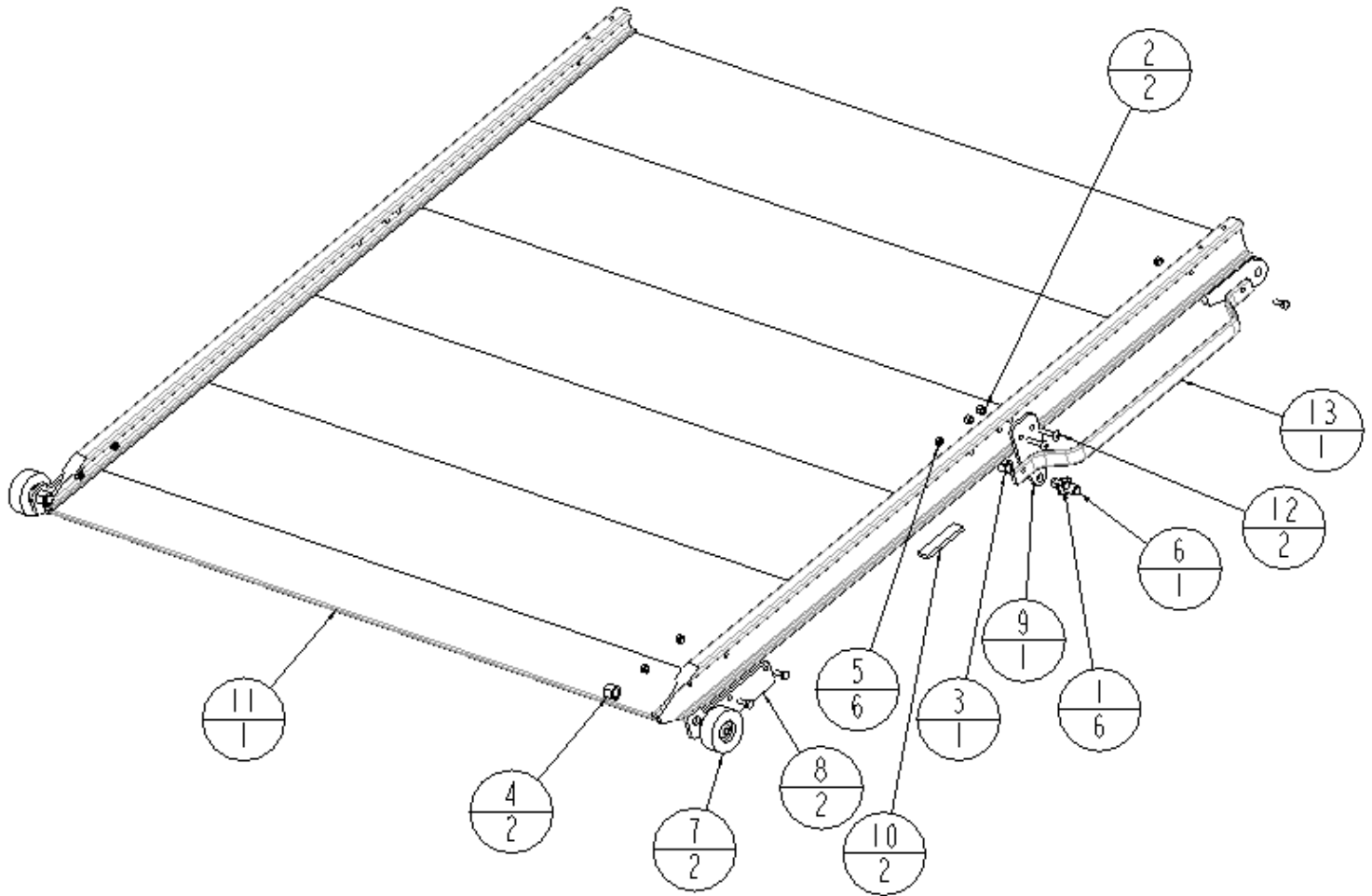
ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	14011006	5/16 X 3/4 UNC HEX CAP SCR (GR 5)	3	17	78590042	MOUNT- OUTSIDE,LEFT	1
2	14490005	PIN-COTTER, .094 X .75	1	18	78590047	MOUNT-SPACER,LEFT	1
3	14780800	1/4 UNC HEX NYLOCK NUT (GR B)	4	19	78590048	SUPPORT- MOUNT, RIGHT	1
4	14781200	3/8 UNC 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	15010007	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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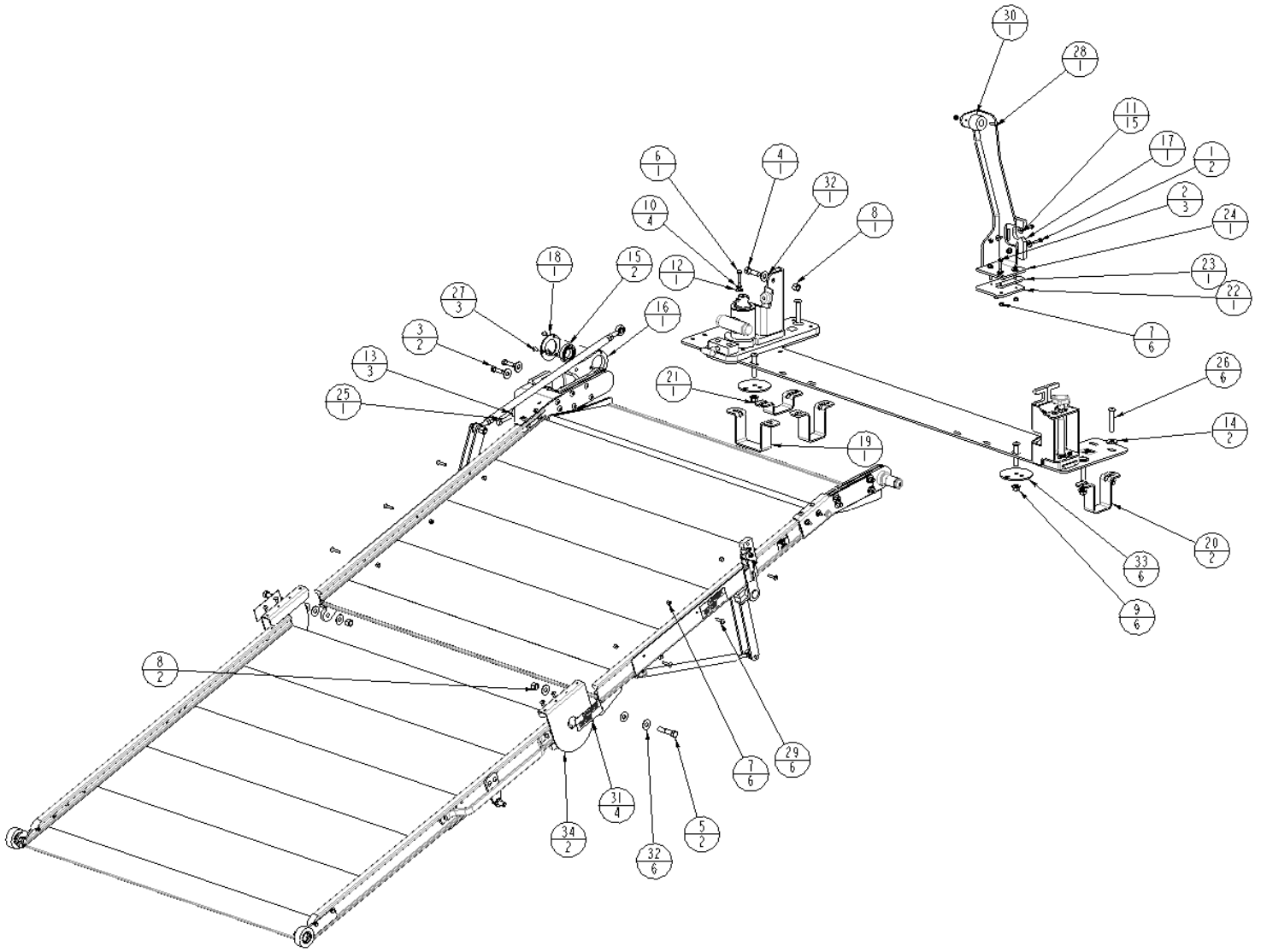
ITEM	PART #	DESCRIPTION	QTY
1	14870800	1/4 TYPE A PLAIN WASHER	4
2	14871000	5/16 TYPE A PLAIN WASHER	2
3	15000968	LOCK-ROTARY, RIGHT HAND	1
4	15040317	CLEVIS-DOUBLE	2
5	15040337	SPRING-GAS (250LB)	2
6	78420016	CAP - BEARING	4
7	78425103	PLATE-SPRING, ADJUSTER	1
8	78425106	WELDMENT-SPRING MOUNT, LEFT	1
9	78425107	WELDMENT-SPRING MOUNT, RIGHT	1
10	78425108	PLATE-SPRING, ADJUSTER	1
11	78590065	BEARING - HALF, 1"	8
12	**	ARM - TORQUE	1
13	78591009	ASSEMBLY-TIE ROD	1
14	1401-0808	1/4 X 1 UNC HEX CAP SCR (GR 5)	4
15	1401-1012	5/16 X 1 1/2 UNC HEX CAP SCR (GR 5)	2
16	1401-1018	5/16 X 2 1/4 UNC HEX CAP SCR (GR 5)	2
17	1401-1216	3/8 X 2 UNC HEX CAP SCR (GR 5)	8
18	1401-1616	1/2 X 2 UNC HEX CAP SCR (GR 5)	1
19	141C1020	5/16 X 2 1/2 UNC HEX FULL THREAD CAP SCR (GR 5)	2
20	1478-0800	1/4 UNC HEX NYLOCK NUT (GR B)	4
21	1478-1000	5/16 UNC HEX NYLOCK NUT (GR B)	4
22	1478-1600	1/2 UNC HEX NYLOCK NUT (GR B)	1
23	1485-1200	3/8 LOCK WASHER	8
24	1500-1311	DECAL-PINCH POINT	2
25	1508-0112	WASHER-PLASTIC, .53 ID X 1.25 OD X.063 THK	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	14781600	1/2 UNC HEX NYLOCK NUT (GR B)	2
5	14840810	1/4 UNC HEX CTR LOCK NUT, SS	6
6	15000969	STRIKER-.55	1
7	15070478	ROLLER - IDLER	2
8	78590028	MOUNT, SUPPORT WHEEL	2
9	78590105	PLATE-MOUNT, STRIKER	1
10	78590108	BUMPER-RUBBER, SWIVEL RAMP	2
11	**	WELDMENT-DECK, LOWER	1
12	144C-0810	1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR, SS	2
13	7850-0004	HANDLE-LB10	1

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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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