

IMPORTANT SAFETY RECALL

09 December 2022

SAF-HOLLAND, Inc. 1950 Industrial Blvd. Muskegon, MI 49443-0425 TEL: 231.773.3271 FAX: 231.777.2515 www.safholland.com

Mr. Barry Mitchell Great Dane Limited Partnership 131 Technology Circle Savannah, GA 31407

Reference: NHTSA Safety Recall ID# 22E-088.

Dear Mr. Mitchell,

This notice is sent to you in accordance with the Nationa Traffic and Motor Vehicle Safety Act. SAF-HOLLAND has decided that a defect which relates to motor vehicle safety, exists in certain axle assemblies, used in ULX40 suspensions, shipped to customers between 19NOV21 and 04OCT22.

The specific non-conformance is a brake pad retainer clip on brake calipers, supplied by Haldex Brake Products Corp. (Haldex), that could have been assembled incorrectly, which can allow the brake pad to vibrate out of the caliper. The possible loose brake pad can rub the inside of the wheel, can damage the valve stem on the tire allowing rapid loss of air pressure and under road vibration conditions the brake caliper retainer bar and retainer clip can detach and fall into the roadway, which increases the risk of a crash.

The brake caliper in question involves Haldex part number(s) H107891/H107893. In addition to this recall, 22E-088, initiated by SAF-HOLLAND, this defect is the subject of a parallel recall being conducted by Haldex under NHTSA Safety Recall ID# 22E-081.

SAF-HOLLAND has identified the quantities of suspensions shipped to each individual customer, which are required to be inspected for potential mis-assembled brake caliper components. Attachment A lists the individual shipments of SAF-HOLLAND axles containing the defect to Great Dane Limited Partnership.

Haldex has advised that the remedy in the field involves an inspection of the brake calipers by visually examining the caliper components through the back side of the wheel while still installed on the trailers. See the attached instructions from Haldex for the procedure to remedy this defect. This inspection and repair takes approximately 5 minutes per brake to perform. This inspection and repair, if required, will be done free of charge.

SAF-HOLLAND is coordinating with Haldex to conduct the inspections and any necessary repairs or replacements with our customers, their dealer network, and third party service providers. Expenses incurred for both inspections and necessary repairs will be covered by Haldex including costs to locate and inspect all affected vehicles and document the results.

Haldex will remedy the defect without charge. To remedy, the brake(s) need to be inspected by a trained technician and, if necessary, repaired. The inspection involves a visual check to determine whether the spring bracket is properly seated.















Great Dane Limited Partnership NHTSA Safety Recall ID# 22E-088 Page 2

Repair, if needed, involves adjusting the pad retainer slightly to allow the spring bracket to seat properly. Inspection and repair are relatively simple and are conducted without removing the wheel or lifting the vehicle, with minimal impact to service. This repair takes approximately 5 minutes per brake to perform. This repair will be done free of charge.

The remedy is available immediately.

Please contact a Haldex representative at 1-800-643-2374 at your earliest convenience to arrange an inspection, repair, or training, if required. The Haldex instructions for performing the inspection and repair (if necessary), and the procedure and forms for submitting reimbursement claims for repair costs are attached to this notification.

For assistance in responding to this letter, may also contact the SAF-HOLLAND Warranty Department at 1-800-767-6967.

You may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., SE., Washington, DC 20590; or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153); or go to http://www.safercar.gov, if you believe that:

- (A) The manufacturer, distributor, or dealer has failed or is unable to remedy the defect without charge.
- (B) The manufacturer has failed or is unable to remedy the defect without charge within a reasonable time, which is not longer than 60 days after the owner's first tender to obtain repair following the earliest repair date specified above.

Sincerely,

SAF-HOLLAND, Inc.

James G. Huyge

Senior Reliability Manager

Attachments:

Quantities of axles shipped to Great Dane Limited Partnership location(s) ModulT Gen II Safety Recall Repair v2 10-22 (from Haldex)

ModulT Gen II Reimbursement 10-22 (from Haldex)

SAF-HOLLAND, Inc. SAFETY RECALL 22E-088 SAF-HOLLAND Axles Shipped between 19NOV21 and 04OCT22

Customer # Customer	Material Description	Sales document	Shin date Sales	Sales Ottantity Caliners Per I Init	-	Otal Calibore
11 -	1005300005480 MECHANICAL AXLE ASSY-P89	10911798	2			170
22001837 GREAT DANE TRAILERS - KEWANEE	1005300005480 MECHANICAL AXLE ASSY-P89	10911798	15-Sep-22	120	7	240
22001837 GREAT DANE TRAILERS - KEWANEE	1005300005480 MECHANICAL AXLE ASSY-P89	10911798	29-Sep-22	9	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10911798	4-0ct-22	90	2	120
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	20004279	1-Dec-21	20	2	40
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	20004283	8-Dec-21	40	2	80
22002100 GREAT DANE TRAILERS - WAYNE		20004307	5-Jan-22	30	2	9
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	20004315	14-Jan-22	30	2	9
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	20004323	20-Jan-22	20	2	40
	1005300005480 MECHANICAL AXLE ASSY-P89	20004324	20-Jan-22	20	7	40
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	20004332	28-Jan-22	20	2	40
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	20004333	9-Feb-22	20	2	40
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10869653	21-Apr-22	. 12	2	24
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10870381	21-Apr-22	12	2	24
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10870383	4-May-22	12	2	24
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10870384	4-May-22	24	2	48
	5480	10870386	3-Jun-22	20	2	40
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10870387	3-Jun-22	36	2	72
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10870388	24-Jun-22	10	2	20
22002100 GREAT DANE TRAILERS - WAYNE	1005300005480 MECHANICAL AXLE ASSY-P89	10909899	21-Jul-22	₽	2	2
	1005300005480 MECHANICAL AXLE ASSY-P89	60151614	8-Aug-22	-1	7	-2
	1005300005480 MECHANICAL AXLE ASSY-P89	10889641	27-Jun-22	∞	2	16
22002101 GREAT DANE TRAILERS - BRAZIL	1005300005480 MECHANICAL AXLE ASSY-P89	10878816	2-Aug-22	10	2	20
	1005300005480 MECHANICAL AXLE ASSY-P89	10878819	6-Sep-22	40	2	80
	5480	10878820	6-Sep-22	20	2	40
	1005300005480 MECHANICAL AXLE ASSY-P89	10878817	14-Sep-22	20	2	40
	5480	10878820	14-Sep-22	20	2	40
	1005300005480 MECHANICAL AXLE ASSY-P89	10878821	14-Sep-22	30	2	9
22002101 GREAT DANE TRAILERS - BRAZIL	1005300005480 MECHANICAL AXLE ASSY-P89	10878818	5-0ct-22	32	2	64
22003392 GREAT DANE TRAILERS - STATESBORO	1005300005480 MECHANICAL AXLE ASSY-P89	20004343	22-Feb-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	20004351	1-Mar-22	.60	2	120
	5480	20004355	7-Mar-22	09	2	120
	5480	20004354	21-Mar-22	09	2	120
	5480	20004359	21-Mar-22	09	2	120
22003392 GREAT DANE TRAILERS - STATESBORO	1005300005480 MECHANICAL AXLE ASSY-P89	10884496	8-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10884497	11-Apr-22	90	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10871738	12-Apr-22	90	2	120
		10884498	22-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10884509	27-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10884513	27-Apr-22	09	2	120
22003392 GREAT DANE TRAILERS - STATESBORO	1005300005480 MECHANICAL AXLE ASSY-P89	10871795	6-May-22	09	2	120
22003392 GREAT DANE TRAILERS - STATESBORO	1005300005480 MECHANICAL AXLE ASSY-P89	10871790	6-Jun-22	09	2	120

SAF-HOLLAND, Inc. SAFETY RECALL 22E-088 SAF-HOLLAND Axles Shipped between 19NOV21 and 04OCT22

	Material Description	Sales document	Ship date Sales Q	Sales Quantity Calipers Per Unit	r Unit Total Calipers	alipers
Customer# Customer	5300005480	20004267	19-Nov-21	09	2	120
22008906 GREAL DANE IRAILERS - ELYSBURG		20004268	19-Nov-21	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG		20004270	24-Nov-21	90	2	120
22008906 GREAL DANE IRAILERS - ELISBURG		20004271	30-Nov-21	09	7	120
22008906 GREAL DAINE TRAILERS - ELISBONG		20004281	6-Dec-21	09	2	120
22008906 GREAL DAINE INAILENS - LEISDONG		20004284	8-Dec-21	09	2	120
22008900 GREAT DANE TRAILERS - FLYSBURG		20004282	13-Dec-21	09	2	120
22008300 GREAT DANE TRAILERS - ELYSBURG		20004294	17-Dec-21	09	7	120
ZZUGSJUG GREAT DAINE TRAILERIS - EETSECHO	1005300005480 MECHANICAL AXLE ASSY-P89	20004298	21-Dec-21	90	2	120
22006300 GREAT DANE TRAILERS - FLYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004297	29-Dec-21	09	2	120
22008900 CILEAL DAINE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004308	11-Jan-22	09	2	120
22003200 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004309	11-Jan-22	09	7	120
22008300 GREAT DANE TRAILERS - ELYSBURG		20004310	11-Jan-22	09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	20004311	14-Jan-22	09	7	120
22003305 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004312	17-Jan-22	09	7	120
22002305 CREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004316	21-Jan-22	09	2	120
2200000 CICAL DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004335	9-Feb-22	09	2	120
2200000 CITEL DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004329	15-Feb-22	09	7	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004334	15-Feb-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004336	15-Feb-22	09	7	120
2200000 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	20004348	28-Feb-22	09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	20004350	4-Mar-22	09	2	120
2200000 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868385	11-Mar-22	09	7	120
		10868386	11-Mar-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868379	25-Mar-22	09	2	120
22000000 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868380	29-Mar-22	09	5	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868387	30-Mar-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868383	1-Apr-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868384	1-Apr-22	09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868389	8-Apr-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868388	14-Apr-22	09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868390	14-Apr-22	09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868391	18-Apr-22	09	7	170
	1005300005480 MECHANICAL AXLE ASSY-P89	10868392	19-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868395	22-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868400	25-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868397	26-Apr-22	09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868399	29-Apr-22	09	2	120
22000500 GREAT DANF TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10873845	29-Apr-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868401		09	7	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10868402	2-May-22	09	2	120
22000500 GIRENT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868403	6-May-22	90	2	120
220000000000000000000000000000000000000						

SAF-HOLLAND, Inc. SAFETY RECALL 22E-088 SAF-HOLLAND Axles Shipped between 19NOV21 and 04OCT22

Customer # Customer	Material Description	Sales document	Ship date Sales	Sales Quantity Calipers Per Unit		Total Calipers
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10873843	6-May-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868406	10-May-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10874971	10-May-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868404	13-May-22	09	7	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868414		09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	60149193		-	7	-7
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868407	20-May-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876289	20-May-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876289		9	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876289	27-May-22	90	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876292	31-May-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876292	1-Jun-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868408	3-Jun-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868409	3-Jun-22	90	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876292	6-Jun-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868410	7-Jun-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10868412	10-Jun-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876292	10-Jun-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876294	13-Jun-22	120	2	240
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876294	17-Jun-22	9	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876296	17-Jun-22	9	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	5480	10876296	21-Jun-22	120	2	240
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10876300	24-Jun-22	09	2	120
	5480	10876300	28-Jun-22	09	2	120
	5480	10876300	30-Jun-22	09	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10876313	5-Jul-22	90	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10876316	11-Jul-22	120	2	240
	1005300005480 MECHANICAL AXLE ASSY-P89	10884041	12-Jul-22	120	2	240
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10873846	19-Jul-22	9	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10884046	22-Jul-22	09	2	120
	5480	10876304	26-Jul-22	90	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	5480	10876304	29-Jul-22	90	2	120
	5480	10884041	5-Aug-22	90	2	120
	1005300005480 MECHANICAL AXLE ASSY-P89	10884046	5-Aug-22	90	2	120
	5480	10884046	12-Aug-22	90	2	120
	5480	10884048	15-Aug-22	120	2	240
	5480	10884048	19-Aug-22	9	2	120
	5480	10884049	19-Aug-22	90	7	120
	5480	10884049	22-Aug-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	5480	10884049	24-Aug-22	09	2	120
22008906 GREAT DANE TRAILERS - ELYSBURG	5480	10884050	26-Aug-22	120	2	240
22008906 GREAT DANE TRAILERS - ELYSBURG	1005300005480 MECHANICAL AXLE ASSY-P89	10884050	29-Aug-22	09	2	120

SAF-HOLLAND, Inc. SAFETY RECALL 22E-088 SAF-HOLLAND Axles Shipped between 19NOV21 and 04OCT22

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Cistomor # Cistomor	Material	Description	Sales document	Ship date	Sales Quantity	Sales document Ship date Sales Quantity Calipers Per Unit Lotal Calipers	Total Calipers
Custolliel # Custolliel							CUC
22008906 GREAT DANE TRAILERS - ELYSBURG	100530000548	.005300005480 MECHANICAL AXLE ASSY-P89	10884051	10884051 9-Sep-22	180	7	200
	100520001	PSG-VSSG AXECHANICAL AXI F ASSV-PSG	10876304	23-Sep-22	09	7	120
22008906 GREAL DAINE LRAILERS - ELISBURG	TOOOCCOOT	מין ייניין אין אין אין אין אין אין אין אין אין				ď	000
22008906 GREAT DANE TRAILERS - FLYSBURG	100530000548	005300005480 MECHANICAL AXLE ASSY-P89	10884052	73-Sep-77	09 .	7	TZO
			10001053	76. Con 22	120	7	240
22008906 GREAT DANE TRAILERS - ELYSBURG	10053000548	JUSSUUUUS48U MECHANICAL AALE ASST-F69	10004037	77-dac-07	1)
	97 700000000000000000000000000000000000	DSQ_V200 TAY INCIDABLION AND TOOLOGUES	10876313	30-Sen-72		2	120
22008906 GREAL DANE IRAILERS - ELYSBURG	TOOSSOOOS	U IVIECTIAINICAE ANEL ASSI II OS					

ModulT[®] Gen II Air Disc Brake Safety Recall Notice





ModulT Gen II ADB Caliper Pad Retainer and Spring Bracket



Inspection and Repair Instructions

Overview

- This work instruction demonstrates how to inspect and repair the pad retainer spring bracket to ensure proper installation.
- This inspection can be performed with the wheel on
- Tire removal may be required to repair the spring bracket.
- These instructions demonstrate inspecting both the super single and dual tire configurations.

Content

- 1. Fault Description
- 2. Super Single Spring Bracket Inspection
- 3. Dual Tire Spring Bracket Inspection
 - Outside the Trailer, Facing the Rim
 - Under the Trailer
- 4. Repair Procedure
- 5. Actions to Take if there are Missing or Damaged Components

1. Fault Description

The spring bracket may be trapped under the pad retainer.

Refer to Fig. 1 This photo shows the spring bracket (1a) trapped under the pad retainer (1b).

Figure 1.

Spring bracket trapped under pad retainer



2. Super Single Spring Bracket Inspection

- The spring bracket is easily visible and physically accessible under the trailer. Refer to Fig. 2
- Ensure the clip fully extends through the pad retainer bar slot.

 There should be a full opening at the top of the spring bracket.

3. Dual Tire Spring Bracket Inspection

There are two methods to inspect the spring bracket: either outside the trailer, or under the trailer.

Outside the Trailer, Facing the Rim

Refer to Fig. 3

- Look through the rim holes to ensure the spring bracket fully exceeds the pad retainer.
- You may need to rotate the wheel to align a rim hole and caliper.
- You can also utilize a borescope to view these components.
- There should be a full opening at the top of the bracket.

Under the Trailer

Refer to Fig. 4

- Use a borescope to look through the back of the rim to ensure the spring bracket fully exceeds the pad retainer.
- There should be a full opening at the top of the spring bracket.

Figure 2.



Figure 3.



Figure 4.



4. Repair Procedure

A WARNING

Personal safety equipment must be worn when working with equipment.

- If the spring bracket is not fully extended, you may need to remove the wheel assembly to access the bracket
- Use appropriate tire removal and safety procedures compliant with your organization and tire removal instruction
- Refer to Fig.5 Use your fingers or a screwdriver to shift the pad retainer until the spring seats in the proper position

5. Actions to Take if there are Missing or Damaged Components

If during the inspection you find any missing or damaged ADB components related to this matter:

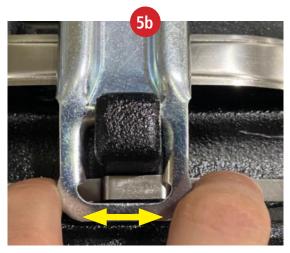
- Place the vehicle Out of Service
- Replace the caliper by performing the procedure shown in Haldex Installation Guide L30051
- Replace any other components that were damaged as a result of this situation
- Process a warranty claim in accordance with the attached warranty policy or your organization's warranty policy

Replacement instructions and more can be found in Haldex Installation Guide L30051. You may download this manual from https://www.haldex.com/globalassets/north-america/documents/air-disc-brakes/L30051.pdf

Figure 5.



Top of spring bracket is trapped beneath edge of pad retainer bar.



Move pad retainer bar back and forth with fingers or a screwdriver –



 until spring bracket pops up into its correctly seated position

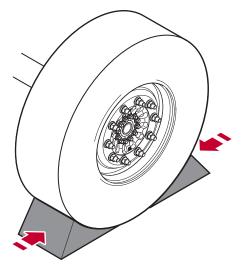
Step 1. Tire Removal



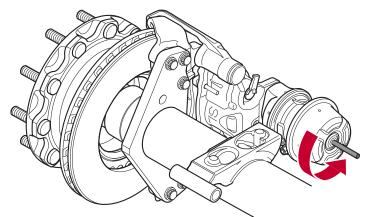
Personal safety equipment must be worn when working with equipment.

Lift up and support the vehicle axle to remove the tire / wheel assembly in accordance with the axle or vehicle recommendations.

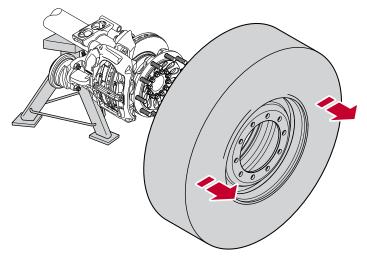
- 1. On a flat even surface, block the wheels.
- 2. Lift the axles and place on jack stands.
- 3. Release the parking brake.
- 4. Check for free rolling resistance of the tire / wheel assembly. If the resistance is higher than expected, tap the tire to remove the rest tension. If the wheel still does not rotate freely, then further inspection is needed.
- 5. Remove the lug nuts.
- 6. Remove the tire / wheel assembly.



Blocking the wheels.



Release parking brake.



Remove tire / wheel assembly.

Step 2. Brake Pad Removal



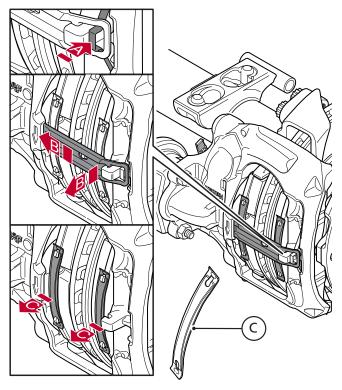
Personal safety equipment must be worn when working with equipment.



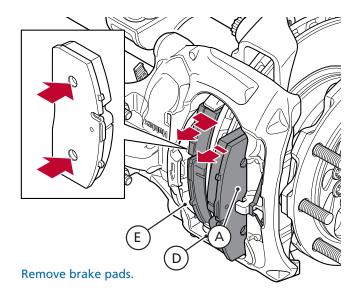
IMPORTANT!

Always remove the outer brake pad first. Always install the inner brake pad first.

- Using a T55 Torx, manually turn the reset shaft counterclockwise to de-adjust the brake so that the thrust plate fully retracts to its inner position.
 - a. An audible clicking sound will be felt and heard when de-adjusting. The stop of the fully retracted inner thrust plate position must be distinct, but do not exceed 15 ft-lbs. (20Nm) in torque or leave it tightened in this position.
- Remove the pad retainer (B) by first pushing and holding down the spring bracket (A), while the spring bracket is held down, slide in and remove the pad retainer. A tool can be used to help slide in the pad retainer if unable to remove by hand.
- 3. Remove the two pad springs (C).
- 4. Remove the brake pads. Always remove the outer brake pad first (D), followed by the inner brake pad (E).
 - a. The inner brake pad back plate locates on two holes which mate to the thrust plate, therefore the pad cannot be removed with the outer pad still being in place. Once the outer pad is removed, the caliper can be slid laterally to allow for the inner pad removal (E).
- 5. Remove the pad retainer spring bracket (A).



Remove pad retainer and pad springs.

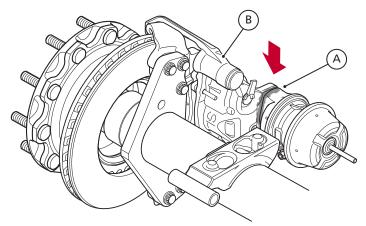


Step 3. Brake Chamber Removal

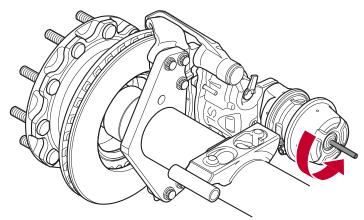
A WARNING

Personal safety equipment must be worn when working with equipment.

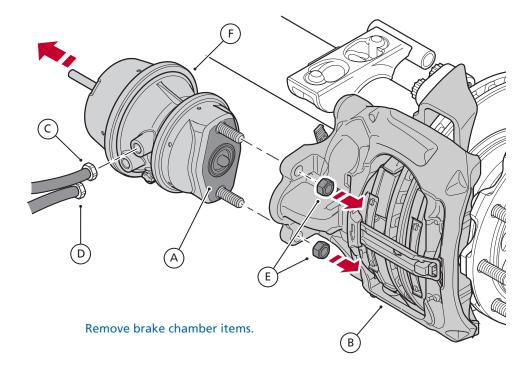
- 1. Carefully clean around the mating surfaces of the brake chamber (A) and the caliper (B) to ensure that dirt does not get into the mechanism area when removing the brake chamber.
- 2. If applicable, ensure that the spring brake chamber (F) is fully disengaged and mechanically secured in the released position.
- 3. Ensure that the brake chamber (A) is depressurized.
- 4. Mark and remove the hose connections of the service brake (C) and if applicable the parking brake (D).
- 5. Remove the two nuts (E) holding the brake chamber. Remove the brake chamber (A) from the caliper (B).



Clean mating surfaces of brake and chamber.



Secure brake chamber in the released position.



Step 4. Caliper Removal



Personal safety equipment must be worn when working with equipment.

- 1. Loosen bolts with long wrench, one at a time, ensuring top bolt is still supporting caliper.
- 2. Confirm the caliper is supported.
- 3. Remove the bolts completely.

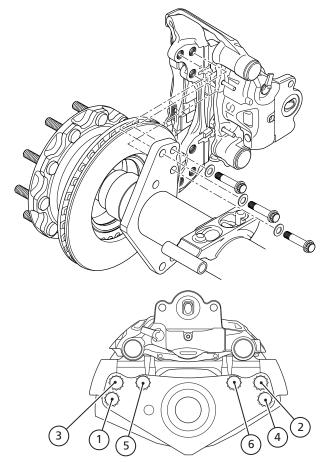
Step 5. Caliper Installation



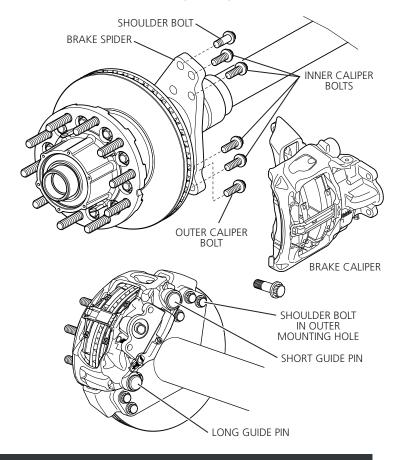
Never reuse bolts. Always check bolts for proper length. Bolts that are too long can

bottom out on the rotor. Refer to next page for bolt kit numbers.

- 1. Starting with top bolt, re-install the caliper onto the brake spider using proper bolts for the specific carrier design.
 - a. Pre-torque bolts using clocking numbers and recommended pre-torque setting for size of bolts.
 Refer to Table 1 on page 12.
 - b. Verify the pre-torque of the bolts a second time, and if necessary, re-tighten to recommended settings, Table 1, page 12
 - For final Torque specifications refer to Table 1, page 12, Carrier bolt section. Care must be taken to match size of bolt and whether dry or lubricated for proper torque.



Bolt tightening sequence



Bolt Kit Part Numbers

790-22060 Bolt Kit M20X55mm 790-22062 Bolt Kit M16X55mm 790-22063 Bolt Kit M20X60mm 790-22067 Bolt Kit M16X60mm 790-22068 Bolt Kit M16X60mm 790-22069 Bolt Kit M18X55mm

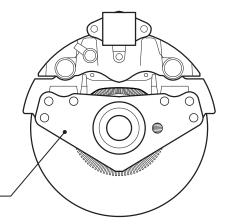
Tightening Torques

Torque Tightening

		Pre-Torque		(Dry)		(Lubricated)	
Screw Thread	Offset (mm)	N-m	FT-LBS	N-m	FT-LBS	N-m	FT-LBS
M20x2.5	56	200	145	675±34	500 ±25	530±34	390±25
M16x1.5	55	95	70	350±34	255±25	275±34	200±25
M18x1.5	65	120	88	450±30	331±22	350±30	258±22



Width (Inches)	Screw Length (mm)	Washer Thickness (mm)
1	55	3.5 ±0.5
1.225	60	3.5 ±0.6

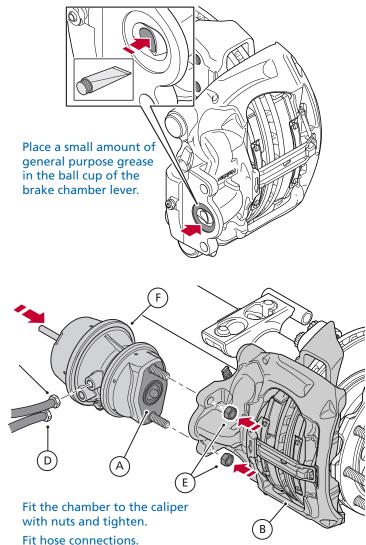


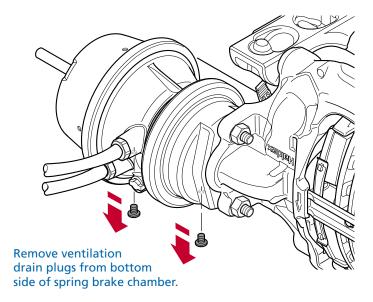
Step 6. Brake Chamber Installation

A WARNING

Personal safety equipment must be worn when working with equipment.

- Ensure the brake chamber being installed is the correct one for the application and vehicle. If a spring brake chamber is being installed, ensure that the parking brake spring is caged in accordance with the manufacturer's instructions.
- Ensure the surface of the caliper that mates with the brake chamber is free from dirt, moisture and corrosion. Do the same check on the brake chambers mating face (A) and seal.
 Ensure the brake chamber seal is in the correct position and not damaged.
- 3. Apply a small amount of general-purpose grease in the ball cup of the brake chamber lever. Do not overfill the cup or let grease fall inside the brake.
- Fit the new brake chamber (A) to the caliper (B) with nuts (E). Screw the nuts home first before torque tightening to ensure the brake chamber seats parallel.
- 5. Brake chamber fixation nut tightening torque is 130 ft-lbs. \pm 15 ft-lbs. (180 \pm 20 Nm). Follow the vehicle/axle manufacturers recommendations.
- 6. Fit the brake chamber hose connection of the service brake (C) and if applicable the parking brake (D). If fitting both hoses, ensure connections (C) and (D) are the correct way around.
- 7. Remove the ventilation drain plug that faces downwards from the service brake housing and if applicable, also from the spring brake housing.
- 8. If applicable, release the parking brake and disengage the spring brake chamber's caging mechanism so that the spring is released. Minimum 90 psi (6 bar).
- 9. With the service brake engaged and, where applicable, with the parking brake released, check the brake chambers, hoses and connections for leaks or damage.





Step 7. Pad Installation



Personal safety equipment must be worn when working with equipment.

- 1. Ensure the brake caliper is fully de-adjusted before installing new brake pads.
- 2. Check all contact surfaces on the carrier, caliper, and thrust plate are free from dirt and corrosion. Clean if necessary.
- Check abutment area on carrier for deep grooves, cracks, or deformation. Replace carrier if grooves exceed 3mm or has cracks and deformation.
- Install the inner brake pad into the caliper.
 Note: The inner brake pad locates onto the thrust plate on two points.
- Install the outer brake pad into the caliper.Note: Ensure the friction material faces the rotor.

- 6. Install the new spring bracket into the caliper and ensure it is seated in the correct position.
- 7. Install the new pad springs and the pad retainer.

 Note: The pad retainer is fitted by first locating the pad retainer in the housing end in the caliper aperture, then compressing the pad springs and locating the pad retainer slot over the caliper latch, and finally sliding the pad retainer under the caliper latch until the spring bracket pops into its locking position. If necessary, use a tool to help push the pad retainer into position.
- Using a T55 Torx, manually adjust the brake by turning the reset shaft clockwise until the pads touch the rotor and you feel an end stop.
- 9. Then turn the reset shaft counterclockwise 2 clicks.

 Note: This procedure sets the initial brake pad clearance.
- 10. Fit the reset shaft protective plug into the caliper, ensure it is correctly orientated and pushed fully into its correct sealing position. Failure to do so may compromise the life of the brake.



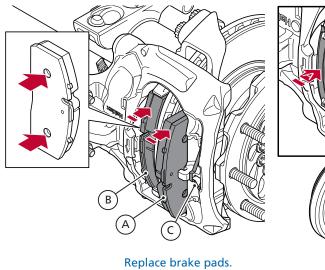
IMPORTANT! Always install the inner brake pad first.

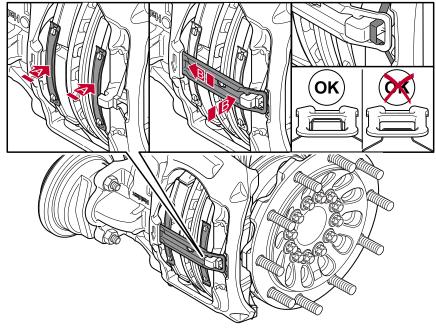


IMPORTANT! Ensure that friction material faces the rotor.



IMPORTANT!
Use new parts in pad kit.
Do not reuse old parts.





Install new pad springs and pad retainer

Step 8. Tire Installation



Personal safety equipment must be worn when working with equipment.

Mounting of the Wheel



IMPORTANT!

Make sure that the brake hoses are in good condition, that they are laid/ducted and fastened correctly.

- 1. Check the free rolling resistance. The disc brake must not be obstructed in any way.
- Mount the wheel.



IMPORTANT!

If the disc brake is equipped with a parking brake actuator, ensure that the brake system is pressurized, and the spring brake chamber is fully engaged and mechanically secured in the active position. See the vehicle manufacturer's instructions.

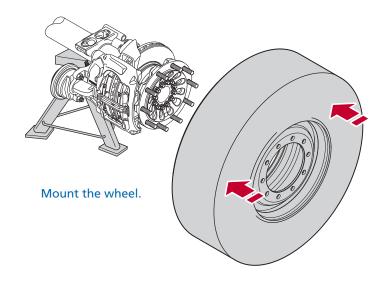


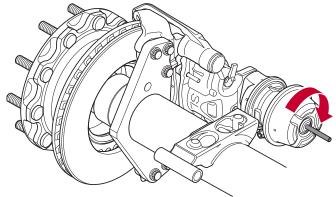
IMPORTANT!

Apply air to the parking brake. Make sure that there is sufficient air in the system (min. 6 bar).

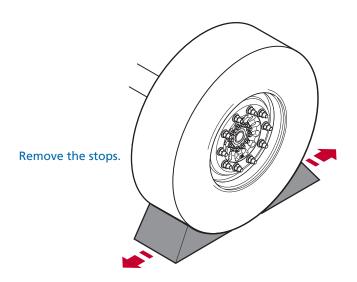
Lowering of the Vehicle Axle

- Activate the parking brake if fitted with a spring brake chamber.
- 2. Lift the axles so that the stands can be removed.
- 3. Carefully lower the vehicle to the ground.
- 4. Remove the wheel blocks.





Secure spring brake in the active position.



For technical support, call Haldex Technical Services at 800-643-2374 or 816-891-2470, email TechServices.KansasCity@haldex.com or contact your Haldex sales professional.

ModulT® Gen II Air Disc Brake (ADB) Recall

ADB Pad Retainer/Spring Bracket Inspection/Repair



NOTE: There are 2 different inspection logs listed below for inspection and/or repair.

Inventory Only (Parts <u>NOT</u> Installed on Vehicle)

- Step 1. Complete the "Inventory Only" Inspection Log (shown at right)
- **Step 2.** Submit the Inspection Log and Labor Invoice to **Haldex.Warranty@Haldex.com** Labor Invoice(s) Is subject to review per submission (labor terms may vary)
- Step 3. Haldex Warranty will confirm receipt of ADB Recall inspection claim(s)
- **Step 4.** Haldex Warranty will issue reimbursement to the customer per the Standard Warranty Terms and Conditions

Field Inspections (Parts Installed on Vehicle)

- Step 1. Complete "Vehicle" Inspection Log (shown at right)
- **Step 2.** Submit the Inspection Log and Labor Invoice(s) to **Haldex.Warranty@Haldex.com** Labor Invoice(s) is subject to review per submission (labor terms may vary)
- **Step 3.** Haldex Warranty will confirm receipt of ADB Recall inspection claim(s)
- **Step 4.** Haldex Warranty will issue reimbursement to the customer per the Standard Warranty Terms and Conditions

Contact Information

For all questions and concerns, contact your Haldex Account Manager (sales professional) and your Haldex Warranty Contact. 1-877-442-5339.

Neil Picart Regional Manager – Customer Experience Neil.Picart@Haldex.com







ModulT® Gen II Air Disc Brake (ADB) Recall Inventory Only Log (Parts NOT Installed on Vehicle)



Customer Name	Sales Order Number	Qty Good	Qty Bad	ADB Serial Number (Only if Sales Order Number is Unavailable)

ModulT® Gen II Air Disc Brake (ADB) Recall Field Inspection Log (Parts Installed on Vehicle)



Customer Name	Vehicle Number (VIN)	Qty Good	Qty Bad	ADB Serial Number (Only if VIN Number is Unavailable)