DAIMLER

Daimler Trucks North America

Nasser Zamani
Senior Manager
Compliance and Regulatory
Affairs

July 20, 2012

Nancy Lewis
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attention: Recall Management Division (NVS-215, Rm. W45-206)
1200 New Jersey Avenue S.E.
Washington D.C. 20590

Re: Defect Information Report – Supplemental Report No. 2
12V-242, FL-628, Bosch Hydraulic Calipers
Interim Notification

Ms. Lewis:

In accordance with Part 573 of Title 49 of the Code of Federal Regulations, Daimler Trucks North America LLC herewith submits supplemental defect information and copies of documents distributed to dealers. Owners of potentially affected vehicles will be notified by July 20, 2012.

(c)(3) Total number of vehicles potentially affected: 2,075.

(c) (8)(ii) Dealer and distributor notification: Began and ended July 20, 2012.

(c) (10) A copy of communications sent to dealers is attached.

Company	Country	# of VINs
Coachmen RV of Indiana	US	5
Fleetwood	US	3
Forest River Cardinal Division	US	3
Forest River Diesel Division	US	1
Gulfstream	US	390
Monaco Coach	US	170
National RV	US	1
Newmar	US	71
Rexhall	US	1
Thor Motor Coach	US	90
Tiffin	US	1,306
Winnebago	US	63

Please contact me if you have any questions.

Sincerely yours,

Nasser Zamani

Nasser Zamani

Cc: Amy Martin, CAL-OSHA
Attachment

Daimler Trucks North America LLC

A Daimler Company

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Daimler Trucks
North America LLC

Recall Campaign

July 2012
FL628
NHTSA #12V-242
INTERIM RECALL BULLETIN

Subject: Bosch Hydraulic Brake Calipers

Models Affected: Specific Freightliner Custom Chassis motor-home chassis manufactured March 28, 2005, through July 19, 2011, with certain Bosch hydraulic brake calipers.

General Information

Daimler Trucks North America LLC (DTNA), on behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above. **Until the final Recall remedy is available, perform the interim procedure when a customer reports a problem, such as brake drag or brakes overheating. For this Interim Recall, please use completion stickers.**

Certain motorhome chassis with hydraulic brakes that are exposed to long periods of non-driving may experience diametrical brake caliper piston growth and reduced piston to bore clearance. This may lead to brake drag and overheating, resulting in reduced brake performance. Under certain driving conditions, reduced brake performance may increase the risk of a crash.

If a customer's vehicle experiences brake drag or brakes overheating before the final notice, they have been instructed to take it to a DTNA dealer to have the calipers inspected and replaced, if needed. If the vehicle is not currently being driven, customers do not need to take any action and no repairs are needed until the second letter is received.

Work Instructions

Please refer to the attached work instructions. OWL dealers can confirm eligibility directly in OWL. Look for the interim Recall number on the Coverage Info screen. If your location is using QuickClaim, before beginning work, confirm whether a vehicle is eligible for an interim Recall repair. Go to Warranty Support Center/Campaigns/Interim Recall Inquiry and enter the vehicle serial number and make.

Replacement Parts

Obtain parts for this interim Recall repair by ordering from your facing Parts Distribution Center.

Table 1 - Interim Repair Parts for FL628

NOTE: Brake pads must be replaced on both ends of an axle even when just one caliper on that axle is replaced.

Campaign Number	Part Description	Part Number	Qty.
INT FL628-01 (73 mm Calipers)	73MM CALIPER HSG KIT	ASL 0204774999	1 Kit Per Caliper Replaced
	KIT-PAD DISC REPAIR 73MM	ASL 02040J2676	1 Kit Per Axle
INT FL628-02 (66 mm Calipers)	CALIPER ASSEMBLY, BRAKE 66MM	ASL 0204719661	1 Kit Per Caliper Replaced
	SHOE AND LINING KIT	ASL 02040J2675	1 Kit Per Axle

Table 1

Removed Parts

Please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.

Labor Allowance

Table 2 - Labor Allowance

NOTE: More than one SRT may need to be claimed when a combination of calipers requires replacement. The SRT for bleeding the hydraulic system is claimed once when at least one caliper is replaced.

Campaign Number	Procedure	Time Allowed (hours)	SRT Code
FL628-01 and FL628-02	Inspect all brake calipers	0.1	996-0882A
	Inspect all and replace one front brake caliper (includes replacing brake pads on both axle ends)	1.2	996-0882B
	Inspect all and replace two front brake calipers (includes replacing brake pads on both axle ends)	1.6	996-0882C
	Inspect all and replace one rear brake caliper (includes replacing brake pads on both axle ends)	1.4	996-0882D
	Inspect all and replace two rear brake calipers (includes replacing brake pads on both axle ends)	1.8	996-0882E
	Hydraulic system bleeding (claimed once per vehicle when at least one caliper is replaced)	0.4	996-0882J

Table 2

Claims for Credit

Until the final Recall remedy is available, perform the interim procedure only when a customer reports a problem, such as brake drag or brakes overheating. You will be reimbursed for your parts, labor, and handling by submitting your claim through the Warranty system within 30 days of completing an interim Recall repair. Please reference the following information in Legacy/QuickClaim or in OWL, as appropriate for your location:

Claims in Legacy/QuickClaim

If a claim needs to be submitted via QuickClaim, submit a WSC inquiry for assistance. Since all dealers are now using OWL, this should be rare if needed at all.

To confirm whether a vehicle is eligible for an interim Recall repair before beginning work. Go to Warranty Support Center/Campaigns/Interim Recall Inquiry and enter the vehicle serial number and make.

Claims in OWL

Claim Type	Request Type	OWL Interim Campaign Number	PFP	VMRS Code Cause Code
Recall	Payment	INT FL628-01 INT FL628-02	25-FL628-000	013-001-028 A1-Campaign

Table 3

- Claim type is **Recall** and Request type is **Payment**.
- In the Campaign field, enter **INT FL628-01 or INT FL628-02**.
- Use the retrieve button to populate the claim. Fill in any items not automatically included.
- More than one SRT may need to be claimed when a combination of calipers requires replacement, review the Repair Order and the Labor Allowance Table above.

- If additional parts, labor, or other charges beyond what is outlined in this bulletin were needed, stop and submit as a Recall Pre-Approval Request.

Contact the Warranty Campaigns Department from 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, via Web inquiry at AccessFreightliner.com / Support / My Tickets and Submit an Inquiry, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information.

The interim letter notifying vehicle owners is included for your reference.

Recall Campaign

Daimler Trucks North America LLC

July 2012
FL628
NHTSA #12V-242
INTERIM RECALL BULLETIN

Copy of Interim Notice to Owners

Subject: Bosch Hydraulic Brake Calipers

For the Notice to U.S. Customers: This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

For the Notice to Canadian Customers: This notice is sent to you in accordance with the Canadian Motor Vehicles Safety Act.

Daimler Trucks North America LLC (DTNA), on behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect which relates to motor vehicle safety exists on specific Freightliner Custom Chassis motorhome chassis manufactured March 28, 2005, through July 19, 2011, with certain Bosch hydraulic brake calipers.

Certain motorhome chassis with hydraulic brakes that are exposed to long periods of non-driving may experience diametrical brake caliper piston growth and reduced piston to bore clearance. This may lead to brake drag and overheating, resulting in reduced brake performance. This could increase stopping distance, possibly resulting in a crash causing property damage and/or personal injury.

This is the first of two notices you will receive regarding this subject. This letter is to inform you of an upcoming Recall to correct the issue noted above. Daimler Trucks is currently validating the repair and securing replacement parts. The second notice will inform you when the final remedy is available. When you receive it, please contact your authorized Daimler Trucks North America dealer to schedule the Recall for your vehicle. If your vehicle experiences brake drag or overheating before you receive the second letter, please take it to a DTNA dealer to have the calipers replaced. If the vehicle is not currently being driven, you do not need to take any action until you receive the second letter. Symptoms that indicate a possible problem with a brake caliper include a spongy feel when applying the brakes, the ABS light is on continuously, smoke coming from a wheel end or a burning smell.

If you do not own the vehicle that corresponds to the identification number(s), which appears on the Recall Notice, please return the notice in the postage-paid envelope with any information you can furnish that will assist us in locating the present owner.

For the Notice to U.S. Customers: If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours. You may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to http://www.safercar.gov.

For the Notice to Canadian Customers: If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Work Instructions

Subject: Bosch Hydraulic Brake Calipers

Models Affected: Specific Freightliner Custom Chassis motor-home chassis manufactured March 28, 2005, through July 19, 2011, with certain Bosch hydraulic brake calipers.

IMPORTANT: Until the final Recall remedy is available, perform the interim procedure only when a customer reports a problem, such as brake drag or brakes overheating. For this Interim Recall, please use completion stickers.

NOTE: Brake pads must be replaced on both ends of an axle even when just one caliper on that axle is replaced.

NOTE: More than one SRT may need to be claimed when a combination of calipers requires replacement. The SRT for bleeding the hydraulic system is claimed once when at least one caliper is replaced.

General Safety Precautions

⚠ WARNING

When replacing brake pads and shoes always replace components as an axle set.

- **Always reline both sets of brakes on an axle at the same time.**
- **Always install the same type of linings/pads or drums/rotors on both axle ends of a single axle at the same time. Do not mix component types.**

Failure to do so could cause uneven braking and loss of vehicle control, resulting in property damage, personal injury, or death.

⚠ WARNING

Hydraulic brake fluid is hazardous, and can cause blindness if it gets in your eyes. Always wear safety glasses when handling brake fluid or bleeding brake components. Brake fluid may also be a skin irritant. If you get it on your skin, wash it off as soon as possible.

NOTICE

Power steering fluid and brake fluid are incompatible. Never mix these two fluids or serious damage to both hydraulic systems will result. Use only brake fluid for the master cylinder and brake lines. Use only power steering fluid for the power booster.

Special care must be taken when disposing of used brake fluid. Put the fluid in a sealed plastic container and label it "Used Brake Fluid." Then dispose of it in an approved manner. Check with local and state regulations as to the correct disposal procedure.

IMPORTANT: During service procedures, keep grease and other foreign material away from caliper assemblies, disc brake pads, brake rotors and external surfaces of the hub. Handle parts carefully to avoid damage to the caliper, rotor, disc brake pads, or brake lines.

July 2012
FL628
NHTSA #12V-242
INTERIM RECALL BULLETIN

Asbestos and Non-Asbestos Safety

⚠ WARNING

Wear a respirator at all times when servicing the brakes, starting with the removal of the wheels and continuing through assembly. Breathing brake lining dust (asbestos or non-asbestos) could cause lung cancer or lung disease. OSHA has set maximum levels of exposure and requires workers to wear an air purifying respirator approved by MSHA or NIOSH.

Because some brake linings contain asbestos, you should know the potential hazards of asbestos and the precautions to be taken. Exposure to airborne asbestos brake lining dust can cause serious and possibly fatal diseases such as asbestosis (a chronic lung disease) and cancer.

Because medical experts believe that long-term exposure to some *non-asbestos* fibers could also be a health hazard, the following precautions should also be observed if servicing non-asbestos brake linings.

Areas where brake work is done should be separate from other operations, if possible. As required by OHSA regulations, the entrance to the areas should have a sign displayed indicating the health hazard.

During brake servicing, an air purifying respirator with high-efficiency filters must be worn. The respirator and filter must be approved by MSHA or NIOSH, and worn during all procedures.

OSHA recommends that enclosed cylinders equipped with vacuums and high-efficiency (HEPA) filters be used during brake repairs. Under this system, the entire brake assembly is placed within the cylinder and the mechanic works on the brake through sleeves attached to the cylinder. Compressed air is blown into the cylinder to clean the assembly, and the dirty air is then removed from the cylinder by the vacuum.

If such an enclosed system is not available, the brake assembly must be cleaned in the open air. During disassembly, carefully place all parts on the floor to minimize creating airborne dust. Using an industrial vacuum cleaner with a HEPA filter system, remove dust from the brake drums, brake backing plates, and brake parts. After vacuuming, any remaining dust should be removed using a rag soaked in water and wrung until nearly dry. Do not use compressed air or dry brushing to clean the brake assembly.

If grinding or other machining of the brake linings is necessary, other precautions must be taken because exposure to asbestos dust is highest during such operations. In addition to the use of an approved respirator, there must be local exhaust ventilation such that worker exposure is kept as low as possible.

Work areas should be cleaned by industrial vacuums with HEPA filters or by wet wiping. Compressed air or dry sweeping should never be used for cleaning. Asbestos-containing waste, such as dirty rags, should be sealed, labeled, and disposed of as required by EPA and OSHA regulations. Respirators should be used when emptying vacuum cleaners and handling asbestos waste products.

Workers should wash before eating, drinking, or smoking, should shower after work, and should not wear work clothes home. Work clothes should be vacuumed after use and then laundered, without shaking, to prevent the release of asbestos fibers into the air.

Caliper Inspection

1. Check the base label (Form WAR259) for a completion sticker for FL628 (Form WAR260) indicating this work has been done. The base label is usually located on the front wall under the dash. If a sticker is present, no work needs to be done. If there is no sticker, proceed with the next step.
2. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
3. Turn the front wheels as needed to access the caliper on the front axle.
4. Using a flashlight, inspect the caliper to determine the date code. See **Fig. 1** for an example of the date code and location. See **Table 4** for a list of affected date ranges. The alpha numeric date code for the caliper is made up of four digits and one letter; ignore the letter for this inspection.

   If the date code falls within one of the ranges listed in **Table 4**, replace the caliper and brake pads. Go to "Brake Caliper and Brake Pad Replacement" in these work instructions.

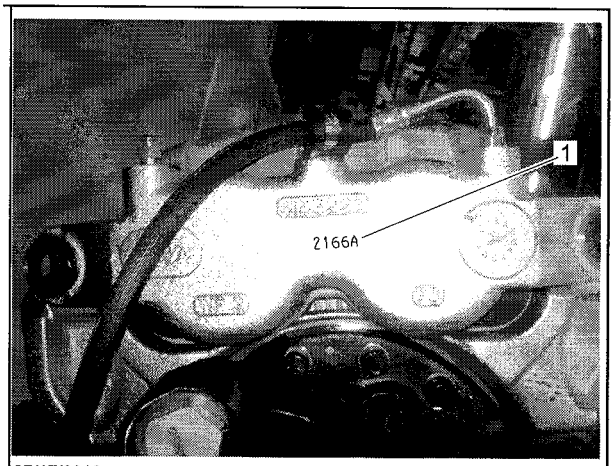
   If the date code is illegible and cannot be determined for any reason, replace the caliper and brake pads. Go to "Brake Caliper and Brake Pad Replacement" in these work instructions.

   If a caliper is not a Bosch caliper, replace the caliper and brake pads. Go to "Brake Caliper and Brake Pad Replacement" in these work instructions.

   If the date code does not fall within one of the ranges, no further work is necessary. Clean a spot on the base label (Form WAR259), write the recall number FL628 on a completion sticker (Form WAR260), and attach it to the base label.

Affected Caliper Date Codes	
Caliper	**Range**
66 mm	0001 to 0155
73 mm	5001 to 5365
	6001 to 6365
	7001 to 7365
	8001 to 8365
	9001 to 9365
	0001 to 0365
	1001 to 1164

Table 4



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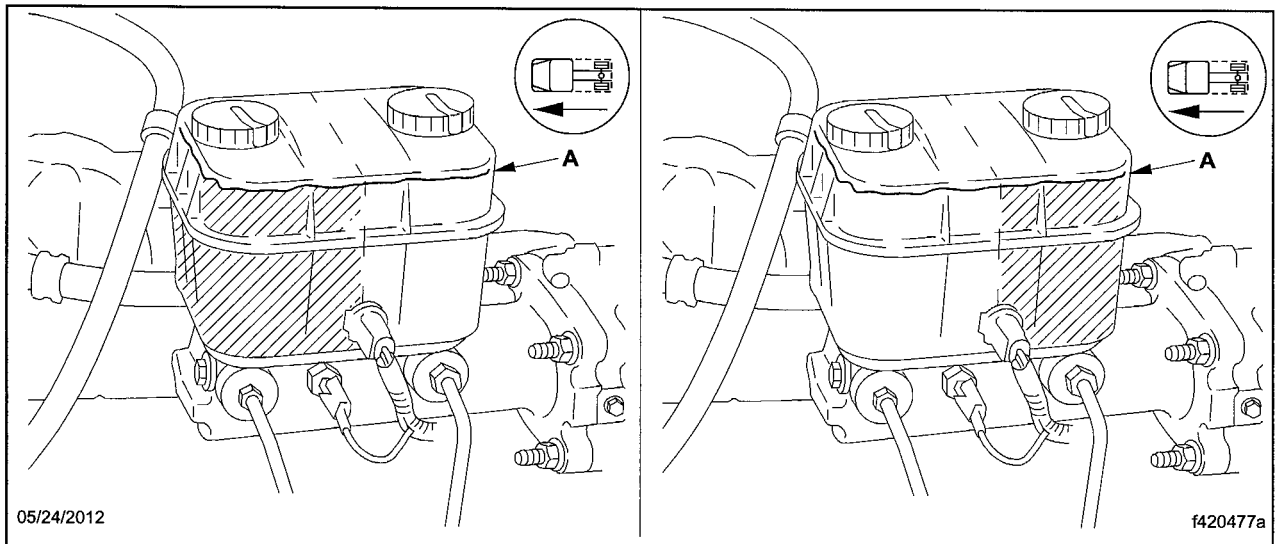
1. Date Code

Fig. 1, Date Code Location on Caliper

July 2012
FL628
NHTSA #12V-242
INTERIM RECALL BULLETIN

Brake Caliper and Brake Pad Replacement

1. Open the engine access panel.
2. If removing the rear wheel caliper(s), remove half the fluid from the rear section of the master cylinder reservoir. See **Fig. 2**. If removing the front wheel caliper(s), remove half the fluid from the front section. Removing the fluid from the reservoir keeps the reservoir from overflowing when retracting pistons into the caliper.
3. Chock the front or rear tires, depending on which axle is being worked on. Jack up the axle and support it with jackstands.
4. Remove the wheels. For instructions, see **Section 40.00** of the *Recreational Vehicle Chassis Workshop Manual.*
5. On front axles only, remove the brake line retaining clip from its support mounting. This will allow the brake line hose to hang free. See **Fig. 3**.
6. Remove the upper (top) guide pin bolt. See **Fig. 3**.



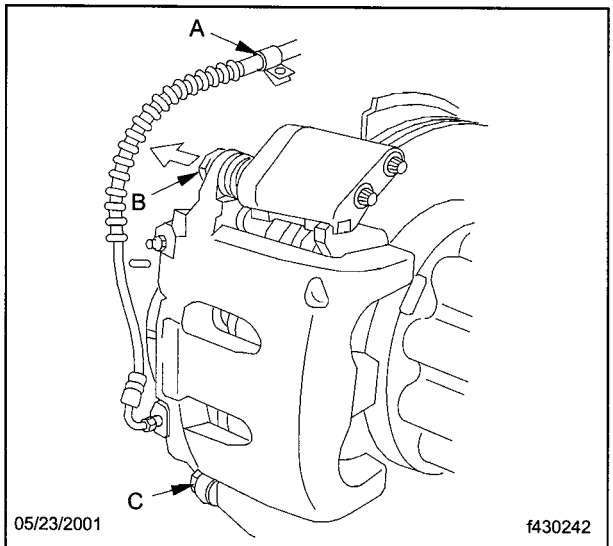
A. At this level the master cylinder is full of brake fluid; remove half of the brake fluid.

Fig. 2, Master Cylinder Reservoir

NOTICE

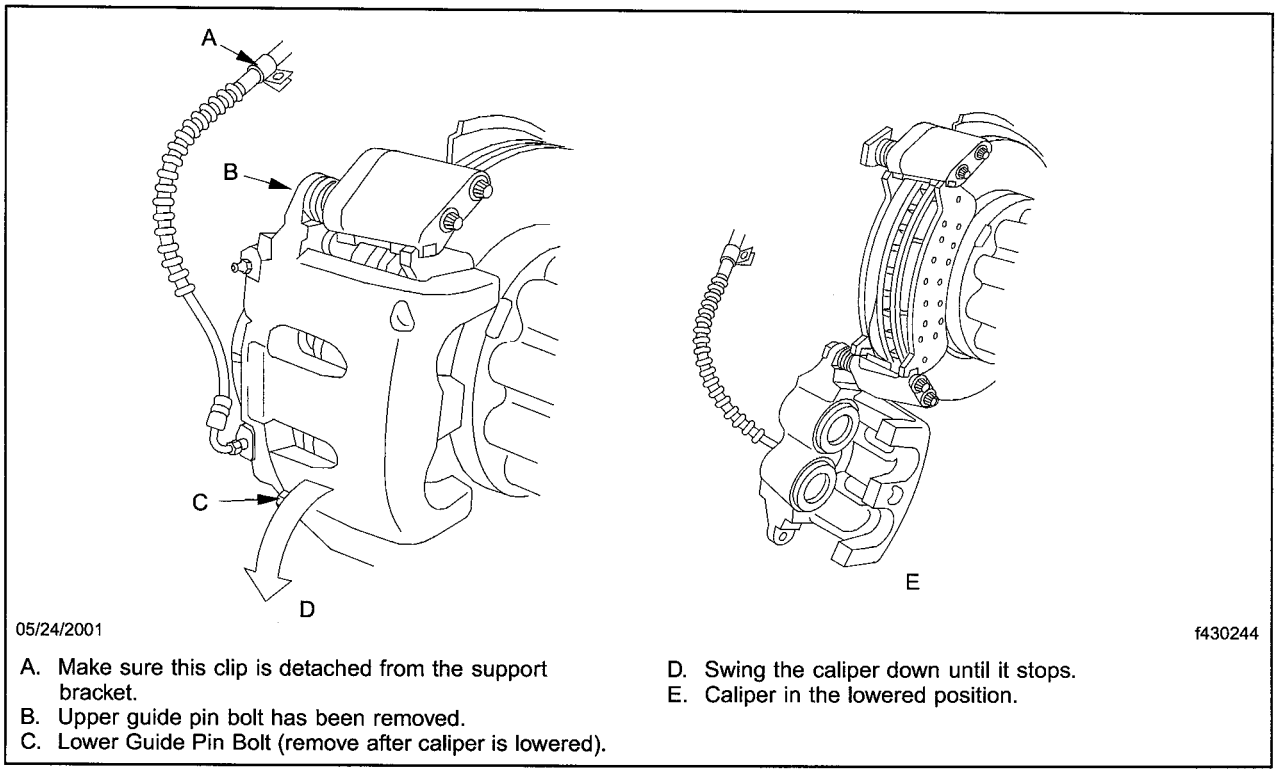
Do not pull on the guide pins. This may dislodge the guide pin boot from the guide pin or anchor plate grooves, which could damage the guide pin boot.

7. Swing the caliper assembly away from the rotor by carefully rotating the caliper on the lower guide pin and bolt. See **Fig. 4**. Do not allow the brake line hose to become pinched or kinked.
8. Disconnect the brake fluid line from the caliper. See **Fig. 5**.
9. Remove the lower guide pin bolt and remove the caliper from the anchor plate.



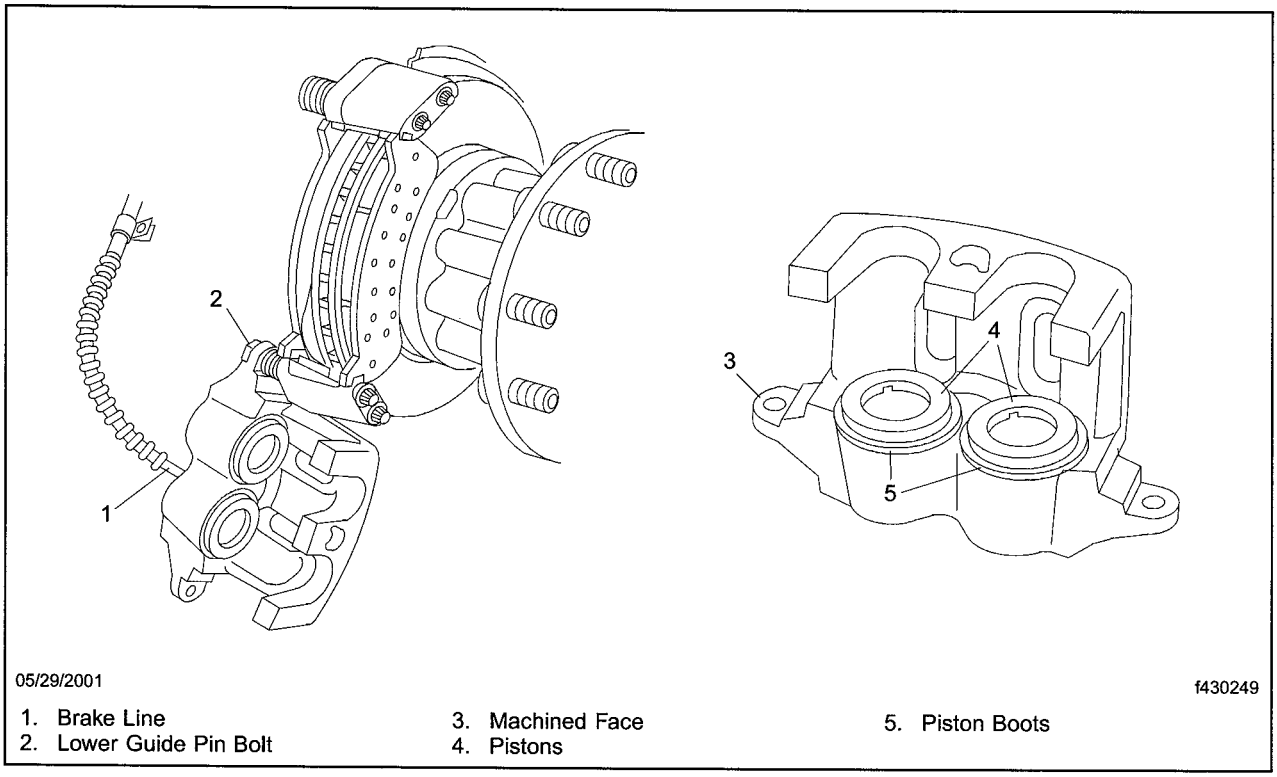
A. Make sure this clip is detached from the support bracket.
B. Remove the upper guide pin bolt.
C. Do not loosen the lower guide pin bolt.

Fig. 3, Upper Guide Pin Mounting Bolt Removal



A. Make sure this clip is detached from the support bracket.
B. Upper guide pin bolt has been removed.
C. Lower Guide Pin Bolt (remove after caliper is lowered).
D. Swing the caliper down until it stops.
E. Caliper in the lowered position.

Fig. 4, Swinging the Caliper Down (Open)



1. Brake Line
2. Lower Guide Pin Bolt
3. Machined Face
4. Pistons
5. Piston Boots

Fig. 5, Removing the Caliper from the Anchor Plate

IMPORTANT: Use isopropyl alcohol to clean the brake seals, boots, and pistons. Do not soak components for an extended period of time.

10. Clean contamination, dirt, and debris from the exterior of the caliper, machined faces, and around the caliper piston boots.

11. Make sure the pistons are fully retracted into the caliper. Piston boots must be fully seated in the piston boot groove and the boot grooves in the caliper face.

⚠ WARNING

Before replacing the brake pads, review the Safety Precautions in these work instructions.

12. Replace the brake pads.

⚠ WARNING

When replacing brake pads and shoes always replace components as an axle set.

- **Always reline both sets of brakes on an axle at the same time.**
- **Always install the same type of linings/pads or drums/rotors on both axle ends of a single axle at the same time. Do not mix component types.**

Failure to do so could cause uneven braking and loss of vehicle control, resulting in property damage, personal injury, or death.

13. Remove the inboard and outboard disc brake pads from the anchor plate pad abutment slippers.

IMPORTANT: Do not damage or dislodge the guide pin boots while cleaning the machined surfaces.

14. Inspect the machined surfaces of the guide pin mounting face and anchor plate. If rust or corrosion is present, use a hand-held wire brush to clean the surfaces.
15. Inspect the piston seals and pistons for leakage or damage. If leakage or damage is found, repair or replace the piston(s) as required.
16. Inspect the anchor plate for damage to the mating surfaces at the anchor plate pad abutment slippers and guide pin heads. If damage is found, repair or replace as required.
17. Inspect the rotor for scoring, warping, cracks, bluing, heat spots, or other damage. See **Fig. 6**. If any damage is found, repair or replace the rotor.
18. Position a metal plate across both caliper pistons. Use a C-clamp to push both pistons into the caliper to provide clearance for the new disc brake pads. See **Fig. 7**.

⚠ CAUTION

When replacing disc brake pads, use the same lining material on both axles. Mixing lining types can result in unbalanced braking, increased pad wear, or degraded stopping performance.

IMPORTANT: Inboard and outboard brake pads may not be interchangeable. The word FORWARD and a forward rotor rotation direction arrow may appear on each pad backing plate. Orient the pads as indicated by the arrow.

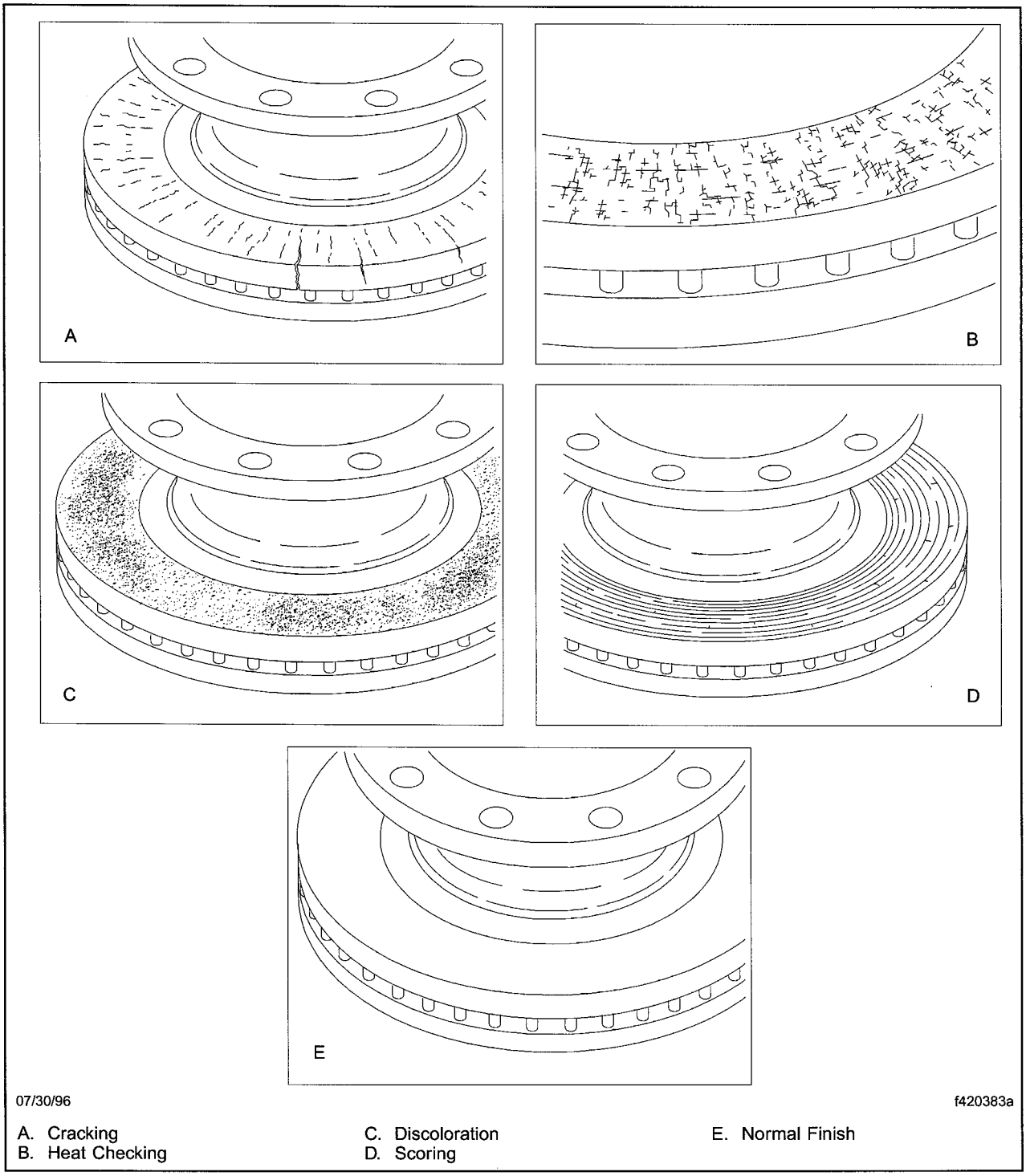
19. Position the inboard and outboard disc brake pads onto the anchor plate pad abutment slippers with the lining facing toward the rotor. See **Fig. 8**.
20. Position the caliper on the anchor plate with the caliper lower guide pin boss hole aligned with the threaded hole in the lower guide pin head. Hand-thread the guide pin bolt through the caliper and into the anchor plate.

IMPORTANT: Use care when positioning the caliper over the disc brake pads, rotor, and upper guide pin head to avoid tearing, cutting, or dislodging the piston boots or guide pin boot.

21. Carefully rotate the caliper closed about the lower guide pin and bolt. Do not allow the brake line hose to become pinched or kinked. Align the flat on the upper guide pin head with the flat on the caliper upper guide pin boss. See **Fig. 9**.

IMPORTANT: Always tighten caliper guide pin bolts in the proper sequence. Do not overtighten caliper guide pin bolts. Increased brake drag may result from incorrect tightening. See **Fig. 10** and **Fig. 11** before tightening either the upper or lower bolt.

22. Hold the caliper in the closed position with the caliper upper guide pin boss hole aligned with the threaded hole in the upper guide pin head. Hand-thread the upper guide pin bolt. Then tighten the upper and lower guide pin bolts 93 to 107 lbf·ft (126 to 145 N·m) in the order shown in **Fig. 10** and **Fig. 11**.
23. On front axles only, install the previously removed brake line retaining clip. Make sure the brake line hose is not pinched or kinked.
24. Connect the brake supply hose and tighten the fitting 15 lbf·ft (20 N·m).
25. Pump the brake pedal until it feels firm. If it does not get firm, check for leaks or air in the brake system. Repair any leaks, if needed, then bleed the system.
26. Go to "Hydraulic System Bleeding" in these work instructions.



A. Cracking
B. Heat Checking
C. Discoloration
D. Scoring
E. Normal Finish

Fig. 6, Rotor Surface Check

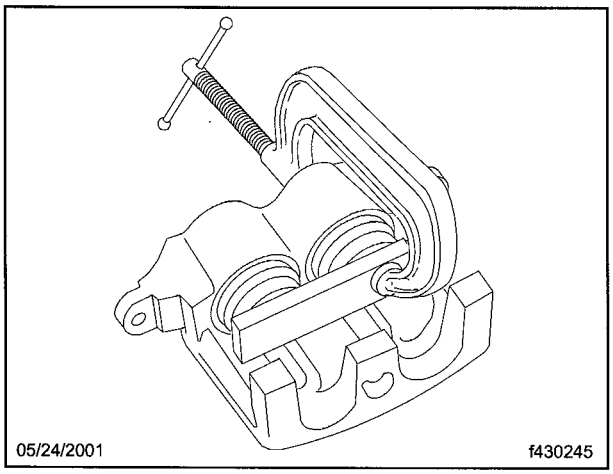
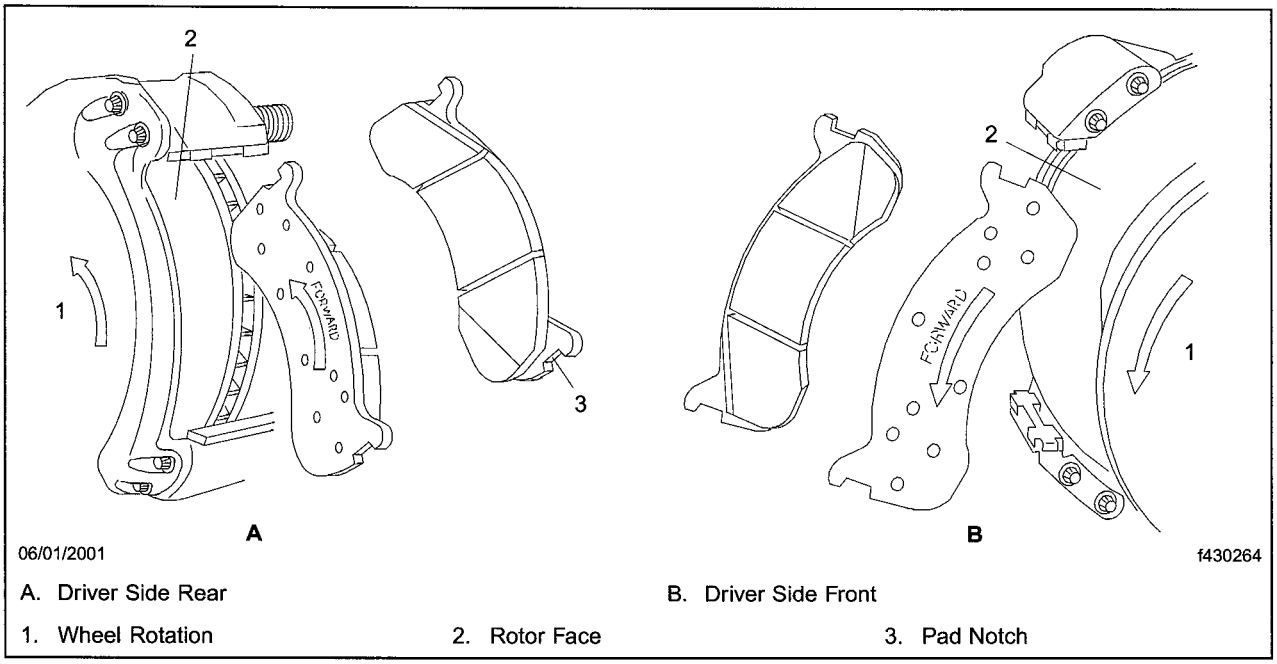
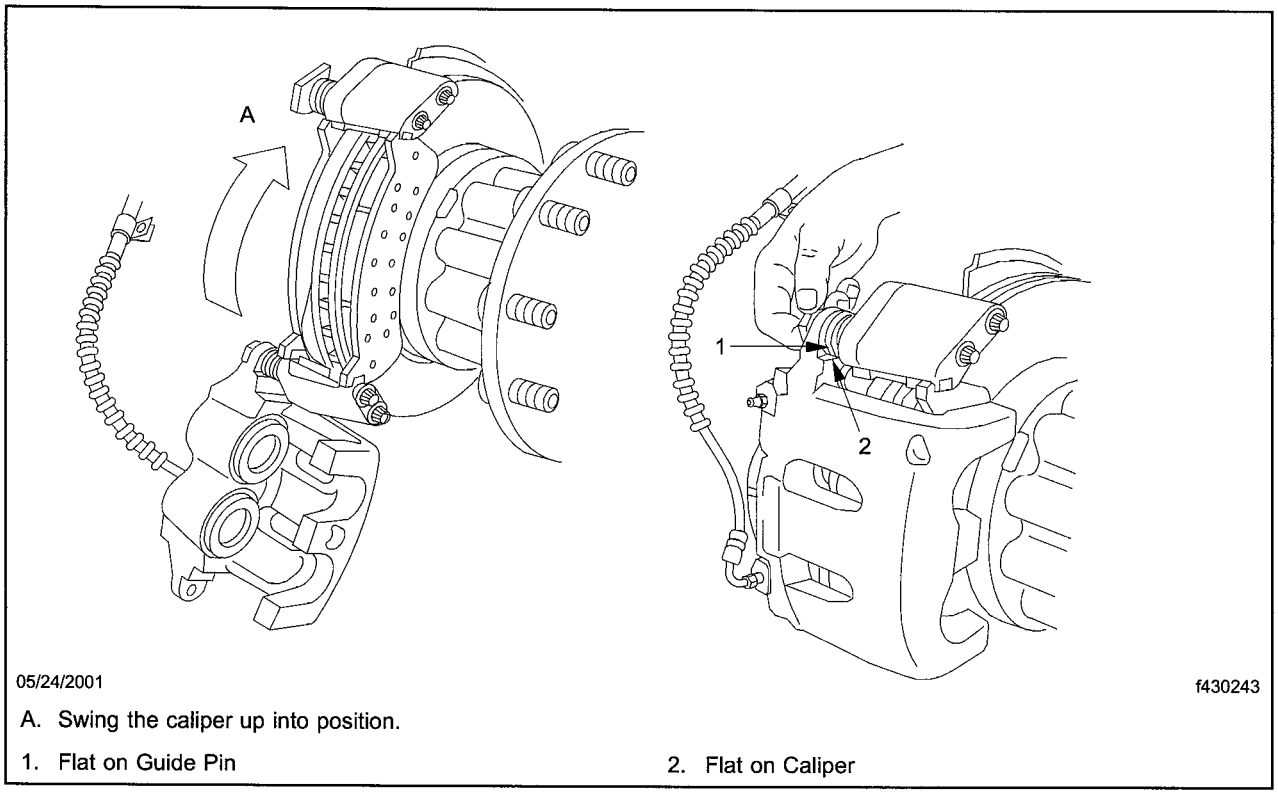


Fig. 7, Retracting Pistons Into the Caliper



A. Driver Side Rear
B. Driver Side Front
1. Wheel Rotation
2. Rotor Face
3. Pad Notch

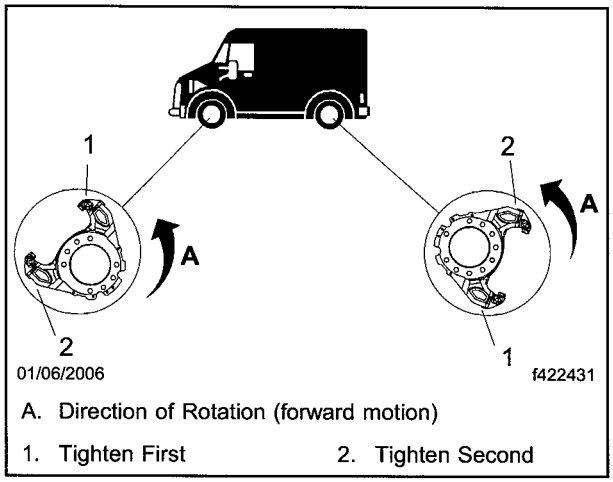
Fig. 8, Replacing Brake Pads on Front and Rear Brakes



A. Swing the caliper up into position.

1. Flat on Guide Pin
2. Flat on Caliper

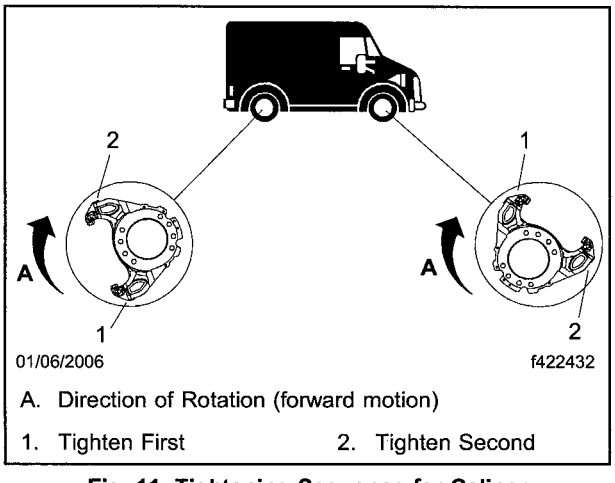
Fig. 9, Closing the Caliper Over the Brake Pads and Rotor



A. Direction of Rotation (forward motion)

1. Tighten First
2. Tighten Second

Fig. 10, Tightening Sequence for Caliper Mounting Bolts, Left Side



A. Direction of Rotation (forward motion)

1. Tighten First
2. Tighten Second

Fig. 11, Tightening Sequence for Caliper Mounting Bolts, Right Side

Hydraulic System Bleeding

IMPORTANT: Whenever any hydraulic system fitting is loosened or disconnected, the entire system must be bled to remove any air that may have entered it.

NOTICE

Power steering fluid and brake fluid are incompatible. Never mix these two fluids, or serious damage to both hydraulic systems will result. Use only brake fluid for the master cylinder and brake lines. Use only power steering fluid for the power booster.

Always use new, clean brake fluid that meets DOT 3® specifications when bleeding the master cylinder and service brake system. Never reuse brake fluid, and do not use brake fluid containers for any other purpose. Keep brake fluid containers tightly closed to keep new brake fluid clean.

IMPORTANT: Do not let brake fluid touch any painted surfaces, as it will remove the paint. Brake fluid may also damage certain non-metal surfaces. Do not let it get on brake pads or rotors.

If the dealership has a pressure bleeder kit, go to the Pressure Bleeding section.

If the dealership does not have a pressure bleeder kit, go to the Manual Bleeding section.

Pressure Bleeding, Service Brake System

Pressure bleeding is the preferred method for bleeding the service brake system. It requires the use of a special pressure bleeder kit, consisting of a tank, pressure pump and valve, gauge, tubing, and adaptor. These are available from a number of manufacturers, and include instructions for use. See **Fig. 12**.

1. Connect the pressure bleeder to the brake master cylinder reservoir, following the manufacturer's instructions.
   - 1.1 Fill the pressure bleeder with new DOT 3 approved brake fluid, then pressurize it according to the manufacturer's instructions.
   - 1.2 Using the adaptor provided in the pressure bleeder kit, connect the pressure bleeder to the rear compartment of the master cylinder reservoir.

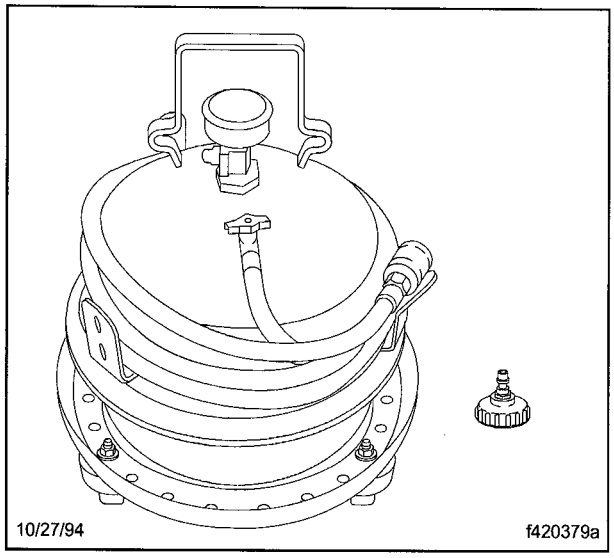


Fig. 12, Pressure Bleeder Kit

2. Bleed the hydraulic connections at the rear wheel calipers, starting on the right side.

   2.1 Place a wrench on the bleeder fitting at the caliper, then attach a length of clear tubing to the bleeder fitting. Make sure the tube fits snugly. Submerge the tubing in a container of clean brake fluid. See **Fig. 13**.

   2.2 Loosen the bleeder fitting about 3/4 turn, and let the brake fluid flow out of the fitting until it is free of air bubbles. See **Fig. 13** and **Fig. 14**. Then tighten the fitting firmly.

   2.3 Move to the left rear caliper, and repeat the steps for bleeding the caliper.

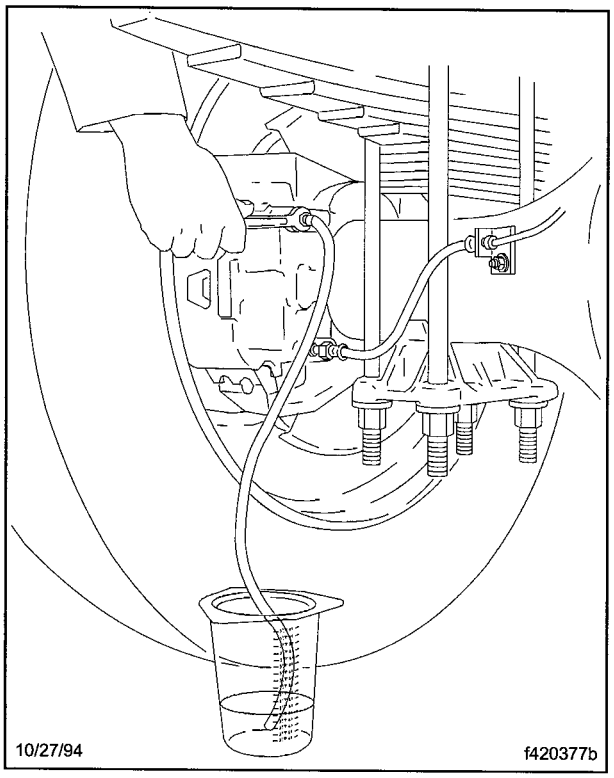
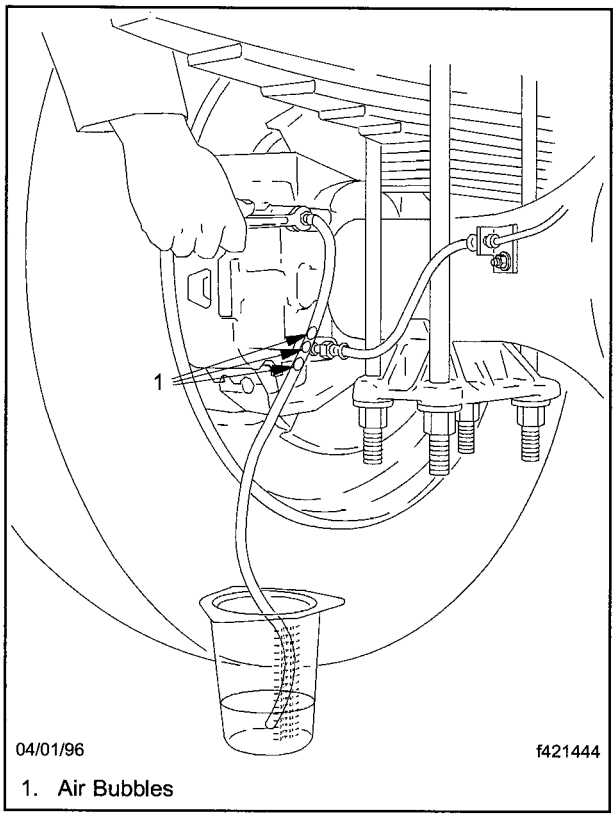


Fig. 13, Bleeding the Connections at the Rear Wheel Calipers



1. Air Bubbles

Fig. 14, Loosening the Bleeder Fitting Until the Air Bubbles are Gone

3. Disconnect the pressure bleeder from the rear compartment of the master cylinder reservoir, then connect it to the front compartment of the reservoir.

4. Bleed the front wheel brake calipers, starting at the right side.

   4.1 Place a wrench on the bleeder fitting at the caliper, then attach a length of clear tubing to the bleeder fitting. Make sure the tube fits snugly. Submerge the tubing into a container of clean brake fluid. See **Fig. 13**.

   4.2 Loosen the bleeder fitting about 3/4 turn, and let the brake fluid flow out of the fitting until it is free of air bubbles. See **Fig. 13** and **Fig. 14**. Then tighten the fitting firmly.

   4.3 Move to the left front wheel caliper, and repeat the steps for bleeding the caliper.

5. Check the brake fluid level in both compartments of the reservoir. Add new DOT 3 approved brake fluid if needed.
6. Check the operation of the brakes by depressing the brake pedal several times, until it feels firm and not going all the way down to the floor.
7. Close the engine access panel and remove the chocks from the tires.
8. Road test the vehicle and seat the brake pads, as follows.
   - 8.1 Accelerate the vehicle to 30 mph (48 km/h), then brake to a stop, using medium brake pedal pressure. *Do not slam on the brakes.*
   - 8.2 Repeat this step 4 or 5 times, allowing a one-minute interval between brake applications.
9. Install the tires, remove the jackstands, and lower the vehicle.
10. Clean a spot on the base label (Form WAR259) ,write the recall number FL628 on a completion sticker (Form WAR260), and attach it to the base label.

Manual Bleeding, Service Brake System

If pressure bleeding equipment is not available, use the manual bleeding procedure.

IMPORTANT: Do not let the brake master cylinder fluid level get too low during manual bleeding operation. Keep the master cylinder reservoir filled with new, DOT 3 approved brake fluid. Failure to keep the brake reservoir filled could result in more air entering the system, making it impossible to effectively bleed the system.

1. Bleed the master cylinder.
   - 1.1 Using a wrench and a rag to absorb leaking brake fluid, loosen the fitting at the rear outlet port on the master cylinder. See **Fig. 15**. Loosen the fitting about one full turn.
   - 1.2 Have someone push the brake pedal down slowly by hand, to the floor of the vehicle. Brake fluid, and any air in the master cylinder will exit from the fitting.
   - 1.3 *With the brake pedal held down,* tighten the rear hydraulic line fitting firmly.

   IMPORTANT: Do not release the brake pedal until the fitting is tightened, or more air will get into the system.
   - 1.4 Release the brake pedal.
   - 1.5 Loosen the fitting again, and repeat the steps for bleeding as required until no air escapes from the fitting and the brake pedal feels firm.
   - 1.6 Check the brake fluid level in the rear compartment of the reservoir, then add new DOT 3 approved brake fluid if needed.
   - 1.7 Using a wrench and a rag to absorb leaking brake fluid, loosen the fitting at the front outlet port on the master cylinder. See **Fig. 16**. Loosen the fitting about one full turn.
   - 1.8 Repeat the steps as required for the front outlet port.
   - 1.9 Check the brake fluid level in the front compartment of the reservoir. Add new DOT 3 approved brake fluid if needed.

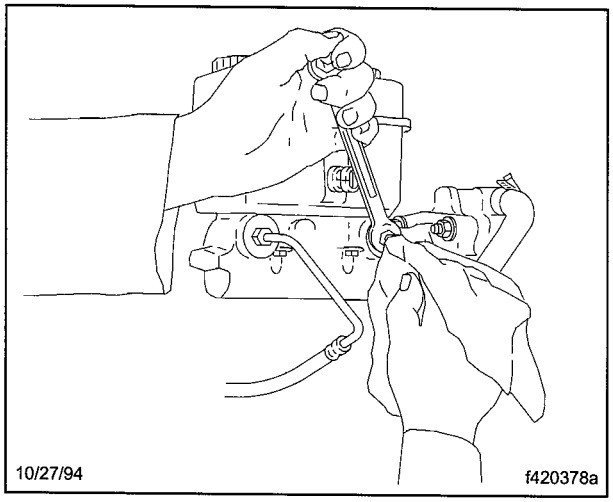


Fig. 15, Loosening the Fitting at the Rear Outlet Port

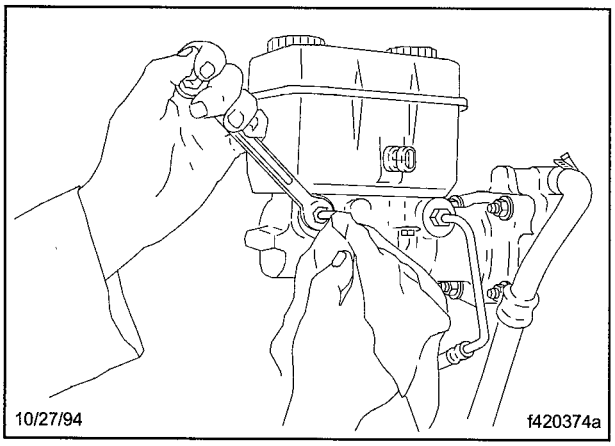


Fig. 16, Loosening the Fitting at the Front Outlet Port

2. Bleed the hydraulic connections at the wheel calipers, starting at the right rear wheel caliper.

   2.1 Place a wrench on the bleeder fitting at the caliper, then attach a length of clear tubing to the bleeder fitting. Make sure the tube fits snugly. Submerge the tubing in a container of clean brake fluid. See **Fig. 13**.

   2.2 Loosen the bleeder fitting about 3/4 turn.

   2.3 Have someone slowly push the brake pedal to the floor, then *with the brake pedal depressed,* tighten the bleeder fitting.

   IMPORTANT: Make sure the brake pedal stays depressed while tightening the fitting. If it is released before the fitting is tightened, more air will get into the system.

   2.4 Release the brake pedal. Check the fluid in the tube. If air bubbles are present, repeat the steps as required until the fluid in the tube is completely free of air bubbles, as shown in **Fig. 13** and **Fig. 14**.

   2.5 Check the brake fluid level in the reservoir. Add new DOT 3 approved brake fluid if needed.

   2.6 Repeat the steps for bleeding the connections for the left rear caliper, then the right front caliper, and finally for the left front caliper.

3. Close the engine access panel and remove the chocks from the tires.

4. Road test the vehicle and seat the brake pads, as follows.

   4.1 Accelerate the vehicle to 30 mph (48 km/h), then brake to a stop, using medium brake pedal pressure. *Do not slam on the brakes.*

   4.2 Repeat this step 4 or 5 times, allowing a one-minute interval between brake applications.

5. Install the tires, remove the jackstands, and lower the vehicle.

6. Clean a spot on the base label (Form WAR259), write the recall number FL628 on a completion sticker (Form WAR260), and attach it to the base label.

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July 2012
FL628
Interim Recall Notice
NHTSA # 12V-242

Subject: Bosch Hydraulic Brake Calipers – Motorhome Chassis

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Daimler Trucks North America LLC (DTNA), on behalf of its wholly owned subsidiary Freightliner Custom Chassis Corporation, has decided that a defect which relates to motor vehicle safety exists on specific Freightliner Custom Chassis motorhome chassis manufactured March 18, 2005, through July 19, 2011 with certain Bosch hydraulic brake calipers.

Certain motorhome chassis with hydraulic brakes that are exposed to long periods of non-driving may experience diametrical brake caliper piston growth and reduced piston to bore clearance. This may lead to brake drag and overheating, resulting in reduced brake performance. This could increase stopping distance, possibly resulting in a crash causing property damage and/or personal injury.

This is the first of two notices you will receive regarding this subject. This letter is to inform you of an upcoming Recall to correct the issue noted above. Daimler Trucks is currently validating the repair and securing replacement parts.

The second notice will inform you when the final remedy is available. When you receive it, please contact your authorized Daimler Trucks North America dealer to schedule the Recall for your vehicle.

If your vehicle experiences brake drag or overheating before you receive the second letter, please take it to a DTNA dealer to have the calipers replaced. If the vehicle is not currently being driven, you do not need to take any action until you receive the second letter. Symptoms that indicate a possible problem with a brake caliper include a spongy feel when applying the brakes, the ABS light is on continuously, smoke coming from a wheel end or a burning smell.

If you do not own the vehicle that corresponds to the identification number(s), which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner.

If you have questions or need further information, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.War.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357, after normal business hours. You may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to http://www.safercar.gov.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT
Enclosure