



**SPARTAN CHASSIS, INC.**

*Product Assurance Department*

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2005-215

January 19, 2005

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Associate Administrator for Safety Assurance  
National Highway Traffic Safety Administration  
400 Seventh Street, SW  
Washington DC 20590  
Pat Wallace

DEFECTS INVESTIGATION

Ms. Wallace,

Please be aware that the 573 Defect and Noncompliance Report submitted on 06/15/2004 in reference to your recall number 04V-311 Bosch Hydraulic Disc Brakes with Zero Offset Pin Slide (ZOPS) Calipers as been updated to include the rear axle as well. You will note that changes have been made to the following fields:

"Descriptive information which characterizes /distinguishes the recalled vehicles from those model vehicles not included in the recall."

Added Dana and Meritor front and rear axles containing.....

"Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:"

Added "All vehicles with the Dana and Meritor front and rear axle models that contained Bosch pin slide hydraulic disc brakes were selected."

"Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:"

Added: "All vehicles with the Dana and Meritor front and rear axle models that contained Bosch pin slide hydraulic disc brakes were selected."

"If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address:"

Added:

Supplier Part Number:	Dana Model I-80 Front Axle Assy. Dana Model S-150 Rear Axle Assy. Meritor Model RS-19-145 Rear Axle Assy. Meritor Model RS-15-120 Rear Axle Assy.
Spartan Part Number:	0765-DD1-001 Front Axle Assy. 2001-DD4-478 Rear Axle Assy. 1927-DD4-002 Rear Axle Assy. 1828-DD4-001 Rear Axle Assy.

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

Added: Replace brake calipers and pads per bulletin number RSB04-250-001.

"Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly."

Added: Bosch has redesigned the brakes to remedy the situation.

"Furnish a schedule or agenda, with specific dates, for notification to other manufacturers, dealers/retailers, and purchasers. Please identify any foreseeable problems with implementing this recall."

Added: Customer mailing will begin on January 24, 2005.

If you have any questions or concerns please contact me at (517) 543-6400 or e-mail [Kaoberli@spartanmotor.com](mailto:Kaoberli@spartanmotor.com)



Kelli A. Oberlin  
Compliance Administrator  
Spartan Chassis, Inc



## Spartan Chassis, Inc.

1165 Reynolds Road - Charlotte, MI - 48813

### 573 DEFECT & NONCOMPLIANCE REPORT

<b>Description:</b>	Bosch Hydraulic Disc Brakes with Zero Offset Pin Slide (ZOPS) Calipers
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<b>Internal Code:</b>	04011
NHTSA #	04V-311

<b>Date of Report:</b>	6/15/2004
<b>Date Of Update:</b>	1/18/2005

**Submitted to:** Associate Administrator for Safety Assurance  
National Highway Traffic Safety Administration  
400 Seventh Street, SW  
Washington, DC 20590

Attn: Mrs. Pat Wallace, Office of Defects Investigation  
Fax: (202) 366-7882

**Manufacturer Identification:** Spartan Chassis, Inc.  
1165 Reynolds Road  
Charlotte, MI 48813

Telephone: (517) 543-6400

#### Corporate contacts for recall information:

Customer Notification and Customer Service: Report prepared by:

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Compliance Administrator  
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Preparer's Signature: \_\_\_\_\_

*Kelli A. Oberlin*

## PART 573 Defect and Noncompliance Report

### I. IDENTIFY THE VEHICLE MODELS INVOLVED IN THE RECALL

#### 2. Identify the Vehicles Involved in the Recall:

<b>Make:</b>	Spartan Chassis, Inc.		
<b>Model:</b>	Summit, SIBFE, TB		
<b>Model Years Involved:</b>	1999 - 2002		
<b>Vehicle Type:</b>	Motor Home, School Bus, Transit Bus		
<b>Weight Range:</b>	From GVWR: 19,000	To GVWR:	30,000
<b>Weight Class:</b>	From Class: 5	To Class:	7
<b>Beginning VDM:</b>	2/25/1999	<b>Ending VDM:</b>	5/21/2002
<b>% Potentially Involved:</b>	100%		
<b>Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:</b>			
Vehicles built with Dana and Meritor front and rear axle containing Bosch hydraulic disc brakes with Zero Offset Pin Slide calipers.			

### II. IDENTIFY THE RECALL POPULATION

#### 3. Furnish the total number of vehicles recalled potentially containing the defect or non-compliance

MODEL	MODEL YEAR	No. POTENTIALLY INVOLVED
Summit	2000	30
	2001	84
	2002	24
School bus - Front Engine	1999	2
	2000	2
Transit Bus	1999	1
<b>TOTAL:</b>		143

#### 4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance.

**Approximate Defect Percentage:**                      100 %

**Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:**

All vehicles with the Dana and Meritor front and rear axle models that contained Bosch pin slide hydraulic disc brakes were selected.

**III. DESCRIBE THE DEFECT OR NONCOMPLIANCE**

**5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.**

Bosch has not determined a defect, but incidents of overheated brake components have been found on vehicles with hydraulic disc brakes with the ZOPS caliper.

**Describe the cause(s) of the defect or noncompliance condition.**

Bosch has decided that the presence of corrosion in the vicinity of the caliper seal land can contribute to reduced piston mobility in some cases and lead to performance issues causing overheating.

**Describe the consequence(s) of the defect or noncompliance condition.**

Possible overheated components may not allow the driver to stop safely. This overheating could also result in a vehicle fire.

**Identify any warning which can (a) precede or (b) occur.**

None other than inspection of the brake components for signs of overheating.

**If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address:**

Generic Component Name:	Hydraulic disc brake
Supplier Part Number:	Dana Model I-80 Front Axle Assy. Dana Model S-150 Rear Axle Assy. Meritor Model RS-19-145 Rear Axle Assy. Meritor Model RS-15-120 Rear Axle Assy.
Spartan Part Number:	0765-DD1-001 Front Axle Assy. 2001-DD4-478 Rear Axle Assy. 1927-DD4-002 Rear Axle Assy. 1828-DD4-001 Rear Axle Assy.
Supplier Corporate Name:	Dana Corporation
Address:	4500 Dorr Street Toledo, OH 43615
CEO or Knowledgeable Rep:	Mark Jeffrey 269-567-1119

**IV. PROVIDE THE CHRONOLOGY IN DETERMINING THE DEFECT/NONCOMPLIANCE**

*If the recall is for a defect, complete item 6, otherwise item 7*

**6. If defect, furnish a chronological summary with dates of all the principle events that were the basis for the determination of the defect. Include number of reports, accidents, injuries, fatalities, and warranty claims.**

The basis for the determination was the fact that recalls of this product had been filed by other manufacturers and some Spartan products contain the same components.

DATE	SO	DATE	SO	DATE	SO
11/5/2002	39333	7/8/2003	39667	11/19/2003	38122
11/27/2002	39664	7/8/2003	39806	1/21/2004	39022
4/7/2003	39671	7/24/2003	40106	3/1/2004	42014
5/28/2003	39332	9/8/2003	39335	4/22/2004	42015
6/2/2003	39337	11/14/2003	38117		

**7. If noncompliance, identify and provide the test results or other data in chronological order with dates on which the noncompliance was determined.**

**V. IDENTIFY THE REMEDY**

**8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.**

Replace brake calipers and pads per bulletin number RSB04-250-001.

**Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.**

Bosch has redesigned the brakes to remedy the situation.

**Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.**

Product discontinued on our vehicles in 2002.

**VI. IDENTIFY THE RECALL SCHEDULE**

**Furnish a schedule or agenda, with specific dates, for notification to other manufacturers, dealers/retailers, and purchasers. Please identify any foreseeable problems with implementing this recall.**

Customer mailing will begin on January 24, 2005.

<b>VII. FURNISH RECALL COMMUNICATIONS</b>
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**9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification.**

DOCUMENT DESCRIPTION	DATE AND MANNER SUBMITTED
Notification letter to other manufacturers	N/A
Draft Notification letter to purchasers	N/A
Press release (if applicable)	
Recall Service Bulletin (RSB)	RSB04-250-001 1/24/2005 Mailed
Notification envelope	Pre-approved
Notification letter to customer	01/24/2005 Mailed

*All documents to be faxed to 202-366-7882, then mailed.*

**The manufacturer's campaign identification number if not identical to the number assigned by NHTSA.**

The number assigned by NHTSA will be used to identify the campaign. Spartan's internal number for reference is SPEC 04011. NHTSA supplied number 04V-311



**SPARTAN CHASSIS, INC.**

**RSB04-250-001**

December 03, 2004

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

Spartan Chassis, Inc. has determined that a defect, which relates to motor vehicle safety, exists in Spartan Chassis models with a vehicle date of manufacture (VDM) between 02-01-1999 and 05-31-2002, equipped with Bosch ZOPS hydraulic disc brake calipers which may hang up, causing the brakes to overheat. The driver may feel that the brakes are dragging or sticking. The smell of overheating brake components could be noticed and there may be a reduction in braking power.

**Safety Repairs:**

The procedure contained in the recall safety bulletin must be performed at an authorized service center.

**Corrective Action:**

Replace brake calipers and pads. This service may be performed at a Spartan authorized service center, at no charge to you.

**What You Should Do:**

Call an authorized service center without delay. **You do not call Spartan Motors, Inc.** Find the facility most convenient to you on the enclosed list of Spartan Chassis authorized service centers and call that facility to make an appointment to have this recall implemented.

**Labor Time:**

The labor time required to install the kit applicable to your vehicle will be **6 hrs.** Due to some service scheduling times, your service center may need your vehicle for a longer period.

**Reply Card:**

Please fill out the enclosed prepaid postcard and mail it to us if you have changed your address or sold or traded the vehicle.

If the authorized service center has failed or is unable to remedy the defect without charge and within a reasonable time, contact Spartan Motors at **800-543-4277 using Option 1.**

You may also submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW, Washington, D.C. 20590 or call the Auto Safety Hotline at 888-327-4236.

We regret any inconvenience this service may cause you. Your safety and continued satisfaction with the quality and performance of your Spartan Chassis is of the utmost concern to us.



# SPARTAN CHASSIS, INC.

NHTSA # 04V-311

RSB04-250-001

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## RECALL SERVICE BULLETIN

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**SUBJECT:** Brakes Overheating

**APPLIES TO:** Spartan Chassis Models with a Vehicle Date of Manufacture (VDM) Between 02-01-1999 and 05-31-2002, Equipped with Bosch ZOPS Hydraulic Disc Brake Calipers.

**CONDITION:** Driver may feel brake caliper(s) 'hanging up' or 'dragging'; there may be a reduction in braking power; and/or passengers may smell the overheating of brake components.

**CAUSE:** Brake Calipers Sticking

**CORRECTION:** Replace brake calipers and pads.

**SPECIAL INSTRUCTIONS:**

The procedure contained in this bulletin must be performed within the guidelines of the most recently published version of the Bosch Pin Slide Disc Brakes Technical Service Manual, currently dated January-2004.

Order the appropriate kit based on vehicle application. One kit per vehicle.

**PLEASE READ THE ENTIRE BULLETIN BEFORE  
PROCEEDING WITH ANY WORK.**

**PART / SERVICE INFORMATION:**

Labor Hours: 6.0 Hrs.

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-1631-001	Kit- Bosch Caliper- Motor Home & Legacy Bus
1	S-1631-002	Kit- Bosch Caliper- Carpenter Bus

Technical Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of product specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedure safely and properly.



# SPARTAN CHASSIS, INC.

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## RECALL SERVICE BULLETIN

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### Kit S-1631-001 contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
4	0204062354	Bosch K2-66 Kit- Caliper assembly w/bleed screw
4	0204062356	Bosch K3 Kit- Guide pin boots, grease, brushes
4	0204062357	Bosch K4 Kit- Guide pin, locating pin, bolts
2	4153301	Brake Pads/Slippers (HX7A1)
1	RSB04-250-001	Document- Bulletin Instructions

### Kit S-1631-002 contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
4	0204062355	Bosch K2-73 Kit- Caliper assembly w/bleed screw
4	0204062356	Bosch K3 Kit- Guide pin boots, grease, brushes
4	0204062357	Bosch K4 Kit- Guide pin, locating pin, bolts
2	4153300	Brake Pads/Slippers (HX7A1)
1	RSB04-250-001	Document- Bulletin Instructions

### STEP-BY-STEP INSTRUCTIONS:

1. Observe all industry safety standards and secure vehicle to allow for replacement of the front and rear brake calipers two (2) per axle.

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- ◆ Instructions provided are for replacement of one caliper assembly with brake pads. Perform **ONLY ONE** caliper replacement at a time due to brake fluid reservoir volume.
  - ◆ Repeat the procedure for each of the three (3) remaining caliper assemblies.
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2. Remove and cap inlet brake line hose.
3. Remove and properly dispose of caliper mounting bolts and guide pins.
4. Remove and properly dispose of caliper assembly and brake pads.

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NHTSA # 04V-311

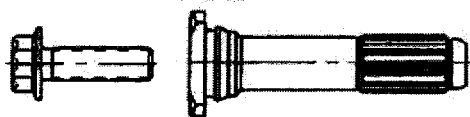
RSB04-250-001

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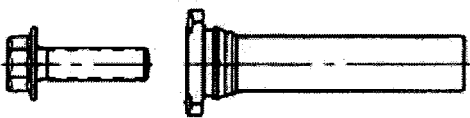
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## RECALL SERVICE BULLETIN

ZOH-T Caliper guide pins and mounting bolt after June 3, 2003

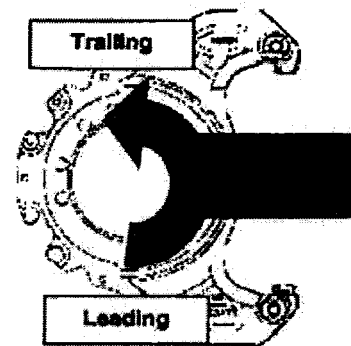


ZOH-T Trailing Guide Pin



ZOH-T Leading Guide Pin

**FIG. 2-1**



Definition of leading and trailing positions:

- Rotor rotation is for a vehicle moving forward.
- View rotor from outside of vehicle.

**FIG. 2-2**

5. Clean and prepare anchor plate.
6. Install leading and trailing pins.

Refer to FIG. 2-1. The rubber bushed guide pin is always installed in the trailing position. Refer to FIG. 2-2 for the definition of leading and trailing positions.

7. Position caliper assembly over leading and trailing pins.
8. Install both caliper mounting bolts **FINGER TIGHT**.
9. Torque the **LEADING** mounting bolt completely to 93 – 107 lb-ft (126-145 Nm).

**Note: The leading bolt is always tightened first.**

10. Torque the **TRAILING** mounting bolt completely to 93 – 107 lb-ft (126-145 Nm).
11. Install new inner and outer brake pads and slippers.
12. Reassemble brake hose retaining fastener, and caliper inlet line.
13. Bleed brakes when all calipers have been replaced.

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