



INTERNATIONAL TRUCK AND ENGINE CORPORATION
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06V-189

(4 pgs.)

TRUCK GROUP

May 24, 2006

Associate Administrator for Enforcement
 National Highway Traffic Safety Administration
 400 Seventh Street, S.W.
 Washington D.C. 20590

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 OFFICE OF DEFECTS
 INVESTIGATION

Subject: Vehicle Safety Defect Initial Information Report

Pursuant to Part 573.6 (c) (1), this Vehicle Safety Defect Initial Information Report is submitted to the National Highway Traffic Safety Administration by **IC Corporation, a wholly owned subsidiary of International Truck and Engine Corporation.**

(1) IDENTIFICATION OF VEHICLES [Part 573.6 (c)(2)]

- Vehicle Models Involved:
 - MY2004 thru 2007: CE and BE school busses
 - MY2004 thru 2007: 1300 and 3300 model vehicle chassis manufactured by IC Corporation for International Truck and Engine Corporation.
- Vehicle Manufacturing Dates:
 - 3/17/2004 thru 5/15/2006
- Other Identification Necessary to Describe Vehicles:
 - Having Feature Codes 4085 AND 4GAW (split hydraulic, full power brake system w/ power actuated park brake)

(2) VEHICLE POPULATION INVOLVED [Part 573.6 (c)(3)]

IC Corporation School Bus models:

Model	U.S. Quantity	Canadian Quantity	Export
BE Commercial BUS	1	0	0
BE School BUS	542	63	0
CE Commercial BUS	24	30	0
CE School BUS	8,882	2,122	1
Grand Totals	9,449	2,215	1

International Truck and Engine Corporation Bus chassis models:

<i>Model</i>	<i>U.S. Quantity</i>	<i>Canadian Quantity</i>	<i>Export</i>
1300 FBC	152	0	0
3300 BUS	222	321	83
Grand Totals	374	321	83

- (3) *PERCENTAGE OF VEHICLES ESTIMATED TO CONTAIN DEFECT [Part 573.6 (c)(4)]*
- All (100%) of the vehicles in the suspect population may contain the defect.
- (4) *DESCRIPTION OF DEFECT [Part 573.6 (c)(5)]*
- There are two specific defects that will be remedied by this field campaign:
 - The park brake system may activate while the vehicle is under normal operation. Although the vehicle is brought to a stop in a safe, controlled manner, the activation may occur without warning or input from the driver and may strand the vehicle in an active traffic lane.
 - A stranded vehicle may contribute to a vehicle crash, possibly resulting in property damage, personal injury, or death.
 - The spring applied, hydraulic release (SAHR) park brake actuator could experience a hydraulic lock condition that will not allow the park brake to apply.
 - A vehicle roll away can occur and may result in a vehicle crash, possibly resulting in property damage, personal injury or death.
- (5) *CHRONOLOGY OF PRINCIPAL EVENTS WHICH LED TO DETERMINATION OF A SAFETY DEFECT or TEST RESULTS THAT LED TO DETERMINATION OF NONCOMPLIANCE [Part 573.6 (c)(6)/(7)]*
- 6/15/2005 International Compliance is notified of an inadvertent application of vehicle park brakes, possibly attributed to corrosion in a harness connector.
 - 8/1/2005 International releases TSI 05-08-06R instructing dealers on how to troubleshoot, repair and weatherproof certain electrical connectors.
 - 8/2/2005 NHTSA receives a complaint regarding, “emergency brake locked up while bus was on route with school children doing 30 mph wit [sic] no warning,” and recommends a visit with the vehicle owner and International personnel.
 - 8/11/2005 Meeting at Dattco, Inc. (an International dealer) in Hartford, CT with vehicle owner, International and NHTSA representatives. Demonstrated difference between full rear wheel lock-up and the controlled deceleration of a park brake apply.

- 10/17/2005 International received first complaint that the park brake did not apply when the driver properly activated the park brake switch. No vehicle crash reported.
- 10/31/2005 Testing begun to determine cause of inadvertent park brake application and failure of parking brake to apply.
- 11/17/2005 International met with brake equipment supplier (Meritor Wabco) to begin discussions on possible system updates.
- 12/13/2005 Validation of potential system updates began.
- 4/10/2006 Testing completed. Cause determined to be one or more of the following contributing factors:
 - The brake electronic control unit (ECU) could not distinguish between a valid or erroneous park brake apply request due to electrical noise in the control circuit. Conditions that may contribute to the generation of electrical noise include:
 - Corrosion or chafing of electrical harnesses
 - Corrosion of harness connectors
 - Spread connector terminals and fretting corrosion of park brake switch connectors
 - Location of ignition input feed at key switch
 - A normal rise in environmental or operational temperature of the hydraulic fluid contained in the SAHR actuator may not allow its pressure release cut-off valve to open, effectively creating a hydraulic lock condition
- 4/11/2006 Transport Canada notified International they had received a complaint regarding, "...the parking brake self applied without prior warning... with the bus full of occupants at approximately 20 km/h," and that this vehicle was disabled to the point that it was, "... towed to the dealer for repairs."
- 5/9/2006 Meeting at Transport Canada, Ottawa, ON with International, Meritor Wabco, and Transport Canada representatives. System overview and vehicle demonstration of difference between full rear wheel lock-up and inadvertent application of the park brake.
- 5/15/2006 Issue contained at assembly plants. Began building vehicles with updated parts.
- 5/19/2006 International declares a Safety Recall.

(6) *PROGRAM TO REMEDY DEFECT [Part 573.6 (c)(8)]*

- There are several actions that will take place to remedy the above defects:
 - The brake ECU will be re-programmed.
 - An inspection and/or repair will be performed on engine and chassis harnesses where brake system circuits reside.
 - The dash mounted park brake switch will be replaced with an improved connector design.
 - Relocate the ignition input to the hydraulic pump unit from the key switch to an Ignition Power Relay.
 - Relocate half of the brake module power supply from the starter terminals directly to the battery terminals.

(7) *PLAN FOR REIMBURSEMENT [Part 573.6 (c)(8)(i)]*

- Some of the vehicles fall outside the warranty period; therefore, our plan for reimbursement of pre-notification remedies, on file and dated 8/30/2005, does apply.

(8) *SCHEDULE FOR RECALL NOTIFICATION [Part 573.6 (c)(8)(i)]*

- Notify International Dealers by: 7/7/2006
- Notify International Customers by: 7/14/2006

(9) *INTERNATIONAL RECALL NUMBER [Part 573.6 (c)(11)]*

- 06504 (NHTSA number not assigned yet)

The undersigned should be contacted for any additional information regarding this recall on (260) 461-1890.

Very truly yours,



R. L. Van Laar

Compliance Manager

INTERNATIONAL TRUCK AND ENGINE CORPORATION