



October 11, 2011

By Electronic Mail (rmd.odi@dot.gov)

Mr. Claude H. Harris
Acting Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attention: Recall Management Division (NVS-215)
1200 New Jersey Avenue
Washington, D.C. 20590

Re: Defect Information Report Relating to Ferrara Fire Apparatus' use of components found to be defective by the original manufacturer Meritor Wabco. (11E039000)

Mr. Harris:

Ferrara Fire Apparatus Inc. submits this defect information report in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act of 1966 and NHTSA's implanting regulations, 49 CFR 573. The enclosed report corresponds to the subparagraphs of 49 CFR §573.6(c) and covers approximately 104 vehicles that were either sold to customers or remains in our inventory as demonstration units as manufactured between April 2009 and October 2011. The defective Meritor WABCO ESC module may cause the ESC system to activate unnecessarily when the vehicle is driven in a particular manner on certain unique road conditions.

We trust that the information in this document is fully responsive to the requirements of 49 CFR §573.6. If there are any questions, please contact the undersigned.

Respectfully Submitted,

Kevin W. Word
Electrical Engineer
Ferrara Fire Apparatus Inc.
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Enclosure



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Defect Information Report – Section 573.6

October 11, 2011

§573.6(c)(1) – This report is submitted by:

**Ferrara Fire Apparatus Incorporated
PO Box 249
27855 James Chapel Road
Holden, Louisiana 70744**

§573.6(c)(2) – Identification of vehicle or items of motor vehicle equipment:

This report covers all Ferrara Fire Apparatus Inc. custom chassis' built with the Meritor WABCO Electronic Stability System (ESC) containing a defective ESC module identified as Meritor WABCO's part number 446 065 027 0. This ESC module contains a yaw rate sensor, a lateral accelerometer and stability control software that provides the ESC system with the necessary inputs to enable the ESC to determine the stability status of the vehicle in regards to rollover and loss of control (oversteer / understeer).

Make: Ferrara Fire Apparatus Inc.

Model Years Involved: 2009-2011

Model(s): Inferno / Igniter

VIN Range: See Section (3) for List

Vehicle Type: Fire Truck

Bodystyle: Custom



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§573.6(c)(3) – Identification of vehicle or items of motor vehicle equipment:

Production #	Customer	VIN #
H-3702	Goodlettsville Fire Department	1F95080379H140482
H-3731	Petroleos Mexicanos	1F95148289H140511
H-3839	Lafourche Parish FPD #3	1F95076388H140541
H-3999	Germantown Fire Department	1F95155288H140579
H-4000	Lake Conroe Fire Department	1F94042258H140584
H-4104	LaPlace Volunteer Fire Department	1F95055298H140609
H-4107	Buffalo Grove Fire Department	1F95083309H140612
H-4108	Old Fort Fire District	1F95055299H140613
H-4111	Scott Volunteer Fire Department	1F95055249H140616
H-4112	Ferrara Fire Apparatus Stock Unit	1F95055269H140617
H-4116	Pine Bluff Fire and Emergency Services	1F95083319H140621
H-4199	Nokesville Volunteer Fire & Rescue Department	1F94553239H140638
H-4273	Elmont Fire District	1F95149209H140663
H-4274	Provincetown Fire Department	1F94254259H140664
H-4275	Lake Conroe Fire Department	1F95064369H140665
H-4285	Bethpage Fire District	1F95244249H140668
H-4286	Bethpage Fire District	1F95244269H140669
H-4287	Bethpage Fire District	1F95244229H140670
H-4315	New Paltz Fire Department	1F94047289H140685
H-4323	Silver Lake Fire District	1F95183309H140686
H-4341	Windsor Volunteer Fire Department	1F94049279H140688
H-4356	North Lindenhurst Fire Company, Inc.	1F95180309H140689
H-4358	Fort Hood Fire & Emergency Services	1F93142219H140690
H-4363	St. John Westside Volunteer Fire Department	1F94247229H140692
H-4368	North Richland Hills Fire Department	1F95166389H140693
H-4371	Citrus County Department of Fire Rescue	1F95080309H140694
H-4395	Clinton Fire Department	1F95081329H140713
H-4400	Bayou Blue Fire Protection District	1F9424726AH140702
H-4417	Indianapolis Fire Department	1F9504727AH140718
H-4418	Indianapolis Fire Department	1F9504729AH140719
H-4427	Florence Fire Emergency Medical Service	1F9505526AH140721
H-4438	Marlborough Fire District	1F950472XAH140700
H-4450	Round Lake Fire Department	1F9424723AH140723
H-4452	Houma Fire Department	1F9507634AH140722
H-4454	Ferrara Fire Apparatus Stock Unit	1F9515321AH140724
H-4459	Quincy Fire Department	1F9505529AH140728
H-4461	San Angelo Fire Department	1F9424724AH140729
H-4469	Lexington Fire Department	1F9424720AH140730
H-4472	Howell Township Freewood Acres	1F9515323AH140742
H-4473	Howell Township Freewood Acres	1F9515427AH140743
H-4502	South Montgomery County Fire Department ESD #8	1F9505525AH140726



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H-4503	South Montgomery County Fire Department ESD #8	1F9505527AH140727
H-4515	El Mirage Fire Department	1F9504728AH140744
H-4516	Schenectady Fire Department, City of	1F9518032AH140746
H-4520	Arlington Fire District	1F9504729AH140753
H-4523	Cohanzie Fire Company #5	1F9505328AH140755
H-4529	Great Neck Vigilant Fire Company	1F9504522AH140757
H-4535	Pawling Fire District	1F950472XAH140759
H-4538	Algonquin-Lake in the Hills Fire Protection District	1F9508432AH140761
H-4539	Rescue Hook & Ladder Company #1 Roslyn	1F9504923AH140762
H-4552	Greenville Fire District	1F9524425AH140764
H-4652	Islip Fire District	1F9515428AH140816
H-4564	Algonquin-Lake in the Hills Fire Protection District	1F9425425AH140765
H-4565	Woodmere Volunteer Fire Department	1F9424424AH140766
H-4567	Shell Chemical LP/Geismer	1F9514824AH140767
H-4572	Evansville Fire Department	1F9508334AH140777
H-4577	Lake Charles Fire Department	1F9424725AH140769
H-4589	San Angelo Fire Department	1F9508134AH140779
H-4591	Pasadena Fire Department	1F9505622AH140780
H-4601	Ferrara Fire Apparatus Stock Unit	1F9424728AH140782
H-4602	Port Sulphur Volunteer Fire Department	1F942472XAH140783
H-4605	Mount Vernon Fire Department	1F950813XAH140785
H-4610	Jefferson Parish	1F942442XAH140786
H-4611	Jefferson Parish	1F9424421AH140787
H-4635	Schenectady Fire Department, City of	1F9424227AH140800
H-4636	Schenectady Fire Department, City of	1F9424229AH140801
H-4638	LSU Fire & Emergency Training Institute	1F9424521AH140805
H-4639	Magnolia Volunteer Fire Department	1F9504727AH140802
H-4640	Magnolia Volunteer Fire Department	1F9504729AH140803
H-4641	Magnolia Volunteer Fire Department	1F9504720AH140804
H-4643	Third District Volunteer Fire Department	1F9515520AH140811
H-4644	Third District Volunteer Fire Department	1F9515522AH140812
H-4648	Syncrude Canada LTD	1F9508535AH140817
H-4664	Ak-Chin Fire Department	1F950813XAH140818
H-4675	Indianapolis Fire Department	1F9508131AH140819
H-4676	Indianapolis Fire Department	1F9504423AH140820
H-4677	Indianapolis Fire Department	1F9504425AH140821
H-4678	Indianapolis Fire Department	1F9504427AH140822
H-4679	Indianapolis Fire Department	1F9424421AH140823
H-4680	Indianapolis Fire Department	1F9424423AH140824
H-4685	Ferrara Fire Apparatus Stock Unit	1F9508135BH140825
H-4686	Ferrara Fire Apparatus Stock Unit	1F9505629BH140826
H-4695	Atlantic Hook and Ladder	1F9557632BH140754
H-4706	Geyserville Fire Protection District	1F9424229AH140829
H-4710	DeSoto Fire District #8	1F9425120AH140810



H-4712	San Diego Rural Fire Protection District	1F9508130BH140828
H-4716	Boca Raton Fire-Rescue Services Department	1F9424828BH140832
H-4720	Amarillo Fire Department	1F9505628AH140833
H-4722	Amityville Volunteer Fire Department	1F9508638BH140830
H-4723	Amityville Volunteer Fire Department	1F9424429BH140831
H-4739	Oklahoma City Fire Department	1F9504421BH140834
H-4740	Oklahoma City Fire Department	1F9504423BH140835
H-4742	Tuscaloosa Fire & Rescue Service	1F9504223BH140837
H-4754	Southwest Harbor	1F9477730BH140840
H-4758	Lemont Fire Protection District	1F9425222BH140842
H-4791	Tiverton Fire Department	1F9424728BH140850
H-4792	Pemex (Refineria Tula)	1F9508138BH140849
H-4803	Honey Creek	1F952472XBH140854
H-4804	Honey Creek	1F9525520BH140855
H-4846	Mystic Island	1F9508338BH140878
H-4856	Indianapolis Fire Department	1F950442XBH140864
H-4857	Loweville	1F9505322BH140848
H-4877	Springfield	1F9424526BH140865
H-4887	Mechanicsburg	1F9508136BH140879

Ferrara Fire Apparatus Inc. has been informed that 100% of Meritor WABCO’s part number 446 065 027 0 have been found to be defective.

Total Number Potentially Affected by this Recall: 100% of 104 Units listed above

§573.6(c)(4) – Percentage of the Total number of vehicles estimated to contain the defect:

100% of the vehicles that have the Meritor WABCO Electronic Stability Control System installed fall under this recall.

§573.6(c)(5) – Description of the Defect

Meritor Wabco has determined that under certain unique road and driving conditions involving tight, successive, highly banked curves in opposite directions, vehicle body roll and road inclination characteristics may adversely affect the slip angle calculation by the ESC Module. This might cause the ESC system to perceive an oversteering situation and therefore apply the front axle outer wheel service brake until the vehicle is perceived to be stable by the ESC. This unnecessary brake intervention may pull the vehicle out of the curve, requiring the driver to counter steer to keep the vehicle on its intended path. If the driver is slow to react during this described unnecessary ESC intervention, the vehicle may deviate from its intended path. All known occurrences of this described condition have occurred on tight S-type curves that are highly banked above 6 degrees. The faster the vehicle is drive on this unique road condition, the tighter the curves and higher the bank, the more likely the occurrence of unnecessary oversteer brake activation by the ESC.



§573.6(c)(6) – Chronology of events

- September 7, 2011 – Ferrara Fire Apparatus was verbally notified by Meritor WABCO that an issue with an installation of ESC on a Freightliner chassis had come to light.
- October 10, 2011 – Ferrara Fire Apparatus was formally notified of the recall notification filing by Meritor WABCO.
- October 12, 2011 – Ferrara Fire Apparatus filed paperwork with NHTSA as required in 49 CFR §573.6

§573.6(c)(7) – Test results or data supporting non-compliance

Not applicable

§573.6(c)(8) – Description of remedy:

The corrective action is to replace the currently installed ESC module with a new version containing updated software capable of resolving the issue described. Following the replacement of the ESC module, the ESC system will require varying levels of calibration depending on the software level of the ABS ECU.

The following is an approximate time schedule for the program:

By October 31, 2011: Ferrara Fire Apparatus notification to affected customers

By December 15, 2011: Procure replacement ESC modules from Meritor WABCO.

By March 31, 2012: Complete recall campaign

§573.6(c)(9) – Remedy program involving replacement of tires:

Not Applicable

§573.6(c)(10) – Representative copy of notices, bulletins, etc.:

See following page for a copy of the notification letter that we will be sending to our customers.



[Date]

[First and Last Name]

[Title]

[Customer Name]

[Address]

[City], [State] [Zip code]

Re: Safety Defect Notice

11E039000 Meritor WABCO Recall Number [Campaign #] Meritor WABCO Campaign Number

Dear Customer:

Ferrara Fire Apparatus Inc. has been notified by Meritor WABCO that a defect, which relates to motor vehicle safety, exists in units with Electronic Stability Control Systems (ESC) installed. Our records indicate your vehicle has received one of the suspect ESC modules. The purpose of this letter is to inform you of our plan for addressing this defect.

What the defect is and the risks involved in vehicle safety:

Meritor Wabco has determined that under certain unique road and driving conditions involving tight, successive, highly banked curves in opposite directions, vehicle body roll and road inclination characteristics may adversely affect the slip angle calculation by the ESC Module. This might cause the ESC system to perceive an oversteering situation and therefore apply the front axle outer wheel service brake until the vehicle is perceived to be stable by the ESC. This unnecessary brake intervention may pull the vehicle out of the curve, requiring the driver to counter steer to keep the vehicle on its intended path. If the driver is slow to react during this described unnecessary ESC intervention, the vehicle may deviate from its intended path. All known occurrences of this described condition have occurred on tight S-type curves that are highly banked above 6 degrees. The faster the vehicle is drive on this unique road condition, the tighter the curves and higher the bank, the more likely the occurrence of unnecessary oversteer brake activation by the ESC.

What Ferrara Fire Apparatus is doing to resolve this issue.

Once the required replacement ESC modules have been procured, a Ferrara Fire Apparatus Inc. field service technician will visit your location to replace the defective module and recalibrate the ESC system. Replacement ESC modules should be available to Ferrara Fire Apparatus by Meritor WABCO by November 30, 2011. Your vehicle will be attended to as quickly as possible thereafter.

Any questions pertaining to this Safety recall should be directed to Charlie Grimes @ 225-567-7100 Ext. 3011
Or charlieg@ferrarafire.com

Sincerely,

Kevin W. Word
Electrical Engineer
Ferrara Fire Apparatus Inc.