

**Steve Beckman**  
General Manager, Pumps and Modules, North America

October 12, 2006

Kelly Schuler  
Recall Division  
NVS - 215  
National Highway Traffic Safety Administration  
400 7th Street, SW  
Washington, D.C. 20590

RECEIVED  
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NHTSA

Re: 49 CFR Part 573 Notice

Dear Ms. Schuler:

On October 6, 2006, TI Group Automotive Systems, L.L.C. ("TIGAS") determined that a defect that relates to motor vehicle safety may exist in certain items of motor vehicle aftermarket equipment sold by TIGAS and described herein, and hereby furnishes notice to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573.

TIGAS's responses to 49 CFR 573.6 (c) (1)-11 are as follows:

1. TI Group Automotive Systems, L.L.C. (TIGAS). TIGAS is a contract manufacturer of the parts in question and does not market the parts directly to end consumers. TIGAS's customers market the parts in question under various brand names, including MOPAR, CARTER, AIRTEX, and others.
2. The parts in question are aftermarket fuel pump modules produced at the TIGAS Caro, Michigan manufacturing facility during the period commencing June 1, 2006 through September 24, 2006, for use in 1995-2000 Chrysler Sebring, Plymouth Breeze, Stratus and Dodge Cirrus vehicles, and 1996-2000 Chrysler Corporation minivans and all model years Chrysler Prowler vehicles (the "Modules"). See Exhibit A for a list of TIGAS part numbers and the customers to whom TIGAS sold the Modules.

The determination to include only the Modules within this notice is based upon the following facts:

- a. The root cause of the potential failure mode is the use of out-of-specification polymer materials produced by a Tier 3 supplier (DSP) to manufacture a "flapper valve" component sold by Gasko Fabricated Products to TIGAS for use in the specific fuel pump module part numbers referenced in Exhibit A.

b. As a result of its investigation, TIGAS was able to determine the amount of out-of-specification polymer material, the number of component parts which contained the out of specification material, and the date and lot numbers of the non-conforming parts that were shipped to TIGAS.

Further investigation indicated the TIGAS production dates during which these parts were installed in specific TIGAS fuel pump modules.

c. Based on the investigations, TIGAS has determined that only fuel pump modules manufactured from June 1, 2006 through September 24, 2006 bearing the specific part numbers set forth in Exhibit A potentially contain the Gasko component manufactured from the out-of-specification DSP material.

2.(i)-(ii) Not applicable.

2.(iii) See response to 2 and Exhibit A.

2.(iv) The component at issue in the above-referenced Modules is a flapper valve, which functions to contain fuel in the reservoir of the pump module while the vehicle is not operating.

The manufacturer of the flapper valve is:

Gasko Fabricated Products Co.  
4940 Ridge Rd.  
Medina, OH 44256  
(330) 239-1781

The manufacturer of the raw material used in manufacture of the flapper valve is:

Diversified Silicone Products  
13937 Rosecrans Ave.  
Santa Fe Springs, CA 90670

2.(v) Not applicable. The Modules were sold into the automotive aftermarket (dealer service and independent aftermarket) only.

3. See Exhibit A.

4. TIGAS estimates, based on the lot analysis conducted by TIGAS and the component supplier, that approximately 65% of the Modules identified in Exhibit A may contain components manufactured with the out of specification raw material.

5. The condition observed in the field is typically fuel starvation that may lead to a stall, rough running or no start situation. There have been no accidents or injuries reported to TIGAS as a result of the observed condition as of the date hereof.

Initial testing and investigations of returned parts from Chrysler dealerships that had replaced fuel pump modules using the Modules since July 2006 did not suggest a common condition or any failures at all for that matter. Further investigation of a returned Module in Minnesota ultimately revealed that the flapper valve at the bottom of the Module was "swollen", which condition restricted the flow of fuel to the fuel pump. The flapper valve acts to prevent fuel from leaking out of the bottom of the fuel pump module reservoir when the vehicle is not operating, but is designed and intended to allow the flow of fuel into the module from the tank while the vehicle is in operation. When the flapper valve is swollen, it blocks the opening at the bottom of the pump module and does not allow unrestricted flow of fuel into the fuel pump.

Investigations conducted at the supplier of the flapper valve, Gasko Fabricated Products (Gasko), and the supplier of the raw material to Gasko, Diversified Silicone Products (DSP), determined that on one occasion an operator at DSP mixed the wrong types of silicone into a batch shipped to Gasko. Dimethylsilicone was mistakenly mixed in place of fluorosilicone. The former has different swell properties when subjected to fuel and the resulting flapper valve manufactured from this out-of-specification mix exhibits swell properties which are out of tolerance to the ASTM specification.

6. A summary chronology of events leading to this notice:

August 24, 2006: The first field reports indicating an issue with the Modules were received by TIGAS. A Chrysler dealer reported multiple replacements of fuel pump modules on a single vehicle. The affected parts were returned to TIGAS for analysis. Initial analysis and testing of the parts by TIGAS showed no trouble found.

September 15, 2006: Tests were conducted by TIGAS on DCX "fleet" car with no problems reported or observed.

September 22, 2006: Additional parts were returned to TIGAS from customer inventory and tested. Again, no trouble found.

September 22, 2006: TIGAS engineering begins soak test of a flapper valve from one of the returned modules and a flapper valve out of TIGAS inventory from 2005. The returned flapper valve swelled to closure within 2 hours. No trouble found with older flapper valve.

September 25, 2006: These findings were duplicated in a flapper valve taken from a pump module returned from a Minnesota dealer.

September 25, 2006: TIGAS contacted flapper valve supplier (Gasko) and requested lot information, material certification documentation and soak test.

September 29, 2006: Supplier (Gasko) reported that analysis after independent lab testing showed that silicone material used in manufacture of flapper valve was out-of-specification, leading to excess swell of the flapper valve.

October 6, 2006: TIGAS determined to notify customers of potential problem with flapper valve with request to contain and return parts for rework or replacement.

7. Not applicable.

8.(i) On October 6, 2006, TIGAS initiated a customer notification process whereby all the customers identified on Exhibit A have been notified of the issue and containment actions have been initiated. TIGAS has requested that those customers to whom it has shipped Modules (marketers and manufacturers of aftermarket parts or original equipment service parts): (a) immediately take necessary steps to contain all Modules (based on shipment date to the customer) which the customer may still have in its inventory or control, and (b) notify their customers (distributors, retailers, car dealerships) to quarantine and return their inventory of the Modules shipped during the applicable window, in accordance with usual return procedures. All units so contained or returned will be quarantined for physical inspection by TIGAS for manufacture date and replaced with new or reworked (replacement of the flapper valve) fuel pump modules as required. Within 3-4 weeks of the initiation of this containment and return program, TIGAS can make a more accurate determination of what additional Modules need to be located in the field.

8.(ii) Representative written communications regarding notice and containment from TIGAS to our customers are attached as Exhibit B1, B2 and B3. A version of this communication was sent to all customers listed on Exhibit A. These communications were sent on October 6, 9 and 10, 2006. TIGAS anticipates additional communications will be forthcoming.

8.(iii) Not applicable.

8.(iv) Not applicable

9. Not applicable.

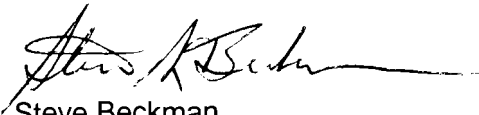
10. See 8(ii).

TIGAS will assign the NHTSA identification number to this campaign.

Please address any questions or other communications regarding this matter to the undersigned at the phone number and address set forth above.

Very truly yours,

**TI GROUP AUTOMOTIVE SYSTEMS, L.L.C.**



Steve Beckman  
General Manager, Pumps and Modules, North America

SB:lkp  
Enclosures

cc: B Lindsay  
W Laule  
T Guerriero

## EXHIBIT A

### LIST BY CUSTOMER OF ALL MODULES WITH POTENTIAL NON CONFORMING FLAPPER VALVE SHIPPED JUNE 1, 2006-SEPTEMBER 24, 2006

*Customer Independent		TIGAS P/N								Totals
		TU144	TU111	TU117	TU174					
1		4100	4350	15526	272					24248
2		1800	1360	880	37					4077
3		340	420	990	10					1760
4			113	1260						1373
5	Export only	20	180	470						670
6		72	84	360						516
7	Export only	30	144	288						462
8	Export only	55	99	208						362
9	Export only		210	148						358
10	Export only		55	100	2					157
11	Export only	4	40	25						69
12		4		60						64
13	Export only	3		59						62
14	Export only	4	3	41						48
15			22							22
16		5		12						17
17	Export only			16						16
18				10						10
19		2	1	5						8
20	Export only			5						5
21				3						3
<b>OE Service</b>		<b>FM909</b>	<b>FM941</b>	<b>FM994</b>	<b>FM952</b>	<b>FM972</b>	<b>FM973</b>	<b>FM995</b>		
22		600	4300	36	2500	250	1300	0		4936
<b>TOTAL</b>										<b>39243</b>

\*Customer specific information is available and can be provided if necessary  
subject to receipt of confidentiality treatment under 49 CFR 512

EXHIBIT B-1

October 6, 2006

Dear [Independent Aftermarket Customer],

TI Automotive has identified a component issue that could affect vehicle performance and safety. This component is used in fuel pump module part numbers [reference customer part number here] manufactured between June 1, 2006 and September 24, 2006.

TI Automotive requests that you immediately locate and contain all units shipped to you between June 1, 2006 and September 24, 2006 as included below:

<u>Part Number</u>	<u>PO#</u>	<u>Quantity</u>	<u>Ship date</u>
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The root cause has been identified as component raw material formulation error by a Tier 3 supplier relating to a fluorosilicone fuel flow valve used in the modules. The incorrect material mix will allow the valve to excessively swell when exposed to fuel.

The swollen valve may restrict the fuel as it enters the bottom of the module. The effects on module performance will vary depending on tank fuel level. If the fuel level in the tank is above the reservoir level of the fuel pump module, the vehicle should not experience any issues. However, as the fuel level drops the vehicle may experience loss of power and/or engine stall in time.

TI Automotive will work with you and your customers to obtain and repair or replace the affected units. Our representatives will contact you directly to develop a specific containment, return and replacement policy based on the specific characteristics of your distribution channel

It is important that we confirm how these part numbers move through your distribution channel and the number of the units which have left your inventory. We also need to confirm how to identify and notify your customers in a timely fashion.

TI Automotive will be notifying the National Highway Traffic Safety Administration of this event, and we anticipate a formal voluntary recall of these products will be undertaken.

Lots shipped to you prior to June 1, 2006 and after September 24, 2006 are suitable for use.

Thank you for your cooperation. Please contact me immediately if you have any questions.

Mel Todd  
TI Automotive

EXHIBIT B-2

October 9, 2006

Dear [OE Service Customer],

TI Automotive has identified a component issue that could affect vehicle performance and safety. This component is used in fuel pump module part numbers [reference customer part number here] manufactured between June 1, 2006 and September 24, 2006.

TI Automotive requests that you immediately locate and contain all units shipped to you between June 1, 2006 and September 24, 2006 as included below:

<u>Part Number</u>	<u>PO#</u>	<u>Quantity</u>	<u>Ship date</u>
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The root cause has been identified as component raw material formulation error by a Tier 3 supplier relating to a fluorosilicone fuel flow valve used in the modules. The incorrect material mix will allow the valve to excessively swell when exposed to fuel.

The swollen valve may restrict the fuel as it enters the bottom of the module. The effects on module performance will vary depending on tank fuel level. If the fuel level in the tank is above the reservoir level of the fuel pump module, the vehicle should not experience any issues. However, as the fuel level drops the vehicle may experience loss of power and/or engine stall in time.

TI Automotive will work with you and your customers to obtain and repair or replace the affected units. Our representatives will contact you directly to develop a specific containment, return and replacement policy based on the specific characteristics of your distribution channel

It is important that we confirm how these part numbers move through your distribution channel and the number of the units which have left your inventory. We also need to confirm how to identify and notify your customers in a timely fashion.

TI Automotive will be notifying the National Highway Traffic Safety Administration of this event, and we anticipate a formal voluntary recall of these products will be undertaken.



Lots shipped to you prior to June 1, 2006 and after September 24, 2006 are suitable for use.

Thank you for your cooperation. Please contact me immediately if you have any questions.

Mel Todd  
TI Automotive

EXHIBIT B-3

October 10, 2006

Dear [Customer],

Further to my letter of October 6, 2006 we have identified an additional part. I have indicated those shipments in red. All information in this letter applies to these parts also. I apologize for any confusion this may cause.

TI Automotive has identified a component issue that could affect vehicle performance and safety. This component is used in fuel pump module part numbers [reference customer part number here] manufactured between June 1, 2006 and September 24, 2006.

TI Automotive requests that you immediately locate and contain all units shipped to you between June 1, 2006 and September 24, 2006 as included below:

<u>Part Number</u>	<u>PO#</u>	<u>Quantity</u>	<u>Ship date</u>
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The root cause has been identified as component raw material formulation error by a Tier 3 supplier relating to a fluorosilicone fuel flow valve used in the modules. The incorrect material mix will allow the valve to excessively swell when exposed to fuel.

The swollen valve may restrict the fuel as it enters the bottom of the module. The effects on module performance will vary depending on tank fuel level. If the fuel level in the tank is above the reservoir level of the fuel pump module, the vehicle should not experience any issues. However, as the fuel level drops the vehicle may experience loss of power and/or engine stall in time.

TI Automotive will work with you and your customers to obtain and repair or replace the affected units. Our representatives will contact you directly to develop a specific containment, return and replacement policy based on the specific characteristics of your distribution channel

It is important that we confirm how these part numbers move through your distribution channel and the number of the units which have left your inventory. We also need to confirm how to identify and notify your customers in a timely fashion.

TI Automotive will be notifying the National Highway Traffic Safety Administration of this event, and we anticipate a formal voluntary recall of these products will be undertaken.

Lots shipped to you prior to June 1, 2006 and after September 24, 2006 are suitable for use.

Thank you for your cooperation. Please contact me immediately if you have any questions.

Mel Todd  
TI Automotive