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OFFICE OF DEFECTS INVESTIGATION
RECALL MGMT DIV.

08T-028
(10 pages)

Safety Defect and Noncompliance Report Guide for Equipment

On December 5, 2008, Dill Air Controls Products, LLC ("Dill") concluded that a defect which relates to motor vehicle safety exists in items of motor vehicle equipment listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Responsibility and Reports.

Date this report was prepared: December 5, 2008

Furnish the manufacturer's identification code for this recall (if applicable): N/A

1. Identify the full corporate name of the fabricating manufacturer/brand name/trademark owner of the recalled item of equipment. If the recalled item of equipment is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

The snap-in rubber valve stems at issue in this recall were imported by Dill. The valve stems at issue were manufactured by Topseal (Shanghai) Auto-Parts Co., Ltd. ("Topseal"). Topseal's general manager is Charles Zhang, 71 Maosheng Rd., Dongjing Town, Songjiang District, Shanghai 201619, China.

Dill is not aware of any agent formally designated by Topseal under 49 U.S.C. § 30164 or otherwise.

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

Brian Rigney
General Manager
Dill Air Controls Products

Telephone Number: 919-692-2300 **Fax No.:** 919-692-2301

Name and Title of Person who prepared this report.

John M. Alten, Esq.
Counsel for Dill Air Controls
(216) 583-7000

Signed: Brian Rigney

I. Identify the Recalled Items of Equipment

2. Identify the Items of Equipment Involved in this Recall.

Generic name of the item: Rubber snap-in valve stems for tires

Make: Dill ACP

Model/Part Number: TR-413/T-13-WZ
TR-413-chrome/T-13-WZS
TR-414/T-14-WZ
TR-418/T-18-WZ

Function: The stems/valves are used as a means to inflate and deflate tires.

Production Time Period Involved: Two lots manufactured by Topseal in July 2006. (A lot is approximately one week's worth of production.)

Other information which characterizes/distinguishes the items of equipment to be recalled:

Valves typically are shipped by Dill in boxes containing information from which the production date can be discerned. The valves themselves bear no identification demonstrating a production date.

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996, through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period?

Based on field returns and testing data, Dill believes that the number of valves from the two suspect lots subject to increased cracking risk is 200,000 or fewer out of a total production of 1.8 million pieces in the suspect lots. However, due to the lack of traceability of these parts (see discussion below), the recalled population necessarily includes many more valves than are within the suspect lots and actually likely to contain the defect.

II. Identifying the Recall Population

3. Furnish the total number of items of equipment recalled potentially containing the defect or noncompliance.

Model	Year	Number of Potentially Involved
TR 413/T-13-WZ	2006	1,272,727
TR-413-chrome/T-13-WZS	2006	172,727
TR-414/T-14-WZ	2006	90,909
TR-418/T-18-WZ	2006	263,636

Total Number Potentially Affected by the Recall: 1,800,000

4. Furnish the approximate percentage of the total number of items of equipment estimated to actually contain the defect or noncompliance:

Based on field returns and testing data, Dill believes that the number of valves from the two suspect lots subject to increased cracking risk is 200,000 or fewer out of a total production of 1.8 million in the suspect lots, or about 11 percent of the suspect lots.

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 items of equipment:

Including (but not limited to) in connection with NHTSA PE 08-036 and EA 08-022, Dill has undertaken substantial investigation regarding complaints that certain Dill ACP-brand rubber snap-in valves have shown evidence of cracking due to ozone-related deterioration outside of the Dill warranty period but earlier than typical for this product.

Dill and Topseal have engaged independent rubber engineering experts to, among other things, perform mass spectrometry analysis on samples from lots in the June 2006-November 2006 production time period. In particular, this analysis revealed that two lots produced by Topseal in July 2006 demonstrated substantially different chemical properties than samples from other control periods. Topseal also advised Dill that, in or around the suspect time period, Topseal had changed the distributor from which it bought the anti-ozone chemical agent used in the rubber compound. Dill believes that the rubber for the suspect lots, or portions thereof, was compounded using anti-ozone chemicals that did not meet specifications or expectations. Dill has also gathered claims data and interviewed most or all of its customers on an ongoing basis in connection with the voluntary customer-satisfaction program Dill initiated in May 2008.

Because of variables in the chain of distribution of the suspect valves – including the shipping time(s) from Topseal to Dill, the shipping time from Dill to its customers, and the time and manner each customer handles its inventory and its distribution to retail stores – and because the date of manufacture of the valves is not discernible once the

valve has left the box in which it is shipped, it is impossible to identify precisely the time period in which the recalled valves could have been initially installed on automobiles. Using data supplied by customers as part of the Dill customer-satisfaction program, Dill has determined that identifying the recall population by an installation period of November 2006 through July 2007 will include the vast majority of the suspect valves.

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.

The recalled valves appear more vulnerable to cracking caused by ozone-exposure degradation of the rubber than is typical. Cracking appears above the indicator ring at the point where the valve is most stressed during revolution at higher speeds.

Illustrations and further information can be accessed at www.tirevalverecall.net on the Internet.

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

Dill cannot confirm the precise cause of the defect, but Dill believes that the rubber used in the suspect lots, or portions thereof, was compounded using anti-ozone chemicals that did not meet specifications or expectations.

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

Analysis undertaken by Dill and its independent engineers, as well as the data supplied by Dill customers as part of Dill's customer-satisfaction campaign, suggests that valves containing this defect will show visible evidence of cracking within a month or two of use but that the propagation of a visible crack to the point where the crack could actually leak air takes several additional months or more. Leaks are expected to lead to a decrease in tire pressure over time based on driving habits. Tires that fail to maintain proper pressure can become damaged, and driving on damaged tires can result in a sudden loss of vehicle control.

Not all valves in the suspect period demonstrate ozone cracking, and not all valves subject to cracking would necessarily leak air. In order to try to replicate in ozone-chamber testing the degree of cracking reported by some consumers, Dill had to increase the exposure variables to levels substantially in excess of those contained in SAE J1206/1205.

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

Visual inspection of the valve stems would identify cracking. As noted above, Dill believes cracking would be visible for at least several months before cracking progressed to the point of leaking any air. Based on this analysis, any tires currently in service from

the recalled lots already would be showing visible signs of cracking. Tire deflation may occur over time.

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

The valves were purchased by Dill from Topseal, 71 Maosheng Rd., Dongjing Town, Songjiang District, Shanghai 201619, China.

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

Topseal's general manager is Charles Zhang.

IV. Provide the Chronology in Determining the Defect/Noncompliance

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

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

In late July 2007, one retail customer who installed Dill ACP-brand rubber snap-in valves reported that his retail stores were seeing higher-than-normal reports of tire deflation after use. Dill's investigation at that time did not identify any widespread concern with leaks from Dill's valves, but Dill reported the information to Topseal and Topseal undertook certain actions to ensure that production going forward maintained expected resistance to ozone deterioration. These actions included adjusting the proportion of natural rubber in the rubber mix for the valves and increasing the number of ozone tests being run on production samples.

Throughout the fall and winter of 2007-2008, Dill continued to monitor its customer complaints regarding any similar reported problems. Throughout this time period, customers reported occasional instances of valves leaking, but these were described as instances of inconvenience that resulted in an underinflated tire and/or valve replacement. Several of these reports, it turned out, involved valves distributed under competitors' brand names. These reports were not unusual in kind or number in the industry. (Dill estimates that there are 220 million Dill-brand valves on vehicles in service in the United States at this time, and the initial reports of tire deflations were not considered statistically significant.) There were no reports of accidents or injuries claimed to be related to Dill ACP valve cracks.

In early April 2008, Dill was named as a defendant in a civil lawsuit filed after an Orlando, Florida-area resident, Robert Monk, was killed in a rollover crash of a Ford Explorer he was driving. That lawsuit is still ongoing. This is the only accident of which Dill is aware where it is claimed that a Dill ACP valve contributed to an automobile

accident. At about the same time, Dill began seeing an increase in the number of reports from the field regarding ozone cracking in valve stems.

Shortly after receiving notice of the Monk lawsuit, Dill advised the National Highway Transportation Safety Administration of the Monk lawsuit and the increased reports of cracking in valves apparently caused by ozone deterioration. In early May, Dill announced its customer-satisfaction program. This program included a request for Dill's customers to return any valves with a Year 2006 production code from customers' inventory. Dill also advised its customers to inspect valve stems when motorists come into stores for service and to replace any valve stems showing signs of cracking. Throughout the May-September 2008 time period, Dill collected samples gathered from the customer program for analysis by Dill and by Dill's independent outside engineers. Dill also communicated with Dill's customers regarding field reports and the Dill customer-satisfaction program, and reported this information to Topseal. Dill also communicated with NHTSA regarding these issues as part of the agency's Preliminary Evaluation and Engineering Analysis of the subject valves.

To date, Dill has received returns of approximately 17,500 cracked valves as part of the Dill customer-satisfaction program initiated in May. These valves have been replaced pursuant to Dill's customer program notwithstanding the fact that any cracking occurred outside of Dill's warranty period.

Dill is undertaking the current voluntary recall as a cautionary measure.

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

N/A

V. Identify the Remedy

8. A description of the manufacturer's program for remedying the defect or noncompliance. This program shall include a plan for reimbursing an owner or purchaser who incurred costs to obtain a remedy for the problem addressed by the recall within a reasonable time in advance of the manufacturer's notification of owners, purchasers and dealers, in accordance with §573.13 of this part. A manufacturer's plan may incorporate by reference a general reimbursement plan it previously submitted to NHTSA, together with information specific to the individual recall. Information required by §573.13 that is not in a general reimbursement plan shall be submitted in the manufacturer's report to NHTSA under this section. If a manufacturer submits one or more general reimbursement plans, the manufacturer shall update each plan every two years, in accordance with §573.13. The manufacturer's remedy program and reimbursement plans will be available for inspection by the public at NHTSA headquarters.

Dill will advise consumers who believe that they may have received Dill valve stems in the time period November 2006 through July 2007 (and who have not received new valve stems or tires in the interim) that they should have their valve stems inspected for cracks. These inspections can be done by the retail tire center at which the stems were acquired or, if that center is not available, at participating national dealers to be listed on the recall website and toll-free call-in number. Any Dill valve stems that show signs of cracking will be replaced at no cost to the consumer. A consumer who is otherwise entitled to a replacement will not be denied a replacement based solely on that fact that he or she lacks documentation of the date of his/her valve stems' initial installation.

Dill will issue video and print news releases and undertake other publicity to advise drivers of the recall. Dill will also set up appropriate telephone and Internet support for the recall.

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

Valve stems will be inspected, and any valve stems that show signs of cracking will be replaced at no cost to the consumer.

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

Once installed, there is no practical way to distinguish earlier- or later-produced Dill ACP-brand valves from valves manufactured in the suspect time period.

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.

In August 2007, the ratio of natural rubber to EPDM in Dill ACP valve stems was modified by Topseal. With a higher percentage of EPDM, testing showed that the valves exhibited sufficient ozone resistance regardless of the efficacy of the separate anti-ozone chemical agent. Topseal also changed the distributor from which it purchased the anti-ozone chemical agent and invested in an automated compounding machine to further ensure the rubber is mixed properly with all of the necessary components. Topseal and Dill both have increased their programs to test ozone resistance on an in-process basis, and Dill is confident that the ozone-resistance concern has been remedied in all production.

VI. Identify the Recall Schedule

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

Dill plans to issues its news releases and begin its other publicity activities on December 9, 2008. Due to the nature of the product, the lack of identifying markings on the recalled population, and the inability to trace specific production lots to end consumers, the recall necessarily will be overinclusive.

VII. Furnish Recall Communications

11. 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 (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. ***A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.***

Note: These documents are to be submitted separately from those provided in accordance with Part 579.5 requirements.

See the attached news release and Web customer advisory, which we plan to distribute on December 9, 2008.

Dill Air Controls Products Announces Voluntary Recall of Automobile Tire Stem Valves

OXFORD, NC—DECEMBER 9, 2008—Today, Dill Air Controls Products announced the voluntary recall of automobile tire stem valves sold in the United States between November 2006 and July 2007. The snap-in rubber valve stems, manufactured by Topseal (Shanghai) Auto-Parts Co., Ltd., in Shanghai, China, and imported and distributed by Dill Air Controls Products LLC ("Dill") under the "Dill ACP" brand name, may lack the required additive to protect the rubber against deterioration from ozone exposure. As a result, affected valve stems, when subjected to high levels of ozone, may weather and crack earlier than normal for this product. Over time, such a crack could progress to the point that it leaks air resulting in a loss of tire pressure. Loss of tire pressure can result in a flat tire and/or loss of vehicle control.

Dill advises all consumers that have either bought new tires or had their tires rebalanced between November 2006 and July 2007 to inspect their rubber tire valves for cracks. Any valve from this time period will be replaced at no cost to the consumer. Dill-brand valves are sold with a distinctively shaped cap.

Consumers can check their own valves by flexing the valve (where one inflates the tire) outwards toward the tire and inspecting the area where the valve meets the tire rim, or they can simply return to the place they purchased their tires for professional inspection. Data collected to date indicates that, by this time, cracking will be visible on any of the recalled valves likely to exhibit cracking. If consumers are unable to return to the point of purchase, they can have their valves inspected at any participating Sears Automotive Center, Merchants Tire, Tire Kingdom, Big O, NTB or Les Schwab location. For more information and a complete list of national chains participating in the recall, please visit www.tirevalverecall.net or call 888-364-2982.

Dill believes the problem relates to two specific lots manufactured in July 2006. Based on field returns and testing data, Dill believes that the number of valves from the two suspect lots subject to increased cracking risk is 200,000 or fewer. However, the valve stems are not traceable by lot number once the stem is installed; in that light, the recall necessarily includes many more valves than are likely to contain the defect. Consumers who are unsure if their current valve stems were purchased during the recall period should have their valves inspected.

Dill and Topseal have taken numerous corrective actions to prevent a recurrence of this problem, including using an enhanced rubber compound, using an automated inspection system to ensure all additives are mixed properly, performing more testing of the valves in the United States, and re-establishing production of Dill-brand valve stems made in the United States.

If consumers experience any difficulty in connection with this recall, they can call the National Highway Traffic Safety Administration Auto Safety Hotline at 1-888-327-4236.

Dear Consumer:

This notice is being provided in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Dill Air Controls has determined that a defect related to vehicle safety exists in certain Dill ACP-brand rubber snap-in valves (models TR-413, TR-413-chrome, TR-414, and TR-418) manufactured in July 2006 and sold between November 2006 and July 2007.

What is the problem?

The rubber snap-in valves may develop cracks and leak air due to a lack of resistance to ozone deterioration. Tires that fail to maintain proper pressure can become damaged, and driving on damaged tires can result in a loss of vehicle control.

What will Dill do?

Dill will replace, at no cost to you, any Dill ACP-brand rubber snap-in valves that have visible cracks.

What should you do?

Consumers can check their own valves for cracking by flexing the valve (where you inflate the tire) outwards toward the tire and inspecting the area where the valve meets the tire rim, or they can simply return to the retailer from which they purchased their tires for professional inspection. If consumers are unable to return to the point of purchase, they can have their valves inspected at any participating Sears Automotive Center, Tire Kingdom, Big O, Les Schwab or Canadian Tire location. More information, further guidance on how to inspect for cracks and a complete list of national chains participating in the recall can be found at www.tirevalverecall.net.

Consumers should continue to check the inflation in the tires regularly to ensure proper inflation according to tire/vehicle standards. When checking tire pressure, consumers should perform a visible inspection of the tire and valve stem for cracks or other unusual wear.

What if you have any other questions?

If you have any questions or concerns, please go to www.tirevalverecall.net or call 888-364-2982. If you have any concerns or complaints about the recall process, you can also call the National Highway Traffic Safety Administration's toll-free Auto Safety Hotline at 888-327-4236 or write to the NHTSA Administrator, 400 Seventh Street S.W., Washington, D.C. 20590.

Dill Air Controls appreciates your cooperation in this campaign.

Dill Air Controls Products, LLC