

Safety Defect and Noncompliance Report Guide for Equipment
PART 573 Defect and Noncompliance Report¹

On April 27, 2010, Fabtech Industries [MFR] decided that (a defect which relates to motor vehicle safety)(a noncompliance with Federal Motor Vehicle Safety Standard No. _____) 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 Reports**.

Date this report was prepared: April 27, 2010

Furnish the manufacturer's identification code for this recall (if applicable): _____

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.

Austin International (Manufacturer & Importer)

409 N Figueroa St. Wilmington, Ca 90744 Tel-(310) 513-8222

Fabtech Industries (Distributor)

4331 Eucalyptus Ave. Chino, CA 91710 Tel (909) 597-7800

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

Brent Riley, President, Fabtech Industries

Telephone Number: 909-597-7800 **Fax No.:** 909-517-2409

Name and Title of Person who prepared this report.

Brent Riley

President

Signed:

¹ Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions, please consult the complete Part 573 or contact Mr. George Person at (202) 336-5210, by FAX (202) 366-7882, or E-MAIL to RMD@ODI@dot.gov.

I. Identify the Recalled Items of Equipment

2. Identify the Items of Equipment Involved in this Recall, for each make and model or applicable item of equipment product line (provide illustrations or photographs as necessary to describe the item of equipment), provide:

Generic name of the item: Aftermarket Steering Pitman Arm AKA "Pitman Arm"

Make: Fabtech **Model:** N/A

Part Number: Fabtech- FTS93001, FT44039 **Size:** 2" x 8"

Function: A steering component that transfers steering control from the steering box to the drag link and ultimately to the wheels of the vehicle.

Other information which characterizes/distinguishes the items of equipment to be recalled:
None

Make: _____ **Model:**

Part Number: _____ **Size:**

Function:

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

Make: _____ **Model:**

Part Number: _____ **Size:**

Function:

Model Years Involved:

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

Make: _____ **Model:**

Part Number: _____ **Size:**

Function:

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

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 Equipment equipped with certain items of equipment from January 1, 1996, through April 1, 1997, then what was the percentage of the recalled Equipment of all Equipments manufactured during that time period.

The approximate percentage of defective parts discovered is 1-2%. The amount of Dodge vehicles that would be affected by this part is too low to estimate by percentage only. There is approximately 1500 possible vehicles on the road from 9/10/2004 to 3/29/2010 that could have these parts on them.

II. Identifying the Recall Population

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

<u>Model</u>	<u>Year</u>	<u>Number of Items Potentially Involved</u>
<u>Vehicle models affected-</u>		
<u>Dodge 2500 4WD, 3500 4WD and 1500 4WD Mega Cab</u>	<u>2003-08</u>	<u>1500</u>

Total Number Potentially Affected by the Recall: 1500

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

Fabtech established that the recall should include all vehicle models that the parts are known to fit per our catalog application guide and the actual year range application of 2003-2008 that the Pitman Arm fits. The beginning and final date model range are based on Dodge's delivery of the vehicles that could contain the Pitman Arm from Fabtech.

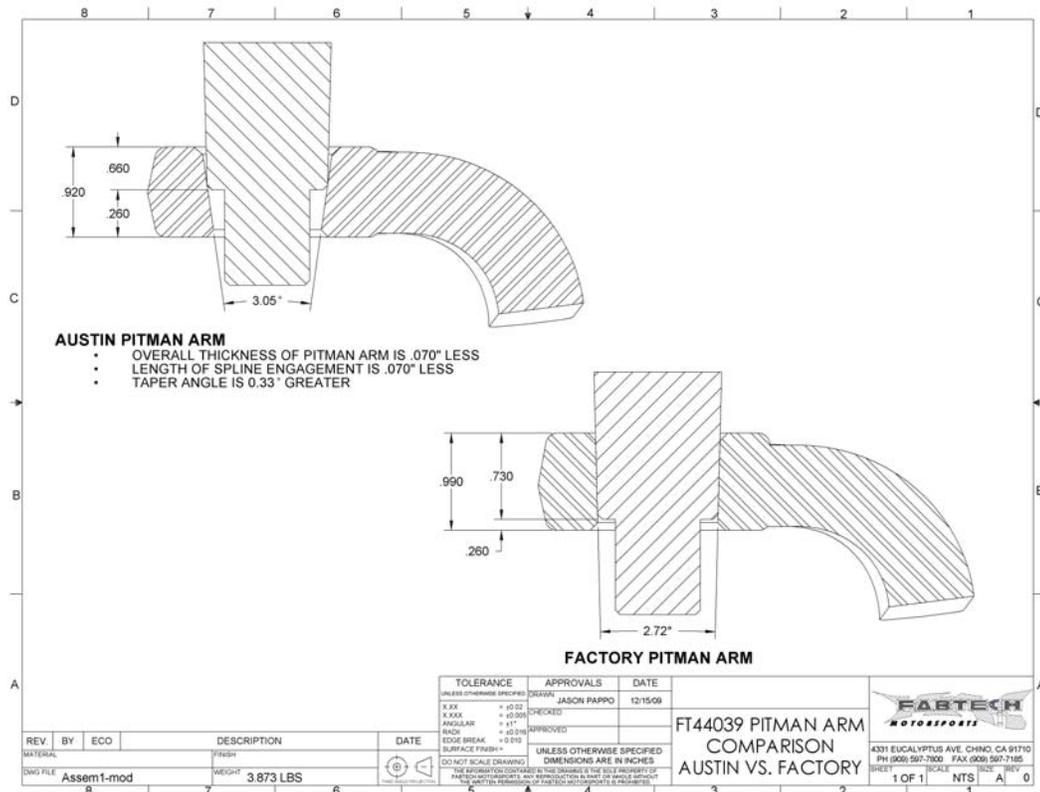
III. Describe the Defect or Noncompliance

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 defective part is commonly known as the Pitman Arm. This steering component is a forged arm with two holes in it. One end of the arm is splined and attaches to the steering box sector shaft of the vehicle. The other end is a tapered hole that allows the connection of the steering drag linkage to attach. The drag linkage connects to a tie rod that steers the vehicles wheels. Certain pitman arms may not have the correct tapered angle in the splined hole to mate to the steering box sector shaft. When the spline taper is different it can allow the pitman arm to move back and forth on the sector shaft. This creates spline wear and eventually causes cracking and finally breaks away. Once broken off there is no other component connecting the steering box to the front wheels of the vehicle, resulting in total steering loss. wing.

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

The pitman arm splined hole must be the same tapered angle as the steering box sector shaft. This results in both surfaces mating together the by the overall length of the spline on each part. If the taper angle is not the same the splines will not be full mated / engaged together. This leaves only partial engagement of the splines. Thereby reducing the usable surface area of the two parts together. With less surface area and incorrect taper angle the pitman arm will start to wear due to the lack of engagement. Once wear begins to take place fractures occur and finally a breakage. Separating the steering box from the vehicle's wheels. See below drawing of tapered spline comparison of Austin pitman arm to factory pitman arm.



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

Should the pitman arm fracture and break away from the steering box sector shaft the vehicle will lose all steering control. This loss of steering control could cause an accident with potential injury or death.

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

It has been reported that some drivers notice a loose feeling in the steering of the vehicle at slow speeds prior to breakage. There is no positive way to identify a warning that can precede a breakage. It could happen without any notice.

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

Austin International

409 N Figueroa St

Wilmington, Ca 90744

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

Austin Su, owner. Al Petersen, representative

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.

First date of sale	11/18/04
A Dodge Pitman Arm was returned from a wholesale dealer for credit. The Pitman Arm was processed through the warehouse as a defective part return in a normal course of business. The Pitman Arm was classified as a broken component from abusive driving. Pitman Arm was scrapped upon issue of credit to the customer as a standard operating procedure.	4/15/2008
A Dodge Pitman Arm was returned from a wholesale dealer for credit. The Pitman Arm was processed through the warehouse as a defective part return in a normal course of business. The Pitman Arm was classified as a broken component from abusive driving. Pitman Arm was tagged as Sample # 1 and retained.	1/8/2009
Received notice from a retail customer of a broken pitman arm. Customer described breakage at spline area next to the sector shaft. Fabtech requested the pitman arm to be returned for exchange. Customer purchased new pitman arm from local retailer and never returned broken arm to Fabtech. R&D notified of this repeated occurrence.	7/26/2009
Fabtech identified that the Pitman Arm/s with failures were designed and supplied by Austin International for 2003-2008 Dodge 2500/3500 4WD and 2007-2008 Dodge 1500 Mega cab trucks. Fabtech purchased 1500 of these Pitman Arms between 9/10/2004- 7/14/2006. On 7/15/2006 Fabtech stopped procuring the arm from Austin and started purchasing arms from another manufacturer that can be identified by a raised casting number. The Austin pitman arm has no raised casting number. Pitman arms with the raised casting numbers have had no failures. The following reports are specific to broken pitman arms produced by Austin International. Fabtech contacts Austin regarding the repeated breakages and concern for safety.	7/28/2009

<p>Austin provides Fabtech with independent laboratory test results from Stork Laboratories dated 6/9/09 on a broken pitman arm that Austin had from another customer return. Stork's conclusion was the failure was due to fatigue strength being exceeded by the service conditions and that there were no material defects. Stork did not check any dimensions and did not check it against a factory pitman arm to see if the design was any different. Stork solely looked at the individual part material and nothing else.</p>	8/11/2009
<p>Fabtech reviews Stork test results and lack of data to substantiate what the cause of failure is on the Austin arm. Fabtech sends their Sample # 1 arm from the customer return dated 1/8/09 to Stork for testing with specific parameters.</p>	8/12/2009
<p>Fabtech customer service department receives a call from retail customer Jonathan Campbell that he had a pitman arm break on his 2005 Dodge 2500 4WD at the spline area next to the sector shaft. Customer sent email with images of broken arm to R&D department. Fabtech request that the broken arm be returned and ships out new pitman arm. Customer never returned broken arm to Fabtech.</p>	8/18/2009
<p>Received Stork mechanical properties results from Sample # 1 . Tensile and yield above the factory pitman arm, % elongation slightly below the factory pitman arm.</p>	8/19/2009
<p>A Dodge Pitman Arm was returned from a wholesale dealer for credit. The Pitman Arm was processed through the warehouse as a defective part return in a normal course of business. The Pitman Arm was classified as a broken component from abusive driving. Pitman Arm was tagged as Sample # 2 and was sent to Stork for testing.</p>	8/20/2009
<p>Received Stork hardness testing on Sample # 2 and additional Sample # 8 a factory pitman arm. Results - Similar hardness at ends, but are different in the center section.</p>	9/15/2009
<p>Fabtech analyzes Stork data, investigates breakage conditions in field. Establishes breakage theory as follows. Improper spline engagement of the pitman arm to the sector shaft due to a taper angle difference. Fabtech performs measuring procedure comparing factory pitman arm to Austin. Reports indicate that the Austin Pitman Arm does not engage splines properly on sector shaft compared to factory arm and allows pitman arm to move back and forth until the arm breaks.</p>	9/15/2009- 1/11/2010
<p>Austin is contacted to meet at Fabtech on 1/20/10 to discuss arm failures in the field, breakage theory and supporting data.</p>	1/12/2010
<p>Al Peterson a representative from Austin meets with Fabtech. The dimensional differences with a drawing between the factory arm and the Austin arm is provided. Fabtech explains the theory of the arm failures due to the lack of spline engagement and the taper angle difference allowing the hardened sector shaft to rock back and forth until the pitman failed. Petersen acknowledges the theory. He indicates that Austin will evaluate and investigate Fabtech's findings.</p>	1/20/2010

<p>A Pitman Arm was returned from a wholesale dealer for credit. The Pitman Arm was processed through the warehouse as a defective part return and provided to R&D for inspection. R&D finds that the arm is broken around the spline area next to the sector shaft. The arm is tagged as Sample # 3 and retained.</p>	<p>1/20/2010</p>
<p>Austin investigates their shipments to Fabtech and indicates that there could have been Pitman Arms for another application miss marked and shipped to Fabtech by mistake. Possibly the cause of the failures by having the wrong Pitman Arm for the application. Fabtech researches this claim and found that no other Pitman Arm will physically fit on to the sector shaft except the one in question. Austin was notified of this finding and this theory of mislabeling was discarded.</p>	<p>1/21/2010</p>
<p>Fabtech e mails to Austin images of Sample # 3 broken arm along with the CAD drawing shown at the 1/20/10 meeting showing the dimensional differences between the Austin arm and a factory arm.</p>	<p>1/21/2010</p>
<p>Fabtech contacts Peterson at Austin via phone and inquires of progress from 1/20/2010 meeting. Austin advises they are working on the project and would be getting back with Fabtech with updates.</p>	<p>2/2/2010</p>
<p>Meeting with Al Petersen from Austin at Fabtech. Petersen shares a recently manufactured Pitman Arm from their factory and a stock sector shaft requesting that Fabtech verify that Pitman Arm fits proper to sector shaft. Fabtech verifies preliminarily without measuring tools that the arm presented was a proper fit by hand. Fabtech advises Austin that it does not change the issue of poorly fitting Arms from previous years of production in the field. Only that there is a new arm that preliminarily indicates a better fitment. Petersen claims there were two sector shafts that Dodge produced. Petersen suggested that this could be the cause, an unknown sector shaft spline type from Dodge in the field that does not properly fit to their arm. Petersen indicates that they will send their sample factory sector shaft to the Austin manufacturing factory in China to verify spline engagement on current production. Petersen requests that Fabtech give them one of the broken arm samples to evaluate. Fabtech does not provide the requested broken arm at this time.</p>	<p>2/4/2010</p>
<p>Fabtech Customer Service receives a call from retail customer David Hall. Customer indicates he has a 2003 Dodge 2500 4WD with a pitman arm that has broken around the splines at the sector shaft. Fabtech request images of the broken arm. Fabtech sends customer a new pitman arm and request the return of the broken one. No images were received on this date.</p>	<p>2/5/2010</p>
<p>Fabtech provides Sample # 6 (an unused Austin arm from R&D) to Austin per their request on 2/4/2010. Austin commits to returning the Sample # 6 to Fabtech undamaged in the future.</p>	<p>2/8/2010</p>
<p>Fabtech investigates Austin claim of two Dodge sector shafts. Dodge reports only one Pitman Arm P/N 68039930AA with only one sector shaft. Austin is notified of the Dodge research and the theory is discarded.</p>	<p>2/11/2010</p>

Fabtech receives email images from David Hall of broken pitman arm. The image confirms the breakage is consistent with previous Austin arm failures at the splines around the sector shaft. Fabtech again request that the broken arm be returned. 2/16/2010

Fabtech Customer Service receives a call from retail customer Pete Guillen. Customer indicates he has a 2007 Dodge 3500 4WD with a pitman arm that has broken around the splines at the sector shaft. Fabtech reviews e mailed images and verifies that the breakage is consistent with previous Austin arm failures at the splines around the sector shaft. Fabtech sends customer a new arm and request the return of the broken arm. Customer has not returned broken arm as of 3/31/2010 2/16/2010

Fabtech conducts internal meeting to strategize current situation and concern for public safety based on continued broken pitman arms in the past year. Fabtech adopts the action of a recall on all Austin Pitman Arms sold for the 2003-08 Dodge 2500/3500 and 1500 Mega cab 4WD. Fabtech contacts Austin to schedule meeting to discuss recall and responsibility of actions. 2/16/2010

Austin provides Fabtech with additional Stork material test results from an unknown arm. A chemistry, charpy v-notch impact, tensile and hardness tests are performed. Test results indicate all within the factory pitman arm specs for the same test. There was no dimensional testing done by Stork for Austin at this time to address the Fabtech theory of improper spline to sector shaft engagement. 2/17/2010

Customer David Hall's broken arm is received at Fabtech. The arm is inspected by R&D. The breakage is consistent with the other Austin arms with failure around the spline area next to the sector shaft. The arm is tagged as Sample # 9 and is stored. 2/18/2010

Meeting with Austin International. The owner "Austin Su" is present. Fabtech reviews the dimensional differences and show him all the broken samples. Su acknowledges a spline taper angle difference and also notices other dimensional variances between his part and the factory pitman arm. There is no discussion of any other theories or testing required. Su accepts the Fabtech theory of the spline taper angle not matching the sector shaft causing the breakage. Su agrees to the initiation of a voluntary recall and agrees to cover all cost associated with the recall. Su states that they will change their tooling in the manufacturing process to properly fit the sector shaft to alleviate any further failures of the pitman arm. Su requests another sample of a broken arm to send to his factory in China. Fabtech agrees to provide Su / Austin with broken from 8/20/09 sample # 2. Su commits to returning the sample # 2 to Fabtech undamaged. 2/24/2010

Fabtech conducts internal meetings and creates documentation to initiate the recall in behalf of Austin International. 2/25/2010
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3/23/2010

Fabtech Customer Service receives a call from retail customer Jerry Boyd. 3/25/2010
Customer indicates he has a 2004 Dodge 3500 4WD with a pitman arm that has broken around the splines at the sector shaft. Fabtech request that he exchange the broken arm for a new arm at Fabtech. The customer returns the arm for a new one at Fabtech. The broken arm is tagged as sample # 10 and retained.

Fabtech contacts NHTSA for notification of this voluntary recall 4/26/10

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.

Fabtech contacts supplier Austin International about the concern of repeated 8/11/2009
failures in the field. Al Peterson (Austin Intern. contact) response was providing a Stork Independent Laboratory materials testing report that Austin had conducted prior to Fabtech's concern. Stork's conclusion was that the failure was due to fatigue strength being exceeded by the service conditions and that there was no material defects. Fabtech found that Stork did not perform any comparative testing to the OEM pitman arm nor did they perform a dimensional check on the two parts. Al Peterson claimed that other customers had failures also, but he claimed that it was their suspension design that caused them.

Fabtech's R&D department identified repeated pitman arm failures from the 8/19/2009
Customer Service department. They ordered that a broken Austin pitman arm (Sample #1) and unused OEM pitman arm (Sample #7) were to be tested at Stork Materials Testing for material properties. Testing was performed to verify that material specifications met Fabtech specifications. Material passed testing criteria.

Further testing was initiated by Fabtech. A broken Austin pitman arm (Sample 9/15/2009
#2) and new OEM pitman arm (Sample #8) were tested for surface hardness at Stork Materials Testing in five locations along arm and compared. Previous mechanical testing was performed in center section of arm because of the lack of testable material at either end. Fabtech concerned about the possibility of the ends being harder than the center section causing a brittle condition leading to premature failure. Fabtech compared these hardness results to the OEM sample. Austin sample matches hardness within 5% at the ends and is determined to be acceptable by Fabtech.

After evaluating all test data Fabtech established the theory of failure was due to 1/20/2010
the dimensional differences between the Austin and OEM pitman arms. Fabtech measured each part using a coordinated measuring machine (CMM) and found that there was a significant difference in the length of spline engagement as well as the taper angle. This condition would cause the pitman arm to rock back and forth creating an abnormally large stress riser at the spline causing material failure in the area at or near the spline. Fabtech adopted this theory as fact and contacted Austin to initiate a voluntary recall of all of the Dodge Pitman Arms supplied to Fabtech.

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.

Remedy- Once a vehicle has been identified that it has one of our Pitman Arms with a raised casting number on the pitman arm we are instructing the following. End consumer is to take vehicle to a Fabtech Authorized Installer for an inspection and retro fit process immediately. The Authorized Installer will remove the original Fabtech parts and replace them with new Fabtech pitman arm free of charge. The original parts are to be returned to Fabtech for inspection and identification. Once Fabtech has processed the returned pitman arm they will issue a check for the labor of the retro fit of the pitman arms to the Authorized Installer. Fabtech will log all retro fit processes and contact each end consumer directly to make sure that their vehicle has been retro fitted properly. Fabtech has created extensive written procedures on how to inspect and process an end consumer's vehicle. Fabtech can provide these documents upon request by NHTSA.

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

The remedy pitman arm can be identified by raised casting numbers on the face of the arm. The pitman arm that will be removed does not have any raised casting numbers on the arm.

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.

Austin International supplied Fabtech with the FT44039 pitman arms from 9/10/2004 through 7/14/2006. All FT44039 pitman arms supplied from Austin International shall be recalled. After 7/15/2006 Fabtech switched suppliers due to diversification of supply. Fabtech did not receive any more FT44039 pitman arms from Austin International. after 7/14/2006

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 the recall.

Fabtech contacts NHTSA for notification of this voluntary recall 4/27/10

Fabtech researches database for all customers that have purchased these parts and has contact list established. Will make contact via phone, email and fax advising them of the recall and how they will need to contact the end consumer and have each vehicle processed immediately. 4/27/10

Fabtech will place notice on their website of this voluntary recall 5/3/10

VII. Furnish Recall Communications

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 (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) or by E-MAIL (RMD>ODI@dot.gov) for review prior to mailing.*

Note: These documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.