

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

On 25 January 2013, Yakima Products, Inc. decided 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 Reports**.

Date this report was prepared: 1 February 2013

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.

Yakima Products, Inc.
15025 SW Koll Parkway
Beaverton, OR. 97006

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

Kevin Wendland
Sr. Director of Quality Assurance

Yakima Products
15025 SW Koll Parkway
Beaverton, OR 97006

Telephone Number: 971-249-7554

Fax No.: 971-249-7751

Name and Title of Person who prepared this report.

Kevin Wendland
Sr. Director of Quality Assurance

Signed:

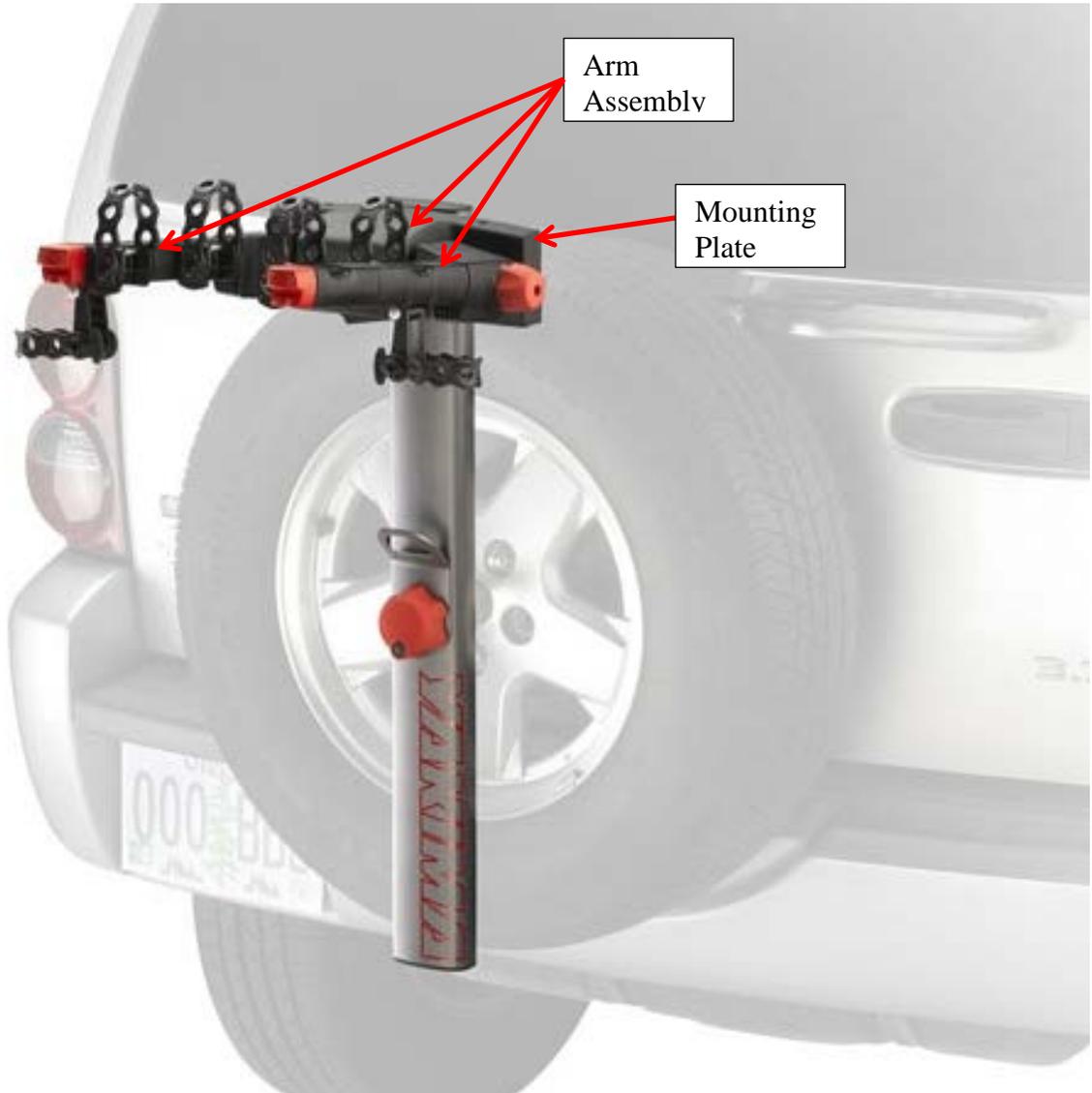


¹ Each manufacturer must furnish a report, to the Associate Administrator for Enforcement, for each defect or noncompliance condition which relates to motor vehicle safety.

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) 366-5210, by FAX at (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: Rear of Car Bike Rack System

Make: Yakima

Model: SpareTime

Part Number: 8002598

Size: 2 Bike

Function: Provides bike carrying capability for vehicles that have a rear mounted spare tire system.

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

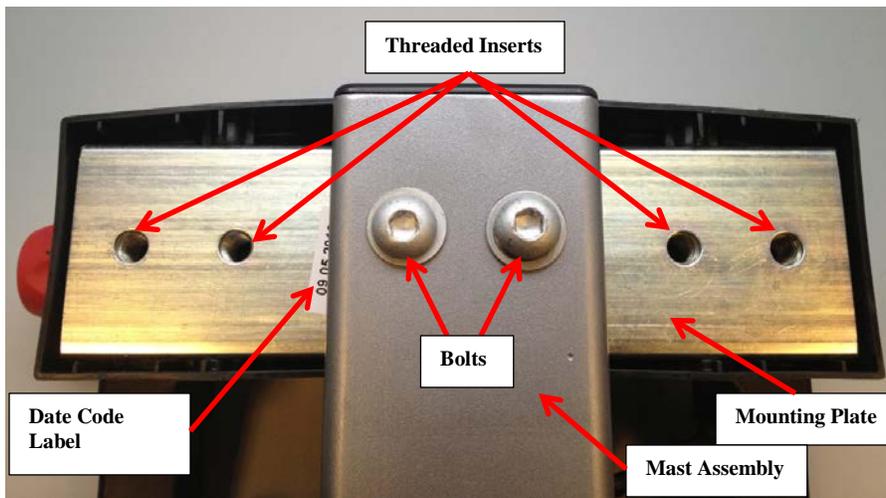
The equipment impacted attaches to spare tire mounting bolts on the rear of a vehicle in applications similar to the one pictured above. When viewed from the back side of the product (i.e., the side facing the rear of the vehicle) there is a silver looking mounting plate containing six threaded inserts used to attach the arm assembly to the mast assembly. These bolts allow for positioning the arm assembly in a right, center or left orientation depending on the position of the spare tire holder on the applicable vehicle. Any SpareTime product containing bolts that are not identified with a head marking (See “Bad Bolt” picture below), need to be replaced with a one that has markings (See “Good Bolt” picture below).



Good Bolt



Bad Bolt



Back of Product View

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 Equipment manufactured during that time period.

II. Identifying the Recall Population

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

A total of 8445 SpareTime products with suspect bolts in them were shipped from the manufacturing facility in China. Of those, 1400 were captured in the Yakima Distribution centers and reworked with good bolts. This leaves a potential total population of 7045 SpareTime products in the field at retail locations or in the possession of a consumer.

4. Furnish the approximate percentage of the total number of items of equipment estimated to actually contain the defect or noncompliance: Yakima is assuming that 100% of the 7045 units shipped from the China manufacturing facility contain defective bolts.

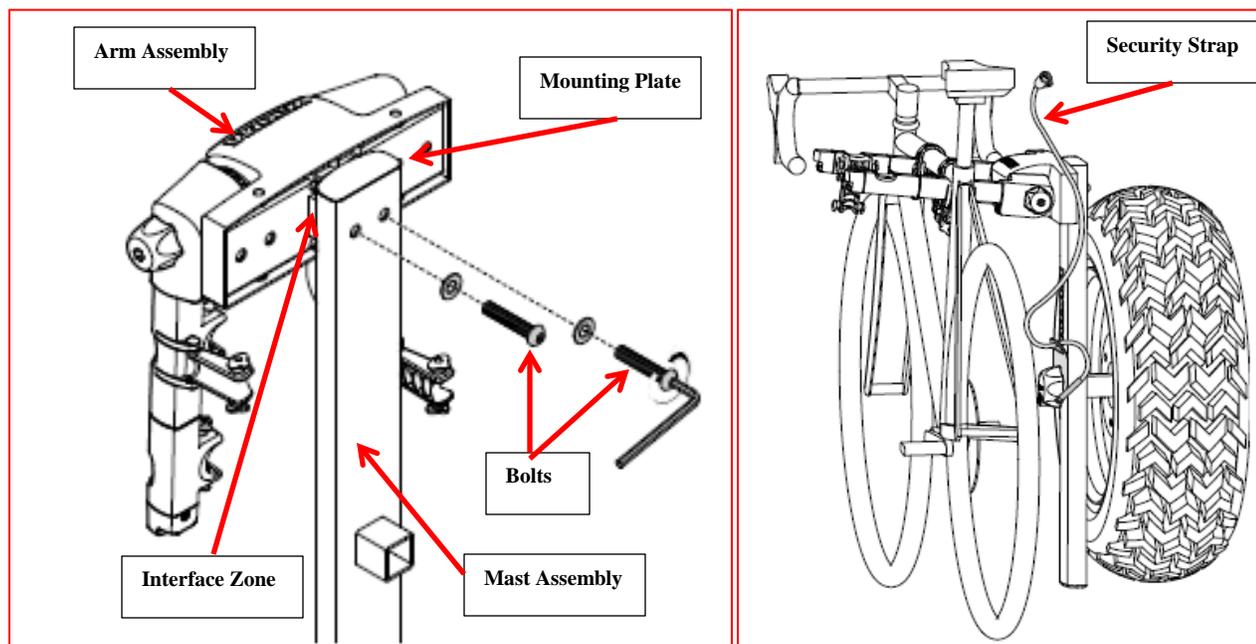
Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled items of equipment:

The recall population was determined by analyzing receiving records in the Yakima material requirement planning system. Based on the available data, the first suspect shipment was received on the 16th of December 2011 and the last was received on the 5th of November 2012. In the history of the SpareTime product it has been produced by two different China manufacturers. In 2011, the decision was made to transfer production from the original supplier into a manufacturing facility owned and operated by the company that owns Yakima Products. During the course of this transition, the type of bolt provided for use in production changed. The original supplier used good bolts in their manufacturing process.

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.

There are two bolts that secure the SpareTime arm assembly to the mast assembly. These bolts are the primary part of the bike rack system that keeps the arm assembly and related bike load attached to the vehicle. There is also a secondary security cable, that if used as required by the product instructions, will keep the arm assembly and load tied to the vehicle.



Based on consumer reports (two) and actual testing conducted by Yakima, the strength of material used to manufacture the bolts did not meet the requirements for an M12X1.75X65 MM, Button Head Bolt per ISO 7380 Grade 10.9. As a result, the bolts have been seen to break between the interface zone between the face of the mast and the back of the mount plate

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

The cause for the defect is due to the bolt material being too soft (32 to 39 Rockwell C). Test bolts were far below the requirement indicated and a lower quality material was used to manufacture them. When tested, the bolts did not exhibit the necessary tensile strength or hardness that correlates to M12X1.75X65 MM, Button Head Bolt per ISO 7380 Grade 10.9. When a soft bolt is used in the SpareTime application, product motion induced by terrain and vehicle speed eventually causes them to crack.

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

When the bolts fracture, the arm assembly and any load on them separates from the mast assembly. If the required security cable is installed the mast assembly and related load will fall to the ground and be dragged behind the vehicle. If the required security cable (other strapping means) is not installed, the arm assembly and related load will separate from the vehicle entirely. When this happens, the debris will be scattered behind the vehicle and become a potential hazard to other vehicles or pedestrians in close proximity to the occurrence. Depending upon the speed at which the separation happens as well as terrain being traversed, varying degrees of damage to the bike load can occur. In the two situations reported, very little damage to the bikes was seen.

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

Prior to catastrophic failure, the following are some signs the consumer can look for:

- (a) a wedge shaped area between the mast and the mounting plate would be noticeable when viewed from the side



- (b) bike load tilted to one side or the other due the fracture of one bolt. This could be seen while driving if the consumer can see the bikes in the rear view mirror or by looking out the back window of the vehicle. This same phenomenon could be seen looking at the setup while parked as well.
- (c) the sound of something dropping or dragging behind the vehicle.

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

Kemflo (Nanjing) Environmental Technology Co., Ltd.
No. 19 Aitao Rd. Jiangning Development Zone
Nanjing, China, Post: 211106

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:
Eugene Lin
Special Assistant to CEO
Kemflo International Co., Ltd

V. 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.

18 November 2012 - The first report of a failure experienced by a consumer was received (See Picture 2). The consumer followed the product instructions and had the security cable installed. This prevented separated arm assembly and related load from being ejected.

14 January 2013 - A second consumer experienced failure of their SpareTime product (See Picture 3). In this instance the consumer did not have the security cable installed but did have their own bungee cords installed. This prevented the separated arm assembly and related load from being ejected.

Based upon the above two consumer reports, Yakima became concerned that something was going on with the bolts (See below consumer pictures). Subsequent hardness analysis on bolt remnants found much lower than expected values. In addition, bolts in stock at the manufacturing facility as well as with units pulled from US distribution were inspected and tested. The were found to exhibit the same low hardness values.



CONSUMER 1



CONSUMER 2

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.

To facilitate understanding the risk, Yakima conducted laboratory testing at our Nanjing, China environmentally controlled shaker facility. This testing validated the problem and demonstrated that the bolts would fail. In the lab setting, Yakima saw predictable and repeatable failure results around 2.5 hours into the test cycle. This testing timeframe cannot be directly correlated to actual product performance in the field since test parameters represent extreme conditions (temperature as well as severe terrain) and are compressed into short intervals. However, the results are indicative that bolts will fail in actual use over time. The timeframe required to see such failures by consumers will depend a lot on the type of road surfaces that their vehicle encounters as well as driving habits of the consumer as well as how long and often they keep the product installed with a load on it.



LABORATORY TESTING



BROKEN BOLT REMNANTS (LAB TESTING)

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: As directed in the Consumer Letter to be issued concurrent with this report, owners of suspect SpareTime products can contact Yakima to obtain replacement bolts to be sent to them via mail. The bolt application in the product is designed to be consumer serviceable. The consumer will be sent two bolts inside a bubble line manila envelope with brief instructions on what to do when they receive it. Until the consumer receives and installs the replacement bolts, the product should not be used.

Recall Condition: Any SpareTime product with a manufacturing date code between 1 November 2011 and 30 October 2012. The date code (white printed label) can be found on the mounting plate. Format will be:

XX XX XXXX (Month Day Year)

Example: 5 September 2012 would look like 09 05 2012 (See below picture for typical location and appearance of the date code.



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

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.

All production emanating from the manufacturing facility with a date code on or after 30 October 2012 has known good bolts in them. Compliant bolts purchased from a US distributor were tested to ensure they meet performance and quality standards. Upon passing, 2800 bolts (1400 finished goods) were sent to the Yakima distribution centers to rework all inventory in place at those facilities. In addition, 6500 bolts were air shipped to the manufacturing facility to be used in open production orders. All future production will utilize the qualified source for this bolt unless (or until) a local China source can be qualified.

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.

28 January 2013

- Notified NHTSA that Yakima would be generating Defect and Noncompliance Report

5 February 2012

- Submit 573 Defect and Noncompliance Report

5 February 2012

- Submit consumer notification letter to NHTSA for review and approval
- Submit dealer notification letter NHTSA for review and approval

8 February 2012

- Independent Sales Rep Notification
- Distribute dealer and consumer letters
- Collect consumer sell-through and contact information
- Publish web page on yakima.com and our dealer website to inform consumers and dealers of the issue

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 579.5 requirements.