Vermeer Manufacturing Co.
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05V-047
(13 pages)

To: Mr. Jon White, Chief
Defects and Recall Information Analysis Division
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 7th Street, SW
Washington DC 20590

PART 573 Defect and Noncompliance Report

Report Date: February 8, 2005

On February 1, 2005, Vermeer Manufacturing Company determined that there is a defect which relates to motor vehicle safety with respect to certain motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Fabricating Manufacturer:
Vermeer Manufacturing Company
1210 Vermeer Road East
Pella, IA 50219
Telephone: 641-628-3141 **Fax:** 641-621-7739

Contact Name and Title: Lois Slings
Product Safety/Legal, Operations Manager

Name and Title of Person Who Prepared Report: Robert R. Smith
Vice President and General Counsel

Signed: _____ **Date:** 2/7/05

President's E Star Award

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I. Identify the Vehicle Models Involved in the Recall

Manufacturer's Identification Code: IK00-1159

Vehicle Identification:

Make:	Vermeer	**Model Years Involved:**	2002 - 2005	
Model(s):	BC1400			
Production Dates:	Beginning:	01-28-2002	Ending:	12-06-2004
VIN Range:	Beginning:	1VRU1614821000134	Ending:	1VRU1614151001775
Vehicle Type:	Trailer – Single axle Brush Chipper			

Description which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: The VIN Range includes 1642 units. The trailers affected are fifty-seven (57) units that received an optional, factory-installed tongue for curb-side feed capability (JSK01068).

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. 3.47%

II. Identify the Recall Population

Total Number of Vehicles Recalled Potentially containing the defect or noncompliance:

Model	Year	Number of Vehicles Potentially Involved
BC1400	2002	19
BC1400	2003	13
BC1400	2004	22
BC1400	2005	3
Total Number Potentially Affected by the Recall:		57

Approximate percentage of Total Number of Vehicles Estimated to actually contact 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 vehicles: From manufacturing records, we were able to determine the specific units which received the optional, factory-installed tongue for curb-side feed capability (JSK01068).

III. Describe the Defect or Noncompliance

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.

Fatigue cracks can occur in a heat affected zone of the tongue weldment. Recent Finite Element Analysis (FEA) was undertaken after notification of the failure. The analysis indicates that material stresses at the point of failure can result in fatigue fractures (cracks) which can eventually result in complete separation of the tongue.

A copy of a product brochure for Vermeer Model BC1400 is attached. The brochure does not show the curbside feed tongue option, but is shown in the attached Drawing Item Number 162615001, Weldment – Tongue BC1400 Curbside Feed. Also attached are digital photographs of BC1400, VIN 1VRU1614721000366, reference in the chronology below.

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

Component design had inadequate useful life.

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

Development of fatigue cracks in the tongue which can result in tongue failure separation from the towed vehicle.

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

(a) Visible cracks can develop at the failure site prior to failure.

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

Not applicable.

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

Not applicable.

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IV. Provide the Chronology in Determining the Defect/Noncompliance

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

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.

01/25/2005: First field notification received relating to BC1400, VIN 1VRU1614721000366, a unit with factory-installed JSK01068 option, when a representative of our dealer in Canada sent an email to Factory Service Department attaching digital photographs of the broken tongue on said unit.

01/25-27/2005: Factory Service Department contacted Canadian dealer by telephone to obtain further information regarding the specific unit. Additional digital photographs of same unit where provided via email to Factory Service Department from the same Canadian dealer. The failure of the tongue resulted in separation of the trailer (brush chipper) from the towing vehicle. Canadian dealer informed Factory Service Department that there were no injuries as a result of the failure on this unit.

01/27-2/1/2005: Personnel in the Factory Service, Engineering and Product Safety Departments analyzed the failure and used Finite Element Model Simulation to determine the potential cause of the failure. This analysis resulted in the determination that material stresses at the point of failure can result in fatigue fractures (cracks) which can eventually result in complete separation of the tongue.

02/01/2005: Second field notification received relating to BC1400, VIN 1VRU1614421000454, a unit with factory-installed JSK01068 option, when a representative of our dealer in Illinois sent an email to Factory Service Department attaching a digital photograph of a cracked tongue.

02/08/2005: No warranty claims have been submitted to date for: Tongue BC1400 Curbside Feed, PN 162615001.

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.

Not applicable.

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

The product group has completed an alternative design for a modified tongue and has completed FEA analysis that confirms that uniform distribution of the loading will occur under the modified tongue design.

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

Field kit modifications are currently under development. The new tongue design is a bolt-on riser design, which according to the final FE analysis, shows all indications of providing a service life for the riser and its interface with the tongue tube that is equivalent to that of the uninterrupted main forward tube. Confidence in the tube life is based on the test data and presently successful field exposure experienced by the straight tongue model of the BC1400.

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.

The production of the factory-installed option has been discontinued. The field kit modification as described above will be implemented in production for the curbside feed tongue option.

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.

1. 02/22/2005: Complete development of field modification Kit, including fabrication of replacement parts and installation instructions.
2. 02/23/2005: Factory will publish Service Bulletin to all Dealers introducing field modification Kit via company internet site.
3. 02/24/2005: Factory will provide owner listing of affected units in their area to Dealers via fax.
4. 03/04/2005: Factory will notify owners of mandatory field modification via certified/registered mail

VII. Furnish Recall Communications

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.***

BRUSH CHIPPER

Vermeer®

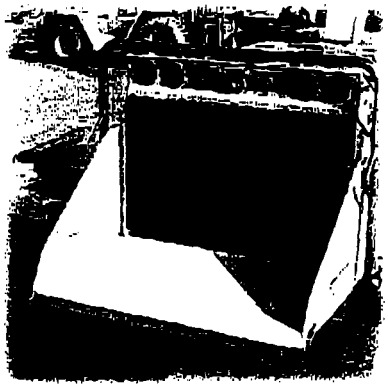
BC1400

Vermeer

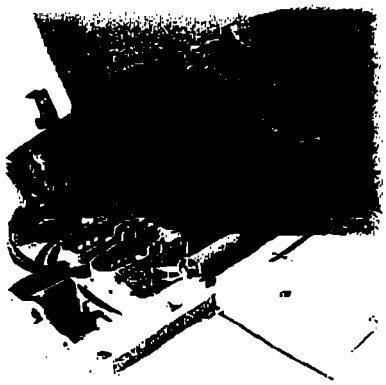
BC1400 BRUSH CHIPPER

Innovation and reliability in a drum-style chipper.

The Vermeer® BC1400 drum-style brush chipper is an innovative, next-generation chipping machine designed for tree care contractors and municipalities. With a 122 hp (91 kw) CAT engine, a 45 gal (170 L) fuel tank that allows 17-plus hours of continuous operation (approx.), a self-adjusting clutch that negates the need for daily clutch plate adjustment, large gauges for easy monitoring, and a solid, precision-balanced 22.5" (57 cm) drum with two 5" x 8" (13 cm x 20 cm) A8 knives, the BC1400 has the features you need for high-production chipping projects. Add the patent-pending SmartFeed system, a four-position feed control bar, a bottom-feed stop bar, extra-long tongue length and an oversized radiator, and the BC1400 adds up to the chipping solution for your 14" (36 cm) and larger chipping projects.

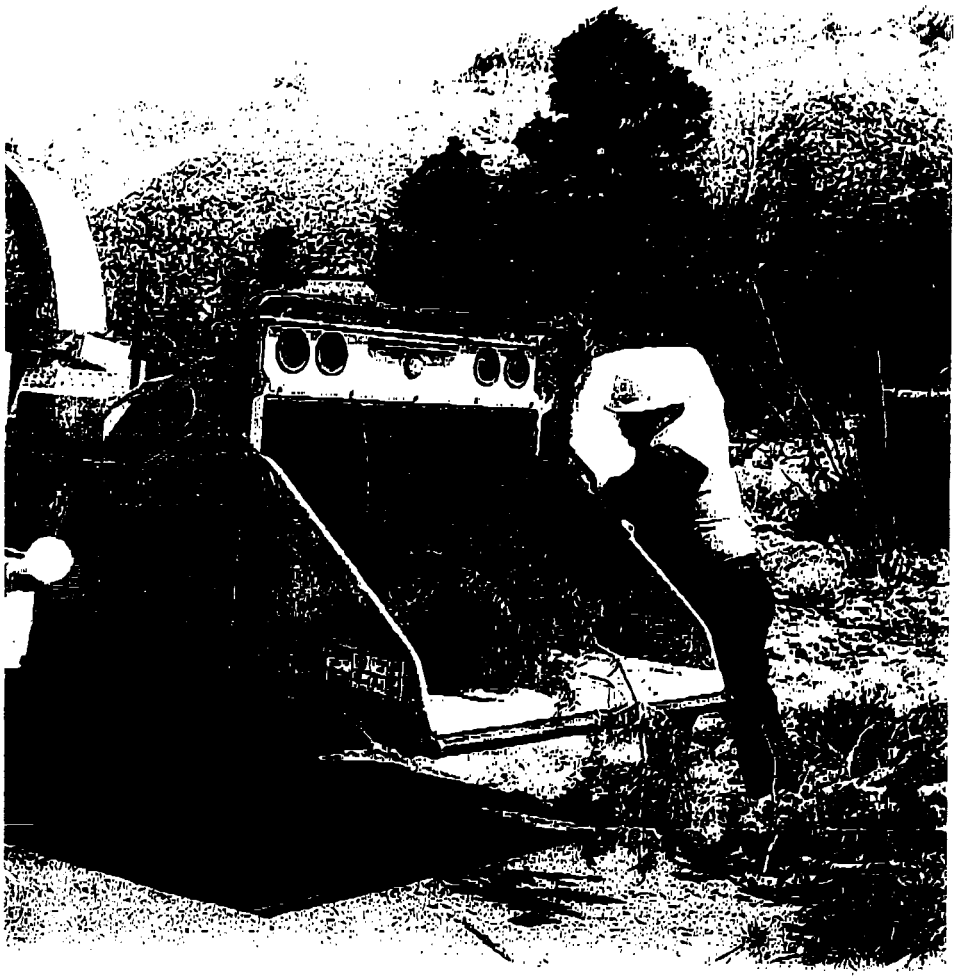


Enhance job site safety — *The new four-position feed-control bar has dual stop positions in addition to the forward and reverse positions. An all-new patent-pending bottom-feed stop bar is strategically located to make it possible for the operator's leg to strike the bar and shut off the feed automatically in emergency situations. With its two sensitivity settings, the operation of the bar can be adjusted to meet the demands of difficult chipping conditions.*



Easily set the feed roller tension *via the adjustable tension system. This system allows the operator to easily match roller tension to the type of material being chipped for higher production.*

The Future of 14" (36 cm) Chipping Has Arrived!



BC1400 Specifications

General
Weight: 6580 lb (2985 kg)
Length: 190" (483 cm) (transport)
Width: 86" (218 cm)
Height: 104" (264 cm)

Engine Options
Make/Model: CAT 3054 DITA
Horsepower (gross): 122 HP (91 kw) @ 2300 RPM
Type of fuel: Diesel
Cylinders: 4
Displacement: 243 cu in (4.0 L)

Capacities
Fuel tank: 45 gal (170 L)
Hydraulic tank: 12 gal (45 L)

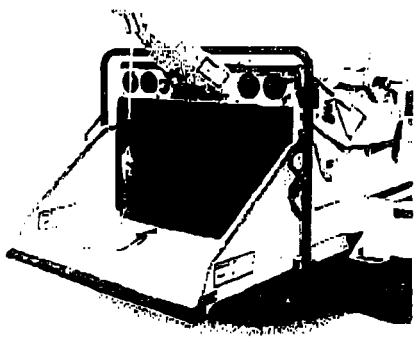
Cutting System
Drum size: 22.5" dia. x 22" wide (57.2 cm x 56 cm)
Speed: 2150 RPM
Knives: A8 chipper steel
Quantity of knives: 2
Bedknife: Four usable edges

Feed/Discharge System
Infeed throat/feed capacity: 14" x 20" (36 cm x 51 cm)
Infeed opening: 52" x 32" (132 cm x 81 cm)
Infeed length: 30.1" (76.4 cm)
Feed-table height: 27.2" (69.1 cm)
Feed-roller style: Twin vertical
Infeed rate: 0 fpm – 122 fpm (0 m/min – 37.2 m/min)

Chassis
Frame: .25" x 7" (.6 cm x 18 cm) fabricated Z-section
Tires: LT235/85R16 load range E
Axle/Suspension: 7000 lb (3175 kg) rubber-torsion
Electric brakes with breakaway switch

Electrical
System voltage: 12-volt
Lights: Stop, turn, tail, license, clearance

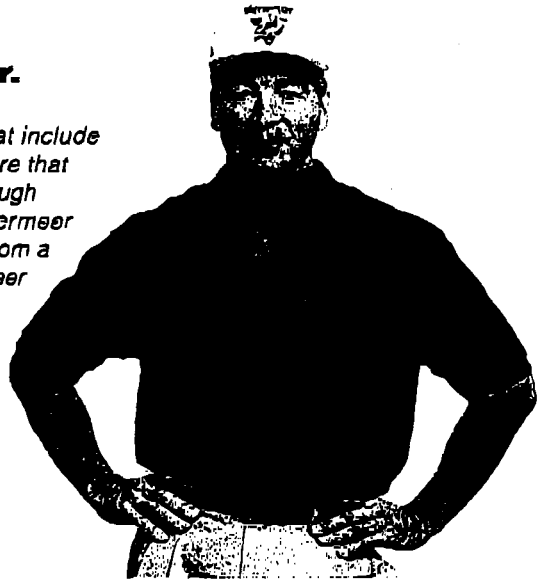
Improve productivity *with the patent-pending SmartFeed system which monitors engine RPM rates and automatically stops the feed rollers to enhance production. A reset/hold-to-run button allows you to temporarily override the upper feed control bar and bottom-feed stop bar. When you hold the button, a limb with side branches will continue feeding, even if it moves either bar to a stop position. When the limb is finished feeding, the upper bar can be easily returned to the forward feed position to continue normal chipping.*



Optional Winch
Move logs securely with this option, which can handle logs up to 2000 lb (907 kg).

A Dedication to the Total Solution. Our Commitment to Serving You Better.

Vermeer has forged strong strategic alliances with tree industry giants that include Sherrill Incorporated and ArborMaster Training. These alliances ensure that top-quality accessories and training programs are readily available through Vermeer dealerships. Membership with the NAA and ISA ensures that Vermeer stays in touch with the customers it serves and the issues they face. From a full range of equipment to accessories, parts, service and training, Vermeer has the tools you can depend upon — both on and off the job.



Vermeer Is Your Total Solutions Provider.

Vermeer®

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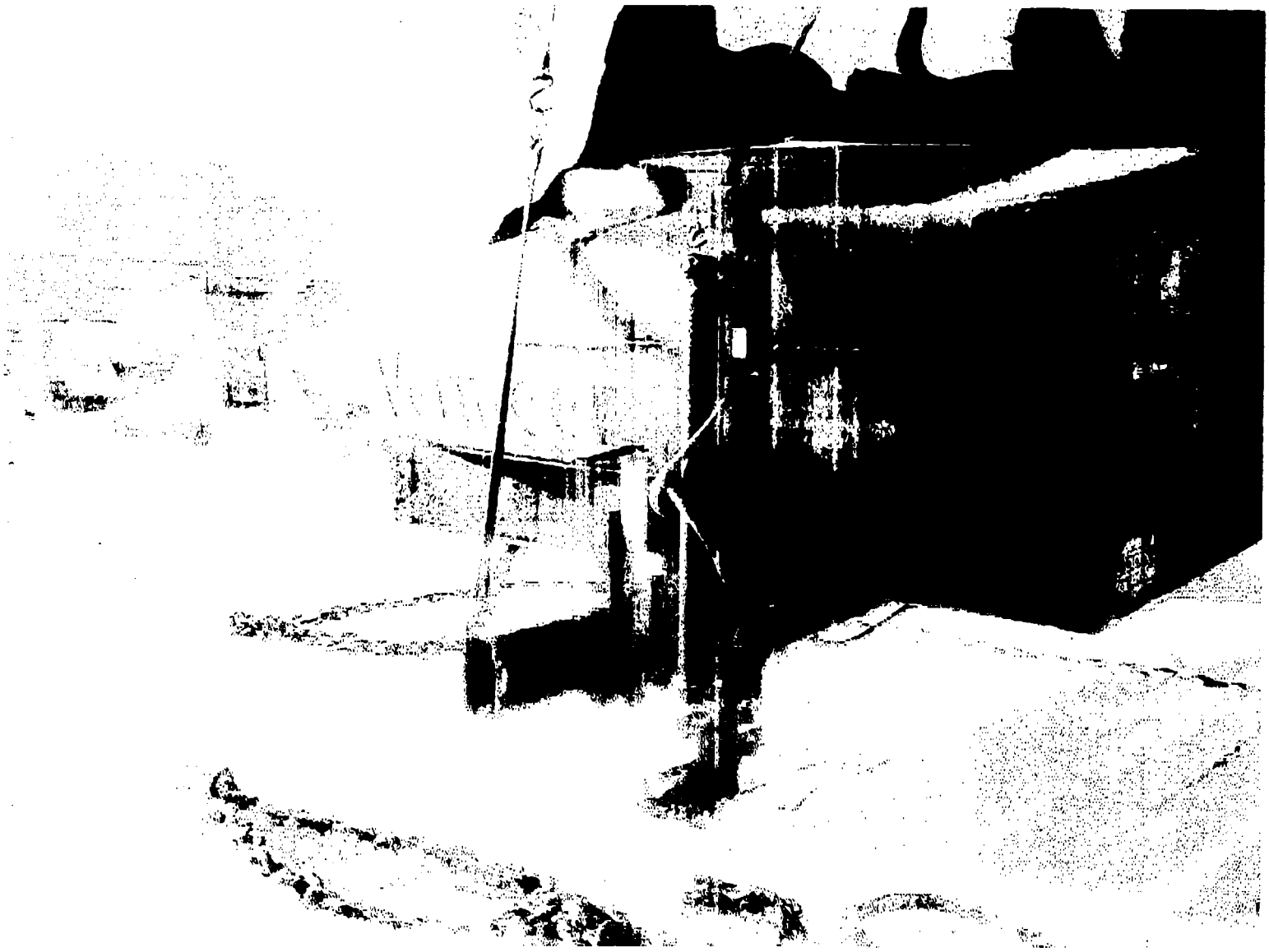
P.O. Box 323
4460 AS Goes
Netherlands
Phone: +31 113 272700
Fax: +31 113 272727



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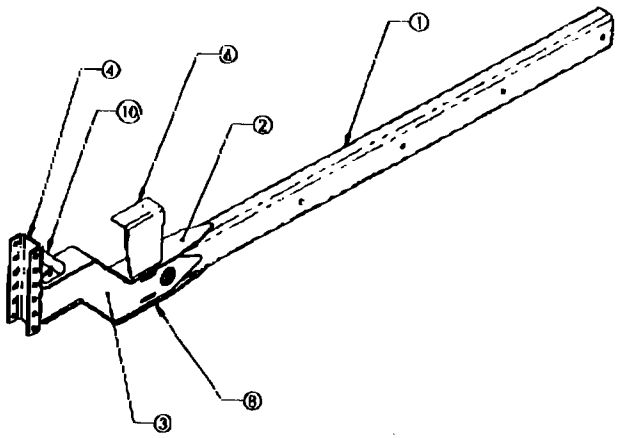
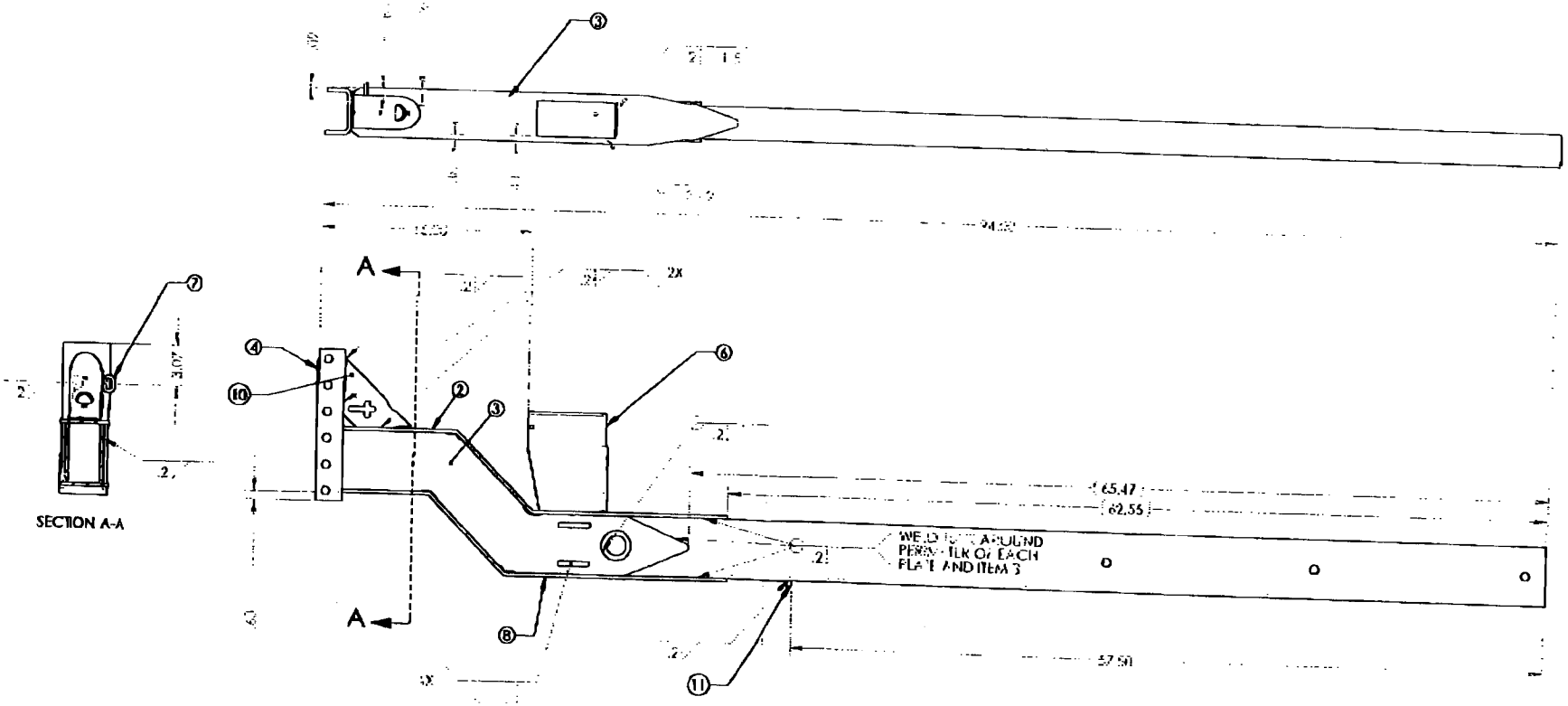


QTY.	PART NO.	DESCRIPTION	ITEM NO.
1	404601001	TUBE - TONGUE	1
1	404611001	PLATE - BEAM,	2
2	162616001	PLATE - BEAM,	3
1	118024001	MOUNT - HITCH	4
1	162618001	MOUNT - BREAKAWAY SWITCH	6
1	901001	LINK-CHAIN	7
1	162617001	PLATE - BEAM,	8
1	156883001	GUSSET - TONGUE	10
1	579001	HKEYS - 3/8 X 3/8 X 1	11



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WELDMENT - TONGUE
SCT 400 CURBSIDE NEED

162615001

MRS 10/8/02

MRS 2/21/02

Vermeer