

## Olson, Jim

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**Subject:** Safety Notice 658 conference call  
**Location:** Watertown - Conference Room 501 Upstairs - "GENERAL"  
**Start:** Wed 5/24/2017 9:45 AM  
**End:** Wed 5/24/2017 10:10 AM  
**Show Time As:** Tentative  
**Recurrence:** (none)  
**Meeting Status:** Not yet responded  
**Organizer:** Kolden, Les

All,

On Wednesday May 24th we'll be hosting a conference call concerning Safety Notice 658 which addresses the GFI circuit breakers used in the export power box on certain HyPower units. At this time I don't have a finished bulletin to send to you but attached below are the NHTSA Defect Information Report, instructional drawing, customer inspection completion form, Terex Utilities technician work completion form and a unit list. Please review. As soon as the safety notice bulletin is approved, we will send that out to you.

The field service kit part number is Z1456. We are still waiting for circuit breakers from Hartfiel that should have left their facility yesterday. I've not yet gotten confirmation of shipment.

A note about the completion form. We are asking the end users to inspect their unit(s) for the type of circuit breakers in use on their equipment. There is no labor compensation from Terex Utilities for this action. The customer inspection form will be sent out with the owner letter. The second completion form is for use by the servicing technician if the customer wants Terex Utilities to inspect their unit. This would be billable labor to the customer. This form would also be used if the circuit breakers needed to be changed out. This action would be free of charge to the customer.

Meeting schedule is as follows (all times are Central Time):

9:45-10:10am TU branches, managers and account managers

Phone information-

Domestic: 866-203-7023  
International: 480-337-3614  
Conference Code: 804 496 3053

Regards,  
Les



SN658 Defect



9157975A



SN658 Customer



SN658 TU



SN658 unit list.xlsx

Information Rep... Instructional dw... inspection com... technician com...

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Terex South Dakota, Inc.

**Vehicle Report**

Transaction ID: 17-0010369-19281-10 (Original Report)

Required fields indicated with \*

Your report has been submitted. Your Transaction No. is 17-0010369-19281-10.

**Manufacturer: Terex South Dakota, Inc.**  
 500 Oakwood Road  
 Watertown SD 57201  
 Jim Olson Product and Safety Engineer  
 605-882-4000,

This is a Safety Defect Report.

**Vehicle Information**  
 Terex and others C4000, FC, HR, HRX, SCM, TC, TCX, TL, TPL, XT 2007 - 2016

* Model Yr. Start: 2007	* Model Yr. End: 2016	Type: LOW VOLUME VEHICLES
* Make: Terex and others		Body Style:
* Model: C4000, FC, HR, HRX, SCM, TC, TCX, TL, TPL, XT		Powertrain:
Production Dates	Begin: 12/26/2007 End: 09/27/2016	Descriptive Information: This series of vehicles are used with digger derricks or aerial devices installed for utility line work. The vehicles use an electric hybrid battery power system, (Hy-Power™), to provide hydraulic power for the boom functions and 120VAC power for hand tools (exportable power) when stationary.
VIN Range(s):	Begin: End:	

Number potentially involved: 58 Estimated percentage of involved with defect: 100%

**Defect / Noncompliance Description**

For this Defect/Noncompliance:

<p>* Describe the defect or noncompliance:                  Hy Power™ 408 volt battery power systems on some aerial devices manufactured from December 2007 through September 2016 may contain 120VAC exportable power, for hand tool use, with 20 milliamp trip current Ground Fault Circuit Interrupter (GFCI) not 6 milliamp.                  If a noncompliance, provide the applicable FMVSS:                  If applicable, provide any further FMVSS affected:                  Describe the cause:                  The GFCI breaker supplied with 20 mA break current is for equipment protection not personal protection</p>	<p>* Describe the safety risk:                  Current level of 20 milliamps before opening the 120 VAC circuit is above the let-go current level if a tool should have an internal short.                  Identify any warning which can precede or occur:                  No warning will occur</p>
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This Recall affects all vehicles.

If applicable, identify the manufacturer of the defective or noncompliant component. If the manufacturer of the component is unknown, provide the information for the company that supplied the subject component.

<p>Component manufacturer</p> <p>Company Information</p> <p>Company Name: Parker SSD                  Country: United States                  Address 1: 9225 Forsyth Park Dr.                  Address 2:                  City: Charlotte                  State: NORTH CAROLINA                  Zip/Postal Code: 28273</p>	<p>Company Contact Information</p> <p>First Name: Dale                  Last Name: Vanderlaan                  Position:                  Email: DVanderlaan@parker.com                  Phone:</p>
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**Chronology of Defect / Noncompliance Determination**  
 Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.:

A unit built in February 2017 was tested for the trip current of the GFCI supplying 120 volt power to tools. The GFCI did not trip at the expected 6 milliamps current. Discussions with the supplier indicated they used a GFCI for equipment protection, which have 20 milliamps trip current. A unit was modified and tested on 3/30/17 and determined to comply with the current requirements. Units built in February were then modified with the replacement components before delivery. The decision to perform a recall was made on May 11, 2017.

**Identify the Remedy**

**Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement.**  
TSD will replace the breakers with GFCI personal protection breakers at no cost to the owner.

**Describe what distinguishes the remedy component from the recalled component.**  
The affected GFCI have the marking CBI visible through the clear breaker cover. The replacement Eaton GFCI do not have a visible manufacturers mark showing without disassembly.

**Identify and describe how and when the recall condition was corrected in production.**  
The GFCI breakers were replaced on production unit built in 2017

**Identify the Recall Schedule**

**Describe the recall schedule for notifications.:**  
Recall will begin when it has been approved by NHTSA and parts can be obtained.

**Planned Dealer Notification Begin Date:** 05/24/2017

**Planned Dealer Notification End Date:**

**Planned Owner Notification Begin Date:**

**Planned Owner Notification End Date:**

**Manufacturer's identification code for this recall (if applicable):** SN658

Please be reminded that owner notification letters must be mailed no more than 60 days from submission of this report.

**Manufacturer Comments to NHTSA Staff**

There were no units produced, with a 408 volt Hy-Power™ system, after September 2016 affected by this recall. There have been no incidents reported.

**Document Upload**

There are 0 documents associated with this report.

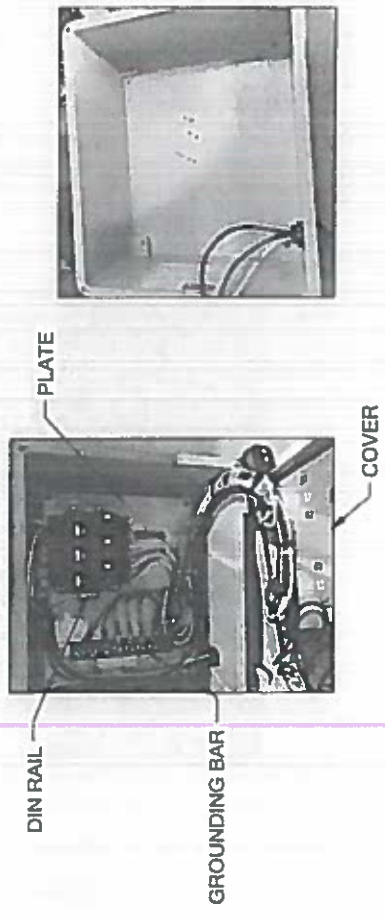
1200 New Jersey Avenue, SE, West Building Washington DC 20590 USA 1.888.327.4236 TTY 1.800.424.9153  
This application works best in IE9 and above and recent versions of Firefox, Chrome and Safari

REVISIONS

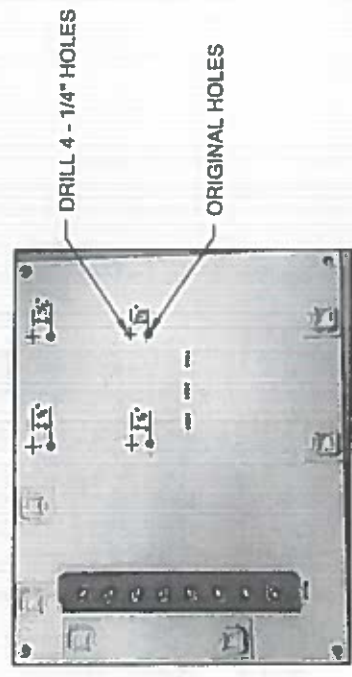
REV	DESCRIPTION	ECN	DATE	CHK BY	APP BY
A	ORIGINAL	74349	4/10/17	MLH	JRM

INSTRUCTIONS:

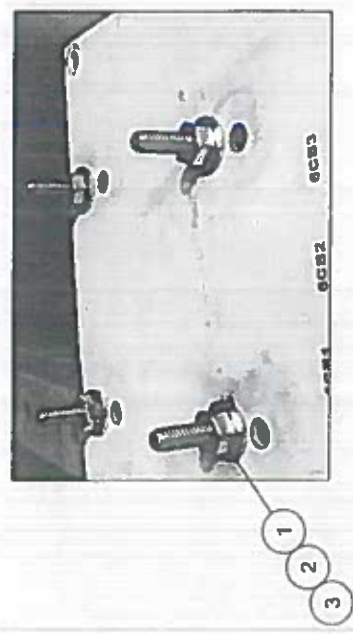
1. Turn hybrid off, turn the ignition key off, disconnect charging cable if the Hypower is plugged in for charging, and push in the Hypower emergency stop.
2. Remove the cover of the export power box. Disconnect all wiring and remove plate with breakers and grounding bar.



3. Remove breakers from DIN rail and remove DIN rail. Drill 4 - 1/4" holes 1/2" up from the original DIN rail mounting holes.



4. Install 1/4-20UNC X 1.00" long bolts with a washer and nut. The nut and washer are used to position the DIN rail to the correct height.



COVER



REF	ITEM	QTY
7	9157978 DIN RAIL ADAPTOR	1
6	9157977 30 AMP BREAKER	1
5	9157976 20 AMP BREAKER	1
4	352001 TERMINAL RING, 13-12 GA	1
3	10552 NUT 0.25-20 GR 5 ZP	1
2	10614 PREFERRED WIDE FW 0.25 ZP	1
1	10645 HBOLT 0.25-20 X 1.00	1

**TEREX**

PART NAME FOR ASSEMBLY DRAWING: 9157975  
 SHEET 1 OF 2

MATERIAL: HYPPOWER  
 ASSY 9157975  
 18 STOCK SIZE

DATE: 4/10/17  
 SCALE: 1:1

REV: A

DATE: JUN 1 2017  
 BY: JRM





Utilities

# Safety Notice SN658

## Customer Performed Inspection Completion Form

**GFI Circuit Breakers on 408 volt Hy-Power units**

PLEASE PRINT LEGIBLY

Please perform the inspection process as outlined in the "What the Owner Must Do" portion of the enclosed safety notice SN658. If your unit has the correct circuit breakers please complete this form, confirming your unit is excluded from this safety notice, and return to Terex Utilities using one of the methods at the bottom of this page.

If your unit has the "CBI" branded circuit breakers as noted on the Safety Notice 658 bulletin, please follow the "Continued Use" guidelines noted on the safety notice SN658 and contact Terex Utilities at 1-800-982-8975 or email [utilities.warranty@terex.com](mailto:utilities.warranty@terex.com) for assistance.

**UNIT INFORMATION (\*REQUIRED)**

**CHECK if new owner**

Customer Truck # \_\_\_\_\_

\*Owner Name: \_\_\_\_\_

Owner Phone Number: \_\_\_\_\_

\*Address req'd if new owner \_\_\_\_\_

\*Truck VIN # \_\_\_\_\_

\*Unit Serial Number: \_\_\_\_\_

**INSPECTION PERFORMED BY (\*REQUIRED)**

\* Date of Inspection \_\_\_\_\_

\* Name of company employee completing inspection: \_\_\_\_\_

\* Company location: \_\_\_\_\_

**Circuit breakers inspected as detailed on the Safety Notice 658 bulletin and ALL are marked with the "EATON" brand name. (By checking this box you are confirming your unit is excluded from this campaign.) Please return this completed form to Terex Utilities using the information at the bottom of this page.**

**Work Order:** \_\_\_\_\_

**Comments:** \_\_\_\_\_

FAX THIS COMPLETED FORM TO TEREX UTILITIES WARRANTY DEPT. AT (605)882-5579 OR SEND EMAIL TO [utilities.warranty@terex.com](mailto:utilities.warranty@terex.com)

**TEREX**

Utilities

**Safety Notice SN658****Terex Utilities Technician  
Completion Form****GFI Circuit Breakers on 408 volt Hy-Power units  
TO AVOID DELAYS IN PROCESSING – PLEASE PRINT LEGIBLY****UNIT INFORMATION (\*REQUIRED)**  **CHECK if new owner**

Customer Truck # \_\_\_\_\_

\*Owner Name: \_\_\_\_\_

Owner Phone Number: \_\_\_\_\_

\*Address req'd if new owner \_\_\_\_\_

\*Truck VIN # \_\_\_\_\_

\*Unit Serial Number: \_\_\_\_\_

**SERVICE PERFORMED BY (\*REQUIRED)**

\* Date of Repair / Inspection \_\_\_\_\_

\* Service Technician (ST) completing work: \_\_\_\_\_

\* ST Company Name: \_\_\_\_\_ ST Location: \_\_\_\_\_

ST Contact Number: \_\_\_\_\_

**\* CHECK A BOX TO VERIFY COMPLETION (MARK ONLY ONE BOX):**

Circuit breakers have been inspected as detailed on the Safety Notice 658 bulletin and ALL are marked with the "EATON" brand name. No further action is required. NOTE: The inspection is the responsibility of the owner as defined in the "What the Owner Must Do" section of the attached safety notice SN658. IF the customer requests Terex to perform the inspection, the labor and travel is then CHARGEABLE to the customer.

OR

Check this box confirming the new "EATON" branded circuit breakers have been installed per instruction sheet 9157975A. Repair may take up to 4 hours to complete. The replacement of the "CBI" branded circuit breakers, on units involved in this recall, will be done at no charge to the owner.

**\*\*NOTE\*\* "CBI" branded circuit breakers must be returned to Terex Utilities.**

Work Order: \_\_\_\_\_

Comments: \_\_\_\_\_

FAX THIS COMPLETED FORM TO TEREX UTILITIES WARRANTY DEPT. AT  
(605)882-5579 OR SEND EMAIL TO [utilities.warranty@terex.com](mailto:utilities.warranty@terex.com)