



www.harscorail.com

---

## SERVICE BULLETIN

### MAINTENANCE OF WAY EQUIPMENT

---

**DATE:** 7-24-2012 **BULLETIN NO:** 12-010

**TITLE:** MASTER DISCONNECT SWITCH SAFETY FUNCTION REPLACEMENT

**RATING:**

<input type="checkbox"/> <b>DIRECTIVE</b> (Action Is Required)	<input checked="" type="checkbox"/> <b>ALERT</b> (Potential Problem)
<input type="checkbox"/> <b>INFORMATION</b> (Action Is Optional)	<input type="checkbox"/> <b>PRODUCT IMPROVEMENT</b> (Enhance Product)

**PRODUCT SERIES / MODEL:** TR-10 Tie Exchanger - Drone Tamper - Prime Mover  
Gopher Ballast Under-Cutter - DXC 500 Track Renewal Train

**SERIAL NO:** All Models with Lock-Out Lever Kit #H5138Y01 or #2010800 and  
Master Disconnect Switch #F025527, #0-3180004-0-04 or #253186-1

**SUMMARY:** A potential problem has been discovered with the master power disconnect switch (#F025527, #0-3180004-0-04 or #253186-1) when used with the lock-out lever kit (#H5138Y01 or #2010800) to render a machine inoperable. Under certain conditions, when a machine lock-out device is locked and engaged with the switch and lock-out lever, it is possible to manually rotate the master power disconnect switch handle a few degrees, and with some switches, closing the electrical contacts. When forcibly held in position, the electrical power to the machine circuits will remain energized. This action overrides the power lock-out intention and could result in unintentional start-up of the machine.

Harsco Rail strongly recommends that the corrective actions be performed as soon as possible to eliminate the risk of failure and possible injury.

**OPERATIONAL IMPACT:** Harsco Rail strongly recommends replacement of the current master disconnect switch with a new and different master disconnect switch (#5018833) designed to eliminate the possibility of the switch contacts closing as discovered when it is locked-out with a device designed to prevent energizing the circuits. The replacement switch mounts and connects just like the old switch.

**ACTION:** Follow the instructions in this Service Bulletin to check the existing master disconnect switch operation. If the master disconnect switch meets the described criteria (requiring replacement), follow the instructions in this Service Bulletin to order and replace the master disconnect switch as soon as possible.

**CONTACT:** If you have any questions or if we can be of any service, please contact:

Mike Fogelson  
Fairmont, MN Facility  
(507) 235-7290  
mfogelson@harsco.com

or

Harsco Rail Service Department  
Columbia, SC Facility  
(803) 822-7546

## SAFETY INFORMATION



- **FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURE TO REMOVE MACHINE FROM ENERGY SOURCES. FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

## CHECKING MASTER DISCONNECT SWITCH - See Figures 1 and 2

1. Locate the master disconnect switch (1) on the machine. It is usually located inside of the battery box or near the battery box in a separate enclosure.
2. Check if the master disconnect switch (1) is equipped with the lock-out lever kit (A) (#H5138Y01 or #2010800) as shown in Figure 1.
  - a. If the machine is NOT equipped with the lock-out lever kit, the master disconnect switch does NOT have to be replaced.
  - b. If the machine is equipped with the lock-out lever kit, proceed to Step 3.
3. Inspect the contact studs on the rear of the master disconnect switch (1).
  - a. If the switch has only one set (two) of 3/8" studs, the switch does NOT have to be replaced.
  - b. If the switch has one set (two) of 3/8" studs and an auxiliary set (two) of #10 studs, the switch SHOULD BE REPLACED by the new master disconnect switch #5018833. See Ordering Master Disconnect Switch.
  - c. If the auxiliary set of #10 studs are currently being used on the existing switch, BE SURE to make the Service Department aware of this when ordering the new switch to find out on where to re-connect the wires.

**ORDERING MASTER DISCONNECT SWITCH - See Figures 2 and 3**

1. To receive the new master disconnect switch (1), contact the Service Department at Harsco Rail to order the total quantity of #5018833 switches needed.

Harsco Rail Service Department  
 Columbia, SC Facility  
 (803) 822-7546

2. When contacting the Service Department, please:
  - a. Please provide the Model Number and Serial Number of the machine that the switch is being replaced on.
  - b. If the auxiliary set of #10 studs are currently being used on the existing switch, BE SURE to make the Service Department aware of this when ordering the new switch to find out on where to re-connect the wires.

FIGURE 1  
 LOCK-OUT LEVER KIT

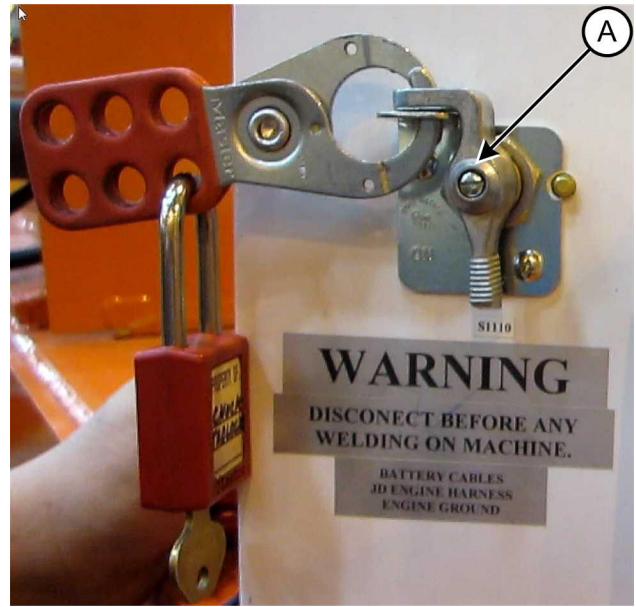
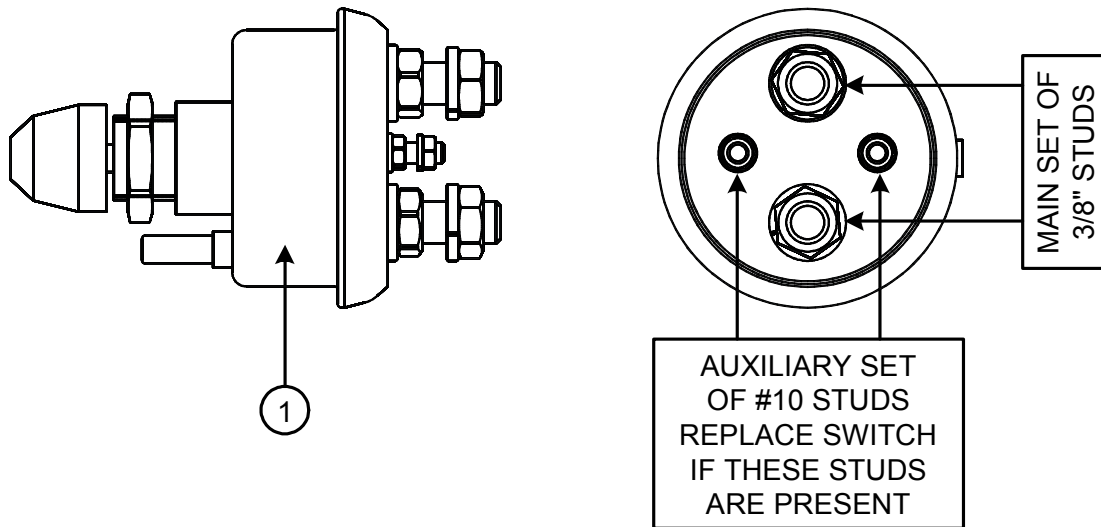


FIGURE 2  
 MASTER DISCONNECT SWITCH CONTACT STUDS



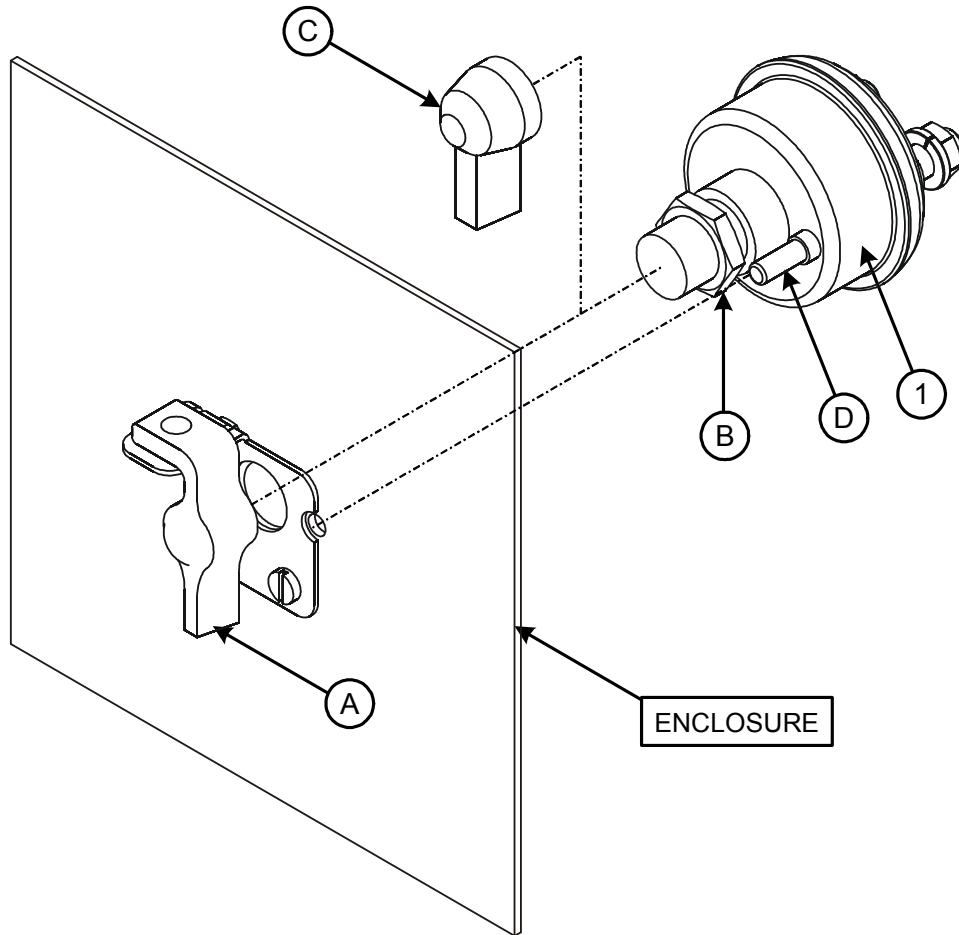
**REPLACING MASTER DISCONNECT SWITCH - See Figure 3**

- **DISCONNECT CABLES FROM BATTERY BEFORE REMOVING EXISTING MASTER DISCONNECT SWITCH. ALWAYS DISCONNECT NEGATIVE (-) CABLE FROM BATTERY FIRST AND ALWAYS INSTALL NEGATIVE (-) CABLE TO BATTERY LAST. FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

1. Disconnect the cable from the battery negative (-) terminal that runs to the machine ground. Then disconnect the cable from the battery positive (+) terminal that runs to the existing switch (1).
2. Remove the cables from the existing switch (1) and label for proper re-assembly.
3. Remove the lockable rotation knob (A) from the existing switch (1). Save the lockable rotation knob (A), it will be re-used with the new switch (1).
4. Loosen the jam nut (B) and remove the existing switch (1) from the enclosure. Discard the existing switch (1), it will not be re-used.
5. Remove the supplied rotation knob (C) on the new switch (1). Discard the supplied rotation knob (C), it will not be used.
6. Install the new switch (1) in the mounting hole of the enclosure and apply the jam nut (B), verifying that the anti-rotation pin (D) on the new switch (1) is properly positioned in its mounting hole. Then tighten the jam nut (B) securely.
7. Install the existing lockable rotation knob (A) that was removed in Step 3 to the new switch (1).
8. Re-connect the cables that were removed in Step 2 to the new switch (1) as they were connected on the old switch. Then tighten all connections securely.
  - a. If the old switch had wires connected to the auxiliary set of #10 studs, re-connect the wires per the instructions from the Service Department.
9. Connect the cable from the new switch (1) to the battery positive (+) terminal. Then connect the cable from the machine ground to the battery negative (-) terminal.
10. BE SURE all personnel are clear of the machine. Turn on the new switch and check for proper function.

**REPLACING MASTER DISCONNECT SWITCH**

**FIGURE 3  
NEW MASTER DISCONNECT SWITCH INSTALLATION**



**PARTS LIST**

ITEM	PART NO	DESCRIPTION	QTY
1	5018833	Switch, Master Disconnect.....	1

**© 2012 HARSCO CORPORATION, ALL RIGHTS RESERVED**

415 North Main Street  
Fairmont, MN  
56031-1837  
Tel: (507) 235-3361  
Fax: (507) 235-7370

2401 Edmund Road, Box 20  
Cayce-West Columbia, SC  
29171-0020  
Tel: (803) 822-9160  
Fax: (803) 822-7471

200 South Jackson Road  
Ludington, MI  
49431  
Tel: (231) 843-3431  
Fax: (231) 843-1644

Printed In U.S.A.