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SERVICE BULLETIN MAINTENANCE OF WAY FOUIPMENT

	l	MAINTENANCE OF V	VAY EC	QUIPMENT	
DATE : 10 - 2	021			BULLETIN NO : 21-008	
TITLE: BUG	GY DERAIL	ALARM KIT - 6700			
RATING:		DIRECTIVE (Action Is Required)		ALERT (Potential Problem)	
		INFORMATION (Action Is Optional)	X	PRODUCT IMPROVEMENT (Enhance Product)	
PRODUCT SI	ERIES / MO	DDEL: 6700 Production	/ Switch	Tampers with Jupiter II	
SERIAL NO:	N/A				
SUMMARY:	Harsco Rail has developed a Derail Alarm Kit to detect and prevent derailment of the projector light buggy. It provides audible and visual notifications to the operator and has the ability to automatically reduce power and apply the brakes. Field installation takes approximately 3 hours and utilizes a wireless transmitter so no wires need to be run through the pusher bars.				
OPERATION					
	A projector buggy not equipped with the alarm kit may result in a derailment, which can cause damage to the machine and track structure and possible personal injury to the operator.				
ACTION:	5126368 Service E) for each machine bein Bulletin to assemble and	g rewor install th	sembly kit (Harsco Rail part number ked. Follow the instructions in this le kit components onto the projector awing 5126368 - Buggy Derail Alarm	

Kit-6700, when installing the kit onto the projector buggy.

CONTACT: Harsco Rail Service Department

(803) 822-7546

Harsco Rail Parts Department

(800) 800-6410

SAFETY INFORMATION



■ Follow applicable railroad lockout - tagout procedures to disable energy sources when performing maintenance, making adjustments or repairs to the vehicle or equipment. Failure to heed this warning could result in severe bodily injury.

Before Installing Buggy Derail Alarm Kit

- 1. Make sure all machine work components are in the stored position and locks are engaged.
- 2. Make sure the machine is shut down, parking brakes are applied, battery switch is turned off and the machine wheels are chocked.
- 3. Order one Buggy Derail Alarm Kit-6700 #5126368 for each machine being reworked.

ITEM	PART NO	DESCRIPTION	QTY
	5126368	Buggy Derail Alarm Kit - 6700	1
1	5122546	Sensor Mounting Assembly	2
2	5128261	Enclosure, Derail Kit, 6700	
3	5126602	Bracket, Derailment Sensor	2
4	3401326	Cable,M12-M/F 3M SH 5-Cond	2
5	F001106	Washer, Flat, 1/4", USS, ZP	4
6	F013588	1/4-20 Elas Stp Nut	
7	F009825	Hex HC Scr 1/4-20X1 Gr5	
8	F001025	Washer, Lock, 3/8", Medium, ZP	
9	F007020	Nut, Hex, 3/8-16, Gd5, ZP	
10	F002915	Hex Hd Cap Scr 3/8-16X3 1/4	
11	5126682	Bracket, Enclosure	
12	5128197	Bracket, Enclosure	
13	F009535	Washer, Lock, 1/4", Medium, ZP	
14	A0036392	1/4-20x 7/8 HHCS Gr5 Full Thd	
15	5127808	Buggy Derail Alarm Sftwre 6700	
16	F018229	Ty-Rap	
17	F011626	10-24 X 3/4 Skt Hd Cs	
18	F009542	Nut, Hex, #10-24, Gd2, ZP	
19	405410	DIN Rail, 3.0" Long	
20	5070045	Circuit Breaker, 3 Amp 1 Pole	
21	F041270	End Stop	
22	250648-5	Washer, Lock, M5, DIN127	
23	252028-29	Nut- Hex, Coarse, Class 8, M5x0.8 Zinc	
24	251203-78	Screw-Mach, Pan Hd, M5 X 16 mm Lg	2

Install 5128261 - Enclosure, Derail Kit, 6700

- 1. Mount (11) 5126682 Bracket, Enclosure to the bracket on the Projector Buggy Assembly and secure with four new fasteners (6) F013588 1/4-20 Elas Stp Nut, (7) F009825 Hex HC Scr 1/4-20X1 Gr5, and (13) F009535 Washer, Lock, 1/4", Medium, ZP, as shown in Harsco Rail drawing 5126368 (Sheet 2 Sections C-C, F-F, and inset image).
 - If there is an additional enclosure on the front of the bracket remove the fasteners securing the right side of the existing enclosure as seen in Harsco Rail drawing 5126368 (Sheet 3). Save the fasteners for re-installation, but discard the two jam nuts, they will not be re-used. Mount (12) 5128197 Bracket, Enclosure to the side of existing enclosure and secure with the saved fasteners.
- 2. Mount (2) 5128261– Enclosure, Derail Kit, 6700 with four new fasteners (5) F001106 Washer, Flat, 1/4", USS, ZP, (6) F013588 1/4-20 Elas Stp Nut, (13) F009535 Washer, Lock, 1/4", Medium, ZP, and (14) A0036392 1/4-20x 7/8 HHCS Gr5 Full Thd, as shown in Harsco Rail drawing 5126368 (Sheet 2 Sections C-C, F-F, and inset image).

If there is an additional enclosure on the front of the bracket - mount (2) 5128261– Enclosure, Derail Kit, 6700 to (12) 5128197 - Bracket, Enclosure and secure with four new fasteners (5) F001106 Washer, Flat, 1/4", USS, ZP, (6) F013588 1/4-20 Elas Stp Nut, (13) F009535 Washer, Lock, 1/4", Medium, ZP, and (14) A0036392 1/4-20x 7/8 HHCS Gr5 Full Thd, as seen in Harsco Rail drawing 5126368 (Sheet 3).

Install 5122546 - Sensor Mounting Assemblies

- 1. Mount (3) 5126602 Bracket, Derailment Sensor with two new fasteners (8) F001025 Washer, Lock, 3/8", Medium, ZP, (9) F007020 Nut, Hex, 3/8-16, Gd5, ZP and (10) F002915 Hex Hd Cap Scr 3/8-16X3 1/4. Repeat for installing the Bracket, Derailment Sensor on the opposite side as shown in Harsco Rail drawing 5126368 (Sheet 2 Section A-A).
- 2. Mount (1) 5122546 Sensor Mounting Assembly onto (3) 5126602 Bracket, Derailment Sensor and secure with fasteners included with (1) 5122546 Sensor Mounting Assembly. Repeat for installing the Sensor Mounting Assembly on the opposite side.
- 3. Loosen fasteners securing the rubber mounts on (1) 5122546 Sensor Mounting Assembly and adjust center of sensor to align with center of rail. Adjust Sensor height to 1.52 in (38.6 mm) from the top of the rail as seen in Harsco Rail drawing 5126368 (Sheet 2 Section A-A). Securely tighten fasteners on the rubber mounts. Repeat for adjusting the other Sensor Mounting Assembly above the other rail.
- 4. Connect one end of (4) 3401326 Cable, M12-M/F 3M SH 5-Cond to a connector on the side of (2) 5128261, Enclosure, Derail Kit 6700 and the opposite end to the newly mounted (1) 5122546 Sensor Mounting Assembly as shown in Harsco Rail drawing 5126368 (Sheet 5). Repeat for connecting the other Cable to the other Sensor Mounting Assembly above the other rail.

Install 5125084 - Kit, Radio I/O Module

- 1. Drill four Ø .22 holes inside the cab at location shown in Harsco Rail drawing 5126368 (Sheet 4 Section D-D).
- 2. Install 5125084 Kit, Radio I/O Module (part of Item 2 5128261, Enclosure, Derail Kit) inside cab. Secure radio module with hardware supplied with it four each (17) F011626 10-24 x 3/4 Skt Hd CS and (18) F009542 Nut, Hex, #10-24, Gd2, ZP. See Harsco Rail drawing 5126368 (Sheet 4 Section D-D)
- 3. Connect 3401340 Cable, M12-M/PIG 8M 4-Cond HF (part of Item 2 5128261, Enclosure, Derail Kit) to Jupiter Module CAN:02 port C3 (C3-6, C3-7) and to the newly mounted radio module inside cab as shown in Harsco Rail drawing 5126368 (sheets 4 & 5).
- 4. Drill two Ø .22 holes inside the cab at location shown in Harsco Rail drawing 5126368 (Sheet 4 Section D-D) for mounting (19) 405410 DIN Rail, 3.0" Long.
- 5. Secure (19) 405410 DIN Rail, 3.0" Long with four two new fasteners (22) 250648-5 Washer, Lock, M5, DIN127, (23) 252028-29 Nut- Hex, Coarse, Class 8, M5x0.8 Zinc, and (24) 251203-78 Screw-Mach, Pan Hd, M5 X 16 mm Lg.
- 6. Assemble (20) 5070045 Circuit Breaker, 3 Amp 1 Pole, and both (21) F041270 End Stops onto (19) DIN rail, 3.0" Long.

Installing Buggy Derail Alarm Software

- 1. The Buggy Derail Alarm Software 6700 (Item 15) is programmed onto the 8GB USB flash drive, and is specifically written for each machine by the serial number provided when the Buggy Derail Alarm Kit was ordered. Be certain to follow the software installation instructions exactly.
- 2. Verify and log all machine parameters before beginning the software download.
- 3. Turn the Jupiter computer OFF.
- 4. Make sure that the machine's engine is shut down, parking brakes are applied and battery master switch is OFF.
- 5. Turn the battery master switch on. Turn the Jupiter computer ON.
- 6. In some Jupiter-II applications, a new software "Install Permission" panel now asks the user whether they want to shut down the machine application in order to download a new software package.
 - a. Press the "Esc" button to leave the USB drive installed but not install new software.
 - b. Press the "Enter" button to proceed to software install (Super-Download screen).
 - c. When software has finished installing, turn the Jupiter computer OFF and then back ON again.
- 7. Verify that none of the machine parameters have changed. If any parameters have changed, correct them using the parameter information that was logged.
- 8. Start the machine's engine. Turn Jupiter ON. Check the function of the entire Jupiter Control System. Make sure all functions controlled through the Jupiter II system are operating properly.
- 9. If any problems are encountered, contact the Harsco Rail Service Department.

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