



# Harsco Track Technologies

Harsco

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## SERVICE BULLETIN MAINTENANCE OF WAY EQUIPMENT

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**DATE:** 5-9-2006 **BULLETIN NO:** 06-005

**TITLE:** PUSHER BAR LOCK PIN PROCEDURE

**RATING:**

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

**PRODUCT SERIES / MODEL:** MARK IV Tampers

**SERIAL NO:** All Models

**SUMMARY:** Recently there have been some questions concerning the proper sequence for using the lock pins that secure the folding pusher bars in the projector buggy lift frame. The purpose of this Service Bulletin is to clarify the Pusher Bar Lock Pin Procedure.

**OPERATIONAL IMPACT:** The Pusher Bar Lock Pin Procedure in this Service Bulletin provides a detailed method for the correct insertion and retraction of the folding pusher bar lock pins.

**ACTION:** Follow the Pusher Bar Lock Pin Procedure in this Service Bulletin when deploying and storing the folding pusher bars and projector buggy. In addition, HTT is now offering the following two kits to upgrade older MARK IV's:

1. Air Operated Lock Pin Kit - HTT part #4011577. This kit adds the remote air operated lock pins and air valves to the existing projector buggy lift frame.
2. Pusher Bar Handle Kit - HTT part #4011487. This kit provides bolt-on pusher bar grip handles to assist in deploying and storing the pusher bars.

**CONTACT:** If you have any questions or if we can be of any service, please contact the Service Department at the Columbia, SC. facility, 803-822-9160.

**SAFETY INFORMATION**

- n FOLLOW ALL SAFETY INSTRUCTIONS PER THE MARK IV OPERATION AND MAINTENANCE MANUAL BEFORE DEPLOYING PUSHER BARS. FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

**PUSHER BAR LOCK PIN PROCEDURE**

The Pusher Bar Lock Pin Procedure in this Service Bulletin refers to the remote air operated lock pin design. The pins are retracted or inserted by pulling or pushing respectively on the corresponding air valve knob. The procedure for the manual lock pin design is the same except that the pins must be inserted and retracted by hand.

The correct lock pin configuration (with the folding pusher bars and projector buggy stored for track travel) is as follows: pins 1, 4 & 5 inserted, pins 2 & 3 retracted, and the cable operated spring loaded buggy lock engaged (see Figure 1).

**DEPLOYING PUSHER BARS**

1. Retract lock pin 5. Slowly push the projector buggy away from the machine to unfold the recorder buggy (short buggy) until it is fully extended (see Figure 2).
2. Retract lock pin 4. Slowly begin to unfold pusher bar 1. Once it has moved slightly away from pusher bar 2, insert lock pin 3 to secure pusher bar 2. Continue to unfold pusher bar 1 until it is fully extended (see Figure 3).
3. Retract lock pin 3. Slowly unfold pusher bar 2 until it is fully extended.
4. Before unfolding pusher bar 3, verify that the cable operated spring loaded buggy lock is properly engaged (see Figure 4). Retract lock pin 1 and slowly begin to unfold pusher bar 3. As it moves forward slightly, pull the cable ring to release the spring loaded buggy lock. Continue to unfold pusher bar 3 until it is fully extended.

FIGURE 1  
LOCK PIN CONFIGURATION WITH FOLDING PUSHER BARS  
AND PROJECTOR BUGGY STORED FOR TRACK TRAVEL

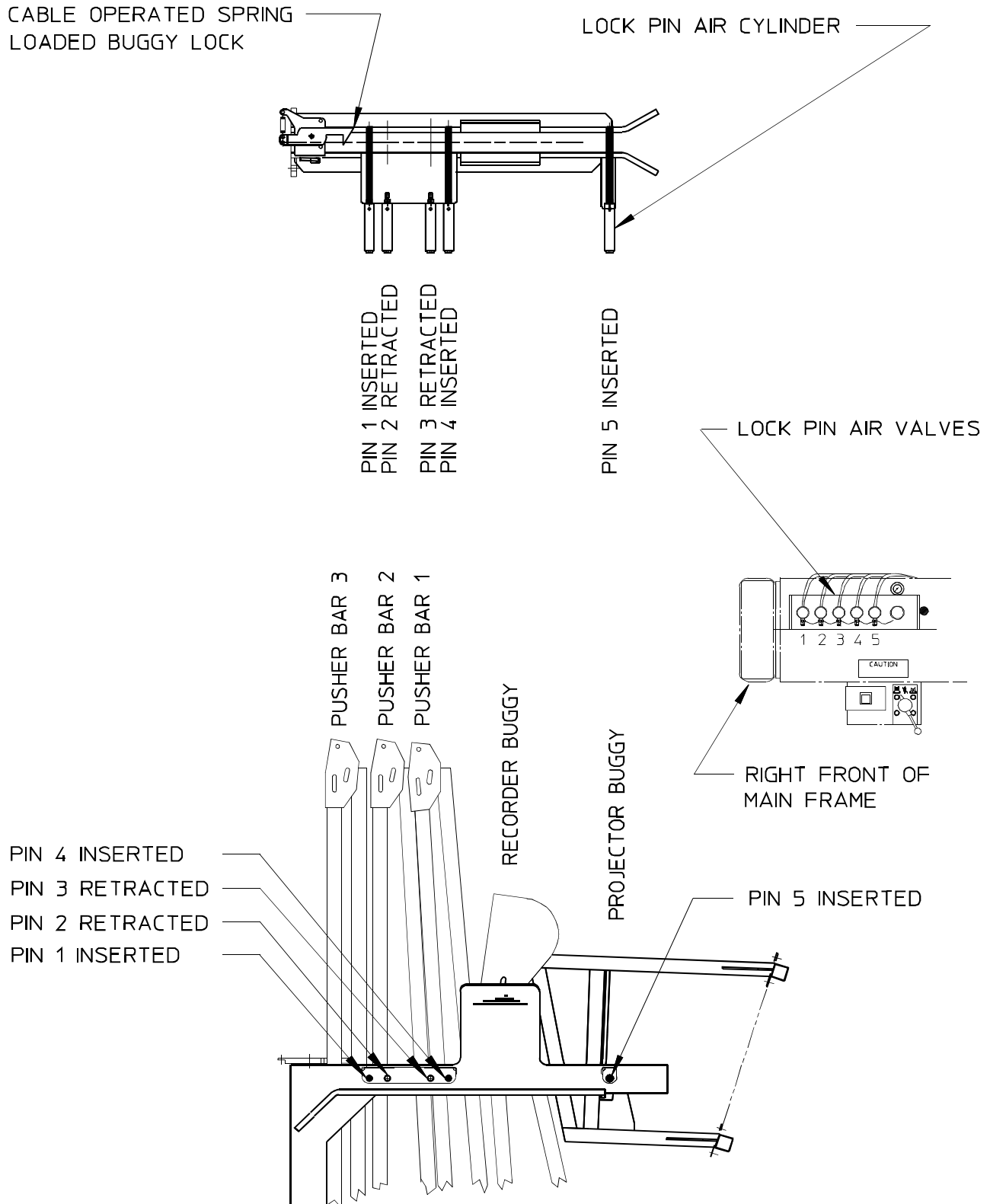
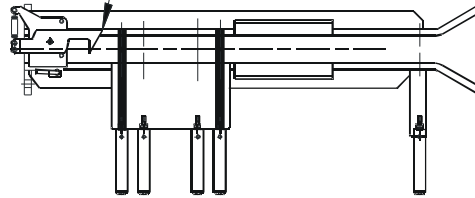


FIGURE 2  
LOCK PIN CONFIGURATION WITH PROJECTOR BUGGY  
AND RECORDER BUGGY DEPLOYED

CABLE OPERATED SPRING  
LOADED BUGGY LOCK



PIN 1 INSERTED  
PIN 2 RETRACTED  
PIN 3 RETRACTED  
PIN 4 INSERTED

PIN 5 RETRACTED

PUSHER BAR 3  
PUSHER BAR 2  
PUSHER BAR 1

PIN 4 INSERTED  
PIN 3 RETRACTED  
PIN 2 RETRACTED  
PIN 1 INSERTED

PIN 5 RETRACTED

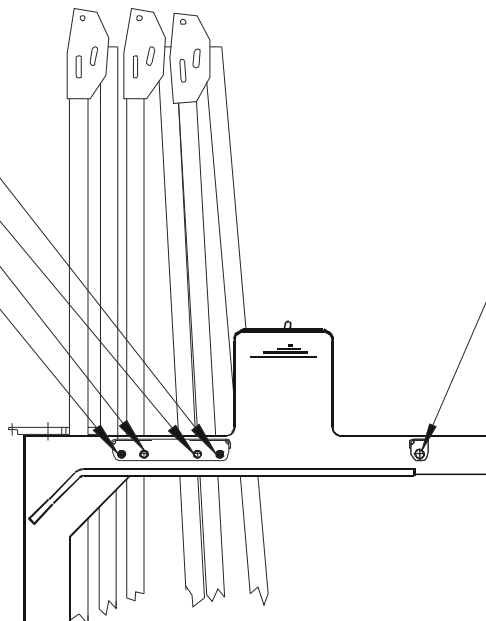
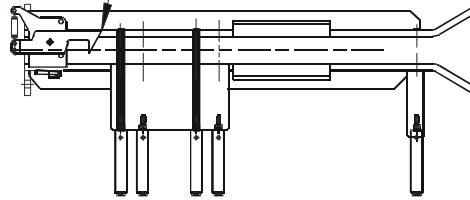


FIGURE 3  
LOCK PIN CONFIGURATION WITH PROJECTOR BUGGY,  
RECORDER BUGGY AND PUSHER BAR 1 DEPLOYED

CABLE OPERATED SPRING  
LOADED BUGGY LOCK



PIN 1 INSERTED  
PIN 2 RETRACTED

PIN 3 INSERTED  
PIN 4 RETRACTED

PIN 5 RETRACTED

PUSHER BAR 3  
PUSHER BAR 2

PIN 4 RETRACTED  
PIN 3 INSERTED  
PIN 2 RETRACTED  
PIN 1 INSERTED

PIN 5 RETRACTED

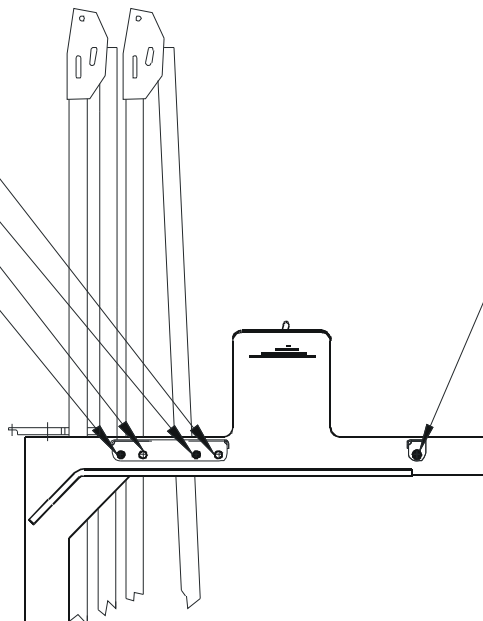
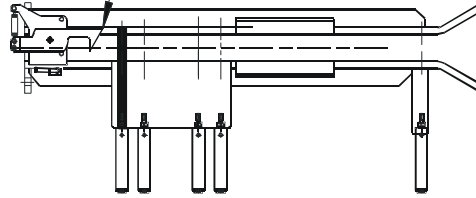


FIGURE 4  
LOCK PIN CONFIGURATION WITH PROJECTOR BUGGY,  
RECORDER BUGGY AND PUSHER BARS 1 & 2 DEPLOYED

CABLE OPERATED SPRING  
LOADED BUGGY LOCK



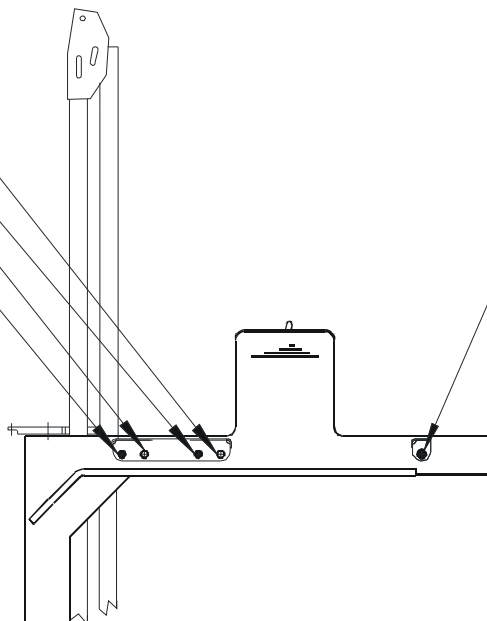
PIN 1 INSERTED  
PIN 2 RETRACTED

PIN 3 RETRACTED  
PIN 4 RETRACTED

PIN 5 RETRACTED

PUSHER BAR 3

PIN 4 RETRACTED  
PIN 3 RETRACTED  
PIN 2 RETRACTED  
PIN 1 INSERTED



PIN 5 RETRACTED

**STORING PUSHER BARS**

1. Slowly fold up pusher bar 3 into the buggy lift frame until it engages the spring loaded buggy lock. Then be sure to insert lock pin 1 before proceeding (see Figure 4).
2. Slowly fold up pusher bar 2 into the buggy lift frame. Insert lock pin 3 temporarily to secure pusher bar 2 (see Figure 3).
3. Slowly fold up pusher bar 1 into the buggy lift frame. As it reaches the lift frame, retract lock pin 3. Continue to fold up pusher bar 1 into the buggy lift frame until it can be secured by inserting lock pin 4 (see Figure 2).
4. Slowly fold up the recorder buggy into the buggy lift frame. Store the projector buggy on the buggy lift frame and insert lock pin 5 to secure it (see Figure 1).

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