



Harsco Track Technologies

Harsco

www.harscotrack.com

SERVICE BULLETIN MAINTENANCE OF WAY EQUIPMENT

DATE: 12-18-2001 **BULLETIN NO:** 01-019
REVISED: 3- 5-2002 - See Revision Record Page 10

TITLE: 2004525 TIE MARKER CONVERSION GROUP

RATING: **DIRECTIVE** **ALERT**
(Action Is Required) (Potential Problem)
 INFORMATION **PRODUCT IMPROVEMENT**
(Action Is Optional) (Enhance Product)

PRODUCT SERIES / MODEL: 6700 TAMPERS

SERIAL NO: All Models

SUMMARY: A Tie Marker Conversion Group 2004525 has been developed to allow the operator to mark the beginning of a measurement run without leaving the cab. A toggle switch, located at the operator's station, controls an electrical solenoid valve and a small air cylinder that activates the nozzle of a spray paint can.

OPERATIONAL IMPACT: Increases productive time by allowing the operator to mark the beginning of a measurement run without leaving the cab.

ACTION: The installation of this Conversion Group requires:

- Welding a holder bracket onto the machine frame.
- Drilling holes to mount an air valve and an electrical switch.
- Installing an air cylinder, valve, fittings and hoses.
- Installing an electrical switch and wiring.

CONTACT: If you have any questions or if we can be of any service, please contact Bill Perry or Doug Budreau at the Ludington, MI. facility, (231) 843-3431.

SAFETY INFORMATION

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

CONVERSION GROUP INSTALLATION

1. **Important:** Before welding on the machine:
 - 1.1 Shut off the master disconnect machine.
 - 1.2 Disconnect all electrical wires from the alternator.
 - 1.3 If the machine has the Auto Curve Computer, disconnect cable #15.
 - 1.4 If the machine has the Auto Workhead Computer, disconnect cable #14.
 - 1.5 Disconnect cables #12 and #13 going to the module panels.
2. Position the holder bracket (1) on the mask follower frame per the dimensions shown in Figure 1. Weld the holder bracket (1) onto the mask follower frame per the weld symbols shown in Figure 1.
3. Insert the paint can (18) in the holder bracket (1). Position the chain links (20) on both sides of the holder bracket (1) so the bungee cord (19) holds the paint can (18) firmly in the holder bracket (1) as shown in Figure 1. Mark the location of both chain links (20). **BE SURE TO REMOVE** the paint can (18) from the holder bracket (1) before welding. Weld the chain links (20) on the holder bracket (1) per the weld symbols shown in Figure 1.
4. Install the air cylinder (3) to the holder bracket (1) using mounting hardware (7 and 8) as shown in Figure 1.
5. Drill four 7/32" diameter holes in the cross brace of the X-brace as shown in Figure 2. Install the air valve (4) to the cross brace using mounting hardware (13, 14 and 22).
6. Remove an existing hole plug from the bottom of the X-brace junction box as shown in Figure 2. If all holes are currently being used, drill one 7/8" diameter hole in the bottom of the X-brace junction box in an unused location of the junction box for the electrical wiring.
7. Determine where the toggle switch (2) is to be located on the machine. See the following Figures for the suggested mounting location applicable to your model of machine:

See Figure 5 for "S" Models - Serial #152700 and Higher.

See Figure 6 for "S" Models - Serial #162682 and Lower.

See Figure 7 for Non "S" Models.

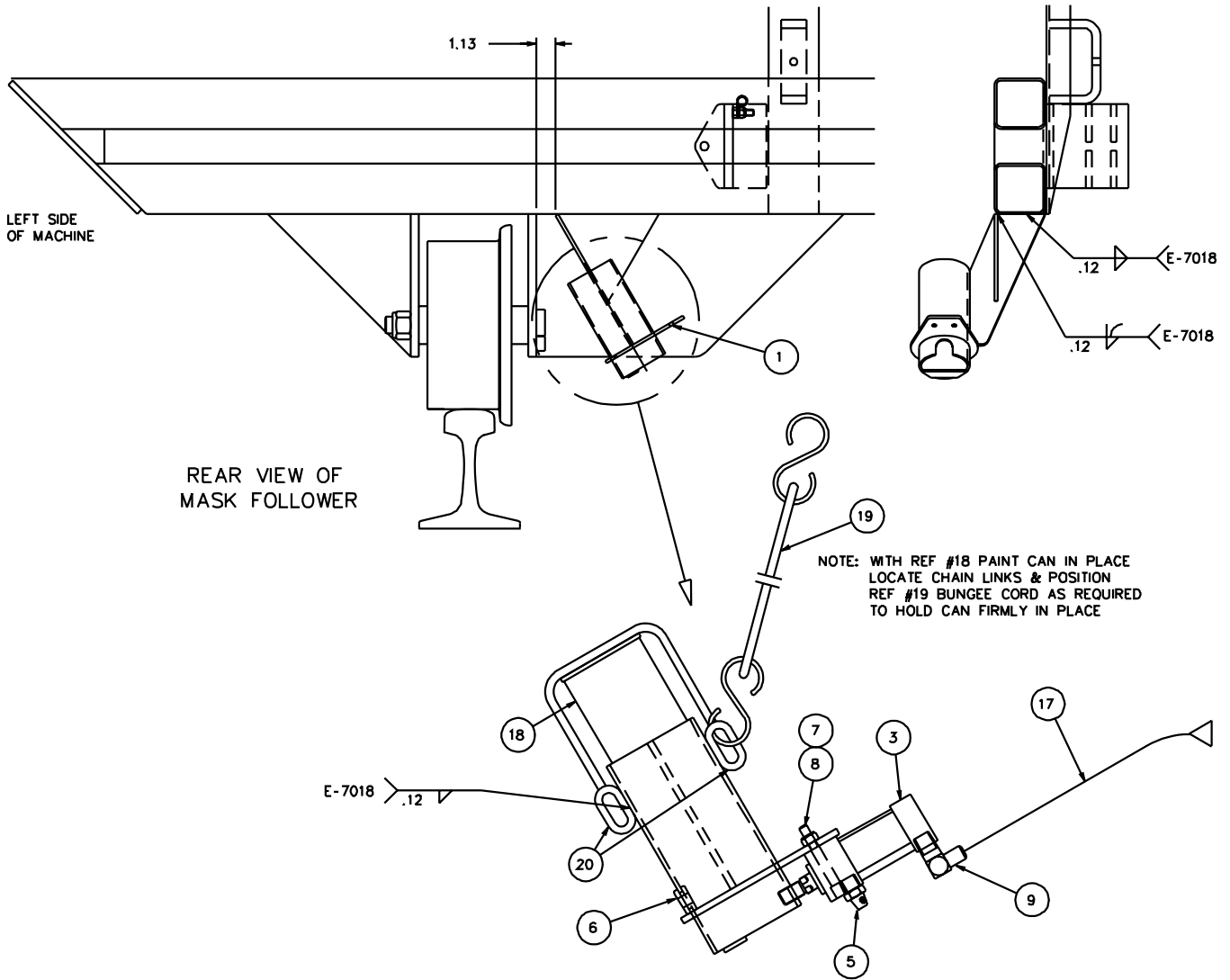
CONVERSION GROUP INSTALLATION

8. Drill one 1/2" diameter hole and one 1/8" diameter hole per the dimensions shown in Figure 4 - Hole Detail A. Install the toggle switch (2).
9. Thoroughly clean the area next to the toggle switch (2) where the label (23) will be installed. Then install the label (23) as shown in Figure 5, Figure 6 or Figure 7.
10. Remove the fitting from the existing air valve on the cross brace of the X-brace as shown in Figure 2. Then install all air components (5, 9, 15, 16, 17, 27 and 28) as shown in Figure 1 and Figure 2. Tighten all fittings and hose connections securely. **BE SURE TO ROUTE** all hoses so they are clear of all moving parts on the machine.
11. Install all electrical components (10, 11, 12, 21, 24, 25 and 26) as shown in Figure 1, Figure 2 and Figure 3. **BE SURE TO ROUTE** all electrical wires and cables so they are clear of all moving parts on the machine.
12. Install the rubber grommet (6) in the holder bracket (1) as shown in Figure 1. Then insert the paint can (18) in the holder bracket (1) and secure with the bungee cord (19).
13. Reconnect all electrical wires and cables that were disconnected in Step 1.
14. Start the engine and pressurize the tie marker air system.
15. Check the tie marker air system lines and fittings for leaks.
16. Actuate the toggle switch (2) to verify operation of the tie marker system paint can.
17. To adjust the air flow control valve (27), loosen the jam nut on the flow control valve adjusting screw. Actuate the toggle switch (2) several times and adjust the adjusting screw so the air cylinder (3) rod extends smoothly without impacting the paint can (18) nozzle. Then tighten the jam nut on the flow control valve to lock the adjustment.

CONVERSION GROUP INSTALLATION

FIGURE 1
CONVERSION GROUP INSTALLATION

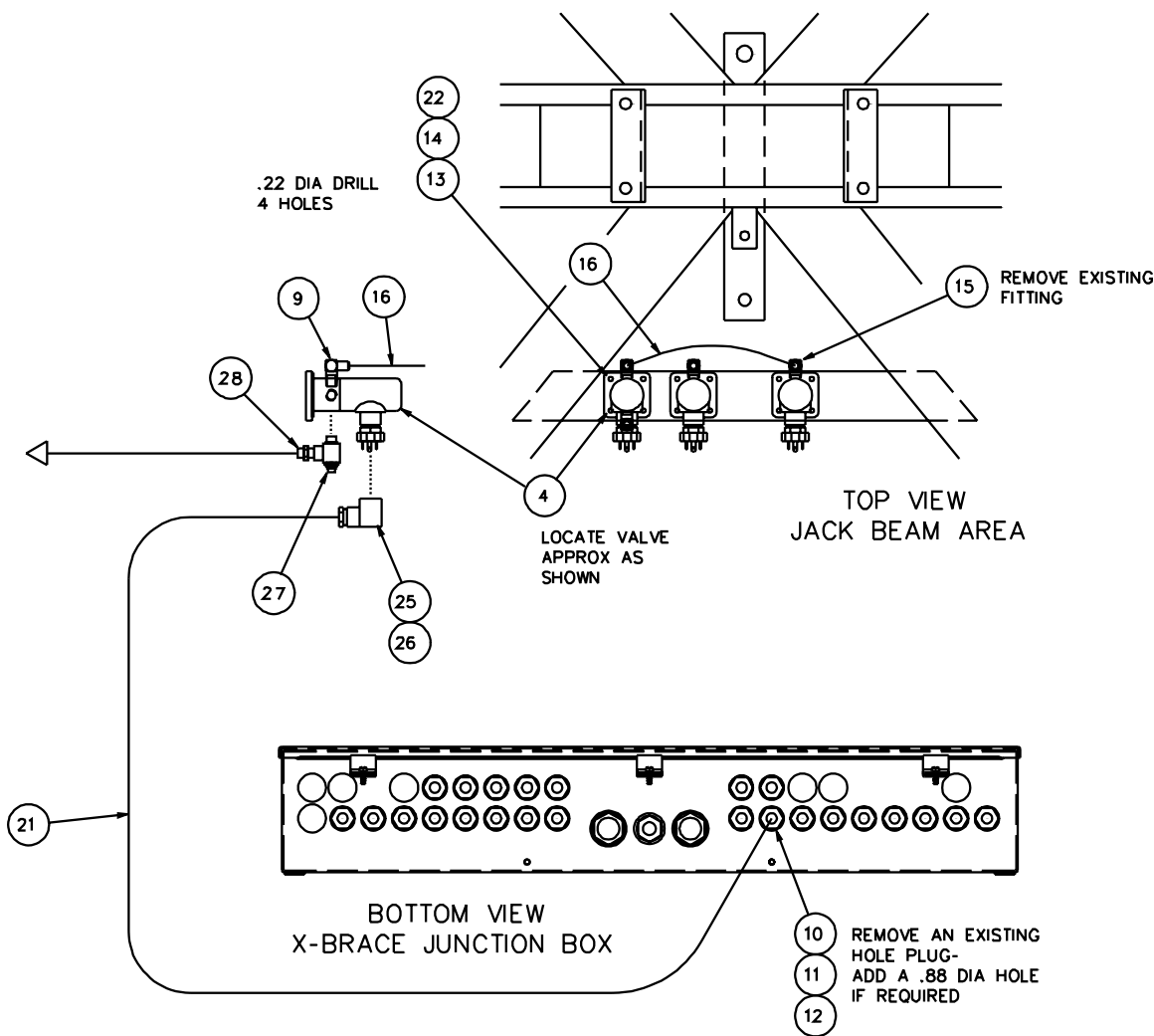
1004045-1



CONVERSION GROUP INSTALLATION

1004045-2

FIGURE 2
CONVERSION GROUP INSTALLATION



CONVERSION GROUP INSTALLATION

FIGURE 3
ELECTRICAL SCHEMATIC

1004045-3

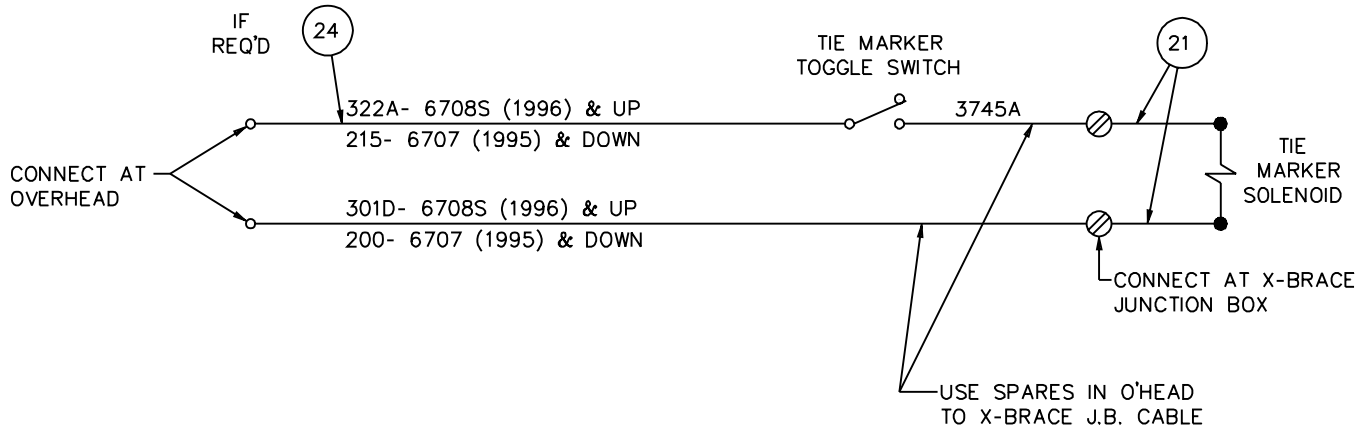


FIGURE 4
TOGGLE SWITCH HOLE DETAIL "A"

1004045-4

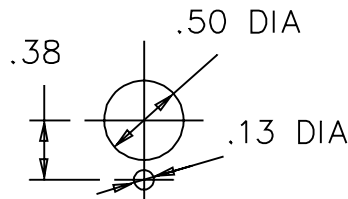
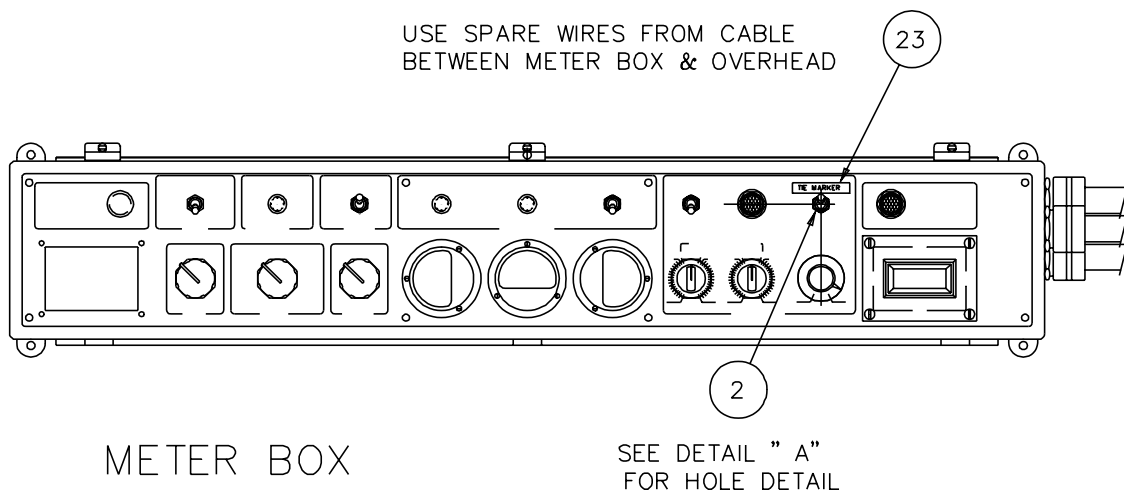


FIGURE 5
"S" MODELS - SERIAL #152700 AND HIGHER
(Model 6708S and Later)

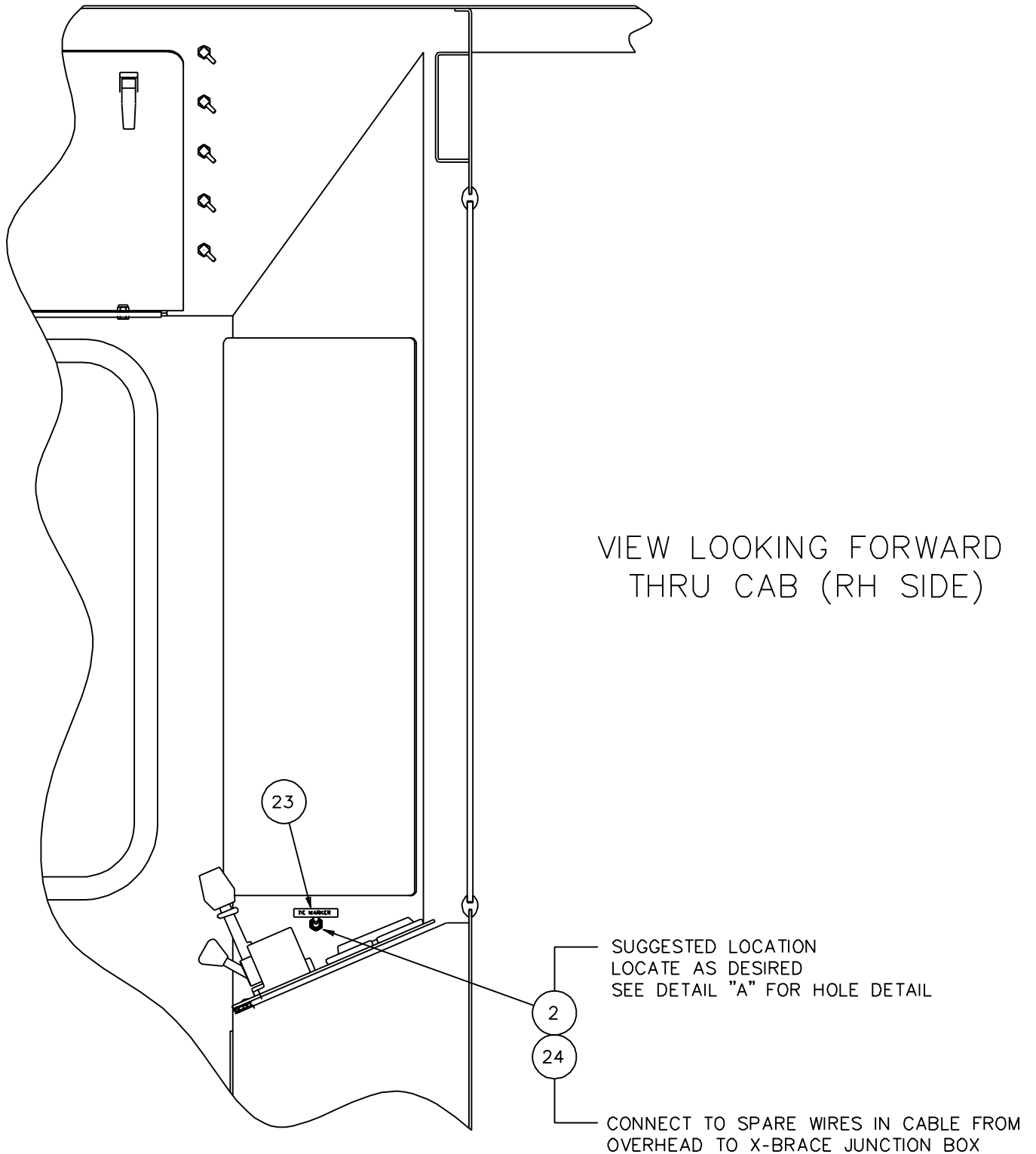
1004045-5



CONVERSION GROUP INSTALLATION

1004045-6

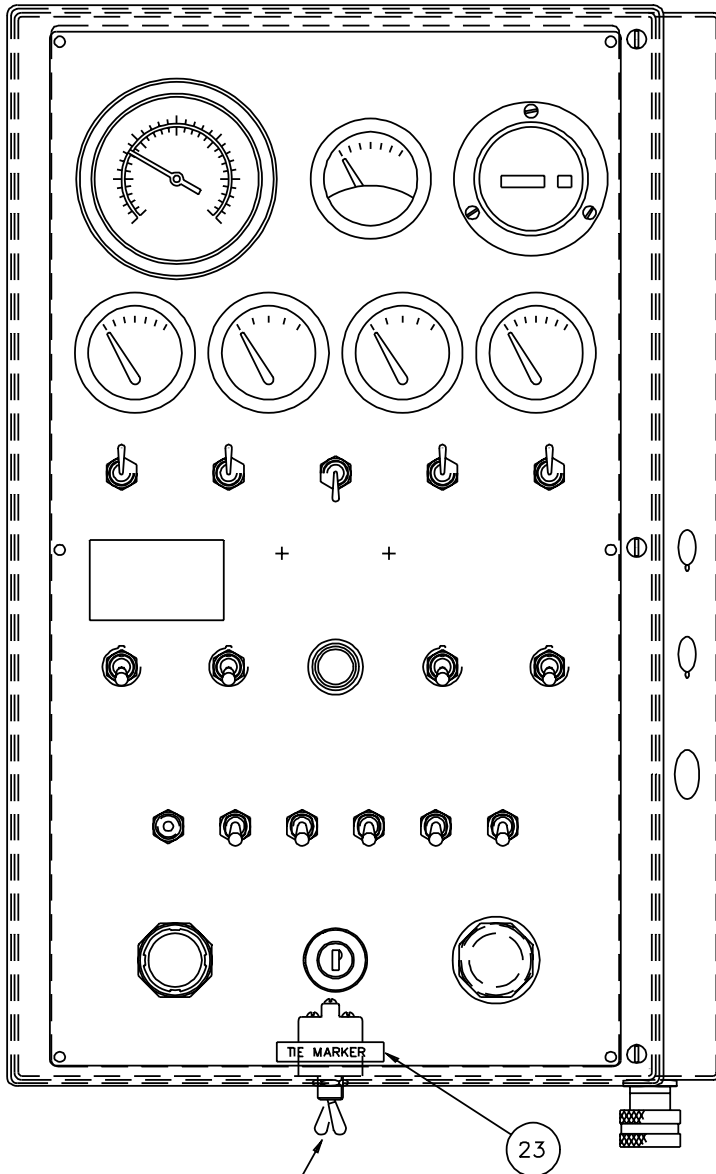
FIGURE 6
"S" MODELS - SERIAL #152682 AND LOWER
(Model 6707S and Earlier)



CONVERSION GROUP INSTALLATION

FIGURE 7
NON "S" MODELS
(Model 6700)

1004045-7



RH UPPER
CONSOLELET BOX

- 2 — SUGGESTED LOCATION
LOCATE AS DESIRED
SEE DETAIL "A"
FOR HOLE DETAIL
- 24 — CONNECT TO SPARE WIRES
IN CABLE FROM OVERHEAD
TO X-BRACE JUNCTION BOX

CONVERSION GROUP PARTS LIST

ITEM	PART NO	DESCRIPTION	QTY
	2004225	TIE MARKER CONVERSION GROUP	1
1	2001020	Holder Weldment - Paint	1
2	250913-6	Toggle Switch	1
3	151869-1	Air Cylinder	1
4	158346-1	Air Valve	1
5	152374-1	Breather	1
6	155374-4	Rubber Grommet	1
7	250070-49	Screw - 1/4"-20 x 2" Socket Head Cap	2
8	153140-420	Lock Nut - 1/4"-20	2
9	150198-4	Elbow, 90°	2
10	5571	Squeeze Connector	1
11	2235	Conduit Lock Nut	1
12	151132-1	Seal Ring	1
13	150988-7	Lock Washer - #10	4
14	250048-191	Screw - #10-24 x 7/8" Machine	4
15	150200-4	Tee	1
16	254109-6	Hose Assembly	1
17	2004644	Hose Assembly	1
18	2001042	Marker Paint - Orange	1
19	251305-1	Bungee Cord	1
20	157666-1	Chain Link	2
21	5690	Cable	1
22	150965-13	Nut - #10-24	4
23	2004527	Label - Tie Marker	1
24	156620-1	Wire - Black 20 feet	1
25	254146-1	DIN Connector	1
26	251041-1	Gasket - Solenoid Connector	1
27	2004961	Air Valve - Flow Control	1
28	3174	Adapter - Straight	1

REVISION RECORD 3-5-2002

Page 1 - Add Revised 3-5-2002 - See Revision Record Page 10
Page 3 - Change Step 10 - (5, 9, 15, 16, 17, 27 and 28) was (5, 9, 15, 16 and 17)
Page 3 - Add Step 17 - Air Flow Control Valve Adjustment
Page 5 - Change Figure 2 - Change Graphics, Add (27) and (28), Remove (9)
Page 9 - Change Item 9 - Qty 2 was 3
Page 9 - Add Item 27 - Qty 1
Page 9 - Add Item 28 - Qty 1
Page 10 - Add Revision Record 3-5-2002

© 2001 HARSCO TRACK TECHNOLOGIES, HARSCO CORPORATION

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) 843-4830