



INSTRUCTION BULLETIN

No. 3790
Machine: 530E
Published: 5-96/00
System: CHASSIS

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in your machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save you the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation Instructions for Kit number 23337
(for machines with serial number **008831** and down)

SYNOPSIS / PROBLEM:

This kit contains the parts needed to replace the steering gear on the model 530E scrubber. The steering gear that is currently installed on your machine is no longer available. A small amount of rework needs to be done to the machine in order that the new steering gear will fit properly. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Hand drill, center punch, 1 in. hole saw, .297 in. drill bit, .453 in. drill bit, 1-1/8 in. combination wrench.

(Estimated Time to complete: **3** hours)

PREPARATION:

(Refer to FIG. 1 and 3)

FOR SAFETY: Before leaving or servicing machine, stop on level surface and set parking brake. Then turn off machine and remove key.

1. Lift the front cover and disconnect the battery cables from machine.



WARNING: Always disconnect battery cables from machine before working on electrical components.

2. Turn the steering wheel all the way to the right. (Refer to FIG. 3)
3. Remove and retain the rubber cap, plastic cover, and mount plate from the steering wheel. (Refer to FIG. 3)
4. Remove and retain the nut holding the steering wheel to the column. Remove and retain the steering wheel. (Refer to FIG. 3)
5. Remove and discard the horn parts located in the steering wheel. (Refer to FIG. 3)
6. Remove the four pan screws holding the plastic instrument panel to the machine lintel. Flip the panel forward and out of the way of the steering column. (Refer to FIG. 1)
7. Remove the one hex screw holding the steering pitman arm cover to the machine. Remove the cover from the machine. (Refer to FIG. 3)
8. Remove the large nut from the steering gear where the pitman arm is connected. Use a 1-1/8 in. combination wrench. (Refer to FIG. 3)

9. Remove the pitman arm from the steering gear. Hit the pitman arm with a hammer in the area of the steering gear splines. (Refer to FIG. 3)
10. Remove and retain the upper clamp holding the steering column to the machine lintel. (Refer to FIG. 3)

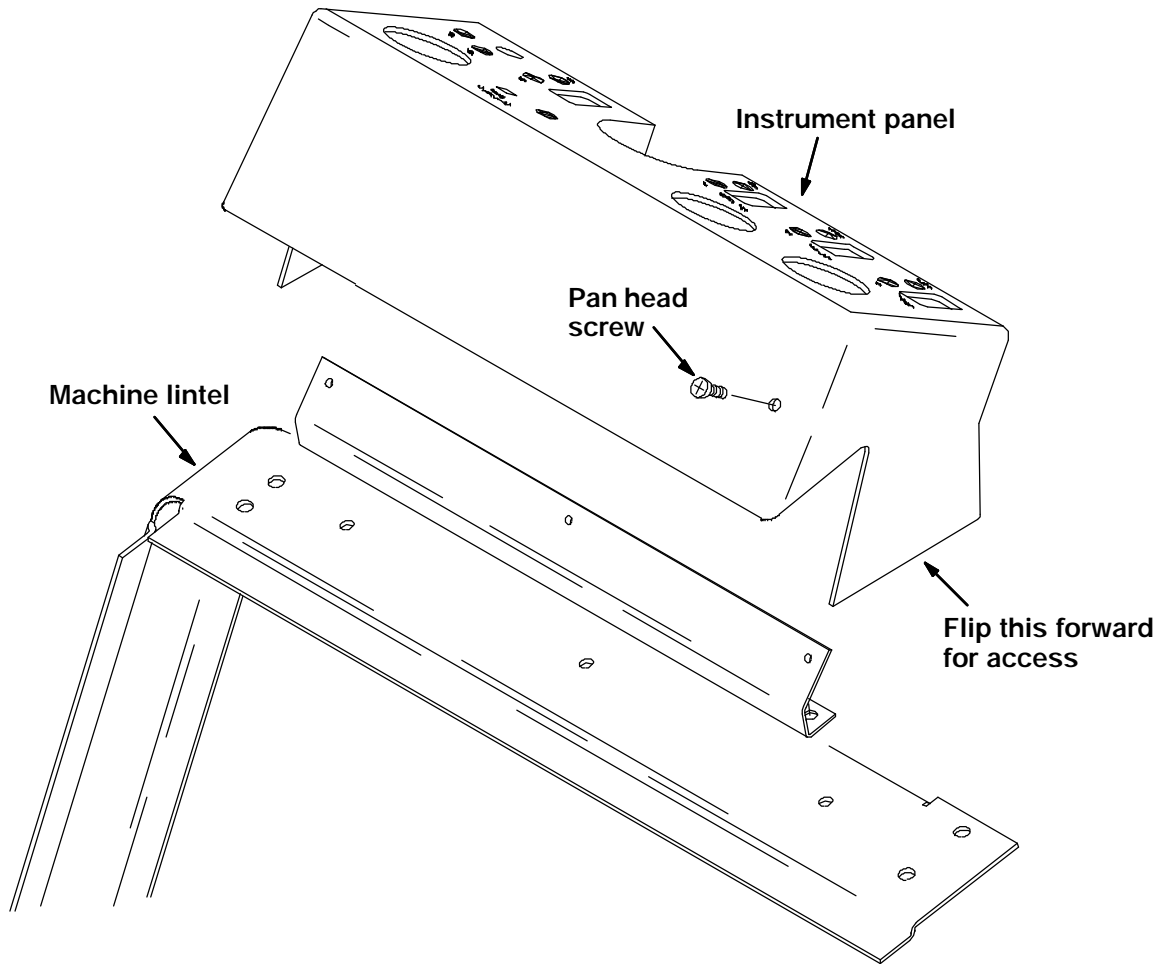


FIG. 1 - Instrument Panel

11. Remove the four hex screws holding the bottom of the steering gear to the machine frame. Retain three of the hex screws and nuts. (Refer to FIG. 3)
12. Disconnect the horn wire harness from the main harness. (Refer to FIG. 3)
13. Remove and discard the old steering gear and column assembly. (Refer to FIG. 3)

INSTALLATION:

(Refer to FIG. 1, 2, 3, 4, and 5)

1. Use the dimensions in **FIG. 4** to rework the machine side panel for installation of the new horn button (2). (Refer to FIG. 4)
2. Install the new horn button using the two hex screws (3), four flat washers (4), and two nyloc nuts (5). (Refer to FIG. 4)
3. Install the new horn harness (7) on the new button (2). The end with the ring terminals goes to the button and the other end plugs in to the main harness near the bottom of the steering gear. Use the six wire ties (8) to tie the harness up and out of the way of any moving parts. (Refer to FIG. 4 and 5)

4. Position the new steering gear (1) in the machine. Install one of the hex screws in the **BOTTOM LEFT HOLE** of the new steering gear and the **BOTTOM LEFT HOLE** of the machine frame mount plate. Leave the hardware loose for now. (Refer to FIG. 2)
 5. Install the upper clamp on the new steering gear column and machine lintel (1). Firmly tighten the hardware. (Refer to FIG. 3)
 6. Go back and tighten the one hex screw in the bottom left hole of the new steering gear (1). (Refer to FIG. 2)
 7. Use a center punch to mark the two new holes that need to be drilled for the new steering gear. (Refer to FIG. 2)
 8. Drill the two new .469 in. (15/32) or .453 in. (29/64) holes. Install the last two hex screws and nuts. Firmly tighten all of the hardware. (Refer to FIG. 2)
 9. Install the steering wheel on the new column (1). Install and firmly tighten the nut. (Refer to FIG. 3)
 10. Reinstall the plastic cover and rubber cap in the steering wheel. (Refer to FIG. 3)
 11. Turn the steering wheel all the way to the **RIGHT**.
 12. Remove the large nut and lock washer from the splines of the new steering gear (1). (Refer to FIG. 3)
 13. Position the steering pitman arm on the spline of the new steering gear (1). (Refer to FIG. 3)
- NOTE: The front wheel of the machine should be in a full **RIGHT TURN** position.*
14. Reinstall the large nut and lock washer on the steering gear. Tighten very firmly. (Refer to FIG. 3)
 15. Reinstall the steering pitman arm cover. Reinstall the one hex screw and nut. (Refer to FIG. 3)
 16. Position the instrument panel back on the machine lintel. Reinstall the four pan head screws. (Refer to FIG. 1)
 17. Reconnect the batteries and operate the machine. Check the steering for proper operation.

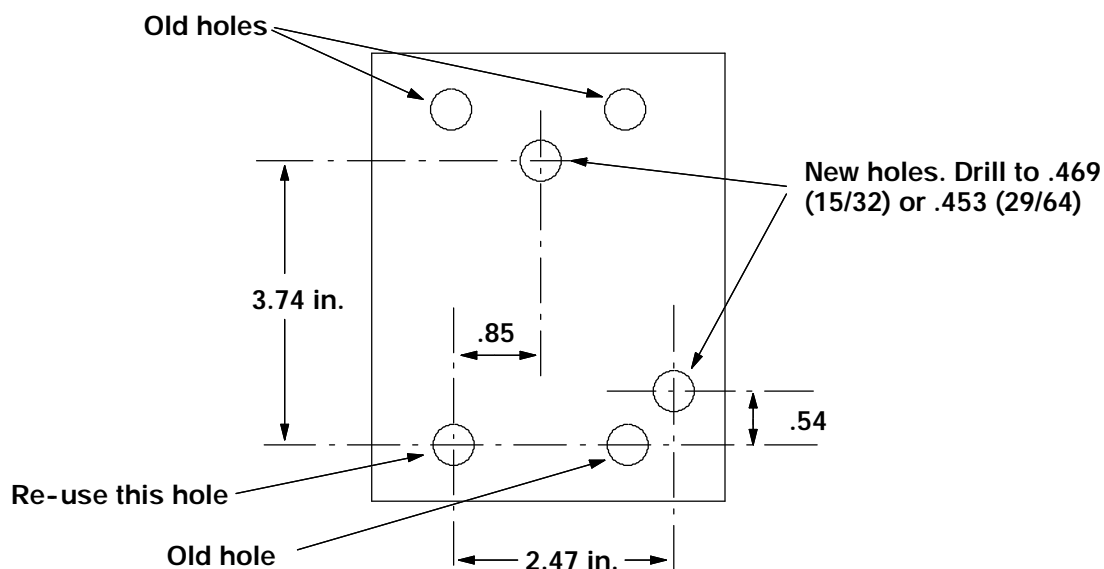


FIG. 2 - Steering Gear Support Plate

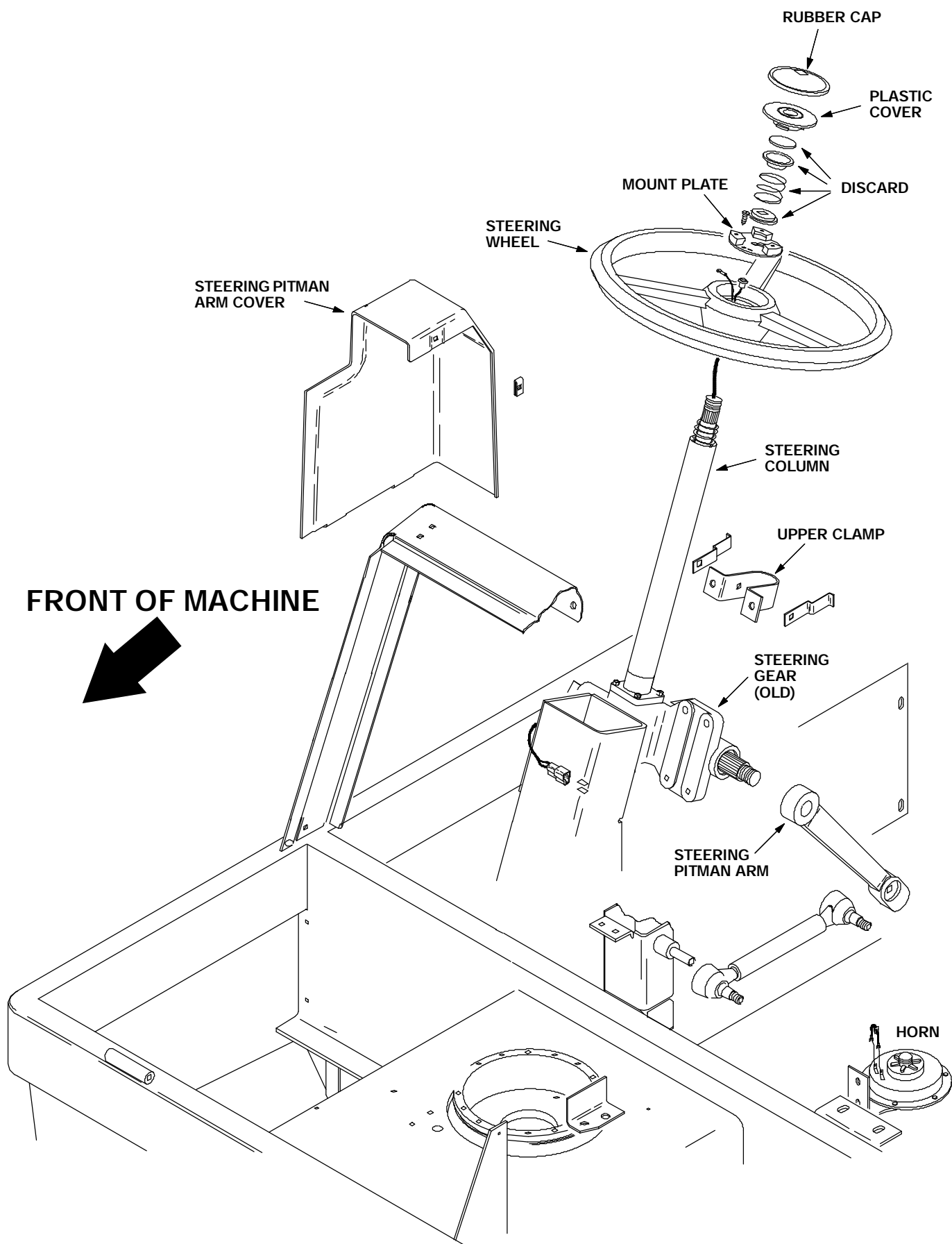


FIG. 3 - Steering Gear, Horn, And Pitman Arm

FRONT OF MACHINE

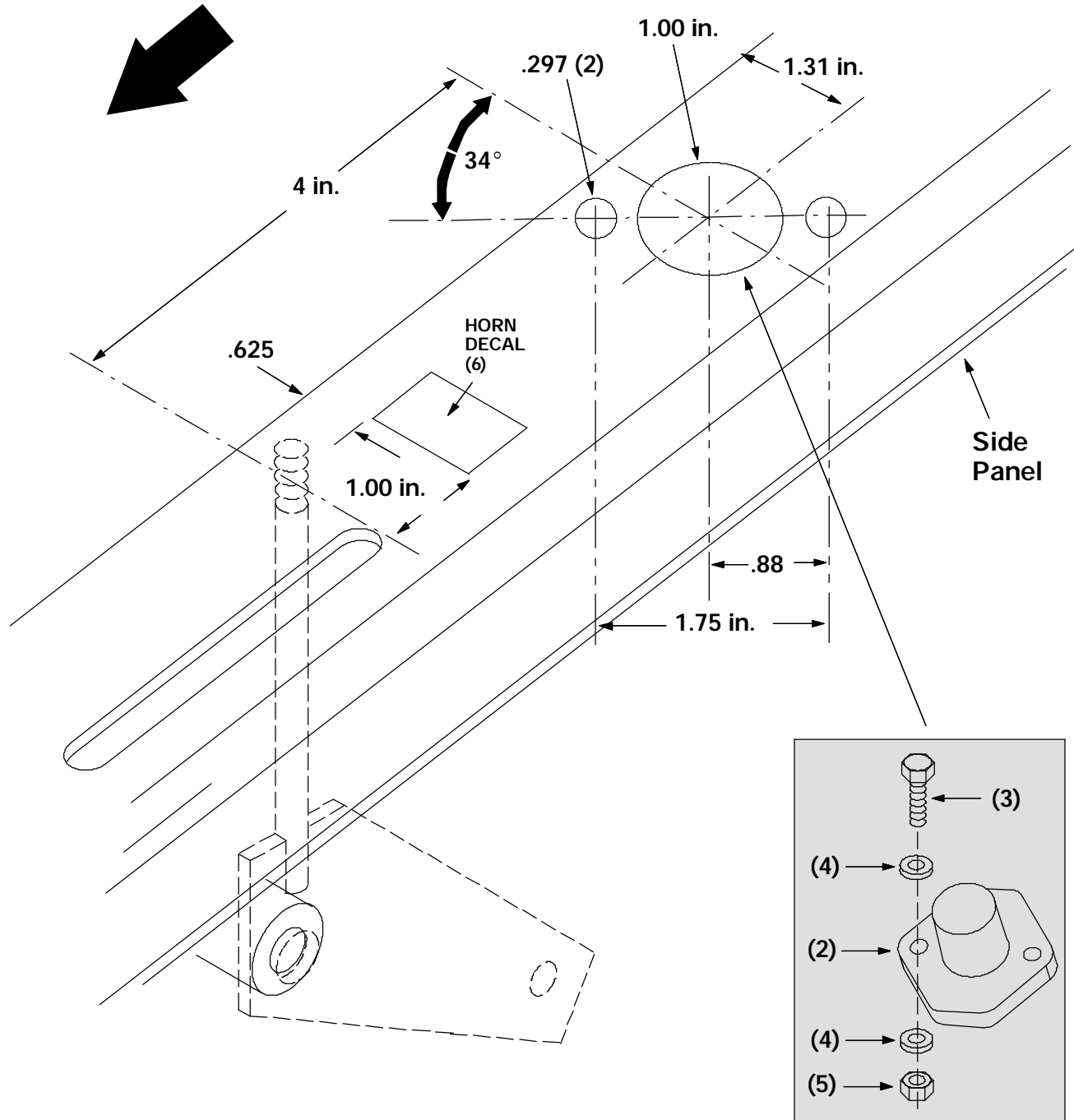


FIG. 4 - Side Panel Rework For New Horn Button Location

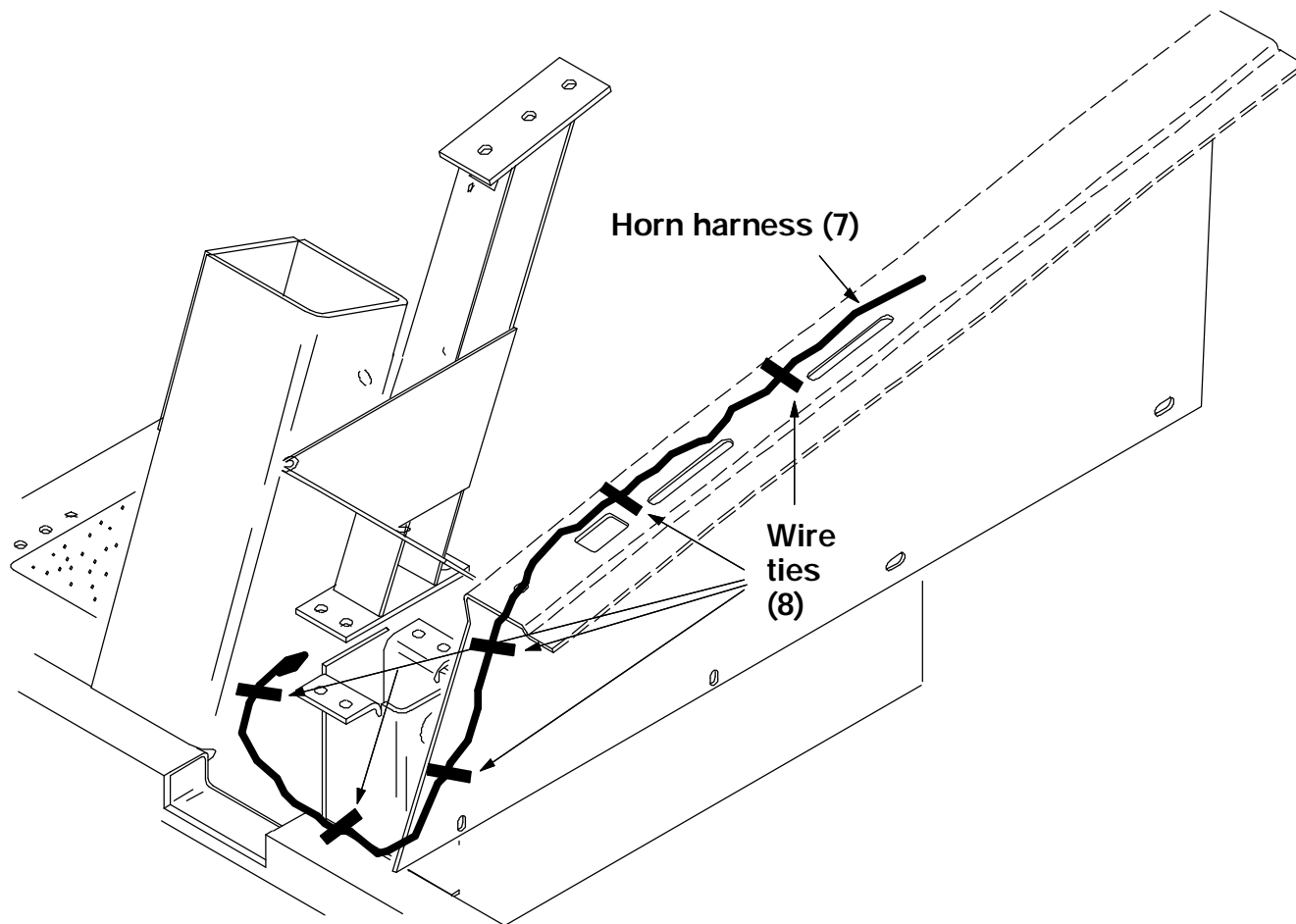


FIG. 5 - Horn Harness Routing

BILL OF MATERIALS FOR STEERING GEAR REPLACEMENT KIT 23337

Ref.	TENNANT Part No.	Description	Qty.
1	23355	Steering gear	1
2	44078	Horn button	1
3	09007	Hex screw	2
4	32483	Flat washer	4
5	08708	Nyloc nut	2
6	71491	Label set	1
7	23354	Horn harness	1
8	49266	Plastic wire tie	6

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