Test Section 1.1

Test Name CAR UNDERCAR CLEARANCE

Revision - Date 4-17-79

Applies to car series:

All HEP & conventional cars.

Test Section 1.2

Test Name CAR CURVING AND TRUCK CLEARANCE

Revision - Date 4-17-79

Applies to car series:

All HEP converte' cars.

SECTION 1.1 CAR CLEARANCE TEST - UNDER CAR

1.0 SCOPE:

The purpose of this test is to insure that it is built within the clearance diagram as shown on Amtrak Dwg. #D-322.

2.0 EQUIPMENT REQUIRED:

Template per Figure I.

3.0 DRWG REQUIRED:

Amtrak clearance diagram Dwg. #D-322.

4.0 PROCEDURE:

Slide template on top of tracks perpendicular to rail. The car violates the clearance restrictions if any part other than the trucks come in contact with the clearance template.

Modifications must be made to eliminate the points of interference.

End of Test

SECTION 1.2 CAR CURVING AND TRUCK CLEARANCE TEST

1.0 SCOPE:

This test is to be performed on one completed car of each type having a different truck/carbody interface, different truck centers, or different truck wheel base to insure adequate clearance between the underside of the carbody and truck-mounted equipment. The test should be performed with the car meeting all requirements in Section 5, and with full water tanks, batteries, and simulated passenger load.

2.0 EQUIPMENT REQUIRED:

2.1 Transfer Table

2.2 Wheel Chocks

2.3 Four vertical car 50 ton jacks.

3.0 PROCEDURE:

3.1 With the car on straight tangent track, check for 3 inches minimum lateral clearance between the underside of the carbody and truck-mounted equipment.

3.2 Place the car with one truck on the transfer table and the other off. Place blocks against the wheels of one axle of the truck off the transfer table.

3.3 Move the transfer table through a distance sufficient to simulate the truck yaw on a 23° curve. For cars with 59 feet 6 inches truck centers, the displacement of the transfer table must be 87 inches. For cars with other truck centers, the distance to move the transfer table must be calculated. Refer to Figure 1.

3.4 After the transfer table has been moved, a check for clearance between the truck and car underframe, and that slack exists in the grounding wires, hand brake rigging, wheel slip sensor cables, dump valve piping, and brake cylinder hoses.

3.5 Maintain the relative lateral distance between the truck centers, and place a vertical car jack under eack jacking pad on one side of the car. Jack the side of the car until the carbody bolster at the jacking pad has moved 3 1/8 inches. Refer to Figure 2.

3.6 With the car tilted, perform the same checking procedure as in (4), above.

3.7 Check for 3 inches minimum lateral clearance between the underside of the carbody and truck-mounted equipment. Adequate slack in truck to carbody hoses and electrical wiring should be judged for a relative lateral movement between truck frame and carbody.

3.8 Release the vertical jacks.

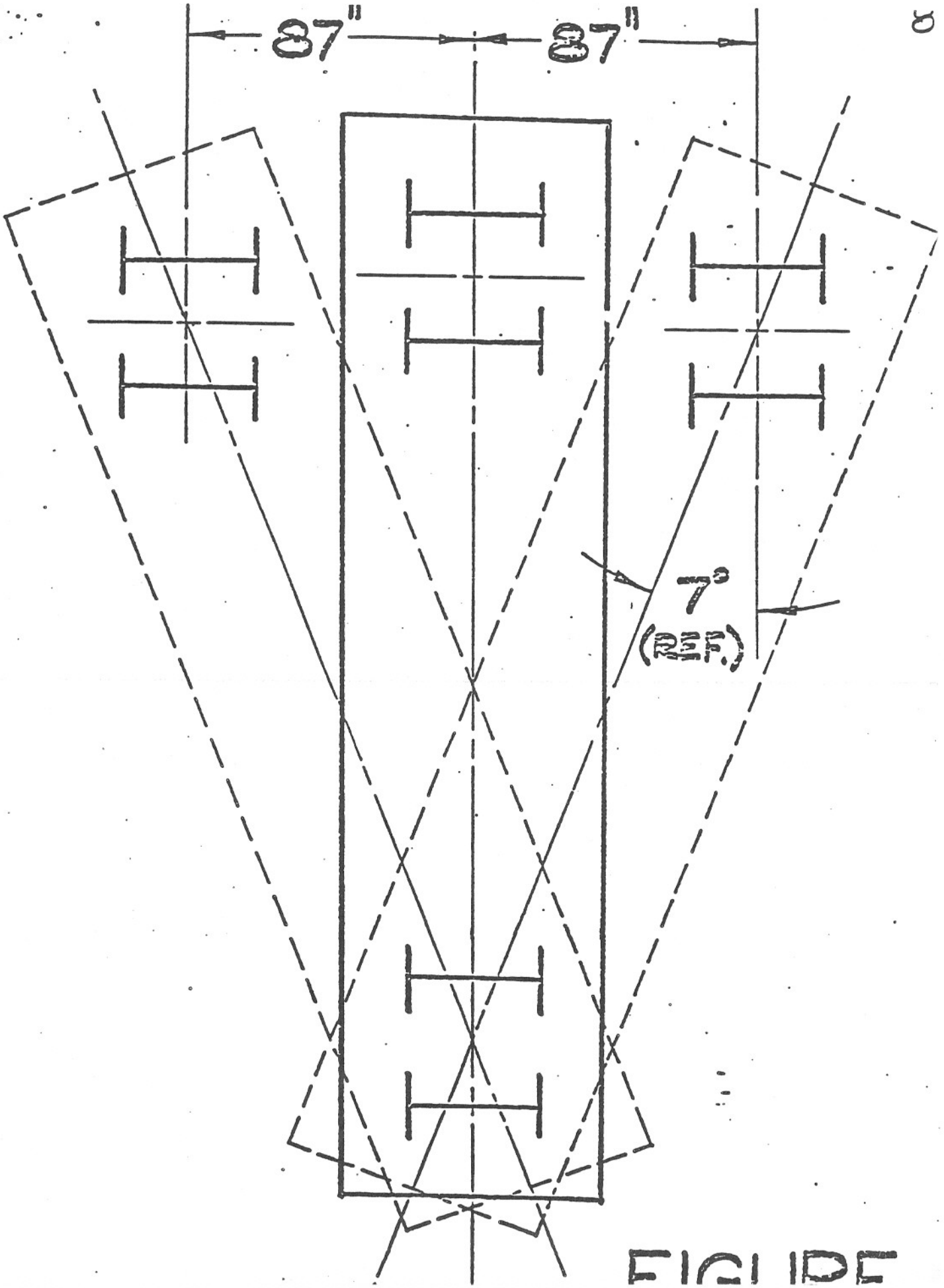
3.9 Jacks the other side of the car in the same manner as described in Step 5, and perform the same checking procedure as in 3.6 through 3.8.

3.10 Move the transfer table laterally in the opposite direction until the trucks have been displaced an equal distance from the centerline simulating tangent track.

3.11 Repeat steps 3.3 through 3.9.

Test complete.

End of Test



FIGURE

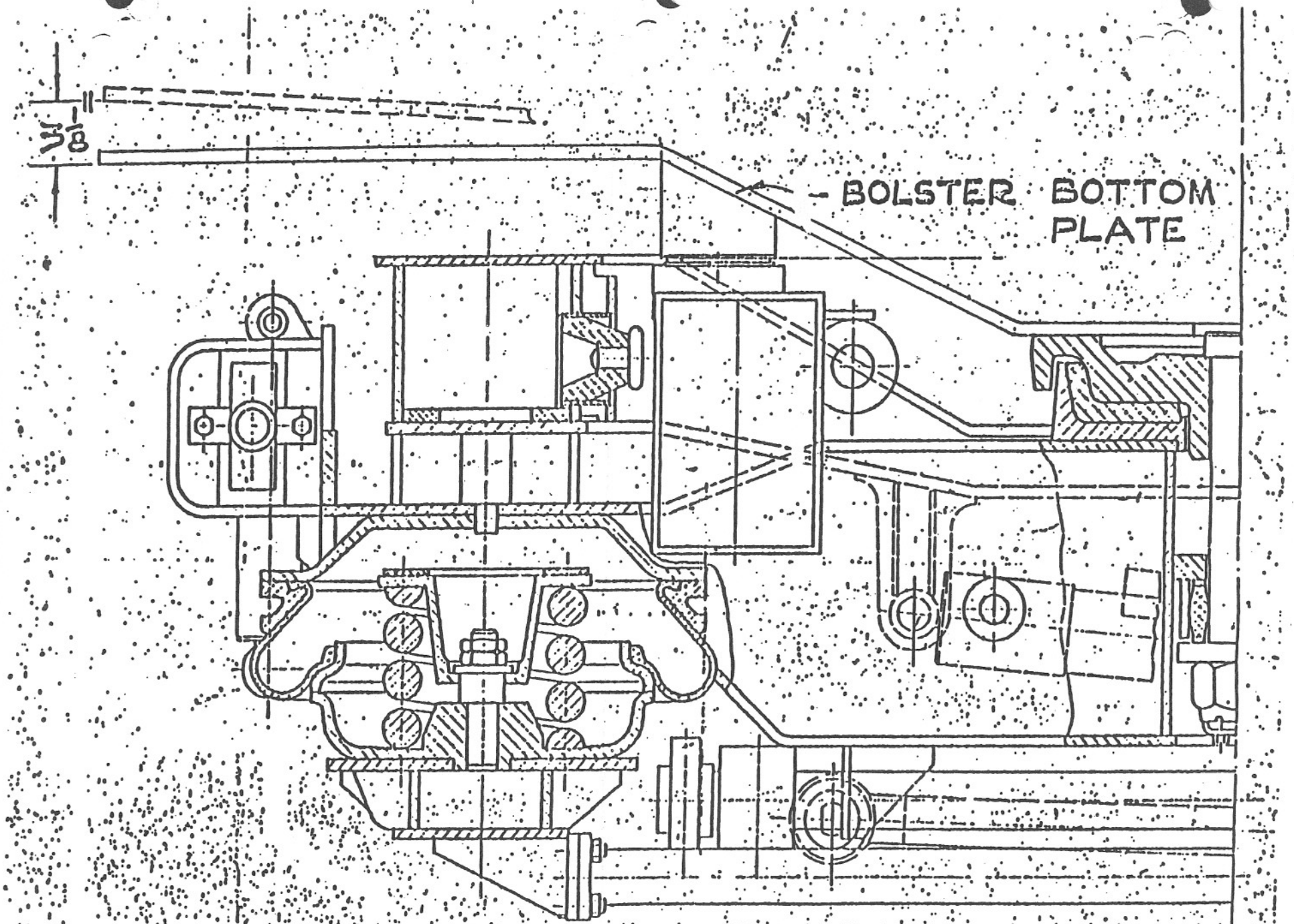


FIGURE 2