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Document Title: ASSEMBLY PROCEDURE FOR SHOT LOADING PLATFORM

Release Date: 3/16/95

This document was reviewed following the procedures described in WHC-CM-3-4 and is:

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241C106  
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| Signature | R. D. Routh |
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7. Abstract

This supporting document describes the assembly procedure for the Shot Loading Platform. The Shot Loading Platform is used by multiple equipment removal projects to load shielding shot in the annular spaces of the equipment storage containers. The platform height is adjustable to accommodate different sizes of storage containers and transport assemblies.
ASSEMBLY PROCEDURE
FOR
SHOT LOADING PLATFORM

PREPARED BY: R. D. Routh
DATE: 12/20/94

REVIEWED BY: T. K. Peterson
DATE: 12/29/94

APPROVED BY: C. E. Hanson, Manager
DATE: 3/14/95
Mitigation Equipment

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ASSEMBLY PROCEDURE FOR
SHOT LOADING PLATFORM

1.0 INTRODUCTION

This supporting document describes the assembly procedure for the Shot Loading Platform. The Shot Loading Platform is used by multiple equipment removal projects to load shielding shot in the annular spaces of the equipment storage containers. The platform height is adjustable to accommodate different sizes of storage containers and transport assemblies.

2.0 SUMMARY

The Shot Loading Platform components are shown on Drawing H-2-83738. The Shot Loading Platform assembly is shown on Drawing H-2-83762. The Shot Hopper is shown on Gar-Bro Manufacturing Company Drawing 94-10, CVI File #22641. The Shot Loading Platform Mirror is shown on Drawing H-2-83764. The Shot Loading Hopper Winch Assembly is shown on Drawing H-14-100144. The structural design analysis for the Shot Loading Platform is located in Supporting Document WHC-SD-W320-DA-005. The Shot Loading Platform has been assembled and tested in accordance with WHC-SD-WM-ATP-100, "Acceptance Test Procedure, 241-SY-101/241-C-106 Shot Loading System".

3.0 DISCUSSION

Prior to assembling the Shot Loading Platform, verify all components shown on Drawing H-2-83738 are on hand. Inspect components for visible damage. Do not proceed with assembly if any component is damaged. Verify the threaded portion of bolts are clean and undamaged. Do not add lubricant to the bolt threads beyond the as-delivered condition from the manufacturer.

Hoisting and rigging of Shot Loading Platform components is conducted in accordance with DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual". Protection of personnel assembling the Shot Loading Platform is provided in accordance with WHC-CM-4-3, "Industrial Safety Manual".
4.0 SYSTEM DESCRIPTION

The Shot Loading Platform is assembled according to the following procedure.

1) Rig the four (4) 3/4-inch hoist rings on the Shot Loading Platform Frame.

2) Lift the Shot Loading Platform Frame. Insert the four (4) telescoping legs into the legs of the Shot Loading Platform Frame with the marked sides correctly oriented. Insert the legs until the two (2) bolt holes in the upper portion of each platform leg align with the designated two (2) bolts holes in the telescoping portion of each leg. Insert two (2) 3/4-10 UNC 2A x 7-1/2 bolts with 3/4-inch flat washers through the aligned bolt holes in each of the four (4) legs. Secure the bolts with 3/4-10 UNC 2B nuts and 3/4-inch flat washers. Tighten the bolts snug tight.

3) Rig the two (2) 1-inch hoist rings on the Ladder Side Plate.

4) Lift the Ladder Side Plate onto the ladder side of the Shot Loading Platform and align the two (2) bolt holes in the Ladder Side Plate with the two (2) bolt holes on the side of the Shot Loading Platform. Insert two (2) 7/8-9 UNC 2A x 4-1/2 bolts with 7/8-inch flat washers through the aligned bolt holes. Tighten the bolts with 7/8-9 UNC 2B nuts and 7/8-inch flat washers.

5) Rig the four (4) 1-inch hoist rings on the Floor Plate.

6) Lift the Floor Plate onto the top of the Shot Loading Platform Frame with the marked ladder side correctly oriented and set into position.

7) Attach the handrail sections to the Shot Loading Platform Frame starting on the ladder side and working clockwise around the platform. Align the holes in the handrail posts with the holes in the Shot Loading Platform Frame. Operate the handrail gate to verify it swings freely.

8) Rig the four (4) 1/2-inch hoist rings on the Top Enclosure.

9) Lift the Top Enclosure onto the top of the Floor Plate and align the four (4) bolt holes in the Top Enclosure with the four (4) bolt holes around the center opening in the Floor Plate. Insert four (4) 1/2-13 UNC 2A x 1-1/2 bolts in the aligned tapped bolts holes. Tighten the bolts snug tight.

10) Check Shot Hopper's firehose for wear, if not present, fix clam shell jaws open, fit 12 inch length of firehose (cotton polyester hose, double jacketed type with synthetic rubber lining, 2 1/2" hose size) over pipe inside of Shot Hopper. Tighten in place with 2 hose clamps (IDEAL, SST, size 40) over firehose and pipe.

11) Rig the four (4) lifting eyes on the Shot Hopper.

12) Lift the Shot Hopper onto the top of the Floor Plate and align the four (4) bolt holes in the Shot Hopper base with the four (4) bolt holes in
the Floor Plate opposite the ladder side. Insert four (4) 1/2-13 UNC 2A x 1-1/2 bolts in the aligned tapped bolt holes. Tighten the bolts snug tight.

If the winch assembly is not attached to the Shot Hopper complete steps 13-15, if winch assembly is in place check items mentioned in steps 13-15 and go to step 16.

13) Align the four (4) bolt holes in the winch assembly with the four (4) bolt holes in the winch assembly mounting plate on the Shot Hopper. Insert four (4) 3/8-13 UNC 2A x 1-1/2 bolts in the aligned tapped bolt holes. Tighten the bolts snug tight.

14) Align the four (4) bolt holes in each of the two (2) pulley assemblies with the four (4) bolt holes in each of the two (2) pulley assembly mounting plates on the Shot Hopper. Insert eight (8) 1/4-20 x 3/4 Flat Head Countersunk Stainless Steel Machine Screws in the aligned bolt holes. Tighten the screws snug tight.

15) Insert the two (2) 3/8-inch shoulder eye bolts on the wire rope assembly in the two (2) bolt holes on the Shot Hopper chute. Tighten the eye bolts hand tight. Feed the wire rope through the two (2) pulley assemblies and connect the wire rope to the winch assembly drum.

16) Align the two (2) bolts holes in each of the two (2) mirror support brackets with the two (2) sets of two (2) bolt holes in the sides of the Top Enclosure. Insert four (4) 1/2-13 UNC 2A x 1-1/2 bolts in the aligned tapped bolt holes. Tighten the bolts snug tight.

18) Check to ensure the bolts on the mirror frame are snug tight.

19) Align the two (2) bolt holes in the mirror with the bolt holes at the top of each of the two (2) mirror support brackets. Insert two (2) 3/4-13 UNC 2A bolts through the aligned holes. Position the mirror as desired and secure the bolts with 3/4-inch wing nuts. Tighten the wing nuts hand tight.
### 5.0 REFERENCES

**Drawings**
- H-2-83738  Shot Loading Platform
- H-2-83762  Shot Loading Platform Assembly
- H-2-83764  Shot Loading Platform Mirror
- H-14-100144  Shot Loading Hopper Winch Assembly

**Manuals**
- WHC-CM-4-3  Industrial Safety Manual

**Other**
- CVI #22641  Gar-Bro Manufacturing Company Drawing 94-10, Special 10 Cubic Foot Lead BB Hopper for Westinghouse Hanford
- WHC-SD-WM-ATP-100  Acceptance Test Procedure, 241-SY-101/241-C-106 Shot Loading Platform