

WP 05-WH1005

Revision 16

CH Packaging Trailer Loading

Technical Procedure

EFFECTIVE DATE: 09/16/09

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APPROVED FOR USE

CONTINUOUS USE PROCEDURE

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INTRODUCTION ^{1, 2, 3, 4}

This procedure provides instructions for loading Contact-Handled (CH) Packaging (TRUPACT-II/HalfPACT) onto trailers.

Performance of this procedure generates the following record(s), as applicable:

- Attachment 1 - Trailer Data Sheet
- Transportation Data Sheet

REFERENCES

BASELINE DOCUMENTS

- Title 49 *Code of Federal Regulations* (CFR) Part 173, "Shippers - General Requirements for Shipments and Packagings"
- DOE Standard 1090-2007, *Hoisting and Rigging*
- DOE/WIPP-02-3183, *CH Packaging Program Guidance*
- NRC-Docket-71-9218, Certificate of Compliance for the TRUPACT-II Package
- NRC-Docket-71-9218, Safety Analysis Report for the TRUPACT-II Shipping Package
- NRC-Docket-71-9279, Certificate of Compliance for the HalfPACT Package
- NRC-Docket-71-9279, Safety Analysis Report for the HalfPACT Shipping Package

REFERENCED DOCUMENTS

- DOE/WIPP-02-3184, *CH Packaging Operations Manual*
- WP 05-WH1015, Preparation of CH Packaging for Empty Shipment
- WP 08-NT3030, Empty Type-B Package Shipment
- WP 08-PT.04, CH Packaging Trailer O&M Manual

EQUIPMENT

- Calibrated torque wrench 0-200 lb-in or equivalent
- Ratchet drive 1/2-inch
- Socket 3/4-inch deep-well
- Socket 7/8-inch
- Tape measure (if required)
- GO-NO-GO gauge to check gaps on CH Packaging trailer tiedowns
- Trailer tiedowns
- Nickel-bearing lubricant
- Multipurpose dry lubricant
- Low chloride solvent

PRECAUTIONS AND LIMITATIONS

- Only qualified personnel or trainees operating under the direct supervision of a fully qualified Waste Handling Technician/Engineer (WHT/WHE) are authorized to perform the Waste Handling activities specified in this procedure.
- Maximum individual TRUPACT-II total weight is 19,250 lb.
- Maximum individual HalfPACT total weight is 18,100 lb.
- Maximum Truck/Trailer/Payload weight to be shipped is 80,000 lb.
- DOE/WIPP-02-3184, Attachment 2, CH Packaging Loading Data Sheet, must be completed for Transuranic waste shipments.
- WP 05-WH1015, Attachment 1, Empty CH Packaging Data Sheet, must be completed for empty In-Service Production Packaging shipments.
- The removal of old shipping labels and installation of appropriate new labels may be done at any time prior to Section 4.0 of this procedure.
- Debris entering the brake system air lines can clog the relay valves. To prevent debris from entering the brake system air lines when a trailer is disconnected from the tractor, "glad-hand" covers shall be used on both the tractor and trailers that are equipped with them.
- A spotter must be used when loading TRUPACT or HalfPACT onto a trailer.
- DOE/WIPP-02-3184, Attachment 3, Loaded CH Package Trailer Data Sheet, must be completed for transuranic waste shipments.

PREREQUISITE ACTIONS

1.0 WHE, obtain Transportation Data Sheet from Transportation Scheduler.

SIGN-OFF

2.0 WHE, record empty shipment number from Transportation Data Sheet on Attachment 1.

SIGN-OFF

PERFORMANCE

1.0 PREPARING TRAILER FOR LOADING

NOTE

Steps 1.2 and 1.6 can be performed at any time prior to loading TRUPACTs on the trailer.

1.1 WHT, perform the following pre-use visual inspection; enter any deficiencies in the log and report them to Waste Isolation Pilot Plant (WIPP) Transportation Scheduler before using the trailer.

- Tire - flat spots
- Lights - not broken
- Obvious visual damage

1.2 WH, verify and record the trailer inspection date on Attachment 1.

SIGN-OFF

<p>CAUTION</p>

<p>Prior to moving the trailer, approximately two minutes must be allowed for the air pressure to stabilize after supplying air to trailer and anytime movement of the trailer jockey fifth wheel occurs.</p>

1.3 Position the transport trailer in a designated parking area.

1.4 Lower the trailer jacks (landing gear), ensuring the trailer is level.

1.5 Install jack stands on free-standing trailers and chock the wheels.

1.6 Visually inspect each tiedown for the following:

- Damage
- Defects
- Cleanliness

1.7 **IF** any tiedowns require rework or extensive cleaning,
THEN perform the following:

1.7.1 Disassemble and rework/clean tiedown(s).

NOTE

When reassembling tiedowns, proper orientation of disc springs must be ensured. Additional information is available in WP 08-PT.04.

1.7.2 Reassemble the tiedowns as follows:

[A] **IF** reassembling the Cam Handle tiedown(s),
THEN use Figure 2, Assembled Cam Handle TieDown Assembly; and Figure 4, Cam Handle TieDown Retainer Block Assembly.

[B] **IF** reassembling the Screw Jack tiedown,
THEN use Figure 5, Screw Jack TieDown Assembly; and Figure 6, Required Dimensions for Proper Installation.

1.8 If necessary, lubricate tiedowns as follows:

1.8.1 **IF** using the Cam Handle tiedown,
THEN lubricate threaded areas of Cam Handle tiedown, directly above lock nuts, with nickel-bearing lubricant.

1.8.2 **IF** using the Screw Jack tiedown,
THEN lubricate all moving parts with multipurpose dry lubricant.

2.0 LOADING TRAILER

CAUTION
Tip-back may damage the Package exterior surfaces.

CAUTION
Avoid setting Packages on tiedown assemblies. Slide tiedown assemblies as far as possible to the outer side of the trailer. Setting packages on top of tiedown assemblies will result in damage to tiedown assembly and/or Package.

2.1 Transport the Package to the transport trailer.

NOTE
Loading configuration is shown in Figure 1, Trailer Position and Tiedown Locations.

NOTE
Packages having a gross weight difference (heaviest to lightest), greater than 1,000 lb shall be positioned on the trailer as follows:

<i>TRAILER FRONT</i>	1. Heaviest	Medium	Lightest	<i>TRAILER REAR</i>
	2. Heaviest	Lightest	None	
	3. Heaviest	None	None	

CAUTION
Adequate space shall be maintained between CH Packages to avoid contact with each other, when placing on a trailer.

NOTE
Packaging serial number(s), weights, and total weight of all loaded packaging are recorded on Transportation Data Sheet as provided by Transportation Scheduler per procedure WP 08-NT3030.

2.2 Load Packages in designated positions per Transportation Data Sheet with Vent Port on driver side of trailer.

3.0 SECURING LOAD TO TRAILER

NOTE

Figures 2 through 6 show the tiedown assemblies.

3.1 WH, ensure the following and initial:

- Vent Port(s) positioned on driver's side of trailer
- Forklift pocket cover threaded inserts (8 per TRUPACT/HalfPACT) intact and threads undamaged
- OCA body, plastic burn-out plugs (6 per TRUPACT/HalfPACT) in place and undamaged
- Forklift pocket covers installed with screws torqued to 75-82 lb-in.
- Tiedowns tightened to proper GO-NO-GO specifications
- All old shipping labels removed
- Appropriate shipping labels installed
- Tiedowns locked

SIGN-OFF

4.0 COMPLETING DOCUMENTATION

4.1 WH, ensure glad-hand covers are installed on trailers after released from Trailer Jockey.

SIGN-OFF

4.2 WH, Initial for trailer loading complete on Attachment 1.

SIGN-OFF

4.3 Submit Attachment 1 and Transportation Data Sheet to WHE.

4.4 WHE, review/validate proper Package loading by visually verifying in the field.

4.5 WHE, once CH Packaging Trailer Loading is complete and field verified correct; hand carry or fax copies of the Transportation Data Sheet, Attachment 1 of this procedure and, if not previously delivered, Attachment 1 of WP 05-WH1015, to the Transportation Engineer.

- | 4.6 Forward originals of the Transportation Data Sheet, Attachment 1 of this
- | procedure, and Attachment 1 of WP 05-WH1015 to the Records
- | Coordinator.

Attachment 1 - Trailer Data Sheet

STEP NO.	DESCRIPTION	INITIALS
PREREQUISITE ACTIONS		
1.0	WHE, obtain Transportation Data Sheet from Transportation Engineer	WHE
2.0	WHE, record empty shipment number: _____	WHE
PERFORMANCE		
1.2	Trailer Inspection Date: _____	WH
3.1	Vent Port(s) positioned on driver's side of trailer	WH
	Forklift pocket cover threaded inserts intact and threads undamaged	WH
	Forklift pocket covers installed with screws torqued to 75-82 lb-in.	WH
	Torque Wrench: S/N: _____ Due Date: _____	WH
	Tiedowns tightened to proper GO-NO-GO specifications	WH
	All old shipping labels removed	WH
	Appropriate shipping labels installed	WH
	OCA body, plastic burn-out plugs in place and undamaged	WH
	Tiedowns locked	WH
4.1	Glad-hand covers installed	WH
4.2	Trailer Loading Complete	WH

REMARKS: _____

Performers responsible for each step completion enter printed name, signature, initials, and date below:

Printed Name	Signature	Initials	Date
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REVIEWED/VALIDATED: _____

WHE Printed Name	Signature	Date
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Figure 1 - Trailer Position and Tiedown Locations

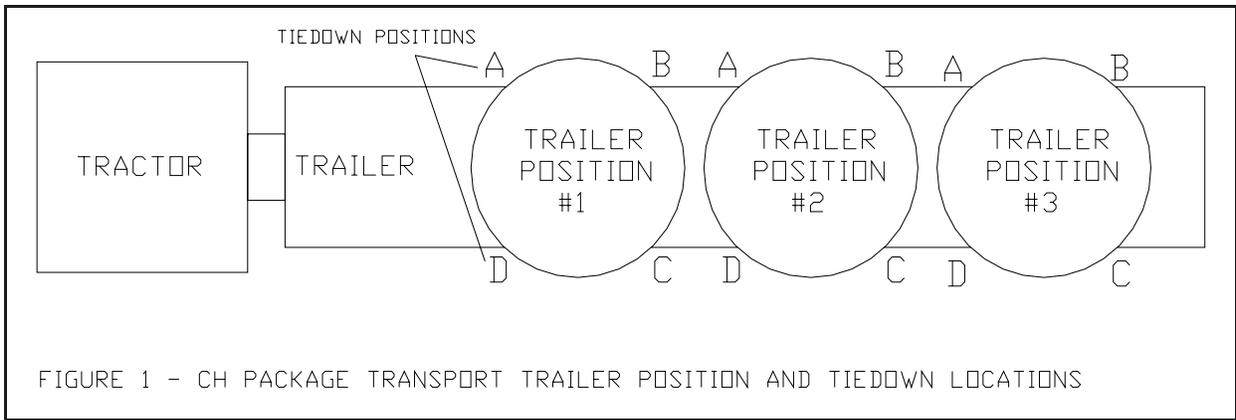


Figure 2 - Assembled Cam Handle Tiedown Assembly

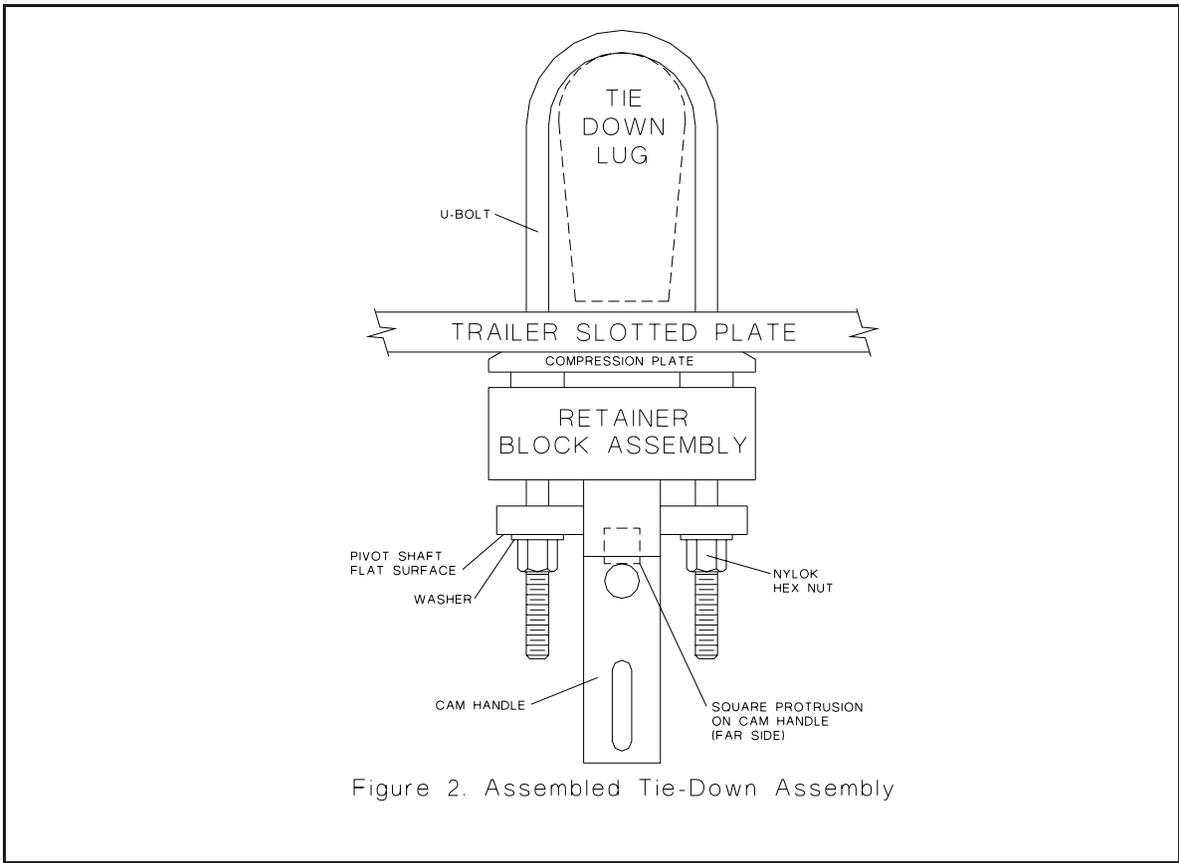


Figure 3 - Cam Handle Tiedown Latching Operation

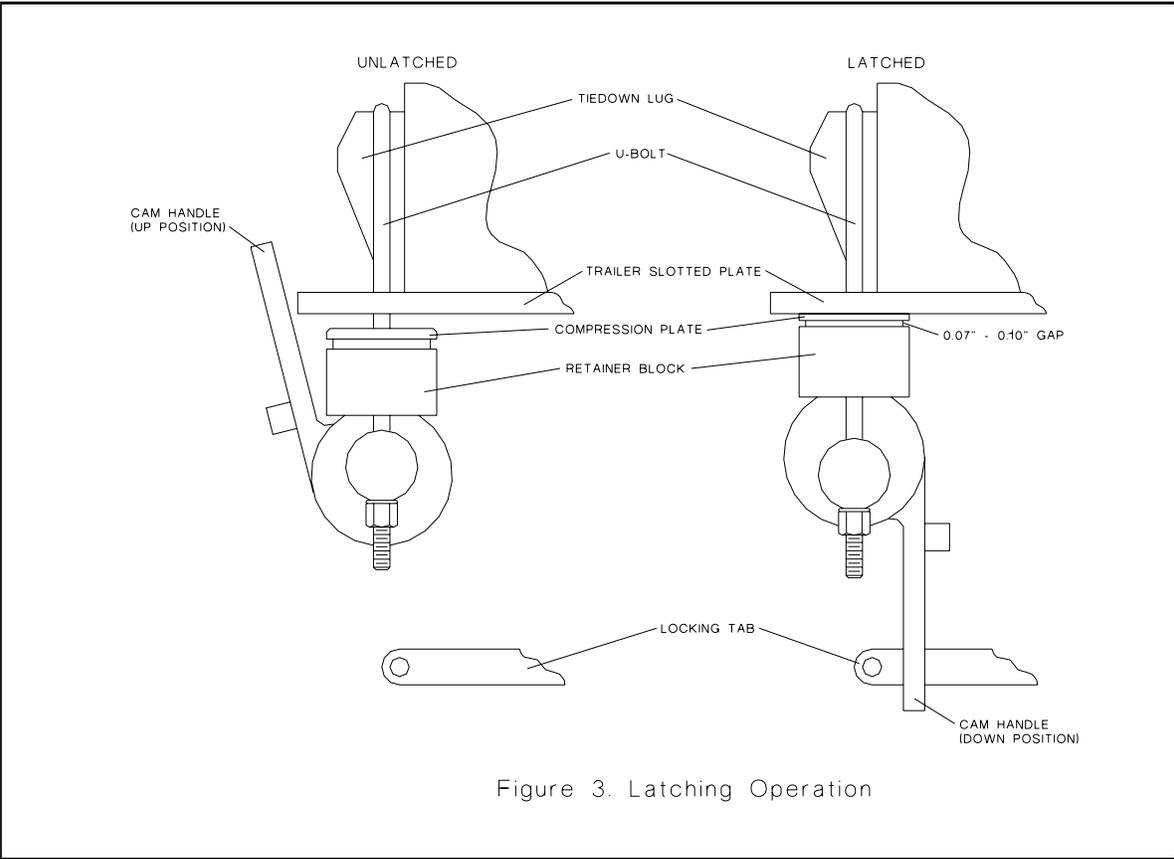


Figure 3. Latching Operation

Figure 4 - Cam Handle Tiedown Retainer Block Assembly

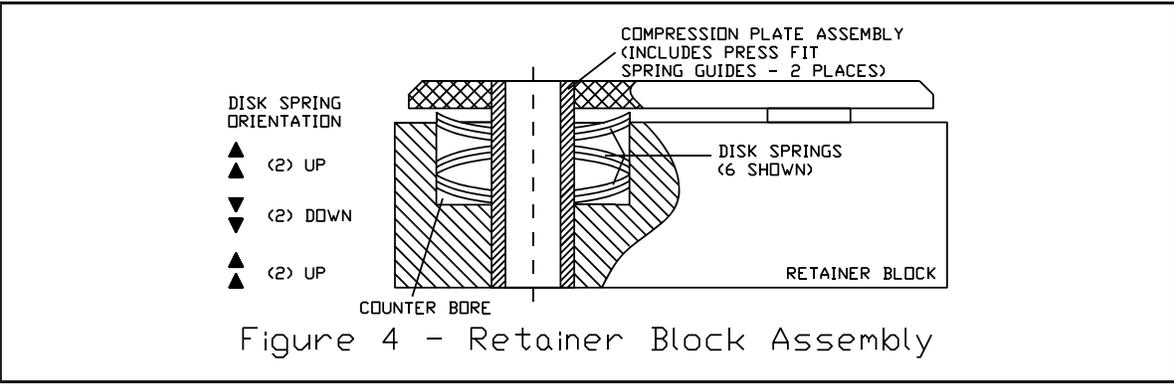


Figure 4 - Retainer Block Assembly

Figure 5 - Screw Jack Tiedown Assembly

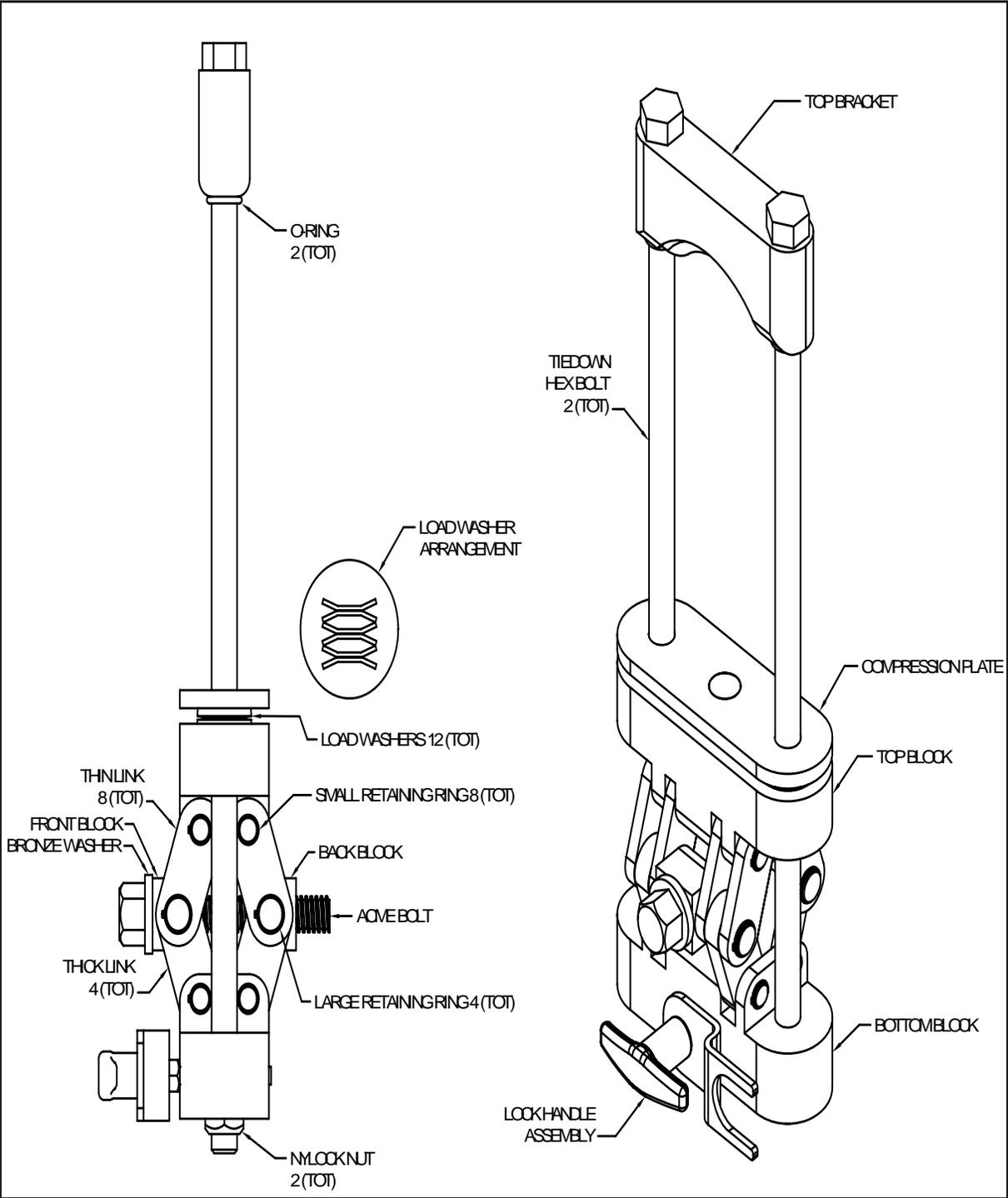
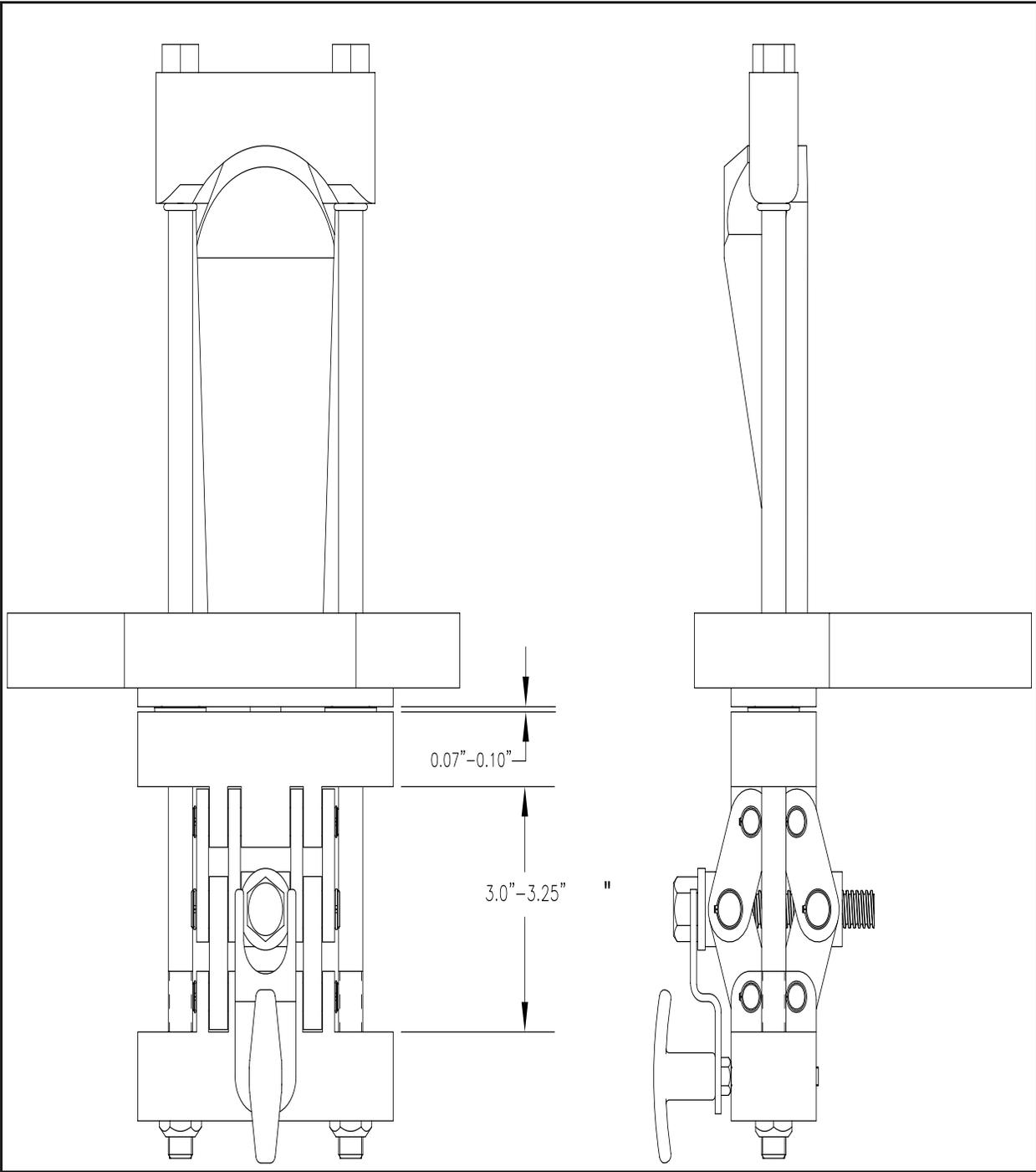


Figure 6 - Required Dimensions for Proper Installation



Nylock locknuts must be fully seated, equal number of threads showing. The bottom of long bolts shall be at least even with bottom of Nylock locknuts.