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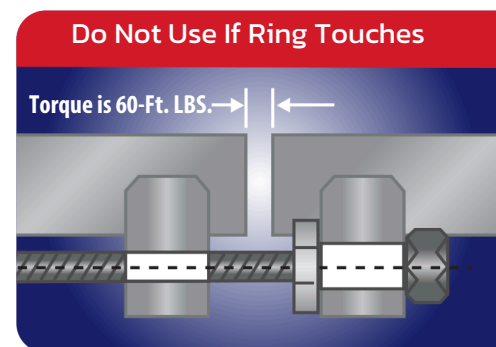
Steel Drum Closure & Assembly Instructions

CLOSURE SYSTEM COMPONENTS

To ensure compliance to the UN marking, the filler must inspect and re-tighten as necessary all applicable closures prior to shipping. Damaged gaskets must be replaced prior to shipment. Damage includes, but is not limited to tearing, twisting, and deterioration.

**This procedure is for new steel drums manufactured by North Coast Container only!
DO NOT MIX DIFFERENT DRUM MANUFACTURERS' COMPONENTS!**

For drums manufactured/re-manufactured by others suppliers, consult your specific supplier for torque and closing requirements



1A2 Open Head Drum Closure Procedure (5/8-Inch Bolt)

- 1** Inspect the gasket for proper seating and remove any residue from curl prior to cover installation.
- 2** Place the cover on the drum, making sure the cover gasket is seated against the lip of the drum opening (the curl) and the gasket recess on the cover. The gasket should not pro-trude beyond the cover or the drum curl.
- 3** Place the bolt ring onto the drum. Make sure that the bolt ring is oriented so that the lugs are positioned below the top surface of the drum. You will be required to pound on the cover with a rubber or other non-sparking mallet, or use a head press to compress the gasket. Make sure it is centered on the drum curl. Check to see that the cover and drum curl are pinched together and within the recess of the ring.
- 4** Thread jam nut onto bolt and then into threaded lug and tighten bolt until the gap between the closing ring ends is 1/4" or less but with no bending of the lugs. Aim for a 1/8" gap. Hammer around the circumference of the ring while torque is applied to further seat the head onto the drum. Continue hammering on the ring circumference and torque the bolt until the torque is stabilized at 60 ft-lb, and does **(Step 4 continued on next page)**

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not loosen when further hammering on the ring circumference is performed. Tighten the jam nut against the unthreaded lug. The ring ends must not touch when 60 ft-lb of torque is applied.

When using a shoulder bolt, tighten the ring bolt until the gap between the closing ring ends is 1/4" or less and to 60 to 70 ft-lbs. of torque. Aim for a 1/8" gap. Both types of bolts can be used interchangeably. The UN test confirms they are equivalent. The standard shoulder bolt does not require a jam nut. PER 49 CFR 178, IT IS THE FILLER'S RESPONSIBILITY TO VERIFY THE CONTAINER HAS BEEN PROPERLY CLOSED PRIOR TO SHIPPING FILLED DRUMS.



Lever-Lok, Outside Lever

Place cover on the drum, making sure the gasket is in place. Snap the closing ring over the cover and top lip of the drum, making sure that the bottom edge of the closing ring engages under the lip of the drum. Pull the locking lever closed, and at the same time, tap the edge of the closing ring with a mallet, beginning directly opposite the closing lever until the lever is fully closed against the edge of the ring. Snap the latch into the lever until it locks, then apply a sealing wire or other sealing device through the hole in the latch lever.

Lever-Lok, Inside Lever

Place cover on the drum, making sure the gasket is in place. Snap the closing ring over the cover and top lip of the drum, making sure that the bottom edge of the closing ring engages under the lip of the drum. Pull the locking lever closed, and at the same time, tap the edge of the closing ring with a mallet, beginning directly opposite the closing lever until the lever is fully closed and hooked under the latch. Apply a sealing wire or other sealing device through the hole in the latch lever.

Routing Instructions: This document must be passed along with the container within your facility, or to whom the packaging is transferred, and ultimately to the personnel responsible for shipping and closure. It must be used as a training document to complete the closure of your container.

- For 7 A/Type A tested packages – please refer to the test document for additional requirements
- In order for your North Coast Container drum to safely perform to its rated ability, these assembly instructions must be strictly adhered to any other method of assembly will immediately invalidate the UN and DOT performance rating of the drum.
- The shipper must verify the appropriate use of a liner. A liner which extends between the gasket and the curl may only be used if UN Performance tests indicate a liner was used in the test.

Bung Closure Procedure - Open Head & Tight Head Drums

- 1 Inspect all bungs to ensure gaskets are in place and not twisted or damaged
- 2 Insert all bungs and hand thread in a clockwise direction until hand tight. **Do not cross thread**
- 3 Utilizing a CALIBRATED TORQUE WRENCH to torque and confirm all bungs are at required minimum torque. Do not over tighten
- 4 Wipe clean any spillage or debris.
- 5 If required, apply applicable cap seals

As tested, torque settings are listed. Acceptable tolerance ± 2 ft-lbs

Plug Type	Type-I Octa on Base With Round Threaded Bung				Type II - Serrated Base, Hexagon Bung			
	Steel	Steel	Poly/Nylon	Poly/Nylon	Steel	Steel	Nylon	Poly/Nylon
Plug Material	Steel	Steel	Poly/Nylon	Poly/Nylon	Steel	Steel	Nylon	Poly/Nylon
Gasket Type	Rubber	Poly	Poly	Rubber	Rubber	Poly	Rubber	Rubber
2"	20 ft-lb	20 ft-lb	20 ft-lb	20 ft-lb	30 ft-lb	40 ft-lb	20 ft-lb	20 ft-lb
3/4"	13 ft-lb	16 ft-lb	9 ft-lb	9 ft-lb	15 ft-lb	20 ft-lb	9 ft-lb	9 ft-lb

49 CFR 178.2 © Notification for North Coast Container and UN Assembly Instructions for Non-Bulk NCC Packaging