

This Procedure was developed for a typical BethGon and may not be applicable to all BethGons. Please consult your original drawings or contact Freightcar America, Inc. for details.

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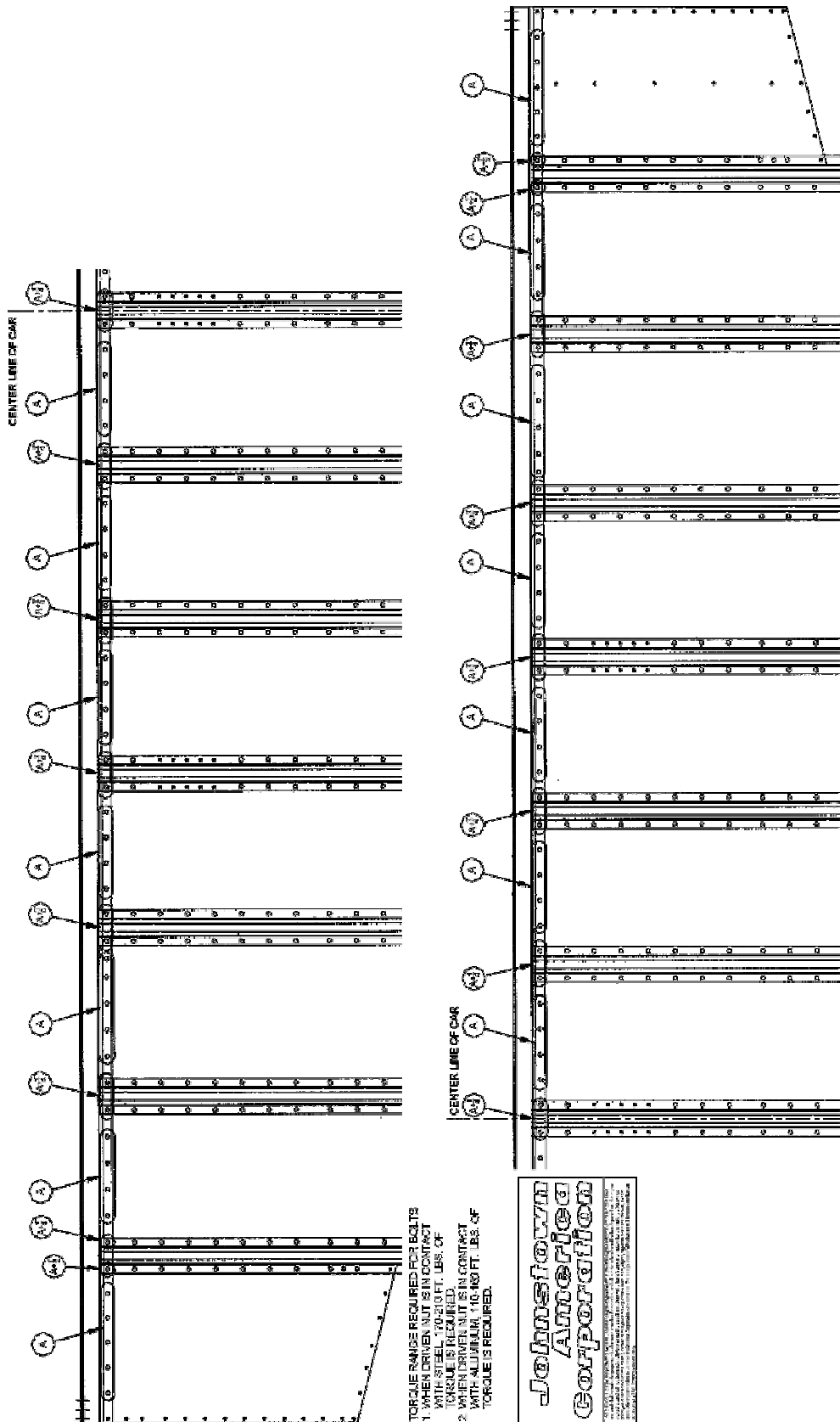
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BILL OF MATERIAL

Per Location

- (1) 00000-000 Side Top Chord
- (90) 5/8" dia. fasteners ASTM A-325 or equivalent, plated (top chord)
(60) @ A length (typically 1-1/2" Una-driv or 20-08 Huck
(26) @ A+ 1/4" length
(4) @ A+ 1/2" length
- (12) 3/4" dia. fasteners ASTM A-325 or equivalent, plated (corner cap)
- (as required) Manus-Bond 75AM Caulking

- 1). Remove the two corner caps by removing $\frac{3}{4}$ " fasteners securing each. If the corner caps are undamaged save them for reapplication.
- 2). Secure top chord to overhead crane or other suitable lifting device, then remove all fasteners securing the top chord to the side sheets and side posts.
- 3). Remove old top chord from car & discard.
- 4). Place new top chord into position with overhead crane and apply fasteners to the center side stake/top chord connection. Typical fastener arrangement is illustrated on Sketch #1 attached. Continue fastening **side stake/top chord connections** working from the center of the car towards the ends until all side stake/top chord connects are secure. Note: it may be necessary to jack the car at the side sill to aid in aligning holes. Torque values for side sheet and side post to top chord connections must be checked and fall within the allowed range of 110-160 ft. lbs.
- 5). Fasten all **side sheet/top chord connections**. Holes may need reamed to prevent the side sheet from "bunching", but it is recommended that reaming be limited to only those holes where it is absolutely necessary. Torque values for side sheet and side post to top chord connections must be checked and fall within the allowed range of 110-160 ft. lbs.
- 6). Reapply corner caps removed in step one. Fasteners are to be gr. 5, zinc plt., American Standard, reg. hex head bolt, $\frac{3}{4}$ " dia., with washer (aluminum side) and lock nut. Torque values for corner cap to top chord connections must be checked and fall within the allowed range of 170-210 ft. lbs.



TORQUE RANGE REQUIRED FOR BOLTS
 1. WHEN DRIVEN NUT IS IN CONTACT
 WITH THE SURFACE TO BE JOINED
 TORQUE IS 100 FT. LBS. OF
 TORQUE IS REQUIRED.
 2. WHEN DRIVEN NUT IS IN CONTACT
 WITH ALUMINUM 10,000 FT. LBS. OF
 TORQUE IS REQUIRED.

