



| SHOP BILL | | | | | | | | | | MATERIAL ASTM A709-50 T2 U.N.O. | | | |
|-----------|-----|---------------|--------------|---------|-------|-----------------|--------|--------|---------|---------------------------------|-------------|--------|---------|
| LINE | SEQ | SHIPPING PICS | ASSMBLY PICS | MARK | SHAPE | DESCRIPTION | LENGTH | | REMARKS | MTRL GRADE | MTRL REMARK | WEIGHT | HEAT NO |
| | | | | | | | ft | in | | | | | |
| 1 | | | | | | | | | | | | | |
| 2 | 2 | | | M87A | W | 14 x 30 | 11 | 3 1/8 | | | | | |
| 3 | | | | | | | | | | | | | |
| 4 | | 2 | | x80f | L | 4 x 3 1/2 x 3/8 | 3 | 8 5/16 | DRILLED | | | | |
| 5 | | 2 | | x80g | L | 4 x 3 1/2 x 3/8 | 3 | 8 5/16 | DRILLED | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | 8 | | x82a | L | 3 1/2 x 3 x 3/8 | 1 | 1 | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | 2 | | x81c | L | 6 x 3 1/2 x 3/8 | 1 | 0 9/16 | | | | | |
| 10 | | 2 | | x81d | L | 6 x 3 1/2 x 3/8 | 1 | 0 9/16 | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | 4 | | x88a | PL | 3/8 x 14 3/4 | 1 | 6 1/2 | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | 2 | | x90c | PL | 1/8 x 3 | 11 | 1/4 | | ASTM A1011 | | | |
| 15 | | 2 | | x90d | PL | 1/8 x 5 5/8 | 1 | 0 9/16 | | ASTM A1011 | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | 32 | | sb7-225 | BOLT | 7/8 # | 2 | 1/4 | 1nd/2nd | A325 | | | |
| 18 | | 92 | | sb7-275 | BOLT | 7/8 # | 2 | 3/4 | 1nd/2nd | A325 | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |

ALL HOLES TO BE PUNCHED U.N.O.

- NO EXCEPTION TAKEN
- REJECTED
- MAKE CORRECTIONS NOTED
- REVISE AND RESUBMIT
- SUBMIT SPECIFIED ITEM

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.

DATE 5/9/12 BY CHA PKE/N

LEGEND:

- ⊕ = CENTERLINE
- CTR'D = CENTERED
- C/C = CENTER TO CENTER
- FLG = FLANGE
- TOP = TOP
- BTM = BOTTOM
- RDFH = RUNNING DIMENSIONS FROM HERE
- = FIELD BOLTS
- (QUANTITY) DIAMETER x LENGTH
- ◇ = ALTERNATE HOLE DIAMETER
- TYP = TYPICAL
- N/S = NEAR SIDE
- F/S = FAR SIDE
- B/S = BOTH SIDES
- BTS = BOLT TO SHIP
- SHP'G BOLT = SHIPPING BOLT
- ◇ = SHIPPING BOLT
- D.O.R. = DIRECTION OF ROLL
- T2 = CHARPY V-NOTCH TESTING REQUIRED
- F2 = FRACTURE CRITICAL MATERIAL
- ⊗ = FIELD DRILLED HOLE
- ⊗ = FIELD DRILLED HOLE

PAINT NOTES:

- ALL ITEMS THIS SHEET TO RECEIVE UPPER STEEL PAINT SYSTEM PER GN1.
- CLEAN AND PRIME BOLTED PARTS PRIOR TO ASSEMBLY.
- PRIMER ONLY, WITHIN 3" FROM ALL OPEN HOLES, (A307) SHIPPING BOLTS AND NUTS OR TO NEAREST EDGE OR PERPENDICULAR SURFACE (WHICHEVER IS LESS) UNLESS SPECIFICALLY NOTED OTHERWISE.
- ALL TORQUED BOLTS TO RECEIVE COMPLETE PAINT SYSTEM NOTED. NO PAINT ON (A307) SHIPPING BOLTS AND NUTS.

NOTES:

- FOR GENERAL NOTES SEE DRAWING GN1.
- ALL BOLTS THIS SHEET TO BE FULLY TORQUED UNLESS NOTED AS (A307) SHIPPING BOLTS.
- INSTALL WASHER UNDER HEAD OF BOLT AS WELL AS NUT. ADDITIONAL WASHER IS NOT REQUIRED FOR (A307) SHIPPING BOLTS.
- ALL HOLES MARKED "⊗" OR "⊗" ARE TO BE FIELD DRILLED HOLES. DO NOT SHOP DRILL.

ALL DIMENSIONS HAVE BEEN FIELD VERIFIED
BY: _____ DATE: _____

2 REQ'D ~ Mk. M87A

| |
|----------------|
| LIFTING WEIGHT |
| ? |
| lbs |

VERIFY w/ No 3/10/12

| A | 04/25/12 | RC | FOR APPROVAL |
|--|---------------|-----------------|--------------|
| NO. | DATE | BY | REVISION |
| STS STEEL, INC. ENGINEERS * FABRICATORS * ERECTORS PH: (518) 370-2693 FAX: (518) 370-2696 | | | |
| DRAWING TITLE | | | |
| UPPER STEEL (SWAY FRAMES@ U4 & U14) | | | |
| PROJECT No. US RT 2 BRIDGE No 24 | | FEDERAL AID No. | |
| ENGINEER : CHA | | | |
| CUSTOMER : Harrison & Burrowes Bridge Constructors, Inc. | | | |
| PROJECT : RICHMOND, VT - TRUSS BRIDGE REHAB | | | |
| RICHMOND, VT | | | |
| HOLE: | 15/16" U.N.O. | PAIN: | PER SPEC |
| BOLTS: | A325 U.N.O. | DR.BY: | PG |
| WELDS: | AWS D1.5 | CHK.BY: | SG |
| DATE: | 04/12/12 | JOB NO.: | 1156 |
| DWG NO.: | 87 | | |