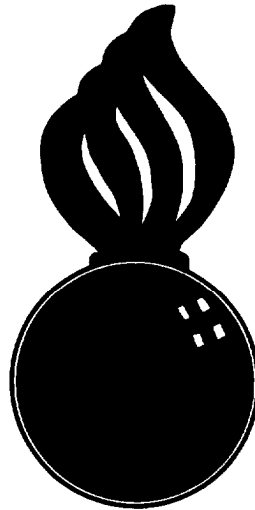


APPROVED
BUREAU OF EXPLOSIVES

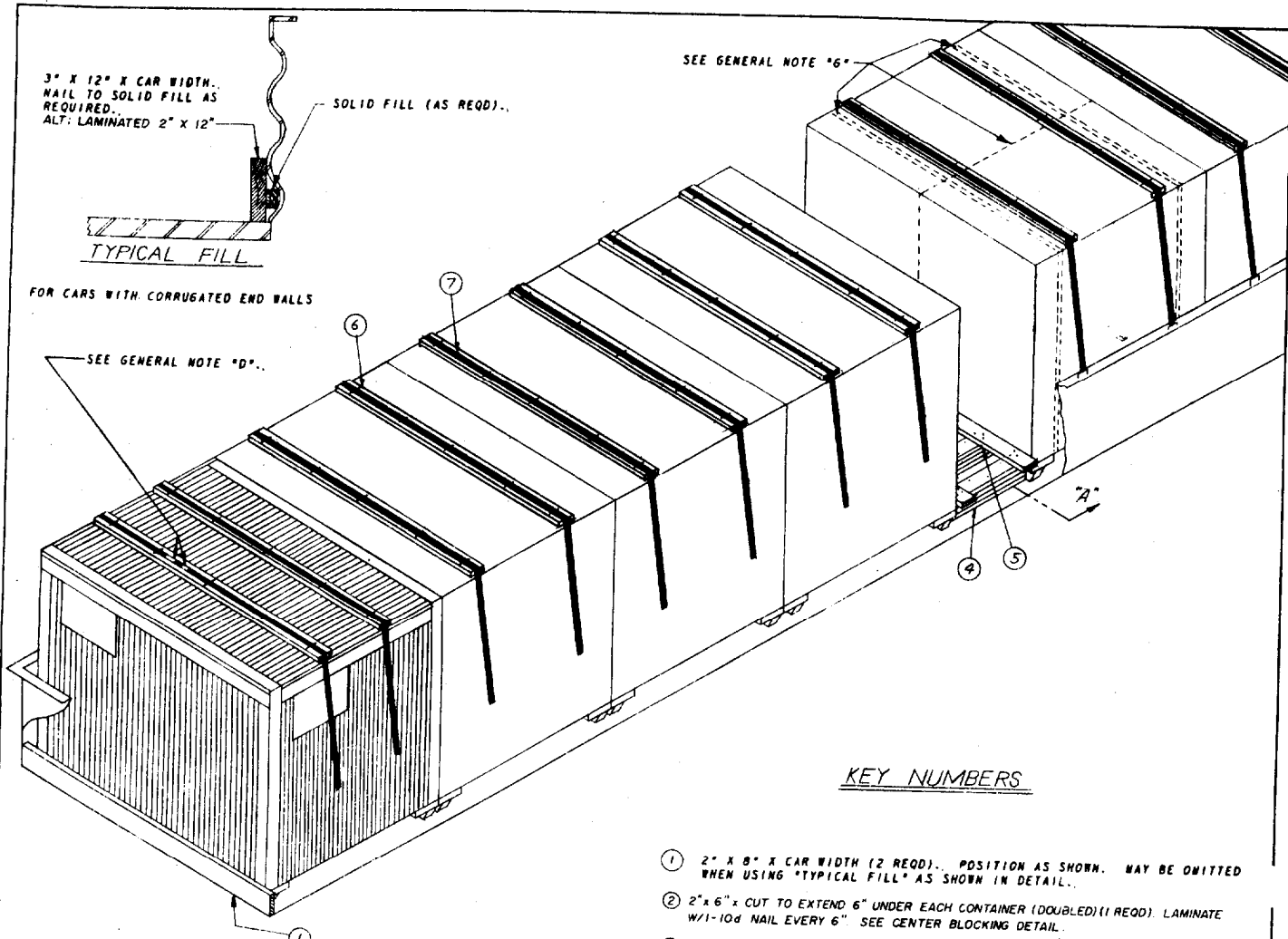
A. G. Kraasnick
INSPECTOR
DATE *4/24/62*



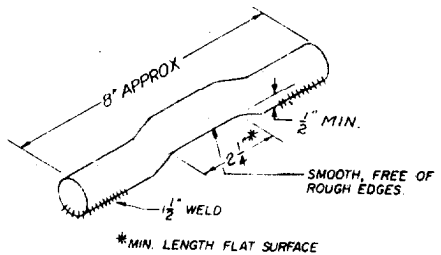
LOADING & BRACING (CL & LCL) IN GONDOLA CARS OF TYPE 1 (HALF SIZE) AND TYPE 2 (STANDARD) CARGO TRANSPORTERS, FOR SHIPMENT "VIA CONEX"

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------|----------------------------------------------------------------------|
| LOADING & BRACING (CL & LCL) IN GONDOLA CARS OF TYPE 1 (HALF SIZE) AND TYPE 2 (STANDARD) CARGO TRANSPORTERS, FOR SHIPMENT "VIA CONEX" | | | |
| DESIGNED BY <i>J.D.S.</i> | TRACER | REVISIONS <i>DIW/B&B</i> | SUBMITTED BY <i>R.P. Mulvaney</i> |
| CHECKED BY <i>RHA</i> | CHECKED BY <i>N.E.W.</i> | QUANTITIES | EXAMINED BY <i>James D. Hecto</i> |
| REVISIONS | | | ORD. CORPS U.S.A. |
| | | | APPROVED BY ORDER OF THE CHIEF OF ORDNANCE <i>John P. Fischer</i> |
| | | | ORDNANCE CORPS U.S.A. |
| | | | 21 AUGUST 1961 |
| CLASS | DIVISION | DRAWING | FILE |
| 19 | 48 | 7018 | SP-5HI |

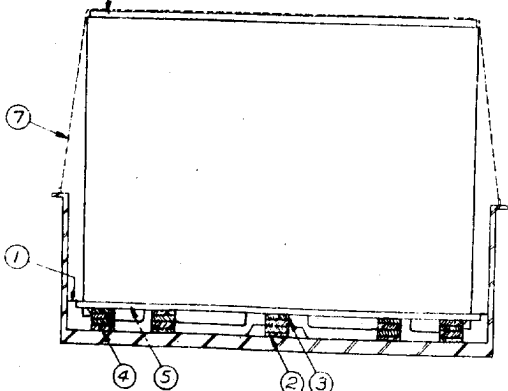
DO NOT SCALE



ISOMETRIC VIEW



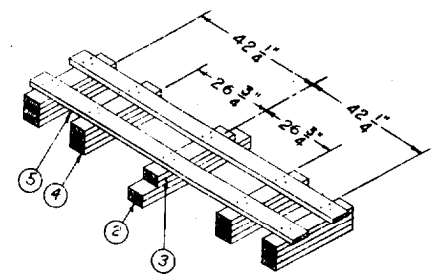
STRAP ANCHOR DEVICE DETAIL
(1/2" DIAMETER MATL.)



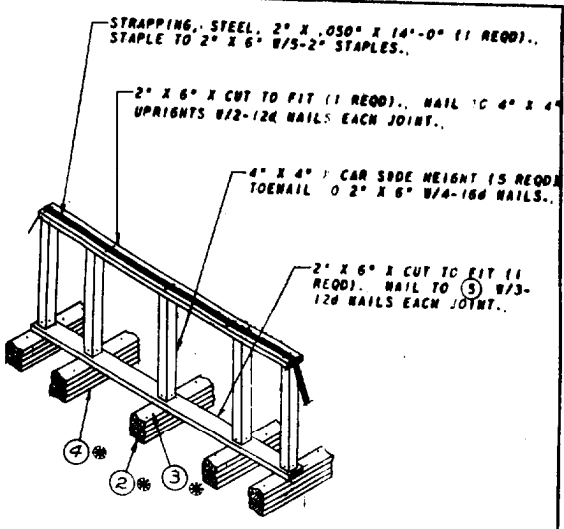
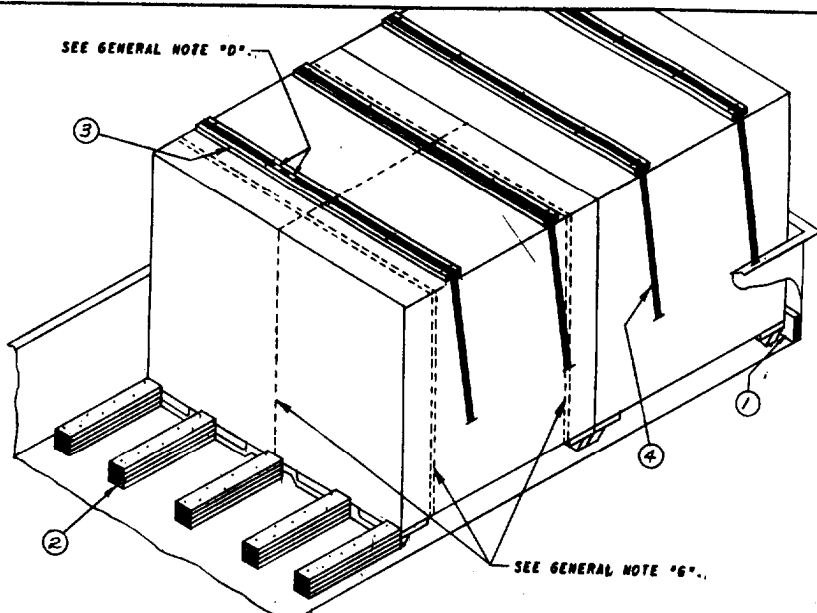
SECTION A-A

KEY NUMBERS

- ① 2" x 8" x CAR WIDTH (2 REQD).. POSITION AS SHOWN. MAY BE OMITTED WHEN USING "TYPICAL FILL" AS SHOWN IN DETAIL.
- ② 2" x 6" x CUT TO EXTEND 6" UNDER EACH CONTAINER (DOUBLED)(1 REQD) LAMINATE W/1-10d NAIL EVERY 6" SEE CENTER BLOCKING DETAIL.
- ③ 2" x 6" x CUT TO WEDGE FIT (DOUBLED)(1 REQD) NAIL FIRST PIECE TO ② W/1-30d NAIL EVERY 6". NAIL SECOND PIECE TO FIRST IN LIKE MANNER SEE CENTER BLOCKING DETAIL.
- ④ 2" x 6" CUT TO WEDGE FIT (QUADRUPLED)(4 REQD). NAIL SECOND PIECE TO FIRST W/1-10d NAIL EVERY 6". NAIL EACH ADDITIONAL PIECE W/1-30d NAIL EVERY 6" SEE CENTER BLOCKING DETAIL.
- ⑤ 2" x 6" x CAR WIDTH MINUS 4" (2 REQD) NAIL TO ③ AND/OR ④ W/3-12d NAILS EACH JOINT
- ⑥ 2" x 6" x 8'-5" (16 REQD) POSITION AS SHOWN
- ⑦ STEEL STRAPPING, 2" x 0.50" x 21'-0" (16 REQD) STAPLE TO ⑥ W/5-2" STAPLES AS SHOWN. STRAPPING LENGTH BASED ON 36" CAR SIDE HEIGHT.



CENTER BLOCKING DETAIL
FOR STRUTS GREATER THAN 8'-0" SEE 'STRUT HOLD DOWN DETAIL'.



STRUT HOLD DOWN DETAIL

FOR STRUTS GREATER THAN 8'-0" IN LENGTH.

NOTE: NUMBERS REFER TO SAME NUMBERED PIECES SHOWN IN CENTER BLOCKING DETAIL, PAGE 2.

TYPICAL LCL

**WOOD FLOOR GONDOLA ONLY
KEY NUMBERS (LCL)**

- ① 2" X 8" X CAR WIDTH (1 REQD). POSITION AS SHOWN.
- ② 2" X 6" X 36" (QUADRUPLED) (5 REQD). NAIL FIRST PIECE TO CAR FLOOR W/7-16d NAILS. NAIL EACH ADDITIONAL PIECE W/7-40d NAILS. SEE CENTER BLOCKING DETAIL FOR PROPER SPACING.
- ③ 2" X 6" X 8'-5" (4 REQD). POSITION AS SHOWN.
- ④ STEEL STRAPPING, 2" X .050" X 21'-0" (4 REQD). STAPLE TO ③ W/5-2 STAPLES AS SHOWN. STRAPPING LENGTH BASED ON 36" CAR SIDE HEIGHT.

GENERAL NOTES

- A. THIS DRAWING IMPLEMENTS AR 55-166.
- B. LOAD AS SHOWN IS BASED ON GONDOLA CARS 52'-8" LONG X 9'-2" (MIN) WIDE. CAUTION: CARS WITH DROP DOORS ON FLOOR ARE PROHIBITED.
- C. FOR DETAIL OF CARGO TRANSPORTER, TYPE 1, (1/2 SIZE) SEE MILITARY SPECIFICATION MIL-B-21560. OUTSIDE DIMENSIONS - 51' LONG X 75' WIDE X 82 1/2" HIGH. TARE WEIGHT - 1,050 LBS. MAX GROSS WEIGHT - 10,050 LBS. FOR DETAIL OF CARGO TRANSPORTER, TYPE 2, (STANDARD). SEE MILITARY SPECIFICATION MIL-B-11886E. OUTSIDE DIMENSIONS - 102' LONG X 75' WIDE X 82 1/2" HIGH. TARE WEIGHT - 1,430 LBS. MAX GROSS WEIGHT - 10,430 LBS.
- D. ALL 2" STRAPPING APPLIED IN TWO (2) PIECES AND ALL 1 1/2" STRAPPING WILL BE SEALED WITH TWO (2) SEALS AND TWO (2) CRIMPS PER SEAL.
- E. FOR CARLOADING OF THIS ITEM, REQUEST GONDOLA CARS SO EQUIPPED ARE NOT READILY AVAILABLE. ANCHOR STRAP TIEDOWNS MAY BE LOCALLY FABRICATED. SEE STRAP ANCHOR DEVICE DETAIL.
- F. SHIPMENT WILL BE POSITIONED IN RAILCAR IN COMPLIANCE WITH THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE RAILCAR CONCERNED, OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS CONTAINED HEREIN, FOR FULL OR PARTIAL CARLOAD, MUST BE FOLLOWED FOR BLOCKING, BRACING AND STAYING OF THIS ITEM.
- G. LOADS DEPICTED HEREIN ARE BASED ON CARGO TRANSPORTER, TYPE 2, (STANDARD). FOR CARLOADING OF CARGO TRANSPORTER, TYPE 1, (1/2 SIZE), TWO (2) 1 1/2" X .035" STEEL STRAPS 33'-0" LONG ARE REQUIRED TO UNITIZE EACH TWO (2) CARGO TRANSPORTERS AS TYPICALLY SHOWN IN ISOMETRIC VIEWS.
- H. LOADING, BLOCKING AND BRACING METHODS SHOWN HEREIN ARE APPROVED FOR HIGH DENSITY LOW VOLUME MATERIEL INCLUDING ICC CLASS "A" EXPLOSIVES, INTERNALLY BLOCKED AND BRACED INSIDE TRANSPORTER IN ACCORDANCE WITH ORDNANCE CORPS APPROVED "FILLING" DRAWINGS.
- J. CAUTION: LOADED TRANSPORTER MUST NEVER BE POSITIONED IN CAR WITH DOORS FACING DIRECTION OF CAR TRAVEL --- LOAD WITH CONTAINER SKIDS CROSSWISE OF CAR.

BILL OF MATERIAL (LCL)

| LUMBER | LINEAL FEET | BOARD FEET |
|----------------------------------------------------|-------------|------------|
| 2" X 6" | 205 | 205 |
| 2" X 8" | 19 | 24 |
| NAILS | NO. REQD | POUNDS |
| 10d (3") | 25 | 1/2 |
| 12d (3-1/4") | 30 | 1/2 |
| 30d (4-1/2") | 50 | 2-1/2 |
| STRAPPING, STEEL, 2" X .050" - 336' REQD - 112 LBS | | |
| STAPLES FOR 2" STRAPPING - 80 REQD | | |

NOTE: FOR CARGO TRANSPORTER, TYPE 1, (1/2 SIZE), ADD STRAPPING, STEEL, 1 1/2" X .035" - 520' REQD - 76 LBS.

MATERIAL SPECIFICATIONS

LUMBER: SEE PARAGRAPH 5400, ORDN 3-4, VOL 2.
 NAILS: COMMON, CEMENT-COATED, FED SPEC FF-N-105.
 ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
 STRAPPING, STEEL: TYPE 1, CLASS "A" OR "C", FED SPEC. QQ-5-781.

NOTE: WEIGHT OF CARLOAD SHOWN WAS COMPUTED BY USING 9,000 POUNDS MAXIMUM COMMODITY WEIGHT PER TRANSPORTER. ACTUAL WEIGHT DEPENDS UPON THE WEIGHT OF THE COMMODITIES BEING SHIPPED IN TRANSPORTER. CAUTION: DO NOT EXCEED LOAD LIMIT STENCILED ON CAR.

LOAD AS SHOWN

| ITEM | QUANTITY | WEIGHT |
|----------------------|----------|-------------------|
| CONTAINER (STANDARD) | 0 | 63,900 LBS (MAX) |
| DUNNAGE | | 680 LBS |
| TOTAL WEIGHT | | 64,580 LBS |

LOAD AS SHOWN

| ITEM | QUANTITY | WEIGHT |
|------------------------|----------|--------------------|
| CONTAINER, (HALF SIZE) | 16 | 160,800 LBS (MAX) |
| DUNNAGE | | 760 LBS |
| TOTAL WEIGHT | | 161,560 LBS |

