

APPROVED
 BUREAU OF EXPLOSIVES
A. F. Grassmuck
 DATE 9/20/62 INSPECTOR

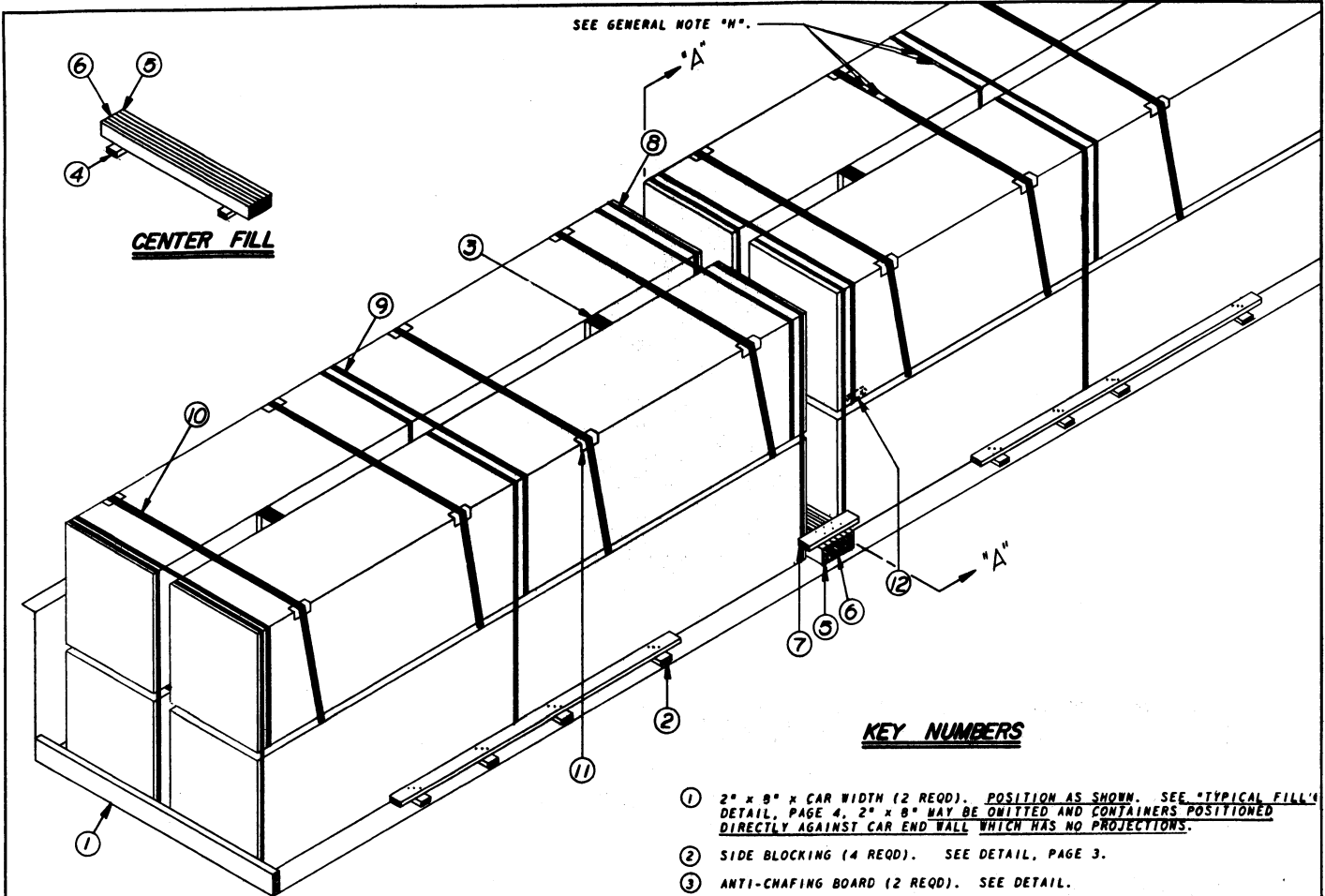


LOADING & BRACING (CL & LCL) IN GONDOLA CAR OF ROCKET MOTOR, M3 SERIES, PACKED WITH IGNITER AND M7 MOTOR, IN LUMBER OR PLYWOOD SHEATHED CONTAINER, FOR THE 762MM ROCKET

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DESIGNED BY KSI	CHECKED BY RHA/GWP	DRAWN BY DIW/DHN	IDENTIFIED BY <i>A. F. Grassmuck</i>
REVISIONS			APPROVED BY <i>John Taylor</i>
5	7-31-62	<i>Andrew W. Reid</i>	COLONEL, ORN. CORPS, U.S.A.
			APPROVED BY <i>Andrew W. Reid</i>
			ORDNANCE CORPS U.S.A.
			22 OCTOBER 57
			CLASS DIVISION DRAWING FILE
			19 48 5080 GM SA10

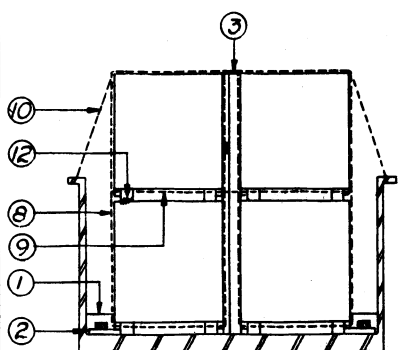
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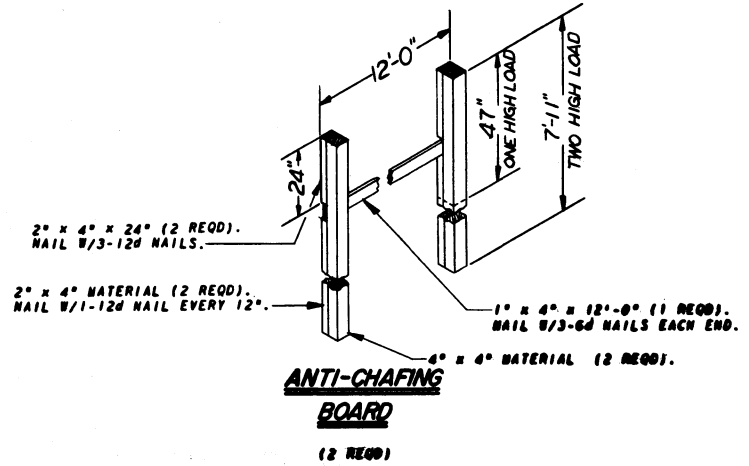
ISOMETRIC VIEW

KEY NUMBERS

- ① 2" x 8" x CAR WIDTH (2 REQD). POSITION AS SHOWN. SEE "TYPICAL FILL" DETAIL, PAGE 4. 2" x 8" MAY BE OMITTED AND CONTAINERS POSITIONED DIRECTLY AGAINST CAR END WALL WHICH HAS NO PROJECTIONS.
- ② SIDE BLOCKING (4 REQD). SEE DETAIL, PAGE 3.
- ③ ANTI-CHAFING BOARD (2 REQD). SEE DETAIL.
- ④ 2" x 6" x CUT TO EXTEND 6" UNDER EACH CONTAINER (2 REQD). ALIGN WITH CONTAINER SKIDS. SEE CENTER FILL DETAIL ABOVE.
- ⑤ 2" x 6" x 8'-0" (2 REQD). POSITION AS SHOWN. TOENAIL TO ④ W/2-12d NAILS EACH JOINT.
- ⑥ SOLID FILL, 8'-0" LONG x 6" WIDE MATERIAL AS REQD (18" MAX). SEE "CENTER FILL STRUTS" DETAIL, PAGE 3.
- ⑦ 2" x 4" x CUT TO EXTEND 6" BEYOND ENDS OF CONTAINERS (2 REQD). NAIL TO ⑤ AND ⑥ W/1-12d NAIL EACH JOINT.
- ⑧ STEEL STRAPPING, 1½" x .035" x 23'-0" (12 REQD).
- ⑨ STEEL STRAPPING, 1½" x .035" x 23'-0" (6 REQD).
- ⑩ STEEL STRAPPING, 2" x .050" x 19'-0" (8 REQD).
- ⑪ EDGE PROTECTORS FOR 2" STRAPPING (16 REQD). SEE GENERAL NOTE "6".
- ⑫ ANTI SKID PLATES (24 REQD). POSITION UNDER SKIDS OF CONTAINERS ON SECOND LAYER. (16 REQD PER CONTAINER). SEE GENERAL NOTE "E".

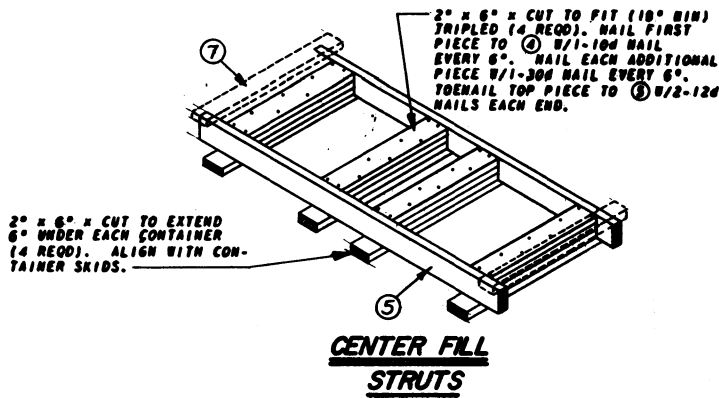
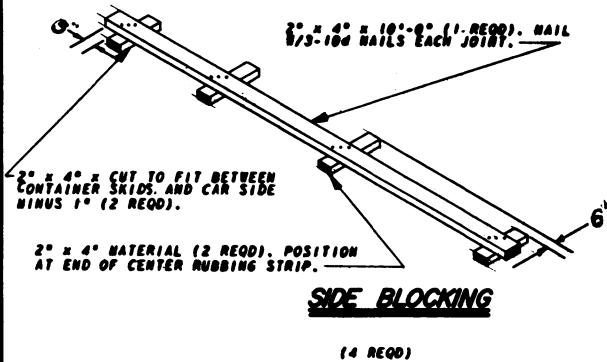


SECTION "A-A"



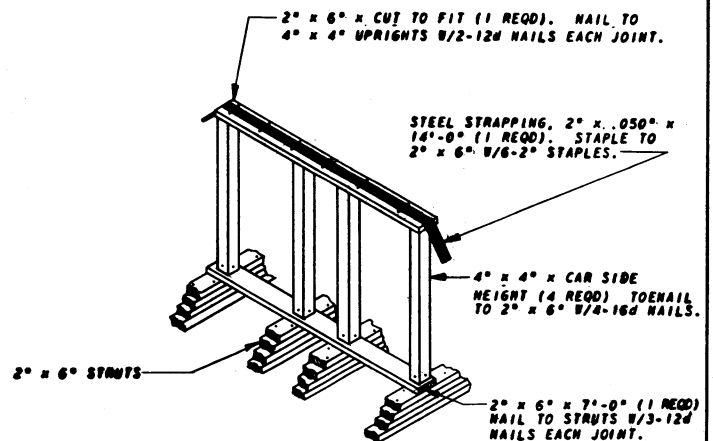
GENERAL NOTES

- A. LOAD AS SHOWN IS BASED ON GONDOLA CAR 40'-6" LONG x 8'-6" WIDE, 54" SIDE HEIGHT SHOWN FOR CL.
- B. SELECTION OF RAIL CABS FOR THE TRANSPORT OF THIS ITEM WILL BE IN ACCORDANCE WITH PARAGRAPH 0300.4, ORDN 3-4, VOL 3.
- C. SHIPMENT WILL BE POSITIONED IN THE RAIL CAR IN COMPLIANCE WITH THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE RAIL CAR CONCERNED, ON THE BASIS OF WEIGHT. HOWEVER, THE APPROVED METHODS CONTAINED IN THE AAR, FOR FULL OR PARTIAL CARLOAD, MUST BE FOLLOWED FOR BLOCKING, BRACING, AND STAYING OF THIS ITEM.
- D. FOR DETAIL OF PLYWOOD SHEATHED CONTAINER SEE DRAWING NR. 010050. CONTAINER DIMENSIONS - 235" LONG x 42 1/2" WIDE x 49" HIGH. GROSS WEIGHT - 5,883 POUNDS (APPROX). FOR DETAIL OF LUMBER SHEATHED CONTAINER SEE DRAWING NR. 8026321. CONTAINER DIMENSIONS - 239 1/2" LONG x 41 1/2" WIDE x 49" HIGH. GROSS WEIGHT - 6,436 POUNDS (APPROX).
- E. THE BORDS "ANTI-SKID PLATES" WILL BE STENCILED IN ONE INCH (1") LETTERS ON BOTH SIDES OF THE CONTAINER TO SHOW THE LOCATION OF THESE PLATES.
- F. FOR CARLOADING OF THIS ITEM, REQUEST GONDOLA CARS WITH ANCHOR STRAP TIE DOWN FACILITIES. IF GONDOLA CARS SO EQUIPPED ARE NOT READILY AVAILABLE, ANCHOR STRAP TIE DOWNS MAY BE LOCALLY FABRICATED.
- G. IF EDGE PROTECTORS FOR 2" STRAPPING ARE NOT COMMERCIALY AVAILABLE THEY MAY BE FORGED FROM 10" (MIN) GAGE SHEET STEEL 9" LONG x 6" WIDE.
- H. ALL 2" STRAPPING APPLIED IN TWO PIECES AND ALL 1 1/2" STRAPPING WILL BE SEALED WITH TWO (2) SEALS AND TWO (2) CRIMPS PER SEAL.
- J. THIS ITEM IS AN ICC CLASS "B" EXPLOSIVE. PROCEDURES SHOWN HEREIN ARE APPLICABLE FOR THE SHIPMENT OF CONTAINERS WITH INERT LOADED, EMPTY OR PRACTICE MOTORS AND OF EMPTY CONTAINERS.
- K. IF RAIL CAR IS NOT EQUIPPED WITH PLACARD BOARDS ON BOTH ENDS AND BOTH SIDES, 16" x 24" BOARDS MUST BE PROVIDED AS REQUIRED.



TO BE USED BETWEEN CONTAINERS WHEN EXCESS LENGTH IN CAR IS GREATER THAN 10" SEE "STRUT HOLD DOWN" DETAIL.

BILL OF MATERIAL		
LUMBER	LINEAL FEET	BOARD FEET
1" x 4"	24	0
2" x 4"	100	67
2" x 6"	78	78
2" x 8"	17	23
4" x 4"	32	43
NAILS	NO. REQD	POUNDS
6d (2")	12	1/2
10d (3")	48	1/2
12d (3 1/2")	50	1
STRAPPING, STEEL, 1 1/2" x .035"	- 414" REQD -	60 LBS
STRAPPING, STEEL, 2" x .050"	- 152" REQD -	51 LBS
EDGE PROTECTORS	- 16 REQD -	4 LBS
ANTI-SKID PLATES	- 24 REQD -	6 LBS



STRUT HOLD DOWN

FOR STRUTS GREATER THAN 8'-0" IN LENGTH

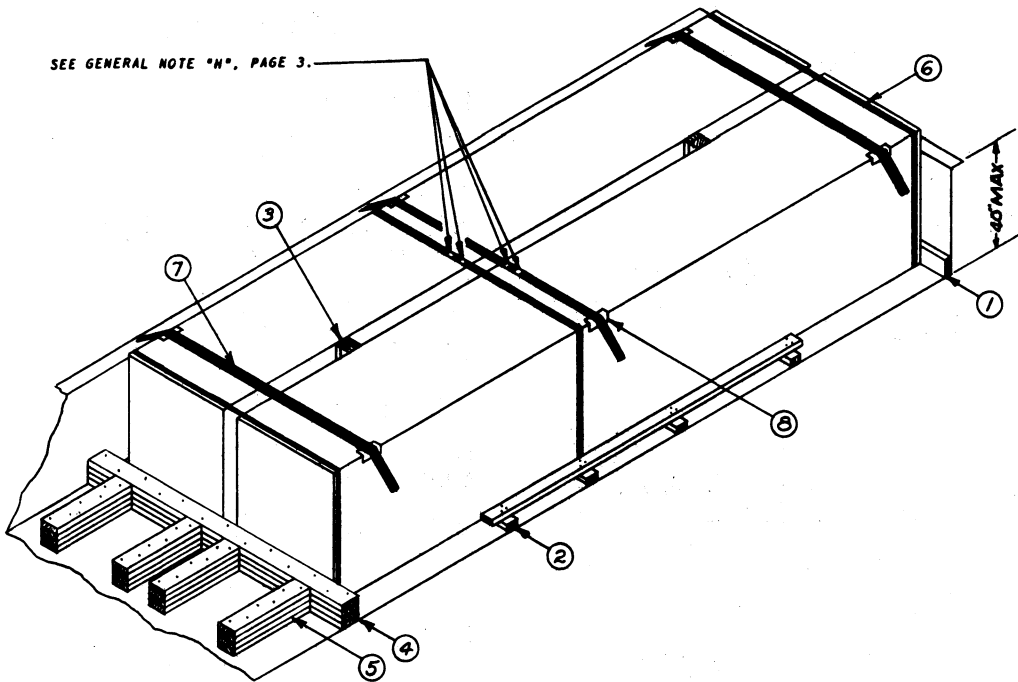
MATERIAL SPECIFICATIONS

- LUMBER: SEE PARAGRAPH 0300, ORDN 3-4, VOL 3.
- NAILS: COMMON, CORROSION 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-S-701. (FOR FSN SEE 58-30-100).
- ANTI-SKID PLATES: SIBRODE NO. 1 OR EQUAL.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
ROCKET MOTOR, PLYWOOD SHEATHED CONTAINER	8	47,064 LBS (APPROX)
DAMAGE		668 LBS
TOTAL WEIGHT		47,732 LBS (APPROX)

SEE GENERAL NOTE "N", PAGE 3.



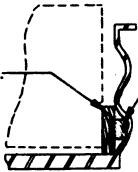
TYPICAL LCL

WOOD FLOOR GONDOLA ONLY

KEY NUMBERS (LCL)

- ① 2" x 8" x CAR WIDTH (1 REQD). POSITION AS SHOWN. SEE "TYPICAL FILL" DETAIL, 2" x 8" MAY BE OMITTED AND CONTAINERS POSITIONED DIRECTLY AGAINST CAR END WALL WHICH HAS NO PROJECTIONS.
- ② SIDE BLOCKING (2 REQD). SEE DETAIL, PAGE 3.
- ③ ANTI-CHAFING BOARD (1 REQD). SEE DETAIL, PAGE 2.
- ④ 2" x 6" x CAR WIDTH (QUADRUPLED)(1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-16d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-40d NAIL EVERY 8".
- ⑤ 2" x 6" x 36" (QUADRUPLED)(4 REQD). ALIGN WITH CONTAINER SKIDS. NAIL FIRST PIECE TO CAR FLOOR W/7-16d NAILS. NAIL EACH ADDITIONAL PIECE W/7-40d NAILS. SEE NOTE ●
- ⑥ STEEL STRAPPING, 1½" x .035" x 23'-0" (3 REQD).
- ⑦ STEEL STRAPPING, 2" x .050" x 14'-0" (3 REQD).
- ⑧ EDGE PROTECTORS FOR 2" STRAPPING (6 REQD). SEE GENERAL NOTE "G", PAGE 3.

3" x 12" (ALT DOUBLED
2" x 12") x CAR WIDTH.



SOLID FILL (AS REQD).
NAIL TO 3" x 12".

TYPICAL FILL

FOR CARS WITH CORRUGATED END WALLS. DELETE PIECE ①.

NOTE ●:

FOUR (4) BACK UP CLEATS, SHOWN AS PIECE ④, ARE ADEQUATE FOR RETAINING A MAXIMUM LCL LOAD OF 13,500 POUNDS.

BILL OF MATERIAL (LCL)

LUMBER	LINEAL FEET	BOARD FEET
1" x 4"	12	4
2" x 4"	40	27
2" x 6"	82	82
2" x 8"	9	12
4" x 4"	8	11
NAILS	NO. REQD	POUNDS
6d (2")	6	-
10d (3")	24	½
12d (3½")	10	½
16d (3¾")	41	1
40d (5")	123	7½
STRAPPING, STEEL, 1½" x .035" - 69' REQD - 10 LBS		
STRAPPING, STEEL, 2" x .050" - 42' REQD - 14 LBS		
EDGE PROTECTORS - 6 REQD - 2 LBS		