

REV NO. 1 APPROVED  
 BUREAU OF EXPLOSIVES  
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 DATE 10/14/65

# LOADING & BRACING ON FLAT CARS OF THE EXPLOSIVE AND INERT COMPONENTS, IN RELATED CONTAINERS, FOR THE NIKE-HERCULES GUIDED MISSILE

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**LOADING & BRACING ON FLAT CARS OF THE EXPLOSIVE AND INERT COMPONENTS, IN RELATED CONTAINERS, FOR THE NIKE-HERCULES GUIDED MISSILE**

DRAFTSMAN <b>JDS</b>	APPROVED BY <i>ACE</i>	DESIGNED BY DIW	AGE	DATE <i>ACE</i>	APPROVED <i>B. B. Abrams</i> COMMANDER, SAVANNAH ARMY DEPOT
CHECKED GWP	CHECKED	APPROVED BY			
<b>REVISIONS</b>					APPROVED <i>Andrew W. Heid</i> ARMY MOBILE COMMAND
1	7/13/65	JDS	GWP	<i>W. Heid</i>	APPROVED BY ORDER OF COMMANDER, ARMY MATERIEL COMMAND <i>Paul E. ...</i> ARMY SUPPLY & MAINTENANCE COMMAND
					<b>U. S. ARMY MATERIEL COMMAND</b>
					<b>25 FEBRUARY 1960</b>
					CLASS DIVISION DRAWING FILE
					19 48 5393 GM5M9

DO NOT SCALE

## GENERAL NOTES

- A. THE LOAD AS SHOWN ON PAGE 3 IS BASED ON A FLAT CAR 40'-6" LONG X 9'-2" WIDE (PLATFORM) WITH 11 STAKE POCKETS ON EACH SIDE SPACED 42" ON CENTER. LARGER CARS MAY BE USED; HOWEVER, CARS LONGER THAN 41'-6" SHOULD NOT BE ORDERED FOR THE DEPICTED LOAD. SEE GENERAL NOTES "M" AND "P".
- B. THE LOAD AS SHOWN ON PAGE 4 IS BASED ON A FLAT CAR 46'-6" LONG X 9'-2" WIDE (PLATFORM) WITH 13 STAKE POCKETS ON EACH SIDE SPACED 42" ON CENTER. LARGER CARS MAY BE USED; HOWEVER, CARS LONGER THAN 46'-6" SHOULD NOT BE ORDERED FOR THE DEPICTED LOAD. SEE GENERAL NOTES "M" AND "P".
- C. THE LOAD AS SHOWN ON PAGE 6 IS BASED ON A FLAT CAR 53'-6" LONG X 9'-2" WIDE (PLATFORM) WITH 15 STAKE POCKETS ON EACH SIDE SPACED 42" ON CENTER. LARGER CARS MAY BE USED. SEE GENERAL NOTES "M" AND "P".
- D. THE LOAD AS SHOWN ON PAGE 8 IS BASED ON A FLAT CAR 60'-6" LONG X 9'-2" WIDE (PLATFORM) WITH 17 STAKE POCKETS ON EACH SIDE SPACED 42" ON CENTER. LARGER CARS MAY BE USED. SEE GENERAL NOTES "M" AND "P".
- E. SELECTION OF RAIL CARS FOR THE TRANSPORT OF THESE ITEMS WILL BE IN ACCORDANCE WITH PARAGRAPH 8,300.4, ORDM 3-4, VOL 3.
- F. NOTICE: A SHIPMENT WILL BE POSITIONED ON 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, 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 THESE ITEMS.
- G. CAUTION: THE LADING MUST BE LOADED TOWARD THE "A" END OF THE CAR AS SHOWN, TO SATISFY THE BRAKE WHEEL CLEARANCE REQUIREMENTS OF THE AAR.
- H. ONLY CARS WITH "SOUND" FLOORS WILL BE USED. CARS WITH STEEL FLOOR ENDS AND/OR EXPOSED STEEL BOLSTERS WHICH INTERFERE WITH PROPER POSITIONING OR NAILING OF THE DUNNAGE WILL NOT BE USED. SEE "FLUID BLOCKING FOR CARS WITH EXPOSED STEEL BOLSTERS" DETAIL, PAGE 11.
- J. CONTAINER DATA:

CONTAINER	DIMENSIONS	WEIGHT	DWG NO.
M42 ROCKET MOTOR	180-3/8" L X 46-9/16" W X 55-11/16" H	6,529 LBS	9031177
AFF SECTION IN			
M410 CNTR	223-1/2" L X 54-3/4" W X 61-1/2" H	4,606 LBS	9031007
WARHEAD IN M409 CNTR	99-1/4" L X 54-3/8" W X 61-1/2" H	3,170 LBS	9031006
CONTROL SURFACE KIT			
M31 CNTR	147-1/2" L X 29" W X 42-1/8" H	1,050 LBS	8524211
ROCKET MOTOR FIN IN			
M32 CNTR	62-5/16" L X 29-5/16" W X 51-3/4" H	644 LBS	8524212
M39 CNTR	51-1/4" L X 29-1/2" W X 51-3/4" H	581 LBS	9031178
BATTERY	34-1/8" L X 19-7/8" W X 15-1/4" H	160 LBS	SC-A-362244
BATTERY	19-5/16" L X 13" W X 10-5/8" H	65 LBS	8026371

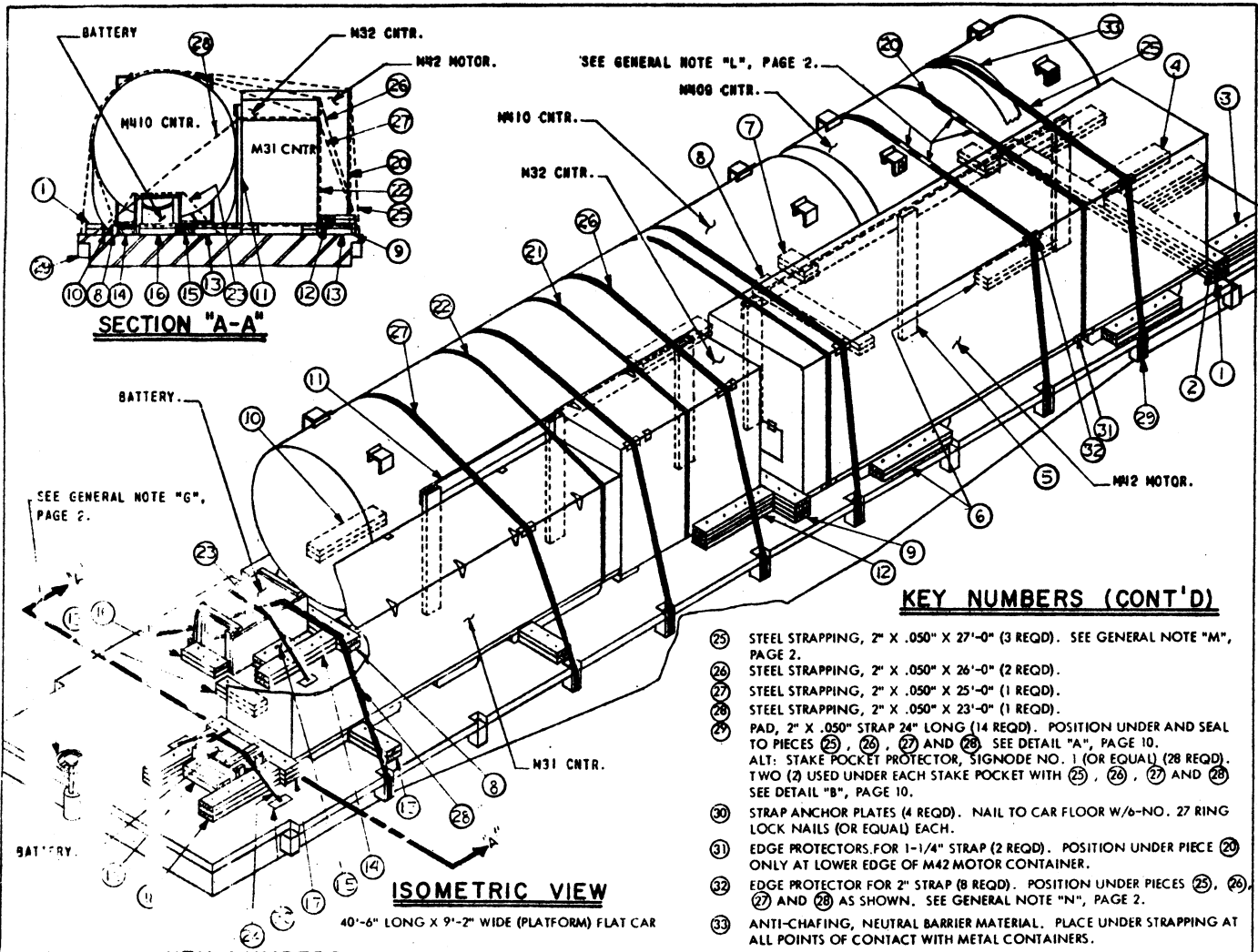
- K. THE BARRIERS, TOGETHER WITH 1-1/4" X .035" STEEL STRAPPING, WILL BE USED TO UNITIZE CONTAINERS AS SHOWN. IF THE CAPACITY OF THE AHE PERMITS, IT IS RECOMMENDED THAT CONTAINERS BE UNITIZED PRIOR TO PLACEMENT ABOARD THE FLAT CAR.
- L. WHEN ANY STRAP IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF TWO (2) SEALS WITH TWO (2) CRIMPS PER SEAL MUST BE USED.  
CAUTION: EXERCISE CARE DURING TENSIONING TO PREVENT DAMAGE TO CONTAINERS.
- M. CAUTION: STAKE POCKETS WILL BE USED FOR ALL TIE DOWN STRAPPING WHENEVER POSSIBLE. DO NOT USE WIRE RING TYPE ANCHOR DEVICES. IF OTHER TYPES ARE USED, THEY MUST BE OF SUFFICIENT WIDTH TO RECEIVE 2" STRAP.  
NOTE: ONLY ONE (1) STRAP MAY BE ANCHORED INTO ANY ONE (1) CAR STAKE POCKET.
- N. IF EDGE PROTECTORS FOR 2" STRAPPING ARE NOT COMMERCIALY AVAILABLE, THEY MAY BE FORMED FROM .18 (MIN) GAGE SHEET STEEL 5" LONG X 6" WIDE.
- O. THE WORDS "ANTI-SKID PLATES" WILL BE STENCILED IN ONE INCH (1") LETTERS ON BOTH SIDES OF THE CONTAINERS TO SHOW THE LOCATIONS OF THESE PLATES.
- P. THE LOCATIONS SHOWN FOR THE TIE DOWN STRAPPING ARE BASED ON CARS WHICH HAVE STAKE POCKETS SPACED 42" ON CENTERS. IF THE CAR BEING USED IS EQUIPPED WITH POCKETS WHICH ARE SPACED OTHER THAN 42" OR IS EQUIPPED WITH SPECIAL TIE DOWN DEVICES WHICH SATISFY SPECIFICATIONS DELINEATED IN GENERAL NOTE "M", THE LOCATIONS FOR THE TIE DOWN STRAPPING SHOULD BE ADJUSTED TO MOST EFFICIENTLY INCLUDE THE AVAILABLE TIE DOWN ATTACHMENT POINTS.
- Q. THESE LOADS INCLUDE ICC CLASS "A" EXPLOSIVE. SPECIFIED OUTLOADING PROCEDURES CAN ALSO BE UTILIZED FOR THE SHIPMENT OF THE DEPICTED CONTAINERS WHEN THEY ARE EMPTY OR LOADED WITH AN ITEM WHICH IS IDENTIFIED DIFFERENTLY BY NOMENCLATURE THAN THE ITEM DESIGNATED WITHIN THE DRAWING TITLE.
- R. IF RAIL CAR IS NOT EQUIPPED WITH PLACARD BOARDS ON BOTH ENDS AND BOTH SIDES, 16" X 24" BOARDS MUST BE PROVIDED, AS REQUIRED. CAUTION: BOARDS OR BOARD MOUNTING BRACKETS MUST NOT BE NAILED TO LADING.
- S. SLIGHT VARIATION IN COVER CONFIGURATION ON THE M409 CNTR AND THE M410 CNTR MIGHT NECESSITATE TURNING ONE CONTAINER OF LATERALLY ADJACENT CONTAINERS 180° TO PREVENT METAL TO METAL CONTACT.

## GENERAL NOTES CONT'D

- T. CAUTION: THESE OUTLOADING PROCEDURES ARE APPLICABLE FOR TWO-HIGH LOADING OF M42 ROCKET MOTOR ONLY IF THE SHIPPING/STORAGE CONTAINER HAS BEEN MODIFIED IN ACCORDANCE WITH DRAWING C-85MSV-4027, DATED 12 NOV 64.

## MATERIAL SPECIFICATIONS

LUMBER:	SEE PARAGRAPH 8,400, ORDM 3-4, VOL 3.
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-S-781. FOR FSN SEE 58-38-100.
ANTI-SKID PLATES:	SIGNODE NO. 1 OR EQUAL.
ANCHOR PLATES:	SIGNODE OR EQUAL.
ANTI-CHAFING MATERIAL:	NEUTRAL BARRIER MATERIAL MIL-B-121 OR EQUAL.



**KEY NUMBERS (CONT'D)**

- 25 STEEL STRAPPING, 2" X .050" X 27'-0" (3 REQD). SEE GENERAL NOTE "M", PAGE 2.
- 26 STEEL STRAPPING, 2" X .050" X 26'-0" (2 REQD).
- 27 STEEL STRAPPING, 2" X .050" X 25'-0" (1 REQD).
- 28 STEEL STRAPPING, 2" X .050" X 23'-0" (1 REQD).
- 29 PAD, 2" X .050" STRAP 24" LONG (14 REQD). POSITION UNDER AND SEAL TO PIECES 25, 26, 27 AND 28. SEE DETAIL "A", PAGE 10. ALT: STAKE POCKET PROTECTOR, SIGNODE NO. 1 (OR EQUAL) (28 REQD). TWO (2) USED UNDER EACH STAKE POCKET WITH 25, 26, 27 AND 28. SEE DETAIL "B", PAGE 10.
- 30 STRAP ANCHOR PLATES (4 REQD). NAIL TO CAR FLOOR W/6-NO. 27 RING LOCK NAILS (OR EQUAL) EACH.
- 31 EDGE PROTECTORS FOR 1-1/4" STRAP (2 REQD). POSITION UNDER PIECE 20 ONLY AT LOWER EDGE OF M42 MOTOR CONTAINER.
- 32 EDGE PROTECTOR FOR 2" STRAP (8 REQD). POSITION UNDER PIECES 25, 26, 27 AND 28 AS SHOWN. SEE GENERAL NOTE "N", PAGE 2.
- 33 ANTI-CHAFING, NEUTRAL BARRIER MATERIAL. PLACE UNDER STRAPPING AT ALL POINTS OF CONTACT WITH METAL CONTAINERS.

**KEY NUMBERS**

- 1 2" X 6" X 9'-0" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 2 2" X 6" X 52" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO 1 W/1-60d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 3 2" X 6" X 30" (QUADRUPLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL EACH ADDITIONAL PIECE W/5-60d NAILS.
- 4 2" X 6" X 30" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST W/5-60d NAILS.
- 5 ANTI-CHAFING ASSEMBLY "B" (1 REQD). SEE DETAIL, PAGE 10.
- 6 2" X 6" X 30" (DOUBLED) (3 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 7 2" X 6" X 12" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/2-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 8 2" X 6" X 48" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 9 2" X 6" X 18" (QUADRUPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-60d NAIL EVERY 8".
- 10 2" X 6" X 30" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 11 ANTI-CHAFING ASSEMBLY "A" (1 REQD). SEE DETAIL, PAGE 10.
- 12 2" X 6" X 30" (QUADRUPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL EACH ADDITIONAL PIECE W/5-60d NAILS.
- 13 2" X 6" X 18" (DOUBLED) (3 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 14 2" X 6" X 30" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST W/5-60d NAILS.
- 15 2" X 6" X 15" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 16 2" X 6" X 15" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST W/3-60d NAILS.
- 17 2" X 6" X 36" (TRIPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL EACH ADDITIONAL PIECE W/5-60d NAILS.
- 18 2" X 6" X 30" (TRIPLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL EACH ADDITIONAL PIECE W/5-60d NAILS.
- 19 2" X 6" X 15" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST W/3-60d NAILS.
- 20 STEEL STRAPPING, 1-1/4" X .035" X 25'-0" (2 REQD).
- 21 STEEL STRAPPING, 1-1/4" X .035" X 24'-0" (1 REQD).
- 22 STEEL STRAPPING, 1-1/4" X .035" X 22'-0" (1 REQD).
- 23 STEEL STRAPPING, 1-1/4" X .035" X 8'-0" (1 REQD).
- 24 STEEL STRAPPING, 1-1/4" X .035" X 6'-0" (1 REQD).

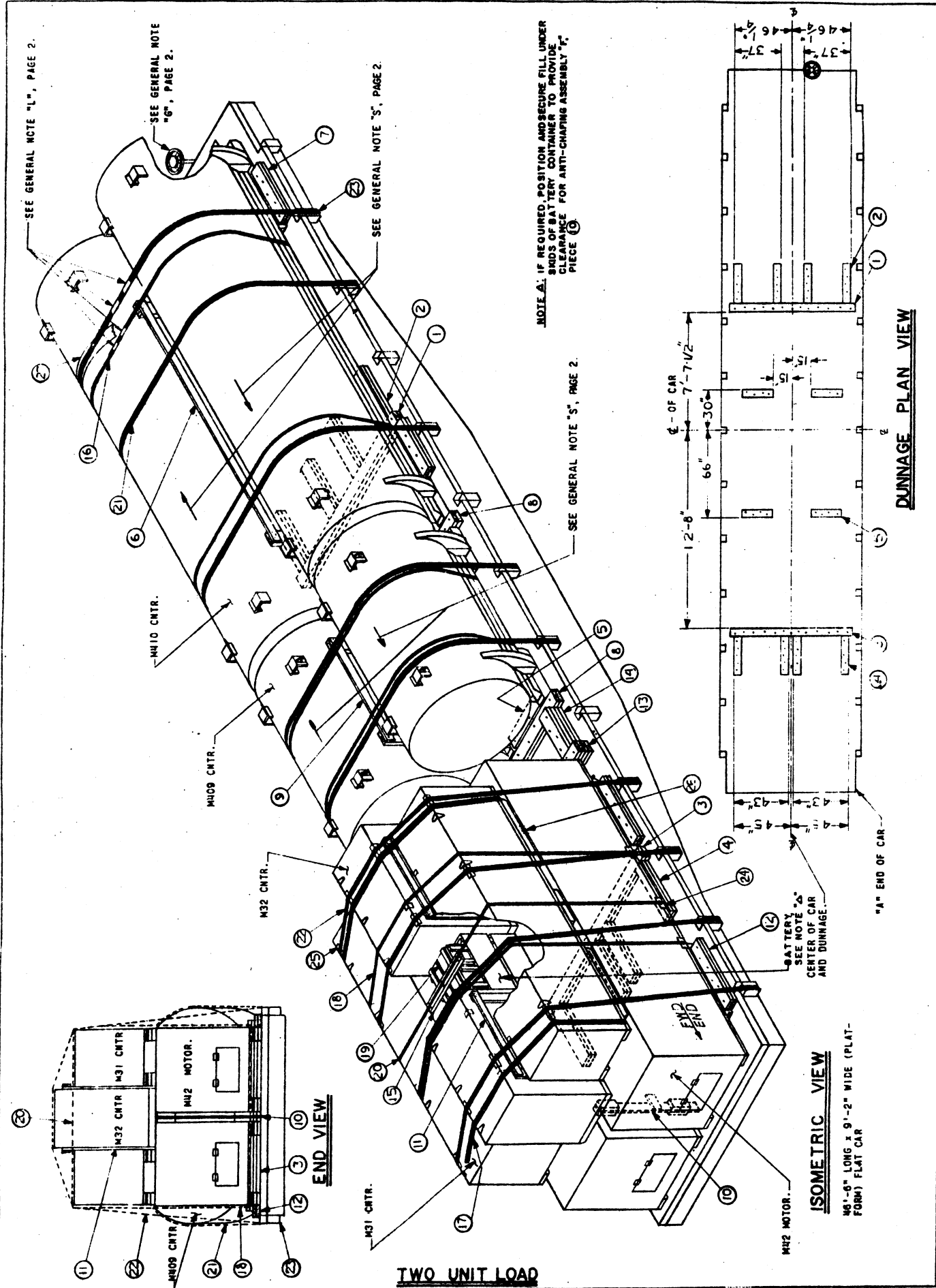
**ONE UNIT LOAD**

**BILL OF MATERIAL**

LUMBER	LINEAL FEET	BOARD FEET
1" X 4"	22	8
2" X 6"	203	203
NAILS	NO. REQD	POUNDS
6d (2")	18	1/4
30d (4-1/2")	182	9-1/4
60d (6")	152	15-1/4
STRAPPING, STEEL, 1-1/4" X .035"-----		110' REQD-- 16 LBS
STRAPPING, STEEL, 2" X .050"-----		209' REQD-- 70 LBS
STRAP ANCHOR PLATE-----		4 REQD-- 1 LB
EDGE PROTECTOR FOR 1-1/4" STRAP-----		2 REQD-- 1/2 LB
EDGE PROTECTOR FOR 2" STRAP-----		8 REQD-- 2 LBS
ANTI-CHAFING MATERIAL-----		AS REQD
NO. 27 RING LOCK NAILS-----		24 REQD

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
M42 ROCKET MOTOR-----	1	6,520 LBS
AFT SECTION IN M410 CNTR-----	1	4,606 LBS
WARHEAD IN M409 CNTR-----	1	3,170 LBS
CONTROL SURFACE KIT, IN M31 CNTR-----	1	1,050 LBS
ROCKET MOTOR FIN IN M32 CNTR-----	1	644 LBS
BATTERY-----	1	160 LBS
BATTERY-----	1	65 LBS
DUNNAGE-----	1	642 LBS
<b>TOTAL WEIGHT-----</b>		<b>16,857 LBS</b>



SEE GENERAL NOTE "L", PAGE 2.

SEE GENERAL NOTE "G", PAGE 2.

SEE GENERAL NOTE "S", PAGE 2.

NOTE A: IF REQUIRED, POSITION AND SECURE FILL UNDER BMS OF BATTERY CONTAINER TO PROVIDE CLEARANCE FOR ANTI-CHIPPING ASSEMBLY "I".

SEE GENERAL NOTE "S", PAGE 2.

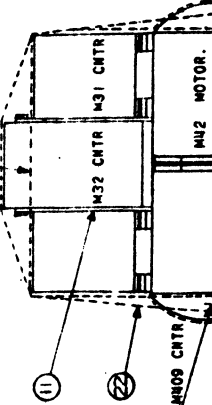
M110 CNTR.

M109 CNTR.

M32 CNTR.

M31 CNTR.

BATTERY "A" CENTER OF CAR AND DUNNAGE.



**END VIEW**

**TWO UNIT LOAD**

**ISOMETRIC VIEW**

M110 CNTR. LONG x 9'-2" WIDE (PLAT-FORM) BATTERY CONTAINER

C - OF CAR

7'-7-1/2"

12'-0"

66"

30"

**DUNNAGE PLAN VIEW**

"A" END OF CAR

### BILL OF MATERIAL

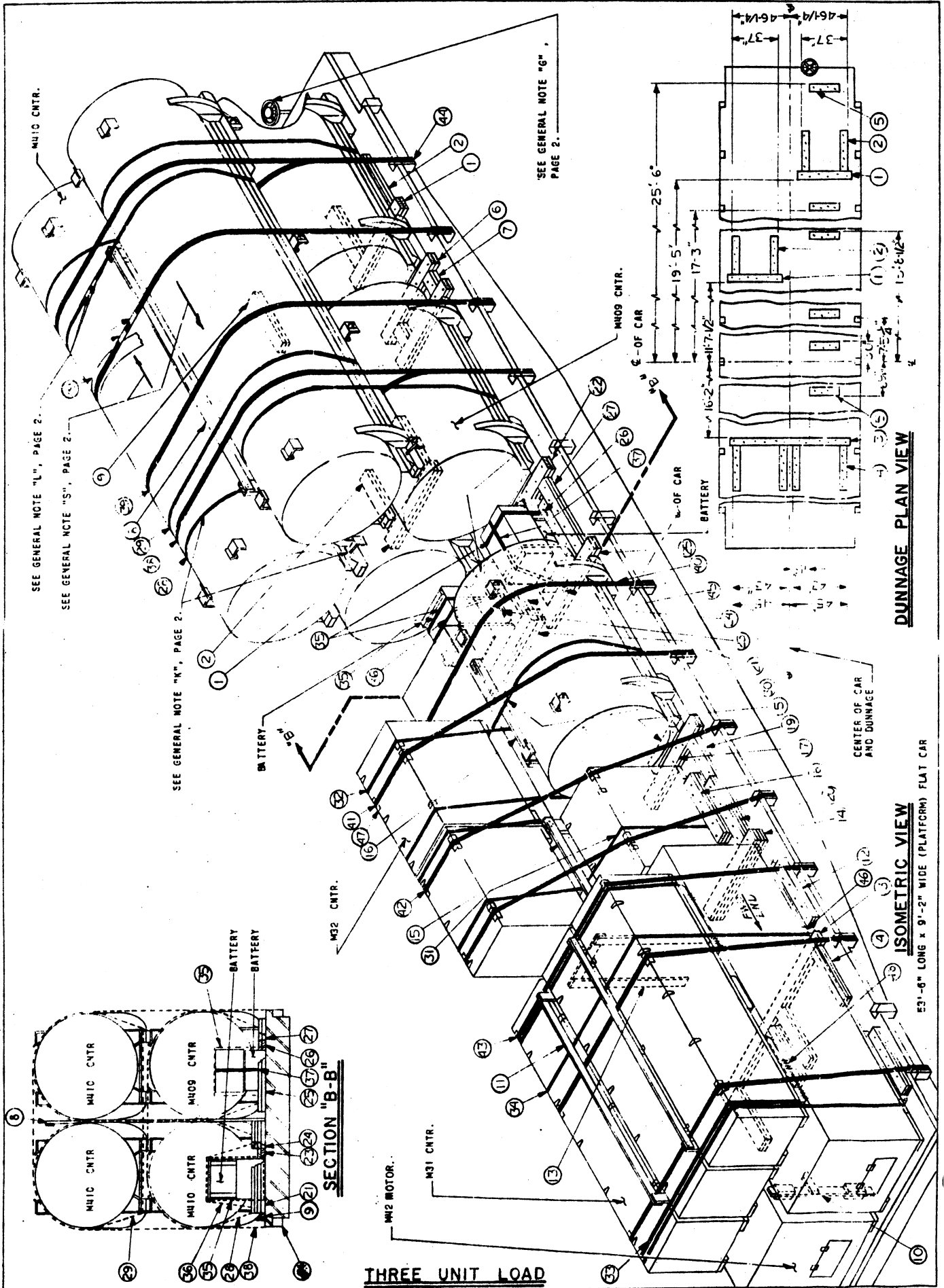
LUMBER	LINEAL FEET	BOARD FEET	
1" X 4"	74	25	
2" X 4"	24	6	
2" X 6"	248	248	
NAILS			POUNDS
6d (2")	48		1/2
10d (3")	28		1/2
30d (4-1/2")	237		12
60d (6")	173		17-1/4
STRAPPING, STEEL, 1-1/4" X .035"			265' REQD----- 38 LBS
STRAPPING, STEEL, 2" X .050"			306' REQD----- 102 LBS
EDGE PROTECTOR FOR 2" STRAP			16' REQD----- 4 LBS
ANTI-SKID PLATE			16' REQD----- 4 LBS
ANTI-CHAFING MATERIAL			AS REQD
STAPLES FOR 1-1/4" STRAPPING			3 REQD
EDGE PROTECTOR FOR 1-1/4" STRAP			10 REQD----- 2 LBS

### LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
M42 ROCKET MOTOR	2	13,040 LBS
AFT SECTION IN M410 CNTR	2	9,212 LBS
WARHEAD IN M409 CNTR	2	6,340 LBS
CONTROL SURFACE KIT IN M31 CNTR	2	2,100 LBS
ROCKET MOTOR FIN IN M32 CNTR	2	1,288 LBS
BATTERY	2	320 LBS
BATTERY	2	130 LBS
DUNNAGE		904 LBS
TOTAL WEIGHT		33,334 LBS

### KEY NUMBERS

- 1) 2" X 6" X 8'-4" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8". SEE ALT END BLOCKING "A", PAGE 11.
- 2) 2" X 6" X 30" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST W/5-60d NAILS. SEE ALT END BLOCKING "A", PAGE 11.
- 3) 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/5-60d NAIL EVERY 8". SEE ALT END BLOCKING "B", PAGE 11.
- 4) 2" X 6" X 30" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST W/5-60d NAILS. SEE ALT END BLOCKING "B", PAGE 11.
- 5) 2" X 6" X 25" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/4-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 6) ANTI-CHAFING ASSEMBLY "C" (1 REQD). SEE DETAIL, PAGE 10.
- 7) 2" X 6" X 30" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 8) 2" X 6" X 8'-0" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 9) ANTI-CHAFING ASSEMBLY "D" (1 REQD). SEE DETAIL, PAGE 10.
- 10) ANTI-CHAFING ASSEMBLY "F" (1 REQD). SEE DETAIL, PAGE 10.
- 11) ANTI-CHAFING ASSEMBLY "E" (4 REQD). SEE DETAIL, PAGE 10.
- 12) 2" X 6" X 36" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 13) 2" X 6" X 8'-0" (QUADRUPLD) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-60d NAIL EVERY 8".
- 14) 2" X 6" X CUT TO FIT (REF: 26" (QUADRUPLD) (4 REQD). ALIGN WITH CONTAINER SKIDS. NAIL FIRST PIECE TO CAR FLOOR W/4-30d NAILS. NAIL EACH ADDITIONAL PIECE W/4-60d NAILS.
- 15) STRAPPING BOARD, 2" X 4" X 30" (1 REQD). POSITION AS SHOWN.
- 16) STEEL STRAPPING, 1-1/4" X .035" X 26'-0" (4 REQD).
- 17) STEEL STRAPPING, 1-1/4" X .035" X 25'-0" (2 REQD).
- 18) STEEL STRAPPING, 1-1/4" X .035" X 33'-0" (2 REQD).
- 19) STEEL STRAPPING, 1-1/4" X .035" X 13'-0" (1 REQD).
- 20) STEEL STRAPPING, 1-1/4" X .035" X 32'-0" (1 REQD). STAPLE TO 15 W/3-1-1/4" STAPLES.
- 21) STEEL STRAPPING, 2" X .050" X 26'-0" (5 REQD). SEE GENERAL NOTE "M", PAGE 2.
- 22) STEEL STRAPPING, 2" X .050" X 35'-0" (4 REQD).
- 23) PAD, 2" X .050" STRAP 24" LONG (18 REQD). POSITION UNDER AND SEAL TO 23 AND 24. SEE DETAIL "A", PAGE 10.  
ALT: STAKE POCKET PROTECTOR, SIGNODE NO. 1 (OR EQUAL) (36 REQD). TWO (2) USED UNDER EACH STAKE POCKET WITH 23 AND 24. SEE DETAIL "B", PAGE 10.
- 24) EDGE PROTECTOR FOR 1-1/4" STRAP (6 REQD). POSITION UNDER PIECES 19 AND 20 ONLY AT LOWER EDGE OF M42 MOTOR CONTAINERS.
- 25) EDGE PROTECTOR FOR 2" STRAP (16 REQD). POSITION UNDER 23 AS SHOWN. SEE GENERAL NOTE "N", PAGE 2.
- 26) ANTI-SKID PLATES (16 REQD, 4 PER CONTAINER). POSITION UNDER SKIDS OF M31 AND M32 CNTRS IN SECOND LAYER. SEE GENERAL NOTE "O", PAGE 2.
- 27) ANTI-CHAFING, NEUTRAL BARRIER MATERIAL. PLACE UNDER ALL STRAPPING AT POINTS OF CONTACT WITH METAL CONTAINERS.



### BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET
1" X 4"	80	27
2" X 4"	22	15
2" X 6"	296	296
NAILS		
NO. REQD	POUNDS	
6d (2")	48	1/2
10d (3")	28	1/2
30d (4-1/2")	299	15
60d (6")	209	21

ITEM	QUANTITY	WEIGHT (APPROX)
M42 ROCKET MOTOR	3	19,560 LBS
AFT SECTION IN M410 CNTR	3	12,818 LBS
WARHEAD IN M409 CNTR	3	9,510 LBS
CONTROL SURFACE KIT IN M31 CNTR	3	3,150 LBS
ROCKET MOTOR FIN IN M32 CNTR	3	1,932 LBS
BATTERY	3	480 LBS
DUNNAGE	3	195 LBS
TOTAL WEIGHT		49,759 LBS

### LOAD AS SHOWN

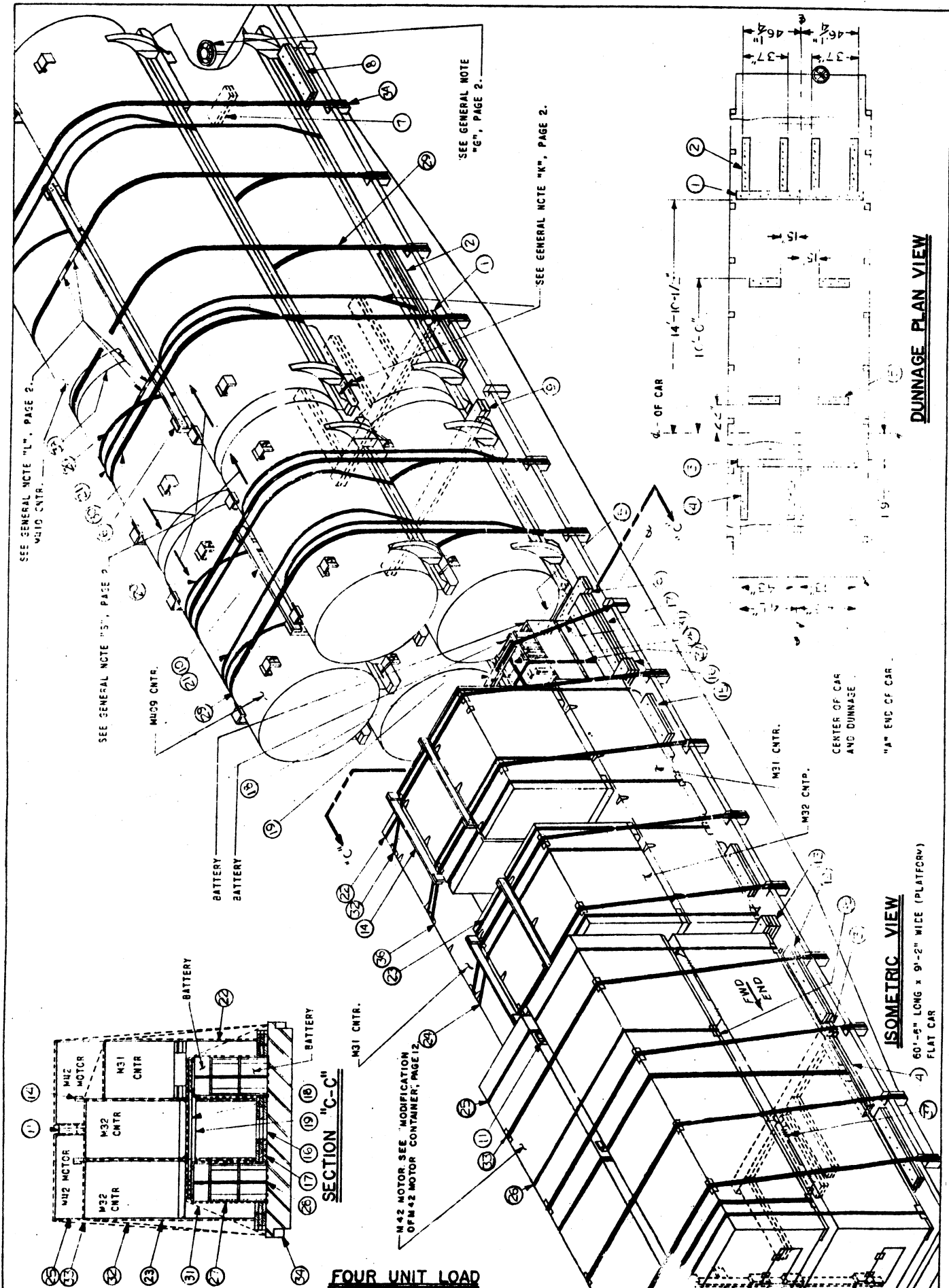
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ROCKET MOTOR FIN IN M32 CNTR	3	1,932 LBS
BATTERY	3	480 LBS
DUNNAGE	3	195 LBS
TOTAL WEIGHT		49,759 LBS

### KEY NUMBERS

- 1 2" X 6" X 48" (DOUBLED) (2 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8". SEE ALT END BLOCKING "A", PAGE 11.
- 2 2" X 6" X 30" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST W/5-60d NAILS. SEE ALT END BLOCKING "A", PAGE 11.
- 3 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8". SEE ALT END BLOCKING "B", PAGE 11.
- 4 2" X 6" X 36" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL SECOND PIECE TO FIRST W/6-60d NAILS. SEE ALT END BLOCKING "B", PAGE 11.
- 5 2" X 6" X 25" (DOUBLED) (6 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/4-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 6 2" X 6" X 48" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 7 2" X 6" X CUT TO FIT (DOUBLED) (2 REQD). ALIGN WITH CONTAINER SKIDS. NAIL FIRST PIECE TO CAR FLOOR W/2-30d NAILS. NAIL SECOND PIECE TO FIRST W/2-60d NAILS.
- 8 ANTI-CHAFING ASSEMBLY "G" (1 REQD). SEE DETAIL, PAGE 10.
- 9 2" X 6" X 30" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 10 ANTI-CHAFING ASSEMBLY "F" (1 REQD). SEE DETAIL, PAGE 10.
- 11 ANTI-CHAFING ASSEMBLY "K" (2 REQD). SEE DETAIL, PAGE 10.
- 12 2" X 6" X 36" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 13 ANTI-CHAFING ASSEMBLY "J" (1 REQD). SEE DETAIL, PAGE 10.
- 14 2" X 6" X 48" (QUADRUPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-60d NAIL EVERY 8".
- 15 ANTI-CHAFING ASSEMBLY "H" (1 REQD). SEE DETAIL, PAGE 2.
- 16 ANTI-CHAFING ASSEMBLY "D" (1 REQD). SEE DETAIL, PAGE 2.
- 17 2" X 6" X 48" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 18 2" X 6" X 36" (TRIPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL EACH ADDITIONAL PIECE IN LIKE MANNER.
- 19 2" X 6" X CUT TO FIT (DOUBLED) (1 REQD). ALIGN WITH CONTAINER SKIDS AND NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 20 2" X 6" X 36" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO W/6-60d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 21 2" X 6" X 48" (QUADRUPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-60d NAIL EVERY 8".
- 22 2" X 6" X 48" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 23 2" X 6" X 15" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 24 2" X 6" X CUT TO FIT (QUADRUPLED) (2 REQD). ALIGN WITH CONTAINER SKIDS. NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL EACH ADDITIONAL PIECE W/6-60d NAILS.
- 25 2" X 6" X 48" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 26 2" X 6" X 30" (DOUBLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.

### KEY NUMBERS CONTD

- 27 2" X 6" X CUT TO FIT (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL SECOND PIECE TO FIRST W/6-60d NAILS.
- 28 STEEL STRAPPING, 1-1/4" X .035" X 28'-0" (4 REQD).
- 29 STEEL STRAPPING, 1-1/4" X .035" X 26'-0" (2 REQD).
- 30 STEEL STRAPPING, 1-1/4" X .035" X 25'-0" (1 REQD).
- 31 STEEL STRAPPING, 1-1/4" X .035" X 23'-0" (1 REQD).
- 32 STEEL STRAPPING, 1-1/4" X .035" X 24'-0" (4 REQD).
- 33 STEEL STRAPPING, 1-1/4" X .035" X 25'-0" (2 REQD).
- 34 STEEL STRAPPING, 1-1/4" X .035" X 31'-0" (2 REQD).
- 35 STEEL STRAPPING, 1-1/4" X .035" X 9'-0" (4 REQD).
- 36 STEEL STRAPPING, 1-1/4" X .035" X 8'-0" (1 REQD).
- 37 STEEL STRAPPING, 1-1/4" X .035" X 10'-0" (1 REQD).
- 38 STEEL STRAPPING, 2" X .050" X 50'-0" (2 REQD). SEE "STRAP THREADING DETAIL", PAGE 11. SEE GENERAL NOTE "M", PAGE 2.
- 39 STEEL STRAPPING, 2" X .050" X 37'-0" (2 REQD).
- 40 STEEL STRAPPING, 2" X .050" X 27'-0" (1 REQD).
- 41 STEEL STRAPPING, 2" X .050" X 34'-0" (1 REQD).
- 42 STEEL STRAPPING, 2" X .050" X 32'-0" (2 REQD).
- 43 STEEL STRAPPING, 2" X .050" X 36'-0" (3 REQD).
- 44 PAD, 2" X .050" STRAP 24" LONG (22 REQD). POSITION UNDER AND SEAL TO 39, 40, 41, 42, AND 43. SEE DETAIL "A", PAGE 10.  
ALT: STAKE POCKET PROTECTOR, SIGNODE NO. 1 (OR EQUAL). TWO (2) USED UNDER EACH STAKE POCKET WITH 39, 40, 41, 42 AND 43. SEE DETAIL "B", PAGE 10.
- 45 STRAP ANCHOR PLATES (4 REQD). NAIL W/6- NO. 27 RING LOCK NAILS (OR EQUAL) EACH.
- 46 EDGE PROTECTOR FOR 1-1/4" STRAP (14 REQD). POSITION UNDER PIECES 29, 30, 31, 32, AND 33 ONLY AT LOWER EDGE OF M42 MOTOR CONTAINERS.
- 47 EDGE PROTECTOR FOR 2" STRAP (15 REQD). POSITION UNDER 40, 41, 42 AND 43 AS SHOWN. SEE GENERAL NOTE "N", PAGE 2.
- 48 ANTI-SKID PLATES (20 REQD, 4 PER CONTAINER). POSITION UNDER SKIDS OF CONTAINERS IN SECOND LAYER ONLY. SEE GENERAL NOTE "O", PAGE 2.
- 49 ANTI-CHAFING, NEUTRAL BARRIER MATERIAL. PLACE UNDER ALL STRAPPING AT POINTS OF CONTACT WITH METAL CONTAINERS.





**BILL OF MATERIAL**

LUMBER	LINEAL FEET	BOARD FEET
1" X 4"	106	36
2" X 4"	50	34
2" X 6"	372	372

NAILS	NO. REQD	POUNDS
6d (2")	48	1/2
10d (3")	62	1
30d (6")	323	16-1/4
60d (6")	287	28-3/4

ITEM	QUANTITY	WEIGHT (APPROX)
STRAPPING, STEEL, 1-1/4" X .035"	828 REQD	119 LBS
STRAPPING, STEEL, 2" X .050"	638 REQD	213 LBS
EDGE PROTECTORS FOR 2" STRAP	20 REQD	5 LBS
ANTI-SKID PLATES	44 REQD	11 LBS
ANTI-CHAFING MATERIAL	43 REQD	AS REQD
EDGE PROTECTOR FOR 1-1/4" STRAP	16 REQD	3 LBS

**LOAD AS SHOWN**

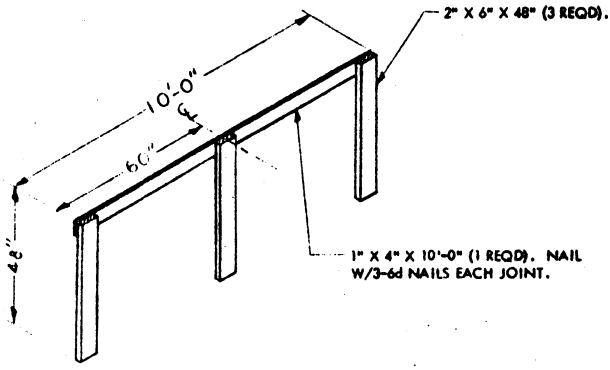
ITEM	QUANTITY	WEIGHT (APPROX)
M42 ROCKET MOTOR	4	26,080 LBS
AFT SECTION IN M410 CNTR	4	18,424 LBS
WARHEAD IN M409 CNTR	4	12,680 LBS
CONTROL SURFACE KIT IN M31 CNTR	4	4,200 LBS
ROCKET MOTOR FIN IN M32 CNTR	4	2,576 LBS
BATTERY	4	640 LBS
BATTERY	4	260 LBS
DUNNAGE		1,503 LBS
<b>TOTAL WEIGHT</b>		<b>66,363 LBS</b>

**KEY NUMBERS**

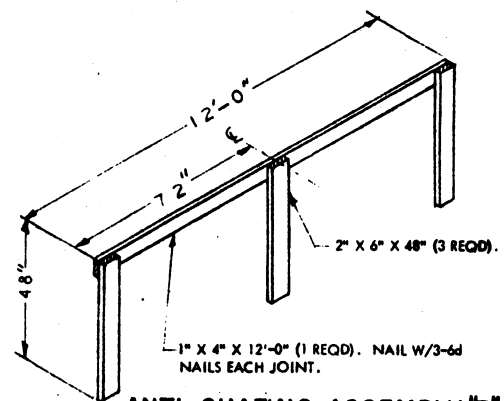
- 1. 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8". SEE ALT END BLOCKING "A", PAGE 11.
- 2. 2" X 6" X 42" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/7-30d NAILS. NAIL SECOND PIECE TO FIRST W/7-60d NAILS. SEE ALT END BLOCKING "A", PAGE 11.
- 3. 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8". SEE ALT END BLOCKING "B", PAGE 11.
- 4. 2" X 6" X 42" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/7-30d NAILS. NAIL SECOND PIECE TO FIRST W/7-60d NAILS. SEE ALT END BLOCKING "B", PAGE 11.
- 5. 2" X 6" X 25" (DOUBLED) (4 REQD). PRE-POSITION AS SHOWN IN "DUNNAGE PLAN VIEW". NAIL FIRST PIECE TO CAR FLOOR W/4-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 6. ANTI-CHAFING ASSEMBLY "G" (1 REQD). SEE DETAIL, PAGE 10.
- 7. 2" X 6" X CUT TO FIT BETWEEN SKIDS OF LATERALLY ADJACENT CONTAINERS (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 8. 2" X 6" X 30" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/3-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 9. 2" X 6" X 8'-0" (DOUBLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL SECOND PIECE TO FIRST W/1-60d NAIL EVERY 8".
- 10. ANTI-CHAFING ASSEMBLY "L" (1 REQD). SEE DETAIL, PAGE 10.
- 11. ANTI-CHAFING ASSEMBLY "F" (1 REQD). SEE DETAIL, PAGE 10.
- 12. 2" X 6" X 42" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/7-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 13. 2" X 6" X 8'-0" (QUADRUPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-60d NAIL EVERY 8".
- 14. ANTI-CHAFING ASSEMBLY "M" (4 REQD). SEE DETAIL, PAGE 10.
- 15. 2" X 6" X 24" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/4-30d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- 16. 2" X 6" X 8'-0" (TRIPLED) (1 REQD). NAIL FIRST PIECE TO CAR FLOOR W/1-30d NAIL EVERY 8". NAIL EACH ADDITIONAL PIECE W/1-60d NAIL EVERY 8".
- 17. 2" X 6" X CUT TO FIT (TRIPLED) (8 REQD). POSITION AS SHOWN. NAIL FIRST PIECE TO CAR FLOOR W/6-30d NAILS. NAIL EACH ADDITIONAL PIECE W/6-60d NAILS. SEE SECTION "C-C".
- 18. STRAPPING BOARD, 2" X 4" X CUT TO FIT (1 REQD). POSITION AS SHOWN.
- 19. 2" X 4" X CUT TO FIT (1 REQD). NAIL TO (B) W/6-10d NAILS.
- 20. STEEL STRAPPING, 1-1/4" X .035" X 28'-0" (8 REQD).
- 21. STEEL STRAPPING, 1-1/4" X .035" X 26'-0" (4 REQD).
- 22. STEEL STRAPPING, 1-1/4" X .035" X 19'-0" (2 REQD). ENCIRCLE TWO (2) M31 CNTRS.
- 23. STEEL STRAPPING, 1-1/4" X .035" X 21'-0" (8 REQD). ENCIRCLE ONE EACH M31 AND M32 CNTRS.
- 24. STEEL STRAPPING, 1-1/4" X .035" X 23'-0" (2 REQD).
- 25. STEEL STRAPPING, 1-1/4" X .035" X 25'-0" (6 REQD). NOTE: PLACE IN POSITION DURING LOADING OPERATION; HOWEVER, DO NOT TENSION AND SEAL UNTIL PIECES (3) HAVE BEEN TENSIONED AND SEALED.
- 26. STEEL STRAPPING, 1-1/4" X .035" X 25'-0" (2 REQD). NOTE: TENSION AND SEAL AFTER PIECES (3) ARE TENSIONED AND SEALED.
- 27. STEEL STRAPPING, 1-1/4" X .035" X 11'-0" (2 REQD).
- 28. STEEL STRAPPING, 1-1/4" X .035" X 13'-0" (2 REQD).
- 29. STEEL STRAPPING, 2" X .050" X 50'-0" (4 REQD). SEE "STRAP THREADING DETAIL," PAGE 11. SEE GENERAL NOTE "M" PAGE 2.
- 30. STEEL STRAPPING, 2" X .050" X 37'-0" (2 REQD).
- 31. STEEL STRAPPING, 2" X .050" X 24'-0" (1 REQD).
- 32. STEEL STRAPPING, 2" X .050" X 32'-0" (4 REQD).
- 33. STEEL STRAPPING, 2" X .050" X 38'-0" (4 REQD).

**KEY NUMBERS CONT'D**

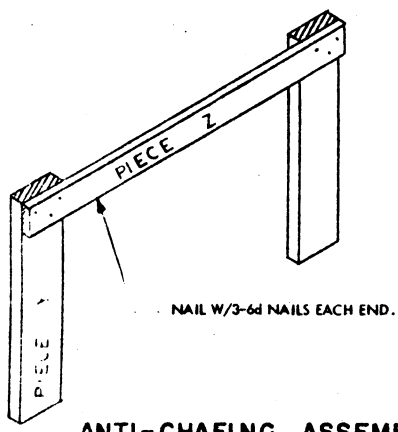
- 34. PAD, 2" X .050" STRAP 24" LONG (80 REQD). POSITION UNDER AND SEAL TO 29, (30), (31), (32) AND (33). SEE DETAIL "A", PAGE 10.  
ALT: STAKE POCKET PROTECTORS, SIGNCODE NC, 1 (OR EQUAL) (60 REQD). TWO (2) USED UNDER EACH STAKE POCKET WITH (29), (30), (31), (32) AND (33). SEE DETAIL "B", PAGE 10.
- 35. EDGE PROTECTORS FOR 1-1/4" STRAP (16 REQD). POSITION UNDER PIECES (25) AND (26) ONLY AT LOWER EDGE OF M42 MOTOR CONTAINERS.
- 36. EDGE PROTECTOR FOR 2" STRAP (20 REQD). POSITION UNDER (27), AND (33) AS SHOWN. SEE GENERAL NOTE "N", PAGE 2.
- 37. ANTI-SKID PLATE (44 REQD). POSITION ONE (1) UNDER EACH SKID OF M42 MOTOR CONTAINER IN FIRST LAYER. POSITION TWO (2) UNDER EACH SKID OF M42 MOTOR CONTAINER IN SECOND LAYER. POSITION UNDER SKIDS OF REMAINING CONTAINERS IN SECOND LAYER, 4 PER CONTAINER. SEE GENERAL NOTE "O", PAGE 2.
- 38. ANTI-CHAFING, NEUTRAL BARRIER MATERIAL. PLACE UNDER ALL STRAPPING AT POINTS OF CONTACT WITH METAL CONTAINERS.



**ANTI-CHAFING ASSEMBLY "A"**



**ANTI-CHAFING ASSEMBLY "B"**

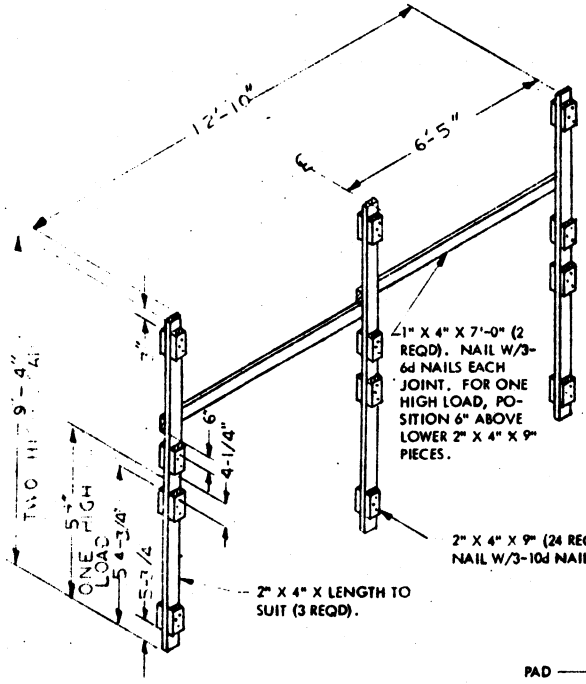


NAIL W/3-6d NAILS EACH END.

**ANTI-CHAFING ASSEMBLY**

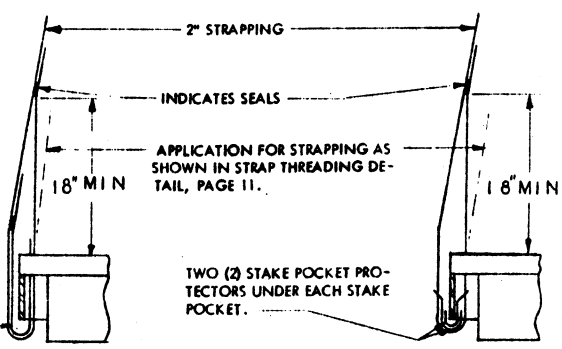
(AS REQD)

	PIECE Y	PIECE Z
C	2" X 6" X 48"	1" X 4" X 12'-0"
D	2" X 6" X 48"	1" X 4" X 60"
E	1" X 4" X 48"	1" X 4" X 48"
G	2" X 6" X 9'-0"	1" X 4" X 12'-0"
H	2" X 6" X 60"	1" X 4" X 60"
J	1" X 4" X 60"	1" X 4" X 30"
K	1" X 4" X 48"	1" X 4" X 10'-0"
L	2" X 6" X 9'-0"	1" X 4" X 60"
M	1" X 4" X 8'-5"	1" X 4" X 48"



**ANTI-CHAFING ASSEMBLY "F"**

(AS REQD)



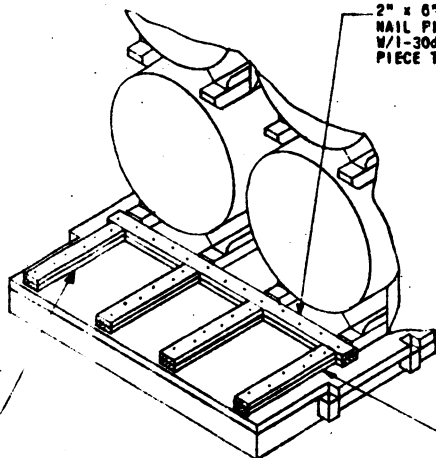
**DETAIL "A"**

METHOD OF INSTALLING 2" STRAPPING AND PAD AT STAKE POCKET.

**DETAIL "B"**

METHOD OF INSTALLING 2" STRAPPING AND STAKE POCKET PROTECTORS (ALT PAD).

**DETAILS**



2" x 6" x 8'-0" (DOUBLED) (1 REQD).  
 NAIL FIRST PIECE TO CAR FLOOR  
 W/1-30d NAIL EVERY 8". NAIL SECOND  
 PIECE TO FIRST W/1-60d NAIL EVERY 8".

2" x 6" x 8'-0" (QUADRUPLED)  
 (1 REQD). NAIL FIRST PIECE TO  
 CAR FLOOR W/1-30d NAIL EVERY  
 8". NAIL EACH ADDITIONAL PIECE  
 W/1-60d NAIL EVERY 8".

2" x 6" x 36" (QUADRUPLED)  
 (AS REQD). NAIL FIRST PIECE  
 TO CAR FLOOR W/1-30d NAILS.  
 NAIL EACH ADDITIONAL PIECE  
 W/6-60d NAILS.

2" x 6" MATERIAL (AS REQD). NAIL FIRST  
 PIECE TO CAR FLOOR W/1-30d NAIL EVERY 6". NAIL SECOND  
 PIECE TO FIRST W/1-60d NAIL EVERY 6".

TWO UNIT LOAD, 2' x 6' x 30" (4 REQD).  
 THREE UNIT LOAD, 2' x 6' x 30" (4 REQD).  
 ADD 3" BETWEEN WARHEAD SKIDS AND HEADER.  
 FOUR UNIT LOAD, 2' x 6' x 42" (4 REQD).

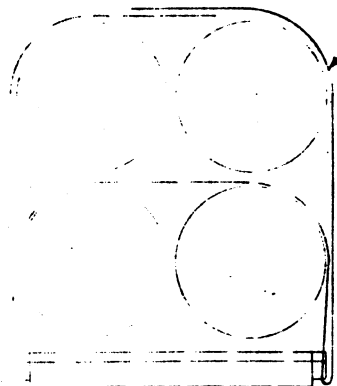
TWO UNIT LOAD (4 REQD).  
 THREE UNIT LOAD (6 REQD).  
 FOUR UNIT LOAD (7 REQD).

**ALT END BLOCKING "A"**

FOR CARS GREATER THAN LENGTH SHOWN.  
 SEE NOTE ①, BELOW.

**ALT END BLOCKING "B"**

FOR CARS GREATER THAN LENGTH SHOWN  
 SEE NOTE ①, BELOW.



ALL 2" STRAPPING APPLIED AS HOLD DOWN  
 FOR TWO (2) HIGH LOAD IS RUN FROM TOP  
 OF LOAD DOWN TO AND UP THROUGH STAKE  
 POCKET ON ONE SIDE OF CAR, BACK UP AND  
 OVER TOP OF FIRST LAYER CONTAINERS,  
 DOWN TO AND THROUGH STAKE POCKET ON  
 OPPOSITE SIDE OF CAR, AND BACK UP TO  
 TOP OF LOAD WHERE IT IS TENSIONED AND  
 DOUBLE SEALED.

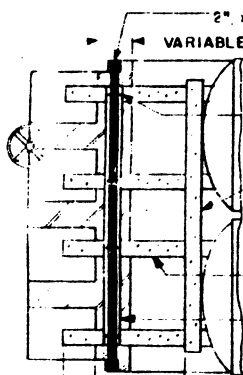
**ALT THREADING METHOD:**

ALL 2" STRAPPING APPLIED AS HOLD DOWN  
 FOR TWO (2) HIGH LOAD IS RUN FROM SIDE  
 OF LOAD DOWN TO AND UP THROUGH STAKE  
 POCKET ON ONE SIDE OF CAR, BACK UP AND  
 OVER FIRST LAYER OF CONTAINERS, DOWN TO  
 AND THROUGH STAKE POCKET ON OPPOSITE  
 SIDE OF CAR, AND BACK UP OVER TOP OF  
 LOAD AND DOWN SIDE OF LOAD WHERE IT IS  
 TENSIONED AND DOUBLE SEALED.

**STRAP THREADING DETAIL "A"**

**NOTE ①:**

WHEN A CAR LONGER THAN SPECIFIED IS SUPPLIED FOR SHIP-  
 MENT OF THE TWO, THREE OR FOUR UNIT LOAD SHOWN  
 HEREIN, ALT END BLOCKING "A" AND/OR "B" MAY BE USED,  
 AS APPLICABLE, IN LIEU OF PRE-POSITIONED DUNNAGE.  
 IF CAR LENGTH PERMITS USE OF ALT END BLOCKING ON  
 ONE END ONLY, IT IS RECOMMENDED THAT ALT END BLOCKING  
 "A" BE USED.



2" x .050" STEEL STRAP. SEE NOTE ②.

VARIABLE

STAPLE TO 2" x 6" W/4 STAPLES  
 AS SHOWN.

2" x 6" x 8'-0" HEADER.

2" x 6" BACK UP CLEATS.

2" x 6" x REQUIRED LENGTH. NAIL TO  
 BACK UP CLEATS W/3-10d NAILS EACH  
 JOINT. SEE NOTE ③.

"A" SEE NOTE ④  
 (12" MIN) "B" SEE NOTE ④

**NOTE ②:**

OPTIONAL STRAP HOLD DOWN FOR END  
 BLOCKING, FOR CARS WITH OR WITHOUT  
 EXPOSED STEEL BOLSTERS.

**NOTE ③:**

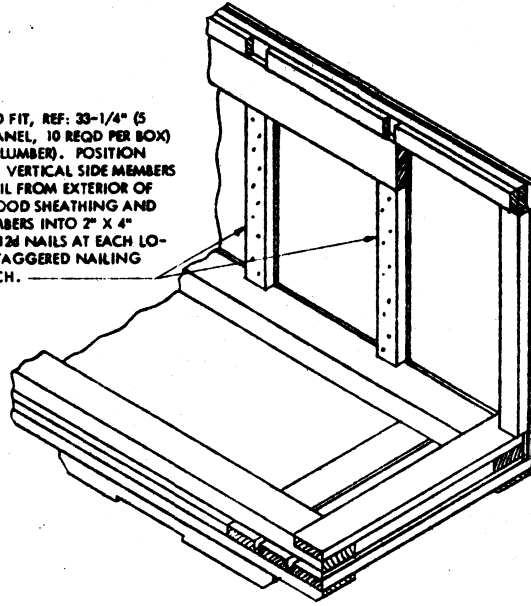
WHEN LOADING CARS WITH EXPOSED STEEL  
 BOLSTERS, TOTAL OF DIMENSION "A" AND  
 DIMENSION "B" (MIN 12") MUST EQUAL  
 AT LEAST THE LENGTH OF BACK UP CLEATS,  
 TO PROVIDE FOR PROPER NAILING TO CAR  
 FLOOR. SEE ALT END BLOCKING "A" AND  
 "B" ABOVE FOR PROPER NAILING OF EACH  
 LAYER, ADJUSTING QUANTITY OF NAILS RE-  
 QUIRED TO SATISFY.

**END BLOCKING FOR CARS WITH  
 EXPOSED STEEL BOLSTERS**

SEE GENERAL NOTE "N", PAGE 2.

**DETAILS**

2" X 4" X CUT TO FIT, REF: 33-1/4" (5 REQD PER SIDE PANEL, 10 REQD PER BOX) (NOMINAL SIZE LUMBER). POSITION AGAINST 1" X 4" VERTICAL SIDE MEMBERS AS SHOWN. NAIL FROM EXTERIOR OF BOX THRU PLYWOOD SHEATHING AND 1" X 4" SIDE MEMBERS INTO 2" X 4" MATERIAL W/10-12# NAILS AT EACH LOCATION. USE STAGGERED NAILING PATTERN. CLINCH.



MODIFICATION OF M42 MOTOR CONTAINER