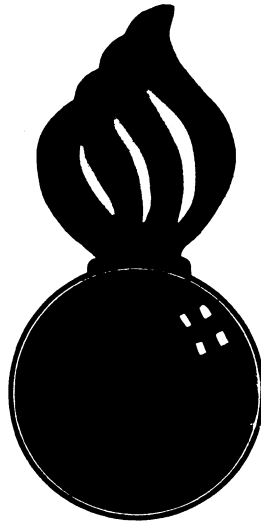


H. F. Grassmuck
INSPECTOR
DATE 1/27/61



LOADING & BRACING ON FLAT BED TRAILER OF AFT SECTION, BODY, PACKED ONE PER METAL CONTAINER, FOR THE NIKE- HERCULES GUIDED MISSILE

<u>ITEM</u>	<u>INDEX</u>	<u>PAGE</u>
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ONE UNIT LOAD		3
TWO UNIT LOAD, TWO WIDE		4
TWO UNIT LOAD, TWO LONG		5
FIVE UNIT LOAD		6
EIGHT UNIT LOAD		7

CAUTION:

READ GENERAL NOTES,
PAGE 2, PRIOR TO LOADING
OPERATIONS.

WARNING:

TWO UNIT (TWO WIDE), FIVE UNIT AND EIGHT UNIT LOADS AS SHOWN HEREIN REQUIRE THE CLEARANCE OF THE LOCAL TRANSPORTATION OFFICER DUE TO THE EXCESSIVE WIDTH AND/OR HEIGHT OF THE LOADS.

LOADING & BRACING ON FLAT BED TRAILER OF AFT SECTION, BODY, PACKED ONE PER METAL CONTAINER, FOR THE NIKE-HERCULES GUIDED MISSILE			
DESIGNED BY JWF	DATE 9-15-60	APPROVED BY <i>[Signature]</i>	IDENTIFIED BY <i>[Signature]</i>
CHECKED BY RHA-GWP	SCALE 0.01	CLASS CRD	GRADE COLONEL
REVISIONS			ORGANIZATION ORD CORPS U.S.A.
2	9-15-60	<i>[Signature]</i>	<i>[Signature]</i>
			ORD CORPS U.S.A.
			ORDNANCE CORPS U.S.A.
			16 DECEMBER 1957
			CLASS DIVISION DRAWING FILE
			19 48 5150 GM
			11A49

GENERAL NOTES

MATERIAL SPECIFICATIONS

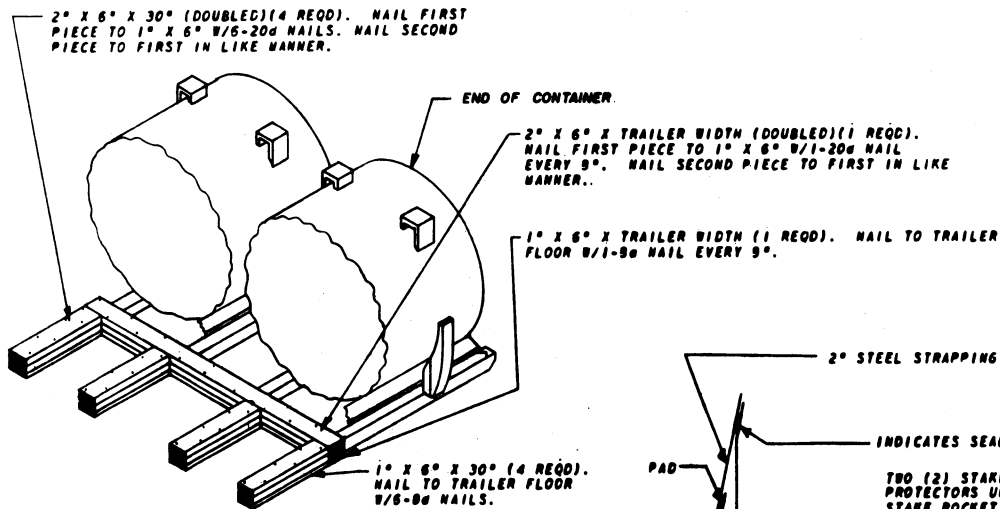
- A. LOADS AS SHOWN HEREIN ARE BASED ON FLAT BED TRAILERS 40'-0" LONG X 9'-0" WIDE WITH THE EXCEPTION OF THE ONE UNIT AND THE TWO UNITS. TWO WIDE LOADS WHICH ARE BASED ON FLAT BED TRAILERS 25'-0" LONG X 9'-0" WIDE.
- B. CAUTION: LADING HEIGHT - ONE HIGH LOAD 61-3/4"
TWO HIGH LOAD 10'-1"
LADING WIDTH - TWO WIDE LOAD 9'-1/4"
UNIT LOADS TWO WIDE AND/OR TWO HIGH REQUIRE: THE CLEARANCE OF THE LOCAL TRANSPORTATION OFFICER DUE TO THE EXCESSIVE WIDTH AND/OR HEIGHT OF THE LOAD.
- C. FLAT BED TRAILERS HAVING ALL METAL FLOORS WILL NOT BE USED FOR SHIPPING THIS ITEM.
- D. GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT WILL BE IN ACCORDANCE WITH PARAGRAPH 9,346.4, ORDM 3-4, VOL 3, DATED 6 OCT 1959.
- E. NOTICE: SHIPMENTS WILL BE POSITIONED ON THE TRAILER CONSISTENT WITH STATE WEIGHT LAWS. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE DIMENSIONS OF THE VEHICLE CONCERNED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS CONTAINED HEREIN FOR FULL OR PARTIAL TRUCK LOAD MUST BE FOLLOWED FOR BLOCKING, BRACING AND STAYING OF THIS ITEM.
- F. FOR DETAIL OF CONTAINER SEE DRAWING NO. E1058236. GROSS DIMENSIONS-222 1/2" LONG X 54 1/2" WIDE X 51-3/4" HIGH. GROSS WEIGHT-4,606 POUNDS.
- G. LADING WILL NOT BE SECURED BY CHAINS AND/OR LOAD BINDERS.
- H. 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.
- J. USE COMBINATION OF LOADING PROCEDURES SHOWN HEREIN TO PROVIDE PROPER BLOCKING AND BRACING FOR THE UNIT. QUANTITIES NOT DEPICTED.
- K. TIE BAR FACILITIES, TOGETHER WITH 1-1/4" X .035" STEEL STRAPPING WILL BE USED TO UNITIZE CONTAINERS AS SHOWN. IF THE CAPACITY OF THE MHE PERMITS, IT IS RECOMMENDED THAT CONTAINERS BE UNITIZED PRIOR TO PLACEMENT ABOARD THE TRAILER.
- L. CAUTION: FLAT BED TRAILERS WITH TANDEM AXLES ONLY WILL BE USED FOR TWO LAYER HIGH LOADING AS SHOWN HEREIN. SINGLE AXLE TRAILERS WILL BE LIMITED TO ONE LAYER HIGH LOADING.

LUMBER: SEE PARAGRAPH 8400, ORDM 3-4, VOL 3, DATED 1 JULY 1955.

NAILS: COMMON, CEMENT COATED, FED SPEC FF-N-105.
ALTERNATE: ANNULAR-RING TYPE NAIL OF SAME SIZE.

STRAPPING: STEEL, TYPE 1, CLASS "A" OR "C", FED SPEC QQ-S-781. FOR PSN SEE SB-30-100.

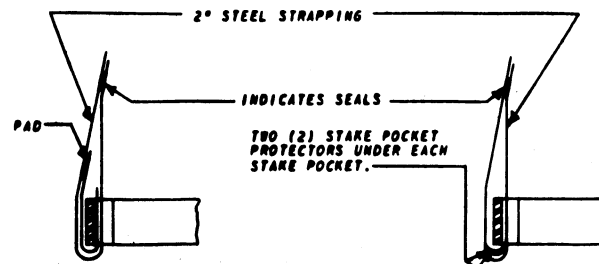
ANTI-CHAFING: NEUTRAL BARRIER MATERIAL, MIL-B-121.



ALTERNATE END BLOCKING DETAIL

FOR TRAILERS WITHOUT ADEQUATE END STAKE POCKETS AND/OR LESS THAN 30'-0" BETWEEN END STAKE POCKETS. ELIMINATE SOLID FILL AND PIECE (2) AT ENDS OF LOAD. PREPOSITION ALTERNATE END BLOCKING AS SHOWN (MAX REQD, 2) AGAINST APPROPRIATE CONTAINER SKIDS TO PREVENT LONGITUDINAL MOVEMENT OF LADING IN EITHER DIRECTION. ADJUST LENGTH OF HEADER AND NUMBER OF BACKUPS IF APPLIED TO A LOAD ONE CONTAINER WIDE.

CAUTION: CONTAINERS MUST NOT EXTEND BEYOND CONFINES OF TRAILER LENGTH.

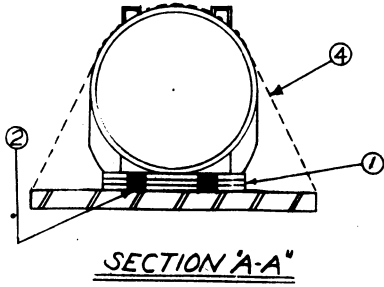


DETAIL "A"

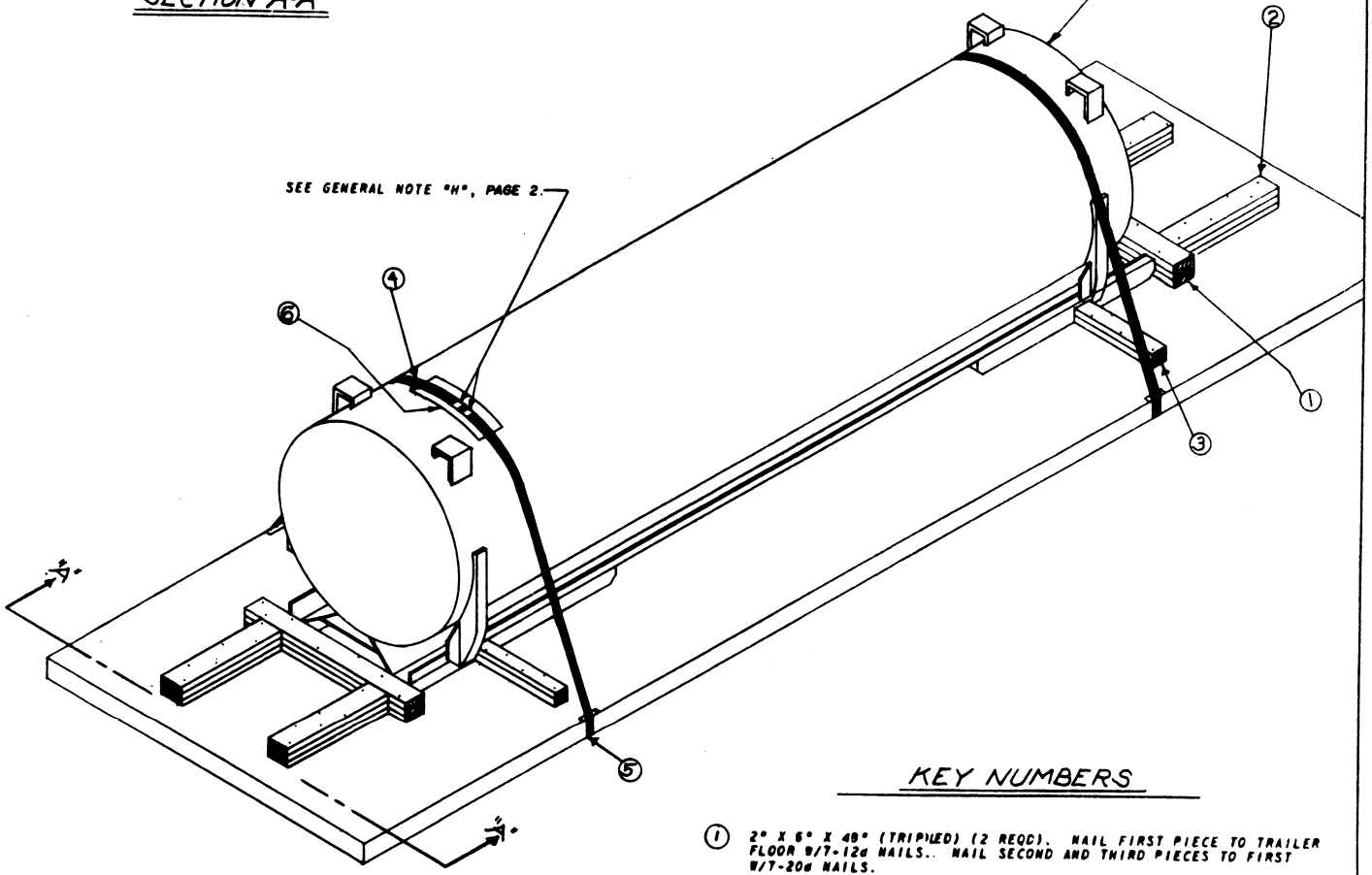
METHOD OF THREADING 2" STRAP AND PAD.

DETAIL "B"

METHOD OF INSTALLING STAKE POCKET PROTECTORS (ALT. PAD).



CAUTION: SEE GENERAL NOTE "B", PAGE 2



KEY NUMBERS

- ① 2" X 6" X 48" (TRIPLED) (2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/7-12d NAILS. NAIL SECOND AND THIRD PIECES TO FIRST W/7-20d NAILS.
- ② 2" X 6" X 30" (TRIPLED) (4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/6-12d NAILS EACH. NAIL SECOND AND THIRD PIECES TO FIRST W/6-20d NAILS EACH.
- ③ 2" X 4" X 24" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- ④ STRAPPING, STEEL, 2" X .050" X 20'-0" (2 REQD).
- ⑤ PAD, 2" X .050" STRAP 19" LONG. POSITION UNDER AND SEAL TO PIECE ④. SEE DETAIL "A", PAGE 2 (4 REQD).
ALTERNATE: SIGNODE NO. 1 STAKE POCKET PROTECTORS, TWO (2) USED UNDER EACH STAKE: POCKET WITH PIECE ④. SEE DETAIL "B", PAGE 2 (8 REQD).
- ⑥ ANTI-CHAFING (NEUTRAL BARRIER MATERIAL). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINER.

ISOMETRIC VIEW

26'-0" LONG X 8'-0" WIDE
FLAT BED TRAILER

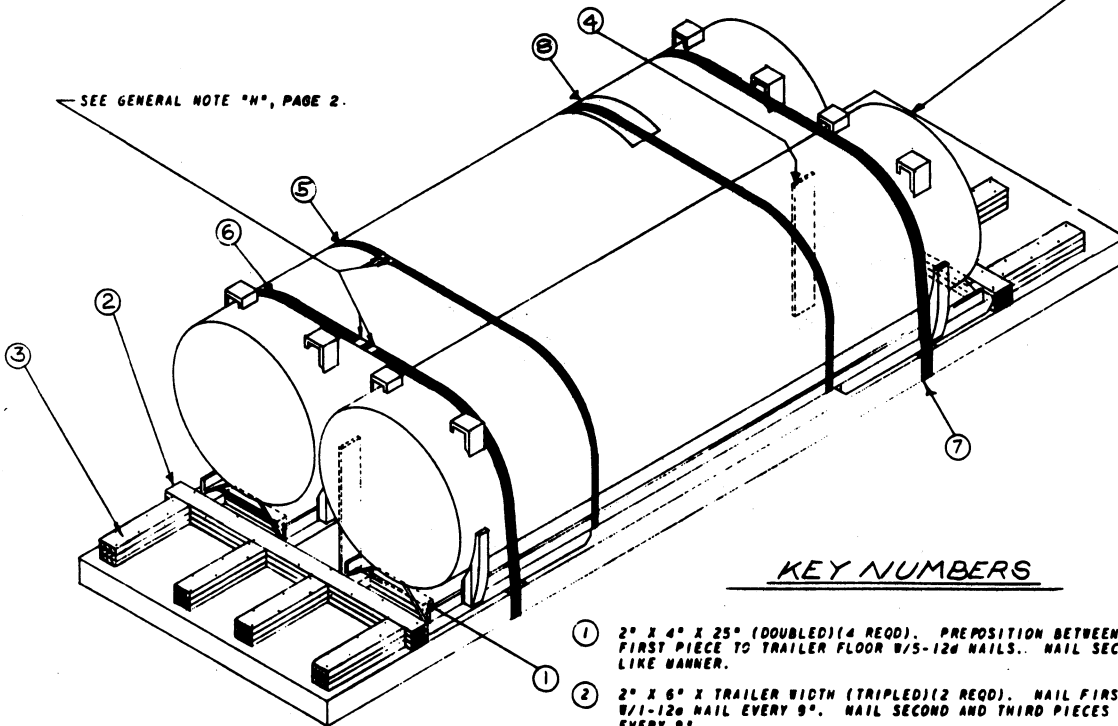
BILL OF MATERIAL		
LUMBER	LINEAL FEET	BOARD FEET
2" X 4"	16	11
2" X 6"	54	54
NAILS		POUNDS
12d	78	1 1/2
20d	76	2 1/2
STRAPPING, STEEL, 2" X .050"		88'-0" REQD - 16 LBS
ANTI-CHAFING AS REQD.		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
AFT SECTION.		4,806 LBS
DUNNAGE		183 LBS
TOTAL WEIGHT		4,989 LBS

CAUTION: SEE GENERAL NOTE "B", PAGE 2

SEE GENERAL NOTE "H", PAGE 2.



ISOMETRIC VIEW

26'-0" LONG X 8'-0" WIDE FLAT BED TRAILER

KEY NUMBERS

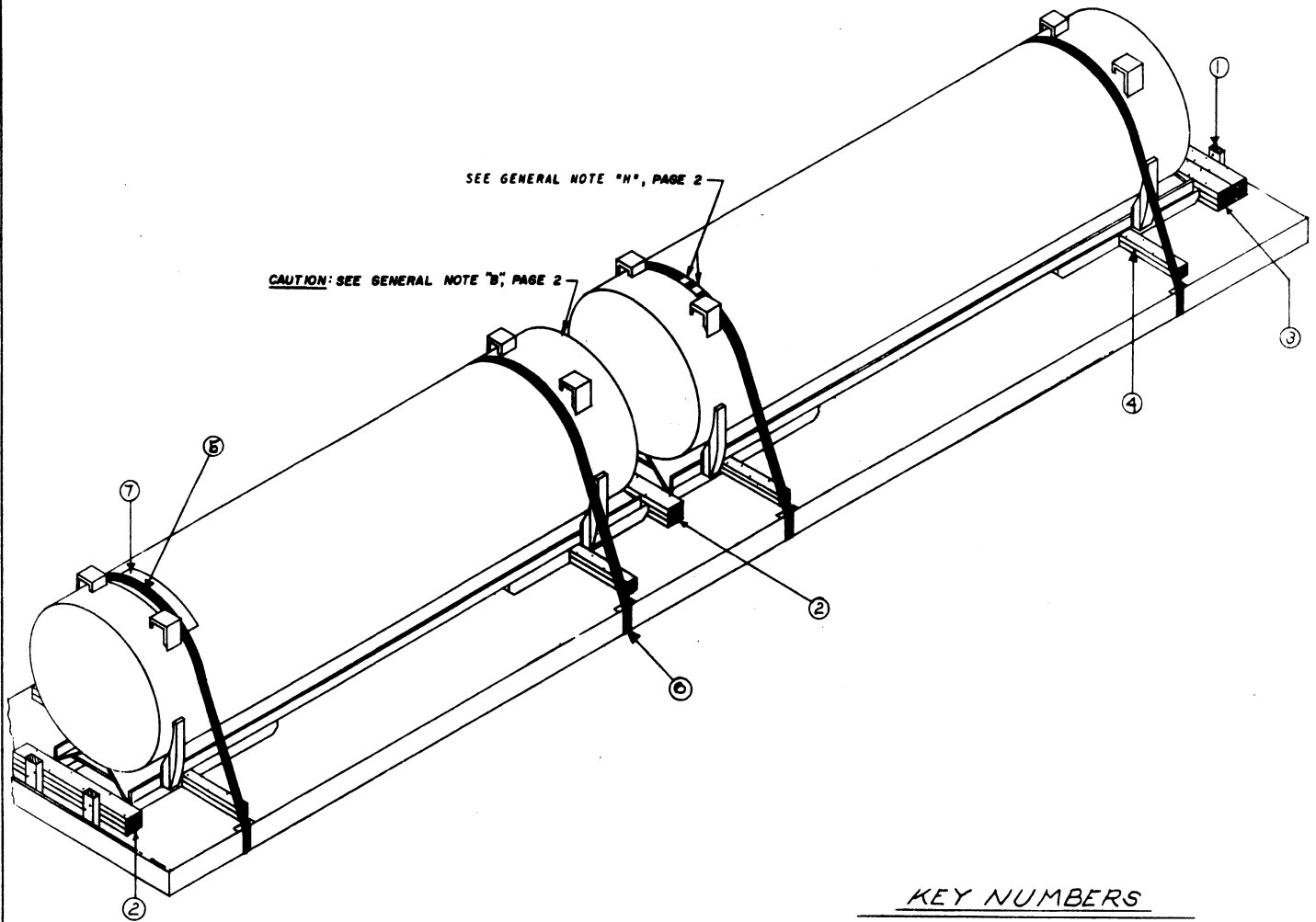
- ① 2" X 4" X 25" (DOUBLED) (4 REQD). PREPOSITION BETWEEN CONTAINER SKIDS. NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- ② 2" X 6" X TRAILER WIDTH (TRIPLED) (2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 9". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ③ 2" X 6" X 30" (TRIPLED) (8 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/6-12d NAILS. NAIL SECOND AND THIRD PIECES TO FIRST W/5-20d NAILS EACH.
- ④ ANTI-CHAFING MATERIAL, 1/2" X 6" X 30" (2 REQD). 1/2" HARDBOARD. POSITION BETWEEN CONTAINERS.
- ⑤ STEEL STRAPPING, 1 1/2" X .035" X 26'-0" (2 REQD).
- ⑥ STEEL STRAPPING, 2" X .050" X 23'-0" (2 REQD).
- ⑦ PAD, 2" X .050" STRAP 18" LONG. POSITION UNDER AND SEAL TO PIECE ⑤. (SEE DETAIL "A", PAGE 2) (4 REQD).
ALTERNATE: SIGNODE NO. 1 STAKE POCKET PROTECTORS, TWO (2) USED UNDER EACH STAKE POCKET WITH ⑥. (SEE DETAIL "B", PAGE 2) (8 REQD).
- ⑧ ANTI-CHAFING (NEUTRAL BARRIER MATERIAL) PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINER.

BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET
2" X 4"	17	12
2" X 6"	108	108
NAILS	NO. REQD	POUNDS
12d	112	2
20d	144	5-1/4
STEEL STRAPPING; 1 1/2" X .035" - 53' REQD - - 8 LBS		
STEEL STRAPPING; 2" X .050" - 52' REQD - - 18 LBS		
ANTI-CHAFING MATERIAL: 1/2" X 6" HARDBOARD (5'-0" REQD) - 2 LBS		
ANTI-CHAFING MATERIAL: AS REQD		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
AFT SECTION	2	9,212 LBS
DUNNAGE		338 LBS
TOTAL WEIGHT		9,540 LBS



SEE GENERAL NOTE "H", PAGE 2

CAUTION: SEE GENERAL NOTE "B", PAGE 2

ISOMETRIC VIEW

40'-0" LONG X 8'-0" WIDE FLAT BED TRAILER

KEY NUMBERS

- ① STUB STAKES (4 REQD). SIZE FOR DRIVE FIT IN STAKE POCKET. CUT TO EXTEND 9" ABOVE TRAILER FLOOR AND 3" BELOW STAKE POCKET. DRIVE ONE 12d NAIL INTO STAKE BELOW STAKE POCKET ALLOWING ONE INCH (1") TO PROTRUDE. NAIL TO ② W/2-12d NAILS.
- ② 2" X 6" X 48" (TRIPLED)(2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 5". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ③ SOLID FILL. 2" MATERIAL X 48" LONG (TRIPLED). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 8". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ④ 2" X 4" X 24" (DOUBLED)(8 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- ⑤ STRAPPING, STEEL, 2" X .050" X 20'-0" (4 REQD).
- ⑥ PAD, 2" X .050" STRAP 19" LONG. POSITION UNDER AND SEAL TO ⑤. SEE DETAIL "A", PAGE 2 (9 REQD).
ALTERNATE: SIGNODE NO. 1 STAKE POCKET PROTECTORS, TWO (2) USED UNDER EACH STAKE POCKET WITH PIECE ⑤ (SEE DETAIL "B", PAGE 2 (16 REQD)).
- ⑦ ANTI-CHAFING (NEUTRAL BARRIER MATERIAL) PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINER.

BILL OF MATERIAL

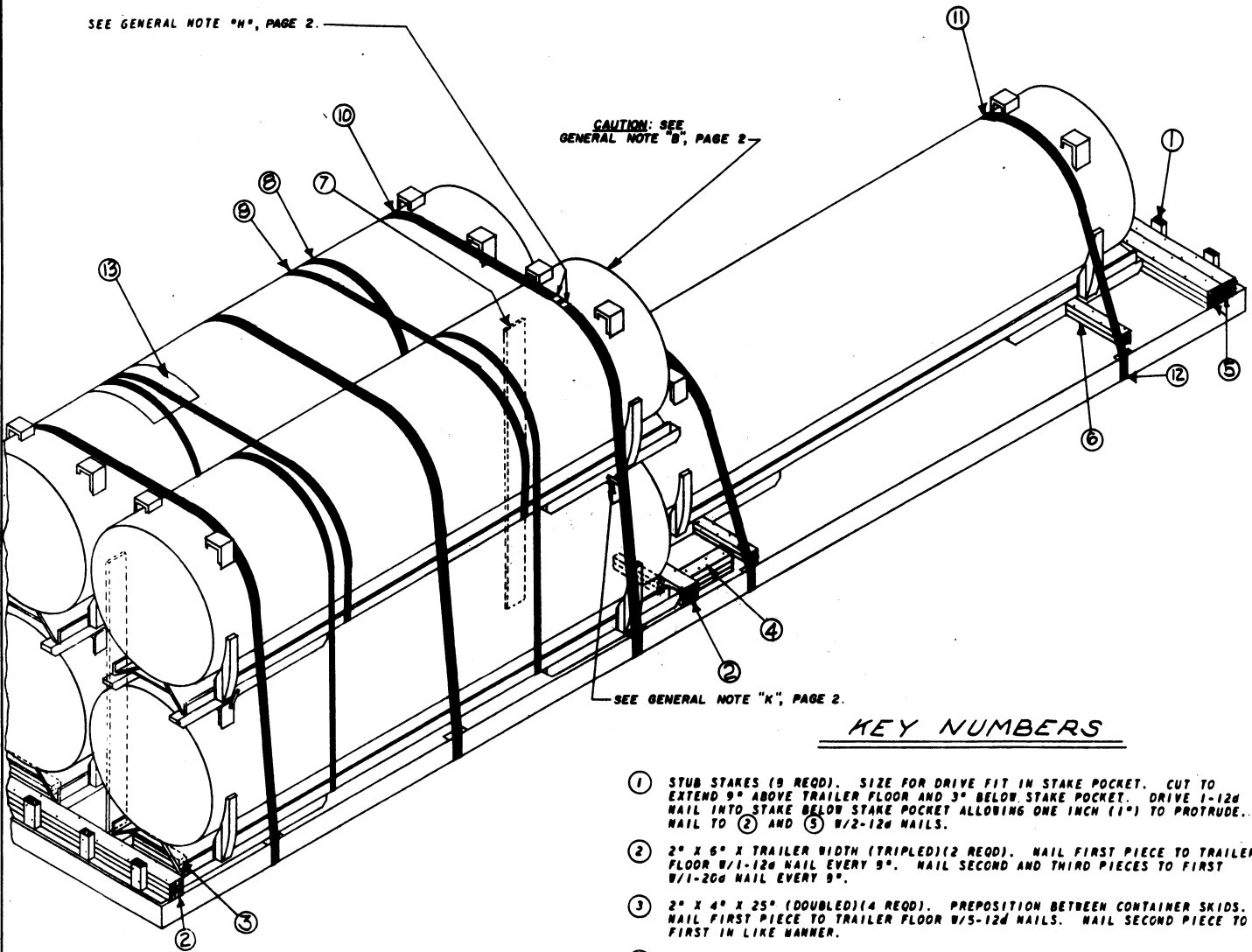
LUMBER	LINEAL FEET	BOARD FEET
2" X 4"	38	26
2" X 6"	48	48
NAILS	NO. REQD	POUNDS
12d	116	2
20d	48	1-3/4
STRAPPING, STEEL, 2" X .050" - 20'-0" REQD - 31 LBS		
ANTI-CHAFING MATERIAL - AS REQD		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
APT SECTION	2	9,212 LBS
DUNNAGE		820 LBS
TOTAL WEIGHT		9,482 LBS

SEE GENERAL NOTE "H", PAGE 2.

CAUTION: SEE GENERAL NOTE "B", PAGE 2.



ISOMETRIC VIEW

40'-0" LONG X 8'-0" WIDE FLAT BED TRAILER

SEE GENERAL NOTE "K", PAGE 2.

KEY NUMBERS

- ① STUB STAKES (8 REQD). SIZE FOR DRIVE FIT IN STAKE POCKET. CUT TO EXTEND 9" ABOVE TRAILER FLOOR AND 3" BELOW STAKE POCKET. DRIVE 1-12d NAIL INTO STAKE BELOW STAKE POCKET ALLOWING ONE INCH (1") TO PROTRUDE. NAIL TO ② AND ⑤ W/2-12d NAILS.
- ② 2" X 6" X TRAILER WIDTH (TRIPLED)(2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 9". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ③ 2" X 4" X 25" (DOUBLED)(4 REQD). PREPOSITION BETWEEN CONTAINER SKIDS. NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- ④ 2" X 5" X 19" (TRIPLED)(2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/4-12d NAILS. NAIL SECOND AND THIRD PIECES TO FIRST W/4-20d NAILS.
- ⑤ SOLID FILL, 2" MATERIAL X TRAILER WIDTH (TRIPLED). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 9". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ⑥ 2" X 4" X 24" (DOUBLED)(4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- ⑦ ANTI-CHAFING MATERIAL, 1/2" X 6" X 7'-0" (2 REQD), 1/2" HARD BOARD. POSITION BETWEEN CONTAINERS.
- ⑧ STEEL STRAPPING, 1 1/2" X .035" X 28'-0" (4 REQD).
- ⑨ STEEL STRAPPING, 1 1/2" X .035" X 26'-6" (2 REQD).
- ⑩ STEEL STRAPPING, 2" X .050" X 36'-6" (3 REQD).
- ⑪ STEEL STRAPPING, 2" X .050" X 23'-0" (2 REQD).
- ⑫ PAD, 2" X .050" STRAP"IN" LONG. POSITION UNDER AND SEAL TO PIECES ⑩ AND ⑪. SEE DETAIL "A", PAGE 2 (NO REQD).
ALTERNATE: SIGNODE NO. 1 STAKE POCKET PROTECTORS TWO (2) USED UNDER EACH STAKE POCKET WITH PIECES ⑩ AND ⑪. (SEE DETAIL "B", PAGE 2 (20 REQD)).
- ⑬ ANTI-CHAFING (NEUTRAL BARRIER MATERIAL) PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINER.

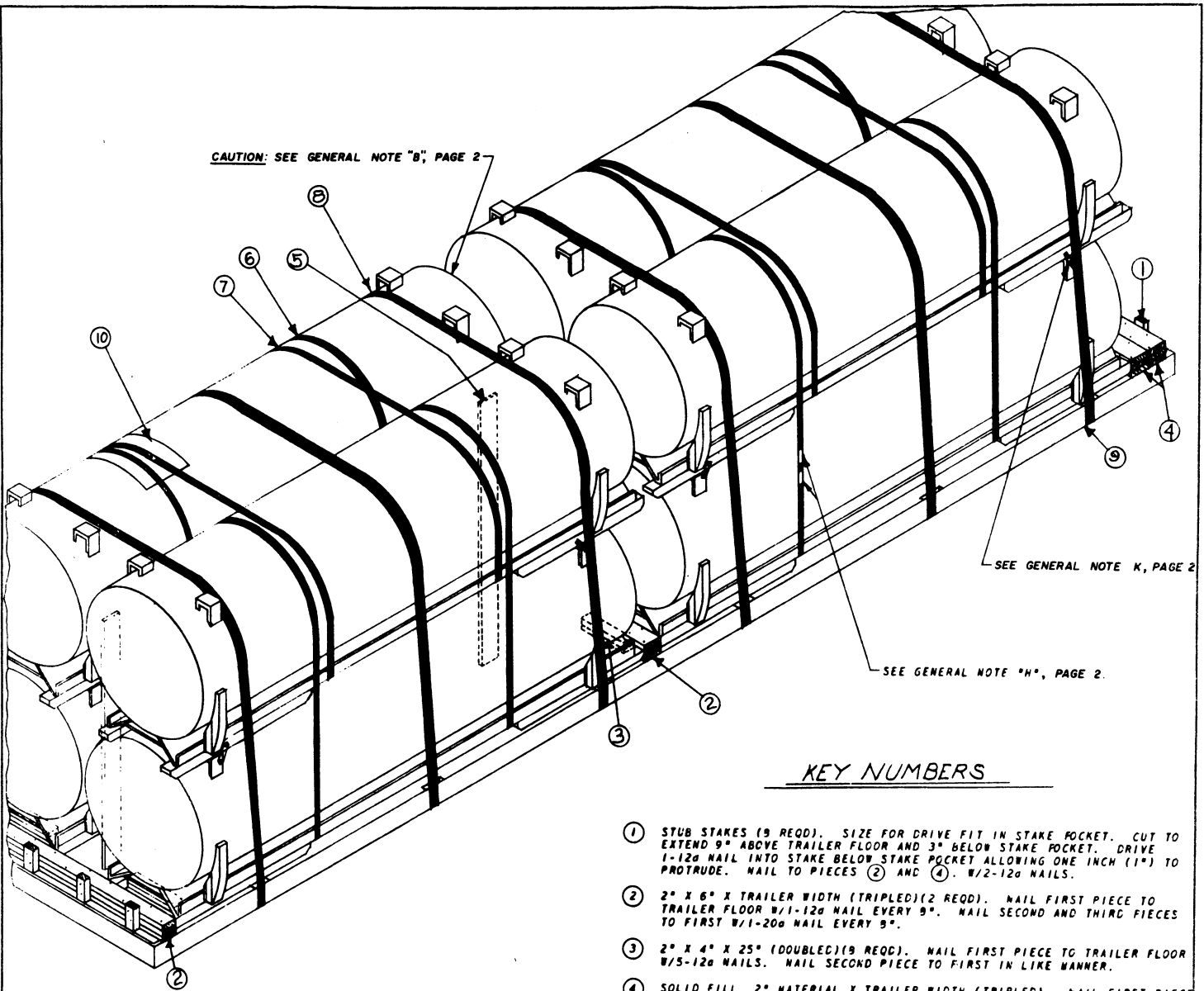
BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET
2" X 4"	45	30
2" X 5"	105	108
NAILS		
	NO. REQD	POUNDS
12d	150	2 1/2
20d	112	4
STEEL STRAPPING, 1 1/2" X .035" - (108'-0" REQD) - 24 LBS		
STEEL STRAPPING, 2" X .050" - (170'-6" REQD) - 82 LBS		
ANTI-CHAFING MATERIAL 1/2" X 6" HARDBOARD - (14'-0" REQD) - 6 LBS		
ANTI-CHAFING MATERIAL AS REQD		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
AFT SECTION	5	23,030 LBS
DUNNAGE		488 LBS
TOTAL WEIGHT		23,468 LBS

CAUTION: SEE GENERAL NOTE "B", PAGE 2



ISOMETRIC VIEW

46'-0" LONG X 9'-0" WIDE FLAT BED TRAILER

KEY NUMBERS

- ① STUB STAKES (9 REQD). SIZE FOR DRIVE FIT IN STAKE POCKET. CUT TO EXTEND 9" ABOVE TRAILER FLOOR AND 3" BELOW STAKE POCKET. DRIVE 1-12d NAIL INTO STAKE BELOW STAKE POCKET ALLOWING ONE INCH (1") TO PROTRUDE. NAIL TO PIECES ② AND ④. W/2-12d NAILS.
- ② 2" X 6" X TRAILER WIDTH (TRIPLED)(2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 9". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ③ 2" X 4" X 25" (DOUBLED)(9 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- ④ SOLID FILL, 2" MATERIAL X TRAILER WIDTH (TRIPLED). NAIL FIRST PIECE TO TRAILER FLOOR W/1-12d NAIL EVERY 9". NAIL SECOND AND THIRD PIECES TO FIRST W/1-20d NAIL EVERY 9".
- ⑤ ANTI CHAFING MATERIAL, 1/2" X 6" X 7'-0" (4 REQD). 1/2" HARD BOARD. POSITION BETWEEN CONTAINERS.
- ⑥ STEEL STRAPPING, 1 1/2" X .035" X 29'-0" (9 REQD).
- ⑦ STEEL STRAPPING, 1 1/2" X .035" X 26'-6" (4 REQD).
- ⑨ STEEL STRAPPING, 2" X .050" X 36'-6" (6 REQD).
- ⑨ PAD, 2" X .050" STRAP" IN" LONG. POSITION UNDER AND SEAL TO PIECES ③. SEE DETAIL "A", PAGE 2 (12 REQD).
ALTERNATE: SIGNODE NO. 1 STAKE POCKET PROTECTORS. TWO (2) USED UNDER EACH STAKE POCKET WITH PIECE ③. SEE DETAIL "B", PAGE 2 (24 REQD).
- ⑩ ANTI-CHAFING (NEUTRAL BARRIER MATERIAL). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINER.

BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET
2" X 4"	45	31
2" X 6"	95	95
NAILS		
12d	184	2-3/4
20d	95	3 1/2
STEEL STRAPPING; 1 1/2" X .035" - (330'-0" REQD) - 48 LBS		
STEEL STRAPPING; 2" X .050" (237'-0" REQD) - 79 LBS		
ANTI-CHAFING MATERIAL, 1/2" X 5" HARDBOARD (29'-0" REQD) - 12 LBS		
ANTI-CHAFING MATERIAL - AS REQD.		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
AFT SECTION	8	36,040 LBS
DUNNAGE		463 LBS
TOTAL WEIGHT		37,311 LBS

