

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13, AND AUGMENTS TM-743-200-1 (CHAPTER 5).
- B. THIS PROCEDURAL DRAWING IS APPLICABLE TO TRAILERS AND/OR CONTAINERS WHICH ARE EQUIPPED WITH SPECIAL BULKHEAD SYSTEMS AS SPECIFIED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C AND APPENDICES THERETO. SUBSEQUENT REFERENCE TO A TRAILER THROUGHOUT THIS DOCUMENT MEANS A TRAILER OR CONTAINER FOR TOFC AND/OR COFC SHIPMENTS. ONLY RAILCARS WHICH ARE SPECIFIED BY THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C, OR THE AFOREMENTIONED APPENDICES, WILL BE USED.
- C. ALL THE LOADS SHOWN ARE BASED ON TRAILERS WHICH ARE 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) WITH WOOD, WOOD AND METAL, OR METAL FLOORS. THE DELINEATED OUTLOADING PROCEDURES ARE ALSO APPLICABLE FOR TRAILERS WHICH ARE EIGHTY-NINE INCHES (89") THRU NINETY-THREE INCHES (93") IN WIDTH.
- D. ALL THE LOADS DEPICTED BY ISOMETRIC VIEWS ARE BASED ON TRAILERS HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). UNLESS OTHERWISE SPECIFIED, ALL THE LOADS DEPICTED BY THE "ALT LOAD PATTERN" VIEWS ARE BASED ON TRAILERS HAVING THE TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER). TRAILERS WHICH ARE EQUIPPED WITH SLIDING (ADJUSTABLE) TANDEMS MAY ALSO BE USED. THE BOGIE ASSEMBLIES MUST BE LOCATED AT OR NEAR THE REARMOST POSITION WHEN TRANSPORTING A LOAD DESIGNED FOR A "WESTERN" TRAILER, AND MUST BE LOCATED AT OR NEAR THE FOREMOST POSITION WHEN TRANSPORTING A LOAD DESIGNED FOR AN "EASTERN" TRAILER.
- E. THE LOADS SHOWN ON PAGES 4 THRU 13 ARE BASED ON TRAILERS WHICH ARE EQUIPPED WITH SPECIAL BULKHEAD BRACES HAVING 35'-0" BETWEEN THE BULKHEAD BOARDS. THESE LOADS REQUIRE THE USE OF STRAPPING TO SECURE THE UPRIGHT BRACES.
- F. THE LOADS SHOWN ON PAGES 14 THRU 23 ARE BASED ON TRAILERS WHICH HAVE A BULKHEAD BUILT INTO THE FRONT WALL AND ARE EQUIPPED WITH A SPECIAL BULKHEAD BRACE AT THE REAR OF THE TRAILERS. THE DISTANCE FROM THE FRONT WALL TO THE BULKHEAD BOARDS AT THE REAR IS 38'-6". STRAPPING IS NOT REQUIRED FOR THESE LOADS, EXCEPT AS SPECIFIED WITHIN THE ADJACENT SPECIAL NOTES.
- G. THE LOADS SHOWN ON PAGES 24 THRU 33 ARE BASED ON TRAILERS WHICH ARE EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM. THIS SYSTEM CONSISTS OF ADJUSTABLE BULKHEADS AT THE FRONT AND REAR OF THE TRAILER. THE DISTANCE BETWEEN THE BULKHEADS AT THE MAXIMUM OPEN POSITION IS 37'-8-1/2"; THE DISTANCE AT THE MINIMUM CLOSED POSITION IS 30'-4-1/2".
- H. DETAILS OF PALLETIZED SEPARATE LOADING PROJECTILES:
- 155MM, 8/PALLET ----- 13-1/2" LONG X 27" WIDE X 31-1/2" HIGH.
GROSS WEIGHT ----- 800 POUNDS (APPROX).
- 175MM, 6/PALLET ----- 17" LONG X 25-1/2" WIDE X 41" HIGH.
GROSS WEIGHT ----- 934 POUNDS (APPROX).
- 175MM, 20/PALLET ----- 40" LONG X 51-1/4" WIDE X 46-3/8" OR 42-3/4" HIGH.
GROSS WEIGHT ----- 3,366 POUNDS (APPROX).
- 8", 3/PALLET ----- 9-1/2" LONG X 28-1/2" WIDE X 38-1/2" HIGH.
GROSS WEIGHT ----- 633 POUNDS (APPROX).
- 8", 6/PALLET ----- 19-1/2" LONG X 28-1/2" WIDE X 38-1/2" HIGH.
GROSS WEIGHT ----- 1236 POUNDS (APPROX).
- J. THE GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORDINGLY. NOTICE: A SHIPMENT WILL BE POSITIONED IN A TRAILER CONSISTENT WITH THE WEIGHT LAWS OF THE STATES THRU WHICH THE TRAILER WILL BE TRANSPORTED BY HIGHWAY (MOTOR CARRIER).
- K. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS SHOWN HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEM.
- L. CAUTION: IN NO CASE WILL THE END OF A LOAD BE LESS THAN TWO (2) PALLETS WIDE; THE PORTION OF THE LOAD AGAINST A TRAILER FRONT WALL, AGAINST A BULKHEAD, AGAINST A STRUT BEARING GATE, OR AT A LOCATION WHERE SOLID FILL MATERIAL IS TO BE USED, MUST BE TWO (2) PALLETS IN WIDTH.
(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

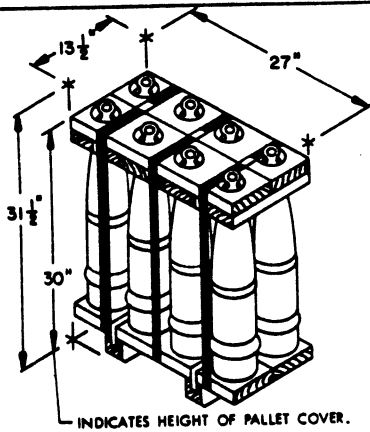
- LUMBER ----- SEE TM 743-200-1, DUNNAGE LUMBER, FED SPEC MM-L-751.
NAIL ----- COMMON, CEMENT COATED OR CHEMICALLY ETCHED; FED SPEC FF-N-105, ALT; ANNULAR-RING TYPE NAIL OF SAME SIZE.
STRAPPING, STEEL ----- TYPE I OR IV, CLASS A OR B FOR 1-1/4" STRAPPING AND CLASS A, B, OR C FOR 2" STRAPPING, FED SPEC QQ-3-781.
STRAP SEAL
STRAP STAPLE ----- COMMERCIAL GRADE.

(GENERAL NOTES CONTINUED)

- M. WHEN STEEL STRAPPING IS SEALED, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT.
- N. IF SPECIAL AUTHORITY IS GRANTED BY HIGHER HEADQUARTERS, AND PROVIDING THEY ARE FURNISHED BY THE CARRIER, REUSABLE WEB STRAP ASSEMBLIES IDENTIFIED AS AERQUIP CORPORATION PART NO. FE2000079C MAY BE UTILIZED IN LIEU OF THE SPECIFIED 2" STEEL STRAPPING FOR THE SECUREMENT OF THE UPRIGHT BRACES IN THE LOADS DEPICTED ON PAGES 4 THRU 13. THE SHIPPER IS RESPONSIBLE FOR CLOSE INSPECTION OF THE WEB STRAP ASSEMBLIES DURING INSTALLATION TO ENSURE THAT ASSEMBLIES WHICH HAVE BEEN DAMAGED SUFFICIENTLY TO IMPAIR THEIR STRENGTH WILL NOT BE USED. SCUFF SLEEVES WILL BE POSITIONED TO PROVIDE PADDING WHERE A WEB STRAP IS BEARING ON AN UPRIGHT BRACE. THE STRAPPING WILL BE DRAWN TAUT WHEN ASSEMBLIES ARE TENSIONED, AND MUST FORM AT LEAST ONE AND ONE-HALF COMPLETE WRAPS ON A TAKEUP SPOOL OF A TENSIONING DEVICE. A SOCKET WRENCH HAVING AN 18" HANDLE CAN BE USED TO ACHIEVE PROPER STRAP TAUTNESS. ONE MAN, UNASSISTED AND USING THE LEVER ADVANTAGE OF AN 18" LONG WRENCH HANDLE TO ITS FULLEST EXTENT, CAN ACHIEVE THE PROPER PRESTRESS IN A WEB STRAP ASSEMBLY.
- O. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-5/8" WIDE OR 3/4" THICK BY 3-1/2" WIDE AND 2" X 4" MATERIAL IS ACTUALLY 1-5/8" THICK BY 5-5/8" WIDE OR 1-1/2" THICK BY 5-1/2" WIDE.
- P. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES, OR WHEN LAMINATING DUNNAGE.
- Q. DO NOT NAIL BLOCKING TO THE TRAILER WALLS OR FLOOR OR BULKHEADS. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- R. PORTIONS OF THE TRAILER BODIES DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE SIDEWALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- S. UNLESS OTHERWISE SPECIFIED, THE BILL OF MATERIAL FOR A LOAD IS APPLICABLE FOR EITHER A "WESTERN" OR AN "EASTERN" FIXED TYPE TRAILER.
- T. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.

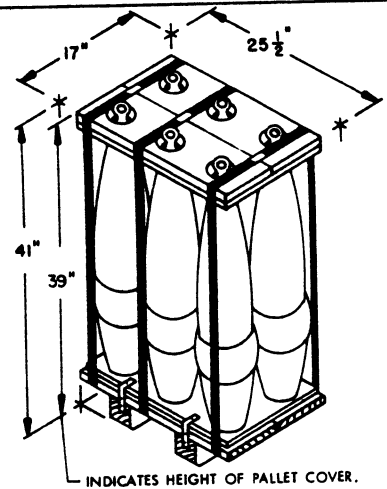
REVISIONS

- REVISION NO. 1, DATED SEPTEMBER 1973, CONSISTS OF:
1. INCLUDING THE 175MM 6/PALLET AND THE 175MM 20/PALLET PROJECTILES.
 2. DELETING THE 240MM AND 280MM PROJECTILES.
 3. CONVERTING TRAILERS FROM 25'-0" BETWEEN THE BULKHEADS TO 35'-0".
 4. ADDING PROCEDURES FOR TRAILERS HAVING 38'-6" BETWEEN THE BULKHEADS.
 5. ADDING PROCEDURES FOR TRAILERS EQUIPPED WITH CAMUS III RESTRAINING SYSTEMS.
 6. UPDATING THE GENERAL NOTES AND DRAWING FORMAT.



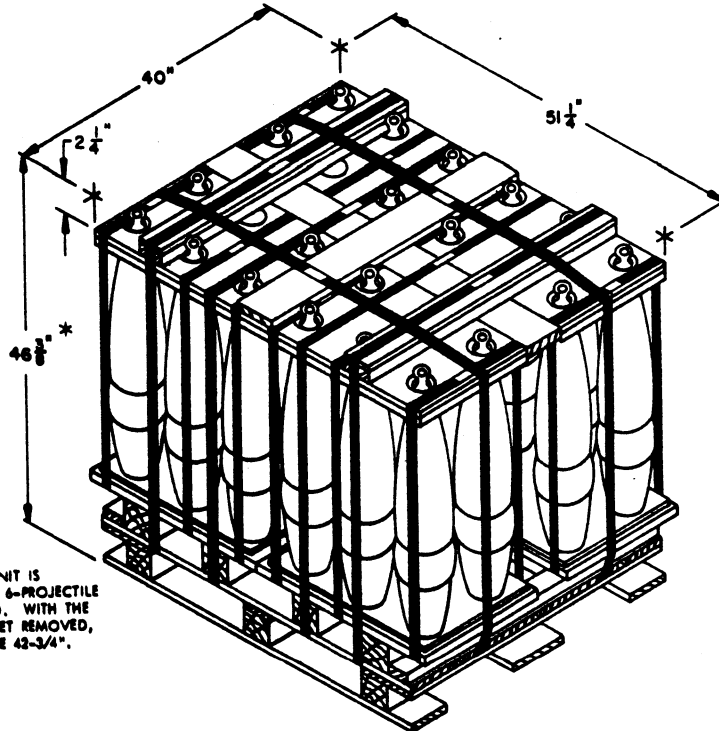
INDICATES HEIGHT OF PALLET COVER.

155MM, 8/PALLET



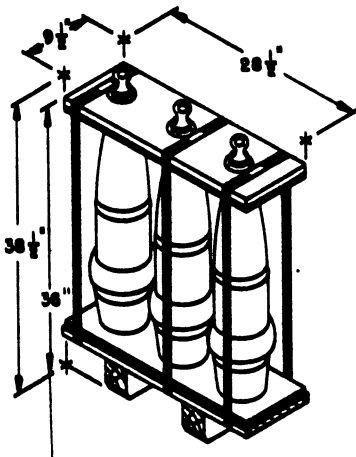
INDICATES HEIGHT OF PALLET COVER.

175MM, 6/PALLET



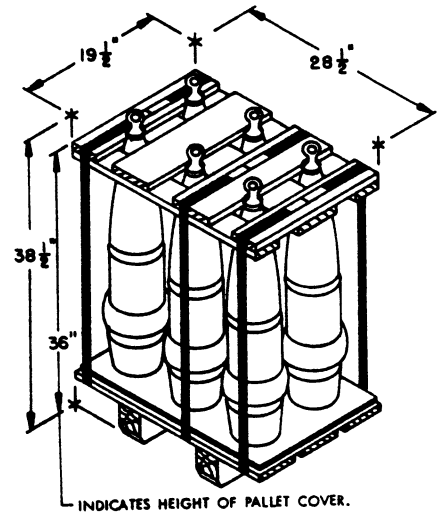
* THE HEIGHT OF THE 20/PALLET UNIT IS 46-3/8" WHEN THE SKIDS OF THE 6-PROJECTILE PALLET ARE INTACT, AS DEPICTED. WITH THE SKIDS OF THE 6-PROJECTILE PALLET REMOVED, THE HEIGHT OF THE UNIT WILL BE 43-3/4".

175MM, 20/PALLET



INDICATES HEIGHT OF PALLET COVER.

6", 3/PALLET

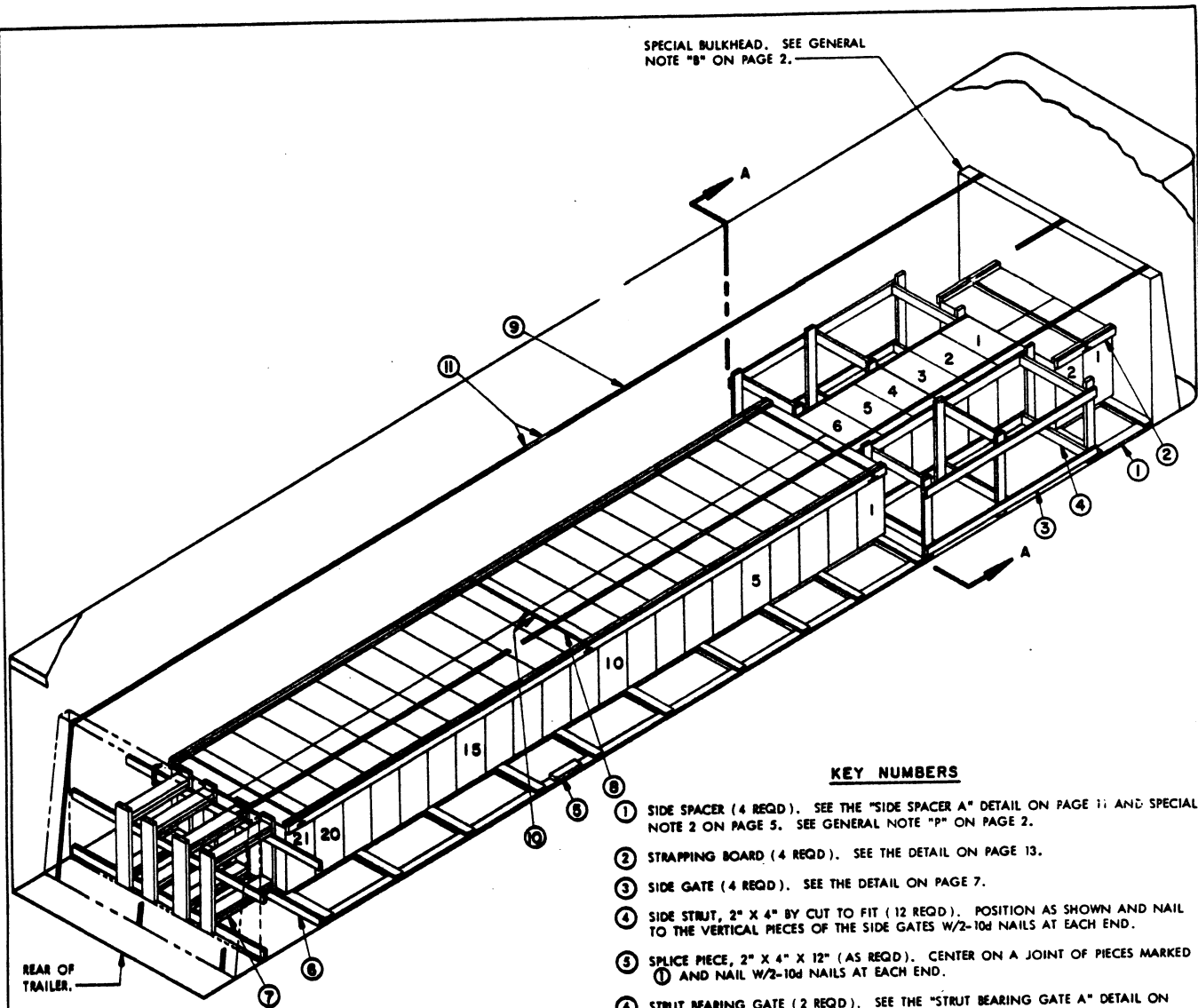


INDICATES HEIGHT OF PALLET COVER.

6", 6/PALLET

PALLET UNIT DETAILS

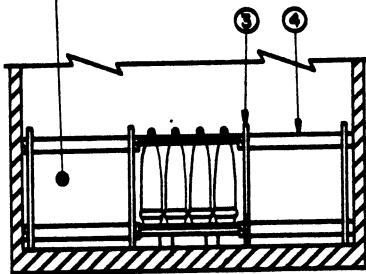
SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.



ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

THE 3'-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



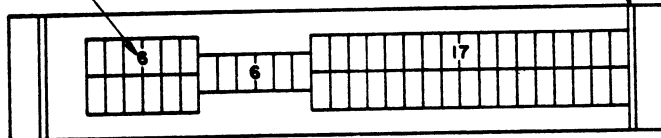
SECTION A-A

KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11 AND SPECIAL NOTE 2 ON PAGE 5. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CUT TO FIT (12 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ① AND NAIL W/2-10d NAILS AT EACH END.
- ⑥ STRUT BEARING GATE (2 REQD). SEE THE "STRUT BEARING GATE A" DETAIL ON PAGE 5.
- ⑦ REAR STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (8 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" X 11'-6" STEEL STRAPPING (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND STRAPPING BOARDS AND PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑨ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL FROM TWO (2) PIECES. SEE GENERAL NOTE "N" ON PAGE 2.
- ⑩ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.
- ⑪ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE CRIMP EACH SEAL.

INDICATES NUMBER OF PALLETS LONG IN A PORTION OF A LOAD.

INDICATES FORWARD BULKHEAD.



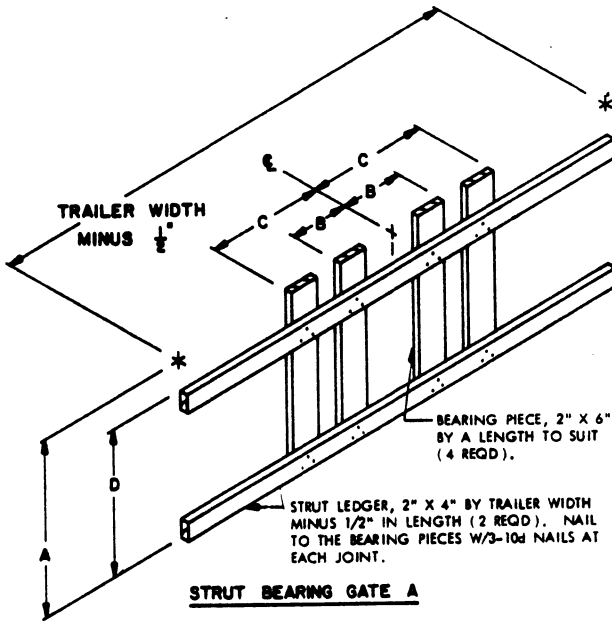
ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

82-UNIT LOAD OF 168MM PROJECTILES (8/PALLET) IN A TRAILER HAVING 36'-0" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 52-UNIT LOAD OF 155MM SEPARATE LOADING PROJECTILES PALLETIZED 8 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS.
2. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 4 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM AXLES APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 4. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE SEVENTEEN (17) PALLETS LONG IN LIEU OF TWO. THE 1-WIDE PORTION OF THE LOAD SHOULD BE SIX (6) LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE SIX (6) PALLETS LONG IN LIEU OF TWENTY-ONE. ADJUST THE LENGTHS OF THE SIDE SPACERS, THE STRAPPING BOARDS, AND THE SIDE GATES, PIECES MARKED ① THRU ③.
3. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, FIFTY-THREE (53) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY INCREASING THE REAR 2-WIDE PORTION OF THE LOAD TO TWENTY-TWO (22) PALLETS IN LENGTH AND DECREASING THE 1-WIDE PORTION TO FIVE (5) PALLETS. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION SEVENTEEN (17) PALLETS LONG, THE 1-WIDE PORTION FIVE (5) PALLETS LONG, AND THE REAR 2-WIDE PORTION SEVEN (7) PALLETS LONG. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT FIFTY-THREE (53) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
4. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF FIFTY-ONE (51) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, REDUCE THE REAR 2-WIDE PORTION TO TWENTY (20) PALLETS LONG AND INCREASE THE 1-WIDE PORTION TO SEVEN (7) PALLETS LONG. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER AND/OR FURTHER REDUCTION OF THE "WESTERN" LOAD CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.
5. THE LOAD AS SHOWN IS BASED ON AN ITEM WEIGHT OF 800 POUNDS. IF THE PALLET WEIGHT IS IN EXCESS OF 800 POUNDS, IT MAY BE NECESSARY TO DECREASE THE QUANTITY OF PALLETS IN THE LOAD. THIS SHOULD BE ACCOMPLISHED BY INCREASING THE LENGTH OF THE 1-WIDE PORTION OF THE LOAD AND DECREASING THE LENGTH OF THE REAR 2-WIDE PORTION. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.



*THE DIMENSIONS IN COLUMN "D" ARE BASED ON PALLETS HAVING COVER HEIGHTS AS INDICATED BY THE DETAILS ON PAGE 3. ADJUST AS NECESSARY TO COMPENSATE FOR HEIGHT VARIATIONS.

STRUT BEARING GATE A CHART					
ITEM	DIMENSION				
	PAGE REF	A	B	C	D *
155MM	4	36"	6"	27"	27"
175MM 6/PALLET	6	42"	6-3/4"	24-1/4"	36-1/2"
8" 3/PALLET	10	42"	8"	26"	33"
8" 6/PALLET	12	42"	8"	26"	33"

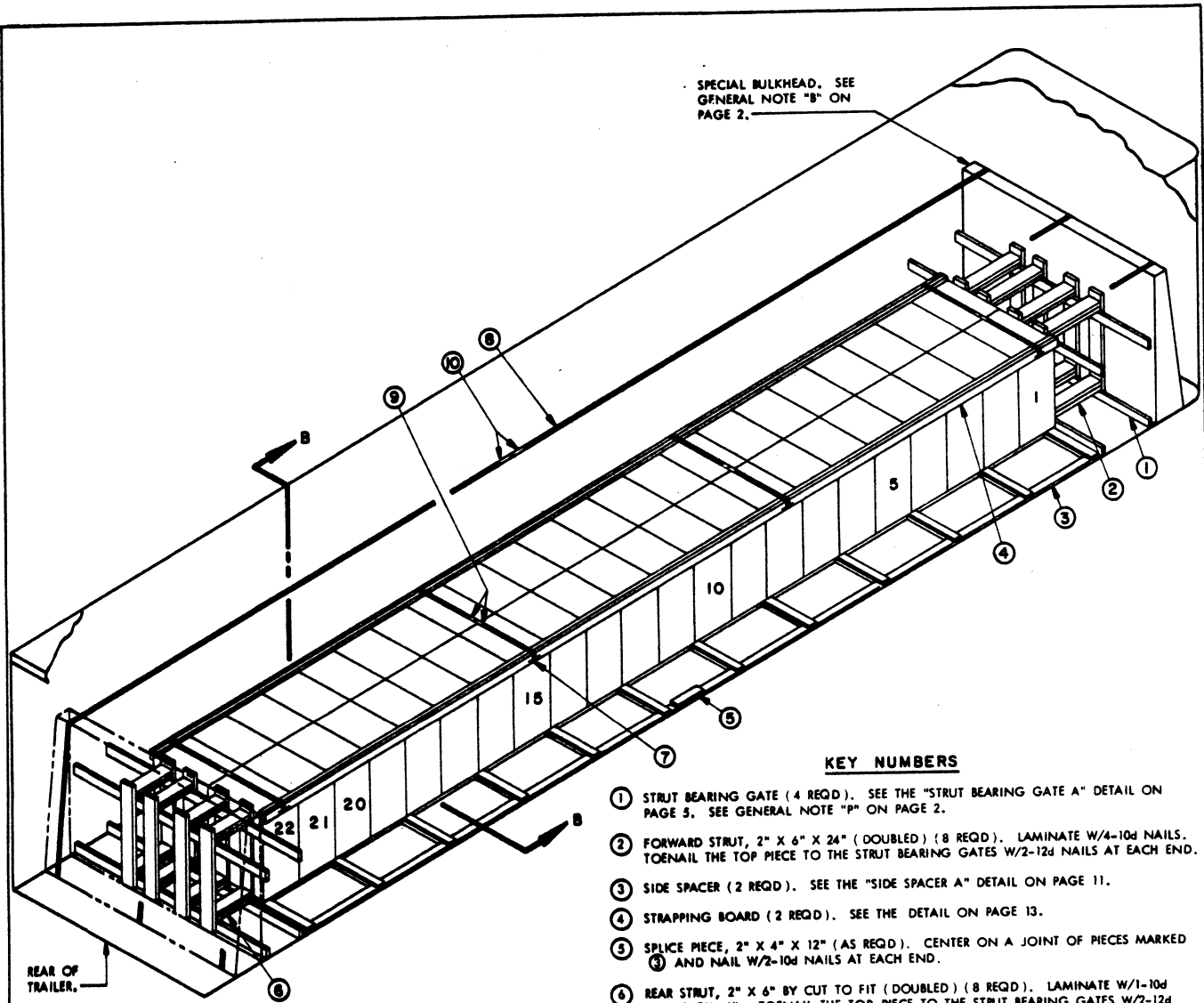
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	48	16
2" X 2"	52	18
2" X 4"	336	224
2" X 6"	58	58
NAILS	NO. REQD	POUNDS
6d (2")	216	1-1/2
10d (3")	239	4
12d (3-1/4")	32	3/4
STEEL STRAPPING, 1-1/4" X .035" ----- 44' REQD---7 LBS		
STEEL STRAPPING, 2" X .030" ----- 180' REQD---60 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 8 REQD---NIL		
SEAL FOR 2" STRAPPING ----- 18 REQD---4 LBS		
STAPLE FOR 1-1/4" STRAPPING----- 8 REQD---NIL		

●SEE SPECIAL NOTES 3 AND 5 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
155MM, 8/PALLET	52	41,600 LBS
DUNNAGE		868 LBS
TOTAL WEIGHT		42,468 LBS

52-UNIT LOAD OF 155MM PROJECTILES (8/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS

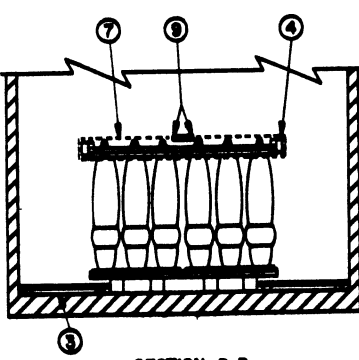


ISOMETRIC VIEW

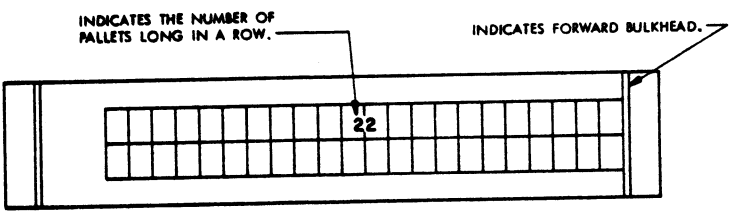
THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

KEY NUMBERS

- ① STRUT BEARING GATE (4 REQD). SEE THE "STRUT BEARING GATE A" DETAIL ON PAGE 5. SEE GENERAL NOTE "P" ON PAGE 2.
- ② FORWARD STRUT, 2" X 6" X 24" (DOUBLED) (8 REQD). LAMINATE W/4-10d NAILS. TOENAIL THE TOP PIECE TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ③ SIDE SPACER (2 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11.
- ④ STRAPPING BOARD (2 REQD). SEE THE DETAIL ON PAGE 13.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ③ AND NAIL W/2-10d NAILS AT EACH END.
- ⑥ REAR STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (8 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ⑦ BUNDLING STRAP, 1-1/4" X .035" X 11'-0" STEEL STRAPPING (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND STRAPPING BOARDS AND PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑧ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL FROM TWO (2) PIECES. SEE GENERAL NOTE "N" ON PAGE 2.
- ⑨ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.
- ⑩ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



SECTION B-B



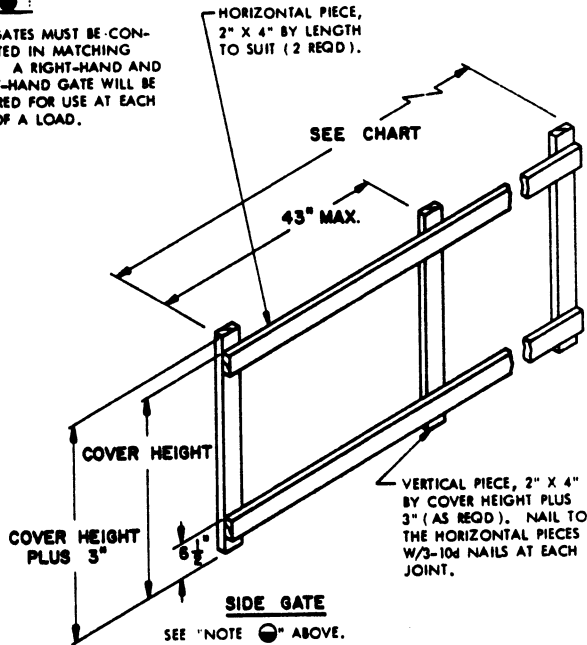
ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

44-UNIT LOAD OF 175MM PROJECTILES (6/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS

NOTE :

SIDE GATES MUST BE CONSTRUCTED IN MATCHING PAIRS. A RIGHT-HAND AND A LEFT-HAND GATE WILL BE REQUIRED FOR USE AT EACH SIDE OF A LOAD.



SEE "NOTE 1" ABOVE.

SIDE GATE CHART

155MM		175MM 6/PALLET		8" 3/PALLET		8" 6/PALLET	
NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE
5	5'-7-1/2"	5	7'-1"	4	38"	4	6'-6"
6	6'-9"	8	11'-4"	5	47-1/2"	5	8'-1/2"
7	7'-10-1/2"	9	12'-9"	6	57"	6	9'-8"
8	9'-0"	10	14'-2"	14	11'-1"	7	11'-4-1/2"
15	16'-10-1/2"	11	15'-7"	15	11'-10-1/2"	8	13'-0"
16	18'-0"	15	21'-3"	16	12'-8"	9	14'-7-1/2"
17	19'-1-1/2"	16	22'-8"	17	13'-5-1/2"	10	16'-3"
18	20'-3"	17	24'-1"	18	14'-3"	11	17'-10-1/2"
19	21'-4-1/2"	22	31'-2"	19	15'-0-1/2"	12	19'-6"
20	22'-4"			25	19'-9-1/2"	13	21'-1-1/2"
				26	20'-7"	14	22'-9"
				29	22'-11-1/2"	15	24'-4-1/2"
				30	23'-9"		
				31	24'-4-1/2"		
				32	25'-4"		

SPECIAL NOTES:

1. A 44-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 6 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS.
2. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 6 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM AXLES APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 6. OMIT PIECES MARKED ① AND ② AT THE FRONT OF THE LOAD AND POSITION THE FIRST PALLETS DIRECTLY AGAINST THE FORWARD BULKHEAD.
3. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, FORTY-SIX (46) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY CHANGING THE LENGTH OF THE FORWARD STRUTS, PIECES MARKED ②, TO 10" AND LOADING TWO ROWS OF TWENTY-THREE (23) PALLETS. ADJUST THE LENGTHS OF PIECES MARKED ③ AND ④. IN AN "EASTERN" FIXED TRAILER, LOAD TWO ROWS OF TWENTY-THREE (23) PALLETS DIRECTLY AGAINST THE FORWARD BULKHEAD. OMIT PIECES MARKED ② AND THE MOST FORWARD PIECES MARKED ① AND ADJUST THE LENGTHS OF PIECES MARKED ③ AND ④. NOTE THAT FORTY-SIX (46) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
4. THE DEPICTED LOADS CAN BE DECREASED BY MULTIPLES OF TWO PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF FORTY-TWO (42) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, INCREASE THE LENGTH OF THE FORWARD STRUTS, PIECES MARKED ②, TO 41". IF FORTY (40) PALLETS ARE TO BE LOADED, USE THE 41" FORWARD STRUTS, BUT THE CUT-TO-FIT REAR STRUTS, PIECES MARKED ⑥, WILL BE INCREASED APPROXIMATELY 17" IN LENGTH. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER CAN BE ACCOMPLISHED BY INCREASING THE LENGTH OF THE REAR STRUTS, PIECES MARKED ⑥. ADJUST THE LENGTHS OF PIECES MARKED ③ AND ④ AS NECESSARY.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	50	17
2" X 2"	63	21
2" X 4"	284	190
2" X 6"	110	110
NAILS	NO. REQD	POUNDS
6d (2")	216	1-1/2
10d (3")	222	3-1/2
12d (3-1/4")	64	1-1/4
STEEL STRAPPING, 1-1/4" X .035"	44' REQD	7 LBS
STEEL STRAPPING, 2" X .050"	180' REQD	60 LBS
SEAL FOR 1-1/4" STRAPPING	8 REQD	NIL
SEAL FOR 2" STRAPPING	18 REQD	4 LBS
STAPLE FOR 1-1/4" STRAPPING	8 REQD	NIL

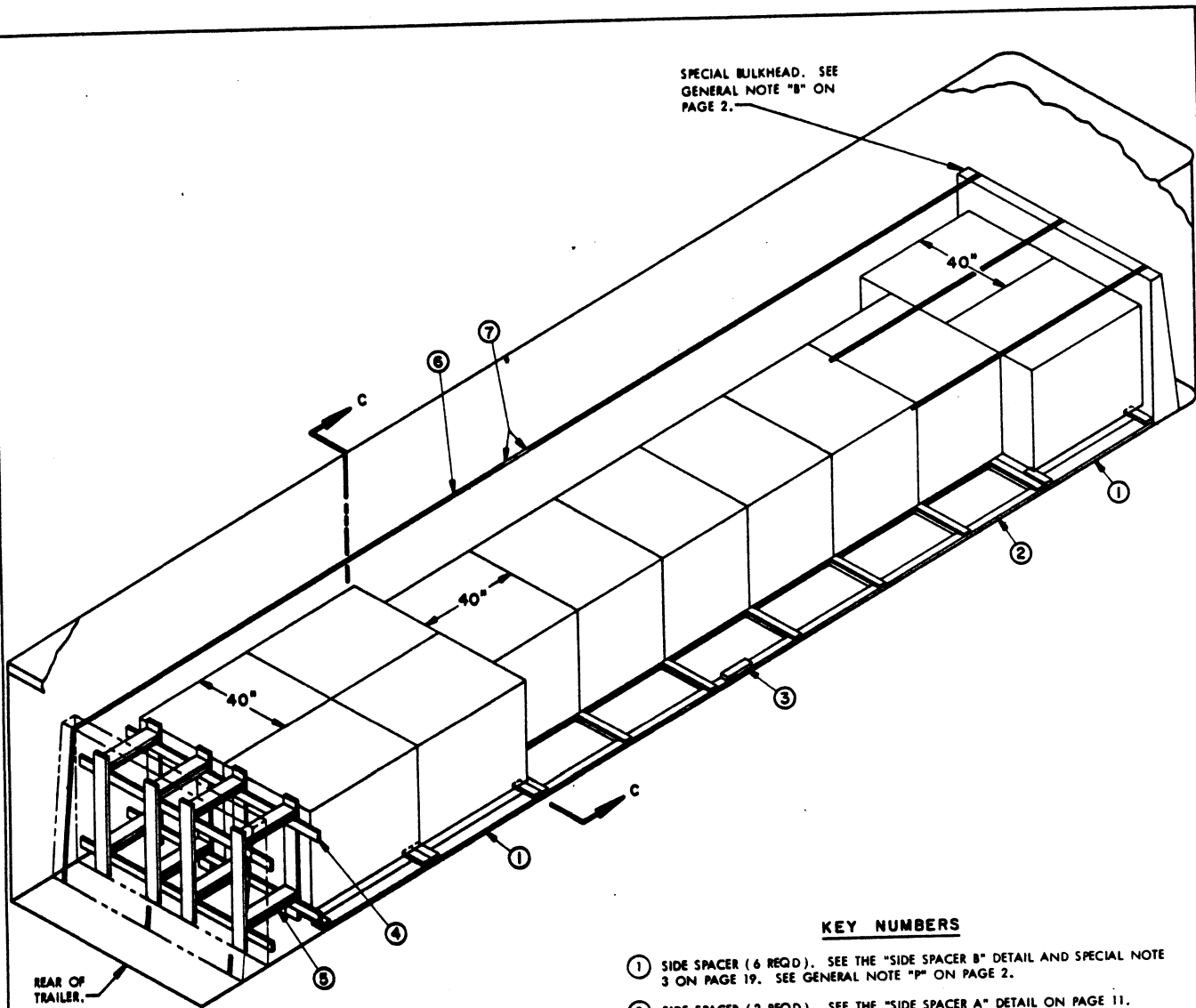
THIS BILL OF MATERIAL IS APPLICABLE FOR A SHIPMENT IN A "WESTERN" TRAILER AS SHOWN BY THE "ISOMETRIC VIEW" ON PAGE 6. FOR A SHIPMENT IN AN "EASTERN" TRAILER AS SHOWN BY THE "ALT LOAD PATTERN" VIEW, 254 LINEAR FEET OF 2 BY 4, 82 LINEAR FEET OF 2 BY 6, 174 (2-3/4 LBS) OF 10d NAILS, AND 32 (3/4 LB) OF 12d NAILS WILL BE REQUIRED IN LIEU OF THE SPECIFIED QUANTITIES.

* SEE SPECIAL NOTE 3 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
175MM, 6 PALLET	44	41,096 LBS
DUNNAGE		923 LBS
TOTAL WEIGHT		42,019 LBS

44-UNIT LOAD OF 175MM PROJECTILES (6/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS

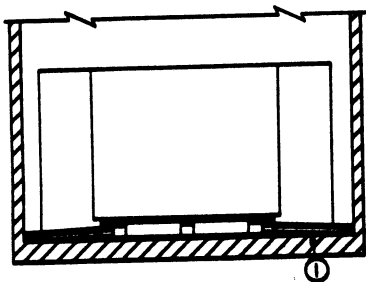


ISOMETRIC VIEW

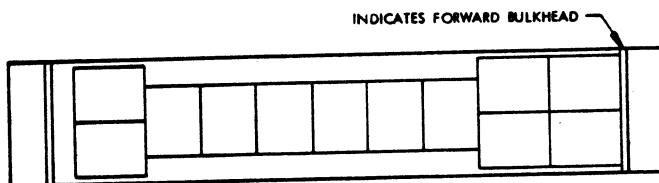
THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

KEY NUMBERS

- ① SIDE SPACER (6 REQD.). SEE THE "SIDE SPACER B" DETAIL AND SPECIAL NOTE 3 ON PAGE 19. SEE GENERAL NOTE "P" ON PAGE 2.
- ② SIDE SPACER (2 REQD.). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11.
- ③ SPLICE PIECE, 2" X 4" X 12" (AS REQD.). CENTER ON A JOINT OF PIECES MARKED ② AND NAIL W/2-10d NAILS AT EACH END.
- ④ STRUT BEARING GATE (2 REQD.). SEE THE "STRUT BEARING GATE B" DETAIL ON PAGE 9.
- ⑤ STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (8 REQD.). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ⑥ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD.). INSTALL FROM TWO (2) PIECES. SEE GENERAL NOTES "M" AND "N" ON PAGE 2.
- ⑦ SEAL FOR 2" STRAPPING (18 REQD., 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



SECTION C-C



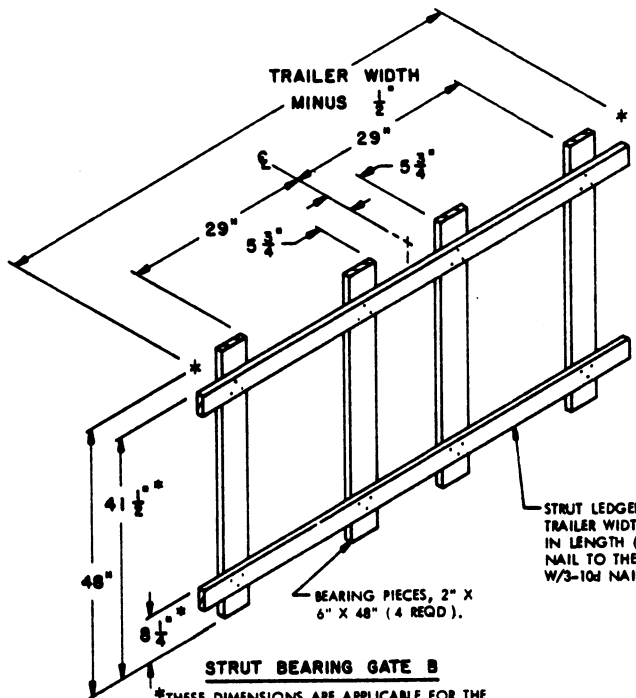
ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

12-UNIT LOAD OF 175MM PROJECTILES (20/PALLET) IN A TRAILER HAVING 38'-0" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 12-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 20 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS.
2. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 8 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 8. POSITION FOUR (4) PALLETS, TWO LONG BY TWO WIDE, AT THE FRONT OF THE TRAILER, FOLLOWED BY SIX (6) PALLETS ONE WIDE, AND FINISH THE LOAD WITH TWO (2) PALLETS SIDE BY SIDE.
3. TWELVE (12) PALLET UNITS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED; THIRTEEN (13) PALLET UNITS WILL EXCEED THE CAPACITY OF THE BULKHEAD SYSTEM.
4. THE DEPICTED LOADS CAN BE DECREASED TO SUIT THE QUANTITY TO BE SHIPPED. IF ELEVEN (11) PALLETS ARE TO BE LOADED, POSITION TWO (2) PALLETS SIDE BY SIDE AT EACH END OF THE LOAD AND SEVEN (7) PALLETS ONE WIDE IN BETWEEN. REDUCE THE QUANTITY REQUIRED OF THE SIDE SPACERS, PIECE MARKED ① AND ADJUST THE LENGTH OF THE SIDE SPACERS, PIECES MARKED ②. THE CUT-TO-FIT STRUTS AT THE REAR OF THE LOAD WILL BE INCREASED IN LENGTH BY APPROXIMATELY 11".



STRUT BEARING GATE B
 *THESE DIMENSIONS ARE APPLICABLE FOR THE 20-PROJECTILE PALLET UNIT WHEN THE SKIDS OF THE 4-PROJECTILE PALLET ARE INTACT. THE DIMENSIONS WILL BE 4-1/2" AND 38" WHEN THE SKIDS OF THE 4-PROJECTILE PALLET HAVE BEEN REMOVED.

STRUT LEDGER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BEARING PIECES W/3-10d NAILS AT EACH JOINT.

BEARING PIECES, 2" X 6" X 48" (4 REQD).

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	29	10
2" X 4"	143	96
2" X 6"	89	89
NAILS	NO. REQD	POUNDS
6d (2")	126	3/4
10d (3")	116	2
12d (3-1/4")	32	3/4
STEEL STRAPPING, 2" X .030"-----180' REQD-----		60 LBS
SEAL FOR 2" STRAPPING-----18 REQD-----		4 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
175MM, 20/PALLET	12	40,392 LBS
DUNNAGE		555 LBS
TOTAL WEIGHT		40,947 LBS

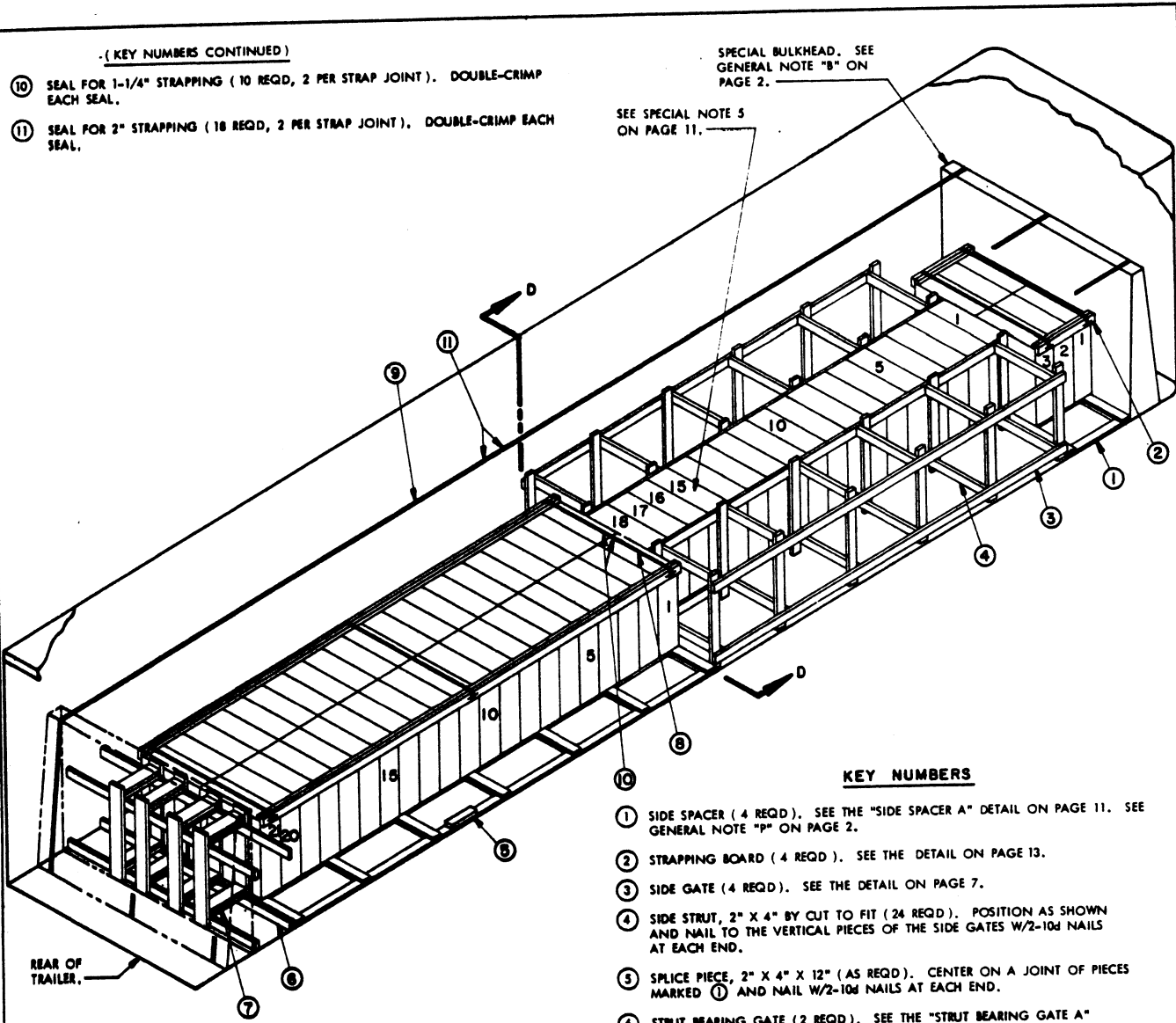
12-UNIT LOAD OF 175MM PROJECTILES (20/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS

-(KEY NUMBERS CONTINUED)

- ⑩ SEAL FOR 1-1/4" STRAPPING (10 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.
- ⑪ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.

SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

SEE SPECIAL NOTE 5 ON PAGE 11.



REAR OF TRAILER.

ISOMETRIC VIEW

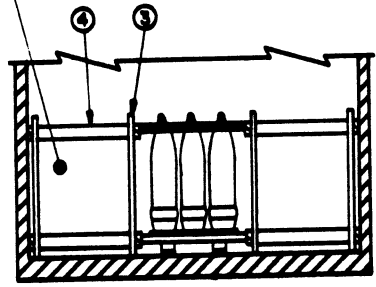
THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

KEY NUMBERS

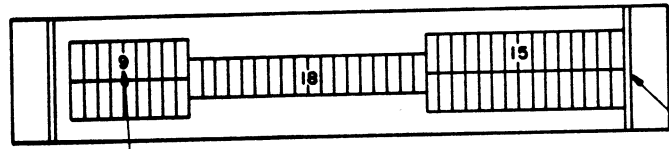
- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CUT TO FIT (24 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ① AND NAIL W/2-10d NAILS AT EACH END.
- ⑥ STRUT BEARING GATE (2 REQD). SEE THE "STRUT BEARING GATE A" DETAIL ON PAGE 5.
- ⑦ REAR STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (8 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" X 12'-0" STEEL STRAPPING (5 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND STRAPPING BOARDS AND PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑨ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL FROM TWO (2) PIECES. SEE GENERAL NOTE "N" ON PAGE 2.

(CONTINUED ABOVE)

THE 2'-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



SECTION D-D



ALT LOAD PATTERN

INDICATES THE NUMBER OF PALLETS LONG IN A PORTION OF A LOAD.

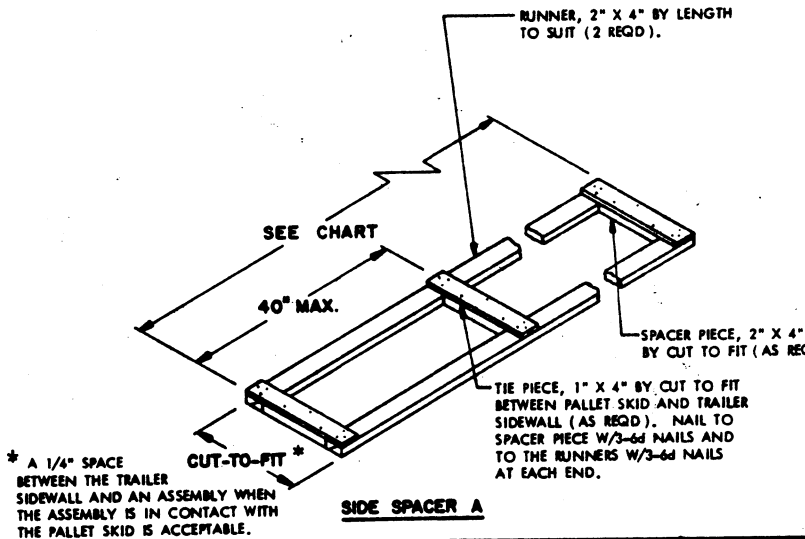
THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

INDICATES FORWARD BULKHEAD.

66-UNIT LOAD OF 8" PROJECTILES (3/PALLET) IN A TRAILER HAVING 36'-0" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 66-UNIT LOAD OF 8" SEPARATE LOADING PROJECTILES PALLETIZED 3 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS.
2. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 10 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 10. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE FIFTEEN (15) PALLETS LONG IN LIEU OF THREE. THE 1-WIDE PORTION SHOULD BE EIGHTEEN (18) LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE NINE (9) PALLETS LONG IN LIEU OF TWENTY-ONE. ADJUST THE LENGTHS OF THE SIDE SPACERS, STRAPPING BOARDS, AND SIDE GATES, PIECES MARKED ① THRU ③.
3. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, SIXTY-SEVEN (67) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY INCREASING THE FRONT 2-WIDE PORTION OF THE LOAD TO FOUR (4) PALLETS IN LENGTH AND DECREASING THE 1-WIDE PORTION TO SEVENTEEN (17) PALLETS. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION SIXTEEN (16) PALLETS LONG, THE 1-WIDE PORTION SEVENTEEN (17) PALLETS LONG, AND THE REAR 2-WIDE PORTION NINE (9) PALLETS LONG. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT SIXTY-SEVEN (67) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
4. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF SIXTY-FIVE (65) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, REDUCE THE LENGTH OF THE REAR 2-WIDE PORTION BY ONE (1) PALLET AND INCREASE THE LENGTH OF THE 1-WIDE PORTION BY ONE (1) PALLET. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER AND/OR FURTHER REDUCTION OF THE "WESTERN" LOAD CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.
5. LOADS HAVING 42 PALLETS LONG ARE SHOWN, BASED ON A PALLET LENGTH OF 9'-1/2". IF THE PALLET LENGTH IS GREATER THAN 9'-1/2", OR IF AS LOADING PROGRESSES IT IS FOUND THAT THE LOAD LENGTH IS INCREASING BY MORE THAN 9'-5/8" PER PALLET, IT WILL BE POSSIBLE TO LOAD ONLY 41 PALLETS LONG. IN ORDER TO RETAIN THE SAME LOAD QUANTITY IN A "WESTERN" TRAILER, IT WILL BE NECESSARY TO POSITION SIXTEEN (16) PALLETS IN THE 1-WIDE PORTION OF THE LOAD, FOLLOWED BY TWENTY-TWO (22) PALLETS LONG IN THE REAR 2-WIDE PORTION. IN AN "EASTERN" TRAILER, POSITION SIXTEEN (16) PALLETS LONG IN BOTH THE FRONT 2-WIDE PORTION AND THE 1-WIDE PORTION. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.



* A 1/4" SPACE BETWEEN THE TRAILER SIDEWALL AND AN ASSEMBLY WHEN THE ASSEMBLY IS IN CONTACT WITH THE PALLET SKID IS ACCEPTABLE.

SIDE SPACER A

SIDE SPACER A CHART

155MM		175MM 6/PALLET		175MM 20/PALLET		8" 3/PALLET		8" 6/PALLET	
NO. LONG	LENGTH	NO. LONG	LENGTH	NO. LONG	LENGTH	NO. LONG	LENGTH	NO. LONG	LENGTH
2	27"	6	8'-6"	2	6'-8"	3	28-1/2"	1	19-1/2"
6	6'-9"	7	9'-11"	3	10'-0"	4	38"	2	39"
7	7'-10-1/2"	8	11'-4"	6	20'-0"	5	47-1/2"	3	58-1/2"
8	9'-0"	9	12'-9"	7	23'-4"	6	57"	4	6'-6"
9	10'-1-1/2"	10	14'-2"	8	26'-8"	8	6'-4"	5	8'-1-1/2"
10	11'-3"	11	15'-7"			9	7'-1-1/2"	6	9'-8"
11	12'-4-1/2"	12	17'-0"			10	7'-11"	7	11'-4-1/2"
17	19'-1-1/2"	13	18'-5"			12	9'-6"	8	13'-0"
20	22'-6"	21	29'-9"			13	10'-3-1/2"	11	17'-10-1/2"
21	23'-7-1/2"	22	31'-2"			15	11'-10-1/2"	12	19'-6"
22	24'-9"	23	32'-7"			16	12'-8"	13	21'-1-1/2"
						20	15'-10"		
						21	16'-6-1/2"		

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	33	11
2" X 2"	38	13
2" X 4"	365	244
2" X 6"	52	32
NAILS	NO. REQD	POUNDS
6d (2")	162	1
10d (3")	360	5-3/4
12d (3-1/4")	32	3/4
STEEL STRAPPING, 1-1/4" X .035"-----60' REQD-----		9 LBS
STEEL STRAPPING, 2" X .050"-----180' REQD-----		60 LBS
SEAL FOR 1-1/4" STRAPPING-----	10 REQD-----	NIL
SEAL FOR 2" STRAPPING-----	18 REQD-----	4 LBS
STAPLE FOR 1-1/4" STRAPPING-----	10 REQD-----	NIL

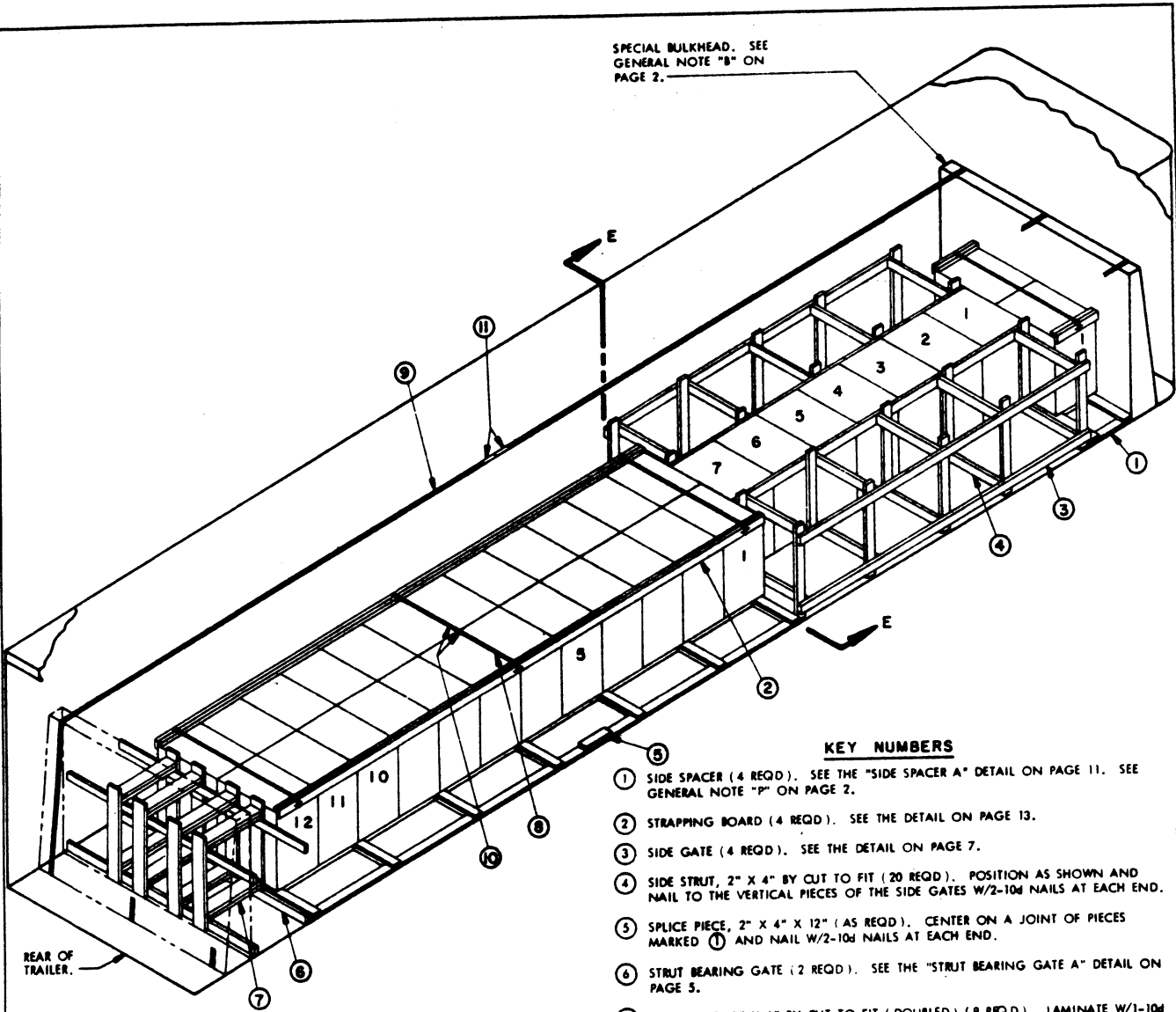
*SEE SPECIAL NOTE 3 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
8", 3/PALLET	66*	41,778 LBS
DUNNAGE		881 LBS
TOTAL WEIGHT-----		42,659 LBS

66-UNIT LOAD OF 8" PROJECTILES (3/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS

SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.



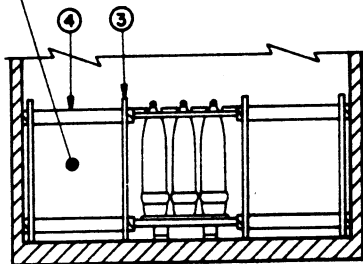
KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CUT TO FIT (20 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ① AND NAIL W/2-10d NAILS AT EACH END.
- ⑥ STRUT BEARING GATE (2 REQD). SEE THE "STRUT BEARING GATE A" DETAIL ON PAGE 5.
- ⑦ REAR STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (8 REQD). LAMINATE W/1-10d NAIL EVERY 6". TOENAIL THE TOP PIECE TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ⑧ BINDING STRAP, 1-1/4" X .035" X 12'-0" STEEL STRAPPING (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND STRAPPING BOARDS AND PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑨ BULKHEAD STRAP, 2" X .050" X 60'-0" STEEL STRAPPING (3 REQD). INSTALL FROM TWO (2) PIECES. SEE GENERAL NOTE "N" ON PAGE 2.
- ⑩ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.
- ⑪ SEAL FOR 2" STRAPPING (18 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.

ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

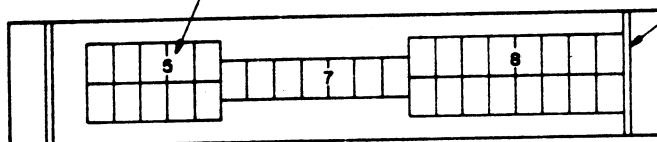
THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



SECTION E-E

INDICATES NUMBER OF PALLETS LONG IN A PORTION OF A LOAD.

INDICATES FORWARD BULKHEAD.



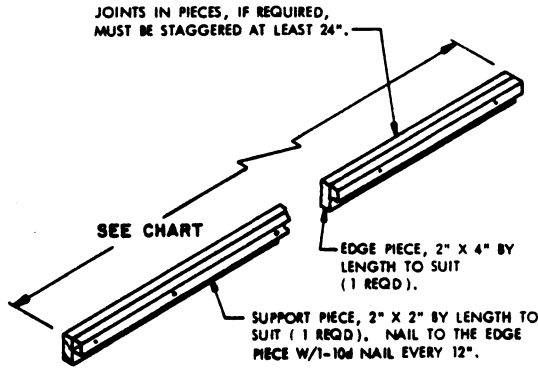
ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

33-UNIT LOAD OF 8" PROJECTILES (6/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 33-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 6 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 35'-0" BETWEEN THE INSTALLED BULKHEADS.
2. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 12 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 12. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE EIGHT (8) PALLETS LONG IN LIEU OF ONE. THE 1-WIDE PORTION SHOULD BE SEVEN (7) LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE FIVE (5) PALLETS LONG IN LIEU OF TWELVE. ADJUST THE LENGTHS OF THE SIDE SPACERS, STRAPPING BOARDS AND SIDE GATES, PIECES MARKED ① THRU ③.
3. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, THIRTY-FOUR (34) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY INCREASING EITHER THE FRONT OR REAR 2-WIDE PORTION BY ONE (1) PALLET IN LENGTH AND DECREASING THE 1-WIDE PORTION TO SIX (6) PALLETS. THE SAME PROCEDURE IS APPLICABLE FOR AN "EASTERN" TRAILER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT THIRTY-FOUR (34) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
4. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF THIRTY-TWO (32) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, REDUCE THE REAR 2-WIDE PORTION BY ONE (1) PALLET AND INCREASE THE LENGTH OF THE 1-WIDE PORTION BY ONE (1) PALLET. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER AND/OR FURTHER REDUCTION OF THE "WESTERN" LOAD CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.



STRAPPING BOARD

STRAPPING BOARD CHART							
155MM		175MM 6/PALLET		8" 3/PALLET		8" 6/PALLET	
NO. LONG	LENGTH	NO. LONG	LENGTH	NO. LONG	LENGTH	NO. LONG	LENGTH
2	27"	6	8'-6"	3	28-1/2"	1	19-1/2"
6	6'-9"	7	9'-11"	4	38"	2	39"
7	7'-10-1/2"	8	11'-4"	5	47-1/2"	3	58-1/2"
8	9'-0"	9	12'-9"	6	57"	4	6'-6"
9	10'-1-1/2"	10	14'-2"	8	6'-4"	5	8'-1-1/2"
10	11'-3"	11	15'-7"	9	7'-1-1/2"	6	9'-8"
11	12'-4-1/2"	12	17'-0"	10	7'-11"	7	11'-4-1/2"
17	19'-1-1/2"	13	18'-5"	12	9'-6"	8	13'-0"
20	22'-4"	21	29'-9"	13	10'-3-1/2"	11	17'-10-1/2"
21	23'-7-1/2"	22	31'-2"	15	11'-10-1/2"	12	19'-6"
22	24'-9"	23	32'-7"	16	12'-8"	13	21'-1-1/2"
				20	15'-10"		
				21	16'-4-1/2"		

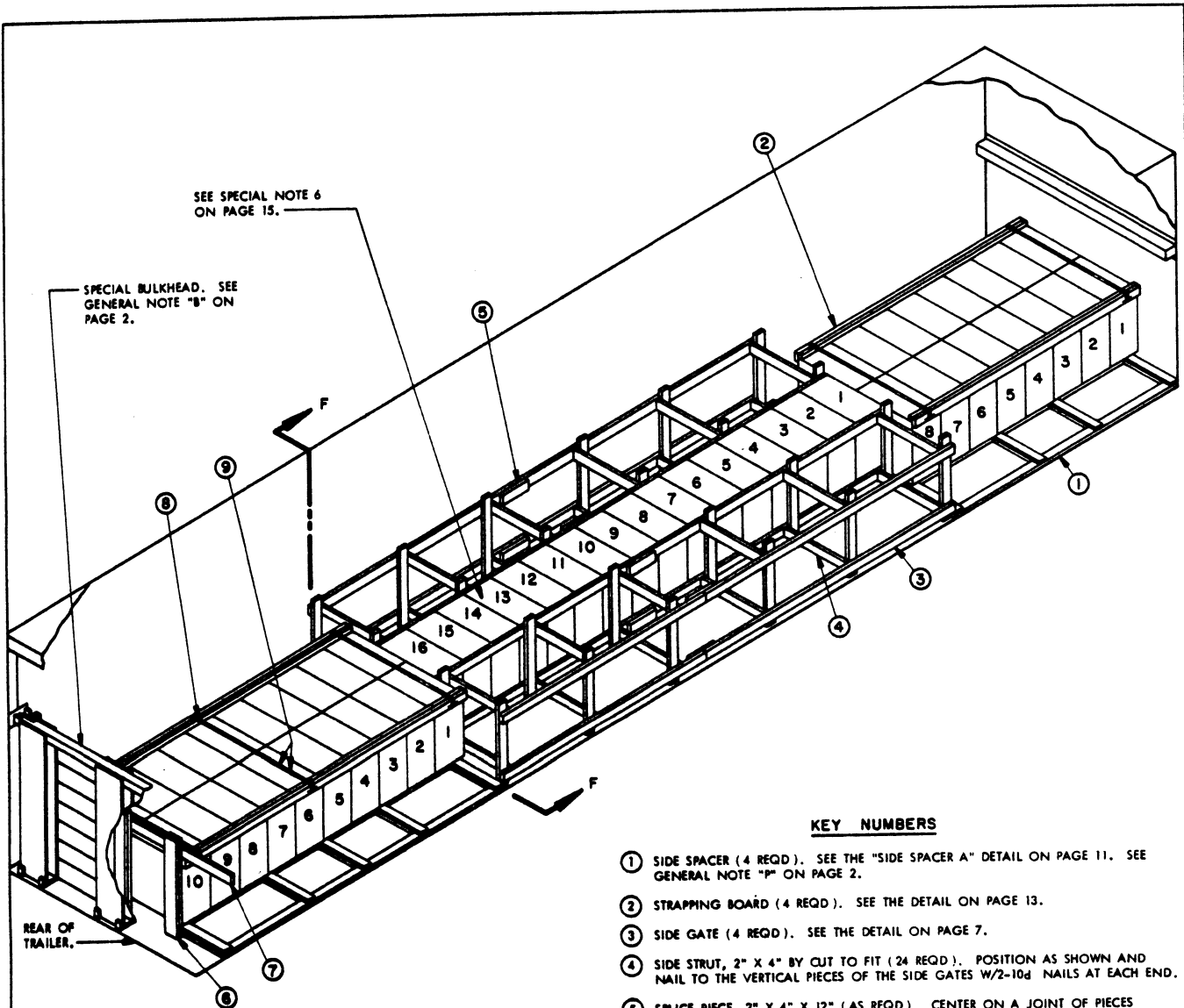
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	35	12
2" X 2"	43	15
2" X 4"	390	260
2" X 6"	64	64
NAILS	NO. REQD	POUNDS
6d (2")	162	1
10d (3")	339	5-1/4
12d (3-1/4")	32	3/4
STEEL STRAPPING, 1-1/4" X .035" ----- 48'	REQD -----	7 LBS
STEEL STRAPPING, 2" X .030" ----- 180'	REQD -----	60 LBS
SEAL FOR 1-1/4" STRAPPING -----	8 REQD -----	NIL
SEAL FOR 2" STRAPPING -----	18 REQD -----	4 LBS
STAPLE FOR 1-1/4" STRAPPING -----	8 REQD -----	NIL

*SEE SPECIAL NOTE 3 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
8", 6/PALLET	33	41,448 LBS
DUNNAGE		956 LBS
TOTAL WEIGHT		42,404 LBS

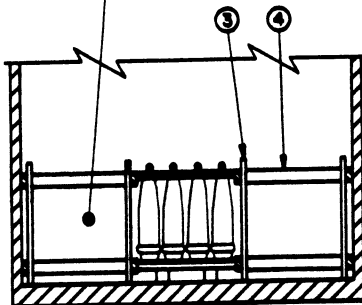
33-UNIT LOAD OF 8" PROJECTILES (6/PALLET) IN A TRAILER HAVING 35'-0" BETWEEN INSTALLED BULKHEADS



ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

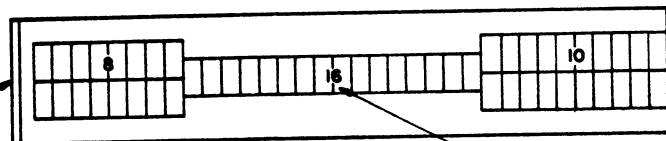
THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



SECTION F-F

KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CLT TO FIT (24 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ③ AND NAIL W/2-10d NAILS ON EACH SIDE OF THE JOINT.
- ⑥ SOLID FILL, 6" WIDE BY 40" LONG BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE PALLETS AND THE BULKHEAD (3 REQD). LAMINATE W/4 APPLICABLY SIZED NAILS. POSITION ONE PIECE FLUSH WITH EACH SIDE OF A PALLET ROW AND ONE CENTERED ON THE JOINT BETWEEN THE ROWS.
- ⑦ TIE PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD). NAIL TO THE SOLID FILL W/3-10d NAILS AT EACH JOINT.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" X 11'-6" STEEL STRAPPING (5 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE STRAPPING BOARDS AND THE PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑨ SEAL FOR 1-1/4" STRAPPING (10 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

INDICATES NUMBER OF PALLETS LONG IN A PORTION OF A LOAD.

52-UNIT LOAD OF 155MM PROJECTILES (8/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 52-UNIT LOAD OF 155MM SEPARATE LOADING PROJECTILES PALLETIZED 8 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR.
2. STEEL STRAPPING BETWEEN THE BULKHEADS IS NOT REQUIRED FOR THIS SYSTEM PROVIDING THE BULKHEAD RETAINER TUBE ASSEMBLY OF THE REAR BULKHEAD IS CONSTRUCTED OF 3/8" THICK STEEL. IF THE BULKHEAD RETAINER TUBE ASSEMBLY IS MADE FROM 3/16" THICK STEEL, THREE (3) EACH 2" X .050" X 44'-0" LONG STEEL STRAPS WILL BE EMPLOYED FOR TYING THE BULKHEADS TOGETHER.
3. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 14 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 14. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE TEN (10) PALLETES LONG IN LIEU OF EIGHT. THE 1-WIDE PORTION OF THE LOAD SHOULD BE SIXTEEN (16) PALLETES LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE EIGHT (8) PALLETES LONG IN LIEU OF TEN. ADJUST THE LENGTHS OF THE SIDE SPACERS, STRAPPING BOARDS, AND SIDE GATES, PIECES MARKED ① THRU ③.
4. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, FIFTY-THREE (53) PALLETES CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY INCREASING THE REAR 2-WIDE PORTION OF THE LOAD TO ELEVEN (11) PALLETES IN LENGTH AND DECREASING THE 1-WIDE PORTION TO FIFTEEN (15) PALLETES. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION ELEVEN (11) PALLETES LONG, THE 1-WIDE PORTION FIFTEEN (15) PALLETES LONG, AND THE REAR 2-WIDE PORTION EIGHT (8) PALLETES LONG. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT FIFTY-THREE (53) PALLETES IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
5. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETES IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF FIFTY-ONE (51) PALLETES ARE TO BE LOADED IN A "WESTERN" TRAILER, REDUCE THE FRONT 2-WIDE PORTION TO SEVEN (7) PALLETES LONG AND INCREASE THE 1-WIDE PORTION TO SEVENTEEN (17) PALLETES LONG. FOR A 50-PALLET SHIPMENT, REDUCE BOTH THE FRONT AND REAR 2-WIDE PORTIONS BY ONE PALLET IN LENGTH AND INCREASE THE 1-WIDE PORTION BY TWO PALLETES. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER AND/OR FURTHER REDUCTION OF THE "WESTERN" LOAD CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.
6. LOADS HAVING 34 PALLETES LONG ARE SHOWN, BASED ON A PALLET LENGTH OF 13'-1/2". IF THE PALLET LENGTH IS GREATER THAN 13'-1/2", OR IF AS LOADING PROGRESSES IT IS FOUND THAT THE LOAD LENGTH IS INCREASING BY MORE THAN 13'-1/2" PER PALLET, IT WILL BE POSSIBLE TO LOAD ONLY 33 PALLETES LONG. IN ORDER TO RETAIN THE SAME LOAD QUANTITY IN A "WESTERN" TRAILER, IT WILL BE NECESSARY TO POSITION FOURTEEN (14) PALLETES IN THE 1-WIDE PORTION OF THE LOAD, FOLLOWED BY ELEVEN (11) PALLETES LONG IN THE REAR 2-WIDE PORTION. IN AN "EASTERN" TRAILER, POSITION ELEVEN (11) PALLETES LONG IN THE FRONT 2-WIDE PORTION AND FOURTEEN (14) PALLETES IN THE 1-WIDE PORTION. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.

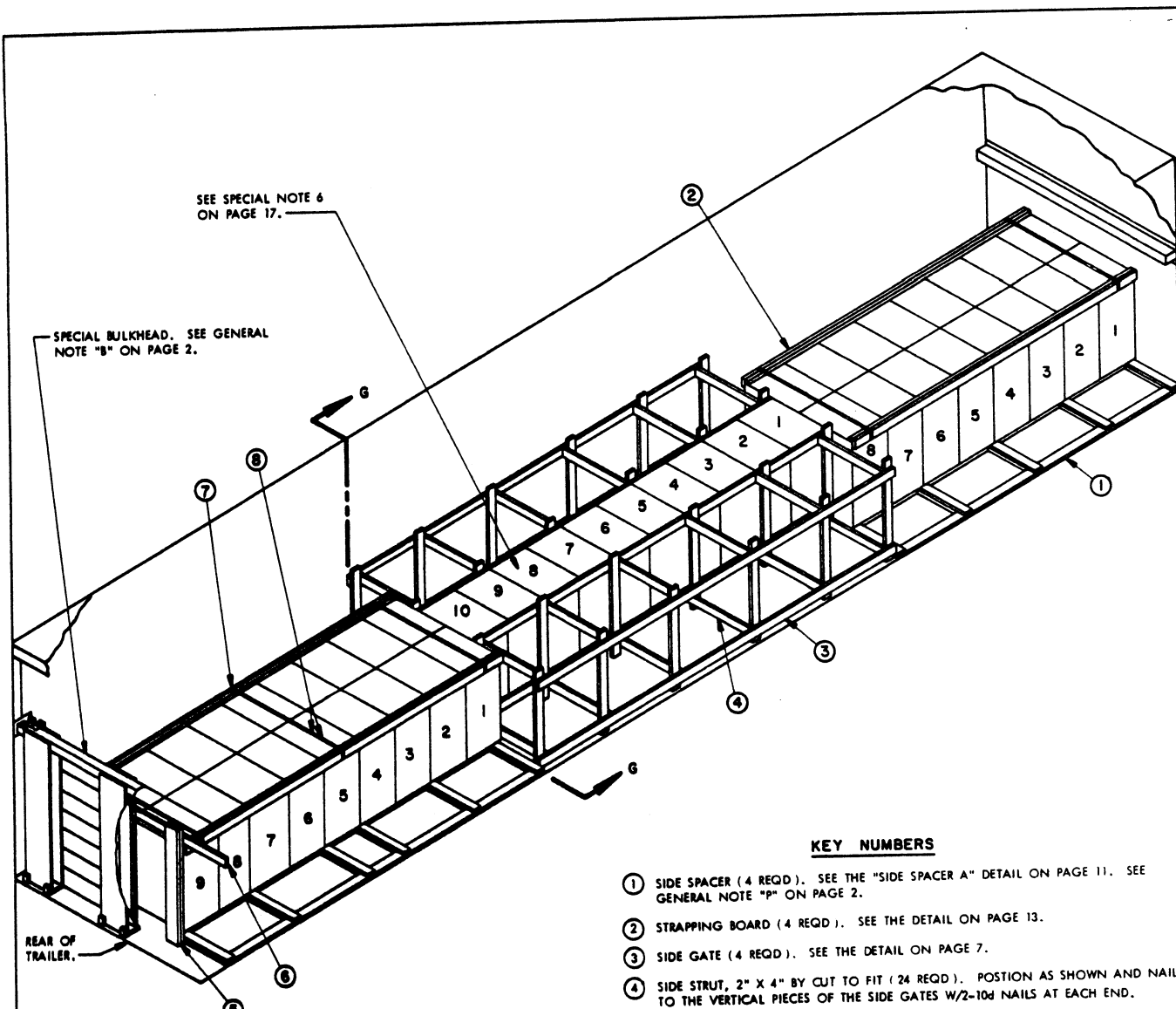
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	36	12
2" X 2"	41	14
2" X 4"	490	267
2" X 6"	20	20
NAILS	NO. REQD	POUNDS
6d (2")	162	1
10d (3")	333	3-1/4
STEEL STRAPPING, 1-1/4" X .085" - 58' REQD-----		9 LBS
SEAL FOR 1-1/4" STRAPPING -----	10 REQD-----	NIL
STAPLE FOR 1-1/4" STRAPPING-----	10 REQD-----	NIL

*SEE SPECIAL NOTE 4 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
155MM, 8/PALLET-----	52-----*	41,600 LBS
DUNNAGE-----		848 LBS
TOTAL WEIGHT-----		42,448 LBS

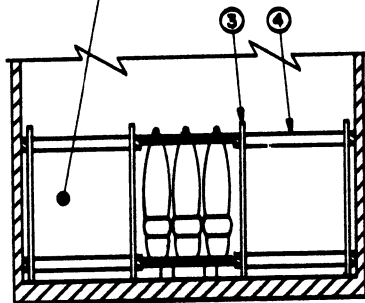
52-UNIT LOAD OF 155MM PROJECTILES (8/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS



ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION. SEE SPECIAL NOTE 3 ON PAGE 17.

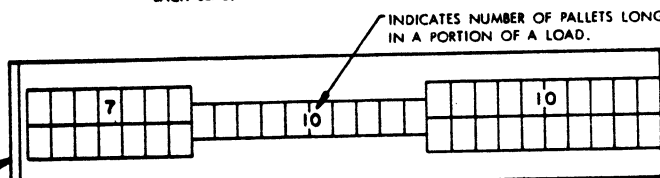
THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



SECTION G-G

KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CUT TO FIT (24 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SOLID FILL, 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE PALLETS AND THE BULKHEAD (3 REQD). LAMINATE W/4 APPLICABLY SIZED NAILS. POSITION ONE PIECE FLUSH WITH EACH SIDE OF A PALLET ROW AND ONE CENTERED ON THE JOINT BETWEEN THE ROWS.
- ⑥ TIE PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD). NAIL TO THE SOLID FILL W/3-10d NAILS AT EACH JOINT.
- ⑦ BUNDLING STRAP, 1-1/4" X .035" X 11'-0" STEEL STRAPPING (5 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE STRAPPING BOARDS AND THE PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑧ SEAL FOR 1-1/4" STRAPPING (10 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

44-UNIT LOAD OF 175MM PROJECTILES (6/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 44-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 6 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR.
2. STEEL STRAPPING BETWEEN THE BULKHEADS IS NOT REQUIRED FOR THIS SYSTEM PROVIDING THE BULKHEAD RETAINER TUBE ASSEMBLY OF THE REAR BULKHEAD IS CONSTRUCTED OF 3/8" THICK STEEL. IF THE BULKHEAD RETAINER TUBE ASSEMBLY IS MADE FROM 3/16" THICK STEEL, THREE (3) EACH 2" X .050" X 44'-0" LONG STEEL STRAPS WILL BE EMPLOYED FOR TYING THE BULKHEADS TOGETHER.
3. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 16 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER) PROVIDING THE EMPTY WEIGHT ON THE DRIVE WHEELS IS NOT GREATER THAN 11,200 POUNDS. IF THE DRIVE WHEEL WEIGHT IS GREATER THAN THAT, THE LOADING PATTERN MUST BE ADJUSTED. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE SIX (6) PALLETS LONG IN LIEU OF EIGHT. THE 1-WIDE PORTION OF THE LOAD SHOULD BE TEN (10) PALLETS LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE ELEVEN (11) PALLETS LONG IN LIEU OF NINE. FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 16. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE TEN (10) PALLETS LONG IN LIEU OF EIGHT. THE 1-WIDE PORTION OF THE LOAD SHOULD BE TEN (10) PALLETS LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE SEVEN (7) PALLETS LONG IN LIEU OF NINE. ADJUST THE LENGTHS OF THE SIDE SPACERS, STRAPPING BOARDS, AND SIDE GATES, PIECES MARKED ① THRU ③.
4. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, FORTY-FIVE (45) OR FORTY-SIX (46) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. FORTY-FIVE CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY LOADING THE FRONT 2-WIDE PORTION SIX (6) PALLETS LONG, THE 1-WIDE PORTION NINE (9) PALLETS LONG, AND THE REAR 2-WIDE PORTION TWELVE (12) PALLETS LONG. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION ELEVEN (11) PALLETS LONG, THE 1-WIDE PORTION NINE (9) PALLETS LONG, AND THE REAR 2-WIDE PORTION SEVEN (7) PALLETS LONG FOR A 45-PALLET LOAD. FORTY-SIX CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY LOADING THE FRONT 2-WIDE PORTION SIX (6) PALLETS LONG, THE 1-WIDE PORTION EIGHT (8) PALLETS LONG, AND THE REAR 2-WIDE PORTION THIRTEEN (13) PALLETS LONG. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION TWELVE (12) PALLETS LONG, THE 1-WIDE PORTION EIGHT (8) PALLETS LONG, AND THE REAR 2-WIDE PORTION SEVEN (7) PALLETS LONG FOR A 46-PALLET LOAD. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT FORTY-SIX (46) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
5. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF FORTY-THREE (43) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, REDUCE THE FRONT 2-WIDE PORTION TO SEVEN (7) PALLETS LONG AND INCREASE THE 1-WIDE PORTION TO ELEVEN (11) PALLETS LONG. FORTY-THREE PALLETS SHOULD BE LOADED IN AN "EASTERN" TRAILER BY REDUCING THE REAR 2-WIDE PORTION TO SIX (6) PALLETS LONG AND INCREASING THE 1-WIDE PORTION TO ELEVEN (11) PALLETS LONG. FURTHER REDUCTION OF LOADS CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.
6. LOADS HAVING 27 PALLETS LONG ARE SHOWN, BASED ON A PALLET LENGTH OF 17". IF THE PALLET LENGTH IS GREATER THAN 17", OR IF AS LOADING PROGRESSES IT IS FOUND THAT THE LOAD LENGTH IS INCREASING BY MORE THAN 17" PER PALLET, IT WILL BE POSSIBLE TO LOAD ONLY 26 PALLETS LONG. IN ORDER TO RETAIN THE SAME LOAD QUANTITY, IN A "WESTERN" TRAILER, IT WILL BE NECESSARY TO POSITION EIGHT (8) PALLETS IN THE 1-WIDE PORTION OF THE LOAD, FOLLOWED BY TEN (10) PALLETS LONG IN THE REAR 2-WIDE PORTION. IN AN "EASTERN" TRAILER, POSITION ELEVEN (11) PALLETS LONG IN THE FRONT 2-WIDE PORTION AND EIGHT (8) PALLETS IN THE 1-WIDE PORTION. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.

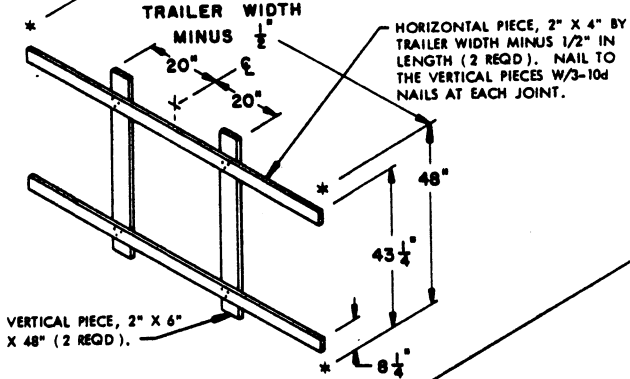
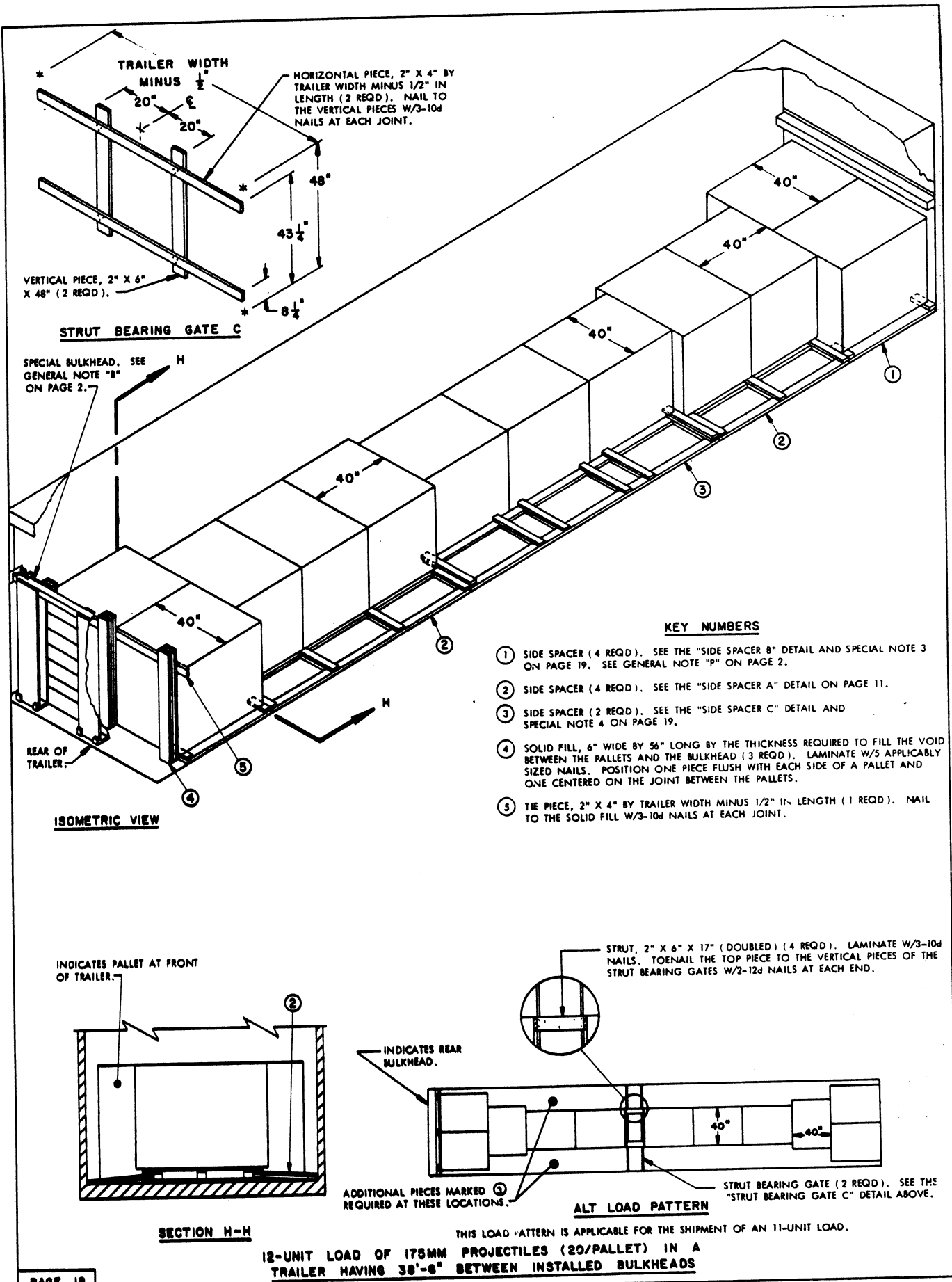
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	46	16
2" X 2"	49	17
2" X 4"	441	294
2" X 6"	24	24
NAILS	NO. REQD	POUNDS
6d (2")	198	1-1/4
10d (3")	311	5
STEEL STRAPPING, 1-1/4" X .035"-----35'	REQD-----	8 LBS
SEAL FOR 1-1/4" STRAPPING-----10	REQD-----	NIL
STAPLE FOR 1-1/4" STRAPPING-----10	REQD-----	NIL

*SEE SPECIAL NOTE 4 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
175MM, 6/PALLET-----	44*	41,096 LBS
DUNNAGE-----		892 LBS
TOTAL WEIGHT-----		41,988 LBS

44-UNIT LOAD OF 175MM PROJECTILES (6/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS



SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

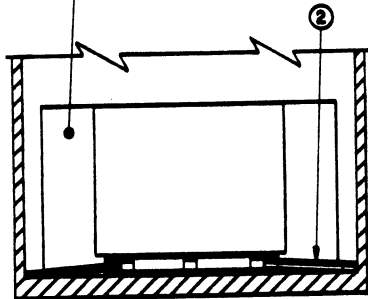
REAR OF TRAILER.

ISOMETRIC VIEW

KEY NUMBERS

- ① SIDE SPACER (4 REQD.). SEE THE "SIDE SPACER B" DETAIL AND SPECIAL NOTE 3 ON PAGE 19. SEE GENERAL NOTE "P" ON PAGE 2.
- ② SIDE SPACER (4 REQD.). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11.
- ③ SIDE SPACER (2 REQD.). SEE THE "SIDE SPACER C" DETAIL AND SPECIAL NOTE 4 ON PAGE 19.
- ④ SOLID FILL, 6" WIDE BY 56" LONG BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE PALLETS AND THE BULKHEAD (3 REQD.). LAMINATE W/5 APPLICABLY SIZED NAILS. POSITION ONE PIECE FLUSH WITH EACH SIDE OF A PALLET AND ONE CENTERED ON THE JOINT BETWEEN THE PALLETS.
- ⑤ TIE PIECE, 2" X 4" BY TRAILER WIDTH MINUS $\frac{1}{2}$ " IN LENGTH (1 REQD.). NAIL TO THE SOLID FILL W/3-10d NAILS AT EACH JOINT.

INDICATES PALLET AT FRONT OF TRAILER.



SECTION H-H

STRUT, 2" X 6" X 17" (DOUBLED) (4 REQD.). LAMINATE W/3-10d NAILS. TOENAIL THE TOP PIECE TO THE VERTICAL PIECES OF THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.

INDICATES REAR BULKHEAD.

ADDITIONAL PIECES MARKED ③ REQUIRED AT THESE LOCATIONS.

ALT LOAD PATTERN

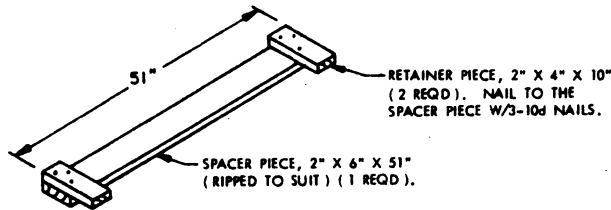
STRUT BEARING GATE (2 REQD.). SEE THE "STRUT BEARING GATE C" DETAIL ABOVE.

THIS LOAD PATTERN IS APPLICABLE FOR THE SHIPMENT OF AN 11-UNIT LOAD.

12-UNIT LOAD OF 175MM PROJECTILES (20/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS

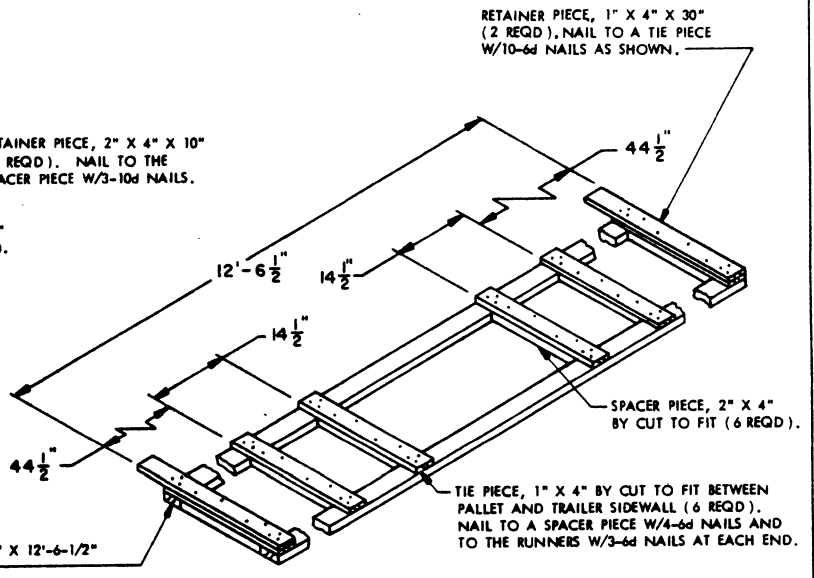
SPECIAL NOTES:

1. A 12-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 20 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR.
2. STEEL STRAPPING BETWEEN THE BULKHEADS IS NOT REQUIRED FOR THIS SYSTEM PROVIDING THE BULKHEAD RETAINER TUBE ASSEMBLY OF THE REAR BULKHEAD IS CONSTRUCTED OF 3/8" THICK STEEL. IF THE BULKHEAD RETAINER TUBE ASSEMBLY IS MADE FROM 3/16" THICK STEEL, THREE (3) EACH 2" X .050" X 44'-0" LONG STEEL STRAPS WILL BE EMPLOYED FOR TYING THE BULKHEADS TOGETHER.
3. THE "SIDE SPACER B" BRACING, PIECE MARKED ①, CAN BE ONLY PARTIALLY PRE-ASSEMBLED. ONLY ONE RETAINER PIECE OF AN ASSEMBLY, THE ONE ON OPPOSITE ENDS DEPENDING ON WHETHER THE ASSEMBLY IS FOR THE RIGHT OR LEFT SIDE OF THE LOAD, WILL BE APPLIED BEFORE INSTALLING. INSTALL THESE PARTIAL ASSEMBLIES PRIOR TO POSITIONING OF THE PALLETS IN THE 2-WIDE PORTION OF THE LOAD. NAIL THE OTHER RETAINER PIECE OF EACH ASSEMBLY AFTER THE PALLETS HAVE BEEN POSITIONED.
4. THE RETAINER PIECES OF EACH "SIDE SPACER C" ASSEMBLY, PIECE MARKED ③, SHOULD BE APPLIED AFTER BOTH THE SPACER ASSEMBLIES AND THE PALLETS HAVE BEEN POSITIONED.
5. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 18 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED EITHER IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER) OR IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER).
6. TWELVE (12) PALLET UNITS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED; THIRTEEN (13) PALLET UNITS WILL EXCEED THE CAPACITY OF THE BULKHEAD SYSTEM.
7. IF IT IS DESIRED TO SHIP LESS PALLETS THAN SHOWN, REFER TO THE "ALT LOAD PATTERN" AT THE BOTTOM OF PAGE 18 FOR LOADING GUIDANCE. NOTE THAT THE PIECES MARKED ② MUST BE SHORTENED TO 40", AND TWO (2) ADDITIONAL PIECES MARKED ③, CONSTRUCTED 8'-3" LONG, WILL BE REQUIRED. GATES AND STRUTS WILL BE INSTALLED AT THE LOCATION SHOWN AS LOADING PROGRESSES TO FILL SOME OF THE EXCESS LENGTH BETWEEN THE BULKHEADS.



SIDE SPACER B

THIS ASSEMBLY IS DESIGNED FOR USE AS LATERAL BRACING FOR THE 2-WIDE PORTION OF THE LOAD ON PAGES 8, 18, AND 28. SEE SPECIAL NOTE 3 ABOVE.



SIDE SPACER C

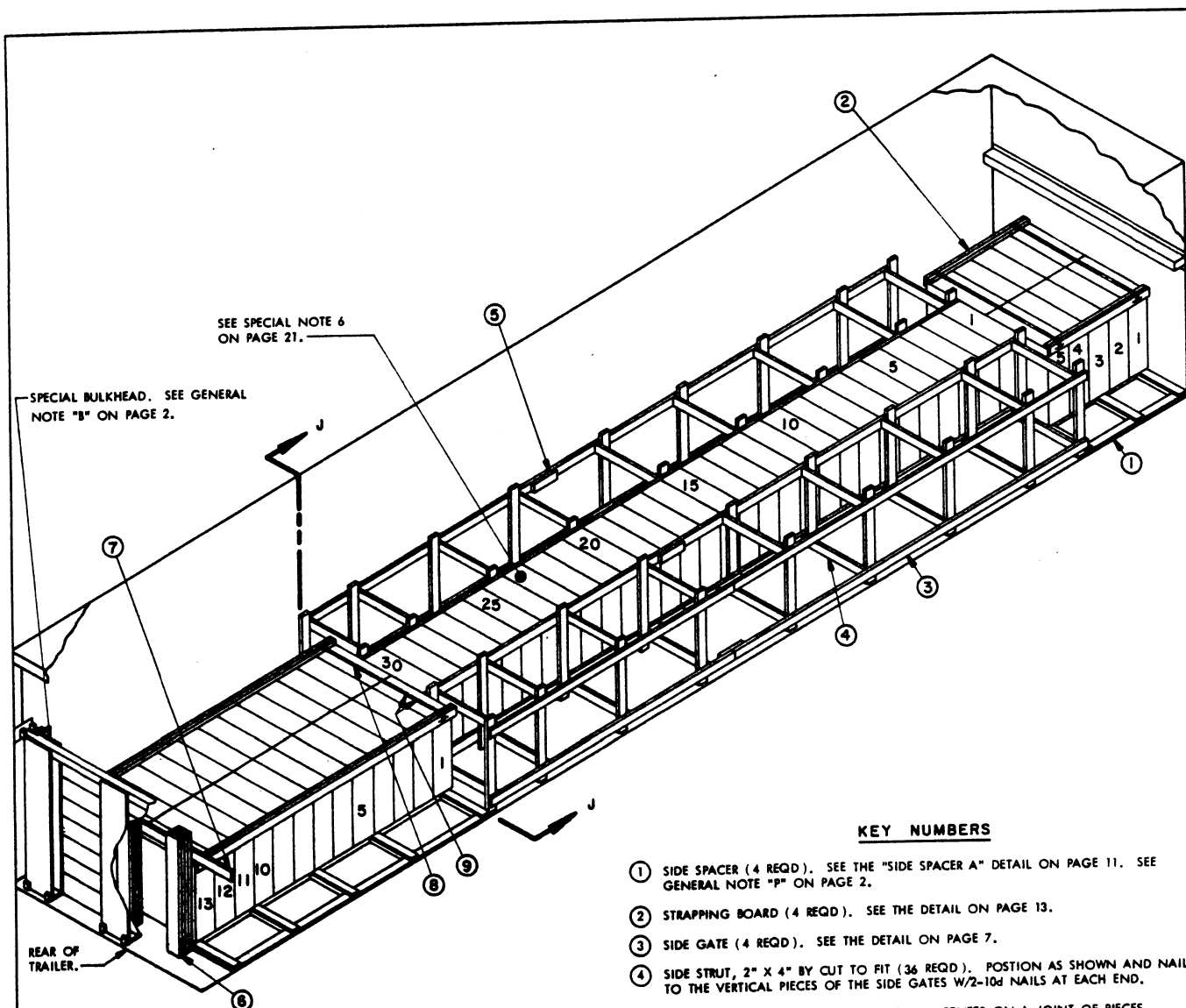
THIS ASSEMBLY IS DESIGNED FOR USE IN THE 1-WIDE PORTION OF THE LOAD ON PAGE 18 WHERE THE 40" DIMENSION OF THE UNIT IS ACROSS THE TRAILER. SEE SPECIAL NOTE 4 ABOVE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	64	22
1" X 6"	14	7
2" X 4"	170	114
2" X 6"	59	59
NAILS	NO. REQD	POUNDS
6d (2")	301	2
10d (3")	63	1

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
175MM, 20/PALLET	12	40,392 LBS
DUNNAGE		508 LBS
TOTAL WEIGHT		40,900 LBS

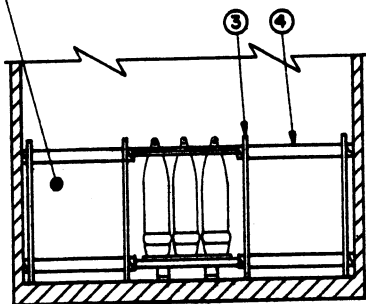
12-UNIT LOAD OF 175MM PROJECTILES (20/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS



ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

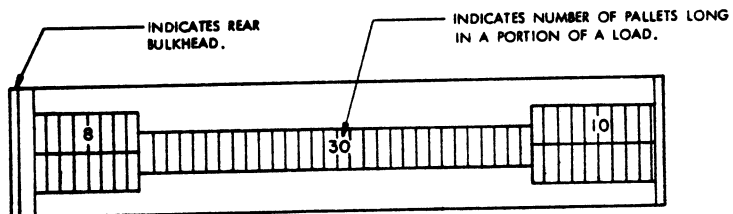
THE 2'-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



SECTION J-J

KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CUT TO FIT (36 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ③ AND NAIL W/2-10d NAILS ON EACH SIDE OF THE JOINT.
- ⑥ SOLID FILL, 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE VOID BETWEEN THE PALLETS AND THE BULKHEAD (3 REQD). LAMINATE W/4 APPLICABLY SIZED NAILS. POSITION ONE PIECE 2" FROM EACH SIDE OF A PALLET ROW AND ONE CENTERED ON THE JOINT BETWEEN THE ROWS.
- ⑦ TIE PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD). NAIL TO THE SOLID FILL W/3-10d NAILS AT EACH JOINT.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" X 12'-0" STEEL STRAPPING (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE STRAPPING BOARDS AND THE PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑨ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.



ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

SPECIAL NOTES:

1. A 66-UNIT LOAD OF 8" SEPARATE LOADING PROJECTILES PALLETIZED 3 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-4" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR.
2. STEEL STRAPPING BETWEEN THE BULKHEADS IS NOT REQUIRED FOR THIS SYSTEM PROVIDING THE BULKHEAD RETAINER TUBE ASSEMBLY OF THE REAR BULKHEAD IS CONSTRUCTED OF 3/8" THICK STEEL. IF THE BULKHEAD RETAINER TUBE ASSEMBLY IS MADE FROM 3/16" THICK STEEL, THREE (3) EACH 2" X .050" X 44'-0" LONG STEEL STRAPS WILL BE EMPLOYED FOR TYING THE BULKHEADS TOGETHER.
3. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 20 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM AXLES APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 20. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE TEN (10) PALLETS LONG IN LIEU OF FIVE. THE 1-WIDE PORTION OF THE LOAD SHOULD BE THIRTY (30) PALLETS LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE EIGHT (8) PALLETS LONG IN LIEU OF THIRTEEN. ADJUST THE LENGTHS OF THE SIDE SPACERS, STRAPPING BOARDS, AND SIDE GATES, PIECES MARKED ① THRU ③.
4. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, SIXTY-SEVEN (67) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY LOADING THE FRONT 2-WIDE PORTION SIX (6) PALLETS LONG, THE 1-WIDE PORTION TWENTY-NINE (29) PALLETS LONG, AND THE REAR 2-WIDE PORTION THIRTEEN (13) PALLETS LONG. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION TEN (10) PALLETS LONG, THE 1-WIDE PORTION TWENTY-NINE (29) PALLETS LONG, AND THE REAR 2-WIDE PORTION NINE (9) PALLETS LONG. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT SIXTY-SEVEN (67) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
5. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF SIXTY-FIVE (65) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, INCREASE THE 1-WIDE PORTION TO THIRTY-ONE (31) PALLETS LONG AND REDUCE THE REAR 2-WIDE PORTION TO TWELVE (12) PALLETS LONG. FOR A 64-PALLET SHIPMENT, REDUCE BOTH THE FRONT AND REAR 2-WIDE PORTIONS BY ONE PALLET IN LENGTH AND INCREASE THE 1-WIDE PORTION BY TWO PALLETS. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER AND/OR FURTHER REDUCTION OF THE "WESTERN" LOAD CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.
6. LOADS HAVING 48 PALLETS LONG ARE SHOWN, BASED ON A PALLET LENGTH OF 9'-1/2". IF THE PALLET LENGTH IS GREATER THAN 9'-1/2", OR IF AS LOADING PROGRESSES IT IS FOUND THAT THE LOAD LENGTH IS INCREASING BY MORE THAN 9'-1/2" PER PALLET, IT WILL BE POSSIBLE TO LOAD ONLY 47 PALLETS LONG. IN ORDER TO RETAIN THE SAME LOAD QUANTITY IN A "WESTERN" TRAILER, IT WILL BE NECESSARY TO POSITION TWENTY-EIGHT (28) PALLETS IN THE 1-WIDE PORTION OF THE LOAD, FOLLOWED BY FOURTEEN (14) PALLETS LONG IN THE REAR 2-WIDE PORTION. IN AN "EASTERN" TRAILER, POSITION ELEVEN (11) PALLETS LONG IN THE FRONT 2-WIDE PORTION AND TWENTY-EIGHT (28) PALLETS IN THE 1-WIDE PORTION. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY.

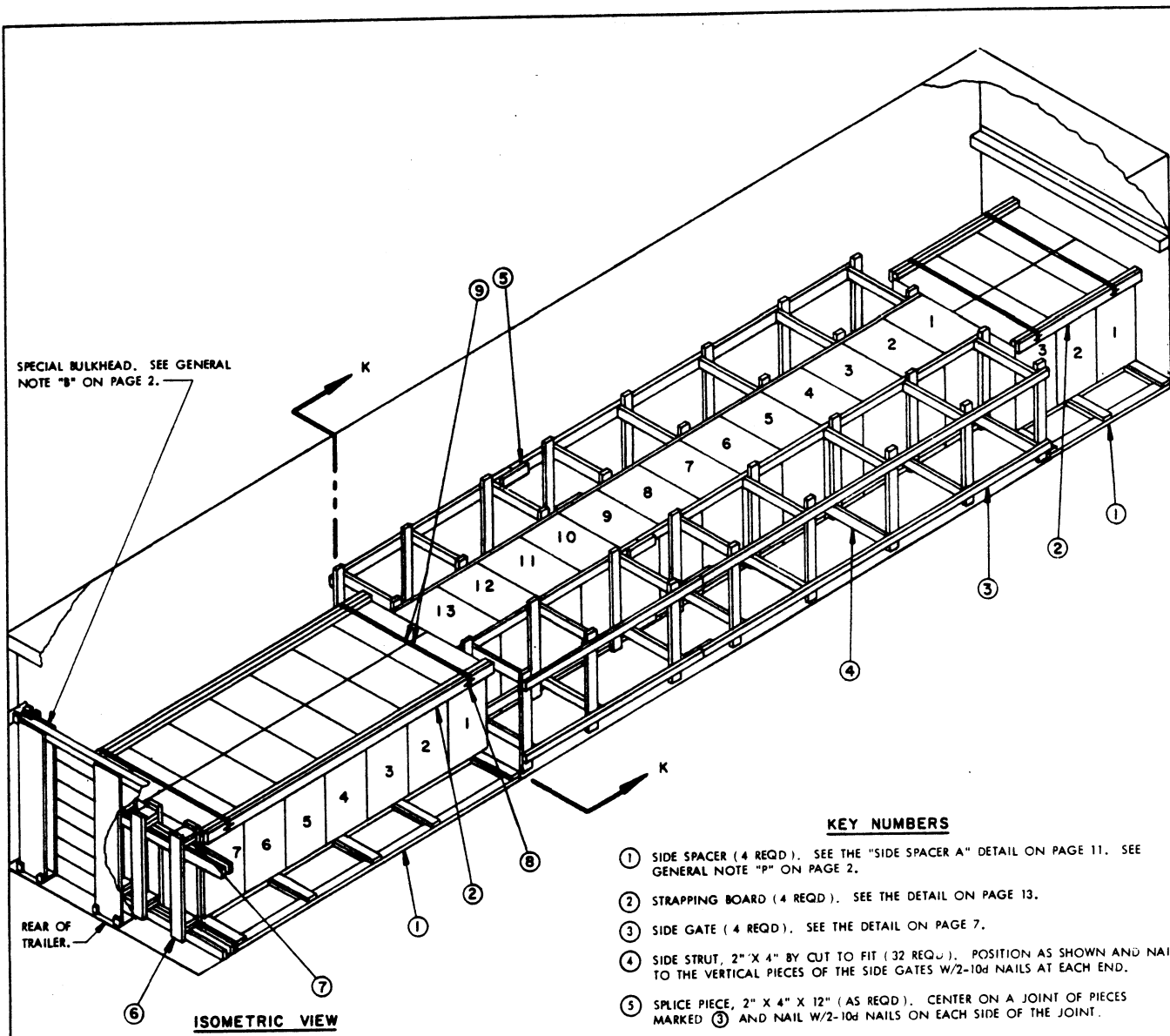
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	30	10
2" X 2"	29	29
2" X 4"	536	358
2" X 6"	48	48
NAILS	NO. REQD	POUNDS
6d (2")	192	1-1/4
10d (3")	435	3/4
STEEL STRAPPING, 1-1/4" X .055" — 48' REQD ————— 7 LBS		
SEAL FOR 1-1/4" STRAPPING ————— 8 REQD ————— NIL		
STAPLE FOR 1-1/4" STRAPPING ————— 8 REQD ————— NIL		

*SEE SPECIAL NOTE 4 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
8" PROJECTILE(3/PALLET)-66*	—————	41,778 LBS
DUNNAGE	—————	1,118 LBS
TOTAL WEIGHT		42,896 LBS

66-UNIT LOAD OF 8" PROJECTILES (3/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS



SPECIAL BULKHEAD. SEE GENERAL NOTE "B" ON PAGE 2.

REAR OF TRAILER.

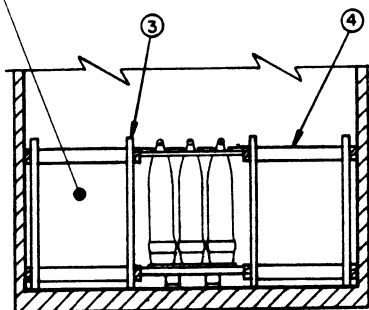
ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.

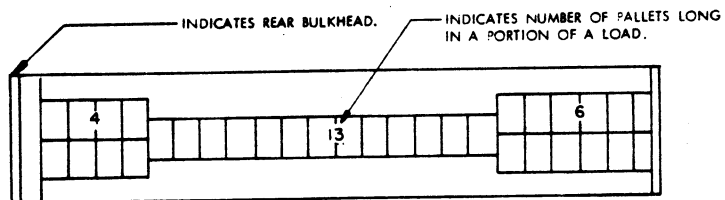
KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11. SEE GENERAL NOTE "P" ON PAGE 2.
- ② STRAPPING BOARD (4 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7.
- ④ SIDE STRUT, 2" X 4" BY CUT TO FIT (32 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ⑤ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ③ AND NAIL W/2-10d NAILS ON EACH SIDE OF THE JOINT.
- ⑥ STRUT BEARING GATE (2 REQD). SEE THE "STRUT BEARING GATE A" DETAIL ON PAGE 5.
- ⑦ REAR STRUT, 2" X 6" BY CUT TO FIT (DOUBLED) (8 REQD). LAMINATE W/1-10d NAIL EVERY 6" (MIN 2 NAILS). TOENAIL TO THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" X 12'-0" STEEL STRAPPING (4 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND THE STRAPPING BOARDS AND THE PALLET COVER ASSEMBLIES. STAPLE TO THE STRAPPING BOARDS W/1-STAPLE EACH. SEE GENERAL NOTE "M" ON PAGE 2.
- ⑨ SEAL FOR 1-1/4" STRAPPING (8 REQD, 2 PER STRAP JOINT). DOUBLE-CRIMP EACH SEAL.

THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER IS OMITTED FOR CLARITY.



SECTION K-K



ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

33-UNIT LOAD OF 8" PROJECTILES (6/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS

SPECIAL NOTES:

1. A 33-UNIT LOAD OF 8" SEPARATE LOADING PROJECTILES PALLETIZED 6 PER PALLET IS SHOWN IN A 7'-6" WIDE (INSIDE DIMENSION) TRAILER HAVING 38'-6" BETWEEN THE BULKHEAD AT THE FRONT (BUILT INTO THE FRONT WALL) AND THE INSTALLED BULKHEAD AT THE REAR.
2. STEEL STRAPPING BETWEEN THE BULKHEADS IS NOT REQUIRED FOR THIS SYSTEM PROVIDING THE BULKHEAD RETAINER TUBE ASSEMBLY OF THE REAR BULKHEAD IS CONSTRUCTED OF 3/8" THICK STEEL. IF THE BULKHEAD RETAINER TUBE ASSEMBLY IS MADE FROM 3/16" THICK STEEL, THREE (3) EACH 2" X .050" X 44'-0" LONG STEEL STRAPS WILL BE EMPLOYED FOR TYING THE BULKHEADS TOGETHER.
3. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 22 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 22. THE 2-WIDE PORTION OF THE LOAD AT THE FRONT OF THE TRAILER SHOULD BE SIX (6) PALLETS LONG IN LIEU OF THREE. THE 1-WIDE PORTION OF THE LOAD SHOULD BE THIRTEEN (13) PALLETS LONG AS SHOWN, AND THE 2-WIDE PORTION AT THE REAR SHOULD BE FOUR (4) PALLETS LONG IN LIEU OF SEVEN. ADJUST THE LENGTHS OF THE SIDE SPACERS, STRAPPING BOARDS, AND SIDE GATES, PIECES MARKED ① THRU ③.
4. DEPENDING UPON THE WEIGHT OF THE TRACTOR-TRAILER EQUIPMENT, THIRTY-FOUR (34) PALLETS CAN POSSIBLY BE LOADED WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS. THIS CAN BE ACCOMPLISHED IN A "WESTERN" TRAILER BY INCREASING THE REAR 2-WIDE PORTION OF THE LOAD TO EIGHT (8) PALLETS IN LENGTH AND DECREASING THE 1-WIDE PORTION TO TWELVE (12) PALLETS. IN AN "EASTERN" TRAILER, LOAD THE FRONT 2-WIDE PORTION SIX (6) PALLETS LONG, THE 1-WIDE PORTION TWELVE (12) PALLETS LONG, AND THE REAR 2-WIDE PORTION FIVE (5) PALLETS LONG. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT THIRTY-FOUR (34) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE BULKHEAD SYSTEM.
5. THE DEPICTED LOADS CAN BE DECREASED BY ONE OR MORE PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. IF THIRTY-TWO (32) PALLETS ARE TO BE LOADED IN A "WESTERN" TRAILER, REDUCE THE FRONT 2-WIDE PORTION TO TWO (2) PALLETS LONG AND INCREASE THE 1-WIDE PORTION TO FOURTEEN (14) PALLETS LONG. FOR A 31-PALLET SHIPMENT, REDUCE BOTH THE FRONT AND REAR 2-WIDE PORTIONS BY ONE PALLET IN LENGTH AND INCREASE THE 1-WIDE PORTION BY TWO PALLETS. REDUCTION OF A LOAD IN AN "EASTERN" TRAILER AND/OR FURTHER REDUCTION OF THE "WESTERN" LOAD CAN BE ACCOMPLISHED IN A SIMILAR MANNER. ADJUST THE LENGTHS OF PIECES MARKED ①, ②, AND ③ AS NECESSARY. NOTE THAT THE LOAD ADJACENT TO THE FRONT WALL OR TO THE STRUT BEARING GATE, PIECE MARKED ⑥, MUST BE TWO (2) PALLETS WIDE.

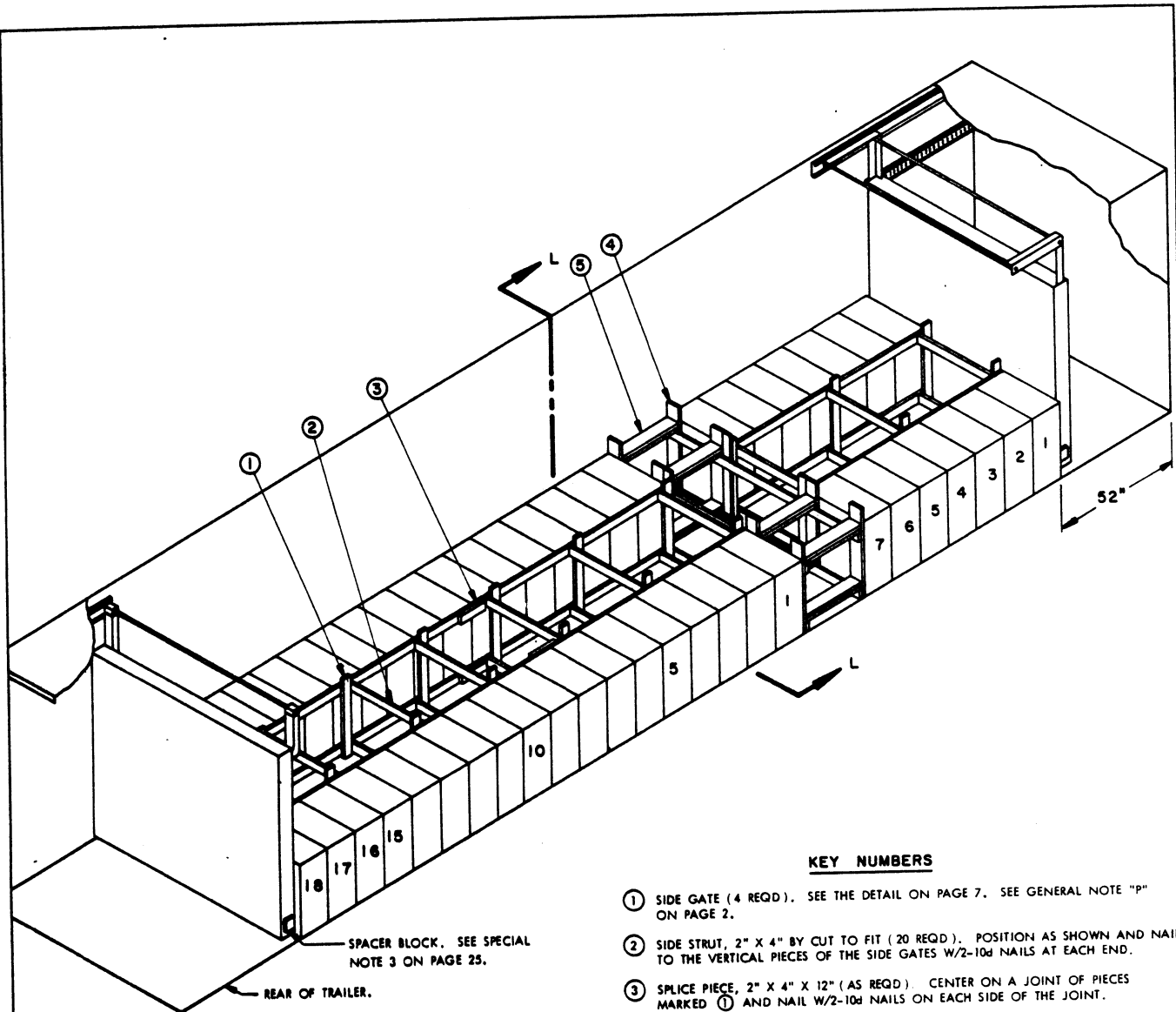
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	31	11
2" X 2"	33	11
2" X 4"	330	220
2" X 6"	42	42
NAILS	NO. REQD	POUNDS
6d (2")	144	1
10d (3")	448	7
15d (3-1/4")	32	3/4
STEEL STRAPPING, 1-1/4" X .035"---48' REQD-----7 LBS		
SEAL FOR 1-1/4" STRAPPING-----8 REQD-----NIL		
STAPLE FOR 1-1/4" STRAPPING-----8 REQD-----NIL		

*SEE SPECIAL NOTE 4 ABOVE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
8", 6/PALLET	33*	41,448 LBS
DUNNAGE		726 LBS
TOTAL WEIGHT-----		42,174 LBS

33-UNIT LOAD OF 8" PROJECTILES (6/PALLET) IN A TRAILER HAVING 38'-6" BETWEEN INSTALLED BULKHEADS



KEY NUMBERS

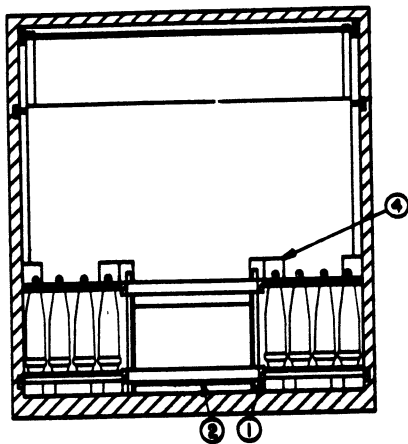
- ① SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7. SEE GENERAL NOTE "P" ON PAGE 2.
- ② SIDE STRUT, 2" X 4" BY CUT TO FIT (20 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ③ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ① AND NAIL W/2-10d NAILS ON EACH SIDE OF THE JOINT.
- ④ STRUT BEARING GATE (2 REQD). SEE THE "STRUT BEARING GATE D" DETAIL ON PAGE 25.
- ⑤ STRUT, 2" X 6" X 24" (DOUBLED) (8 REQD). LAMINATE W/4-10d NAILS. TOE-NAIL THE TOP PIECE TO THE VERTICAL PIECES OF THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.

SPACER BLOCK. SEE SPECIAL NOTE 3 ON PAGE 25.

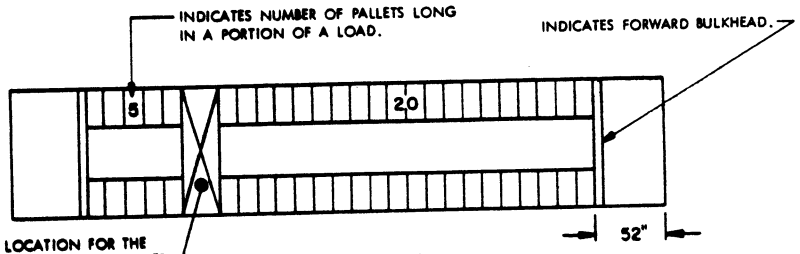
REAR OF TRAILER.

ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.



SECTION L-L



ALT LOAD PATTERN

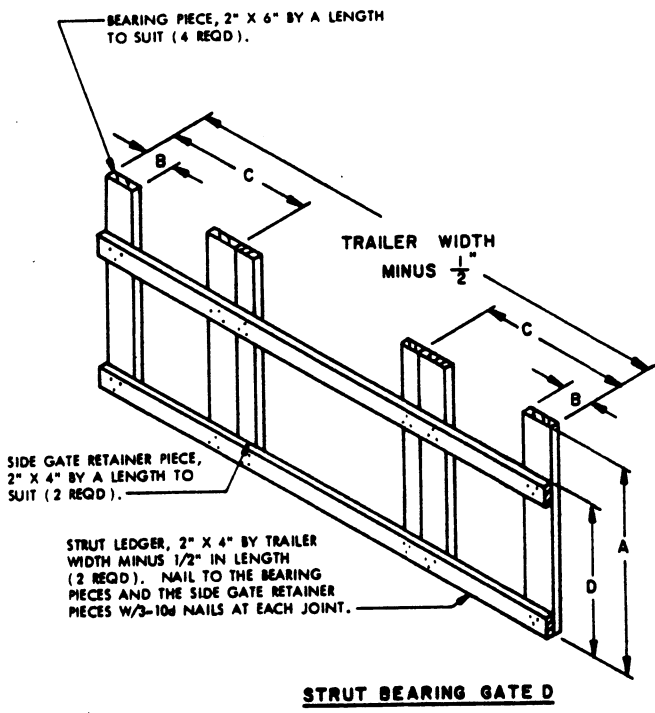
INDICATES LOCATION FOR THE INSTALLATION OF PIECES MARKED ④ AND ⑤.

INDICATES NUMBER OF PALLETS LONG IN A PORTION OF A LOAD.

INDICATES FORWARD BULKHEAD.

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

50-UNIT LOAD OF 155MM PROJECTILES (8/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM



SPECIAL NOTES:

1. A 50-UNIT LOAD OF 155MM SEPARATE LOADING PROJECTILES PALLETIZED 8 PER PALLET IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM.
2. THE FORWARD BULKHEAD WILL BE LOCATED AT THE MOST REARWARD POSITION BEFORE LOADING BEGINS. THIS POSITIONING IS APPLICABLE FOR EITHER A "WESTERN" OR AN "EASTERN" TRAILER BOGIE POSITION.
3. NOTICE: AFTER THE LATCH PINS OF THE BULKHEAD HAVE BEEN INSERTED INTO THE PIN LOCKING HOLES IN THE TRAILER BELT RAIL, THE SPACER BLOCKS, LOCATED NEAR THE LATCH PINS AT THE BOTTOM OF THE BULKHEAD, MUST BE LOCKED IN POSITION FOR SHIPMENT.
4. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 24 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 24. THE 2-WIDE PORTION AGAINST THE FORWARD BULKHEAD SHOULD BE TWENTY (20) PALLETS LONG IN LIEU OF SEVEN. POSITION THE STRUT BEARING GATES AND STRUTS, PIECES MARKED (4) AND (5), AND THEN LOAD FIVE (5) PALLETS LONG AT THE REAR OF THE TRAILER IN LIEU OF THE EIGHTEEN SHOWN.
5. THE DEPICTED LOADS MUST NOT BE INCREASED; FIFTY (50) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE CAMUS III RESTRAINING SYSTEM.
6. THE DEPICTED LOADS CAN BE DECREASED BY MULTIPLES OF TWO PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. FOR EACH PAIR OF LATERALLY ADJACENT PALLETS THAT ARE OMITTED, THE STRUTS, PIECES MARKED (5), MUST BE INCREASED 13-1/2" IN LENGTH.

STRUT BEARING GATE D CHART

ITEM	PAGE REF	DIMENSION			
		A	B	C	D
155MM	24	36"	5-3/4"	26-3/4"	27"
175MM, 6/PALLET	26	45"	6-1/2"	24-1/2"	36-1/2"
8", 3/PALLET	30	42"	7-3/4"	26-1/4"	33"
8", 6/PALLET	32	42"	7-3/4"	26-1/4"	33"

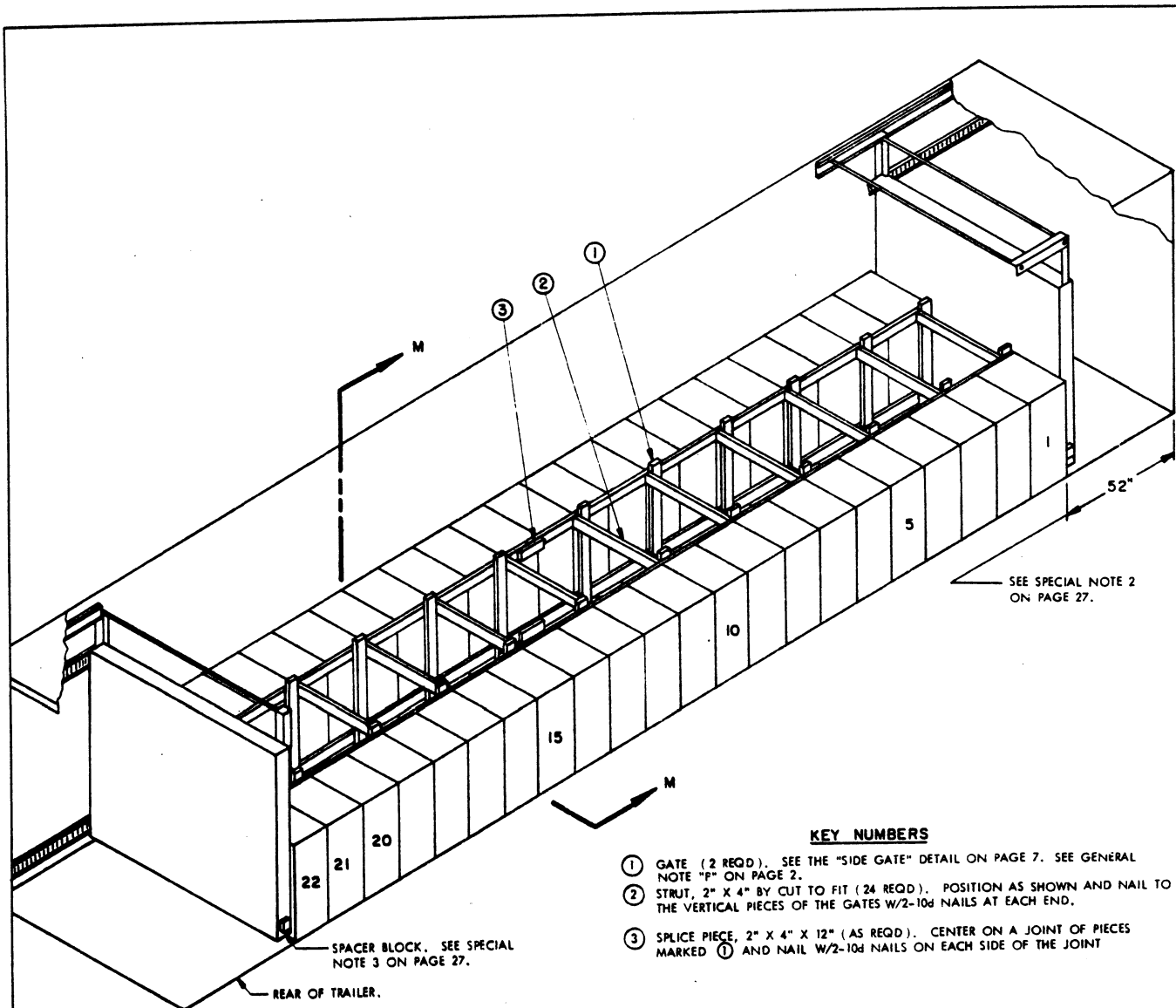
BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	269	180
2" X 6"	56	56
NAILS	NO. REQD	POUNDS
10d (3")	320	5
12d (3-1/4")	32	3/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
155MM, 8/PALLET	50	40,000 LBS
DUNNAGE		596 LBS
TOTAL WEIGHT		40,596 LBS

50-UNIT LOAD OF 155MM PROJECTILES (8/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM



SEE SPECIAL NOTE 2 ON PAGE 27.

KEY NUMBERS

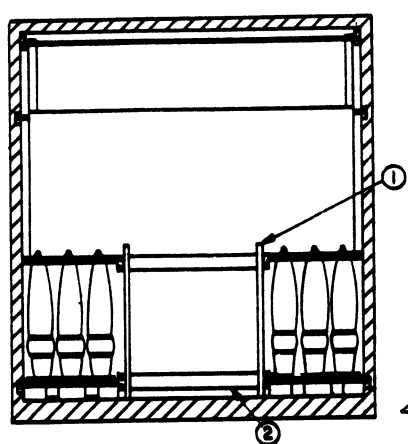
- ① GATE (2 REQD.). SEE THE "SIDE GATE" DETAIL ON PAGE 7. SEE GENERAL NOTE "F" ON PAGE 2.
- ② STRUT, 2" X 4" BY CUT TO FIT (24 REQD.). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE GATES W/2-10d NAILS AT EACH END.
- ③ SPLICE PIECE, 2" X 4" X 12" (AS REQD.). CENTER ON A JOINT OF PIECES MARKED ① AND NAIL W/2-10d NAILS ON EACH SIDE OF THE JOINT

SPACER BLOCK. SEE SPECIAL NOTE 3 ON PAGE 27.

REAR OF TRAILER.

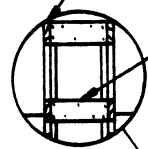
ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.



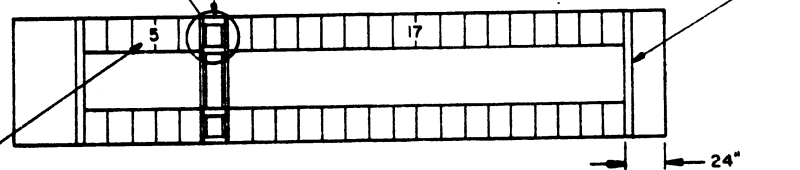
SECTION M-M

STRUT BEARING GATE (2 REQD.). SEE THE "STRUT BEARING GATE D" DETAIL ON PAGE 25.



STRUT, 2" X 6" X 16" (DOUBLED) (8 REQD.). LAMINATE W/3-10d NAILS. TOENAIL THE TOP PIECE TO THE VERTICAL PIECES OF THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.

SEE SPECIAL NOTE 4 ON PAGE 27.



INDICATES FORWARD BULKHEAD.

ALT LOAD PATTERN

INDICATES NUMBER OF PALLETS LONG IN A PORTION OF A LOAD.

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

44-UNIT LOAD OF 175MM PROJECTILES (6/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

SPECIAL NOTES:

1. A 44-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 6 PER PALLET IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM.
2. THE FORWARD BULKHEAD WILL BE LOCATED AT THE MOST REARWARD POSITION BEFORE LOADING BEGINS IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" POSITION. IF LOADING A TRAILER HAVING TANDEM AXLES IN THE "EASTERN" POSITION, LOCATE THE FORWARD BULKHEAD 24" FROM THE FRONT WALL.
3. NOTICE: AFTER THE LATCH PINS OF THE BULKHEAD HAVE BEEN INSERTED INTO THE PIN LOCKING HOLES IN THE TRAILER BELT RAIL, THE SPACER BLOCKS, LOCATED NEAR THE LATCH PINS AT THE BOTTOM OF THE BULKHEAD, MUST BE LOCKED IN POSITION FOR SHIPMENT.
4. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 26 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM'S APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 26. POSITION THE FORWARD BULKHEAD 24" FROM THE FRONT WALL. LOAD THIRTY-FOUR (34) PALLETS, TWO WIDE BY SEVENTEEN LONG, AGAINST THE FORWARD BULKHEAD, WITH SIDE GATES AND STRUTS, PIECES MARKED ① AND ②, BETWEEN THE ROWS. POSITION TWO (2) STRUT BEARING GATES WITH EIGHT (8) 16" LONG DOUBLED 2" X 6" STRUTS BETWEEN THEM. SEE THE "STRUT BEARING GATE D" DETAIL ON PAGE 25 FOR GATE CONSTRUCTION. COMPLETE THE LOAD BY POSITIONING TEN (10) PALLETS, TWO WIDE BY FIVE LONG, AT THE REAR OF THE TRAILER. INSTALL SIDE GATES AND STRUTS BETWEEN THE ROWS.
5. THE DEPICTED LOADS MUST NOT BE INCREASED; FORTY-FOUR (44) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE CAMUS III RESTRAINING SYSTEM.
6. LOADS CAN BE DECREASED BY MULTIPLES OF TWO PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. TO OMIT TWO (2) PALLETS FROM THE LOAD DEPICTED IN THE "ISOMETRIC VIEW", IT WILL BE NECESSARY TO INSTALL TWO (2) STRUT BEARING GATES AND DOUBLED 2" X 6" STRUTS 14" LONG NEAR THE MIDPOINT OF THE LOAD, SIMILAR TO THOSE SHOWN IN THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 26. FOR EACH ADDITIONAL PAIR OF LATERALLY ADJACENT PALLETS THAT ARE OMITTED, THE STRUTS MUST BE INCREASED 17" IN LENGTH. TO OMIT TWO (2) PALLETS FROM THE LOAD DEPICTED BY THE "ALT LOAD PATTERN" VIEW, POSITION THE FORWARD BULKHEAD 41" FROM THE FRONT WALL BEFORE LOADING BEGINS AND POSITION SIXTEEN (16) PALLETS LONG IN THE FRONT PORTION OF THE LOAD. TO OMIT FOUR (4) PALLETS, LOCATE THE FORWARD BULKHEAD AT THE MOST REARWARD POSITION AND LOAD FIFTEEN (15) PALLETS LONG IN THE FRONT PORTION. NOTE THAT THE STRUTS MUST BE INCREASED TO 22" IN LENGTH FOR SHIPMENT OF A 40-UNIT LOAD.

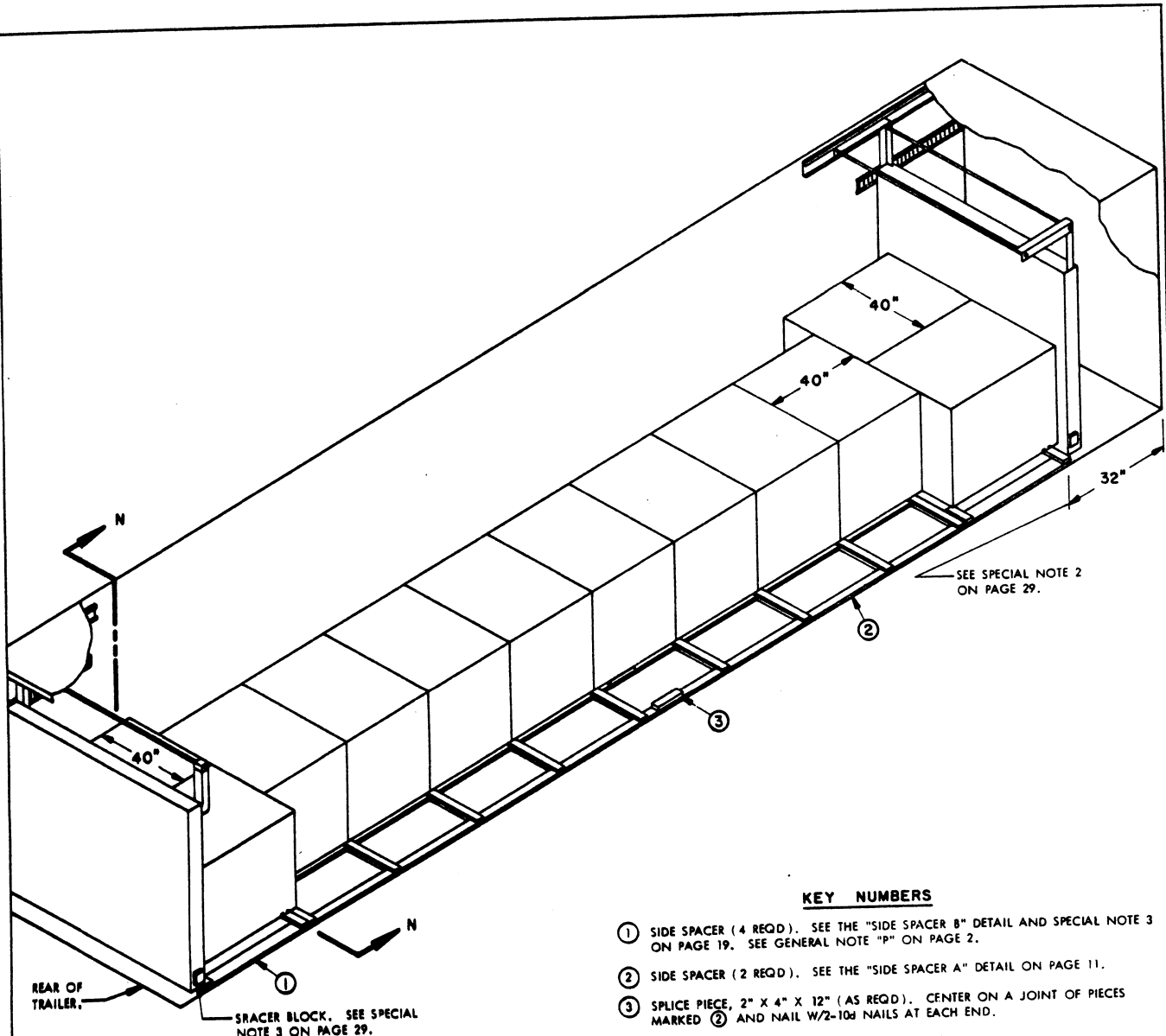
BILL OF MATERIAL (WESTERN)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	283	190
NAILS	NO. REQD	POUNDS
10d (3")	256	4

BILL OF MATERIAL (EASTERN)		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	315	210
2" X 6"	50	50
NAILS	NO. REQD	POUNDS
10d (3")	304	4-3/4
12d (3-1/4")	32	3/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
175MM, 6/PALLET	44	41,096 LBS
DUNNAGE		479 LBS
TOTAL WEIGHT		41,575 LBS

44-UNIT LOAD OF 175MM PROJECTILES (6/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

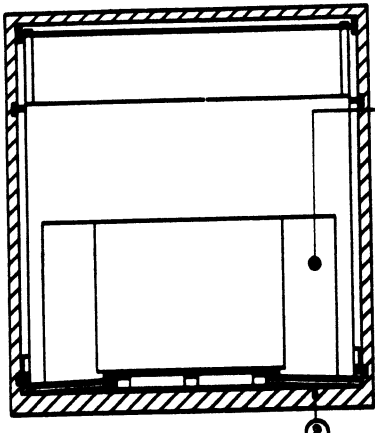


KEY NUMBERS

- ① SIDE SPACER (4 REQD). SEE THE "SIDE SPACER B" DETAIL AND SPECIAL NOTE 3 ON PAGE 19. SEE GENERAL NOTE "P" ON PAGE 2.
- ② SIDE SPACER (2 REQD). SEE THE "SIDE SPACER A" DETAIL ON PAGE 11.
- ③ SPLICE PIECE, 2" X 4" X 12" (AS REQD). CENTER ON A JOINT OF PIECES MARKED ② AND NAIL W/2-10d NAILS AT EACH END.

ISOMETRIC VIEW

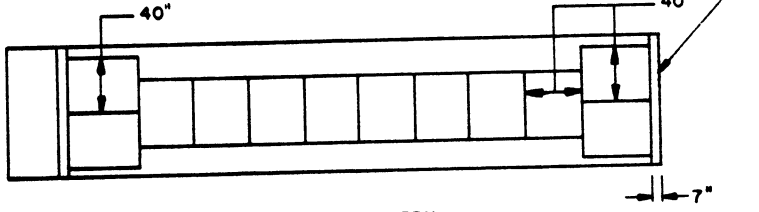
THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.



SECTION N-N

INDICATES PALLET AT FRONT OF TRAILER.

INDICATES FORWARD BULKHEAD.



ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

12-UNIT LOAD OF 175MM PROJECTILES (20/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

SPECIAL NOTES:

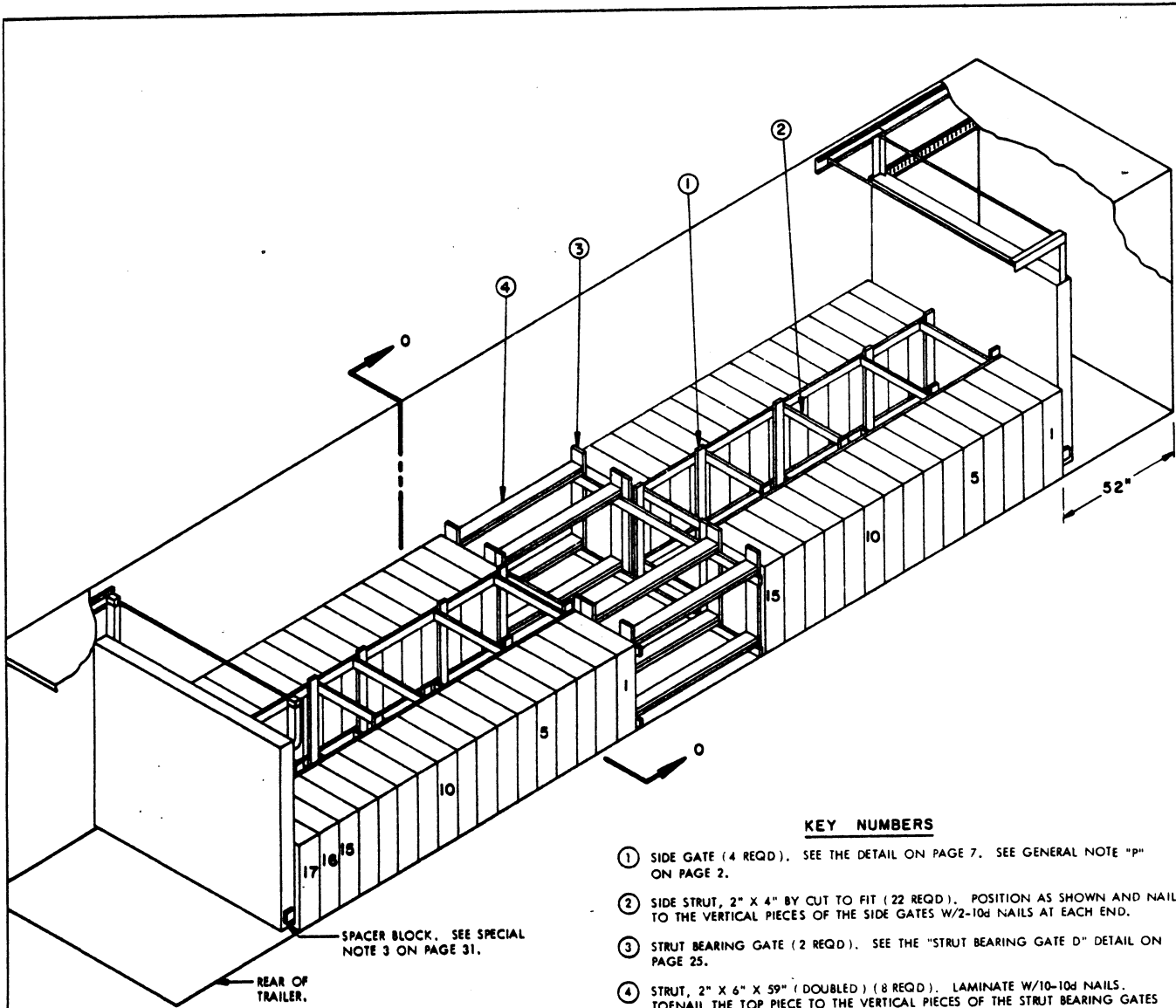
1. A 12-UNIT LOAD OF 175MM SEPARATE LOADING PROJECTILES PALLETIZED 20 PER PALLET IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM.
2. THE FORWARD BULKHEAD WILL BE LOCATED APPROXIMATELY 32" FROM THE FRONT WALL OF THE TRAILER PRIOR TO THE LOADING OF A 12-PALLET SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" POSITION. FOR THE SHIPMENT OF A 12-UNIT LOAD IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" POSITION, THE BULKHEAD WILL BE LOCATED AT THE MOST FORWARD POSITION BEFORE LOADING BEGINS.
3. NOTICE: AFTER THE LATCH PINS OF THE BULKHEAD HAVE BEEN INSERTED INTO THE PIN LOCKING HOLES IN THE TRAILER BELT RAIL, THE SPACER BLOCKS, LOCATED NEAR THE LATCH PINS AT THE BOTTOM OF THE BULKHEAD, MUST BE LOCKED IN POSITION FOR SHIPMENT.
4. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 28 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 28. LOCATE THE FORWARD BULKHEAD AT THE MOST FORWARD POSITION. THE LOAD PATTERN (PALLET POSITION) WILL BE THE SAME AS SHOWN BY THE "ISOMETRIC VIEW".
5. THE DEPICTED LOAD MUST NOT BE INCREASED; TWELVE (12) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE CAMUS III RESTRAINING SYSTEM.
6. FOR THE SHIPMENT OF ELEVEN (11) PALLETS, LOAD ONLY SEVEN (7) LONG IN THE 1-WIDE PORTION OF THE LOAD. LOCATE THE FORWARD BULKHEAD AT THE MOST REARWARD POSITION FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" POSITION, OR AT 34" FROM THE FRONT WALL FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "EASTERN" POSITION.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	37	13
2" X 4"	140	94
2" X 6"	17	17
NAILS	NO. REQD	POUNDS
6d (2")	162	1
10d (3")	40	3/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
175MM, 20/PALLET	12	40,392 LBS
DUNNAGE		312 LBS
TOTAL WEIGHT		40,704 LBS

12-UNIT LOAD OF 175MM PROJECTILES (20/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

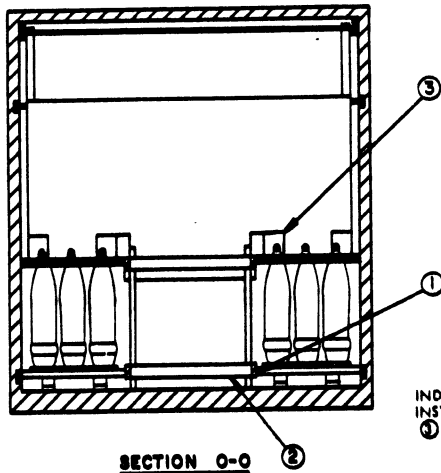


KEY NUMBERS

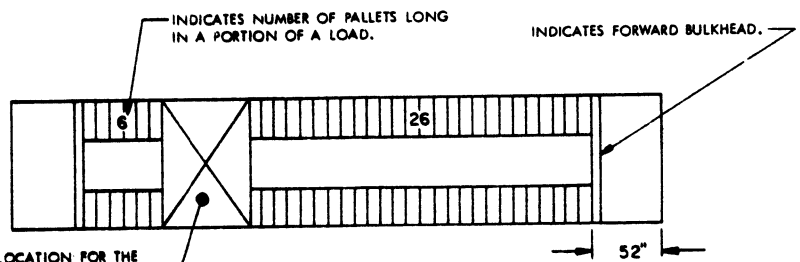
- ① SIDE GATE (4 REQD). SEE THE DETAIL ON PAGE 7. SEE GENERAL NOTE "P" ON PAGE 2.
- ② SIDE STRUT, 2" X 4" BY CUT TO FIT (22 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ③ STRUT BEARING GATE (2 REQD). SEE THE "STRUT BEARING GATE D" DETAIL ON PAGE 25.
- ④ STRUT, 2" X 6" X 59" (DOUBLED) (8 REQD). LAMINATE W/10-10d NAILS. TOENAIL THE TOP PIECE TO THE VERTICAL PIECES OF THE STRUT BEARING GATES W/2-12d NAILS AT EACH END. SEE SPECIAL NOTE 6 ON PAGE 31.

ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.



SECTION O-O



ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

64-UNIT LOAD OF 8" PROJECTILES (3/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

SPECIAL NOTES:

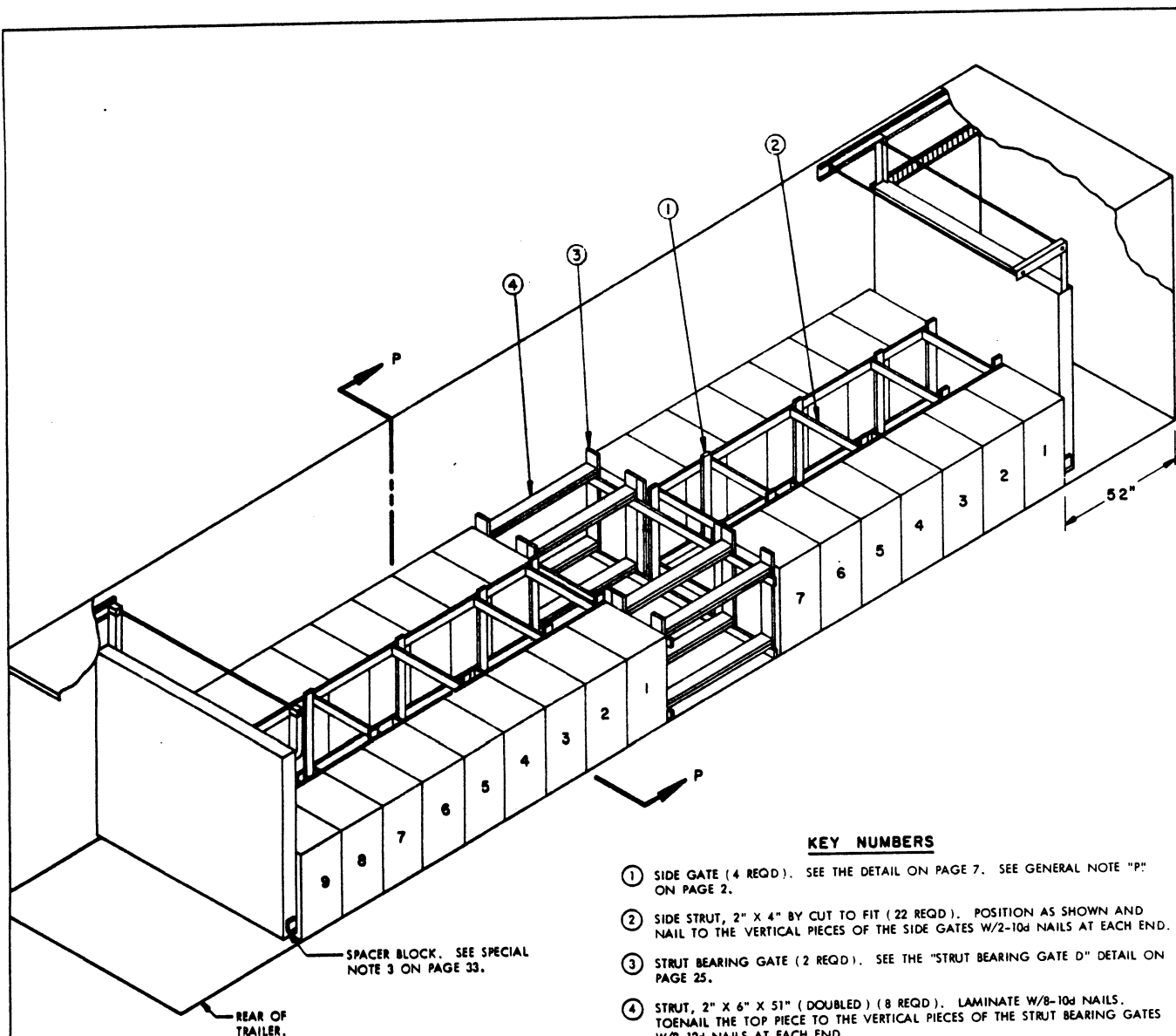
1. A 64-UNIT LOAD OF 8" SEPARATE LOADING PROJECTILES PALLETIZED 3 PER PALLET IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM.
2. THE FORWARD BULKHEAD WILL BE LOCATED AT THE MOST REARWARD POSITION BEFORE LOADING BEGINS. THIS POSITIONING IS APPLICABLE FOR EITHER A "WESTERN" OR AN "EASTERN" TRAILER BOGIE POSITION.
3. NOTICE: AFTER THE LATCH PINS OF THE BULKHEAD HAVE BEEN INSERTED INTO THE PIN LOCKING HOLES IN THE TRAILER BELT RAIL, THE SPACER BLOCKS, LOCATED NEAR THE LATCH PINS AT THE BOTTOM OF THE BULKHEAD, MUST BE LOCKED IN POSITION FOR SHIPMENT.
4. THE LOAD DEPICTED IN THE "ISOMETRIC VIEW" ON PAGE 30 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER) PROVIDING THE EMPTY WEIGHT ON THE DRIVE WHEELS IS NOT GREATER THAN 12,500 POUNDS. IF THE DRIVE WHEEL WEIGHT IS GREATER THAN THAT, THE LOADING PATTERN MUST BE ADJUSTED. THE 2-WIDE PORTION OF THE LOAD AGAINST THE FORWARD BULKHEAD SHOULD BE TWELVE (12) PALLETS LONG IN LIEU OF FIFTEEN, AND THE REAR 2-WIDE PORTION SHOULD BE TWENTY (20) PALLETS LONG IN LIEU OF SEVENTEEN. FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEM APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 30. THE 2-WIDE PORTION OF THE LOAD AGAINST THE FORWARD BULKHEAD SHOULD BE TWENTY-SIX (26) PALLETS LONG IN LIEU OF FIFTEEN. POSITION THE STRUT BEARING GATES AND STRUTS, PIECES MARKED ③ AND ④, AND THEN LOAD SIX (6) PALLETS LONG AT THE REAR OF THE TRAILER IN LIEU OF THE SEVENTEEN SHOWN.
5. THE DEPICTED LOADS MUST NOT BE INCREASED; SIXTY-FOUR (64) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE CAMUS III RESTRAINING SYSTEM.
6. LOADS CAN BE DECREASED BY MULTIPLES OF TWO PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. FOR EACH PAIR OF LATERALLY ADJACENT PALLETS THAT ARE OMITTED, THE STRUTS, PIECES MARKED ④, MUST BE INCREASED 9-1/2" IN LENGTH. IN ADDITION, HORIZONTAL AND VERTICAL STRUT BRACING PIECES MUST BE APPLIED NEAR THE CENTER OF THE LENGTH OF THE STRUTS. THE HORIZONTAL PIECES WILL BE TRAILER WIDTH MINUS 1/2" IN LENGTH, AND THE VERTICAL PIECES WILL BE 40" LONG, AND EACH WILL BE NAILED TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	272	182
2" X 6"	107	107
NAILS	NO. REQD	POUNDS
10d (3")	372	5-3/4
12d (3-1/4")	32	3/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
8", 3/PALLET-----	64	40,512 LBS
DUNNAGE-----		729 LBS
TOTAL WEIGHT-----		41,241 LBS

64-UNIT LOAD OF 8" PROJECTILES (3/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM



KEY NUMBERS

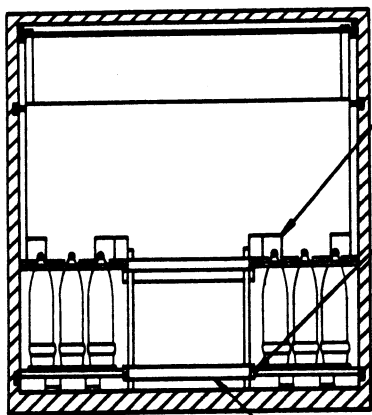
- ① SIDE GATE (4 REQD.). SEE THE DETAIL ON PAGE 7. SEE GENERAL NOTE "P" ON PAGE 2.
- ② SIDE STRUT, 2" X 4" BY CUT TO FIT (22 REQD.). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE SIDE GATES W/2-10d NAILS AT EACH END.
- ③ STRUT BEARING GATE (2 REQD.). SEE THE "STRUT BEARING GATE D" DETAIL ON PAGE 25.
- ④ STRUT, 2" X 6" X 51" (DOUBLED) (8 REQD.). LAMINATE W/8-10d NAILS. TOENAIL THE TOP PIECE TO THE VERTICAL PIECES OF THE STRUT BEARING GATES W/2-12d NAILS AT EACH END.

SPACER BLOCK. SEE SPECIAL NOTE 3 ON PAGE 33.

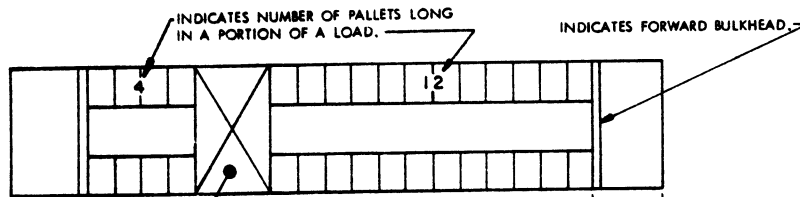
REAR OF TRAILER.

ISOMETRIC VIEW

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION.



SECTION P-P



INDICATES LOCATION FOR THE INSTALLATION OF PIECES MARKED ③ AND ④.

ALT LOAD PATTERN

THIS LOAD PATTERN IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING TANDEM AXLES LOCATED IN THE "EASTERN" FIXED POSITION.

32-UNIT LOAD OF 8" PROJECTILES (6/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

SPECIAL NOTES:

1. A 32-UNIT LOAD OF 8" SEPARATE LOADING PROJECTILES PALLETIZED 6 PER PALLET IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) TRAILER WHICH IS EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM.
2. THE FORWARD BULKHEAD WILL BE LOCATED AT THE MOST REARWARD POSITION BEFORE LOADING BEGINS. THIS POSITIONING IS APPLICABLE FOR EITHER A "WESTERN" OR AN "EASTERN" TRAILER BOGIE POSITION.
3. NOTICE: AFTER THE LATCH PINS OF THE BULKHEAD HAVE BEEN INSERTED INTO THE PIN LOCKING HOLES IN THE TRAILER BELT RAIL, THE SPACER BLOCKS, LOCATED NEAR THE LATCH PINS AT THE BOTTOM OF THE BULKHEAD, MUST BE LOCKED IN POSITION FOR SHIPMENT.
4. THE LOAD DEPICTED BY THE "ISOMETRIC VIEW" ON PAGE 32 IS APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE TANDEM AXLES LOCATED IN THE "WESTERN" FIXED POSITION (AT THE EXTREME REAR OF THE TRAILER). FOR LOADING GUIDANCE APPLICABLE FOR A SHIPMENT IN A TRAILER HAVING THE BOGIES LOCATED IN THE "EASTERN" FIXED POSITION (WITH THE CENTER OF THE TANDEMS APPROXIMATELY 104" FROM THE EXTREME REAR OF THE TRAILER) REFER TO THE "ALT LOAD PATTERN" VIEW AT THE BOTTOM OF PAGE 32. THE 2-WIDE PORTION AGAINST THE FORWARD BULKHEAD SHOULD BE TWELVE (12) PALLETS LONG IN LIEU OF SEVEN. POSITION THE STRUT BEARING GATES AND STRUTS, PIECES MARKED ③ AND ④, AND THEN LOAD FOUR (4) PALLETS LONG AT THE REAR OF THE TRAILER IN LIEU OF THE NINE SHOWN.
5. THE DEPICTED LOADS MUST NOT BE INCREASED; THIRTY-TWO (32) PALLETS IS THE MAXIMUM QUANTITY THAT CAN BE SHIPPED WITHOUT EXCEEDING THE CAPACITY OF THE CAMUS III RESTRAINING SYSTEM.
6. LOADS CAN BE DECREASED BY MULTIPLES OF TWO PALLETS IN ORDER TO SATISFY THE QUANTITY TO BE SHIPPED. FOR EACH PAIR OF LATERALLY ADJACENT PALLETS THAT ARE OMITTED, THE STRUTS, PIECES MARKED ④, MUST BE INCREASED 19-1/2" IN LENGTH. IN ADDITION, HORIZONTAL AND VERTICAL STRUT BRACING PIECES MUST BE APPLIED NEAR THE CENTER OF THE LENGTH OF THE STRUTS. THE HORIZONTAL PIECES WILL BE TRAILER WIDTH MINUS 1/2" IN LENGTH, AND THE VERTICAL PIECES WILL BE 40" LONG, AND EACH WILL BE NAILED TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	275	184
2" X 6"	96	96
NAILS	NO. REQD	POUNDS
10d (3")	332	5-1/4
12d (3-1/4")	32	3/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
8", 6/PALLET	32	40,192 LBS
DUNNAGE		706 LBS
TOTAL WEIGHT		40,898 LBS

32-UNIT LOAD OF 8" PROJECTILES (6/PALLET) IN A TRAILER EQUIPPED WITH A CAMUS III RESTRAINING SYSTEM

