

**DRUM PLACEMENT ON PALLET**

**PALLET UNIT (BASED ON NITROGUANADINE)**

12 DRUMS @ 57 LBS ----- 684 LBS  
 PALLET AND PANEL MATERIALS -- 281 LBS

TOTAL WEIGHT ----- 965 LBS (APPROX)  
 CU BR ----- 55.7 CU FT.

EXPLOSIVE CLASSIFICATION*	
(BASED ON NITROGUANADINE)	
DOT CLASS -----	A
COAST GUARD CLASS -----	IX-B
Q D CLASS -----	7
COMPATIBILITY GROUP -----	I

\*THE EXPLOSIVE CLASSIFICATION OF OTHER DRUM-PACKED BULK EXPLOSIVES MAY BE DIFFERENT THAN THAT SHOWN.

**GENERAL NOTES**

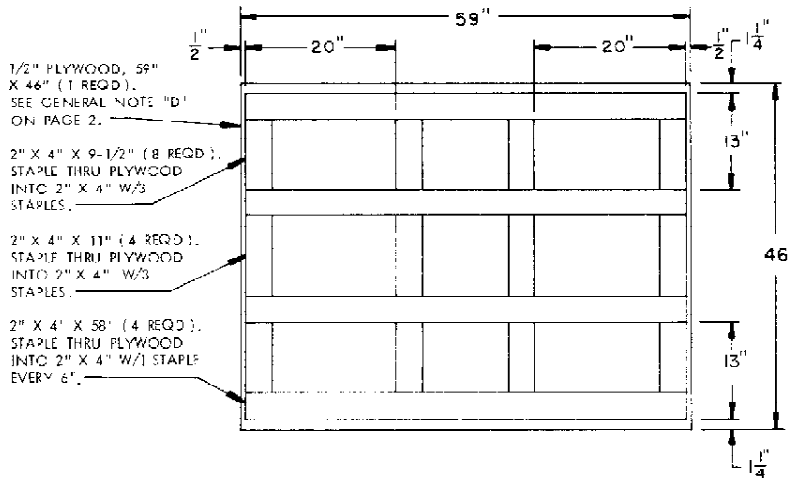
- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. DATA FOR FIBERBOARD DRUM WHEN PACKED WITH NITROGUANADINE:  
 DIMENSIONS ----- 14-1/2" DIAMETER BY 28" HIGH  
 GROSS WEIGHT ----- 57 POUNDS (APPROX).
- C. PALLET UNIT DETAILS ARE BASED ON THE DIMENSIONS IDENTIFIED ABOVE. ANY VARIATIONS IN THE SIZE OF THE FIBER DRUMS ACTUALLY USED WILL REQUIRE A CORRESPONDING ADJUSTMENT IN THE UNIT DETAILS TO COMPENSATE. FOR EXAMPLE, IF THE DRUMS SHOULD ACTUALLY BE 27-1/2" HIGH, THE HEIGHT OF THE UNIT SIDE PANELS AND END PANELS WILL BE ADJUSTED ACCORDINGLY.
- D. WHERE PLYWOOD PANELS ARE SPECIFIED FOR VARIOUS LOCATIONS, THE DIMENSIONS ARE BASED ON USING ONE SOLID PIECE OF PLYWOOD FOR EACH PANEL. HOWEVER, IT IS PERMITTED TO ASSEMBLE SIDE PANELS FROM TWO PIECES PROVIDED THE CONSTRUCTED PANEL MEETS ALL SPECIFIED DIMENSIONAL CRITERIA. ONLY A HORIZONTAL BUTT JOINT IS PERMITTED, AND NOT MORE THAN ONE JOINT PER SIDE PANEL. NEITHER PIECE OF PLYWOOD ON A PANEL WILL BE LESS THAN TWELVE INCHES (12") WIDE. WHEN TWO STRIPS OF PLYWOOD ARE USED ON A SIDE PANEL, EXTRA STAPLES WILL BE USED; ONE (1) NOT MORE THAN ONE INCH (1") FROM THE JOINT ON EACH SIDE OF THE BUTT JOINT AT EACH SPECIFIED STAPLING LOCATION.
- E. STRIPS NOT LESS THAN FIVE INCHES (5") WIDE OR SMALL SHEETS OF PLYWOOD OF VARIOUS WIDTHS, WHICH REMAIN AFTER PIECES ARE CUT FOR TOP, SIDE AND END PANELS FROM PARENT SHEETS OF PLYWOOD, CAN ALSO BE USED AS PALLET (CONTINUED AT TOP OF PAGE 3)

**MATERIAL SPECIFICATIONS**

- W/MBER ----- : SEE MIL-STD-731, CLASS 2, GROUP II, III, OR IV.
- PLYWOOD ----- : GROUP B OR C, GRADE C-D (EXTERIOR); FED SPEC NN-P-530. NOTE: A BETTER GRADE MAY BE SUBSTITUTED.
- NAILS ----- : COMMON, CEMENT COATED OR CHEMICALLY ETCHED; FED SPEC FF-N-105. ALT: ANNULAR-RING TYPE NAIL OF THE SAME SIZE.
- STRAPPING, STEEL ----- : CLASS I, TYPE I OR IV, HEAVY DUTY, FINISH B, GRADE 2, FED SPEC QQ-S-781.
- SEAL, STRAP ----- : TYPE D, STYLE I, II, OR IV, CLASS H, FED SPEC QQ-S-781.
- STAPLE FOR LUMBER ----- : TYPE III, STYLE 3, FED SPEC FF-N-105.

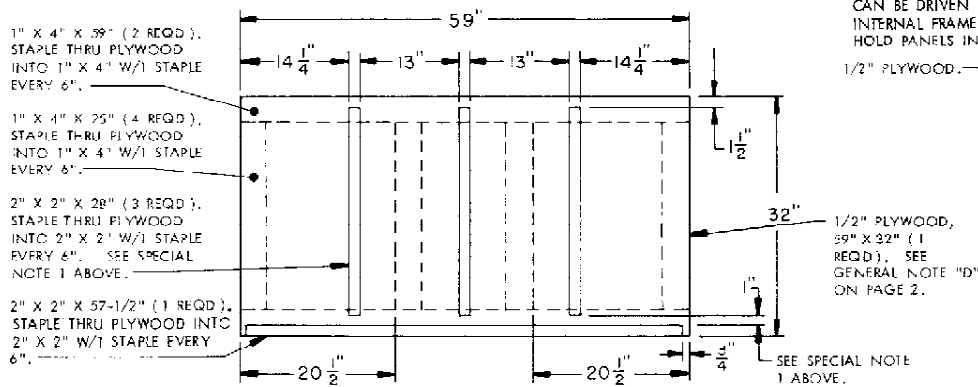
(GENERAL NOTES CONTINUED FROM PAGE 2)

DECKING IN LIEU OF THE SPECIFIED DIMENSIONAL LUMBER. STAPLES AS SPECIFIED HEREIN CAN BE USED ON A ONE-FOR-ONE BASIS FOR FASTENING PLYWOOD DECKING, IN LIEU OF THE SPECIFIED 6d NAILS, IF DESIRED. PIECES OF PLYWOOD USED FOR DECKING MUST BE 43-1/2" LONG; SPLICING IS NOT PERMITTED. SEE SPECIAL NOTE 1 ON THIS PAGE FOR ADDITIONAL GUIDANCE.



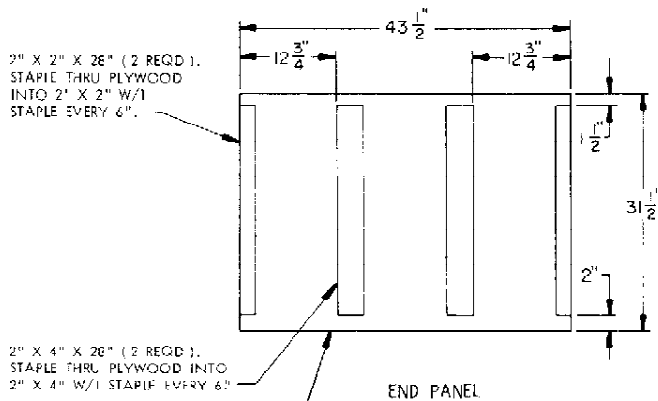
TOP PANEL

(BOTTOM OF PANEL SHOWN)



SIDE PANEL

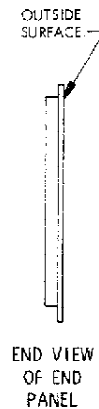
(CLEATS ON OUTSIDE SURFACE ARE SHOWN IN DASHED LINES.)



END PANEL

(INSIDE SURFACE SHOWN)

1/2" PLYWOOD, 43-1/2" X 31-1/2". (1 REQD.). SEE GENERAL NOTE "D" ON PAGE 2.

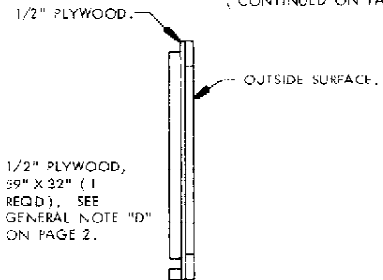


END VIEW OF END PANEL

SPECIAL NOTES:

- IF DESIRED, 1/2" PLYWOOD MAY BE USED IN LIEU OF 1" X 6" BOARDS FOR THE TOP DECK OF THE PALLET. ADDITIONALLY, IF THIS ALTERNATIVE IS USED, THE FOLLOWING CHANGES IN THE "SIDE PANEL" AND "END PANEL" DETAILS WILL BE REQUIRED. INCREASE THE LENGTH OF THE INTERIOR VERTICAL PIECES TO 28-1/4" AND REDUCE THE CLEARANCE DIMENSION AT THE BOTTOM OF EACH ASSEMBLY BY A CORRESPONDING 1/4".
- THE STEEL STRAPPING SPECIFIED IN THE PALLET UNIT DETAIL ON PAGE 7 IS 3/4" WIDE BY .031" THICK. FOR AN ALTERNATIVE, 3/4" WIDE BY .035" THICK STEEL STRAPPING MAY ALSO BE USED.
- THE STEEL STRAPPING ENCIrcLING THE PALLET UNIT IN THE DIRECTION OF THE 59" DIMENSION, MUST BE ALIGNED SO AS TO BE POSITIONED ON THE INTERMEDIATE STRINGERS. ALL STRAPPING MUST BE STRAIGHT WITHIN TWO INCHES (2") ON ANY SURFACE OF THE UNUTILIZED LOAD; I.E., TOP, BOTTOM, SIDES OR ENDS THAT IT ENCOMPASSES. EACH STRAP WILL BE TENSIONED SUFFICIENTLY TO SLIGHTLY CRUSH THE EDGES OF THE PALLET UNIT.
- A MANUFACTURING TOLERANCE OF + OR - 1/4" IS ALLOWED ON ALL DIMENSIONS. ALTHOUGH A + OR - 1/4" TOLERANCE IS ALLOWED, ALL DIMENSIONAL LUMBER MEMBERS IN A SET, SUCH AS THE VERTICAL 1" X 4" CLEATS ON EXTERIOR OF A SIDE PANEL, MUST BE WITHIN 1/8" OF THE SAME LENGTH.
- DIMENSIONAL LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE.
- IF LESS THAN 12 DRUMS ARE LOADED INTO A PALLET UNIT, A BOX-TYPE ASSEMBLY CONSTRUCTED FROM DIMENSIONAL LUMBER AND PLYWOOD MUST BE INSTALLED TO OCCUPY THE VOID CREATED BY THE ELIMINATION OF A DRUM OR DRUMS. THE SPACE-OCCUPYING ASSEMBLY MUST BE AS STRONG OR STRONGER THAN THE DRUM(S) REPLACED.
- IF DESIRED DURING ASSEMBLY OF A PALLET UNIT, ONE (1) 6d NAIL CAN BE DRIVEN THROUGH A SIDE PANEL AT EACH CORNER INTO AN INTERNAL FRAME MEMBER OF AN END PANEL, TO TEMPORARILY HOLD PANELS IN PLACE PRIOR TO APPLYING STRAPPING.

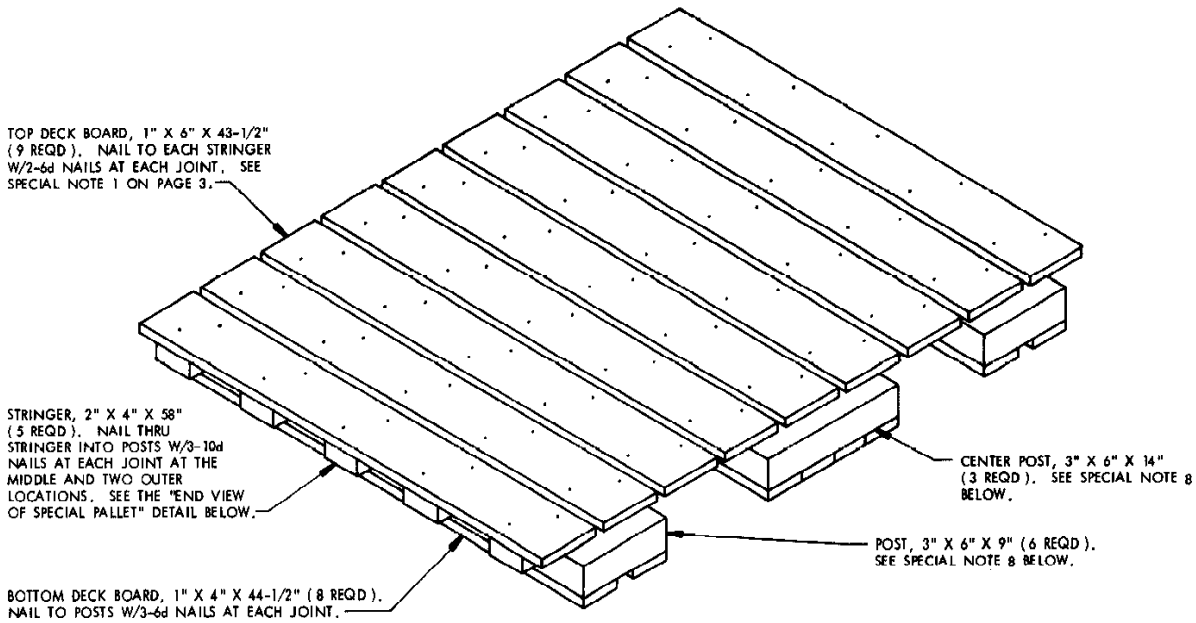
(CONTINUED ON PAGE 4)



END VIEW OF SIDE PANEL

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	66	22
1" X 6"	33	17
2" X 2"	34	12
2" X 4"	64	43
3" X 6"	8	12
NAILS		POUNDS
6d (2")	142	1
10d (3")	27	1/2
PLYWOOD, 1/2"	65 SQ. FT. REQD	90 LBS
STRAPPING, STEEL, 3/4" X .031	9' FT. REQD	7 LBS
SEALS, STRAPPING, 3/4"	6 EA	1/4 LB
STAPLES, *	226 EA	7 LBS

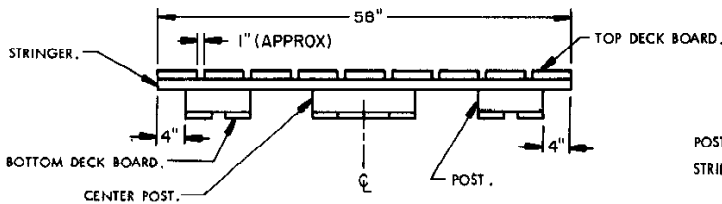
\* STAPLES TO BE USED SHOULD BE OF A TYPE USED IN PNEUMATIC OR MECHANICAL GUNS FOR FASTENING WOOD. LEG LENGTH WILL BE ONE INCH (1") AND THE CROWN WIDTH WILL BE 1/2" MINIMUM TO 1" MAXIMUM. THE WIRE GAGE OF THE STAPLE SHOULD BE SIXTEEN (16) GAGE OR HEAVIER.



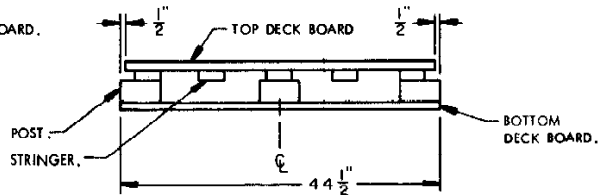
**SPECIAL PALLET**

**SPECIAL NOTE (CONTINUED FROM PAGE 3)**

8. THE 3" X 6" POSTS FOR THE SPECIAL PALLET SHOWN ABOVE MAY BE FABRICATED BY LAMINATING APPROPRIATE LENGTH PIECES OF 1" X 6" AND 2" X 6" W/3-6d NAILS AT EACH POST. IN LIEU OF LAMINATING AN ALTERNATIVE POST W/6d NAILS, DURING PALLET ASSEMBLY NAIL THRU THE BOTTOM DECK BOARD AND A 1" X 6" PIECE INTO A 2" X 6" PIECE W/3-10d NAILS AT EACH JOINT. THE 3-10d NAILS WILL REPLACE THE 3-6d NAILS THAT ARE SPECIFIED AS BOTTOM DECK BOARD FASTENERS. ALSO, 4" X 6" POSTS CAN BE SUBSTITUTED FOR THE SPECIFIED 3" X 6" POSTS IF 3" X 6" MATERIAL IS NOT READILY AVAILABLE, OR IF DESIRED.



**SIDE VIEW OF SPECIAL PALLET**



**END VIEW OF SPECIAL PALLET**