

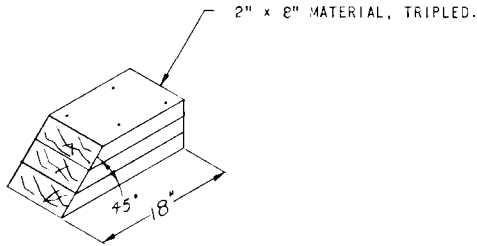
APPROVED BY  
DTMS

*Sumner D. Butler*  
DTMS

DATE *4 Sept 1962*

**LOADING & BRACING ON FLAT BED TRAILER OF  
LAUNCHER, XM33, FOR THE 762 MM ROCKET SYSTEM**

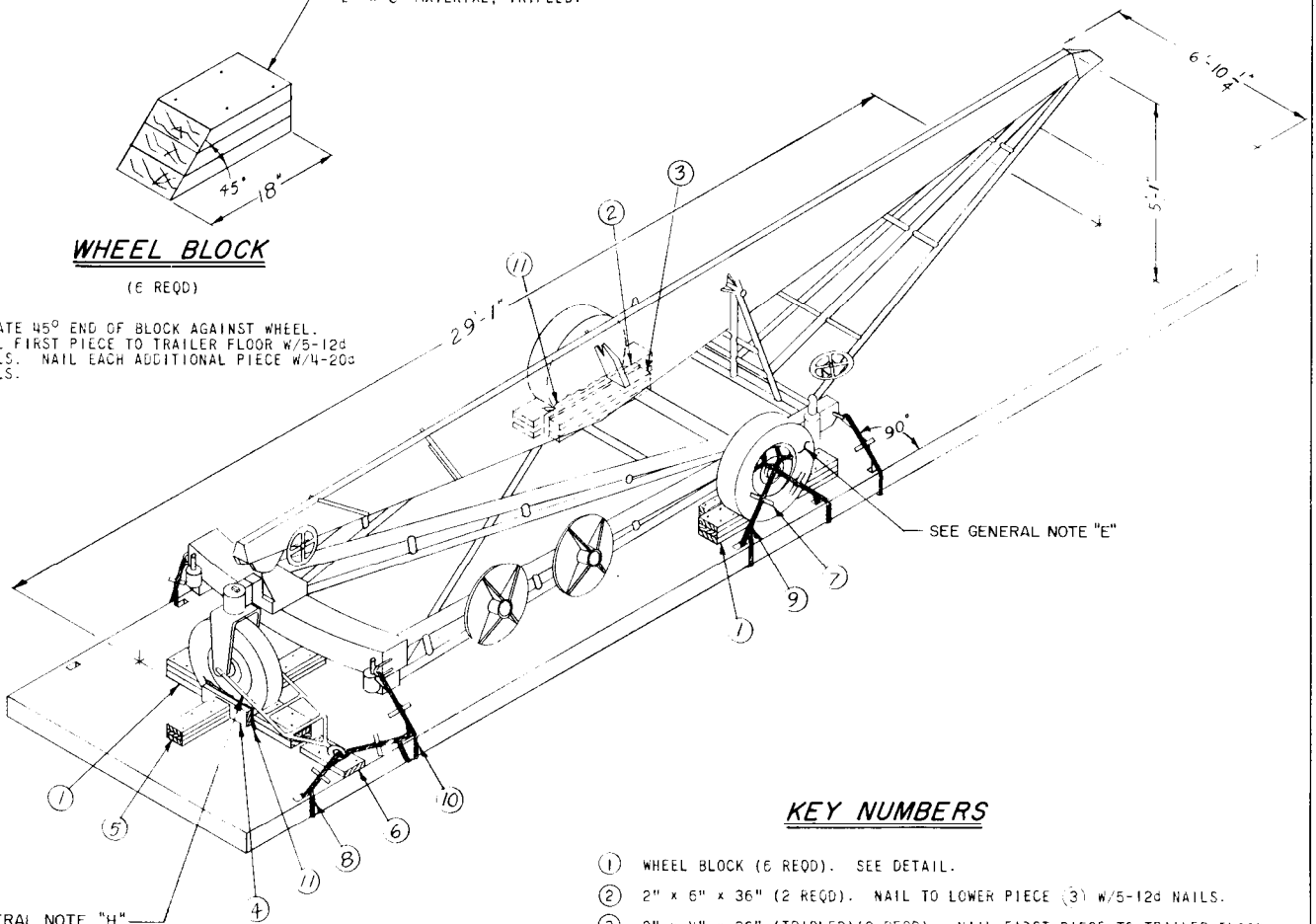
DRAFTSMAN <b>J.A.G.</b>	TRACER	ENGINEER <i>biw</i>	SUBMITTED <i>Sumner D. Butler</i>	
CHECKER GWP	CHECKER	ENGINEER DEN	APPROVED <i>Andrew W. Biele</i> COMMANDER, SAVANNA ARMY DEPOT	
REVISIONS			APPROVED BY ORDER OF COMMANDER, ARMY MATERIEL COMMAND <i>James P. ...</i> ARMY SUPPLY & MAINTENANCE COMMAND	
			MATERIEL COMMAND U.S.A.	
			<b>6 NOVEMBER 1962</b>	
			CLASS	DIVISION
			DRAWING	FILE
			19	48
			7488	GSE 11HJ2



**WHEEL BLOCK**

(6 REQD)

LOCATE 45° END OF BLOCK AGAINST WHEEL.  
 NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d  
 NAILS. NAIL EACH ADDITIONAL PIECE W/4-20d  
 NAILS.



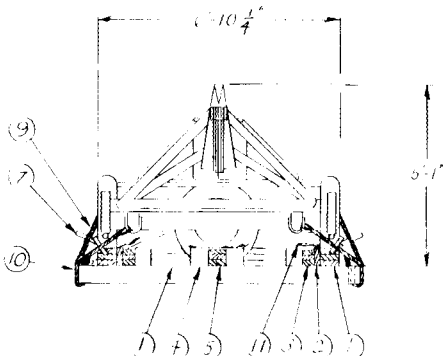
SEE GENERAL NOTE "E"

SEE GENERAL NOTE "H"

**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① WHEEL BLOCK (6 REQD). SEE DETAIL.
- ② 2" x 6" x 36" (2 REQD). NAIL TO LOWER PIECE (3) W/5-12d NAILS.
- ③ 2" x 4" x 36" (TRIPLED)(2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL EACH ADDITIONAL PIECE IN LIKE MANNER.
- ④ 2" x 6" x 18" (2 REQD). NAIL TO LOWER PIECE (5) W/2-12d NAILS.
- ⑤ 2" x 6" x 18" (TRIPLED)(2 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/4-12d NAILS. NAIL EACH ADDITIONAL PIECE W/4-20d NAILS.
- ⑥ 2" x 8" x 18" (1 REQD). NAIL TO TRAILER FLOOR W/3-12d NAILS.
- ⑦ WIRE TWISTER, 2" x 2" x LENGTH TO SUIT (10 REQD). SEE GENERAL NOTE "E".
- ⑧ FOUR (4) STRANDS NO. 8 GAGE BLACK ANNEALED WIRE (2 REQD). PASS THRU LADING LUNETTE AND TRANSPORTER TIE DOWN FACILITY TO FORM A COMPLETE LOOP. TWIST TAUT WITH (7). SEE GENERAL NOTES "E" & "H".
- ⑨ SIX (6) STRANDS NO. 8 GAGE BLACK ANNEALED WIRE (4 REQD). PASS THRU HOLES IN WHEEL AND TRANSPORTER TIE DOWN FACILITY TO FORM A COMPLETE LOOP. TWIST TAUT WITH (7). SEE GENERAL NOTE "E".
- ⑩ FOURTEEN(14) STRANDS NO. 8 GAGE BLACK ANNEALED WIRE (4 REQD). INSTALL TO APPROXIMATE ANGLE SHOWN AND TO FORM A COMPLETE LOOP FROM TIE DOWN FACILITY ON TRANSPORTER THRU LADING TIE DOWN DEVICE AND BACK TO TRANSPORTER TIE DOWN FACILITY. TWIST TAUT WITH (7),SEE GENERAL NOTES "E" AND "G". SEE NOTE "●".
- ⑪ WATERPROOF PAPER OR BURLAP OF A SUFFICIENT SIZE TO POSITION UNDER AND EXTEND 2" ABOVE PIECES (2) AND (4).



**REAR VIEW**

**NOTE ● :**

IF DESIRED BY THE SHIPPER, A STEEL WIRE ROPE CABLE (1/2" DIA, PLAIN, PREFORMED, REGULAR LAY, 11.5 TONS, 6 X 19, FLEXIBLE IWRC, MACWHYTE STRAND CO OR EQUAL; REF: FED SPEC RR-W-410) CAN BE SUBSTITUTED FOR EACH PIECE (10). INSTALL EACH CABLE TO FORM A FOUR (4) CLIP SEALED COMPLETE LOOP WITH A THIMBLE (STD, SIZE 1/2") SECURED TO THE CABLE BY A CABLE CLIP AT THE TIE DOWN FACILITY ON THE TRANSPORTER AND AT THE TIE DOWN DEVICE ON THE LADING. SEE GENERAL NOTE "E".

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GENERAL NOTES

- A. LOAD AS SHOWN IS BASED ON A FLAT BED OR "LOW-BOY" TRAILER 8'-0" WIDE WITH WOOD OR WOOD AND METAL FLOOR. TRAILERS WITH ALL METAL FLOORS WILL NOT BE USED. ONLY ONE UNIT OF LADING SHOWN; HOWEVER, MULTIPLES OF UNITS, AS SHOWN OR DISSIMILAR IN NATURE, MAY BE LOADED ON A TRAILER. THE NUMBER OF UNITS TO BE LOADED ON A TRAILER WILL BE DEPENDENT ON THE SIZE OF THE TRAILER USED OR THE QUANTITIES OF UNITS TO BE SHIPPED WITH THE VIEW OF FULL UTILIZATION OF CARRIER EQUIPMENT.
- B. ONLY TRAILERS CAPABLE OF SAFELY TRANSPORTING THE LADING TO DESTINATION WITHOUT DAMAGE WILL BE SELECTED. TRAILERS SELECTED MUST HAVE "SOUND" FLOORS WHICH PROVIDE NAIL RETENTION PROPERTIES EQUAL TO OR BETTER THAN SPECIFIED DUNNAGE LUMBER, AND A SUFFICIENT NUMBER OF TIE DOWN FACILITIES OF A STRENGTH EQUAL TO OR BETTER THAN SPECIFIED LADING TIE DOWN ASSEMBLIES.
- C. SHIPMENT GROSS WEIGHT, AXLE DISTRIBUTION OF LADING WEIGHT AND OVERALL DIMENSIONS MUST MEET STATE LAW REQUIREMENTS.
- D. LADING DATA:  
ITEM DIMENSIONS - 37'-1" LONG (WITH TOW BAR IN NORMAL POSITION, SEE GENERAL NOTE "H") x 6'-10-1/4" WIDE x 5'-1" HIGH.  
ITEM GROSS WEIGHT - 4,625 POUNDS (APPROX).
- E. REFER TO ORD DWG 19-48-C-ORDJU-588, "WIRE ROPE AND ANNEALED WIRE APPLICATION METHODS FOR SECURING LADING ON RAIL & MOTOR CARRIER EQUIP", FOR PROPER TIE DOWN APPLICATION.  
CAUTION: DURING TWISTED WIRE CABLE INSTALLATION, AVOID CONTACT WITH ALL ELECTRICAL WIRING, VEHICLE CONTROLS AND OTHER APPURTENANTS. METAL FILLERS OR COMPARABLE CUSHIONING MATERIAL MUST BE USED BETWEEN TIE DOWN WIRES AND/OR CABLES AND ALL SHARP EDGES, AND ANTI-CHAFING MATERIAL MUST BE USED BETWEEN CONTACTING TIE DOWN WIRES AND LADING TIRES.  
ADDITIONALLY, LADING TIRES WILL BE INFLATED TO HIGHWAY OPERATING PRESSURE, AND ALL HAND BRAKES MUST BE "SET" WITH THE HAND LEVERS WIRE TIED OR BLOCKED.
- F. LADING WILL NOT BE SECURED BY CHAINS AND/OR LOAD BINDERS IN LIEU OF SPECIFIED DUNNAGE.
- G. CAUTION: IT IS RECOMMENDED THAT TWISTED WIRE CABLE BE INSTALLED TO APPROXIMATE ANGLE SHOWN; HOWEVER, IF PLACEMENT OF TRANSPORTER TIE DOWN FACILITIES PREVENTS THIS, CARE MUST BE EXERCISED TO ENSURE THAT CABLES ON THE SAME SIDE OF LADING ARE INSTALLED SO THEIR RETENTION FORCES ACT IN OPPOSITE LONGITUDINAL DIRECTIONS.
- H. THE TOW BAR IS SHOWN ROTATED 90° FROM NORMAL POSITION TO CONSERVE CARRIER EQUIPMENT SPACE. IF SPACE PERMITS, THE TOW BAR MAY BE LEFT IN A NORMAL POSITION AND BLOCKED WITH TWO (2) EACH OF (1), (2), (3) AND (1). OMIT PIECES (4) AND (5), AND INSTALL (8) FROM A TIE DOWN FACILITY ON EACH SIDE OF THE TRANSPORTER TO THE LADING LUNETTE.

BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET
2" x 2"	15	5
2" x 4"	18	12
2" x 6"	18	18
2" x 8"	25	33
NAILS	NO. REQD	POUNDS
12d (3 1/4")	95	1-3/4
20d (4")	74	2-3/4
WIRE, NO. 8 GAGE ----- 245' REQD ----- 23 LBS		
WATERPROOF PAPER OR BURLAP---- AS REQD		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
LAUNCHER, XM33	1	4,625 LBS
DUNNAGE		198 LBS
TOTAL WEIGHT		4,823 LBS (APPROX)

LOADING & BRACING ON FLAT BED TRAILER OF LAUNCHER, XM33, FOR THE 762 MM ROCKET SYSTEM

MATERIAL SPECIFICATIONS

- LUMBER: DOUGLAS FIR OR COMPARABLE LUMBER WITH STRAIGHT GRAIN AND FREE FROM MATERIAL DEFECTS. REF: FED SPEC MM-L-751.
- NAILS: COMMON, CEMENT COATED. REF: FED SPEC FF-N-105.
- ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
- WIRE: ANNEALED, BLACK. REF: FED SPEC QQ-W-461.

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DO NOT SCALE