

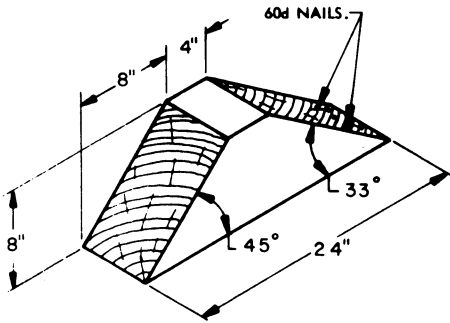
APPROVED BY
 MECH DIV AAR, THEIR LETTER
 DATED 26 JULY 67 FILE LR 11.0
 SIGNED Robert A. Hill RSE
 DATE 3 AUGUST 1967
 MTWTS, WASHINGTON, D.C.

NIKE-HERCULES

LOADING & BRACING ON FLAT CAR OF XM529 LOW BED TRAILER

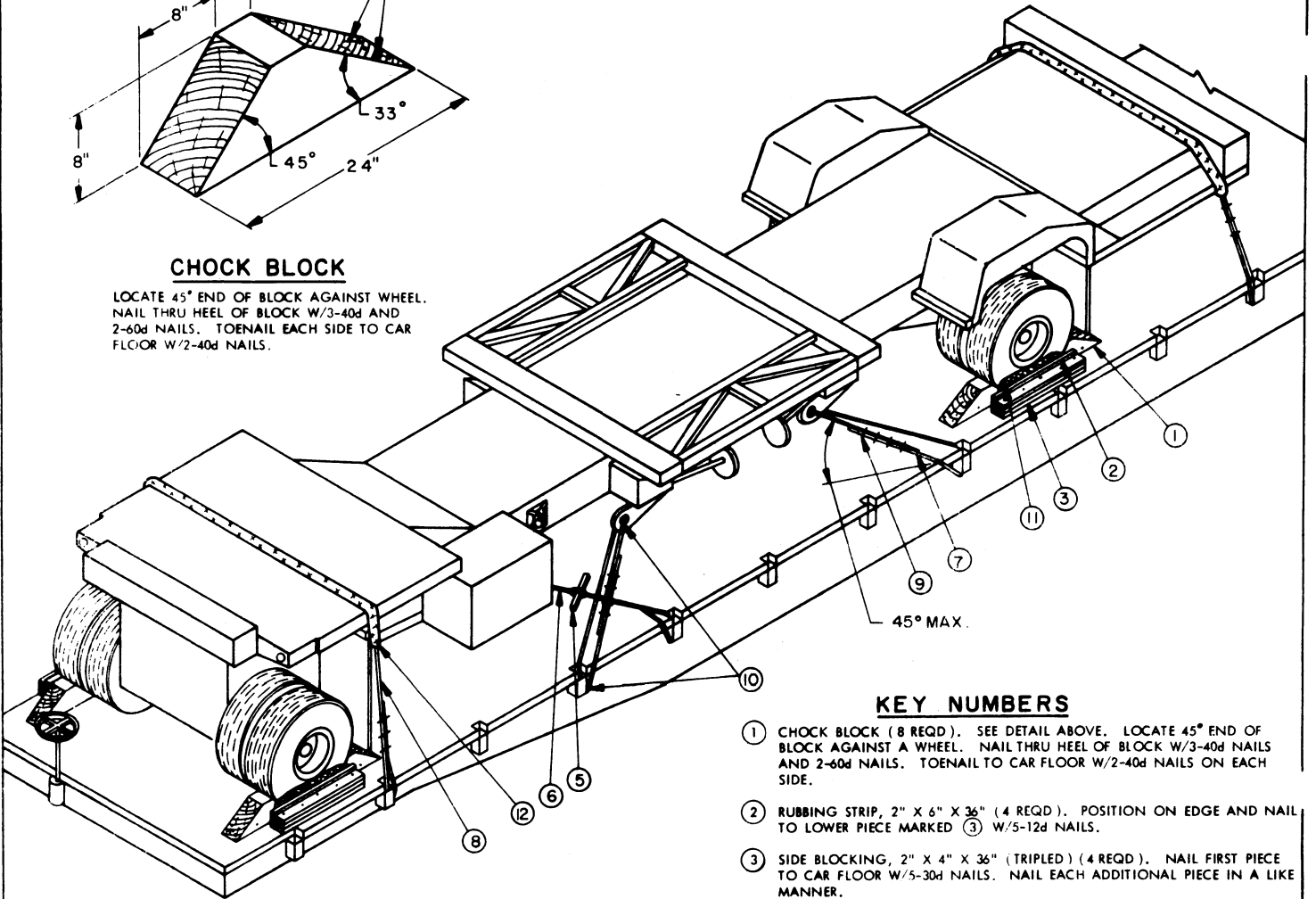
DRAFTER JPH	PROJ ENG DIW/PL	APPROV 2189	SUBMITTED <i>Robert A. Hill</i>
CHG JDS	DATE 7/27/67	APPROV 11/1	COMMANDING OFFICER, SAVANNA ARMY DEPOT
REVISIONS			APPROVED <i>Andrew W. Heid</i>
			ARMY MISSILE COMMAND
			APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL COMMAND
			<i>Paul Klein</i>
			U. S. ARMY MATERIEL COMMAND
			20 APRIL 1967
			CLASS DIVISION DRAWING FILE
			19 48 7153 GSE 5NH20

DO NOT SCALE



CHOCK BLOCK

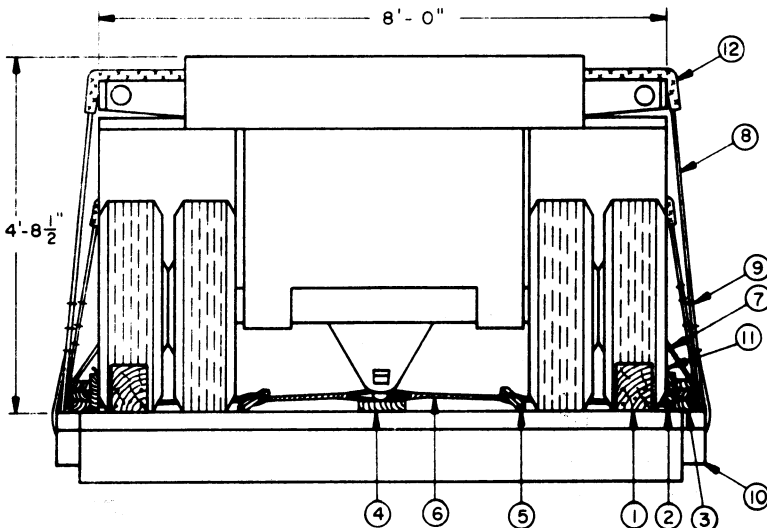
LOCATE 45° END OF BLOCK AGAINST WHEEL. NAIL THRU HEEL OF BLOCK W/3-40d AND 2-60d NAILS. TOENAIL EACH SIDE TO CAR FLOOR W/2-40d NAILS.



ISOMETRIC VIEW

KEY NUMBERS

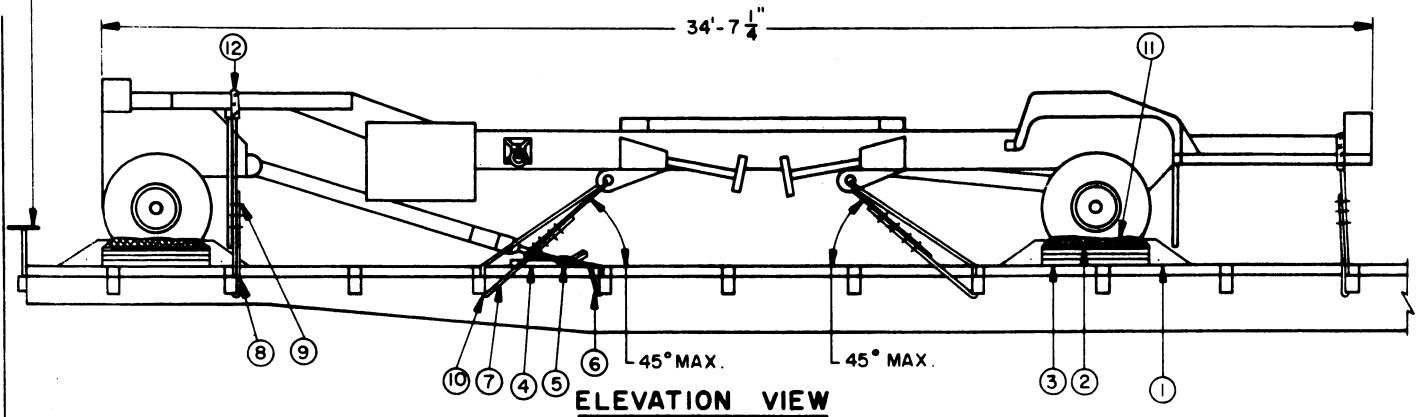
- ① CHOCK BLOCK (8 REQD). SEE DETAIL ABOVE. LOCATE 45° END OF BLOCK AGAINST A WHEEL. NAIL THRU HEEL OF BLOCK W/3-40d NAILS AND 2-60d NAILS. TOENAIL TO CAR FLOOR W/2-40d NAILS ON EACH SIDE.
- ② RUBBING STRIP, 2" X 6" X 3/8" (4 REQD). POSITION ON EDGE AND NAIL TO LOWER PIECE MARKED ③ W/5-12d NAILS.
- ③ SIDE BLOCKING, 2" X 4" X 36" (TRIPLED) (4 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL EACH ADDITIONAL PIECE IN A LIKE MANNER.
- ④ SLIDE BOARD, 2" X 8" X 18" (1 REQD). POSITION UNDER LUNETTE OF TOW BAR AS SHOWN IN THE "FRONT VIEW", AND THE "ELEVATION VIEW" ON PAGE 3. NAIL TO CAR FLOOR W/4-30d NAILS.
- ⑤ WIRE TWISTER, 2" X 2" X LENGTH TO SUIT (2 REQD). SEE GENERAL NOTE "C" ON PAGE 3.
- ⑥ FOUR (4) STRANDS OF NO. 8 GAGE BLACK ANNEALED WIRE (2 REQD). PASS THRU LUNETTE ON TRAILER AND STAKE POCKET ON CAR TO FORM A COMPLETE LOOP. TWIST TAUT WITH ⑤. SEE GENERAL NOTES "C" AND "D" ON PAGE 3.
- ⑦ STEEL WIRE ROPE, 1/2" DIA., 11.5 TONS (4 REQD). INSTALL CABLE ANGULARLY AS SHOWN AND TO FORM A COMPLETE LOOP FROM STAKE POCKET ON CAR THRU TIE DOWN DEVICE ON TRAILER AND BACK TO STAKE POCKET. SEE GENERAL NOTES "C", "D", AND "E" ON PAGE 3.
- ⑧ STEEL WIRE ROPE, 1/2" DIA., 11.5 TONS (2 REQD). INSTALL AS SHOWN; SECURE CABLE TO A STAKE POCKET ON ONE SIDE OF THE CAR WITH A LAPPED-BACK-ON-SELF JOINT, RUN CABLE OVER TRAILER AND SECURE TO A STAKE POCKET ON THE OPPOSITE SIDE OF THE CAR IN A LIKE MANNER. SEE GENERAL NOTES "C", "D", AND "E" ON PAGE 3.
- ⑨ CLIP, WIRE ROPE, SIZE 1/2" (40 REQD). USE FOUR (4) TO SEAL EACH JOINT MADE WITH PIECES MARKED ⑦. USE THREE (3) TO SEAL EACH JOINT MADE WITH PIECES MARKED ⑧. USE ONE (1) TO SECURE EACH THIMBLE MARKED ⑩ TO THE PIECES MARKED ⑦ AND ⑧.
- ⑩ THIMBLE, STANDARD, SIZE 1/2" (12 REQD). USE WITH PIECES MARKED ⑦ AND ⑧; ONE (1) PER STAKE POCKET AND ONE (1) PER TIE DOWN DEVICE. SECURE TO PIECES MARKED ⑦ AND ⑧ W/1 CLIP PER THIMBLE. SEE GENERAL NOTE "C" ON PAGE 3.
- ⑪ WATERPROOF PAPER OR BURLAP OF A SUFFICIENT SIZE TO POSITION UNDER AND EXTEND 2" ABOVE PIECES MARKED ②.
- ⑫ ANTI-CHAFING, NEUTRAL BARRIER MATERIAL. WRAP AROUND PIECES MARKED ⑧ AS REQUIRED TO PROVIDE SUITABLE CUSHIONING PRIOR TO INSTALLATION OF PIECES MARKED ⑧. SECURE AS NECESSARY TO PREVENT DISLODGEMENT DURING TRANSIT.



FRONT VIEW

CAR BRAKE WHEEL OMITTED FOR CLARITY PURPOSES.

SEE GENERAL NOTE "D" BELOW.



GENERAL NOTES

A. THE LOAD AS SHOWN IS BASED ON A FLAT CAR 9'-2" WIDE (PLATFORM). WIDER OR NARROWER CARS CAN BE USED; HOWEVER, IF A NARROWER CAR IS USED, THE SIDE BLOCKING DUNNAGE MARKED AS PIECES ②, ③, AND ⑪ MUST BE INSTALLED UNDER THE VEHICLE AGAINST THE INSIDE SURFACE OF THE WHEELS. ONLY ONE UNIT OF LADING IS SHOWN BECAUSE OF ITS LENGTH; HOWEVER, OTHER UNITS WHICH ARE DISSIMILAR IN NATURE, MAY BE LOADED ON A CAR IF SPACE PERMITS. THE NUMBER OF UNITS TO BE LOADED ON A CAR WILL BE DEPENDENT ON THE SIZE OF THE CAR USED OR THE QUANTITIES OF UNITS TO BE SHIPPED WITH THE VIEW OF FULL UTILIZATION OF CARRIER EQUIPMENT. NOTE: IF THE LENGTH OF THE CAR BEING USED PERMITS, THE TRAILER MAY BE LOADED WITH THE FRONT DOLLY ASSEMBLY IN A TOWING POSITION INSTEAD OF IN THE REDUCED-LENGTH CONFIGURATION SHOWN.

B. LADING DATA:

ITEM DIMENSIONS ---- 34'-7-1/4" LONG X 8'-0" WIDE X 4'-8-1/2" HIGH.
ITEM GROSS WEIGHT -- 14,500 POUNDS (APPROX).

C. REFER TO ORD DWG 19-48-C-ORDJU-588, "WIRE ROPE AND ANNEALED WIRE APPLICATION METHODS FOR SECURING LADING ON RAIL AND MOTOR CARRIER EQUIPMENT", FOR PROPER TIE DOWN APPLICATION.
CAUTION: DURING WIRE ROPE INSTALLATION AVOID CONTACT WITH ALL ELECTRICAL WIRING, VEHICLE CONTROLS AND OTHER APPURTENANCES. METAL FILLERS OR COMPARABLE CUSHIONING MATERIAL MUST BE USED BETWEEN THE TIE DOWN WIRES AND/OR CABLES AND ALL SHARP EDGES. ADDITIONALLY, LADING TIRES WILL BE INFLATED TO 10 PSI ABOVE HIGHWAY OPERATING PRESSURE, AND ALL HAND BRAKES MUST BE "SET" WITH THE HAND LEVERS WIRE TIED OR BLOCKED.

D. REFER TO ASSOCIATION OF AMERICAN RAILROADS MANUAL, "GENERAL RULES GOVERNING THE LOADING OF COMMODITIES ON OPEN TOP CARS", FOR APPLICABLE LOADING RULES; PREFACE, 1-A, 2, 3, 4, 5, 9, 10-D, 14, 15, AND 19-B.

E. WIRE ROPE CABLE MUST BE TENSIONED SUFFICIENTLY TO CAUSE SLIGHT VEHICLE BODY DEPRESSION. TENSIONING CAN BE ACCOMPLISHED BY EMPLOYING TWO (2) CABLE "GRIPPERS" AND AN APPLICABLY SIZED "COME-A-LONG" TYPE MECHANICAL HOIST. NOTE: INSTALL PIECES MARKED ⑦ PRIOR TO PIECES MARKED ⑧.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	3	1
2" X 4"	36	24
2" X 6"	12	12
2" X 8"	2	3
6" X 8"	10	40
NAILS	NO. REQD	POUNDS
12d (3-1/4")	20	1/2
30d (4-1/2")	64	3-1/4
40d (5")	56	3-1/2
60d (6")	16	1-3/4
ROPE, STEEL WIRE, 1/2" DIA. ----- 100' REQD ----- 44 LBS		
CLIP, 1/2" ----- 40 REQD ----- 18 LBS		
THIMBLE, STANDARD, 1/2" ----- 12 REQD ----- 3 LBS		
WIRE, NO. 9 GAGE ----- 50' REQD ----- 5 LBS		
WATERPROOF PAPER OR BURLAP ----- AS REQD ----- NIL		
ANTI-CHAFING MATERIAL ----- AS REQD ----- NIL		

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 OR CHEMICALLY ETCHED. REF: FED SPEC FF-N-105.
ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.

ROPE--- STEEL WIRE, PLAIN, PREFORMED, REGULAR LAY, 11.5 TONS, 6 X 19, FLEXIBLE IWRC, MACWHYTE WIRE ROPE CO. OR EQUAL. REF: FED SPEC RR-W-410.

CLIPS--- "U" BOLT, CROSBY, HEAVY DUTY, OR EQUAL.

WIRE--- ANNEALED, BLACK, REF: FED SPEC QQ-W-461.

ANTI-CHAFING MATERIAL--- NEUTRAL BARRIER MATERIAL, REF: MIL-B-121 (OR EQUAL).

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
XM529 TRAILER	1	14,500 LBS
DUNNAGE		279 LBS
TOTAL WEIGHT		14,779 LBS

