

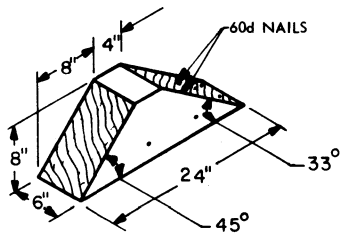
APPROVED BY
 MECH DIV AAR, THEIR LETTER
 DATED 1/13/67 FILE LR 11.0
 SIGNED *[Signature]* RSE
 DATE 19 January 1967
 MTMCS, WASHINGTON, D. C.

AADCP

LOADING & BRACING ON FLAT CAR OF EQUIPMENT VAN, AN/TSQ-5I

DESIGNER R.R.E.	PROJ ENG DIW/RHT	ANSI-DEN <i>[initials]</i>	SUBMITTED <i>B.L. Dr. a. m.</i>
CHECKER RHA	ARC ANNO CYR <i>[initials]</i>	ANSI-SPRD <i>[initials]</i>	CONSULTING OFFICER, SAVANNAH ARMY DEPOT
REVISIONS			APPROVED <i>[Signature]</i> ARMY MISSILE COMMAND
			APPROVED BY ORDER OF COMMANDING GENERAL U. S. ARMY MATERIEL COMMAND <i>[Signature]</i>
			U. S. ARMY MATERIEL COMMAND
			1 NOVEMBER 1966
			CLASS DIVISION DRAWING FILE
			19 48 7148 GSE 5AD3

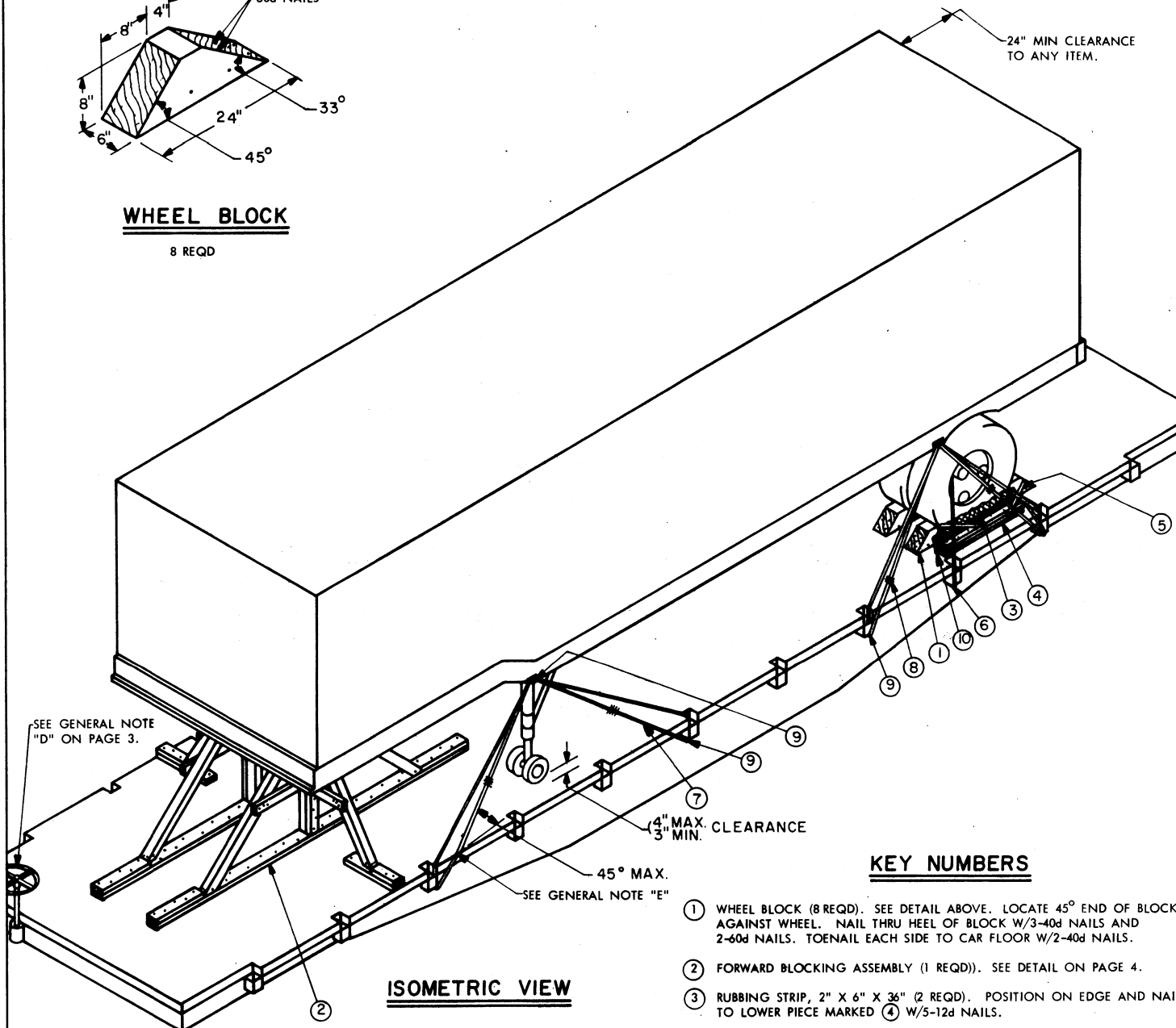
DO NOT SCALE



WHEEL BLOCK

8 REQD

24" MIN CLEARANCE TO ANY ITEM.



SEE GENERAL NOTE "D" ON PAGE 3.

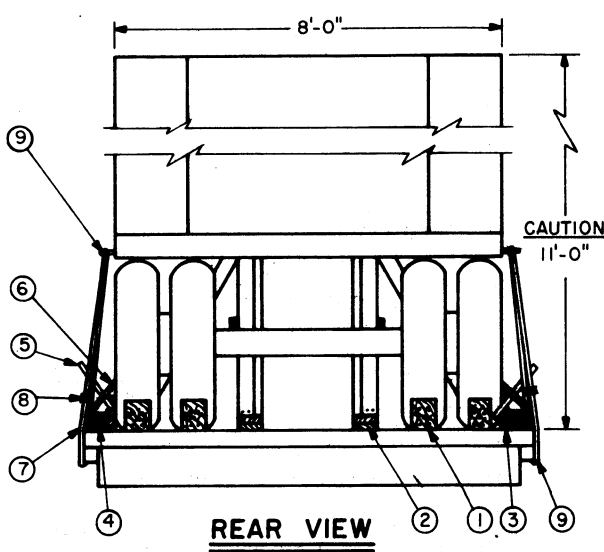
4" MAX. 3" MIN. CLEARANCE

45° MAX. SEE GENERAL NOTE "E"

ISOMETRIC VIEW

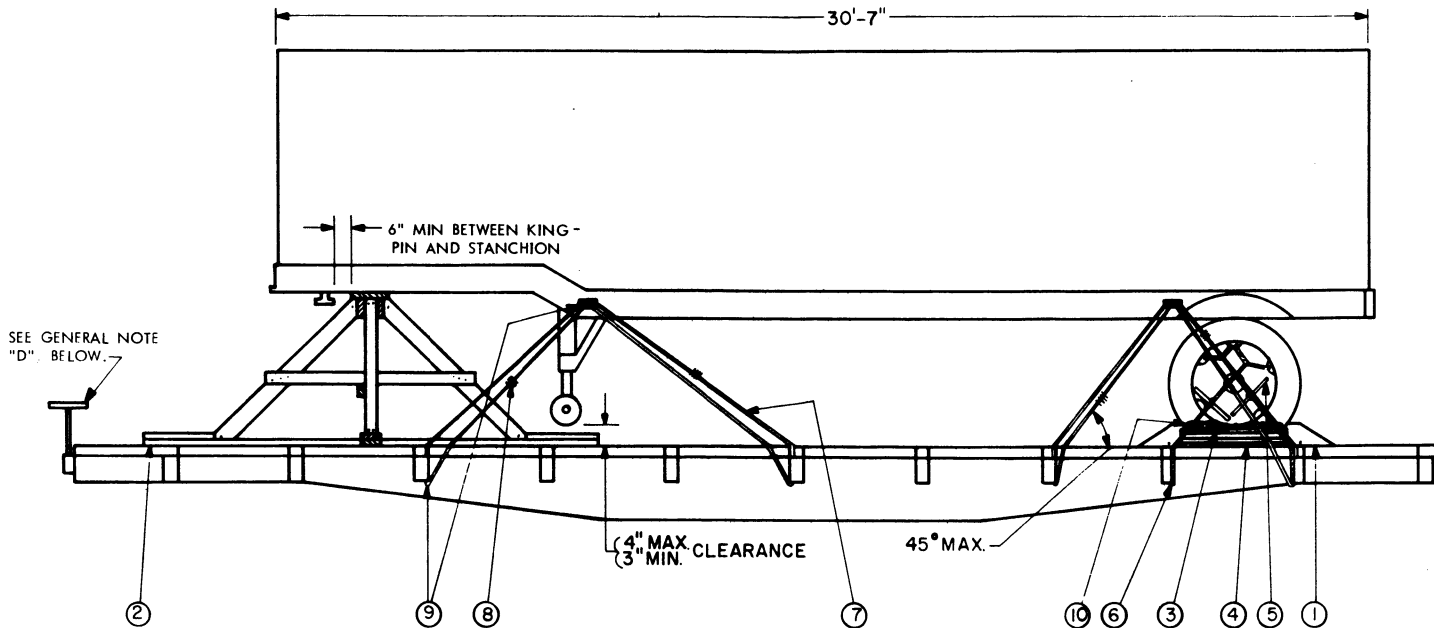
KEY NUMBERS

- ① WHEEL BLOCK (8 REQD). SEE DETAIL ABOVE. LOCATE 45° END OF BLOCK AGAINST WHEEL. NAIL THRU HEEL OF BLOCK W/3-40d NAILS AND 2-60d NAILS. TOENAIL EACH SIDE TO CAR FLOOR W/2-40d NAILS.
- ② FORWARD BLOCKING ASSEMBLY (1 REQD)). SEE DETAIL ON PAGE 4.
- ③ RUBBING STRIP, 2" X 6" X 36" (2 REQD). POSITION ON EDGE AND NAIL TO LOWER PIECE MARKED ④ W/5-12d NAILS.
- ④ SIDE BLOCKING, 2" X 4" X 36" (TRIPLED) (2 REQD). NAIL FIRST PIECE TO CAR FLOOR W/5-30d NAILS. NAIL EACH ADDITIONAL PIECE IN A LIKE MANNER.
- ⑤ WIRE TWISTER, 2" X 2" X LENGTH TO SUIT (4 REQD). SEE GENERAL NOTE "C" ON PAGE 3.
- ⑥ EIGHT STRANDS NO. 8 GAGE BLACK ANNEALED WIRE (4 REQD). PASS THRU HOLES IN WHEEL AND STAKE POCKET TO FORM A COMPLETE LOOP. TWIST TAUT WITH PIECE MARKED ⑤. SEE "WHEEL SECUREMENT" DETAIL ON PAGE 4 AND GENERAL NOTES "C" AND "D" ON PAGE 3.
- ⑦ STEEL WIRE ROPE, 1/2" DIA, 11.5 TONS (8 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" AND "D" ON PAGE 3.
- ⑧ CLIP, WIRE ROPE, SIZE 1/2" (48 REQD). FOUR (4) PER CABLE AND ONE (1) PER THIMBLE. SEE GENERAL NOTE "C" ON PAGE 3.
- ⑨ THIMBLE, STANDARD, SIZE 1/2" (16 REQD). ONE (1) PER STAKE POCKET AND ONE (1) PER TIE DOWN DEVICE. SECURE TO WIRE ROPE, PIECE MARKED ⑦, W/1 CLIP PER THIMBLE. SEE GENERAL NOTE "C" ON PAGE 3.
- ⑩ WATERPROOF PAPER OR BURLAP OF A SUFFICIENT SIZE TO POSITION UNDER AND EXTEND 2" ABOVE PIECE MARKED ③.



CAUTION 11'-0"

REAR VIEW



ELEVATION VIEW

GENERAL NOTES

- A. LOAD AS SHOWN IS BASED ON A FLAT CAR 9'-6" WIDE (PLATFORM); WIDER CARS CAN BE USED. ONLY ONE UNIT OF LADING SHOWN; HOWEVER MULTIPLES OF UNITS, AS SHOWN OR DISSIMILAR IN NATURE, MAY BE LOADED ON A CAR. THE NUMBER OF UNITS TO BE LOADED ON A CAR WILL BE DEPENDENT ON THE CAR SIZE, AND NUMBER OF UNITS TO BE SHIPPED WITH THE VIEW OF FULL UTILIZATION OF CARRIER EQUIPMENT. CAUTION: LOAD AS SHOWN MAY REQUIRE "CLEARANCE" CONSIDERATION BECAUSE OF EXCESSIVE LADING SIZE.

NOTICE TO TRANSPORTATION OFFICER:

IN LIEU OF REQUISITIONING A STANDARD FLAT CAR AS DEPICTED HEREIN, EVERY EFFORT SHOULD BE MADE TO ACQUIRE A TRAILER-ON-FLAT-CAR(TOFC) RAIL CAR FOR THE LOADING OF THIS ITEM. SECUREMENT OF ITEM ON TOFC RAIL CAR WILL BE IN ACCORDANCE WITH CAR OWNER'S SPECIFICATION. AVAILABILITY OF EQUIPMENT AND INTERCHANGE ROUTING OF SHIPMENT WILL GOVERN UTILIZATION OF TOFC CARS.

B. LADING DATA:

ITEM DIMENSIONS - 30'-7" LONG X 8'-0" WIDE X 11'-0" HIGH.
ITEM GROSS WEIGHT - 17,257 POUNDS (APPROX).

- C. REFER TO ORD DWG 19-48-GORDJU-588, "WIRE ROPE AND ANNEALED WIRE APPLICATION METHODS FOR SECURING LADING ON RAIL & MOTOR CARRIER EQUIP" FOR PROPER TIE DOWN APPLICATION. CAUTION: DURING WIRE ROPE INSTALLATION AVOID CONTACT WITH ALL ELECTRICAL WIRING, VEHICLE CONTROLS AND OTHER APPURTENANCES.

- 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, 7, 9, 10-D, 14, 15, AND 19-B.

ADDITIONALLY, ALL HAND BRAKES MUST BE "SET" WITH THE HAND LEVERS WIRE TIED OR BLOCKED, AND TIRES WILL BE INFLATED 10 PSI ABOVE REGULAR OPERATING PRESSURE.

- 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.

LOAD AS SHOWN

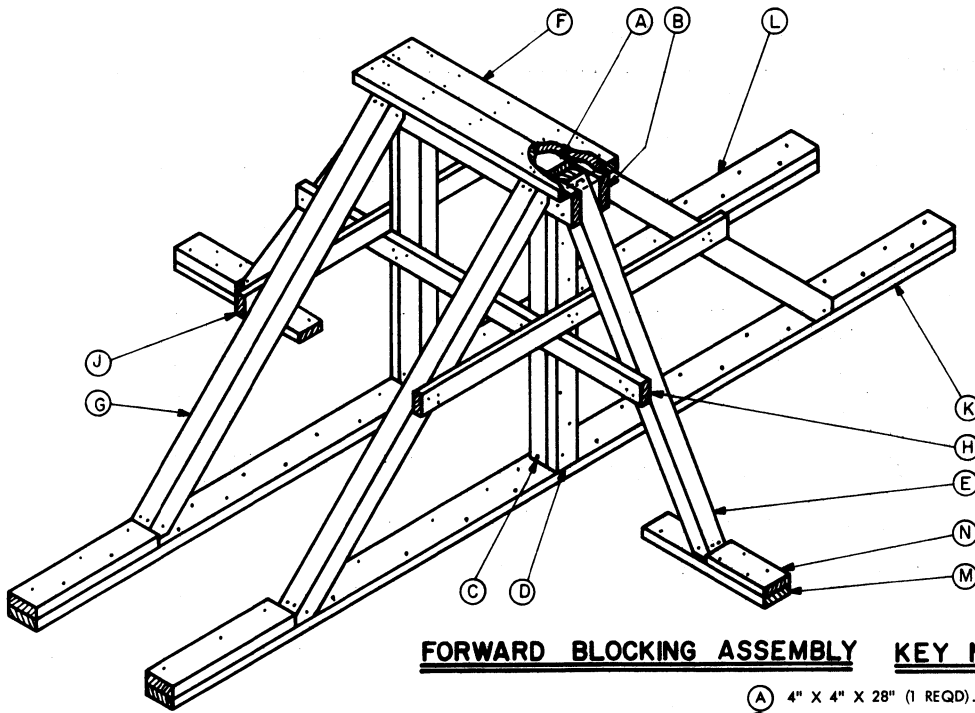
ITEM	QUANTITY	WEIGHT (APPROX)
EQUIPMENT VAN, AN/TSQ-51	1	17,257 LBS
DUNNAGE		565 LBS
TOTAL WEIGHT		17,822 LBS

BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET*
2" X 2"	6	2
2" X 4"	42	28
2" X 6"	59	59
4" X 4"	43	58
6" X 8"	10	40
NAILS	NO. REQD	POUNDS
12d (3-1/4")	116	2
16d (3-1/2")	60	1-1/2
20d (4")	4	1/4
30d (4-1/2")	106	5-1/2
40d (5")	56	3-1/2
60d (6")	16	1-3/4
ROPE, STEEL WIRE, 1/2" DIA	130' REQD	57 LBS
CLIP, 1/2"	48 REQD	21 LBS
THIMBLE, STANDARD, 1/2"	16 REQD	4 LBS
WIRE, NO. 8 GAGE	160' REQD	15 LBS
WATERPROOF PAPER OR BURLAP	AS REQD	NIL

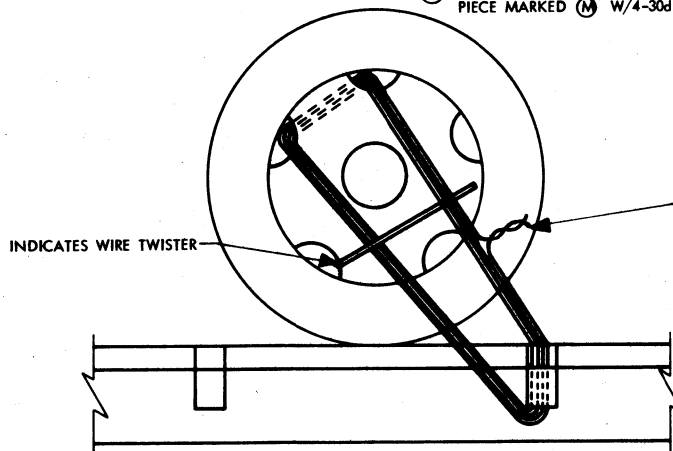
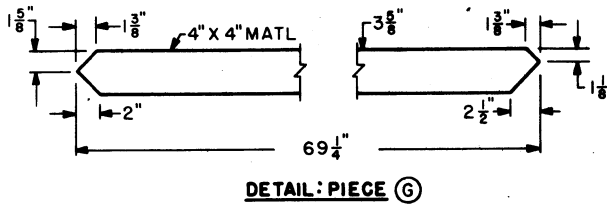
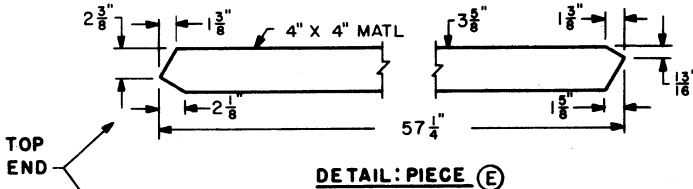
MATERIAL SPECIFICATIONS

- LUMBER**-- DOUGLAS FIR OR COMPARABLE LUMBER WITH STRAIGHT GRAIN AND FREE FROM MATERIAL DEFECTS. REF: FED SPEC MM-L-751.
- NAILS**-- COMMON, CEMENT COATED. REF: FED SPEC FF-N-105. ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
- ROPE**--- STEEL WIRE, PLAIN, PREFORMED, REGULAR LAY, 1 1/2 TONS, 6 X 19, FLEXIBLE IWRC, MACWHYTE WIRE ROPE CO (OR EQUAL). REF: FED SPEC RR-W-410.
- CLIPS**--- "U" BOLT, CROSBY, HEAVY DUTY.
- WIRE**--- ANNEALED, BLACK. REF: FED SPEC QQ-W-461.



FORWARD BLOCKING ASSEMBLY KEY NUMBERS

- (A) 4" X 4" X 28" (1 REQD).
- (B) 2" X 6" X 40" (2 REQD). NAIL TO PIECE MARKED (A) W/6-12d NAILS. NAIL TO PIECES MARKED (C) AND (E) W/2-12d NAILS EACH.
- (C) 4" X 4" X 45" (2 REQD). TOENAIL TO PIECES MARKED (A) AND (K) W/4-16d NAILS AT EACH END.
- (D) 2" X 4" X 48-3/4" (2 REQD). NAIL TO PIECE MARKED (A) W/2-12d NAILS AND TO PIECE MARKED (C) W/7-12d NAILS.
- (E) 4" X 4" X 57-1/4" (2 REQD). DOUBLE BEVEL EACH END. SEE "DETAIL: PIECE (E)" FOR BEVEL CUTS REQUIRED. TOENAIL TO PIECE MARKED (D) W/2-16d NAILS. TOENAIL TO PIECE MARKED (M) W/4-16d NAILS AFTER PARTIAL ASSEMBLY (PIECES MARKED (A) THRU (K)) HAS BEEN LOCATED ON THE RAIL CAR AND PIECE MARKED (M) HAS BEEN NAILED TO THE CAR FLOOR.
- (F) 2" X 6" X 40" (2 REQD). NAIL TO PIECES MARKED (A) AND (B) W/5-12d NAILS EACH AND TO PIECES MARKED (E) AND (G) W/2-12d NAILS AT EACH JOINT.
- (G) 4" X 4" X 69-1/4" (4 REQD). DOUBLE BEVEL EACH END. SEE "DETAIL: PIECE (G)" FOR BEVEL CUTS REQUIRED. TOENAIL TO PIECE MARKED (B) W/4-16d NAILS. TOENAIL TO PIECE MARKED (K) W/4-16d NAILS BEFORE PARTIAL ASSEMBLY (PIECE MARKED (A) THRU (K)) HAS BEEN LOCATED UNDER THE ITEM AND PIECE MARKED (K) HAS BEEN NAILED TO THE CAR FLOOR.
- (H) 2" X 4" X 68" (1 REQD). NAIL TO PIECES MARKED (C) AND (E) W/3-12d NAILS AT EACH JOINT.
- (J) 2" X 4" X 60" (2 REQD). NAIL TO PIECES MARKED (D) AND (G) W/3-12d NAILS AT EACH JOINT.
- (K) 2" X 6" X 12'-8" (2 REQD). NAIL TO THE CAR FLOOR W/1-30d NAIL EVERY 8".
- (L) 2" X 6" X 24" (4 REQD). POSITION AGAINST PIECE MARKED (C) AND NAIL TO PIECE MARKED (K) W/5-30d NAILS.
- (M) 2" X 6" X 24" (2 REQD). NAIL TO THE CAR FLOOR W/5-30d NAILS.
- (N) 2" X 6" X 12" (2 REQD). POSITION AGAINST PIECE MARKED (E) AND NAIL TO PIECE MARKED (M) W/4-30d NAILS.



WHEEL SECUREMENT

AN EIGHT (8) STRAND INSTALLATION OF NO. 8 GAGE BLACK ANNEALED WIRE IS SHOWN, PASSED THRU HOLES IN WHEEL AND RAIL CAR STAKE POCKET TO FORM A COMPLETE LOOP, AND READY TO BE TWISTED TAUT WITH WIRE TWISTER.

DETAILS