ROCKETS/GUIDED MISSILES

LOADING, TIEDOWN, AND UNLOADING PROCEDURES FOR THE SHIPMENT OF ROCKETS/MISSILES LOADED ON THE PALLETIZED LOADING SYSTEM (PLS) M1077 A-FRAME FLATRACK AND/OR THE M1 ISO COMPATIBLE PLS FLATRACK (IPF)

INDEX

<u>ITEM</u>	PAGE(S)
GENERAL NOTES AND MATERIAL SPECIFICATIONS	_

	U.S. ARMY MATERI	EL C	OMM	AND DR	AWING	
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GENERAL NOTES

- THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE
- THIS DRAWING COVERS PROCEDURES APPLICABLE TO THE THIS DRAWING COVERS PROCEDURES APPLICABLE TO THE TRANSPORT OF THE ROCKETS/MISSILES LISTED ON PAGES 3 AND 66, LOADED ON THE PALETIZED LOADING SYSTEM (PLS) M1077 A-FRAME AND/OR MI ISO COMPATIBLE FLATRACK, SECURED WITH WEB STRAP TIEDOWN ASSEMBLIES, FOR ON AND/OR OFF HIGHWAY. NOIE: THE PROCEDURES ARE APPLICABLE WHETHER THE FLATRACKS MOVE ON THE PLS TRUCK OR ON THE PLS TRAILER.
- DEPICTED PROCEDURES APPLY TO A-FRAME FLATRACKS HAVING AN ALL METAL CARGO DECK AREA 19'-0" LONG BY 7'-6-3/4" WIDE. EQUIPPED WITH ELEVEN TIEDOWN ANCHORS ON EACH SIDE AND FOUR ON EACH END. THE EMPTY FLATRACK WEIGHT IS 3,200 POUNDS AND THE LOAD CAPACITY IS 33,000 POUNDS. THE DEPICTED PROCEDURES ALSO APPLY TO THE M1 FLATRACK WHICH HAS A WOOD AND METAL CARGO DECK AREA 18'-6" LONG BY 7'-6-12' WIDE. EQUIPPED WITH ELEVEN TIEDOWN ANCHORS ON EACH SIDE. THE EMPTY FLATRACK WEIGHT IS 7,100 POUNDS AND THE LOAD CAPACITY IS 31,400 POUNDS
- ALL LOADS SHOWN HEREIN ARE TYPICAL AND ARE BASED ON TESTED PROCEDURES FOR OFF HIGHWAY TRANSPORT. COMBINATIONS OF PROCEDURES MAY BE USED, HOWEVER, THE APPROVED METHODS SPECIFIED HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE.
- BECAUSE OF THE FACT THAT ALL LOADS HEREIN ARE TYPICAL IT IS MOST LIKELY THAT THE ACTUAL ITEM OR QUANTITY TO BE TRANSPORTED WILL NOT BE DEPICTED. IN ORDER TO MAINTAIN SIMILARITY FROM ONE LOAD TO ANOTHER, INSTALLATIONS SHOULD MAKE AN ACTUAL PENCILED SKETCH OF THE LOAD, USING THE VARIOUS TYPICAL LOADS AND PROCEDURES SHOWN HEREIN FOR GUIDANCE. THE SKETCH WOULD BE ADVANTAGEOUS FOR MAXIMUM LOADS USING A MINIMUM QUANTITY OF WEB STRAP TIEDOWN 231 JRM322A
- WEB STRAP TIEDOWN ASSEMBLIES MUST BE SECURELY HOOKED INTO ANCHORING DEVICES ON THE TRANSPORTING VEHICLE AND FIRMLY TENSIONED. FIRMLY TENSIONED MEANS, WHEN THE OPERATOR PULLS ON THE RATCHET HANDLE BY HAND, THE RATCHET WILL NOT ADVANCE ANOTHER NOTCH. NO TYPE OF MECHANICAL EXTENSION OR LEVER WILL BE USED. EXERCISE CARE DURING STRAP APPLICATION, AVOID TWISTS IN THE STRAP TO THE EXTENT POSSIBLE (IF TIME PERMITS) BUT ENSURE THERE ARE NO KNOTS IN THE STRAP. POSSIBLE (IF TIME PERMITS) BUT ENSURE THERE ARE NO KNOTS IN THE STRAP. ON THE TAKE-UP SPOOL OF THE RATCHET, ENSURE STRAP HER TO KNOTS IN THE STRAP. ON THE TAKE-UP SPOOL OF THE RATCHET, ENSURE STRAIGHT LAY OF THE STRAP WHEN TENSIONING. AFTER INITIAL WEBBING—TO-WEBBING CONTACT HAS BEEN MADE, BY ROTATING THE TAKE-UP SPOOL UNTIL NO METAL ON THE SPOOL IS SHOWING AND THE STRAP HAS MADE CONTACT WITH ITSELF. THE TENSIONED STRAP MUST FORM AT LEAST 1/2 BUT NOT MORE THAN 1-1/2 WRAPS OF STRAP ON THE TAKE-UP SPOOL OF THE TENSIONING RATCHET. AFTER TENSIONING IS COMPLETED ENSURE THAT THE SPOOL LOCKING LATCH IS FULLY SEATED AT BOTH ENDS OF THE SPOOL IN MATCHING LOCKING NOTCHES. TIE BACK THE LOOSE ENDS OF THE STRAP AFTER TENSIONING IS COMPLETED (LOOSE ENDS MAY BE FOLDED AND TAPED OR TIED TO THE TENSIONING STRAP IF TIME PERMITS). FOR ADDITIONAL GUIDANCE, SEE "RATCHET/ RATCHETING DETAILS" ON PAGES 60 AND 61.
- ADJUSTABLE SCUFF SLEEVES PROVIDED ON WEB STRAP ASSEMBLIES WILL BE LOCATED TO PROVIDE A PAD WHERE STRAPS PASS OVER SHARP EDGES, OR RATCHETS AND HOOKS ON PREVIOUSLY INSTALLED WEB STRAP TIEDOWN ASSEMBLIES. METAL PARTS OF A STRAP ASSEMBLY SHOULD BE LOCATED SO AS TO AVOID CONTACT WITH THE CARGO. IF CONTACT CANNOT BE AVOIDED, A SUITABLE ANTI-CHAFING MATERIAL, AS LISTED UNDER THE MATERIAL SPECIFICATIONS BELOW, MUST BE POSITIONED BETWEEN THE METAL PARTS OF A STRAP ASSEMBLY AND THE CARGO, AND, IF NECESSARY, TAPED OR TIED IN POSITION.
- PROCEDURES DEPICTED HEREIN ARE TYPICAL IN NATURE RELATIVE TO ITEM LOCATION IN/ON THE FLATRACK AND THE QUANTITIES SHOWN. ITEM LOCATION AND QUANTITIES OF THE DESIGNATED ITEM MAY BE VARIED TO SATISFY OPERATIONAL REQUIREMENTS, PROVIDED LOADING AND TIEDOWN PRINCIPLES SPECIFIED HEREIN ARE RETAINED.

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

WEBBING, UNIVERSAL TIEDOWN, STRAP

WEBBING, UNIVERSAL TIELUWN, NSN 5340-01-204-3009, PN9392419, OR NSN 5340-01-089-4997, PN1166958B, OR NSN 1670-00-725-1437, PN1376-013, OR NSN 5340-00-980-9277, PN10900880.

ANTI-CHAFING

- - - -: CANVAS, BURLAP, TAPE OR ANY OTHER

SUITABLE MATERIAL.

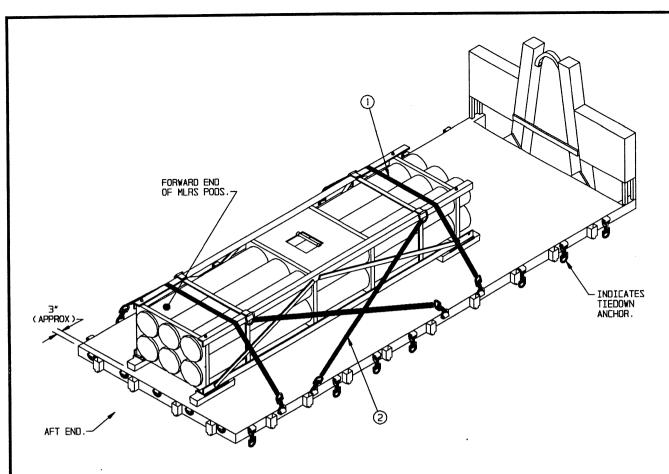
(GENERAL NOTES CONTINUED)

- WHEN ONE WEB STRAP TIEDOWN ASSEMBLY IS NOT LONG ENOUGH TO SPAN THE DISTANCE DEPICTED, TWO ASSEMBLIES MAY BE HOOKED TOGETHER TO GAIN THE NECESSARY LENGTH.
- AFTER ALL LOADING PROCEDURES ARE COMPLETE, CHECK ALL WEB STRAP TIEDOWN ASSEMBLIES FOR MAXIMUM TIGHTNESS AND RATCHET TIGHTER IF REQUIRED, PRIOR TO FOLDING UP AND SECURING THE LOOSE ENDS OF THE STRAP AS INSTRUCTED IN GENERAL NOTE "F".
- DURING LONG HAULS THE WEB STRAPS SHOULD BE CHECKED AT ALL VEHICLE STOPS AND TIGHTENED IF NECESSARY.
- DUE TO VARIOUS REASONS, SUCH AS ROUGH TERRAIN DURING OFF HIGHWAY TRANSPORT, PANIC STOPS, METAL FLOORS, AND NORMAL STRETCH OF WEB STRAPS, LOADED ITEMS MAY SLIDE SLIGHTLY LATERALLY AND/OR LONGITUDINALLY DURING TRANSPORT, THIS IS AN ACCEPTABLE CHARACTERISTIC AND IS NOT DETRIMENTAL TO LOAD SECUREMENT.
- THE TIEDOWN METHODS WITHIN THIS DRAWING SHOW TWO STRAP HOOKS CONNECTED TO THE SAME TIEDOWN ANCHOR. THIS IS AUTHORIZED AS SPECIFIED HEREIN.
- CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454KG.
- FOR ADDITIONAL GUIDANCE SEE THE " LOADING PROCEDURES" ON PAGE 3 AND THE "SPECIAL NOTES" ON EACH LOAD PAGE.

LOADING PROCEDURES:

- 1. POSITION FULL AND/OR PARTIAL LOADS TIGHT AGAINST THE A-FRAME AT THE FORWARD END OF THE FLATRACK OR THE FRONT WALL OF THE MI FLATRACK. IF DESIRED, PARTIAL LOADS MAY BE POSITIONED ANYWHERE ON THE LENGTH OF THE FLATRACK. HOWEVER, ONE MORE WEB STRAP TIEDOWN ASSEMBLY WILL BE REQUIRED. POSITION THIS STRAP FROM A TIEDOWN ANCHOR ON THE SIDE OF THE FLATRACK AROUND PALLET BASES ON FORWARD PALLETS, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF THE FLATRACK.
- 2. PRIOR TO LOADING ITEMS ON THE FLATRACK ASSURE THAT THE DECK IS FREE OF EXCESSIVE AMOUNTS OF DIRT, SAND AND GRAVE!
- 3. WHEN ATTACHING THE WEB STRAP HOOK TO THE TIEDOWN ANCHOR ON THE FLATRACK ASSURE THAT THE TIEDOWN ANCHOR IS IN A RAISED OR VERTICAL POSITION PRIOR TO AND AFTER THE STRAP IS TIGHTENED. IF THE WEB STRAP IS POSITIONED AT A NEAR HORIZONTAL ANGLE, SUCH AS STRAP MARKED ② ON PAGE 12, ASSURE THAT THE TIEDOWN ANCHOR IS POSITIONED IN LINE WITH THE PULL OF THE STRAP WHEN POSSIBLE. HOWEVER, IF TWO STRAPS ARE ATTACHED TO THE SAME TIEDOWN ANCHOR THE VERTICAL STRAP HAS PRECEDENCE.
- 4. ASSURE THAT ALL PALLET UNITS AND/OR OTHER ITEMS ARE POSITIONED TIGHTLY AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY AS LOADING PROGRESSES. THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID SPACES BETWEEN PALLET UNITS WILL FILL IN DURING TRANSPORT CAUSING WEB STRAPPING TO BECOME LOOSE.
- DURING LONG HAULS, WHEN POSSIBLE, STRAPS SHOULD BE CHECKED DURING VEHICLE STOPS AND TIGHTENED, IF NECESSARY.
- 6. AFTER ALL LOADING PROCEDURES ARE COMPLETE, CHECK ALL WEB STRAP TIEDOWN ASSEMBLIES FOR MAXIMUM TIGHTNESS AND RATCHET TIGHTER, IF REQUIRED, PRIOR TO FOLDING UP AND TAPING THE LOOSE ENDS OF STRAPS AS INSTRUCTED IN GENERAL NOTE "F" ON PAGE 2.
- 7. BEFORE LOADING A PLS FLATRACK CHECK THE OVERALL CONDITION OF THE FLATRACK TO ENSURE IT IS SERVICEABLE. CHECK FOR CRACKS, BREAKS, DISTORTIONS, OR EXCESSIVE CORROSION WHICH WOULD MAKE USE OF THE FLATRACK UNSAFE. CHECK THE CARGO TIEDOWN ANCHORS AND THE FLATRACK TIEDOWN DEVICES TO ENSURE THEY ARE SERVICEABLE. MAKE SURE THEY ARE NOT CRACKED, BENT, OR BROKEN, DISTORTED OR EXCESSIVELY CORRODED TO PRECLUDE SAFE USE. GIVE SPECIAL ATTENTION WHILE CHECKING THE LIFTING DEVICE ON THE HOOKUP BND OF THE PLS FLATRACK. MAKE SURE THE HOOKUP DEVICE IS NOT CRACKED, BROKEN, WORN, OR DISTORTED TO SUCH AN EXTENT SO AS TO MAKE THE DEVICE UNSERVICEABLE OR UNSAFE TO USE.
- B. CHECK THE END WALL ON THE M1 FLATRACK TO ASSURE THAT THEY CAN BE RAISED AND/OR LOWERED WITHOUT DIFFICULTY. FOLLOW THE MANUFACTURERS STEP-BY-STEP PROCEDURES FOR RAISING AND/OR LOWERING THE END WALLS AS <u>SERIOUS INJURY OR DEATH</u> TO PERSONNEL COULD RESULT.
- 9. BOTH FLATRACKS ARE EQUIPPED WITH ELEVEN TIEDOWN ANCHORS ALONG EACH SIDE. THE TIEDOWN ANCHORS AT EACH END AND IN THE CENTER HAVE A 25,000 POUND CAPACITY AND THE REMAINING EIGHT TIEDOWN ANCHORS HAVE A 10,000 POUND CAPACITY. ALL ELEVEN TIEDOWN ANCHORS WILL ACCEPT WEB STRAP TIEDOWN ASSEMBLIES OR STEEL STRAPPING.
- 10. TWO SETS OF FORKLIFT POCKETS ARE PROVIDED UNDERNEATH THE A-FRAME AND ML FLATRACK. THE SET NEAREST THE ENDS OF THE FLATRACK MUST BE USED WHEN LIFTING LOADED FLATRACKS. THE SET CLOSEST TO THE CENTER OF THE FLATRACK IS FOR LIFTING UNLOADED FLATRACKS ONLY. USE OF THE WRONG FORKLIFT POCKETS COULD CAUSE DAMAGE TO EQUIPMENT. THE FORKS ON THE FORKLIFT MUST BE 70.00° LONG OR LONGER.
- 11. EACH FLATRACK IS PROVIDED WITH 22 WEB STRAP TIEDOWN
 ASSEMBLIES. SIDE BOARD KITS AND CARGO COVERS ARE NOT
 PROVIDED, BUT ARE CONTAINED ON THE ADDITIONAL AUTHORIZED
 LIST (AAL) AND MAY BE OBTAINED THROUGH THE ARMY SUPPLY
 SYSTEM
- 12. ONE MI FLATRACK CAN BE LOADED ON AN M871 SEMITRAILER, AND TWO CAN BE LOADED ON AN M872 SEMITRAILER, USING THE FOUR BOTTOM ISO CORNER FITTINGS.
- 13. THE FLATRACK IS CAPABLE OF BEING TRANSPORTED ON C-130, C-141, C-5, AND C-17 AIRCRAFT.
- 14. THE FLATRACK IS CAPABLE OF BEING SLING-LIFTED BY A CH-47D HELICOPTER WITH A REDUCED PAYLOAD. THE MAXIMUM WEIGHT FOR SLING-LIFT IS 22,900 POUNDS.

ITEM	INUEX	PAGE (S
GENERAL NOTES AND MATE	ERIAL SPECIFICATIONS	2
LOADING AND TIEDOWN PR	ROCEDURES	3
	SYSTEM (ATACMS) MISSILE R MULTIPLE LAUNCH ROCKET POD	4-11
DRAGON GUIDED MISSILE		12-15
HAWK GUIDED MISSILE -		16-27
HELLFIRE GUIDED MISSI	LE	28-35
PATRIOT GUIDED MISSIL	E	36-43
STINGER GUIDED MISSIL	E	44-51
TOW GUIDED MISSILE -		52-59
DETAILS		60-65
GUIDED MISSILE LISTIN	G	66



KEY NUMBERS

- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, DVER TOP OF CONTAINER, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, TO A LIFT/TIEDOWN RING ON THE CONTAINER AS SHOWN. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

ONE MLRS OR ATACMS CONTAINER ON THE A-FRAME FLATRACK

- ONE MLRS ROCKET POD∕CONTAINER IS SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" ∀IDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- 2. IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- IF LOADING THE ATACMS MISSILE/LAUNCH ASSEMBLY (M/LA), FOLLOW THESE SAME PROCEDURES.
- 4. THE FORWARD END OF THE ROCKET/MISSILE CONTAINER IS FACING THE AFT END OF THE FLATRACK. THE FORWARD END OF THE CONTAINER MAY FACE THE FORWARD END OF THE FLATRACK IF DESIRED.
- 5. THE ROCKET/MISSILE CONTAINER IS POSITIONED NEAR THE AFT END OF THE FLATRACK. THE CONTAINER MAY BE POSITIONED AGAINST THE A-FRAME OR ANYWHERE WITHIN THE LENGTH OF THE DECK, IF DESIRED.
- 6. A TOTAL OF SIX WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

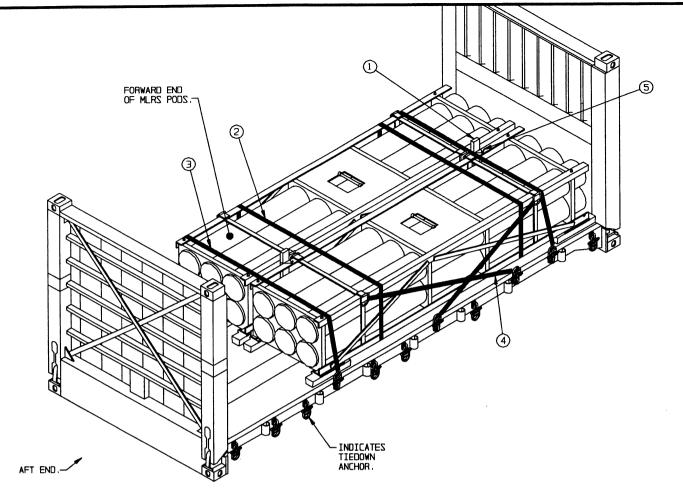
ITEM

QUANTITY

WEIGHT (APPROX)

MLRS CONTAINER - - - - 1 - - - - 5,078 LBS

ONE MLRS OR ATACMS CONTAINER ON THE A-FRAME FLATRACK



KEY NUMBERS

- (1) SPACER, 2" X 4" X 36" (2 REOD). POSITION BETWEEN CONTAINERS AS SHOWN AND WIRE TIE IN PLACE AS INSTRUCTED IN KEY NUMBER (5) SEE SPECIAL NOTE 6
- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO ENCIRCLE BOTH CONTAINERS AT APPROXIMATE LOCATIONS SHOWN. HOOK BOTH ENDS OF STRAP TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (3) WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, TO A LIFT/TIEDOWN RING ON FAR END OF THE CONTAINER AS SHOWN. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- TIE WIRE, NO. 14 GAGE WIRE 24" LONG (4 REOD).
 INSTALL EACH WIRE TO FORM A LOOP AROUND THE
 SPACER PIECES MARKED ② AND FRAME ON CONTAINER,
 AT TOP AND BOTTOM. BRING ENDS TOGETHER AND TWIST
 TAUT.

TWO MLRS OR ATACMS CONTAINERS ON THE M1 FLATRACK

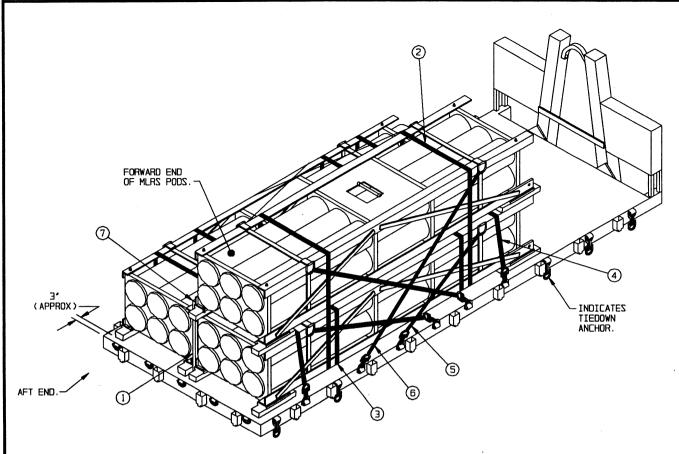
- TWO MLRS ROCKET POD/CONTAINERS ARE SHOWN LOADED ON THE MI FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. IF LOADING THE ATACMS M/LA, FOLLOW THESE SAME PROCEDURES
- 4. THE FORWARD END OF THE ROCKET/MISSILE CONTAINERS ARE SHOWN FACING THE AFT END OF THE FLATRACK. HOWEVER, THE FORWARD END OF THE CONTAINER MAY FACE THE FORWARD END OF THE FLATRACK IF DESIRED.
- 5. THE ROCKET/MISSILE CONTAINERS ARE POSITIONED AGAINST THE FORWARD END WALL ON THE FLATRACK. THE CONTAINERS MAY BE POSITIONED ANYWHERE WITHIN THE LENGTH OF THE DECK, IF DESIRED.
- 6. THE SPACER PIECES MARKED ② ARE REQUIRED SO THE CONTAINERS CAN BE POSITIONED SIDE—BY-SIDE IN LINE WITH EACH OTHER WITHOUT THE LIFT/TIEDOWN RINGS ON ADJACENT CONTAINERS CONTACTING EACH OTHER.
- 7. A TOTAL OF EIGHT WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL			
2" X 4"	6	4	
WIRE, NO. 14 GAGE	8' REOD	NIL	

LOAD AS SHOWN

| NUMBER | N

TWO MLRS OR ATACMS CONTAINERS ON THE MI FLATRACK



(KEY NUMBERS CONTINUED)

- (5) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, TO A LIFT/TIEDOWN RING ON FAR END OF THE BOTTOM CONTAINER AS SHOWN. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (6) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, TO A LIFT/TIEDOWN RING ON FAR END OF THE TOP CONTAINER AS SHOWN. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. NOTE: THE TWO STRAPS ON THE FAR SIDE OF THE LOAD WILL EXTEND FROM A TIEDOWN ANCHOR, UP AND OVER TOP OF THE MLRS POD, TO A LIFT/TIEDOWN RING ON FAR END OF THE TOP CONTAINER. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- 7) TIE WIRE, NO. 14 GAGE WIRE 24" LONG (4 REOD).
 INSTALL EACH WIRE TO FORM A LOOP AROUND THE
 SPACER AND FRAME ON CONTAINER AT TOP AND
 BOTTOM OF SPACER. BRING ENDS TOGETHER AND
 TWIST TAUT.

KEY NUMBERS

- 1) SPACER, 2" X 4" X 36" (2 REQD). POSITION BETWEEN CONTAINERS AS SHOWN AND WIRE TIE IN PLACE AS INSTRUCTED IN KEY NUMBER ⑦. SEE SPECIAL NOTE 6 ON PAGE 9.
- (2) WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO ENCIRCLE THE TWO HIGH STACK IN THE APPROXIMATE LOCATIONS SHOWN. HOOK BOTH ENDS OF STRAP TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- 3 WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO ENCIRCLE BOTH BOTTOM CONTAINERS AT APPROXIMATE LOCATIONS SHOWN. HOOK ENDS OF BOTH STRAPS TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHAPP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (4) WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF BOTH BOTTOM CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

THREE MLRS OR ATACMS CONTAINERS ON THE A-FRAME FLATRACK

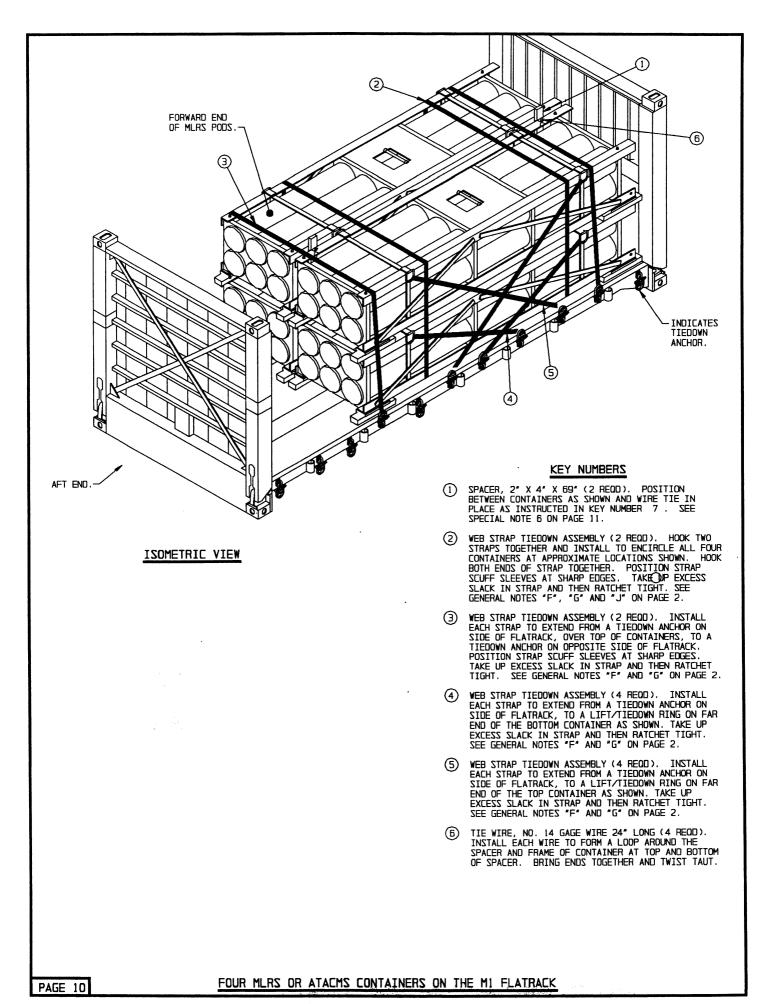
- THREE MLRS ROCKET POD∠CONTAINERS ARE SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- 2. IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- IF LOADING THE ATACMS M/LA, FOLLOW THESE SAME PROCEDURES.
- 4. THE FORWARD END OF THE ROCKET/MISSILE CONTAINERS ARE SHOWN FACING THE AFT END OF THE FLATRACK. HOWEVER, THE FORWARD END OF THE CONTAINER MAY FACE THE FORWARD END OF THE FLATRACK IF DESIRED.
- 5. THE ROCKET/MISSILE CONTAINERS ARE POSITIONED AT THE AFT END OF THE FLATRACK. THE CONTAINERS MAY BE POSITIONED AGAINST THE A-FRAME OR ANYWHERE WITHIN THE LENGTH OF THE DECK, IF DESIRED.
- 6. THE SPACER PIECES MARKED ① ARE REQUIRED SO THE CONTAINERS CAN BE POSITIONED SIDE-BY-SIDE IN LINE WITH EACH OTHER WITHOUT THE LIFT/TIEDOWN RINGS ON ADJACENT CONTAINERS CONTACTING EACH OTHER.
- WHEN STACKING CONTAINERS ASSURE THAT THE STACKING PINS ON TOP OF THE BOTTOM CONTAINER ARE MATED TO THE HOLES IN THE SKIDS OF THE TOP CONTAINER.
- 8. A TOTAL OF FOURTEEN WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL			
LUMBER	LINEAR FEET	BOARD FEET	
2" X 4"	6	4	
WIRE, NO. 14 GAGE 8' REQD NIL			

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
MLRS CONTAINER DUNNAGE	3	
TOTAL	WEIGHT	15,242 LBS

THREE MLRS OR ATACMS CONTAINERS ON THE A-FRAME FLATRACK



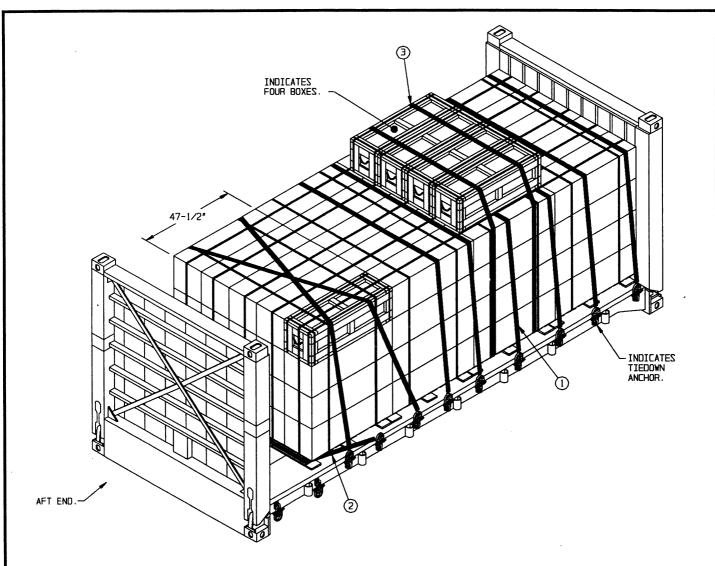
- FOUR MLRS ROCKET POD/CONTAINERS ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. IF LOADING THE ATACMS M/LA, FOLLOW THESE SAME PROCEDURES.
- 4. THE FORWARD END OF THE CONTAINERS ARE SHOWN FACING THE AFT END OF THE FLATRACK. HOWEVER, THE FORWARD END OF THE CONTAINERS MAY FACE THE FORWARD END OF THE FLATRACK IF DESIRED.
- THE ROCKET/MISSILE CONTAINERS ARE POSITIONED AGAINST THE FORWARD END WALL ON THE FLATRACK. THE CONTAINERS MAY BE POSITIONED ANYWHERE WITHIN THE LENGTH OF THE DECK, IF DESIRED.
- 6. THE SPACER PIECES MARKED ① ARE REQUIRED SO THE CONTAINERS CAN BE POSITIONED SIDE-BY-SIDE IN LINE WITH EACH OTHER WITHOUT THE LIFT/TIEDOWN RINGS ON ADJACENT CONTAINERS CONTACTING EACH OTHER.
- WHEN STACKING CONTAINERS ASSURE THAT THE STACKING PINS ON TOP OF THE BOTTOM CONTAINER ARE MATED TO THE HOLES IN THE SKIDS OF THE TOP CONTAINER.
- B. A TOTAL OF FOURTEEN WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL			
LUMBER	LINEAR FEET	BOARD FEET	
2" X 4"	12	8	
WIRE, NO. 14 GAGE 8' REODNIL			

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
	4	
Ţ	OTAL WEIGHT	20.328 LBS

FOUR MLRS OR ATACMS CONTAINERS ON THE MI FLATRACK



KEY NUMBERS

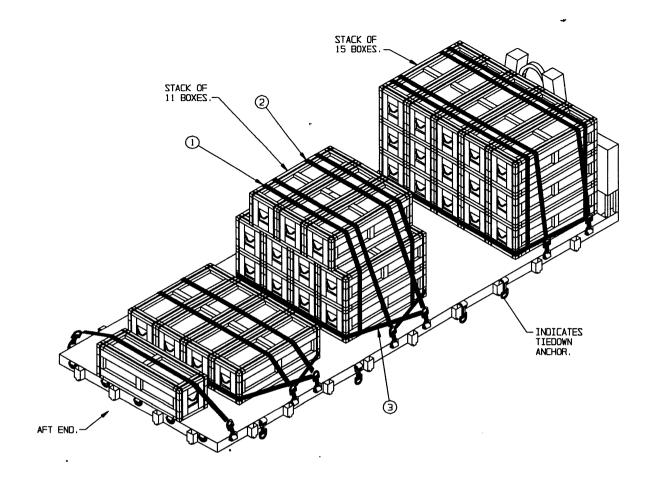
- WEB STRAP TIEDOWN ASSEMBLY (8 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- (2) WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF PALLETIZED UNIT, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUEPE SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL TO ENCIRCLE THE PALLETIZED UNIT AND LEFTOVER BOXES ON TOP. THREAD STRAPS UNDER TOP DECK BOARDS OF PALLET AT APPROXIMATE LOCATIONS SHOWN. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.

FOUR DRAGON PALLETIZED UNITS ON THE MI FLATRACK

- FOUR PALLETIZED UNITS OF DRAGON MISSILE BOXES ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- THE PALLETIZED UNIT DEPICTED HEREIN HAS DIMENSIONS OF 47-1/2" LONG BY 6'-8" WIDE BY 69" HIGH. DO NOT STACK THESE PALLETS TWO HIGH.
- 3. IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. PRIOR TO LOADING THE PALLETS, ASSURE THAT ALL STEEL STRAPPING ON EACH PALLET IS IN POSITION AND IS TIGHT. MISSING AND/OR LOOSE STEEL STRAPPING SHOULD BE REPLACED.
- 5. WHEN LOADING THE FLATRACK, POSITION THE LOAD TIGHT AGAINST THE FORWARD END WALL AND CENTERED ACROSS THE WIDTH OF THE FLATRACK.
- 6. EACH LATERAL ROW OF ONE OR MORE PALLET UNITS MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP OF THE ROW. THESE TWO STRAPS MUST NOT BE POSITIONED OVER TOP OF LEFTOVER BOXES.
- 7. ALL PALLET UNITS MUST BE POSITIONED TIGHT AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY, THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID SPACES BETWEEN PALLET UNITS WILL FILL IN DURING TRANSPORT CAUSING WEB STRAPS TO BECOME LOOSE.
- 8. A TOTAL OF 21 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

NWOHZ ZA DAOL

FOUR DRAGON PALLETIZED UNITS ON THE MI FLATRACK



KEY NUMBERS

- (1) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). HOOK TWO STRAPS TOGETHER AND ENCIRCLE THE STACK OF 15 AND/OR 11 BOXES AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (7 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF BOXES TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTE "F" AND "G" ON PAGE 2.
- (3) WEB STRAP TIEDOWN ASSEMBLY (5 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND ENDS OF BOXES, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 3 ON PAGE 15.

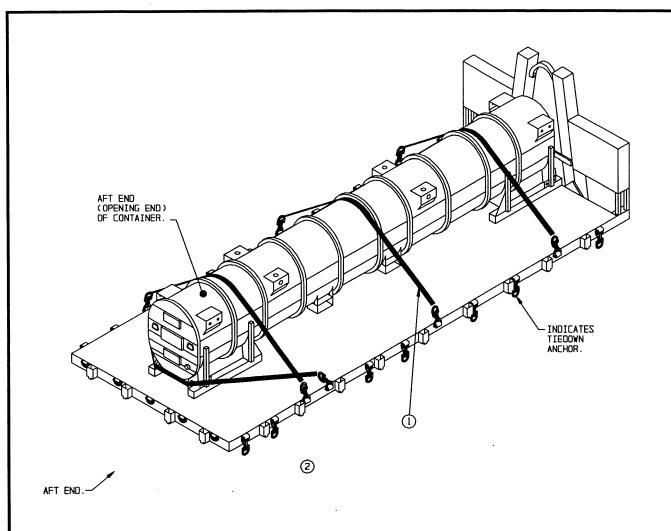
DRAGON BOXES ON THE A-FRAME FLATRACK

- A TYPICAL LOAD OF DRAGON MISSILE BOXES IS SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. IF THE BOXES POSITIONED AGAINST THE A-FRAME ARE POSITIONED AWAY FROM THE A-FRAME, ONE ADDITIONAL STRAP MARKED ③ WILL BE REQUIRED.
- IF POSITIONING BOXES ON TOP OF PALLETIZED UNITS, SEE THE PROCEDURES SHOWN ON PAGE 12.
- 5. STRAPS MARKED ① MUST BE PRE-POSITIONED ON THE FLOOR OF THE FLATRACK AT THE LOCATION SELECTED PRIOR TO LOADING BOXES. ASSURE THAT THE STRAP LAYS FLAT ACROSS THE FLOOR, WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. POSITION THE BOXES ON THE FLOOR AND ON TOP OF THE STRAPS. KEEP THE BOXES TIGHT AGAINST EACH OTHER. AFTER ALL BOXES ARE STACKED, BRING ENDS OF STRAP UP OVER TOP OF STACK AND HOOK ENDS OF STRAP TOGETHER.
- 6. THE QUANTITY OF BOXES SHOWN IN EACH STACK IS TYPICAL ONLY. STACKS CONTAINING OTHER QUANTITIES OF BOXES MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- 7. EACH LATERAL ROW OF TWO TO FIVE BOXES MUST BE SECURED WITH TWO WEB STRAPS MARKED ② OVER THE TOP AND TWO WEB STRAPS MARKED ③ AROUND THE ENDS.
- 8. EACH STACK OF TWO OR MORE LAYERS MUST BE ENCIRCLED WITH TWO BUNDLING STRAPS MARKED ① AND SECURED WITH TWO WEB STRAPS MARKED ② OVER THE TOP AND TWO WEB STRAPS MARKED ③ AROUND THE ENDS.
- 9. A TOTAL OF 20 WEB STRAP TIEDOWN ASSEMBLIES ARE REOUIRED FOR THE LOAD SHOWN.

NWOHZ ZA DAOL

<u>OUANTITY</u> <u>WEIGHT</u> (APPROX)
BOX - - - - - - 31 - - - - 2,077 LBS

DRAGON BOXES ON THE A-FRAME FLATRACK



KEY NUMBERS

- WEB STRAP TIEDOWN ASSEMBLY (3 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINER, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (2) WEB STRAP TIEDOWN ASSEMBLY (1 REQD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, ARQUIND END OF CONTAINER, ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2

- ONE HAWK COMPLETE MISSILE ROUND PACKED IN THE M611 CONTAINER IS SHOWN LOADED ON THE A-FRAME FLATRACK HAYING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- 2. IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. THE M611 CONTAINER IS SHOWN. IF LOADING THE M430 CONTAINER FOLLOW THESE SAME PROCEDURES.
- 4. THE AFT END AND/OR OPENING END OF THE CONTAINER IS SHOWN FACING THE AFT END OF THE FLATRACK. HOWEVER, THE AFT END OF THE CONTAINER MAY BE POSITIONED AT THE FORWARD END OF THE FLATRACK, IF DESIRED.
- POSITION THE CONTAINER AGAINST THE A-FRAME AT THE FORWARD END OF THE FLATRACK.
- A TOTAL OF FOUR WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

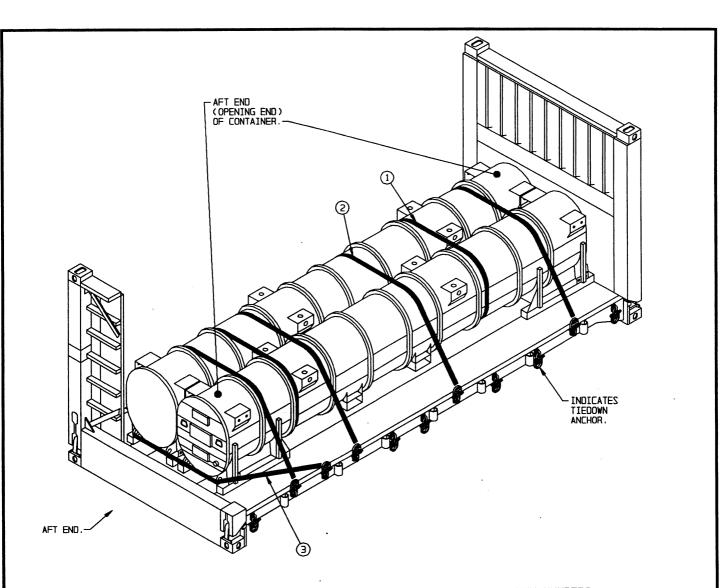
ITEM

QUANTITY

WEIGHT (APPROX)

M611 CONTAINER - - - - 1 - - - - 3,345 LBS

ONE HAWK COMPLETE ROUND IN THE MG11 CONTAINER ON THE A-FRAME FLATRACK



KEY NUMBERS

- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO ENCIRCLE BOTH CONTAINERS AT APPROXIMATE LOCATIONS SHOWN. HOOK BOTH ENDS OF STRAP TOGETHER, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F AND "G" ON PAGE 2.
- (2) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF CONTAINERS ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

- TWO HAWK COMPLETE MISSILE ROUNDS PACKED IN THE M611 CONTAINER ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. THE M611 CONTAINER IS SHOWN, IF LOADING THE M430 CONTAINER FOLLOW THESE SAME PROCEDURES.
- 4. LATERALLY ADJACENT HAWK COMPLETE ROUND CONTAINERS ARE SHOWN WITH THE AFT END (OPENING END) FACING FORWARD ON ONE CONTAINER AND REARWARD ON THE ADJACENT CONTAINER. THIS WILL FACILITATE THE REMOVAL OF THE HANDLING SLING FROM THE CONTAINERS DURING LOADING AND/OR UNLOADING OPERATIONS. NOTE: IF THE CONTAINERS ARE TO BE LOADED AND/OR UNLOADED WITH A FORKLIFT IT IS NOT NECESSARY TO ALTERNATE THE ENDS.
- ONLY A PARTIAL AFT END WALL IS SHOWN ON THE ISOMETRIC VIEW TO PREVENT DISTRACTION OF THE LOADING AND TIEDOWN PROCEDURES AND TO IMPROVE THE CLARITY OF THE DEPICTED PROCEDURES.
- POSITION THE CONTAINERS AGAINST THE FORWARD END WALL ON THE FLATRACK.
- 7. A TOTAL OF SEVEN WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

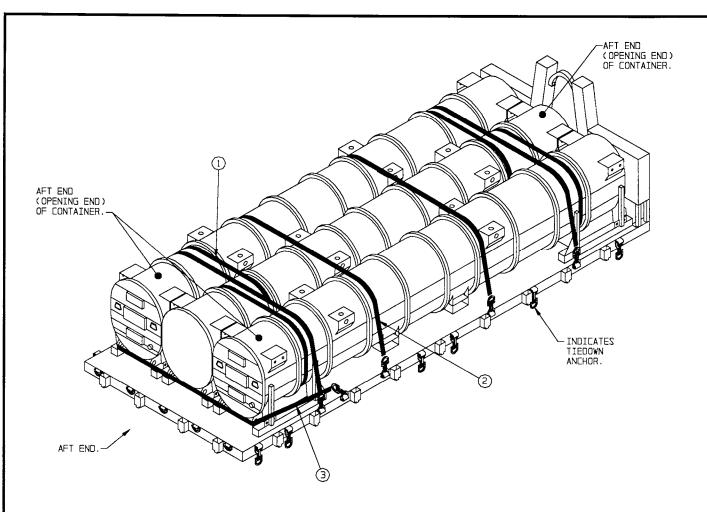
<u>ITEM</u>

QUANTITY

WEIGHT (APPROX)

M611 CONTAINER - - - - 2 - - - - 6,690 LBS

TWO HAWK COMPLETE ROUNDS IN THE MG11 CONTAINER ON THE M1 FLATRACK



KEY NUMBERS

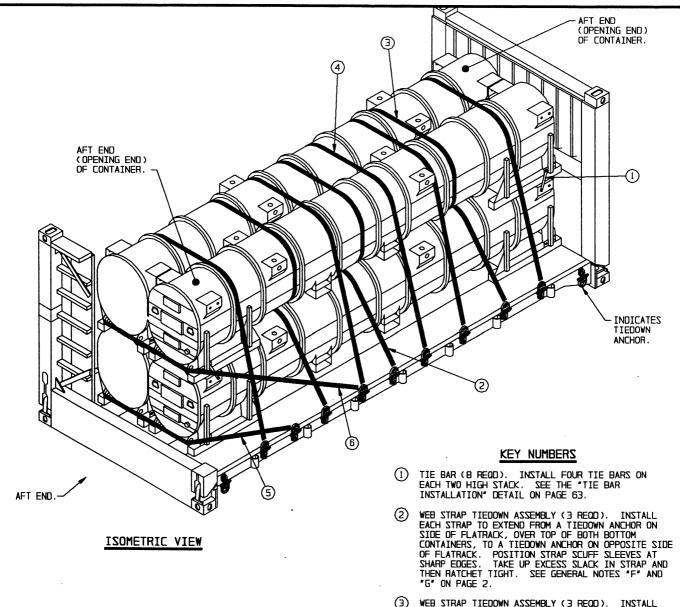
- WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO ENCIRCLE AN OUTER CONTAINER AND THE CENTER CONTAINER AT THE LOCATIONS SHOWN. HOOK BOTH ENDS OF STRAP TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (2) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF CONTAINERS ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHAPP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

- THREE HAWK COMPLETE MISSILE ROUNDS PACKED IN THE M611 CONTAINER ARE SHOWN LOADED ON THE A-FRAME FLATRACK HAYING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POLINDS.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- THE M611 CONTAINER IS SHOWN. IF LOADING THE M430 CONTAINER FOLLOW THESE SAME PROCEDURES.
- 4. LATERALLY ADJACENT HAWK COMPLETE ROUND CONTAINERS ARE SHOWN WITH THE AFT END (OPENING END) FACING FORWARD ON ONE CONTAINER AND REARWARD ON THE ADJACENT CONTAINER. THIS WILL FACILITATE THE REMOVAL OF THE HANDLING SLING FROM THE CONTAINERS DURING LOADING AND/OR UNLOADING OPERATIONS. NOTE: IF THE CONTAINERS ARE TO BE LOADED AND/OR UNLOADED WITH A FORKLIFT IT IS NOT NECESSARY TO ALTERNATE THE ENDS.
- POSITION THE CONTAINERS AGAINST THE A-FRAME AT THE FORWARD END OF THE FLATRACK.
- 6. A TOTAL OF NINE WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

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THREE HAWK COMPLETE ROUNDS IN THE MG11 CONTAINER ON THE A-FRAME FLATRACK



- WEB STRAP TIEDOWN ASSEMBLY (3 REOD). INSTALL
 EACH STRAP TO ENCIRCLE BOTH TOP CONTAINERS AT
 APPROXIMATE LOCATIONS SHOWN. HOOK BOTH ENDS OF
 STRAP TOGETHER. POSITION STRAP SCUFF SLEEVES AT
 SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND
 THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND
 "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (5 REQD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- (5) WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF BOTTOM LAYER CONTAINERS, ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (6) WEB STRAP TIEDOWN ASSEMBLY (1 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF TOP LAYER CONTAINERS, ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" "G" AND "J" ON PAGE 2.

FOUR HAWK COMPLETE ROUNDS IN THE M611 CONTAINER ON THE M1 FLATRACK

- FOUR HAWK COMPLETE MISSILE ROUNDS PACKED IN THE M611 CONTAINER ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- 2. IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME
- THE M611 CONTAINER IS SHOWN. IF LOADING THE M430 CONTAINER FOLLOW THESE SAME PROCEDURES.
- 4. LATERALLY ADJACENT HAWK COMPLETE ROUND CONTAINERS ARE SHOWN WITH THE AFT END (OPENING END) FACING FORWARD ON ONE CONTAINER AND REARWARD ON THE ADJACENT CONTAINER. THIS WILL FACILITATE THE REMOVAL OF THE HANDLING SLING FROM THE CONTAINERS DURING LOADING AND/OR UNLOADING OPERATIONS. NOTE: IF THE CONTAINERS ARE TO BE LOADED AND/OR UNLOADED WITH A FORKLIFT IT IS NOT NECESSARY TO ALTERNATE THE ENDS.
- 5. STACKING CONTAINERS TWO HIGH:
 - A. AN UPPER CONTAINER SHOULD BE PLACED AS CLOSE AS POSSIBLE IN VERTICAL ALIGNMENT WITH THE LOWER CONTAINER.
 - B. POSITION THE OPENING END OF AN UPPER CONTAINER ABOVE THE OPENING END OF THE LOWER CONTAINER.
 - C. THE CONTAINER SKIDS OF AN UPPER CONTAINER MUST BE FULLY SEATED UPON THE STACKING PADS OF THE LOWER CONTAINER.
 - D. TIE BARS ARE LOCATED ON THE SIDE OF THE CONTAINER.
 - E. INSTALL FOUR TIE BARS, TWO ON EACH SIDE, OF A TWO-CONTAINER HIGH STACK. SEE THE "TIE BAR INSTALLATION" DETAILS ON PAGE 63.
- 6. ONLY A PARTIAL AFT END WALL IS SHOWN ON THE ISOMETRIC VIEW TO PREVENT DISTRACTION OF THE LOADING AND TIEDOWN PROCEDURES AND TO IMROVE THE CLARITY OF THE DEPICTED PROCEDURES
- POSITION THE CONTAINERS AGAINST THE FORWARD END WALL ON THE FLATRACK.
- B. A TOTAL OF 1B WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

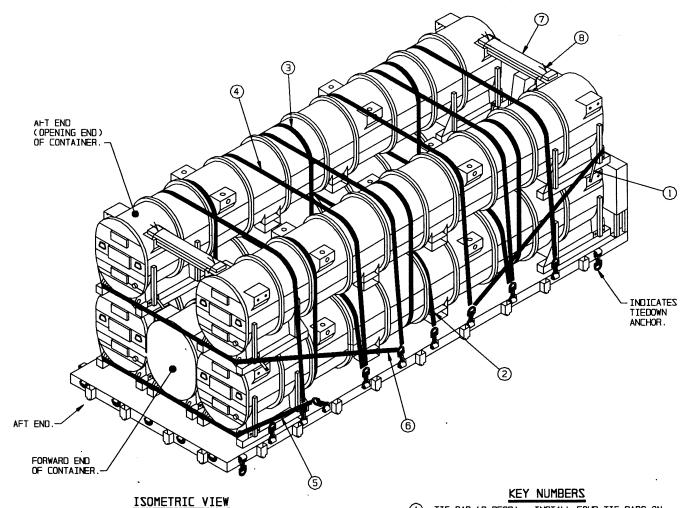
ITEM

QUANTITY

WEIGHT (APPROX)

M611 CONTAINER - - - - 4 - - - - 13,380 LBS

FOUR HAWK COMPLETE ROUNDS IN THE M611 CONTAINER ON THE M1 FLATRACK



(KEY NUMBERS CONTINUED)

- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND FORWARD AND AFT END OF TOP LAYER CONTAINERS, ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- SPACER ASSEMBLY (2 REOD). SEE THE DETAIL ON PAGE 63. WIRE TIE TO THE CONTAINER STACKING PADS AS INSTRUCTED IN KEY NUMBER (B).
- TIE WIRE, NO 14 GAGE WIRE 24" LONG (4 REOD).
 INSTALL TO FORM A COMPLETE LOOP AROUND SPACER
 ASSEMBLY AND CONTAINER STACKING PAD. BRING
 ENDS TOGETHER AND TWIST TAUT. SECURE THE WIRE
 TO THE SPACER ASSEMBLY WITH A PARTIALLY DRIVEN
 IOD NAIL BENT OVER THE WIRE, OR WITH A STRAP STAPLE.

- TIE BAR (B REOD). INSTALL FOUR TIE BARS ON EACH TWO HIGH STACK. SEE THE "TIE BAR INSTALLATION" DETAIL ON PAGE 63.
- WEB STRAP TIEDOWN ASSEMBLY (3 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF ALL THREE BOTTOM CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (6 REOD). INSTALL EACH STRAP TO ENCIRCLE THE TOP AND BOTTOM CONTAINERS OF TWO HIGH STACKS AT APPROXIMATE LOCATIONS SHOWN. HOOK BOTH ENDS OF STRAP TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "F" ON BASE 2" G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (6 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHAPP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF BOTTOM LAYER CONTAINERS, ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

PAGE 24

FIVE HAWK COMPLETE ROUNDS IN THE MG11 CONTAINER ON THE A-FRAME FLATRACK

- FIVE HAWK COMPLETE MISSILE ROUND PACKED IN THE M611 CONTAINER ARE SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- THE M611 CONTAINER IS SHOWN. IF LOADING THE M430 CONTAINER FOLLOW THESE SAME PROCEDURES.
- 4. LATERALLY ADJACENT HAWK COMPLETE ROUND CONTAINERS ARE SHOWN WITH THE AFT END (OPENING END) FACING FORWARD ON ONE CONTAINER AND REARWARD ON THE ADJACENT CONTAINER. THIS WILL FACILITATE THE REMOVAL OF THE HANDLING SLING FROM THE CONTAINER DURING LOADING AND/OR UNLOADING OPERATIONS. NOTE: IF THE CONTAINERS ARE TO BE LOADED AND/OR UNLOADED WITH A FORKLIFT, IT IS NOT NECESSARY TO ALTERNATE THE ENDS.
- 5. STACKING CONTAINERS TWO HIGH:
 - A. AN UPPER CONTAINER SHOULD BE PLACED AS CLOSE AS POSSIBLE IN VERTICAL ALIGNMENT WITH THE LOWER CONTAINER
 - B. POSITION THE OPENING END OF AN UPPER CONTAINER ABOVE THE OPENING END OF THE LOWER CONTAINER.
 - C. THE CONTAINER SKIDS OF AN UPPER CONTAINER MUST BE FULLY SEATED UPON THE STACKING PADS OF THE LOWER CONTAINER.
 - D. TIE BARS ARE LOCATED ON THE SIDE OF THE CONTAINER.
 - E. INSTALL FOUR TIE BARS, TWO ON EACH SIDE, OF A TWO-CONTAINER HIGH STACK. SEE THE "TIE BAR INSTALLATION" DETAILS ON PAGE 63.
- POSITION THE CONTAINERS AGAINST THE A-FRAME AT THE FORWARD END OF THE FLATRACK.
- A TOTAL OF 26 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

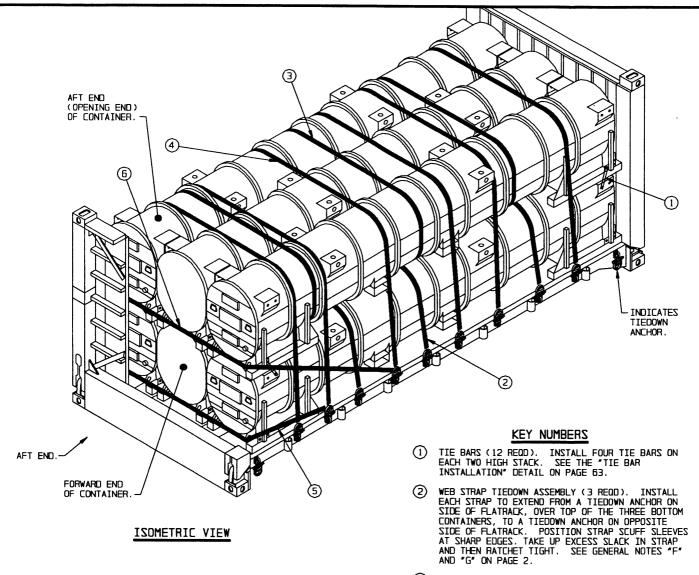
ITEM

QUANTITY

WEIGHT (APPROX)

M611 CONTAINER - - - - 5 - - - - 16,725 LBS

FIVE HAWK COMPLETE ROUNDS IN THE MG11 CONTAINER ON THE A-FRAME FLATRACK



- (3) WEB STRAP TIEDOWN ASSEMBLY (3 REOD). INSTALL EACH STRAP TO ENCIRCLE THE THREE TOP CONTAINERS AT APPROXIMATE LOCATIONS SHOWN. HOOK BOTH ENDS OF STRAP TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHAPP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (6 REQD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- (5) WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF BOTTOM LAYER CONTAINERS, ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- B WEB STRAP TIEDOWN ASSEMBLY (1 REQD). HOOK TWO STRAPS TOGETHER AND INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF TOP LAYER CONTAINERS. ON TOP OF SKIDS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.

- SIX HAWK COMPLETE MISSILE ROUNDS PACKED IN THE M611 CONTAINER ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- IF LOADING THE M430 CONTAINER FOLLOW THESE SAME PROCEDURES.
- 4. LATERALLY ADJACENT HAWK COMPLETE ROUND CONTAINERS ARE SHOWN WITH THE AFT END (OPENING END) FACING FORWARD ON ONE CONTAINER AND REARWARD ON THE ADJACENT CONTAINER. THIS WILL FACILITATE THE REMOVAL OF THE HANDLING SLING FROM THE CONTAINERS DURING LOADING AND/OR UNLOADING OPERATIONS. NOTE: IF THE CONTAINERS ARE TO BE LOADED AND/OR UNLOADED WITH A FORKLIFT, IT IS NOT NECESSARY TO ALTERNATE THE ENDS.
- 5. STACKING CONTAINERS TWO HIGH:
 - A. AN UPPER CONTAINER SHOULD BE PLACED AS CLOSE AS POSSIBLE IN VERTICAL ALIGNMENT WITH THE LOWER CONTAINER.
 - B. POSITION THE OPENING END OF AN UPPER CONTAINER ABOVE THE OPENING END OF THE LOWER CONTAINER.
 - C. THE CONTAINER SKIDS OF AN UPPER CONTAINER MUST BE FULLY SEATED UPON THE STACKING PADS OF THE LOWER CONTAINER.
 - D. TIE BARS ARE LOCATED ON THE SIDE OF THE CONTAINER.
 - E. INSTALL FOUR TIE BARS, TWO ON EACH SIDE, OF A TWO-CONTAINER HIGH STACK. SEE THE "TIE BAR INSTALLATION" DETAILS ON PAGE 63.
- ONLY A PARTIAL AFT END WALL IS SHOWN ON THE ISOMETRIC VIEW TO PREVENT DISTRACTION OF THE LOADING AND TIEDOWN PROCEDURES AND TO IMPROVE THE CLARITY OF THE DEPICTED PROCEDURES.
- POSITION THE CONTAINERS AGAINST THE FORWARD END WALL ON THE FLATRACK
- 8. A TOTAL OF 21 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

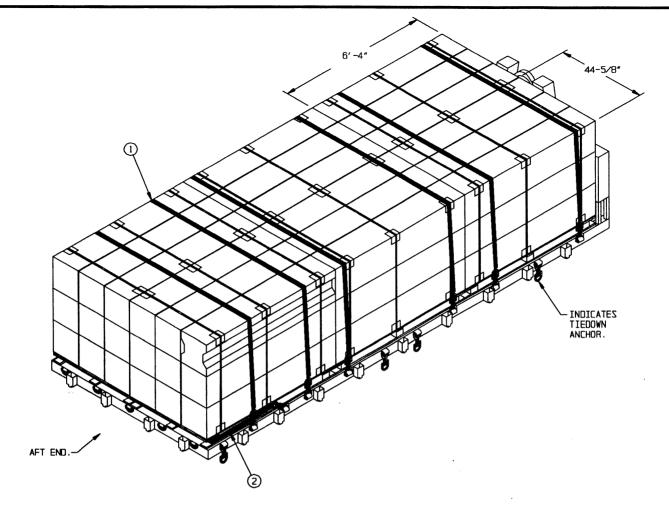
LOAD AS SHOWN

ITEM

QUANTITY

WEIGHT (APPROX)

M611 CONTAINER - - - - 6 - - - - 20,070 LBS



KEY NUMBERS

- (1) WEB STRAP TIEDOWN ASSEMBLY (6 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF PALLETIZED UNITS TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (1 REQD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF PALLETIZED UNITS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

- SIX 6'-4" HELLFIRE MISSILE PALLETIZED UNITS ARE SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- THE 6'-4" LONG PALLETIZED UNITS ARE SHOWN. IF LOADING THE 7'-0" LONG PALLETIZED UNITS SEE THE LOADING PROCEDURES ON PAGE 30
- IF LOADING AN M1 FLATRACK HAVING A CARGO DECK
 18'-5" LONG OMIT ONE PALLETIZED UNIT AND POSITION
 THE REARMOST PALLETIZED UNIT WITH THE 44-5/8"
 DIMENSION PARALLEL TO THE SIDES OF THE FLATRACK AND
 TIGHT AGAINST THE TWO WIDE PALLETIZED UNIT. THIS WILL REDUCE THE LOAD LENGTH FROM 19'-0" LONG TO 16'-5" LONG.
- IF LOADING UNPALLETIZED CONTAINERS ON TOP OF A PALLETIZED UNIT, SEE THE LOADING PROCEDURES ON PAGE
- 5. PRIOR TO LOADING THE PALLETS, ASSURE THAT ALL STEEL STRAPPING ON EACH PALLET IS IN POSITION AND IS IIGHT. MISSING AND/OR LOOSE STEEL STRAPPING SHOULD BE REPLACED.
- WHEN LOADING THE FLATRACK, POSITION THE PALLETS TIGHT AGAINST THE A-FRAME AND CENTERED ACROSS THE FLATRACK WIDTH.
- 7. EACH LATERAL ROW OF ONE OR MORE PALLET UNITS MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP OF A ROW.
- ALL PALLETS MUST BE POSITIONED TIGHTLY AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY. THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID SPACES BETWEEN PALLET UNITS WILL FILL IN DURING TRANSPORT CAUSING WEB STRAPPING TO BECOME LOOSE.
- A TOTAL OF SEVEN WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

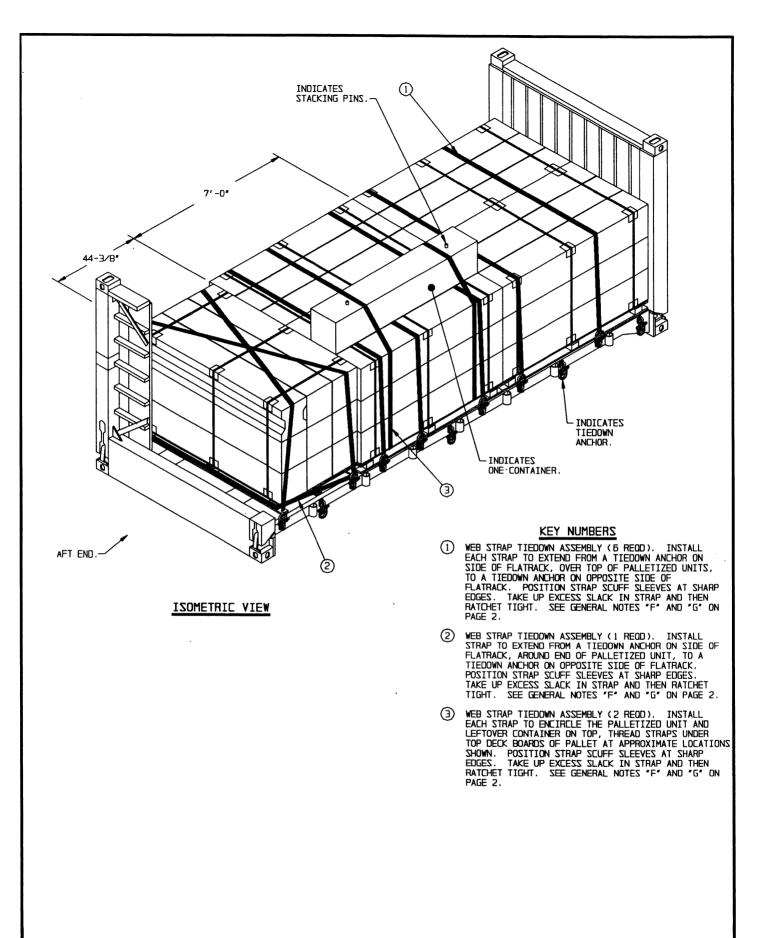
ITEM

QUANTITY

WEIGHT (APPROX)

PALLETIZED UNIT - - - 6

---- 10.494 LBS



FIVE HELLFIRE PALLETIZED UNITS OF 7'-0" LONG CONTAINERS ON THE M1 FLATRACK

- FIVE 7'-0" LONG HELLFIRE MISSILE PALLETIZED UNITS ARE SHOWN LOADED ARE SHOWN LOADED ON THE MI FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- THE 7'-0" LONG PALLETIZED UNITS ARE SHOWN. IF LOADING THE 6'-4" LONG PALLETIZED UNITS SEE THE LOADING PROCEDURES ON PAGE 28.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. ONE HELLFIRE CONTAINER IS SHOWN POSITIONED ON TOP OF A PALLETIZED UNIT. ONE THROUGH THREE CONTAINERS MAY BE SECURED ON TOP OF A PALLETIZED UNIT. SEE KEY NUMBER ③.
- PRIOR TO LOADING THE PALLETS, ASSURE THAT ALL STEEL STRAPPING ON EACH PALLET IS IN POSITION AND IS TIGHT. MISSING AND/OR LOOSE STEEL STRAPPING SHOULD BE REPLACED.
- 6. WHEN LOADING THE FLATRACK, POSITION THE PALLETS TIGHT AGAINST THE A-FRAME AND CENTERED ACROSS THE FLATRACK WIDTH.
- 7. EACH LATERAL ROW OF ONE OR MORE PALLET UNITS MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP OF A ROW. THESE TWO STRAPS MUST NOT BE POSITIONED OVER TOP OF LEFTOVER CONTAINERS.
- 8. ALL PALLETS MUST BE POSITIONED TIGHTLY AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY. THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID SPACES BETWEEN PALLET UNITS WILL FILL IN DURING TRANSPORT CAUSING WEB STRAPPING TO BECOME LOOSE.
- 9. ONLY A PARTIAL AFT END WALL IS SHOWN ON THE ISOMETRIC VIEW TO PREVENT DISTRACTION OF THE LOADING AND TIEDOWN PROCEDURES AND TO IMPROVE THE CLARITY OF THE DEPICTED PROCEDURES.
- 10.

 WHEN POSITIONING THE CONTAINER ON TOP OF A
 PALLETIZED UNIT ASSURE THAT THE STACKING PINS ARE
 FULLY SEATED.
- A TOTAL OF NINE WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED.

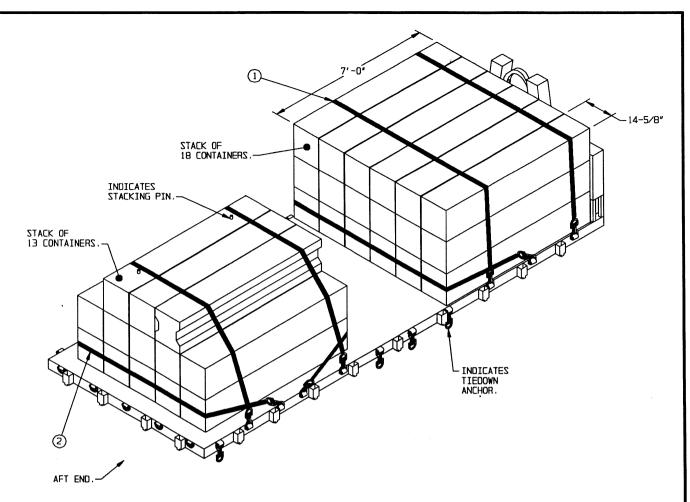
LOAD AS SHOWN

ITEM

QUANTITY

WEIGHT (APPROX)

PALLETIZED UNIT ---- 5 ---- 9,605 LBS



KEY NUMBERS

- WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (3 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND ENDS OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 ND SPECIAL NOTE 4 ON PAGE 33.

7'-0" LONG HELLFIRE CONTAINERS ON THE A-FRAME FLATRACK

- 1. A TYPICAL LOAD OF 7'-0" LONG HELLFIRE MISSILE CONTAINERS IS SHOWN LOADED ON THE A-FRAME FLATRACK HAYING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POLINDS.
- 2. THE 7'-0" LONG CONTAINERS ARE SHOWN. IF LOADING THE 6'-4" LONG CONTAINERS FOLLOW THESE SAME PROCEDURES. ALSO SEE THE LOAD ON PAGE 34.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. IF THE FORWARD CONTAINERS ARE POSITIONED AWAY FROM THE A-FRAME, ONE ADDITIONAL STRAP MARKED ② WILL BE REQUIRED.
- 5. IF POSITIONING CONTAINERS ON TOP OF PALLETIZED UNITS, SEE THE PROCEDURES SHOWN ON PAGE 30.
- WHEN STACKING CONTAINERS ASSURE THAT THE STACKING PINS ARE FULLY SEATED.
- 7. THE QUANTITY OF CONTAINERS SHOWN IN EACH STACK IS TYPICAL ONLY. STACKS CONTAINING OTHER QUANTITIES OF CONTAINERS MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- B. EACH STACK OF TWO OR MORE LAYERS MUST BE SECURED WITH TWO STRAPS MARKED ① OVER THE TOP AND TWO STRAPS MARKED ② AROUND THE ENDS. SEE SPECIAL NOTE 4 ON THIS PAGE.
- 9. A TOTAL OF SEVEN WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

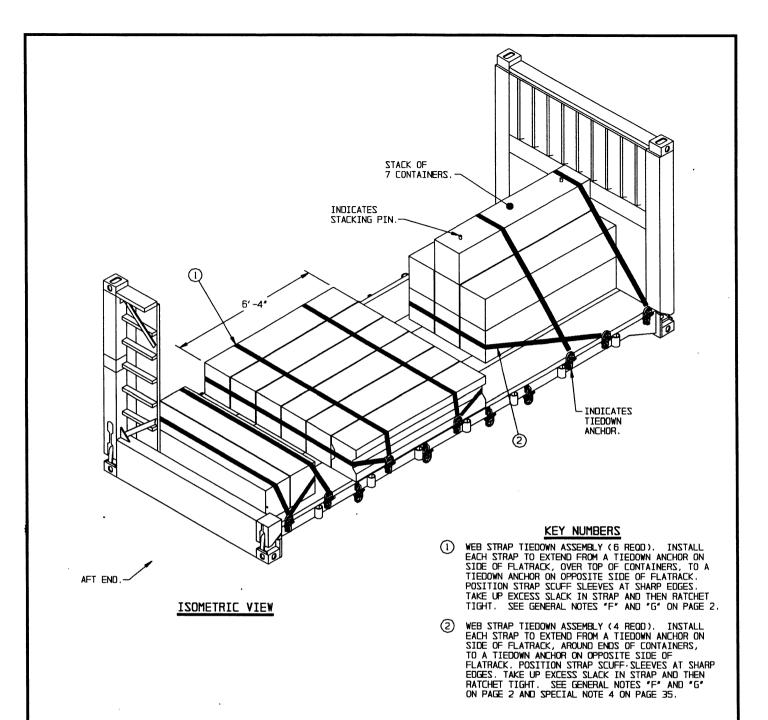
LOAD AS SHOWN

ITEM

QUANTITY

WEIGHT (APPROX)

CONTAINER - - - - - - 31 - - - - - 6,293 LBS



- 1. A TYPICAL LOAD OF 6'-4" LONG HELLFIRE MISSILE CONTAINERS IS SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- 2. THE 6'-4' LONG CONTAINERS ARE SHOWN. IF LOADING THE 7'-0' LONG CONTAINERS FOLLOW THESE SAME PROCEDURES. ALSO SEE THE LOAD ON PAGE 32.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. IF THE FORWARD AND AFT CONTAINERS ARE POSITIONED AWAY FROM THE END WALLS, TWO ADDITIONAL STRAPS MARKED ② WILL BE REQUIRED.
- 5. IF POSITIONING CONTAINERS ON TOP OF PALLETIZED UNITS, SEE THE PROCEDURES SHOWN ON PAGE 30.
- 6. WHEN STACKING CONTAINERS ASSURE THAT THE STACKING PINS ARE FULLY SEATED.
- 7. THE QUANTITY OF CONTAINERS SHOWN IN EACH STACK IS TYPICAL ONLY. STACKS CONTAINING OTHER QUANTITIES OF CONTAINERS MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- B. EACH LATERAL ROW OF TWO TO SIX CONTAINERS MUST BE SECURED WITH TWO WEB STRAPS MARKED ① OVER THE TOP AND TWO WEB STRAPS MARKED ② AROUND THE ENDS. SEE SPECIAL NOTE 4 ON THIS PAGE.
- 9. EACH STACK OF TWO OR MORE LAYERS MUST BE SECURED WITH TWO STRAPS MARKED ① OVER THE TOP AND TWO STRAPS MARKED ② AROUND THE ENDS. SEE SPECIAL NOTE 4 ON THIS PAGE.
- 10. ONLY A PARTIAL AFT END WALL IS SHOWN ON THE ISOMETRIC VIEW TO PREVENT DISTRACTION OF THE LOADING AND TIEDOWN PROCEDURES AND TO IMPROVE THE CLARITY OF THE DEPICTED PROCEDURES.
- 11. A TOTAL OF TEN WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

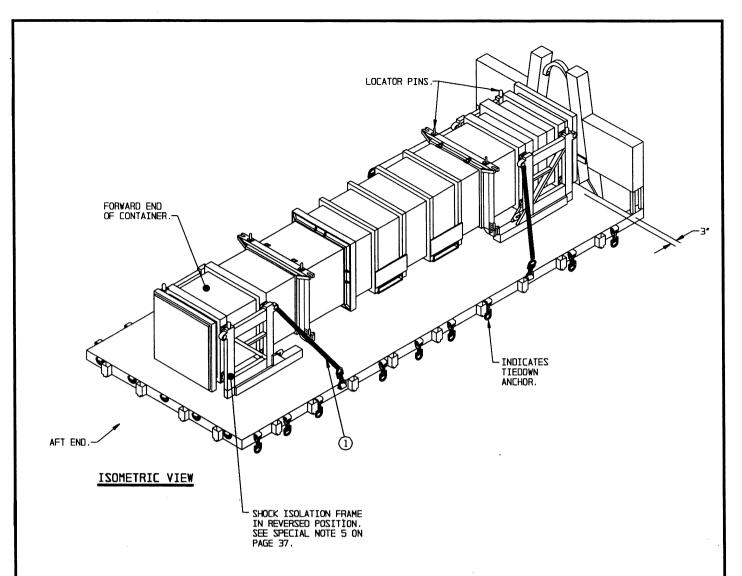
ITEM

QUANTITY

WEIGHT (APPROX)

CONTAINER ----- 15 ---- 2,775 LBS

6'-4" LONG HELLFIRE CONTAINERS ON THE M1 FLATRACK



KEY NUMBERS

WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL
EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON
SIDE OF FLATRACK, UP AND THROUGH A CONTAINER
TIEDOWN FITTING, AND BACK TO THE SAME TIEDOWN
ANCHOR ON SIDE OF FLATRACK. POSITION STRAP
SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS
SLACK IN STRAP AND THEN RATCHET TIGHT. SEE
SPECIAL NOTE 4 ON PAGE 37 AND GENERAL NOTES
"F" AND "G" ON PAGE 2.

ONE PATRIOT MISSILE ON THE A-FRAME FLATRACK

- 1. ONE PATRIOT MISSILE IN THE MISSILE CANISTER (SHIPPING, STORAGE AND LAUNCH CONTAINER) IS SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- THE FORWARD END OF THE CONTAINER IS SHOWN FACING THE AFT END OF THE FLATRACK. THE FORWARD END OF THE CONTAINER MAY BE POSITIONED AT THE FORWARD END OF THE FLATRACK, IF DESIRED.
- 4. THE HOOK END OF THE WEB STRAP MUST BE THREADED THROUGH THE CONTAINER TIEDOWN FITTING BECAUSE THE HOOK OPENING IS TOO SMALL TO ATTACH TO THE CONTAINER TIEDOWN.
- 5. ALL FOUR SHOCK ISOLATION FRAMES ON EACH MISSILE CONTAINER MUST BE REVERSED AND POSITIONED ON THE OPPOSITE SIDE OF THE CONTAINER AS SHOWN, TO REDUCE THE OVERALL CONTAINER LENGTH FROM 19'-6" LONG TO 18'-3" LONG, WHICH WILL ALLOW THE CONTAINERS TO FIT ON THE A-FRAME FLATRACK AND/OR THE M1 FLATRACK.
- 6. CAUTION: THE GUIDED MISSILE MAY BE DAMAGED IF TORQUE TUBE HANDLE IS UNLOCKED DURING SHIPMENT. IN LOCKED POSITION, TORQUE TUBE HANDLE IS LEFT OF CENTER WITH OUICK RELEASE PIN IN RIGHT TRAVEL RESTRAINT HOLE. WHEN UNLOCKED, TORQUE TUBE HANDLE IS RIGHT OF CENTER AND A RED WARNING PATCH IS VISIBLE ON THE INSTRUMENT PANEL. CHECK TO BE SURE TORQUE TUBE HANDLE IS IN THE LOCKED POSITION PRIOR TO LOADING.
- 7. WEB STRAP TIEDOWN ASSEMBLIES MUSI NOT BE POSITIONED OVER THE BODY OF THE CONTAINER, AS THE BODY MUST BE ALLOWED TO FLOAT WITHIN THE SHOCK ISOLATION FRAMES.
- 8. POSITION THE CONTAINER THREE INCHES AWAY FROM THE A-FRAME AT THE FORWARD END OF THE FLATRACK AND CENTERED ACROSS THE WIDTH OF THE DECK.
- 9. A TOTAL OF FOUR WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

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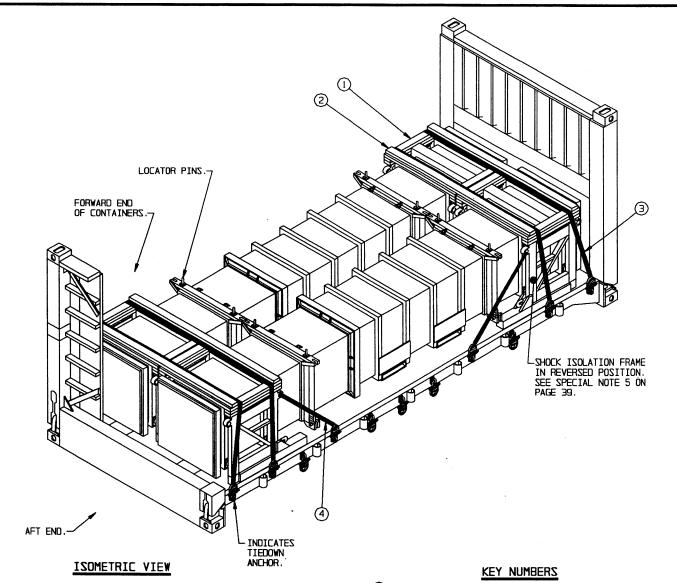
ITEM

QUANTITY

WEIGHT (APPROX)

MISSILE CANISTER- - - - 1 - - - - 3,750 LBS

ONE PATRIOT MISSILE ON THE A-FRAME FLATRACK



- 1 HOLD-DOWN ASSEMBLY (4 REQD). SEE THE DETAIL ON PAGE 64. POSITION AS SHOWN SO AS TO REST ON THE SHOCK ISOLATION FRAMES AND ASSURE THAT THE LOCATOR PINS ON CONTAINER ARE FULLY SEATED INTO THE HOLES ON THE ASSEMBLY.
- 2 STRAP RETAINER, 2" X 4" X 7'-1" (4 REOD).
 POSITION ON TOP OF TWO ADJACENT HOLD-DOWN
 ASSEMBLIES AS SHOWN AND NAIL TO THE HOLD-DOWN
 ASSEMBLIES W/10-10d NAILS.
- 3) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD AND HOLD-DOWN ASSEMBLIES TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVE AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, UP AND THROUGH A CONTAINER TIEDOWN FITTING, AND BACK TO THE SAME TIEDOWN ANCHOR ON SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 6 ON PAGE 39 AND GENERAL NOTES "F" AND "G" ON PAGE 2.

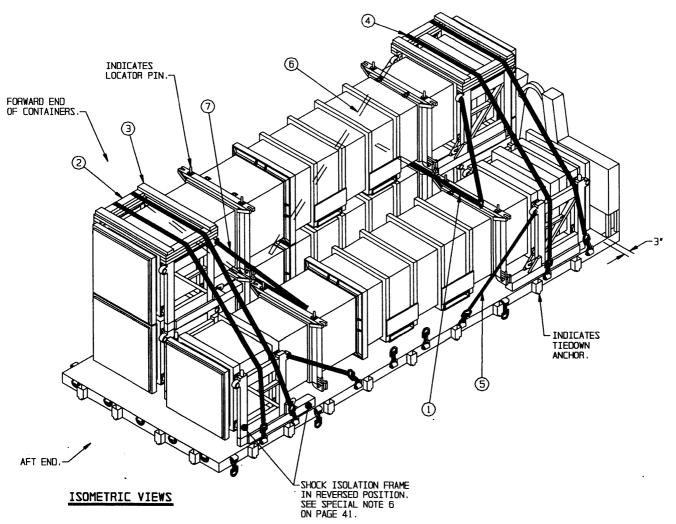
- I. TWO PATRIOT MISSILES IN THE MISSILE CANISTER (SHIPPING, STORAGE AND LAUNCH CONTAINER) ARE SHOWN LOADED ON THE MI FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. THE FORWARD END OF THE CONTAINERS ARE SHOWN AT THE AFT END OF THE FLATRACK. THE FORWARD END OF THE CONTAINERS MAY BE POSITIONED AT THE FORWARD END OF THE FLATRACK, IF DESIRED.
- 4. THE HOOK END OF THE WEB STRAP MUST BE THREADED THROUGH THE CONTAINER TIEDOWN FITTING BECAUSE THE HOOK OPENING IS TOO SMALL TO ATTACH TO THE CONTAINER TIEDOWN.
- 5. ALL FOUR SHOCK ISOLATION FRAMES ON EACH MISSILE CONTAINER MUST BE REVERSED AND POSITIONED ON THE OPPOSITE SIDE OF THE CONTAINER AS SHOWN, TO REDUCE THE OVERALL CONTAINER LENGTH FROM 19'-6" LONG TO 18'-3" LONG, WHICH WILL ALLOW THE CONTAINERS TO FIT ON THE A-FRAME FLATRACK AND/OR THE M1 FLATRACK.
- 6. CAUTION: THE GUIDED MISSILE MAY BE DAMAGED IF TOROUE TUBE HANDLE IS UNLOCKED DURING SHIPMENT. IN LOCKED POSITION, TOROUE TUBE HANDLE IS LEFT OF CENTER WITH OULCK RELEASE PIN IN RIGHT TRAVEL RESTRAINT HOLE. WHEN UNLOCKED, TOROUE TUBE HANDLE IS RIGHT OF CENTER AND A RED WARNING PATCH IS VISIBLE ON THE INSTRUMENT PANEL. CHECK TO BE SURE TOROUE TUBE HANDLE IS IN THE LOCKED POSITION PRIOR TO LOADING.
- 7. WEB STRAP TIEDOWN ASSEMBLIES <u>MUST NOT</u> BE POSITIONED OVER THE BODY OF THE CONTAINER, AS THE BODY MUST BE ALLOWED TO <u>FLOAT</u> WITHIN THE SHOCK ISOLATION FRAMES.
- CENTER THE CONTAINERS BETWEEN THE FORE AND AFT END WALLS AND ACROSS THE WIDTH OF THE DECK.
- A TOTAL OF EIGHT WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL			
LUMBER	LINEAR FEET	BOARD FEET	
1" X 4" 2" X 4" 2" X 6"	13 81 29	5 54 29	
NAILS	NO. REQD	ZDNUOS	
6d (2") 10d (3")	64 184	1/2 3	

LOAD AS SHOWN

MISSILE CANISTER - - - 2 - - - - 7,500 LBS
UNNAGE - - - - - - - - - - 7,680 LBS

TWO PATRIOT MISSILES ON THE M1 FLATRACK



(KEY NUMBERS CONTINUED)

- (B) WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, UP AND THROUGH A CONTAINER TIEDOWN FITTING ON TOP CONTAINER ON OPPOSITE SIDE OF LOAD, AND BACK TO THE SAME TIEDOWN ANCHOR ON SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 4 ON PAGE 41 AND GENERAL NOTES "F" AND "G" ON PAGE 2.
- (7) WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO EXTEND FROM AN OUTER LIFTING RING ON BOTTOM CONTAINER, UP AND THAPOUGH THE CONTAINER TIEDOWN FITTING ON TOP CONTAINER, AND BACK TO THE SAME OUTER LIFTING RING ON BOTTOM CONTAINER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTES 4 AND 5 ON PAGE 41 AND GENERAL NOTES "F" AND "G" ON PAGE 2.

KEY NUMBERS

- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO EXTEND FROM AN OUTER LIFTING RING ON ONE BOTTOM CONTAINER TO AN OUTER LIFTING RING ON THE ADJACENT BOTTOM CONTAINER. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 5 ON PAGE 41 AND GENERAL NOTES "F" AND "G" ON PAGE 2.
- (2) HOLD-DOWN ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 64. POSITION AS SHOWN SO AS TO REST ON THE SHOCK ISOLATION FRAME AND ASSURE THAT THE LOCATOR PINS ON THE CONTAINER ARE FULLY SEATED INTO THE HOLES ON THE ASSEMBLY.
- 3 STRAP RETAINER, 2" X 4" X 42-3/4" (4 REQD).
 NAIL TO THE HOLD-DOWN ASSEMBLY W/6-10d NAILS.
- WEB STRAP TIEDOWN ASSEMBLY (4 REQD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD AND HOLD-DOWN ASSEMBLY, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 10 ON PAGE 41 AND GENERAL NOTES "F". AND "G" ON PAGE 2.
- (\$) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, UP AND THROUGH A CONTAINER TIEDOWN FITTING ON BOTTOM CONTAINER ON EACH SIDE OF LOAD, AND BACK TO THE SAME TIEDOWN ANCHOR ON SIDE OF FLATRACK, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 4 ON PAGE 41 AND GENERAL NOTES "F" AND "G" ON PAGE 2

(CONTINUED AT LEFT)

FAGE 40

THREE PATRIOT MISSILES ON THE A-FRAME FLATRACK

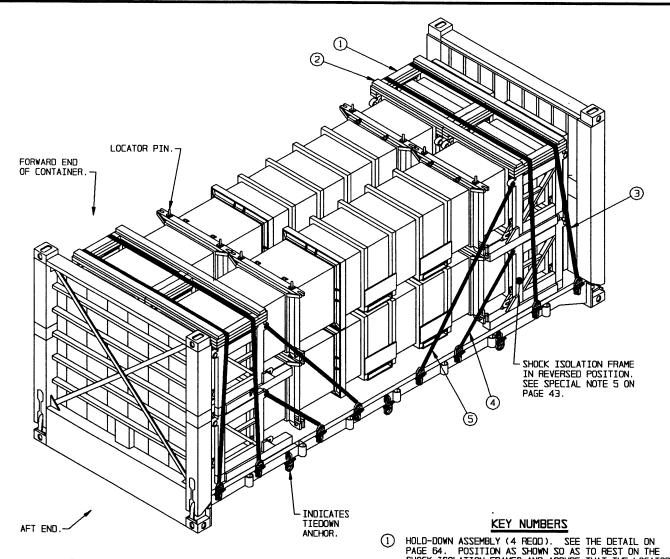
- 1. THREE PATRIOT MISSILES IN THE MISSILE CANISTER (SHIPPING, STORAGE AND LAUNCH CONTAINER) ARE SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. THE FORWARD END OF THE CONTAINERS ARE SHOWN AT THE AFT END OF THE FLATRACK. THE FORWARD END OF THE CONTAINER MAY BE POSITIONED AT THE FORWARD END OF THE FLATRACK, IF DESIRED.
- 4. THE HOOK END OF THE WEB STRAP MUST BE THREADED THROUGH THE CONTAINER TIEDOWN FITTING BECAUSE THE HOOK OPENING IS TOO SMALL TO ATTACH TO THE CONTAINER TIEDOWN.
- THE HOOK END OF THE WEB STRAP WILL FIT ON THE CONTAINER LIFTING RING.
- 6. ALL FOUR SHOCK ISOLATION FRAMES ON EACH MISSILE CONTAINER MUST BE REVERSED AND POSITIONED ON THE OPPOSITE SIDE OF THE CONTAINER AS SHOWN, TO REDUCE THE OVERALL CONTAINER LENGTH FROM 19'-6" LONG TO 18'-3" LONG, WHICH WILL ALLOW THE CONTAINERS TO FIT ON THE A-FRAME FLATRACK AND/OR THE M1 FLATRACK.
- CANISTER STACKING FOR OUTLOADING PROCEDURES.
 - A. THE SKIDS OF THE UPPER CANISTER MUST BE FULLY SEATED UPON THE LOCATOR PINS OF THE LOWER CANISTER
 - B. POSITION THE FORWARD END OF THE UPPER CANISTER ABOVE THE FORWARD END OF THE LOWER CANISTER.
 - C. CANISTER INTERLOCKING BOLTS MUST BE TIGHTENED AS SECURELY AS POSSIBLE WITH NORMAL SIZE HAND TOOL WRENCH (REF 60 FOOT-POUNDS) (44 NEWTON-METERS).
- 8. CANISTER OR CANISTER STACK HANDLING.
 - A. ONLY APPROVED AND APPROPRIATELY SIZED MATERIALS HANDLING EQUIPMENT WILL BE USED FOR HANDLING THE DEPICTED CANISTERS.
 - B. IF HANDLING IS ACCOMPLISHED WITH A FORKLIFT TRUCK, THE CANISTER SHOULD BE HANDLED FROM A SIDE POSITION. CARE MUST BE EXERCISED WHEN INSERTING FORKS UNDER A CANISTER, TO PREVENT DAMAGE TO THE CANISTER BY THE FORK TINES OR THE FORKLIFT PACKAGE GUARD. FOR VERY SHORT "INCHING" SPEED MOVEMENTS, SUCH AS WILL BE EXPERIENCED DURING LOADING, A TWO-HIGH CANISTER STACK MAY BE HANDLED BY INSERTING THE FORKS OF A FORKLIFT TRUCK INTO THE FORK RECEPTACLES OF THE UPPER CANISTER.
 - C. SLINGING OF A CANISTER OR A CANISTER STACK WILL BE ACCOMPLISHED IN ACCORDANCE WITH APPROVED PROCEDURES.

- 9. CAUTION: THE GUIDED MISSILE MAY BE DAMAGED IF TOROUE TUBE HANDLE IS UNLOCKED DURING SHIPMENT. IN LOCKED POSITION, TOROUE TUBE HANDLE IS LEFT OF CENTER WITH OUICK RELEASE PIN IN RIGHT TRAVEL RESTRAINT HOLE. WHEN UNLOCKED, TOROUE TUBE HAND IS RIGHT OF CENTER AND A RED WARNING PATCH IS VISIBLE ON THE INSTRUMENT PANEL. CHECK TO BE SURE TOROUE TUBE HANDLE IS IN THE LOCKED POSITION PRIOR TO LOADING.
- 10. WEB STRAP TIEDOWN ASSEMBLIES MUST NOT BE POSITIONED OVER THE BODY OF THE CONTAINER AS THE BODY MUST BE ALLOWED TO FLOAT WITHIN THE SHOCK ISOLATION FRAMES.
- 11. POSITION THE CONTAINERS THREE INCHES AWAY FROM THE A-FRAME AT THE FORWARD END OF THE FLATRACK AND CENTER ACROSS THE WIDTH OF THE DECK.
- 12. A TOTAL OF 18 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL BOARD FEET LINEAR FEET LUMBER 1" X 4" 2" X 4" 2" X 6" 27 18 15 15 NO. REQD **POUNDS** NAILS 32 72 6d (2") 10d (3") 1-1/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
MISSILE CANIS DUNNAGE	TER 3	11,250 LBS 74 LBS
	TOTAL WEIGHT	11,324 LBS



- HOLD-DOWN ASSEMBLY (4 REQD). SEE THE DETAIL ON PAGE 64. POSITION AS SHOWN SO AS TO REST ON THE SHOCK ISOLATION FRAMES AND ASSURE THAT THE LOCATOR PINS ON THE CONTAINER ARE FULLY SEATED INTO THE HOLES ON THE ASSEMBLY.
- STRAP RETAINER, 2" X 4" X 7'-1" (4 REOD).
 POSITION ON TOP OF TWO ADJACENT HOLD-DOWN
 ASSEMBLIES AS SHOWN AND NAIL TO THE HOLD-DOWN
 ASSEMBLIES W/10-10d NAILS.
- (3) WEB STRAP TIEDOWN ASSEMBLY (4 REQD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD AND HOLD-DOWN ASSEMBLIES, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVE AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 9 ON PAGE 43 AND GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, UP AND THROUGH A CONTAINER TIEDOWN FITTING ON BOTTOM CONTAINER, AND BACK TO THE SAME TIEDOWN ANCHOR ON SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHAPP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 4 ON PAGE 43 AND GENERAL NOTES "F" AND "G" ON PAGE 2.
- (\$) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK UP AND THROUGH A CONTAINER TIEDOWN FITTING ON TOP CONTAINER, AND BACK TO THE SAME TIEDOWN ANCHOR ON SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 4 ON PAGE 43 AND GENERAL NOTES "F" AND "G" ON PAGE 2.

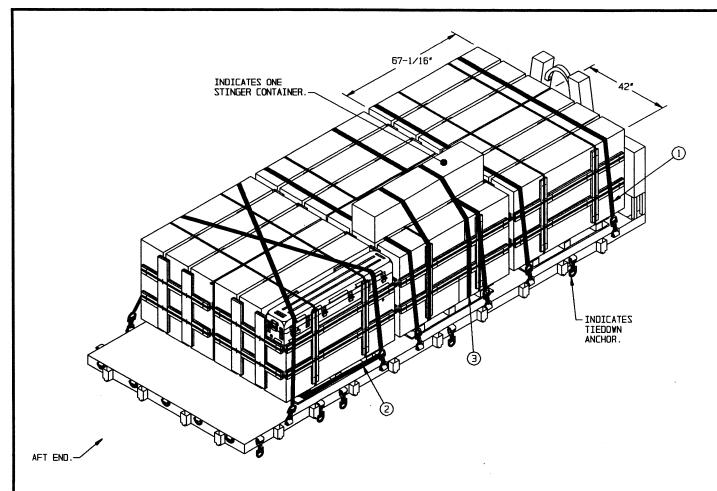
FOUR PATRIOT MISSILES ON THE MI FLATRACK

- FOUR PATRIOT MISSILES IN THE MISSILE CANISTER (SHIPPING, STORAGE AND LAUNCH CONTAINER) ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6' LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- 2. IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 3. THE FORWARD END OF THE CONTAINERS ARE SHOWN AT THE AFT END OF THE FLATRACK. THE FORWARD END OF THE CONTAINERS MAY BE POSITIONED AT THE FORWARD END OF THE FLATRACK, TE DESIRED.
- 4. THE HOOK END OF THE WEB STRAP MUST BE THREADED THROUGH THE CONTAINER TIEDOWN FITTING BECAUSE THE HOOK OPENING IS TOO SMALL TO ATTACH TO THE CONTAINER TIEDOWN.
- 5. ALL FOUR SHOCK ISOLATION FRAMES ON EACH MISSILE CONTAINER MUST BE REVERSED AND POSITIONED ON THE OPPOSITE SIDE OF THE CONTAINER AS SHOWN, TO REDUCE THE OVERALL CONTAINER LENGTH FROM 19'-6' LONG TO 18'-3" LONG, WHICH WILL ALLOW THE CONTAINERS TO FIT ON THE A-FRAME FLATRACK AND/OR THE MI FLATRACK.
- 6. CANISTER STACKING FOR OUTLOADING PURPOSES
 - A: THE SKIDS OF THE UPPER CANISTER MUST BE FULLY SEATED UPON THE LOCATOR PINS OF THE LOWER CANISTER.
 - B. POSITION THE FORWARD END OF THE UPPER CANISTER ABOVE THE FORWARD END OF THE LOWER CANISTER.
 - C. CANISTER INTERLOCKING BOLTS MUST BE TIGHTENED AS SECURELY AS POSSIBLE WITH A NORMAL SIZE HAND TOOL WRENCH (REF 60 FOOT-POUNDS) (44 NEWTON-METERS).
- 7. CANISTER OR CANISTER STACK HANDLING.
 - A. ONLY APPROVED AND APPROPRIATELY SIZED MATERIALS HANDLING EQUIPMENT WILL BE USED FOR HANDLING THE DEPICTED CANISTERS.
 - B. IF HANDLING IS ACCOMPLISHED WITH A FORKLIFT TRUCK, THE CANISTER SHOULD BE HANDLED FROM A SIDE POSITION. CARE MUST BE EXERCISED WHEN INSERTING FORKS UNDER A CANISTER, TO PREVENT DAMAGE TO THE CANISTER BY THE FORK TINES OR THE FORKLIFT PACKAGE GUARD. FOR VERY SHORT "INCHING" SPEED MOVEMENTS, SUCH AS WILL BE EXPERIENCED DURING LOADING, A TWO-HIGH CANISTER STACK MAY BE HANDLED BY INSERTING THE FORKS OF A FORKLIFT TRUCK INTO THE FORK RECEPTACLES OF THE UPPER CANISTER.
 - C. SLINGING OF A CANISTER OR A CANISTER STACK WILL BE ACCOMPLISHED IN ACCORDANCE WITH APPROVED PROCEDURES.
- 8. CAUTION: THE GUIDED MISSILE MAY BE DAMAGED IF TOROUE TUBE HANDLE IS UNLOCKED DURING SHIPMENT. IN LOCKED POSITION, TOROUE TUBE HANDLE IS LEFT OF CENTER WITH OUICK RELEASE PIN IN RIGHT TRAVEL RESTRAINT HOLE. WHEN UNLOCKED, TOROUE TUBE HANDLE IS RIGHT OF CENTER AND A RED WARNING PATCH IS VISIBLE ON THE INSTRUMENT PANEL. CHECK TO BE SURE TOROUE TUBE HANDLE IS IN THE LOCKED POSITION PRIOR TO LOADING.
- 9. WEB STRAP TIEDOWN ASSEMBLIES MUST NOT BE POSITIONED OVER THE BODY OF THE CONTAINER AS THE BODY MUST BE ALLOWED TO FLOAT WITHIN THE SHOCK ISOLATION FRAMES.
- CENTER THE CONTAINERS BETWEEN THE FORE AND AFT END 10. WALLS AND ACROSS THE WIDTH OF THE DECK.
- A TOTAL OF 16 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED 11. FOR THE LOAD SHOWN.

BILL OF MATERIAL			
LUMBER	LINEAR FEET	BOARD FEET	
1" X 4" 2" X 4" 2" X 6"	13 81 29	5 54 29	
NAILS	NO. REQD	SQNDOA	
6d (2") 10d (3")	64 184	1/2 3	

LOAD AS SHOWN

FOUR PATRIOT MISSILES ON THE M1 FLATRACK



KEY NUMBERS

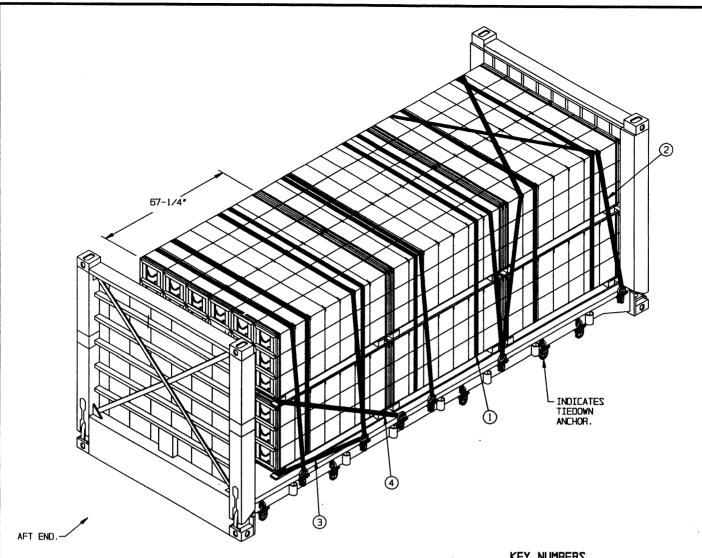
- (1) WEB STRAP TIEDOWN ASSEMBLY (6 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF PALLETIZED UNITS, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF FLATRACK, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF PALLETIZED UNITS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (3) WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO ENCIRCLE THE PALLETIZED UNIT AND THE LEFTOVER CONTAINER ON TOP, THREAD STRAPS UNDER THE TOP DECK BOADDS OF PALLET AT APPROXIMATE LOCATIONS SHOWN. POSITION STRAP SCUEF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

- 1. SIX PALLETIZED UNITS OF STINGER MISSILE ALUMINUM CONTAINERS ARE SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- 2. THE PALLETIZED ALUMINUM CONTAINERS ARE SHOWN. IF LOADING THE UNITIZED WIREBOUND CONTAINERS SEE THE LOADING PROCEDURES ON PAGE 46.
- IF LOADING AN MI FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. ONE ALUMINUM CONTAINER IS SHOWN POSITIONED ON TOP OF A PALLETIZED UNIT. ONE THROUGH THREE CONTAINERS MAY BE SECURED ON TOP OF A PALLETIZED UNIT USING THE PROCEDURES SHOWN. SEE KEY NUMBER ③ ON PAGE 44.
- 5. PRIOR TO LOADING THE PALLETIZED UNITS, ASSURE THAT ALL STEEL STRAPPING IS IN POSITION AND IS TIGHT. MISSING AND/OR LOOSE STEEL STRAPPING SHOULD BE REPLACED.
- WHEN LOADING THE FLATRACK, POSITION THE PALLETIZED UNITS TIGHT AGAINST THE A-FRAME AND CENTERED ACROSS THE WIDTH OF THE FLATRACK.
- 7. EACH LATERAL ROW OF ONE OR MORE PALLETIZED UNITS MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP OF A ROW.
- 8. ALL PALLETIZED UNITS MUST BE POSITIONED TIGHTLY AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY. THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID SPACES BETWEEN PALLETIZED UNITS WILL FILL IN DURING TRANSPORT CAUSING WEB STRAPPING TO BECOME LOOSE.
- 9. A TOTAL OF NINE WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

| TOTAL WEIGHT - - - - 5 .798 LBS

SIX STINGER PALLETIZED UNITS OF ALUMINUM CONTAINERS ON THE A-FRAME FLATRACK



KEY NUMBERS

- WEB STRAP TIEDOWN ASSEMBLY (6 REQD). HOOK TWO STRAPS TOGETHER AND ENCIRCLE EACH STACK OF FOUR UNITIZED UNITS AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (2) WEB STRAP TIEDOWN ASSEMBLY (6 REQD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PACE 2
- WEB STRAP TIEDOWN ASSEMBLY (1 REQD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND BASES OF REAR UNITIZED UNITS IN BOTTOM LAYER, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON DAGE 2
- (4) WEB STRAP TIEDOWN ASSEMBLY (1 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND BASES OF REAR UNITIZED UNITS IN SECOND LAYER, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

TWELVE STINGER UNITIZED UNITS OF WIREBOUND BOXES ON THE M1 FLATRACK

- TWELVE UNITIZED UNITS OF STINGER MISSILE WIREBOUND BOXES ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- THE UNITIZED WIREBOUND BOXES ARE SHOWN. IF LOADING THE PALLETIZED ALUMUNUM CONTAINERS SEE THE LOADING PROCEDURES ON PAGE 44.
- 3. IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES. NOTE: ONE ADDITIONAL STRAP MARKED (4) WILL BE REQUIRED AT THE FORWARD END OF THE SECOND LAYER.
- 4. IF POSITIONING LEFTOVER BOXES ON TOP OF UNITIZED UNITIS SEE THE PROCEDURES SHOWN ON PAGE 44.
- 5. PRIOR TO LOADING THE UNITIZED UNITS, ASSURE THAT ALL STEEL STRAPPING IS IN POSITION AND IS TIGHT. MISSING AND/OR LOOSE STEEL STRAPPING SHOULD BE BEDLACED.
- 6. WHEN LOADING THE FLATRACK, POSITION THE UNITIZED UNITS TIGHT AGAINST THE FORWARD END WALL AND CENTERED ACROSS THE WIDTH OF THE FLATRACK.
- 7. EACH LATERAL ROW OF ONE OR MORE UNITIZED UNITS MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP OF A ROW.
- 8. ALL UNITIZED UNITS MUST BE POSITIONED TIGHTLY
 AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY.
 THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF
 WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID
 SPACES BETWEEN UNITS WILL FILL IN DURING TRANSPORT
 CAUSING WEB STRAPPING TO BECOME LOOSE.
- A TOTAL OF 27 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

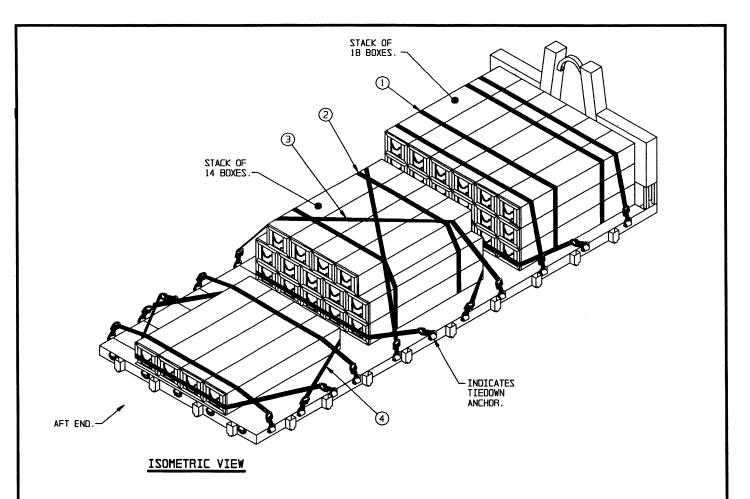
ITEM

QUANTITY

WEIGHT (APPROX)

UNITIZED UNIT - - - - - 12 - - - - 8,988 LBS

TWELVE STINGER UNITIZED UNITS OF WIREBOUND BOXES ON THE M1 FLATRACK



KEY NUMBERS

- (1) WEB STRAP TIEDOWN ASSEMBLY (2 REOD). HOOK TWO
 STRAPS TOGETHER AND ENCIRCLE THE STACK OF 18 BOXES
 AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT
 SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND
 THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G"
 ON PAGE 2 AND SPECIAL NOTE 6 ON PAGE 49.
- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL STRAP TO ENCIRCLE A STACK OF BOXES AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 6 ON PAGE 49.
- WEB STRAP TIEDOWN ASSEMBLY (6 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF BOXES, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF FLATRACK, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (4) WEB STRAP TIEDOWN ASSEMBLY (5 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND ENDS OF BOXES, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 4 ON PAGE 49.

STINGER WIREBOUND BOXES ON THE A-FRAME FLATRACK

- A TYPICAL LOAD OF STINGER MISSILE WIREBOUND BOXES IS SHOWN LOADED ON THE A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- 2. THE WIREBOUND BOXES ARE SHOWN. IF LOADING THE ALUMUNUM CONTAINERS SEE THE LOADING PROCEDURES ON PAGE 50.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. IF THE BOXES POSITIONED AGAINST THE A-FRAME ARE POSITIONED AWAY FROM THE A-FRAME, ONE ADDITIONAL STRAP MARKED ④ WILL BE REQUIRED AT THE FORWARD END OF THE FORWARD STACK.
- 5. IF POSITIONING BOXES ON TOP OF UNITIZED UNITS SEE THE PROCEDURES SHOWN ON PAGE 44.
- 6. STRAPS MARKED ① AND ② MUST BE PRE-POSITIONED ON THE FLOOR OF THE FLATRACK AT THE LOCATION SELECTED PRIOR TO LOADING BOXES, ASSURE THAT THE STRAP LAYS FLAT ACROSS THE FLOOR, WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. POSITION THE BOXES ON THE FLOOR AND ON TOP OF THE STRAPS. KEEP THE BOXES TIGHT AGAINST EACH OTHER. AFTER ALL THE BOXES ARE STACKED, BRING ENDS OF STRAP UP OVER TOP OF STACK AND HOOK ENDS OF STRAP TOGETHER.
- THE QUANTITY OF BOXES SHOWN IN EACH STACK IS TYPICAL ONLY. STACKS CONTAINING OTHER QUANTITIES OF BOXES MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- 8. EACH STACK OF TWO OR MORE LAYERS MUST BE SECURED WITH TWO STRAPS MARKED ③ OVER THE TOP AND TWO STRAPS MARKED ④ AROUND EACH END. SEE SPECIAL NOTE 4 ON THIS PAGE.
- 9. A TOTAL OF 17 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

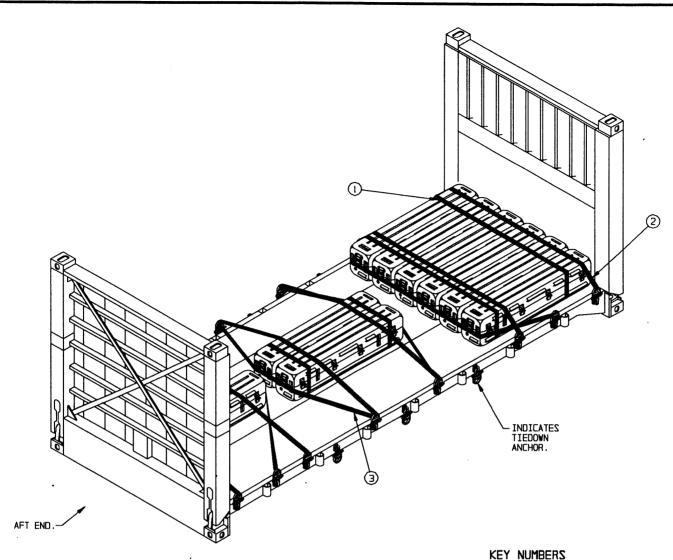
ITEM

QUANTITY

WEIGHT (APPROX)

WIREBOUND BOX - - - - - 36 - - - - - 2,772 LBS

STINGER WIREBOUND BOXES ON THE A-FRAME FLATRACK



- WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL
 STRAP TO ENCIRCLE THE CONTAINERS AT TWO PLACES.
 POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE
 UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT.
 SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND
 SPECIAL NOTE 6 ON PAGE 51.
- (2) WEB STRAP TIEDOWN ASSEMBLY (6 REÓD). INSTALL STRAP FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINERS TO A TIEDOWN ANCHOR ON THE OPPOSITE OF THE FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.
- (3) WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.

- 1. A TYPICAL LOAD OF STINGER MISSILE ALUMINUM CONTAINERS IS SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- 2. THE ALUMINUM CONTAINERS ARE SHOWN. IF LOADING THE WIREBOUND CONTAINERS SEE THE LOADING PROCEDURES ON PAGE 48.
- 3. IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. IF THE FORE AND AFT CONTAINERS ARE POSITIONED AWAY FROM THE END WALLS, TWO ADDITIONAL STRAP MARKED ③ WILL BE REQUIRED.
- 5. IF POSITIONING CONTAINERS ON TOP OF PALLETIZED UNITS, SEE THE PROCEDURES SHOWN ON PAGE 44.
- 6. STRAPS MARKED ① MUST BE PRE-POSITIONED ON THE FLOOR OF THE FLATRACK AT THE LOCATION SELECTED PRIOR TO LOADING CONTAINERS. ASSURE THAT THE STRAP LAYS FLAT ACROSS THE FLOOR, WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. POSITION THE CONTAINERS ON THE FLOOR AND ON TOP OF THE STRAPS. KEEP THE CONTAINERS TIGHT AGAINST EACH OTHER. AFTER ALL CONTAINERS ARE LOADED, BRING ENDS OF STRAP UP OVER TOP OF CONTAINERS AND HOOK ENDS OF STRAP TOGETHER.
- CAUTION: DO NOT STACK ALUMINUM CONTAINERS. FOR AN ALTERNATIVE METHOD OF TRANSPORTING ALUMINUM CONTAINERS SEE PAGE 44.
- 8. THE QUANTITY OF CONTAINERS SHOWN IN EACH ROW IS TYPICAL ONLY. ROWS CONTAINING OTHER QUANTITIES AND CONTAINERS MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- A TOTAL OF 14 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

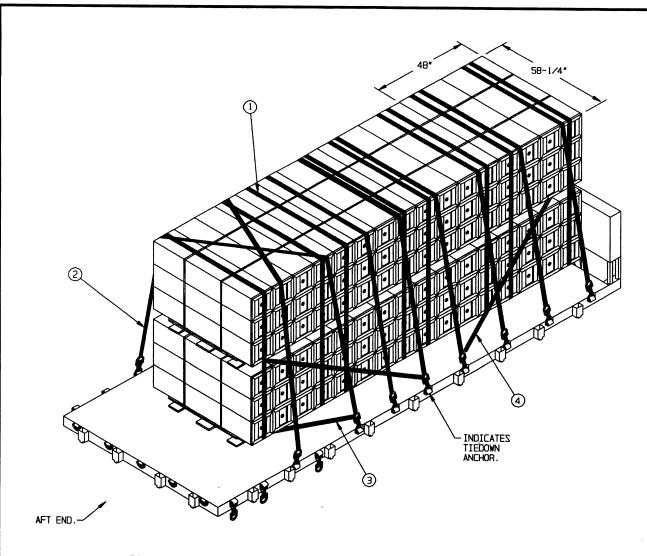
ITEM

QUANTITY

WEIGHT (APPROX)

ALUMINUM CONTAINER- - - 9 - - - - 774 LBS

STINGER ALUMINUM CONTAINERS ON THE MI FLATRACK



KEY NUMBERS

- (1) WEB STRAP TIEDOWN ASSEMBLY (8 REOD). HOOK TWO STRAPS TOGETHER AND ENCIRCLE EACH STACK OF 2 PALLETS AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (8 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2
- (3) WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND PALLET BASES OF REAR PALLETS IN BOTTOM LAYER, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). HOOK TWO STRAPS TOGETHER AND INSTALL TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND PALLET BASES IN SECOND LAYER AT FORWARD AND REAR END OF LOAD, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

PAGE 52

EIGHT TOW PALLETIZED UNITS OF WIREBOUND BOXES ON THE A-FRAME FLATRACK

- 1. EIGHT PALLETIZED UNITS OF TOW MISSILE WIREBOUND BOXES ARE SHOWN LOADED ON THE M1077 A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- 2. THE PALLETIZED WIREBOUND BOXES HAVING DIMENSIONS OF 58-1/4" LONG BY 48" WIDE BY 39-3/4" HIGH ARE SHOWN. IF LOADING THE PALLETIZED UNITS OF METAL CONTAINERS HAVING DIMENSIONS OF 58-15/16" LONG BY 45-1/2" WIDE BY 38-7/16" HIGH, FOLLOW THESE SAME PROCEDURES. IF LOADING THE PALLETIZED UNITS OF WIREBOUND BOXES HAVING DIMENSIONS OF 58-1/4" LONG BY 35-1/4" WIDE BY 51-1/4" HIGH SEE THE LOADING PROCEDURES ON PAGE 54. NOTE: THESE PALLETS MUST NOT BE STACKED TWO HIGH.
- 3. IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES. NOTE: OMIT THE STRAP MARKED (4) AT THE FORWARD END OF THE LOAD.
- 4. IF POSITIONING LEFTOVER BOXES ON TOP OF PALLETIZED UNITS SEE THE PROCEDURES SHOWN ON PAGE 54.
- PRIOR TO LOADING THE PALLETIZED UNITS, ASSURE THAT ALL STEEL STRAPPING IS IN POSITION AND IS TIGHT. MISSING AN/OR LOOSE STEEL STRAPPING SHOULD BE REPLACED.
- 6. WHEN LOADING THE FLATRACK, POSITION THE LOAD TIGHT AGAINST THE A-FRAME AND CENTERED ACROSS THE WIDTH OF THE FLATRACK.
- 7. EACH PALLETIZED UNIT MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP. THESE TWO STRAPS MUST NOT BE POSITIONED OVER TOP OF LEFTOVER BOXES.
- 8. ALL PALLETIZED UNITS MUST BE POSITIONED TIGHT AGAINST EACH OTHER LONGITUDINALLY. THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF WEB STRAPS REQUIRED TO SECURE THE LOAD.
- 9. A TOTAL OF 37 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

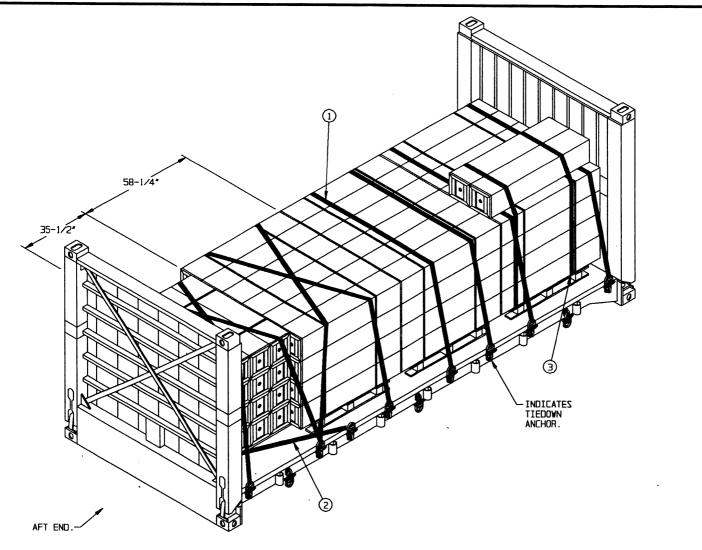
LOAD AS SHOWN

ITEM

QUANTITY

WEIGHT (APPROX)

PALLETIZED UNIT - - - 8 - - - - 9,016 LBS



KEY NUMBERS

- (1) WEB STRAP TIEDOWN ASSEMBLY (8 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF PALLETIZED UNITS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (1 REOD). INSTALL STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND END OF PALLETIZED UNIT, TO A TIEDOWN ANCHOR ON THE OPPOSITE OF THE FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (2 REOD). INSTALL EACH STRAP TO ENCIRCLE THE PALLETIZED UNIT AND LEFTOVER BOXES ON TOP. THREAD STRAPS UNDER TOP DECK BOARDS OF PALLET AT APPROXIMATE LOCATIONS SHOWN. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G" AND "J" ON PAGE 2.

- SEVEN PALLETIZED UNITS OF TOW MISSILE WIREBOUND BOXES ARE SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- 2. THE PALLETIZED UNITS OF WIREBOUND BOXES HAVING DIMENSIONS OF 58-1/4" LONG BY 35-1/4" WIDE BY 51-1/4" HIGH ARE SHOWN. DO NOT STACK THESE PALLETS TWO HIGH. IF LOADING THE PALLETIZED UNITS OF WIREBOUND BOXES HAVING DIMENSIONS OF 58-1/4" LONG BY 48" WIDE BY 39-3/4" HIGH AND/OR THE PALLETIZED UNITS OF METAL CONTAINERS, SEE THE PROCEDURES SHOWN ON PAGE 52.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. PRIOR TO LOADING THE PALLETIZED UNITS, ASSURE THAT ALL STEEL STRAPPING IS IN POSITION AND IS TIGHT. MISSING AND/OR LOOSE STEEL STRAPPING SHOULD BE REPLACED.
- 5. WHEN LOADING THE FLATRACK, POSITION THE LOAD TIGHT AGAINST THE FORWARD END-WALL AND CENTERED ACROSS THE WIDTH OF THE FLATRACK.
- 6. EACH LATERAL ROW OF ONE OR MORE PALLETIZED UNITS MUST BE SECURED WITH TWO WEB STRAPS OVER THE TOP AS SHOWN. THESE TWO STRAPS MAY BE CROSSED AND/OR POSITIONED STRAIGHT ACROSS THE TOP OF A ROW. THESE TWO STRAPS MUST NOT BE POSITIONED OVER TOP OF LEFT-OVER BOXES.
- 7. ALL PALLETIZED UNITS MUST BE POSITIONED TIGHT
 AGAINST EACH OTHER LATERALLY AND LONGITUDINALLY.
 THIS WILL REDUCE LOAD MOVEMENT AND THE QUANTITY OF
 WEB STRAPS REQUIRED TO SECURE THE LOAD. VOID
 SPACES BETWEEN PALLETIZED UNITS WILL FILL IN DURING
 TRANSPORT CAUSING WEB STRAPPING TO BECOME LOOSE.
- 8. A TOTAL OF 11 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

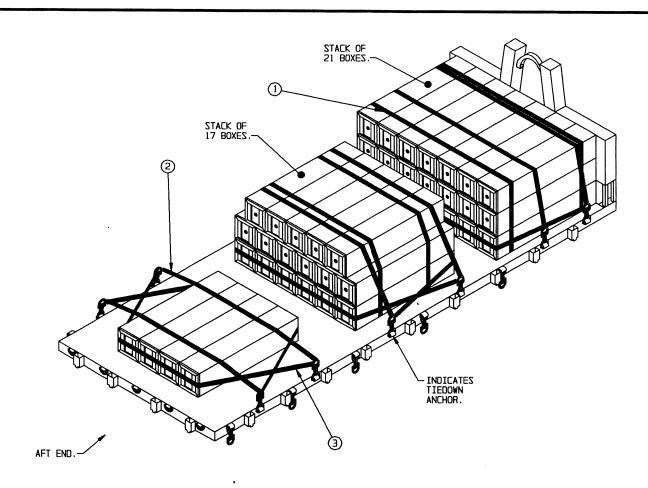
ITEM

QUANTITY

WEIGHT (APPROX)

PALLETIZED UNIT - - - 7 - - - - 7,784 LBS

SEVEN TOW PALLETIZED UNITS OF WIREBOUND BOXES ON THE MI FLATRACK



KEY NUMBERS

- (1) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). HOOK TWO STRAPS TOGETHER AND ENCIRCLE THE STACK OF 17 AND/OR 21 BOXES AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 6 ON PAGE 57.
- WEB STRAP TIEDOWN ASSEMBLY (6 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF BOXES, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK, POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- WEB STRAP TIEDOWN ASSEMBLY (5 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND ENDS OF BOXES, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 4 ON PAGE 57.

- A TYPICAL LOAD OF TOW MISSILE WIREBOUND BOXES IS SHOWN LOADED ON THE M1077 A-FRAME FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 19'-0" LONG AND A MAXIMUM LOAD WEIGHT OF 33,000 POUNDS.
- THE WIREBOUND BOXES ARE SHOWN. IF LOADING THE METAL CONTAINERS SEE THE PROCEDURES ON PAGE 58.
- IF LOADING AN M1 FLATRACK FOLLOW THESE SAME PROCEDURES.
- IF THE FORWARD BOXES ARE POSITIONED AWAY FROM THE A-FRAME, ONE ADDITIONAL STRAP MARKED ③ WILL BE REQUIRED AT THE FORWARD END OF THE FORWARD STACK.
- IF POSITIONING BOXES ON TOP OF PALLETIZED UNITS SEE THE PROCEDURES SHOWN ON PAGE 54.
- STRAPS MARKED ① MUST BE PRE-POSITIONED ON THE FLOOR OF THE FLATRACK AT THE LOCATION SELECTED PRIOR TO LOADING BOXES. ASSURE THAT THE STRAP LAYS FLAT ACROSS THE FLOOR, WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. POSITION THE BOXES ON THE FLOOR AND ON TOP OF THE STRAPS. KEEP THE BOXES TIGHT AGAINST EACH OTHER. AFTER ALL BOXES ARE STACKED, BRING ENDS OF STRAP UP OVER TOP OF STACK AND HOOK ENDS OF STRAP TOGETHER.
- THE QUANTITY OF BOXES SHOWN IN EACH STACK IS TYPICAL ONLY. STACKS CONTAINING OTHER QUANTITIES OF BOXES MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- EACH LATERAL ROW OF ONE OR MORE BOXES MUST BE SECURED WITH TWO WEB STRAPS MARKED ② OVER THE TOP AND TWO WEB STRAPS MARKED ③ AROUND THE ENDS. SEE SPECIAL NOTE 4 ON THIS PAGE.
- 9. EACH STACK OF TWO OR MORE LAYERS MUST BE ENCIRCLED WITH TWO BUNDLING STRAPS MARKED \bigoplus .
- 10. .A TOTAL OF 19 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

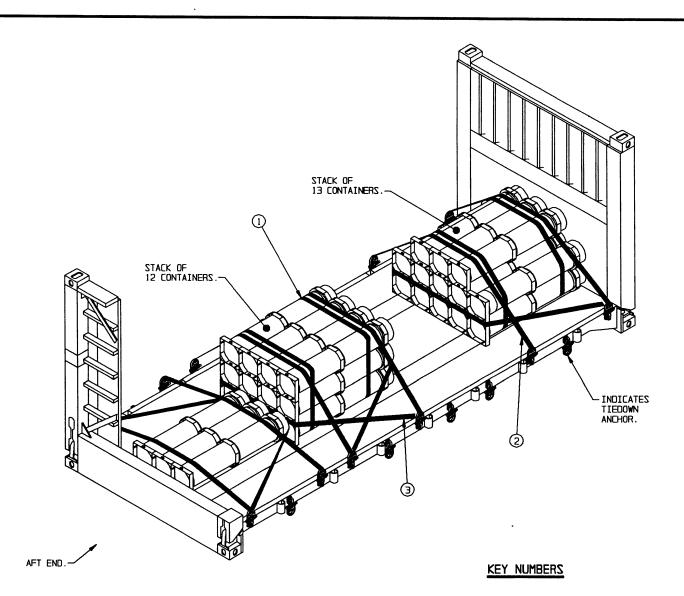
ITEM

QUANTITY

WEIGHT (APPROX)

WIREBOUND BOX - - - - 42 - - - - 3,654 LBS

TOW WIREBOUND BOXES ON THE A-FRAME FLATRACK



- (1) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL STRAP TO ENCIRCLE A STACK OF CONTAINERS AT TWO PLACES. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 7 ON PAGE 59.
- WEB STRAP TIEDOWN ASSEMBLY (6 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, OVER TOP OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- (3) WEB STRAP TIEDOWN ASSEMBLY (4 REOD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF FLATRACK, AROUND ENDS OF CONTAINERS, TO A TIEDOWN ANCHOR ON OPPOSITE SIDE OF FLATRACK. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2 AND SPECIAL NOTE 4 ON PAGE 59.

- A TYPICAL LOAD OF TOW MISSILE METAL CONTAINERS IS SHOWN LOADED ON THE M1 FLATRACK HAVING CARGO DECK DIMENSIONS OF 7'-6-1/2" WIDE BY 18'-6" LONG AND A MAXIMUM LOAD WEIGHT OF 28,750 POUNDS.
- 2. THE METAL CONTAINERS ARE SHOWN. IF LOADING THE WIREBOUND BOXES SEE THE PROCEDURES ON PAGE 56.
- IF LOADING AN A-FRAME FLATRACK FOLLOW THESE SAME PROCEDURES.
- 4. IF THE FORE AND AFT CONTAINERS ARE POSITIONED AWAY FROM THE END WALLS, TWO ADDITIONAL STRAPS MARKED

 (3) WILL BE REQUIRED.
- 5. IF POSITIONING CONTAINERS ON TOP OF PALLETIZED UNITS, SEE THE PROCEDURES SHOWN ON PAGE 54.
- 6. WHEN STACKING CONTAINERS, ASSURE THAT THE CONTAINER INTERLOCKS FACE UPWARDS AND PROPERLY ENGAGE WITH THE NEXT LAYER OF CONTAINERS.
- 7. STRAPS MARKED ① MUST BE PRE-POSITIONED ON THE FLOOR OF THE FLATRACK AT THE LOCATION SELECTED PRIOR TO LOADING CONTAINERS. ASSURE THAT THE STRAP LAYS FLAT ACROSS THE FLOOR, WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. POSITION THE CONTAINERS ON THE FLOOR AND ON TOP OF THE STRAPS. KEEP THE CONTAINERS TIGHT AGAINST EACH OTHER. AFTER ALL CONTAINERS ARE STACKED, BRING ENDS OF STRAP UP OVER TOP OF STACK AND HOOK ENDS OF STRAP TOGETHER.
- 8. THE QUANTITY OF CONTAINERS SHOWN IN EACH STACK IS TYPICAL ONLY. STACKS CONTAINING OTHER QUANTITIES OF CONTAINERS MAY BE LOADED AND SECURED USING THESE SAME PROCEDURES.
- 9. EACH LATERAL ROW OF CONTAINERS MUST BE SECURED WITH TWO WEB STRAPS MARKED ② OVER THE TOP AND TWO WEB STRAPS MARKED ③ AROUND THE ENDS. SEE SPECIAL NOTE 4 ABOVE.
- 10. EACH STACK OF TWO OR MORE LAYERS MUST BE ENCIRCLED WITH TWO BUNDLING STRAPS MARKED \bigodot .
- A TOTAL OF 14 WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

LOAD AS SHOWN

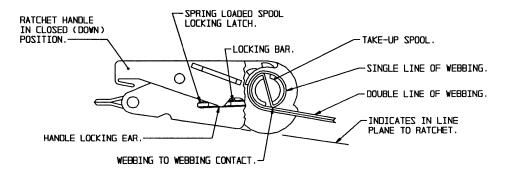
ITEM

QUANTITY

WEIGHT (APPROX)

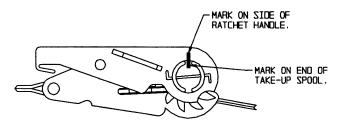
METAL CONTAINER - - - - 28 - - - - 2,940 LBS

TOW METAL CONTAINERS ON THE MI FLATRACK



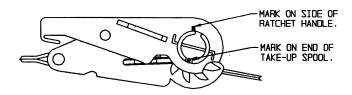
STEP 1

IN THIS VIEW PART OF THE RATCHET HOUSING IS SHOWN BROKEN AWAY TO DEPICT WEBBING-TO-WEBBING CONTACT ON THE TAKE-UP SPOOL OF THE RATCHET. WEBBING-TO-WEBBING CONTACT IS ACHIEVED WHEN THE OPERATOR HOLDS THE DOUBLE LINE OF WEBBING IN AN "IN LINE PLANE TO THE RATCHET" AND IT MAKES CONTACT WITH THE SINGLE LINE OF WEBBING.



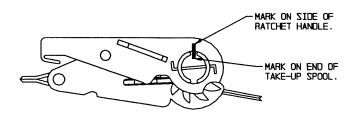
STEP 2

THIS VIEW DEPICTS THE LOCATION OF THE FIXED MARK ON THE RATCHETING HANDLE, WITH ANOTHER MATCHING MARK ON THE TAKE-UP SPOOL, AFTER WEBBING-TO-WEBBING CONTACT HAS BEEN MADE.



STEP 3

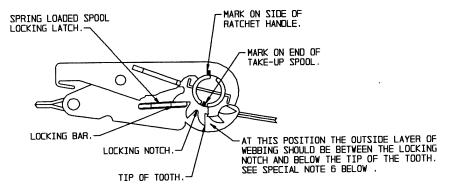
THIS VIEW DEPICTS THE LOCATION OF THE MARK ON THE END OF THE TAKE-UP SPOOL AFTER THE SPOOL HAS BEEN ROTATED ONE-HALF TURN, AFTER WEBBING-TO-WEBBING CONTACT HAS BEEN MADE.



STEP 4

THIS VIEW DEPICTS THE LOCATION OF THE MARK ON THE END OF THE TAKE-UP SPOOL AFTER THE SPOOL HAS BEEN ROTATED ONE FULL TURN, AFTER WEBBING-TO-WEBBING CONTACT HAS BEEN MADE.

RATCHET/RATCHETING DETAILS



STEP 5

THIS VIEW DEPICTS THE LOCATION OF THE MARK ON THE END OF THE TAKE-UP SPOOL AFTER THE SPOOL HAS BEEN ROTATED ONE AND ONE-HALF TURNS, AFTER WEBBING-TO-WEBBING CONTACT HAS BEEN MADE. ALSO IN THIS VIEW, PART OF THE RATCHET HANDLE IS BROKEN AWAY TO SHOW THE LOCKING BAR FULLY SEATED IN THE MATCHING LOCKING NOTCH (SPROCKET GEAR TEETH).

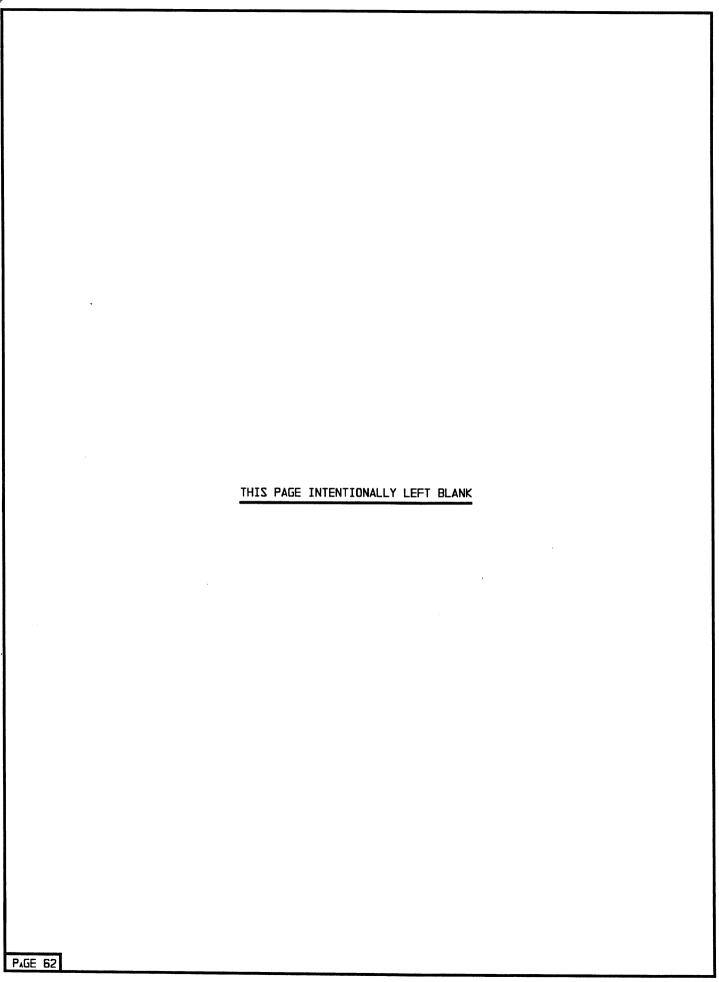
SPECIAL NOTES:

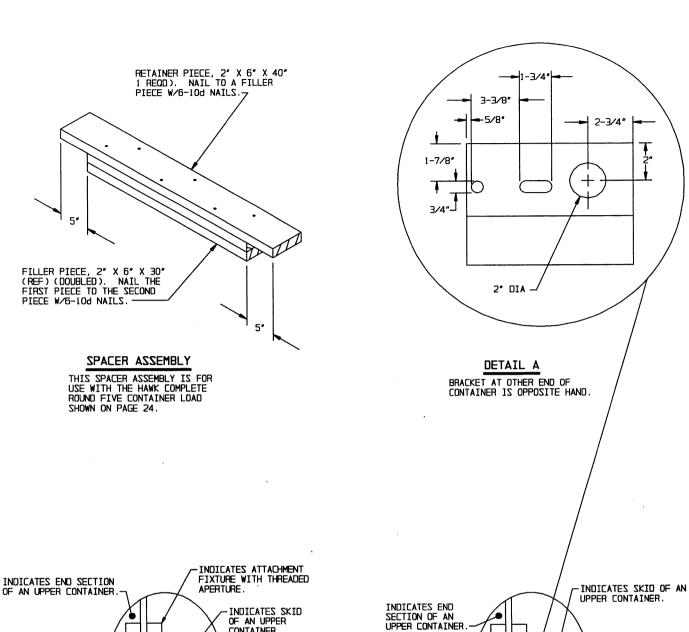
- THE PURPOSE OF THE RATCHET DETAILS ON PAGE 60 AND THE DETAIL AND NOTES ON THIS PAGE ARE TO AUGMENT THE GUIDANCE SET FORTH WITHIN GENERAL NOTE "F" ON PAGE 2.
- 2. THE REQUIREMENTS FOR 1/2 BUT NOT MORE THAN 1-1/2 WRAPS OF STRAP ON THE TAKE-UP SPOOL OF THE TENSIONING RATCHET, AS SPECIFIED WITHIN GENERAL NOTE "F" ON PAGE 2, ACTUALLY MEANS 1/2 TO 1-1/2 WRAPS OF DOUBLE WEBBING. ALSO, THE 1/2 TO 1-1/2 WRAPS (TURNS) ARE TO BE ACCOMPLISHED ONLY AFTER ENOUGH WEBBING HAS BEEN WOUND ONTO THE SPOOL TO ACHIEVE A WEBBING-TO-WEBBING CONFIGURATION, AS SHOWN IN THE "STEP 1" DETAIL ON PAGE 60.
- 3. ONE METHOD THAT CAN BE USED TO ENSURE THAT THE 1/2 TO 1-1/2 WRAPS ARE WOUND ONTO THE TAKE-UP SPOOL, AFTER WEBBING-TO-WEBBING CONTACT HAS BEEN MADE, IS TO PLACE A FIXED MARK (PAINT OR SIMILAR MATERIAL) ON THE SIDE OF THE RATCHETING HANDLE, WITH THE HANDLE IN ITS CLOSED (DOWN) POSITION, AND ANOTHER SHORT MATCHING MARK ON THE END OF THE SPOOL, AS SHOWN IN THE "STEP 2" DETAIL ON PAGE 60. AS THE SPOOL IS ROTATED TO TENSION A TIEDOWN STRAP ASSEMBLY, THE NUMBER OF WRAPS (TURNS) CAN BE DETERMINED VISUALLY BY COMPARING THE "MARK" LOCATION ON THE SPOOL TO THE "MARK" LOCATION ON THE RATCHETING HANDLE WITH THE HANDLE IN CLOSED POSITION. SEE THE "STEP 3" AND "STEP 4" DETAILS ON PAGE 60, AND "STEP 5" ABOVE.
- 4. ANOTHER METHOD THAT CAN BE USED TO ENSURE THAT THE 1/2 TO 1-1/2 WRAPS ARE ACHIEVED, AFTER WEBBING-TO-WEBBING CONTACT HAS BEEN MADE, IS TO COUNT THE AUDIBLE CLICKS MADE BY THE RATCHET ASSEMBLY AS A WEB STRAP ASSEMBLY IS BEING TENSIONED. THE RATCHET ASSEMBLY ON MOST WEB STRAP ASSEMBLIES HAVE 11 TEETH ON THE GEARLIKE DEVICE ON EACH END OF THE TAKE-UP SPOOL; SOME OTHER STRAP ASSEMBLIES HAVE ONLY 9 TEETH. THEREFORE, AFTER INITIAL WEBBING-TO-WEBBING CONTACT HAS BEEN MADE, ROTATE (TURN) THE SPOOL THROUGH A MINIMUM OF 6 TO A MAXIMUM OF 16 CLICKS (1/2 TO 1-1/2 WRAPS) WHEN THE GEAR HAS 11 TEETH, AND ROTATE (TURN) THE SPOOL THROUGH A MINIMUM OF 5 TO A MAXIMUM OF 13 CLICKS (1/2 TO 1-1/2 WRAPS) IF THE GEAR HAS 9 TEETH.

(SPECIAL NOTE CONTINUED)

- 5. AFTER A STRAP ASSEMBLY HAS BEEN PROPERLY TENSIONED, CARE MUST BE EXERCISED TO ASSURE THAT THE TAKE-UP SPOOL LOCKING LATCH (SPRING LOADED DEVICE WITH A LOCKING BAR ON EACH SIDE OF THE RATCHET ASSEMBLY) IS FULLY SEATED ON BOTH SIDES IN MATCHING LOCKING NOTCHES, WHICH ARE SIMILAR TO SPROCKET GEAR TEETH, THAT ARE LOCATED ON EACH END OF THE TAKE-UP SPOOL. SEE "STEP 5" DETAIL ABOVE. THE LOCKING LATCH IS "FULLY SEATED" WHEN THE HANDLE WILL CLOSE AND THE LOCKING EAR, OR SIMILAR DEVICE ON THE HANDLE, PREVENTS THE ACCIDENTAL WITHDRAWAL OF THE LOCKING LATCH. SEE "STEP 1" DETAIL ON PAGE 60. IF THE FULLY SEATED CONDITION CANNOT BE ACHIEVED, THE STRAP MUST BE RELEASED AND HAND RETENSIONED AS TIGHT AS POSSIBLE TO ACHIEVE THE FULLY SEATED CONDITION.
- 6. ANOTHER VISUAL METHOD OF DETERMINING WHEN THERE IS 1/2
 TO 1-1/2 WRAPS OF WEBBING ON THE TAKE-UP SPOOL, AFTER
 INITIAL WEBBING-TO-WEBBING CONTACT HAS BEEN MADE, IS TO
 LOOK AT THE SPOOL. WHEN A TIEDOWN IS COMPLETE, THE
 STRAP WEBBING ON THE SPOOL OF THE RATCHET SHOULD BE
 ABOVE THE LOWER CURVE OF THE LOCKING NOTCH, AND SHOULD
 BE BELOW THE TIPS OF THE TEETH OF THE RATCHET AS
 IDENTIFIED IN "STEP 5" ABOVE. IT SHOULD BE NOTED THAT
 ANY PROCEDURES THAT ENSURE PROPER TENSIONING ARE
 ACCEPTABLE AND METHODS ON THE DRAWING ONLY PROVIDE SOME
 METHODS.

RATCHET/RATCHETING DETAILS





INDICATES SKID OF AN UPPER CONTAINER. INDICATES TIE BAR.--INDICATES STACKING PAD OF A LOWER CONTAINER.

PREFERRED METHOD

INDICATES STACKING PAD OF A LOWER CONTAINER. ALTERATIVE METHOD

INDICATES

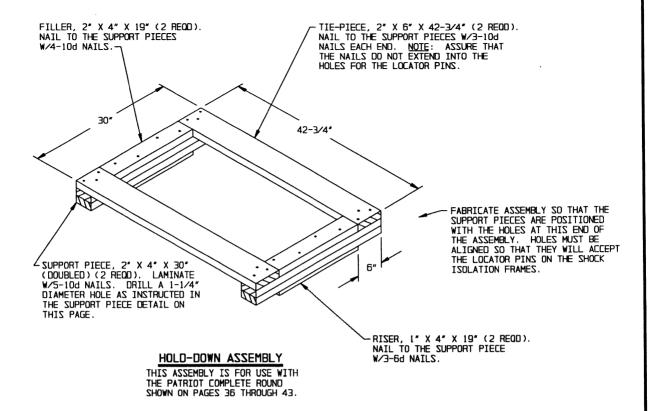
TIE BAR.

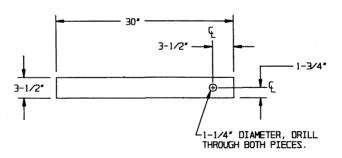
2-3/4"

TIE BAR INSTALLATION FOR THE HAWK COMPLETE ROUND

 $\underline{\text{NOTE}}\colon$ at the other end of a stack, the tie bar will angle upward in a direction opposite to that shown above and toward the adjacent end section of the upper container.

DETAILS

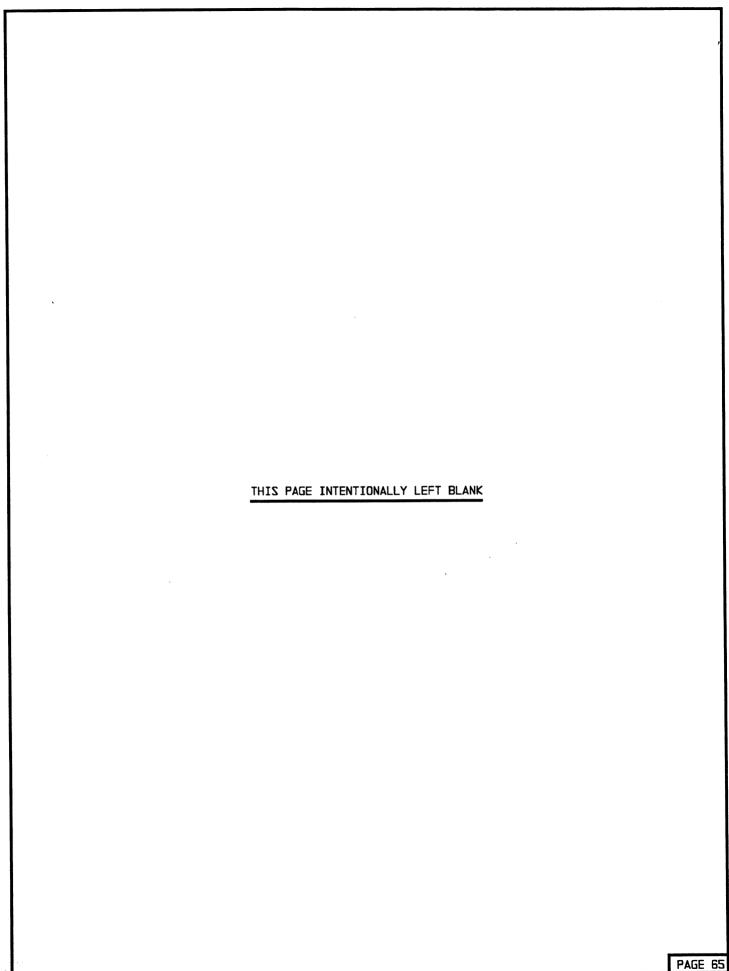




SUPPORT PIECE DETAIL

NOTE: DRILL THE HOLES FOR THE LOCATOR PINS THROUGH BOTH SUPPORT PIECES AT THE SAME TIME.

FAGE 64 DETAILS



1 70

GVIDED MISSILE LISTING

- ARMY TACTICAL MISSILE SYSTEM (ATACMS):
 THE LOADING PROCEDURES SHOWN ON PAGES 4 THROUGH 11 ARE
 APPLICABLE TO THE MISSILE WHEN PACKED ONE PER MISSILE/ LAUNCH POD ASSEMBLY (M/LA).
 - (A) FOR DETAILS OF THE MISSILE/LAUNCH ASSEMBLY, SEE U.S. ARMY MISSILE COMMAND DRAWING NO. 13288205.

DIMENSIONS - - 13'-10" LONG X 41-1/2" WIDE X 33" HIGH. GROSS WEIGHT - 4, 814 POUNDS (APPROX). EMPTY WEIGHT - 3, 986 POUNDS (APPROX). CUBE - - - - 131.5 CUBIC FEET

2. DRAGON GUIDED MISSILE:

THE LOADING PROCEDURES SHOWN ON PAGES 12 THROUGH 15 ARE APPLICABLE TO THE M222 OR PRACTICE M223, PACKED EITHER ONE PER EACH CLEATED PLYWOOD BOX, OR TWENTY PER EACH PALLETIZED UNIT.

(A) FOR DETAILS OF THE CLEATED PLYWOOD BOX, SEE PACKAGING DATA SHEET NUMBER 10695149 OR 10695150 (US ARMY MISSILE COMMAND).

DIMENSIONS - - 47-1/2" LONG X 16" WIDE X 16" HIGH. GROSS WEIGHT - 67 POUNDS (APPROX). CUBE - - - - 7.0 CUBIC FEET

(B) FOR DETAILS OF THE PALLETIZED UNIT, SEE US ARMY DARCOM DRAWING NO. 19-48-5218-GM20DR1.

> PALLETIZED UNIT DIMENSIONS - 47-1/2" LONG X 6'-8" WIDE X 69" HIGH. GROSS WEIGHT - 1,451 POUNDS (APPROX). CUBE - - - - 151.7 CUBIC FEET

3. HAWK GUIDED MISSILE: THE LOADING PROCEDURES SHOWN ON PAGES 16 THROUGH 27 ARE APPLICABLE TO THE COMPLETE MISSILE ROUND WHEN PACKED IN THE M430 OR M611 CONTAINER.

(A) FOR DETAIL OF THE M430 CONTAINER, SEE DRAWING NO. 9073970.

DIMENSIONS - - 18'-0" LONG X 28-3/4" WIDE X 41-1/2" HIGH. GROSS WEIGHT - 3,225 POUNDS (APPROX). EMPTY CNTR - - 1,950 POUNDS (APPROX).

(B) FOR DETAIL OF THE M611 CONTAINER, SEE DRAWING NO. 8035841.

DIMENSIONS - - 18'-0" LONG X 30" WIDE X 41-1/2" HIGH. GROSS WEIGHT - 3,351 POUNDS (APPROX). EMPTY CNTR - - 1,950 POUNDS (APPROX).

HELLFIRE GUIDED MISSILE:

THE LOADING PROCEDURES SHOWN ON PAGES 28 THROUGH 35 ARE APPLICABLE TO THE HELLFIRE GUIDED MISSILE PACKED ONE PER THE 7^{\prime} –0" LONG CONTAINER AND/OR ONE PER THE 6^{\prime} –4" LONG CONTAINER, AND NINE PER EACH PALLETIZED UNIT.

(A) FOR DETAIL OF THE 6'-4" LONG SEALED CONTAINER, SEE DRAWING 13155079.

> DIMENSIONS - 6'-4" LONG X 14-5/8" WIDE X 16-1/2" HIGH. GROSS WEIGHT - - - - - 185 POUNDS (APPROX) CUBÉ - - - - - - - 10.6 CUBIC FEET.

(B) FOR DETAIL OF THE 7'-O" LONG SEALED CONTAINER, SEE DRAWING 13155079.

> DIMENSIONS - 7'-0" LONG X 14-5/8" WIDE X 16" HIGH. GROSS WEIGHT - - - - 203 POUNDS (APPROX). CUBE - - - - - - - 11.4 CUBIC FEET.

(C) FOR DETAIL OF THE 6'-4" LONG SEALED PALLETIZED UNIT, SEE US ARMY MATERIEL COMMAND (AMC) DRAWING 19-48-5250-GM20HF1.

DIMENSIONS - 6'-4" LONG X 44-3/8" WIDE X 53° HIGH.
GROSS WEIGHT - - - - 1,749 POUNDS (APPROX).
CUBE - - - - - - 103.4 CUBIC FEET.

(D) FOR DETAIL OF THE 8'-O" LONG SEALED PALLETIZED UNIT, SEE US AMC DRAWING 19-48-5250-GM20HF1.

DIMENSIONS - 7'-0" LONG X 44-3/8" WIDE X 53" HIGH. GROSS WEIGHT - - - - - 1,921 POUNDS (APPROX).
CUBE - - - - - - - - 114.3 CUBIC FEET.

(CONTINUED AT RIGHT)

(GUIDED MISSILE LISTING CONTINUED)

- 5. MULTIPLE LAUNCH ROCKET SYSTEM (MLRS):
 THE LOADING PROCEDURES SHOWN ON PAGES 4 THROUGH 11
 ARE APPLICABLE TO THE ROCKET POD/CONTAINERS (RP/C)
 WHEN PACKED SIX PER LAUNCH POD.
- (A) FOR DETAILS OF THE ROCKET POD∕CONTAINER, SEE US ARMY MISSILE COMMAND DRAWING NO. 13027900.

DIMENSIONS - - 13'-10" LONG X 41-1/2" WIDE X 33" HIGH. GROSS WEIGHT - 5,078 POUNDS (APPROX). EMPTY WEIGHT - 3,086 POUNDS (APPROX).

6. PATRIOT GUIDED MISSILE: THE LOADING PROCEDURES SHOWN ON PAGES 36 THROUGH 43 ARE APPLICABLE TO THE MISSILE PACKED ONE PER

(A) FOR DETAILS OF THE MISSILE CONTAINER, SEE DRAWING

DIMENSIONS - - 19'-6" LONG X 42-3/8" WIDE X 38-3/4" HIGH. GROSS WEIGHT - 3,750 POUNDS (APPROX).

7. STINGER GUIDED MISSILE: THE LOADING PROCEDURES SHOWN ON PAGES 44 THROUGH 51 ARE APPLICABLE TO THE MISSILE PACKED ONE PER WIREBOUND BOX AND/OR ONE PER ALUMINUM CONTAINER AND NINE PER PALLETIZED AND/OR SKIDDED UNIT.

(A) FOR DETAILS OF THE WIREBOUND BOX, SEE US ARMY MISSILE COMMAND DRAWING NO. 11509503.

> DIMENSIONS - - 67'-1/4" LONG X 13-1/8" WIDE X 10-1/2" HIGH. GROSS WEIGHT - 77 POUNDS (APPROX). CUBE - - - - 5.4 CUBIC FEET.

(B) FOR DETAILS OF THE ALUMINUM CONTAINER, SEE US ARMY MISSILE COMMAND DRAWING NO. 11486952.

DIMENSIONS - - 65' -9/16" LONG X 13" WIDE X 13-3/8" HIGH. GROSS WEIGHT - 85-3/4 POUNDS (APPROX). CUBE - - - - - 6.6 CUBIC FEET.

(C) FOR DETAILS OF THE UNITIZED WIREBOUND BOXES, SEE US ARMY DARCOM DRAWING NO. 19-48-5239-GM20SR1.

> DIMENSIONS - -39-3/8" LONG X 67-1/4" WIDE X 36-1/2" HIGH.
> GROSS WEIGHT - 749 POUNDS (APPROX). CUBE - - - - - 55.9 CUBIC FEET.

(D) FOR DETAILS OF THE PALLETIZED ALUMINUM CONTAINERS, SEE US ARMY DARCOM DRAWING NO. 19-48-5239-GM20SR1.

DIMENSIONS - - 42" LONG X 67-1/16" WIDE X 45-5/8" GROSS WEIGHT - 952 POUNDS (APPROX). CUBE - - - - 73.81 CUBIC FEET.

8. TOW GUIDED MISSILE THE LOADING PROCEDURES SHOWN ON PAGES 52 THROUGH 59 ARE APPLICABLE TO THE MISSILE PACKED ONE PER WIREBOUND BOX AND TWELVE PER PALLETIZED UNIT.

(A) FOR DETAILS OF THE WIREBOUND BOX, SEE US MISSILE COMMAND DRAWING NO. D10224699.

> DIMENSIONS - - - 58-1/4" LONG X 11-5/8" WIDE X 11-5/8" HIGH. GROSS WEIGHT - - 87 POUNDS (APPROX). CUBE - - - - - 4.9 CUBIC FEET.

(B) FOR DETAILS OF THE 4-BOX WIDE BY 3-BOX HIGH PALLETIZED UNIT, SEE US AMC DRAWING NO. 19-48-5229-GM20T01.

DIMENSIONS - - - 58-1/4" LONG X 48" WIDE X 39-3/4" HIGH.
GROSS WEIGHT - - 1,127 POUNDS (APPROX).
CUBE - - - - - 64.0 CUBIC FEET.

(C) FOR DETAILS OF THE 3-BOX WIDE BY 4-BOX HIGH PALLETIZED UNIT, SEE US AMC DRAWING NO. 19-48-5229-GM20T01.

DIMENSIONS - - - 35-1/4" LONG X 58-1/4" WIDE X 51-1/4" HIGH. GROSS WEIGHT - - 1,112 POUNDS (APPROX). CUBE - - - - - 60.9 CUBIC FEET.

PAGE 66.