



LOADING, TIEDOWN, AND UNLOADING PROCEDURES FOR THE ROCKET POD W/WARHEAD MINUS INJECTOR ASSEMBLY (RP(-)) FOR THE MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) BINARY CHEMICAL WARHEAD

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U.S. ARMY MATERIEL COMMAND DRAWING			
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DO NOT SCALE

GENERAL NOTES

(GENERAL NOTES CONTINUED FROM LEFT)

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1.
- B. THIS DRAWING COVERS PROCEDURES APPLICABLE TO THE TRANSPORT OF THE ROCKET POD W/WARHEAD MINUS INJECTOR ASSEMBLY (RP(-)) FOR THE MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) BINARY CHEMICAL WARHEAD IN/ON TACTICAL VEHICLES. IF OTHER TYPES OF CARGO ITEMS ARE TRANSPORTED WITH THOSE SHOWN, THE TOTAL LOAD MUST BE COMPATIBLE AND THE ADDED ITEMS MUST BE SECURED WITH WEB STRAP ASSEMBLIES, AS REQUIRED TO PREVENT DISPLACEMENT DURING TRANSPORTATION.
- C. LADING DATA: FOR DETAIL OF THE CONTAINER SEE PAGE 3.
DIMENSIONS - 13'-10" LONG BY 41-1/2" WIDE BY 33" HIGH.
GROSS WEIGHT: 3,968 POUNDS (APPROX).
- D. DEPICTED PROCEDURES APPLY TO TACTICAL VEHICLES HAVING FACTORY INSTALLED TIEDOWN ANCHORS AND/OR TACTICAL VEHICLES WHICH HAVE BEEN MODIFIED TO INCLUDE THE UNIVERSALLY APPLICABLE "TIEDOWN KIT" WHICH CONSISTS OF THE TIEDOWN FITTINGS OR ANCHOR DEVICES FOR INSTALLATION IN/ON CARGO BEDS, SIDE WALLS, AND/OR END WALLS, FOR USE WITH WEB STRAP TIEDOWN ASSEMBLIES. SEE PAGE 18 FOR GUIDANCE.
- E. WHENEVER POSSIBLE, LADING SHOULD BE CENTERED Laterally IN/ON CARRYING VEHICLE TO PROVIDE FOR EQUAL ANGLE HOLD DOWN BY THE SECURING WEB STRAP ASSEMBLIES. WHENEVER POSSIBLE LADING SHOULD BE CENTERED LONGITUDINALLY (IN/ON THE CARRYING VEHICLE) BETWEEN THE SELECTED TIEDOWN FITTINGS TO BE USED. HOWEVER, DUE TO LOADING WEIGHT, SIZE, CONFIGURATION, AND/OR LOCATION AND QUANTITY OF TIEDOWN ANCHORS WITHIN THE CARRYING VEHICLE IT MAY BE NECESSARY TO LOCATE THE LADING IN/ON A VEHICLE AS SHOWN WITHIN THIS DRAWING TO PROVIDE FOR PROPER TIEDOWN AND TO ACHIEVE A MAXIMUM LOAD.
- F. WEB STRAP TIEDOWN ASSEMBLIES MUST BE SECURELY HOOKED INTO ANCHORING DEVICES ON THE TRANSPORTING VEHICLE AND FIRMLY TENSIONED. FIRMLY TENSION 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 STRAP TO EXTENT POSSIBLE (IF TIME PERMITS) BUT ENSURE THERE ARE NO KNOTS IN STRAP. ON THE TAKE-UP SPOOL OF THE RATCHET, ENSURE STRAIGHT LAY OF 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 IS IN CONTACT WITH ITSELF, THE TENSIONED STRAP MUST FORM AT LEAST ONE-HALF BUT NOT MORE THAN ONE AND ONE-HALF 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 END OF STRAP AFTER TENSIONING IS COMPLETED. (LOOSE END MAY BE FOLDED AND TAPED OR TIED TO THE TENSIONED STRAP IF TIME PERMITS). FOR ADDITIONAL GUIDANCE, SEE DETAILS ON PAGES 16 AND 17.
- G. ADJUSTABLE SCUFF SLEEVES PROVIDED ON WEB STRAP ASSEMBLIES WILL BE LOCATED TO PROVIDE A PAD WHERE STRAP PASSES 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 CONTAINERS. 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 CONTAINERS AND IF NECESSARY, TAPED OR TIED IN POSITION.
- H. IF THE SIDE RACKS FOR A SEMITRAILER ARE TO BE TRANSPORTED ON THE LOADED TRAILER, THEY WILL BE STACKED ON THE TRAILER AND SECURED WITH A SUFFICIENT QUANTITY OF WEB STRAP TIEDOWN ASSEMBLIES TO PREVENT LOSS DURING TRANSPORT. NOTE: IF DESIRED, THE SIDE RACKS FOR THE M871 AND M872 SEMITRAILERS MAY BE POSITIONED IN PLACE AFTER THE LOAD HAS BEEN SECURED.
- J. PROCEDURES DEPICTED HEREIN ARE TYPICAL IN NATURE RELATIVE TO ITEM LOCATION IN/ON THE VEHICLE AND THE QUANTITY SHOWN. ITEM LOCATIONS AND QUANTITIES OF THE DESIGNATED ITEM MAY BE VARIED TO SATISFY OPERATIONAL REQUIREMENTS, PROVIDED LOADING AND TIEDOWN PRINCIPLES SPECIFIED HEREIN ARE RETAINED.
- K. THE TIEDOWN METHODS WITHIN THIS DRAWING SHOW TWO HOOKS TO BE CONNECTED TO ONE TIEDOWN EYE. THIS IS AUTHORIZED AS SPECIFIED HEREIN AND MEETS THE INTENT OF THE REQUIREMENTS CITED IN TB 9-2300-280-30.
- L. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT 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.
- M. ONLY THE CARGO BODIES OR BEDS OF THE TACTICAL VEHICLES HAVE BEEN SHOWN HEREIN TO PREVENT DISTRACTION FROM THE DELINEATED LOADING AND TIEDOWN PROCEDURES, AND ARE SHOWN IN OUTLINE FORM WITH THE STRUCTURAL PORTIONS OMITTED AS NECESSARY TO IMPROVE THE CLARITY OF THE DEPICTED PROCEDURES.
- N. PRIOR TO LOADING THE TACTICAL VEHICLE READ THE "LOADING, TIEDOWN, AND UNLOADING PROCEDURES" ON PAGE 3. USE THE "ISOMETRIC VIEWS" ON PAGE 4 THRU 13 WHICH ARE PICTORIAL VIEWS OF TYPICAL LOADS IN/ON TACTICAL VEHICLES.
- O. 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.
- P. THE TACTICAL VEHICLES SHOWN WITHIN THIS DRAWING WERE SELECTED AS TYPICAL ONLY. OTHER TYPES OF VEHICLES MAY BE USED IN LIEU OF THOSE SHOWN AS LONG AS THEY COMPLY WITH GENERAL NOTE "D" ON THIS PAGE.
- Q. THE TIEDOWN PROCEDURES SHOWN WITHIN THIS DRAWING ALSO APPLY TO DROP SIDE VEHICLES HAVING TIEDOWN ANCHORS INSTALLED ON THE DROP SIDES. THE TAILGATE MUST ALWAYS BE IN THE CLOSED POSITION TO HELP STRENGTHEN THE DROP SIDES WHEN THIS TYPE OF VEHICLE IS BEING USED.
- R. DURING LONG HAULS, WHEN POSSIBLE, STRAPS SHOULD BE CHECKED DURING VEHICLE STOPS AND TIGHTENED, IF NECESSARY.
- S. DUE TO VARIOUS REASONS, SUCH AS ROUGH TERRAIN DURING OFF HIGHWAY TRANSPORT, PANIC STOPS, METAL FLOORS ON VEHICLES 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.
- T. FOR ADDITIONAL GUIDANCE ATTENTION IS DIRECTED TO THE "LOADING, TIEDOWN, AND UNLOADING PROCEDURES" ON PAGE 3 AND THE "SPECIAL NOTES" SECTION ON EACH PAGE DEPICTING LOADING AND TIEDOWN PROCEDURES.

(GENERAL NOTES CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

STRAP - - - - - : WEBBING, UNIVERSAL TIEDOWN
NSN 5340-01-204-3009, PN 9392419; OR
NSN 5340-01-089-4997, PN 11669588; OR
NSN 1670-00-725-1437, PN 1376-013; OR
NSN 5340-00-980-9277, PN 10900880.

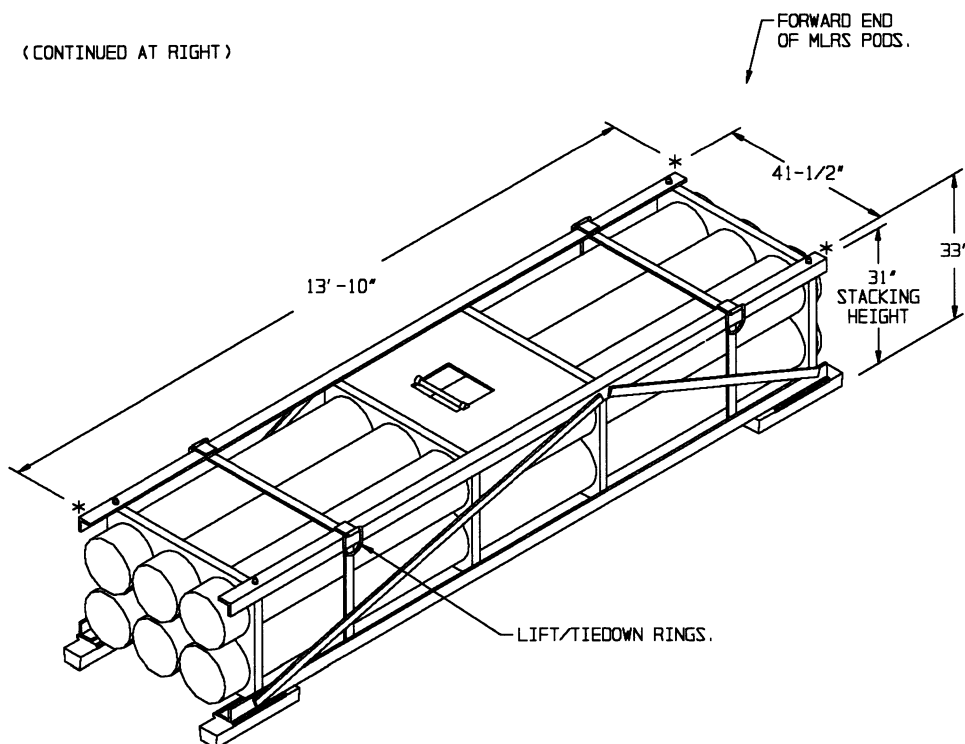
ANTI-CHAFING MATERIAL - - - - - : CANVAS, BURLAP, TAPE OR ANY OTHER.

LOADING, TIEDOWN, AND UNLOADING PROCEDURES

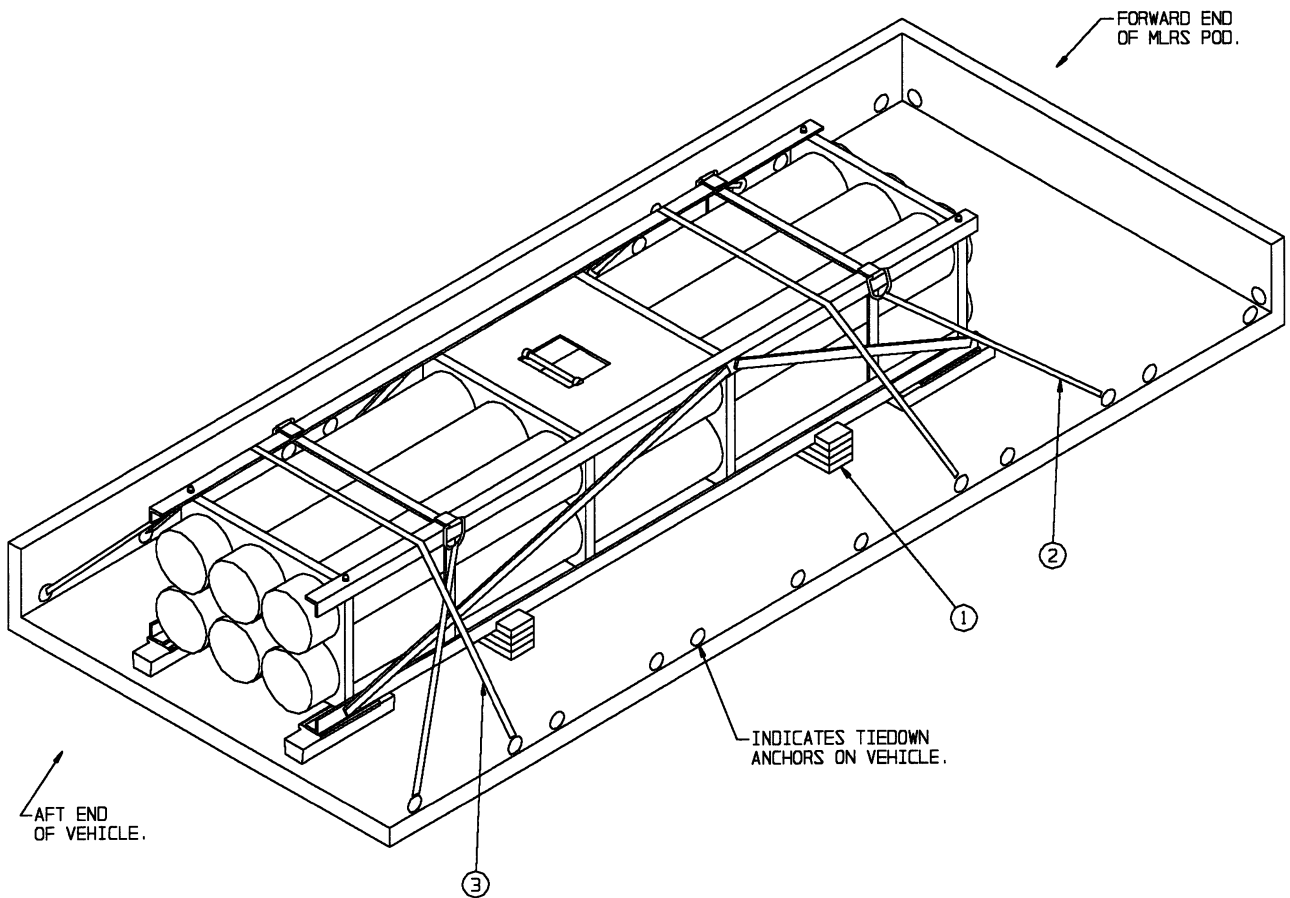
(LOADING, TIEDOWN, AND UNLOADING PROCEDURES CONTINUED)

1. PRIOR TO LOADING AND/OR UNLOADING, SET BRAKES ON TACTICAL VEHICLE AND DROP TAILGATE. IF LOADING AND/OR UNLOADING TRUCK OR TRAILER, REMOVE SIDE RACKS FROM SEMITRAILERS, AND CANVAS COVERS AND BOWS FROM TRUCK OR TRAILER.
2. AFTER ALL LOADING PROCEDURES ARE COMPLETE, CHECK TENSION OF ALL WEB STRAP TIEDOWN ASSEMBLIES AND RATCHET TIGHTER, IF NECESSARY, PRIOR TO FOLDING UP AND SECURING THE LOOSE ENDS OF STRAP. SEE GENERAL NOTE "F" ON PAGE 2.
3. WHEN TWO STRAPS ARE TO BE ATTACHED TO THE SAME TIEDOWN ANCHOR, ATTACH THE RATCHET END OF ONE STRAP AND THE NON-RATCHET END OF THE SECOND STRAP TO THE TIEDOWN ANCHOR, PRIOR TO RATCHETING STRAPS TIGHT.
4. IF THE WEB STRAP TIEDOWN ASSEMBLIES BEING USED DO NOT HAVE SWIVEL HOOKS ON EACH END, ASSURE THAT ALL TWISTS ARE OUT OF STRAP PRIOR TO ATTACHING HOOKS TO TIEDOWN ANCHORS.
5. WHEN POSSIBLE POSITION ALL HOLD DOWN STRAP RATCHETS ON THE SAME SIDE OF THE LOAD TO AVOID SLIDING AND/OR TWISTING THE LOAD OFF CENTER WHEN STRAPS ARE BEING RATCHETED TIGHT.
6. ASSURE THAT ALL UNITIZING STRAPS ARE IN VERTICAL ALIGNMENT.
7. THE M871 SEMITRAILER CAN BE EQUIPPED WITH THREE DIFFERENT TYPES OF TIEDOWN FITTINGS. TYPE I IS A REMOVABLE TIEDOWN FITTING THAT HAS ONE RING AND IS POSITIONED BY REACHING UNDER THE FLOOR OF THE TRAILER, INSERTING IT UP THROUGH THE HOLE AND ROTATING IT INTO POSITION (NOTE THAT THIS REMOVABLE TIEDOWN FITTING IS ALSO USED ON THE M872 SEMITRAILER). THERE ARE TEN LOCATIONS FOR THESE TIEDOWN FITTINGS ON EACH SIDE OF THE M871 SEMITRAILER. TYPE II IS A REMOVABLE TIEDOWN FITTING THAT HAS TWO RINGS AND IS POSITIONED BY DEPRESSING A SPRING LOCK LEVER AND INSERTING IT INTO A 1-3/4" DIAMETER HOLE FROM THE TOP. ASSURE THAT THE TIEDOWN FITTING IS FIRMLY SEATED AND ROTATED SO THE SPRING LOCK LEVER IS POINTING AWAY FROM THE DIRECTION OF PULL ON THE ATTACHED WEB STRAP TIEDOWN ASSEMBLY. THERE ARE TEN LOCATIONS FOR THESE TIEDOWN FITTINGS ON EACH SIDE OF THE SEMITRAILER. TYPE III IS A FIXED TIEDOWN FITTING THAT HAS ONE RING AND IS RECESSED INTO THE FLOOR. THERE ARE FIVE OF THESE TIEDOWN FITTINGS ON EACH SIDE OF THE M871 SEMITRAILER. THE M871 SEMITRAILER LOADS SHOWN HEREIN USE TYPE II AND TYPE III TIEDOWN ANCHORS ONLY. TYPE I TIEDOWN FITTINGS ARE NOT REQUIRED, HOWEVER, TYPE I TIEDOWN FITTINGS MAY BE USED IF AVAILABLE, WHEN THERE IS AN INSUFFICIENT QUANTITY OF TYPE II TIEDOWN FITTINGS TO SECURE THE LOAD. SEE THE LOAD ON PAGE 12 AND THE "TIEDOWN ANCHOR DETAILS" ON PAGE 18.
8. THE M872 SEMITRAILER IS EQUIPPED WITH TWO DIFFERENT TYPES OF TIEDOWN FITTINGS. TYPE I IS A REMOVABLE TIEDOWN FITTING THAT HAS ONE RING AND IS POSITIONED BY REACHING UNDER THE FLOOR OF THE TRAILER, INSERTING IT UP THRU THE HOLE AND ROTATING IT INTO POSITION (NOTE THAT THIS REMOVABLE TIEDOWN FITTING MAY ALSO BE USED ON THE M871 SEMITRAILER). THERE ARE TWENTY-EIGHT LOCATIONS FOR THESE TIEDOWN FITTINGS ON EACH SIDE OF THE M872 SEMITRAILER. THE SECOND TYPE OF TIEDOWN FITTING IS THE "TEE-HOOK". THIS IS A REMOVABLE TIEDOWN FITTING EQUIPPED WITH ONE ELONGATED RING AND IS POSITIONED BY INSERTING IT INTO ONE OF THE ELONGATED SLOTTED HOLES WHICH ARE AT 45° ANGLES TO THE SIDE OF THE TRAILER. THERE ARE FIVE LOCATIONS FOR THESE TIEDOWN FITTINGS ON EACH SIDE OF THE M872 SEMITRAILER, HOWEVER, THE QUANTITY AND LOCATION MAY VARY ON SOME M872 SEMITRAILERS. ASSURE THAT THE TIEDOWN FITTING IS FIRMLY SEATED AND ROTATED APPROXIMATELY 45° TO ENGAGED POSITION BEFORE ATTACHING THE WEB STRAP TIEDOWN ASSEMBLY. SEE "TIEDOWN ANCHOR DETAILS" ON PAGE 18.
9. PRIOR TO LOADING THE VEHICLE, DETERMINE THE QUANTITY OF CONTAINERS TO BE LOADED IN/ON THE VEHICLE. SELECT THE BEST METHOD TO SECURE THE CONTAINERS FROM THE METHODS SHOWN WITHIN THIS DRAWING. NOTE: A COMBINATION OF THE METHODS SHOWN WITHIN THIS DRAWING MAY BE USED ON/IN THE SAME TACTICAL VEHICLE.

(CONTINUED AT RIGHT)



DETAIL OF ROCKET POD CONTAINER (RP(-))



ISOMETRIC VIEW

KEY NUMBERS

- ① SUPPORT ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 15. PRE-POSITION AT THE APPROXIMATE LOCATIONS SHOWN. SEE SPECIAL NOTE 4 ON PAGE 7.
- ② WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT TIEDOWN RING ON THE CONTAINER AT THE APPROXIMATE ANGLE SHOWN. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES
- ③ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE OVER TOP OF CONTAINER AT THE APPROXIMATE LOCATIONS SHOWN, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF THE VEHICLE. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES

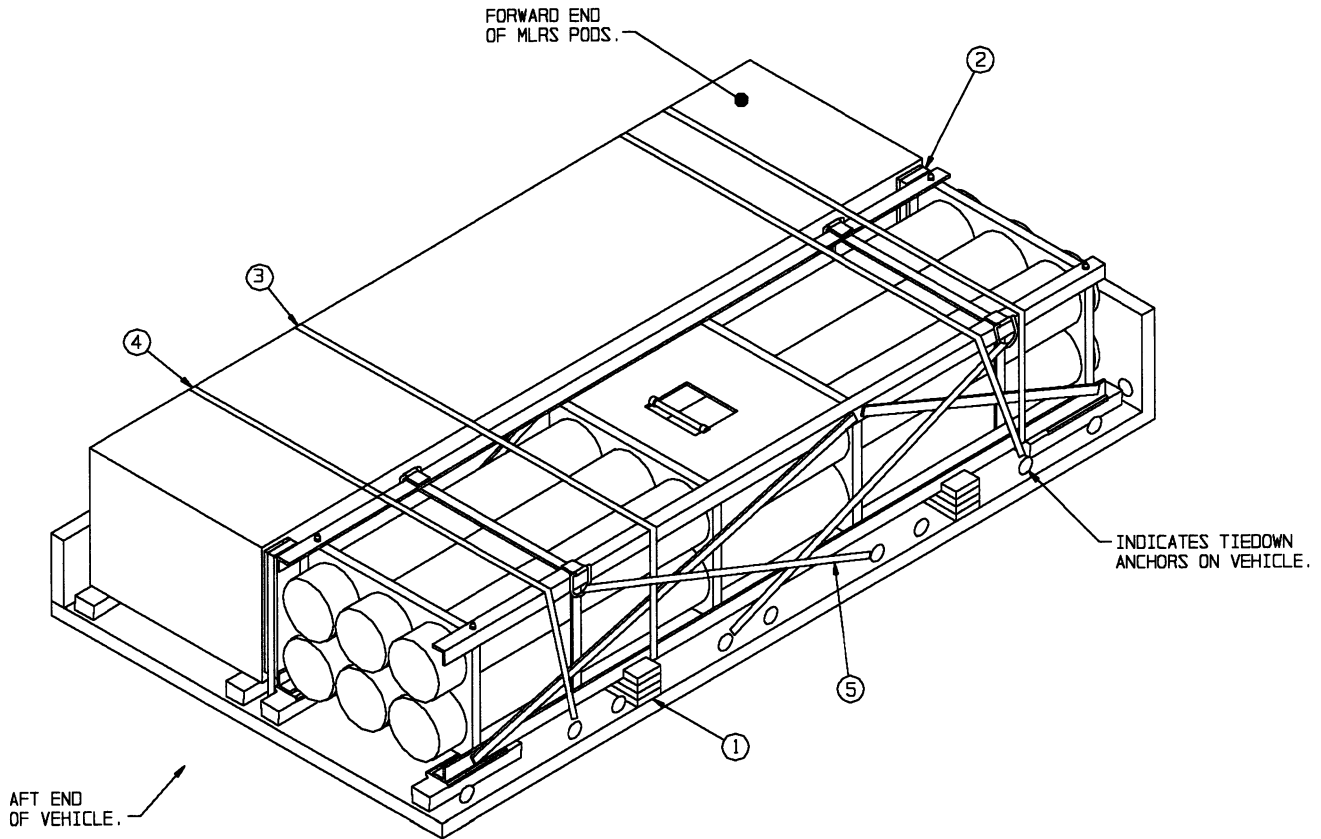
SPECIAL NOTES:

1. A MAXIMUM LOAD OF ONE CONTAINER IS SHOWN LOADED IN A 2-1/2-TON M36 CARGO TRUCK HAVING INSIDE DIMENSIONS OF 204" LONG BY 88" WIDE.
2. THE VEHICLE SHOWN WAS SELECTED AS TYPICAL ONLY AND VEHICLES OF OTHER DIMENSIONS WHICH HAVE A SUFFICIENT QUANTITY OF TIEDOWN ANCHORS LOCATED ON THE SIDEWALL, ENDWALL, OR FLOOR, MAY BE USED TO TRANSPORT THE LOAD SHOWN.
3. POSITION ONE CONTAINER AT A LOCATION THAT WILL ALLOW STRAPS MARKED ② AND ③ TO BE POSITIONED AT THE APPROXIMATE LOCATIONS SHOWN. NOTE THAT THE FORWARD END OF THE CONTAINER IS POINTING TOWARD THE FORWARD END OF THE VEHICLE. IF DESIRED, THE CONTAINER MAY BE POSITIONED WITH THE FORWARD END POINTING TOWARD THE AFT END OF THE VEHICLE.
4. THE SUPPORT ASSEMBLY B PIECES ARE REQUIRED TO PREVENT THE SKIDS FROM DEFORMING AND TO PROVIDE STABILITY FOR THE CONTAINER DURING TRANSPORT. PRE-POSITION ON VEHICLE FLOOR PRIOR TO LOADING CONTAINERS.
5. A TOTAL OF SIX WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	2	1
2" X 6"	25	25
NAILS	NO. REQD	POUNDS
10d (3")	28	1
WEB STRAP - - - - -	6 REQD - - - - -	30 LBS

LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
CONTAINER - - - - -	1 - - - - -	3,968 LBS
DUNNAGE - - - - -	- - - - -	83 LBS
TOTAL WEIGHT - - - - -		4,051 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① SUPPORT ASSEMBLY A (2 REQD). SEE THE DETAIL ON PAGE 15. PRE-POSITION AT THE APPROXIMATE LOCATIONS SHOWN. SEE SPECIAL NOTE 4 ON PAGE 7.
- ② SPACER ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 14. POSITION ONE ASSEMBLY AS NEAR TO EACH END AS POSSIBLE AND WIRE TIE IN PLACE AT TOP AND BOTTOM OF ASSEMBLY. SEE SPECIAL NOTE 5 ON PAGE 7.
- ③ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO ENCIRCLE BOTH CONTAINERS AT THE APPROXIMATE LOCATIONS SHOWN. PRE-POSITION STRAPS ACROSS THE VEHICLE FLOOR PRIOR TO LOADING CONTAINERS. ASSURE THAT THE STRAP LAYS FLAT WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. BRING ENDS OF STRAP UP OVER TOP OF LOAD AND HOOK ENDS TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. NOTE: ASSURE THAT THE SPACER ASSEMBLY B PIECES ARE IN POSITION PRIOR TO RATCHETING STRAPS MARKED ③ TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- ④ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE OVER TOP OF BOTH CONTAINERS AT THE APPROXIMATE LOCATIONS SHOWN, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF THE VEHICLE. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTES 6 AND 7 ON PAGE 7. SEE GENERAL NOTES "F", "G", AND "K", ON PAGE 2.
- ⑤ WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE SPECIAL NOTE 8 ON PAGE 7. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

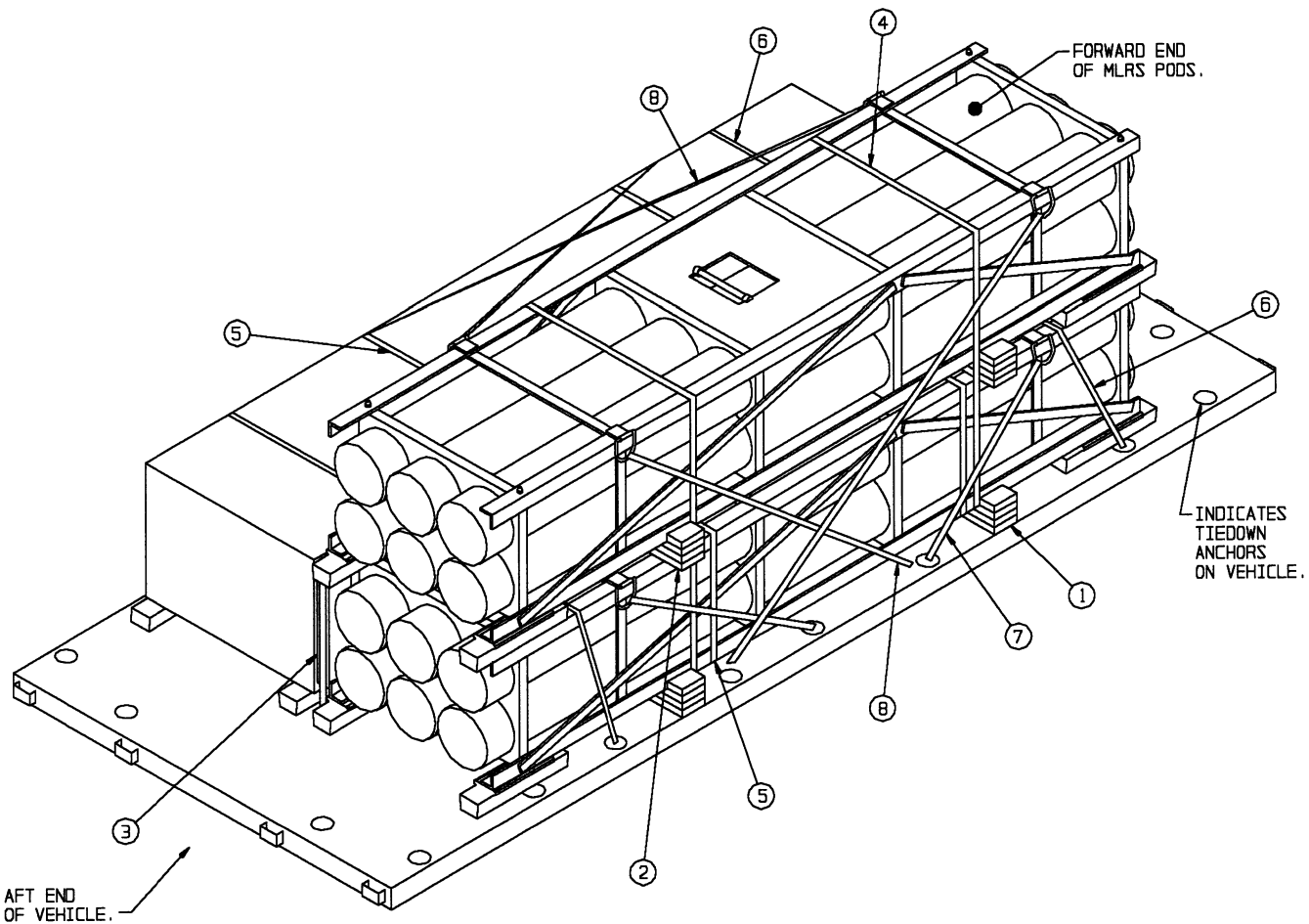
SPECIAL NOTES:

1. A MAXIMUM LOAD OF TWO CONTAINERS IS SHOWN LOADED IN A 5-TON M925A1 CARGO TRUCK HAVING DROP SIDES AND INSIDE DIMENSIONS OF 168" LONG BY 88" WIDE.
2. THE VEHICLE SHOWN WAS SELECTED AS TYPICAL ONLY AND VEHICLES OF OTHER DIMENSIONS WHICH HAVE A SUFFICIENT QUANTITY OF TIEDOWN ANCHORS LOCATED ON THE SIDEWALL, ENDWALL, OR FLOOR, MAY BE USED TO TRANSPORT THE LOAD SHOWN.
3. POSITION TWO ADJACENT CONTAINERS AT A LOCATION THAT WILL ALLOW STRAPS MARKED ④ TO BE POSITIONED AT THE APPROXIMATE LOCATIONS SHOWN. NOTE THAT THE FORWARD END OF THE CONTAINERS IS POINTING TOWARD THE FORWARD END OF THE VEHICLE. IF DESIRED, THE CONTAINERS MAY BE POSITIONED WITH THE FORWARD END POINTING TOWARD THE AFT END OF THE VEHICLE.
4. THE SUPPORT ASSEMBLY A PIECES ARE REQUIRED TO PREVENT THE SKIDS FROM DEFORMING AND TO PROVIDE STABILITY FOR THE CONTAINER DURING TRANSPORT. PRE-POSITION ON VEHICLE FLOOR PRIOR TO LOADING CONTAINERS.
5. THE SPACER ASSEMBLY B PIECES ARE REQUIRED TO PREVENT CONTACT OF THE LIFT/TIEDOWN RINGS ON LATERALLY ADJACENT CONTAINERS. PRE-POSITION THESE PIECES AT THE LOCATIONS SHOWN AS LOADING PROGRESSES.
6. IF THE VEHICLE BEING LOADED HAS SIDE WALLS AND THE SPACE BETWEEN THE CONTAINERS AND THE SIDEWALL IS NOT WIDE ENOUGH TO REACH INTO, DRAPE THE STRAP MARKED ④ ACROSS TOP OF CONTAINER(S) AND HOOK ENDS OF THE STRAP TO THE TIEDOWN ANCHOR PRIOR TO LOWERING CONTAINER(S) ON TO THE VEHICLE FLOOR.
7. IF STRAP MARKED ④ HAS THE RATCHET LOCATED AT THE VERY END AND THERE IS NOT ENOUGH ROOM BETWEEN THE CONTAINER AND THE VEHICLE SIDEWALL TO INSTALL THE STRAP AND WORK THE RATCHET, HOOK TWO STRAPS TOGETHER AND POSITION BOTH RATCHETS ON TOP OF THE LOAD. THE NON-RATCHET ENDS CAN BE ATTACHED TO THE VEHICLE TIEDOWN ANCHORS PRIOR TO LOADING THE CONTAINER.
8. A TOTAL OF EIGHT WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	2	1
2" X 6"	57	57
NAILS	NO. REQD	POUNDS
10d (3")	44	1
WEB STRAP - - - - -	8 REQD - - - - -	40 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	2 - - - - -	7,936 LBS
DUNNAGE - - - - -	- - - - -	157 LBS
TOTAL WEIGHT - - - - -		8,093 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① SUPPORT ASSEMBLY A (2 REQD). SEE THE DETAIL ON PAGE 15. PRE-POSITION AT THE APPROXIMATE LOCATIONS SHOWN. SEE SPECIAL NOTES 4 AND 5 ON PAGE 9.
- ② SUPPORT ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 15. PRE-POSITION AT THE APPROXIMATE LOCATIONS SHOWN. SEE SPECIAL NOTES 4 AND 5 ON PAGE 9.
- ③ SPACER ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 14. POSITION ONE ASSEMBLY AS NEAR TO EACH END AS POSSIBLE AND WIRE TIE IN PLACE AT TOP AND BOTTOM OF ASSEMBLY. SEE SPECIAL NOTE 6 ON PAGE 9.
- ④ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO ENCIRCLE TOP AND BOTTOM CONTAINERS AT THE APPROXIMATE LOCATIONS SHOWN. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. HOOK ENDS OF STRAP TOGETHER, TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. **NOTE:** ASSURE THAT THE SUPPORT ASSEMBLIES A AND B ARE IN POSITION PRIOR TO RATCHETING STRAPS MARKED ④ TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.
- ⑤ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO ENCIRCLE BOTH BOTTOM CONTAINERS AT THE APPROXIMATE LOCATIONS SHOWN. PRE-POSITION STRAPS ACROSS THE VEHICLE FLOOR PRIOR TO LOADING CONTAINERS. ASSURE THAT THE STRAP LAYS FLAT WITH THE RATCHET HANDLE ON THE BOTTOM SIDE. BRING ENDS OF STRAP UP OVER TOP OF BOTTOM CONTAINERS AND HOOK ENDS TOGETHER. POSITION STRAP SCUFF SLEEVES AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. **NOTE:** ASSURE THAT THE SPACER ASSEMBLY B PIECES ARE POSITIONED PRIOR TO RATCHETING STRAPS MARKED ⑤ TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

(CONTINUED AT RIGHT)

(KEY NUMBERS CONTINUED)

- ⑥ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE OVER THE TOP OF BOTH BOTTOM CONTAINERS AT THE APPROXIMATE LOCATION SHOWN, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF THE VEHICLE. 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.
- ⑦ WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE BOTTOM CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR, TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G", AND "K" ON PAGE 2.
- ⑧ WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE TOP CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR, TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", "G", AND "K" ON PAGE 2.

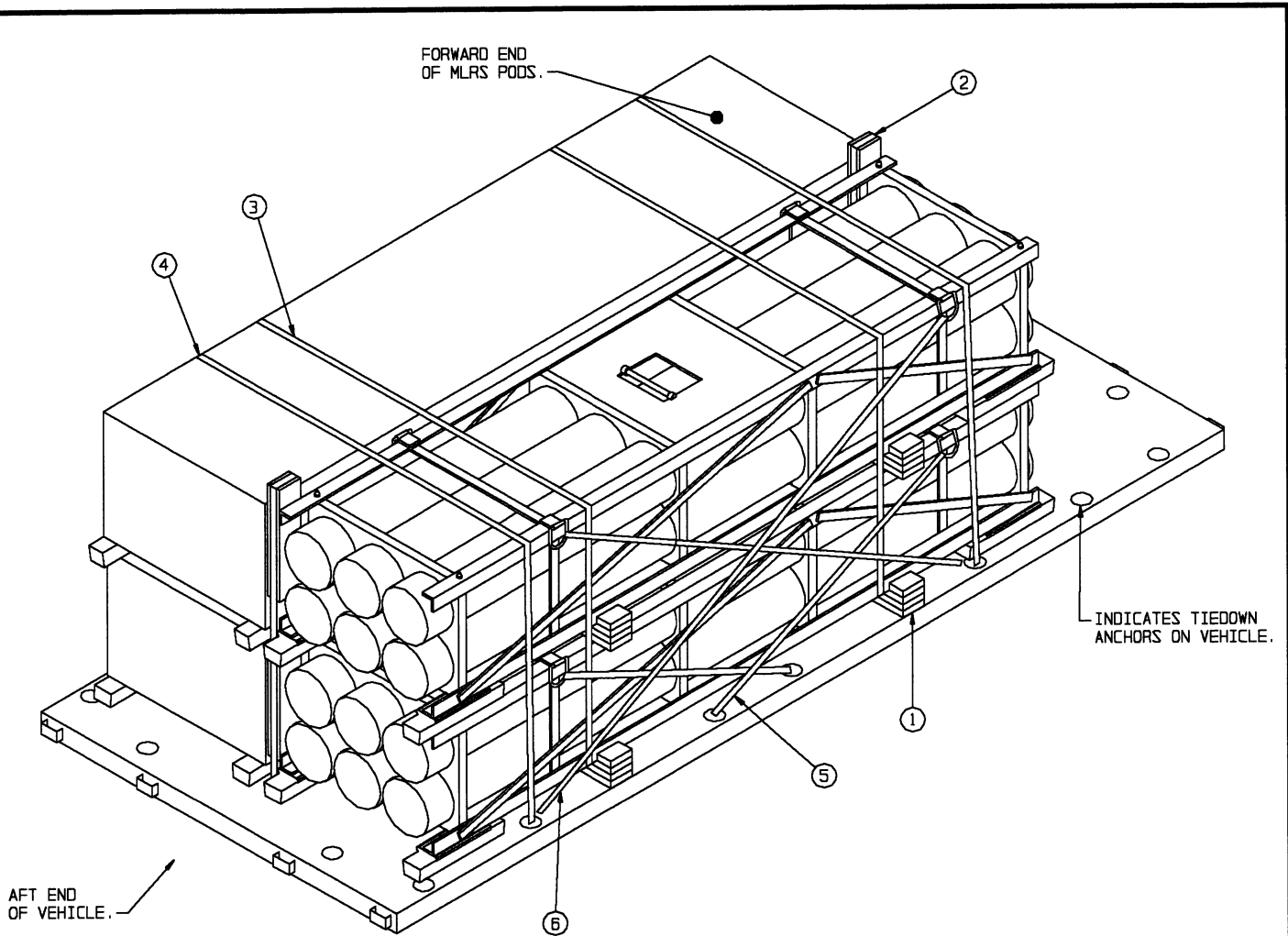
SPECIAL NOTES:

1. A PARTIAL LOAD OF THREE CONTAINERS IS SHOWN LOADED IN A 10-TON M977 AND/OR M985 HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT) HAVING CARGO DECK DIMENSIONS OF 92-1/2" WIDE BY 216-3/8" LONG. CAUTION: DO NOT POSITION CONTAINERS AGAINST SIDEWALLS AND/OR ENDWALLS IN THIS VEHICLE.
2. THE VEHICLE SHOWN WAS SELECTED AS TYPICAL ONLY AND VEHICLES OF OTHER DIMENSIONS WHICH HAVE A SUFFICIENT QUANTITY OF TIEDOWN ANCHORS LOCATED ON THE SIDEWALL, ENDWALL, OR FLOOR, MAY BE USED TO TRANSPORT THE LOAD SHOWN.
3. POSITION THREE CONTAINERS AT A LOCATION THAT WILL ALLOW STRAPS MARKED ⑥ TO BE POSITIONED AT THE APPROXIMATE LOCATIONS SHOWN. NOTE THAT THE FORWARD END OF THE CONTAINERS ARE POINTING TOWARD THE FORWARD END OF THE VEHICLE. IF DESIRED, THE CONTAINERS MAY BE POSITIONED WITH THE FORWARD END POINTING TOWARD THE AFT END OF THE VEHICLE. ASSURE THAT THE STACKING PINS ON THE BOTTOM CONTAINER ARE MATED TO THE HOLES IN THE SKID OF THE TOP CONTAINER.
4. POSITION THE SUPPORT ASSEMBLIES A AND B, AND THE SPACER ASSEMBLIES B, AS LOADING PROGRESSES.
5. THE SUPPORT ASSEMBLY A AND B PIECES ARE REQUIRED TO PREVENT THE SKIDS FROM DEFORMING AND TO PROVIDE STABILITY FOR THE CONTAINERS DURING TRANSPORT. PRE-POSITION ON VEHICLE FLOOR AND/OR ON TOP OF A CONTAINER AS LOADING PROGRESSES.
6. THE SPACER ASSEMBLY B PIECES ARE REQUIRED TO PREVENT CONTACT OF THE LIFT/TIEDOWN RINGS ON LATERALLY ADJACENT CONTAINERS. PRE-POSITION THESE PIECES AT THE LOCATIONS SHOWN AS LOADING PROGRESSES.
7. 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"	4	2
2" X 6"	82	82
NAILS	NO. REQD	POUNDS
10d (3")	72	2
WEB STRAP - - - - -	14 REQD - - - - -	70 LBS

LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
CONTAINER - - - - -	3 - - - - -	11,904 LBS
DUNNAGE - - - - -	- - - - -	240 LBS
TOTAL WEIGHT - - - - -		12,144 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① SUPPORT ASSEMBLY A (4 REQD). SEE THE DETAIL ON PAGE 15. PRE-POSITION AT THE APPROXIMATE LOCATIONS SHOWN WITH THE SECOND LAYER ADJACENT TO THE LIFT/TIEDOWN RING ON THE BOTTOM CONTAINERS AND IN LINE VERTICALLY. SEE SPECIAL NOTES 4 AND 5 ON PAGE 11.
- ② SPACER ASSEMBLY A (2 REQD). SEE THE DETAIL ON PAGE 14. POSITION ONE ASSEMBLY AS NEAR TO EACH END AS POSSIBLE AND WIRE TIE IN PLACE AT TOP AND BOTTOM OF ASSEMBLY. SEE SPECIAL NOTE 6 ON PAGE 11.
- ③ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). EACH ASSEMBLY WILL CONSIST OF TWO STRAPS HOOKED TOGETHER TO ENCIRCLE ALL FOUR CONTAINERS AT THE APPROXIMATE LOCATION SHOWN. POSITION STRAP SCUFF PADS AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. NOTE: ASSURE THAT THE SUPPORT ASSEMBLIES A AND SPACER ASSEMBLIES A ARE IN POSITION PRIOR TO RATCHETING STRAPS TIGHT. SEE GENERAL NOTES "F", "G", AND "O" ON PAGE 2.
- ④ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE, OVER TOP OF LOAD AT THE APPROXIMATE LOCATIONS SHOWN, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF THE VEHICLE. 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.
- ⑤ WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE BOTTOM CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR. 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 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE TOP CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F" AND "G" ON PAGE 2.

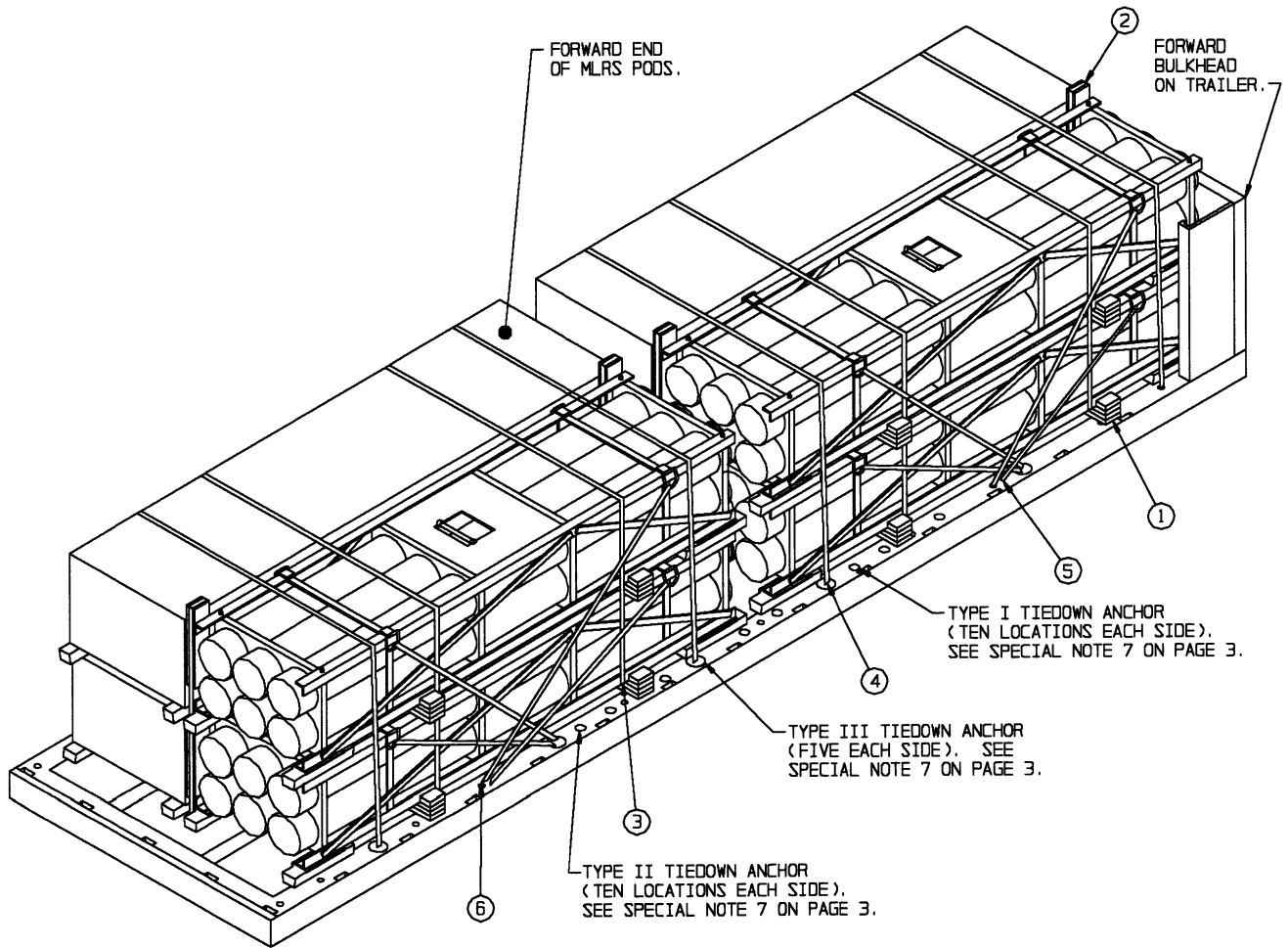
SPECIAL NOTES:

1. A MAXIMUM LOAD OF FOUR CONTAINERS IS SHOWN LOADED ON A 10-TON M977 AND/OR M985 HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT) HAVING CARGO DECK DIMENSIONS OF 92-1/2" WIDE BY 216-3/8" LONG. CAUTION: DO NOT POSITION CONTAINERS AGAINST SIDEWALLS AND/OR ENDWALLS IN THIS VEHICLE.
2. THE VEHICLE SHOWN WAS SELECTED AS TYPICAL ONLY AND VEHICLES OF OTHER DIMENSIONS WHICH HAVE A SUFFICIENT QUANTITY OF TIEDOWN ANCHORS LOCATED ON THE SIDEWALL, ENDWALL, OR FLOOR, MAY BE USED TO TRANSPORT THE LOAD SHOWN.
3. POSITION FOUR CONTAINERS AT A LOCATION THAT WILL ALLOW STRAPS MARKED (4) TO BE POSITIONED AT THE APPROXIMATE LOCATIONS SHOWN. NOTE THAT THE FORWARD END OF THE CONTAINERS ARE POINTING TOWARD THE FORWARD END OF THE VEHICLE. IF DESIRED, THE CONTAINERS MAY BE POSITIONED WITH THE FORWARD END POINTING TOWARD THE AFT END OF THE VEHICLE. ASSURE THAT THE STACKING PINS ON THE BOTTOM CONTAINER ARE MATED TO THE HOLES IN THE SKID OF THE TOP CONTAINER.
4. POSITION THE SUPPORT ASSEMBLIES A AND THE SPACER ASSEMBLIES A, AS LOADING PROGRESSES.
5. THE SUPPORT ASSEMBLY A PIECES ARE REQUIRED TO PREVENT THE SKIDS FROM DEFORMING AND TO PROVIDE STABILITY FOR THE CONTAINER DURING TRANSPORT. PRE-POSITION ON VEHICLE FLOOR AND/OR ON TOP OF A CONTAINER AS LOADING PROGRESSES.
6. THE SPACER ASSEMBLY A PIECES ARE REQUIRED TO PREVENT CONTACT OF THE LIFT/TIEDOWN RINGS ON LATERALLY ADJACENT CONTAINERS. PRE-POSITION THESE PIECES AT THE LOCATIONS SHOWN AS LOADING PROGRESSES.
7. 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"	4	2
2" X 6"	114	114
NAILS	NO. REQD	POUNDS
10d (3")	88	2
WEB STRAP - - - - -	14 REQD - - - - -	70 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	4 - - - - -	15,872 LBS
DUNNAGE - - - - -	- - - - -	304 LBS
TOTAL WEIGHT - - - - -		16,176 LBS (APPROX)



AFT END OF VEHICLE.

ISOMETRIC VIEW

KEY NUMBERS

- ① SUPPORT ASSEMBLY A (8 REQD). SEE THE DETAIL ON PAGE 15. PRE-POSITION AT THE APPROXIMATE LOCATIONS SHOWN WITH THE SECOND LAYER SUPPORT ASSEMBLY ADJACENT TO THE LIFT/TIEDOWN RING ON THE BOTTOM CONTAINERS AND IN LINE VERTICALLY. SEE SPECIAL NOTE 4 ON PAGE 13.
- ② SPACER ASSEMBLY B (4 REQD). SEE THE DETAIL ON PAGE 14. POSITION ONE ASSEMBLY AS NEAR TO EACH END AS POSSIBLE AND WIRE TIE IN PLACE AT TOP AND BOTTOM OF ASSEMBLY. SEE SPECIAL NOTE 6 ON PAGE 13.
- ③ WEB STRAP TIEDOWN ASSEMBLY (4 REQD). EACH ASSEMBLY WILL CONSIST OF TWO STRAPS HOOKED TOGETHER TO ENCIRCLE ALL FOUR CONTAINERS AT THE APPROXIMATE LOCATIONS SHOWN, ADJACENT TO THE SUPPORT ASSEMBLIES. POSITION STRAP SCUFF PADS AT SHARP EDGES. TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. NOTE: ASSURE THAT THE SUPPORT ASSEMBLIES A AND SPACER ASSEMBLIES A ARE IN POSITION PRIOR TO RATCHETING STRAPS TIGHT. SEE GENERAL NOTES "F", "G", AND "O" ON PAGE 2.
- ④ WEB STRAP TIEDOWN ASSEMBLY (4 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE, OVER TOP OF LOAD AT THE APPROXIMATE LOCATIONS SHOWN, TO A TIEDOWN ANCHOR ON THE OPPOSITE SIDE OF THE VEHICLE. 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.
- ⑤ WEB STRAP TIEDOWN ASSEMBLY (8 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE BOTTOM CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", AND "G", ON PAGE 2.
- ⑥ WEB STRAP TIEDOWN ASSEMBLY (8 REQD). INSTALL EACH STRAP TO EXTEND FROM A TIEDOWN ANCHOR ON SIDE OF VEHICLE UP TO A LIFT/TIEDOWN RING ON THE TOP CONTAINER AT THE APPROXIMATE ANGLE SHOWN. HOOK THE NON-RATCHET END OF STRAP TO THE VEHICLE TIEDOWN ANCHOR TAKE UP EXCESS SLACK IN STRAP AND THEN RATCHET TIGHT. SEE GENERAL NOTES "F", AND "G", ON PAGE 2.

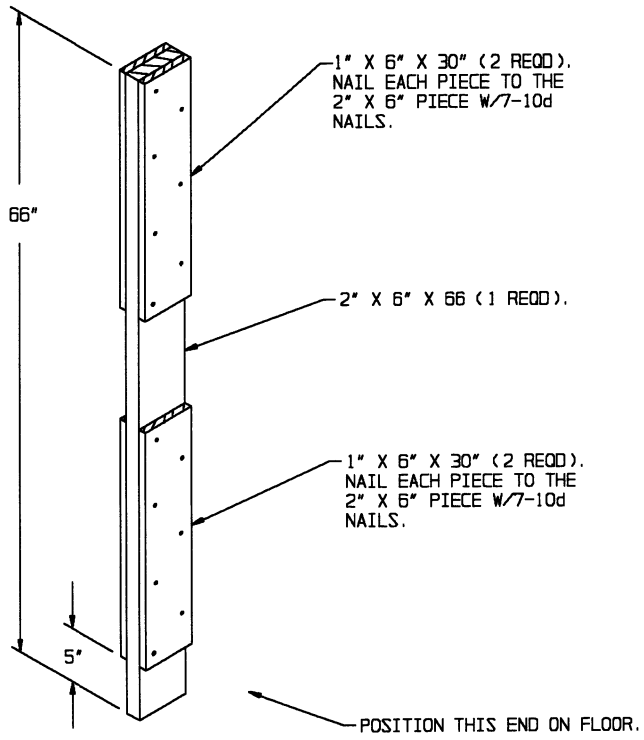
SPECIAL NOTES:

1. A MAXIMUM LOAD OF EIGHT CONTAINERS IS SHOWN LOADED ON A 22-1/2-TON M871 SEMITRAILER HAVING DIMENSIONS OF 96" WIDE BY 354" LONG.
2. THE VEHICLE SHOWN WAS SELECTED AS TYPICAL ONLY AND VEHICLES OF OTHER DIMENSIONS WHICH HAVE A SUFFICIENT QUANTITY OF TIEDOWN ANCHORS LOCATED ON THE FLOOR, MAY BE USED TO TRANSPORT THE LOAD SHOWN.
3. POSITION TWO STACKS OF FOUR CONTAINERS EACH AT A LOCATION THAT WILL ALLOW STRAPS MARKED ④ TO BE POSITIONED AT THE APPROXIMATE LOCATIONS SHOWN. NOTE THAT THE FORWARD END OF THE CONTAINERS IS POINTING TOWARD THE FORWARD END OF THE VEHICLE. IF DESIRED, THE CONTAINERS MAY BE POSITIONED WITH THE FORWARD END POINTING TOWARD THE AFT END OF THE VEHICLE. ASSURE THAT THE STACKING PINS ON THE BOTTOM CONTAINER ARE MATED TO THE HOLES IN THE SKID OF THE TOP CONTAINER.
4. POSITION THE SUPPORT ASSEMBLIES A AND THE SPACER ASSEMBLIES A, AS LOADING PROGRESS.
5. THE SUPPORT ASSEMBLY A PIECES ARE REQUIRED TO PREVENT THE SKIDS FROM DEFORMING AND TO PROVIDE STABILITY FOR THE CONTAINERS DURING TRANSPORT. PRE-POSITION ON VEHICLE FLOOR AND/OR ON TOP OF A CONTAINER AS LOADING PROGRESS.
6. THE SPACER ASSEMBLY A PIECES ARE REQUIRED TO PREVENT CONTACT OF THE LIFT/TIEDOWN RINGS ON LATERALLY ADJACENT CONTAINERS. PRE-POSITION THESE PIECES AT THE LOCATIONS SHOWN AS LOADING PROGRESSES.
7. IF THE LOAD IS BEING TRANSPORTED ON AN M872 SEMI-TRAILER SEE NOTE 8 ON PAGE 3. NOTE THAT THE MAXIMUM LOAD ON THE M871 AND/OR M872 SEMITRAILER CONSISTS OF 8 CONTAINERS, DUE TO CONTAINER LENGTH.
8. A TOTAL OF TWENTYEIGHT WEB STRAP TIEDOWN ASSEMBLIES ARE REQUIRED FOR THE LOAD SHOWN.

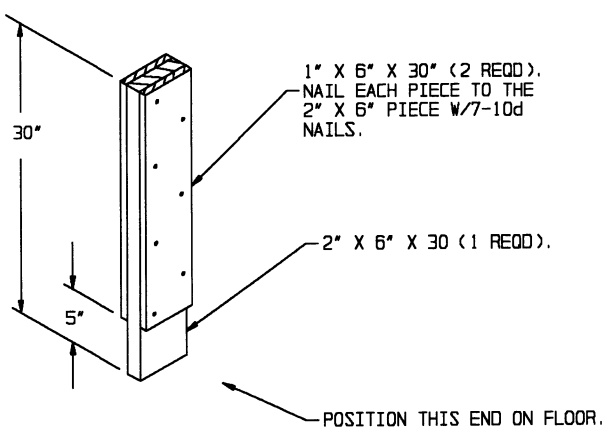
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	8	6
2" X 6"	228	228
NAILS	NO. REQD	POUNDS
10d (3")	176	3
WEB STRAP - - - - -	28 REQD - - - - -	140 LBS

LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
CONTAINER - - - - -	8 - - - - -	31,744 LBS
DUNNAGE - - - - -	- - - - -	611 LBS
TOTAL WEIGHT - - - - -		32,355 LBS (APPROX)

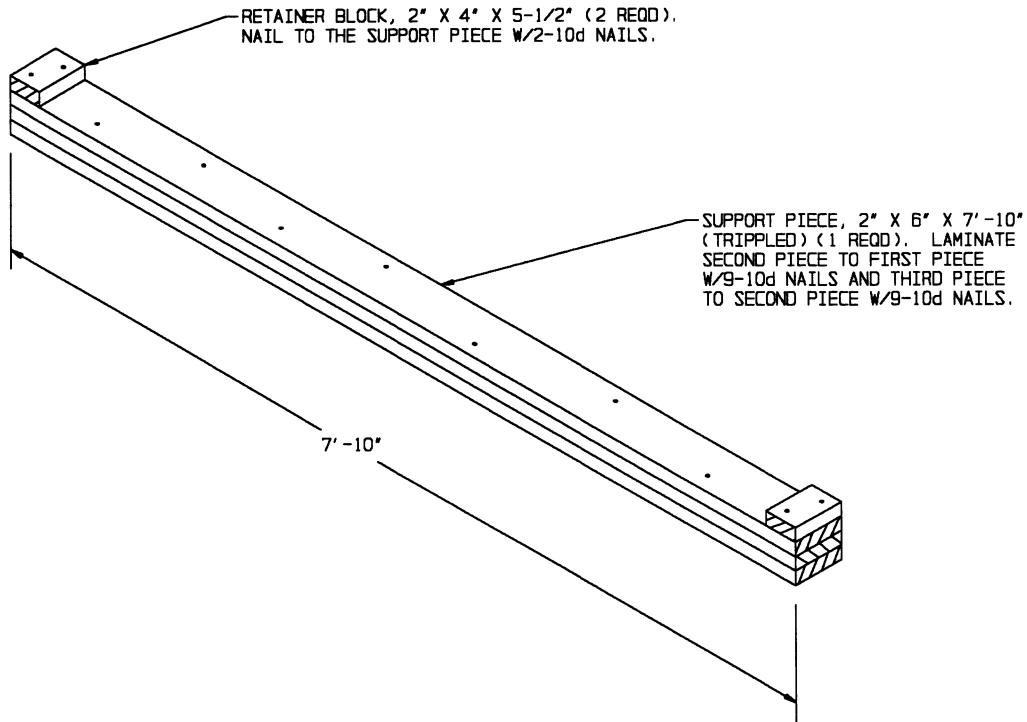


SPACER ASSEMBLY A
FOR USE WITH TWO HIGH CONTAINER LOADS.



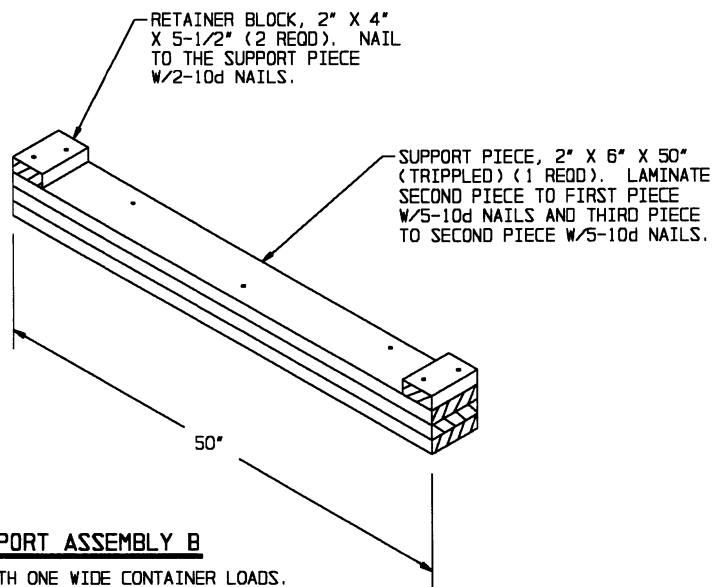
SPACER ASSEMBLY B
FOR USE WITH ONE HIGH CONTAINER LOADS.

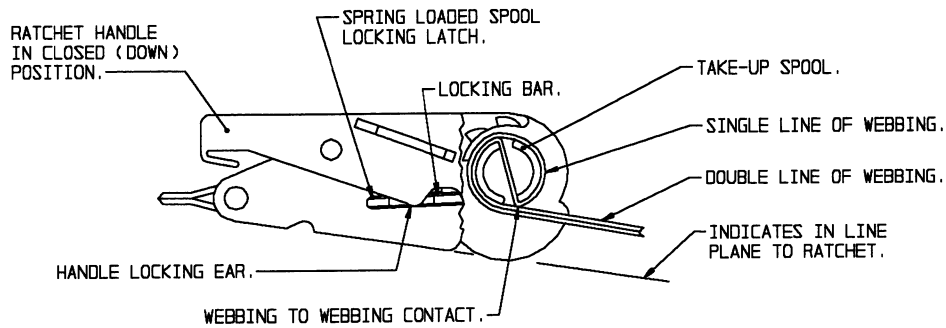
DETAILS



SUPPORT ASSEMBLY A

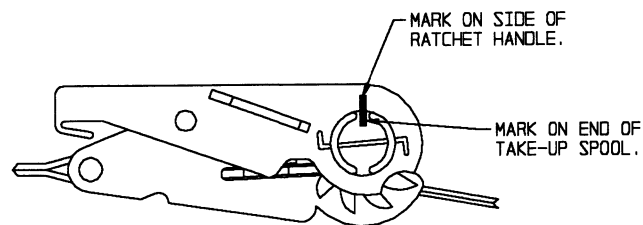
FOR USE WITH TWO-WIDE CONTAINER LOADS. IF THE VEHICLE BEING LOADED HAS SIDEWALLS OMIT THE RETAINER BLOCKS AND CUT THE SUPPORT PIECES TO FIT BETWEEN THE SIDEWALLS WHEN POSITIONING UNDER THE BOTTOM LAYER CONTAINERS OR TWO ADJACENT SINGLE LAYER CONTAINERS.





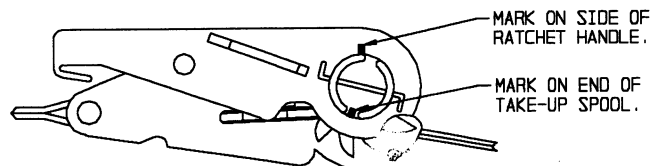
STEP 1

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.



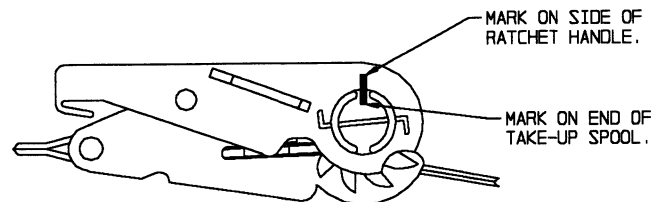
STEP 2

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.



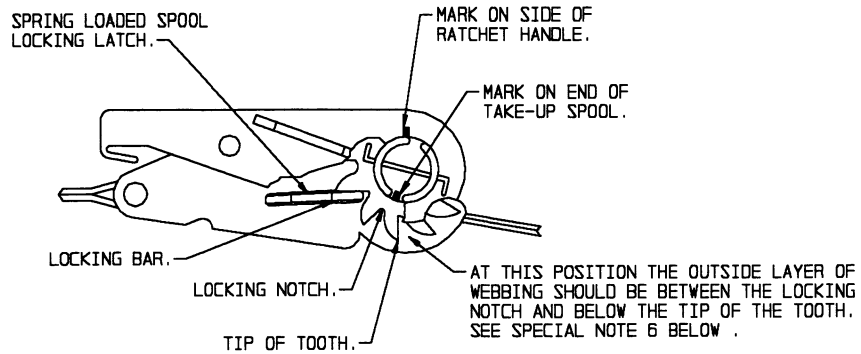
STEP 3

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.



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).

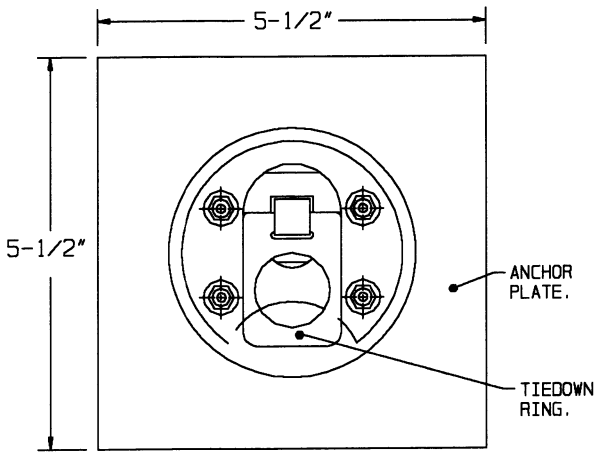
SPECIAL NOTES:

1. THE PURPOSE OF THE RATCHET DETAILS ON PAGE 16 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.
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. 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", "STEP 4" AND "STEP 5" DETAILS.
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.

(CONTINUED AT RIGHT)

(SPECIAL NOTES 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. 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 THIS DRAWING ONLY PROVIDES SOME ACCEPTABLE METHODS.

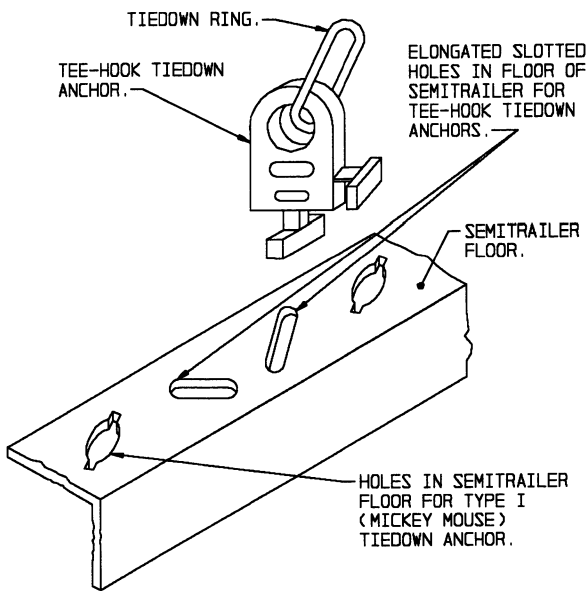


UNIVERSAL TIEDOWN ANCHOR (FRONT VIEW)

SEE SPECIAL NOTE 1.

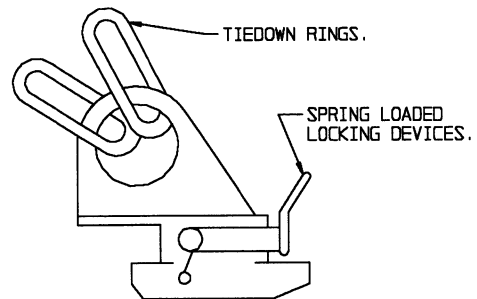
SPECIAL NOTES:

1. IF THE TACTICAL VEHICLES BEING USED ARE NOT EQUIPPED WITH THE 5,000 POUND UNIVERSAL TIEDOWN ANCHOR SHOWN AT LEFT, SEE TB 9-2300-280-30 FOR VEHICLE MODIFICATION PROCEDURES AND INSTALLATION OF THE TIEDOWN ANCHOR. WITH THE EXCEPTION OF THE HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT), M977 AND/OR M985, WHICH HAS THE TIEDOWN ANCHORS INSTALLED IN THE FLOOR, THESE TIEDOWN ANCHORS ARE TO BE INSTALLED IN THE SIDEWALLS AND ENDWALLS OF CARGO TRUCKS AND CARGO TRAILERS. IF AN M127, 12-TON SEMITRAILER IS BEING USED, SEE INFORMATION IN TB 9-2300-280-30. THE M127 SEMITRAILER REQUIRES A DIFFERENT TYPE OF TIEDOWN ANCHOR.
2. THIS TIEDOWN ANCHOR IS RATED AT 5,000 POUNDS AND IS ONLY INSTALLED ON THE M872 SEMITRAILER. THERE ARE FIVE TIEDOWN ANCHOR LOCATIONS ON EACH SIDE OF THE M872 SEMITRAILER. THIS TIEDOWN ANCHOR IS POSITIONED BY INSERTING IT FROM THE TOP INTO ONE OF THE ELONGATED SLOTTED HOLES LOCATED IN THE SIDE RAILS OF THE SEMITRAILER. THIS TIEDOWN ANCHOR IS FURTHER IDENTIFIED AS NSN 2540-01-113-9285.
3. THIS TIEDOWN ANCHOR IS RATED AT 10,000 POUNDS AND IS INSTALLED ON THE M871 AND M872 SEMITRAILERS. IT IS COMMONLY REFERRED TO AS THE "MICKEY MOUSE" TIEDOWN ANCHOR. THERE ARE TEN LOCATIONS IN EACH SIDE RAIL OF THE M871 SEMITRAILER AND APPROXIMATELY TWENTY-EIGHT IN EACH SIDE RAIL OF THE M872 SEMITRAILER. FOR INSTALLATION OF THIS TIEDOWN ANCHOR IT IS POSITIONED BY REACHING UNDER THE FLOOR OF THE SEMITRAILER, INSERTING IT UP THROUGH THE HOLE AND ROTATING IT INTO POSITION. THIS TIEDOWN ANCHOR IS FURTHER IDENTIFIED AS NSN 2540-01-112-1732.
4. THIS TIEDOWN ANCHOR IS RATED AT 10,000 POUNDS AND IS ONLY FOR USE ON THE M871 SEMITRAILER. IT IS COMMONLY REFERRED TO AS THE "BIG FOOT" TIEDOWN ANCHOR. THERE ARE TEN LOCATIONS IN EACH SIDE RAIL OF THE SEMITRAILER FOR INSTALLATION OF THIS TIEDOWN ANCHOR. IT HAS A SPRING/LOADED LOCKING DEVICE TO HOLD IT IN PLACE, IS INSERTED FROM THE TOP INTO A 1-3/4" DIAMETER HOLE, AND IT SWIVELS. THIS TIEDOWN IS FURTHER IDENTIFIED AS NSN 2540-01-117-3043.
5. THIS TIEDOWN ANCHOR IS RATED AT 10,000 POUNDS, IS NOT REMOVABLE AND IS ONLY INSTALLED ON THE M871 SEMITRAILER. THERE ARE FIVE IN EACH SIDE RAIL OF THE M871 SEMITRAILER AND THEY DO NOT SWIVEL.



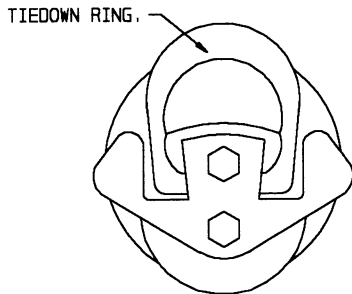
TEE-HOOK TIEDOWN ANCHOR (ISOMETRIC VIEW)

SEE SPECIAL NOTE 2.



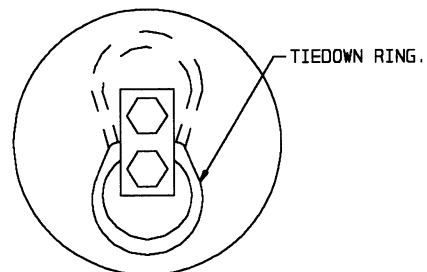
REMOVABLE TIEDOWN ANCHOR (SIDE VIEW)

SEE SPECIAL NOTE 4.



REMOVABLE TIEDOWN ANCHOR (TOP VIEW)

SEE SPECIAL NOTE 3.



FIXED TIEDOWN ANCHOR (TOP VIEW)

SEE SPECIAL NOTE 5.