

APPENDIX 62

UNITIZATION PROCEDURES FOR AMMUNITION AND COMPONENTS PACKED IN CYLINDRICAL METAL OR PLASTIC CONTAINERS ON 4- WAY ENTRY PALLETS

**2.75" HYDRA ROCKET, PACKED 4 PER M643 HDPE
CONTAINER , UNITIZED 12 PER 69-3/4" X 41" METAL
BOTTOM FRAME AND PALLET WITH TOP LIFT
ADAPTER; APPROX CONTAINER SIZE 70" L X 10-1/8"
W X 10-1/8" H**

**NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION
PROCEDURES DRAWING 19-48-4231-20PM1006.**

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U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, COMBAT CAPABILITIES DEVELOPMENT COMMAND ARMAMENTS CENTER HANSEN.JO. Digitally signed by HANSEN.JOSEPH.W. SEPH.W.1376 1376495538 495538 Date: 2021.12.09 08:47:51 -06'00'	CAUTION: VERIFY PRIOR TO USE AT https://www.dau.edu/cop/ammo/Pages/Default.aspx THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.			OCTOBER 2012			
APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND WARD.GINA. Digitally signed by WARD.GINA.M.1369379808 M.1369379808 Date: 2021.12.09 10:16:53 -06'00'	DO NOT SCALE		BASIC QUYEN TRAN REV. QUYEN TRAN		REVISION NO. 2 NOVEMBER 2021		
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND SMITH.THERESA. Digitally signed by SMITH.THERESA.ANN.1009147 ANN.1009147639 639 Date: 2021.12.13 08:13:51 -06'00'	ENGINEERING DIVISON	FIEFFER.LAUR A.A.1230375727 Digitally signed by FIEFFER.LAURA.A.1230375727 Date: 2021.11.19 08:12:52 -06'00'		SEE THE REVISION LISTING ON PAGE 2			
U.S. ARMY DEFENSE AMMUNITION CENTER	TEST ENGINEER	FELICIANO.AD IN.1259200373 Digitally signed by FELICIANO.ADIN.1259200373 Date: 2021.11.22 08:00:06 -06'00'		CLASS	DIVISION	DRAWING	FILE
	TEST REPORT	11-19		19	48	4231/62	20PM1006
	EXPLOSIVE SAFETY DIRECTORATE	BRAILSFORD.KEIT H.ANTHONY.10286 55661 Digitally signed by BRAILSFORD.KEITH ANTHONY. 1028655661 Date: 2021.11.29 11:46:37 -06'00'					

PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION	*COMPATIBILITY GROUP	APPROX WEIGHT (LBS)
NSN	DODIC			
1340-				
01-599-4364	HA12	1.2.1	E	2,117
01-599-4908	HA13	1.2.1	G	2,108
01-628-6510	HA13	1.2.1	G	2,108
01-599-5487	HA75	1.1	E	2,378
01-599-5517	HA76	1.2.1	H	2,126
01-658-6792	HB17	1.1	E	2,117
01-655-7715	HB18	1.2.1	H	2,126

*HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

REVISIONS

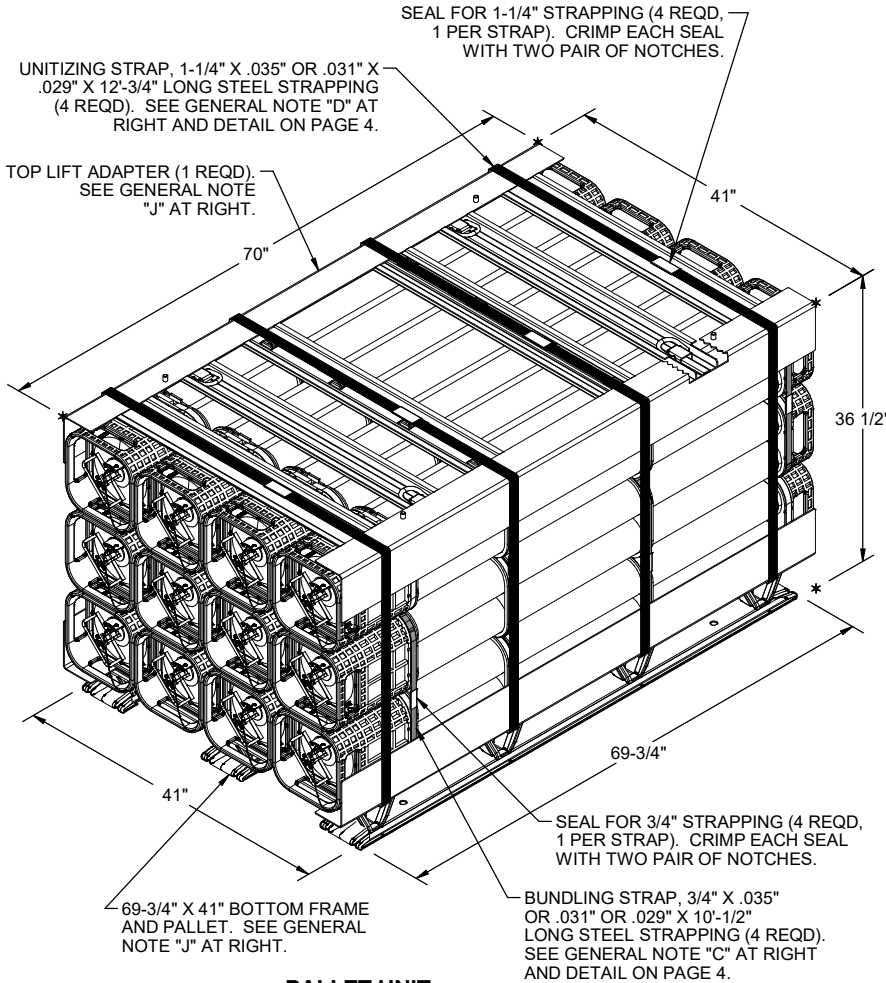
REVISION NO. 1, DATED MARCH 2020, CONSISTS OF CHANGES PER ECP MI-R0971R1 INCLUDING:

1. REVISING ITEM NOMENCLATURE ON COVER PAGE.
2. REVISING HAZARD CLASS FOR ITEM ON "PALLET UNIT DATA" CHART.
3. UPDATING THE APPROVAL BLOCKS ON COVER PAGE.

REVISION NO. 2, DATED NOVEMBER 2021, CONSISTS OF CHANGES PER ECP R21K3002 INCLUDING:

1. ADDING ITEMS BY NATIONAL STOCK NUMBER TO "PALLET UNIT DATA" CHART.
2. UPDATING PALLET UNIT WEIGHT ON PAGE 3 TO REFLECT HEAVIEST CONTAINER WEIGHT.

GENERAL NOTES



PALLET UNIT
SEE GENERAL NOTE "B" AT RIGHT.

12 CONTAINERS OF 2.75" HYDRA ROCKETS (4 PER CONTAINER) @ 173 LBS	2,076 LBS
DUNNAGE	122 LBS
BOTTOM FRAME AND PALLET	180 LBS

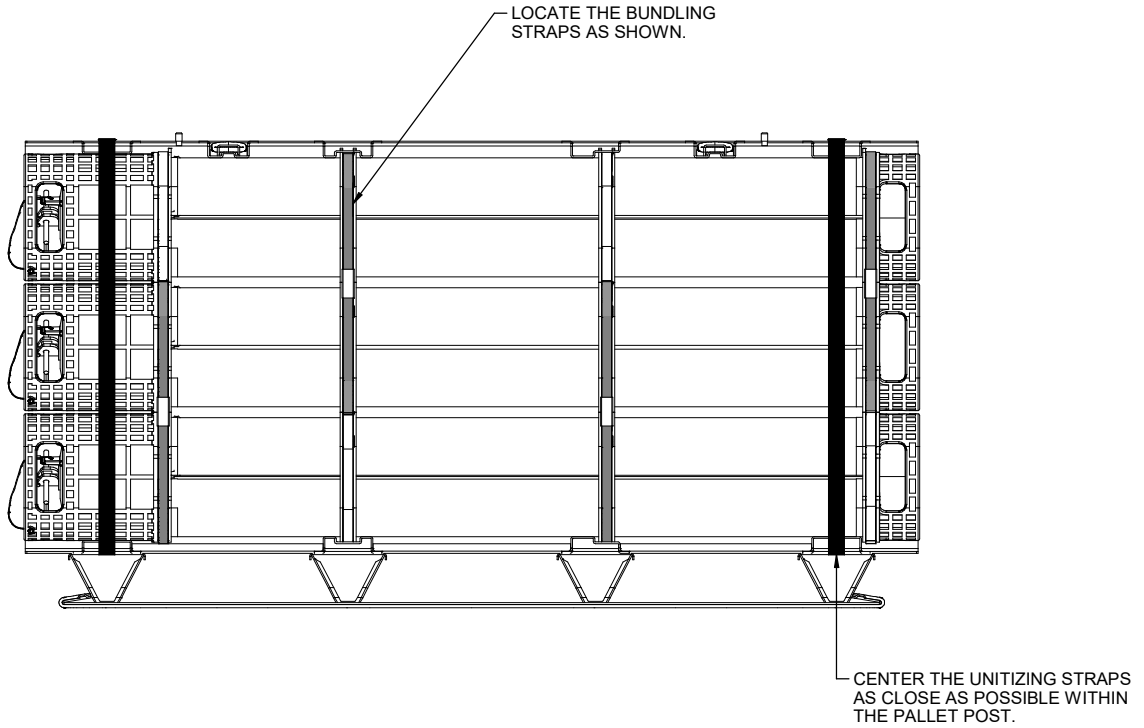
TOTAL WEIGHT	2,378 LBS (APPROX)
CUBE	60.6 CU FT (APPROX)

BILL OF MATERIAL

BOTTOM FRAME AND PALLET, 69-3/4" X 41"	1 REQD	180 LBS
TOP LIFT ADAPTER	1 REQD	110 LBS
STEEL STRAPPING, 3/4"	42.00' REQD	3.75 LBS
STEEL STRAPPING, 1-1/4"	51.00' REQD	7.73 LBS
SEAL FOR 3/4" STRAPPING	4 REQD	NIL
SEAL FOR 1-1/4" STRAPPING	4 REQD	NIL

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4231-20PM1006. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN THIS APPENDIX. ANY EXCEPTIONS TO THE BASIC PROCEDURES ARE SPECIFIED IN THIS APPENDIX.
- B. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE CONTAINER AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. PREPOSITION TWO BUNDLING STRAPS ON TOP OF THE BOTTOM FRAME AND PALLET PRIOR TO PLACING CONTAINERS ON THE PALLET. PREPOSITION THE OTHER TWO BUNDLING STRAPS ON TOP OF THE FIRST LAYER OF CONTAINERS PRIOR TO LOADING THE NEXT LAYER OF CONTAINERS. STRAPS MUST BE LOCATED AS SHOWN ON PAGE 4. UNITIZE THE TWO LOWER LAYERS OF CONTAINERS WITH THE FIRST TWO STRAPS. UNITIZE THE TOP TWO LAYERS OF CONTAINERS WITH THE OTHER TWO STRAPS.
- D. INSTALL EACH UNITIZING STRAP TO PASS THROUGH THE PALLET POST AS SHOWN ON PAGE 4. UNITIZING STRAPS WILL NOT BE APPLIED UNTIL THE BUNDLING STRAPS HAVE BEEN TENSIONED AND SEALED.
- E. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.

CARLOADING	- - - -	19-48-4115-5PA1002
TRUCKLOADING	- - - -	19-48-4117-11PA1003
STORAGE	- - - -	19-48-4118-1-2-3-4-14-22PA1002
END OPENING ISO CONTAINER	- - - -	19-48-4153-15PA1002
MILVAN	- - - -	19-48-4166-15PA1003
SIDE OPENING ISO CONTAINER	- - - -	19-48-4267-15PA1009
- F. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE CONTAINERS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- G. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING 2.75" HYDRA ROCKETS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE CONTAINER PACK DOES NOT VARY FROM WHAT IS DELINEATED HEREIN. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- H. ALTHOUGH THE CONTAINERS DEPICTED IN THE UNIT LOAD AT LEFT ARE CONSTRUCTED WITH INTERLOCKING DEVICES, THE INTERLOCKS WILL NOT FUNCTION PROPERLY UNLESS THE CONTAINERS ARE POSITIONED SO THAT THE "PINS" OF THE INTERLOCKS ARE FACING UPWARD. THIS ORIENTATION WILL AID IN THE PREVENTION OF CONTAINER MOVEMENT DURING SHIPMENT OF THE UNIT LOAD.
- J. FOR DETAILS OF THE BOTTOM FRAME AND PALLET AND TOP LIFT ADAPTER, SEE DRAWING ACV00833 AND MIL-A-70788.
- K. EMPTY OR REJECT M643 CONTAINERS WILL BE USED AS FILLER CONTAINERS AS NECESSARY. FILLER CONTAINERS MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER(S) OF CONTAINERS. IF FOUR FULL CONTAINERS ARE TO BE OMITTED, ONE FULL LAYER OF CONTAINERS WILL BE OMITTED. WHEN (EMPTY/REJECTED) FILLER CONTAINERS ARE USED IN PLACE OF OMITTED CONTAINERS TO COMPLETE A LAYER ON A PALLET, THEY WILL BE MARKED AS SPECIFIED IN AMCOM DRAWING NO. 13654226. A PALLET UNIT WILL CONSIST OF A MINIMUM OF EIGHT EMPTY, LIGHT, OR FULL CONTAINERS, OR A COMBINATION THEREOF.
- L. WHEN ONE OR MORE LAYERS ARE OMITTED, THE BUNDLING STRAP REQUIREMENT WILL CHANGE. A TWO LAYER UNIT WILL HAVE THE TWO UPPER BUNDLING STRAPS OMITTED. A UNIT WITH ONE LAYER DOES NOT REQUIRE BUNDLING STRAPS.
- M. FOR DETAILS OF M643 HDPE CONTAINER ASSEMBLY SEE AMCOM DRAWING 13654226.



SIDE VIEW

NOTE: TWO CENTER UNITIZING STRAPS, SIDE RAIL OF TOP LIFT ADAPTER AND SIDE RAIL OF BOTTOM FRAME AND PALLET WERE HIDDEN FOR CLARITY PURPOSES.