Internal Air Transport Certification

AFLCMC/EZFC (ATTLA)
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Date: 5 April 2019
Item Nomenclature: MJ-1B/C Bomb Lift and MHU-83 Bomb Lift
File Number: 2016.04.19 Rev 6
Requestor: On File
Superseded Certification Date: 16 January 2019

New Information Summary: Increased allowable axle weights on both models.

Item Description: The subject items are identified as a MJ-1B/C Bomb Lift and a MHU-83 Bomb Lift.

Approximate dimensions for the MJ-1B/C are 146” L x 53” W x 38” H. The gross weight is 4,010 lbs. The front axle is reported to weigh 670 lbs, and the rear axle is reported to weigh 3,340 lbs. The MJ-2 B/C has a lifting capacity of 3,000 lbs.

Approximate dimensions for the MHU-83 are 176” L x 76” W x 40” H. The gross weight is 6,930 lbs. The front axle is reported to weigh 1,880 lbs, and the rear axle is reported to weigh 5,050 lbs. The MHU-83 has a lifting capacity of 6,000 lbs.

NOTE: The listed weight and dimensions are approximations. Actual dimensions can vary as long as aircraft limitations published in applicable cargo loading manuals and the conditions of certification listed below are not violated. Adjustments to approach shoring and/or loading methods shall be reported to ATTLA.

Figure 1: MJ-1B/C Bomb Lift

Figure 2: MHU-83 Bomb Lift

Certified Aircraft: USAF C-130, C-17, and C-5

Conditions of Certification:

1. **Maximum Weight for Air Transport:**

a. MJ-1B/C

Gross Vehicle Weight: 5,700 lbs (does not include pallets, approach shoring or restraints)

Axle Limits**:**

Front Axle: 1,200 lbs

Rear Axle: 4,500 lbs

b. MHU-83

Gross Vehicle Weight: 8,620 lbs (does not include pallets, shoring or restraints)

Axle Limits**:**

Front Axle – 2,600 lbs

Rear Axle – 6,000 lbs

2. Item Preparation:

a. Tire pressure shall not exceed 100 psi.

b. Palletized Option: The MJ-1B/C can be on a single pallet or centered on a pallet train, without shoring. The MHU-83 shall be put on a two pallet (T2) train with shoring under the frame as specified in paragraph 5. Restrain the item to the pallet/pallets per paragraph 4.

c. Shipper is responsible for providing all shoring materials. See paragraph 5 for specifications.

d. All hazardous materials (to include fuel level, batteries, etc.) must be prepared and certified for airlift in accordance with TM 38-250/AFMAN 24-204(I). Do not consider this air transport certification as approval for hazardous materials. Authorization for airlifting hazardous material is the responsibility of AFMC/A4RT (DSN 787-4503 or COM (937) 257-4503).

3. Loading Instructions:

a. The bomb lift can be loaded using general loading procedures as listed in the respective aircraft cargo loading manual.

b. Approach shoring is required for rolling stock configuration. See paragraph 5 for specifications.

4. Restraint Requirements: The bomb lift and all accompanying cargo must be restrained to meet air transport requirements of 3G forward, 1.5G aft and lateral, and 2G up. In addition, stored or installed equipment must meet these requirements and be capable of withstanding a 4.5G down load. Tiedown rings can be used for 10,000 lbs of restraint each. Use frame points for additional restraint.

CAUTION: Care should be taken to avoid damage to the oil filter or any delicate parts when applying restraint (Figure 3).

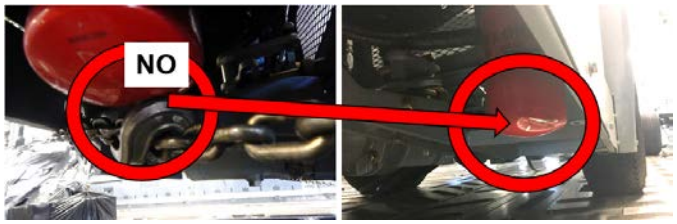


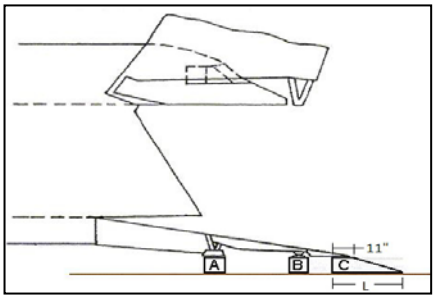
Figure 3. Damaging Oil Filter

5. Shoring Dimensions & Diagrams:

a. Approach shoring: Recommended dimensions for 9° approach angle using the same approach shoring across all three aircraft and for both bomb lifts. Requirements for other configurations are in the applicable aircraft loading manual. User may use prefabricated ramps.

NOTE: The use of certified prefabricated aluminum ramps while loading these items will eliminate the need for any wood shoring; including the pedestal shoring.

NOTE: The shoring dimensions listed below were created so that there is a standard length of approach shoring for all three types of aircraft. Previous shoring configurations for each bomb lift and for specific aircraft can also be used; since they were already created by some units; please see paragraph 5b for these options.

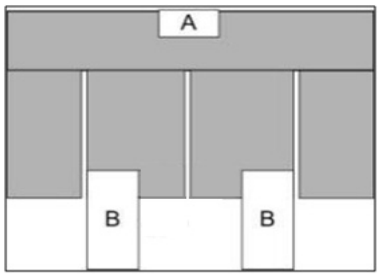


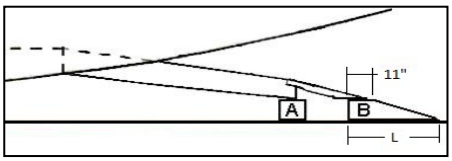
C-5 Forward Shoring (Forward Kneel)

Pedestal Shoring
"A" 16" L x 13" W x 4" H (2 each inboard)
18" L x 15" W x 4" H (2 each outboard)
"B" 15" L x 15" W x 9" H (4 each)

Approach Shoring
"C" 88" L x 28" W x 12" H (2 required)
(Length (L) includes 11" to support the ramp toe)

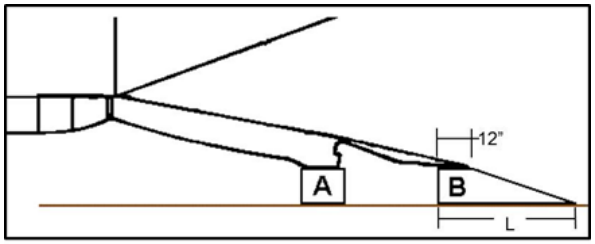
(C-5) CAUTION: *Width of approach shoring "C" in the area under the toe must be as wide as the ramp toe it is placed under. The remaining approach shoring extending away from the ramp toe extension contact point must be a minimum of 28 inches wide.*





C-17 Shoring

Ramp Pedestal Shoring
"A" 18" L x 30" W x 1" H
Approach Shoring
"B" 88" L x 28" W x 12" H (2 required)
(Length (L) includes 11" to support the ramp toe)

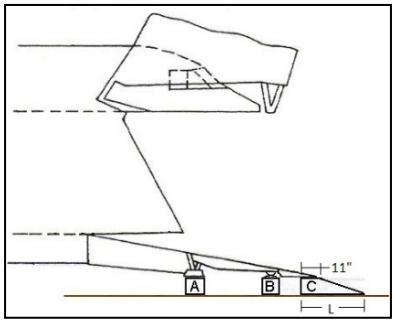


C-130 Shoring
Pedestal Shoring
"A" 18" L x 18" W x 6" H
Approach Shoring
"B" 88" L x 28" W x 12" H (2 required)
(Length (L) includes 12" to support the auxiliary ground loading ramp.)

(C-130) CAUTION: Width of approach shoring "B" under the ground loading ramp must be a minimum of 24" wide. The remaining approach shoring extending away from the auxiliary ramp contact must be a minimum of 28 inches wide.

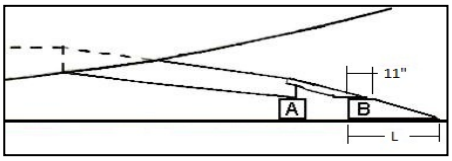
b. Approach shoring options from previous certifications that can be used:

(1) MJ-1 (Options):

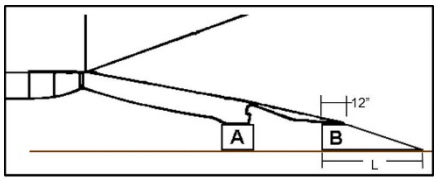


C-5 Forward Shoring (Forward Kneel)
Pedestal Shoring
"A" 16" L x 13" W x 4" H (2 each inboard)
18" L x 15" W x 4" H (2 each outboard)
"B" 15" L x 15" W x 9" H (4 each)
Approach Shoring
"C" 86" L x 28" W x 12" H (2 required)
(Length (L) includes 11" to support the ramp toe)

(C-5) CAUTION: *Width of approach shoring "C" in the area under the toe must be as wide as the ramp toe it is placed under. The remaining approach shoring extending away from the ramp toe extension contact point must be a minimum of 28 inches wide.*



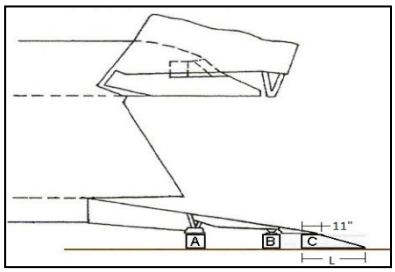
C-17 Shoring
Ramp Pedestal Shoring
"A" 18" L x 30" W x 4" H
Approach Shoring
"B" 114" L x 28" W x 16" H (2 required)



C-130 Shoring
Pedestal Shoring
"A" 18" L x 18" W x 6" H
Approach Shoring
"B" 79" L x 28" W x 11" H (2 required)
(Length (L) includes 12" to support the auxiliary ground loading ramp.)

(C-130) CAUTION: Width of approach shoring "B" under the ground loading ramp must be 24" wide. The remaining approach shoring extending away from the auxiliary ramp contact must be a minimum of 28 inches wide.

(2) MHU-83 (Options):

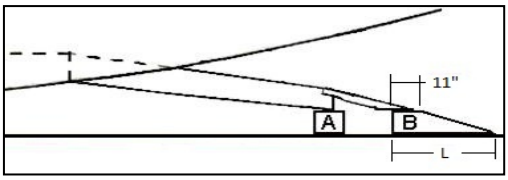


C-5 Forward Shoring (Forward Kneel)

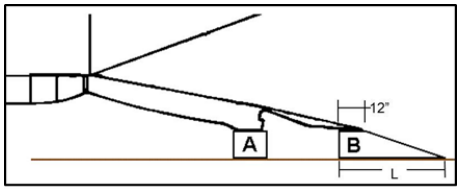
Pedestal Shoring
"A" 16" L x 13" W x 3" H (2 each inboard)
18" L x 15" W x 3" H (2 each outboard)
"B" 15" L x 15" W x 8" H (4 each)

Approach Shoring
"C" 80" L x 24" W x 12" H (2 required)
(Length (L) includes 11" to support the ramp toe)

(C-5) CAUTION: *Width of approach shoring "C" in the area under the toe must be as wide as the ramp toe it is placed under. The remaining approach shoring extending away from the ramp toe extension contact point must be a minimum of 24 inches wide.*



C-17 Shoring
Ramp Pedestal Shoring
"A" 18" L x 30" W x 1" H
Approach Shoring
"B" 80" L x 24" W x 12" H (2 required)
(Length (L) includes 11" to support the ramp toe)



C-130 Shoring
Pedestal Shoring
"A" 18" L x 18" W x 5" H
Approach Shoring
"B" 80" L x 24" W x 10" H (2 required)
(Length (L) includes 12" to support the auxiliary ground loading ramp.)

(C-130) CAUTION: Width of approach shoring "B" under the ground loading ramp must be 24" wide. The remaining approach shoring extending away from the auxiliary ramp contact must be a minimum of 28 inches wide.

c. Support Shoring (MHU-83): Place minimum 6" L x 6" W x high enough so that the shoring is snug between the item and the pallet surface, eight (8) stacks, four(4) per side, under the loader frame as shown in Figure 4.

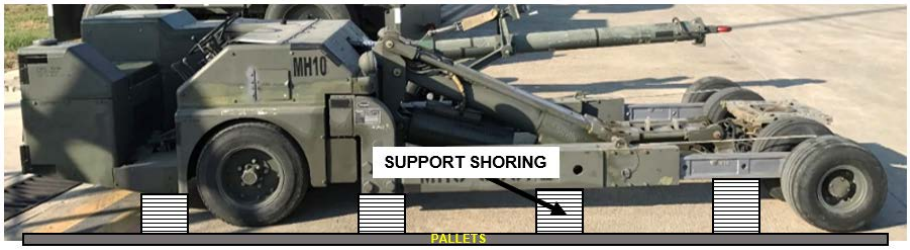


Figure 4: Shoring When Palletized (4 Stacks per side)

Required Distribution:

1. Shipper shall give a copy of this certification to the ATOC representative when the item is presented for airlift. This memo shall be part of the official cargo manifest documentation package and shall be briefed to the aircraft loadmaster prior to loading the MJ-1B/C Bomb Lift.

2. AMC/A3V & AMC/A4T

3. SDDC TEA

Point of Contact: Brian Herriott, at Brian.Herriott.1@us.af.mil or ATTLA@us.af.mil, DSN 986-9954 or Commercial (937) 656-9954. Refer to file number 2016.04.19 Rev 6 to reference this item.

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