



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS AERONAUTICAL SYSTEMS CENTER (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

20 November 2001

MEMORANDUM FOR: MTMCTEA

ATTN: MTTE-DPE, MS. SHARON HUFF
720 THIMBLE SHOALS BLVD. SUITE 130
NEWPORT NEWS, VA 23606-2574

FROM: AIR TRANSPORTABILITY TEST LOADING AGENCY (ATTLA)

2530 LOOP ROAD WEST BLDG. 560
WRIGHT-PATTERSON AFB, OH 45433-7101

SUBJECT: Air Transportability Certification for the M105A3 1-1/2-Ton Cargo Trailer

- 1) Subject trailer is identified to be a 1-1/2-ton capacity, single axle commercial cargo trailer. The M105A3 is a ground-up redesign of the M105A2 cargo trailer and is usually pulled by a 2-1/2-ton or 5-ton truck. Approximate dimensions of the M105A3 trailer are: Length = 177.5 inches, Width = 94 inches, Height = 97 inches, Empty Weight = 2700 pounds, Max Loaded Weight = 5700 pounds.
- 2) Based on the data provided, the M105A3 is certified for airlift aboard USAF C-130, C-141, C-17, and C-5 aircraft. The following comments will apply:
 - a) Tire pressures shall not exceed 100 psi for transport.
 - b) Maximum weight of loaded trailer shall not exceed 5700 pounds.
 - c) A prime mover should be utilized to load the trailer. Do not attempt to winch load or airlift the trailer with the tongue supported solely by its front landing gear; the landing gear is not strong enough to withstand the rigors of winch loading or airlift. If the trailer is not connected to a prime mover during airlift, the tongue must be supported on a stack of shoring or lowered to the cargo floor, onto floor protective shoring. Shipper shall provide all shoring. (Empty tongue weight is approximately 340 lbs. Tongue weight of a fully loaded trailer is approximately 560 lbs.)
- 3) Restrain the trailer to 3.0 G forward, 2.0 G vertical (up), and 1.5 G aft and laterally, to include all installed, mounted or stowed equipment. It is the shipper's responsibility to restrain any loaded cargo to the same criteria before the loaded trailer is presented for airlift. Four tiedown points have been identified on the trailer, two front and two rear-mounted. Rated capacities of these four points are 8,000 pounds in the Forward / Aft directions and 3300 pounds in the Lateral / Vertical directions. If additional restraint is required, it should be applied to trailer frame hard points.
- 4) Hazardous materials (to include trailer loaded cargo) must comply with AF JMAN 24-204 / TM 38-250. This memo is not an approval to ship hazardous materials. Such approval is granted separately. Your servicing Air Terminal Operations Center can assist you in this regard.
- 5) A copy of this memo should accompany the M105A3 cargo trailer whenever it is presented for airlift.
- 6) POC is the undersigned at DSN 785-8414 or commercial (937) 255-8414. Please refer to project file code # 2001.08.14.

D. Keith Clark
Aerial Delivery Group

cc: HQ AMC/DOV