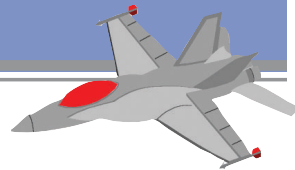


**MUNITIONS HANDLING/LOADING UNIT  
MODEL MHU-83D/E P/N 971480-10  
NSN 1730-01-446-2422**



**HYDRAULICS INTERNATIONAL, INC.**

9201 Independence Avenue, Chatsworth, CA 91311, USA  
Tel: +1 (818) 718-2462 • Fax: +1 (818) 718-2459 • Website: [www.hiinet.com](http://www.hiinet.com)



# MHU-83D/E MUNITIONS HANDLING/LOADING UNIT

P/N 971480-10 • NSN 1730-01-446-2422

## APPLICATION

Standard equipment for loading/unloading & transporting of aerial stores including munitions, fuel tanks, pylons, special weapons, & SAR packs weighing up to 7,000 pounds onto/into tactical aircraft.

## GENERAL

Maximum diameter of store\* .....44 in.  
Maximum length of store\* .....230 in.  
Maximum weight of store on load table .....7,000 lbs.

## GENERAL CHARACTERISTICS

TARE WEIGHT .....7,536 lbs.

## LIFT CAPACITY

On table .....7,000 lbs.

## PERFORMANCE

Lift .....84 in.  
Fork positions  
Adapter normal, forks normal  
Maximum height .....85.5 in.  
Minimum height .....1.5 in.  
Adapter inverted, forks normal  
Maximum height .....101.5 in.  
Minimum height .....17.5 in.  
Azimuth (boom either side of center) .....± 20°

## POSITIONING CAPABILITIES OF MANIPULATOR HEAD

Longitudinal (either side of center) .....± 2 in.  
Lateral (either side of center) .....± 2 in.  
Tilt (weapon nose up or down) .....± 5°  
Roll .....± 7°  
Roll (down) (with offset links for forks) .....0° to 14°  
Yaw (either side of center) .....± 104°  
Rate of lift .....35 ft/min.

## MOBILITY

Maximum speed loaded .....10.6 mph  
Braking distance (loaded) .....20 feet  
Braking distance (unloaded) .....15 feet  
Turning radius .....20 feet  
Tread width, rear wheels .....45.3 in.  
Tread width, front wheels (adjustable) .....47 to 118 1/2 in.  
Maximum grade loaded .....10%  
Maximum grade unloaded .....20%

Power steering, hydrostatic transmission, limited slip differential.  
Conventional caliper type disc brakes on front wheels and rear drive  
Front wheels are equipped 18 X 9.50 - 8NHS, 10 ply tires. Rear wheels are equipped with 23 X 8.50 - 12NHS, 12 ply tires.

## ENGINE SPECIFICATIONS

Model No. ....Deutz F2L1011F  
Rated Output .....27 HP @ 2,800 rpm  
Operating Cycle .....4 Stroke  
Cooling System .....Forced air over oil  
Bore .....3.58 in.  
Stroke .....4.13 in.  
Displacement .....83.6 cu.in.  
Fuel .....Diesel No. 1, 2, JP4, JP8

## HYDRAULIC CHARACTERISTICS

### GENERAL

Fluid MIL-H-83282  
Lift boom system operating pressure .....1,800 psi  
Manipulator head motion system operating pressure .....1,800 psi  
Power steering system operating pressure .....850 psi  
Power brake system operating pressure .....450 psi  
Frame extension system operating pressure .....1,800 psi  
Motor drive operating pressure .....3000-5000 psi

### HYDRAULICALLY OPERATED ITEMS

Hydrostatic drive system  
Manipulator head (remote control option)  
Lift Boom (remote control option)  
Power steering  
Brakes

### COMPONENTS

6 gallon capacity hydraulic fluid reservoir.  
Pressure compensated piston type pump for manipulator head, brake, and fram extension delivers 10 gpm at 1,800 psi.  
Gear type pump for power steering delivers 1.9 gpm at 1,500 psi.  
Emergency hand pump delivers 2 cu.in. per cycle at 1,500 psi.

## ELECTRICAL CHARACTERISTICS

12 Volt System  
Electrical Starter  
Alternator  
Equipped with floodlights and backup light  
Electrical remote control

## OPERATIONAL STATUS

Qualification tested per USAF specification MIL-T-38646 REV. C  
Certified for handling nuclear weapons in accordance with requirements of USAF Weapons Laboratory, Kirtland AFB, NM, and USAF/LG - Airforce Manual 91-118 Safety design and Evaluation Criteria for Nuclear Weapons Systems.  
EMI tested and qualified for Radiated Emissions (RE102), and Radiated Susceptibility (RS103) per MIL-STD-461D and MIL-STD-462D.  
CE certified per European Machinery Directives and Standards of EN60204-1:1997.  
Engine exhaust emission is certified to TIER 2 of European Emission Standards.  
Noise emission is limited to less than 85dBA at one meter distance of the unit or operator station per latest issue of ISO 3744.



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