

CLT Dolly Set



4-Wheel Trailer Mode



Shelter Transport



C-130 Aircraft Loading

The CLT Dolly Set is a self-loading transport system designed specifically for Military Tactical ISO Shelters and Containers weighing up to 9,090 KG.

The CLT Dolly Set is actually a variant of the US Military Standard M1022-A1 Dolly Set Mobilizer (800 systems fielded), but customized to meet individual customer and country road regulation requirements.

The system is most useful when used as a shelter handling device (forlifting, handling, truck or aircraft loading), and as a shelter transport device (for highway or rough terrain travel. The self-loading Dolly Set can be used to lift and load ISO Containers of Shelters, transport them over the road or on rough terrain, and unload and position them at their final destination.



Side Lifting (Optional Kit)



3-Wheel Handling Mode

The Dolly Set facilitates the intermodal transport of ISO Shelters and Containers in forward operating areas where more expensive assets such as cranes, fork trucks, container handlers, hooklift systems, trailers and K-Loaders may not be available.

C-130 Aircraft Loading

The CLT Dolly Set has been certified by numerous countries for roll-on/roll-off loading of 8-ft. or 8.5-ft. ISO Shelters and Containers weighing up to 20,000 lbs (9,090KG) to/from C-130 or larger aircraft (including C160, C17, C141, C5). Up to two shelters can be loaded onto a single C130 Aircraft with the auxiliary C130 Loading Kit.

Description

Each CLT Dolly Set includes a front steerable dolly and a rear trailer dolly, along with interconnecting brake and electrical lines to connect to

the tow vehicle. After connecting to each end of a shelter by means of four twistlock bolts, the Dolly Set raises the shelter to ride height in just a few seconds with its on-board diesel powered hydraulic system.

Once raised, the system can be towed at highway speeds up to 90 kph (55 mph) or on rough terrain at reduced speeds. When not connected to a shelter, the dolly set can be coupled together as a 4-wheel trailer for transport by road, rail, ship or air.



Each Dolly half includes a 6.2 hp diesel engine and four hydraulic cylinders to provide the power required for all connection and lift sequences. The unique patented design also provides for a weight balanced 3-wheel handling mode for ease of unloaded movement and positioning.

EU Road Certification

The latest version of the CLT Dolly Set has been certified for use on all EU Roadways after being certified to the EU Framework Directive 70/156/EEC (Type Approval of Vehicles and Trailers) as an O4 Trailer. This certification permits the CLT Dolly Set to be licensed and to drive on all EU member country roadways without further testing or modification.



EU Certified System

The latest configuration includes state of the art ABS brake systems, rear-under-run protection, fenders and mudguards, spray suppression systems, and up to date lighting.

CLT Dolly Set



Shelter Transport



Shelter Door Opening



C-130 Aircraft Loading



Inside C-130 Aircraft

The CLT Dolly Set can be further customized to meet other road regulations upon request.

Other product upgrades (S-280 Shelter Adapters, cylinder bellows, tarps, engine covers) and auxiliary systems such as C-130 Loading Kits are also available and detailed in separate publications.

Test & Certification

Prior to initial fielding, the original Dolly Set design (designated Model M1022-A1 by the US Military) was fully tested by the US Army.

A total of 20,000 km (12,000 miles) of testing was performed on two dolly sets on paved highways, gravel roads, cross country terrain, Belgian Block and vibration courses, and both longitudinal inclines (30% grade) and side slopes (20% grade).

The Dolly Set passed all US Army operational, reliability and maintainability requirements, and the first of more than 800 systems was fielded in 1996.

Test / Scoring Results

- **Mean Miles Between Mission Failure:**
12,000 miles (20,000 km)
- **Mean Cycles Between Mission Failure :**
55 cycles
- **Total Scheduled Maintenance per Semi-Annual Service:**
1.2 hours
- **Total Unscheduled Maintenance (over 20,000 KM):**
1.6 hours
- **Maintenance Ratio:**
.003 (hours per operating mile)
- **Mean Time to Repair:**
.025 hours

The Dolly Set was also successfully operated in a cold chamber at temperatures down to -25F (-32C) unaided, and at temperatures down to -50F (-46C) with the assistance of an auxiliary cold start kit.

Leading Particulars

Weight (Empty)	2,795 kg (6,150 lbs) Standard 3,455 kg (7,600 lbs) w/Side Lift Kit
Lift Capacity (Container Weight)	9,090 kg (20,000 lbs)
Transport Capacity	6,818 kg @ 90 kph (15,000 lbs @ 55 mph) 9,090 kg @ 83 kph (20,000 lbs @ 50 mph)
Max. Lift Height	1.27 m (50 in) Standard 1.57 m (62 in) w/Side Lift Kit
Width	2.44 m (96 in)
Length (with 20-ft Shelter)	11 m (36 ft)
Height	Adjustable
Ground Clearance (typical)	35.5 cm (14 in)
Diesel Engine	6.2 hp Kubota, one cylinder, electric start
Hydraulic Pump	2 gpm Gear Pump, 2,000 psi Pressure
Lift Cylinders	4 ea, 3.5 in. Bore, 51.75 in. Stroke
Position Cylinders	4 ea, 1.5 in. Bore, 48 in. Stroke
Tires	12Rx22.5 Off-Road Truck Tires
Suspension	Air Springs (adjustable)
Brakes	4-Wheel Air Brakes (ABS Optional)
Fenders/Mudguards	Optional (w/Spray Suppression)
Towbar Lunette Eye	MS 51336 (NATO Stanag 4101)
Air Line Connections	MS35746 Compatible
Electrical System	24V, or 12 V with 24V adaptation
Electrical Connectors	12-pin NATO MS75021
Sling/Tiedown Provisions	MIL-STD-209
Corrosion Treatment & Paint	Galvanized w/CARC Finish MIL-C-46168
Patent No.	5,006,031