



DESIGNERS, MANUFACTURERS AND SUPPLIERS OF
AIRCRAFT GROUND SUPPORT EQUIPMENT

PRM Transfer Vehicle / Ambulift **ML6100D**



TECHNICAL PROFILE

General

Equipment Type	Self Propelled with Double Scissor Legs
Passenger Capacity	6 Wheelchairs <u>or</u> 2 Stretchers (Accommodates 2 attendants with any of the above)
Max. Speed	25km/h
Transmission	Hydrostatic (Automatic)
Gross Vehicle Weight	9200kgs
Steering	Power Steering –Left hand drive
Engine	‘Deutz’ Diesel Engine, Tier 3
Wheel base	Approx. 5200mm (Front braked axle)

Specification Data		
Height Range		
Full Platform		1090mm – 6000mm
Rear Loading		Passenger Tail lift with hand rails
Aircraft Type	For example	Dash 8, F100, A320, B737, B747, A340
Dimensions		
Vehicle		Length - 7000mm
		Width - 2950mm
		Height - 3400mm
Van Body	Internal	Length - 4800mm
		Width - 1900mm
		Height - 2150mm
Platform	Full	Length - 1800mm
		Width - 2000mm
	Extension	Length - 600mm
Platform Load	Fixed	500kgs
	Extension	350kgs
Payload		2500kgs

The self propelled Mallaghan chassis is purpose built and manufactured using heavy structural steel sections to ensure long life during rugged airport operations. The chassis incorporates spring type suspension. The fixed drivers cab is located on the main chassis member.

1. Chassis and Lifting System



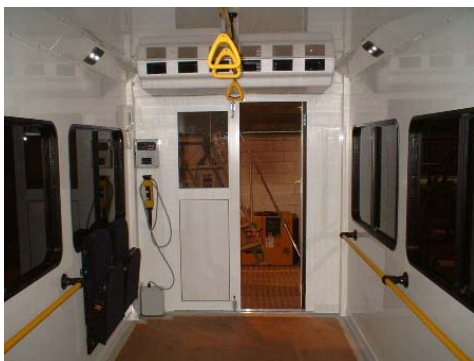
Steel Lifting System

- Steel construction to fix and guide lifting cabin
- Subframe holds hydraulic and electric appliances
- Double scissors lift with adequate payload capacity
- 2 hydraulic cylinders work between the scissors beams
- Safety-Prop to keep the body in position during maintenance work



Hydraulic Cylinders

2. Passenger Cabin



View of cabin front door (including 2 flip down seats, roof rail and air conditioning)



View of cabin (including 2 Single seats)

As Standard

- ✚ G.R.P. Insulated type walls (50mm thick)
- ✚ Front and rear doors, opening type
- ✚ Windows on each side, sliding type opening to allow for ventilation, with toughened tinted glass
- ✚ Adequate non-glare illumination in cabin
- ✚ Handrails on both sides of the cabin
- ✚ The box floor is constructed from insulated panel with non slip floor covering
- ✚ Intercom system (Telephone) between driver station and cabin
- ✚ Unwin rail clamp fitted to floor on both sides
- ✚ Electric control panel located in cabin right corner at high level

As Options

- ✚ Thermoking 'Shuttleair S-40' Air Conditioning
- ✚ 'Webasto' Cabin Heater
- ✚ Front and rear door size and type
- ✚ Seat type and quantity
- ✚ Carpet on cabin walls and ceiling
- ✚ Roof rail and bus handles
- ✚ Medicine/blanket cabinet & First Aid Kit

3. Drivers Cab



View of driver cabin

As Standard

- ✚ Driver suspension seat
- ✚ Sunroof
- ✚ Cab to Cabin Intercom
- ✚ Full Driver Controls
- ✚ Cab Heater

As Options

- ✚ Air Conditioning in driver's cab
- ✚ Reversing Camera Monitor

4. Front Platform



Platform and Driver Cab

As Standard

- ✚ Full width – 2000mm
- ✚ Hydraulically operated
- ✚ Extending and retracting 600mm
- ✚ 1055mm high lockable manually extending handrails
- ✚ Rubber bumper fitted to Bridge nosepiece and all other leading edges for aircraft protection
- ✚ Sliding handrails along both sides of the platform – sloping at 55degrees from the horizontal
- ✚ Floor surface has a high traction (non-slip) covering
- ✚ Full width fixed canopy
- ✚ Working light
- ✚ Ladder at front right side of vehicle for access to platform

As Option

- ✚ Transfer bridge (fixed in cabin)



Platform Extension

5. Rear Access and Passenger Tail lift



Rear view of ML6100D machine

As Standard

- ✚ Electro/hydraulically controlled tail lift with folding safety rails and non-slip flooring
- ✚ Safe Weight Load of 500kgs
- ✚ Capable of holding one wheelchair and one attendant
- ✚ Working light

As Options

- ✚ Reversing camera
- ✚ To incorporate an emergency raise/lower system



Standard 'Ratcliff' passenger tail lift

6. Vehicle Stability and Safety



2 hydraulic stabilizers at each side

4 hydraulically operated stabilizers incorporating Dual Pilot Operated Check Valves

The vehicle can be used in its highest position at wind speed of up to 40knots / 74km/h

Detailed 'Vehicle Safety Features' are listed in Appendix 1

7. Electrics

24 Volt DC negative earth

The following standard components are incorporated in the vehicle:



Mallaghan Sample Electric Fuse Box

- ✚ External Lucas type amber flashing beacon
- ✚ Lighting within cabin as described
- ✚ External durite spotlights/working lights sited above front and rear doors
- ✚ Reverse camera (optional)
- ✚ Audible warning device
- ✚ Electrical emergency appliance
- ✚ All road lighting fitted to R.T.A. standard.
- ✚ Hour meter which gives engine running time
- ✚ Battery isolator
- ✚ Passenger tail lift

8. Hydraulics and Control Panels

The following main hydraulic components are used to manufacture the machine:

- ✚ Transmission pump and motor
- ✚ Hydraulic tank and pumps
- ✚ Hydraulic filtration
- ✚ 4 stabilizers
- ✚ 2 lifting cylinders
- ✚ Emergency hand pump



Standard Driver's Cab Dash including Control Panel



Hydraulic Components including Emergency facilities

The control switches incorporated in the vehicle will be square D, and Telemecanique type

- ✚ Full operators panel in the driver cab
- ✚ Control panels sited at front door of the cabin, with cabin raise/lower, platform extend/retract and emergency stop controls
- ✚ Tail lift controls at rear of passenger cabin

9. BS EN Standard

Mallaghan Engineering can herewith declare that this product is being manufactured in order to comply with the current British/European Standard (Disabled/incapacitated passenger boarding vehicles).

10. Miscellaneous

Mallaghan Ltd offers the following standard services:

PAINT FINISH

All fabricated items will be shot blasted, and treated against rust with long life primer

All the equipment will receive Two (2) coats of undercoat Paint

The equipment will receive Two (2) coats of finish Paint to the customer's specification as advised.

FIRE EXTINGUISHER

A 2.0 Kg BCF Fire Extinguisher is supplied and mounted in a prominent position

SPARE WHEEL

One (1) spare wheel will be supplied.

TESTS

Mallaghan Engineering Limited will carry out full functional tests prior to dispatch.

INSPECTIONS

Pre-delivery tests and inspections can be arranged between the customer and Mallaghan Engineering Limited.

MANUALS

Supplied with the unit will be 2 sets of manuals to include the following;

- 1) Operation
- 2) Maintenance
- 3) Electrical Circuits
- 4) Hydraulic Circuits
- 5) Illustrated parts list
- 6) Chassis Manual

SPARE PARTS

Mallaghan guarantee to supply spare parts for a minimum period of 15 year.

Owen Mc Kenna

Mr. Owen Mc Kenna

Export Sales Manager

Mallaghan Engineering Ltd

Appendix 1

Safety Features

Special attention will be paid to the safety aspects of this machine:

1. Pressure relief valves are fitted to all hydraulic circuits.
2. Safety 'check valves' are installed at the ports of the twin hydraulic lift cylinders of the cabin and stabilizers.
3. Body will not lift unless stabilizers are fully extended. **(I1)**
4. Stabilizers will not rise until cabin is fully lowered. **(I2)**
5. Vehicle will not drive until stabilizers are fully retracted. **(I3)**
6. Body will not rise if passenger cabin doors are open (Proximity Switch)
7. Safety props on scissor legs for maintenance
8. Reversing lights are fitted.
9. Intermittent sounding horn when in reverse mode or cabin is lowering.
10. Intermittent sounding horn when stabilizers are extended.
11. Flashing Amber beacon fitted to the highest point of the vehicle.
12. Emergency stop buttons 3 no (red mushroom type) fitted in 1) operators cabin control console and on 2/3) control panels within passenger cabin.
13. Emergency cabin lower/stabilizer raise capability in case of mechanical or electrical failure.
14. Control panel in van body fully sealed and protected.
15. Warning lights to indicate all necessary functions
16. Pictographs used where possible and all replenishment points clearly marked
17. Hazard points all marked with suitable warnings
18. Reversing Camera (Option)

I = Interlock