



DESIGNERS, MANUFACTURERS AND SUPPLIERS OF
AIRCRAFT GROUND SUPPORT EQUIPMENT

A380 Ambulift (Upper Deck) Model ML8000T



A380 Ambulift prior to dispatch to customer at London Heathrow

TECHNICAL PROFILE

General

Chassis Type	Iveco/Mercedes
Gross Vehicle Weight	25000kgs
Steering	Power Steering –Left/Right hand drive
Wheel base:	Approx. 5800+1370mm
Transmission	Full Automatic

Specification Data		
Height Range		
Full Platform		3000mm – 8400mm
Loading Height	Rear	1720mm
Aircraft Type	For example	A380, B747, B777, A340, MD11
Dimensions		
Vehicle		Length - 11400mm
		Width - 2600mm
		Height - 3990mm
Van Body	Internal	Length - 7750mm
		Width - 2450mm
		Height - 2175mm
Operator cabin	Internal	Length - 1100mm
Located between Van Body and Platform		Width - 2500mm
		Height - 2175mm
Platform	Full	Length - 2305mm
		Width - 2360mm
	Extension	Length - 700mm
Platform Side Panels	Extending	Top - 1500mm
		Middle - 1520mm
		Bottom - 970mm
Platform Roof Extension		Length - 1970mm
Payload		
Van Body		4,000kgs
25t chassis including refrigeration and tail lift options max. 4,000kgs payload		
Platform	Fixed	500kgs
	Extension	300kgs

1. Truck Subframe and Lifting System



Steel Lifting System

- Steel construction to fix and guide lifting cabin
- Subframe holds hydraulic and electric appliances
- Single scissors lift with adequate payload capacity
- 2 hydraulic cylinders work between the scissors beams
- Telescopic outriggers for stabilizers
- Safety-Prop to keep the body in



Hydraulic Cylinders

2. Van Body



Van Body moved forward 3000mm

As Standard

- ✚ Van Body able to move 3000mm forward for access to A380 door above wing
- ✚ G.R.P. Insulated type walls 100mm thick
- ✚ Front and rear doors
- ✚ Unwin floor clamping to secure wheelchairs
- ✚ 4 interior seats
- ✚ 7 fluorescent lights for adequate illumination in cabin
- ✚ The box floor is constructed from GRP insulated panel with non slip grit impregnated floor
- ✚ Electric control panel located in cabin front and right corner at high level
- ✚ Handrail on interior walls

3. Operator cabin



View of Side Entry Door to operator cabin

As Standard

- ✚ Side entry door with step ladder and grab rails
- ✚ Full control panel for all operations
- ✚ Platform middle side panel fold in to create safety barrier for operator
- ✚ Adequate LED-lights for illumination in cabin
- ✚ Air ram locking device on side entry door

4. Front Platform



Platform floor, roof and side panel extensions fully out

As Standard

- ✚ Full width
- ✚ Electro/hydraulically operated
- ✚ Platform and operator cabin traverse 500mm to the left hand side
- ✚ Extending and retracting 700mm
- ✚ 3-part sliding side panels on each side which can be extended manually
- ✚ Pneumatic roof extension
- ✚ Rubber bumper fitted to Bridge nosepiece and all other leading edges for aircraft protection
- ✚ Floor surface has a high traction (non-slip) covering
- ✚ LED-lights for adequate illumination
- ✚ Working lights
- ✚ On request 'transfer bridge' can be supplied (fixed in cabin)



Platform and Operator cabin traversed to the left

As Option

- ✚ Forward viewing camera on platform ceiling

5. Rear Access and Tail lift



Example I Access Steps with Grab rails I

As Standard

- ✚ Access door without options

As Options

- ✚ Electro/hydraulically controlled 'Ross and Bonnyman' tail lift with S.W.L of 1500kg
- ✚ Access steps with grab rails
- ✚ Reversing camera



Example II Access Steps with grab rails



Option 'Ross and Bonnyman' tail lift



6. Vehicle Stability and Safety



Hydraulic stabilizer with telescopic outrigger

- 5 hydraulically operated stabilizers incorporating Dual Pilot Operated Check Valves (1 front/4 sides)

All side stabilizers have telescopic outriggers to be used for heights of over 6000mm

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
- ✚ Fluorescent and LED lights as described
- ✚ External durite spotlights/working lights
- ✚ Platform and Reverse cameras
- ✚ Audible warning device
- ✚ Electrical emergency appliance
- ✚ All road lighting fitted to R.T.A. standard.
- ✚ Hour meter
- ✚ Battery isolator

8. Hydraulics and Control Panels

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

- ✚ Hydraulic pumps
- ✚ Hydraulic tank
- ✚ Hydraulic filtration
- ✚ 5 Stabilizers
- ✚ 2 lifting cylinders
- ✚ Emergency hand pump



Standard Driver's Cab Control Panel



Hydraulic Valves with manual override

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

- ✚ Operators panel in the driver's compartment
- ✚ Control panels sited at front and rear door of the cabin

9. 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

A 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 (Language: English)_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.



03 A380 trucks at Mallaghan factory NI

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 after height of 3048mm. **(I1)**
4. Body will not lift over 6000mm if the stabilizer telescopic outriggers are not deployed. **(I2)**
5. Stabilizers will not rise until cabin is fully lowered. **(I3)**
6. Vehicle will not drive until stabilizers are fully retracted. **(I4)**
7. Vehicle will not drive if PTO is still engaged. **(I5)**
8. Air ram on side entry door (Proximity Switch)
9. All platform extensions need to be retracted to lower van body (Proximity Switches)
10. Reversing lights are fitted.
11. Intermittent sounding horn when in reverse mode or cabin is lowering.
12. Intermittent sounding horn when stabilizers are extended.
13. Flashing Amber beacon fitted to the highest point of the vehicle.
14. Emergency stop buttons 4 no (red mushroom type) fitted in 1) operators cabin control console and on 2) control panel and 3/4) each side of chassis.
15. Emergency cabin lower/stabilizer raise capability in case of mechanical or electrical failure.
16. Control panel in van body fully sealed and protected.
17. Warning lights to indicate all necessary functions
18. Pictographs used where possible and all replenishment points clearly marked
19. Hazard points all marked with suitable warnings
20. Forward viewing and Reversing Camera (Options)

I = Interlock