

## Technical specification

### Ambulance

#### IVECO Daily 50C15 E3 4x2



### Introduction

The description following hereafter sets out the technical details specifying the ambulance for use in municipal and rural areas.

The ambulance complies with international standards such as CEE, ISO, ...

The manufacturing of this ambulance is done under ISO 9001 quality control procedures.

The ambulance is built on an IVECO Daily 50C15 E3 - 4x2 chassis with turbo-charged 146 HP Diesel engine.

The chassis offers seating capacity for the driver and 1 crew member in the original IVECO factory fitted cabin.

Behind the cabin a container type superstructure is fitted, equipped on the inside with medicare and

transport equipment for 1 patient and two seats for medical staff.

In detail, the vehicle comprises the following components:

### **1. Chassis**

IVECO Daily 50C15 E3 - 4x2

Wheelbase 3750 mm.

### **Engine**

4-cylinder in-line, 4-stroke, turbocharged and inter-cooled diesel engine.

Maximum power: 146 HP (107 kW) at 3000 to 3500 rpm.

Maximum torque: 350 Nm at 1400 to 2600 rpm

Capacity: 2998 cm<sup>3</sup>.

### **Transmission**

Manual transmission.

6 synchronised forward gears and 1 reverse gear.

### **Braking system**

Disc brakes on all wheels.

Anti-wheel lock braking system (ABS) is provided.

ASR and EBD.

### **Steering**

Hydraulically assisted steering.

Steering wheel on the left hand side of the vehicle (LHD).

Steering column with rake adjustment and lock.

### **Axles**

Front axle with load capacity of 2100 kg.

Rear axle with load capacity of 3700 kg.

### **Front suspension**

Torsion bar suspension with anti-roll bar.  
Telescopic shock absorbers.

### **Rear suspension**

Semi elliptic leaf spring suspension with anti-roll bar.  
Telescopic shock absorbers.

### **Wheels and tires**

7 steel wheels with tires Continental 195/75R16 or equivalent.  
Twin wheels at the rear.  
Spare wheel with jack mounted below the chassis frame at the rear of the vehicle.

### **Electrical system**

Voltage: 12V  
Battery: 110 Ah.  
Alternator 14V - 110 A.

### **Fuel system**

70 liter fuel tank.

## **2. Superstructure**

### **2.1. Cab**

Two-door cab, original IVECO factory-fitted model, corrosion protected, suitable for driver and one passenger.

The cabin forms an entirely closed unit and is provided with each side one large entrance door, front hinged, with electric operated windows.

Tinted and laminated windscreen and windows.

Large left and right rear mirrors.

Interior paneling out of non-splintering material, cabin with ceiling light automatically coming on when the doors are being opened.

Floor of driver's cabin covered with an anti slippery surface.

Driver's seat equipped with mechanical suspension, is adjustable both horizontally and vertically, and fitted with movable backrest and integrated with headrest and safety belt.

Front passenger seat is equipped with headrest and safety-belt. It is adjustable both horizontally and vertically.

Factory-fitted air conditioning system is provided.

12 V socket is provided on dashboard.

The instruments provided in the cab include:

- Calibrated digital speed indicator
- Revolutions counter
- Coolant temperature gauge
- Fuel gauge
- Front and rear fog lights warning lamps
- Hazard warning light
- Direction indication warning light
- Oil "low" warning light
- Parking brake "engaged" warning light
- Coolant temperature "high" warning light
- Switch and controls for revolving lights, siren with P.A. system, ...
- Control light and buzzer for open doors
- Control light for battery charging
- ...

On top of the cabin, a glass fiber reinforced element will be installed, styled to complement the modern lines of the superstructure, provided on both sides with high grade translucent covers for the front roof top emergency lighting (beacons).

## **2.2. Medical/Sanitary compartment**

All materials used for the construction of the medical/

sanitary are completely new and free of defects. Very close attention is paid to the choice of the different materials and the anti-corrosive treatment.

The medical/sanitary compartment will be manufactured from glass fiber reinforced polyester (GRP) and has been treated and professionally painted to give the vehicle a nice appearance.

The medical/sanitary compartment is provided on its right side with one sliding door and at its rear side with two revolving doors, assuring easy access. Each door is provided in the upper part with a window which will be made translucent over 2/3 of its height by use of an adhesive.

On the left side of the medical/sanitary superstructure is equipped with two compartment. The front left compartment is suited for tools for the chassis.

The left rear compartment is equipped with a revolving door giving access to a storage compartment for stowage of oxygen bottles.

Automatic compartment illumination is actuated by the doors, and is controlled by a master switch with pilot light in the cabin.

Rear roof top emergency lighting (beacons) will be enclosed by high grade translucent covers incorporated within the roof line to blend with the style lines of the vehicle.

Easy communication between the driver and the medic(s) inside the medical compartment is secured.

Against this wall, a medical cabinet will be installed. The total height of this cabinet will be approximately 100 cm. The top part, which can be used as a working desk, will be equipped with a sink. Two reservoirs will be provided, one for fresh and one for waste water.

This medical cabinet is equipped on its left side with four drawers for stowage of different medical and paramedical equipment, and on its right side with the necessary space for possible stowage of first intervention kits, trauma kits, oxygen supply kits, ...

A disinfection dispenser will be provided above the medical cabinet. A waste bin will be provided in the immediate environment.

Along the left and right top side of the medical/sanitary compartment, a number of additional cabinets, will be provided.

The floor of the medical compartment will be covered by an easy to clean and slip resistant surface.

In the center section of the medical/sanitary compartment a stainless steel table will be provided, able to hold the main medical stretcher.

Three seats for the medic(s) will be provided, one in front of the medical cabinet installed against the front wall of the medical/sanitary compartment and two on the right and left side of the stretcher.

The medical/sanitary compartment will be equipped with an oxygen distribution system consisting of 2 oxygen bottles of 10 liter/200 bar installed inside the left rear compartment, distribution pipework, 2 oxygen terminal units, pressure regulator(s), flow meter(s) and masks.

On the ceiling of the medical/sanitary compartment handle bars will be installed and a minimum of 2 infuse hooks will be provided.

### **2.3. Electrical outfit**

#### **2.3.1. Illumination and warning systems**

- 2 Head light groups containing the direction indicators, the stand light, the high beam and the low beam.
- 2 Tail light groups containing the direction indicators, the stop light, the tail light and the reverse light.
- 2 Fog lights integrated in the front bumper with switch and control light dashboard mounted.
- 1 Rear fog light with switch and control light dashboard mounted.
- 1 Fully automatic interior illumination for the medical/sanitary compartment and equipment compartments, coming on when the doors are being opened. Master shut-off switch in driver's cab.
- 2 Revolving beacons, blue colour, on top of the cabin.
- 2 Revolving beacons, blue colour, integrated in the rear roof top of the medical/sanitary compartment.
- 2 Flashing lights, blue colour, mounted on the front grille.
- 2 Flashing lights, blue colour, provided at the rear of the medical/sanitary compartment.
- 1 Siren/public-address system with amplifier, loudspeaker and microphone. The microphone contains the volume adjuster; the P.A. system overrides the audible warning system by only pushing the volume regulator of the microphone. The minimum output of the P.A.-system is 80 watt.
- 6 Scene lights on the superstructure, 2 at each side of the medical/sanitary compartment and 2 at the rear.

#### **2.3.2. Electrical appliances in the medical compartment**

- 1 12 V / 220 V distribution system
- 4 12 V sockets
- 4 220 V sockets
- 1 Air conditioning system

#### **2.3.3. Radio facilities**

A fixed Motorola transceiver/receiver type GM360 will be provided within the cab supplied via a 12 volt electrical supply through an approved voltage dropper.

One additional handheld Motorola transceiver/receiver type GP340 will be provided.

The entire electrical system is screened for use of wireless system.

#### **2.3.4. Radio facilities**

The vehicle is equipped with a provision for recharging the batteries on site from an external 240 volt supply via a cab or rear mounted weatherproof type plug and socket arrangement.

A warning light is provided on the dashboard in clear view of the driver to show when the vehicle is connected to an external electrical supply.

#### **2.4. Painting and identification**

Rims, protection grid in front of the engine, chassis frame	Black or dark grey
Cabin, medical/sanitary compartment	White

The vehicle will be identified with the lettering in accordance with customer's directives.

#### **2.5. Equipment**

##### **2.5.1. Vehicle equipment**

- 1 Hydraulic jack
- 1 Spanner
- 2 Screw drivers (1 medium, 1 large)
- 1 Air pressure gauge
- 1 Key set
- 1 Complete spare wheel with tire
- 1 Rim key

##### **2.5.2. Medical equipment**

- 1 Main stretcher FE 4153 & 4052
- 1 Foldable stretcher FE 107
- 1 Scoop stretcher FE 65
- 1 Back board
- 1 Full body vacuum mattress
- 1 Set of 3 vacuum splints
- 1 Neck collar - adult
- 1 Neck collar - child
- 1 Emergency backpack DIN 14142-K
- 1 Disaster relief emergency backpack
- 1 Automatic external defibrillator
- 1 Electrical slime aspirator
- 1 Fire blanket 170 x 170 cm

### **3. Documentation**

At time of delivery a minimum of 2 copies of a complete operation manual, part catalog and service/workshop manual in English, covering the complete apparatus as delivered and accepted.

### **4. Warranty**

All products are manufactured free of defects in material and workmanship, corresponding to the present stage of technology.

During the warranty period, all defective parts shall be replaced free of charge, under the condition that evidence for proper handling and maintenance can be produced by the end-user.

Warranty does not cover typical wear and tear of parts.

Warranty period commences with initial operation, at the latest, however 3 (three) months after customer harbor delivery.

Detailed list of warranty periods for the different components will be provided.

### **5. Spare parts**

Spare part availability is guaranteed for a period of 10years.

### **6. Standards of design**

The vehicle is designed in such a way that all integrated systems (electrical system, hydraulic system, pneumatic system, ...) can be inspected and maintained in an ergonomically and time efficient way.

Maintenance of the vehicle can be done by use of standard and commercially available tools and equipment.

All compartments are designed and equipped in such a way that the storage of equipment can be done in a clean and organized manner and without obstruction in case of removal for operation.