

IVECO EUROCARGO 18E25 4X2 RIGID

WHITE KNIGHT

Rapid-response bespoke accident tender is first at the scene for Haven Building and Maintenance

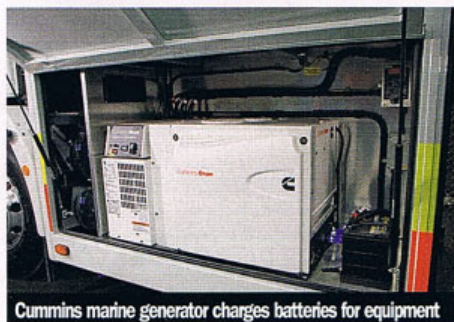
By Bob Beech

PHOTOGRAPHY ALISDAIR CUSICK

Whenever a big fire, flood or other disaster happens, damage to buildings and property is invariably extensive. Obviously the emergency services' first priority has to be public safety, along with that of its own personnel. But after this point, who is next involved in making the

Once the building has been made safe for staff to enter, further assessment of damage can be made. This might well be in conjunction with the relevant authorities if it is a crime scene, otherwise insurance companies will need a full picture of the damage caused in order to process a potential claim. A company that can offer this multi-disciplined approach is in a better

“ They are quickly able to assess the true state of the damaged building, deal with any serious hazards and survey the building to see if it is structurally safe. ”



Cummins marine generator charges batteries for equipment

structures safe and assessing the level of damage caused?

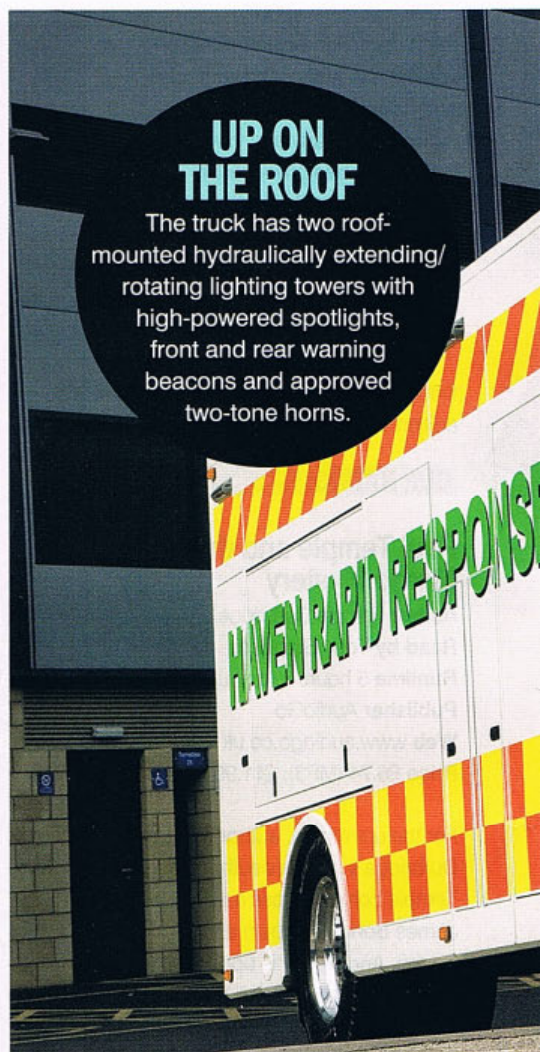
At this point (and sometimes beforehand), specialists like Halifax-based Haven Building and Maintenance Ltd are called in. They are quickly able to assess the true state of a damaged building, deal with any serious hazards such as damaged gas and electrical services, and survey the building to see if it is structurally safe - particularly if it has suffered from fire, explosion and other impact damage. Once this has been done, the structure may well need to be supported by means of hydraulic power props and scaffolding before any further work can be carried out.



Specialist team is trained to tackle building damage

position to win this type of work, rather than the authorities/insurers having to engage the services of numerous independent specialists in various fields. Furthermore, the knowledge and skills required to offer this wide range of services requires an extensive experience of building and construction methods at all levels.

In other words, you have to know how a structure was put together before you can



UP ON THE ROOF

The truck has two roof-mounted hydraulically extending/rotating lighting towers with high-powered spotlights, front and rear warning beacons and approved two-tone horns.

really understand where the potential faults lie after it has suffered serious damage.

Fortunately, company boss Malcolm Speak and his brother Miles have just that background. The company first started out as builders (and is still very active in this field), but they then branched out into more specialised fields and now offer a wide range of services, with particular emphasis on this type of rapid response work.



Development of the unit caused 'some head-scratching'



Front-mounted 10-tonne capacity electric winch



Wander leads and extra plug-ins are carried



Hydraulic cutters are heavy-duty versions



Everything has its own storage area

ALL CUT UP



A slide-out section holds welding equipment along with plasma cutting equipment and relevant masks, helmets and other gear. Hydraulic cutting equipment is stored in the next section, with all relevant fittings and connectors required for numerous tasks. All this equipment is compatible with fire service equipment, ensuring maximum efficiency when working in tandem. The Holmatro system that powers this equipment has a single hose that has an additional internal hose, which gives both high- and low-pressure hydraulic supply to the rams. Both hydraulic and air-powered props to support unstable buildings are carried in the next compartment, along with various fittings and adapters.

Obviously, if the company is called out at very short notice to deal with a badly damaged building, it might well have to cope with all manner of potential problems. So it goes without saying that it needs both skilled and highly trained personnel on site as quickly as possible. But even the best tradesmen are unable to do much unless they have the necessary tools, equipment and materials to hand.

In the past, this often required as many as six well-equipped vans and other light commercials attending the scene. From both a logistical and financial viewpoint this was not an ideal situation, so the company had tried to use larger vehicles. ➤

Basic body design is similar to rescue tenders used by some of the emergency services



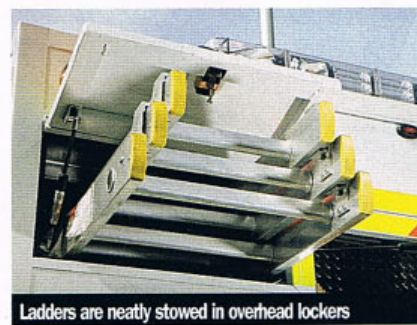
Hoses and a high-pressure lance are stored



Chequerplating makes cleaning easier



Equipment has to cover every eventuality



Ladders are neatly stowed in overhead lockers

But they often found they still didn't always have the correct equipment right where it was needed.

So the obvious answer was to have one vehicle that was capable of carrying virtually everything they would require to the scene, and Malcolm in particular spent a great deal of time planning just what was required. Knowing what tools and equipment are needed for a particular task and the sequence in which they are used dictated the design and layout of the new unit, and the volume of equipment meant a two-axle 18-tonne rigid chassis cab would be the best compromise in terms of carrying capacity and overall dimensions.

SAFETY FIRST



Offside lockers hold boots, waders, gloves, helmets and other PPE gear, handwash and first-aid facilities. Folding road signs, stop-and-go boards and a traffic light system with a charging pack are stored in the next compartment. Another neat touch is a series of collapsible road cones that take up a fraction of the space required by conventional plastic versions. The next locker holds the control panels for the hydraulics and compressor. Everything is clearly marked to avoid confusion. Below this, lighting units are carried along with cable reels to power them. Two-way radios and rechargeable torches are also carried in this section, automatically recharged when returned to their storage area.

ATTENTION TO DETAIL

Particular attention has been paid to lighting systems. The body has a series of 24v LED lights mounted all round the working area, all the lockers are lit and lined with bright chequerplate so equipment is easily identified.

vehicles, so we asked its advice on a suitable truck and staff recommended we go for an 18-tonne day cab Eurocargo 4x2 rigid. They offered us a competitive deal and reasonably quick delivery of a suitable chassis, so we placed an order. They worked closely with the bodybuilder to ensure the truck was both correct for our requirements and any modifications to the chassis were carried out to the manufacturer's required standards."

Standard offering

The Iveco chassis cab is pretty much the standard-specification 18-tonne offering, and is part of the comprehensive Eurocargo range that provides a multitude of different options and layouts of two-axle rigid from seven tonnes to 18 tonnes gvw, with variants covering virtually every weight segment in between. With six engine options from 160 to 300 bhp, 13 transmissions, 12 wheelbases, steel or air suspension options, three cab options covering day, sleeper and high-roof sleeper, plus seven-seat crew cabs and other specialist options such as 4x4 chassis, there are something like 11,000 potential Eurocargo variants available

an important factor in this particular application; the vehicle will often have to access city centres and other built-up areas on a regular basis, and with more urban areas likely to follow the lead set by London with the ever more restrictive LEZ regulations, operators have to specify the most up-to-date engines to comply.

Furthermore, the likely overall mileage of this unit will probably be relatively low and the specialist nature of the bodywork means the operator will look for a fairly long service life from the truck, so the chassis needs to conform to any future legislation that is likely to come into force over the next decade.

The standard six-speed ZF automated gearbox has been specified. This two-pedal unit is based on the six-speed manual and is well matched to the 250 engine. It shares the same three-button dash-mounted control system used on the bigger Stralis tractor range, and means the driver can relax in heavy traffic and let the truck take the strain as he concentrates on getting the vehicle to an incident as quickly and safely as possible.

“Overall mileage of this unit will be relatively low and the specialist nature of the bodywork means the operator will look for a fairly long service life.”



Malcolm explained the process: "We decided to go up the weight scale quite a bit to give us the capacity, but we still had to have a reasonably compact vehicle otherwise we would be unable to get to many of the potential locations we might have to visit at very short notice.

"We have dealt with our local Iveco dealer, Northern Commercials, for quite some time. It has supplied us with numerous lighter

ex-factory. So if Iveco can't offer a suitable chassis, the requirement must be pretty extreme to say the least. Haven's Eurocargo 180E25 has the 250 bhp version of the well-proven *tector* six-cylinder engine. It is the standard offering in the 18-tonner and there are 280 and 300 bhp versions available. These standard SCR units meet the enhanced EEV emissions level that puts it ahead of the current Euro 5 levels. This is

The rest of the chassis cab is pretty much standard, with steel suspension front and rear and well-equipped day cab with dual passenger seat. An exterior sun visor and aluminium wheels make the truck stand out that bit more.

The bodywork was designed and built by Automotive Electrical Limited of Mirfield, West Yorkshire - a specialist company that offers a wide range of services. Apart from designing and building all types of bespoke bodywork for specialist applications, the company offers electrical installations for automotive, marine and leisure applications. This includes air conditioning and heating systems, power generation and

management systems, and provision of hot water, TV and multimedia systems.

As a result, the company has built numerous specialist vehicles such as racing-car transporters, bespoke horse transporters with full living accommodation, specialist vehicles for local authorities and other utilities and a great deal more.

Company director Steve Hodgson explained the process behind the development of the new rescue tender body on the Iveco chassis, and talked us through its features and equipment: "The basic design of the body is similar to some of the rescue tenders used by fire brigades and other emergency services, but we took the concept quite a bit further to include numerous other features.

"Malcolm and I talked through the idea and we developed the overall layout from that. There was a lot more discussion and quite a few changes were made, and extra features were included in the design. Basically, the more we thought about it, the more complex it became.

"The whole process took something like five months from start to finish, and I

stabilise damaged structures if required. The main body has numerous lockers and slide-out storage compartments on all three sides, the locker doors hinge upwards on gas-filled struts to give maximum access. The body's custom-built steel frame extends right down to kerb height, which removes the requirement for separate side guards.

Front to back

Starting at the front nearside, the lower locker houses a Cummins marine generator that charges a series of batteries powering the numerous power tools and lighting systems that are part of the equipment inventory. The silent running water-cooled unit is part of a system that monitors battery condition and charging levels automatically, and recharges automatically. The generator has its own fuel tank which allows it to run continuously for 24 hours before refuelling.

The lockers above this contain the tandem 24V battery system with its own bespoke control panel and outlet sockets. The next full-height locker, one of four that slide out via electric motors, contains various electrically powered hand tools which



“ The silent running water-cooled unit is part of a system that monitors battery condition and charging levels automatically, and recharges automatically. ”



must admit it did require quite a bit of head-scratching at times. But most importantly, the customer is happy with the finished product."

Starting at the front of the truck, there is a 10-tonne capacity electric winch mounted just below the front bumper, with the reinforced support brackets bolted to the main chassis rails in accordance with Iveco's technical requirements. The winch has both wireless remote and wander lead controls and is protected by a bespoke chequerplate cover and support platform. The provision of a winch gives the truck additional capabilities, enabling it to clear large debris from an incident site, and can be utilised to



include saws, drills and other equipment that would be needed almost as soon as the unit arrives at an incident. Everything has its own storage area, and the dedicated team know exactly where to find a particular piece of equipment and, most importantly, where to stow it when packing up at the end of a job.

As with emergency service vehicles, good housekeeping is vital to ensure all the

expensive tools are both retained and kept in good condition, ready for the next job.

Along the nearside, the next locker holds air-powered hand tools and a selection of battery-powered drills, with spare battery packs ready-charged via units linked to the generator system.

Another locker has air and hydraulic hose reels to power hand tools and lifting equipment, and the air supply comes via a



ONE FOR TAKING CARE

The specialist building and maintenance company's boss, Malcolm Speak, said he tried to think of every eventuality when designing the outfit. It looks to us as if he has more than achieved that goal!



Crew are well-versed in all types of emergency



Firm decided to go up the weight range



Deep pockets keep equipment in its place



Variety of Stihl specialist cutting equipment

ACE OF SPADES



A special locker holds a selection of two- and four-stroke petrol-powered chainsaws, grinders and cutting tools plus the required safety gear, spare blades and discs. Ample fuel supplies are laid out in logical order. Another slide-out section holds various spades, shovels, pick-axes and other tools including ropes, pulleys, chains and other gear, all carefully stored and easy to find. A pair of water pumps are stored above the rear axle (one conventional and the other submersible), along with hoses and fittings and an additional pressure washer lance and hose that connect to outlets at the rear of the vehicle. Nothing is left to chance and everything has a place on this specialist Iveco Eurocargo.

Hydrovane compressor mounted within the bodywork. The hydraulics are powered via an electric pump system, and above this are 240V and 110V electrical cable reels to power the hand tools and the additional lighting systems.

Another compartment holds a Karcher pressure washer and hose reel, which has its own 500-litre water supply and provision to supplement this via the water mains.

Virtually every square inch of available space has been used effectively, and details such as easy-access storage for ratchet straps that prevents tangling shows the amount of thought that has gone into this particular - and highly specialised - project.