

FIRE COVER

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A STING IN THE TALE!



The following takes a close look at the 'new kid on the block'...the Emergency One (UK) Scorpion.

Three Emergency One (UK) Scorpions have been built to date, one on a Volvo FE chassis, currently with Greater Manchester FRS, one on a MAN chassis now with Maltese Civil Protection and one on a Scania CP28 'new generation chassis, this featured on the cover of this edition of Fire Cover, We take a look at all these vehicles in the following article.

E1 Scorpion Scania HRET Appliance Technical Data **Photographs Emergency One (UK)**



Chassis and Fire Engineering

- Scania CP28 4x2.
- 1,800 litre Water Tank and 150 litre Foam Tank.
- 2+4 Crew Cabin.
- 360 Horse Power 9 Litre 5 Cylinder Diesel Engine.
- Allison Fire specific 3500 –6 Speed Fully Automatic Gearbox.
- 4010 Pump (Rated output 4000lpm at 10 bar, can deliver up to 5000 lpm at 10 bar).
- 6010 option available(Rated output 6000lpm at 10 bar).



Body Specification

- 2 x Hose reels equipped with 90m of 22mm ID high-pressure hose.
- Full eClean Cab Solution with 4x BA in body.
 - Rotate out BA Rack.
 - Slide out BA Rack.
 - Both featuring E1 Flip Over BA for ergonomic access height.
- Beam stowed 9m Double Extension ladder.
- Beam stowed Short Triple Ladder.
- 5x 5.5" Suction Hose stowed within vehicle tunnel. Volvo FE HRET E1 Scorpion Appliance Based on a Volvo FE chassis, the new Emergency One (UK) Scorpion is the latest concept in water tower fire vehicles in the UK.

Although the concept is not new, technology now enhances a type of fire vehicle most members will remember from the past, the 'elevating water towers'.

A number of manufacturers have, or still offer this type of equipment.

Simon Engineering's 50 foot platform offered a basket and monitor as does the Magirus Multistar. Simon Engineering of Dudley also marketed the 'Simonitor', which saw favour with a number of services throughout the UK.

In Scotland the 'Simonitor', was named the 'Scoosher', which is old Glaswegian for a water pistol, 'a scoosha'. Between 1968 and 1972 / 73 Glasgow Fire Service put 14 'Scoosher's' on the run, three on Dennis D chassis, five on Dennis F46A chassis and six on Dodge K850 chassis.

West Midlands Fire Service operated a 2007 MAN LE18.280F / Direct Access Platform Water Tower from their Ward End fire station for a number of years before its disposal and subsequent purchase by Maltese Civil Protection.

West Yorkshire FRS modified a Volvo FL6.18 chassied Simon SS263 Hydraulic Platform to a water tower by removal of the rescue basket and replacing it with a monitor, but it is believed this saw little service.

Features not offered by previous articulated water towers, the piercing nozzle and cameras with infra-red capabilities, are now standard on the 'new generation of water towers'.

'Telesquirt' is a name often applied to several brands of 'elevating water towers' in the USA. The trade name and product 'Telesquirt', were originally built by the Snorkel Company, but is now the ownership of Smeal Fire Apparatus, Snyder, Nebraska, USA, being part of their Ladder Tower Company Division.

The USA manufactured 'Snozzel', a manufacturer which is now part of the Oshkosh Group, has become common place, as has the Rosenbauer HRET (High Reach Extending Turret), on Airfield Rescue and Fire Fighting (ARFF) vehicles. These elevating booms have also featured on 'normal chassied' vehicles. Lancashire FRS currently operates two MAN TGM18.320 / Rosenbauer 'Stinger' (HRETs) and it is understood that authority to purchase a further two has been gained by the service.

Carmichael's Cobra 3 ARFF prototype featured a HRET, believed to have been manufactured local to their works in Worcestershire.



HRET System

- 20m vertical reach.
- 360-Degree rotation.
- Dual deploying stabilising legs.
- Akron Stream Master 2 monitor –with variable nozzle from 1900lpm to 7200lpm.
 - Hydraulic Piercing Spike with jet spray.
 - Dual Cameras (CCTV & Thermal) that track monitor aim and spike tip.
 - Lifting Eyes to lift up to 420kg up to 6.4m outreach, up to 230 kg at 12.5m outreach.



Electrical Specification

- ePump RC Full remote control of the pump and boom from chest pack with remote thermal and zoom camera feeds for the main Scorpion Unit.
- eCab Control-7" Touch screen dash mounted E1 vehicle control.
- ePump Control-12" screen pumpbaysmounted control screen for conventional pump control in the pumpbay.
- eFlow-flowmeter(s) fitted to all LP, HP deliveries and Scorpion Water output. Data displayed on ePump Control.
- 360-degree blue light system-visual and audible-Code 3 based lighting system including 200W Pursuit Siren.
- High powered LED scene lighting.
- High powered LED front driving light.
- Rear Message Display board-customizable message board to display user defined requests.
- New Generation e1Fleet™ complete vehicle and blue light function diagnostics.
- E1 Speech Module-speaker outputs internally in cab and externally to rear.
- Dual 24v battery set(s)-auxiliary 24v battery set offering Auto-Assured Start functionality.
- Rear vehicle parking/manoeuvringsensors



Remote boom and monitor control

It is fitted with a 20 metre High Reach Extendable Turret (HRET) system with a 20 metre (m) vertical reach and 14m horizontal reach, with full 360 degree rotation. Water and foam delivery is available via the boom-mounted high flow monitor at a rate up to 6,000 litres per minute (lpm), or via the 'Fire-Spike' at 1,000lpm. Closed Circuit Television (CCTV) and thermal imaging cameras are also installed at the boom head.



It is fitted with a Godiva Prima P2B 6010 pump with a maximum pump rate of 6,000lpm, a 1,800 litre water tank and a 100 litre foam tank.



The monitor, piercing head and camera head

The vehicle is currently used by Greater Manchester FRS on a 6 month evaluation with a view to a permanent purchase. It is operational at Salford fire station, one of the busiest in the North West.

During the month of November 2020 the Greater Manchester FRS / Emergency One (UK) Scorpion and the MAN / Rosenbauer Stinger, from Lancashire FRS, worked alongside each other simultaneously at a 'make pumps eight' incident near Wigan.

Greater Manchester FRS's Volvo FE / E1 Scorpion HRET Appliance

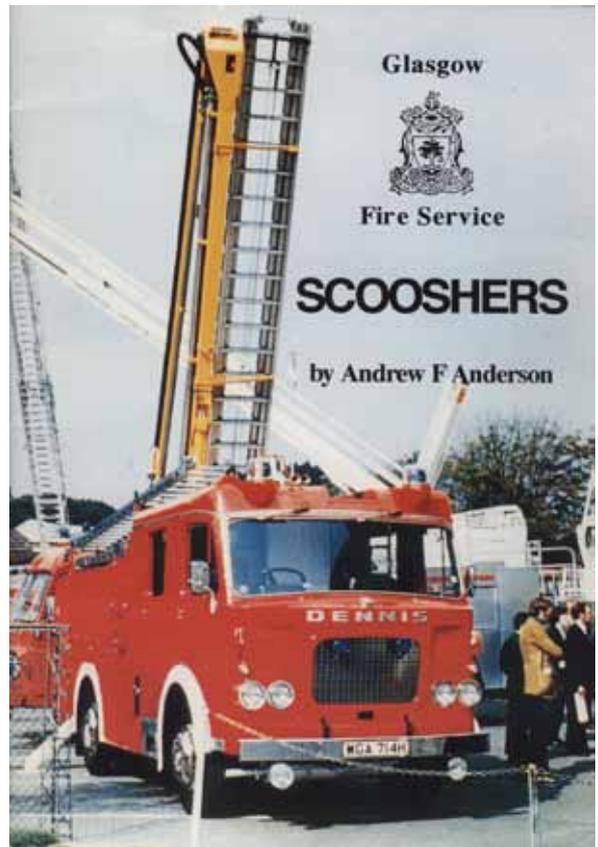
Photographs by Andy Daley, with acknowledgement to Greater Manchester FRS



The monitor head in action. Photograph Emergency One (UK)



The Maltese Civil Protection's MAN / E1 Scorpion HRET Appliance in Action. Photographs by Jason Borg, unless stated, with acknowledgement to Tony Pisani



In 1993 The Fire Brigade Society produced a 'Special Publication', the author being Andrew F Anderson, on the Glasgow Fire Service Scooshers

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Emergency one

E1 SCORPION

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*Greater Manchester FRS's Volvo FE / Emergency One (UK) Scorpion High Reach Extending Turret (HRET) Appliance.
Photo: by Andy Daley, with acknowledgement to Greater Manchester FRS*



*The Maltese Civil Protection's MAN / Emergency One (UK) Scorpion High Reach Extending Turret HRET Appliance.
Photo: Jason Borg, with acknowledgement Tony Pisani of the Maltese Civil Protection*