

The following is a feature article extracted from Construction Plant News (CPN) for October 2018. Consultant Editor to CPN, Nick Johnson, who is also a member of the Fire Brigade Society, attended The 2018 Society's Overseas Visit to Hannover, which is the subject of the article. A full feature on the Overseas Visit to Hannover, and surroundings, will appear in Fire Cover 223 to be published in late February 2019. **The Editorial Team.**

SPECIAL REPORT: EMERGENCY RESPONSE KIT

BLUE LIGHT PLANT



The Hannover Fire Brigade runs this blue light equipped Dieci telehandler as an emergency response vehicle.

Nick Johnson reports from Hannover where the fire brigade has all terrain cranes, a wheel loader, a telescopic handler and truck mounted road sweepers that can all speed to emergencies on 'blues and twos'.

Motorists in this country may sometimes curse being stuck behind a slow moving all terrain crane, truck mounted road sweeper or telescopic handler. But in Germany, it can be necessary to pull over to allow such equipment to speed past!

Many of the larger professional fire brigades in German cities are equipped with fire cranes that respond to emergency calls with blue lights flashing and two-tone horns blaring. And some brigades like the one in Hannover also run other types of construction vehicles to help deal with a variety of different incidents.

To find out more about some of the unusual fire and rescue appliances based in Hannover, CPN Consultant Editor Nick Johnson joined a trip organised by The Fire Brigade Society. This visit was courtesy of Chief Fire Officer Claus Lange whose extensive and varied fleet of vehicles must be the envy of many of his cash strapped counterparts here in the UK.

The city of Hannover is protected by five large main fire stations manned by full time professional firefighters. The surrounding area is served by many well-equipped fire stations with volunteer firefighters. In addition, the Hannover exhibition centre and some large

The 60.0 tonne capacity Faun ATF60-4 fire crane has a side folding lattice extension with a remote controlled water monitor.



The Dieci telehandler and Komatsu wheel loader with (insert) their other attachments carried on hooklift bodies.

industrial complexes around the city also have their own fire brigades complete with modern fire appliances.

One of the main Hannover city stations is Number 4 which is home to both the Brigade's telescopic handler and compact wheel loader. These machines are painted red and are equipped with flashing blue lights.

Purchased in 2010, the telehandler is a rigid frame, all wheel drive and steer Dieci Agri Max 70.10 that weighs 11.4 tonnes. It has a maximum capacity of 7,000kg, a maximum lift height of 9.65m and a maximum horizontal outreach of 4.5m. Made in Italy, this Dieci has a 93.0 kW (127hp) Iveco NEF engine and a hydrostatic transmission that provides a maximum travel speed of 30.0 km/h.

The Dieci is transported to emergency incidents on a two axle drawbar low bed trailer pulled by one of the Hannover Fire Brigades many hooklift equipped prime movers. Many of the Brigade's prime movers are MAN TGS 26.400 6x2 rear steer trucks equipped with Meiller hooklift systems. When moving the Dieci, the prime mover will carry a flat bed hooklift body complete with the interchangeable pallet forks, and loader and grapple buckets for the telehandler.

The articulated compact wheel loader in the Hannover fire and rescue equipment fleet is a Komatsu WA75-3 Utility machine which was made in 2003. This 5.7 tonne machine has a 42.5kW (58hp) 4-cylinder Komatsu engine and hydrostatic transmission. Maximum travel speed is 20 km/h and the machine, complete with a 0.75m³ capacity 4in1 loader bucket, is moved to incidents as part of a convoy with blue light vehicles in front and behind.

Self Sufficient

Having its own telehandler and wheel loader allows the Hannover Fire Brigade to be self-sufficient at incidents. The machines are used for moving material from stacks in farmyards, barns and recycling centres to prevent fire spread. They can also be deployed to help clear up split loads at road traffic accidents.

In the UK, fire brigades have access to small Bobcat Toolcat multi-purpose 4WD vehicles which have a front mounted loader arm that can be equipped with interchangeable pallet forks and loader buckets. These Toolcats are moved on demountable bodies carried by MANTGA 6x4 Marshall SV hooklift equipped prime movers. They are part of the UK Urban Search & Rescue (USAR) capability established after the disastrous 9/11 event in New York.



The Faun ATF60-4 fire crane lifting the rescue cage from the demountable body of its MAN support vehicle.



The Liebherr LTM1070-4.2 and its support vehicle.

One item of equipment not seen in the UK but long common with large German fire brigades is the fire crane. Hannover runs two – a 60 tonne maximum capacity Faun ATF60-4 based at Station 5 and a 70 tonne capacity Liebherr LTM1070-4.2 at Station 2.

Purchased in 2001, the Faun ATF60-4 weighs 48 tonnes and has an 8x6 all terrain

chassis with all wheel steer. Powered by two Mercedes Benz engines (260.0 kW in the carrier and 90.0kW in the crane superstructure), the crane's main telescopic boom extends to a maximum length of 40.2m.

Rather than a long side folding lattice boom extension, the ATF60-4 fire crane has a short triangular side folding lattice extension with a remote controlled water monitor. When connected to a hose carried up the side of the boom, this arrangement allows the crane to deploy a high level 2,500 – 5,000 litres/min water jet. Other specialised fire equipment includes a rear mounted heavy-duty winch, a lifting beam (carried across the front of the vehicle), blue lights and emergency warning sirens.

Crane Support Body

The ATF60-4 is accompanied to incidents by one of the Brigade's MAN prime movers carrying a crane support body. This body has compartments for lifting equipment and a rescue cage. Lifted on the crane hook, this cage is now often deployed to assist the ambulance service remove heavy people from their homes for transport to hospital. As well as having Meiller hooklift handling equipment the MANTGS 26.400 6x2 rear wheel steer prime mover carrying the crane support body is fitted with a 6,300kg maximum capacity Hiab XSI66 loader crane.

Hannover's more modern 70.0 tonne maximum capacity Liebherr LTM1070-4.2 was bought in 2013. This four axle all terrain crane features a 50.0m long telescopic boom and is fitted with a Rotzler Triebmatic TR200 recovery winch with a maximum pulling power of 200kN. The LTM1070-4.2 fire crane



A truck mounted road sweeper with a difference – one of Hannover's fast response Ölspurbeseitigung (oil removal) units.



Back view of the MAN/ Faun fire service 'blue light' road sweeper with its a full width rear suction system.

has proved to be particularly popular with German fire brigades.

More unusual vehicles operated by the Hannover Fire Brigade are its two truck mounted road sweepers. Purchased new in 2011 and based at Station 1 (one operational, the other as a reserve unit), these vehicles are used for cleaning up oil and chemical spills on the highway.

Complete with blue lights and sirens, the Hannover truck mounted sweepers utilise 18 tonne GVW MANTGS 18.320 4x2 BL chassis with 235.0 kW (320hp) engines. They were produced by the Faun Viatic GmbH company in Grimma, Germany.

These vehicles each have a hopper capacity of 6,000 litres, a hydrostatic sweeping system with side mounted and full width brushes, a 2,000 litre water tank and 3 x 100kW water heaters (to heat water up to 90°C). They are also equipped with a 90 litre

tank containing Tensil oil dispersal liquid, a high pressure (200 bar) washing / jetting system with a front mounted 1.25m wide spray bar with ten nozzles, a hand lance on an 18.0m hose and a full width rear suction system.

As well as having a 32.0m high Magirus turntable ladder (TL) at each of its five main stations, the Hannover Fire Brigade also runs a high rise Bronto Skylift F54 RLX aerial ladder platform. With a maximum working height of 54.0m and a cage capacity of 540g, this impressive fast response platform is mounted on a Mercedes-Benz Actros 3244 eight axle chassis with rear wheel steer. The cage has a 3,800 litres/min water monitor and it can carry a rescue stretcher.

Higher UK Aerials

Many other German cities (including Berlin, Hamburg and Munich) also now run one 50.0m class aerial ladder platform (ALP) in addition to their fleets of 32.0m class aerial appliances. Here in the UK, the maximum height of aerials has traditionally been around 32.0m but now, after the Grenfell tower tragedy, some Brigades are adding higher appliances.

Surrey already had a 42.0m Rosenbauer Metz ALP and another unit has been ordered by Dorset & Wiltshire. Hertfordshire has purchased a 45.0m Bronto and both the Northern Ireland and Manchester fire brigades are adding 42.0m Magirus TLs. Meanwhile, the London Fire Brigade is about to order a complete new fleet of aerial appliances – likely to be 12 number 32.0m TLs and three 64.0m TLs. So, in the future, London could well reach higher than German brigades like Hannover.



For high rise fire fighting and rescue, Hannover has this impressive 54.0m Bronto aerial ladder platform.



This fire fighting conversion of a CAT 740B articulated dump truck includes a 28.0m Bronto aerial platform.

Cat Fire Truck

A very unusual fire appliance based on a popular construction machine is the conversion of a 40 tonne class Cat 740B articulated dump truck. Having lost its usual rear dump body, the 6x6 truck has gained fire-fighting equipment including an aerial platform.

Converted by Johannesburg-based specialist body builders and fluid handling specialists, Cobra Petro Projects, this special red painted 740B is surely unique. The fascinating all-terrain vehicle combines and integrates a rescue and fire-fighting aerial sky lift platform with an on-board 21,000 litre tank incorporating an AFFF (Aqueous fire-fighting foam) compartment and pumping equipment. It also carries hose and cannon connections and the truck also has its own on-board fire suppression system.

The aerial platform on this special 740B is a Bronto Skylift F28 ALR with a cage capacity of 325kg and a pre-piped nozzle that can provide a flow rate of 2,900 litres/min. Maximum working height is 28.0m.

Gross weight of the fire fighting 740B is around 70 tonnes. This unusual fire engine was built for use at Kumba Iron Ore's Sishen mine, which is located near the town of Kathu in the Northern Cape Province in South Africa.



Photo: Matthias Benschert