

## Rear-axle is steered by electro-hydraulics

Volkan (Turkey) has developed the Lion firefighting vehicle using the Ehla Plus electrohydraulic steering system. It provides CAN connectivity.



The front-axle is steered mechanically, while the rear-axle uses an electrohydraulic steering (Photo: Volkan)

The Lion vehicle's width is three meter and the total length is 12,5 m. The wheel size is 445/95R25. The vehicle holds up to 16 000 l of water plus 2000 l of fire-extinguishing agents, which amounts to a total weight of 45 t. Despite the high total weight the firefighting vehicle is pretty fast at the airport. To move the giant with up to 140 km/h, the truck has been equipped with a 970-kW power unit. Furthermore this engine enables a pumping capacity of 120 00 l per minute.

All four axles are driven. The front axles are steered mechanically with the steering gear for the maximum maneuverability at the site of operation. The rear axle has an electrohydraulic steering by Mobil Elektronik (Germany). The Ehla Plus steering system enables the rear axle to steer with an angle of  $\pm 10$  degrees. For a maximum driving stability at higher speeds the angle of the rear axle is gradually reduced with increasing speed. At a certain speed the rear axle is centered in the straight-ahead position and hydraulically locked. Thus it works like a rigid axle.

The Lion trucks will be used at the new Istanbul airport. The airport's completion is planned for the end of 2018. Then it will be the largest airport in the world.

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