

MOBILITY RE-DEFINED | RE-DESIGNED







Fire Fighting Technolgy



Czech Fire Engine Builder



Czech Fire Engineering Consultancy





CASE STUDY

The payload, load space, mobility and single rear wheel format of the 6x6 HILOAD is ideally suited to a number of specialist Fire & Rescue applications.

The equipment cabins offer significantly more space than 4x4 pick-up trucks with ample payload to carry a wide array of equipment and media,

The 6x6 drivetrain offers an enhanced level of off-road mobility for wild-fire and incidents in remote locations.

The vehicle can also be used in urban underground and multi-storey car parks with 190cm height limits.

For the Fire & Rescue role 6x6 HILOAD offers

- Double Cabin with Automatic Gearbox
- Sufficient space and payload for many configurations
- High levels of mobility
- Hydraulic power take-off from engine bay
- Stiff chassis for mounting bodies of various types
- Driving position and driving comfort levels very much like a normal car

όχό ΗΙΙΟΑD

There is nothing in the market-place that has the capability of this vehicle.





This fire and rescue vehicle is the result of a research and testing project undertaken by ATENTA s.r.o a Czech fire engineering consultancy.

The project sought a solution to disrupt thermal runaway in electric vehicle battery fires, a solution being found using the COBRA Coldcut system with an aggregate mix in the water. SKODA now reccomend COBRA method to extinguish EV battery fires.

Leading Czech Fire & Rescue vehicle manufacturer KOBIT THZ, s.ro, worked with Czech Fire & Rescue Service to develop an integration of the COBRA system and a wide array of associated equipment for vehicle fires.

For this project the 3000Kgs payload offered by 6x6 HILOAD was in line with the required equipment install which was matched to an additional 1230mm of chassis length.

The operational use demanded acces to underground and multi-storey car-parks to access electric vehicle fires.

HILOAD in this configuration has a height of 1850mm which is within the 1900mm limit for car-parks.

No other chassis in the market-place could offer this combination of payload, load-spaces and low height.

HILOAD also adds the advantage of 6x6 mobility for operations in rough terrain to access other electric vehicle fires.

The partner of Prospeed in Czech Republic is Dajbych s.r.o who assemble and homologate the 6x6 HILOAD in their workshops in Plzen.





όχό HILOAD





CASE STUDY

HILOAD offers a unique capability to Fire & Rescue and specialist wildfire teams that are not offered by any other vehicle platform.

Pick-up trucks are often used as they can accommodate a crew of 4, have compact dimensions for moving around in forested areas and have a limited driver training burden.

The major downside of this solution is lack of space and payload which limits water carrying capacity to around 400 litres.

High Pressure pumps and misting nozzle systems optinise water consumption at around 18 litres / minute which is 22 minutes of use or 11 minutes on a two reel / nozzle set-up.

Stop the task, return to water tanker to fill up, operational down time.

HILOAD boosts water carrying capacity to 2000 litres, enabling 110 minutes of use on a single nozzle and 55 minutes on double reel/nozzle.

Crew capacity is still 4.

Compact dimensions of Hilux are retained with only 1000mm added to the length.

Turning circle is through braking can be tighter than the 4x4.

The mobility of a 6x6 is way in excess of a 4x4 in terms of speed across rough terrain and traction coming from 6 tyres and lower ground pressure.









όχό HILOAD

WILDFIRE - RAPID REACTION

Enhanced capability for specialist wildfire teams, more water where it is needed for longer to reduce downtime upto 2000 litres of water.





WILDFIRE-RESPONSE

A concept which enables one vehicle to be configured for fighting fire, supplying water and crew with ability to undertake other roles outside of fire season.

όχό HILOAD

2000 liters

WILDFIRE RESPONSE









CASE STUDY

In the UK the Civil Aviation Authority (CAA) regulations do not allow twin rear wheels on any airport Fire & Rescue vehicle.

The reason being in soft mud they chew into the ground faster than a single tyre with the space between tyres full of made making the situation worse.

Due to this regulation there is a long history of 6x6 vehicles being used in the CAT 3 segment.

Terberg Fire & Rescue chose the 6x6 for their new TACR4 Rapid Intervention Vehicle a as supplied to Lands End Airport in the UK.

The CAT 3 requires a volume of water, foam, crew and equipment that is impossible to integrate onto a 4x4 pick-up as seen on smaller CAT 2 vehicles

What the 6x6 gives the airport user is the increased load space and payload of the much longer chassis.

The 4 wheels on the rear maximise mobility in the mud and spread the load to reduce ground pressure, the only measure of mobility that exists.

όχό ΗΙΙΟΑ

The low height of the Hilux at 1900mm means that the vehicle can access airport tunnels, multi-storey car parks and other height restricted access areas.

The body and systems integration has been undertaken by Pickup Systems Limited.



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