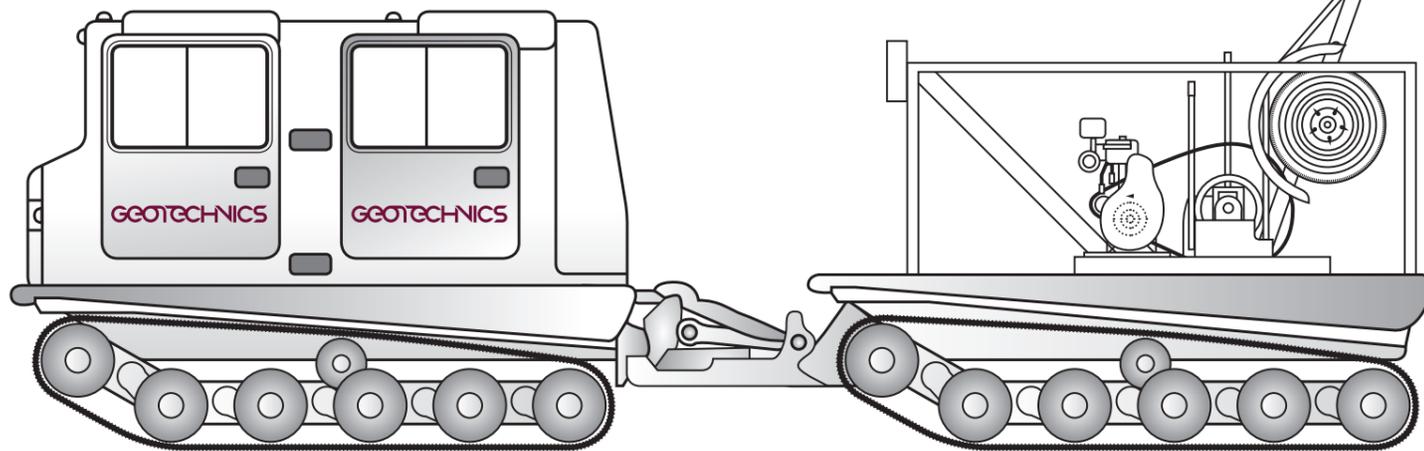




# The Hägglund hybrid rig



6.86m

5.8m



1.85m

The Hägglund Bandvagn 206, or Bv 206 to use its common name, was originally developed by Hägglunds (now part of BAE Systems Global Combat Systems) for the Swedish Army.

An articulated, tracked, all-terrain vehicle designed to work in extreme environments, the Bv 206 was used initially to carry troops and equipment through snow and bog, its standout feature being its low ground pressure. This has led to the Bv206 being hailed as an environmentally friendly option as its low ground pressure and articulated steering system ensures it has minimal impact on sensitive terrain.

The Bv 206 is lightweight, due to its glass reinforced body. All four tracks are driven independently, providing excellent traction.

Since their rollout in 1980 over 11,000 Hägglund Bandvagn 206s have been produced with their outstanding credentials leading to them being utilised in over 37 countries worldwide, and not just as military vehicles. Bv 206s have been adapted to serve a wide variety of activities, including Fire and Rescue, Search and Rescue, ambulances, transport to remote oil wells, polar exploration, and disaster aid and support.



## The Facts

	Front car	Rear car	Total
Kerb weight	2710kg	3000kg	4340kg
Payload	580kg	290kg	2000kg
Gross weight	3290kg	3290kg	6340kg
Passengers	5 (6)	11	16 (17)
Cargo space	2.5m <sup>3</sup>	5.5m <sup>3</sup>	8m <sup>3</sup>

Engine: Diesel or Petrol

Output: 100kW (136 BHP) / 5200rpm

Torque: 216Nm / 3000rpm

Diesel Engine: Four stroke in line, 5-cyl, 3 litre

Output: 93kW (125 BHP) / 4500rpm

Torque: 235Nm / 2000rpm

Gearbox: Fully automatic, 4 forward, 1 reverse

## Case Study

Plans for a new United Utilities sewer outfall structure in Barrow-in Furness, some 1400m across an inter-tidal area opened up an opportunity for Geotechnics to showcase the potential of their versatile, capable and environmentally sensitive Hägglund Hybrid Cable Percussion rig.

The difficult access and obvious risks associated with working in a potentially dangerous area were coupled with working in a protected environment that is classified as a Special Area of Conservation (SAC), Special Protection Area (SPA), a Site of Special Scientific Interest (SSSI) and a Ramsar (Wading birds).

Geotechnics' Hägglund Hybrid Cable Percussion rig was designed and built to work in environmentally sensitive areas and reduce the damage to the ground to a bare minimum. Access to the foreshore was not possible via an existing ramp due to this being protected species-rich grassland.

As an alternative Geotechnics proposed the design and construction of two ramps along the proposed sea defence wall that would enable safe access to and from the tidal area on a daily basis. Natural England requested that these ramps be made of local derived stone and that these be removed and reinstated after the works.

Geotechnics carried out sixteen boreholes over the length of the pipeline route with the Hybrid Hägglund Cable Percussion Rig with boreholes taken to depths varying between 7.00m and 12.05m below ground level.

