

# GROUND TEST

## TECHNICAL SPECIFICATIONS CPT RIG NEWCASTLE & REGIONAL NSW



### OVERVIEW

The Newcastle CPT rig is a 4x6 wheel drive cone penetration test (CPT) unit designed for in-situ testing and geotechnical sampling in a wide range of soil conditions. With a 200kN pushing and 260kN pulling capacity, it ensures efficient penetration. The unit has a gross ballast weight of 20-tonne enhancing stability, while a Perkins 4-cylinder diesel powerpack provides reliable performance for comprehensive subsurface investigation. In-situ testing uses digital data transfer provided by AP Van Den Berg digital equipment.

### CAPABILITIES

#### CPT

- Equipped with 40 CPT rods, 30 speed-lock rods, to approx. 70 m depth
- 10 cm<sup>2</sup> cone tip area
- Class 1 and Class 2 testing to EN ISO 22476-1 and NEN 5140
- Available cones: friction and piezometric
- Available plug-in modules: conductivity and seismic

#### Vane shear testing

- To approx. 20 m depth
- 50 mm, 65 mm and 75 mm diameter vanes
- 0.1°/sec (slow) and 6°/sec (fast) vane speeds

#### Other testing

- Plate load (300 mm, 450 mm, 600 mm and 750 mm diameter).
- Marchetti Flate Plate dilatometer
- In-situ California bearing ratio

#### Sampling

- Well installation (10 mm diameter)
- Hand auger and near surface bulk sample

### OTHER FEATURES

- Full differential locks
- Automatic transmission
- 14 truck mats on truck at all times

### SAFETY

- Control panel and rear motor mounted emergency stops
- Spill kit, first aid kit and fire extinguisher
- Guarded entry/exit points
- Manual seismic hammer

### BENEFITS

- High quality data using AP Van Den Berg digital equipment
- Efficient mobilisation with modern carrier truck
- High thrust and rapid setup on site



## RIG SUMMARY

### DIMENSIONS

Width:	2.5 m (excl mirrors)
Length:	9.3 m
Weight:	24.5 t
Height, rams up:	5.5 m
Height, rams down:	3.9 m
Work area length:	9.3 m

### RIG SPECIFICATIONS

Engine:	4-cylinder Perkins
Thrust:	20000 kg (std)
Ram stroke:	1.3 m
Jack legs:	Four (1.0 m stroke)

### CPT SPECIFICATIONS

Cone ( $q_c$ ):	150 MPa (max)
Sleeve ( $f_s$ ):	1.5 MPa (max)
Pore pressure (U):	3 MPa (max)
Inclinometer ( $I_{x/y}$ ):	25° (max)

### CARRIER TRUCK SPECIFICATIONS

Make/Model:	International Iveco, ACCO 2350
Wheels:	Steel, tubeless tyres

