



**SITE INVESTIGATION**



The **GT300** Rotary Rig is a track based mobile platform designed for undertaking dynamic sampling and rotary drilling on extreme slopes such as dams or motorway and railway embankments. The working platform and drilling mast are automatically levelled in both planes to allow safe working on side slopes and steep inclines. The steel tracks, fitted with single grouser pads, achieve good ground penetration to give maximum grip on steep slopes up to 45°. A 7500kg (8.25 ton) winch is fitted for added security on critical sites.

The **GT300** has radio control for travelling, winch operation and platform levelling override. Once in position the fold down walkways and drilling mast are deployed to give a secure level working area. All working areas are fitted with heavy-duty, GRP floor grating and guarded with removable handrails, kickboards and stanchions.

Safe operation and speed of deployment are major features of this rig. A fully enclosed, gas-strut balanced electrically cutoff guarding system makes the rig fully compliant with EU 'rules and regulations'. The **GT300** can be transported to site on a suitable 7.5T LGV and with a 3.4 kph (2 mph) travel speed it can be quickly positioned on site.

**Applications**

- Standard Penetration Test (SPT) to BS 1377-9:1990
- Dynamic probing
- Borehole formation to 80m (260 feet)
- Casing facility up to 20m (65 feet)
- Continuous dynamic sampling up to 150mm (6")
- Installation of 19 & 50mm ( 3/4" & 2") id standpipes for gas/water monitoring
- Installation of 68mm (2 1/2") id biaxial inclinometer tubing

**Specifications**

Slope compensation  
 Pitch ..... 0 - 53°  
 Roll ..... + / - 0 -15°

**Track System**

125mm (5") heavy duty track chain with single grouser track plates, 7 lower rollers, 2 top rollers, hardened sprocket and spring loaded front idler.

Overall track length ..... 2500mm approx ( 100" )  
 Track pad width ..... 250 - 550mm ( 10" - 22" )  
 (optional)  
 Track centres ..... 1250mm ( 50" )  
 Ground clearance ..... 250mm ( 10" )

**Track motors**

Two speed track motors with integral braking

Max speed in low displacement ..... 3.4kph (2 mph)  
 Max speed in high displacement ..... 1.7kph (1 mph)

**Engine**

Deutz TD 2011 L04i air cooled 4 cylinder diesel with oil cooler.  
 Power ..... 57.6kw at 2600rpm (75hp)  
 Displacement.....3.62 litre (221 cu in)

**Hydraulics**

Open loop hydraulic system (biodegradable oil option) with sealed reservoir, 10 micron return filter, suction strainers, level gauge and pressurised filler breather.

**Pumps**

Piston pump with load-sensing control.  
 Capacity ..... 49cc/rev @240bar (3 in3/rev)  
 Auxiliary gear pumps  
 20 + 8.3cc/rev @ 200bar ( 1 1/4 in3 & 1/2 in3) for water pump and drilling functions.

Transmission/platform/winch control valve  
 Type: Sauer Danfoss PVG32 control valve

**Radio Control**

Radio system c/w: transmitter, receiver, battery charger, two NiCad re-chargeable batteries.

**Functions**

Two proportional paddles for L/H and R/H tracks  
 Two digital paddles for pitch/roll and winch in/out  
 Emergency stop and Auto Level buttons.

**Recovery Winch**

7500kg (8.25 ton) Superwinch EP16.5 c/w 30m (100') of 14mm (5/8") Dyneema rope and radio control operation.

**Drill Head**

The **GT300** mast is fitted with a sliding tool post to allow the fitting of a 3 speed rotary head, Hydraulic percussive hammer and BS EN ISO 22476-3 SPT hammer.

**Mast**

Feed stroke ..... 1.6m - 2.4m (5.25' - 7.8')  
 Feed force ..... 2000kg (4400 lb)  
 Pull back force ..... 7000kg (15432 lb)

**Rotary Head - Comacchio CT 92**

Torque  
 1st: 550 daNm (4057 ft.lbf)  
 2nd: 200 daNm (1475 ft.lbf)  
 3rd: 60 daNm (443 ft.lbf)  
 Speed ..... 40 rpm / 120 rpm / 410 rpm  
 Spindle thread .....2" 3/8 API REG  
 Swivel Gallery ..... 1"

**Clamps (3)**

Clamp range ..... 60 - 300mm (2.3" - 12")  
 Clamping force ..... 130kN (2922 lbf)  
 Braking torque ..... 1000 daNm (7376 ft.lbf)

**Dimensions**

Tracking width ..... 2.4m (7.9')  
 Operational length ..... 2.6m (8.5')  
 Operational height (1.6m mast) ..... 4.3m (14.1')  
 Weight ..... 4000kg (8818 lb)  
 (depending on configuration, extras etc.)

**Options**

Full working lamps ..... 4 x 55w Halogen  
 Water tank support frame.  
 The superstructure and undercarriage hot dipped galvanised for extended life and corrosion resistance.  
 Wash down system.

