



Shallow Coring and Geo Technical Drill

NL-G80 was developed as a cost efficient solution for users requiring a portable drill for shallow coring, Geo technical and Tri-cone rotary drilling applications. **NL-G80 II - modified model with 2-step head gear for high speed coring – is also offered.** Features a **Hydraulic Top Head drive**, equipped with variable speed motor within the range of **50 to 800 rpm.**

With its 17 HP Diesel Engine the drill is powerful and very reliable, and is highly productive with its **1.7 m feed stroke.**

Features

1) Portability

- Incorporates a compact modular design, and man portable.
- Easy to set up, operate, and service, even in remote areas.
- Low noise output:

- 85 dB beside operator's panel
- 75 dB at a distance of 5m

2) Versatility

- Rotary and soil sampling operations with optional high torque/low speed motor – Tri-cone Roller Bits to depth of 35 m.
- High Angles from 90° to 37° or 50° degrees (for NL-G80 only)
- 2 –step Gear (NL-G80 II)

3) Safety

Emergency stop system for Rod rotation when opening Safety Cover (Option)



NL-G80 II



Top Drive Drill Head



Operation Panel



NL-G80



Hydraulic Valves



NL-G80 & G80 II Technical Specification

Drill Type

Hydraulic Top Head Drive Type

Drilling Depth Guidelines

N Size	80m
AW Rod	100m
40.5mm Rod	150m

Prime Mover

Standard Unit	Yanmar 3TNV70 Diesel Engine (Water Cooled)
Displacement	857 cc
Continuous Output	17.0 PS at 2,200 rpm
Weight	188 kg
Fuel Tank Capacity	23.0 L

Drill Head

	NL-G80	NL-G80 II
Maximum Rod Diameter	NW Pin Thread on Head	
Mechanical Transmission	NLC 1 SPEED	NLC 2 SPEED
Ratio	2.00 : 1	-
1st Gear	-	1.50 : 1
2nd Gear	-	0.66 : 1

Motor Torque & RPM Ratings

	NL-G80		NL-G80 II	
	Speed (RPM)	Torque (Nm)	Speed (RPM)	Torque (Nm)
Standard / 1st Gear	50 - 800	150	250 - 400	113
2nd Gear	-	-	400 - 1,000	50
Option (High Torque) /1st Gear	0 - 78	844	10 - 130	882
Option (High Torque) /2nd Gear	-	-	10 - 200	391

Hydraulic System

Primary Pump	Double Pump (Piston & Gear)
Max. Flow	45 L/min at 1,200 rpm / 10 L /min at 1,200 rpm
Max. Pressure	14.0 Mpa
Hydraulic Tank Capacity	90 L

Feed System

0

	NL-G80	NL-G80 II
Feed Stroke	1,700 mm	1,700 mm
Pull Capacity	43.6 kN	43.6 kN
Thrust Capacity	29.7 kN	29.7 kN
Drilling Angle	37° from Vertical Position	37° from Vertical Position

Main Hoist

	NL-G80	NL-G80 II
Max. Line Pull	Option	7.2 kN
Rated Line Speed (Bare Drum)	-	0 ~ 11m/min (55m/min at Fast Feed Selected)
Hoisting Capacity	-	40m & 8mm Dia. (Option)
Minimum Breaking Strength	-	17.0 kN

*under using our standard wire

Wireline Hoist

	NL-G80	NL-G80 II
Max. Line Pull	Option	2.5 kN
Rated Line Speed (Bare Drum)	-	0~39m/min (190m/min at Fast Feed)
Cable	-	100 m & 5 mm Dia.
Minimum Breaking Strength	-	4.5 kN

*under using our standard wire

Others

	NL-G80	NL-G80 II
SPT Application with Cone Pulley	Option	Option
Mast with Double Sheave	Option	included
Second Motor	Option	Option

Dimension & Weight (Main Body)

Dimensions (L x W x H)	2,100 x 1,100 x 2,700 mm (approx.)	
Weight (Less Power)	929 kg	1,450 kg

Drilling Depth Guidelines

Drilling Capacity have been calculated, based on field experiences, and may be reasonably expected. Ratings are based on vertical, straight, clean down hole using a 7,200N hoist (single line pull) . Actual drilling capacity will depend on in-hole tools, conditions, drilling techniques and equipment used.

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