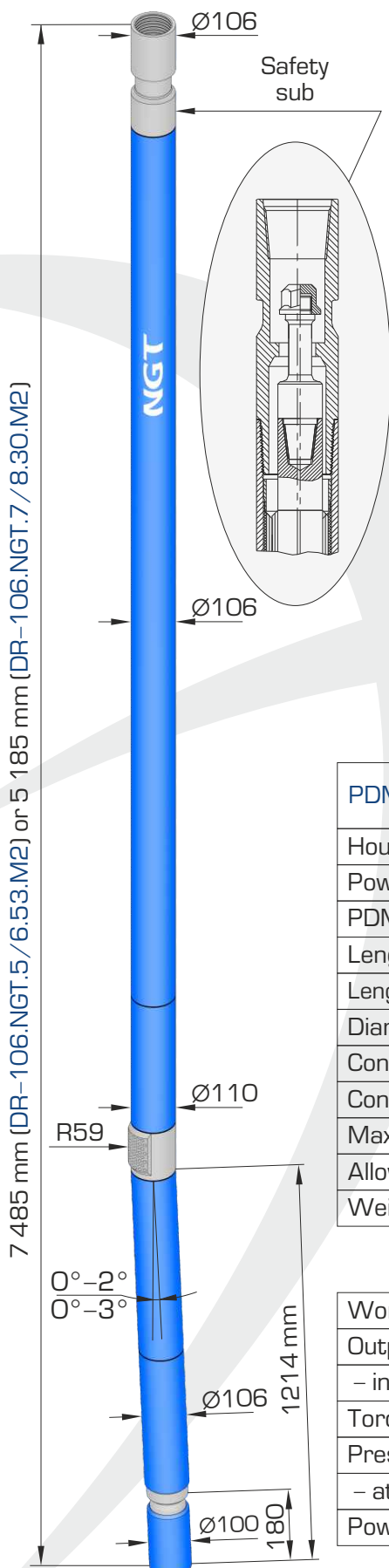


DR-106.NGT.5/6.53.M2 and DR-106.NGT.7/8.30.M2



PDM's DR-106.NGT.5/6.53.M2 and DR-106.NGT.7/8.30.M2 are new universal hydraulic downhole motors used for:

- drilling of oil and gas wells with 120.6 – 149.2 mm bits,
- well reconstruction by sidetracking with rock bits, PDC bits, including bicentric ones;
- well workover operations.

An adjustable bent sub is placed between bearing section and power section. The adjustment range is between 0° and 2° or between 0° and 3°.

Bearing section has axial multi-row rolling bearing and radial hard alloy bearings. Due to a very short shoulder up to the point of axes misalignment (only 1214 mm) drillers can:

- perform tripping without significant pressing of a bit to internal walls in the production string;
- perform sidetracking of complex profile where it is required to alternate deviated intervals of more than 5°/10 m built rate and stabilization intervals with rotation of a drill string without the assembly tripping-out to replace the bend angle.
- minimize risk of leaving the motor parts in the well, as all the threads are screwed applying Loctite glue, and each motor is completed with safety sub.
- do a large volume of work with one motor (it is especially important for hard-to-reach regions) as the overhaul life reaches approximately 200 hrs.

Technical specification

PDM model	DR-106.NGT.5/6.53.M2	DR-106.NGT.7/8.30.M2
Housing OD, mm	105/110	106/110
Power section lobe configuration	5/6	7/8
PDM length, mm	7 485	5 185
Length of stator rubber lining, mm	5 320	3 000
Length of bearing section up to a curvature point, mm	1 214	1 214
Diameter of bits used, mm	120,6–149,2	120,6–149,2
Connecting thread to drill pipes	NC 31	NC 31
Connecting thread to bits	2 7/8 Reg	2 7/8 Reg
Maximum density of drilling mud, g/cm ³	1,6	1,6
Allowed axial load, kN	80	80
Weight, kg	386	267

Power specification

Working fluid flow rate, l/s	6–12	6–12
Output shaft rotation speed:		
- in no-load conditions, RPM	161–321	96–192
Torque at maximum power, kN*m	3,25	2,3–3,5
Pressure drop:		
- at maximum power, MPa	8	5–10
Power, kW	99	53