

OnGauge

Torque-reduction sealed-bearing roller reamer

APPLICATIONS

- Extended-reach drilling (ERD) and complex well geometries
- Severely packed hole assemblies
- Extremely abrasive drilling conditions

BENEFITS

- Reduces downhole torque caused by well profile and by wellbore spiraling and doglegs
- Maintains borehole quality and addresses ledging formations
- Maintains hole gauge for abrasive conditions

FEATURES

- Blank-ended manufacturing to configure for near-bit and string placement in the BHA
- High-flow body for increased annular total flow area improves hole cleaning
- Longer full-gauge cutting section enhances gauge maintenance
- Proprietary sealed-bearing assembly that endures high loads, temperatures, and rotary speeds extends bearing life
- Bidirectional cutter assemblies for backreaming
- Optional real-time data connection for use with Schlumberger LWD tools
- Wedge-fit cutter-retention system ensures cutters are not lost in hole

Minimize stick/slip and downhole vibration

The OnGauge* torque-reduction sealed-bearing roller reamer reduces downhole torque that is typical of fixed-blade stabilizers, providing increased drilling stability environment. Three rotating cutter blocks act as a bearing for the drillstring, creating a stabilization point that minimizes the effects of downhole torque. Reduced downhole torque enables extended runs in complex ERD geometries and improves weight transfer to the bit to improve ROP and extend drillbit and MLWD life.

The OnGauge roller reamer also provides mechanical hole conditioning through microdoglegs, wellbore spiraling, and formation ledging. The roller reamer also experiences less cutter wear than do the blades on traditional stabilizers when running in abrasive formations. During backreaming operations, the bidirectional cutter blocks enables hole conditioning through tight hole conditions. The removal of tight sections and ledges significantly reduces trip times and improves subsequent trips with drilling or casing strings.

Specifications

Hole size, in	8½	8¾	12¼	17½
Tool length (A), in	87	87	111	116
[cm]	[221]	[221]	[282]	[294.6]
Max. body diameter (B), in	7 ²⁴ / ₂₅	7 ²⁴ / ₂₅	11 ⁷ / ₁₀₀	15½
Fishing neck diameter (C), in	6¾	6¾	8¼	9½
Fishing neck length (D), in	28	28	39	39
[cm]	[71]	[71]	[99]	[99]
Bore diameter, in	2¼	2¼	3	3
Annular flow area, in ²	9.9	13.29	22.26	82.5
[cm ²]	[63.87]	[85.74]	[143.61]	[532.26]
Max. recommended speed, rpm	150	150	150	150
Max. temperature, degF	300	300	300	300
[deg C]	[148.88]	[148.88]	[148.88]	[148.88]
Body weight, lbm	782	782	1,236	2,658
[kg]	[354.7]	[354.7]	[560.6]	[1,205.65]
Recommended max. cutter revolutions, millions	10	10	10	10

