Cutting Bed Cleaner

Introduction



The Cutting Bed Cleaner has developed patented hole cleaning technology to maximize hole cleaning efficiencies while drilling, safe rig time and reduce drilling costs. The structure of Cutting Bed Cleaner produces a number of hydro-mechanical effects resulting in safer and faster drilling with less time spent on cleanups.The tool is designed in the form of a joint of pipe to drill large and highly deviated holes. It is a new generation drill pipe designed to address ECD and annular pressure issues in horizontal and ERD wells. The tool provides full and immediate degradation of cutting beds while keeping more cuttings moving on the high side of hole where fluid velocities are highest. The hole cleaning functions are achieved through three effects:

Scooping: Cutting deposited on the low side of the hole are mechanically eroded and lifted from the bottom of hole;Recirculation: Once lifted, cuttings are circulated on the high side of the hole, where fluid velocities are the highest;Transportation: Regardless of energy input on the cuttings during the recirculation stage and cuttings will eventually resettle to the low side of the hole due to gravity. The conveyor belt effect is established to continuously transport of cuttings to the surface

Features & Benefits

- Reduce total circulating time and wiper trips
- Reduce or eliminate reaming and sweeps
- Reduce torque and drag and increase ROP
- Mitigate drilling risks and smooth casing runs
- Extend service life of the drill string

Specification

OD	Connection	OD (mm)	Joint OD (mm)	ID (mm)	Length (m)	Tensile (KN)	Torsion (KN·m)
3-1/2"	NC38	88.9	121	60	9.65±0.1	2200	45
4"	NC40	101.6	127	65	9.65±0.1	2600	63
5"	NC50	127.0	168.3	76.2	9.65±0.1	4200	100
5-1/2"	DSHT55	139.7	178	76.2	9.65±0.1	3980	124
5-7/8"	DSHT5-7/8	149.2	178	76.2	9.65±0.1	4270	138