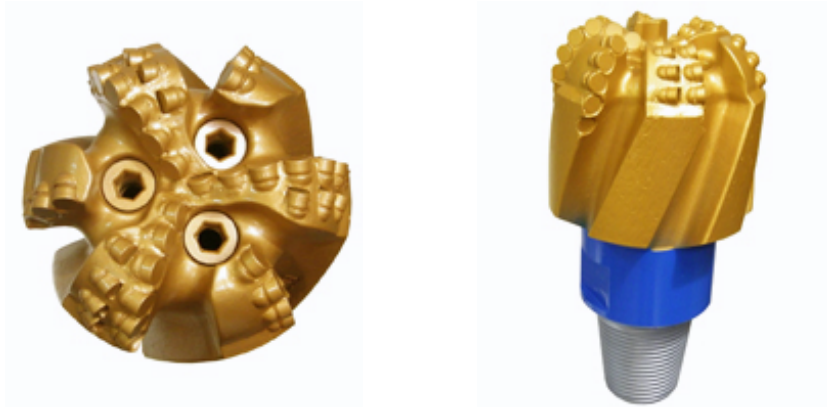


Product Report



6 5/8" DSF613M-A1

Design Features of this bit

DuraForce™ Cutters - Designed for maximized impact toughness. The cutter incorporates a new non-planar interface to minimize stresses in the cutter, polycrystalline diamond material chemistry specifically selected for impact toughness and a deep-leached Thermostable PDC surface layer for unrivaled abrasion resistance.

DiamondBack™ cutters - Are strategically positioned in the critical wear areas of the bit to provide a second row of cutters to some or all blades. This gives up to twice the PDC cutter density, enhancing the durability of the bit or tool, giving more footage and a higher average ROP (since the bit stays sharper for longer). Additionally, lateral stability is improved since the effective number of blades is dramatically increased. Available as an option in Hybrid PDC bits and tools, DiamondBack cutters replace the diamond impregnated studs in critical areas of the bit or tool.

Cutting Structure

Type	Qty	Location	Diameter	Shape
Primary	30	FACE	13 mm	CYLINDER
Primary	6	GAGE	13 mm	CYLINDER
Secondary	11	FACE	11 mm	CYLINDER

Design Specifications

Make up Length (ft): .78
 Shank Bore (ins): 1.500
 Shank Diam (ins): 4.500
 Connection std: Y
 Connection Size(ins): 3.500
 Connection Type: Api Reg Pin
 Make up Torque (ft-lbs): 8500

IADC Code92: M333
 Diameter:(ins) 6 5/8"

Body Material: Matrix

JSA(in²): 7.99
 Face Volume:(in³) 24.37
 Normalised Face vol: 48.00%

Blade Qty: 6
 Gauge Length:(ins) 4.000
 Gauge Geometry: Spiral-Trailing
 Profile: Medium Taper - Medium Cone

Recommended Operating Parameters

Max Operating WOB (klbs): 26
 TFA Range (ins²): 0.5-0.75

In some applications this bit is run successfully beyond these parameters. Contact your NOV Downhole Representative for recommended operating parameters in your application. NOV Downhole reserves the right to revise these specifications, based on advances and improvements in technology.

This report is valid for 30 days from 16-May-2012

Nozzles & Ports

Qty	Type	Size
3	AAK	VARIABLE