

THE COMMANDER NIGHTHAWK SERIES

The Commander, NightHawk Series of motors rugged design and flexibility allows operators to have the confidence and options to meet any drilling requirements.

The NightHawk Series Mud-lubed Bearing Motor features an angular contact thrust stack that carries loads both on and off bottom at high capacities. Oversized radial bearings stand up to side-loading to ensure the pack is supported and build rates are met efficiently. No seals in the tool mean it can be run in all temperatures and drilling fluid applications. The NightHawk Series Motor also features the stronges drive-lines on the market today, dramatically reducing service and maintenance costs, increasing MTBF performance, and lowering overall operating costs for customers.

DESIGN FERTURES

- Bearing mandrel designed for rugged applications
- Multiple driveshaft technology options CV, knuckle, flex and the hybrid flex
- Engineered safety features 3 plus internal motor catches
- · High Strength aircraft quality material
- Double shoulder high torque internal connections
- 3D computer aided design, FEA modeled and tested design

APPLICATIONS

- High WOB
- High Solids
- High Torque
- High flow requirements
- One run motor applications curve and lateral

CUSTOMER BENEFITS

- Low repair and maintenance costs
- Multiple runs between redress
- Designed for high temperature applications
- Efficient bit to bend lengths for optimum dogleg severity
- Simple design for repair and maintenance

SPECIFICATIONS

BOOY SIZE	5-7/8" to 6-3/4"		4-3/4"
	6" to 7"	li li	5"
	6-1/2" to 7"	Z I	5-1/2"
	7-7/8" to 8-3/4"		6-1/2"
	7-7/8" to 9-7/8"	3715	6-3/4"
	7-7/8" to 9-7/8"	<u> </u>	7"
	9-7/8" to 12-1/4"	<u> </u>	8"
	12-1/4" to 17-1/2"		9-5/8"
	16" to 26"		11-3/4"

^{*7&}quot; Lower End in 7-7/8" Hole requires the Hybrid Flex Shaft with the True 7" Fix Bend Housing and a True Slick or IB Bearing Housing."