SKF

Rubber Sealed Bit with Floating Bearing

SKF series bit is a kind or high efficiency bit for vertical and directional drilling applications, especially suitable for these kinds of drilling applications in relatively homogenous formation with good drillability. This bit is designed with floating bearing and rubber 'O' ring seal, and also utilizes optimized cutting structure and enhanced gage protection technology and therefore, it can achieve longer footage and higher ROP.

- The size range of SKF series bit is from 8 1/2 to 12 1/4 inch, and IADC varies from 117 to 537. For example: 8 1/2 SKF517G.

SKH

Rubber Sealed Bit With Journal Bearing

SKH series bit adopts journal bearing rubber O- ring seal along with more aggressive cutting structure. This bit is with the features of longer footage and higher ROP and is the ideal choice for drilling applications in upper homogenous formations.

- The size of SKH series bit is 8 ½ - 17 ½ inch and its IADC code: 116 - 537.

SKG

Rubber Sealed Bit With Roller Bearing

SKG series bit is designed with roller bearing and rubber O-ring seal. This bit can achieve longer footage and higher ROP when drilling under medium to low WOB and high RPM.

- The size range of SKG series bit is 10 5/8 - 26 inch and its IADC code: 114 -535.

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SONTEK®
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Roller cone bit and diamond bit production lines of Kingdream are equipped with more than 300 sets of internationally advanced machineries, such as five-axis machining centers, FMS production line, etc. Roller cone bits from 3 3/4 to 26 inch, both steel body and matrix body PDC bits in the size range of 3 7/8 to 17 1/2 inch can be supplied to customers both at home and abroad. Kingdream also possesses many advanced and sophisticated inspection and test facilities including plasma spectrometer, TCI image processor, new type of rock drilling tester, 600kN drilling simulator, etc. and so, quality stability of the company's product is greatly improved.

- **BIT SELECTION SOFTWARE & BIT PERFORMANCE DATABASE**

In order to provide customers with excellent technical service, Kingdream has developed Bit Selection software based on logging data analysis and also set up a complete Bit Performance Database to help customers make most appropriate bit selection.

- **FORMATION TESTER**

Formation lithology tester is specialized tester for providing technical service at drilling site. Real time testing of mechanical properties of the formation being drilled at normal and confined pressures can be realized with the tester, such as hardness, plastic coefficient, drillability, 3-axis compressive strength, elastic modulus and Poisson's ratio, etc. so that reliable formation data can be obtained for optimizing bit selection. Also, more suitable bits can be recommended for our customers through the use of formation tester.

- **BIT APPLICATION SUMMARY & ANALYSIS**

When summarizing and analyzing the bit applications, real drilling time, footage, ROP, hydraulic parameters, drilling cost and other factors which affect drilling efficiency are compared with predicted designing targets, and dull bits are also evaluated and graded. This summary and analysis process is helpful to record the success or failure of bit applications and improve bit design and bit selection.

HJ/HJT Metal Sealed Bit with Journal Bearing

HJ / HJT series bit adopts metal seal with journal bearing. Which can drill stably with higher rotary speed.

- Metal face seal journal bearing. New process of head bearing hardfacing and cone bearing silver plating are used to improve the load capacity, anti-galling ability and stability of the bearing.
- Various shapes of inserts can be equipped on this series of bits, including scoop inserts, wedge inserts, conical - spherical inserts and double sphericel inserts, etc. Drilling process & formation and bit efficient integrated by scientific insert shape selection to realize safety and high efficient drilling.
- A row of inserts is added between gage row and heel row of HJ bit to trim borehole wall and protect cone shell, and as a result, HJT series bit is formed.
- The size range of HJ / HJT series bit is 7 1/ 2 - 18 7/8 inch and its IADC code: 437 - 547.

GJ/GJT Metal Sealed Bit with Roller Bearing

GJ / GJT series bit adopts metal seal with roler bearing, which can drill stably with middle to low WOB and middle to high RPM, it's the ideal choice for higher part of well section.

- Sizes of bearing journal and rollers made larger by arranging the rollers in recesses in cone body.
- All rubber compensator is used which can limit pressure differential and prevent drilling fluid from entering the lubrication system and this provides the bearing system with good assurance of lubrication.
- Shirttail and head OD are hardfaced for enhanced gage ptotection. Center nozzle is equipped for bits of larger size.
- A row of inserts is added between gage row and heel row to trim borehole wall and protect cone shell to form the special GJT series bit.
- The size range of GJ /GJT series bit is 12 ¼-17 ½ inch and its IADC code: 114-545.

MD
High Speed Motor Bit

- MD series motor bit features high RPM, better gage protection and stability, higher reliability, excellent hydraulic effect and longer working life, etc.
- MD bit is suitable for drilling at 300 - 90 RPM and is the ideal choice for directional, horizontal and horizontal multilateral well drilling applications.
- The size range of MD series bit 7 7/8 -12 1 /4 inches and its IADC code: 437 - 647.

SWT
Steel Tooth Bit With High Efficiency

SWT series steel tooth bit with high efficiency has strong wear resistant teeth and fast ROP, bit can work stably, which is more suitable for drilling in soft or middle soft formations.

- The size range of SWT series bit is 8 ½ - 17 ½ inch and its IADC code: 117 - 127 (or 115 -125).

Mini MD
Roller Cone Bit for Slim Hole Drilling Applications

Mini MD slim hole bit is the ideal choice for drilling slim hole sections in deep and ultra-deep well drilling applications.

- The size range of Mini MD series bit is 5 ¾ - 6 ½ inch and its IADC code: 437 - 647.

HA / HAT
Roller Sealed Bit with Journal Bearing

HA / HAT series bit adopts rubber seal with journal bearing, which can sustain higher WOB under normal rotary speed and is suitable for drilling in formations from very soft to middle hard by properly selecting different cutting structure.

Main Structure Features

- Journal bearing. Hard faced head bearing surface. Inner hole of cone is silver-plated. The load capacity and seizure resistance of the bearing is greatly improved.
- O ring seal is made of the more wear resistance high saturated buna- N with the increased seal section and precisely designed sealing flange in the cone in the sealing area increased the reliability of the seal.
- The size of HA/HAT series bit is 3 ¾ - 12 ¼ inch and its IADC code: 116 - 547.

Super MD
Ultra - High Speed Motor Bit

SMD bit features long service life, high reliability and high ROP under ultra - high rotary speed conditions.

Roller - journal composite bearing with metal face seal.

Advanced cutting structure suitable for ultra-high RPM drilling.

Highly efficient hydraulic system. It is recommended that SMD bits should be run within the range of 250 to 600 RPM in order to get beter and economic drilling result.

- The size range of SMD series bit is 8 ¾ - 11 5/8 inch and its IADC code: 417 - 617.

YC
Series Single Cone Bit

The series of bit suitable for slim hole drilling operations such as side tracking and reentry operations.

- The size of YC series bit is 3 ½ - 6 ½ inch and its IADC code: 437 - 637.

HF
Series Bit for Hard Formation Drilling

- HF series has the advantages of long service life, high reliability, fast ROP and strong gage protection ability etc.

  HF series bit is the ideal choice for drilling in hard formations and high abrasive formations effectively and safely. Applying super - hard material and enhanced heel row & gage design to prevent bit from diameter shrinkage.

- The size range of HF series bit is 7 7/8 -12 ¼ inch and its IADC code: 537 - 737.

A
Series Bit For Air Drilling

In hard formation with less water content, formation with serious leakage or with low pressure, in order to achieve higher drilling speed, air drilling process is usually adopted. Problems such as short service life, low ROP, weak gage protection ability etc., appear frequently for conventional cone bit in air drilling conditions.

Aim at air drilling condition, Kingdream has developed A series bit for air drilling which has structure features of center jet hole and enhanced head O.D. The bit with these features is suitable for drillinh at air drilling application to increase observably ROP and life of the bit.

- The size range of A series bit is 5 7/8 - 12 3/8 inch and its IADC code: 537 - 627.

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