ESPARTANA®

TRICONE





TCI BIT



Metal-face sealed bearing TCI Bit

Cutting Structure: The durability of premium tungsten carbide inserts is improved with new formulas and new techniques for insert bit.

Gauge Structure Multiple gauge protection with gauge trimmers on heel and gauge inserts on the gauge surface of the cone, tungsten carbide inserts and hardfacing on the shirttail increases gauge holding capability and bearing life.

Sealed Bearing Structure: 1. Abrasion resistance and seizure resistance of the bearing are improved and suitable for high rotary speed.

The advanced metal seal package will improve the reliability and durability of bearing seal.

Main Type A

Vailable: Size: 6",6 1/2",7 1/2",8 1/2",9 1/2",9 5/8",9 7/8",12 1/4",17 1/2",

IADC Code:4-- Series, 5-- Series, 6-- Series, etc.



STEEL TOOTH BIT



Elasatomer Sealed Roller Bearing Bit

Cutting Structure The wear-resistance of teeth is enhanced with premium tungsten carbide hardfacing on the tooth surfaces for steel tooth bit.

Gauge Structure Multiple gauge protection with gauge trimmers on the heel and gauge inserts on the gauge surface of the cone, tungsten carbide inserts and hardfacing on the shirttail increases gauge holding capability and bearing life.

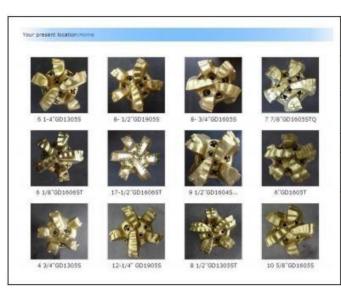
Main Type Available Size: 5 7/8",6",6 1/2",7 1/2",7 7/8",8 1/2",9 1/2",9 5/8",9 7/8",12 1/4",13 5/8",14 3/4",15",15 1/2",17 1/2",22",24",26", etc.

IADC Code:1-- Series, 2-- Series, 3-- Series

Sealed Bearing Structure 1. Abrasion resistance and seizure resistance of the bearing are improved.

2.Premium O-ring, Optimal seal compression and curved seal structure can enhance the seal performance.





Type and Features PDC bit can be customized for oil well, water well, mining, explorer well drilling.

Suitable Formation Various of hardness rocks or mud except the hardest hardness or ununiform rocks like cobble.

Main Type Bit Diameters: 5 7/8",6",6 1/2",8 1/2",9 1/2",9 5/8",9 7/8",12 1/4", etc.

Body Type: Matrix or Steel

Cutter

Sizes:5/16"(8mm),1/2"(13mm),5/8"(16mm),3/4"(19mm),etc.

Blades: 2~9 Wings.

HOLE OPENER



Cutting Structure The hole opener always have multi-cones. Bit cones are splited from Tricone Bitss and welded to bulid a big diameter bit. The pilot is attached with hole opener.

Product Application Hole opener for enlarge a small well hole to bigger diamter in construction field, bridge construction, super highway construction, railway construction etc. This kind of bits are suitable for different complexe formation, shales, limestone, cobblestone, dolomite, chert, etc.

Main Type Available ?Regular Bit Diameters: 28 ",32",36",38", etc, and any diameters can be customized, maximum diameter is 1600mm.

ESPYRTANA®

DRAG BIT



For drilling in soft formations, three or four-wing drag bits are available with either stepped or chevron profiles. Also available in certain sizes are replaceable wing drag bits



Cutting Structure: In response to the characteristics that inserts in different areas on the cone have different cutting actions, conical inserts are placed in permanent contact area and wedge inserts are placed in alternative contact area so that the drilling efficiency is greatly improved. Wear resistance of cutting structure is enhanced by setting diamond inserts in the permanent contact area of the cone where inserts are severely worn. Tungsten carbide inserts are placed on cone top face to protect cone body from abrasive erosion.

Gauge Structure: With active cutting gauge protection inserts on bit body, the bit has good gauge protection and up drill capability.

Bearing Structure: High precision journal bearing. Balls lock the cone.Hardface heard bearing surface. Cone bearing inlaid with friction-reducing alloy. Abrasion resistance and seizure resistance of the bearing are improved. Compared with three cone bit, the leg bearing is bigger, so it can receive higher WOB and high reliability.

Main Type Available Size: 4 1/8",4 1/2",4 5/8",4 3/4",5 7/8",6", etc. IADC Code: 517,527,537,617, etc.



CORE BIT



Type and Features: PDC core bit can be customized for oil well, water well, mining, explorer well drilling.

Suitable Formation: Various of hardness rocks or mud except the hardest hardness or ununiform rocks like cobble.

Main Type:

75/54mm,94/74mm,113/89mm,113/109mm,153/129mm,215/105mm,etc

DRILL PIPE



Standard: API 5D

Specification: OD: 2 3/8"-6 5/8" Steel Grade: E75, X95, G105, S135 Internal Coating: TK34, TC2000, TC3000

Hardbanding: ARNCO 100XT, 200XT, 300XT, BOTN3000,

ARMACORM

Length: R1: 5.49-6.71m R2: 8.23-9.14m R3: 11.58-13.72m Usage: As the major part of drill stem, drill pipe connected with Kelly and drill collar, which is used to put torque to drill

bit, and drill collar.



STABILIZER



Mechanical properties:

Yield Strength 110Mpa Min (0.2% offset)

Tensile Strength 140MpaMin
Elongation 13% Min
Reduction of Area 45% Min
Impact Strength 54 Min

Hardness 285HB Min