# INNC:-ㅜN 

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Innofixx Machinery Manufacturing Foreign Trade. Ind. Ltd. Co.


## Rig Mud Pump Supplier

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## 0

QUALITY SUPPLIER

Supplier of hight quality oil and gas drilling rigs

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## INNC:-NN

## COMPANY PROFILE

Innofixx is locatedin Yenimahalle District, Ankara City, OstimProvince, Turkey, which is focused on providing customerswith comprehensive international trade services, is a strategic partner of CNPC, Sinopec, CNOOC and other international large oil equipment companies, but also has to be a industry and trade integration company with the core competitiveness. Innofixx has always focused on "serving customers", adhering to the "product quality first" concept, to provide customers with "production, sales, service" trinity of system solutions. Products range from oil and gas drilling equip- ment and accessories products,to industrial standardparts, machinery and equipment and accessories. Innofixx always strictly implement of quality testing,technical service system, has cooperated with "CNPC, Sinopec,Lanshi, Honghua, Jereh, Kerui" and other large equipment companyto establish longtermcooperative relations. Relying on the factory 20 years of manufacturing experience, have developed into one of the suppliers with product qualityand price competitiveness.

## 

As a professional integrated trading and manufacturing company, we highly value the cooperative relationship with our customers. We will always prioritize your needs and provide high-quality services and solutions to help you achieve business success. İnnofixx is ready to work hand in hand with you, mutually dependent and mutually beneficial, for a better tomorrow.


## PRODUCT DESCRIPTION

$1000 \mathrm{~m}, 2000 \mathrm{~m}, 3000 \mathrm{~m}, 4000 \mathrm{~m}, 5000 \mathrm{~m}$ truck-mounted and trailer-mounted full set of drilling rigs;
$3000 \mathrm{~m}, 4000 \mathrm{~m}, 5000 \mathrm{~m}, 7000 \mathrm{~m}$ mechanical, electriccontrol room, rail-mounted skid-mounted drilling rigs,etc.

## ZJ500D Vehicle Drilling Rig

This type of drilling rig was jointlydesigned and
developed by our company and the Russian
factory, and the test in the cooperative factory was a complete success.


## ZJ200D Vehicleworkover rig

ZJ20/1350 ZJ20/1350 Oil Drilling Rig Introduc- tion 2000 m series oil drilling rigs are designed and manufactured for exploiting oil and gas well, coalbed methane well, geothermal well, shale gas well and so on. They are characterized by simple.

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## TECHNICAL PARAMETER

| Type | ZJ 10/900CZ | ZJ 15/1350CZ | ZJ 20/1580CZ | ZJ 30/1700CZ | ZJ 40/2250CZ | ZJ 50/3150CZ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Drilling depth | 1000 | 1500 | 2000 | 3000 | 4000 | 5000 |
| Workover depth | 2500 | 4500 | 5500 | 6500 | 7000 |  |
| Maximum hook load | 900 | 1350 | 1580 | 1800 | 2250 | 3150 |
| Hook speed | $0.2 \sim 1.4$ |  |  |  |  |  |
| Mast height | 29/31 | 33 | 35 | 36/38 | 38 | 39 |
| Engine (motor) power | 261 | 403 | 470 | $2 \times 403$ | $2 \times 470$ | 1000 |
| Transmission case | 4700 | M5620ARTH35 | M6620AR | 2xM5620AR | 2xM6620AR |  |
| The transmission type | Hydraulic + Mechanical |  |  |  |  | Motor Drive $+$ <br> Mechanical |
| Hoisting system | $4 \times 3$ | $5 \times 4$ | $5 \times 4$ | $6 \times 5$ | $6 \times 5$ | $6 \times 5$ |
| Wire rope Dia | \$26 | \$26 | \$29 | \$32 | \$32 | \$ 32 |
| Hook blocks model | YG90 | YG110 | YG160 | YG180 | YG225 | YG315 |
| Power Swivel model | SL110 | SL135 | SL160 | SL225 | SL225 | SL315 |
| Rotary table type | ZP175 | ZP175 | ZP175 | ZP208/ZP275 | ZP275 | P700 |
| Base plate models | XD40/8x6 | XD50/10x8 | XD60/12x8 | XD70/14x8 | XD70/14x8 | XD70/14x10 |
| Overall dimensions | $16.7 \times 2.8 \times 4.2$ | $18.8 \times 2.9 \times 4.3$ | $20.5 \times 2.9 \times 4.4$ | $22.3 \times 3.0 \times 4.5$ | $22.3 \times 3 \times 4.5$ |  |
| Weight | 50000 | 58000 | 65000 | 80000 | 85000 | 90000 |

## WORKOVER RIfi SERIES

The rig structure is compact and well designed, highly integrated, and optimized to save working space. The powersystem is a hydraulic+ mechanical type with high compre- hensive efficiency. A class II or self-propelled type chassis can be adopted to meet the various requirements of the end-users.
The mast is front-open type, with a single section or double-section structure, hydraulic raising and hydraulictelescoping, or mechanical telescoping. Band brakeor hydraulic disc brake can be appliedas
 the main brakeof the drawworks. The water coolingthrust plate pneumatic brake or water brake can be used as an auxiliary brake.

The drillfloor is a twin-body telescopic type or a parallelogram structure, both of which are convenient for installation and transportation. The dimension and height of the drillfloor can be designed according to the end-user's requirements.

| Model | XJ 900 Z | XJ 1100Z | XJ 1350Z | XJ 1600Z | XJ 1800Z | XJ 2250Z |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max hook load (kN) | 900 | 1100 | 1350 | 1600 | 1800 | 2250 |
| Rated hook load (kN) | 600 | 800 | 1000 | 1200 | 1500 | 1800 |
| Nominal Workover depth (73 mm) | 3200 | 4500 | 5800 | 7000 | 8000 | 9000 |
| Engine Power (kW) | 261 | 403 | 403 | 470 | 403×2 | 470×2 |
| Lines | 6 | 8 | 8 | 8, 10 | 8, 10 | 10 |
| Wireline Dia (mm) | 26 | 26 | 26 | 32 | 32 | 32 |
| Mast Height (m) | 29,31 | 33 | 33, 35 | 33, 36 | 36,38 | 36, 38 |
| Max hood speed (m/s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Substructure height (m) | 4 | 4.5, 5, 6 | 4.5, 5, 6 | $4.5,5,6$ | 6, 7, 7.5 | 6,7,7.5 |
| RT hole dia. (mm) | 444.5 | 444.5 | $444.5,520.7$ | $444.5,520.7$ | 698.5 | 698.5 |
| Main brake | band brake | band and disc brake | band and disc brake | band and disc brake | band and disc brake | disc brake |
| Auxiliary brake | 224WCB | 224WCB | 224WCB | 224WCB | 324 WCB | 236WCB Dynamic braking |
| Carrier model | XD40/8×6 | XD50/10×8 | XD50/10×8 | XD60/12×8 | XD70/14×8 | XD70/14×8 |
| Min ground clearance (mm) | 311 | 311 | 311 | 311 | 311 | 311 |
| Min diameter of turning circle(m) | 28 | 30 | 38 | 38 | 41 | 41 |
| Emission standard | V | V | V | V | V | V |

## | XJ550 WORKOVER RIfi



## XJ550 WORKOVER RIfi

| Item | Value |
| :--- | :---: |
| Drillingdepth(4.5'DP) | 2000 m |
| Workover depth(3.5'DP) | 4500 m |
| Maxhookload | 1350 KN |
| Mastheight | 33 m |
| Drawworks type | Doubledrum |
| Brake type | Pneumatic |
| Enginepower | $354 \mathrm{kw} / 550 \mathrm{HP}$ |
| Weight | 52 Tons |

## | XJ350 WORKOVER RIfi


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## Mud Pump Packafie

We can provide F500,E800, F1300, F1600,QZNB, 3NB seriesmud pump pumpsets with complete support- ing drillingrigs, etc.

The rig structure is compact and well designed, highly integrated, and optimized to save working space. The powersystem is a hydraulic+ mechanical type with high compre- hensive efficiency. A class II or self-propelled type chassis can be adopted to meet the various requirements of the end-users.
The mast is front-open type, with a single section or double-section structure, hydraulic raising and hydraulictelescoping, or mechanical telescoping. Band brakeor hydraulic disc brake can be appliedas the main brakeof the drawworks. The water coolingthrust plate pneumatic brake or water brake
 can be used as an auxiliary brake.

The pump is designedand manufactured in accordance with drilling pump design specifications and API standards. The pump casing is welded with high-strength steelplates, the connecting rod crossed rollingbearing, bimetallic cylinderliner, and theinner sleeve is made of high-chromium alloywith hardness of HRC62.

## QZNB-2800 MUD PUMP TECHNICAL PARAMETER

| Type | Horizontal triplex reciprocating single acting piston pump |
| :--- | :---: |
| Trip (mm) | 180 |
| Cylinder diameter (mm) | 220 |
| Flow (L/min) | $800-3500$ |
| Pressure (MPa) | $5-20$ |
| Input power (KW) | 300 |
| Outline dimensions (mm) | $7000 \times 2800 \times 2400$ |
| Outline dimensions (mm) | 12000 |
| Diesel engine model | WP12 |
| Diesel engine powe (KW) | 353 |
| Rated rotation speed (r/min) | 2100 |

## F SERIES MUD PUMP

Power end: The shell is a steel plate welded structure, and the internal stress is eliminated after welding. power end gear The gear is involute tooth type, with stable operation, high efficiency and long service life. Crankshaft is hollow Integral casting. The power end lubrication method is splash lubrication.

Fluid end: Suction and discharge flanges meet ASA and API specifications.
The piston rod and the pony rod are connected by a clamp, which can realize quick assembly and disassembly. Bottom of valve hole There is a step at
 the top to prevent the valve seat from sinking. Piston and cylinder liner powered by a separate spray pump which cooled and lubricated for a long service life.
The wearing parts can be replaceable.

| Model | F-800 | F-1000 | F-1300 | F-1600/1600L | F-1600HL | F-2200L |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. Liner, mm (Dia. $\times$ Stroke, in) | $\begin{aligned} & 170 \times 229 \\ & (6-3 / 4 \times 9) \end{aligned}$ | $\begin{aligned} & 170 \times 254 \\ & (6-3 / 4 \times 10) \end{aligned}$ | $\begin{gathered} 180 \times 305 \\ (7 \times 12) \\ \hline \end{gathered}$ | $\begin{gathered} 180 \times 305 \\ (7 \times 12) \end{gathered}$ | $\begin{aligned} & 190 \times 305 \\ & (7-1 / 2 \times 12) \end{aligned}$ | $\begin{gathered} 230 \times 356 \\ (9 \times 14) \end{gathered}$ |
| Rated Stroke, $5 / \mathrm{min}$ | 150 | 140 | 120 | 120 | 120 | 105 |
| Power Rating, kw(bp) | 597(800) | 746(1000) | 969(1300) | 1193 (1600) | 1193(1600) | 1640 (2200) |
| Gear Ratio | 4. 185: 1 | 4.207: 1 | 4.206: 1 | 4.206:1 | 4. $206: 1$ | 3.512: 1 |
| Suction Flange, in | 10 | 12 | 12 | 12 | 12 | 12 |
| Discharge Flange, in | $51 / 8$ | $51 / 8$ | 5.1/8 | 5.125 | 5 | 5 |
| Disc ha rge Pipe | 5000psi | 5000psi | 5000psi | $5^{\circ}$ FLANGE 5000psi | $5^{*}$ FLA GE 10000pis ( 110 mm ) | $\begin{aligned} & 10000 \mathrm{psi} \\ & (130 \mathrm{~mm}) \end{aligned}$ |
| Pinion Shaft Dia.mm( in ) | 177.8(7) | 196.7(7-3/4) | 215.9(8-1/2) | 215.9(8-1/2) | 215.9(8-1/2) | 254 (10) |
| Key. mm(in) | $\begin{aligned} & 44.45 \times 44.45 \\ & (1-3 / 4 \times 1-3 / 4) \end{aligned}$ | $\begin{gathered} 50.8 \times 50.8 \\ (2 \times 2) \end{gathered}$ | $\begin{gathered} 50.8 \times 50.8 \\ (2 \times 2) \end{gathered}$ | $\begin{gathered} 50.8 \times 50.8 \\ (2 \times 2) \end{gathered}$ | $\begin{gathered} 50.8 \times 50.8 \\ (2 \times 2) \end{gathered}$ | $\begin{gathered} 63.5 \times 44.45 \\ (2-1 / 2 \times 1-3 / 4) \end{gathered}$ |
| Valve Port | API \#6 | API \#6 | API \#7 | AP1 \#7 | API \#7 | API \#8 |
| Weight, kg(tb) | 14500 (31970) | 18790 (41420) | 24572(54170) | $\begin{aligned} & 24791(54660) \\ & 25900(57100) \\ & \hline \end{aligned}$ | 29400(64820) | 44000(94980) |

## MODULES AND ACCESSORIES

The modules of the hydraulic cylinder are made of high-quality alloy steel, which has undergone strict forging and heat treatment processes. Every The modules are well-made and strictly inspected. They can be one piece or two pieces Configurations designed for pressures up to 7,500 psi.
Modular accessories for hydraulic cylinders provide a full range of cylinder heads, valve lock covers, cylinder head threads Rings, cylinder head plugs, valve cover plugs, upper valve guides, lower valve guides, bushing threads Rings, liner locks, wear plates and more. Parts are precision manufactured to meet or exceed API-7K standard and they are $100 \%$ interchangeable with OEM parts for all major pump models.


| Mud Pump Models | Module with Stud | Module No Studs |
| :---: | :---: | :---: |
| Continental Emsco F-800/1000 | $6999-0086-02$ | $6999-0087-02$ |
| Continental Emsco FB-1300/1600 | $6316-0357-00$ | $6316-0356-00$ |
| Gardner Denver TEE | 200PJH029B | 200 PJH029B-NS |
| Gardner Denver PAH | 200PJH029B | 200PJH029B-NS |
| Gardner Denver PZ-7/8/9 | 205PZL029D | 205PZL029D-NS |
| Gardner Denver PZ-10/11 | 202PZL029B | 202PZL029B-NS |
| Ideco T-800/ 1000 | $551-458$ | $551-458-N S$ |
| Ideco T-1000 / 1300 | $551-122-01$ | $551-122-01-$ NS |
| Oilw ell A-850-PT / A-1100-PT | 10300181 | 10300181 NS |
| Oilw ell A-1400-PT / A-1700-PT | 10300181 | 10300181 NS |


| Mud Pump Models | Module with Stud | Module No Studs |
| :---: | :---: | :---: |
| National 8-P-80 Discarge | 1291280 | 1291281 |
| National 8-P-80 Suction | 1290338 | 1290339 |
| National 9-P-100 Discharge | 1293240 | 1293241 |
| National 9-P-100 Suction | 1290338 | 1290339 |
| National 10-P-130 Discharge | 1290335 | 1290336 |
| National 10-P-130 Suction | 1290338 | 1290339 |
| National 12-P-160 Discharge | 1292240 | 1292241 |
| National 12-P-160 Suction | 1292243 | 1292244 |
| National 14-P-220 Discharge | 1295601 | 1295602 |
| National 14-P-220 Suction | 1295604 | 1295603 |

## MUD PUMP LINER



Cftrome Alloy Sleeve Liners

- High Strength forged steel outer hull.
- High Chrome alloy inner sleeve honed to mirrorfinishes.
- Minimum uniform bore hardness 62 RC.
- HP design to prevent inner sleeve slippage.
- Built tougher to outlast our competitors.

Zirconia Liner

- High strength forged steel outer hull.
- Zirconia inner sleeve. Significant longer service and lifetime cost saving.
- Better resistance to heat andcorrosion.
- Smoothness of Zirconiainner bore translates into long

| Mud Pump Models | $4^{n}$ | $4-1 / 2^{n}$ | $5^{\prime \prime}$ | $5-1 / 2^{\prime \prime}$ | $6^{\prime \prime}$ | $6-1 / 2^{\prime \prime}$ | $7^{\prime \prime}$ | $7-1 / 2^{n}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Continental Emsco F-800/1000 |  | 5495450 | 5495500 | 5495550 | 5495600 | 5495650 | 5495700 |  |
| Continental Emsco FB-1300/1600 | 5499400 | 5499450 | 5499500 | 5499550 | 5499600 | 5499650 | 5499700 |  |
| Gardner Denver PZ-7 | PY13940 | PY13945 | PY13950 | PY13955 | PY13960 | PY 13965 | PY/3970 |  |
| Gardner Denver PZ-8/9 | 5493400 | 5493450 | 5493500 | 5493550 | 5493600 | 5493650 | 5493700 |  |
| Gardner Denver PZ-10/11 | 5496400 | 5496450 | 5496500 | 5496550 | 5496600 | 5496650 | 5496700 |  |
| Ideco T-800/1000 | 5502400 | 5502450 | 5502500 | 5502550 | 5502600 | 5502650 | 5502700 |  |
| Ideco T-1300/ 1600 |  | 5507450 | 5507500 | 5507550 | 5507600 | 5507650 | 5507700 |  |
| National 8-P-80 | 5464400 | 5464450 | 5464500 | 5464550 | 5464600 | 5464650 |  |  |
| National 9-P-100/10-P-130 | 5465400 | 5465450 | 5465500 | 5465550 | 5465600 | 5465650 |  |  |
| National 12-P-160 | 5466400 | 5466450 | 5466500 | 5466550 | 5466600 | 5466650 | 5466700 |  |
| National 14-P-220 | 5545400 | 5545450 | 5545500 | 5545550 | 5545600 | 5545650 | 5545700 |  |
| Oilw el A-850-PT/A-1100-PT | 5330400 | 5330450 | 5330500 | 5330550 | 5330600 | 5330650 | 5330700 | 5330750 |
| Oilw ell A-1400-PT/A-1700-PT | 5326400 | 5326450 | 5326500 | 5326550 | 5326600 | 5326650 | 5326700 | 5326750 |

## MUD PUMP PISTON



Uretftane Bonded Pistons -
Regular

- Single durometer urethane compound.
- Designed for moderate workingtemperature.
- Perform well in versatile environment.
- Excellent extrusionand chemical resistance

Uretftane Bonded Pistons -
Higft Temp

- Durometerurethane compound.
- Specially formulated for high working temperature.
- Perform well in versatile environment.
- Excellent extrusion and chemical resistance.

Replaceable Rubber Pistons

- Replaceable rubber kit providesoperation cost saving.
- Extended service life. Perform well in versatileenvironment.
- Excellent extrusion and abrasion resistance.

| Pump parts are available for the following Mud Pump |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bomco | F-500 | F-800 | F-1000 | F-1300 | F-1600 | F-1600HL | F-1600L | F-2200HL |
| Honghua | HHF-500 | HHF-800 | HHF-1300 | HHF-1600 | 3NB-1600F | 5NB-1600 | 5NB-2400 |  |
| Emsco | F-500 | F-800 | F-1000 | F-1300 | F-1600 | FD-1000 | FC-2200 | FB-1300 |
| Gardner | PAH | P7 | P8/9 | P10/11 | PXL | PX-11 | PZL | PY-FXD |
| National | 7-P-50 | 8-P-80 | 9-P-100 | $10-P-130$ | 12-P-160 | 14-P-200 | 14-P-220 | N- |
| Oilwell | A-850-PT | A-1100-PT | A-1700-PT |  |  |  |  |  |
| Tsc | WF-500 | WF-800 | WF-1300 | WF-1600 | WF-2000 | WF-2200 |  |  |
| Ideco | T-500 | T-800 | T-1300 | T-1600 |  |  |  |  |
| Note | Due to variation of pump models, each owner is recommended to offer the PART NUMBER of the |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

## VALVES AND SEATS



- Web seats work with stem guided valves.
- Valve inserts are tightened by steel plate and nuts.
- Valve inserts can be easily replaced with minimum down time.
- Long lasting servicelife under harsh conditions.

Full Open Valves and Seats

- Full open seats work with wing guided valves.
- Easy snapped on valve inserts for regularandRoughneck style valves.
- One-piece forged wings and valve bodies for FKN style valves.
- Diversified designs for versatile working conditions.

| API-6 | Valve Assembly |  | 60152808 | 6FO-V1 | 9700285 | 1560995 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Seat |  | 61102653 | 6FO-S1 | 9702547 | 1561380 |
|  | Seat for National Pumps |  | 61102604 | 6FO-S4 | 9702555 | 1561450 |
|  | Urethane Insert |  | 62400106 | 6FO-SI | 9705090 | 1560587 |
|  | Spring |  | 55413389 | 5710-115 | 8201650 | 1560701 |
| API-7 | Valve Assembly | 202PZL482A | 60155041 | 7FO-V1 | 9700250 | 1560985 |
|  | Seat | 202PZL039 | 61101507 | 7FO-S1 | 9702504 | 1561370 |
|  | Seat for National Pumps |  | 61102505 | 7FO-S4 | 9702539 | 1561440 |
|  | Urethane Insert | 201PZL106 | 62400338 | 7FO-SI | 9705228 | 1560557 |
|  | Spring | 5710-110 | 55413397 | 5710-115L | 8201684 | 1560702 |

## FLUID END \& PARTS



Valve Cover


Threaded Ring


Liner Flange


Piston Rod


Discharge Manifold


Cylinder Head


Wear Plate


Pacer


Crankshaft


Bull Gear


Pinion Shaft


Pinion Bearing Housing


Crankshaft Assembly


Connecting Rod


Wear Plate


2S Gear oil Pump

## FLUID END \& PARTS



Crosshead


Guide plate (Top/Below)


Baffle Disc


Double-lip Seal


Crosshead Pin


Pony Rod


Stuffing Box


0il-Seal Ring


Pulsation Dampener


Flange Elbow


## Pressure Gauge



Discharge Filter


Spray Pump

Innofixx Machinery Manufacturing Foreign Trade. Ind. Ltd. Co.

## DRILL FLOOR TOOLS



Y Series Slip Elevator

| Y Series Slip Elevator |  |  |
| :---: | :---: | :---: |
| Model | Size (in) | (Short tons) |
| LYT | $1.05 \sim 2.1 / 16$ | 20 |
| MYT | $1.315 \sim 2.7 / 8$ | 40 |
| YT | $1.315 \sim 3.1 / 2$ | 75 |
| YC | $3.1 / 2 \sim 7$ | 75 |
| MYC | $3.1 / 2 \sim 7$ | 125 |
| HYT | $2.3 / 8 \sim 3.1 / 2$ | 150 |
| HYC | $3.1 / 2 \sim 7.5 / 8$ | 200 |


| Model | OD of Tubulars | Specification of Slip Bodies | Rated Capacity (short tons) |
| :---: | :---: | :---: | :---: |
| C | 1.315~3.1/2 | 3.1/2 | 80 |
|  | 3.1/2~4.1/4 | 4.1/2 |  |
|  | 4.3/4 | 4.3/4 (Integral) |  |
|  | 5 | 5 (Integral) |  |
|  | 5.1/2 | 5.1/2 (Integral) |  |
| CHD | 1.315-3.1/2 | 3.1/2 | 125 |
|  | 3.1/2~4.1/4 | 4.1/2 |  |
|  | 4.3/4 | 4.3/4 (Integral) |  |
|  | 5 | 5 (Integral) |  |
|  | 5.1/2 | 5.1/2 (Integral) |  |
| E | 2.3/8~3.1/2 | 3.1/2 | 175 |




SD type drill pipe slips


CMS Type Casing Slips

| Model | Body |  |  | 3.1/2 |  |  | 4.1/2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SDS | Drill pipe diameter | in | 2.3/8 | 2.7/8 | 2003/1/2 | 3.1/2 | 4 | 4.1/2 |
|  |  | Mm | 60.3 | 73 | 88.9 | 88.9 | 101.6 | 114.3 |
|  | Weight | Kg | 53.1 | 50.3 | 48.5 | 64.9 | 61.7 | 57.6 |
|  |  | b | 117 | 111 | 107 | 143 | 136 | 127 |
| SDML | Drill pipe diameter | In | 2.3/8 | 2.7/8 | 3.1/2 | 3.1/2 | 4 | 4.1/2 |
|  |  | Mm | 60.3 | 73 | 88.9 | 88.9 | 101.6 | 114.3 |
|  | Weight | Kg | 87.5 | 85.3 | 81.6 | 94 | 90.3 | 85.3 |
|  |  | lb | 193 | 188 | 180 | 207 | 199 | 188 |
| SDXL | Drill pipe diameter | in | - | - | - | 3.1/2 | 4 | 4.1/2 |
|  |  | mm | - | - | - | 88.9 | 101.6 | 114.3 |
|  | Weight | kg | - | - | - | 103.9 | 99.3 | 93 |
|  |  | lb | - | - | - | 229 | 219 | 205 |
| Model | Body size |  | 5 |  |  | 5.1/2 |  |  |
| SDML | Drill pipe diameter | In | 4 | 4.1/2 | 5 | 4.1/2 | 5 | 5.1/2 |
|  |  | Mm | 101.6 | 114.3 | 127 | 114.3 | 127 | 139.7 |
|  | Weight | Kg | 92.5 | 88.9 | 84 | 90.9 | 84 | 82.1 |
|  |  | lb | 204 | 196 | 185 | 200 | 185 | 181 |
| SDXL | Drill pipe diameter | in | 4 | 4.1/2 | 4 | 4.1/2 | 5 | 5.1/2 |
|  |  | mm | 101.6 | 114.3 | 127 | 114.3 | 127 | 139.7 |
|  | Weight | kg | 107.5 | 103 | 96.6 | 106.1 | 101.5 | 95.3 |
|  |  | lb | 237 | 227 | 213 | 234 | 224 | 210 |

innovative fixing

## BOP SERIES

The main pressure-bearing parts of the BOP, side doors, gates, etc. are made of outside thefurnace.

Refining alloy steel with strict control over hazardous chemical composition of materials and non-metallic

Inclusions, the blank is forged, the structure is dense and defect-free, afterheat treatment

It has excellent comprehensive mechanical properties and good low temperature impact toughness;

- The gate cavity adopts an oval structure, which greatly reduces the shell load. force, which improves the bearing performance of the shell;
- The opening and closing of the gate and the opening and closing of the side door are hydraulically operated, and the The same hydraulic oil interface;
- All metal materials in contact with well fluids should comply with NACE MR 0175 Requirements for working in acidic conditions;


2FZ35-70


2FZ28-105

- The sealing part of the gate has a large amount of glue and relia sealing;
- The shearing ram can cut the drill pipe and achieve reliable sealing.


## TECHNICAL PARAMETER

| Type | Unit | FZ18-5 | FZ18-70 | FZ18-105 | FZ28-35 | FZ28-70 | FZ28-105 | FZ35-35 | FZ35-70 | FZ35-105 | FZ54-14 | FZ54-35 | F254-70 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The way to | mm | 179.4 | 179.4 | 179.4 | 279.4 | 279.4 | 279.4 | 346.1 | 346.1 | 346.1 | 539.8 | 539.8 | 539.8 |
| Work pressure | MPa | 34.5 | 69 | 103.5 | 34.5 | 69 | 103.5 | 34.5 | 69 | 103.5 | 13.8 | 34.5 | 69 |
| Remak |  | It adopts forging structure and is completely interchangeable with TYPE. It can be equipped with a booster cy lindet, and can be installied with sheaing rams and reducing rams. |  |  |  |  |  |  |  |  |  |  |  |

## INNG:N․N

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## CONICAL BOP

The tapered rubber core is used, and the top cover of the blowout preventer and the shell are connected by a claw block; The dynamic seal of the blowout preventer adopts the sealing ring of the lip structure, which minimizes the sealing effect. Wear of the ring, reliable sealing;

Only the piston and conical inserts are moving parts, effectively reducing the wear area and shortening the maintenance repair time; All metallic materials in contact with well fluids shall comply with NACE MR 0175 the requirements of working under conditions; There is well pressure to help seal.


FHZ28-70


FHZ35-35/70


FHZ54-14


FHZ35-70/105

| Type | Unit | FHZ18-70 | FHZ28-70 | FHZ28-105 | FHZ35-35 | FHZ35-70 | FHZ54-14 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The way to | mm | 179.4 | 279.4 | 279.4 | 346.1 | 346.1 | 539.8 |  |  |  |  |  |  |  |  |
| Work <br> pressure | MPa | 69.0 | 69.0 | 103.5 | 34.5 | 69.0 | 13.8 |  |  |  |  |  |  |  |  |
| Remark |  |  |  |  |  |  |  |  |  |  | Cast or forged construction. |  |  |  |  |

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## WINCH SERIES

Hydraulic winch is usuallycomposed of a hydraulic motor, control valve group, gearbox,roller, bracket, (clutch), rope press or rope arranging device, mounting bracket,etc. It can also be selected according to customer needs. Can be widely used in conveyor tensioning devices, marine engineering, construction, water conservancy engineering, forestry, mines, docks, as well as heavy lifting equipment Such as oil rigs, offshore oil rigs, rotary drilling rigs for piling machines, rock drills, core drills,hydrostatic piles, and more.Advantages of hydraulic winch: Small size, lightweight, small inertia force, no major impact will occur when suddenly overloaded or stopped.Easy to operate and control, high degree of automa- tion

## TECHNICAL PARAMETER

Air winch is a single-drum hand-operated pneumatic winch powered by a pistonair motor. It relies on compressed air as the power source, drives the motor, and drives the drum to rotate through the secondary gear reduction to achieve liftingand dragging of various heavy objects.


$$
4-x+1+
$$

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## HYDRAULIC WINCH

Hydraulic winch is a light and small lifting equipment that uses a drum to wind a steelwire rope to lift or pull heavy loads.
Large starting torque, can start with load. With overloadprotection function.


Small size, light weight and strong mobility.
Stepless speed change can be realized, and forward and reverse operation can be flexibly performed.
Strong practicability and strong explosion-proof, especially suitable for various harsh working environments such as high humidity, flammable, explosive, rain and snow.

| Item Model | QDJC10×24 | QDJC 50×12 | QDJC 100×12 |
| :---: | :---: | :---: | :---: |
| Working pressure (Mpa) | $0.6-0.7$ | $0.6-0.9$ | $0.8-1$ |
| Rate pull force (KN) | 10 | 50 | 100 |
| Rate power (kw) | 4 | 17 | 30 |
| Rate pull speed (m/min) | 24 | 12 | 12 |
| Rope dia. $(\mathrm{mm})$ | 10 | 16 | 24 |
| Rope length $(\mathrm{m})$ | 50 | 280 | $1260 \times 810 \times 640$ |
| Overall dimension $(\mathrm{mm})$ | $1015 \times 700 \times 550$ | $1080 \times 755 \times 560$ |  |

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## ROTARY TABLE

Rotary table is one of the driving equipments of drilling rig. It is mainly used for rotatingdrill string during drilling serviceand supporting the weight of down-hole drill string (or casing) duringtrip in \& out and casingrunning, usually used in cobination with drilling rig and workover rig. This equip- ment has put into production in batches with advanced quality in domestic market,and exported to some countries and areas such as USA, Canada, Central Asia, Southeast Asia, etc. A series of
 $75,105,175,205,275$ and 375 rotary tables have beensuccessfully developed.

| Model | ZP75 | ZP105 | ZP175 |
| :---: | :---: | :---: | :---: |
| Dia. of bore in(mm) | 7.5(190.5) | 10.5(266.7) | 17.5(444.5) |
| Max. static load lb(kN) | 131508(585) | 224800(1000) | 337200(1500) |
| Max. RPM (r/min) | 300 | 300 | 300 |
| Gear ratio | 01:03.6 | 01:03.4 | 01:03.6 |
| Weight lb(kg) | 661.39(300) | 3097.49(1405) | 8533.93(3880) |
| Overall dimensions in.(mm) | $\begin{gathered} 45.83 \times 32.28 \times 13.78 \\ (1164 \times 820 \times 350) \end{gathered}$ | $\begin{gathered} 67.13 \times 38.58 \times 20.87 \\ (1705 \times 980 \times 530) \end{gathered}$ | $\begin{gathered} 77.95 \times 50.39 \times 23.03 \\ (1980 \times 1280 \times 585) \end{gathered}$ |
| Model | ZP205 | ZP275 | ZP375 |
| Dia. of bore in(mm) | 20.5(520.7) | 27.5(698.5) | 37.5(952.5) |
| Max. static load lb(kN) | 708120(3150) | 1011600(4500) | 1315080(5850) |
| Max. RPM (r/min) | 300 | 300 | 300 |
| Gear ratio | 01:03.2 | 01:03.7 | 01:03.6 |
| Weight lb(kg) | 12742.7(5780) | 15278.02(6930) | 16490.56(7480) |
| Overall dimensions in.(mm) | $\begin{gathered} 90.55 \times 58.27 \times 26.18 \\ (2300 \times 1480 \times 665) \end{gathered}$ | $\begin{gathered} 94.49 \times 66.14 \times 26.97 \\ (2400 \times 1680 \times 685) \end{gathered}$ | $\begin{gathered} 95.75 \times 70.75 \times 27.76 \\ (2432 \times 1797 \times 705) \end{gathered}$ |

## HYDRAULIC TONFIS

ZQ Drill Pipe PowerTong is an ideal wellheadtool for oil drilling,widely applied in madding-up and breaking-out for well drilling and repairing on offshore and land.Ppen-throat design of the ZQserieswith high mobilityallows escaping from drilling pipe freely. The tong is a combination of spin- ning tong and torque tong .It substitutes cathead,suspensiontong and spinningrope in making-up and breaking-out. The Tongs are designed and manufactured according to API Spec7kSpecification for Drilling Equipment..


| Model |  |  | ZQ203-100 | ZQ203-125 | ZQ162-25 | ZQ162-50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size range |  | mm | 121203 | 127203 | 65127 | 85162 |
|  |  | in | 3.5 coupling 8 body | 3.5 couplingbody | $33 / 8$ coupling 3 1/2 body | 23/8coupling5 body |
| Hydraulic system rated pressure |  | Mpa | 16.6 | 20 | 12 | 16 |
|  |  | Psi | 2400 | 2900 | 1740 | 2320 |
| Max.torgue |  | KN.m | 100 | 125 | 25 | 50 |
|  |  | ft.lbf | 73750 | 92200 | 18440 | 36880 |
| RPM | Higear | rpm | 40 | 40 | 65 | 60 |
|  | lowgear | rpm | 2.7 | 2.7 | 10.5 | 4.1 |
| Stroke of shift cylinder |  | mm | 1500 | 1500 | 1000 | 1000 |
|  |  | in | 59 | 59 | 39.4 | 39.4 |
| Overall dimension |  | mm | $1700 \times 1000 \times 1400$ | $1720 \times 1050 \times 1750$ | $1110 \times 790 \times 820$ | $1570 \times 800 \times 1190$ |
|  |  | in | $67 \times 39 \times 55$ | $68 \times 41 \times 69$ | $44 \times 31 \times 32$ | $62 \times 31 \times 47$ |
| Weight |  | kg | 2400 | 2600 | 620 | 1500 |
|  |  | lb | 5290 | 5730 | 1360 | 3310 |

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## SHALE SHAKER

Shale shaker is the first phase solids controlequipment in oil diling mud solids control system and the important equipment in the mud recyclingsystem as well．Generally，there are single shaleshaker，duplex shaleshaker and tripleshale shaker．we can providethe shale shaker in different treatment capacity with customized serviceas per clients requirement．


1．Super G vibratory motors，free maintenance and powerful dual motors apply $7.5 \mathrm{G} \sim 8 \mathrm{G}$ to screen frame．
2．Optional screen angle adjustment while diling from $-3^{\circ}$ to $3^{\circ}$ ．
3．Screen makes fine separation，easy for removal and installation．
4．Shaker rapid positioning．5．Linear or llitical motion model at your option．

| Model | KAZSII20－00Z | KAZSII3－AHB | KAZSII4－AHB | KAZSI14－ALD | KAZTS14－AHB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vibrationlode | Linear Motion |  |  |  | Linear／Elliptillooatlion |
| Treatment Capacity（ $\mathbf{3} 3 / \mathrm{h}$ ） | 70 | 120 | 150 | 150 | 150 |
| Motor（kW） | 2 x 0.75 | $2 \times 1.5$ | 2x1． 72 | $2 \times 1.94$ | $2 \times 1.72+0.4$ |
| Screen Qty | 2 | 3 | 4 | 4 | 4 |
| Screen Size（min） | $750 \times 900$ | $585 \times 1165$ | $585 \times 1165$ | $585 \times 1165$ | $585 \times 1165$ |
| Screen Area $\left(\mathrm{m}^{2}\right)$ | 1.35 | 2.04 | 2.73 | 2.73 | 2.73 |
| Output Force | $\leqslant 7.1 \mathrm{G}$ | $\leqslant 7.5 \mathrm{G}$ | $\leqslant 7.5 \mathrm{G}$ | $\leqslant 8.0 \mathrm{G}$ | $\leqslant 7.5 \mathrm{G}$ |
| Double Amplitude（min ） | 3．92～5．62 | 4． $14 \sim 5.96$ | 4． $4 \sim 6.34$ | $4.4 \sim 6.34$ | $4.4 \sim 6.34$ |
| Deck Adjustment | $+2^{\text {。 }}$ | $-3 \sim+3$ 。 | $-3 \sim+3$ 。 | $-3 \sim+3$ 。 | $-3 \sim+3$ 。 |
| Weir Height（mill ） | 550 | 885 | 885 | 885 | 885 |
| Explosion－proof |  |  | ExdllBt4／IECEX／ | ATEX |  |
| Weight（kg） | 837 | 1365 | 1553 | 1520 | 1633 |
| Dimensions（min） | 1940x1360x970 | $2322 \times 1650 \times 1400$ | $2912 \times 1650 \times 1425$ | 2650x1650x1425 | $2912 \times 1650 \times 1425$ |

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## DRILL BITS

Bit size range from 3 7/8"to 26 " Meet with API Spec7-1 Standard. Open roller bearing or seal bearing Steel tooth tricone bits sizes range from 3 $7 / 8^{\prime \prime}$ to 26 " and cover almost allIADC codes. The steel tooth bit are always be used in drilling soft or soft-medium formation, using fields like mining, hydrology well drilling, subterranean heat well drilling, water well drilling, oil well drilling, gas well drilling.


This type of tricone bits have optimal bearing design, it can be working stably in low WOB, and high quality tungsten carbide on suiface of cones and gauge make a good wear resistance, largely extend the working life of bit.

| Tecftnical Parameters |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Drillifgarameters |  |  |  |  |  | Recommends Drillifgarameters |  |  |
| Size | Blades No. | Cutter No. | Nozzles No. | Gauge Length | API | Rotation Speed | $\begin{gathered} \text { Weight on } \\ \text { Bit } \end{gathered}$ | Diameter |
|  |  |  |  |  |  |  |  | tolerance |
| in | No. | mm | No. | in | REG | RPM | KN | mm |
| $6 "$ | 6 | 19 | $6^{\sim} 8$ | $2^{\sim} 3$ | 4-1/2 ${ }^{\prime \prime}$ | 80-380 | $25^{\sim} 120$ | -0.38 |
| 81/2 ${ }^{\prime \prime}$ | 6 | 19 | $6^{2} 8$ | $2 \sim 3$ | 6-5/8" | $60^{\sim} 350$ | $25^{\sim} 120$ | $+0,-0.51$ |
| $91 / 2^{\prime \prime}$ | 6 | 19 | $6^{\sim} 8$ | $2^{2} 4$ | 6-5/8" | $60^{2} 350$ | $30^{\sim} 140$ | +0, -0. 76 |
| 12 1/4 | 6 | 19 | $6 \sim 10$ | $2{ }^{2} 4$ | 7-5/8" | $60^{2} 300$ | $30^{\sim} 200$ | +0, -0. 76 |
| 16 | 6 | 19 | $6^{\sim} 10$ | $2^{2} 4$ | 7-5/8" | $60^{\sim} 300$ | $30^{\sim} 200$ | +0, -0.89 |
| 171/2 ${ }^{\prime \prime}$ | 6 | 19 | $6^{\sim} 8$ | $2^{\sim} 3$ | 4-1/2" | $60^{\sim} 240$ | $25^{\sim} 120$ | $+0,-0.38$ |

Remark: Depending on your requirements, wecan designand produce alhbove specification (Aldes $1 / 2^{\prime \prime \sim} 26^{\prime \prime}$ ).

## MUD CLEANER

Mud cleaner is one of the solid control system of main purification equipment, is the secondary and tertiary drilling mud solids control equipment, First,drilling fluid is separated by desander and desilter, the liquid phase overflow return circulation system, Solids is separated by shale shaker again. Removal of harmful solid phase of drilling fluid, can rapidly improve the drilling fluid performance, to meet the requirements of the new technology of high pressure jet drilling.

When necessary, can also be all-in-one vibrating screen directly used as the former vibrating screen. According to user requirements configuration different number of desanding cyclone and desilting
 cyclone.

| Model | HQ $250 \times 2-100 \times 12$ | HQJ300×2-100×16 | HQ $250 \times 3-100 \times 20$ |
| :---: | :---: | :---: | :---: |
| Capacity | $160 \mathrm{~m} 3 / \mathrm{h}$ | $200 \mathrm{~m} 3 / \mathrm{h}$ | $240 \mathrm{~m} 3 / \mathrm{h}$ |
| Motor Power | $2 \times 1.5 \mathrm{KW}$ | $2 \times 2.2 \mathrm{KW}$ | $2 \times 2.5 \mathrm{KW}$ |
| Shale Shaker Screen | $3 \times 1050 \times 700 \mathrm{~mm}$ | $4 \times 1165 \times 585 \mathrm{~mm}$ | $5 \times 1165 \times 585 \mathrm{~mm}$ |
|  | Crochet screen | Frame Screen | Frame Screen |
| Desanding Cyclone Diameter | $250 \mathrm{~mm}\left(10^{\prime \prime}\right)$ | $300 \mathrm{~mm}\left(12^{\prime \prime}\right)$ | $250 \mathrm{~mm}\left(10^{\prime \prime}\right)$ |
| Desanding Cyclone Quantity | 2 | 2 | 3 |
| Desander Separation Particle Size | $40 \sim 100 \mu \mathrm{~m}$ | $50 \sim 150 \mu \mathrm{~m}$ | $40 \sim 100 \mu \mathrm{~m}$ |
| Desiltering Cyclone Diameter | $100 \mathrm{~mm}\left(4^{\prime \prime}\right)$ | $100 \mathrm{~mm}\left(4^{\prime \prime}\right)$ | $100 \mathrm{~mm}\left(4^{\prime \prime}\right)$ |
| Desiltering Cyclone Quantity | 12 | 16 | 20 |
| Desilter Separation Particle Size | $20 \sim 40 \mu \mathrm{~m}$ | $20 \sim 40 \mu \mathrm{~m}$ | $20 \sim 40 \mu \mathrm{~m}$ |
| Supporting Sand Pump | SB6×5-37KW | SB8×6-55KW | SB8 $\times 6-75 \mathrm{KW}$ |
| Weight | 2800KG | 3100 KG | 3500KG |
| Dimension: $\mathrm{L} \times W \times \mathrm{H}$ | $2865 \times 1920 \times 2670 \mathrm{~mm}$ | $3065 \times 1920 \times 2700 \mathrm{~mm}$ | $3365 \times 1920 \times 2700 \mathrm{~mm}$ |

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## LW SERIES CENTRIFUFIE

LW series centrifuge for separation of detrital material of drilling muds is widely used in solid control system for drilling mud to separate the solids phase of mud, remove harmful fine drill solids such as debris, etc. in the mud fluid, or recov- erweighting materials such as bariteetc. so as to reduce the cost of mud fluid.


| Item of parameters | LW355×1257-N | LW450×1000-N | LW630×1260-N |
| :---: | :---: | :---: | :---: |
| Drum diameter (mm) | 355 | 450 | 630 |
| Drum length (mm) | 1257 | 1000 | 1260 |
| Drum speed (r/min) | 2800 | 2500 | 2200 |
| Separating factors | $1780 \sim 1550$ | $815 \sim 1295$ | $740 \sim 1140$ |
| Max. capacity (m3/h) | 40 | 50 | 60 |
| Main motor | YB200L-4 | YB225S-4 | YB2-250M-4 |
| Motor power (kW) | 30 | 37 | 55 |
| Auxiliary motor | YB160M-6 | YB160M-6 | YB2-180L-6 |
| Motor power (kW) | 7.5 | 7.5 | 15 |
| Dimension (mm) | $3000 \times 1476 \times 1620$ | $2750 \times 1580 \times 1780$ | $3614 \times 1873 \times 1792$ |
| Weight (kg) | 3300 | 3500 | 5000 |

## DRILLINfi FLUID DEFIASSER

Dilling fluid degasser is one of the essential solid control equipment in the process of petroleum drilling. Its main function is to separatethe gas in the mudreturned from thewellhead. The processing capacity and separation efficiency of the degasser are the main indicators to measure the performance of the equipment.


## $3 / 4$ Web Valves and Seats

- Web seats work with stem guided valves.
- Valve inserts are tightened by steel plate and nuts.
- Valve inserts can be easily replaced with minimum down time.
- Long lasting servicelife under harsh conditions.

| Model | HCQ240 | HCQ270 | HCQ300 | HCQ360 |
| :---: | :---: | :---: | :---: | :---: |
| Processing capacity ( m3/h ) | 240 | 270 | 300 | 360 |
| Vacuum (MPa ) | -0.030-0.045 | -0.08 | -0.030-0.055 | -0.040-0.065 |
| transmission ratio | 1.68 | 1.68 | 1.68 | 1.72 |
| Main motor power [kw] | 15 | 22 | 30 | 37 |
| Vacuum pump power ( kw ) | 2.2 | 3 | 4 | 7.5 |
| Speed(r/min ) | 860 | 870 | 876 | 880 |
| Exhaust capacity (m3/h) | 28 | 48 | 90 | 180 |
| Applicable mud specific gravity ( $\mathrm{g} / \mathrm{cm} 3$ ) | 52 | S2 | 52.5 | S2.5 |
| Degassing efficiency (\%) | $\geq 95$ | 295 | 295 | 295 |
| weight( kg ) | 1100 | 1350 | 1650 | 1800 |
| Overall Dimensions (mm) | $1750 \times 860 \times 1500$ | $2000 \times 1000 \times 1670$ | $2250 \times 1330 \times 1650$ | $2400 \times 1500 \times 1850$ |

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## MUD AFITATOR

The mud agitator is an importantequipment of the drilling fluid tank type solid controlsystem. It is mainly used for stirring and mixing the drilling fluid to prevent the solid phase particles of the drilling fluid from settling during the circulation process and make the drillingfluid mix uniformand stable.


- Using worm/worm gear reducer; compact structure, good meshing performance, reliable work
- Combination of explosion-proof motors, suitable for working in harsh conditions in the field

- The explosion-proof motor is directly connected to the input shaft of the reducer through an elastic coupling, and the speed of the stirring impeller is constant.
- Stirring intensity is high, and the range of influence is wide

| Model | HJBS.5 | HJB7.5 | HJB11 | HJB15 | HJB18.5 | HJB22 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Motor power (kw) | 5.5 | 7.5 | 11 | 15 | 18.5 |  |
| Impeller speed (rpm) | 57 | 57 | 58 | 58 | 58 |  |
| Impeller diameter (mm) | 800 | 850 | 900 | 1000 | 1200 | 1200 |
| Overall Dimensions (mm) | $954 \times 549 \times 583 \mathrm{~mm}$ | $1101 \times 664 \times 623 \mathrm{~mm}$ | $1222 \times 664 \times 665 \mathrm{~mm}$ | $1334 \times 734 \times 685 \mathrm{~mm}$ | $1445 \times 888 \times 770 \mathrm{~mm}$ | $1465 \times 888 \times 770 \mathrm{~mm}$ |
| weight(kg ) | 295 | 400 | 462 | 560 | 785 |  |

## PRODUCTS SHOW

The company has advanced drill pipe butt welded joint production lines, pipe pier rough production lines, drill pipe friction welding production lines, and complete drill pipe wear-resistant banding and internal coating production lines, with an annual output of 30,000 tons of drill pipes. According to API Spec 5DP standard Standard, can produce and provide 2- $-3 / 8^{\prime \prime} \sim 6-5 / 8^{\prime \prime}$ conventional drill pipes, and can also provide BH series high torsion-resistant drill pipes according to customer needs.



| Drill pipe series specifications |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notional | Calculating Plain End Weight |  | Outer diameter |  | Steel Grade | Thickness |  | Thickened form |
| specification | weight | Lb/it | kg/m | in | mm |  | In | mm |  |
| 2002/3/8 | 6.65 | 6.26 | 9.32 | 2.375 | 60.3 | Ex,G,s | 0.28 | 7.11 | EU |
| 2002/7/8 | 10.4 | 9.72 | 14.48 | 2.875 | 73 | E, X, G, S | 0.362 | 9.19 | IU orEU |
| 2003/1/2 | 9.5 | 8.81 | 13.12 | 3.5 | 88.9 | E | 0.254 | 6.45 | IU orEU |
| 2003/1/2 | 13.3 | 1231 | 18.34 | 3.5 | 88.9 | E, x, G, S | 0.368 | 9.35 | IU or EU |
| 2003/1/2 | 15.5 | 14.63 | 21.79 | 3.5 | 88.9 | E | 0.449 | 11.4 | IU orEU |
| 2003/1/2 | 15.5 | 14.63 | 21.79 | 3.5 | 88.9 | $x, G, S$ | 0.449 | 11.4 | lu or EU |
| 4 | 14 | 1293 | 19.26 | 4.000 | 101.6 | E, X, G, S | 0.33 | 8.38 | IU or EU |
| 2004/1/2 | 13.75 | 12.24 | 18.23 | 4.5 | 114.3 | E | 0.271 | 6.88 | IU orEU |
| 2004/1/2 | 16.6 | 14.98 | 22.31 | 4.5 | 114.3 | E, X, G, S | 0.337 | 8.56 | IU or Eus |
| 2004/1/2 | 20 | 18.69 | 27.84 | 4.5 | 114.3 | E, X, G, 5 | 0.43 | 10.92 | lUorEU |
| 5 | 16.25 | 14.87 | 22.15 | 5 | 127 | x, G, 5 | 0.296 | 7.52 | lu |
| 5 | 19.5 | 17.93 | 26.71 | 5 | 127 | E | 0.362 | 9.19 | IEU |
| 5 | 19.5 | 17.93 | 26.71 | 5 | 127 | x,G, S | 0.362 | 9.19 | IU orEU |
| 5 | 25.6 | 24.03 | 35.79 | 5.00\% | 127 | E | 0.5 | 12.7 | IEU |
| 5 | 25.6 | 24.03 | 35.79 | 5 | 127 | X,G,s | 0.5 | 12.7 | Nor Eu |
| 2005/1/2 | 21.9 | 19.81 | 29.51 | 5.5 | 139.7 | E, X, G, S | 0.361 | 9.17 | IEU |
| 2005/1/2 | 24.7 | 2254 | 33.57 | 5.5 | 1397 | E, X, G, S | 0.415 | 10.54 | IEU |
| 2006/5/8 | 25.2 | 22.19 | 33.05 | 6.625 | 168.3 | E, X, GS | 0.33 | 8.38 | IEU |
| 2006/5/8 | 27.7 | 24.21 | 36.06 | 6.625 | 168.3 | E, X, G, S | 0.362 | 9.19 | IEu |

## DRILL COLLAR

## A TYPE DRILL COLLAR

TypeA (Cylindrical)
Be Made of alloy steel and the cross
sections of the inside


| Oster Alameter |  | Yad Stergth MPa | Tensilo Strength Mpa | Eiongaton \% | Brinell Hardness HB | Impad APVI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mn | in |  |  |  |  |  |
| 79.4-171.4 | 38-62 | 2758 | 2965 | 213 | 285-341 | 254 |
| 177.8-279.4 | 45118 | 2689 | 2930 | 213 | 285-341 | 254 |

Asan important part ofdrill string,drill collar can supplythe drill bit and increasethe rigidity of drill string

| Oster dameter |  | Inner diameter |  | $\begin{gathered} \text { Lergth mm } \\ \hline \text { s1so } \end{gathered}$ | Chamfer Diameter man <br> 76.2 | Thread Connection <br> NC2111 | alenang Ration <br> $2.57: 1$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3-1/8 | 72.4 | 1-1/4 | 31.8 |  |  |  |  |
| 3-1/2 | 32. | 1-1/2 | 31.1 | 2150 | 32.9 | NC26-35(2318) | 2.42:1 |
| 4-1/8 | 104.3 | 2 | 50.8 | 2150 | 200.4 | NC11-41(27117) | 2.43:1 |
| 4-1/4 | 120.7 | 2 | 50.8 | 9150 | 114.7 | NCLS-47 | 2.58:1 |
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