

2013年 产品目录

2013 YAOU-NOW PRODUCTS



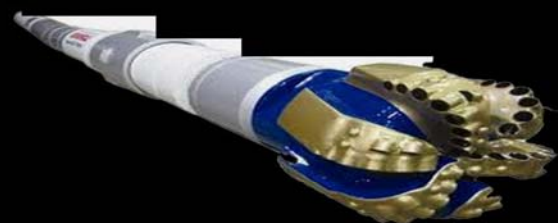
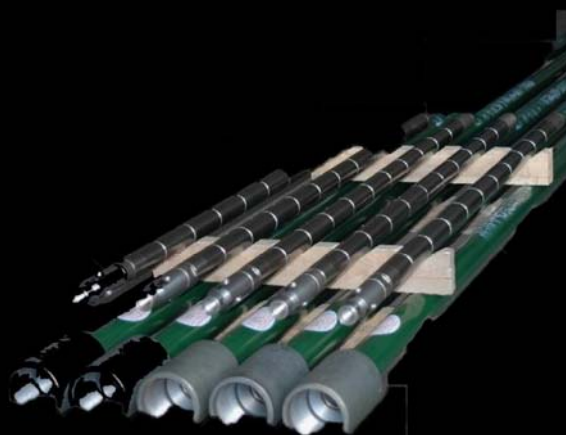
如皋市雅鸥进出口贸易有限公司

RUGAO YAOU IMPORT AND EXPORT TRADE CO., LTD

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2013 PRODUCT CATALOG



如皋市雅鸥进出口贸易有限公司
RUGAO YAOU IMPORT AND EXPORT TRADE CO.,LTD



一、Spiral drill collar★钻铤

1、Drill collar

普通钻铤



标准钻铤

The drill collar is mainly used to provide bit weight to drill bit so that drill pipe is in tension. Especially drill collar can keep drill bit centralized and hole track by large rigidity. MS brand drill collar are manufactured strictly from API Spec.7 and SY5144 standard.



Materials:

Drill collars are manufactured from AISI 4145H modified steel, and are supplied in the "as rolled" surface finish condition. Alternative surface finishes are available.

Trepanning and Heat Treatment:

Drill collars are trepanned and drifted to API Spec 7-1. Full-length heat-treatment processes ensure that mechanical properties meet or exceed API Spec 7-1 requirements. A hardness range of 285-341, Brinell hardness and Charpy "V" notch minimum impact strength of 40 ft-lb at 70 F are guaranteed one inch below the surface.

Traceability:

Drill collar material and process traceability are maintained from receipt of the mill's certified raw material to completion of manufacturing. Serial numbers are die stamped on bar bodies.

Rigid Inspection Procedures:

We inspect all our drill collars to ensure compliance with API SPEC 7-1 standards. These inspections include visual dimensional checks as well as ultrasonic inspections over the entire body of the drill collar.

Cold Rolling:

Drill collar thread roots, as well as elevator recess upper radius, are cold-rolled. Cold rolling creates a compressive recess upper radius stress condition that increases fatigue life by minimizing crack initiation.

Phosphate-coated or Copper Plating:

All connections are phosphate-coated or copper plated to improve resistance to corrosion.

Slip Groove, Elevator Groove and Size:

Huanjie offers optional slip and elevator recesses to improve handling efficiency and safety. Unless otherwise specified slip and elevator recesses are machined in compliance with API spec 7-1 guidelines.

Thread Protectors:

Our company offers steel, cast steel and plastic steel thread protectors for its drill stem products.



Technical specification and parameters

Drill Collar Number	O.D.		I.D.		Length (mm)	Bevel Diameter	Refbend g Strength ratio
	mm	in	mm	in			
NC23-31	79.4	3 1/8	31.8	1 1/2	9150	76.2	2.57:1
NC26-35(2 3/8 IF)	88.9	3 1/2	38.1	1 1/2	9150	82.9	2.42:1
NC31-41(2 7/8 IF)	104.8	4 1/8	50.8	2	9150	100.4	2.43:1
NC35-47	120.6	4 3/4	50.8	2	9150	114.7	2.58:1
NC38-50(3 1/2 IF)	127.0	5	57.2	2 1/4	9150	121.0	2.38:1
NC44-60	152.4	6	57.2	2 1/4	9150&9450	144.5	2.49:1
NC44-60	152.4	6	71.4	2 13/16	9150&9450	144.5	2.84:1
NC44-62	158.8	6 1/4	57.2	2 1/4	9150&9450	149.2	2.91:1
NC46-62(4IF)	158.8	6 1/4	71.4	2 13/16	9150&9450	150.0	2.63:1
NC46-65(4IF)	165.1	6 1/2	57.2	2 1/4	9150&9450	154.8	2.76:1
NC46-65(4IF)	165.1	6 1/2	71.4	2 13/16	9150&9450	154.8	3.05:1
NC46-67(4IF)	171.4	6 3/4	57.2	2 1/4	9150&9450	159.5	3.18:1
N50-67(4 1/2 IF)	171.4	6 3/4	71.4	2 13/16	9150&9450	159.5	2.37:1
NC50-70(4 1/2 IF)	177.8	7	57.2	2 1/4	9150&9450	164.7	2.54:1
NC50-70(4 1/2 IF)	177.8	7	71.4	2 13/16	9150&9450	164.7	2.73:1
NC50-72(4 1/2 IF)	184.2	7 1/4	71.4	2 13/16	9150&9450	169.5	3.12:1
NC56-77	196.8	7 3/4	71.4	2 13/16	9150&9450	185.3	2.70:1
NC56-80	203.2	8	71.4	2 13/16	9150&9450	190.1	3.02:1
6 5/8 REG	209.6	8 1/4	71.4	2 13/16	9150&9450	195.7	2.93:1
NC61-90	228.6	9	71.4	2 13/16	9150&9450	212.6	3.17:1
7 5/8 REG	241.3	9 1/2	76.2	3	9150&9450	223.8	2.81:1
NC70-97	247.6	9 3/4	76.2	3	9150&9450	232.8	2.57:1
NC70-100	254	10	76.2	3	9150&9450	237.3	2.81:1
8 5/8 REG	279.4	11	76.2	3	9150&9450	266.7	2.84:1



2、Spiral Drill Collar

螺旋钻铤





Spiral drill collar is used to reduce contact area with hole so as to avoid efficiently bit sticking from differential pressure. MS brand spiral drill collars are manufactured strictly according to API Spec.7 and Standard SY5144, all mechanical properties meet with above standards.

Spiral drill collar are a kind of petroleum drilling tool series of our company. This kind of drill collar is capable of preventing differential pressure detention of tools during drilling. Spiral grooves will enable the mud to flow freely around the drill collar to use balance pressure to prevent the formation of obstruction so as to effectively prevent differential pressure jamming. The contact area against the wall of the well can be cut so as to effectively reduce the possibility of forming differential pressure obstruction.

Spiral grooves will enable the mud to flow freely around the drill collar to use balance pressure to prevent the formation of obstruction so as to effectively prevent differential pressure jamming. The contact area against the wall of the well can be cut so as to effectively reduce the possibility of forming differential pressure obstruction.

The extensive use of spiral drill collar is based on its characteristics. This special drill collar is able to reduce the contact area between the well wall and the pipe so as to avoid "rock-drilling jamming" of the drill string.

The weight of spiral drill collar is 4-6% less than that of the round drill collar.

Sizes for drill collar spiral groove

O.D.		Cutting depth		Lead ± 25.4
Mm	in	A(mm)	B(mm)	mm
86	3 3/8	3.5 ± 0.79		679
98.4	3 7/8	4.0 ± 0.79		914
101.6~111.1	4~4 1/8	4.8 ± 0.79		914
114.3~130.2	4 1/2~5 1/8	5.6 ± 0.79		965
133.4~146.1	5 1/4~5 3/4	6.4 ± 0.79		1067
149.2~161.9	5 7/8~6 3/8	7.1 ± 1.59		1067
165.1~177.8	6 1/2~7	7.9 ± 1.59		1168
181.0~200.0	7 1/8~7 7/8	8.7 ± 1.59	5.6 ± 0.79	1626
203.2~225.4	8~8 7/8	9.5 ± 1.59	6.4 ± 0.79	1727
228.6~250.8	9~9 7/8	10.3 ± 2.37	7.1 ± 1.59	1829
254.0~276.2	10~10 7/8	11.1 ± 2.37	7.9 ± 1.59	1930
279.4	11	11.9 ± 2.37	8.7 ± 1.59	2032



3、Spiral Drill Collar With Elevator Groove And Slip Groove

吊卡槽、卡瓦槽螺旋钻铤



Elevator groove and slip groove made on box thread face of slick drill collar or spiral drill collar can be used as lifting sub and safety slip when trip out. The technical parameters for elevator groove and slip groove is as per API spec 7-1 .Hard banding is optional at customers request.

Technical specification and parameters

Drill collar ranges O.D. (mm)	Elevator groove depth(mm)	Elevator groove length(mm)	Slip groove depth(mm)	Slip groove length(mm)
101.6~117.5	5.6	4.8	406	457
120.6~142.9	6.4	4.8	406	457
146.0~168.3	7.9	6.4	406	457
171.4~219.1	9.5	6.4	406	457
≥222.2	11.1	6.4	406	457



Size	Tube OD (+1/16,-1/32)	Tube OD ¹	Tool Joint OD (+1/16,-1/32) ²	Tool Joint OD (+1/8,-0)	Connection	Max Elevator Upset Dia	Center Upset Dia (+1/16,-1/32)	Min Drift Dia ³
						Deu	Dcu	
3 1/2	3 1/2	2 1/4	4 3/4 (4 7/8,5)	2 1/4	NC 38	3 7/8	4	2
		2 1/16		2 1/16				1 13/16
4	4	2 1/2	5 1/4	2 1/2	NC 40	4 3/16	4 1/2	2 1/4
		2 9/16		2 9/16				2 5/16
4 1/2	4 1/2	2 11/16	6 1/4	2 11/16	NC 46	4 11/16	5	2 7/16
		2 3/4		2 3/4				2 1/2
		2 13/16		2 13/16				2 9/16
5	5	3	6 5/8	3	NC 50	5 1/8	5 1/2	2 3/4
5 1/2	5 1/2	3 1/4	7 (7 1/4,7 1/2)	3 1/4	5 1/2 FH	5 11/16	6	3
		3 3/8		3 3/8				3 1/8
		3 7/8		3 7/8				3 5/8 3/4
		4		4				3 3/4
6 5/8	6 5/8	4	8 (8 1/4,8 1/2)	4	6 5/8 FH	6 15/16	7 1/8	3 3/4
		4 1/2		4 1/2				4 1/4
		5		5				4 3/4
1.Maximum tube ID is 1/8 larger than nominal.Minimum tube ID is controlled by the drift requirement. 2.Optional Tool Joint ODs shown in parenthesis,to be agreed between purchaser and manufacturer. 3.Drift Diameter is based on ID tolerances of heavy wall pierced tube used for the center section.								



Short Drill Collar



Short Drill Collar Type DZT

The short drill collar produced by our company is made of special alloy steel and is accordant with mechanical property of drill collars. Besides, the connection of the drill collar is accordant with API. It is mainly used for connecting special tools or composing drill tools.

Normal Size Specification	O.D.	Connection	Length Series
mm(in)	in	API	ft-in
	(mm)		(mm)
4-1/8 (105)	2(50)	NC31	3', 6', 9', 12', 15, 18', 21', 24', 27' (915, 1,830, 2,743, 3,660, 4,575, 5,490, 6,405, 7,320, 8,235)
4-3/4 (121)	2(50)	NC35	
5 (127)	2-1/4(57)	NC38	
6-1/4 (159)	2-13/16(71)	NC46	
6-1/2 (165)	2-13/16(71)	NC46	
7 (178)	2-13/16(71)	NC50	
8 (203)	2-13/16(71)	NC56	
9 (229)	2-13/16(71)	NC61	

According to customer requirements, we can design and manufacture other serial specification products.



二、Integral drill pipe★钻杆



Our company's drill pipes are in accordance with API 5D, API SPEC 7 Standards. The material of drill pipe body are chosen by the 1&3 group of API 5D.(Group 1-Grade E75; Group 3-Grade X95, G105, S135).

The choice of tool joints is according to the customers' requirements, and the tool joints are up to API SPEC7 Standards.

First, uses the double ledge attachment drill rod the reason

■ The ordinary API male union because attaches the thread outer diameter limit, the API drill rod has pair of contradictory: Attaches anti turns the intensity and the male union flushing port size. The S135 high strength drill rod, the contradiction is in particular more prominent

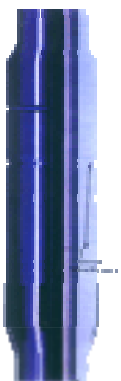
■ attaches the flushing port size to increase, attaches antiturns the intensity to reduce, antiturns the strength ratio with the tube body to reduce; (2) attaches flushing port minification, attaches antiturns the intensity to increase, but the hydraulic horsepower loss increases.

How therefore both can increase the flushing port size, and can not reduce, even increases the attachment anti- to turn the intensity.

■ Bohai Sea can a gram company produce the double ledge attachment drill rod can solve this problem well: Both may increase the attachment flushing port size, reduces the hydraulic horsepower to lose, and can enhance the attachment anti- to turn the intensity, causes to attach anti- turns the intensity to be higher than the tube body antito turn the intensity.

Second, double ledge attachment drill rod principle:

■ Ordinary API attaches anti- turns the intensity by the outside ledge contacted area, the diameter and male union thread pitch diameter place thickness decided that, these attach the outer diameter and the male union flushing port size limit. The double ledge attachment has two ledges: Is outside the ledge, another is in the ledge. In the ledge plays to increases anti- turns the intensity the role, after causes the drilling rod coupling flushing port suitably to increase, but also can guarantee the attachment antito turn strongly is higher than the tube body anti-





to turn the intensity.

■ Turns on lathe after the double ledge attachment gathers, outside the ledge goes against, in the ledge 留有 the very small gap outside, by guarantees the ledge to be able to play to the seal role, after the screw on achieved the certain torque in the ledge goes against, after achieved on the torque, in the ledge anti- turns the intensity to have an effect.

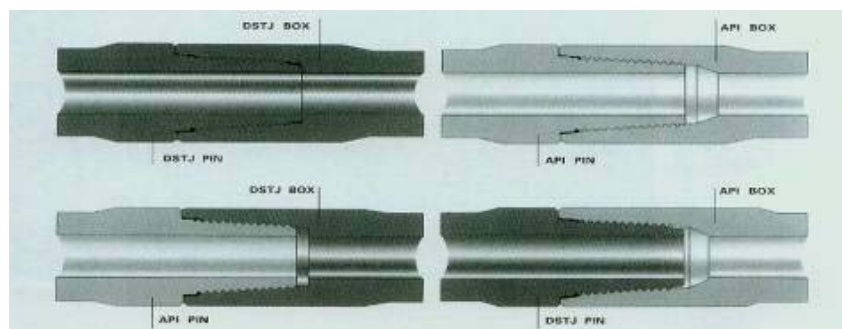
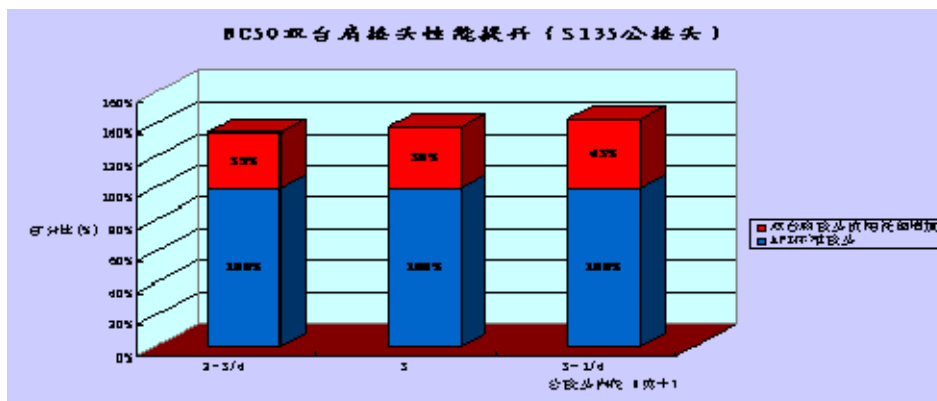
Third, double ledge attachment performance and merit:

■ The double ledge attachment performance attached list shows, the merit is the attachment flushing port may suitably increase, like the S135 drill rod male union flushing port size 2-3/4 "increases from the API request to 3-1/4", but attaches and the tube body anti- turns the strength ratio from 0.86 to increase to 1.00, achieved both has been able suitably to increase the flushing port size and to be able to enhance attaches anti- turns the intensity the goal, enhanced the drill rod whole anti- to turn the intensity, at the same time also could meet the well drilling need well. At the same time the double ledge attachment drill rod and the ordinary API drill rod may exchange.

■ Double ledge attachment drill rod use matters needing attention:

■ A. When screw on certainly must achieve the stipulation the tightening torque, because the double ledge attachment anti- turns strength ratio same specification API to attach anti- turns the intensity to be high, therefore the double ledge drill rod tightening torque also should correspondingly enhance. B. When transporting and use drill rod in pays attention must bump into and injure the ledge end surface, in drills on Taiwan to put the column in particular under to be supposed to have the bolster. The double ledge attachment drill rod repairs the buckle:

■ The double ledge attachment drill rod and the ordinary API drilling rod coupling may carry on equally repairs the buckle, only must pay attention is in the male and female the ledge length certainly must control, this also is the double ledge attachment difficulty, can a gram company be possible to provide the technical support in this aspect Bohai Sea. Moreover the pair of ledge attachment drill rod and the ordinary API drill rod definitely may exchange the use.





Sour Service Drill Pipe

- Along with the well drilling depth unceasing increase, the complex stratum appears unceasingly, specially contains the sulfur stratum increasing, has safely brought the test for the well drilling, once when well drilling will appear the hydrogen sulfide, the drilling tool can break suddenly in the very short time, the hazardous nature will be extremely big.
- In the last few years more and more many users all proposed the antisulfur drill rod demand. Therefore Bohai Sea could the gram establish the anti- sulfur drill rod development from 2003, at present has had produces the C105S grade of steel the antisulfur drill rod technology, at present in order to adapt the Talimu deep well antisulfur drill rod request, the company was carrying on the C120S drill rod the development.

V150 High Torque Drill Pipe

- What at present in the API series drill rod the intensity is highest is the S135 grade of steel. But along with the well drilling depth unceasing increase, also unceasingly is enhancing to the drill rod intensity request.
- In view of this kind of situation, Bohai Sea could gram and NKK develops the V150 drill rod, the attachment intensity also had from 120Ksi enhances to 135Ksi, after managed the body and the attachment enhances the intensity still to have the enough resilience, had the higher comprehensive machine capability, will satisfy the next extra-deep well the well drilling need.



Hard Banding Series

- The tungsten carbide bears the abrasive belt series
- The tungsten carbide bears the abrasive belt to have the very high resistance to wear, after the attachment welds this kind to bear the abrasive belt, the attachment is life-long cannot wear. Minute S1000, S3000, the S6000 three kind of series bear the abrasive belt, S1000 are the fine grain tungsten carbide pellets, can avoid the drive pipe wearing well, S3000 is the large grain tungsten carbide pellet, the grain density is high, has the very high resistance to wear, suits in uses in the open hole, S6000 also is the large grain tungsten carbide pellet, but the majority of tungsten carbides pellet in the wear-resisting generation, like this both may the very good local constable protect the drive pipe, and can teach to avoid the drive pipe the attrition. And already may the built-up welding be even -like bears the abrasive belt, also may the built-up welding bulge type bear the abrasive belt, also the built-up welding together bears the abrasive belt in the box 18 inclines, prevents 18 inclines the attrition.
- The ARNCO series bears the abrasive belt
- The ARNCO series bears the abrasive belt to favor the splice case, after bears the abrasive belt to wear may again the built-up welding, divides ARNCO 100, ARNCO 200, the ARNCO 3,003 kinds bears the abrasive belt.
- ARMACOR bears the abrasive belt
- This kind bears the abrasive belt and ARNCO bears the abrasive belt to be similar, favors the splice case, in overseas has some users to use



this kind to bear the abrasive belt. Bohai Sea can the gram be possible to act according to the user above the request built-up welding each kind of series to bear the abrasive belt.



GENERAL DATA

1.MECHANICAL PROPERTIES OF DRILL PIPE

Grade	Yield Strength				Tensile Strength		Elongation
	min		max		min		min.percent
	Psi	MPa	Psi	MPa	Psi	MPa	in 2 in. (50.88mm)
E-75	75,000	517	105,000	724	100,000	689	API 5D
X-95	95,000	655	125,000	862	105,000	724	API 5D
G-105	105,000	724	135,000	931	115,000	793	API 5D
S-135	135,000	931	165,000	1138	145,000	1000	API 5D

Tool joints

Yield Strength		Tensile Strength		Minimum
Psi	MPa	Psi	MPa	Elongation,percent
120,000	827	140,000	965	13

SOUR SERVICE DRILL PIPE

For drilling high pressure sour gas well,BHNC's special grade drill pipe BNK C958/Tool Joint is available.

Grade	Yield Strength				Tensile Strength		Elongation	Hardness
	min		max.		min.		min.percent	max.
	Psi	MPa	Psi	MPa	Psi	MPa	in 2 in (50.88mm)	(HRC)
BNK C95S	95,000	655	110,000	757	105,000	724	API 5D	25.4
BNK C105S	105,000	724	135,000	931	115,000	793	Same as above	28.0

SOUR SERVICE TOOL JOINT

Grad	Yield Strength				Tensile Strenght		Elongation	Hardness
	min		max.		min.		min.percent	max.
	Psi	MPa	Psi	MPa	Psi	MPa	in 2 in (50.88mm)	(HRC)



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BNK TJ95S	95,000	655	110,000	757	105,000	724	11	25.4
BNK TJ105S	105,000	724	120,000	827	115,000	792	10	28
BNK TJ110S	110,000	758	125,000	861	120,000	827	10	29.0

Size	Nominal	Pipe				Tool Joint		
		Pipe		Upset	Grade	Designation	Outside Diameter of pin	Inside Diameter of pin
		Wall Thickness	Inside Diameter					
in(mm)	Lbs	in (mm)				in (mm)		
2 ³ / ₈ (60.3)	6.65	0.280(7.11)	1.815(46.1)	EU	E75	*NC26(2 ³ / ₈ IF)	3 ³ / ₈ (85.7)	1 ³ / ₄ (44.5)
2 ³ / ₈ (60.3)	6.65	0.280(7.11)	1.815(46.1)	EU	X95	*NC26(2 ³ / ₈ IF)	3 ³ / ₈ (85.7)	1 ³ / ₄ (44.5)
2 ³ / ₈ (60.3)	6.65	0.280(7.11)	1.815(46.1)	EU	G105	*NC26(2 ³ / ₈ IF)	3 ³ / ₈ (85.7)	1 ³ / ₄ (44.5)
2 ⁷ / ₈ (73.0)	10.40	0.362(9.19)	2.151(54.6)	EU	E75	*NC31(2 ⁷ / ₈ IF)	4 ¹ / ₈ (104.8)	2 ¹ / ₈ (54.0)
2 ⁷ / ₈ (73.0)	10.40	0.362(9.19)	2.151(54.6)	EU	X95	*NC31(2 ⁷ / ₈ IF)	4 ¹ / ₈ (104.8)	2(50.8)
2 ⁷ / ₈ (73.0)	10.40	0.362(9.19)	2.151(54.6)	EU	G105	*NC31(2 ⁷ / ₈ IF)	4 ¹ / ₈ (104.8)	2(50.8)
2 ⁷ / ₈ (73.0)	10.40	0.362(9.19)	2.151(54.6)	EU	S135	*NC31(2 ⁷ / ₈ IF)	4 ³ / ₈ (111.1)	1 ⁵ / ₈ (41.3)
3 ¹ / ₂ (88.9)	9.50	0.254(6.45)	2.992(76.0)	EU	E75	*NC38(3 ¹ / ₂ IF)	4 ³ / ₄ (120.7)	3(76.2)
3 ¹ / ₂ (88.9)	13.30	0.368(9.35)	2.764(70.2)	EU	E75	NC38(3 ¹ / ₂ IF)	4 ³ / ₄ (120.7)	2 ¹¹ / ₁₆ (68.3)
3 ¹ / ₂ (88.9)	13.30	0.368(9.35)	2.764(70.2)	EU	X95	*NC38(3 ¹ / ₂ IF)	5(127.0)	2 ⁹ / ₁₆ (65.1)
3 ¹ / ₂ (88.9)	13.30	0.368(9.35)	2.764(70.2)	EU	G105	NC38(3 ¹ / ₂ IF)	4 ³ / ₄ (120.7)	2 ¹¹ / ₁₆ (68.3)
3 ¹ / ₂ (88.9)	13.30	0.368(9.35)	2.764(70.2)	EU	G105	NC38(3 ¹ / ₂ IF)	4 ³ / ₄ (120.7)	2 ⁹ / ₁₆ (65.1)
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3 ¹ / ₂ (88.9)	13.30	0.368(9.35)	2.764(70.2)	EU	S135	*NC38(3 ¹ / ₂ IF)	5(127.0)	2 ¹ / ₈ (54.0)
3 ¹ / ₂ (88.9)	15.50	0.449(11.4)	2.602(66.1)	EU	E75	NC38(3 ¹ / ₂ IF)	4 ³ / ₄ (120.7)	2 ¹¹ / ₁₆ (68.3)
3 ¹ / ₂ (88.9)	15.50	0.449(11.4)	2.602(66.1)	EU	E75	NC38(3 ¹ / ₂ IF)	4 ³ / ₄ (120.7)	2 ⁹ / ₁₆ (65.1)
3 ¹ / ₂ (88.9)	15.50	0.449(11.4)	2.602(66.1)	EU	E75	*NC38(3 ¹ / ₂ IF)	5(127.0)	2 ⁹ / ₁₆ (65.1)

drill pipe

Size	Weight Designation	Calculated Plain-End Weight		Outside Diameter		Grade	Wall Thickness		Upset Ends. For Weld-on Tools Joint
		Lb/ft	kg/m	in	mm		In	mm	
2 3/8	6.65	6.26	9.32	2.375	60.3	E,X,G,S	0.280	7.11	EU
2 7/8	10.40	9.72	14.48	2.875	73.0	E,X,G,S	0.362	9.19	IU or EU



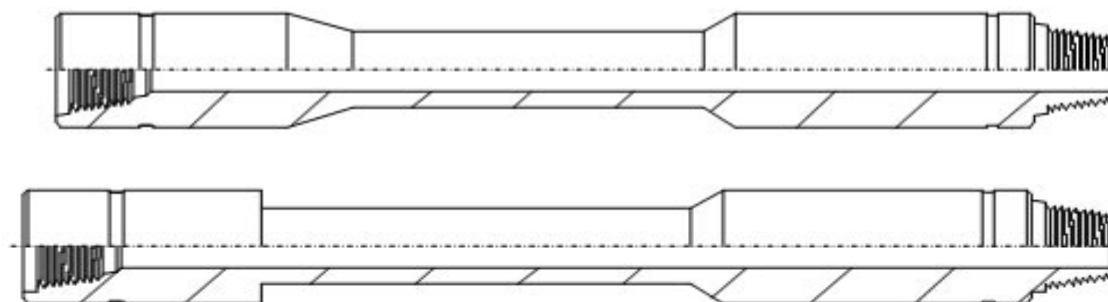
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3 1/2	9.50	8.81	13.12	3.500	88.9	E	0.254	6.45	IU or EU
3 1/2	13.30	12.31	18.34	3.500	88.9	E,X,G,S	0.368	9.35	IU or EU
3 1/2	15.50	14.63	21.79	3.500	88.9	E	0.449	11.40	IU or EU
3 1/2	15.50	14.63	21.79	3.500	88.9	X,G,S	0.449	11.40	EU or IEU
4	14.00	12.93	19.26	4.000	101.6	E,X,G,S	0.330	8.38	IU or EU
4 1/2	13.75	12.24	18.23	4.500	114.3	E	0.271	6.88	IU or EU
4 1/2	16.60	14.98	22.31	4.500	114.3	E,X,G,S	0.337	8.56	EU or IEU
4 1/2	20.00	18.69	27.84	4.500	114.3	E,X,G,S	0.430	10.92	EU or IEU
5	16.25	14.87	22.15	5.000	127.0	X,G,S	0.296	7.52	IU
5	19.50	17.93	26.71	5.000	127.0	E	0.362	9.19	IEU
5	19.50	17.93	26.71	5.000	127.0	X,G,S	0.362	9.19	EU or IEU
5	25.60	24.03	35.79	5.000	127.0	E	0.500	12.70	IEU
5	25.60	24.03	35.79	5.000	127.0	X,G,S	0.500	12.70	EU or IEU
5 1/2	21.90	19.81	29.51	5.500	139.7	E,X,G,S	0.361	9.17	IEU
5 1/2	24.70	22.54	33.57	5.500	139.7	E,X,G,S	0.415	10.54	IEU
6 5/8	25.20	22.19	33.05	6.625	168.3	E,X,G,S	0.330	8.38	IEU
6 5/8	27.70	24.21	36.06	6.625	168.3	E,X,G,S	0.362	9.19	IEU

Tensile								
Group	Grade	Yield Strength				Tensile Strength		Elongation, Min. Percent in 2 in. (50. 80mm) %
		Minimum		Maximum		Minimum		
		psi	Mpa	psi	Mpa	psi	Mpa	
1	E-75	75000	517	105000	724	100000	689	See footnotea
3	X-95	95000	655	125000	862	105000	724	See footnotea
	G-105	105000	724	135000	931	115000	793	See footnotea
	S-135	135000	931	165000	1138	145000	1000	See footnotea



Short Drill Pipe



Short drill pipe is a tool for adjusting interval length of drilling tools to achieve some technical purpose in the drilling operation . According to the shape of the shoulder, the structure includes sloping shoulder and straight shoulder.

Type	O.D. (in)	Connection	Length (m)	Type	O.D. (in)	Connection	Length(m)
DZ60	2 3/8	NC26	1、 1.5、 2、 2.5、 3	DZ114	4 1/2	NC50	1、 1.5、 2、 2.5、 3
DZ73	2 7/8	NC31	1、 1.5、 2、 2.5、 3	DZ127	5	NC50	1、 1.5、 2、 2.5、 3
DZ89	3 1/2	NC31	1、 1.5、 2、 2.5、 3	DZ140	5 1/2	5 1/2FH	1、 1.5、 2、 2.5、 3
DZ102	4	NC46	1、 1.5、 2、 2.5、 3				

When ordering short drill pipe , please specify:

1. Drill pipe OD
2. Drill pipe ID
3. Overall length



Integral Short Drill Rod Type DZ

Integral Short Drill Rod Type DZ series are mainly used in oil field, making the connection with drilling string. Our plant manufacture various integral short drill rods with E, X, G and S steel levels.



Normal Size Specification	Type	Length Series
in (mm)		ft-in(mm)
2-3/8 (60.3)	DZ60×1~10 E (X、G、S)—NC26	3', 6', 9', 12', 15', 18', 21', 24', 27' (915, 1,830, 2,743, 3,660, 4,575, 5,490, 6,405, 7,320, 8,235)
2-7/8 (73.0)	DZ73×1~10 E (X、G、S)—NC31	
3-1/2 (88.9)	DZ89×1~10 E (X、G、S)—NC31	
4 (101.6)	DZ102×1~10 E (X、G、S)—NC46	
4-1/2 (114.3)	DZ114×1~10 E (X、G、S)?NC50	
5 (127.0)	DZ127×1~10 E (X、G、S)—NC50	
5-1/2 (139.7)	DZ140×1~10 E (X、G、S)—5-1/2FH	





Integral Spiral Heavy Weight Drill Pipe

整体螺旋加重钻杆



Integral spiral heavy weight drill pipe is to extend the central upset of heavy weight drill pipe and to cut spiral groove on heavy weight drill pipe.

Technical specifications and parameters

mm(in)	Dide Body					Tool Joint		
	I.D. mm	elevater upset mm	O.D.mm	Spiral O.D.mm	Spiral depth mm	Thread	O.D.mm	I.D.mm
88.9(3 1/2)	54.0	92.1	88.9	101.6	9.5	NC38	120.6	54.0
114.3(4 1/2)	69.8	117.5	114.3	127.0	12.7	NC46	158.8	69.8
127.0(5)	76.2	130.2	127.0	139.7	12.7	NC50	165.1	76.2



Integral Heavy Weight Drill Pipe

整体加重钻杆



The wall thickness of heavy weight drill pipe is between drill pipe and drill collar, its structure is similar with drill pipe. It is made from premium alloyed steel. Its both tool joints and middle upset are welded hardbands. Technical parameters meet with API Spec7-1 Standard.

Technical specifications and parameters



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Size	O.D.	I.D.	Tool Joint O.D.	Tool Joint I.D.	Thread type	Max.elevator diameter	Central upset dia.	Min drift dia.size
3 1/2	3 1/2	2 1/4	4 3/4 (4 7/8, 5)	2 1/4	NC38	3 7/8	4	2
		2 1/16		2 1/16				2 13/16
4	4	2 1/2	5 1/4	2 1/2	NC40	4 3/16	4 1/2	2 1/4
		2 9/16		2 9/16				2 5/16
4 1/2	4 1/2	2 11/16	6 1/4	2 11/16	NC46	4 11/16	5	2 17/16
		2 3/4		2 3/4				2 1/2
		2 13/16		2 13/16				2 9/16
5	5	3	6 5/8	3	NC 50	5 1/8	5 1/2	2 3/4
5 1/2	5 1/2	3 1/4	7 (7 1/4, 7 1/2)	3 1/4	5 1/2FH	5 11/16	6	3
		3 3/8		3 3/8				3 1/8
		3 7/8		3 7/8				3 5/8
		4		4				3 3/4
6 5/8	6 5/8	4	8 (8 1/4, 8 1/2)	4	6 5/8FH	6 15/16	7 1/8	3 3/4
		4 1/2		4 1/2				4 1/4
		5		5				4 3/4





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Size	Tube OD (+1/16,-1/32)	Tube OD ¹	Tool Joint OD (+1/16,-1/32) ²	Tool Joint OD (+1/8,-0)	Connection	Max Elevator Upset Dia	Center Upset Dia (+1/16,-1/32)	Min Drift Dia ³
						Deu	Dcu	
3 1/2	3 1/2	2 1/4	4 3/4 (4 7/8,5)	2 1/4	NC 38	3 7/8	4	2
		2 1/16		2 1/16				1 13/16
4	4	2 1/2	5 1/4	2 1/2	NC 40	4 3/16	4 1/2	2 1/4
		2 9/16		2 9/16				2 5/16
4 1/2	4 1/2	2 11/16	6 1/4	2 11/16	NC 46	4 11/16	5	2 7/16
		2 3/4		2 3/4				2 1/2
		2 13/16		2 13/16				2 9/16
5	5	3	6 5/8	3	NC 50	5 1/8	5 1/2	2 3/4
5 1/2	5 1/2	3 1/4	7 (7 1/4,7 1/2)	3 1/4	5 1/2 FH	5 11/16	6	3
		3 3/8		3 3/8				3 1/8
		3 7/8		3 7/8				3 5/8 3/4
		4		4				3 3/4
6 5/8	6 5/8	4	8 (8 1/4,8 1/2)	4	6 5/8 FH	6 15/16	7 1/8	3 3/4
		4 1/2		4 1/2				4 1/4
		5		5				4 3/4

- 1.Maximum tube ID is 1/8 larger than nominal.Minimum tube ID is controlled by the drift requirement.
- 2.Optional Tool Joint ODs shown in parenthesis,to be agreed between purchaser and manufacturer.
- 3.Drift Diameter is based on ID tolerances of heavy wall pierced tube used for the center section.





三、Kellys★方钻杆



Kellys is driving section of whole drill stem. Kelly is available with square kelly and hexagonal kelly. kelly are manufactured strictly from API Spec7-1 and SY/T6509-2000 standard.

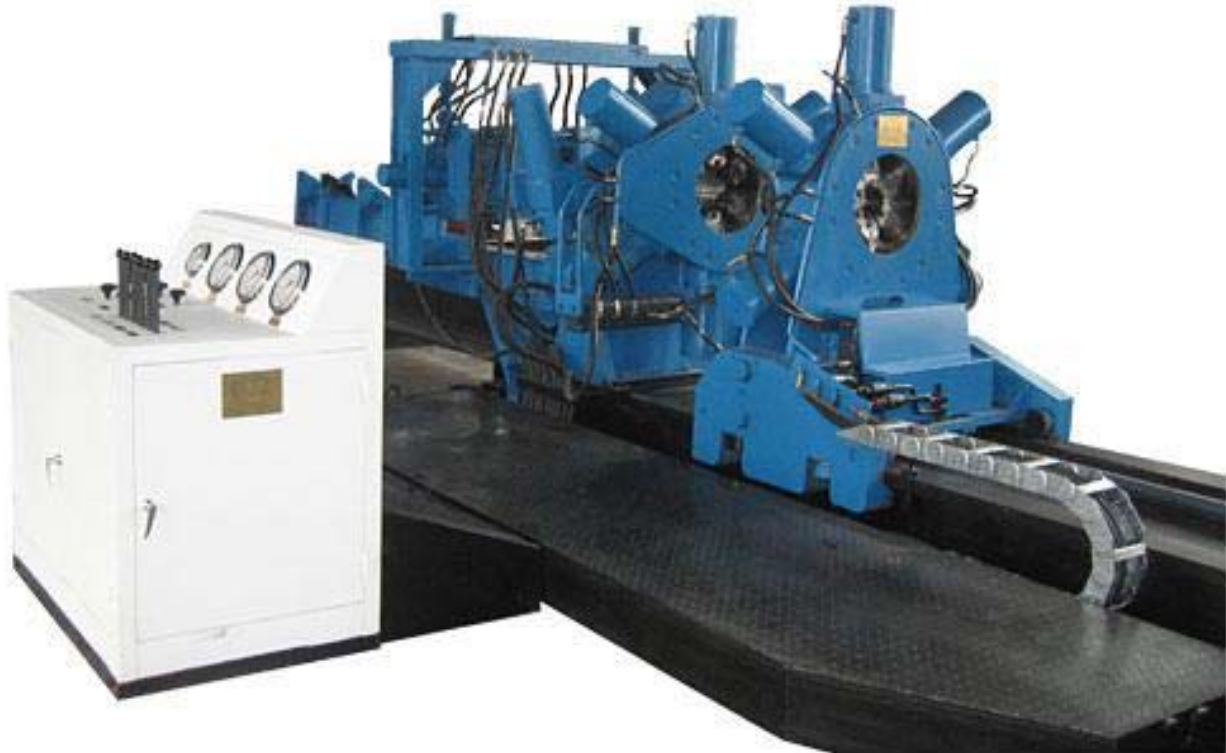
Technical specification and parameters

Size		Length in	Upper box connection				Lower pin connection		I. D.	Driving section		
mm	in		Type (LH)		O. D.		Thread	O. D.		Cross flat	For square kelly	Cross corner for hexa kelly
			Std	optional	Std	optional						
63.5	2 1/2	12.19	6 5/8REG	4 1/2REG	196.8	146.0	NC26	85.7	31.8	63.5	83.3	
76.2	3	12.19	6 5/8REG	4 1/2REG	196.8	146.0	NC31	104.8	44.4	76.2	100.0	85.7
88.9	3 1/2	12.19	6 5/8REG	4 1/2REG	196.8	146.0	NC38	120.6	57.2	88.9	115.1	100.8
108.0	4 1/4	12.9	6 5/8REG	4 1/2REG	196.8	146.0	NC46	158.8	71.4	108.0	141.3	122.2
			6 5/8REG	4 1/2REG	196.8	146.0	NC50	161.9	71.4	108.0	141.3	122.2
133.4	5 1/4	12.9	6 5/8REG		196.8		5 1/2FH	177.8	82.6	133.3	175.4	151.6
			6 5/8REG		196.8		NC56	177.8	82.6	133.3	175.4	151.6



三、The Hydraulic Service Unit and the Hydraulic Jar Tester★

YXQ16- II 液压拆装架



The hydraulic service unit and the hydraulic jar tester are designed and manufactured on the basis of the advanced technology from same equipment abroad and the actual situation of the petroleum industry in China.

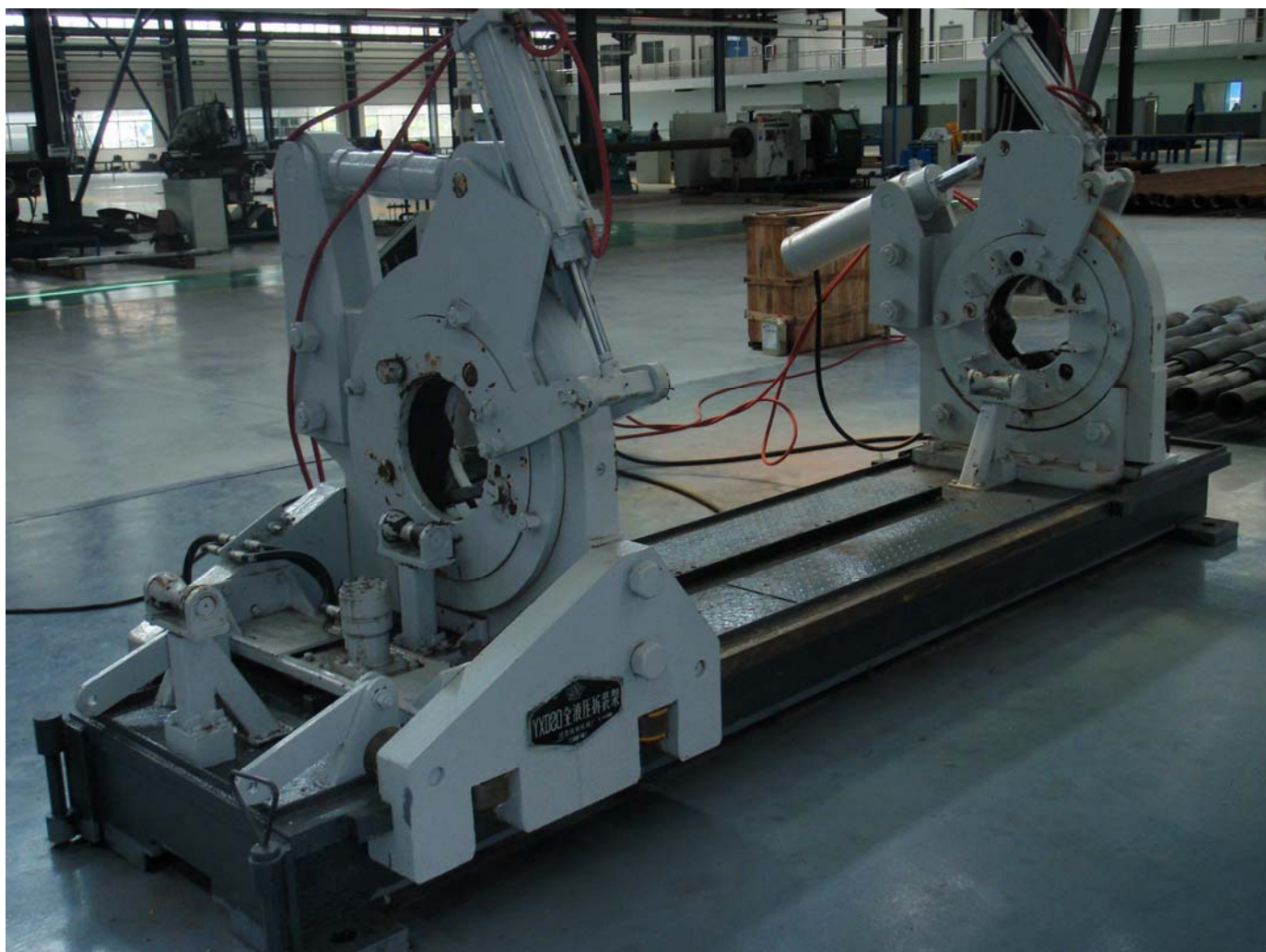
The hydraulic service unit is an important tool used for disassembling/assembling, maintaining of all kinds of drill tools, pipe strings and thread connections for all kinds of downhole equipments in petroleum exploration and geological prospecting. It has the following functions such as: high automatic level; large torque of screwing on/screwing out; wide diameter range for tubing fittings; without slippage or biting the working surface; quick-tightening screw thread; provide push-pull force for work piece.

The hydraulic jar tester is a necessary tool for testing of all kinds of drill tools, pipe strings, downhole tools. With advantages of simple, reliable operation, large tonnage, it is especially suitable in piping station for testing the pulling and pressure performance of jar, shock absorber and intensifier.



四、The Hydraulic Service Unit and the Hydraulic Jar Tester ★

液压螺杆试验台



The hydraulic service unit and the hydraulic jar tester are designed and manufactured on the basis of the advanced technology from same equipment abroad and the actual situation of the petroleum industry in China.

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五、Tubing

Product Outline

- Tubing is the special-purpose pipe that used in the oil, gas and water well to extract the oil, gas and water to the surface.
- The tubing conforms to API Specification 5CT, 5B and other related standards, authorized to use the API monogram.
- Standard, EUE and bimetal anticorrosion tubing are available at all sizes in grade J, N, C, L, T, P which all of them conform to API latest specification..

Technical characteristic

- Adopting the advanced production line crack detecting, quenching the continuous overall tempering and sand blasting processes to achieve higher mechanical strength ability with overall good performance.
- The thread is cut by the special-purpose numerical control lathe which keeps the rod body still when cutting the threads. The special process could ensure the high precision of the thread with better reliability and life-span.
- Coupling phosphor or copper coated to achieve good wearing-resistance ability and anti-thread gluing ability.



Main Technical Parameter:

Tubing	Size	OD in(mm)		Wall in(mm)		Grade	Length ft(mm)				
	in	Standard	EUE								
	23/8	2.375(60.33)	2.594(65.90)	0.190(4.83)		J55	28~32(8530~9750)				
	27/8	2.875(73.03)	3.094(78.60)	0.217(5.51)		N80					
	31/2	3.500(88.90)	3.750(95.20)	0.254(6.45)		L80					
C90											
					T95						
					P110						
Coupling	Size	OD in(mm)		Min Length in(mm)		Grade	End Width in(mm)		Weight lbs(kg)		
	in	Standard	EUE	Standard	EUE		Standard	EUE	Standard	EUE	
	23/8	2.875(73.03)	3.063(77.80)	41/4(107.95)	47/8(123.83)	J55	3/16(4.76)	3/16(4.76)	2.82(1.28)	3.43(1.55)	
						N80					
	27/8	3.500(88.90)	3.668(93.20)	51/8(130.18)	51/4(133.35)	L80			7/32(5.56)	5.15(2.34)	5.29(2.40)
	31/2	4.250(108.00)	4.500(114.30)	55/8(142.88)	53/4(146.05)	C90			1/4 (6.35)	8.17(3.71)	9.03(4.10)
						T95					
P110											



六、Casing Pipe

Product Outline

- Specialized large-diameter pipe lowered into an open hole and cemented in place.
- Casing conform to latest version of API Specification 5CT, API Specification 5B and other related standards.
- Casings are available in standard API configurations with all sizes from 5" to 13 3/8" in grade H40, J55, N80, L80, C90, P110 and Q125.



Technical Characteristics

- High thread bonding strength with good anti-thread gluing ability.
- The steel yield strength is bigger than API standard.
- Big OD size, high steel grade with full size available.



Production Line

Main Technical Specification

Size	OD in (mm)	Wall inches (mm)	Length ft (mm)
5	5 (127.00)	0.22~0.50 (5.59~12.70)	25~48 (7620~14630)
5 1/2	5.5 (139.70)	0.244~0.875 (6.20~22.22)	
6 5/8	6.625 (168.28)	0.288~0.475 (7.32~12.06)	
7	7 (177.80)	0.231~0.875 (5.87~22.22)	
7 5/8	7.625 (193.68)	0.300~0.750 (7.62~19.05)	
8 5/8	8.625 (219.08)	0.264~0.557 (6.71~14.15)	
9 5/8	9.625 (244.48)	0.312~0.797 (7.92~20.24)	
10 3/4	10.75 (273.05)	0.279~0.797 (7.09~20.24)	
11 3/4	11.75 (298.45)	0.333~0.582 (8.46~14.78)	
13 3/8	13.375 (339.72)	0.330~0.514 (8.83~13.06)	



七、Sucker Rod

Brief Introduction

■ The sucker rod is a steel rod that used to make up the mechanical assembly between the surface and downhole components of a rod pumping system.

■ The product conforms to API Specification 11B (Oil extraction rod Standard) and other related standard, authorized to use the API monogram.

■ All sizes of sucker rod (standard, heavy, polish rod) which conform to API specification latest version 11B are available in grade K, C, D and HL.



Technical Performances

■ Adopting the advanced production line crack detecting, quenching, the continuous overall tempering and sand blasting processes to achieve higher mechanical strength ability with overall good performance.

■ The thread is cut by the special-purpose numerical control lathe which keeps the rod body still when cutting the threads. The special process could ensure the high precision of the thread with better reliability and life-span.

Main Technical Parameter

Sucker Rod OD in(mm)	5/8 (15.88)	3/4 (19.05)	7/8 (22.23)	1 (25.40)	1 1/8(28.58)
Thread OD in(mm)	15/16 (23.81)	1 1/16 (26.99)	1 3/16 (30.16)	1 3/8 (34.93)	1 9/16 (39.69)
Coupling OD in(mm)	1 1/2 (38.10)	1 5/8 (41.28)	1 13/16 (46.04)	2 3/16 (55.56)	2 3/8 (60.33)
Standard Length ft(mm)	30(9140); 26(8000); 25(7620)				

Mechanical Parameter

Grade	Min Y.S psi(MPa)	Min T.S psi(MPa)	Max T.S psi(MPa)
K	60000 (414)	90000 (620)	115000 (793)
C	85000 (586)	115000 (793)	140000 (965)
D			
HL	115000 (793)	140101 (966)	164757 (1136)





