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







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



Production and Downhole Equipment

Self-propelled Workover Rigs

1、XJ150 Workover Rig

XJ150 workover rig is the smallest self-propelled rig, and mainly used for shallow well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system, single drum drawworks, single mast, engine and hydromechanical transmission, without a rotary system. It is easy for transportation and convenient for installation, operation and maintenance.



- ◆ 52.49 ft (16m) or 59.06 ft (18m) single section mast.
- ♦ 6×6 full drive chassis, fast movement, good cross-country capability.
- ◆ Single drum drawworks, band brake, without auxiliary brake.
- ◆ Mast base and simple operation platform are hanged on therear.
- ◆ Hydraulic rotary table is available.

Model	XJ150
Service depth (2-7/8" UE tubing) ft(m)	8530(2600)
Nominal hook load lb(kN)	67440(300)
Max Hook load lb(kN)	131508(585)
Wireline dia/effective line quantity in.(mm)	φ0.87/6(φ22/6)
Max lifting speed of hook ft/s(m/s)	4.6(1.4)
Overall dimensions in traveling condition ft(m)	50.2×8.2×12.7(15.3×2.5×3.87)
Weight lb(kg)	48898(22180)



2、XJ250 Workover Rig

XJ250 workover rig is one of light-duty self-propelled rig, and mainly used for shallow well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system, single drum drawworks, hydraulically raised double or single mast and famous engine and ALLISON hydromechanical transmission. It is easy for transportation and convenient for installation, operation and maintenance.



- ♦ 68.90 ft (21m) double section mastor 59.06 ft (18m) single section mast.
- ♦ 6×6 full drive chassis, fast movement, good cross-country capability.
- ◆ Double drum drawworks, band brake, without auxiliary brake.
- ◆ Mast base and simple operation platform are hanged on the rear.
- ◆ Rotary driving system can be equipped.

Model	XJ250
Service depth (2-7/8" UE tubing) ft(m)	10500(3200)
Workover depth (2-7/8"DP) ft(m)	8530(2600)
Nominal hook load lb(kN)	89920(400)
Max Hook load lb(kN)	151740(675)
Wireline dia/effective line quantity in.(mm)	φ0.87/6(φ22/6)
Max lifting speed of hook ft/s(m/s)	4.6(1.4)
Overall dimensions in traveling condition ft(m)	45.01×8.86×13.71(13.72×2.7×4.18)
Weight lb(kg)	61729(29000)



3、XJ350 Workover Rig

XJ350 workover rig is mainly used for shallow well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system and a rotary operating system. It can be used for workover, lateral drilling and water well drilling operation if equipped with a rotary table and relevant parts.



- ◆ 102.69 ft (31.3m) double section mast, hydraulically raised and telescoped.
- ♦ 8×8 full drive chassis for XJ350 single-drum rig.
- ◆ 10×8 chassis for XJ350S double-drum rig.
- ◆ Simple operation platform hanged on the rear is available.
- ◆ A rod hanger is available.

Model	XJ350
Service depth (2-7/8" UE tubing) ft(m)	13120(4000)
Workover depth (2-7/8"DP) ft(m)	3200 (10498)
(3-1/2"DP) ft(m)	8530(2600)
Nominal hook load lb(kN)	134880(600)
Max Hook load lb(kN)	202320(900)
Wireline dia/effective line quantity in.(mm)	φ1/6(φ26/6)
Max lifting speed of hook ft/s(m/s)	4.33(1.32)
Overall dimensions in traveling condition ft(m)	56.43×9.19×13.71(17.2×2.8×4.18)
Weight lb(kg)	83776(38000)

4、XJ450 Workover Rig

XJ450 workover rig is mainly used for medium & shallow well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system and a rotary operating system. It is widely applied in many fields. It can be used for workover, lateral drilling and water well drilling operation if equipped with a rotary table and relevant parts. Featuring reasonable layout, compact structure, easy transportation, convenient operation and maintenance.



XJ450 Workover Rig

- ♦ 102.69 ft (31.3m) double section mast, hydraulically raised and telescoped.
- ♦ 10×8 self-propelled chassis.
- ◆ A hydromatic brake is often used, and Eaton water-cooled brake or air tong brake is also available.
- ♦ 5 forward 5 reverse speeds rotary drives equipped with torque release device.
- ◆ Rod hanger is available.

Model	XJ450
Service depth (2-7/8" UE tubing) ft(m)	18045(5500)
Workover depth (2-7/8"DP) ft(m)	14064(4500)
(3-1/2"DP) ft(m)	11483(3500)
Nominal hook load lb(kN)	220304(980)
Max Hook load lb(kN)	252900(1125)
Wireline dia/effective line quantity in.(mm)	φ1/8(φ26/8)
Max lifting speed of hook ft/s(m/s)	4.04(1.23)
Overall dimensions in traveling condition ft(m)	57.74×9.51×13.94(17.6×2.9×4.25)
Weight lb(kg)	97003(44000)



5、XJ550 Workover Rig

XJ550 workover rig, with 1350kN/30348 of max. static hook load, is mainly used for medium & shallow well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system and a rotary operating system. It is widely applied in many fields. It can be used for workover and lateral drilling operations if equipped with a rotary table and relevant parts. Reasonable layout, compact structure, easy transportation, convenient operation and maintenance.



- ◆ 105 ft (32m) double section mast, hydraulically raised and telescoped.
- ◆ 10×8 self-propelled chassis.
- ♦ A hydromatic brake is often used, and Eaton water-cooled disc brake or air tong brake is also available.
- ♦ 5 forward 5 reverse speeds rotary drives equipped with torque release device.
- ◆ Rod hanger is available.

Model	XJ550
Service depth (2-7/8" UE tubing) ft(m)	22966(7000)
Workover depth (2-7/8"DP) ft(m)	19029(5800)
(3-1/2"DP) ft(m)	14764(4500)
Nominal hook load lb(kN)	264364.8(1176)
Max Hook load lb(kN)	303480(1350)
Wireline dia/effective line quantity in.(mm)	φ1/8(φ26/8)
Max lifting speed of hook ft/s(m/s)	4.36(1.33)
Overall dimensions in traveling condition ft(m)	57.74×9.51×13.94(17.6×2.9×4.25)
Weight lb(kg)	99208(45000)



6、XJ650 Workover Rig

XJ650 workover rig, with 1470kN of max. static hook load, is the largest self-propelled workover equipment with single engine, mainly used for medium & deep well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system and a rotary operating system. It is widely applied in many fields. It can be used for lateral drilling and shallow well drilling operation if equipped with a rotary table and relevant parts. Reasonable layout, compact structure, easy transportation, convenient operation and maintenance.



- ◆ 111.55 ft (34m) double section mast, hydraulically raised and telescoped.
- ◆ 12×8 self-propelled chassis.
- A hydromatic brake is often used, and "Eaton" water-cooled disc brake or air tong brake is also available.
- ◆ The rotary system is driven by a two-shaft transfer case via a chain of drawworks, or a three-shaft transfer case via a drive line.
- ♦ 5 forward 5 reverse speeds rotary drives equipped with torque release device.
- ◆ Can be used for shallow well drilling operation if equipped with relevant parts.
- ◆ Rod hanger is available.

Model	XJ650
Service depth (2-7/8" UE tubing) ft(m)	27887(8500)
Workover depth (2-7/8"DP) ft(m)	22966(7000)
(3-1/2"DP) ft(m)	18045(5500)
Nominal hook load lb(kN)	303480(1350)
Max Hook load lb(kN)	330456(1470)
Wireline dia/effective line quantity in.(mm)	φ1.13/8(φ29/8)
Max lifting speed of hook ft/s(m/s)	4.30(1.31)
Overall dimensions in traveling condition ft(m)	66.04×10.99×14.44(20.13×3.35×4.4)
Weight lb(kg)	121254(55000)



7、XJ1000 Workover Rig

XJ1000 workover rig, with 1800kN of max. static hook load, is a self-propelled workover equipment with double engine, mainly used for medium & deep well workover, oil testing, fishing and pump check operations. It is equipped with a lifting system and a rotary operating system. It is powerful, reliable and widely applied in many fields. It can be used for drilling operation for wells below 300m. Reasonable layout, compact structure, easy transportation, convenient operation and maintenance.



- ◆ 118.11 ft (36m) double section mast made of reinforced square pipes, is hydraulically raised and telescoped.
- ◆ 14×8 reinforced self-propelled chassis.
- ◆ Unique compound box, high efficiency easy operation. Two engines can work together, or independently.
- ◆ Eaton air-controlled water-cooled disc auxiliary brake.
- ♦ 5 forward 5 reverse speeds rotary drives equipped with torque release device.
- It can be used for both workover and shallow well drilling operations.

Model	XJ1000
Service depth (2-7/8" UE tubing) ft(m)	26247(8000)
Workover depth (3-1/2"DP) ft(m)	21326(6500)
(4-1/2"DP) ft(m)	16404(5000)
Nominal hook load lb(kN)	337200(1500)
Max Hook load lb(kN)	382160(1700)
Wireline dia/effective line quantity in.(mm)	φ1.13/8(φ29/8)
Max lifting speed of hook ft/s(m/s)	4.462(1.36)
Overall dimensions in traveling condition ft(m)	69.72×10.83×14.67(21.25×3.3×4.47)
Weight lb(kg)	154323(70000)



8、XJ1200 Workover Rig

XJ1200 workover rig is the biggest light duty self-propelled workover equipment. Several patent technologies and new technologies are used in the unit. Mature and reliable compound system for double engine is used. Compound gear box with unique design features reliable driving performance and reasonable load distribution. Auxiliary brake of drawworks is air control water cooling disc brake. 128" (39m) mast and chassis frame is fabricated with special material and structure to ensure reliable strength and to reduce weight efficiently.



- ◆ Biggest self-propelled truck-mounted workover rig.
- ◆ Mature double engine compound box driving system.
- ◆ Weight of mast, frame and accessories will be effectively reduced.
- ◆ 14×10 reinforced chassis with good cross-country capacity.
- ♦ New style foldable substructure with stable structure and convenient installation.



Model	XJ1200
Service depth (2-7/8" UE tubing) ft(m)	29528(9000)
Workover depth (3-1/2"DP) ft(m)	24606(7500)
(4-1/2"DP) ft(m)	19658(6000)
Nominal hook load lb(kN)	404640(1800)
Max Hook load lb(kN)	505800(2250)
Wireline dia/effective line quantity in.(mm)	φ1.26/10(φ32/10)
Max lifting speed of hook ft/s(m/s)	4.462(1.36)
Overall dimensions in traveling condition ft(m)	73.82×10.83×14.67(22.5×3.3×4.47)
Weight lb(kg)	165000(75000)

Special Workover Equipment

9、BYJ100 Snub Rig

BYJ-100 snub rigs, with full hydraulic driving system and electric / hydraulic control, are powered by diesel engine. During operation, firstly, to close the traveling slips and upper BOP, and clamp tubings; Then to open the fixed slips and lower BOP, and raise the traveling system (traveling slips, upper BOP and well fluid sealing cylinder) by one tubing distance using main cylinder; Then to open traveling slips and upper BOP, and the traveling system will drop, then remove one tubing which will be sent to ground through balance winch. Repeat the above procedure until completion of pullout of tubing and downhole tools ,and then close full-seal BOP. This process eliminates dynamic friction between BOP and tubings which happen in old way, thus service life of sealing parts will be greatly lengthened, and operation cost is reduced.

- New equipment, new process, environmental protection, high effciency.
- ◆ Fully hydraulic system, convenient and easy operation. Max. lifting capacity:220462 lb (100t), suitable
- ◆ For operations in most medium & shallow wells.
- ◆ Dynamic sealing problem of tubing under pressure is completely resolved.



Model	BYJ-100
Rated sealing pressure of string (well fluid pressure) psi(MPa)	3003(21)
Max lifting height (stroke) ft(m)	35.76(10.9)
Max lifting capacity lb(T)	220462(100)
Max pressing force lb(T)	121254(55)
Max pressure of hydraulic system psi(MPa)	3003(21)
Height of operation platform (operating condition) ft(m)	24.61(7.5)
Total power hp	450
Gross weight (less than) lb(T)	66138.6(30)
Max weight of single part lb(T)	22046.2(10)
Max wind load kn(km/h)	59.36(110)

10、XJ400 Workover Rig

XJ400 workover rigs are new style fast moving workover equipment, and have been exported in large. They are designed with the most advanced technologies in the world, including double fastline, double direction telescoping cylinder, abs braking system, air tong type auxiliary braking system, automatic air release of cylinder and centralized lubrication of crown block. There are lots of breakthroughs, such as, fast movement, decreased weight, low temperature, humanization design and new appearance.



- ◆ 104.00 ft (31.7m) double section mast with automatic lock pin, centralized lubrication for crown block.
- Suitable for power swivel.
- ♦ New style 10×4 chassis made of high strength material, new style cab and ABS braking System.
- ◆ Double drum drawworks, double fastline, air tong type auxiliary brake.
- Mast base and simple operation platform will be shipped together with rig.

Model	XJ400
Service depth (2-7/8" UE tubing) ft(m)	13120(4000)
Workover depth (2-7/8" DP) ft(m)	11810(3600)
(3-1/2" DP) ft(m)	8200(2500)
Max hook load lb(kN)	229296(1020)
Wireline dia/effective line quantity in.(mm)	φ1/6(φ26/6)
Max lifting speed of hook ft/s(m/s)	5.25(1.6)(single drum)
	10.50(3.2)(double drum)
Overall dimensions in traveling condition ft(m)	57.42×9.19×14.00(17.5×2.8×4.27)
Weight lb(kg)	94798.66(43000)

11. Series of Wheel-type Workover Rig

This rig is a self-propelled single-drum workover equipment specially designed for oilfields with poor road condition and closely spaced wells.

The chassis (4×4 driving type) fitted with heavy-duty axles has a good cross-road capacity, and equipped with a transfer case which can transfer power to front driving axle, rear driving axle or drawworks. A hydromechanical transmission can ensure high engine power utilization efficiency, provide infinitive variable speed and greatly reduce labors.



- ◆ 59 ft (18m) or 69 ft (21m) single mast.
- ◆ 4×4 full drive chassis, heavy-duty tyres.
- ♦ Single drum drawworks, band brake, main drum with Lebus groove.
- ◆ Optional mast seat and simple operation platform.
- ◆ A connecting port is provided for rotary operation.

Model	LZ40A	LZ40B	LZ40C	LZ50A	LZ60A
Service Depth(2-1/2"tubing) ft(m)	10498.91(3200)	10498.91(3200)	10498.91(3200)	10498.91(3200)	13120(4000)
Max hook load lb(kN)	151740(675)	151740(675)	151740(675)	165228(735)	202320(900)
Rated hook load lb(kN)	89920(400)	89920(400)	89920(400)	112400(500)	134880(600)
Wireline dia/effective line quantity in.(mm)	φ0.87/6(φ22/6)	φ0.87/6(φ22/6)	φ0.87/6(φ22/6)	φ0.87/6(φ22/6)	φ1/6(φ26/6)
Max lifting speed of hook ft/s(m/s)	3.61(1.1)	3.61(1.1)	3.61(1.1)	3.61(1.1)	3.61(1.1)



12 XJ250P Well-flushing and Workover Rig

XJ250P workover rig is a newly developed workover and well flushing equipment. The rig is fitted with 8×6 self-propelled chassis, engine and hydromechanical transmission. Power is transferred to front & rear axles, drawworks, transfer case and pump on deck. PTO of transmission is connected with a hydraulic pump which provides power for some hydraulic parts on deck.



The rig is equipped with a hydraulic rotary table, a power skid with a NTA885-C280 Cumins engine will provide power for the rotary table through a hydraulic pump. It is also equipped with an air compressor and generator set providing power for lighting of engine, drawworks, mast and operating platform.





- Well-known diesel engine and transmission.
- ♦ 69 ft (21m) double mast or 59 ft (18m) single mast.
- ♦ 6×6 full drive chassis, fast movement and good cross-country capability.
- ◆ Double drum drawworks,band brake, main drum with Lebus groove.
- Mast seat and simple operation platform shipped together with rig.
- Provide connecting port for rotary operation.

Model	XJ250P
Service depth (2-1/2"TBG) ft(m)	11812(3600)
Workover Depth (2-7/8"DP) ft(m)	8530(2600)
Nominal hook load lb(kN)	112400(500)
Max hook load lb(kN)	168600(750)
Wireline dia/effective line quantity in.(mm)	φ0.87/6(φ22/6)
Max lifting speed ft/s(m/s)	4.92(1.5)
Overall dimensions in traveling condition ft(m)	45.28×9.81×12.80(13.8×2.99×3.9)
weight lb(kg)	83775.56(38000)



13. Workover Rig without Guyline

Workover rigs without guyline are designed for small-scale and fast workover operations. Since it is not necessary to install external windload guylines, operating efficiency is greatly enhanced. They can work at 60kn of wind in adjustment mode, and 35kn of wind in operating mode, and are suitable for shallow wells in various oilfields.

This rig is fitted with side turnover and back turnover prevention devices and inclination indicator, thus operation safety is ensured.



- ◆ 59 ft (18m) single mast without need of windload guylines in operation mode.
- ♦ Mast seat is fitted with side turnover and back turnover device and inclination indicator.
- ♦ 6×6/6×4 chassis,fast movement and good cross-country capacity.
- Single drum drawworks, band brake, and main drum with Lebus groove.

The technology for rigs without need of guylines is only suitable for light duty workover rigs, including XJ150, XJ250, XJ350 and XJ450, you can find their detailed information in series of workover rigs.

14 XJ1200(225T) workove rig

Road construction cost for mountainous oil and gas field is very high, therefore, the road conditions are always bad. It is usually difficult to transport the conventional workover rigs to the mountainous oilfield, since they are limited to the conditions for gradient, turning radius, weight, height and width.

XJ1200(225T) workove rig, specially developed for Puguang gas field, is mainly composed of truck-mounted main unit, derrick, substructure, mud purification system, mud pump room, generator sets and oil tank area. It combines the advantages of modular rigs and self-propelled rigs. The space needed for installation of the derrick is less, and the derrick will be transported after dismounted to several modules.



- small size, less turning radius, lightweight, higher gradeability.
- ◆ Mast split into six sections, detachable for transportation.
- ◆ Bootstrap mast, less installation area needed.
- ◆ Main brake (hydraulic disc brake) and auxiliary brake (Eaton air-controlled water-cooling disc brake) are safe and reliable.
- ◆ Hydraulic, air and electric controls are centralized in DCR.
- ◆ Less time is needed for movement and installation.
- Suitable for installation of a top drive device.





Model	XJ1200
nominal workover depth	7500m (3-1/2" DP)
Max. hook load	2250kN
rated hook load	1800kN
installed power	diesel engine 403kW X2
transmission	ALLISON S5610 X2
max. input power, drawworks	1000hp(735kW)
total weight	≤40t
overall dimensions (LXWXH)	13500×3200×4200(mm)

15、XJ550 Workover Rigs with Internal Guyline

This kind of workover rig is a newly-developed double drum rig with windload guylines installed on the rig. Without the need to install external windload guylines, the workover operation efficiency is highly boosted, and installation area needed is decreased.

- ◆ Suitable for narrow wellsite. Rig footprint is reduced.
- ♦ Loads are evenly distributed based on mechanical analysis.
- ◆ All the guylines are fixed on the rig, and the cost and work for anchors will be saved.
- Equipped with inclination warning device to boost the safety of operation.



Model	XJ550
service depth	7000m (φ2-7/8"EUE tubing)
workover depth	5800m (φ2-7/8"DP)
	4500m (φ3-1/2"DP)
	3600m (φ4"DP)
nominal hook load	1000kN
max. static hook load	1350kN
engine power CAT	CAT C18/630hp
Total weight in transportation mode	≈55000kg
Max wind load in operating mode	18m/s(35 knot)
max wind load with full setback	30.8m/s(60 knot)
max wind load without setback	46.3m/s(90knot)



Fracturing Package

1、YLC70-265 Fracturing Truck

YLC70-265 fracturing truck equipped with 3ZB70-265 triplex fracturing pumps, is suitable for fracturing and acidizing operations, with maximum pressure up to 70MPa. It is mainly composed of chassis, deck engine, hydromechanical transmission, triplex plunger pump, high & low pressure manifolds and operation control system, operation room and displacement tank.



- Suitable for pumping operations for different fluids, including fracturing with prop frac fluids, acidizing, high pressure pumping and pressure testing.
- ◆ There is an operation room on deck. Operations become more convenient.

Model	YLC70-265
Max working pressure psi(MPa)	10000(70)
Max working displacement gpm(L/min)	235(890)
Plunger pump	3ZB70-265
Max. input power of pump hp(kW)	350(265)
Chassis available	VOLVO, Styre, MAN
Overall dimensions in.(mm)	374×99×150(9500×2500×3800)
Weight lb(kg)	41887(19000)

2、YLC70-450 Fracturing Truck

YLC70-450 fracturing truck can be independently used for fracturing and acidizing operations, with high pressure and large displacement. It is mainly composed of chassis, deck engine, hydromechanical transmission, triplex plunger pump, high & low pressure manifolds and operation control system, operation room and displacement tank.



- ♦ New style 600hp triplex pump, powerful performance and convenient operation.
- ◆ Suitable for pumping operations for different fluids, including fracturing with prop frac fluids, acidizing, high pressure pumping and pressure testing.
- ◆ There is an operation room on deck. Operations become more convenient.
- ♦ Same pump cylinder block for different plungers (3-1/2"~4-1/2"). Replacement of plunger and packing can change pump data.

Model	YLC70-450
Max working pressure psi(MPa)	10000(70)
Max working displacement gpm(L/min)	337(1277)
Plunger pump	3ZB70-450
Max. input power of pump hp(kW)	600(447)
Chassis available	North Benz, VOLVO, Ironhorse, MAN
Overall dimensions in.(mm)	374×99×150(9500×2500×3800)
Weight lb(kg)	39680(18000)

3、YLC70-670 Fracturing Truck

YLC70-670 fracturing truck which is the major equipment of small-scale fracturing package equipped with 3ZB70-670 triplex fracturing pumps, is suitable for shallow, medium and deep well fracturing operations and pumping operations of fluid, with maximum pressure up to 105MPa. It is mainly composed of chassis, deck engine, hydromechanical transmission, triplex plunger pump, high & low pressure manifolds and operation control system, operation room and displacement tank.



- Suitable for pumping operations for different fluid, including fracturing with prop frac fluid, acidizing, high pressure pumping and pressure testing.
- ◆ There is an operation room on deck.operations become more convenient.

Model	YLC70-670
Max working pressure psi(MPa)	10000(70)
Max working displacement gpm(L/min)	367(1388)
Plunger pump	3ZB70-670
Max. input power of pump hp(kW)	800(670)
Chassis available	North Benz, Styre, VOLVO
Overall dimensions in.(mm)	394×99×150(10000×2500×3800)
Weight lb(kg)	61730(28000)

4、YLC105-750 Fracturing Truck

YLC105-750 fracturing truck which is the major equipment of model 1000 fracturing package, equipped with 3ZB105-750 triplex fracturing pumps, is suitable for shallow, medium and deep well fracturing operations and pumping operations of fluids, with maximum pressure up to 105MPa. It is mainly composed of chassis, deck engine, hydromechanical transmission, triplex plunger pump, high & low pressure manifolds and hydraulic/air control system.



- 1000HP triplex plunger pump, high pressure, lightweight.
- ◆ Suitable for pumping operations for different fluids, including fracturing with prop frac fluid, acidizing, high pressure pumping and pressure testing.
- Remote control box, instrument van and network control technologies will ensure reliable and safety fracturing operations.
- Equipped with double overpressure protection device.

Model	YLC105-750
Max working pressure psi(MPa)	11690(105)
Max working displacement gpm(L/min)	375(1421)
Plunger pump	3ZB105-750
Max. input power of pump hp(kW)	1000(750)
Chassis available	Kenworth, Styre, VOLVO
Overall dimensions in.(mm)	394×99×150(10000×2500×3800)
Weight lb(kg)	61730(28000)

5、YLC105-1340 Fracturing Truck

YLC105-1340 fracturing truck equipped with 3ZB105-1340 triplex fracturing pumps, is suitable for shallow, medium and deep well fracturing operations in oil and gas fields, with maximum pressure up to 105MPa. It is mainly composed of chassis, deck engine, hydromechanical transmission, triplex plunger pump, high & low pressure manifolds and hydraulic/air control system.



- ◆ Suitable for pumping operations for different fluids,including fracturing with prop frac fluid, acidizing, high pressure pumping and pressure testing.
- Remote control box, instrument van and network control technologies will ensure reliable and safety fracturing Operations.
- ◆ Equipped with double overpressure protection device.

Model	YLC105-1340
Max working pressure psi(MPa)	11690(105)
Max working displacement gpm(L/min)	610(2309)
Plunger pump	3ZB105-1340
Max. input power of pump hp(kW)	1800(1340)
Chassis available	Kenworth, Styre
Overall dimensions in.(mm)	404×99×150(10260×2500×3800)
Weight lb(kg)	71650(32500)

6、YLC105-1490 Fracturing Truck

YLC105-1490 fracturing truck equipped with 3ZB105-1490 triplex fracturing pumps, is suitable for shallow, medium and deep well fracturing operations in oil and gas fields, with maximum pressure up to 105MPa. It is mainly composed of chassis, deck engine, hydromechanical transmission, triplex plunger pump, high & low pressure manifolds and hydraulic/air control system.



- ◆ Suitable for pumping operations for different fluids, including fracturing with prop frac fluid, acidizing, high pressure pumping and pressure testing.
- Remote control box, instrument van and network control technologies will ensure reliable and safety fracturing operations.
- Equipped with double overpressure protection device.

Model	YLC105-1490
Max working pressure psi(MPa)	11690(105)
Max working displacement gpm(L/min)	610(2309)
Plunger pump	3ZB105-1490
Max. input power of pump hp(kW)	2000(1490)
Chassis available	Kenworth, Styre
Overall dimensions in.(mm)	404×99×150(10260×2500×3800)
Weight lb(kg)	79365(36000)

7. Series Quintaplex Fracturing Trucks

YLC105-1860 fracturing truck or trailer equipped with quintaplex fracturing pumps, is suitable for medium and deep well fracturing operations in oil and gas fields, with maximum pressure up to 105MPa. It is mainly composed of chassis, deck engine, hydromechanical transmission, quintuplet plunger pump, high & low pressure manifolds and hydraulic/air control system.



- ◆ 2500HP quintaplex plunger pump, large displacement, stable pressure, little vibration.
- ◆ Suitable for pumping operations for different fluids, including fracturing with prop frac fluids, acidizing, high pressure pumping and pressure testing.
- Remote control box, instrument van and network control technologies will ensure reliable and safety fracturing operations.
- Equipped with double overpressure protection device.

Model	YL105-1860 Fracturing Truck	YLC105-1860 fracturing trailer
Max working pressure psi(MPa)	15000(105)	15000(105)
Max working displacement gpm(L/min)	1017(3848)	1017(3848)
Plunger pump	3ZB105-1860L	3ZB105-1860H
Max input power of plunger pump hp(kW)	1860(2500)	1860(2500)

8. Fracturing Sand Blender

The fracturing sand blender is a multi-purpose equipment with combined functions of a fracturing truck and a sand blender. It can be used for small-scale acidizing, fracturing, sand prevention and pressure testing independently or jointly with other equipment.



- ◆ Suitable for small-scale fracturing and pressure testing in oilfields.
- ◆ Combined functions of a fracturing truck and a sand blender. It performs independently the function of sand feeding, blending, agitating and pumping.
- ♦ HP23 high energy blending and feeding device suitable for blending and pumping operations. Small footprint and light weight.
- Remote control technologies.

Model	YLS105-1340
Max working pressure psi(MPa)	11420(80)
Max working displacement gpm(L/min)	610(2309)
Plunger pump	3ZB105-1340
Max. input power of plunger pump hp(kW)	1800(1340)
Max feeding capacity of spiral sand feeder gpm(kg/min)	2205(1000)
Displacement of two liquid additive systems gpm(L/min)	10(37.8), 53(200)
Displacement of dry additive system gpm(L/min)	57(102)

9、HS40 Sand Blender

A HS40 sand blender is a widely used for various fracturing operations, and work together with fracturing trucks and instrument vans.



- ♦ It is a unitized equipment for Medium and light duty fracturing operations.
- ◆ Full hydraulic driving. The power of operating parts comes from deck engine, and installed power is up to 422HP.
- ♦ It can be equipped with many automatic control system, including liquid level control, density control, liquid additive control, and discharge control system.

Model	HS40
Max displacement of sand pump bbl(m³/min) (Water)	40(6)
Max. working pressure psi(MPa)	70(0.5)
Max feeding capacity of sand feeder gpm(kg/min)	3520(1600)
Displacement of three liquid additive systems gpm(L/min)	50(189)
Volume of blending tank bbl(m³)	9.4(1.5)
Overall dimensions in.(mm)	406×99×150(10300×2500×3820)
Total weight lb(kg)	50705(23000)



10、HS75 Sand Blender

A HS75 sand blender is a widely used blender with stable performance and high blending capability, and can provide sand fluid enough for several fracturing packages. It is fully hydraulically driven. Four sets of oil pumps are powered by the deck engine through a transfer case, and then hydraulic motors driven by the four oil pumps will perform relevant work: including sand feeding, agitating, blending, dry additive operation, suction and discharge pump operation.



- ♦ It is a unitized equipment for heavy duty fracturing Operations. Full hydraulic driving. The power of operating parts comes from deck and chassis engine, and installed power is up to 500HP.
- ♦ High displacement: one blender is enough for heavy duty fracturing operation.
- ◆ It can be equipped with many automatic control system, including liquid level control, density control, liquid additive control, dry additive control and discharge control system. Data acquisition, feedback and programmable control operations can all easily be realized.

Model	HS75
Max displacement of sand pump bbl(m³/min) (Water)	75(12)
Max. working pressure psi(MPa)	70(0.5)
Max feeding capacity of sand feeder gpm(kg/min)	16440(7456)
Displacement of three liquid additive systems gpm(L/min)	10(37.8) 53(200) 90(340)
Displacement of dry additive system gpm(L/min)	27(102)
Volume of blending tank bbl(m³)	9.4(1.5)
Overall dimensions in.(mm)	441×99×158(11207×2500×4000)
Total weight lb(kg)	55115(25000)

11、HS100 Sand Blender

A sand blender is a major unitized equipment for blending, agitating and feeding of sand fluid for fracturing operations.

A HSC100 sand blender can provide sand fluid enough for several fracturing packages. It is fully hydraulically driven, and the power comes from deck engine and chassis PTO. Four sets of oil pumps are powered by the deck engine through a transfer case, and then hydraulic motors driven by the four oil pumps will perform relevant work: including sand feeding, agitating, blending, dry additive operation and raising of sand feeder. Two sets of oil pumps are powered by the chassis engine via a drive line connecting with transfer case, and then the motors driven by the two oil pumps will make suction and discharge pump work.



- ◆ It is a unitized equipment for heavy duty fracturing operations.
- International well-known heavy duty chassis with good cross-country capabilities.
- ◆ Full hydraulic driving. The power of operating parts comes from deck and chassis engine, and installed power is up to 715HP.
- ♦ High displacement: one blender is enough for heavy duty fracturing operation.
- ◆ It can be equipped with many automatic control system, including liquid level control, sand blending control, liquid additive control, dry additive control and discharge control system. Data Acquisition, feedback and programmable control operations can all easily be realized.

Model	HS100
Max displacement of sand pump bbl(m³/min) (Water)	100(16)
Max. working pressure psi(MPa)	100(0.7)
Max feeding capacity of sand feeder gpm(kg/min)	23148(10500)
Displacement of three liquid additive systems gpm(L/min)	10(37.8) 53(200) 90(340)
Displacement of dry additive system gpm(L/min)	27(102)
Volume of blending tank bbl(m³)	9.4(1.5)
Overall dimensions in.(mm)	419×99×166(10634×2500×4205)
Total weight lb(kg)	61729(28000)

12. Fracturing instrument van

Fracturing instrument van is a major equipment of fracturing package, which can collect, show, and record the whole process of fracturing work. Several fracturing vans are controlled together. It can analyse and process fracturing working data. International standard couplings are used for data acquisition system with good interchangeability.



- ◆ Operation control instrument and computer monitoring analysis are all centralized in van compartment with air-condition. It can be operated comfortably and safely.
- ◆ Data collection and transmission control are all centralized so as to make several units work together.
- Network control system is available.







13、Fracturing Manifold Truck

Fracturing manifold truck is used to carry and hoist manifolds during fracturing operations in oilfields. It mainly consists of truck chassis, hydraulic lifting arm, skid frame, high and low pressure manifold system, and hydraulic system. Manifold system can be designed and equipped as per customer's requirements.



Main Parameters

Model	GHC105
Max working pressure psi(MPa)	15000(105)
The quantity of trucks	10 sets of fracturing truck
Size of high pressure manifold	3"(HP manifolds and swivel joins)
low pressure manifold	4", 12pcs(Low pressure manifold box)
Max hoisting weight of lifting arm lbs(kg)	13860(6300)(every kind of hoisting unit model)
Truck chassis	NORTH BENZ 2530/6×6,BENZ 3331A, VOLVO, KENWORTH, trailer, skid-mounted
Overall dimensions	393.7×98.4×145.7(10000×2500×3700)
Optional items	charging pump system



14、Model 2500 Quintaplex Pump Fracturing Truck

Model 2500(YLC140-1860) fracturing truck is equipped with 2235kW(3000HP) engine and 2085kW (2800HP) quintaplex fracturing pump, which can produce 140Mpa (20000psi) of maximum working pressure. It mainly consists of chassis, deck engine, hydromechanical transmission, quintaplex plunger pump, manifolds, hydraulic/air system and network control system, etc, featuring by ultra high pressure, high power and continuous operation. It is suitable for various fracturing and acidizing operation in intermediate, deep and ultra deep wells.



- ♦ High horsepower engine, chassis-driving fan cooling system, output hydraulic power can be up to 1860 kW (2500HP) with some backup power.
- Equipped with reinforced side beams. Good cross-country capability and mobility, suitable for oilfield road.
- Equipped with network control system. The manual or automatic control over one unit or package can be realized.
- Satellite communication technology for operation data transmission, thus real-time monitoring in other place can be realized.
- Fitted with multiple automatic safety protection system for the safety of operation.

Model	YLC140-1860
Max. working pressure	140 MPa (3-3/4 " plunger)
	123 MPa (4 " plunger)
	97 MPa (4-1/2 " plunger) < TD
Max. output displacement	2172 L/min (3-3/4 " plunger)
	2471 L/min(4 " plunger)
	3128 L/min (4-1/2 " plunger)
Rated input power, pump	2800HP(2085kW)
Overall dimensions (LXWXH)	12500x 2500x4200 (mm)
Total weight	45000kg



Well Flushing and Special Equipment

1. Well Flushing Equipment

A well flushing truck is suitable for pump circulating operations for oil, gas and water wells. This truck has multiple speeds. It is highly efficient and widely applied. The high pressure manifolds are fitted with overpressure protection device to ensure safety of personnel and equipment. Operations of XJC 35-12 well flushing truck are done in its cab. The power of its plunger pump comes from a chassis engine. Therefore, it is featured by simple structure, light weight and low maintenance cost. However, XJC35-15 truck is equipped with a deck engine to provide power for plunger pump with high input power and high displacement. Its relevant operations are done in an operation room on the deck.



Main Parameters

Model	XJC35-12	XJC35-15
Max.working pressure psi(MPa)	5000(35)	5000(35)
Max.displacement gpm(L/min)	317(1200)	396(1500)
Plunger mode	3ZB-265	3ZB-265
Chassis	6×4 Chassis	6×4 Chassis
Overall dimensions L×W×H in.(mm)	345×99×114(8755×2500×2900)	364×99×136(9243×2500×3450)
Weight lb(kg)	32400(14700)	39506(17920)

2. JHX5100 Boiler Truck

JHX5100 boiler truck is the ideal equipment for production and workover services. Other boiler trucks can also be designed as required by users.



- ◆ Effective boiler: combustion capacity 1.5MBUT, temperature increases rapidly, and can reach working condition 1min after statrup(7MPa,180°C).
- ♦ Safe and reliable: auto-controlled temperature, auto-shutdown while pipeline is blocked.
- ◆ Convenient: simple operation, only open one switch, you can finish the whole work.
- ◆ For low temperature environment: air purging will ensure pipeline and valve will not be frozen.

Model	JHX5100
Chassis	EQ1108G6D15
Capacity,water tank ft³(m³)	134(3.8)
Displacement,steam lb/h(kg/h)	2204-4408(1000-2000)(adjustable)
Pressure,steam psi(MPa)	290-1430(2-10)(adjustable)
Temperature,steam °F(°C)	normal temperature 356(180)(adjustable)
Overall dimension L×W×H in.(mm)	316.5×98×120(8040×2490×3045)

3、JHX5140TXL Wax Removing Truck

ED1141G7DJ chassis is used on JHX5140TXL wax removing truck after modification. It is the ideal multi-functional operation unit, mainly used for flushing deposited wax, and also for blocking elimination, pressure testing, cementing and flushing ground tubing and equipment. It can simplify production & workover service, increase oil production, improve wax removal operations, save labor work and decrease cost.



Main technical parameter

- ◆ Suitable environment temperature (°C):-30°C~40°C.
- ◆ Temperature at inlet for working medium (°C): not less than 10.
- ◆ Working medium: a. Crude oil with viscosity E50≤10 centipoise; b. Mud.

Model	JHX5140TXL
Chassis	EQ1141G7DJ
Working pressure,hydraulic system psi(MPa)	1720(12)
Max.pressure,triplex pump psi(MPa)	5000(35)
Max.displacement m/h	70
Max.temperature,fluid in boiler outlet °F(°C)	302(150)
Overall dimensions L×W×H in.(mm)	327×99×114(8310×2500×2900)
Weight lb(kg)	30400(13790)

4. Series of Production Vehicles

The series of production truck can be mainly used for production service for marginal wells and abandoned wells with max. depth of 2300m and can also be used for fishing service for oil and water wells.



- Equipped with digital display unit for indicating depth, weight and speed, and to monitor production processes.
- ♦ No need to use a fixed production unit , featuring mobility, less operators and remarkable economic benefit.
- Good cross-country performance, flexible and convenient for marginal well production.

Model	JHX5140TCY	JHX5170TCY	JHX5190TCY	JHX5200TCY
Chassis	EQ1141G7DJ	ZZ1192BL461	ZZ1192BL461	ZZ1322BM434
Max. Lowering depth ft(m)	6890(2100)	6890(2100)	6562(2000)	6562(2000)
Max. Lifting load	18000(80)	18000(80)	18000(80)	27000(120)
Rated lifting load lb(kN)	11250(50)	11250(50)	11250(50)	18000(80)
Linear speed fps(m/s)	1.64-16.4(0.5-5)	1.25-16.4(0.38-50	0.66-4.92(0.2-1.5)	1.08-3.28(0.33-1)
Capacity,drum ft(m)	9546(2300)	9546(2300)	9546(2300)	9546(2300)
Overall dimensions L×W×H in.(mm)	460.5×97.2×148.8(1 1700×2470×3780)	459×97.2×155(11 660×2470×3940)	400×98.4×156.7(1 0165×2500×3980)	458.9×98.4×158.9(11 655×2500×4036)
Weight lb(kg)	31305(14200)	36376(16500)	40388(18320)	44422(20150)

5、JHX5070TGC Flushing Manifild Truck

JHX5070TGC flushing manifild tTruck is a kind of special operation equipment, used for handing of special fluid supply lines. Feeding-out and spooling-in of high pressure hoses are realized by hydraulic power and chain, to greatly increase well flushing efficiently and prolong service life of hoses.



Main Parameters

Model	JHX5070TGC
Length of HP hose ft(m)	656(200)
HP hose pressure psi(MPa)	1740(12)
Capacity,drum ft(m)	>656(>200)
RPM,drum	0-32.5

6. Series of Well Testing Trucks

The well testing truck, composed of a chassis and integrated hydraulic winch with removable or fixed drum, is used for well testing in oilfields. The hydraulic winch consist of drum, line spooling system, depth measuring system, operating panel and manual operating device. It features simple construction and easy operation.



Main Parameters

Model	JHX5040TSJ	JHX5062TSJ	JHX5070TSJ
Chassis	NJ6596SFF	EQ6690L	EQ6750P
Hydraulic Winch Capacity,drum ft(m)	8202(2500)	19865,16406 (6000,5000)	19685(6000)
Hydraulic Winch Max. pull lb(kN)	1800(8)	2250(10)	2250(10)
Pressure,hydraulic system psi(MPa)	2300(16)	2300(16)	2300(16)

7、LGC230 Coiled Tubing Unit

Coiled tubing operation technology now is popular in the oil & gas industry, with operation depth up to 9000m, and gradually become a trend of workover technology. At present, φ 12.7 \sim φ 114.3 mm coil tubings are available.

The preliminary coiled tubing units are used for fluid transmission in well washing, base medium acidizing and nitrogen lift. Now the coiled tubing technologies are extended to drilling, workover, logging, perforation and stimulations. The trend will be for fracturing, shallow well drilling, etc.

LGC230 coiled tubing units, suitable for 1"~2" tubing, are used for well flushing, sand flushing, wax removing, acidizing, nitrogen injecting and fishing operations. The unit consists of main coil tubing unit, auxiliary unit and downhole tools.

LGC230 Coiled Tubing Unit main coil t	ubing unit	LGC230 Coiled Tubing Unitauxiliary unit	
Operation platform	Injector system	Reel	

- Faster operation, higher efficiency, save 50% of workover time. Quicker installation and movement.
- Wider operation range. Besides conventional service, can be used for special downhole operations.
- ◆ Operation controls are centralized, highly automatic.
- ♦ Safe and reliable operation. The killing opration which can cause damage to oil reservoir will not be needed any more.

Model	LGC230	
max. pull	22700 kg	
max. snubbing capacity	11350 kg	
max. speed (high gear)	60 m/min	
max. speed (low gear)	30 m/min	
tubing capacity	1.25"(6500m)	
	1.5"(4500m)	
rated working pressure	70MPa	



Offshore Drilling and Production Equipme

Offshore Workover Rig

1、HXJ90 offshore workover rig



- ♦ Max. Hook load 198000lb(900kN),draw works installed power rating 360HP (269kW).
- ◆ Workover depth 8200ft(2500m)(3-1/2" drilling pipe), drilling depth 2380ft(1000m)(4-1/2" drilling pipe).
- ♦ Hydraulic driving base can be moved transversely and lengthways. Cluster well operation can also be performed.
- ◆ To raise and lower double-section telescoping mast hydraulically.
- ♦ Single diesel engine driving. Adopt international famous-brand engine and ALLISON hydromechanical transmission.
- ◆ Draw works drum: Integral Lebus groove will ensure that ropes are arranged in order. Band brake, forced circulation cooling, low pollution. Auxiliary brake is of hydromatic brake system.
- ◆ Operation control system is of centralized control and long-distance air control operation. The key parts have multiple protection functions.
- ♦ Rotary table has forward gear and reverse gear mechanisms. It also adopts DP torque release unit so as to prevent drilling string from reversing at a high speed and avoid accident.

Model	HXJ90
Max. Lifting hook load lb(kN)	198000(900)
Workover depth ft(m)(3-1/2"DP)	8200(2500)
Drilling depth ft(m)(4-1/2"DP)	3280(1000)
Draw works rated power hp(kW)	469(350)
Mast clearance height ft(m)	95(29)
Effective quantity of lines	6

2. HXJ135 offshore workover rig

- ◆ Max. Hook load 297000lb (1350kN), draw works installed power rating 525HP (392kW).
- ◆ Workover depth 14760ft(4500m) (3-1/2" drilling pipe),drilling depth 6560ft(2000m) (4-1/2" drilling pipe).
- ◆ Hydraulic driving base can be moved transversely and lengthways. Cluster well operation can also be performed.
- ◆ Raise and lower double-section telescoping mast hydraulically at full length.
- ◆ Adopt international famous-brand engine and ALLISON hydraulic transmission.



- ◆ Power transmission system is of special double engines parallel operation technique. Single engine drives. Reserve one engine coupling. If necessary, one set of engine can be added so as to perform parallel operation which can enhance the flexibility of operation.
- ◆ Draw works drum: Integral Lebus rope groove, ropes are arranged in order, band brake, forced circulation cooling, low pollution.
- ♦ Auxiliary brake is air control water cooling disc auxiliary brake system.
- ♦ Operation control system is of centralized control and long-distance air control operation. The important parts have multiple protection functions.
- ◆ Rotary table has forward gear and reverse gear mechanisms. It also adopts rotary table anti-reversing unit so as to prevent drilling string from reversing at a high speed and avoid accident.

Model	HXJ135
Max. Lifting hook load lb(kN)	297000(1350)
Workover depth ft(m)(3-1/2"DP)	14760(4500)
Drilling depth ft(m)(4-1/2"DP)	6560(2000)
Draw works rated power hp(kW)	603(450)
Mast clearance height ft(m)	95(29)
Effective quantity of lines	8

3. HXJ158 offshore workover rig

- ◆ Max. Hook load 346500lb (1580kN),draw works installed power rating 360HP×2sets (269kW×2sets).
- ◆ Workover depth 18040ft (5500m) (3-1/2" drilling pipe), drilling depth 8200ft (2500m) (4-1/2" drilling pipe).
- ♦ Hydraulic driving base can be moved transversely and lengthways. Cluster well operation can also be performed.
- ♦ Raise and lower double-section telescoping mast hydraulically at full length.
- ◆ Adopt international famous-brand engine and ALLISON hydraulic transmission.



- ◆ Power transmission system is of special double engines parallel operation technique which makes work can be performed with one engine or two engines so as to enhance efficiency and reliability.
- ◆ Draw works drum: Integral Lebus groove will ensure that ropes are arranged in order. Band brake, forced circulation cooling.
- ◆ Auxiliary brake is of air control water cooling disc auxiliary brake system.
- ◆ Operation control system is of centralized control and long-distance air control operation. The important parts have multiple protection functions.
- ♦ Rotary table has forward gear and reverse gear mechanisms. It also adopts rotary table anti-reversing unit so as to prevent drilling string from reversing at a high speed and avoid accident.

Model	HXJ158
Max. Lifting hook load lb(kN)	346500(1575)
Workover depth ft(m)(3-1/2"DP)	18040(5500)
Drilling depth ft(m)(4-1/2"DP)	8200(2500)
Draw works rated power hp(kW)	737(550)
Mast clearance height ft(m)	95/108(29/33)
Effective quantity of lines	8



4、HXJ180 offshore workover rig



- Max. Hook load 404640lb (1800kN), draw works installed power rating 460HP×2sets (343kW×2sets).
- ♦ Workover depth 21320ft (6500m) (3-1/2" drilling pipe), drilling depth 9840ft (3000m)(4-1/2" drilling pipe).
- Provide the functions of drilling rig and workover rig.
- Hydraulic driving base can be moved transversely and lengthways. Cluster well operation can also be performed.
- Subbase and mud tank are of integration design.
- Adopt heavy load wide mast. Perform raising, lowering, and telescoping work hydraulically at full length.
- ♦ Adopt international famous-brand engine and ALLISON hydraulic transmission.
- ◆ Power transmission system is of special double engines parallel operation technique which makes work can be performed with one engine or two engines so as to enhance efficiency and reliability.
- Adopt overhead centralized lines. The lines have different colors according to their different functions.
- Operation control system is of centralized operation in driller's room. The important parts have multiple protection functions.
- ◆ Rotary table has forward gear and reverse gear mechanisms. It also adopts pipe torque release unit so as to prevent drilling string from reversing at a high speed and avoid accident.

Model	HXJ180	
Max. Lifting hook load lb(kN)	404640(1800)	
Workover depth ft(m)(3-1/2"DP)	21320(6500)	
Drilling depth ft(m)(4-1/2"DP)	9840(3000)	
Draw works rated power hp(kW)	871(650)	
Mast clearance height ft(m)	102/108/138(31/33/42)	
Effective quantity of lines	10	



5、HXJ180DB offshore workover rig



- ◆ Provide the functions of drilling rig and workover rig.
- ◆ Hydraulic driving base can be moved transversely and lengthways. Cluster well operation can also be performed.
- ◆ AC VF electrical drive draw works lifting system and rotary table rotation system.
- ♦ Adopt vertical self-raising mast. Ensure the single weight of every hoisting modular meets the lifting load requirement on platform.
- ♦ Main drum: Integral Lebus rope groove, ropes are arranged in order. Brake is hydraulic disc brake. Auxiliary brake is hydromatic brake system.
- Operation control system is of centralized operation in driller's room. The important parts have multiple protection functions.
- ♦ Rotary table has forward gear and reverse gear mechanisms. It also adopts rotary table anti-reversing unit so as to prevent drilling string from reversing at a high speed and avoid accident.
- ◆ The design of the whole rig meets HSE requirement.

Model	HXJ180DB	
Max. Lifting hook load lb(kN)	404640(1800)	
Workover depth ft(m)(3-1/2"DP)	21320(6500)	
Drilling depth ft(m)(4-1/2"DP)	9840(3000)	
Draw works rated power hp(kW)	871(650)	
Mast clearance height ft(m)	102/108/138(31/33/42)	
Effective quantity of lines	10	



6、HXJ225 offshore workover rig



- Max. Hook load 506160lb (2250kN), draw works installed power rating 650HP×2 sets (485kW×2 sets).
- ◆ Workover depth 24600ft (7500m) (3-1/2" drilling pipe), drilling depth 13120ft (4000m) (4-1/2" drilling pipe).
- Provide the functions of drilling rig and workover rig.
- Hydraulic driving base can be moved transversely and lengthways. Cluster well operation can also be performed.
- ♦ Modular and group design, mud tank and subbase are integrative, which save the limited space. The quantity of hoisting modular is little so as to transport easily and install quickly.
- ◆ Adopt heavy load wide mast. Perform raising, lowering, and telescoping work hydraulically.
- ◆ Adopt international famous-brand engine and ALLISON hydraulic transmission, Power transmission system is of double engines parallel operation technique.
- ◆ Draw works and rotary table are driven independently in parallel.
- ◆ Adopt overhead centralized lines. The lines have different colors according to their different functions.
- Operation control system is of centralized operation in driller's room. The important parts have multiple protection functions.
- ◆ Adopt air control brake as rotary table anti-reverse brake which is installed easily and safely.
- ♦ Wellhead operation radius is more than 2.0m. Driller's position is suitable and wide-field for the design of enlarging platform surface.
- ◆ Adopt portable and environmental-protection new material (glass reinforced plastics, molding grille, etc) so as to ensure the equipment can be used comfortably and reliably. It should have a good anti corrosion performance. The weight of modular can be reduced.

Model	HXJ225	
Max. Lifting hook load lb(kN)	506160(2250)	
Workover depth ft(m)(3-1/2"DP)	24600(7500)	
Drilling depth ft(m)(4-1/2"DP)	13120(4000)	
Draw works rated power hp(kW)	1005(750)	
Mast clearance height ft(m)	115/138(35/42)	
Effective quantity of lines	10	



Skid-mounted offshore circulation equipment

1. Skid-mounted offshore circulation equipment

The serial products are mainly used for well flushing, well killing, pressure measuring, and acidizing operation in offshore oil filed. It also can be used in desert, shallows, etc. Adopt triplex plunger pump and skid mounted structure. The layout is compact. It can meet the special requirements such as anti corrosion, anti explosion, etc, in offshore. Besides, the design can be modified according to the special requirement of platform.

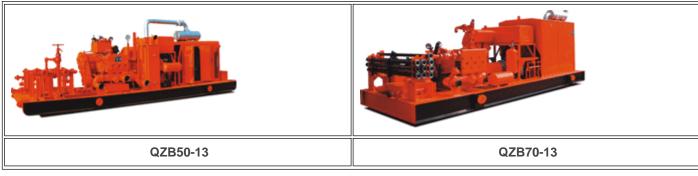




QZB40-11D

QZB40-265

Model	QZB35-15	QZB50-13	QZB40-11D	QZB40-21D
Max. working pressure psi(MPa)	5000(35)	7000(50)	5880(40)	5880(40)
Max. working displacement gpm(L/min)	396(1500)	317(1200)	300(1130)	560(2122)
Max. input power of plunger pump hp(kW)	350(265)	350(265)	350(265)	350(265)
Overall dimensions L×W×H in.(mm)	236×89×97(600 0×2250×2300)	236×89×103(6000 ×2250×2450)	187×83×87(4750 ×2100×2200)	307×130×83(780 0×3300×2110)
Total weight lb(kg)	20940(9500)	20940(9500)	17640(8000)	37478(17000)





Main Parameters

Model	QZB70-13	QZB40-16A	QZB35-16A	QZB50-13A
Max. Working pressure psi(MPa)	10153/7832/6236(71/54/43)	5880(40)	5000(35)	7000(50)
Max. working displacement gpm(L/min)	337/440/556(1277/ 1664/2105)	418(1583)	418(1583)	339(1282)
Max. input power of plunger pump hp(kW)	600(450)	350(265)	350(265)	350(265)
Overall dimensions L×W×H in.(m)	252×91×89(6400× 2315×2347)	341×91×88(8670 ×2315×2255)	261×93×101(66 30×2350×2400)	236×89×103(600 0×2250×2450)
Total weight lb(kg)	22707(10300)	2600(11800)	24870(11280)	24250(11000)

2. Offshore fracturing unit

SJ is the biggest corporation in China for designing and manufacturing onshore fracturing, acidizing and fracturing equipment. We are also dedicated to developing products used in offshore operation. Offshore fracturing unit is used for high density and low density fracturing work, acidizing and fracturing operation in offshore oil fileds. The equipment can meet the requirements for high pressure and large displacement. Fracturing pump skid is of split type. Sand blending skid is divided into three parts. Any one of them will not be more than 13.5 tons. The hydraulic and air line between skid blocks are connected by quick disconnects. The whole set of unit can be hoisted into cabin easily. Unit operations are automatically controlled through network. All operations can be monitored in a skid block.

The series of offshore fracturing unit include Fracturing pump skid Sand blending skid Instrumentation skid Filter skid Front liquid tank skid Sand tank skid and Feeding tank skid.



3、Skid-mounted Cementing Equipment

Skid-mounted cementing equipment mainly consists of engine, hydromechanical transmission, horizontal triplex plunger pump, blending system, manifold system, and hydraulic/air control system. Two forms of equipment are available: single engine single pump and double engine double pump. Mixing system can be an injection mixing or Tornado mixing system, manually control led or automatically controlled by ACM density control system.

The equipment has many advantages, such as compact structure, small footprint, and convenient handling, etc, and is suitable for cementing operations in offshore, desert, marshland and small areas with limited space. Our offshore cementing skids have been corrosion resistance and explosion proof treated so that they can meet the special requirements for offshore platform operations.



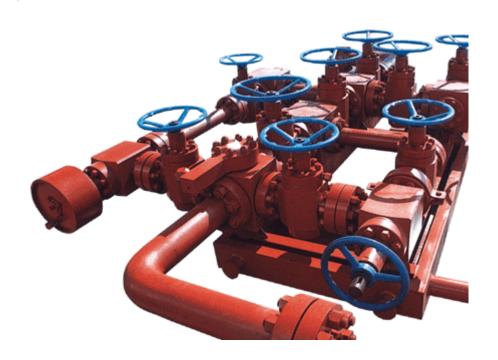
Model	GJQ100-30	GJQ70-25	GJQ50-30	GJQ35-16
Max. Working pressure psi(MPa)	14146(97.5)	10150(70)	7250(50)	5070(35)
Max. Working displacement gpm(L/min)	803(3043)	650(2470)	756(2865)	418(1583)
Max. Input power of single pump hp(kW)	600(447)	355(265)	355(265)	355(265)
Overall L×W×H in.(mm)	330×106×122(840 0×2700×3100)	374×102×120(9500 ×2600×3040)	374×102×120(9500× 2600×3040)	283×95×110(7200× 2400×2800)
Total weight lb(kg)	44000(20000)	44000(20000)	39600(18000)	26400(12000)
Overall L×W×H in.(mm)(Special model for offshore use)	291×106×122(740 0×2700×3100)	315×198×522(8000 ×2500×3980)	315×98×102(8000×2 500×2600)	284×95×110(8400× 2700×3100)



Combination Maniflods

has further developed more than 100 different kinds of various high pressure combination manifolds used for drilling, cementing, test, fracturing, coiled tubing, sand control operations and offshore operations, such as, choke and kill manifolds, mud manifolds, stand pipe manifolds, hose loops, wax bead manifolds, high & low pressure combination manifolds, and wellhead test device, with nominal bore ranging from 2" to 5", pressure rating from 3000psi to 15000psi(21MPa to 105MPa). Meanwhile, SJ can supply various custom-made manifolds.

SJ has already supplied hundreds of complete set of drilling mud manifolds, choke & kill manifolds, BOP manifold system, and cementing manifolds for offshore rigs (Philips, Kerr-McGee, Nanbao, Weizhou Platforms), Huizhou modular rigs, Luda 6000m modular rig, 4000m land rigs, and rigs exported to Cuba. These products enjoyed good reputation among customers.



1. Combination Manifolds

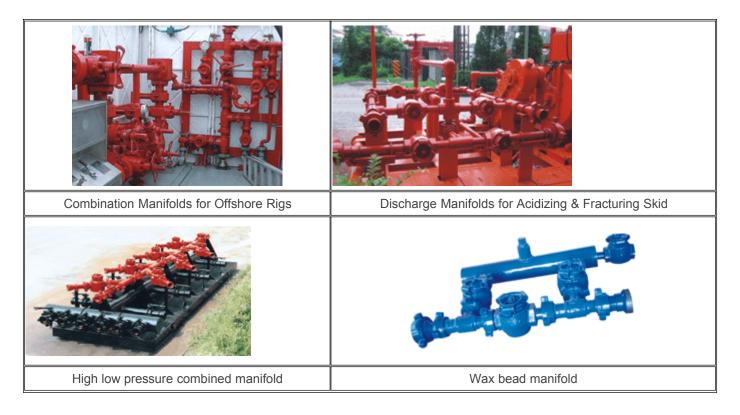
Combination of various high pressure fluid control products can produce many different purpose manifold devices: such as drilling fluid manifolds (pump combination manifolds, ground manifolds and standpipe manifolds), well control manifolds(blowout prevention manifolds, choke manifolds and kill manifolds), cementing manifolds, discharge manifolds for pump trucks, high and low pressure combination manifolds, ground test manifolds (wellhead control head, bit manifolds, flow nipple manifolds, distribution and discharge manifolds, oil dividing manifolds and air dividing manifolds) and wax bead manifolds, etc.

Our company has rich experience in design and manufacturing of manifolds. We have designed and made scores of manifolds, such as, complete set of drilling hydraulic manifolds, well control manifolds and cementing manifolds for 6000m offshore and land rigs.



贸易 RUGAO YAOU IMPORT AND EXPORT TRADE CO.,LTD

Our manifolds are widely used on various land/offshore rigs, cementing and fracturing equipment. We not only provide standard manifolds, but also special combination manifolds as per customers' requirements to guarantee your satisfaction.



2. Choke Manifolds

Choke Manifold is a necessary equipment to carry out the pressure control technology in the oil/gas well. It is used for controlling casing pressure, keeping wellbore pressure balance, to avoid overflowing and prevent wells from blowing out, releasing pressure through choke valves to realize soft closing, and blowing down to protect the wellhead. It can be provided with the hydraulic control manifold for the remote control.

The choke manifold manufactured by our company conform to API Spec 16c and NACE Standard MR0175. We can design and made this product according to users' requests.



Choke manifold of 3000 m modular drilling rig

The model available: JG-21、JG-35、JG-70、JG-105, rated: $3000psi(21MPa) \sim 15000psi(105MPa)$.

3、Kill Manifolds

Kill Manifold are key equipment to carry out the pressure control in the oil/gas well. It's used for pumping heavy drilling fluids into the well for bottom hole pressure balance, and for releasing bottom hole pressure; It's also used for injecting water to wash well or for injecting extinguishing agent.

The choke manifolds manufactured by our company conform to API Spec 16C and NACE Standard MR0175. We can design and make this product according to users' requests.



Kill Manifolds for 7000m offshore modular drilling rig in Panyu

Model	YG-21	YG-35	YG-70	YG-105
working pressure psi(MPa)	3000(21)	5000(35)	10000(70)	15000(105)
nominal size	2-1/16in.∼4-1/16in.	2-1/16in.∼4-1/16in.	2-1/16in.∼4-1/16in.	2-1/16in.~4-1/16in.
working temperature	-29∼121℃	-29∼121℃	-29∼121℃	-29∼121℃
specification level	not less than PSL3			
material class	EE~FF	EE~FF	EE~FF	EE~FF
working medium	mud, oil, natural gas			



4. Drilling Fluid Manifolds

Drilling fluid manifolds are to collect drilling mud discharged from mud pumps, then mud will be delivered to downhole and mud guns, via pump combination manifolds and high pressure stand pipes. Thus drilling mud can be circulated in both ways. Various mud manifolds for various rigs are available in SJ.

Material for mud manifolds conforms to API 5L/GB8163-99, and piping will be designed as per ASME B31.3.



Standpipe Manifolds for 7000m offshore modular drilling rig (Floor Valve Sets)

Туре	Drilling Fluid Manifolds
working pressure psi(MPa)	5000~10000(35~70)
nominal size	3in.∼5in.
working temperature	-29∼121℃
specification level	PSL2~PSL4
material class	DD~FF
working medium	mud, oil, natural gas

5. Cementing Manifolds

Cementing manifolds, are used to deliver cement slurry output from cementing pumps. Low operating torque, easy and flexible operation in normal and low temperature. Working performance and connecting sizes are the same as SPM, FMC products.

The cementing manifolds are manufactured as per API 6A, NACE MR0175. SJ can provide custom-made cementing manifolds.



Main Parameters

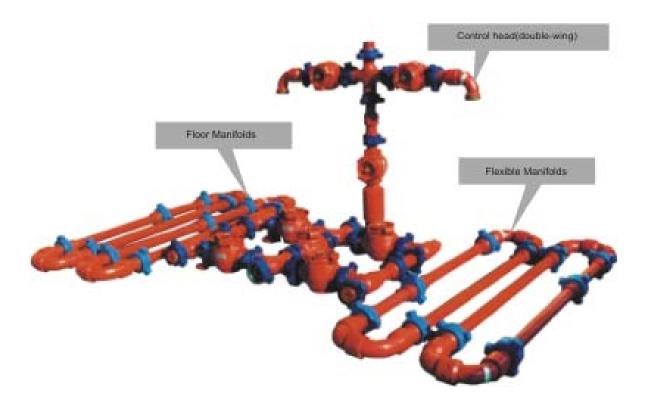
Туре	Cementing Manifolds
working pressure psi(MPa)	5000~15000(35~105)
nominal size	2in.∼3in.
working temperature	-29∼121℃
specification level	PSL2~PSL4
material class	DD~EE
working medium	Slurry,water

6. High Pressure Ground Test Unit

High pressure ground test units ,indispensable to formation testing and oil testing, are mainly composed of wellhead control head, floor manifolds, flexible manifolds, safety valve, upper data head, flow nipple manifold, lower data head, air dividing manifolds, and distribution and discharge manifolds. Parts, with good interchangeability, are made on the basis of introduced technologies from SPM and FMC.

All parts are made of material approved by SPM and heat-treated accordingly, and the unit should pass hydrostatic pressure test under maximum working pressure rating. This unit is featured by small footprint and lightweight, and it is easy for transportation. All control valves are low-torque plug valves and gate valves, and manifolds are connected by unions or flanges which are easily connected and interchanged with other products.

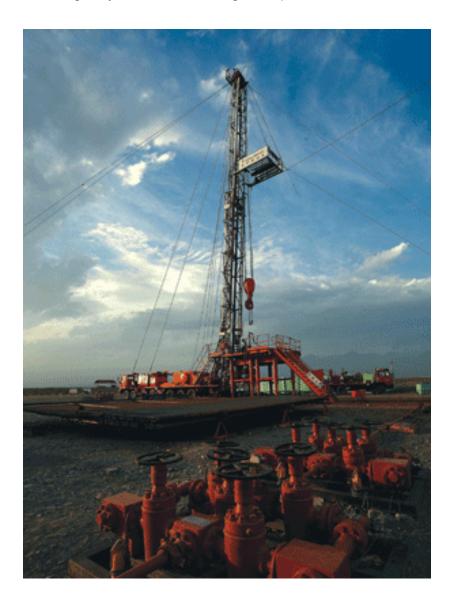
Wellhead test units, widely used in drilling and workover operations, can effectively control well kick, and are used for well test control and wellhead test. And its floor manifolds can be used for cementing and acidizing operations. They are often made up of floor manifolds, control head(up-holding or down-holding type) and hose loops.





7、Flow Nipple Manifolds

Equipped with 2" fixed and adjustable flow nipples, bypass valve, two upstream separation valves, two down stream separation valves. The flow nipples made in English system can be interchanged with products of the countries.



Accessories

We have strong development and manufacturing capabilities for plunger pumps. Now we can provide five categories of plunger pumps with power ranging from 200hp to 2500hp.

Our plunger pumps are optimized on the basis of PRO/E 3D design and finite element analysis of key parts.

There are many precision machining equipment (including professional DevIlieg/G&L machining centers, NC boring machines and 5T die forging hammer), professional heat-treatment production line and thermostatic assembling shop for plunger pumps, and each pump should pass a run-in and pressure tests before delivery, to ensure quality of the relevant products.



8. Series of Traveling Blocks

Traveling block & hook is one of the lifting equipments for petroleum drilling rig and workover rig with the integral design, which can shorten the length between traveling block and hook, perfectly meeting the traveling space for lifting system. The traveling block & hook can be in accordance with Spec 8C PSL1. It can be used for matching with series of drilling rig and workover rig manufactured by SJ, made in series with reliable quality and large versatility.







◆ The equipment can be in accordance with API 8C.

- ◆ The advanced heat treatment processes such as carburetion, etc. is used on some crucial driving components with high strength and long service life.
- ♦ Deep crack detection test is performed strictly on the equipment before delivery.

Model	YG40	YG50	YG70	YG110
Max. static load lb(kN)	90000(400)	112500(500)	157500(700)	247500(1100)
OD of sheaves in.(mm)	20.4(518)	22.6(575)	24(605)	24(605)
No. of sheaves	3	3	4	3
Dia. of wirelines in.(mm)	7/8(22)	7/8(22)	7/8(22)	1(26)
Weight lb(kg)	308(682)	356(785)	634(1397)	646(1424)
Overall dimensions in.(mm)	84×21.26×17.5(2138× 540×445)	87.4×23.7×17.5(2220×602×445)	72.44×27.24×21.26 (1844×692×540)	91.89×26.5×22.13(2334×673×562)

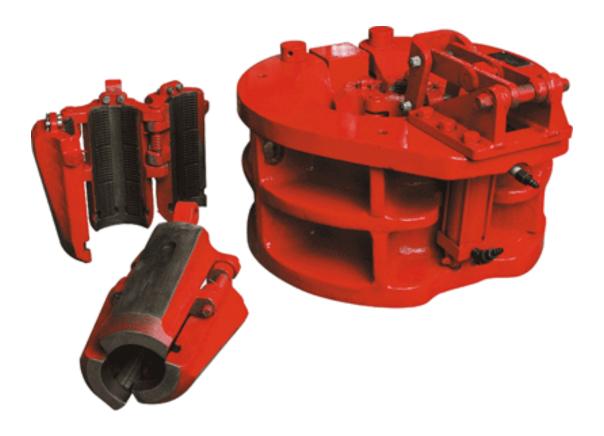


Model	YG150	YG180	YG200	YG350
Max. static load lb(kN)	337500(1500)	405000(1800)	450000(2000)	787500(3500)
OD of sheaves in.(mm)	30(760)	42(1060)	43.3(1100)	44(1118)
No. of sheaves	4	5	5	5
Dia. of wirelines in.(mm)	1(26) 1-1/8(29)	1-1/8(29)	1-1/4(32)	1-1/4(32)
Weight lb(kg)	1276(2180)	2336(5146)	3323(7320)	2206(4860)
Overall dimensions in.(mm)	108.98×32.68×27.99 (2768×830×711)	136.57×43.7×30.2 4(3469×1110×768)	156.06×47.24×36.0 2(3964×1200×915)	141.73×47.95×32(3600×1218×812)

9、Air Slips

KW-75 and KW-120 air slips are available for drilling rig with the drilling depth within 6,560ft (2000m). Compared with similar products, it is featured by small size, light weight, strong load capacity, convenient operation (pneumatically or manually), flexible startup, safe and reliable application.

Air slip is installed in the rotary table. Four (4) beveled slots are equipped on four (4) inner walls of slip seat respectively and four (4) slip bodies is raised and lowered along the beveled slot. Slip can be drawn in tight while lowering along the bevel slot and clamp the drill pipe; on the contrary slip can separate outwardly and loose the drill pipe. The raising and lowering for slip is accomplished by cylinder through yoke.



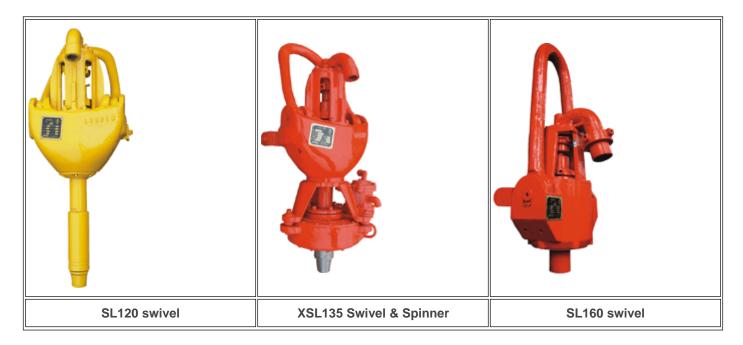


Main Parameters

Model	KW-75	KW-120
Rated load kN	750	1200
Nominal size of pipes in.	2-3/8", 2-7/8", 3-1/2"	2-3/8", 2-7/8", 3-1/2", 4", 4-1/2", 5"
Rated WP of cylinder psi(MPa)	85.8~143(0.6~1.0)	85.8~133(0.6~0.93)
Overall dimensions in.(mm)	22.4×18.11×17.72(570×460×450)	29.13×23.62×17.72(740×600×450)
Weight lb(kg)	375.89(170.5)	859.8(390)

10 Series of Swivels

Swivel is one of the circulating equipment for petroleum drilling rig and workover rig for connecting rotary hose and drill pipe to perform mud recirculating during rotary operation in drilling service. The equipment is mainly used for matching with series of drilling rig and workover rig manufactured by SJ, including three types such as conventional, spinner and power swivel. It can be made in series with reliable quality and large versatility.



- ◆ This equipment can be in accordance with API 8C.
 - ♦ The advanced heat treatment processes such as carburetion, etc. is used on some crucial driving components with high strength and long service life.
 - Pressure test and commissioning is performed on the equipment before delivery.



Model	SL90	SL120	SL135
Max. Static load lb(kN)	202320(900)	269760(1200)	303480(1350)
Max. RPM(r/min)	300	300	300
Max. working pressure psi(MPa)	3932.5(27.5)	5005(35)	
ID of stem in.(mm)	2.36(60)	2.13(54)	2.24(57)
Thread for connection with stem	4-1/2" FH-LH	4-1/2""DP thread LH	4-1/2" REG-LH
Thread for connection with kelly	6-5/8" REG-LH	3-1/2" REG-LH	6-5/8" REG-LH
Overall dimensions in.(mm)		74.72×24.72×28.43(1898×628×722)	90.20×25.12×25.51(22 91×638×648)

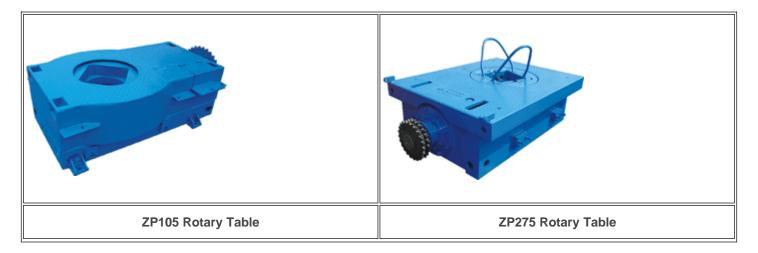
Model	SL160	SL225	DSL160
Max. Static load lb(kN)	359680(1600)	505800(2250)	359680(1600)
Max. RPM(r/min)	300	300	300
Max. working pressure psi(MPa)	5005(35)	5005(35)	5005(35)
ID of stem in.(mm)	2.24(57)	2.99(76)	2.24(57)
Thread for connection with stem	4-1/2" REG-LH	6-5/8" REG-LH	
Thread for connection with kelly	6-5/8" REG-LH	6-5/8" REG-LH	3-1/2" IF-LH
Overall dimensions in.(mm)	85.63×30.75×25.98 (2175×781×660)	107.87×39.76×33.86(274 0×1010×860)	94.4×44.2×25.98(239 7×1123×660)



HPU of DSL160 power swivel

11. Series of Rotary Tables

Rotary table is one of the driving equipments of drilling rig. It is mainly used for rotating drill string during drilling service and supporting the weight of down-hole drill string (or casing) during trip in & out and casing running, usually used in combination with drilling rig and workover rig. This equipment 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 been successfully developed,



- Curved tooth rotary table machined by Gleason curved tooth unit is featured by high accuracy and good engagement
- ◆ The advanced heat treatment processes such as carburetion, etc. are used on some crucial driving components with high strength and long service life.
- ◆ The design and manufacture of rotary table can be in accordance with API 7K.

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	1: 3.6	1: 3.375	1: 3.58
Weight lb(kg)	661.39(300)	3097.49(1405)	8533.93(3880)
Overall dimensions in.(mm)	45.83×32.28×13.78(1164× 820×350)	67.13×38.58×20.87(1705× 980×530)	77.95×50.39×23.03(1980 ×1280×585)



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	1: 3.22	1: 3.68	1: 3.56
Weight lb(kg)	12742.7(5780)	15278.02(6930)	16490.56(7480)
Overall dimensions in.(mm)	90.55×58.27×26.18(2300× 1480×665)	94.49×66.14×26.97(2400×1 680×685)	95.75×70.75×27.76(24 32×1797×705)