宏华集团
HONGHUA GROUP

HONGHUA GROUP LIMITED
宏華集團有限公司
(於開曼群島註冊成立的有限公司)
(股份代號：196)

建議發行美元計值優先票據

本公佈乃本公司根據上市規則第13.09條及香港法例第571章證券及期貨條例第XIVA部內幕消息條文(定義見上市規則)的規定而作出。

本公司建議發行美元計值優先票據。建議票據發行完成與否視乎(其中包括)市況及投資者興趣而定。花旗及摩根士丹利為聯席全球協調人、聯席牽頭經辦人及聯席賬簿管理人。興業銀行股份有限公司香港分行為聯席牽頭經辦人及聯席賬簿管理人。於本公佈日期,票據的條款及條件仍未落實,而票據擬由附屬公司擔保人提供擔保。於落實票據的條款後,預期花旗、摩根士丹利、興業銀行股份有限公司香港分行及其他首批購買方(如有),連同附屬公司擔保人及本公司將訂立購買協議。本公司目前擬將票據所得款項淨額主要用作償還現有債務,其次用作一般營運資金。本公司或會在未來因應市況的變化而調整上述計劃,並重新分配所得款項用途。

票據只會根據證券法S規例於美國境外提呈發售。票據並無亦將不會根據證券法登記。概無票據將向香港公眾人士或本公司任何關連人士提呈發售。

就此次發行而言,本公司將向若干機構投資者提供發售備忘錄,當中載有有關本集團近期的企業及財務資料。為公平、有效及適時向股東及投資者發佈資料,該等資料的摘錄隨附於後。

無PRIIPs重要資訊文件-由於票據不供歐洲經濟區任何散戶投資者認購,故並無編製PRIIPs重要資訊文件。

本公司將尋求票據於香港聯交所上市,並將就票據於香港聯交所上市提交申請。香港聯交所對本公佈任何所作聲明、發表意見或所載報告之正確性概不負責。票據納入香港聯交所及於香港聯交所掛牌不得視為本公司、其附屬公司及聯營公司或票據的價值指標。

於本公佈日期,尚未就建議票據發行訂立具約束力的協議,因此,建議票據發行未必落實。本公司投資者及股東於買賣本公司證券時務請審慎行事。本公司將於訂立購買協議後就建議票據發行另行刊發公佈。

建議票據發行

緒言

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票據只會根據證券法S規例於美國境外提呈發售。票據並無亦將不會根據證券法登記。概無票據將向香港公眾人士或本公司任何關連人士提呈發售。

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本公司目前擬將票據所得款項淨額主要用作償還其現有債務，其次用作一般營運資金用途。本公司或會在未來因應市況的變化而調整上述計劃，並重新分配所得款項用途。

上市

本公司將尋求票據於香港聯交所上市，並將就票據於香港聯交所上市提交申請。香港聯交所對本公佈任何所作聲明、發表意見或所載報告之正確性概不負責。票據納入香港聯交所及於香港聯交所掛牌不得視為本公司、其附屬公司及聯營公司或票據的價值指標。

一般事項

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釋義

於本公佈內，除文義另有所指，下列詞彙具有以下涵義：

「董事會」	指	董事會
「花旗」	指	Citigroup Global Markets Limited，為有關提呈發售及出售票據的其中一名聯席全球協調人、聯席牽頭經辦人兼聯席賬簿管理人
「本公司」	指	宏華集團有限公司，於開曼群島註冊成立的獲豁免有限公司，其股份於香港聯交所主板上市
「董事」	指	本公司董事
「本集團」	指	本公司及其附屬公司
「香港」	指	中國香港特別行政區
「上市規則」	指	香港聯合交易所有限公司證券上市規則
「摩根士丹利」	指	Morgan Stanley & Co. International plc，為有關提呈發售及出售票據的其中一名聯席全球協調人、聯席牽頭經辦人兼聯席賬簿管理人
「票據」	指	本公司擬發行的美元計值優先票據(須受購買協議條款及條件所限)
「中國」	指	中華人民共和國，就本公佈而言，不包括香港、澳門及台灣
「建議票據發行」	指	本公司建議票據發行

「購買協議」	指	由(其中包括)本公司、附屬公司擔保人、摩根士丹利、花旗及興業銀行股份有限公司香港分行擬就建議票據發行訂立的協議
「證券法」	指	經修訂的一九三三年美國證券法
「香港聯交所」	指	香港聯合交易所有限公司
「附屬公司擔保」	指	附屬公司擔保人將予提供的擔保
「附屬公司擔保人」	指	於票據發行當日,為擔保本公司履行票據責任而提供附屬公司擔保的本公司中國境外附屬公司
「美國」	指	美利堅合眾國,其領土及屬地以及受其司法管轄的所有地區
「美元」	指	美國法定貨幣美元

承董事會命
宏華集團有限公司
主席
金立亮

中國,二零一九年七月二十二日

於本公佈日期,本公司之執行董事為金立亮先生(主席)、張弭先生及任杰先生;本公司之非執行董事為韓廣榮先生及陳文樂先生;及本公司之獨立非執行董事為劉曉峰先生、陳國明先生、蘇梅女士、潘昭國先生及常清先生。

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We believe there are certain risks and uncertainties involved in our business and operations, many of which are beyond our control. We have categorized these risks and uncertainties into: (i) risks relating to our business; (ii) risks relating to the PRC; (iii) risks relating to Russia; and (iv) risks relating to the UAE.

Risks Relating to Our Business

Demand for our products and services is directly and indirectly affected by prolonged decline in or substantial volatility of oil and gas prices and reduction in exploration and production activities.

Our revenue is generated almost entirely from the sale of drilling rigs and parts and components. Demand for our products and services is dependent on oil and gas exploration and production activities and capital expenditures of oil and gas producers, which in turn are largely dependent on current and future trends in global oil and gas prices. Given our heavy reliance on our customers in the oil and gas drilling industry, our revenue is particularly sensitive to changes in global oil and gas prices. Oil and gas prices can fluctuate for a number of reasons, including, but not limited to, the following:

- changes in demand driven by growth in major economies;
- significant adoption of petroleum-alternative fuels and energy conservation technologies;
- the ability of OPEC member countries to maintain price stability through voluntary production limits and the level of production by non-OPEC countries;
- civil or political unrest in oil producing regions;
- changes or breakdowns in oil supply infrastructure and production capacity; and
- environmental regulation.

A prolonged decline in global oil and gas prices, for these or other reasons, could directly or indirectly reduce the demand for our products and services and have a material adverse effect on our business, financial condition, and results of operations.

Our customers operate in a volatile industry, and their demand for our products and services may be affected by factors unrelated to movements in oil and gas prices.

Many of our customers are drilling contractors and companies involved in oil and gas exploration and production. They operate in a volatile industry in which many market or business factors independent of global oil and gas prices could affect their demand for our products and services. The factors that impact the demand for our products and services may include:

- the availability or oversupply of drilling rigs, or the prevailing rig day rates, in a given market or a given customer's rig fleet;
- the age or condition of a customer's or the market's existing drilling equipment;
- the under- or over-investment in drilling equipment by our customers or in their markets;
- the availability of or access to investment capital to invest in new equipment;
- the availability of drilling projects for our customers or their markets;
- a customer's ability to compete for new projects;
- the cost of exploring for and producing oil and gas in the respective regions; and
- the level of production from known reserves.

Further, the regions in which many of our customers operate are often volatile, and any political instability, hostilities or war within these regions could affect our customers' demand for our products and services. Factors specific or internal to our customers' businesses or the markets they operate in, as well as the global demand for oil and gas, are beyond our control and any decline in demand for our products and services due to any such factors could have a material adverse effect on our business, financial condition, and results of operations.

In addition, the uncertainty in the global economic outlook has contributed to significant levels of volatility. Any recurrence of a global financial crisis, which could potentially be sparked by the recent market volatility attributed to concerns over imposition of punitive tariffs on imports from China caused by trade war and advocacy of protectionism, especially from the United States market under its current administration, may cause a slowdown in the PRC economy. Continued turbulence in the international markets, as well as any slowdown of economic growth in China, may continue to adversely impact the demand of our products from customers, which may in turn materially and adversely affect our business, results of operations and financial condition.

We may encounter unexpected difficulties in implementing our strategy for future growth.

As part of our business strategy, we plan to develop and introduce various new products and enter into new markets over the next few years. For example, we plan to continue to expand our oil and gas engineering services segment. For more detail, see "Business — Business Strategies." Our ability to implement our business plans depends on, among other things, our research and development of new technology and new products; availability of suitable land to expand our production sites; our ability to obtain any necessary governmental or regulatory approval or licenses; our ability to identify, and the availability of, suitable joint venture partners; and the availability of our management, financial and other resources. There can be no assurance that we can achieve our planned expansion objectives in a timely manner, or at all. In addition, if growth in demand fails to match the future growth in our capacity, our capacity utilization rate may be materially and adversely affected, and as a result, we may experience a lower rate of return on our investment than we initially anticipated.

We have experienced and will likely continue to experience significant growth in the scope and complexity of our operations and in the number of our employees. This growth has placed, and future growth will continue to place, a significant strain on our managerial, technical, financial, production, operational, and other resources. If we fail to manage and monitor our growth and expansion effectively, our future business, financial condition and results of operations may be materially and adversely affected.

We face risks in maintaining and expanding our business overseas, including differences in legal and regulatory requirements, currency exchange rates, economic sanctions and changes in political and economic conditions, all of which could materially and adversely affect our business.

A majority of our products are exported to customers in North America, Latin America, the Middle East, Asia, Europe, Russia, Africa and other oil and gas producing regions. We have set up subsidiaries or joint ventures in the United States, Russia, Egypt, and the UAE and a number of sales offices and after-service centers in major oil and gas producing areas such as the Middle East and Latin America, and we intend to continue to develop our overseas customer base. We face risks in expanding and maintaining our business in overseas markets, including, but not limited to:

- political instability in some oil and gas producing regions which may disrupt commercial activities, including armed conflicts in Ukraine and parts of the Middle East;
- international political and trade issues and tensions;
- regional or country specific economic downturns;
- fluctuations in currency exchange rates, particularly against the U.S. dollar, the Euro and the Russia ruble;
- differences in legal and regulatory environments;
- the burden of complying with a variety of foreign laws and regulations, including delays or difficulties in obtaining import and export licenses, and with unexpected changes in the legal and regulatory environment, including changes to import and export regulations and environmental matters;
- unexpected changes in regulatory requirements, up to and including the risk of nationalization or expropriation by foreign governments;
- actions which may be taken by foreign governments concerning trade restrictions and economic sanctions;
- difficulties protecting our intellectual property, such as reduced protection for intellectual property rights in some jurisdictions;
- increased risk of litigation and other disputes with customers or sales agencies;
- labor disputes;
- longer accounts receivable collection periods and greater difficulty in accounts receivable collection;
- difficulties in entering new markets and establishing brand recognition, including reliance on local agents and distributors for our marketing and sales, and difficulties in obtaining required certifications for our products in overseas markets;
- differences in customers' or targeted customers' requirements for special drilling and services;
- difficulties and costs of integrating, staffing and managing multinational operations;
- transportation delays and interruptions;

- higher tax rates and potentially adverse tax consequences including tax consequences concerning intercompany pricing for transactions between separate legal entities within a group operating in different tax jurisdictions, restrictions on repatriating earnings, adverse tax withholding requirements and double taxation;

- natural disasters and the difficulty in recovering from them in some of the foreign countries in which we operate;

- uncertainties arising from local business practices and cultural considerations; and

- customs matters and changes in trade policy or tariff regulations.

Expanding our business overseas may require the deployment of additional human and financial resources to manage these risks, and both the additional outlay of resources and the risks themselves may have a material adverse impact on our business, financial condition and results of operations.

Some of our revenue is derived from countries, individuals or entities that are targets of sanctions imposed by the United States, the European Union and other government authorities.

The U.S. government, through OFAC, administers and enforces economic and trade sanctions against targeted foreign countries, entities and individuals based on U.S. foreign policy and national security goals. In addition, the U.S. President has the power to authorize economic and trade sanctions by issuance of executive orders. As we have operations globally, including in Europe, we may also be subject to sanctions imposed by the European Union or other regulatory authorities.

In response to political tensions in Ukraine, including Russia's actions involving Ukraine and Crimea, the United States government signed three Executive Orders in March 2014. The first two orders prohibit the transfer and dealing in all property and interests in property that are in the United States, that hereafter come within the United States, or that are or hereafter come within the possession or control of any United States person (including any foreign branch) of (i) certain individuals and entities contributing to political instability in Ukraine, (ii) individuals determined by the Secretary of the Treasury to be officials of the Russian government and (iii) individuals or entities determined by the Secretary of the Treasury to operate in the arms or related material sector in Russia. Starting in July 2014, the United States has taken action under the third Executive Order to impose ''sectoral'' sanctions on the financial, energy and defense sectors of the Russian economy. These sanctions restrict U.S. persons' transactions related to certain newly-issued debt and equity of specified Russian financial institutions and certain newly-issued debt of specified Russian energy and defense companies, as well as the provision of certain goods, services and technology to specified Russian energy companies for Russian deep water, Arctic offshore, and shale-oil projects. The European Union has also imposed sanctions on various Russian entities and individuals and restrictions on the export to Russia of certain high-tech goods for use in Arctic, deep-water fields and shale oil exploration and production, and the direct or indirect provision of associated services necessary for projects related thereto. We cannot assure you that the United States, the European Union or other regulatory authorities that may have jurisdiction over us will not impose further sanctions in relation to Russian individuals or entities or in relation to certain military or oil and gas technologies for use in Russia.

As a non-U.S. and non-European Union corporation, we are generally not required to comply with sanctions administered by OFAC or the European Union that prohibit U.S. or European Union persons (and, in some cases, subsidiaries of U.S. or European Union companies) from conducting business activities in certain countries or with certain individuals and entities or with certain technologies that are targets of OFAC/European Union sanctions programs. However, if certain of our business activities in sanctioned countries or with sanctioned entities or individuals come within U.S. or European Union jurisdiction or involve U.S. or European Union persons, including U.S. financial institutions, we could face civil and criminal penalties if we are found to have violated any of the sanctions programs. We could also suffer reputational damage as a result of such activities. The risk of civil and criminal penalties and reputational damage has recently become pronounced, as we have a significant presence in Russia, and a significant portion of our products is exported to our Russian customers.

We cannot assure you that in the future we will not do business with countries, individuals or entities that are targets of sanctions imposed by the United States, the European Union or other government authorities. Our business activities in sanctioned countries or involving other sanctions targets could limit our ability to pursue business opportunities in the United States or the European Union or obtain financing from the United States or the European Union, which may in turn materially and adversely affect our business, financial condition or results of operations.

In addition, as a result of various sanctions programs, we must engage in additional due diligence of prospective customers, suppliers and other third parties, which may delay or prohibit us from entering into agreements with these third parties. Any negative perception by our international customers or suppliers of our direct and indirect relationships with sanctioned parties, or regarding the overall geopolitical situation, may make it more difficult to do business with these customers or suppliers and may negatively impact our revenue and profitability.

There is no assurance that we will be able to develop new products and technological improvements that will achieve market acceptance.

The market for our products is characterized by continuous technological advancements to provide better performance in greater depths and harsher conditions for each of our business segments. We have invested significant resources to cater to market requirements and incurred research and development costs of RMB37.9 million, RMB42.2 million and RMB133.0 million for the years ended December 31, 2016, 2017 and 2018, respectively. Our research and development efforts focus on product development and innovation, technological improvements and development of more efficient production and management processes. However, there can be no assurance that we will be successful in developing new products and technological improvements, or that the market will accept or demand these new products and technological improvements when we introduce them. In addition, there can be no assurance that our competitors will not develop newer or cheaper alternatives to our products or devise more efficient and advanced production techniques that could lower their per unit production costs. In the event our research and development fails to yield commercially viable products, lead to more efficient production, or otherwise provide a return on our investment, our business, financial condition and results of operations may be materially and adversely affected. Also, if we are unable to keep up with the technological and other innovations in our industry, we may ultimately suffer market share losses that could materially and adversely affect our business, financial condition and results of operations.

The industry in which we operate is competitive, and a further increase in competition or productivity by our competitors may affect our market share and profit margins.

Our industry is competitive, with multiple global and domestic competitors. If we are unable to compete effectively in the market, our business may be materially and adversely affected. Some of our potential competitors may have longer operating histories than ours, stronger relationships with their customers, greater brand recognition, or greater financial, technical, marketing and public relations resources than we do, and, as a result, they may be able to acquire some of our customers. In addition, our market share could be reduced if our competitors develop any new technology or new products, or offer products that are comparable or superior to ours at a lower price. Increased competition in the future could result in price reductions, reduced margins, or other strains on our operations. If our competitors offer better quality products, services, or better pricing, then our sales, market share, and results of operations could be materially and adversely affected.

Fluctuations in raw material prices may adversely affect our business.

Our production process requires reliable sources of large quantities of raw materials. In particular, steel plays a prominent role in the construction of our rigs, as well as in the parts and components, such as hydraulics, diesel engines and AC variable-frequency motors, that we source from third parties. We generally procure raw materials and parts and components for production only after we have secured a sales contract for a product, and since we cannot alter the prices of our products under signed contracts unless the customer requests a change in design or configuration, we bear the risk associated with raw material cost fluctuations during a contract period. The price of steel has historically been subject to frequent fluctuations and is also sensitive to supply disruptions, general economic conditions, and many other factors that are beyond our control. Given the prominence of steel in both the rig structures and the constituent parts and components of those rigs, whether produced internally or sourced from third parties, our cost structure is sensitive to fluctuations in the price of steel. We expect the volatility and uncertainty of steel prices to continue. Although we attempt to reflect steel and other raw material price fluctuations in the selling prices of our products, there can be no assurance that we will be able to pass on all increases in raw material costs to our customers on a timely basis or at all. We do not engage in any hedging transactions to protect us against such fluctuations. If we are unable to pass on increases in the price of raw materials to our customers, the operating results for our products may be materially and adversely affected.

We depend on third parties to deliver certain raw materials, components and services that meet our quality standards in a timely manner to manufacture our products.

We procure raw materials and some rig components, such as frequency converters, diesel engines, drilling packages and for drives, which account for a significant proportion of our cost of sales, mainly from external suppliers. We also employ third party contractors to process some specialty rig components. We currently source almost all of our basic steel inputs domestically from suppliers operating primarily in the PRC, while our externally supplied parts and components are typically manufactured in the United States and Germany or Norway and are generally sourced through local distributors. We have no long-term contractual arrangements with most of our suppliers. Any sudden shortage of raw materials, increase in demand, price movements, or other factors internal to our contract suppliers may disrupt such supply of raw materials and components. In addition, from time to time, we reject materials that do not meet our quality standards or other specifications. Such shortage of supply or rejection of materials may affect our manufacturing schedule, and we may have to source supplies from alternative suppliers at a higher price, which may delay the delivery of products to our customers. This, in turn, may result in us having to pay compensation to our customers and adversely affect our reputation. In particular, to the extent that we are dependent on a sole supplier or a limited number of suppliers for a critical input, it will be difficult to replace such supplier(s). Any of the foregoing events could cause a delay in our delivery and an increase in our costs, which may have a material adverse effect on our business, financial condition and results of operations.

We rely on a limited number of customers, which may vary from year to year.

We have historically depended on a limited number of customers for a significant portion of our revenue. For the years ended December 31, 2016, 2017 and 2018, our single largest customer accounted for approximately 17.2%, 11.8% and 20.5%, respectively, of our revenue, and our five largest customers together accounted for approximately 51.6%, 45.6% and 61.7%, respectively, of our revenue. In 2018, 5 of our customers, respectively and individually accounted for greater than 5% of our revenue. There is no assurance that we will be able to retain these customers or that they will maintain their current level of business with us. If there is a reduction or cessation of orders from these customers for any reason and we are unable to obtain suitable replacement orders of a comparable size, due to contractual restrictions or otherwise, our business, financial condition and results of operations may be materially and adversely affected. In addition, our reliance on a limited number of customers exposes us to the risk that a contractual dispute with any single customer, either initiated by us or by such customer, could potentially result in the loss of that customer and have a material impact on our business. Any dispute may divert our management's attention from our business operations and lead to significant legal liabilities and other costs which, in turn, could have a material adverse effect on our business, financial condition and results of operations. In addition, any negative publicity associated with a contractual claim against us could result in reputational damage and, as a result, could negatively impact sales from other customers and potential customers.

If we lose one or more of our key personnel without obtaining adequate replacements in a timely manner or if we are unable to retain and recruit skilled personnel, then our operations could be disrupted and the growth of our business could be delayed or restricted.

Our success depends on the continued service of our key executive officers, particularly, Mr. Jin Liliang, our Chairman and executive director, Mr. Zhang Mi, our Vice Chairman, President and executive director, Mr. Ren Jie, our executive director, Ms. Xu Xiufang, our Chief Financial Officer, and Mr. Yang Yunqing, Mr. Dang Nan, Ms. Yao Yuhong and Mr. He Bin, our vice-presidents. We have key person insurance for our directors and senior management. If we lose the services of any of our key executive officers, it may be difficult to attract and integrate adequate replacement personnel into our operations in a timely manner, which, in turn, could disrupt our operations and the growth of our business.

In addition, many of the products we sell are complex and highly engineered, and we also provide oil and gas engineering services. We believe our success depends upon our ability to recruit and retain technical personnel with the ability to design, utilize and enhance our products. Our demand for skilled workers is high, and the supply is limited. We have invested significant resources in training our technical personnel, and we expect to increase our outlays to expand our oilfield service and equipment business. Significant increases in wages paid by competing employers could result in a reduction of our skilled labor force, and/or increases in the wage rates that we must pay. If any such events were to occur, our cost structure may increase and our growth potential may be impaired, which in turn could have a material adverse effect on our business, financial condition and results of operations.

Loss of or failure to renew the API Monogram or other licenses certifying that our products meet benchmark quality standards could materially and adversely affect our business.

We have been granted licenses to put the API Monogram on certain of our products, which certifies the satisfaction of the API quality standard for those products. In the petroleum machinery industry, the API Monogram signifies that a product meets the standard quality requirements set by most oil producers operating worldwide. Virtually all of the products we sell contain parts or components bearing the API Monogram, and we consider the API Monogram to be critical to our sales efforts. The API licenses have to be renewed every three years. During the examination process for the application and renewal of such licenses, API sends its technical staff to audit our manufacturing facilities and our production management. We have obtained six API licenses that are applicable to our products and expect to renew them as and when they expire. We believe meeting the standard quality requirements set by ABS Quality Evaluations is critical to our sales efforts. There can be no assurance that renewal for such licenses and certifications will be successful or that we will be able to renew such licences or certifications in a timely manner. In the event that we do not obtain or renew any such licenses or certifications, our ability to market our products may be adversely affected, and our sales volume may be reduced. As a result, our business, financial condition and results of operations may be materially and adversely affected.

We rely on independent third-party distributors to obtain the relevant licenses and/or certifications required to distribute our products within other jurisdictions.

In certain jurisdictions, we have developed partnerships with local third-party distributors. We also rely on independent third-party distributors to obtain certain local licenses and/or certifications required for our exported products to be distributed within other jurisdictions. There can be no assurance that our independent third-party distributors, will be able to renew or obtain the necessary certifications or otherwise meet the requirements of the applicable local laws, rules or regulations. Further, since we have no direct control over independent third-party distributors, there can be no assurance that any such distributors will seek to renew or obtain any necessary certifications in a timely manner, or at all.

In the event that any independent third-party distributors we rely upon do not obtain or renew any necessary certifications in a timely manner or at all, we may not be able to participate in certain significant bidding and tender activities, and our export volume may be reduced. As a result, our business, financial condition and results of operations may be materially and adversely affected.

We may not be able to enforce our intellectual property rights and may be subject to claims from third parties for infringement of their intellectual property rights.

As of December 31, 2018, we held 444 patents granted by the relevant PRC authorities for intellectual property developed for and used in our products or in our manufacturing process. We rely on a combination of patents, trademarks, know-how and contractual rights to protect our proprietary technology and intellectual property. There can be no assurance that these measures will be sufficient to prevent any misappropriation of our intellectual property, or that our competitors will not independently develop alternative technologies that are equivalent or superior to technologies which are based on our intellectual property. The legal regime governing intellectual property in China is still evolving, and the level of protection of intellectual property rights in China differs from the levels of protection available in other jurisdictions. In the event that the steps we have taken and continue to take and the protection afforded by law do not adequately safeguard our proprietary technology, our business, financial condition and results of operations may be materially and adversely affected. We are sometimes exposed to cross-border disputes, including claims from third parties for infringement of their intellectual property rights, in the ordinary course of our business. See "Business – Legal Proceedings." There can be no assurance that claims will not be initiated, or that we will prevail in any legal proceedings arising from such claims, such as seeking damages or an injunction against the sale of our products. If we face such a claim, our business, financial condition and results of operations could be materially and adversely affected.

Our business and reputation may be affected by product liability claims, litigation, complaints or adverse publicity in relation to our products.

If equipment manufactured by us fails to perform as expected, or proves to be defective and results in our customer's financial losses and/or personal injuries, then we may be subject to claims for compensation. We do not currently maintain product liability insurance and have not implemented any other protection scheme. If our products do not meet the specifications and requirements agreed with or requested by our customers, or if any of our products are defective, such failure or defects, and any complaints or negative publicity resulting therefrom, could result in decreased sales of these or our other products, and we may also be subject to product liability claims and litigation. To this end, we may incur significant legal costs regardless of the outcome of any claim which may in turn materially and adversely affect our business, financial condition and results of operations.

The manufacturing processes for our products are complex and potentially hazardous and our oil and gas engineering services business involves inherent risks and occupational hazards, and we may not maintain sufficient insurance coverage for the risks associated with the operations of our business.

Our business operations, particularly our manufacturing activities and oil and gas engineering services involve risks and occupational hazards that are inherent to the manufacturing industry and oil and gas engineering services industry and which may not be completely eliminated through the implementation of preventive measures. These risks could result in personal injury, damage to or destruction of properties or production facilities, environmental damage, business interruption, legal liability, damage to our business reputation and corporate image, and/or fatalities. Currently, we only maintain mandatory social security insurance for our employees in accordance with the requirements of the relevant PRC laws and regulations which covers industry injury.

Though we maintain insurance coverage to the extent we believe is customary in our industry, we do not maintain any insurance coverage for third party liability, business interruption or environmental or other damage arising from accidents on our property or relating to our operations other than those relating to our vehicles. Our business, financial condition and results of operations may be materially and adversely affected if we incur any loss which is not covered by our insurance policies or if the amount of such loss exceeds the aggregate amount of our insurance coverage.

Title defects in the buildings we occupy may adversely affect our ability to use such buildings, which in turn could materially and adversely affect our business, financial condition and results of operations.

There are certain buildings occupied by us for which we have not yet obtained the relevant buildings ownership certificates.

Our right to use and occupy the buildings referred to above may be subject to disputes or claims from government or regulatory bodies or third parties. If any such dispute or claim occurs, we may not be able to continue to carry on our operations or continue to occupy those buildings in the future and may have to incur costs to relocate our production or operation facilities to an alternative site, which we may not be able to secure on terms acceptable to us or at all. In addition, fines or penalties may be imposed by government authorities and/or any legal proceedings or claims may be initiated by third parties for compensation in respect of any illegal and/or unauthorized use of such buildings. Any of the above may have a material adverse effect on our business, financial condition and results of operations.

We are subject to environmental and health and safety laws and regulations that impose, and could continue to impose, significant costs and liabilities. In addition, future regulations, or more stringent enforcement of existing regulations, could increase those costs and liabilities, which could adversely affect our results of operations.

We are subject to a variety of domestic and foreign environmental laws and regulations, including those relating to employee health and safety, environmental permitting and licensing, air (including greenhouse gas) and water emissions, remediation of soil and groundwater contamination, and the use, storage, treatment and disposal of hazardous materials. Some environmental laws impose strict, retroactive, and joint and several liability for the remediation of releases of hazardous substances, even for conduct that was lawful at the time it occurred, or for the conduct of, or conditions caused by, prior operators, predecessors, or other third parties. Failure to comply with environmental laws could expose us to penalties or clean-up costs and civil or criminal liability as well as sanctions on certain of our activities and damage to property or natural resources. These liabilities, sanctions, damages and any remediation efforts to be taken could negatively impact our ability to conduct our operations, and our financial condition and results of operations. In addition, any acquisitions or divestitures, whether in the past or in the future, could present environmental liabilities unknown to us at the time of such acquisitions or divestitures.

Moreover, environmental laws and regulations, including their interpretation and enforcement, change frequently and have tended to become more stringent over time. Future environmental laws and regulations could require us to acquire costly equipment or to incur other significant expenses in connection with our business. For example, increased regulation of greenhouse gas emissions, such as through a cap-and-trade system or emissions tax, could adversely affect our business, financial condition, results of operations or product demand.

Our high outstanding trade receivables and the turnover days of our trade receivables may adversely affect our financial condition and results of operations.

During 2016, 2017 and 2018, our trade receivables and their turnover days were high. As of December 31, 2016, 2017 and 2018, the current portion of our trade and other receivables were RMB3,431.3 million, RMB2,560.0 million and RMB2,940.0 million, respectively, and the turnover days of average trade and bills receivables were 453, 172 and 191, respectively.

Any extended delay in payments by any major customer would have a material adverse effect on the aging schedule and turnover days of our trade receivables. Our customers' ability to pay may be impaired by a number of factors, including, without limitation, unfavorable global market conditions for the oil and gas industry, deteriorating liquidity of our customers or delayed commencement of oil and gas production activities. The occurrence of any of these factors could affect our customers' ability to make timely payments, and we cannot assure you that our customers will make payment in full to us on a timely basis, or at all. Delays in payments from, or non-payment by, our customers may adversely affect our cash flow position and our ability to meet our working capital requirements. In addition, customers' defaults in making payments to us on sales or supply contracts for which we have already incurred significant costs and expenditures can reduce our financial resources that would otherwise be available.

Our debt levels and debt agreement restrictions may limit our liquidity and flexibility in obtaining additional financing and in pursuing other business opportunities.

As of December 31, 2016, 2017, 2018, our interest-bearing borrowings amounted to RMB4,299.0 million, RMB3,316.0 million and RMB3,120.5 million (US$453.9 million), respectively. Our ability to meet our debt service obligations depends in part on our ability to generate positive cash flows from operations. We have in the past, and may in the future, incur negative cash flows from our operating activities. Our future cash flows from operating activities will be influenced by the demand for our rigs, parts and components and oil and gas engineering services, the prices of our products and services, general economic conditions and financial, business and other factors affecting our operations, many of which are beyond our control.

If we are unable to service our debt obligations, in particular, our short-term borrowings due within one year, we may have to take one or more of the following actions:

- delay spending on capital projects, including the expansion of our existing manufacturing facilities;

- sell equity or assets; or

- restructure or refinance our debt.

Additional indebtedness or equity financing may not be available to us in the future for the refinancing or repayment of existing indebtedness, or if available, such additional indebtedness or equity financing may not be available on a timely basis, or on terms acceptable to us and within the limitations specified in our then existing debt instruments. In addition, in the event we decide to sell assets, we can provide no assurance as to the timing of any asset sales or the proceeds that could be realized from any such asset sale. Our ability to generate sufficient cash flow from operating activities to pay the principal of and interest on our indebtedness is subject to certain market conditions and other factors which are beyond our control.

Increases in the level of our debt and restrictions in the covenants contained in the instruments governing our debt could have important consequences to you. For example, they could:

- result in a downgrade of our credit rating, which would make it more difficult for us to obtain additional financing on acceptable terms;

- require us to dedicate a substantial portion of our cash flows from operating activities to the repayment of our debt and the interest associated with our debt;

- limit our operating flexibility due to financial and other restrictive covenants, including restrictions on incurring additional debt, and create liens on our properties;

- place us at a competitive disadvantage compared with our competitors that have relatively less debt; and

- make us more vulnerable to downturns in our business.

We may be unable to obtain adequate financing to fund our capital requirements.

We have in the past funded our capital expenditures primarily by cash generated from our operations and credit facilities obtained from banks and financial institutions. There can be no assurance that cash generated from our operations and other available sources will be sufficient to fund our future development and expansion plans. For us to grow and remain competitive, we may require new capital in the future. There can be no assurance that such additional financing will be available to us on terms acceptable to us, or at all. Our ability to obtain additional capital in the future is subject to a variety of uncertainties beyond our control, including market conditions, credit availability and interest rates. If we are unable to raise sufficient capital in the future on commercially acceptable terms, we may have to abandon, delay, or postpone certain of our planned capital expenditures. Our inability to finance our planned capital expenditures could adversely affect our business, financial condition, and results of operations.

A material disruption to one of our significant manufacturing plants could adversely affect our ability to generate revenue.

We produce most of our rigs and parts and components at a limited number of principal manufacturing facilities. If operations at one or more of these significant facilities were to be disrupted as a result of equipment failures, natural disasters, power outages or other reasons, our business, financial conditions or results of operations could be materially and adversely affected. Interruptions in production could increase costs and delay delivery of some units. Production capacity limits could cause us to reduce or delay sales efforts until capacity is available.

In addition, although we maintain insurance coverage we believe to be adequate based on the industry we operate in, we may not be fully covered, or covered at all, for certain circumstances that are beyond our control. Transportation disruptions, power shortages, weather, natural disasters, unexpected maintenance problems, destruction of or damage to our production facilities, equipment or products, labor shortages, industrial accidents, and other matters beyond our control are some of the factors that may significantly disrupt the operations of our business or cause a cessation in production at our production facilities. Any of these could have a material adverse effect on our business, financial condition and results of operations.

If our joint venture partners act contrary to our interests, our business may be materially and adversely affected.

In Egypt, we have a 50% equity interest in a joint venture we established with three different Egyptian enterprises. In Russia, we have a 51% equity interest in a joint venture we established with a Russian enterprise. Under the joint venture agreement, we must obtain consent from our joint venture partners before we can cause the joint venture to make or implement business development decisions or to distribute profits to shareholders. If our joint venture partners hold different views from our own, or act in a way contrary to our interests, the joint venture may face difficulties in its operations and our interests in the joint venture may be harmed.

We may incur significant costs in relation to warranties offered to our domestic PRC customers.

We allow our domestic customers to withhold an amount of up to 10% of the purchase price for our products for one year as a warranty provision against any major quality defects in the products we have delivered. The warranty arrangement requires this retention money to be paid to us if our products do not have any major quality problem during the one-year warranty period. For the years ended December 31, 2016, 2017 and 2018, we recovered substantially all of the money retained by our customers pursuant to this warranty provision as it came due, and we currently expect to collect all such amounts outstanding as of the date hereof. There can be no assurance, however, that we will recover all or any of the amounts retained by purchasers for warranty purposes in the future. If we are unable to recover a significant proportion of the amounts retained by our customers as warranties, our future business, financial condition and results of operations may be materially and adversely affected.

Risks Relating to the PRC

Adverse changes in China's economic, political, and social conditions, as well as governmental policies could have a material adverse effect on China's overall economic growth, which in turn, could materially and adversely affect our business, financial condition and results of operations.

The Chinese economy differs from the economies of most developed countries in many respects, including: (i) structure; (ii) level of governmental involvement; (iii) level of development; (iv) growth rate; (v) control of foreign exchange and capital flows; and (vi) allocation of resources. The Chinese economy is in transition from a planned economy to a market economy. For the past four decades, the PRC government has implemented economic reform measures, emphasizing the utilization of market forces in the development of the Chinese economy. There can be no assurance that any changes in China's political, economic and social conditions, laws, regulations and policies will not have a material adverse effect on our current or future business, financial condition and results of operations. In response to concerns regarding China's high growth rate in industrial production, bank credit, fixed investment and money supply, the PRC government has, from time to time, taken measures to slow down economic growth to a more sustainable level. These measures and any additional tightening measures could contribute to a slowdown in the Chinese economy, which would materially and adversely affect our business, financial condition, and results of operations.

Our operations and financial performance could be materially and adversely affected by labor shortage, increase in labor costs and changes to the PRC labor-related laws and regulations.

The PRC Labor Contract Law became effective on January 1, 2008, and as amended on December 28, 2012, has taken effect on July 1, 2013. The current PRC Labor Contract Law has imposed greater liabilities on employers and significantly increased the cost of an employer's decision to reduce its workforce. Further it requires certain terminations to be based upon seniority instead of merit. In the event that we decide to significantly change or decrease our workforce, the PRC Labor Contract Law could adversely affect our financial condition and results of operations. In addition, the PRC government has continued to introduce various new labor-related regulations after the promulgation of the PRC Labor Contract Law. Among other things, the paid annual leave provisions require that paid annual leaves ranging from five to fifteen days be available to nearly all employees and further require that employers compensate an employee for any annual leave days the employee is unable to take in the amount of three times of such employee's daily salary, subject to certain exceptions.

On October 28, 2010, the Standing Committee of the National People's Congress promulgated the PRC Social Insurance Law, and last amended on December 29, 2018. According to the PRC Social Insurance Law, further amended on December 29, 2018, employees will participate in pension insurance, work-related injury insurance, medical insurance, unemployment insurance and maternity insurance and the employers must, either together with their employees or separately, pay for the social insurance premiums for such employees.

As a result of the implementation of these and any future rules and regulations designed to enhance the standard for labor protection, our labor costs may continue to increase. Furthermore, as the interpretation and implementation of these new laws and regulations are still evolving, we cannot assure you that our employment practice will at all times be deemed fully compliant, which may cause us to face labor disputes or governmental investigations. If we are deemed in violation of such labor law and regulations, we could be subject to penalties, compensations to the employees and reputational damage, and as a result our business, financial condition and results of operations could be materially and adversely affected.

Changes in foreign exchange regulations may adversely affect the financial condition and results of operations of our Company and our ability to satisfy our obligations under the Notes.

Recent foreign exchange regulations have significantly reduced the PRC government's foreign exchange controls on routine transactions under the current account, including trade-and service-related foreign exchange transactions and payment of dividends. Under our current corporate structure, our income is primarily derived from dividend payments from our PRC subsidiaries. Our PRC subsidiaries must convert their Renminbi earnings into foreign currency before they may pay cash dividends to us or satisfy their foreign currency denominated obligations. Under existing PRC foreign exchange regulations, payments of current-account items may be made in foreign currencies without prior approval from the SAFE by complying with certain procedural requirements.

However, approval from appropriate governmental authorities is required when Renminbi is converted into foreign currencies and remitted out of China for capital-account transactions, such as the repatriation of equity investment in China and the repayment of the principal of loans denominated in foreign currencies. Such restrictions on foreign exchange transactions under capital accounts also affect our ability to provide financing to our PRC subsidiaries. Subsequent to this offering, we have the choice, as permitted by the PRC foreign investment regulations, to invest the net proceeds from this offering in the form of registered capital or a shareholder loan into our PRC subsidiaries to finance our operations in China. Our choice of investment is affected by the relevant PRC regulations with respect to capital-account and current-account foreign exchange transactions in China. In addition, our transfer of funds to our subsidiaries in China is subject to approval by PRC governmental authorities in the case of an increase in registered capital, and subject to approval by and registration with PRC governmental authorities in case of shareholder loans to the extent that the existing foreign investment approvals received by our PRC subsidiaries permit any such shareholder loans at all. These limitations on the flow of funds between us and our PRC subsidiaries could restrict our ability to provide financing to these subsidiaries, to undertake certain business opportunities and act in response to changing market conditions.

We may be subject to risks presented by fluctuations in exchange rates between Renminbi and other currencies, particularly the U.S. dollar.

We conduct our operations primarily in the PRC and incur costs mainly in Renminbi. Renminbi is also the reporting currency for our financial statements. However, a significant portion of our revenue is derived from overseas sales, which are denominated in foreign currencies. In addition, the Notes are denominated in U.S. dollars.

Pursuant to reforms of the exchange rate system announced by the PBOC on July 21, 2005, Renminbi-to-foreign currency exchange rates are allowed to fluctuate within a narrow and managed band against a basket of foreign currencies, rather than being effectively linked to the U.S. dollar. Further, from May 18, 2007, the PBOC enlarged the floating band for the trading prices in the inter-bank foreign exchange market of the Renminbi against the U.S. dollar from 0.3% to 0.5% around the central parity rate, effective on May 21, 2007. This allows the Renminbi to fluctuate against the U.S. dollar by up to 0.5% above or below the central parity rate published by PBOC. On June 19, 2010, PBOC announced its intention to proceed with the reform of the Renminbi exchange rate regime to increase the PRC currency's exchange rate flexibility. These changes in currency policy resulted in Renminbi appreciating against the U.S. dollar from 2005 to 2013. In August 2015, the Renminbi experienced a substantial devaluation as a result of adjustments made by the People's Bank of China to the reference Renminbi to U.S. dollar exchange rate. The Renminbi may appreciate or depreciate significantly in value against the U.S. dollar in the medium to long term. Moreover, it is possible that in the future, PRC authorities may lift restrictions on fluctuations in Renminbi exchange rates and lessen intervention in the foreign exchange market.

The PRC government may adopt further reforms of its exchange rate system, including making the Renminbi freely convertible in the future. If such reforms were implemented and resulted in devaluation of the Renminbi against the U.S. dollar, our financial condition and results of operations could be materially and adversely affected due to our large amount of U.S. dollar-denominated indebtedness and other obligations. Such a devaluation could also adversely affect the value, translated or converted to U.S. dollars or otherwise, of our earnings and our ability to satisfy our obligations under the Notes.

There are limited hedging instruments available in China to reduce our exposure to exchange rate fluctuations between the Renminbi and other currencies. We have entered into certain foreign currency forward contracts to reduce our exposure to such risks. Following the offering of the Notes, we may continue entering into foreign exchange or interest rate hedging agreements in respect of our U.S. dollar denominated liabilities under the Notes. These hedging agreements may require us to pledge or transfer cash and other collateral to secure our obligations under such agreements, and the amount of collateral required may increase as a result of mark-to-market adjustments. Each of the Initial Purchasers and their affiliates may enter into such hedging agreements permitted under the Indenture, and these agreements may be secured by pledges of our cash and other assets as permitted under the Indenture. If we were unable to provide such collateral, it could constitute a default under such agreements.

Any change in the preferential tax treatment we currently enjoy in the PRC may have an adverse impact on our results of operations.

On March 16, 2007, the National People's Congress passed a new Enterprise Income Tax Law. The Enterprise Income Tax Law, effective January 1, 2008 and last amended on December 29, 2018, imposes a single uniform income tax rate of 25% for most domestic enterprises and foreign-invested enterprises. It contemplates various transition periods and measures for existing preferential tax policies, including, without limitation, a grace period for as long as five years for foreign-invested enterprises which are currently entitled to a lower income tax rate, and continued implementation of preferential tax treatment with a fixed term until the expiration of such fixed term. However, PRC state and local tax laws provide for a number of preferential tax treatments for different enterprises, industries and locations such as enterprise located in the western region of the PRC and certain high technology enterprises. Some of our subsidiaries currently enjoy various preferential income tax rates. Any change in the preferential tax treatment available to us may have an adverse impact on our results of operations.

We and our non-PRC subsidiaries may be treated as PRC tax resident enterprises, which may materially and adversely affect our profitability and cash flow.

In March 2007, the National People's Congress of the PRC and its Standing Committee (the "NPC" or the "National People's Congress") enacted the Enterprise Income Tax Law of the PRC (《中華人民共和國企業所得稅法》) (as supplemented by its implementation regulations (《中華人民共和國企業所得稅法實施條例》), the "EIT Law"), which took effect on January 1, 2008 and last amended on April 23, 2019. The EIT Law imposes a unified income tax rate of 25% on all domestic and foreign-invested enterprises unless they qualify under certain limited exceptions.

In addition, under the EIT Law, enterprises established under the laws of jurisdictions outside China with their "de facto management bodies" located within China may be considered PRC resident enterprises and therefore subject to PRC enterprise income tax at the rate of 25% on their worldwide income. The EIT Law provides that a "de facto management body" of an enterprise is an organization that exercises substantial and overall management and control over the production, operation, personnel, books of accounts and assets of the enterprise. Since a majority of the members of our management team are, and may continue to be, located in China, we may be considered a PRC resident enterprise and therefore subject to PRC enterprise income tax at the rate of 25% on our worldwide income. (Dividends we receive from our PRC subsidiaries may possibly be excluded from such worldwide income for purposes of calculating the enterprise income tax, because under the EIT Law, dividends received by a qualified PRC tax resident from another PRC tax resident are exempted from the enterprise income tax. However, given the short history of the new EIT Law and the lack of detailed qualification requirements for receiving an exemption therefrom, it remain unclear whether dividends declared and paid by our PRC subsidiaries to our overseas holding companies will be exempted from the enterprise income tax.) If we or any of our non-PRC subsidiaries is treated as a PRC resident enterprise under the EIT Law, our profitability and cash flow may be materially and adversely affected. We currently take the position that we are not a PRC resident enterprise, but there can be no assurance that the PRC tax authorities will accept our position.

We and our non-PRC subsidiaries may be treated as PRC tax resident enterprises, which may materially and adversely affect the Noteholders in connection with their income realized through holding or transferring the Notes.

Pursuant to the EIT Law, if the Company is deemed a PRC resident enterprise, as described in the preceding risk factor, the interest payable on the Notes may be considered to be sourced within the PRC. In that case, PRC income tax will be withheld from such interest at a rate of 10% if paid by us to Noteholders that are "non-resident enterprises" (so long as such Noteholders that are "non-resident enterprise" do not have an establishment or place of business in the PRC or, if they have such an establishment or place of business in the PRC, the relevant income is not effectively connected with such establishment or place of business in the PRC) and at a rate of 20% if paid by us to Noteholders that are non-resident individuals. Any gain realized on the transfer of the Notes by such Noteholders will be subject to PRC income tax at a rate of 10% in the case of non-resident enterprise Noteholders and 20% in the case of non-resident individual Noteholders, in each case if such gain is regarded as income derived from sources within the PRC. If we are not a PRC tax resident, non-resident holders of the Notes will not be subject to income tax imposed by any governmental authority in the PRC in respect of the holding of the Notes or any repayment of principal and payment of interest made thereon. We currently do not intend to withhold PRC tax from interest payments. However, there can be no assurance that the PRC tax authorities will not treat us as a PRC tax resident enterprise in which case interest payable to our non-PRC Noteholders, or the gain our non-PRC Noteholders may realize from the transfer of our Notes, may be treated as income sourced within the PRC and be subject to PRC tax. If we are required under the EIT Law to withhold PRC income tax from payments on the Notes, we will be required, subject to certain exceptions, to pay such additional amounts as will result in receipt by the Noteholder of such amounts as would have been received by the Noteholder had no such withholding been required. The requirement to pay additional amounts will increase the cost of servicing interest payments on the Notes, and could have a material adverse effect on our ability to pay interest on, and repay the principal amount of, the Notes, as well as our profitability and cash flow. In addition, if you are required to pay PRC income tax on the transfer of our Notes, the value of your investment in our Notes may be materially and adversely affected. Any PRC tax liability may be reduced under an applicable tax treaty. However, it is unclear whether, if we are considered a PRC "resident enterprise," Noteholders might be able to claim the benefit of income tax treaties or agreements entered into between China and other countries or areas. See "Taxation — PRC Taxation."

PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may adversely affect our business operations.

On July 4, 2014, SAFE issued the Notice Regarding Certain Administrative Measures on Offshore Investing and Financing and Round-trip Investment by PRC Residents through Special Purpose Vehicles (《關於境內居民通過境外特殊目的公司境外投融資及返程投資外匯管理有關問題的通知》) ("Notice 37"). Notice 37 requires PRC residents, including both legal and natural persons, to register with the local SAFE branch before making capital contribution to any company outside China (an "offshore SPV") with onshore or offshore assets and equity interests legally owned by PRC residents. In addition, any individual PRC resident who is the shareholder of an offshore SPV is required to update its SAFE registration with the local SAFE branch with respect to that offshore SPV in connection with change of basic information of the offshore SPV, such as its company name, business term, shareholding by individual PRC resident, merger, division and, with respect to the individual PRC resident, in case of any increase or decrease of capital in the offshore SPV, transfer of shares or swap of shares by the individual PRC resident. Failure to comply with the required SAFE registration and updating requirements described above may result in restrictions being imposed on the foreign exchange activities of the PRC subsidiaries of such offshore SPV or the Company, including increase in registered capital of, payment of dividends and other distributions to, and capital inflows from, the offshore SPV or the Company. Failure to comply with Notice 37 may also subject relevant PRC residents or the PRC subsidiaries of such offshore SPV to penalties under PRC foreign exchange administration regulations for evasion of applicable foreign exchange restrictions.

If our beneficial owners fail to comply with such procedures, our PRC subsidiaries may not be able to remit foreign currency payment out of China, which may affect our ability to service our offshore indebtedness, including the Notes, and may materially and adversely affect our business operations.

It may be difficult to effect service of process upon us or our directors who live in the PRC or to enforce against us or them judgments obtained from non-PRC courts.

We are incorporated in the Cayman Islands. All of our directors and management (and certain of the other parties named in this offering memorandum) reside outside the United States, and most of our assets are located outside the United States (principally the PRC). As a result, it may be difficult or impossible for investors to effect service of process upon us or such persons outside the PRC, within the United States or other jurisdictions, or to enforce against us or such persons in such jurisdiction, judgments obtained in courts of that jurisdiction, including matters arising under applicable securities laws and judgments predicated upon the civil liability provisions of the federal securities laws of the United States. In particular, you should be aware that there is uncertainty as to whether judgments of United States courts based upon the civil liability provisions of the federal securities laws of the United States will be enforceable in the courts of the Cayman Islands and whether the Cayman Islands courts will enter judgments in original actions brought in Cayman Islands courts based solely upon the civil liability provisions of the federal securities laws of the United States. Our PRC legal adviser, Tian Yuan Law Firm has advised the Company that the recognition and enforcement of foreign judgments are provided for under the PRC Civil Procedure Law. PRC courts may recognize and enforce foreign judgments in accordance with the requirements of the PRC Civil Procedure Law based either on treaties between China and the country where the judgment is made or on principles of reciprocity between jurisdictions. China does not have any treaties or other form of reciprocity with the United States, Cayman Islands or the British Virgin Islands that provide for the reciprocal recognition and enforcement of foreign judgments. In addition, according to the PRC Civil Procedure Law, courts in the PRC will not enforce a foreign judgment against the Company or their directors and officers if they decide that the judgment violates the basic principles of PRC law or national sovereignty, security or public interest. As a result, it is uncertain whether and on what basis a PRC court would enforce a judgment rendered by a court in the United States, the Cayman Islands or the British Virgin Islands.

Our risk management policies and procedures and internal controls, as well as the risk management tools available to us, may not be adequate or effective in all respects.

Our risk management policies and procedures and internal controls may not be fully adequate or effective in mitigating our risk exposures in all market environments or against all types of risk, including risks that are unidentified or unanticipated. Some methods of managing risk are based upon observed historical market behavior. As a result, those methods may not predict future risk exposures, which could be significantly greater than those indicated by the historical measures. Other risk management methods depend upon an evaluation of available information regarding operating and market conditions or other matters. This information may not be accurate, complete, up-to-date or properly evaluated in all cases. Management of operational, legal and regulatory risks requires, among other things, policies and procedures to record properly and verify a large number of transactions and events, as well as appropriate internal control systems. These policies and procedures and internal controls may not be fully effective in all circumstances, and our business, financial condition and results of operations may be materially and adversely affected by the corresponding increase in our risk exposure.

The national and regional economies in China and our business prospects may be materially and adversely affected by natural disasters, acts of God and occurrence of epidemics.

Our business is subject to general economic and social conditions in China. Natural disasters, epidemics and other acts of God which are beyond our control may adversely affect the economy, infrastructure and livelihood of the people in China. Some regions in China, including the cities where we operate, are under the threat of flood, earthquake, sandstorm, snowstorm, fire, drought, or epidemics such as H5N1 influenza, H7N9 influenza, H1N1 influenza, Severe Acute Respiratory Syndrome (SARS), and Ebola virus disease. For example, a destructive earthquake measured at magnitude 8.0 on the Richter scale took place in the Sichuan Province of the PRC on May 12, 2008 and another earthquake measured at magnitude 7.1 hit Yushu county in western China’s Qinghai Province on April 14, 2010, and resulted in tremendous loss of lives and destruction of assets in the affected regions. Another destructive earthquake took place in Sichuan Province, near the city of Ya’an, in April 2013. A recurrence of SARS or an outbreak of any other epidemics or other natural disasters in China, especially in the cities where we have operations, may result in material disruptions to our business, which in turn may adversely affect our financial condition and results of operations.

Risks Relating to the UAE

We are subject to political and economic conditions in the UAE.

We currently conduct certain of our operations and have interests located in the UAE. Our results of operations are, and will continue to be, generally affected by financial, economic and political developments in or affecting the UAE and, in particular, by the level of economic activity in the UAE. It is not possible to predict the occurrence of events or circumstances, such as war or hostilities, or the impact of such occurrences, and no assurance can be given that we would be able to sustain the operation of its business if adverse political events or circumstances were to occur. A general downturn or instability in certain sectors of the UAE or the regional economy could have an adverse effect on our business, results of operations, financial condition and prospects.

Investors should also note that our business and financial performance could be adversely affected by political, economic or related developments both within and outside the Middle East because of interrelationships within the global financial markets. In addition, the implementation by the UAE federal government of restrictive fiscal or monetary policies or regulations, including changes with respect to interest rates, new legal interpretations of existing regulations or the introduction of taxation or exchange controls could have a material adverse effect on our business, financial condition and results of operations and thereby affect the relevant Subsidiary Guarantor's or JV Subsidiary Guarantor's (if any) ability to perform its obligations in respect of any Notes.

While the UAE is seen as a relatively stable political environment, certain other jurisdictions in the Middle East are not. Instability in the Middle East may result from a number of factors, including government or military regime change, civil unrest or terrorism. In particular, since early 2011 there has been political unrest in a range of countries in the Middle East and North Africa ("MENA") region, including Egypt, Algeria, Libya, Bahrain, Saudi Arabia, Yemen, Syria, Tunisia, Oman and Iraq. There can be no assurance that extremists or terrorist groups will not escalate violent activities in the Middle East or that the governments of the Middle East will be successful in maintaining domestic order and stability. Any of the foregoing circumstances could have a material adverse effect on the political and economic stability of the Middle East and, in particular, could impact the number of tourists that choose to visit the UAE and the number of businesses interested in doing business in the UAE and, consequently, could have a material adverse effect on our business, results of operations, financial condition and prospects, and thereby affect our ability to perform our obligations in respect of any Notes.

Investors should also be aware that investments in emerging markets are subject to greater risks than those in more developed markets, including risks such as:

- political, social and economic instability;
- external acts of warfare and civil clashes;
- governments' actions or interventions, including tariffs, protectionism, subsidies, expropriation of assets and cancellation of contractual rights;
- regulatory, taxation and other changes in law;
- difficulties and delays in obtaining new permits and consents for business operations or renewing existing ones;
- potential lack of reliability as to title to real property;
- lack of infrastructure; and
- inability to repatriate profits and/or dividends.

Any of the foregoing could have a material adverse effect on our business, financial condition and results of operations and thereby affect our ability to perform our obligations in respect of any Notes.

UAE laws and regulations involve many uncertainties and you may experience difficulties in enforcing foreign judgments in the UAE.

The UAE is a civil law jurisdiction and judicial precedents in Dubai have no binding effect on subsequent decisions. In addition, court decisions in Dubai are generally not recorded. These factors create greater judicial uncertainty. A court in the UAE may order the enforcement of a foreign court judgment (including one from a court in the United States predicated upon U.S. federal or state securities laws) but only where certain conditions are satisfied. See "Enforceability of Civil Liabilities."

Overview

We are a leading global provider of oil and gas drilling equipment and components as well as oil and gas engineering services. According to Spears, we were the largest independent land drilling rig manufacturer with approximately 17% of the global market share excluding the United States and China in 2018. We specialize in the research, design, manufacture and general assembly of drilling rigs for use in the onshore exploration and production of oil and gas. In addition, we also engage in the production and sale of parts and components of land drilling rigs, as well as the provision of oil and gas engineering services. We have been listed on the Hong Kong Stock Exchange since March 2008. As of July 19, 2019, we had a market capitalization of approximately HK$3.48 billion.

Our business is organized into three segments:

- *Land drilling rigs.* We have China's largest land drilling rig fabrication base with an annual production capacity of 100 sets of various drilling rigs and related components. We offer our customers a diverse line of drilling rigs, ranging from heavy 12,000-meter depth drilling rigs to light 1,000-meter depth drilling rigs, as well as drilling rigs suitable for a wide range of geographical and geological conditions.

- *Parts, components and others.* We provide a wide range of parts and components for onshore drilling rigs (including for applications in the exploration and development of unconventional resources), including DC Top drives, DC mud pumps, DC drawwork, intelligent downhole tools, new generation machine and tools VFD drive systems/electric drive systems, substructures, solids control systems and fracturing pumps.

  We manufactured the world's highest power (6000HP) electric drive fracturing pump system. The system has been used for shale gas drilling and production activities in China since 2017, and its efficiency is much higher than traditional fracturing pumps.

- *Oil and gas engineering services.* We offer comprehensive services in package drilling contracts and also offer a wide range of specialized part services, including vertical and horizontal drilling services, drilling fluids services, fracturing and others. As of December 31, 2018, we had 12 drilling service teams and four directional service teams.

We are also exploring opportunities in the unconventional oil and gas resources market, in particular the shale gas sector. We are in the process of developing and optimizing our solutions and equipment based on the characteristic of unconventional oil and gas exploration and production activities. We have established a number of strategic cooperation and joint research relationships with leading industry participants including Baker Hughes and GE. See "— Business Strategies — Strengthen our business through strategic cooperation and joint ventures."

The following table sets forth a breakdown by segments of our revenue generated from the sale of products and the provision of services to our external customers, for the years ended December 31, 2016, 2017 and 2018, respectively.

	For the year ended December 31,			
	2016	2017	2018	2018
	RMB			*US$*
	(in thousands)			
				(unaudited)
Land drilling rigs	760,037	418,553	2,326,526	338,379
Parts, components and others	1,158,288	1,579,182	1,559,371	226,801
Oil and gas engineering services	152,929	167,965	319,265	46,435
Total	**2,071,254**	**2,165,700**	**4,205,162**	**611,615**

Throughout the years, we have gained experience and developed an understanding of various geographical and geological conditions around the world. We believe that this knowledge enables us to offer a diverse range of customizable products and solutions that target customers from various regions, including the Middle East, Europe, the Americas, South and Southeast Asia. Our key customers in the overseas market are major multinational oil and gas drilling companies and contractors, including NDC, ADC, KDC, UGV, Schlumberger and Halliburton. We have established a global marketing network, including subsidiaries and representative offices in the UAE, Ukraine, United States of America, Azerbaijan and Bolivia, to meet the growing demand in Middle East, Europe and North America and have developed partnerships with local distributors in Russia, Indonesia and other regions in Europe and Asia, Africa and South America. We also set up global after-sale network to provide rig and parts-related services to our customers.

The PRC market has been an important and stable source of demand for our rigs in the past. Many of our customers in China are drilling companies owned by state-owned oil and gas companies, including CNPC, Sinopec and CNOOC, and we have established long-term and stable relationships with these customers.

For the years ended December 31, 2016, 2017 and 2018, our revenue was RMB2,147.6 million, RMB2,175.9 million and RMB4,205.2 million, respectively.

Competitive Strengths

We are one of the largest land rig manufacturers globally

According to Spears, we were the largest independent land drilling rig manufacturer with approximately 17% of the global market share excluding the United States and China in 2018. In 2018, we sold a total of 24 land drilling rigs with sales revenue of US$351.65 million and signed 34 new orders of land drilling rigs with a total contract value of approximately US$453.0 million. During the same period, we sold parts and components with sales revenue of US$235.59 million.

Our business is organized into three segments, namely, land drilling rigs, parts, components and others and oil and gas engineering services. We offer a wide range of land drilling rigs and parts and components, including heavy depth drilling rigs, light depth drilling rigs, mud pumps, masts, substructures, draw works, VFD drive systems/electric drive systems, top drives and solids control systems. For oil and gas engineering services, we offer a wide range of oil and gas engineering services, including vertical and horizontal drilling services, drilling fluids services, acid fracturing and other oil and gas engineering services. In 2018, we successfully sold land drilling rigs to multiple customers, including ADC and KDC, in the Middle East. In Europe, we received orders of 15 new drilling rigs and remodeling orders of 15 drilling rigs from UGV with a total contract value of approximately US$220.0 million in 2018. During the same period, we also sold parts and components in new markets, such as Italy, Romania, Turkmenistan. In 2018, we began engaging in the promotion of new business models, such as sale by lease, financial leasing and operational leasing, for targeted customers. These new business models reduce the entry barriers for customers and improve our competitive strengths. As such, we believe that a broad range of products and services will allow us to serve a diverse customer base.

We offer a broad range of services and products with leading technology, which allows to benefit from opportunities in the unconventional oil and gas resources market.

Apart from being one of the leading developers of land rig technologies, we are also one of the leading oil and gas engineering services providers in the world. As of December 31, 2018, we had 12 drilling service teams and 4 directional service teams, with a total of approximately 500 staff.

We are strongly committed to strengthening the global competitiveness of our rigs and parts and components. As our customers' operations are located in different regions across the globe, we have placed an emphasis on developing products that are customizable for different environments and terrains and the specific needs of our customers. For example, we developed and sold China's first offshore drilling platform in 2014. We manufactured the world's highest power (6000HP) electric drive fracturing pump system. In 2018, we conducted the world's first scientific study drilling well to reach through the Cretaceous strata.

We continue to invest in research and development to strengthen our overall competitiveness. We focused research and development projects of our product and technology on equipment such as intelligent downhole, tools, unconventional oil and gas development equipment, natural gas hydrate exploring equipment systems, shale gas auxiliary equipment and deep-sea mining devices. Among them, new products, such as direct drive pumps, second-generation top drives, iron drilling devices and shale gas electric fracturing systems, have achieved significant increases in sale and in lease on a massive scale. In particular, we have allocated resources to develop products for the Chinese market in order to leverage favorable policies for the oil and gas industry implemented by the government of China, such as the "13th 5-Year Plan," which promotes replacing coal use with natural gas, increasing domestic oil and gas production and increasing shale gas production.

We have a global marketing network and an established and diverse customer base.

We have a diverse global marketing network that includes our overseas affiliates in the United States, Russia and the UAE, as well as our local distributor networks in other key drilling rig markets. Our subsidiary in the United States assembles and sells our drilling rigs and parts and components to drilling contractors based in North America and Latin America. Our subsidiary in Russia enables us to establish close relationships with local distributors and enhance our presence in the oil and gas drilling equipment markets there. Our subsidiary in the UAE assembles and sells our drilling rigs and parts and components to drilling contractors based in the Middle East and Africa.

Through our operations in various regions, we have been able to establish, maintain and grow our client base. Existing key customers include NDC, ADC, KDC, UGV, Schlumberger and Halliburton. As our customer base spans various regions globally, we have also established customer service and technical support teams as part of our global marketing network to serve the needs of our customers in each region. We believe that our global marketing network and our established client base provide us with a sound base for further strengthening our position in existing and new markets.

We have strong and innovative research and development capabilities with solid technical foundation.

We are one of the leading developers of land rig technologies as well as unconventional oil and gas exploitation and production technologies in China, and we have created a wide range of patented technologies and proprietary designs which enhance the function and performance of our products. As of May 31, 2019, we had obtained 448 patents, consisting of 171 patents for inventions, 276 utility model patents and 1 international patent. We are strongly committed to strengthening the global competitiveness of our rigs and parts and components. As of December 31, 2018, we had 3,711 employees, among which 578, or 15.6% of the total, were research personnel. As a result of our dedication to technological innovation, we have successfully developed globally-competitive products such as our top drives and quintuple mud pumps. We have also developed low-temperature tolerant rigs for the Russian market, semi-trailer drilling rigs for the markets in the United States, the Middle East and India, and flexible water tanks for the unconventional oil and gas resources market.

We believe that we also provide high-performance, quality oil and gas drilling equipment at a lower cost than our international competitors, allowing for increased price competitiveness and greater profit margins. We are able to maintain a competitive cost structure through our integrated approach to the manufacturing of rigs and parts and components, our proximity to a supply network of raw materials, and our large scale of production.

We produce rigs utilizing many of the world's leading rig technologies, such as those used in our digitally-controlled VFD rigs. We have implemented the ISO 9001 system and the API quality standard to ensure effective quality control of our products. We have also obtained various qualifications for our oil and gas engineering services, such as ISO 14001-2004, OHSAS18001-2007, and various access certificates. We are a member of the International Association of Drilling Contractors ("IADC").

We believe that our integrated approach to the manufacturing of select parts and components and the manufacturing of rigs ensures a high level of quality and guarantees reliable delivery of rig orders, thus encouraging repeat business from existing customers.

We have an experienced and dedicated management team.

We are led by an experienced and dedicated management team with extensive experience in the oil and gas equipment industry. We are able to quickly adapt to changing trends in the regional and global drilling equipment and services markets because most of our top management are experts in the industry, who are involved in the everyday operations and have first-hand knowledge of the latest market developments through direct customer contact. In particular, our Chairman, Mr. Jin Liliang, has over 25 years of experience in enterprise management. In addition, we have an experienced core senior management team, the majority of whom has more than 10-year experience in areas such as corporate management and administration, planning and operation management, asset operation, mergers and acquisitions, investment, accounting and financing and financial management. Our management team is very stable, five out of the 10 members of our senior management team having been with our Group for more than 10 years. Under the leadership of our visionary and dedicated management team, our business has experienced rapid growth since our establishment in 1997 and we have become one of the largest independent land drilling rig manufacturers in the world. We believe that our experienced and committed management team enhances our ability to develop and implement our growth strategies and increases our chances to timely identify and seize market opportunities.

Business Strategies

Integrate the "internet plus" initiative with our business and generate synergies from our business mix.

As part of our overall business expansion, we intend to integrate the "internet plus" initiative with our business and to optimize and capitalize on the synergies generated by our various business segments. We currently operate three segments, land drilling rigs, parts and components and oil and gas engineering services. These three segments are aimed at targeting three major sectors in the oil and gas drilling services market, namely equipment manufacturing, oil and gas engineering services and unconventional oil and gas resources development. We intend to capitalize on the potential synergies generated by our three business segments to become an integrated oil and gas drilling products and service provider in order to better serve these three sectors. For onshore oil and gas markets, we believe that our expertise and experience in research and development in oil and gas drilling equipment manufacturing places us in a competitive position to provide a variety of oil and gas engineering services. We also believe that by providing oil and gas engineering services, we will be able to leverage our established market position and increase our sales of oil and gas drilling equipment. The growth of the unconventional oil and gas market, especially the shale gas market, is also expected to drive demand for our drilling equipment and services.

Continue to improve the technology and innovation of our product and service offerings.

We are committed to developing new product technologies that increase sales and margins, which allow us to provide a broader range of products and expand our market share in key target markets. Our quintuple mud pump has seen significant sales growth in overseas markets since its introduction in the first half of 2014. We manufactured the world's highest power (6000HP) electric drive fracturing pump system, and our electric fracturing blender truck is under prototype trial production. Both of these products are designed for unconventional oil and gas exploration and production. In 2018, we conducted the world's first scientific study drilling well to reach through the Cretaceous strata. We also plan to improve the design of our award-winning flexible water tanks to achieve more sales. As part of our research and development efforts, we also plan to strengthen our capability to design customizable products to better suit the varying needs of our customers across the globe.

Strengthen our product competitiveness and optimize our service offerings in the oil and gas engineering market, especially the unconventional oil and gas resources market in the United States and China.

We believe that as the land drilling market becomes more mature and as conventional oil and gas resources become depleted, the oil and gas engineering services market will be the main areas of growth. In addition, the shale gas exploration market in the PRC is expected to enter into a phase of rapid growth. According to Spears, China plans to produce 6.5 billion cubic meters of shale gas a year by 2015, or roughly six percent of China's current total gas production, and 60 billion-100 billion cubic meters of shale gas a year by 2020. As a result, we believe that there will be a significant increase in the demand for shale gas exploration-related equipment such as drilling rigs, fracturing blender trucks and flexible water tanks, and unconventional oil and gas engineering services, all of which we plan to promote, improve and develop.

In addition, we believe that favorable policies for the oil and gas industry implemented by the government of China, such as the "13th 5-Year Plan", which promotes replacing coal use with natural gas, increasing domestic oil and gas production and increasing shale gas production, will allow us to further increase our market share and expand our business in China.

Strengthen our manufacturing and engineering service businesses through strategic cooperation and joint ventures.

We will consider suitable opportunities to enter into strategic alliances or joint ventures that provide synergies or otherwise strengthen our manufacturing and engineering service businesses. We believe that our relationships with many industry participants and our knowledge of the oilfield service equipment industry allow us to understand industry trends, technological developments and applications of oil and gas equipment technologies, which will assist us in making decisions regarding such alliances or ventures. In 2013, we entered into a strategic cooperation with Baker Hughes, one of the world's largest oilfield services company, under which the parties agreed to cooperate in the testing of our 6000HP fracturing pump. In addition, as part of our commitment to expanding our unconventional oil and gas engineering services segment, we entered into a Memorandum of Understanding with GE on May 5, 2014, under which we will establish a strategic cooperation relationship with GE to jointly develop an integrated gas power solution in oil and gas field. We will seek and exploit more opportunities to expand into manufacturing of other parts and components or other oilfield service equipment segments.

Enhance our global marketing platform

We plan to take advantage of the global demand for rig upgrades, refurbishments and replacements, as well as the demand for new rigs in emerging markets. We aim to strengthen and expand our presence in key international markets, including North America, Latin America, Europe, the Middle East, Asia, Russia and Africa. To diversify our sales in emerging markets and further enhance our global sales network, we have established customer service and technical support teams in various regions, which we believe will allow us to promote and cross-sell our various products and services to our customers. We also intend to establish sales offices and after-sales service centers in Latin America and Eastern Europe.

Products and Services

We design, manufacture and sell land drilling rigs and related parts and components for use in the onshore exploration and production of oil and gas. We also offer a wide range of oil and gas engineering services.

Land Drilling Rigs

Our principal focus has historically been on manufacturing land rigs. We manufacture a wide range of land rigs, from heavy rigs capable of deep drilling (9,000 to 12,000 meters), to medium-sized rigs for moderate drilling depths (5,000 to 8,000 meters), to lighter rigs, economically-designed for shallower drilling (1,000 to 4,000 meters). Demand for our rigs is primarily focused on our medium to heavy rigs, in the 5,000 to 12,000-meter drilling-depth range, which is indicative of the global drilling market requirements for deep rig drilling capacity. Rig types are typically classified according to horsepower in the international market and according to depth in the PRC market.

Our Land Drilling Rig Classes

We currently manufacture three general classes of drilling rigs:

- Digitally-controlled land drilling rigs, or rigs that utilize real-time digital feedback, instrumentation and control during the drilling process;
- Conventional land drilling rigs, or rigs that utilize traditional, standard-technology instrumentation and control during the drilling process; and
- Special land drilling rigs, such as drilling rigs for cold and alpine areas, for artificial islands and for deserts, as well as truck-mounted drillings rigs.

The following table sets forth a summary of major land drilling rig products we offer, categorized according to different engine types:

Products	Description/Main Features
AC VFD (DBS) Rig Series	• A digitally controlled VFD rig that utilizes a single AC VFD. • One of our most competitive products. • Equipped with one gear VFD-driven drawworks of smaller size, lighter weight and higher reliability. • High performance and high degree of automation. • Simplified mechanical transmission with relatively less maintenance needed. User-friendly interface in driller's cabin. • Various safety functions, including failure diagnosis and mis-operation protection, etc.
DC (SCR) Rig Series	• A DC rig that uses a single DC electrical drive system for the drawworks, rotary table and mud pump. • Equipped with a touch screen display allowing simple and direct operation, allowing for reduced labor intensity and higher work efficiency.

Products	Description/Main Features
RT Independently Driven (LDB) Rig Series	• A mechanical rig with independent electrical drive rotary table that utilizes an alternating current variable frequency motor drive for gearless speed regulation of the rotary table and a mechanical drive for the drawworks and mud pump • Equipped with a touch screen display allowing simple and direct operation, allowing for reduced labor intensity and higher work efficiency. • Equipped with a comprehensive drilling parameter instrument system, allowing for display, storing and printing of drilling parameters.
Mechanical Rig Series	• A mechanical rig with a strictly diesel-powered drive system for the drawworks, rotary table and mud pump. • Combined power generation and transmission modes available. • Drawworks equipped with auxiliary AC motor drive device for mast up-and-down and emergency operation. • Hydraulic and pneumatic tools available in driller's cabin.
Truck-Mounted Rig Series	• A DC rig (DT/DBST) with a single alternating current VFD as a drive system. • Combines all the functions of a DC VFD rig with ability of truck-mounted transportation. • AC or DC electric drive truck-mounted rig and extreme low-temperature truck-mounted rig available according to customer specifications.
Arctic Rig	• An AC VFD rig that uses diesel power generator and features an auto temperature-control electric heater. • Specially designed for operation in extreme environment such as the Arctic region.
Desert Fast Moving Rig	• An AC VFD rig with a foldable mast top. • Features a system allowing wheel set trailer transportation for all modules, suitable for operation in desert environment with high temperature and sandstorms.
Helicopter Hoisting Drilling Rig	• An lightweight rig with no modules heavier than 2.7 tons. • Features a modular design that allows helicopter lifting transportation, suitable for operation in harsh environment such as tropical rain forests and swamps.

Products	Description/Main Features
Cluster drilling rig	• A specially designed rig equipped with hydraulic sliding equipment for enhanced mobility. • Allows change in drilling positions, especially suitable for shale gas drilling.
Training rig	• Features a modernized classroom for training purposes, enabling optimized training experience. • An AC VFD rig with full functionality, specially configured for training purposes.
Hybrid Coiled Tubing Drilling Rig	• A drilling rig that combines a conventional mechanical drilling rig with a coiled tubing operation unit. • Allows for drilling to be performed through both a coiled tubing or a conventional jointed drill pipe. • Equipped with power swivel, iron roughneck, hydraulic slip, mechanical handling unit and other automated wellhead machines and tools. • Typically installed on three large trailers, allowing for high mobility and for meeting the demands of customers exploring and developing in shallow reservoirs.

We are also currently developing new products for our land rig business, including our 1500HP Beyond rig which is a highly automated and mobile rig with 1500HP, hydraulic single rigs, gear and rack rigs and DBS single rigs for unconventional resource exploration and development and rack and pinion rigs.

Parts and Components

Components manufactured by ourselves

We manufacture parts and components, for internal use in the assembly of our rigs and for external sales. Our main parts and components, in terms of revenue generated, are mud pumps, masts, substructures, drawworks, VFD drive systems/electronic drive systems, top drives, solids control systems and fracturing equipment.

While different types of rigs require different parts and components, almost all rigs contain the following four major systems:

- a hoisting system, which is used to raise, lower and suspend equipment in the well. This system consists mainly of a crown block, traveling block, hook, drawworks and mast, all of which are components that we manufacture and sell;
- a rotating system, which is used to cut the initial hole of the well. This system consists mainly of a swivel and rotary table, both of which are components that we manufacture and sell;
- a circulating system, which pumps drilling mud in and out of the well. This system consists mainly of the mud pump, drilling fluid manifold and solids control system, all of which we manufacture and sell; and
- a power system, which supplies power to the rig. This system consists mainly of the engine, which we source from external suppliers, and associated control equipment, such as VFD drive systems, SCR and MCC, all of which we manufacture and sell.

In addition, we manufactured the world's highest power (6000HP) electric drive fracturing pump system. The system has been used for shale gas drilling and production activities in China since 2017, and its efficiency is much higher than traditional fracturing pumps.

The following table shows the types of parts and components that we produce. It is categorized according to the four major systems of a rig, and other parts and components.

Hoisting system	mast, crown block, substructure, drawworks, travelling block, hook, elevator link
Rotating system	top drive, swivel, rotary table
Circulating system	mud pump, drilling fluid manifold, solids control system
Power system	drilling motor, electrical drive system
Other parts and components	driller's cabin, electromagnetic eddy current brake, automatic pipe transport system, low-temperature tolerant drilling rig heating system, drilling house, drilling rig skidding device
Unconventional oil and gas exploration and production equipment	fracturing pump, flexible water tank, fracturing blender truck

Components Sourced from External Suppliers

We reserve our internal manufacturing capacity for the production of our core products. For parts and components we do not manufacture, we provide integrated procurement services to our customers through our global procurement network. We usually source parts and components with the following characteristics from external suppliers: (a) those that are low value-adding (e.g. connecting rods); (b) those that are non-critical (e.g. bearing seatings); or (c) those that are critical, but due to quality and cost-effectiveness considerations, are sourced from external suppliers who specialize in manufacturing certain parts and components (e.g., engines). In some cases, we also source components from external suppliers upon special request by our customers.

Oil and Gas Engineering Services

We offer comprehensive services in package drilling contracts and a wide range of specialized parts services, including vertical and horizontal drilling services, drilling fluids services, fracturing and others, in regions such as the PRC and the Middle East. As of December 31, 2018, we had 12 drilling service teams and 4 directional service teams, with a total of approximately 500 staff. We have obtained various qualifications for our oil and gas engineering services, such as the ISO 14001-2004, OHSAS18001-2007, and various access certificates. We are a member of the IADC.

We entered into the oil and gas engineering service markets in Xinjiang, Northeast China and Iraq in 2012 and have a presence in Gansu, Shaanxi, Sichuan, Inner Mongolia in China and West Qurna in Iraq. In 2018, we implemented multiple integrated platform service projects of shale gas in Sichuan Province, achieving symbolic breakthroughs in oil and gas engineering service from drilling and fracturing only to engineering, procurement, and construction ("EGC") services for our shale gas service capacities. In addition to Sichuan Province, we also signed shale gas development projects in Guizhou Province, which is the first time for us to enter shale gas service market in Guizhou Province and a move that is of great market strategic significance. We also strengthened our cooperation with Jilin University to jointly develop the Earth Crust No.1 10,000 meter drilling rig, which successfully completed the state-level drilling task under the Songke 2 scientific research project.

Training and After-Sales Services

In order to ensure that our customers know how to use our products effectively, we provide training with a 1,000-meter depth digitally-controlled VFD training rig at our main production facility in China, for a period of five to ten days before or after the delivery of our products.

During training, customers are taught how to use and control drilling rigs, so that they may use the rigs more efficiently. Overseas customers normally send their staff to the Company's site in Guanghan for training. Depending on the terms of the contract between the Company and our customers, such training can be provided either free of charge or for a fee. In addition, we have a team of experienced engineers who, upon request, provide short-term, onsite technical support at our customers' oil and gas fields.

Manufacturing of Products and Provision of Services

Manufacturing Facilities

We have four manufacturing facilities within the PRC, located in Guanghan and Chengdu, Sichuan Province and Dingxi, Gansu Province.

The table below sets out the details of our manufacturing facilities in the PRC.

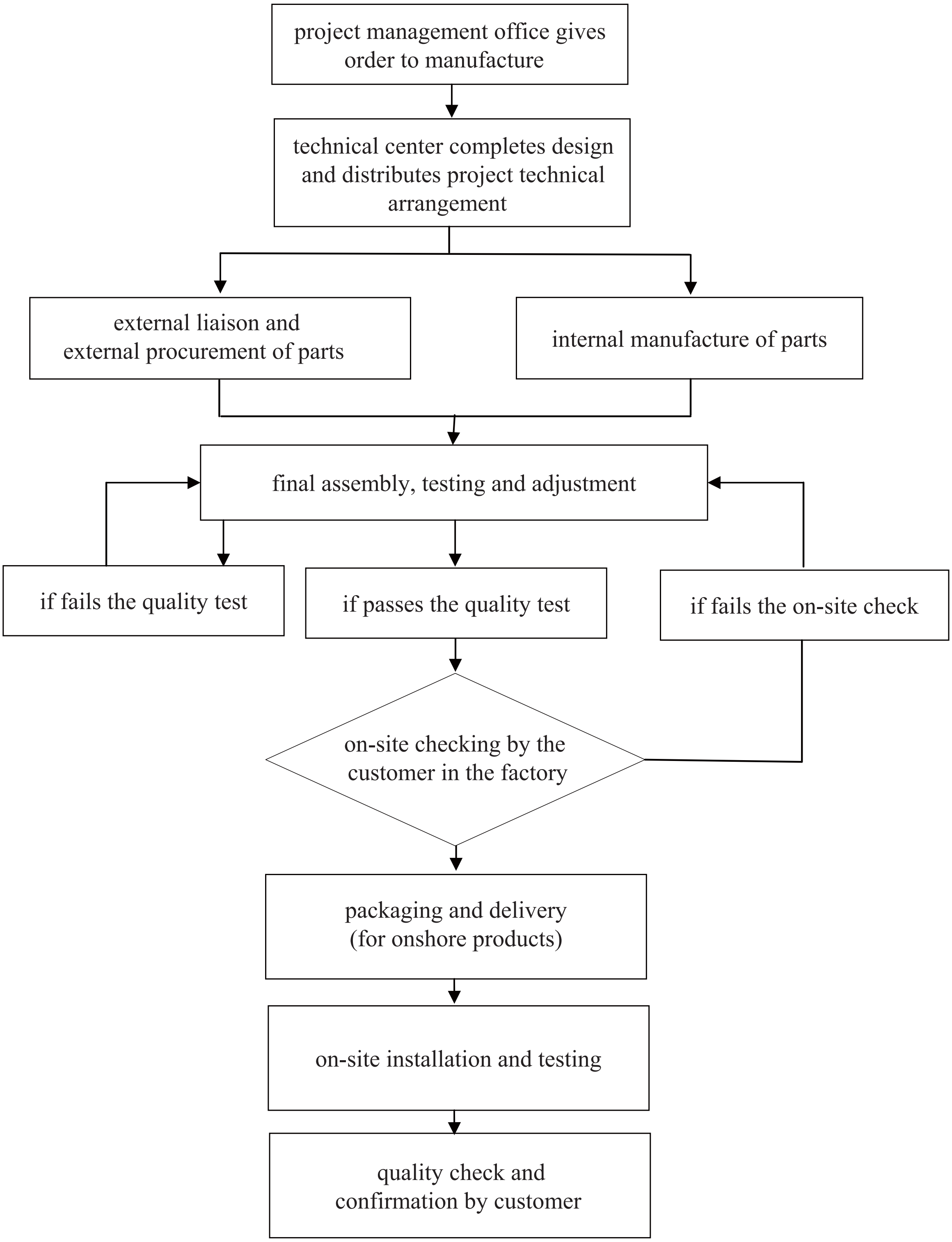
Manufacturing facilities	Location	Main operations	Year of commencement of production
Honghua Company . .	Guanghan, Sichuan Province	Manufacturing of rigs as well as parts and components, such as mud pump, crown block, travelling block, hook and mast	1998
Sichuan Honghua Electric	Chengdu, Sichuan Province	Manufacturing of parts and components, such as VFD, SCR, MCC and driller control cabin	2001
Gansu Hongteng Oil & Gas Equipment Manufacturing Co., Ltd	Dingxi, Gansu Province	Manufacturing drilling vessels, platform supply vessels, rigs and related products	2011

In addition, the Honghua America manufacturing facility in Houston, the United States, provides rig assembly services. We also have a manufacturing facility in Dubai, the UAE, which we use for assembling, maintaining and refurbishing rigs, supplying parts and components, equipment leasing and after sales services.

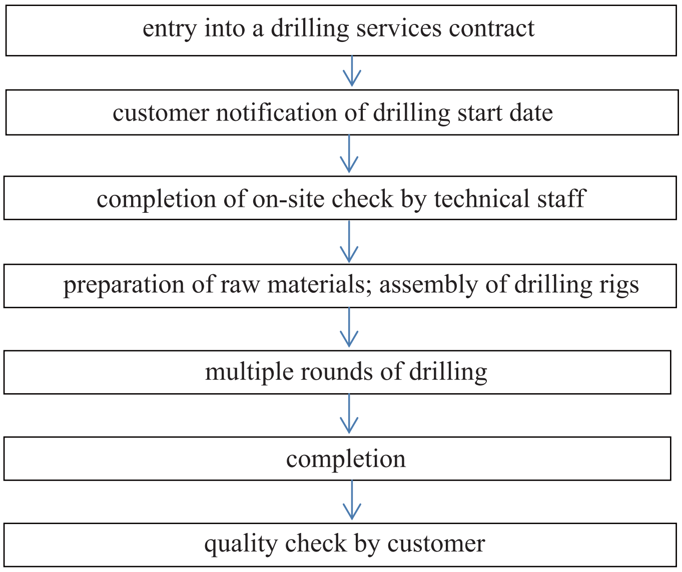
Processes for Equipment Manufacturing and Services Provision

Our production process is designed to accommodate a wide range of customer specifications, while still meeting our high quality standards in the most cost-effective manner.

The following diagram illustrates the major production processes of our principal products.



The following diagram illustrates the major stages of our oil and gas engineering services:



Quality Control

We have adopted a comprehensive quality control system. We administer preventive and corrective measures that optimize final product quality, by conducting a wide range of quality control tests at different stages of our production process.

Our quality assurance program is divided into three stages:

(a) Raw materials quality control

All incoming raw materials used in our production processes are subject to inspection at the point of receipt, before being warehoused. We conduct sample inspections and tests on our raw materials and related accessory items when they are delivered to our manufacturing facilities, to ensure that they are in accordance with our standards. We document all quality control checks on all raw materials and conduct regular reviews of the quality of our suppliers. Raw materials that fail to meet our standards are returned to our suppliers for corrective measures or for replacement at the supplier's own cost.

(b) Production quality control

Our quality control personnel continuously monitor our production processes to ensure consistency in the quality of our products. Work-in-progress products are checked by the designated quality control personnel before being passed on to the subsequent stage of production. The quality control personnel at the next stage of production re-examine the work-in-progress products received, to ensure there are no defects before the products are further processed.

(c) Product quality assurance

At the end of the production process, we conduct physical inspections of our products on a selective basis to verify that their mechanical and dimensional properties and strength meet quality standards and specifications before delivery to our customers.

We employ the API Monogram and the ISO 9001 quality system to ensure our products meet high quality standards. We obtained our first API Monogram license on July 6, 2005, and our first ISO 9001 registration on November 1, 2000.

In 2017, we strengthened our quality management and in turn acquired ISO-14001-2015 new-standard certificate and safe production standard level 2 certificate. Meanwhile, we continued to invest in research and development to maintain our company's competitiveness. During the period, we focused our product and technology research and development projects in relation to equipment such as automated drilling rig systems, shale gas electric fracturing systems, direct-drive system products (top drive, drilling well pump and winch), downhole tools and rotational directional systems, full-set automated drilling (Beyond Series), fracturing and cementing products, new drilling well pumps and high-pressure components, natural gas hydrate exploring equipment systems and deep-sea mining devices. Among them, shale gas electric fracturing systems, second-generation direct-drive top drive, automated rigs and other new products earned sales or rental contracts in batches. In 2018, we continued to strengthen quality control management, implemented strategies for reducing cost and enhancing efficiency and improved our products' competitiveness and profitability via measures such as product design enrichment, production technology enhancement and supply chain improvement.

Discontinued Operations

In December 2017, we announced our intention to dispose of the offshore drilling rigs segment, through public tender to be conducted on the Shanghai United Assets and Equity Exchange, of our 100% indirect equity interest in Honghua Offshore, a wholly-owned subsidiary of our Group, our 100% indirect equity interest in Shanghai Honghua Offshore Oil & Gas Equipment Co., Ltd. ("Shanghai Honghua"), a wholly-owned subsidiary of our Group, our entire 70% indirect equity interest in Hong Kong Tank Tek Limited, and our indirect creditor's rights against them. The assets and liabilities related to those entities were presented as disposal group classified as held for sale in our Group's annual financial statements for the year ended December 31, 2017.

In October 2018, we signed agreements with Jiangsu Hongjieding Energy Technology Co., Ltd. ("Jiangsu Hongjieding") and Shanghai Honghua with the following key transaction terms:

- We agreed to sell our 51% equity interests in Honghua Offshore for a total cash consideration of RMB1.0;

- We agreed to sell our 51% equity interests in Shanghai Honghua for a total cash consideration of RMB1.0;

- We agreed to sell our 25% equity interests in FSP LNG B.V. for a total cash consideration of US$1.0;

- We agreed to sell our 70% equity interests in Hong Kong Tank Tek Limited for a total cash consideration of US$1.0;

- We agreed to sell our 30% equity interests in Prime FSP, LLC for a total cash consideration of US$1.0.

We also entered debt repayment agreements with Honghua Offshore and Hong Kong Tank Tek Limited, respectively, pursuant to which Honghua Offshore and Hong Kong Tank Tek Limited shall repay the existing debt, together with relevant interest to us after the completion of the above equities transfer. The debts are secured by equity interests held by Jiangsu Hongjieding in the offshore drilling rigs segment as well as total assets of Honghua Offshore and Shanghai Honghua.

The disposal was completed on December 31, 2018. Both Honghua Offshore and Shanghai Honghua became associates of our Group with zero net book value as at December 31, 2018.

In June 2018, we sold 100% equity interest in Russia Honghua Co., Ltd, which was a wholly owned subsidiary of our Group, for a total cash consideration of Ruble10,000.

For more details of the discontinued operations, please see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Discontinued Operations" and Note 33 to independent auditor's report of 2018 Annual Report.

Research and Development

We believe that successful technological development is critical to our ability to stay competitive in our industry. To this end, we have established research and development centers in Chengdu and Guanghan. In 2011 and 2012, we also entered strategic cooperation and framework agreements with various universities to further our research and development ability. We currently have framework agreements with Jilin University, China University of Petroleum (East China), Northeast Petroleum University and Xi'an Shiyou University.

Since 2015, we have been focusing our product and technology research and development projects on equipment such as intelligent downhole tools, unconventional oil and gas development equipment, natural gas hydrate exploring equipment systems, shale gas auxiliary equipment and deep-sea mining devices. Among them, new products including direct drive pumps, second generation top drives, iron drilling devices and shale gas electric fracturing systems had achieved sale and lease on a large scale.

We have also devoted significant effort and resources to researching and developing new types of products for a variety of uses. Our new products in recent years include, among others:

(1) land rigs such as hybrid coiled tubing drilling rig, 1SOOHP Beyond rig, single series rig, iron roughneck and hydraulic catwalk;

(2) flexible water tanks;

(3) quintuple mud pump and light triplex pump; and

(4) 3000HP and 6000HP medium-voltage VFD systems.

We manufactured the world's highest power (6000HP) electric drive fracturing pump system. In 2018, Honghua Company was named Natural Gas Hydrate Technology Innovation Alliance Member by China National Offshore Oil Corporation, a state-established key laboratory unit of natural gas hydrate. This approval indicated that Honghua is the only domestic research and development corporation focusing on developing eco-friendly natural gas hydrate solid fluidization mining equipment. In 2018, we had also completed the mid-term inspection of marine hydrate development equipment system required by the Ministry of Science and Technology and went through the establishment phase of our submarine equipment projects. In 2018, we conducted the world's first scientific study drilling well to reach through the Cretaceous strata.

In addition, we have also made substantial progress for our full electric fracturing systems, including developing and innovating power solutions, pre-maintenance of equipment, digital-control and variable-frequency mixed-sand pry, command and control centers. Among them, core equipment was successfully applied in the domestic shale gas development sector, consolidating our share in the domestic shale gas service market.

As of December 31, 2018, we had a total of 578 research and development personnel representing 15.6% of our total employees. Our research and development teams are headed by leading Chinese experts in the oil and gas equipment industry. As of May 31, 2019, we had obtained 448 patents, consisting of 171 patents for inventions, 276 utility model patents and 1 international patent. For more information, see "Business — Intellectual Property."

Intellectual Property

As of May 31, 2019, we had obtained 448 patents, consisting of 171 patents for inventions, 276 utility model patents and 1 international patent. Our most important patents include a patent for AC VFD-controlled rig drawworks, a digitally-controlled WOB auto-bit-feed device, a hydraulic device for transporting land rigs horizontally, and belt-attached drawworks wheelwork. Some of our more important, patented, leading edge technology includes AC VFD-controlled rig drawworks and digitally-controlled WOB auto-bit-feed devices. We are sometimes exposed to cross-border disputes, including claims from third parties for infringement of their intellectual property rights, in the ordinary course of our business. See "Risk Factors - We may not be able to enforce our intellectual property rights and may be subject to claims from third parties for infringement of their intellectual property rights" and "Business – Legal Proceedings."

We have also registered our trademarks in Hong Kong and the PRC. We have not granted and do not intend to grant any licenses to other parties for the use of our patents and trademarks.

Procurement and Suppliers

We select our raw materials and components suppliers based on product quality, cost, service and delivery time. We conduct inspections on all raw materials and components that we receive on a sampling basis, utilizing physical and chemical tests to ensure that they meet the specifications of our products as well as any relevant international standards.

Our major suppliers provide us with our basic raw material inputs, including steel and steel-based products, as well as with certain components and parts. We currently source almost all of our basic steel inputs from suppliers operating primarily in the PRC, while our externally supplied parts and components, such as diesel engines, hydraulics and AC variable-frequency motors, are sourced in the PRC or globally in countries such as the United States and Germany, depending on our customers' requests or specifications.

Generally, we make payment upon the receipt of goods. Occasionally, we are given credit terms of one to six months.

We have long-standing relationships with our major suppliers to ensure stable supplies and high quality of raw materials, and we have not experienced any significant difficulties in sourcing raw materials and components.

For the years ended December 31, 2016, 2017 and 2018, our single largest supplier accounted for approximately 8.8%, 4.2% and 3.53%, respectively, of our total purchases, and our five largest suppliers together accounted for 16.4%, 13.4% and 14.5%, respectively, of our total purchases.

Inventory Management

We monitor and control the inventory levels of our raw materials, work-in-progress products and finished products to optimize our operations. We have in place the Systems Applications and Products in Data Processing ("SAP") information system to coordinate the logistics involved in inventory management. The SAP system monitors the planning and allocation of warehouse space and our stock of raw materials and finished products, in order to better coordinate our delivery requirements and schedules. We also have in place the Warehouse Management System ("WMS") for storage management.

Each of our subsidiaries is required to have a set of supplier management policies and storage management policies, subject to our approval and periodic review.

Due to the varying specifications and customizable features of many of our rigs and parts and components, we typically manufacture our products according to customer requirements. We make inventory and purchase plans for the common and standard raw materials and only purchase raw materials which are specific for each product after we have received an order. Our inventory of raw materials consists mainly of steel and steel products, parts and components. With regard to rig production, our policy is to reserve raw materials required for at least one and a half months of production, and parts and components for manufacturing two rigs.

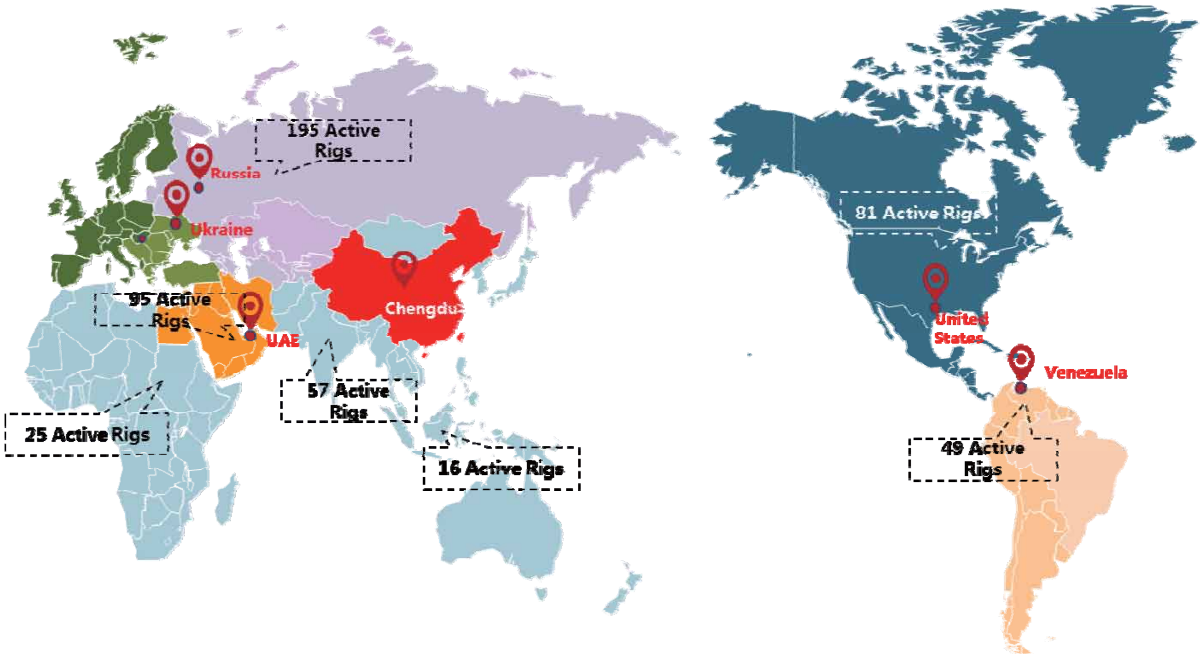
Our inventory of finished products consists mainly of those awaiting delivery. As most of our finished products are large in size, we often enter into short-term leases for storage purposes. The duration of such short-term leases varies, depending on the delivery and transportation arrangements for the finished products, but usually such duration would not be longer than six months. Since the ownership of the products awaiting delivery remains with the seller, in the event that there is any damage to the finished products before delivery, we will bear the loss. We have employees to guard and look after finished products while they are awaiting delivery.

Sales and Marketing

We sell our products primarily to drilling companies owned by large Chinese oil and gas companies and major multinational oil and gas drilling contractors in North America, Latin America, the Middle East, Europe, Asia, Russia, Africa and other oil and gas producing regions.

We have established sales offices and subsidiaries in China and abroad, in order to provide onsite services (such as technical advice and support) at major oil and gas fields where our customers operate. Our sales and marketing department has expanded over the past few years. As of the date of this offering memorandum, our sales and marketing team consisted of 248 employees.

Our sales and marketing network which spans five continents with two operational control centers are shown below.



Our domestic sales and marketing channels include direct sales, open and invited tenders, industry conferences and our websites. Our domestic sales department is divided into two teams, which collectively cover all major oil and gas production areas in China.

Internationally, we have established sales operations in North America, the Middle East and Africa, and we have formed an international distributors' network to cover Latin America, Russia, Europe and Asia (excluding China). We engage in a wide variety of activities to extend our marketing outreach, including attending open or invited tenders and participating in international trade fairs. Our sales and marketing strategies vary from country to country. We use our own sales force in certain countries such as the United States, the UAE and Egypt, while we rely on local agents in other areas such as Latin America.

We offer a variety of after-sales services. For land drilling rigs, we provide first-time installation and adjustment services free of charge for each new rig, and we offer a warranty period that typically expires on the earlier of (i) 12 months after the rig commences drilling operations in the first operating well site, or (ii) 18 months after the rig is delivered to the customer. Chargeable after-sales services include land rig installation, adjustment, annual checkup, overhaul, technological upgrading.

We have established credit control and cash management procedures. We assess the creditworthiness of potential customers and determine the price and credit limits to be granted, after taking into account other factors, such as the market condition and sales scale. We usually require installment payments according to our procurement and production process. After the sales agreement is signed, our salespeople will follow up with the clients and monitor their payments. If there is a delay in payment, we will assess the client's creditworthiness and adjust our credit policy as necessary.

Customers

We have a diversified customer base thanks to the diverse range of products we offer and the expansive sales and marketing network we have established. Our key customers in the overseas market are major multinational oil and gas drilling companies and contractors, including NDC, ADC, KDC, UGV, Schlumberger and Halliburton. Many of our customers in China are drilling companies owned by CNPC and Sinopec. We have developed a strong relationship with these major customers.

For the years ended December 31, 2016, 2017 and 2018, our single largest customer accounted for approximately 17.2%, 11.8% and 20.5%, respectively, of our revenue, and our five largest customers together accounted for approximately 17.2%, 11.8% and 20.5%, respectively, of our revenue. See "Risk Factors — Risks Relating to our Business — We rely on a limited number of customers, which may vary from year to year."

Sales to Sanctions Targets

We are subject to the laws and regulations of the various countries in which we do business, in addition to the laws of the PRC. Certain countries in which we do business, or in which our products have been sold, including Iran and Sudan, and certain parties with whom we conduct business, including certain Russian entities, are targets of sanctions administered by OFAC and/or the European Union. No U.S. or European Union persons are involved in the supply of our products and services in countries that are targets of OFAC or European Union sanctions, and we are not involved in the re-exportation of goods originating in the United States to OFAC-sanctioned countries.

None of the proceeds from this offering will be used to fund transactions or activities which would, if undertaken by a U.S. person as defined in the U.S. economic sanctions programs or by a person required to comply with European Union economic sanctions, be prohibited by U.S. or European Union economic sanctions. For more information, see "Use of Proceeds" and "Risk Factors — Risks Relating to Our Business — Some of our revenue is derived from countries, individuals or entities that are targets of sanctions imposed by the United States, the European Union and other government authorities."

Contracts, Sales Process and Pricing Policy

Onshore drilling equipment

We are typically required by our major customers to use their own standard forms as the basis for sales negotiations. Thus, our rig sales contracts tend to vary from customer to customer. The majority of our onshore drilling equipment sales contracts provide that warranties for each rig and/or equipment expire on the earlier of (i) 12 months after the rig commences drilling operations in the first operating well site, or (ii) 18 months after the rig is delivered to the customer.

Though time frames may vary according to each customer's specifications, it usually takes six months from the time an order is placed for us to manufacture and deliver a finished rig. We fully assemble and test the ordered rigs in our factory, and then disassemble them into smaller units before delivery, for easy transportation to their destination. The disassembled units will be delivered by truck, train or ship to destinations within the PRC, and will be delivered by truck combined with train or ship to destinations outside the PRC.

Since we typically source business through direct sales, open or invited tenders and customer referrals, pricing for many of our products is determined either through a bidding process or individual negotiations with our customers. Factors that we take into consideration in determining our tender prices and negotiated contract prices include our costs, the prevailing market price of the product and individual customer specifications.

Because we generally procure raw materials and parts and components for production only after we have secured a sales contract for a product, the costs of our raw materials and parts and components may not always be reflected in our contract prices. This is especially important since steel, a significant material used in constructing our onshore equipment, as well as the parts and components we source from third parties, is subject to frequent price fluctuations. The Company will not alter the prices of drilling rigs under signed contracts, unless customers request a change in design or configuration. However, the Company may consider altering sale prices under contracts not yet signed based on fluctuations of raw materials cost and foreign exchange rate. The Company bears the risk associated with fluctuations of raw materials cost and foreign exchange rate during a contract period.

We maintain different billing policies for different customers. For domestic customers purchasing onshore equipment, payment is made to us on an installment basis, and we typically receive up to 90% of the total price by the time the rig is delivered and starts operation, with the remaining 10% as warranty retention, payable to us within one year of delivery. For international customers, the common practice is that part of the purchase price is paid by wire transfer or a letter of credit upon signing of the contract, part of the purchase price is paid upon delivering the shipping documents, and the remaining part of the purchase price will be paid after delivery of the products.

Oil and gas engineering services

We are usually required to use our customers' standard contract forms as the basis for negotiation, which makes our contracts vary from customer to customer. Most of the domestic services contracts provide that payment is to be paid periodically based on milestones, while the overseas services contracts generally provide that payment is to be paid quarterly based on a specified day rate. Profit margin is usually higher for overseas services than for domestic services, partly due to the intense competition in the PRC market.

We typically source business for oil and gas engineering services through direct sales, open tenders, cooperating with other companies in the same industry and obtaining sub-contracting assignments.

Once we have entered into a services contract, we usually need two to five weeks to mobilize the drilling rig within a given country. Once the drilling rig arrives at the destination well site, the customer's approval is needed to commence our operation.

Competition

We operate in a highly competitive environment. We principally compete with domestic and overseas oil drilling equipment and service companies on price, quality, advanced technology, reliability of supply and after-sales service.

In the land drilling equipment market, our primary competitors include non-PRC companies such as NOV and Bentec, and PRC companies such as BOMCO and Lanzhou LS-National Oilwell Petroleum Engineering Co., Ltd.

In the parts and components market, our primary competitors include companies such as NOV and Aker Solutions ASA.

In the oil and gas engineering services market, our primary competitors include non-PRC companies such as Nabors Group and Baker Hughes, and PRC companies such as SPT Energy Group Inc. and Anton Oilfield Services Group.

We believe that we are well-positioned to compete in both domestic and international markets, and that our strengths and strategies will differentiate us from our competitors. See the sections entitled "Business — Competitive Strengths" and "Business — Business Strategies."

Environmental Protection

Our oil and gas drilling products manufacturing operations may produce various types of waste, including waste water, dust and solid waste. Our oil and gas engineering services operations create or emit noise and waste water, gas and dust, particularly rock dust, drilling fluids and waste oil that are created or discharged down-hole during the operation and are brought up to the surface. We are subject to the environmental laws and regulations in the PRC and other jurisdictions where we have operations. These laws and regulations in general empower government authorities to impose fees for the discharge of wastes, levy fines for offenses, or order closure of any manufacturing facilities which fail to comply with related laws and regulations.

Due to our efforts in enforcing our environmental protection rules throughout the production process, we had no breaches of any applicable environmental law or regulation during the years ended December 31, 2016, 2017 and 2018. As of the date of this offering memorandum, we are not subject to any material environmental claims, lawsuits, penalties or disciplinary actions. We have been in compliance in all material respects with applicable environmental laws, and did not incur any material costs in complying with such laws.

Although we do not expect to incur any material cost in this regard in the future, any additional or more onerous environmental laws or regulations may cause us to incur significantly higher costs, which we may not be able to pass on to our customers. See "Risk Factors — Risks Relating to Our Business — We are subject to environmental and health and safety laws and regulations that impose, and could continue to impose, significant costs and liabilities. In addition, future regulations, or more stringent enforcement of existing regulations, could increase those costs and liabilities, which could adversely affect our results of operations."

Occupational Health and Safety

We regard the occupational health and safety of our employees as one of our most important social responsibilities, and we have implemented a number of measures to ensure compliance with applicable PRC health and safety requirements.

We have in place a detailed set of internal health and safety policies. Our quality control department is responsible for training staff as to such policies, reviewing our internal safety procedures, carrying out safety site inspections on a monthly basis and continuously monitoring the implementation of our safety policies. We have adopted an internal handbook on safety procedures that is utilized throughout our Group, and every employee is required to attend compulsory courses on our safety policies and procedures. Our handbook sets out certain guidelines on occupational safety, such as how to operate machinery safely and emergency plans.

We have implemented standard guidelines for production safety on inspection, evaluation, supervision, and training. Through a standardized health, safety, and environmental protection, or HSE, management system, we have been able to fully implement and manage production safety and raise the workplace safety awareness of all our workers. In January 2013, our land drilling rig production base passed the HSE expansion audit. While conforming to the occupational health, safety, and environmental protection requirements of international professional institutions, we will continue to optimize the development of our workplace safety, improve product quality as well as the management of our production process and environment.

In the years ended December 31, 2016, 2017 and 2018, we were not subject to any material production and safety claims, lawsuits, penalties or disciplinary actions, and there had not been any material non-fatal injuries or fatal accidents.

Employees

We believe that the successful implementation of our growth and business strategies relies on a team of experienced, motivated and well-trained managers and employees at all levels. We recruit our employees from renowned universities and the public. The majority of our domestic employees belong to a trade union which is a member of the All China General Trade Union. We believe that we maintain a good working relationship with our employees. In the years ended December 31, 2016, 2017 and 2018, we did not encounter any significant difficulties in recruiting employees, nor did we have any material labor disputes.

For the majority of our employees, we make contributions to mandatory social security funds that provide retirement, medical, work-related injury, maternity and unemployment benefits. We contribute on a monthly basis to a housing fund organized by the Chinese government. In addition, we make contributions to supplementary social security funds for certain employees for retirement and medical benefits, and we maintain various types of insurance, including accidental injury insurance, for a number of our employees.

We pay termination benefits when an employee's employment is terminated involuntarily before the normal retirement date, or when an employee accepts voluntary redundancy in exchange for termination benefits.

For the years ended December 31, 2016, 2017 and 2018, our contributions to PRC defined contribution retirement plans were approximately RMB43.2 million, RMB34.0 million and RMB35.3 million, respectively.

Real Properties

As of December 31, 2018, we held 41 parcels of land with a total site area of approximately 1,109,470.17 sq.m. We have obtained land use right certificates for all parcels of land that we held. We own the premises of our headquarters in Chengdu, Sichuan Province. We both own and lease properties for our operations.

Insurance

We maintain various types of insurance policies in line with general practice in our industry, including customer credit risk insurance, property all risks insurance, machinery damage insurance, occupational liability insurance, director and officer liability insurance and mandatory social security insurance for our employees. See "Risk Factors — Risks Relating to Our Business — The manufacturing processes for our products are complex and potentially hazardous and our oil and gas engineering services business involves inherent risks and occupational hazards, and we may not maintain sufficient insurance coverage for the risks associated with the operations of our business."

Internal Control

In connection with past audits and reviews of our financial statements, our independent auditors have identified a number of internal control weaknesses and deficiencies, including reliance on improperly documented contracts, that they have periodically reported to our management and audit committee. In response to these reports, we are seeking to strengthen our internal controls and related procedures through a combination of increasing the size and expertise of our internal accounting team and additional training of relevant staff. We believe that effective internal controls are necessary to support our ongoing and expected future operations and to ensure the accuracy and timeliness of our financial reporting. Although we believe our recent internal controls initiatives appropriately address recent identified weaknesses and deficiencies, there can be no assurances that our planned enhancements will be successful or that other weaknesses in internal controls will not develop.

Legal Proceedings

With many of our customers located outside China, we are sometimes exposed to cross-border disputes in the ordinary course of our business. For example, on July 3, 2019, a third party plaintiff filed a complaint in the United States District Court for the Southern District of Texas Galveston Division alleging one of our subsidiaries as having infringed its intellectual property rights in relation to an electric fracturing pump that such subsidiary distributed. This complaint is at its preliminary stage and the amount claimed was not disclosed. We believe that this claim is without merit and we intend to vigorously defend against it.

Contract dispute with a trading company in the PRC

On June 21, 2018, a trading company filed a lawsuit against Honghua Offshore and Honghua (China) Investment Co., Ltd., alleging that it was owed materials and equipment procurement costs, agency fees and interest on the respective amounts in excess of RMB360,000,000 in aggregate in relation to services the trading company provided to Honghua Offshore under a purchase agency contract entered in 2015. The Shanghai Maritime Court of the PRC has accepted the case and the case is currently on trial. We have sought legal advice on the litigation proceeding and will take all appropriate steps to defend.

RECENT DEVELOPMENTS

Purchase Framework Agreements and Sales Framework Agreement

On July 17, 2019, the Company and Guizhou Aerospace Industry Co., Ltd. (貴州航天工業有限責任公司) ("Guizhou Aerospace") entered into the Purchase Framework Agreement I, pursuant to which the Company will purchase equipment and products including rig parts, forged parts of solution tanks and blanks from Guizhou Aerospace. The Purchase Framework Agreement I will expire on December 31, 2021.

On July 17, 2019, the Company and Aerospace Cloud-Tech Co., Ltd. (航天雲網科技發展有限責任公司) ("Aerospace Cloud") entered into the Purchase Framework Agreement II, pursuant to which the Company will purchase products including servers and related technology services from Aerospace Cloud. The Purchase Framework Agreement II will expire on December 31, 2021.

On July 17, 2019, the Company and China Aerospace Sanjiang Group Co., Ltd. (中國航天三江集團有限公司) ("Aerospace Sanjiang") entered into the Purchase Framework Agreement III, pursuant to which the Company will purchase products including whole towing devices, LNG auxiliary equipment and downhole testing equipment and related services from Aerospace Sanjiang. The Purchase Framework Agreement III will expire on December 31, 2021.

On July 17, 2019, the Company and Guizhou Aerospace entered into the Sales Framework Agreement, pursuant to which the Company will sell products including steel structure and related processing services to Guizhou Aerospace. The Sales Framework Agreement I will expire on December 31, 2021.

On May 31, 2019, Sichuan Honghua Electric and Aerospace Information System Engineering (Beijing) Limited (航天信息系統工程(北京)有限公司) ("Aerospace System") entered into a purchase framework agreement (the "Aerospace Purchase Framework Agreement"), pursuant to which Honghua Electric has agreed to purchase raw materials, parts and components, equipment and other products from Aerospace System. The Aerospace Purchase Framework Agreement will expire on December 31, 2019.

CASIC holds 100% of the equity interest in Aerospace System through Aisino Corporation, whose 39.8% equity interest is held by CASIC. CASIC directly holds 100%, 49.51% and 100% equity interest in Guizhou Aerospace, Aerospace Cloud and Aerospace Sanjiang, respectively,

New Drilling Orders from Iraq and China

In 2019, Honghua Oil & Gas Engineering has successfully won new orders in the offshore markets, primarily for providing drilling services to new customers in Iraq, amounting to approximately US$30.0 million. In the domestic market, we increased our bidding activities in shale gas exploration projects and earned contracts totaling approximately RMB44.0 million in the first half of 2019.

Financial Leasing Contract with Minsheng Financial Leasing Co., Ltd

In order to lower the entry barriers for our customers and improve the competitiveness of our new products, we began engaging in the promotion of new business models, such as sale by lease, financial leasing and operational leasing, for targeted customers in 2018. In June 2019, we signed a financial leasing contract on three sets of fracturing pumps amounting to approximately RMB360.0 million with Minsheng Financial Leasing Co., Ltd.