



Economic Reforms & NELP Rounds Transformed the Face of E&P in India

Naresh Kumar, MD, Jindal Drilling & Industries Ltd speaks on growth in Indian exploration activities, reflected in the increasing number of offshore rigs working off the coast of India during the last decades. Economic reforms & NELP rounds have changed the face of E&P activities in India. Looking back to June 2000, there were only 12 rigs contracted for work in the offshore waters of India. Around 2002, ONGC, with maximum acreage, went in for massive re-development plan for Mumbai High North and subsequently Mumbai High South fields, involving installation of numerous platforms to carry out the stated goal to increase recovery factor from the averaging 28 percent to 40 percent. He says, the rig count has grown to around 52 rigs currently contracted for work in offshore waters surrounding the country in an interview with Mittravinda Ranjan.

How has the offshore rig market changed over the past decade with fluctuating oil prices?

World offshore rig market, demand and utilization, most of the times, is in synchronization with oil prices. When the crude oil prices started increasing in year 2004, rig utilization also started increasing from year 2004. At the start of the year, total rig utilization was around 72-73 percent;

by the end of the year it went up to around 78-79 percent. Following the cues from the rising oil prices, which sustained, at the end of year 2006, rig utilization was around 83 percent and in July 2008 when the crude prices breached 140 mark, rig utilization was maximum around 86 percent.

With upward trend in crude prices sustaining since 2005, and the operators getting into tougher, deeper and more challenging wells requiring

higher rotating, hoisting and pumping capabilities, drilling contractors went in for a new rig construction, which peaked between 2007 to 2008; all the yards were over booked and rig day rates also surged to maximum.

The last quarter of 2008 saw a dramatic correction and southwards plunge in the oil prices, dropping to mid 40 USD and finally stabilizing in the margin bound USD 70 to 80 . Rig utilization level dropped to around 72 percent, symptomatic of operators going back to the war room to re-draw exploration and development plans in the newer scenario.

Growth in Indian exploration activities is reflected in the increasing number of offshore rigs working off the coast of India during the last decades. Economic reforms & NELP rounds have changed the face of E&P activities in India. Looking back to June 2000, there were only 12 rigs contracted for work in the offshore waters of India.

What was the impact of surge in oil prices when they peaked at USD 140 in 2008; and what is the scenario at present?

Crude oil prices started increasing around year 2004-05 driven by the demand mainly from fast emerging developing nations. Lucrative oil prices made exploration work reach to

record level especially in offshore area and so does the demand for the rigs. Oil prices continued its upward trend and breached new level every quarter till July 2008 when it reached USD 147 mark. During the period 2006 to 2008, day rates of rigs also broke all records. Investment poured into the construction of rig and all shipyards were over

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booked for the next 3-4 years. During the year 2007-2009 more than 100 new built rigs came into the market.

Economic slowdown brought significant crash in oil prices and oil reached below USD 40 a barrel, which resulted in the halt of exploration work and left many offshore rig stagnant. Due to the excess supply of jack up rig market crashed and average day rate fell from level of USD 150,000-200,000 /day to current level of USD 63,000 - 110,000/day depending upon the type of rig. With world economy coming out of slowdown drilling market is picking up slowly and we can hope to have

better days soon.

E&P activity has increased significantly in India post NELP. How has the demand of jack ups and floaters changed in Indian context?

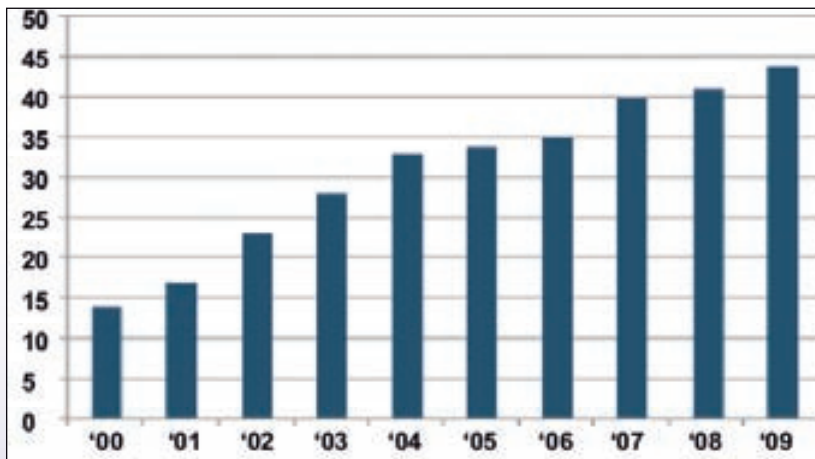
NELP licensing rounds have yielded good results for India, and it has attracted more than USD 9 Billion of investment so far, leading to an increased exploration work. The increased activities, with the positivism created by the investor-friendly NELP policies, is inevitable as the exploration density was very low in the existing sedimentary basins.

There has been manifold growth in demand for ultra-deepwater rigs and high-spec Jack-up rigs to get into the increasingly difficult and harsh environment and typical well construction challenges.

What trends do you foresee in day-rates for rigs for shallow water, deepwater and floaters?

Rig day rates have seen unprecedented fluctuation in the recent past. Average day rate for Jack Up in May-June were down around 15 percent from Dec 2009 level and more than 50 percent from 2008 level. This was due to the crash in oil prices and subsequent ripple effect of economic slowdown. Deepwater rig rates also breached record level (were in the range of USD 500,000/day to USD 600,000+/day) at boom time in 2007-08 and then it softened during last year due to slowdown (came below USD 500,000/day). The recent rig disaster in Gulf of Mexico, and subsequent drilling moratorium, has resulted in further easing of supply of deepwater rigs in the market taking the rates in the range of USD 350,000/day to USD 450,000/day depending upon the duration of the contract.

E&P spending is looking to increase in the coming times mainly driven by the National Oil Companies (NOC) and also rise in commodity prices and



NUMBER OF RIGS CONTRACTED OFFSHORE INDIA 2000-2009

softening credit markets can make sure the NOCs aggressive spending to meet the work commitments. There is already an upward trend visible in the day rates as the market has started reviving. We can hope that the worst is behind us now.

Indian Oil and Gas sector has seen a paradigm shift after the NELP licensing rounds in terms of discoveries and increase in production. Apart from the prolific D-6 field in deepwater and future plans for other deepwater exploration and development commitments, the shallow water jack up market also has busier days ahead as the massive redevelopment programs take shape and reach towards the goal.

What are the current trends in hiring of drilling services from the perspective of E&P companies?

If you look at the current offshore operators in India, it's mainly dominated by ONGC , 42 rigs out of the total 52 rigs working in India are deployed for operations with ONGC. Being the largest NOC holding most of the offshore acreage, ONGC has a very aggressive and goal-oriented work programme and has been consolidating the rig supply and utilization with long term contracts for 3 to 5 years.

The next big E&P player is Reliance Industries which have deployed around 5 deepwater rigs. GSPC, BG, Hardy and Gazprom, Petrogas, Adani and Cairn are the other players which do come up with their requirements from time to time or are operating Rigs in Indian waters. BG and GSPC also hire for long term for the development work but rest of the companies come up with short term requirements (3 Months -1 year) for the exploration jobs.

Tell us about the state of the art rigs introduced in 2008 by your company and what technical advantages do these offer as

compared to the other rigs.

Jindal Drilling through its JV constructed two rigs 'Discovery I' and 'Virtue I' which are 350 ft (extendable up to 400 ft water depth) 'KFELS B class' Design, classified by ABS Class Notation 'Maltese Cross A1 Self Elevating Drilling Unit'. These rigs were constructed in one of the most renowned Keppel Fels Shipyard, Singapore.

These rigs have high variable deck load and safer jacking systems. The rigs have automated drilling systems with Joystick controls for precise drilling controls and with built-in safety features like Collision Management systems to make the work on the rig floor safer. The Automated system is hooked-up 24X7X365 with E-Hawk online diagnostics and troubleshooting center at National Oilwell Varco (NOV), Houston. Both rigs have drilled and completed some of the most challenging wells for operator ONGC and with almost-zero downtime.

These rigs are equipped with some of the highest end technologies available today which set it apart from other rigs working in the region

- AC/VFD system incorporated in these rigs is for safety and precision of operations
- Handling capability of larger volume of Mud and greater pumping facility for drilling multilateral & ERD wells with ease
- Advanced and fully-automated high capacity rack, pinion elevating system and self-positioning fixation system
- Higher and best-in-class Hoisting, Rotating and Pumping capabilities.

Which other state of the art/ latest technologies do you plan to introduce for the E&P sector in the near future?

As we all know, a large part of the remaining prognosticated reserves lie in deepwater and most of it is believed to be Gas. Deepwater operations involve

a totally new regime as far as station keeping, well control, riser management and other critical issues go. Jindal Drilling which is under restructuring mode would be demerged into two companies to diversify risk. One of the entity 'Deepwater Drilling & Industries Ltd' under my supervision will be looking to enter into Deepwater Drilling segment through JV or Collaboration.

What are the major challenges that you come across as service provider for the oil & gas sector?

Offshore Drilling is one of the most complex engineering procedures, which requires technological inputs in terms of extreme reach ERD wells that involves state-of-art Steerable Systems and cutting edge technologies like Logging while Drilling and Casing while drilling; major inputs in the form of stimulation vessels and other well intervention technologies. From exploration to the final flow of hydrocarbons involve constantly-changing technologies; hence, technology adoption and adaptation, with the continuous need to train and re-train manpower, remain a constant challenge to all offshore operators and contractors. In fact, in an industry first initiative, JDIL was the first one to induct new generation rigs which have drilled some of the most challenging wells in west coast, Mumbai.

Safety and Environment is another issue which always remains on the forefront. All operations are required to be carried out within the strictest ambit of safe and environmentally-responsible manner. Jindal Drilling has developed and integrated a very responsive HSE management as an integral part of all our operations.

What are the major risks involved while working with the E&P companies that drilling service provider's factor in while offering the services?

Drilling Contractors measure many

variables before taking any job with any E&P company. While bidding for the job, environmental and operational parameters along with the technical specification of the rigs are evaluated. Risk mitigations is carried out through due diligence and focused attention is given to the geo-political environment, government and company policies, term of the contract and other commercial and technical issues.

Where does safety feature in the priority list of E&P companies while hiring drilling service providers or contractors?

Environmental & safety measures are very important parameters for selection of any drilling contractor. Past record & existing HSE policy of the drilling contractor are always evaluated while selecting a drilling contractor. Various contract conditions make sure that operations are carried out in safe and environmental friendly conditions. This concern for safety and efficiency has now become the buzzword with major E&P companies and as a result they are now looking for new-generation rigs with inherent safe features.

Cutting corners by operating companies can cost dearly to the drilling service providers. Your comment on how incidents like the recent rig disasters can be averted; what do drilling service providers expect from the E&P companies?

Operating companies are aware of the very fact that a single mistake in a complex environment of offshore can lead to disasters which can cost them fortune. The recent Gulf of Mexico disaster is the stark reminder how market capitalization of an operating company can disappear just because of one incident.

Oil industry disasters are very unpredictable and some times inevitable. The best industry can do

to prevent disaster is to minimize exposure to the risk and reduce human error. Technology will always be the way forward, but ultimately it comes to human only who controls the technology.

Investing in people and their safety is the best precautionary measure any company can take. For any operation, risk assessment and mitigation measures are a mandatory requirement to complete the job safely which always helps. Oil field operations involve many stakeholders at a time, hence a better level of coordination is a must while operations. Drilling contractor always expects and looks for support

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and coordination with the operating company to provide safe and efficient operations.

Which were the major turning points in the history of company?

Jindal Drilling was created in 1985, when there were only two upstream national oil companies in India, and the private sector was not allowed to work in the drilling business. Back then, the rigs had to be procured from foreign contractors.

In 1985, the Government of India decided to develop local capabilities, so they invited business houses from India to look into this industry. Keen on leveraging this opportunity, we initiated discussions with Noble Drilling Corporation from the US, which is today the second-largest

drilling contractor in the world, and perhaps the best in terms of quality of its services.

Today, we are successfully operating three rigs from Noble along with two of our JV owned rigs. Entering into the capital intensive and high technology area of drilling, and establishing itself as reputed drilling contractor, has been a tremendous effort on part of our focused team. The other milestone was in 2003 when Jindal Drilling became the first domestic company to enter the directional drilling business, which was hitherto dominated by multinational corporations.

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'Virtue I' was delivered in Dec, 2009 and it also started working immediately for ONGC's prestigious project in Mumbai high in January 2010 for a five year contract. Another rig 'Discovery I' was delivered two weeks ahead of schedule in September 2008 and started working immediately after for ONGC.

Company has progressed significantly during the past few years and its evident in the recently published prestigious Forbes list under the 'Asia's 200 Best under the Billion Group' where Jindal Drilling is among the 39 Companies from India who have made it to the list.

What are the future plans of the company?

Jindal Drilling is under process of restructuring and soon it will be demerged into two entities to mitigate risk better. Demerged entity Deepwater Drilling & Industries Ltd has plans to expand horizontally. Also we are evaluating opportunities to enter into the other services required in Oil and Gas offshore arena. ■