Drilling contractors order new drilling rigs in anticipation of continued strong demand

RECORD HIGH OIL and natural gas prices and the resultant demand for drilling rigs to explore and produce oil and gas has resulted in a mini-boom of new rig construction, both onshore and offshore, to fulfill present and anticipated demand. As of the end of August, drilling contractors and other companies had on order a total of 51 offshore rigs, including 42 jackup, seven semi-submersibles, one drillship and one tender unit.

It's a bit more difficult obtaining a firm number of onshore rigs under construction. However, the *Land Rig Newsletter* estimates that approximately 200 rigs will be added to the US rig market by the end of 2006. That figure is up from its previous estimate of 150 rigs. The estimated increase is a result of US drilling contractors as well as oil and gas companies continuing to announce new rig construction projects to meet demand.

OFFSHORE RIGS

Presently, the industry is seeing sufficient demand to absorb the 42 jackups under construction, most of which are due for delivery in 2006 and 2008, although scheduled deliveries stretch out to mid-2009 at the latest. Should oil and natural gas prices stay at their high levels, there should be enough demand to absorb all of the jackups currently being built.

Offshore rig newbuildings

Rig Owner	Rig Name	Design	Water Depth (ft.)	Order Date	Shipyard	Cost (MM $US)	Delivery Date
JACK-UPS							
A.P. Møller	Maersk JU Tbn1	CJ50-X100MC	350	3/15/2005	Keppel FELS	153	11/2/2007
A.P. Møller	Maersk JU Tbn2	CJ50-X100MC	350	3/15/2005	Keppel FELS	153	5/2/2008
A.P. Møller	Maersk JU Tbn3	CJ50-X100MC	350	3/15/2005	Keppel FELS	153	11/2/2008
A.P. Møller	Maersk JU Tbn4	CJ50-X100MC	350	3/15/2005	Keppel FELS	153	5/2/2009
Apexindo	Apexindo 202	Pacific Class 375	375	2/3/2005	PPL Shipyard Pte Ltd	134	1/16/2007
Awilco	Awilco JU Tbn004	KFELS MOD V B	400	8/2/2005	Keppel FELS	134	1/2/2008
Awilco	WilCraft	KFELS MOD V B	400	2/2/2005	Keppel FELS	125	1/1/2007
Awilco	WilPower	Pacific Class 375	375	5/19/2004	PPL Shipyard Pte Ltd	118	6/16/2006
Awilco	WilSuperior	Pacific Class 375	375	3/10/2005	PPL Shipyard Pte Ltd	121	5/2/2007
COSL	COSL 941	JU 2000	400	3/30/2004	Dalian New Shipyard	0	6/2/2006
COSL	COSL JU Tbn002	JU 2000	400	7/19/2005	Dalian New Shipyard	147	1/1/2008
Diamond Offshore	Ocean Scepter	KFELS MOD V Super B Class	350	5/3/2005	Keppel AmFELS	150	2/2/2008
Diamond Offshore	Ocean Shield	KFELS MOD V Super B Class	350	5/3/2005	Keppel FELS	150	2/2/2008
ENSCO	ENSCO 107	KFELS MOD V B Bigfoot	400	2/17/2004	Keppel FELS	105	12/16/2005
ENSCO	ENSCO 108	KFELS MOD V B Bigfoot	400	4/6/2005	Keppel FELS	117	4/1/2007
Gazprom	Arcticheskaya	Corrall 6500/10-30	328	3/16/1995	Zvezdochka Shipyard	100	7/2/2007
Gulf Drilling Internation	Gulf 004	KFELS MOD V B	300	11/17/2004	Keppel FELS	90	9/16/2006
Gulf Drilling Internation	Gulf 005	KFELS MOD V B	300	7/29/2005	Keppel FELS	130	1/1/2008
Japan Drilling	Hakuryu 010	Pacific Class 375	375	5/25/2005	PPL Shipyard Pte Ltd	130	2/16/2008
National Drilling	Al Hail	KFELS MOD V B 150 Middle East	150	10/2/2003	Keppel FELS	96	9/17/2005
Noble	Noble Ju Tbn001	JU 2000E	400	8/5/2005	Dalian New Shipyard	153	8/2/2007
Noble	Noble Ju Tbn002	JU 2000E	400	8/5/2005	Dalian New Shipyard	156	2/2/2008
Odfjell Drilling	Deepsea Ambassador	KFELS MOD V B	350	3/23/2004	Keppel FELS	114	5/4/2006
Odfjell Drilling	Odfjell JU Tbn2	KFELS MOD V B	350	3/19/2005	Keppel FELS	121	6/2/2007
Perforadora Central	Perforadora Central JU Tbn001	Super 116E Class	350	5/5/2005	LeTourneau	0	5/16/2007
Petrojack	Petrojack 001	Pacific Class 375	375	12/22/2004	Jurong Shipyard Pte Ltd	125	3/16/2007
Petrojack	Petrojack 002	Pacific Class 375	375	4/16/2005	Jurong Shipyard Pte Ltd	127	1/16/2008
Petrojack	Petrojack 003	Pacific Class 375	375	6/19/2005	Jurong Shipyard Pte Ltd	131	1/1/2009
PetroVietnam	PV Drillinbg JU Tbn001	KFELS MOD V B	300	1/4/2005	Keppel FELS	110	3/2/2007
Rowan	Bob Keller	TARZAN CLASS	300	7/31/2002	LeTourneau	100	9/2/2005
Rowan	Hank Boswell	TARZAN CLASS	350	7/31/2002	LeTourneau	100	12/2/2006
Rowan	Rowan Tarzan 004	TARZAN CLASS	350	7/31/2002	LeTourneau	100	10/2/2007
Scorpion Offshore	Scorpion JU Tbn001	Super 116 Class	350	7/6/2005	Keppel AmFELS	0	12/2/2007
Scorpion Offshore	Scorpion JU Tbn002	Super 116 Class	350	7/6/2005	Keppel AmFELS	0	5/2/2008
Seatankers	SeaDrill JU Tbn001	KFELS MOD V B	400	3/29/2005	Keppel FELS	129	8/2/2007
Seatankers	SeaDrill JU Tbn002	Pacific Class 375	375	4/5/2005	PPL Shipyard Pte Ltd	129	12/16/2007
Sinvest	Deep Drilling 001	Pacific Class 375	375	1/21/2004	PPL Shipyard Pte Ltd	110	2/2/2006
Sinvest	Deep Drilling 002	KFELS MOD V Super B Class	350	1/21/2004	Keppel FELS	126	4/2/2006
Sinvest	Deep Drilling 003	KFELS MOD V Super B Class	350	7/28/2004	Keppel FELS	126	10/2/2006
Sinvest	Deep Drilling 004	Pacific Class 375	375	2/15/2005	PPL Shipyard Pte Ltd	120	6/2/2007
Sinvest	Deep Drilling 005	KFELS MOD V Super B Class	375	2/15/2005	Keppel FELS	133	6/2/2007
Sinvest	Deep Drilling 006	KFELS MOD V Super B Class	350	8/5/2005	Keppel FELS	145	8/2/2008
SEMIS							
A.P. Møller	Maersk Semi Tbn001	DSS 21	9842	5/31/2005	Keppel FELS	0	8/2/2008
A.P. Møller	Maersk Semi Tbn002	DSS 21	9842	5/31/2005	Keppel FELS	0	4/2/2009
Eastern Drilling	Eastern Semi Tbn001	CS-50 MkII (N)	10000	4/16/2005	Samsung Heavy Industries	550	1/1/2008
NIOC	Iran Alborz	4000	3281	3/23/2001	Sadra Shipyard	300	1/1/2007
PetroMena	Petromena Semi Tbn001	ExD	10000	8/3/2005	Jurong Shipyard Pte Ltd	400	1/2/2010
SeaDrill	SeaDrill Semi Tbn001	ExD	10000	6/21/2005	Jurong Shipyard Pte Ltd	390	3/2/2008
Seatankers	SeaDrill Semi Tbn002	ExD	10000	6/21/2005	Jurong Shipyard Pte Ltd	390	5/2/2009
TENDER							
Keppel FELS/Smedvig	West Tender Tbn001	Tender	6562	5/18/2005	Keppel FELS	105	12/2/2006
SHIPS							
Stena	Stena Drillship Tbn001	Drillship	10000	8/3/2005	Samsung Heavy Industries	520	12/2/2007

Source: ODS-Petrodata

Most of the jackups are being built in Singapore, so several jackups are likely to see their first opportunity in that market.

The Middle East is another region that will likely attract numerous jackups due to the anticipated future natural gas and LNG projects. In fact, **Rowan Companies** will be moving five of its US Gulf of Mexico jackups to Saudi Arabia this year and early 2006 for long-term work.

That brings up an interesting potential development. With demand in the Mexican Gulf and rigs leaving the US Gulf, there could be a shortage of jackups in the greater Gulf of Mexico.

Interestingly, all but six of the jackups were ordered speculatively, without drilling contracts to back them up. Half of those were for the accounts of national oil companies. The two most recent jackups, order by **Noble Drilling** at Dalian New Shipyard in China, are supported by term contracts from shell upon delivery in 2007 and 2008.

The seven semisubmersibles are all being built in Far East and Southeast Asian shipyards. Due to their longer construction time, the majority are due for delivery in 2008 and 2009, with one unit scheduled for delivery in 2010.

Keppel FELS is building two KFELS 'B' Class jackup rig for Awilco similar to the one pictured above. The rigs are rated to drill in up to 400 ft of water. Delivery is scheudled January 2007 and January 2008. Photograph courtesy of Keppel FELS.

Tom Kellock, Senior Analyst for **ODS-Petrodata**, also noted that about 75% of the companies building rigs are not the large established contractors, and several are newly established companies, not unlike the scenario in the late 1970s and early 1980s when everyone was trying to build a rig. That has changed somewhat, however.

“Previously it was the speculative companies (that were ordering rigs),” Mr Kellock explained. “Now we are seeing the established contractors such as Maersk, Diamond Offshore and Noble that are moving into the market.”

It’s anyone’s guess how many more offshore rigs will be ordered.



The sequence of photographs show the undocking of the first Sinvest jackup that is currently under construction at Keppel FELS. This is a major milestone representing the successful fabrication of the hull and major equipment on deck. The rig is scheduled for delivery in early April 2006. The The KFELS MOD V Super B Class design is capable of working in up to 350 ft of water and drilling HPHT wells to 35,000 ft. The rig, named Deep Drilling 2, is one of four identical units the yard is building for Sinvest. Photos courtesy of Keppel FELS

One possible constraint is shipyard capacity. There is some hesitancy to order at an untried shipyard. The established yards such as **Keppel FELS**, **AMFELS** and **LeTourneau**, while they may be able to squeeze out another rig or two, are nearing their capacity for reasonable delivery times.

New Dalian Shipyard, where Noble ordered its two new jackups, is already building a similar unit for **China Oilfield Services Ltd (COSL)** so the yard does have a track record, plus Noble will be refurbishing its deepwater semisubmersible Noble Dave Beard at the yard.

Depending upon when the rigs were ordered, contractors could have bought jackups for around $100 million or slightly less. Currently, only two jackups under construction are priced below that level while several are said to be right at $100 million. However, recent jackup construction costs are now around $150 million. For example, the two Noble Drilling rigs ordered recently were priced at $153 million and $156 million.

One can almost tell what year a jackup was ordered from the construction cost, and it also points up the increased cost of building a jackup. Many of the rigs ordered in 2002 and 2003 and scheduled for delivery in 2005 and early 2006 were ordered at a cost of around $125 million. Those costs have increased by about $25 million for recent orders and likely will be even higher for subsequent orders.

Semisubmersible construction is extremely expensive. Additionally, anyone with enough money for one also must wait a minimum of three years for a new one to be built. Some units are scheduled for delivery in the fourth year following an order.

The semisubmersibles under construction to have price tags ranging of around $400 million. One is said to cost $500 million.

The same is true for the lone drilling being built. That cost is $520 million. It was ordered earlier this year and is scheduled for delivery in late 2007.

The primary reason is significantly higher steel prices. Rig equipment costs have risen dramatically the past couple of years, and lead times for delivery of that equipment continues to increase.

LAND RIG CONSTRUCTION

By mid-2007, *The Land Rig Newsletter* estimates, an additional 300 land rigs will be needed in the US. The publication estimated that land rig fleet expansion amounted to approximately 150 individual units to be delivered by the end of 2006.

Despite as many as 200 new rigs added to the US fleet by the end of next year, it is estimated that demand for rigs will exceed supply through 2006.

That included 70-80 newbuilds, which consists of approximately 40 completely new rigs and the balance made up of newly created units assembled with a combination of new and re-manufactured components. Refurbishments, upgrades or reactivated rigs comprise the second 70 or so rigs added to the fleet.

That figure was increased to about 200 rigs a short time later based upon the arrival of Chinese-built rigs, according to the publication, the first of which is operating in Colorado.

Among the drilling contractors with significant newbuild and/or reactivation and refurbishment programs are **Helmerich & Payne IDC**, which is building a couple dozen of its FlexRig series rigs, and **Nabors Industries**, which announced a potential $1 billion newbuild program totaling 100 rigs, according to the publication. Nabors' rigs would be utilized in international markets as well as the US.

Additionally, operators are building their own rigs in order to ensure they will have equipment for their E&P needs.

Compared with new offshore rig construction costs, onshore rigs are a veritable bargain. According to figures from *The Land Rig Newsletter*, a 1,500 hp unit with a top drive drilling system and drill pipe averages around $10.5 million.

Refurbishment costs are increasing quickly, from $3 million to as much as $7 million. As mentioned above, long lead time for various pieces of equipment is a problem, with contractors having to wait 10-12 months for some components, although a typical lead time is 6-9 months. However, that is still up from six months earlier this year. ■