

PARKING PLAN: Using the ABS Guide for Lay-Up & Reactivation of Mobile Offshore Drilling Units, asset owners have a systematic way to deactivate complex assets, such as this drillship, and bring them back online safely.

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Stacked with care

In the face of ultra-low rig utilisation rates, drilling contractors are stacking more rigs than ever. Laying up a drillship incorrectly can pave the way for damage to the structure and crucial systems, costing extra time and money to reactivate the asset, writes **Jennifer Pallanich**.

Operators dropping or slimming drilling programmes have left drilling contractors with few options but to stack rigs at a pace reminiscent of the bust cycle of the late 1980s to early 1990s.

“But newer rig designs being stacked are much more complicated than they were 30 years ago,” says Dave Forsyth, chief surveyor offshore at classification society ABS. “High-spec drillships are very complicated pieces of equipment. They’re controlled by a lot of programmable logic controllers. There are a lot of computer systems on board. You

can’t just close the door and walk away.”

During the downturn of the late 80s and early 90s, many rigs were laid up for four to five years.

“Basically, some of these rigs were just left at the dock. They locked the doors and walked away. When we tried to reactivate them, there was a lot of steel wastage that had to be renewed, and equipment had to be replaced or overhauled,” Forsyth says.

It often took four to five months to return a rig to safe working condition, and more if long-lead items were involved, which might be the case if the asset had been used as a “spare parts” resource, he adds.

James Brekke, account

manager ABS Global Offshore, says drilling contractors must decide whether it is more economically viable to keep the rigs available and ready to go back to work at a minute’s notice or put the rigs into cold storage only to bring them back into service after the industry turns around.

In a warm stack, minimal personnel remain on board to run and maintain certain systems. Warm-stacked rigs can more quickly return to service than cold-stacked rigs.

In a cold stack, no personnel remain onboard. Preparation for cold stacking might include dehumidification and corrosion protection, care

for computer equipment and monitoring.

However the drilling contractor decides to store a rig, a primary consideration is that the asset remains secure. For instance, dynamic positioning systems will no longer be used, so the floater must be moored. Such a change requires modifications such as anchors and mooring lines. The rigs also should be placed in benign waters, where they will not be affected by hurricanes or typhoons, unless people will remain available to handle or move the rig during major storms.

“It has to be secure, wherever it is,” Brekke says.

Photo: ABS

IDLE IRON: Laid up rigs off Invergordon, Scotland, are indicative of the increasingly common choice among drilling contractors to stack inactive assets.



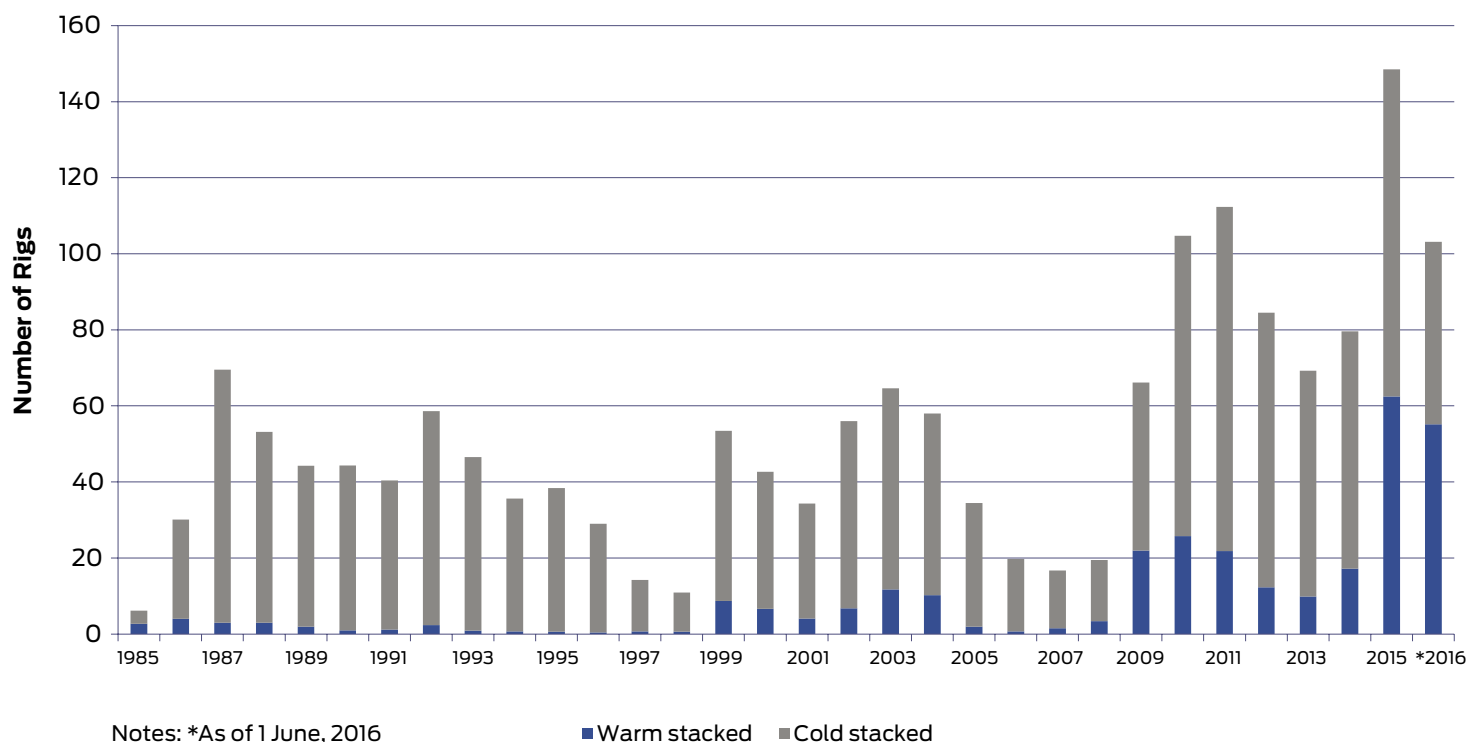
Photo: ABS

“High-spec drillships are very complicated pieces of equipment ... you can’t just close the door and walk away.”

Dave Forsyth, ABS

upstream technology

WORLDWIDE COUNT OF STACKED JACK-UPS, SEMISUBS AND DRILLSHIPS SINCE 1985



BY THE NUMBERS: IHS placed the average warm and cold-stacked rig count through to the end of May at 103, which is about 12% of the current supply. The total is down from last year, which averaged about 149, or 17% of the supply, stacked. IHS attributes the utilisation rate change to a reduction in the total fleet supply following a number of rig retirements and scrapping announcements. The number of warm-stacked units skyrocketed last year, as rig contractors attempted to keep their rigs available for work in the event of a market recovery. IHS notes this is a reversal of the trend from the late 1980s downturn, when rigs that were stacked were unlikely to return to active service. Following the 1986 oil crash, about 70 units, or 11% of the 1987 supply, were warm or cold stacked.

Source: IHS RigPoint

Photo: ABS



Photo: ABS



“There’s a standard that (drilling contractors) can do this work to that gives them that security.”

Jim Brekke, ABS

HANDS ON: Preserving equipment and machinery on board creates a safe environment and a lower risk of safety issues for warm-stacked or cold-stacked units.

» **Planning process**

Contractors either craft their own stacking plans or work with a classification society like ABS to create a systematic programme that addresses structure and equipment preservation as well as location and reactivation of the asset.

When developing a stacking plan with a classification society, Brekke says, “there’s a standard that they can do this work to that gives them that security”.

Without a pre-approved cold-stack plan, Forsyth says, it can take one to three months to survey the rig and bring it back into service, as long as the rig has been well preserved during the lay-up. With a pre-approved plan, he adds, the same rig could be back on contract in under a month.

Reactivating a rig means ensuring the rig can work safely when it returns to service. Special focus is given to ensure there are no computer glitches and that all systems function properly. Such plans also cover a modified annual survey, which varies from a working rig’s survey.

“It gives the owners

an annual survey that’s appropriate for a rig that’s laid up,” Brekke says. “If a rig has not been working for a few years, some equipment does not need the same type of survey that would be required if the rig were in operations. If the rig were warm stacked, the survey would need to cover all the equipment that deals with taking care of people on board — life-saving equipment and so on.”

Forsyth notes that while jack-ups are “a lot less complicated” than semisubmersibles and drillships, it is crucial that the jacking gear be properly preserved. This can be as simple as filling the gear boxes with oil once the jack-up is on location and has been jacked up to the appropriate air gap. While this is not complicated to do, he says, this step was not done much in the late 1980s and early 1990s when so many jack-ups were stacked.

“Most of the jack-ups that are being laid up now are not being laid up in accordance with our plans, so we don’t know how the lay-up is being done,” he adds.

As of this year, ABS offers five different life-cycle notations for rigs it classifies, an expansion of the three life-cycle notations of the past. The original three included an option where a laid-up rig is out of service but without a formal plan with ABS for the lay-up. Options two and three include both warm and cold stacks, where ABS reviews the stacking procedure.

The two new notations are enhanced warm and enhanced cold lay-ups. The enhanced status denotes a plan that covers all the basics for the general warm or cold-stack status but adds such things as a risk analysis of the lay-up location and includes specific procedures for elevated site assessment for jack-ups and mooring analysis for drillships and semis.

“We built in a lot of lessons learned from the last time rigs were laid up for long periods of time,” Forsyth says.

The addition of the enhanced notation stems from a request from drilling contractors that were “getting pushback from their underwriters and insurance” companies about

how rigs were being laid up, he says.

“Sixth-generation drillships are worth probably \$500 million, so they want to know the asset is being maintained to a standard.”

What’s new in ABS’s latest lay-up guide is the option to provide reviews during lay-up and reactivation, along with surveys throughout, including annual lay-up surveys. Brekke says this systematic approach should mean that an owner’s up-front investment could result in a faster reactivation.

For instance, if an operator asks a drilling contractor to bring a laid-up rig into service in two months, the fact that the drilling contractor had followed a systematic plan for lay-up would pave the way for a successful reactivation. Late delivery would mean loss of dayrate for the rig owner, not to mention a tarnished reputation for showing up late, Brekke notes, while the operator would suffer delayed revenue in their field.

“This lay-up guide helps bring that predictability,” he says. □