

Cold Cutting Applications for Offshore Platforms

By Tim Sheehan

Recent changes in casing and pipe management have significantly improved the safety and efficiency in operating offshore platforms from wellhead installation and platform maintenance to full decommissioning.

New wellhead designs require precision casing cuts to assure their proper installation along with a close tolerance bevel on the outside diameter of the casing to prevent damage to the critical seals. New light weight, tight tolerance, machining equipment, which can be mounted directly to the outside diameter of the casing, allow for finish and dimensional tolerances that, historically, have only been available from stationary machine shops.

Severe weather and regulatory requirements have required decommissioning of non-producing platforms. This type of work in a potentially hazardous environment has expanded the need for safe and effective cold cutting technology. For example, portable power hacksaws adaptable for underwater and remote use have enabled operators to safely and efficiently implement cutting solutions without the risk of creating an explosive environment. Proper application of diamond wire saws and hydraulic shears can also be safely utilized when properly managed.

The above cold cutting technologies can also be used on an operating platform to perform pipe, flange or valve repairs. This allows for continued production while the repair is being accomplished, which results in maximum up-time and improved production from the unit.

Equipment alone is not the total solution. The financial and environmental risks are so great that it is essential to partner with a company that understands the special requirements of off-shore wells and provides the expertise to implement that knowledge, including application support, properly designed equipment for sale or rent, on-site technicians to operate the equipment, if required, and industry experience that assures the operator that the job will be completed safely and on time.