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Equipment reliability matters

Reliability matters. Over the past several years, our industry has learned this lesson the hard way. In the same way that we change the oil and tires on our cars for dependable transportation, oilfield service companies need equipment and partners that they can rely on for their E&P operations—something that can be well-managed, if not entirely controlled, through proper equipment selection and maintenance.

Equipment reliability allows for higher job intensity, minimal non-productive time (NPT), effective cost control, and better manpower utilization. Without next-generation equipment and the lack of a proper, preventative maintenance program in place, operators run the risk of significant equipment failures in the coming years.

Higher job intensity. There have been numerous advances in the industry, leading to higher efficiency on the job site; this, in turn, drives higher intensity. Multi-well pads have become the standard, allowing equipment to stay in operation longer on location. New down-hole tools and methods have dramatically reduced cycle times between fracturing stages while simultaneously increasing the overall number of stages per well to increase return. Higher pressures and greater proppant concentrations are being used to re-fracture older wells and maximize the returns on new ones.

These examples, and more, coupled with higher available horsepower onsite, have significantly increased the demand and wear on oilfield equipment. All pieces of equipment on location are racking up more “work hours” in much less time than the legacy generation of equipment was designed to endure. All of which reinforces the advantages of operating a new generation of equipment designed to handle the higher job intensity of today’s well pads and work sites. Mechanical equipment needs to be capable of reliable, nearly-continuous duty, with longer-lasting consumables,

to control NPT and total cost of ownership (TCO).

Minimum non-productive time. While some NPT can be a necessary evil to maintain major equipment onsite, minimizing NPT is vital to sustaining profitability. When there is an expected maintenance interval, replacing normal-wear items and other preventative maintenance can be scheduled easily, so it does not cause a disruption. One unexpected failure; however, even a minor one, can bring the productivity of the entire job site to a screeching halt.

Worse yet, if the component is linked to others, it can trigger a chain reaction and compound the problem by damaging other elements onsite. Equipment reliability is, therefore, vital in achieving the lowest NPT possible; this is where the benefits of next-gen equipment really shine. With the intense, faster-paced environment and longer run-hours mentioned above, next-gen equipment and the newer technology available can really transform a job site’s productive timetable. Unexpected “maintenance shutdowns” can be virtually eliminated, while planned maintenance intervals can be shorted in duration and potentially decreased in frequency. All of this leads to a truly “minimum NPT,” coupled with a “maximum PT.”

Cost control enabled. Anyone who has ever lost his or her job, or borne the burden of laying off good employees, understands the importance of cost control. Nowhere is this more prevalent than in a “down” oil and gas market, where every nonproductive activity must be trimmed for companies to survive.

Efficient cost control has enabled the recent upswing in demand for drilling and completion services in North America, despite relatively low oil prices. There are great cost-savings to be had through improved equipment reliability at every stage of the E&P process. Harsh operating conditions magnify that reality in the drilling and pressure pumping arenas. Longer-lasting pumps, fluid ends and consumables

help reduce maintenance spending and minimize NPT, allowing equipment to stay on location and run longer.

Manpower needs reduced. Equipment reliability can have a sizable impact on manpower planning and utilization, as unplanned or frequent failures drive up the need for more hours repairing and less hours running. As some might suggest, “if you are not spinning, you are not winning.” Manpower costs are accentuated in sparsely populated areas frequented by the oilfield industry. Increased demand for manpower proliferates operating costs. Safeguarding profits by minimizing manpower costs is best achieved by implementing a good maintenance program, utilizing long-life components and leveraging a trusted OEM equipment partner.

Although many companies were not in a position to upgrade equipment and put a preventative maintenance program in place the last few years, the time to consider investing in your equipment and processes is now. As oilfield equipment is pushed harder for longer periods of time, it is in our best interest to put equipment reliability first.

As we have exhibited for 150-plus years, Gardner Denver is dedicated to providing the highest reliable equipment available in the market. We are an innovation leader for drilling, frac and well service pumps, and we unceasingly focus on designing, developing and deploying next-generation technologies to enhance performance. Additionally, our Experience 360° Aftermarket Team is steadfast in our devotion to help companies improve equipment performance, minimize NPT and expand operating margins. **WO**

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