

Tech Talk is a regular feature of *Concrete Openings* magazine, focusing on equipment, maintenance and operational issues of interest to concrete cutting contractors. Readers wishing to have a particular subject addressed can call or email CSDA with their suggestions at 727-577-5004 or [cherry@csda.org](mailto:cherry@csda.org).

## Changing the Preventive Maintenance Paradigm: New Equipment—New Responsibilities

By Ron Rapper

Over the past five years, the professional concrete cutting industry has seen many innovations and improvements in the equipment that is utilized on a daily basis. High horsepower, diesel-powered flat saws have largely replaced saws powered by gasoline engines. Several manufacturers offer multi-speed blade shafts so that bladeshaft speeds can be properly adjusted to the blade diameter being used. Wall saws are lighter, more powerful, and have remote control capability. In addition to the traditional hydraulic and pneumatic wall saws, we have seen a rebirth in the use of hi-cycle equipment. European-style, high pressure-low flow hydraulics have appeared on the scene. There are powerful main frame wire saws available, whereas only a few years ago most customers used wire saw conversion kits for their wall saws. All of these innovations were developed to not only increase production, but also make the operator's daily tasks safer and less physically demanding. Equipment that is lighter in weight, has less vibration, and is ergonomically designed to enhance safety, comfort and production has brought forth a new generation of equipment to North American cutting contractors.

Sawing and drilling concrete is a very physically demanding job. Consider for example the traditional radial arm and post style wall saws. They have been the mainstays of the industry for over 30 years. They are productive and practically bulletproof machines, however these saws are heavy. They are heavy enough for two men to carry, but due to their compact nature, only one man usually transports it up and down ladders and through mud, dirt or sand. At weights that exceed 115 pounds, an operator can become fatigued during the course of the day. New style saws are just as productive, and are coming in at weights that are almost 50% lighter. With a nationwide consensus that attracting new operators to our industry is a major challenge, one benefit of the new style of equipment is that it can extend the productive career of an operator as he or she gets older. The equipment that is now available will hopefully help to alleviate much of the brute, physical nature of sawing and drilling work, thus making a career in the industry even more attractive.

The new generation of equipment dictates new responsibilities, responsibilities that require more focus and must be shared by all



manufacturers, company owners and cutting operators. This equipment has required more engineering as well as research and development costs. It is more expensive to manufacture, more expensive to purchase and more expensive to maintain. Equipment breakdowns can never be eliminated. As good as the new style equipment is, we cannot get away from the harsh environment in which it is used. Regular exposure to water, dust and slurry inevitably takes a toll. We can however, take steps that are necessary to help minimize downtime and repairs

In today's competitive marketplace, equipment that breaks down or doesn't perform at peak efficiency due to lack of preventive maintenance will jeopardize profits. There must be greater focus and emphasis on in-the-field preventive maintenance, a point that cannot be overemphasized. Too often equipment only receives attention when it

breaks down. Preventive maintenance, performed by the operators in the field, can greatly reduce the incidence of costly breakdowns, along with minimizing lost production time. To accomplish this, manufacturers have to do their part by providing in-depth training to operators. Time spent with a factory field technician is invaluable. Training must focus on proper use and safe operation of the equipment that is being used, as well as on detailed maintenance procedures that need to be carried out either daily, or on a scheduled basis by the operators. These maintenance procedures should be coupled with routine periodic inspections by company mechanics.

Operating manuals and instructional CDs are extremely important, and should be read by all operators prior to operating the equipment. While emphasis on preventive maintenance begins with the manufacturer during start-up training, it needs to be reinforced by the company owners, field superintendents, foremen and shop mechanics. This new generation of equipment requires a higher level of attention and respect, thus the people who use it daily need to take on a greater role in keeping it in optimum operating condition.

*Ron Rapper is the national sales manager of the Professional Division of Husqvarna Construction Products North America in Olathe, Kansas. He can be reached at 913-928-1007 or by email at [ron.rapper@husqvarna.com](mailto:ron.rapper@husqvarna.com).*