The self–erecting Renegade is a highly mobile concrete batch-plant assembly, comprising 60-ton silos; three aggregate storage bins with swing-up heap plates and sand-bin vibrator; a 30-in. horizontal belt feeding a 36-in. incline mixer-charging conveyor; cement batcher with air slide for quick and even discharge; and, a water system including 500-gal. integrated surge tank and weigh batcher, plus 7.5-hp, 2-in. water pump.

R&S has it made with Renegade

Following its announcement of a new Renegade mobile transit mixed batch plant at World of Concrete last year, R&S Industries Inc. recently delivered the first model to Ft. Hood in Killeen, Texas, for an operator eyeing long-term contracts at the massive U.S. Army installation.

The Renegade is a highly mobile, self-erecting plant designed by R&S engineers to achieve primary goals of a) mobility and quick set-up time without the need for a crane; and, b) minimal foundation requirements due to a self-leveling hydraulic system and heavy-duty, screw-jack landing pads. Plant designers also targeted high production rates, since demonstrated by units that consistently maintain 10-yd. load cycle-times less three minutes, or 200 yd./hour.

Moreover, while Renegade was in the drawing phase, R&S engineers addressed customer concerns regarding the lack of bin and silo storage capacity among existing models and the need for overhead bins and charging conveyors. In addition, customers requested careful attention to hydraulics, noting that all-hydraulic plants available at the time were complicated and problematic in hot and cold weather.

By contrast, Renegade's hydraulic system is used for erection only; and, its design incorporates industry standard components, thereby improving availability of parts. After erection, use of hydraulics is eliminated, as electric-over-air components function for all gate controls. Reliable in extreme environmental conditions, Renegade's electric-over-air components are of the same type used on the vast majority of concrete batch plants industrywide, offering operational ease and efficiency, plus minimal downtime.

A self-contained hydraulic system and heavy-duty hydraulic cylinders are used to erect the main 60-ton silo, as well as an optional 60-ton auxiliary silo mounted on its own transportation trailer. Both silos are equipped with a telescoping top handrail system, integrated ladders, material fill lines, and dust-collection ducting.

Three decumulative weigh bins provide a total capacity of 102 tons for aggregate storage. A 36-in. inline conveyor transfers aggregate to the mixer trucks.

The plant transport fifth-wheel assembly is transformed into a safety deck and mixer truck dust-collection shroud by use of a hydraulic winch. Integrated safety ladders and decks were a priority in designing the Renegade, R&S officials note, adding that comparable mobile plants lack such features or require additional time and labor for on-site installation.

The water system comprises integrated 500-gal. weigh batcher and surge tanks, factory-mounted in the main silo structure with a 2-in. water supply pump. Optional equipment includes a third trailer with central dust collector, controls, control room, and generator featuring integrated power and computer wiring. *—R&S Industries Inc., Early, Texas; 325/646-6641; www.randsinc.com*

The Renegade fifth-wheel system converts to a safety deck for servicing the mixer-charging conveyor head section, aeration blower and manifold, and cement/water-batcher discharge gates. It also acts as the truck dust shroud with factory-installed main ducting. The system is raised and lowered by a hydraulic winch.

Ten heavy-duty leveling jacks swing up for travel, while steel landing pads are stowed in a furnished storage box.