Progress Rail’s Maintenance-of-Way (MOW) division was born out of the movement toward mechanization in the railroad industry and introduced the first Kershaw Ballast Regulator in 1945.

Today, Progress Rail supplies Kershaw MOW equipment, providing machines to all Class I railroads, transit and short lines and contractors around the world.

Our Kershaw Model 47-6 Tie Replacer can remove or insert wood or concrete ties up to 18 feet long. The puller/inserter head operates on a slewing ring to allow functionality and versatility from either side of the track, without turning the machine. Rail lifters grip and lift the rail for tie insertion or removal. The rail lift height is automatically controlled for consistency. One operator controls all functions of the machine with two joysticks and foot pedals. The puller head is capable of 16,500 lbs. of force and the kicker head is capable of 14,000 lbs. The inserting force is 14,000 lbs.
Description: The Kershaw 47-6 can remove or insert wood or concrete ties up to 18 ft. long. Rail lift height is automatically controlled.

Frame: Welded construction I-beam side members with tubular cross members.

Weight: 36,040 lbs.

Engine: Caterpillar C7.1 rated at 250 hp @ 2200.


Inserting Force: 14,000 lbs (62 kN).

Propel System: Hydrostatic drive. One two-speed hydraulic motor coupled to front end rear axle with direct chain drive. Travel speed is 30 mph.

Transmission and Axles: 5 inch diameter solid steel alloy axles driven by direct chain drive from hydraulic motor at front and rear.

Wheels and Brakes: 28 inch diameter, one-piece cast steel wheels bolted to axle hubs, insulated or non-insulated. All wheels equipped with external individual brake shoes. Service brakes are air applied/ spring released. Emergency/parking brakes are spring applied/air released.

Removal Stroke: Puller head: 6 ft, Kicker: 2 ft, Optional Flipper: 3 ft. The puller head rotates on a slewing ring to operate on both sides of the machine and can operate at a vertical angle of up to 55 degrees and a lateral angle up to 11 degrees.

Electrical System: 24 volt DC negative ground, engine driven alternator. Color coded and numbered wiring. 12 volt system optional.

Air System: Air compressor is engine oil lubricated, water cooled. System pressure is 120 psi. 613 cu. in. capacity air tank. Service brakes are controlled by a pressure reducing valve and the parking brakes by a manually operated dump valve.

Hydraulic System: Double pump drive with closed loop propel pump and two load sensing pressure compensated pumps for machine functions. Electric actuated proportional and non-proportional valves. Electric emergency pump for clearing machine. Hydraulic oil is filtered through a 100 mesh (145 micron) suction screen and a 10 micron return line filter.

Cab: Enclosed air conditioned cab with heater and pressurizer. Equipped with joystick and foot pedal controls. Full instrumentation.


Special Features: Tie kicker, pivoting gripper arm, rotating puller/inserter head allows working from either side without turning machine. Excellent visibility of both rails, puller/inserter head, and kicker.

Track Gauges: Designs are available for 36 inch to 66 inch gauges.

Optional Equipment: Cold weather starting aid, turntable, pre-warning automatic shut-down, spark arrestor/aspirator, strobe light, electric fuel gauge, back-up alarm, fire extinguisher, flipper cylinder for extended reach, passenger seat, west coast style mirrors, 3rd rail tie clamps, pressure filters, and window guards. Other options are available upon request.