New Product

Chipping Hammer Makes Light of Cleaning Castings

One of the most physically challenging jobs in a metalcasting facility is working in the cleaning room, removing sand and slag from large castings. A chipping hammer often is used to grind away the sand to leave a clean part. But, the hammers are heavy and unwieldy, making the task arduous during an eight-hour shift. Grind-All, Morden, Manitoba, Canada, saw the need for a lighter tool and made the decision to develop a solution. The plan was to create a tool that:

- weighed less than 10 lbs. (4.54 kg) to reduce user fatigue and increase productivity;
- hit as hard as a full size 3-in. (7.62-cm) stroke chipping hammer;
- could be easily disassembled in the field for repair and maintenance.

Grind-All developed prototypes of the tool, followed by a limited production run, before committing to full production.

The Mini 4-Bolt Chipping Hammer is 100% made and assembled in North America and machined and ground to tolerances tighter than the industry standards. The patented two-step piston design cycles at 2,750 blows per minute despite a stroke of nearly 3 in. and a bore of more than 1 in. (2.54 cm). The rapid cycling rate delivers powerful blows to remove sand, slag or ceramic from the impact zones and surrounding areas. The tool hits as hard as a full size 3-in. stroke chipping hammer despite significant weight reduction. A full size chipping hammer can weigh 15 to 18 lbs. (6.8 to 8.16 kg) and deliver 12 to 15 ft.-lbs. of energy per blow. The 14.25-in. (36.2-cm) long Mini 4-Bolt delivers 15 ft.-lbs. of energy per blow at 10 lbs., including the retainer.

The tool was a welcome addition to the cleaning room at iron casting facility Prospect Foundry, Minneapolis. "I have employees waiting in line to use the tool," said Al Sartwell, cleaning room supervisor.

The lighter hammer has helped Grind-All's customers increase production, reduce downtime and offer incentive to their workforce.

The Grind-All chipping hammer (left) is smaller than a typical 3-in. stroke hammer, but packs the same power.

"This tool really gets the work done," said Dave Blakely, cleaning room supervisor at AmeriCast Technologies' Atchison Steel Castings, Atchison, Kansas. The steel caster produces castings for the mining, railroad, construction, valve and military industries. "Our castings are large, and the worker has to hold the tool horizontally. So the lighter tool makes the job much easier, and it hits harder than our other tools."

The Mini 4-Bolt is ideal for cleaning castings and forgings, as well as refractory, gunite and brick work. It is designed to use the same standard 0.68 round or 0.58 hexagonal shank chisels used in the industry today. The retainer accommodates oval collar chisels, but there is an optional quick-change retainer that fits round chisels. ***MC***

Visit www.grindall.ca for more information.

The handheld Mini 4-Bolt chipping hammer weighs 10 lbs. and measures 14.25 in. long.