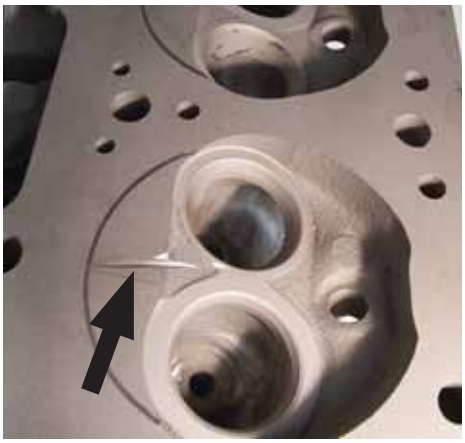

Grooved cylinder heads are said to boost power and result in better fuel efficiency.

Grooving Heads To Save Fuel Catching On Fast

As gasoline stays at historically high price levels, everyone paying at the pump is looking for ways to economize. In the past few years FARM SHOW readers have written us describing how a simple process of "grooving heads" can cut fuel use by 20 to 40 percent. FARM SHOW reader Frank Akins of Leavenworth, Kan. wrote that a friend of his had grooved cylinder heads on his Dodge 360 cu. in. race car engine (Vol. 32 No. 1). He experienced greater mid-range torque and better fuel efficiency. John Schrock, a repairman from Jamestown, Penn. and his uncle Robert grooved pistons on an Imperial Diesel and saw 25 to 30 percent fuel savings. Robert also ground a 3/32-in. deep by 1/16-in. wide groove in heads on a small diesel engine and says, "I figure I gained 50 percent more power."

Fred Balk, a retired millwright in Michigan, contacted us recently and said he has used the grooving process on three Cub Cadet KT17 engines. "I put the heads in a Bridgeport milling machine at a 2 degree angle. I use a 1/16-in. ball nose end mill and put a shallow groove at the squish area and deeper toward the center."

Balk says the first heads that he grooved were on a Cub Cadet 782 that was very difficult to start, especially in cold weather. "After I did the grooving, we couldn't believe how well it started. It turns over once and pops to life."

"This process has been around quite a few years," Balk says. "In fact there's a patented process claimed by an Indian engineer Somender-Singh (www.somender-singh.com). I've heard of people in the drag racing and high performance car business that have done it with good success," Balk adds.

Somender-Singh claims that additional nitrogen being squeezed through the grooves disperses the combustible oxygen molecules more efficiently into the fuel. That efficiency leads to increased torque, increased low-end power, and overall fuel savings with lower emissions. Engines burn cleaner at lower operating temperatures and the capacity for a more efficient smooth running engine.

Somender-Singh writes that "this simple but radical design change to squish areas and configurations enhances progressive turbulence in the charge close to the skin of the combustion chamber and further directs the (added) turbulence toward the igniter followed by multiple flame front propagation."

That's a complex technical explanation for a laymen's benefit that shows more power and fuel savings of up to 42.5 percent.

Contact: FARM SHOW Followup, Fred Balk, 3119 North Custer Rd., Monroe, Mich. 48162 (ph 734 243-6364; fredbalk@chartermi.net).

Wand tubing on the Radiator Genie is small enough so you can get into confined areas, yet big enough to create a lot of force with air or water.

First-Of-Its-Kind Wands Clean Out Radiators

"It's designed to clear out every nook and cranny of your machine's cooling system," says Jerry Crum, Okemah, Okla., about his company's new "Radiator Genie".

It consists of a pair of 23-in. wands that are sold in a set. One wand hooks up to an air compressor hose and the other to a garden hose. The handle on each wand is equipped with adjustable pressure. To operate, you just squeeze a lever on the handle.

A "pinched down" fan head is designed to fit into the engine's cowl and between the fan blades, where it can be positioned at the correct angle to blow directly through the radiator coils and exert maximum pressure to the back side of the radiator.

"It looks like a simple tool but a lot of thought and design went into it," says Crum. "We tested it for two years with no product failure. The wand tubing is small enough so you can get into confined areas, yet big enough to create a tremendous amount of air force."

There's a real need for a better radiator cleaning tool, says Crum. "Today's cab tractors have high efficiency cooling systems with downsized radiators and small cores. The radiator, air conditioner cooling coil, and hydraulic coolers are all sandwiched in a very confined space. There was nothing on the market to reach into such confined areas."

A pair of 23-in. wands are sold in a set. One wand hooks up to an air compressor hose and the other to a garden hose.

He says the Radiator Genie also works great on RV's, motorcycles and 4-wheelers. It's even used by homeowners to keep their central air conditioners clean.

As to whether you should use air or water, he says air is probably most popular. "However, if you want to do a really thorough cleaning job you can use air first and then water. Your radiator will look like new again."

A set of 2 wands sells for $34.95 plus S&H.

Contact: FARM SHOW Followup, Jerry and Sandra Crum, Cow Creek Ranch House LLC, 106043 N. 3840 Road, Okemah, Okla. 74859 (ph 303-915-9092; crum@cowcreekranchhouse.com; www.radiatorgenie.com).

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