

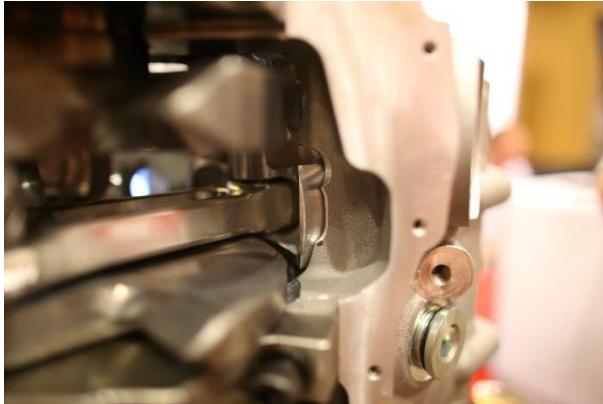
PRI 2015: Titus Performance Shows Off 500ci Cleveland Short-Block

By [JASON REISS](#) DECEMBER 11, 2015



[Titus Performance Products](#) [debuted their Titus Ford Cleveland block](#) last year at PRI, and owner Mark McKeown hinted that the platform had serious performance potential. He's back with it this year, displaying a short-block with monstrous 500-inch potential and a number of other advantages for use in all sorts of motorsports and street applications.

"We use the Cleveland platform because it has a raised cam, compared to a Windsor. The engine uses a 4.500-inch stroke, and when combined with the 4.202-inch bore, nets 499.250 cubic inches, so we have to claim it as a 500 cubic inch engine in competition," says McKeown.

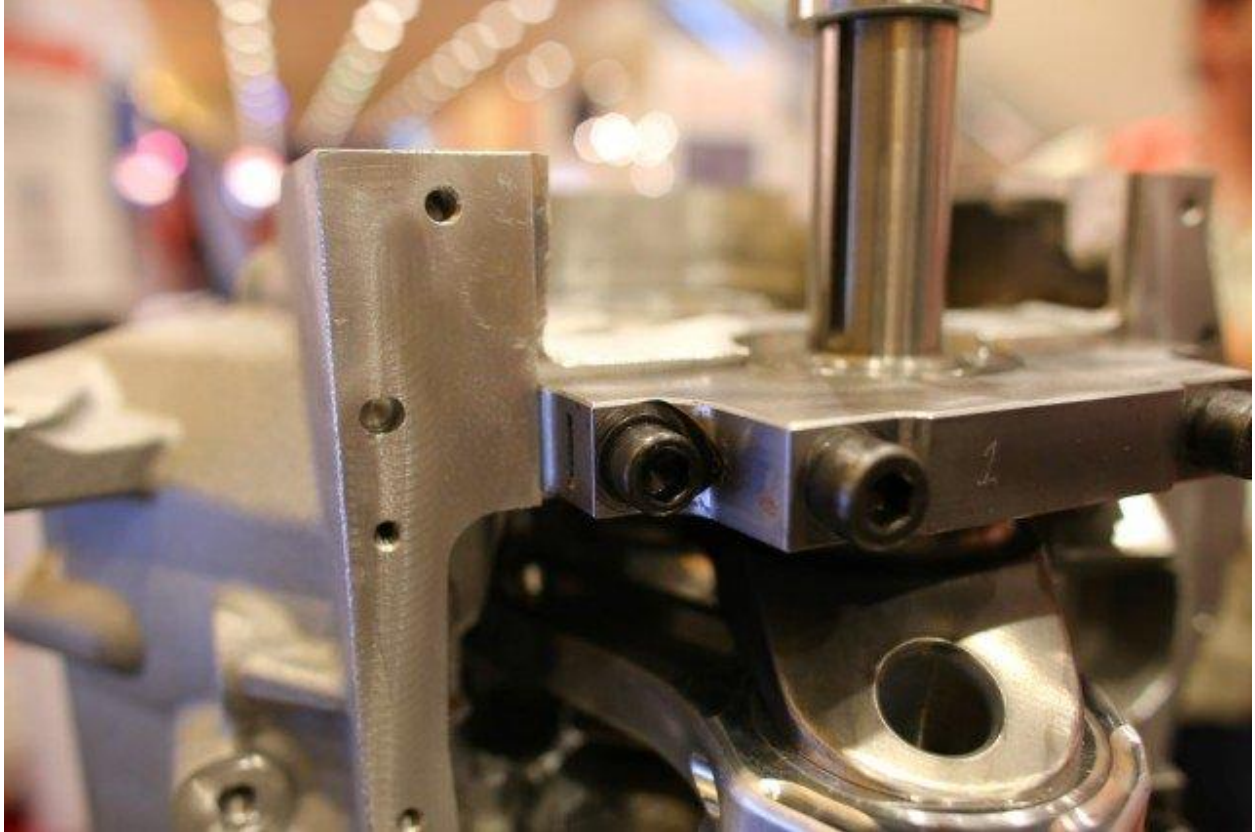


(Left) Even at bottom dead center, there's still plenty of cylinder covering up the pistons.
(Right) Titus has outfitted the block with an 18-head-bolt configuration and can provide the block unmachined, or tuned up and ready to go.

This particular Titus Cleveland block has had the lifter bores rotated upwards to improve the lifter angle for a cylinder head like the SC-1, which will be used during competition; McKeown says the modification helps to keep the pushrod nice and straight. The architecture of the Cleveland block allows for the use of the long crankshaft stroke, especially when compared to the Windsor platform. McKeown says that in a Windsor, with a stroke of 4.250-inch, the oil pan rail must be chopped nearly in half, while the long 4.500-inch stroke of this crankshaft requires no modifications in the Titus Cleveland block.

“Even with an aluminum rod, I can keep the piston in the bore and it clears the cam. We’ve also set the block up with an 18 head-bolt configuration.”

The plan is to educate racers — especially those in classes like X275 — that there is an alternative to the Windsor platform with a beefy block that allows lots of stroke, lots of displacement potential, and is designed to handle the power levels that have become commonplace in many small-tire classes.



Main webbing is robust and ready for all-out race applications.

One interesting feature the company has engineered into the block is the thickness of the main webbing. Traditionally, the main web thickness is the same dimension as the main cap, but McKeown has spec'd the engine with a thicker main saddle on the top side.

“Everything I’ve done, I’ve tried to make it as strong as I can, learning from the experience we’ve gained over the years,” says McKeown.



The company has also developed a billet belt-drive system for use on the block that allows the user to pull the camshaft out as a cartridge, keeping the Torrington bearings intact and simplifying the cam-swap process.

As Titus Performance has a full-service machine shop on the premises, they are able to offer many customized machining services as well, in addition to providing the block with a solid configuration with no water jackets.

McKeown says they'll be installing a set of ported SC-1 heads atop the short-block soon after the show, and will be looking for well over the four-digit mark from the dyno needle with no power adder. The engine will be going into the shop's Ultra Street car with a stick-shift behind it, and McKeown will be rowing the gears.