

SCAT TECH LIBRARY

Lightweight Crankshafts: Performance or Deception

Recently SCAT's competitors have made an attempt at copying SCAT's lightweight Pro Comp, Superlite and Ultralite crank design which have been the standard demanded by top engine builders for 40 years.

Their Deception:

That by reducing the weight with their design, that they **DID NOT** compromise 2 key elements: **Strength & Rotating Balance AND**

that their weight reduction was a reduction of rotating mass.

Fact:

The lightened overall weight of a crankshaft has no effect on rotating mass, if it is taken off on the centerline of the crank.

Their pendulum cut design crosses the center line of the crank which has no rotating value, it only makes the race car lighter and the crank weaker by reducing the cross section between the throw and main.

SCAT's exclusive pendulum counterweight design rotates off center around the main centerline eliminating excess rotating mass. Since the cut is offset from centerline it does not compromise the strength of the cross section between the main and throw.

Fact:

The hole down the center of the main has no rotating value, only lightens the race car.

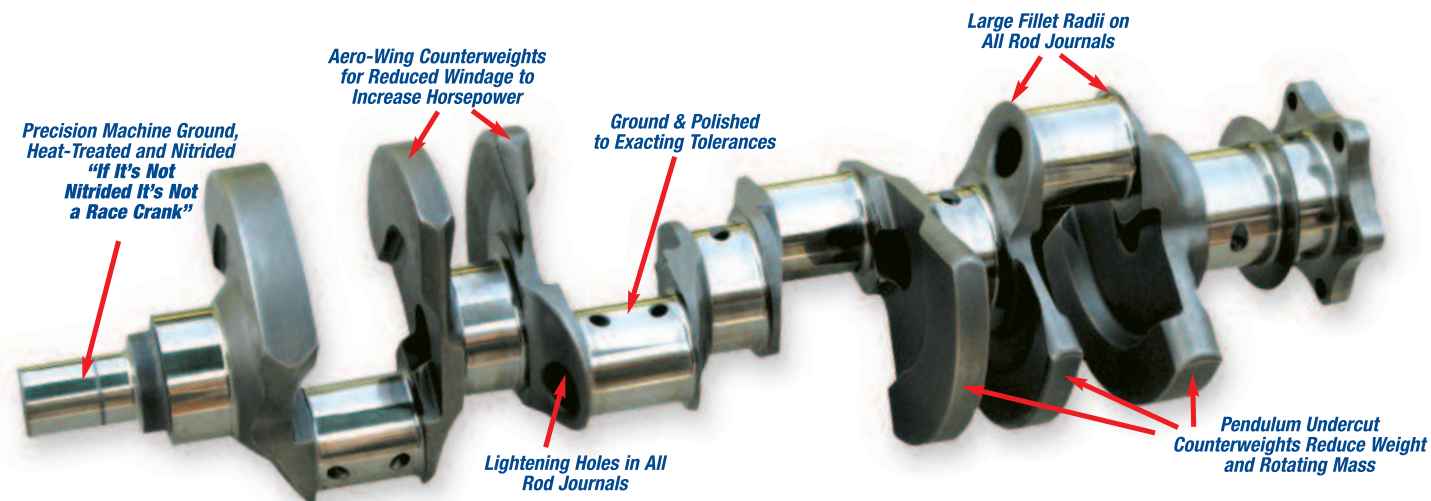
Fact:

SCAT's engineers have designed a symmetrical counterweight system which moves weight towards the center main of the crank. This prevents power robbing crank flexing that will wipeout bearings, and break cranks and main webbs. By scientifically designing counterweight placement and intensive testing SCAT crankshafts are superior in strength, the finest balanced and lightest in rotating weight and overall weight.

Fact:

The copycats to reduce weight choose to chop weight off of number 2,3,6,7 counterweights which encourages extreme crankflex and vibration under power and RPM. This cannot be measured on a balance machine. This ultimately leads to failure.

For the finest and most reliable crankshafts, buy your crankshaft from SCAT who has been designing and manufacturing innovative crankshafts for 40 years for the best names in the performance world industry.



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