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Breather System Air Volume Test by DK Custom

The full article is on the DK Custom web site.

<http://www.dkcustomproducts.com/breather-system-flow-testing-results-video.htm>

This testing was done to find out:

How much air was passed out the breather vents at idle, under a load, at cruising speeds and on throttle let-off.

And also the differences between a variety of HD engines, along with engines that had been hopped up with cams and or higher compression pistons/heads.

In this test, air was captured and measured as to how much water volume was displaced in a fixed period of time.

Taking the liquid ounce displacement, you can convert that to Cubic Feet Per Minute (CFM) There are 957.50649350649 U.S. fluid oz. in 1 Cubic Foot.

Results:

Sportsters move the least amount of air through the breathers.

Twin Cams move the most amount of air through the breathers, with little difference between air cooled and Twin Cooled.

Milwaukee-Eights move more air than Sportsters, but little more than half as much as the Twin Cams through the breathers.

Even more surprising is the least amount of air is moved on all bikes while at cruising RPM.

The only way to get a significant amount of air to move through the Sportsters was to get the RPM up around redline.

(and that crankcase pressure was probably because the valves were beginning to float) The most amount of air is moved through the breathers at idle, during hard acceleration and during deceleration.

A visual of this can be seen in this video: [DK Custom Breather System Air Volume Testing of Harley-Davidsons](#)

The actual numbers are in the chart below.

(engines warmed up / oil level on midway mark of dipstick before testing)

DK Customs Products Breather Report (from different throttle / riding conditions)				
Bike tested	CFM (idle)	CFM (cruise)	CFM (hard acceleration)	CFM (deceleration)
Air Cooled Twin Cam (103)	.2172	.08	.1952	.2504

Twin Cooled Twin Cam (103)	.2548	.0972	.2231	.2874
M8 Air Cooled (107)	.1211	.06	.1059	.1127
Sportster (1250 with high compression)	.0125	.0125	.0125	.0125
	At redline (6200 RPM) with no load (.3326 CFM)			
Sportster (1200)	.0626	.0626	.0626	.0626

CFM: Cubic Feet per Minute.

Deceleration Test: Measured by chopping the throttle to 0% with the clutch in.

Cruise (low load test): Typical RPM most riding takes place in (2500-3000 RPM).

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