Instruction 51-1101

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S&S® Cycle, Inc.
14025 County Hwy. G Box 215
Viola, Wisconsin 54664
Phone: 608-627-2080 Fax: 608-627-1488
Technical Service Phone: 608-627-TECH (8324)
Technical Service Email: sstech@sscycle.com
Website: www.sscycle.com

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S&S Technical Bulletin #3
Change in S&S Breather Gears

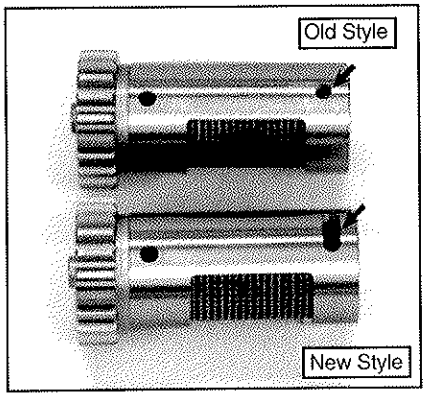
S&S breather gears for late 1977-up Big Twin engines have been changed to improve oil scavenging and reduce oil carry-over in high-performance engines.

These changes apply to breather gears #33-4241, #33-4242, #33-4250 and #33-4260 (formerly #33-4236, #33-4240, #33-4251 and #33-4261) and are as follows:

1. Oil evacuation hole has been elongated to increase duration of suction to breather settling cavity.
2. Opening and closing specifications have been changed for same reason. Old and new specification are shown below for reference.

Old:
Opening: TDC (+/- 10°)
Closing: 65° after BDC (+/- 10°)

New:
Opening: 17° after TDC (+/- 10°)
Closing: 82° after BDC (+/- 10°)



NOTES:

- *S&S crankcases are machined for maximum breather timing. When #33-4241, #33-4242, #33-4250 and #33-4260 breather gears are installed in S&S crankcases, breather window will typically open at 7° after TDC and close at 92° after BDC. Builders using other crankcases may modify crankcase breather opening to obtain these specifications for maximum performance.*
- *Change in breather gear is primarily to facilitate oil scavenging in large displacement V²-style engines. New specifications are harmless but not useful in most older engines.*
- *New gears can easily be identified by elongated hole on end of gear opposite drive teeth. See picture.*