

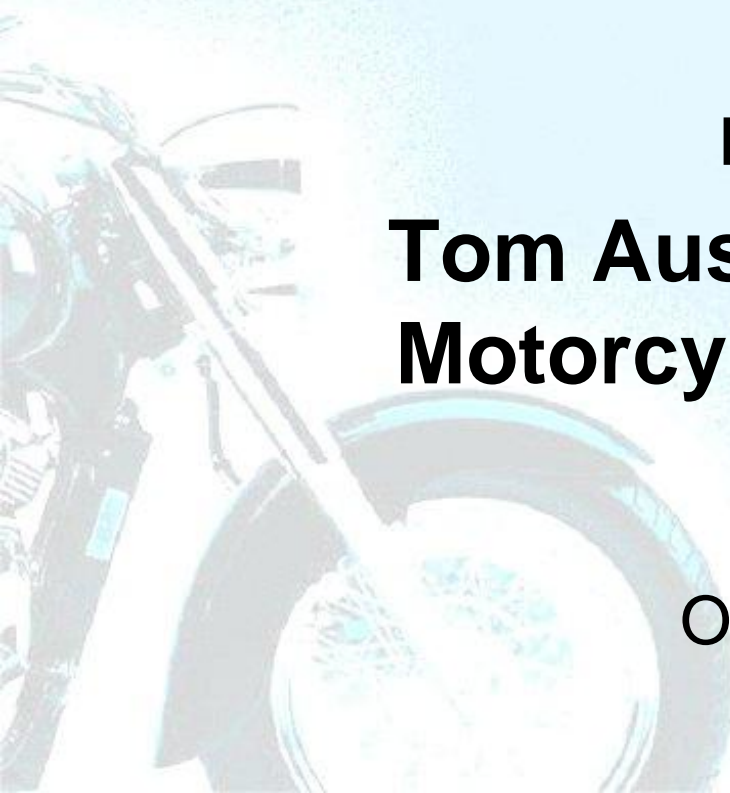


Noise Control Foundation Roundtable on Motorcycle Noise

presentation by:

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Motorcycle Industry Council**

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Alternative Test Procedures



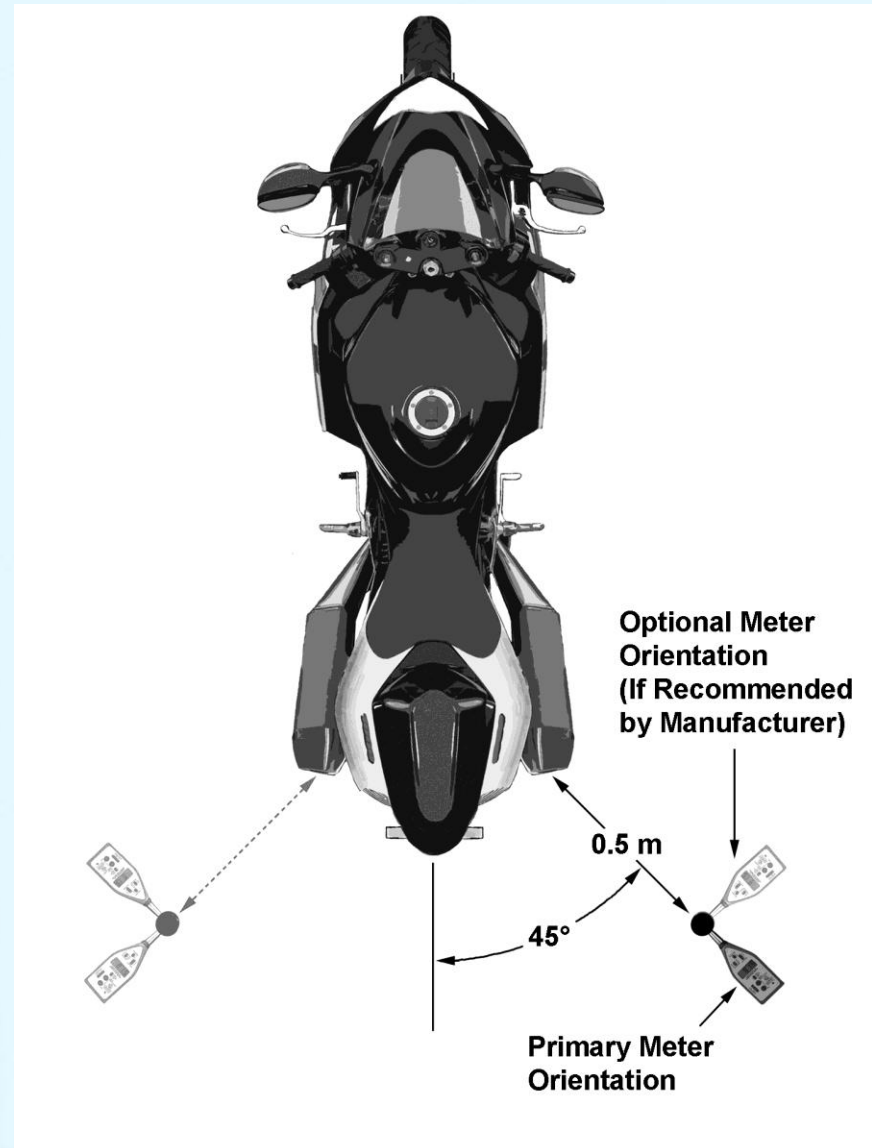
SAE J2825 Sound Test Procedure

Hold sound meter 20" from exhaust outlet while motorcycle is idling in neutral gear.

Motorcycles above 92 dBA at idle fail the test.

Suspect motorcycles that pass idle test may be tested at higher rpm (5000 rpm for 3 or 4 cylinder engines, 2000 rpm for other engines).

Motorcycles above 96 dBA fail the 2000 rpm test; above 100 dBA fail the 5000 rpm test.





Equipment Required for J2825

1. "Type 1" sound meter with windscreen
2. Sound meter calibrator
3. Wind speed meter
4. 20" tape or other measuring device
5. Portable tachometer (for motorcycles w/o OEM tach)
6. Portable, belt-mounted printer (optional)
7. Meter stand (optional)

Total cost: <\$2,500 per system

Training time: One day

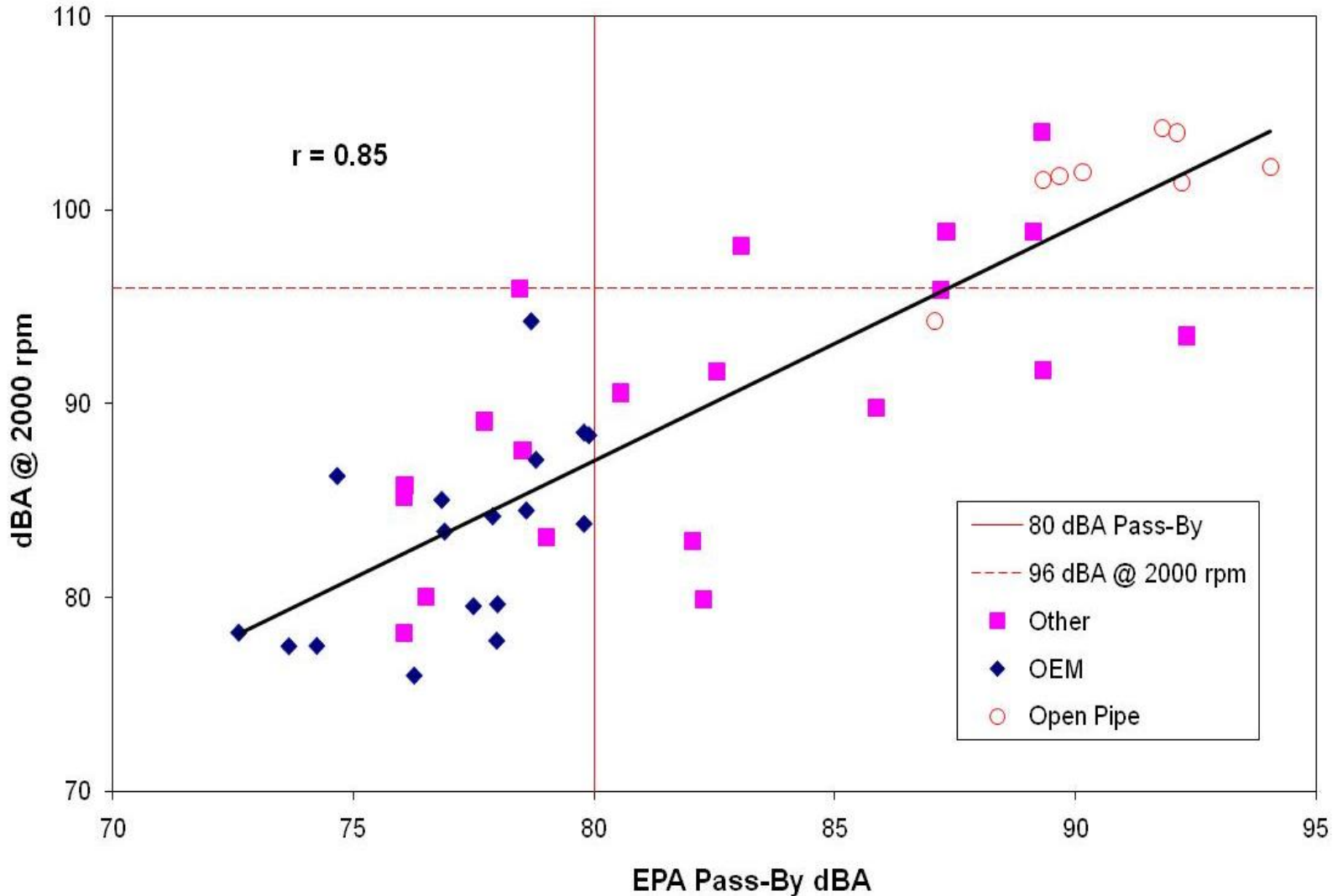
Curbside Test Using SAE J2825



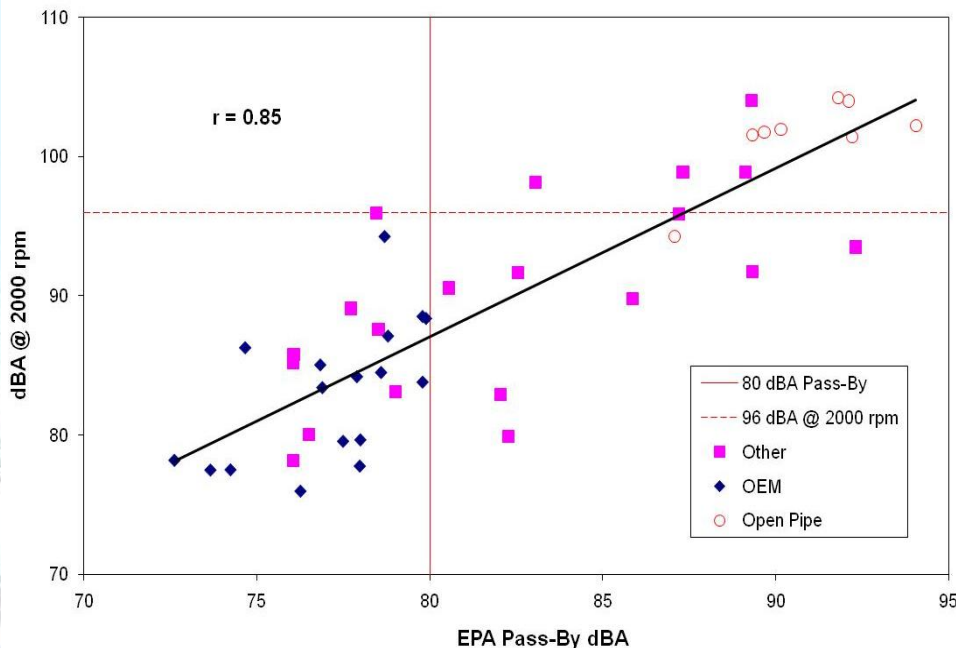
Pass-By Testing vs. SAE J2825



96 dBA at 2000 RPM Catches 90% of the Open Pipes



Effectiveness of SAE J2825



It should be noted that SAE J2825 is even more effective than illustrated by the correlation with the pass-by test because J2825 requires control of motorcycle noise at idle and 2000-5000 RPM no load, modes which can be objectionable to the public.



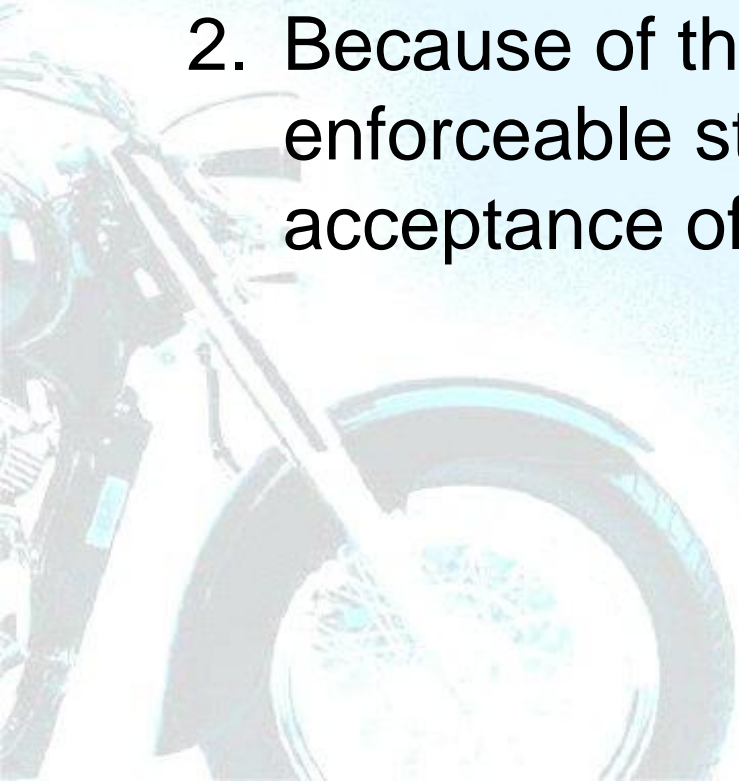
Approval of SAE J2825 as an Alternative Test Would:

1. Provide state and local officials a simple, inexpensive, and effective and EPA-approved roadside test procedure, and
2. Provide aftermarket exhaust system manufacturers an economically feasible alternative test to use for certifying exhaust systems and monitoring the performance of exhaust systems manufactured by competitors.
3. Reduce the number of loud motorcycles in use.



Why OEMs Support SAE J2825 as an Alternative Test for Replacement Systems

1. The direct economic benefits and increased floor traffic for their dealers who will be able to sell compliant aftermarket systems; and
2. Because of the positive effect that a more enforceable standard will have on the public acceptance of motorcycles.





SAE J2825 Implementation

Key Change Number 1

§205.152 Noise Emission Standards

(a) Noise emission standards. (1) Street motorcycles of the following and subsequent model years must not produce noise emissions in excess of the levels indicated:

(i) Street motorcycles other than those that meet the definition of §205.151(a)(2)(ii):

| Model Year | Noise Level |
|-----------------------|--|
| (A) 1983 | 83 dB(A) |
| (B) 1986 | 80 dB(A) |
| (C) 1983 and 1986 ... | Any applicable limits specified in SAE J2825 |



SAE J2825 Implementation

Key Change Number 2

§205.166 Noise Emission Standards

(a)(1)(i) Systems designed and marketed for use on street motorcycles other than those that meet the definition of §205.151(a)(2)(ii):

| Model Year | Noise Level |
|--------------------------|--|
| (A) 1983 | 83 dB(A) |
| (B) 1986 | 80 dB(A) |
| or (C) 1983 and 1986 ... | All applicable limits specified in SAE J2825 |



SAE J2825 Implementation

Key Change Number 3

§205.167 Consideration of Alternative Test Procedures

Compliance with all applicable limits in SAE J2825 is an acceptable alternative for demonstrating compliance of replacement exhaust systems for street motorcycles for all purposes under this subpart provided that the replacement exhaust system does not contain a valve allowing a silencing device, including a catalytic converter, to be completely or partially bypassed under conditions of higher load or higher engine speed than occur during the SAE J2825 test. The Administrator may approve applications from manufacturers of original equipment and replacement exhaust systems for the approval of other test procedures which differ from those contained in this subpart so long as the alternative procedures have been demonstrated to correlate with the prescribed procedure.



SAE J2825 Implementation

Key Change Number 4

§205.169 Labeling Requirements

(e)(1)(B) For replacement exhaust systems tested using the SAE J2825 alternative, the following statement:

This (manufacturer's name) exhaust system (part number) meets EPA noise emission requirements of 92 dBA at idle and (noise emission limit) dBA at (test rpm) RPM for the following motorcycles: (list of model specific codes). Installation of this exhaust system on motorcycle models not specified may violate Federal law.

Eight other more minor changes are needed to implement SAE J2825