

## عنوان مقاله:

Evaluation of different mufflers installation and enclosure on portable generator noise fuelled with natural gas

## محل انتشار:

نهمین همایش بین المللی موتور های درونسوز (سال: 1394)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

A detailed experimental study has been conducted to evaluate the effect of different muffler installations (without muffler, reactive and combination of two reactive mufflers) and a fabricated enclosure on noise emission of a small generator fuelled with natural gas. Principal parameters of muffler (size of muffler and back pressure) were calculated and an enclosure was fabricated for obtaining desired attenuation. The experiments were performed on four sides at five different generator loading conditions (0%, 25%, 50%, 75% and 100% load). For evaluating the reflection effect of enclosure door, generator noise emission comparison was made between an open and closed enclosure door. Both muffler setups had positive overall insertion losses proving that they can decrease sound pressure level of the generator. Results showed that hybrid muffler, enclosure installation and generator loading had a great effect on noise emission. The maximum insertion loss (39.7 dB(A)) was obtained on side 4, for generator at no load with hybrid muffler when the enclosure door was closed.

## کلمات کلیدی:

generator, natural gas, noise emission, muffler, enclosure

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/691336>

