UNIVERSITAS
GADJAH MADA
Analisis Pengaruh Pendingin Termosifon terhadap Kinerja Thermoelectric Generator pada Exhaust Generator Set
Royhan Akbar, Dr. Nyayu Aisyah, SST., M.T.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Araiz, M., Casi, Á., Aranguren, P., & Astrain, D. (2021). Thermoelectric generator with passive biphasic thermosyphon heat exchanger for waste heat recovery: Design and experimentation. Energies, 14(18). https://doi.org/10.3390/en14185815

Bass, J. C., Elsner, N. B., & Leavitt, F. A. (1994). Performance of the 1 kW thermoelectric generator for diesel engines. Proceedings of the Thirteenth International Conference on Thermoelectrics, 295–298. https://doi.org/10.1063/1.46818

Pakan, Y., & Fadli, E. R. (2021). Analisis variasi putaran terhadap torsi dan daya pada motor diesel satu silinder. Jurnal Voering, 6(1), 33–38 https://doi.org/10.32531/jvoe.v6i1.378

Fiebig, M., Wiartalla, A., Holderbaum, B., & Kiesow, S. (2014). Particulate emissions from diesel engines: Correlation between engine technology and emissions. Journal of Occupational Medicine and Toxicology, 9(1). https://doi.org/10.1186/1745-6673-9-6

Ibañez, I. N., Sagastume, A. G., & Cabello, J. E. (2024). Energy and exergy assessment of heavy-duty mining trucks: Discussion of saving opportunities. Heliyon, 10(3). https://doi.org/10.1016/j.heliyon.2024.e25358

Jabbar, M. Y., Ahmed, S. Y., & Khafaji, S. O. (2025). Experimental analysis of exhaust energy recovery performance of an internal combustion engine using thermoelectric generators and fuel economy evaluation. Energy, 332. https://doi.org/10.1016/j.energy.2025.137267

Kepekci, H., & Ezgi, C. (2024). Thermodynamic analysis of a marine diesel engine waste-assisted cogeneration power plant modified with regeneration

UNIVERSITAS
GADJAH MADA
Analisis Pengaruh Pendingin Termosifon terhadap Kinerja Thermoelectric Generator pada Exhaust Generator Set
Royhan Akbar, Dr. Nyayu Aisyah, SST., M.T.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

onboard a ship. Journal of Marine Science and Engineering, 12(9). https://doi.org/10.3390/jmse12091667

Khajepour, A., Fallah, M. S., & Goodarzi, A. (2014). *Electric and hybrid vehicles: technologies, modeling and control-A mechatronic approach*. John Wiley & Sons.

Lewerissa, Y. J., & Hetharia, M. (2022). Analisis efisiensi thermal mesin diesel menggunakan CyclePad. Jurnal Voering, 7(2). https://doi.org/10.32531/jvoe.v7i2.584

Liu, D., Zhao, F.-Y., Yang, H.-X., Tang, G.-F., & Wongwises, S. (2015). Thermoelectric mini cooler coupled with micro thermosiphon for CPU cooling system. *Energy*, *83*, 29–36. https://doi.org/10.1016/j.energy.2015.01.098

Liu, W., Kim, H. S., Jie, Q., & Ren, Z. (2016). Importance of high power factor in thermoelectric materials for power generation application: A perspective. Scripta Materialia, 111, 3–7. https://doi.org/10.1016/j.scriptamat.2015.07.045

Lu, X., Liu, J., Gao, L., Xiao, Y., Tong, X., & Deng, J. (2024). Experimental investigation on thermal-electric characteristics of curved thermosyphon-thermoelectric generator in waste heat recovery of coal spontaneous combustion. Applied Thermal Engineering, 244. https://doi.org/10.1016/j.applthermaleng.2024.122638

Majed, M. F., & Mgohimi, M. (2025). Numerical investigation of the thermosiphon-thermoelectric generator by different parameters. Journal of Techniques, 7(2). https://doi.org/10.51173/jt.v7i2.2666

Mohankumar, S., & Senthilkumar, P. (2017). Particulate matter formation and its control methodologies for diesel engine: A comprehensive review.

UNIVERSITAS
GADJAH MADA
Analisis Pengaruh Pendingin Termosifon terhadap Kinerja Thermoelectric Generator pada Exhaust Generator Set
Royhan Akbar, Dr. Nyayu Aisyah, SST., M.T.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Renewable and Sustainable Energy Reviews, 80. https://doi.org/10.1016/j.rser.2017.05.133

Muharnif, M., Umurani, K., & Nasution, F. A. A. (2022). Analisis termoelektrik generator (TEG) sebagai pembangkit listrik berskala kecil terhadap perbedaan temperatur. Jurnal Rekayasa Material, Manufaktur dan Energi, 5(1). https://doi.org/10.30596/rmme.v5i1.10260

Nohra, C., et al. (2025). Hybrid thermoelectric generator system for enhanced waste heat recovery from diesel generators using HVAC condenser airflow. Materials Science for Energy Technologies, 8. https://doi.org/10.1016/j.mset.2025.06.002

Pfeiffelmann, B., Benim, A. C., & Joos, F. (2021). Water-cooled thermoelectric generators for improved net output power: A review. Energies, 14(24), 8329. https://doi.org/10.3390/en14248329

Rahfano, R., Apriyanti, V., & Marfizal. (2025). Pengaruh volume air tabung penyimpanan terhadap efisiensi thermal pada kolektor surya dengan sistem termosifon. Jurnal Teknik Mesin dan Industri, 4(1). https://doi.org/10.55331/jutmi.v4i1.65

Rahma, A. G., et al. (2025). Two-phase thermosiphon cooling in data centers: A comprehensive review of refrigerants for practical selection. Journal of Engineering and Applied Science, 72(1). https://doi.org/10.1186/s44147-025-00833-3

Ramírez-Restrepo, A., et al. (2021). Experimental study of the potential for thermal energy recovery with thermoelectric devices in low displacement diesel engines. Heliyon, 7(11), e08273. https://doi.org/10.1016/j.heliyon.2021.e08273

UNIVERSITAS
GADJAH MADA
Analisis Pengaruh Pendingin Termosifon terhadap Kinerja Thermoelectric Generator pada Exhaust Generator Set
Royhan Akbar, Dr. Nyayu Aisyah, SST., M.T.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Riyanto, A. (2026). Studi performa modul thermoelectric generator HZ-14 dalam pemanfaatan exhaust heat pada heavy duty generator 60 kVA. Skripsi.

Rozak, A., Setyawan, R. T., & Sunarto, S. (2024). Analisis penggunaan eco diesel terhadap daya dan torsi pada mesin diesel type 2GD common rail. Jurnal Inovtek Seri Mesin, 1(1).

Saravanan. (2018). A study on heat pipe, its technology and applications. International Research Journal of Engineering and Technology, 5(11).

Siregar, M. S., Junaidi, J., Irwan, A., & Ibrahim, H. (2022). Analisis Pemeliharaan Berkala pada Motor Diesel Generator Set Daya 90 kVA sebagai Energi Listrik Cadangan di UPT Rumah Sakit Khusus Paru. *SINERGI POLMED: Jurnal Ilmiah Teknik Mesin*, *3*(1), 55–67. https://doi.org/10.51510/sinergipolmed.v3i1.700

Sugiyanto, Aisyah, N., Kurnianto, Y. A., & Bahiuddin, I. (2025). An in-situ experimental and numerical evaluation of thermoelectric generators' performance utilizing diesel engine exhaust heat. https://doi.org/10.30811/jpl.v23i5.7615

Sujiwo, A., & Nurochman, M. A. (2019). Analisa suhu pendinginan termoelektrik tipe TEC-12706 dengan variasi metode pendinginan sisi panas. SINARFe7, 2.

Theeb, M. A., et al. (2016). Experimental study of two-phase thermosyphon using R-22 as a working fluid. MATEC Web of Conferences, 72. https://doi.org/10.1051/matecconf/20167201112

Zhang, Y., Lei, B., Imran, M., & Wu, Y. (2020). Waste heat recovery from diesel engine exhaust using a single-screw expander organic Rankine cycle system. Energies, 13(22), 5914. https://doi.org/10.3390/en13225914

UNIVERSITAS
GADJAH MADA
Analisis Pengaruh Pendingin Termosifon terhadap Kinerja Thermoelectric Generator pada Exhaust Generator Set
Royhan Akbar, Dr. Nyayu Aisyah, SST., M.T.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Zhu, B., Zhang, Y., & Wang, D. (2024). Investigation of engine exhaust heat recovery systems utilizing thermal battery technology. World Electric Vehicle Journal, 15(10), 478. https://doi.org/10.3390/wevj15100478

Zhu, X., Yu, Y., & Li, F. (2019). A review on thermoelectric energy harvesting from asphalt pavement. Construction and Building Materials, 228, 116818. https://doi.org/10.1016/j.conbuildmat.2019.116818

Zimakowska-Laskowska, M., & Kniaziewicz, T. (2025). Analysis of methods for estimating pollutant emissions from marine engines. Combustion Engines, 202(3). https://doi.org/10.19206/CE-204922