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Improvement Design of Parabolic Trough

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Abstract

The performance of parabolic trough solar collector (PTSC) has been evaluated using different heat transfer working fluids; namely water and SAE20 W50 engine oil. New and slightly improved PTSC was developed to run the experimental study. Under the meteorological conditions of Malaysia, authors found that PTSC can operate at a higher temperature than water collector but the performance efficiency of collector using engine oil is much lower than the water collector. © Published under licence by IOP Publishing Ltd.

Index Keywords

Aerospace engineering, Engines, Heat transfer, Lubricating oils; Engine oil, Malaysia, Meteorological condition, Parabolic trough, Parabolic trough solar collectors, Performance efficiency, Working fluid; Collector efficiency

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