An Evaluation on the Effectiveness of Rotary Engine Technology

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The purpose of this annotated bibliography is to collect research on the effective pros and cons of rotary engine technology. I would like to go over the historical development of rotary engines, the modern use cases, and a comparison with other engine technologies.

# References

Mauck, S., & Haynes J. H. (1986). *Mazda RX-7 Owners Workshop Manual.* Haynes Pub. Group.

This book goes over everything you could possibly need to know about maintaining, diagnosing, and repairing an RX-7. The part of this book that is applicable to my upcoming paper is the chapter focused on the various rotary engines found in the RX-7 during its production. There have been a couple minor changes in best maintenance and repair practices due to the cars this is for aging, but it is still a wonderful source of knowledge.

Hege, J. B. (2007). *The wankel rotary engine: A history.* McFarland.

This book goes over the history of the wankel rotary engine from its conception up to the early 2000s. Generally I would say that 23 years of missed history would make this a significantly incomplete history, but this case is different. In those 23 years only 1 new wankel rotary engine was released, so the book still has a mostly complete history of the engine.

Ohkubo, M., Tashima, S., Shimizu, R., Fuse, S., Ebino, H. (2004). *Developed Technologies of the New Rotary Engine (RENESIS).* (No. 2004-01-1790). SAE Technical Paper. Retrieved from https://www.rx8club.com/attachments/rx-8-media-news-11/198516d1380086553-wanted-original-rx8-press-kit-information-new-rotary-eng.pdf

This technical paper goes over all the data and performance statistics of Mazda’s RENESIS rotary engine. At the time of the publication of this paper the RENESIS engine was Mazda’s newest rotary engine developed for the RX-8. This paper is an excellent look at the performance of what may be considered the best rotary engine ever produced.

Ferrara, M. (2021, March 3). Rotary vs Piston. DSPORT Magazine. Retrieved February 1, 2023, from https://dsportmag.com/the-tech/education/rotary-vs-piston/

This article goes over the basics of how rotary and piston engines work. Then it goes over the similarities and differences of the two types of engines. Finally it goes over the pros and cons of either engine. This source is pretty alright, it’s from what I believe to be a reputable motor sport magazine.

Solomon, O. (2022, September 6). Rotary vs. Piston Engine – Pros and Cons. Rx Mechanic. Retrieved February 1, 2023, from https://rxmechanic.com/rotary-vs-piston-engine/

This article, much like the previous, goes over the basics of a rotary engine, then the basics of a piston engine, then compares the two. After that this article goes over a bunch of commonly asked questions and gives very good answers. While this source might be from a less known and possibly less reliable site, I believe the commonly asked questions section makes it a great source.