



Technical Lecture Review

Luca Minchella

Andrew Noble

Wales Institute for Science & Art
BEng Motorsport Engineering- Foundation

Introduction

This project comes after attending a number of guest lectures from University staff members, each with their own area of expertise and focus. This poster is inspired by Mark Sandford’s lecture and a particular story about the First generation Honda Insight; a car with a three cylinder hybrid engine and a very aerodynamic shape. The Insight’s primary purpose was to achieve “ultra low fuel efficiency”. Honda achieved this by saving weight, utilising a very aerodynamic shape and even reusing technology found on their flagship sports car: the NSX. As a result of these efforts some drivers reported being able to achieve up to 100+MPG when driving the insight.

The Ultimate Rally Car?

As much as the Insight may attempt to draw some inspiration from Honda’s sports cars with a digital dash similar to what can be seen on the S2000 and Honda proudly displaying that it was conceived using ‘NSX Technology’, the insight is no race car. Or is it? The Oaktec rally team saw competiton potential in the insight, and they were right. The little one litre Honda began to dominate the Formula 1000 championship and even beat two litre rivals in other events. The combination of the low curb weight, aerodynamics and hybrid system made the insight so successful that it was banned mid season from its championship. The use of hybrid powertrains in rally isn’t uncommon now, with WRC permitting them in 2022, 11 years after the insight was banned. However, as of 2025 hybrid powertrains have been dropped by WRC.



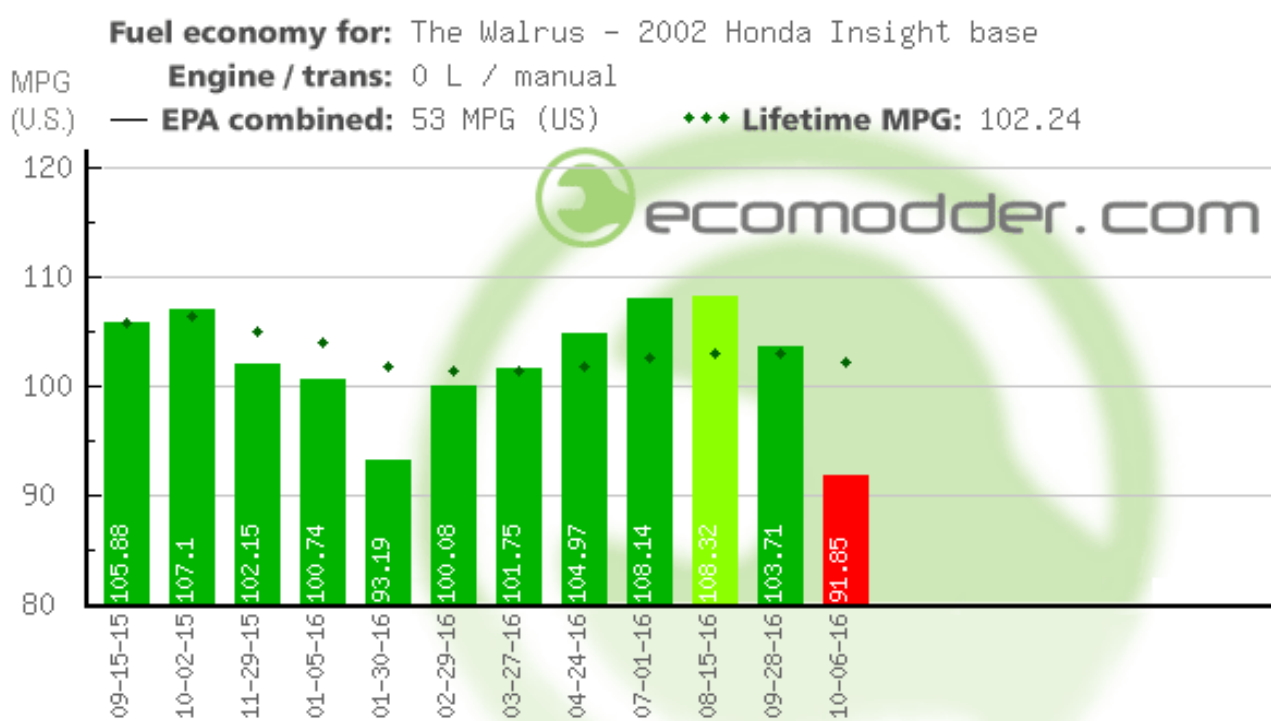
The Insight’s unique interior
[Auto Express]



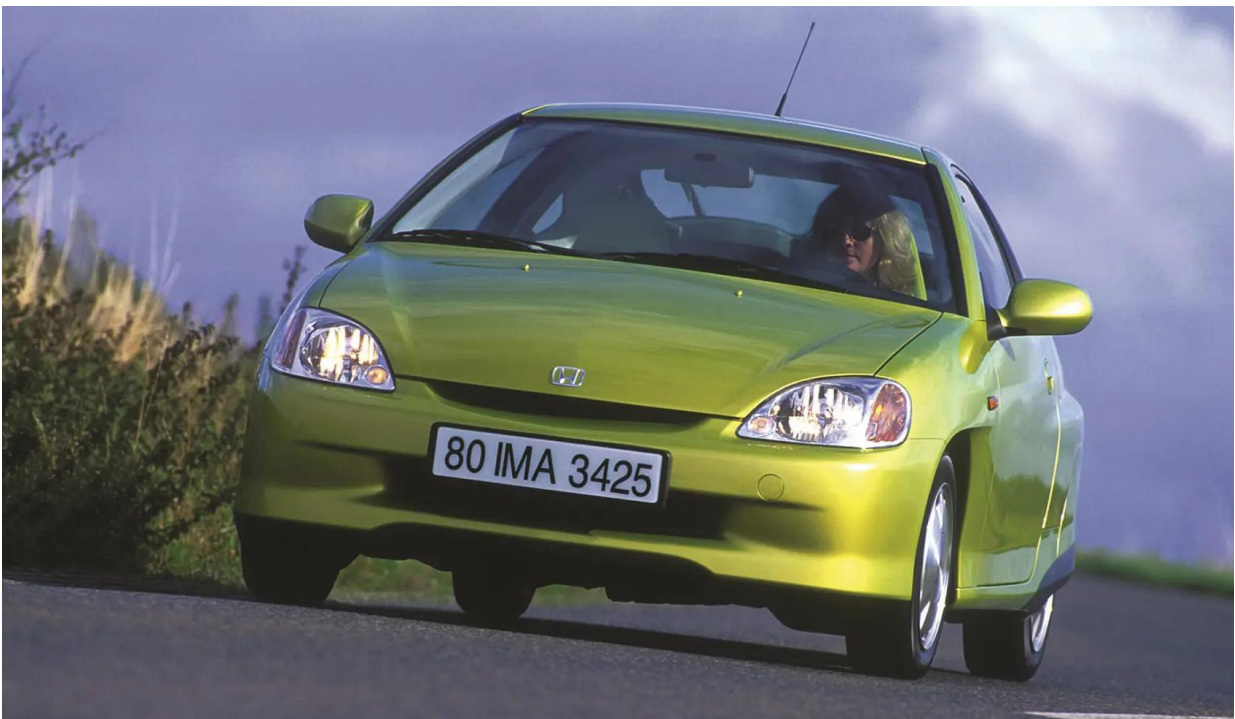
A model showing the aerodynamic efficiency of the Insight. [premier aerodynamics]



The Banned rally-spec Insight
[autoevolution.com]



A chart showing the fuel economy of the Insight
[ecomodder.com]



Production model Insight
[carmagazine.co.uk]

Key Facts:

- 835kg curb weight
- 100+ MPG possible
- 1.0 litre VTEC engine
- Aluminium body structure
- 111MPH top speed
- 0-60MPH time of 10.5 seconds
- 75BHP
- First hybrid car launched in UK
- 112Nm Torque

References

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