

Holden Astra 2004-2009 Workshop Manual

Crankshaft and Pistons

Crank mechanism is made more rigid without increasing weight.



Fig. 2.19. Crankshaft and Pistons:
1 - connecting rod, 2 - piston, 3 - crankshaft

In connection with higher power and using a special form of piston used oil jet nozzles for cooling the piston. They are located on the engine block and are aimed at the underside of the piston. The crankshaft has a more rigid structure, without increasing weight. It also uses floating piston pins.

Cooling of the piston

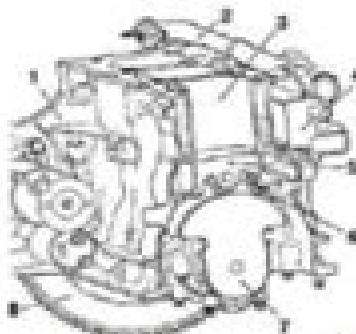


Fig. 2.20. Cooling of the piston: 1 - the engine block, 2 - pipe cooling system, 3 - cylinder walls, 4 - oil cooler, 5 - piston, 6 - oil spray nozzles, 7 - crankshaft, 8 - flywheel

By new piston (Fig. 2.20) gasoline engine 2.0 16V has a lot more with thermal loads. Increased due to increased power output, the piston is equipped with piston cooling.

Rear crankshaft oil seal (Fig. 2.21) is mounted into the crankshaft oil seal housing. At petrol engine 2.0 16V mount the rear crankshaft oil seal housing into the housing of the rear crankshaft.



Fig. 2.21. Rear crankshaft oil seal with the sensor: 1 - rear crankshaft oil seal, 2 - housing, 3 - crankshaft, 4 - crankshaft sensor, 5 - connecting cable to plug the wiring harness of the crankshaft sensor

2.3. Removing and installing the power unit

General and safety by disconnecting power unit

If it is decided to lift the engine, it is necessary to undertake certain



Fig. 2.22. General view of the engine 2.0 16V

measures to ensure the place where the work will be done. Undoubtedly, the best place is to have a garage or workshop. It is important to have a work platform, as well as a place to store the car. If no workshop, you will need a flat smooth concrete or asphalt playground.

Washing the engine compartment and the engine before removing the hood will provide clean and comfortable working conditions.



Fig. 2.23. General view of the engine 2.0 16V

Also need the lift or lifters. Make sure that these devices have a margin of capacity and are able to raise the engine with all the mounted units. Safety measures play a crucial role, since the use of the motor car - a potentially dangerous operation.

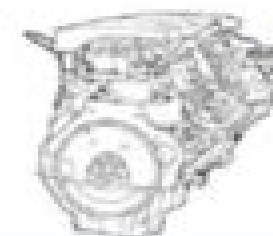


Fig. 2.24. General view of the engine 2.0 16V



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Table of Contents Holden Astra Workshop Manual

1. Understanding the eBook Holden Astra Workshop Manual
 - The Rise of Digital Reading Holden Astra Workshop Manual
 - Advantages of eBooks Over Traditional Books
2. Identifying Holden Astra Workshop Manual
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Holden Astra Workshop Manual
 - User-Friendly Interface
4. Exploring eBook Recommendations from Holden Astra Workshop Manual
 - Personalized Recommendations
 - Holden Astra Workshop Manual User Reviews and Ratings
 - Holden Astra Workshop Manual and Bestseller Lists

5. Accessing Holden Astra Workshop Manual Free and Paid eBooks
 - Holden Astra Workshop Manual Public Domain eBooks
 - Holden Astra Workshop Manual eBook Subscription Services
 - Holden Astra Workshop Manual Budget-Friendly Options
6. Navigating Holden Astra Workshop Manual eBook Formats
 - ePUB, PDF, MOBI, and More
 - Holden Astra Workshop Manual Compatibility with Devices
 - Holden Astra Workshop Manual Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Holden Astra Workshop Manual
 - Highlighting and Note-Taking Holden Astra Workshop Manual
 - Interactive Elements Holden Astra Workshop Manual
8. Staying Engaged with Holden Astra Workshop Manual
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Holden Astra Workshop Manual
9. Balancing eBooks and Physical Books Holden Astra Workshop Manual
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Holden Astra Workshop Manual
10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Holden Astra Workshop Manual
 - Setting Reading Goals Holden Astra Workshop Manual
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Holden Astra Workshop Manual
 - Fact-Checking eBook Content of Holden Astra Workshop Manual
 - Distinguishing Credible Sources
13. Promoting Lifelong Learning

- Utilizing eBooks for Skill Development
- Exploring Educational eBooks

14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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