

LUBRICATION SYSTEM

7.1. Vocabulary

Ex. 1. Match the words to their Russian equivalents.

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|------------------------|----------------------------|
| 1. detergent | a. смазка |
| 2. oil pressure | b. вязкость |
| 3. friction | c. масло |
| 4. oil change | d. детергент |
| 5. reduce | e. нагрев |
| 6. heat | f. масляный фильтр |
| 7. oil filter | g. шприц для густой смазки |
| 8. sludge | h. давление масла |
| 9. lubricate | i. система смазки |
| 10. Zerk | j. смена масла |
| 11. viscosity | k. шлам |
| 12. oil | l. масляный насос |
| 13. grease gun | m. уменьшить |
| 14. lubrication system | n. трение |
| 15. oil pump | o. смазывать |

Ex. 2. Translate the sentences into English.

1. Система смазки прокачивает масло через двигатель, обеспечивая его бесперебойную работу.
2. Плановое техническое обслуживание системы смазки вашего автомобиля включает проверку масляного фильтра и замену масла.
3. Вязкость масла в системе смазки вашего автомобиля может повлиять на работу двигателя.
4. Если вы не будете регулярно смазывать движущиеся части вашего автомобиля, трение может привести к повреждению двигателя.
5. Со временем нагрев может привести к разрушению масла в системе смазки, снижая ее эффективность.
6. Правильно работающий масляный насос имеет решающее значение для поддержания хорошего давления масла в системе смазки.
7. При очистке компонентов системы смазки рекомендуется использовать высококачественное моющее средство.
8. Пренебрежение регулярной заменой масла может привести к образованию осадка в системе смазки, что приведет к повреждению двигателя.
9. Чтобы предотвратить проблемы в системе смазки вашего автомобиля, всегда используйте рекомендуемый тип и марку масла.
10. В качестве меры предосторожности всегда проверяйте систему смазки на наличие утечек после длительных поездок.

7.2. Reading

Ex. 1. Read the text.

The Lubrication System

The lubrication system in a car engine is used to reduce friction and wear between moving parts. It consists of oil, an oil pump and an oil filter. The oil is stored in an oil sump (or oil pan), which is located at the bottom of the engine. When the engine is running, the oil pump pumps the oil from the sump through the oil filter and then into the engine.

Oil is a mixture of base oil, performance additives and viscosity modifiers. The base oil is usually a mineral oil or a synthetic oil. The performance additives contain anti-wear agents, detergents and dispersants. The anti-wear agents form a protective film on metal surfaces to prevent wear. The detergents and dispersants help to keep the engine clean by preventing the formation of deposits, sludge and varnish. The viscosity modifiers are polymers that help the oil to maintain its viscosity over a wide range of temperatures.

The oil in the engine should be changed regularly. This is because the oil becomes contaminated with dirt, dust and combustion by-products. Over time, these contaminants can cause the oil to thicken and form sludge, which can lead to poor engine performance and increased wear. In addition, the oil can become oxidized due to the heat generated by the engine. Oxidized oil can cause the formation of varnish and carbon deposits, which can also affect engine performance.

To change the oil in a car engine, you will need the following tools and supplies: a wrench, an oil filter wrench, a drain pan, a funnel, a new oil filter, and the appropriate amount and type of oil. First, make sure the engine is warm but not hot. Then, locate the oil drain plug underneath the engine. Place the drain pan underneath the plug, and use the wrench to remove the plug. Allow the oil to drain completely into the pan. Next, remove the old oil filter using the oil filter wrench. Before installing the new filter, apply a small amount of fresh oil to the rubber gasket on the top of the filter. Then, screw the new filter onto the engine by hand until it is tight. Finally, replace the drain plug, and use the funnel to pour the

new oil into the engine through the oil filler cap. Be sure to check the owner's manual for the correct type and amount of oil to use. After adding the new oil, start the engine and let it run for a few minutes to circulate the oil. Then, turn off the engine and check the oil level using the dipstick. Add more oil if necessary.

Ex. 2. *Answer the questions.*

1. What is the purpose of the lubrication system in a car engine?
2. What components make up the lubrication system?
3. What are the main ingredients in oil?
4. How do anti-wear agents, detergents, and dispersants contribute to the performance of the oil?
5. Why should the oil in the engine be changed regularly?
6. What can happen if the oil becomes contaminated or oxidized?
7. What tools and supplies are needed to change the oil in a car engine?

7.3. Communication

Ex. 1. *Make sentences using the following words:*

1. mechanic/checking/lubrication
2. often/lubrication/serviced
3. maintenance/essential/longevity
4. explain/lubrication/vehicle
5. leak/lubrication/fixed
6. important/type/oil

7. reduce/friction/moving
8. cost/replace/faulty
9. regularly/checking/levels
10. flushing/old/oil