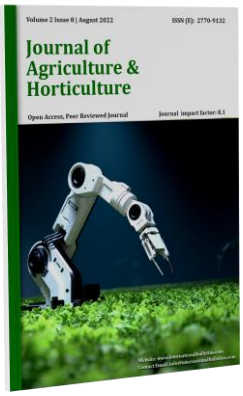

SPECIFIC CHARACTERISTICS OF WINTER SEASONAL USE OF VEHICLE TECHNIQUES

Aliyorov Alijon Burievich
National University of Uzbekistan named after Mirzo Ulugbek senior teacher of the military training center
https://doi.org/10.5281/zenodo.10423415

ABSTRACT

The main direction of development of the complex of seasonal technical maintenance of modern vehicles is its further improvement, mechanization, electrification and automation. The basis of this direction is the system of cars. To perform this task, one of the urgent tasks is to create a base for repairing, servicing, and servicing vehicles in the vehicle park during the winter seasonal technical maintenance of the vehicles.

Key words: Automobiles and other organizations in various fields, specific characteristics of winter seasonal maintenance of industrial machines, various external influences during maintenance and use

INTRODUCTION

The specific features of turning the cars into winter seasonal conditions of use are carried out based on the temperature of the outside environment, and when the temperature of the weather drops below a steady +5 ^{0}C level, it turns into the winter mode.

Due to the fact that stable temperature of the environment is the main criterion when switching to the conditions of winter seasonal use, diesel fuel begins to crystallize (crystallize) at a temperature below +5 ^{0}C.

The quality of all types of equipment for winter seasonal use, and the use of vehicles in strict compliance with the instructions and rules for the use of vehicles, depends on how well the drivers know the equipment according to the tactical technical description, their practical skills and how well they follow them. The terms of transfer to winter conditions are determined by the order of enterprises and organizations.

Winter maintenance . Material supply of seasonal maintenance.

all types of technical equipment to the period of winter use begins when the weather temperature drops below +5 ^{0}C.

Winter operating conditions are complicated by heavy rain and snow, icy roads, fog, gusty winds and extreme cold weather.

One of the characteristics of the winter season is that in these cold weather days, the working conditions of all mechanisms and aggregates deteriorate. As a result of thickening of the oil, the rubbing parts become unlubricated and the provardi begins to wear rapidly. Fuel consumption increases, the capacity of the battery decreases, and conditions for the drivers to work deteriorate. It becomes difficult to start car engines. You can't start the engine without warming it up. The heating process takes a lot of time. Due to the thickening of the oil , a large torque is required to turn the crankshaft , which causes the batteries to wear out quickly. The progress of the combustion process inside the cylinder worsens. In cold weather, the electrolyte does not provide the necessary charge, as a result, the battery of the battery

strength decreases. All this shows that the engine cannot be started in cold weather without special training.

Therefore, it is advisable to keep the machines as much as possible in steam-heated rooms . In order to speed up the heating process of the vehicle d vigatel , the blinds are covered with mats. Before starting the engine, be sure to turn on the heating devices and heat the oil to 30 ^{0} C. Only after that it is allowed to start the engine . It is allowed to move the car only after the temperature of coolant and oil exceeds 55 ^{0} C.

Timely adjustment of vehicle equipment to the conditions of winter use and the use of vehicles in strict compliance with the rules of use depends on how well the drivers know the equipment, their practical skills and how well they follow them. The terms of transfer to winter conditions are determined by the order of organizations and enterprises.

10-15 days before turning to winter conditions, the order of organizations or enterprises is issued.

In this order, the type of cars that should be transferred to the conditions of winter use;

the scope of the main and additional works that need to be performed in them;

working periods; responsible persons;

order of preparation of drivers;

the procedure for organizing a training camp and taking a test;

persons responsible for supply of materials;

the composition of the board that checks the quality of turning is shown.

Before transferring vehicles to seasonal conditions of use, a training camp for several days is organized with the drivers of organizations or enterprises. In this training session, they will deeply study the specific features of winter use, the influence of the external environment on the operation mode of machinery and aggregate systems, specific features of technical maintenance and machine management, methods of saving consumables during maintenance, and the technology of the work performed.

When transferring vehicles to winter conditions, drivers should pay attention to the composition of how to prepare the car for ignition in cold weather, turn on heating devices, warm up the engine, drive cars in snowstorm days, safety rules when working with coolant that freezes at low temperatures, secrets of how to use the battery. special attention is paid to learning.

At the same time, winter seasonal maintenance focuses on how to clean and wash air filters, fuel and oil filters, how to maintain the temperature of the car, how to maintain battery batteries.

Picture 1. Air, fuel and lubrication filter .

In the same training camp, safety rules and methods of their elimination are also studied.

Training sessions are conducted by well-trained, qualified and experienced drivers.

Prepares fleet equipment, spare parts, tools and other necessary equipment for winterization of vehicles. In this regard, it is based on the specific characteristics of each model, as well as the cases presented in the manual "Technical instructions and instructions for use" of the model.

Car drivers and specialist repairers perform the preparation and transfer of cars to winter conditions .

For this, the technical condition and defects of the machines are first carefully checked by the persons appointed by the heads of the enterprise or organization and written in the book "Accounting of the defects of the machines". On the basis of these defects, work plans are drawn up for each machine, and orders are placed for obtaining materials and spare parts.

quality and complete preparation for the conditions of winter use . In these brigades and posts, they perform special maintenance work, repair work , as well as some technical maintenance work.

Specific features of using techniques in mountains, deserts and deserts .

The territory of the Republic of Uzbekistan includes various regions that differ sharply from each other in terms of weather conditions, topography, climatic conditions. Therefore, it is necessary to know how to use vehicles correctly and at a high level in plains and mountains, in deserts and deserts, in bitter cold of winter, in rocky and sandy areas, in salty and barren lands.

For this, first of all, it is necessary to know the material structure of the sample, its technical indicators, capabilities and technical properties.

In addition, it is necessary to know how the used environment can affect the machine, based on the conditions of use, how to perform maintenance work on it.

Specific features of use in mountainous regions **.**

The mountainous region consists of high hills and mountains, long valleys and ravines, and some rocks, the roads are narrow, there are many twists and turns, water is scarce, atmospheric pressure is low, there is a lot of snow , precipitation is abundant , the weather is cold, and the winds are strong. and it is distinguished from other regions by being hard.

Picture 2. Mountain roads.

All these factors affect the use of automotive equipment. For example, the presence of high hills and slopes causes the car to z' when going uphill, as a result of which it is necessary to always drive in low gears, the engine heats up , the speed is reduced, the possibility of accidents increases, the possibility of rolling back or stalling, the possibility of engine

backfiring. increases, the main friction disks begin to wear rapidly, the brake pads also fail quickly, and the car becomes difficult to control.

long and steep slopes makes it difficult to control the car, the temperature of the cooling liquid decreases, it is necessary to drive in small gears, the probability of an accident and the car overturning increases.

of ravines, turns, and any stones also hinders the movement of the car and increases the chances of falling, rolling, and getting stuck on stones.

Low atmospheric pressure leads to a decrease in engine power due to lack of oxygen. The fuel mixture inside the cylinder cannot burn completely due to lack of air. This leads to a sharp decrease in engine power . In addition, the coolant begins to boil before reaching 100 ^{0}C, as a result of which the engine overheats and its power drops sharply. This condition requires checking the coolant level frequently and always carrying a spare coolant . Therefore, the cooling system steam-air valve adjustment is required.

Low air temperature, the presence of snow require filling cars with non-freezing coolant, winter brand fuel and oils. When starting the engine, it is necessary to use heating devices. Working conditions for car drivers will also be difficult. The car blinds are closed and tarpaulin mats are lowered.

Therefore, the main attention should be paid to the following in the maintenance of machines.

Machine running part nodes and aggregates, transmission details are often lubricated.

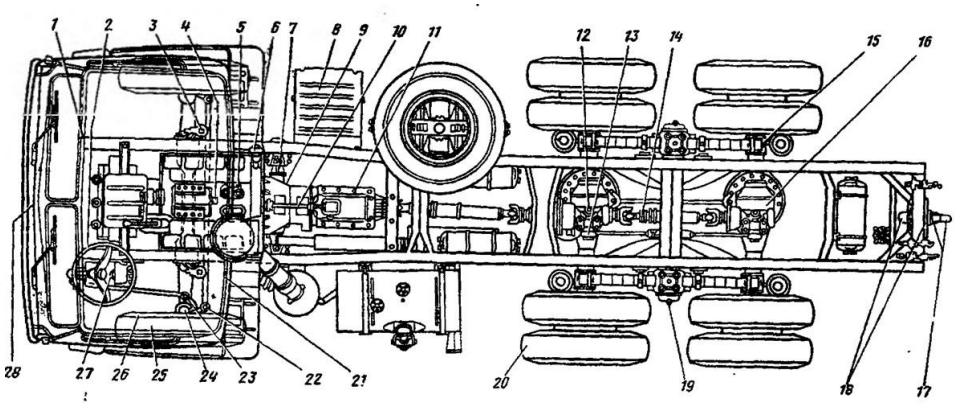

Figure 3. Lubrication points for nodes and aggregates, transmission details

Engine systems are checked for fuel, oil and coolant leaks or leaks.

Air cylinders and batteries are checked frequently.

The steering wheel , the main friction or the clutch are often adjusted.

The machine will be equipped with flow-enhancing devices and their adjustment will be checked.

The cooling system vapor-air valve (PVK) is checked and adjusted, reserve coolant is carried, brake mechanisms are checked and adjusted.

Specific features of use in deserts and deserts

Desert and desert regions are distinguished by the abundance of windy days, abundance of dust and low humidity, lack of landmarks, presence of sand dunes, scarcity of

water, presence of barren and salty lands, few or no roads, presence of various poisonous insects and animals.

Figure 4. Desert and desert roads.

All this affects the use of equipment and the health of drivers.

Air filters , fuel and oil filters should be washed frequently. The unit and mechanisms need to be cleaned of dust often, otherwise they will overheat.

1st and 2nd maintenance periods are reduced by 25-30%, but the time allocated for their execution is increased by 25% .

The cooling system steam-air valve (PVK) opening is increased by 0.2-0.3 kgs/cm ^{2} , the tension of the fan belts in cars is checked and adjusted if necessary.

5 . Check the tension of the fan belts

of the accumulator battery is 1.27 gr/cm ^{2} it is required not to decrease, and the amount is checked every 15-20 days.

Figure 6. Checking the accumulator batteries

In order to cool the engine without stopping the car in motion, it is necessary to reduce the voltage (switch to a lower gear) , increase the rotation of the drive shaft. In other words, it

is necessary to press the fuel rod more when switching from a large gear (peredacha) to a small gear. Then the circulation of the coolant increases and cools the engine.

In order to lower the oil temperature, it is necessary to switch to small gears and reduce the rotation of the crankshaft, that is, to put the fuel rod.

If at the same time the temperature of both the coolant and the oil is increased, then the temperature of the first water is lowered, and then the temperature of the oil is lowered.

Even when turning off the engine, it is necessary to strictly observe the temperature regime . On the other hand, the engine parts may be bent . Therefore, the engine is cooled down to the specified temperature for shutdown (up to 65 ^{0} C for wheeled vehicles) by running the engine at idle (at a speed of 700-800 rpm) and only after that it is turned off.

CONCLUSION

In conclusion, it can be said that seasonal winter technical maintenance in all Ministry organizations and enterprises of the Republic of Uzbekistan is carried out in the fall of the year according to the order of the Ministry. Turning the machines into winter operating conditions is carried out based on the external temperature, and when the weather temperature drops below a steady +5 ^{0} C level, it switches to the winter mode.

All types of vehicles should be properly adapted to seasonal winter conditions and used in strict compliance with the rules of use based on the tactical technical description of the vehicles, the extent to which the drivers know the vehicles based on their type and category, their practical skills and how well they follow them. depends.

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