

CARRYING OUT DIAGNOSTIC WORK ON HIGHWAYS AND DRAWING UP A REGISTER OF DEFECTS

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Abstract. *This article presents the sequence and requirements of inspection (diagnostics) of highways during operation and the sequence and requirements of drawing up a report of defects based on the results of the inspection.*

Keywords: *highways, diagnostics, record of defects.*

Carrying out diagnostic work on highways.

On the basis of the existing norms and rules for highways, we conduct diagnostic work during the period of highway use and draw up a record of defects based on the defects that occur. For this work we use IKN 05-2011 “Rules for diagnosis and assessment of the condition of highways” [1].

Road condition diagnosis includes four main steps, which are usually performed sequentially:

- preparatory work;
- field inspections;
- camera processing of received information;
- formation and updating of the road information base [2].

Diagnostics of the state of highways is the examination, collection and analysis of information about the parameters of road and road structures, operating conditions, defects and the causes of their occurrence, characteristics of traffic flows, in the process of future operation it is necessary to assess and predict the condition of the road and its structures the goal of road diagnostics is to obtain complete and objective information about the state of the road. In this case, it is an effective solution to the problems related to the maintenance and maintenance of the road's consumer characteristics.

Diagnostics of highways - inspection of the road and its structures, checking of their conditions, their indicators, characteristics and operating conditions, presence of defects and their causes, evaluation of the characteristics of traffic flow collect and analyze other information necessary for future operational evaluation and forecasting.

All diagnostic documents must be prepared separately according to the established forms for each section of the road and based on the requirements of these rules. Changes to the technical documentation of accounting are made on the 1st of July of each year.

Diagnostic documents should be kept by primary road organizations, and the materials should be presented to higher management bodies in the form of reports.

Drawing up a record of defects

Maintenance work is carried out on the road surface and road elements from time to time during the use of highways. Care work is divided into winter, autumn and spring care work. All

kinds of damage, subsidence, cracks and other types of defects that occurred in the road elements during the maintenance work are recorded in the log book.

A record of defects is drawn up before planning road repairs. A group will be formed on the basis of the following participants in the organization of the work of drawing up the register of defects.

Traffic safety officer for the area where the road is located

Representative of the road repair company

After the type of repair is determined, a representative of the design organization
representative of the organization financing road repair works

The laboratory team that compiles the report of defects

When compiling a register of defects on highways, the laboratory staff from the above-mentioned representatives will identify and record the defects and the other representatives confirm the defects that are entered in the register.

The following requirements should be taken into account when drawing up a record of defects;

It is recommended to carry out inspections in the spring, when the road is cleared of snow.

The group must have special equipment for automatic recording of defects using a video camera or video computer and for recording the state of the road surface on electronic data carriers.

In addition, the group must be equipped with the following equipment:

a car equipped with a speed sensor;

“Road works” and “Go around the barrier on the left” road signs;

a machine equipped with laboratory equipment (the machine must have a progomomer, a cern, a 3-meter rack and other laboratory equipment);

defect record log;

yellow safety vests;

In the absence of video computer imaging equipment, visual inspection and recording of subgrade defects is permitted.

Before starting the visual assessment, prepare a journal with notes of defects, make sure that the vehicle and equipment are in order, install the road signs “Road works” and “Pass the obstacle on the left” on the vehicle, give instructions to all members of the group special attention should be paid to the importance of compliance with all the requirements of safety of workers. will be taught to use this methodology in order to acquire the necessary skills before conducting the inspection.

If there are no defects in the road surface, if they are rare (with intervals of 100 m and more) or if the same defects occur along a large length of the road (more than 100 m), it is allowed to conduct a visual assessment during the passage of the vehicle at a speed not exceeding 30 km/h in other cases, the visual assessment is carried out while walking along the road, following the rules of safety equipment. In the case of video computer filming equipment, filming is carried out while the vehicle is moving at a speed that ensures the processing of the results. in this case, the filling of the defect log is performed during the camera processing of the inspection results in order to take measurements (tread depth, opening level of cracks, distance between cracks, length of the sides of the cracks grid nests), the car moves 5-10 m ahead of the defect site, the engineer and the technician get out of the car and leave the side of the road in the opposite direction to the traffic

moves. When entering the carriageway, it is necessary to carry out works protected by a car with the road signs “Road works” and “Go around the obstacle on the left” facing the direction of traffic.

During the visual assessment of the condition of the surface course, the surface course is divided into sections of the same type from 100 to 1000 m long, the boundaries of which are determined by the same type or similar defects. Distances are determined by the car's speedometer or odometer. Within each section, private micro-sections of 20-50 m length with practically the same condition of the surface course (same types of defects) are defined.



On the basis of the information collected by me Rajapov Nodirbek in the production practice, the topic of Graduation thesis was formed, according to it: *IV category 4K944 “Urganch – Khiva” highway in Khorezm region - Karamon village. - Koshkopir village. Perfect repair of the 0-5 km section of the highway is technological 4K944 “Urganch – Khiva” highway - Karamon village. “Koshkopir.” I made a record of defects for the 0-5 km section of the highway.*

From the defects detected using the above methods, the defect record is made as follows.

RECORD OF THE ROAD DEFECTS

Class IV 4K944 ““Urganch — Khiva” avtoyo‘li — Qoramon q. — Koshkopir q.” Table 1 lists defects according to the diagnostic results of the 0-5 km section of the highway

Table 1

| O/n | Address of works | | Length, m | Existing condition of the highway | Works to eliminate defects |
|-----|------------------|---------|-----------|---|--|
| | Beginning | Closing | | | |
| | PK+ | PK+ | | | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | PK0+00 | PK20+00 | 2000 | <p>There are grid-like cracks, longitudinal cracks, subsidence, erosion, stratification, and the strength of the surface course does not meet the requirements.</p>  | <p>The existing base and screed parts of the road should be demolished, and a new base and screed should be laid according to the calculation of the road block.</p> |
| 2 | PK20+00 | PK40+00 | 2000 | <p>surface course of road strength module is not up to the mark.</p>  | <p>The existing sub-base and screed sections of the road should be demolished and a new sub-base and screed should be laid at the expense of the road barrier, and since there is a collector on the right-of-way, warning posts should be installed. Work is carried out according to the requirements of MKN 46-2008</p> |
| β | PK40+00 | PK50+00 | 1000 | <p>surface course of road strength module is not up to the mark.</p> | <p>Work is carried out according to the requirements of MKN 46-2008</p> |

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