

EXTENDED TECHNICAL INSPECTION OF THE LIFTING MECHANISM SUPPORT PLATFORM OF THE M5A COAL REMOVER

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ABSTRACT: From the point of view of safety in operation, the technical condition of the metal construction is decisive, therefore the main objective remains its evaluation, but to evaluate the rehabilitation costs and to provide the beneficiary with all the necessary data to decide the opportunity to maintain the machine, the expertise will also includes the presentation of the technical condition of the resistance construction (metal construction) and of the mechanisms related to the machine.

Keywords: arm, car, coal

1. INTRODUCTION. LIFTING MECHANISM SUPPORT PLATFORM

Figure 1 shows the identification sketches of the support platform of the lifting mechanism.

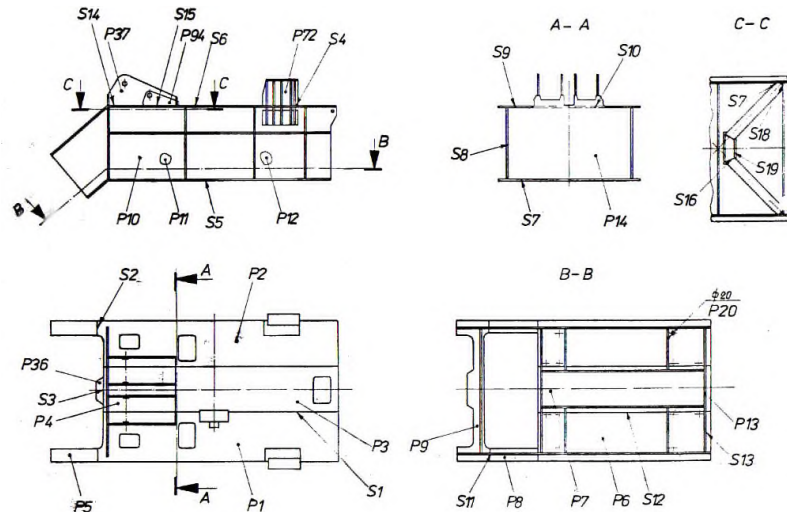


Fig.1 - Support platform of the lifting mechanism

The technical expertise consisted of the following and was extended in the technical expertise with recommendations and redesign of some subassemblies. Expertise of the general technical condition of the coal extractor in terms of load-bearing capacity, strength, stability

and operational safety: detailed visual examination of the metal construction, visual examination of the mechanisms with the car at rest, verification in assembled state of the nodes with high resistance screws- by the vibration method applied to the screws, checking welds with

welds with penetrating liquid, US checks of some welds from the resistance metal construction according to the attached bulletins, visual check and by measuring the diameter of the tension cables.

2. DESCRIPTION OF NON-CONFORMITIES AND REHABILITATION PROPOSALS

The upper sole pos. They must be straightened during the repair fig.2.and fig.3. They will straighten out during the repair with the unloading of efforts.



Fig.2.



Fig.3.

The connection of the ballast box that constitutes the support of the lifting mechanism by the beams on which the

upper electrical cabins are placed is without visible problems. During the repair, the joints shown in fig. 4-7.



Fig.4



Fig.5



Fig.6



Fig.7

Unauthorized welding was performed on the metal construction of the box. It must be removed, polished and executed during

the repair period, control with penetrating liquids, fig. 8-11.



Fig.8



Fig.9



Fig.10



Fig.11

Holes with irregular contours were drilled in the upper plate for the passage of the lifting cables. They must be adjusted to a

round shape, welded reinforcements, checked, fig. 12-13.



Fig.12

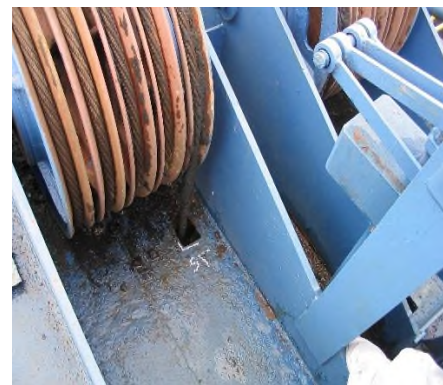


Fig.13

No lids were mounted on the ballast box and therefore water accumulated and was transformed into a garbage can, fig. 14-15.

The box must be emptied. Carefully mount the machine.



Fig.14

In the roller battery holders there are various deposits, fig. 16-17. Cleaning and corrosion protection are required.



Fig.15

Protected water drainage holes will be drilled.



Fig.16

3. CONCLUSIONS:

-It will intervene on the defects discovered until 05.2018 at the latest for remediation.

- Loose screws will be tightened or if they are locked they will be replaced.

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Fig.17

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