

REPORTS on commercial tests of XADO-technology

Based on the decision taken at the technical meeting at master mechanic's of Copper plant (report of proceedings of 24.04.2001) and according to the adopted test program, mechanical service of the smelt workshop together with representatives of "Taimyr-resource" Ltd. carried out commercial tests of **XADO**-technology during May, 3-8, 2001.

1. Commercial tests were made at **load-haul-dump unit 2ACD** by introducing reconditioning XADO-compound into engine DF8L413.

1. Specification figures before treatment of the engine:

Engine compression:

- right cylinder block: C1-9 kg/sm²; C2-15 kg/sm²; C3-13 kg/sm²; C4-9,5 kg/sm²;
- left cylinder block: C1-13 kg/sm²; C2-10,5 kg/sm²; C3-14 kg/sm²; C4-10,5 kg/sm²;

Oil pressure in the engine: at 700 rev per min P=3,1 kg/sm².

2. Treatment of the engine started on May,3,2001 at 16.00 and included three stages. Every stage consisted in introduction of 45 g of XADO-compound and further idle operation of the engine during at least 4 hours. The treatment was finished on May, 4, 2001 at 8.00.
3. Specification figures after treatment of the engine, taken on **May, 4, at 8.00.**:

Engine compression:

- right cylinder block: C1-11 kg/sm²;
- left cylinder block: C1-15,5 kg/sm².

Oil pressure in the engine: at 700 rev per min P=3,1 kg/sm².

Unwanted sounds during engine's operation almost vanished.

4. Specification figures after treatment of the engines, taken on **May, 8, at 16.00.**:

Engine compression:

- right cylinder block: C2-16 kg/sm²; C3-17 kg/sm².
- left cylinder block: C1-17 kg/sm²; C2-15 kg/sm².

Oil pressure in the engine at 700 rev per min: P=3,1 kg/sm².

Unwanted sounds during engine's operation are almost absent.

2. Results of XADO application:

1. Increase in compression rate (at sample measurements):
 - right cylinder block: C1 by 22,2%; C2 by 6,7% (slightly worn); C3 by 30,8%.
 - left cylinder block: C1 by 30,8%; C2 by 42,9%.
2. Oil pressure in the engine stayed almost the same.
3. Unwanted sounds during engine's operation almost vanished.

3. Conclusions and propositions.

Application of **XADO**-technology caused significant improvement of engine performance within short term. It gives grounds to consider the commercial tests as effective and to recommend manufacturing application of **XADO**-technology.
