



Course: Machine building

1. **Name of innovative development:** Application of term technologies for reaction of replacement details
2. **Purpose and scope:** Improving the technology of thermal welding and surfacing will allow for strong adhesion between the part and the restored layer, as well as predict the strength of the adhesive bonding, depending on the properties of the material of the component.
3. **The main characteristics, the essence of development:** The composition of the exothermic charge based on the scale of steel 18X2H4MA was developed and to offer the technology of the restoration of details by the method of exothermic surfacing. The stated purpose is achieved by the fact that an exothermic mixture for welding and welding of steels is obtained by laying the iron-aluminum termite, which is obtained from powders pre-prepared according to the standard scale method and aluminum powder PA-3 GOST 6058-73, as well as PMS-1 copper powder GOST 4960-75, potassium nitrate powder GOST 19790-74, ferrosilicon FS45, ferromanganese FMN75A
4. **Comparison with the world analogues, the main advantages of development:** The proposed technology allows welding or surfacing without the use of external power supplies.
5. **The State of Intellectual property protection:** 2 patents of Ukraine were obtained for utility model.
6. **Demand on the market:** The developed technology can be used in repair and restoration work of aggregates of agricultural and forest complexes.
7. **Condition of development readiness:** Laboratory standards are made and also high temperature experience tests are conducted, the expected descriptions are confirmed.
8. **Color illustrations, photo development:**



9. **Coordinators for communication:**
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