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## **MAINTAINANCE AND SAFETY GUIDANCE FOR WORK WITH CUT-OFF WHEELS**

**Russian Classification of Products by Economic Activities 2: 23.91.11.150**

**Customs Commodity Code EAEU : 6804 22 180 0**

# The guidance is developed according to GOST R 52588 – 2011 «Abrasive tool. Safety requirements»

## **1. Conditions and storage period**

**1.1**\_\_Cut-off wheels (hereinafter referred to as wheels) can be stored in dry, covered and well-ventilated rooms with a stable temperature within 15-20 ° C.

**1.2**\_\_Wheels should not be stored together with chemicals and should not be subjected to one-sided heating, for example, should not be placed near heating elements.

**1.3**\_\_Wheels should not be subjected to sudden shocks, hits and moisture.

**1.4**\_\_Shelf life of the wheel since its manufacture – 3 years. The date of manufacture is indicated on the metal bush ring which is pressed into a wheel.

## **2. Mounting and operation of abrasive tool on machine, precautions measures**

**2.1**\_\_ Only people who have passed training, certification, qualification commission on occupational safety are allowed to work with cut-off wheels.

**2.2**\_\_ Equipment must be provided with:

- removing abrasive dust and waste from the working zone;
- protection of the worker against abrasive, metallic and non-metallic dust, particles of the processed material formed during the cutting;
- the abrasive tool and its fastenings should be protected by means of protection (protection hood, enclosure, metal screen, protective shroud, etc.) included in the equipment set.

**2.3**\_\_Before installation on the machine, the wheels should be inspected.

***Do not use the wheel:***  
***- with cracks and scratches on the surface;***  
***- without a mark for the test for mechanical strength;***  
***- for face grinding.***

**2.4**\_\_Wheels should be tested for mechanical strength with a test run rate of  $V_{pr}$  - 100% in accordance with GOST R 52588-2011.

On the instrument that passed the test, must be a mark of the test indicating the serial number and the date of the test.

**2.5**\_\_Before you start the work, a wheel should be subject to a trial test by idle running on machine or portable grinder with the operating speed during 2 min -for wheels with diameter till 400 mm , and 3 min for wheels with diameter more than 400mm.

**2.6**\_\_When securing the wheel, it is not allowed to use attachments on spanners, impact driver.

**2.7**\_\_The operator must work in personal protective equipment:



**Safety goggles**



**Ear protectors**



**Respiratory protection**



**Additionally, protective gloves must be used while working with a portable grinder**

**2.8**\_\_It is not allowed to use wheels on operations prohibited by safety signs, exceeding the speed indicated on the label.

**2.9**\_\_When installing on equipment or hand tools, it is essential to comply with the safety requirements for the operation of this equipment.

### **3. The list of possible erroneous actions, which can lead to an accident**

- mechanical damages of wheels;
- application of modes above permissible;
- mounting of inappropriate tools on machines;
- absence of machine balance according to the passport;
- absence of the consumer's test mark for the wheels ;
- rotational speed excess;
- absence of protection hood;
- absence of proper employees' training;
- the use of attachments to spanners, as well as a impact driver when securing the wheel;
- spindle wavering exceeding the standard;
- improper tool storage.

### **4. Guidelines for safe utilization**

The worked-out wheels according to the "Federal Classificatory Catalogue of Waste" (FKKO-2017) refer to waste of the 5th class (code 456 100 01 51 5 "Abrasive wheels waste, scrap of used abrasive wheels"). Wastes from the worked-put wheels are not dangerous ecologically and can be recycled to the landfill of domestic and industrial waste.