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MAINTENANCE AND SAFETY GUIDANCE FOR WORK WITH GRINDING ENDLESS BELTS

Russian Classification of Products by Economic Activities 2: 23.91.11.190 Customs Commodity Code EAEU: 6805 10 0000; 6805 20 0000; 6805 30 0001

The guidance is developed according to GOST P 52588 – 2011 "Abrasive tool. Safety requirements"

1) Conditions and storage life

- 1. The warranty storage life is 12 months from the date of manufacture.
- 2. The storage life is 5 years from the date of manufacture.
- 3. Escape the mechanical damages, for example, strokes, discharges or deflections and also provide the security from rainfall, dew, white frost.
- 4. Keep the abrasive tools in dry, nonfreezing area.
- 5. If possible keep the abrasive tools in the original package. Keep the abrasive tools that are out of the packages in a way to escape the deformation.
- 6. The efficient temperature for the units is 18-22 °C.
- 7. The relative atmosphere humidity is 45-65%.
- 8. It is forbidden to keep the endless belts closer than 1 meter from the heating devices, cold, wet walls, windows, doors, on the floor.
- 9. It is forbidden to expose the endless belts to direct sunlight.

2) <u>Instructions on placement and installation of the tools on equipment, measures of precaution:</u>

- 1. Only persons who have passed training, certification, qualification commission on labour safety are allowed to work with endless belts.
 - Equipment must be provided with:
 - removing of abrasive dust and waste from the working zone;
- 2. protection of the worker against abrasive, metallic and non-metallic dust, particles of the processed material formed during the grinding;
 - The abrasive tool and its fastenings should be protected by means of protection (protection hood, metal screen, protective shroud, etc.) included in the equipment.
- 3. The belts should be viewed before the installation.



It is forbidden to use a belt:

- with cracks and scratches on the surface;
- with integrity violation of interlocking joint.
- 4. 48 hours before the installation of belts on the machine they are removed from the original packaging and hung on a core with a minimum diameter of 50 mm. If the diameter of the core is less than 50 mm, it can lead to chips and cracks on the grinding belt.
- 5. Inspect the belts before the beginning of the work if they are damaged while the transportation or careless storage.
- 6. Grinding belts with a width of more than 50 mm can only be used on grinding machines designed specifically for them, meeting all the safety requirements.
- 7. Before installing the belt on the portable machine or machine, find the arrow on the inner side of the belt. In operation the direction of movement of the grinding belt must coincide with the arrow.
- 8. Check the working capacity of your equipment before the beginning of the work. Check correct function of supporting structure: contact wheels, support bars, the presence of protective shroud. Never take off the protective shroud when working with grinding machine or with machine!
- 9. Wear the belt on the contact wheels without tension.
- 10. When installing belts you must use special tools to prevent damage to its edges.

- 11. Grinding begins only when the belt is stretched and the grinding machine or machine reaches the maximum number of revolutions at idle speed. Belt by rotation should move without beats and axial movements.
- 12. Before starting work, the belt should be subjected to idle rotation on the machine or on a hand grinder at a working speed for 2 minutes.
- 13. When working the grinding belt should be loaded equable from the center.
- 14. Wet grinding is carried out only with the belts intended for this purpose.
- 15. Do not turn off the portable machine or the machine until the workpiece has a contact with a belt.
- 16. In wet grinding, after the grinding process has ended, the coolant-cutting fluid supply stops and the grinding belt starts at idle for as long as the cooling lubricant stops flying off from the abrasive belt.
- 17. When working you need to maintain the following measures of precaution:



- to work in safety goggles;



- to work in safety earphones;



- to work in individual respiratory protection equipment;



- the safety gloves should be used while working with portable grinder;



- It is not allowed to use a coolant-cutting fluid (depends on the properties of the grinding coated abrasives and the used tool)

- 18. Do not use belts on operations that are prohibited by the safety labels on the label.
- 19. When installing on an equipment or hand tools, it is essential to comply with the safety requirements for the operation of this equipment.

3) The list of possible incorrect actions that can cause the crashes:

- mechanical damages of the belt;
- application of the regimes higher that the ones required;
- installation of the tools on equipment that is not recommended for it;
- absence of protective shroud;
- lack of proper training of employees;
- improper storage of tools.

4) Safe disposal information:

Used belts according to the «Federal classification catalogue of waste materials» (FCCW-2017) are related to the waste materials of the class 5 (code 456 200 01 29 5 "Used coated abrasives"). The waste of used belts does not imply an environmental hazard and can be disposed at the domestic wastes landfill.