

DALMIA CEMENT (B) LIMITED - CEMENT PLANT **ARIYALUR**

SAFETY DEPARTMENT MANUAL

Effective Date: 01.11.2019 | WI-14(PI-14; AM-8) **Rev. No: 00** Issue No. 02

Approved By: HOD -SAFETY Issued By: M.R

WORK INSTRIUCTION FOR SAFETY PRECAUTIONS (GRINDING OPEARATONS)

1.1. DOs

- 1.1.1 Always keep the tool rest adjusted so that the distance between the wheel and the tool rest does not exceed 1/16 inch.
- 1.1.2 Always check the wheel before mounting if on the spindle.
- 1.1.3 Make a sound test to find out soundness of the wheel before mounting it.
- 1.1.4 Always see that the RPM of the spindle does not exceed the rated RPM indicated on the grinding wheel.
- 1.1.5 Allow the wheel to reach its maximum speed before grinding.
- 1.1.6 Switch on the dust collector system if it is provided for machine.
- 1.1.7 See that the work rest, fixtures, brackets, etc are securely fastened before grinding.
- 1.1.8 Use the grinder only for the purpose for which it is designed.
- 1.1.9 Electrical grinders should be connected with proper earthing and cord with plug in case of portable grinders.
- 1.1.10 While starting a portable grinder hold it under a work, bench or table or inside a casting for a minute, so as to prevent the broken wheel flying apart, due to any defect or being run above its safe speed.
- 1.1.11 Always use blotters on both sides of the wheel.
- 1.1.12 Always use the peripheral phase of the wheel to grind, never use its sides.
- 1.1.13 Always report any defects that you may notice to your foreman at once.
- 1.1.14 Always wear protective equipment like goggles, face shields when grinding, to avoid the grinding particles flying into your eyes.
- 1.1.15 Keep the spark arrestor guards in good condition.
- 1.1.16 Always dress the wheel before working on it.
- 1.1.17 Always handle and store the wheel with care.

1.2 DONTs

1.2.1 Do not use worn out wheel.



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- 1.2.2 Do not uses use a wheel larger in diameter than for which the machine is designed.
- 1.2.3 Do not adjust the work rest while the machine is in motion.
- 1.2.4 Do not change the wheel unless you have an authorization to do so.
- 1.2.5 Do not mount a wheel which is having a lesser rated RPM than that of the spindle RPM of the machine.
- 1.2.6 Do not grind on the side of the straight wheel.
- 1.2.7 Do not use gloves while grinding unless it is authorized by your foreman for special operations.
- 1.2.8 Do not force the work against a cold wheel. Apply it gradually.
- 1.2.9 When grinding a chisel or a wedge shaped article, never point it downwards as it may stick between the wheel and the work rest which may result in serious damages.
- 1.2.10 Do not stand directly in front of a grinding wheel when a grinder is started.
- 1.2.11 Do not grind the material for which the wheel is not designed.
- 1.2.12 Do not start the machine until the wheel guard is in its place.
- 1.2.13 Do not tighten the mounting nut excessively.
- 1.2.14 Do not use the wheel that has been dropped.

1.3. GRINDING WHEELS:

For safety in grinding wheel operations, the following points are to be observed.

- 1.3.1 Keep the wheels perfectly true either with dressing tool or with the diamond.
- 1.3.2 The works rest is to be adjusted as the diameter of the wheel reduced.
- 1.3.3 While making guards for the machine, remember mild steel is better than cast iron.
- 1.3.4 When a new wheel is mounted, it should be run first as its operating speed for a minute to make certain that the wheel has not been damaged during mounting or
- 1.3.5 Work should never be forced against a cold wheel as the sudden heating may cause the wheel to break.