

Grinding Wheels Are Safe... If They Are Not Abused

DO and DON'T

Do always handle, store, and use wheels in a careful manner according to A.N.S.I. Safety Code B7.1.

Do use oldest grinding wheels first.

Do visually inspect all wheels before mounting for possible damage.

Do "ring test" wheels before mounting. See A.N.S.I. safety code B7.1 for details.

Do make sure operating speed of the machine does not exceed the maximum wheel speed.

Do check mounting flanges for equal and correct diameter, flatness, and freedom from burrs or debris.

Do use mounting blotters supplied with the wheels.

Do be sure work rest is properly adjusted (center of wheel or above; no more than 1/8" away from wheel).

Do always use a safety guard covering at least one half of the grinding wheel.

Do allow wheels to run at operating speed while standing aside, with the guard in place, for at least one minute before grinding.

Do always wear safety glasses or some type of approved eye protection when grinding.

Do turn off coolant before stopping wheel to avoid an out-of-balance condition.

WARNING! IMPROPER USE MAY CAUSE GRINDING WHEEL BREAKAGE AND SERIOUS INJURY.

POST THIS NEAR THE GRINDING MACHINE

Don't use a wheel that has been dropped.

Don't use a wheel that has been subjected to excessive humidity, moisture, or temperature prior to mounting.

Don't ever exceed maximum operating speed established for the wheel by the manufacturer.

Don't force a wheel onto machine or alter the size of the mounting hole. If a wheel won't fit the machine, get one that will.

Don't use mounting flanges on which the bearing surfaces are not clean, flat, correct size and equal diameter.

Don't use wheels without a clear ring. See A.N.S.I. Safety Code B7.1 .

Don't tighten mounting nut or flange bolts excessively.

Don't grind on the side of the wheel.

Don't start the machine until the wheel guard is in place.

Don't stand directly in front of a grinding wheel whenever a grinder is started and for the first one minute of operation.

Don't jam, twist, bend, or tilt wheel while grinding. Never jam work into the wheel.

Don't grind material for which the wheel is not designed.

CAUTION: COMPLY WITH A.N.S.I. SAFETY CODE B7.1, O.S.H.A., AND THIS SAFETY GUIDE. DO NOT OVERSPEED, ABUSE, OR DROP WHEEL. ALWAYS USE APPROVED GUARD, PERSONAL PROTECTION EQUIPMENT & PROPER MOUNTING PROCEDURES.

Safety Guide For Grinding Wheel Users

Additional Information to ANSI B7.1 Code:

Make sure mount-up arrow (if provided) is at top of wheel. This is to position the heavy end (at mount-up) slightly closer to the center of spindle, so balance is optimum.

Tighten (torque) all bolts in an alternating pattern to 15 ft-lbs. Repeat sequence at 20 ft-lbs or to machine builder's recommendations. Higher horsepower machines may require greater torque. Use 30 ft-lbs for centerless wheels or sets up to 12" wide. Use 40 ft-lbs for wheels or sets over 12" wide. Use more than 20 ft-lbs only if approved by machine builder.

Re-torque flange bolts to specification after eight hours of operation. Check every eight hours thereafter until the torque remains constant. Blotters may compress due to absorption of coolant.

Paper blotters are not to be used between wheels of multi-wheel sets.

Make certain flange bolts are not too long for tapped holes. If swarf builds up in holes, bolts might bottom out instead of tightening the flange.

ADDITIONAL and more detailed information is contained in the booklets listed below :

American National Standard Safety Code for the Use, Care and Protection of Abrasive Wheels. B7.1

American National Standard Specifications for Shapes and Sizes of Grinding Wheels, B74.2

American National Standard Markings for Identifying Grinding Wheels and Other Bonded Abrasives B74.13

Continued:

Handling, Storage and Inspection of Grinding Wheels - Safe Rules and Methods

Mounting Technique for Cylindrical and Centerless Grinding Wheels

Safety Recommendations for Grinding Wheel Operation

Special Speeds for Grinding Wheels

Safety Guide for Grinding Wheel Users - Safety Rules

Abrasive Machining - What? Why? How?

Grinding Stresses - Cause, Effect and Control

WARNING

Improper use may cause grinding wheel breakage and serious injury. Read this guide for do and don't rules of safe grinding wheel use and other important safety information.

This SAFETY GUIDE is to be delivered with the grinding wheels to the grinder operator and wheel mounter.

This SAFETY GUIDE is designed for the individual user of grinding wheels whether he be in the employ of a large corporation or in the confines of his home work shop. It is based on the premise that grinding is a safe operation when a few basic rules are followed. These rules are based on material contained in the American National Safety Requirements B7.1 (A.N.S.I. B7.1) - "Use, Care & Protection of Abrasive Wheels."

FOLLOW THEM !!