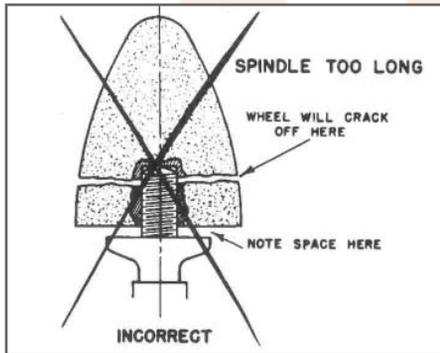


MOUNTING CONES AND PLUGS – THE PROPER METHOD

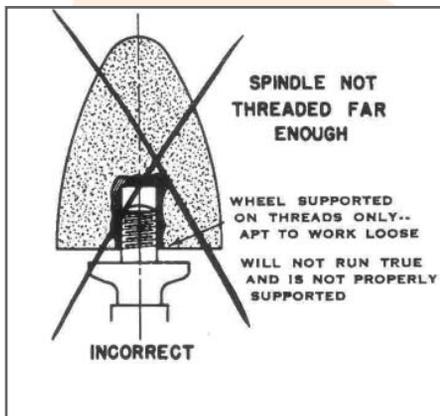
Wheel types 16, 17, 18 and 19 (cones and plugs) are equipped with blind-end threaded holes. One of the major causes of breakages with cone and plug type wheels can be traced back to improper mounting. Incorrect spindle length (too long or too short) or an incorrect or missing back flange can break these wheels.

Below are examples of incorrect mounting procedures that can lead to the breaking of cones and plugs.



Example #1, Incorrect Spindle (too long)

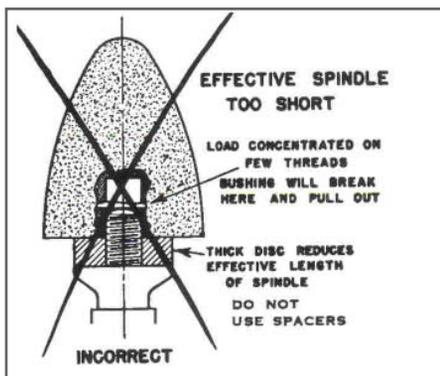
Excessive spindle length (too long) is the most common cause of breakages. If the length of the spindle is longer than the depth of the hole, the spindle can push the top of the cone or plug off as shown in example number 1.



Example #2, Cone NOT completely threaded onto machine spindle

Some portable machines are designed primarily to mount straight wheels with plain unthreaded hole and an end nut. Therefore, the spindle may not be threaded all the way to the shoulder (see example number 2).

If a cone or plug is screwed on to the spindle of a machine of this type, there will be no support for the wheel other than the threads. You must avoid this dangerous condition.



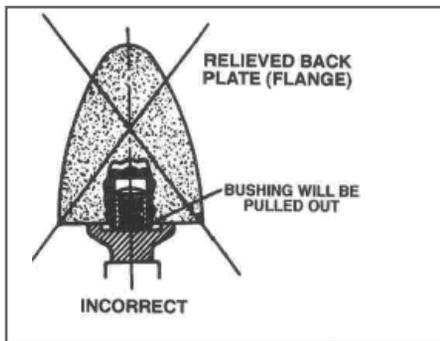
Example #3, Use of spacer (Do not use spacers)

The use of a spacer may create a condition where the spindle is too short. When this condition exists, pressures are concentrated on a few threads, usually resulting in stripping the treads (see example number 3).

PLAY IT SAFE AT THE WHEEL

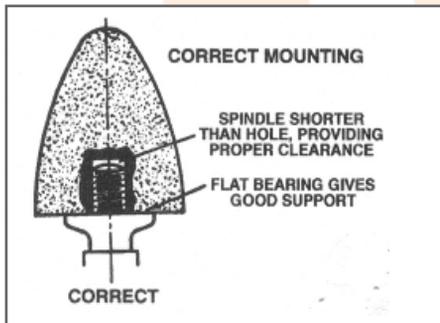


MOUNTING CONES AND PLUGS continued



Example #4, Wrong flange (Do not use relieved flange)

The flange must be flat and unrelieved. Relieved flanges will pull the bushing out of the wheels as shown above. The flanges should be perfectly flat, and heavy enough to prevent "springing". If the flange is "sprung" so that the bearing surface is concentrated close to the hole, cone or plug breakage will likely occur (see example number 4).



Example #5, Correct mounting

These types of abrasive wheels are equipped with blind-end threaded holes. Example 5 shows a properly mounted cone. Notice the spindle is shorter than the hole, providing the proper clearance. The flange is designed to give flat bearing support against the cone's back.

Just like work safety, the safe and effective mounting of cones and plugs (Types 16, 17, 18 and 19) is no accident. We recommend that you play it safe at the wheel and properly mount your cones and plugs.

PLAY IT SAFE AT THE WHEEL



For additional information on this topic or if you need any other abrasive safety information, please review ANSI, OSHA and all literature provided by the abrasive wheel and machine manufacturer. You may contact the Saint-Gobain Product Safety Department at (508) 795-2317, Fax (508) 795-5120 or contact your Saint-Gobain Abrasives representative with any safety related questions.

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