Practical Tips for Using Heavy Demolition Tools

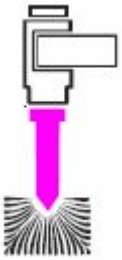
We designate the time until the working side of the tool is completely worn as the service life, stated in hours, days or months. However, it only makes sense to use this method of comparison if the conditions of use remain constant. If the material to be broken and the beating frequency vary, this produces standard differences at a ratio of 1:100 with equivalent tools.

Guide for Proper Tool Usage

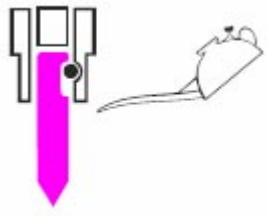
Apply grease on high-stress tools especially liberally before inserting into the hammer.

Operate your breaker only after having positioned the demolition tool on your work surface. Stop hammer immediately when the material breaks up.

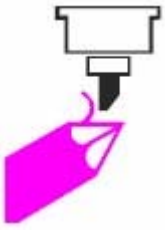
Avoid too much play between chuck bushing and tool to prevent tool breakage or damage to the chuck bushing.



Use only short strikes (a maximum of 10-20 seconds), then remove hammer and choose new angle or position of attack. If the tool heats up, allow the tip or cutting edge to air-cool.



Lubrication: Apply high pressure grease at least 4 times daily to make sure the

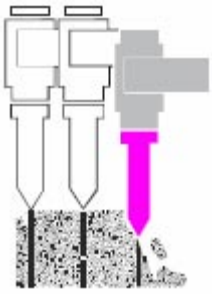


Tool reconditioning: Dull tips or edges or damaged tools can be

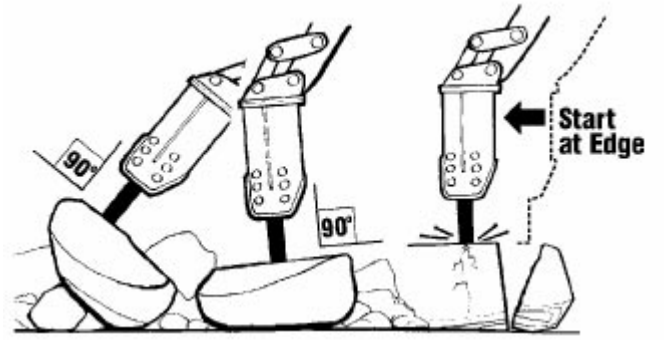
lubricating film does not break.

reconditioned with milling, planing or lathing.

The correct strike position should be a 90° angle to the work surface. The shank, chuck and carrier should form a unit.



Use a gradual approach to breaking up material section by section. Start at the edge of large pieces, then work in towards center.



Damage can occur if the breaker is used for prying, picking or lifting.

Do not operate the breaker under water unless equipped for such work. See your Service Manual for details.

The Most Frequent Causes of Heavy Demolition Bits Breaks

A demolition tool in flawless construction with sufficient heat treatment strength is only subject to forced break because of massive bending. This break starts at the edge of the tool. There are what are known as fracture lines that are reliable indications for forced break. Beyond this massive bending and too much play in the guide bush that we already mentioned, another possible cause for breaks is the wrong strike position when placing the tool with transverse strikes. If the force is introduced to the tool at an angle when the strike position deviates from the vertical direction by more than 5°, there is also the danger of forced break.

With vibration failure, the piston striking energy is transferred to the tool in strikes. This produces elastic upending, i. e. the tool is shortened and there is an elastic jump back to the original position resulting from the following relief. We can designate the material failure caused by this increasing stress as vibration failure. You can recognize it from the permanent fracture surface that

is reamed smooth from alternating stress and the grained residual fracture of the forced fracture surface that comes about as a result of the continuing cross-section weakening from the permanent fracture.

Everything that increases the tension in the edge areas of the tool increases the danger of vibration failure. Tension peaks occur with wedge-type surface damage as a result of bending it over sharp-edged objects.

Another frequent cause for vibration failures is surface damage on the tool's shank. This damage is caused by poor lubrication, insufficient lubrication or not lubricating at all or excessive surface pressing while positioning the tool at an angle.

Blank-Firing: is when the piston is able to strike the tool, just as the tool breaks through the material.

Idle-Firing: is when the piston is able to cycle without striking the tool. Idle-firing for some breakers is used as a warm-up procedure, without harming the breaker components.