

# Warranty Guide

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The purpose of this guide is to provide advice on the correct application of Brunner & Lay Demolition Tools and assist in analyzing and resolving any complaints immediately.

## Cause and Effect of Fatigue Failures

The continuous cycle of compressive and tensile stresses in a Demolition Tool, even under correct operating conditions, creates fatigue stress in the tool which can lead to fatigue failure of the tool before it is worn out. Anything which interferes with the normal operational cycle of compressive and tensile stresses will increase the level of fatigue stress being applied to the tool, increasing the risk of early fatigue failure.

### 1. Leverage/Bending

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The main cause of increased fatigue stress in a demolition tool is any form of side pressure during service which creates bending. Utilizing the tool as a lever, using the incorrect driving angle or attempting to break ground using the “pull” of the machine are all detrimental to the life of a demolition tool and are to be avoided (see Figure 1).

### 2. “Free Running”/“Blank Firing”

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This can arise in any situation where the working end is not in proper contact with the material to be broken. This includes jobs where the tool slides off the work and also when break-through of thin concrete slabs or boulders occurs. It is essential that the tool is applied at a right-angle to the working surface at all times.

### 3. Lubrication

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Regular lubrication is essential. Any form of damage to the surface of a demolition tool renders it more liable to suffer fatigue failure. Care must be taken to prevent accidental gouging or contact welding (“galling” or “pickup”) due to contact between the tool and chuck bushings either through lack of lubrication or excessive leverage (see Figure 2).

### 4. Cold/Corrosion

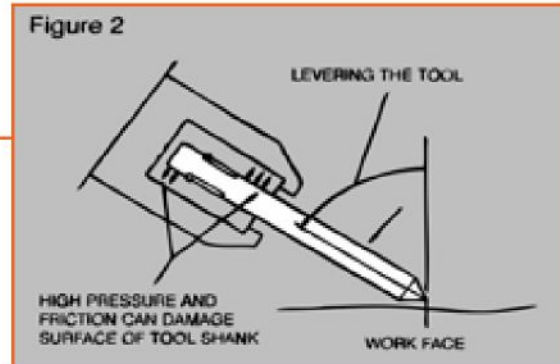
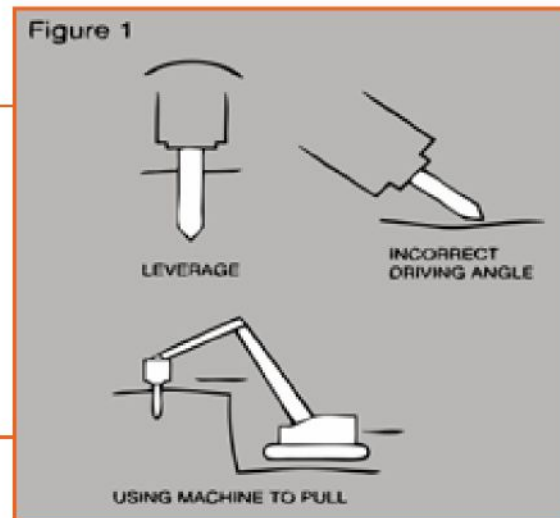
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Low temperature causes a Demolition Tool to be more susceptible to fatigue failure. Tools should be kept sheltered from the weather when not in use. A rusty Demolition Tool is more likely to suffer fatigue failure, so tools should be kept well greased.

### 5. Worn Internal Hammer Parts

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Worn hammer parts can cause the tool to be held too “loosely”. This can create surfacedamage on the tool, which can lead to fatigue failure of the tool. Worn parts can also cause uneven striking on the tool, which may lead to fatigue failure of the tool and damage to the piston.



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## 6. Typical Failures

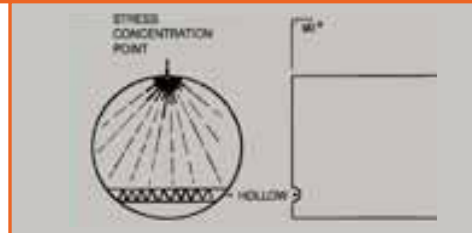
(Guide to Warranty Claims)

B & L Tools are manufactured from first class materials and then heat-treated to produce tools with optimum fatigue and wear resistance. When a tool has apparently failed to give satisfactory service life, a brief visual inspection can often give a quick indication of the cause.

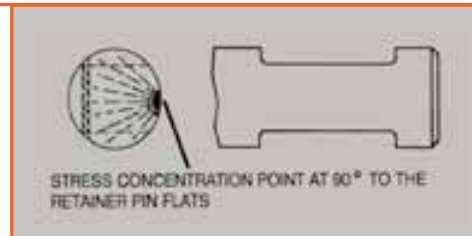
a. Typical fractures caused by excessive bending/leverage of the demolition tool. Warranty claims rejected.



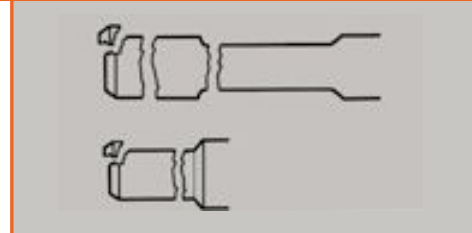
b. Typical of high stress fracture, usually caused by using the tool as an anchor to “pull” the machine. Warranty claims rejected.



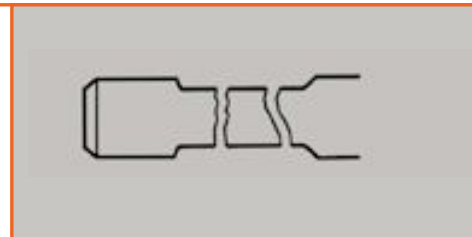
c. Typical fracture caused by levering tool while buried in the burden. Warranty claims rejected.



d. Typical fractures caused by blank firing and/or excessive chuck bush wear/damage. Warranty claims rejected.



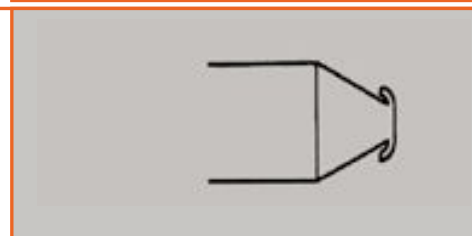
e. Typical fractures caused by blank firing and/or twisting of the tool due to worn/damaged retainer pin. Warranty claims rejected.



f. Typical fracture caused by lack of lubrication and/or chuck bush wear/damage. Warranty claims rejected.



g. Mushrooming: this is caused by driving the chisel or point into hard dense material for too long a period of time without penetration. This generates intense heat, softening the point and causing it to “mushroom”. This is not a manufacturing fault. Warranty claims rejected.



h. Note fatigue lines originate from the internal point, not outer diameter. Very rare failure type due to steel defect. 100% warranty accepted.

