

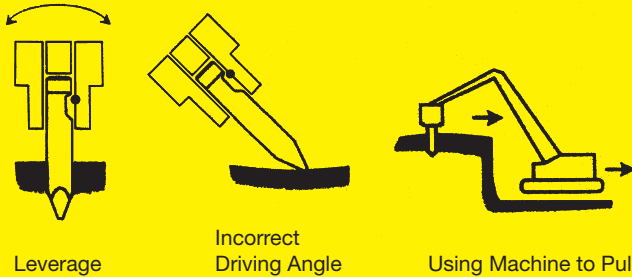


HYDRAULIC BREAKER CHISEL

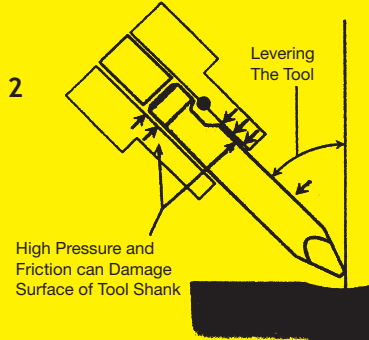
1. The main cause of increased fatigue stress in a demolition tool is any form of side pressure during service which creates bending.

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. Used incorrectly, the tool will 'snap the tool like a carrot'.

◆ Fig 1



◆ Fig 2



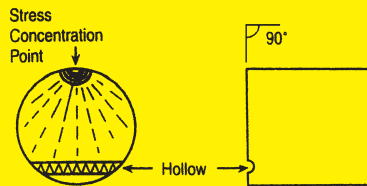
Indeco Demolition tools are manufactured from first class materials and then heat treated to produce a fatigue and wear resistant tool. Thus when a tool has apparently

failed to give a satisfactory service life, a brief visual inspection can often give a quick indication of the cause.

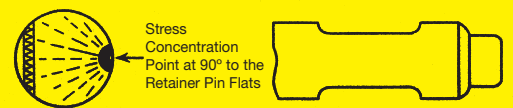
◆ Fig 3. Typical fractures caused by excessive bending/leverage of the demolition tool. Warranty claims rejected.



◆ Fig 4. Typical of high stress fracture, usually caused by using the machine to "pull". Warranty claims rejected.



◆ Fig 5. Typical fracture caused by levering tool. Warranty claims rejected



Other causes of increased fatigue stress in demolition tools include.

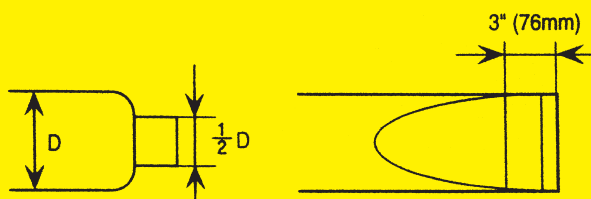
- a) 'Free running'. This is any situation where the hammer piston strikes the top of the demolition tool, but the working end is not a proper contact with the rock or concrete to be broken. This includes jobs where the tool slides off the work and also when breakthrough of thin concrete slabs or boulders occur.
- b) Mechanical and thermal damage, any form of damage to the surface of a demolition tool renders it more liable to suffer fatigue failure. Thus all care must be exercised to prevent accidental gouging or contact welding 'galling' or 'pick-up', due to contact between the tool and chuck bushings through the lack of lubrication or excessive leverage. (see Figure 2)
- c) Lubrication Care must be taken to avoid metal to metal contact that, as a result of galling or pick-up could cause deep damage marks which, in turn, lead to the formation of fatigue cracks and eventual failure of the demolition tool. Ensure that the shank of the demolition tool is well lubricated before locating in the machine. Molybdenum bisulphide grease is recommended for this application at three hourly intervals as per manufacturers instructions.
- d) Corrosion A rusty demolition tool is more likely to suffer fatigue failure, thus keep tools well greased and sheltered from the weather when not in use.

WEAR

Wear is influenced by group conditions, but as a general guide the following applies:
Blank tools worn more than 1/2 diameter or moils and chisels worn back from the 3" (76mm) of working end classed as reasonable life (Ref Figure 9). Warranty claims rejected.

Mushrooming: this is caused by driving the chisel or points into hard dense material for too long a period of time without penetration. This generates intense heat, softening the point, thus causing it to 'mushroom'. This is not a manufacturing fault (Ref Figure 10). Warranty claims rejected.

◆ Fig 9



◆ Fig 10

