

Shaft Assembly Ring Gear P/N 8-0106

The shaft assembly ring gear is an important part of the PC1 hoist because it allows the hoist to be breech loaded. This shaft assembly makes it possible to remove the sheave from the banjo housing so that the sheave can be breech loaded.

P/N 8-0106 is made up of two pieces. The first part is a male screw that is attached to the ring gear itself. It fits through the two bearings on the ring gear and is held in place with a snap ring. It has a round hole in one end that attaches the sheave guard cover in place with a roll pin. Possible damage to this piece is the loss of, and/or the rounding off of threads on the end that joins to the female portion of the shaft.

The second piece of the shaft assembly ring gear is the female portion. This piece has a small threaded hole in the smallest portion of the shaft, which is used to retain it to the gearbox. The opposite end of this shaft is larger in diameter, with a polished appearance. This polished surface is a bearing surface that the ring gear uses when the hoist is in normal operation to turn the sheave. Into the largest end of this shaft, is a large threaded hole that accepts the male portion of the shaft.

P/N 8-0106: Breakdown of Parts



Female portion of the Shaft
Assembly; Ring Gear



Male portion of the Shaft
Assembly; Ring Gear

With all equipment, it is important that it be used correctly. Without the proper training in breech loading of the PC1, some operators have damaged this shaft assembly ring gear.

The process of breech loading the PC1 pocket hoist is very simple and yet without training, the simple things get overlooked. The correct process for breech loading can be found in the operator's manual (P/N M-804) and in the video titled **Safe Operation of the PC1 Hoist** (P/N: P-00118). The operator's manual is mounted inside of the tube that is attached to all PC1 hoists. The video is available from Power Climber at cost.

If you are experiencing damage caused to the shaft assembly, consider using the video as a supplement to your operators training course.

Signs of Damage to P/N 8-0106

Representation of Damage Seen on the female shaft of P/N 8-0106



One Side



Opposite Side

The presence of short lines on the bearing surface appear when the operator tries to force the sheave removal operation, with the top access door still closed on the machine. These lines will be present at two different heights along the bearing surface. On one side of the shaft they will be low and on the opposite side these marks will be higher, because the sheave was cocked at an angle when the access door was left closed. These markings are proof positive that the operator has left a door closed when trying to remove the sheave.

Just the presence of these lines can affect the normal operation of the bearing inside of the ring gear. If these markings are severe it will be possible to hear a knocking noise when the hoist is operated. Because these lines will affect the life of the bearings, it is necessary to replace the complete shaft assembly.

If the operator really works at forcing this operation, it is possible that he will damage both pieces of the **P/N 8-0106**. The damage will be most visible on the male portion and show up as rounding of the threads, and may even be broken off.

For questions or comments, contact Customer Service at 1-800-560-CLIMB (2546) or customerservice@safeworks.com.