



Recommendations on Pulse Tool Fluid Changes

RECOMMENDATION

Our standard operation instructions that are sent out with tools states: “It is recommended that after every 250,000 fasteners or 180 days the fluid in the tool’s pulse unit be changed. It is also recommended at such time to grease the bearings in the air motor. It is recommended that after every 500,000 fasteners or 365 days that a pulse unit repair kit be installed in the pulse unit. This also allows the inspection of hard parts in the pulse unit.”

A recent service bulletin was sent out revising our fluid change strategy to: “The oil in the Pulse Unit should be changed every 150,000 pulsing seconds as long as the Pulse Unit does not fail before the time for the oil change. If the Pulse Unit fails before the 150,000 pulsing seconds, then it will need to be rebuilt. The Pulse Unit should be rebuilt every 300,000 pulsing seconds or upon failure.”

The change in concept is simple, but important. Since every application is different, a pulse tool may pulse for ¼ second on a hard joint, or pulse two seconds on a soft joint. It is this pulsing action that, over time, deteriorates the pulse fluid, making the fluid change necessary. The pulse fluid will naturally last longer on a tool with a ¼ second pulsing time than it would on the two-second pulsing time. This is the reason that we no longer only count cycles or fasteners to determine the maintenance cycle.

One should estimate the pulsing time for his or her specific application. Remember that this pulsing time should not include the time it takes to freely run down the fastener before hitting the work surface. Then simply divide the pulsing time into the 150,000 pulsing seconds to determine one’s particular maintenance schedule.

EXAMPLE

Medium hard joint with a pulsing time of 0.5 seconds: 150,000 pulsing seconds divided by 0.5 seconds equals a maintenance cycle of a fluid change of every 300,000 cycles or fasteners.

Hard joint with a pulsing time of 0.25 seconds: 150,000 pulsing seconds divided by 0.25 seconds equals a maintenance cycle of a fluid change of every 600,000 cycles or fasteners.

Softer joint with a pulsing time of 2.0 seconds: 150,000 pulsing seconds divided by 2.0 seconds equals a maintenance cycle of a fluid change of every 75,000 cycles or fasteners.

Of course, from the number of cycles and your projected production schedule, you can estimate the time between fluid changes. Using the first example, if your production volume is 500 assemblies per day and 4 fasteners per assembly, you should examine the tool in about 150 days or 5 months.

$$[300,000 / (500 \times 4) = 150 \text{ days}]$$

For more specific information or assistance in developing a maintenance program for your AIMCO tools, please contact your local Regional Sales Manager.