

It Takes Two, Baby

Some jobs need a backup.

In aircraft maintenance, your backup is a second wrench. You need it for the installation and removal of oil and hydraulic lines and other fittings.

Here are three specific examples:

- **The hydraulic hoses that attach to the cyclic control irreversible valve on the Huey flight control system.**

When removing or installing them, if you don't use two wrenches to tighten or loosen each hose, you'll kink, twist or break the hose internally.

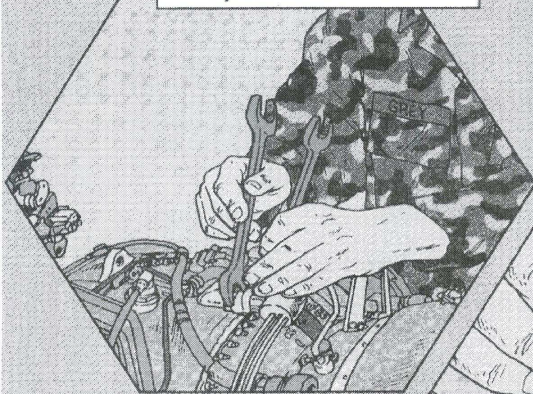
Two wrenches will help you seat the hydraulic fittings to avoid leaks when the hoses are under pressure.

- **The connector assembly on the variable inlet guide vane assembly on the T53 engine on Hueys and Cobras.**

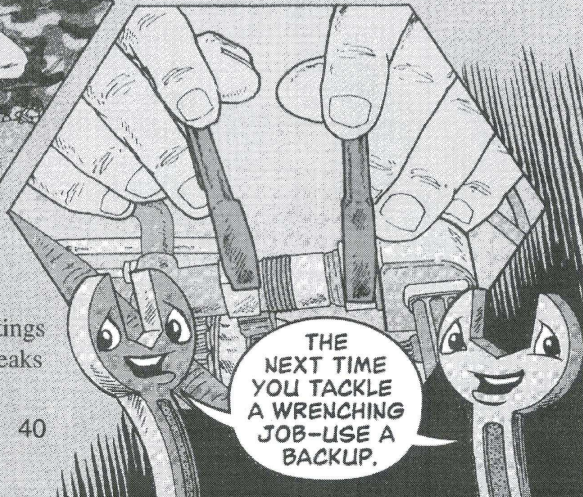
A broken connector rod could keep the vanes from opening. A broken rod is often the result when only one wrench is used to install or adjust the connector assembly. When you loosen or tighten the jam nut, use another wrench to keep a backup force on the self-aligning bearing. Otherwise, the force you put on the jam nut will twist and weaken the connector rod.

If it doesn't break right away, it will eventually, maybe during flight.

Some jobs need two wrenches ...



... like fittings on Black Hawk engines



THE NEXT TIME YOU TACKLE A WRENCHING JOB—USE A BACKUP.

- **The fuel lines and fittings on a Black Hawk engine.**

Without a backup wrench, fittings will strip, lines will rotate and leaks will happen.