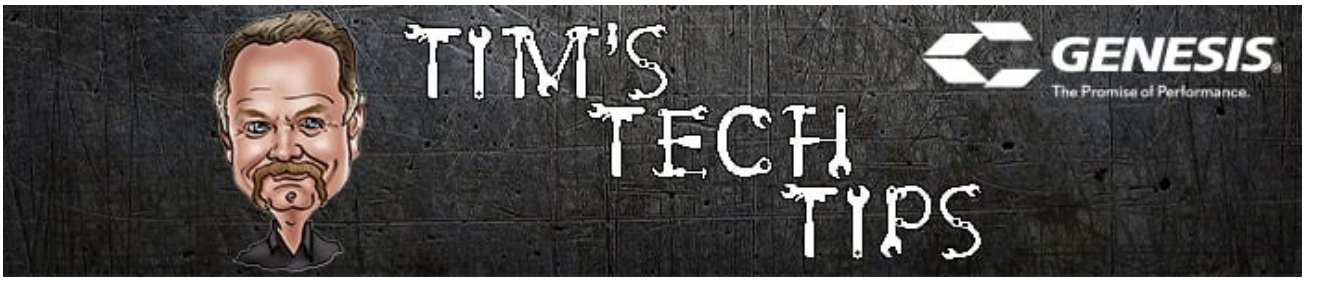

Five Questions About Mobile Shear Safety

We were recently asked to share some thoughts on mobile shear safety for an industry publication article. And while a lot could be written about dos and don'ts, below are five questions that serve as a good safety overview for all operators and maintenance technicians.

What steps should be taken to make sure a shear is ready to operate?
Before each use, shears should be visually checked to make sure they are in good operating condition. These steps include checking and greasing the grease fittings, checking hydraulic hoses and connections for wear or leaks, verifying the blades are torqued and well-maintained, checking the rotation bearing for loose or damaged bolts, checking for loose or missing pin-retaining bolts, checking the cylinder for dents or damage, and greasing the rotation bearing and pinion gear. Additional steps, as outlined in the operator's manual, also should be followed.

What materials should not be cut with a shear?
Mobile shears are not designed to process hardened steel material such as tool steel, railroad rail, axles, machined parts or high-strength material. Hardened/high-strength material breaks rather than shears, which can cause flying debris. It also can cause damaging decompression spikes to your shear and excavator hydraulic systems.

Pressurized containers also should not be processed unless the main valve has been removed and you are sure the container is empty, and nothing made of spring material or items containing springs, such as spring-loaded brake chambers and automotive struts, should be processed as the release of compressed springs is extremely dangerous.

Can shears be used to crush or pound material?
Mobile shears are designed specifically for cutting and should not be used as a hydraulic breaker to crush or pound on material.

The rotation function should be used only for positioning a shear. Using rotation to pry or break material exerts high back-driving forces and spikes to the rotation circuit components, which cannot be cushioned hydraulically. It also can cause motor and gearbox failures.

Can shears be used to pull down structures?
A shear should not be used to pull down structures, as doing so may cause falling debris or material to break free and exceed the carrier capabilities, causing tipping hazards and rotation component failures.

Conversely, a shear also should not be used to lift or move objects other than the material it is processing. Lifting and moving extraneous objects can cause excavator instability as well as damage the shear.

What precautions should be taken when operating a shear in hot weather?

Genesis shears are designed to run at the same hydraulic temperatures as the carrier, assuming high-quality oil is being used with adequate filtration, along with proper oil cooling. Limiting the use of devices that cause restriction, such as quick couplers, restrictive adaptor fittings or hydraulic lines that are too small, also will help everything flow smoothly without creating additional heat.

Keeping oil coolers clean also is extremely important. Dust buildup, inoperable fans, engine issues, cooler obstruction and plugged radiator cores can wreak havoc on system life.

In some cases, adding a hot-weather package also may be necessary. These “tropical” kits utilize an additional heat exchanger or a circulation pump to force more oil through the cooler when it otherwise would be static.

In any temperature, it’s always best to follow OEM maintenance instructions to keep equipment running at peak efficiency.

These overview questions are only the beginning when it comes to shear maintenance, so always read the **product manual** for your specific attachment. Tim and Loren are also here to answer any questions, **talseth@genesisattachments.com**, 218-349-5755, and **llagesse@genesisattachments.com**, 715-919-8316.

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