Tracked Excavator - Chain Tension Adjustment
Track sag adjustment on excavator chains

Problem

When we inspect used machines, we often find tracked type excavators with too tight chains. It appears to us, there is a lack of knowledge on how to adjust the track tension and what the correct required sag is.

Too tight tracks are causing an extended wear on bushings, sprockets and idlers. Also the lifetime on bearings of idlers and final drives is affected. Sometimes rollers, shoes and track links are still in very good condition, above 60% remaining life, but bushings and sprockets are close to wear limits. Therefore we recommend keeping an eye on track sag.

If track tension is too low it can happen the bushings snap over sprocket in drive operation. Also it is possible, the chain jumps over the idler center rim.

Each machine and brand has a specific value or tolerance. The sag should be adjusted accordingly. On most tracked excavators in the 15-30 ton operating weight range the value is approximately 4-7 inches (10-18cm). Have a look into your manuals or call your local dealer for advice.

How to adjust?

Lift the machine with the arm until chain on lifted side is hanging free above ground. Run the track for at least one full turn. Now it is time to measure the distance between the chain surface and the surface of the bottom roller in center of undercarriage.
If track sag is not within the tolerance it must be adjusted. Usually the tightening works with a grease gun. If track sag is too low (chains are too tight) it needs to be adjusted as well. On most tracked excavators is a release pin mounted where grease can be left out.

Safety advice

Make sure machine can’t be moved as long as someone is working close to tracks. Read the operation and maintenance manual of machine for info how to perform this adjustment. Serious injury can happen as the forces on track tensioners are high. When entering or leaving a machine, please follow the Three Limb Rule. Three limbs should always be in touch with steps or grab irons.