Roboflail Goes Soft

STM Co. Ltd. in Warwickshire, UK (the birthplace of William Shakespeare), is the sole distributor of SCAG ground care equipment in the UK and several European countries. Founded in 1990, STM also handles the sales of other equipment like Roboflail.

Flail mowers in the UK are very common. Flail mowers are used to manage very dense grass and foliage and give a very rough cut. The challenge with these flail mowers is the increased inertia that the clutch and the belts need to transfer.

Roboflail cutting a steep grade

To help engagement of these specialized implements, STM has started using the SoftStart (Smart Clutch) controller from Ogura. The controller can operate on either open or closed loop. On a closed loop system, the controller senses when electrical current is applied to the clutch, then uses the feedback from the sparkplug's ignition to determine droop in the RPM of the engine. This feedback is used to control the engagement time of the clutch so that a smooth transference of torque is made from the engine to the load.

The Smart Clutch module control works by controlling the current going into the clutch. Without a SoftStart controller, as soon as the switch is turned on, the clutch receives full current/voltage and tries to deliver maximum torque immediately. But, by controlling the current, it allows the clutch to safely slip, but not completely release. This SoftStart significantly reduces the load of all the components in the drive system, especially the belt.

Martin Wakefield says, "Here at STM Co. Ltd., we have had great success with these units fitted to our remote control bank machine with the flail or rough cut decks. We are looking at fitting these units to some SCAG ride on units in the near future mainly to bring customers' costs down. Mainly to prolong their belt life."

STM's Super Flail heads designed for use on the SCAG SWZ

In a closed loop system, such as one with an e-governor or steady RPM where feedback is unimportant, the SoftStart controller can still be used. The controller follows a predetermined ramp time providing a smoother engagement.

The SoftStart can be used on almost any application driven by a gas or diesel engine. Other applications like stump grinders, fans, trenchers and pumps can benefit from a softer engagement.

Ogura's SoftStart controller

www.st-mach.com●