

Earthworks: Doing more with less

by Konrad Saal

The wheel loader is probably the most commonly used machine in the construction industry today. Because of its flexibility and high load capacity, the wheel loader is the preferred construction machine for many cost-efficient tasks. It is used for material handling, digging, loading and transportation, road construction and site preparation. For his local infrastructure project, Swedish contractor Ytterviks Maskin AB was able to take full advantage of all the benefits a wheel loader has to offer by utilizing the new Leica iCON grade for wheel loaders machine control system. With the help of this innovative system, the company was now able to complete the job faster and properly from the very beginning.

In late September, Wheel Loader Operator, Joakim Ostensson, added the final touches to pedestrian and cycle paths near Skellefteå using his brand new Volvo L60G wheel loader, which is equipped with Leica iCON grade for wheel loaders, the machine control solution with dual GNSS from Leica Geosystems. Using this system, Ostensson was able to perform both rough grading and also add highly precise, finishing touches, even with challenging materials on soft and rough terrain. Wheel loaders are faster than dozers, are especially mobile and do not damage paved surfaces. With the Leica iCON 3D machine con-

trol system, Ostensson could perform these tasks at high speed and also quickly accomplish control measurements for as-built records with centimetre precision. Says Ostensson, "This system gives me exactly the information I need to work effectively and independently with confidence, so I can get it right, the very first time, every time!"

Saving time, material and fuel while increasing safety

With the new 3D machine control system, Ytterviks Maskin AB saved time and material by excavating exactly what was planned, thereby also saving expensive fuel of a minimum of 35%. Ostensson adds "It works really great. A great advantage for me is getting rid of all the staking out. No pegs, no stakes and no batter boards sticking out of the ground all over the site." He knows that these are often run over by machines and people, after which he can no longer rely on their positions or heights. In addition, the fact that there are hardly any people in the working area makes his work place even safer.

Another important benefit for Ostensson is time: "I save a lot of time with the iCON grade system, because there is hardly any machine downtime caused by stake out or height level checking tasks. I already know what needs to be done on the project since I have all the data with me in the cab. My work flows smoothly for me now."



■ Ostensson could perform precise, finishing touches to projects using the iCON grade for wheel loaders.

Easy control in the cab

Design information and real-time cut & fill indications are displayed on the control panel in the cab where Ostensson has the full picture of what the project looks like. The panel's user interface with graphical colour display provides full guidance and allows easy operation. Leica Geosystems' 3D machine control system for wheel loaders uses modern GNSS technology for accurate positioning and earthmoving results. The dual GPS solution provides Joakim Ostensson with the real-time position of the bucket, allowing him to simultaneously make adjustments to keep the level of material where it needs to be.

Unique PowerSnap to switch panels between machines

Joakim Ostensson's new machine control system features the unique patented PowerSnap functionality, which enables a quick and easy exchange of control panels between machines at Ytterviks Maskin AB. Leica iCON also supports Leica iCON telematics, which enables users to easily transfer data from office to

machines, receive remote support and utilise basic fleet management via the iCONnect website. ■

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Watch a short video about this project:

http://www.leica-geosystems.com/wheelloader_video