



New “Smart Handling” prevents SCORPION overload

In order to comply with the EN15000 longitudinal stability technical standard, as from October 2011 all CLAAS SCORPION telescopic handlers will feature as standard the new Smart Handling overload control system.

Unlike some Longitudinal Load Moment Control (LLMC) overload systems that rely on the boom hydraulics locking out when safe limits are reached, the new “Smart Handling” overload system on the SCORPION limits boom extension automatically as the safe load limit is reached. Whilst further extension may be limited, retraction, lifting or lowering are all still possible provided it is safe to do so, making the whole system far less restrictive to the operator.

EN15000 requires that telescopic handlers should be fitted with an LLMC to ensure that a machine can safely reach forward without tipping-up. However, this does have drawbacks where a machine is being used for agricultural work, for instance to push up grain or muck, or for digging, where a temporary overload results in the hydraulics being locked-out impairing performance.

How does “Smart Handling” work?

The Smart Handling system is far more than just an overload protection system. CLAAS has taken the opportunity to extend the functionality of the system, so that it can be used to automate certain work sequences and hence actually benefit the operator.

Using a rocker switch on the dashboard, the operator can set Smart Handling to work in either ‘Bucket’ or ‘Forklift’ mode.

Bucket mode

As the telescoped boom is lowered, the extended boom will automatically retract, regardless of the load situation, so saving time and enabling the operator to concentrate on manoeuvring. If required, the operator can simply override the automatic retraction using the boom out function, up to the overload limit at which point the boom telescoping will halt automatically.

When the boom is fully retracted, Smart Handling is automatically deactivated, so allowing the full tear-out force and lift capacity of the SCORPION to be used for pushing-up or digging.

Forklift mode

As the boom is lowered it will only retract when the overload limit is reached, and once a safe position is reached the boom will stop retracting. In addition, where the boom is at an angle of more than 40° the speed at which the boom is lowered is reduced to help maintain stability.

Below 40°, the range in which most forklift handling jobs are carried out, full boom retraction speed is maintained, so ensuring that quick cycle times can be achieved. Where it is safe to do so, the Smart Handling overload system can be temporarily bypassed, but it will be automatically re-activated after 60 seconds.

On the SCORPION 6030CP model, when in 'Forklift' mode and the boom is beyond 40°, whilst being lowered, as in 'Bucket' mode the boom will also automatically retract, but can be over-ridden up to the safety limit by using the boom out function.

Below 40° the boom will stay extended as it is lowered until the overload limit is reached, when again it will automatically retract to a safe limit.

With the new Smart Handling overload system for the SCORPION telescopic handler, CLAAS has developed a system that fully meets the requirements of the EN15000 standard , but is also practical in agricultural working environments and actually provides operator benefits.

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