



GLOBAL CRANE TRAINING

AC200-1 OPERATION

Differential Locks



Differential Locks Content



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Differentials / Differential Locks

Differentials

To distribute the drive torque to the driven wheels and to adapt the wheel speeds when driving through curves the following differentials (drive assemblies) are fitted:

– Longitudinal differential in the distributor gear

The distributor gear forms a unit with axle 3.

– Longitudinal differential in the axles

An additional longitudinal differential is fitted in axle 4 (5-axle basic unit) and / or in axle 5 (6-axle basic unit).

Activation axle 3:

When the longitudinal differential locks are set, axle 3 is activated.

– Transverse differential

Transverse differentials are fitted in the drive axles 2, 3, 4, 5 (5-axle basic unit) and / or 2, 3, 5, 6 (6-axle basic unit).

Differential Locks

The differentials in the distributor gear and axles which work lengthways and the transverse differentials can be locked.

In the locked condition, there is a rigid connection between the two outputs of the differentials.

The differential locks need to be switched on in the following circumstances:

– A wheel of a drive axle is on a loose surface and is spinning: the transverse differentials must be locked.

Both wheels of a drive axle are spinning:

the longitudinal differentials must be locked.

Only in extreme cases may both differential locks be switched on together.

If the differential locks are switched on, you may only drive at walking speed.

The differential locks may not be activated in the steering figures “Manual rear axle steering” and “Diagonal steering”.

You must avoid activating the differential locks during steering figures “Narrow cornering” and “Driving away from the wall”.

Activating the Differential Locks

When the differentials are locked there is a risk of parts of the drive being overloaded. Extreme caution is always required when driving the crane with the differentials locked.

Only use the differential locks to drive on difficult territory (sand, mud, loose ground).

Only switch on differential locks shortly before reaching an obstacle and switch them off immediately after the obstacle.

Only switch on and off when the crane is at a standstill. There is an extremely high risk of the crane being damaged if the differential locks are switched on when the drive wheels are turning.

When the longitudinal differential is locked, the steering can be actuated with extreme caution.

When the transverse differential is locked, the crane may only be driven in a straight line.

Only use differential locks when the crane is in the transport condition. Under no circumstances may they be used when the crane is erected!

Drive carefully! Do not start or stop abruptly! Do not apply full throttle!

When the differentials are locked, never drive on longer stretches or on solid surfaces with good traction.



Activating the Longitudinal Locks

Activate the longitudinal locks as follows:

1. Stop the crane; wait for it to come to a standstill!
2. Press switch (94).

The longitudinal locks in the distributor gear and in axle 4 (5-axle basic unit) and / or in axle 5 (6-axle basic unit) are switched on and axle 3 is activated.

3. The indicator light (A9) lights up.

Switch off the longitudinal locks as follows:

1. Stop the crane; wait for it to come to a standstill!
2. Press switch (94) again.

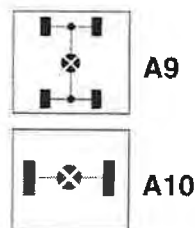
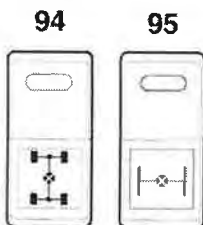
The longitudinal locks in the distributor gear and in axle 4 (5-axle basic unit) and / or in axle 5 (6-axle basic unit) are switched off and axle 3 is switched off.

3. The indicator light (A9) goes out.

If, when switching off the longitudinal locks, display (A9) does not go out, the lock has not disengaged.

activate the lock again and carry out small changes in direction with the crane vehicle. At the same time turn the steering a few times to the left and right.

At a standstill, switch off the locks again.



Activating the Transverse Locks

First switch on the longitudinal locks.

The transverse differentials may only be applied when it is no longer possible to proceed even though the differential locks are applied.

Switch on the transverse locks:

1. Stop the crane; wait for it to come to a standstill!
2. Press switch (95).

The transverse locks in the drive axles 2, 3, 4, 5 (5-axle basic unit) and / or 2, 3, 5, 6 (6-axle basic unit) are switched on together.

3. The display (A10) lights up.

Switch off the transverse locks as follows:

1. Stop the crane; wait for it to come to a standstill!
2. Press switch (95) again.

The transverse locks in the drive axles 2, 3, 4, 5 (5-axle basic unit) and / or 2, 3, 5, 6 (6-axle basic unit) are switched off together.

3. The display (A10) goes out.

If, when the transverse differentials are switched off, the display (A10) does not go out, the lock has not disengaged.

Activate the transverse lock again and carry out small changes in direction with the crane vehicle.

When at a standstill switch off the lock again.

