



## Work Safety - Edition 2014 Concise cards of major risks in agricultural activity

### 5 Machinery and tools - Card 05.02 Front loaders



## Card 05.02 Front loaders

### THE RISKS:

- *Balance loss and overturning risk* (during tractor-front loader transfer caused by unevenness and ruggedness of the ground and the rising of the machine's centre of mass due to the lifted loader)
- *Lifter turnover* (due to subsidence of the ground; to wrong bearing positioning; after accidental bumps and unevenness of the ground)
- *Crushing during linking operations* (due to wrong manoeuvres; operators' misunderstanding and carelessness)
- *Fall of lifted material on tractor's driving seat* (due to the effect of backward rotation of the mounted device after the arm lift and instability of lifted load)
- *Lifting arms fall* (due to hydraulic system breakdown)
- *High pressure oil squirt* (hose's break or wear)
- *Running down and contact with the loader moving components* (due to people's presence)
- *Power overhead wires contact*
- *Accidental control activation* (due to unintentional bump on command lever)

### PRACTICAL AND OPERATING INDICATIONS:

While the vehicle moves:

- the lifter shall be kept in "lower position";
- it is forbidden to ascend steep slopes (check the maximum slope authorized by the builder);
- it is necessary to keep safe running speed and avoid sharp braking;
- it is necessary to check always tyre pressure;
- it is necessary to conform to the predetermined maximum load limit.

Separating operations shall be performed on flat land with firm ground, easy to enter and away from other vehicles' transit.

If, due to poor visibility, help from a second operator is needed, he/she must keep away from the dangerous zone: not in front of the lifter or near the tractor wheel, but in lateral position and he/she must always be visible to the driver.

After the insertion of the linking gudgeon's, check the intervention and the insertion of the safety pin.

If the self-levelling system is not provided on the machine, the operator shall manually compensate for the position of the front device as he/she lift the arm.

It is necessary to check the presence and the integrity of a structure capable to resist to the load roll-over fallen from the lifter arms (Front-guard) and of the operator's protection (Rops-Fops) against lifted load fall.

Round bales shall be lifted with their proper forks, whereas the forklift truck's lifting device shall never be used in these situations (round bales may fall on the driver's seat).

During maintenance operations:

- it is necessary to check the integrity of the lifter throttle valves placed on



the hydraulic cylinder rod;

- suitable metallic locking supports or other devices provided by the builder shall be used.

It is necessary to substitute hoses following the indications of the maintenance handbook, and they shall be protected by extra sheath.

Non protected hoses, under operating pressure higher than 50 bar, shall be placed at 1 m at least from the worker.

While working, the operator shall pay attention to any running over, crushing and/or contact with lifter moving devices.

Operator shall always keep good visibility. In case of front visibility lack it is preferable performing manoeuvres in reverse.

Manoeuvres areas must always be bounded and identified by suitable warning signals and shall be kept free from ground staff and animals.

It is strictly forbidden to use lifting devices for people's transport and lift.

It is necessary to check the presence of any power overhead wire in the working area during manoeuvres, especially if the task is carried out after sunset.

Command levers shall:

- have nameplates with symbols indicating their functions;
- be activated only with "dead man switch";
- be provided with a protective bow to avoid operator's accidental bumps causing their activation.



## FURTHER INDICATIONS AND ADVICE

- It is necessary to check compatibility with tractors and respect predefined loads.
- Separating operations shall be performed on flat land with firm ground, easy to enter and away from other vehicles' transit.
- It is necessary to check the loader bearings maintenance and put them in upright position, adjusting their height, during parking phase.
- It is necessary to always check the load weight and its nature, fixing and transport procedures and the machine steadiness according to ground conditions.