



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

4 Mechanization - Card 04.09 Maintenance



Card 04.09 Maintenance

THE RISKS:

- *Tractor overturning* (caused by devices brake or fails and low maintenance)
- *Bumping and running over* (due to uncoupling of dragged equipment/trailer; mechanical parts failures; connected equipment control loss and inadequate maintenance)
- *Crushing, electrocution and entangling* (while carrying out maintenance)

It is necessary to remind that:

Half of the accidents due to machines derives from breaks and failures caused by poor or absent maintenance. Proper maintenance, carried out on each agricultural equipment and vehicle, keeps efficient and dependable mechanical machines, increasing their value and preventing accidents.

PRACTICAL AND OPERATING INDICATIONS:



Each and every agricultural machine shall be provided with an "Operating and Maintenance" handbook.

For each machine a card shall be present (sometimes it has already been included in the handbook by the builder) on which writing down the tasks carried out, the date and the name the operator (internal or external) who performed the task.



The most frequent and essential tasks are:

- check coolant and lubricating levels (change or top up them, were it necessary);
- clean air, oil and fuel filter and change them, were it necessary;
- grease joint and bearings;
- surfaces and ducts cleaning;
- check tyre pressure;
- check the electrolytic solution level of the battery and, if necessary, add distilled water, clean and grease terminals.



Farms shall carry out maintenance (even extraordinary one) directly in the firm if, and only if:

- maintenance is carried out in facilities with validated equipment and tools;
- good technique and proper procedures are guaranteed and followed.



It is advisable to rely on authorized workshops to carry out more complex extraordinary maintenance.

Every builder provides warranty, which is valid only if:

- indications on the "Operating and Maintenance" handbook are strictly followed;
- scheduled services are carried out;
- prescribed lubricants are used;
- repairs and maintenance are carried out by qualified work people;
- genuine parts are used;
- appropriate working equipment is used.



General precautions shall be observed to operate in safety with each machinery:

- read carefully the instruction manual;
- do not remove/tamper with/modify any machinery part if it is not written in the instruction manual;
- repair/substitute protections and any worn out or broken part following the builder's instruction;
- keep in good condition signals concerning safety and warning (pictograms in particular);
- check the machine for damages incurred during transport, and, if any, report immediately to the builder or the area agent;
- clean periodically the machines, getting rid of foreign materials (mud, detritus, vegetables etc) which can damage the work or harm the operator;
- before work in on machine moving parts, switch off the engine and apply parking brake;
- if clarifications about tractor's working and maintenance are necessary, ask to the builder, sellers and/or authorized workshops;
- check frequently the acoustic signal, the lifting device (if any), the brakes, the steering-wheel and the flashing indicator;
- check if there are any reports indicating oil leak from hydraulic lines, tyres wear condition and their working pressure;
- use genuine parts (they shall be compatibles);
- do not wear fluttering clothes such as scarves or gowns
- they can get entangled in moving devices; and use always DPI.

In case of refuelling and setting operations:

- the operator shall check of ten coolant and oil levels. To top them up he/she shall switch off the engine, wait for its cooling and then slowly open the radiator/sump cap;
- the operator shall act with proper prudence using suitable P.P.E. (gloves, goggles and specific respirators). It is necessary to remember that brake fluid is poisonous, accumulator acid is corrosive and coolant (ethylene glycol) is noxious;
- the operator shall not refuel next to possible ignition spots (lighted cigarettes, open flames etc) or with the engine running or if it is still hot;
- the operator shall close correctly the tank cap, cleaning combustible or lubricant-stained parts;
- if repairing, transformation or particular maintenance is necessary, the task shall be assigned to a specifically qualified worker.



Machines and equipment transport



FURTHER INDICATIONS AND ADVICE

- Maintenance of combustion engine machines shall be carried out only in areas where a sufficient air quantity is provided to avoid safety and healthy risks.