

FARM VEHICLE HEALTH CHECK



This guide aims to help users of farm equipment to comply with the law in a practical way, using a common set of forms. By doing this, your machinery should be better maintained and safer to use.



British Agricultural
and Garden Machinery
Association



THE LAW

Agricultural vehicles, trailers and trailed appliances are covered by the Health and Safety at Work Act 1974 (HSW Act), which places a duty on companies and individuals to ensure that precautions are taken to make work as safe as practically possible.

These vehicles and appliances are exempt from the legal testing requirements of many road vehicles, which puts the emphasis on the owner to make sure their equipment is safe and in good working order. Most farming transport accidents occur off-road so the high standards for road-going vehicles should also be applied to those used off-road.

The Provision and Use of Work Equipment Regulations 1998 (PUWER) apply to any equipment that you use at work; this can include tractors, air compressors, chainsaws and even ladders. They require that equipment must be suitable for the task, properly maintained and guarded, and that adequate training and information about the equipment is available for employees.

These Regulations apply to employers, the self-employed and any person in control of work equipment. This includes the hirer or even someone who lends a machine out.

All vehicles, trailers and trailed appliances driven on the public highway must also comply with the Construction and Use Regulations 1986 and the Road Traffic Act and be in a road worthy condition every time they go on road. If any vehicle, trailer or trailed appliance is stopped, any defects found would leave the driver and owner liable for prosecution by road law enforcement agencies or the police.



EQUIPMENT SELECTION

Equipment must be constructed or adapted so that it is fit for the job and suitable for:

1. the purpose for which it is used, and
2. the conditions in which it is used.

The CE mark is a good indication of the equipment's construction standard, and marking means the

machine conforms to the legal requirements of EU Directives. When selecting equipment, you should consider the working conditions, risks to health and safety, and where the equipment is being used.

EQUIPMENT USE

Adequate safety information must be available to everyone who uses, supervises, or manages the use of work equipment. Where appropriate, written instructions should be provided.

The information must be easy to understand and should include:

- how the equipment should be used;
- what to do if you have a problem with the equipment;
- information on how to operate the machine/vehicle contained in the operator's manual; and
- any other specific information based on previous experience of using the equipment.

You and your staff should also be adequately trained in:

- how to use the work equipment efficiently and safely;
- what risks may be encountered; and
- precautions that need to be taken.

Training and supervision is particularly important for all young people because of their relative inexperience and possible unfamiliarity with the working environment. Casual workers must also receive appropriate training and instruction. Induction training is particularly important for workers with limited or no English.

Details of recognised training courses can be found from your local training group, provider and agricultural college.

RECORD KEEPING

To comply with legislation, you must carry out daily checks to make sure the machinery you are about to use, or allow someone else to use, is safe and working correctly. These checks are quick and simple to carry out, using the check sheets provided in this booklet.

Keep a record of when checks have been carried out and what work has been done as this can help show that a machine is well maintained and regularly checked, particularly in the event of an inspection or accident.

The checks may also help reduce the risk of an accident occurring in the first place. Defects must be highlighted and repaired immediately. Regular maintenance may also extend the life of the machine and help prevent severe deterioration of parts, which could lead to expensive repair bills.



The check list sheets provided at the back of this booklet will help you carry out your own maintenance and keep your machine in good working order at all times of the year.

EQUIPMENT MAINTENANCE

Employers must make sure that equipment is maintained, and in good and efficient working order.

"Efficiency" of the equipment does not relate to productivity, but to the health and safety aspects of all parts of the machinery. Employers must ensure that PTO guards, brakes, hydraulic hoses etc. are maintained to do their job at all times.

Employers must check equipment regularly to ensure that it has not deteriorated and become a risk. The frequency of checks is dependent on the equipment itself and the risk involved; it could be each day, every three months, or even longer. Only those who are

experienced and competent with the appropriate level of training should carry out maintenance work. In any event all equipment should undergo regular maintenance checks in accordance with the recommendations from the manufacturer.

Where machinery has a maintenance log it should be kept up to date. The Regulations do not require farmers to keep a maintenance logbook but it is helpful to do so for reasons other than health and safety. The logbook should provide information for future maintenance planning and inform maintenance personnel and others of previous action taken.

BRAKES

TESTING YOUR BRAKES

Trailer brakes are a wearing part and need adjustment to keep performing well. The standard at which your brakes operate is known as the braking efficiency and is the maximum force capable of being developed by the brakes expressed as a percentage of the maximum gross weight of the vehicle.

Measurement of braking efficiency requires specialised equipment not normally present in farm workshops, but may be available from your local approved brake test provider. Information on dealers who can carry out brake testing are available from BAGMA: bit.ly/2s4jWX1

AGRICULTURAL VEHICLE BRAKES

Agricultural vehicles which do not travel faster than 40km/h (approx. 25mph) are required to have a minimum braking efficiency of 25%.

Agricultural vehicles travelling faster than 40km/h (approx. 25 mph) will need higher specification brakes, including ABS, dual-line fail safe braking systems and a minimum brake efficiency of 45%.

AGRICULTURAL TRAILER BRAKES

In general, agricultural trailers which do not travel faster than 40km/h (approx. 25mph) must:

- be capable of applying the brakes to at least two wheels on a trailer with less than four wheels, and to at least four wheels on a trailer with more than four wheels;
- have a parking brake capable of preventing at least two of the wheels from revolving when the trailer is not being pulled; and
- achieve a brake efficiency of at least 25%.

In general, agricultural trailers which do travel faster than 40km/h (approx. 25mph) must:

- be capable of applying the brakes to at least two wheels on a trailer with less than four wheels, and to at least four wheels on a trailer with more than four wheels;
- have a two-line fail-safe braking system for trailers not equipped with over-run brakes;
- have ABS; and
- achieve a braking efficiency of at least 45%.

AGRICULTURAL TRAILED APPLIANCE BRAKES

Agricultural trailed appliances do not need brakes unless their maximum gross weight exceeds twice its unladen weight or the gross weight exceeds 14,230kg. Many load carrying appliances such as slurry tankers, muck spreaders and sprayers may come into this category and need brakes equivalent to those on agricultural trailers if manufactured after 1/12/1985.

DAILY CHECK

Before you start work in the morning walk round the machine or vehicle and check the following (on level ground if possible):

- ✓ Oil/fuel/water levels and leaks
- ✓ Tyres are in good condition; wheel fixings secure and not cracked
- ✓ All safety guards are fitted and working
- ✓ The steering is working correctly; check steering joints
- ✓ Brakes and hand brake are working
- ✓ Flashing beacon and warning devices are working
- ✓ Registration plate light is working and implement/trailer has registration plate
- ✓ All lights/reflectors/indicators are working correctly
- ✓ All mirrors are in position and are clean
- ✓ Drawbar eye is in good working order (check underneath)
- ✓ All implements are attached correctly
- ✓ All external services are fitted correctly
- ✓ The driver's seat is in the correct place
- ✓ Cab floor is clear of obstructions
- ✓ You can see clearly in all directions; wipers are working.

FORMAL INSPECTION

Under PUWER 98, inspections should be carried out when a significant risk to the operator or other workers from the installation or use of the work equipment has been identified. The need for inspections under this Regulation will depend on the nature of the equipment, where and how it is to be used and the level of potential risk from its use.

The person who determines the inspection must be competent to decide what the inspection should include, how it should be done and when it should be carried out. Experienced in-house employees such as a manager or supervisor may be able to do this.

The person carrying out the inspection does not need to be the same person who determines the nature of the inspection. The actual inspection can generally be carried out by an in-house employee with sufficient competency to recognise the key components, identify any faults and how to report them.

Inspections might range from a simple visual check to a detailed inspection and test, but will not form part of the manufacturer's routine recommended maintenance schedule and not part of the operator's daily check.

Users must ensure that:

- if safety of equipment is dependent on installation conditions, it is inspected after installation and before use, or after assembly at a new site; and
- if conditions may cause deterioration, it is inspected at suitable intervals and each time any exceptional occurrences, such as damage or serious breakdown.

Examples of safety critical items which may need regular inspection include PTO guards, chain saw guards, tractor cab condition, a roll bar damaged in an accident and the parking brake. Any inspection made under this Regulation must be recorded and results retained until the next inspection takes place.

Employers must also ensure that no work equipment leaves their undertaking or is borrowed or hired and used, unless accompanied by evidence of its last inspection under this Regulation.

The health check sheets provided in this booklet provide a standard inspection sheet for operators to use. Whoever undertakes the inspection must be competent to do so.

THOROUGH EXAMINATION OF LIFTING EQUIPMENT

If you are an employer or self-employed person providing lifting equipment for use at work, or if you have control of the use of lifting equipment, you must make sure the lifting equipment is safe. The main requirements for you as a 'duty holder' are in the Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).

LOLER REQUIREMENTS

LOLER addresses the specific risks associated with the use of lifting equipment. Thorough examination and inspection are key requirements of the Regulations. To meet these legal requirements, duty holders must:

- ensure lifting equipment (including lifting accessories) exposed to conditions causing deterioration which could lead to dangerous situations undergoes regular thorough examination by a competent person; and
- ensure all supplementary inspections and tests recommended by the competent person are carried out within the timescale stated.

LOLER COVERAGE

The scope of the Regulations is very wide and includes

a range of equipment. There are two important definitions you need to know:

- 'lifting equipment' means work equipment for lifting and lowering loads. The definition includes attachments used to anchor, fix or support; and
- 'accessory for lifting' means lifting equipment for attaching loads to machinery for lifting.

Examples:

- Foreloaders, fork-lift trucks and telescopic material handlers;
- Workshop hoists and rope hoists;
- Cranes on machines (e.g. on lorries or fertilizer spreaders); and
- Lifting attachments and accessories for all of the above.

Equipment which lifts loads over or in close proximity to people should be thoroughly examined. However, foreloaders on tractors with safety cabs will not normally need thorough examination.

You must assess your work equipment and working practice risks and decide which items need thorough examination in your particular circumstances.

THOROUGH EXAMINATION

An examination scheme involves a thorough examination and would include a detailed schedule of checks, appropriate examination techniques and testing requirements, drawn up to suit the operating conditions of a specific item of lifting equipment.

A thorough examination is a systematic and detailed examination of the lifting equipment by a competent person to detect any defects that are or might become dangerous.

COMPETENCY

A competent person must:

- have appropriate practical and theoretical knowledge and experience of the lifting equipment so they can detect defects or weaknesses, and assess how important they are in relation to the safety and continued use of the equipment;
- not be the same person who performs routine maintenance as they would be responsible for assessing their own work; and
- be sufficiently independent and impartial to make objective decisions and may be employed by a separate company, or selected by an employer from members of their own staff.

DEFECTS

If the competent person finds a defect with the lifting equipment during the thorough examination and/or inspection which in their opinion is or could become a danger to people, they must tell you immediately and confirm this in the report of thorough examination/inspection.

If the competent person discovers a defect that involves an existing or imminent risk of serious personal injury, they must tell you immediately and send a copy of the report to the relevant enforcing authority (HSE or the local authority).

EXAMINATION INTERVALS

You must have lifting equipment thoroughly examined:

Type of equipment	6 months	12 months	Examination scheme
Accessory for lifting	✓		✓
Equipment used to lift people	✓		✓
All other lifting equipment		✓	✓

NON-LIFTING PARTS OF THE EQUIPMENT

PUWER requires all work equipment that is exposed to conditions causing deterioration which may result in dangerous situations to be inspected. For some lifting equipment such as forklift trucks, you will need to inspect both the distinct lifting elements as well as the non-lifting elements.

RECORD KEEPING

You must keep records of all thorough examinations and inspections for all your lifting equipment.



Vehicle Health Check

This check sheet is designed to help the user ensure that the relevant machine is correctly and safely maintained. Any items which are found to need specific rectification would normally be best dealt with by a qualified technician. The responsibility for the provision of a safe machine and its safe use remains with the owner and driver respectively.



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KEY

Job complete



Not applicable



Attention needed



Date		Checked by		Serial or Reg No.	
Make		Model		Hours/Mileage	

Q1. Vision

Front windscreen/wipers	Side windows	Inside mirrors	Rear hitch mirror
Rear windscreen/wipers	Doors	Wing mirrors	

Q2. Wheels and Tyres

Front tyre and pressure	Wheel bearings	King pin grease points	Master cylinder
Rear tyre and pressure	Front wheel nuts	Front axle grease point/pins	Power steering unit
Brake connections	Rear wheel nuts	Handbrake function	Pipework and fittings
Steering mounting	Wheel rim fixings	Pedal assembly	Mechanical couplings

Q3. Lights

Flashing beacon	Indicators fixings	Registration plate light	Rear reflectors
Headlights	Hazard lights	Reversing light/alarm	Fog light
Front and rear side lights	Brake lights	Horn	
Front and rear indicators	Work light	7 pin connector	

Q4. Superstructure

Footsteps	Seat belt/anchors	Number plate
Seat fixings/adjustment	ROPs	

Q5. Miscellaneous

Pick up hitch	Engine oil level and filter	Fuel tank cap	Heating system
Hydraulic arms	Transmission oil level and filter	Oil or water leaks	Air conditioning
Top link	Hydraulic oil level and filter	Battery levels and fixing	Engine cut off
Trailer hook wear and lock	Radiator level and cap	Throttle cable	Operators manual
Clevis Hitch wear and lock	Fuel filter	Gear selector linkage	Warning stickers
Lift arm assembly	Cab filter	PTO guard and on/off controls	Control stickers
Check chain wear	Fan belt	Exhaust and brackets	Safety interlocks

General Trailed Appliance Health Check

This check sheet is designed to help the user ensure that the relevant machine is correctly and safely maintained. Any items which are found to need specific rectification would normally be best dealt with by a qualified technician. The responsibility for the provision of a safe machine and its safe use remains with the owner and driver respectively.



KEY

Job complete



Not applicable



Attention needed



Date		Checked by		Serial or Reg No.	
Make		Model		Hours/Mileage	

Q1. Wheels and Tyres

Tyre condition and pressure (all)	Wheel nuts (all)
Wheel bearings (all)	Wheel rim fixings (all)

Q2. Superstructure

Frame	Draw bar and ring	Suspension axle and fixings
Body	Trailer bed	Sprung draw bar

Q3. Lights

Flashing beacon	Brake lights and fixings	Hazards	Cablings
Side lights and fixings	Indicators and fixings	Registration plate light	7 pin connectors

Q4. Tipping system

Hydraulic hoses	Tipping brackets
Hydraulic lift arms	Tipping door locks

Q5. Miscellaneous

Air brake connections	Weight specification plate	Depth wheels
Hydraulic brake connectors	Brake hoses	Guards
Parking brake connectors/levels	Brake actuator return springs	2nd towing hitch
Parking brake cabling	Points/discs	Strap/robe fixings
Cable mounting	Blades	Load cover mechanism
Silage side mountings	Hitching points	Load sensor cable
Grain chutes	PTO guard and shaft	Trailer ramps
Registration plate	Marker boards	Transport locking devices
Guards fitted to dangerous projections		

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