



# Hardfacts

Norwich Union Risk Services

*Ref No 5014 (v4)*

*June 2005*

## **Motor Vehicle Maintenance Workshops**

Motor vehicle repair and maintenance workshops are found in a variety of premises ranging from railway arches and factory units to purpose built main dealerships. Every year over 2000 accidents in these premises are reported to the HSE and to local authorities. Many more go unreported. Most accidents involve slips, trips and falls or poor methods of manual handling. Accidents involving vehicles are very frequent, and work on petrol tanks causes a number of serious burns, hundreds of fires and some deaths each year. There is also widespread potential for work related ill health problems in garages due to the hazardous substances used which require careful storage, handling and control.

The main risk areas are: Servicing and Mechanical Repair; Body repair; Painting; Storage Areas and Housekeeping.

### **Servicing and Mechanical Repair**

Lifting Equipment Check:

- Vehicle hoists statutory 6 month thorough examination.
- Chains, wire ropes, and lifting tackle, statutory Certificates of Test and Examination prior to use, then 6 monthly periodic thorough examination by competent person.
- Cranes and other lifting equipment, statutory Certificate of Test and Examination prior to use, then 12 month periodic thorough examination by a competent person.

Electrical Installation/Equipment Check:

- Suitable electrical installation in good condition and current 3 year test certificate.
- Portable electrical equipment, preferably 110Volt but if 240Volt use of double insulated tools and RCDs.
- Also check records of inspection of portable electrical equipment as appropriate.
- Electrically operated steam and water pressure cleaners must have RCD protection. Check flexible cables for damage.

- Hand lamps should be 110Volts max. or be double insulated. Lamp must be protected by a robust cage.
- Battery charging areas must be well ventilated to prevent the build up of hydrogen gas during charging and be kept clear of metallic and combustible items.

Compressed Air Equipment Check:

- Written Scheme of Examination provided.
- Air receiver marked with SWP.
- Statutory inspection certificate issued within last 24 months.
- Provision of guards to V belt drive of compressor.
- Hearing protection notices where appropriate.

Vehicle Inspection Pits Check:

- Pits should always have two clear access/exit routes to enable employees to get out in an emergency.
- Pits should be covered when not in use.
- Temporary barriers should be placed around exposed sections of pits in use to prevent falls.
- Pit edges should be line painted.
- Flammable vapours from petrol, paints and solvents are heavier than air and collect in pits in ignitable and explosive concentrations, therefore all electrical equipment must be explosion protected.
- Portable tools should be air powered or explosion protected.

### **Body Repair**

The main hazards associated with body repair work relates to flame cutting and welding, grinding, noise, and exposure to hazardous substances.

Flame Cutting and Welding Check:

- Gas cylinders mounted on trolley or chained together to prevent falling over.
- Flash back arresters fitted to oxygen/ acetylene cylinders.
- Adequate fire extinguishers.
- Condition of hoses, ie not perishing/split.
- Welding screens.
- Work in confined spaces (and permit to work if applicable).
- Cylinder storage should preferably be outside, in an open, lockable compound.

## Painting

Many paints and solvents used in vehicle repair work give off vapour which is both highly flammable and toxic. Paint is applied by brush, from an aerosol can, or by the use of compressed air spray guns. Working conditions vary from spraying in open garage areas to the use of proprietary spray booths and drying ovens. Two-pack spray paints containing isocyanates are often used. In these paints isocyanate hardeners or activators are added to liquid resin and pigments react to produce a polyurethane film.

### Storing and Mixing Paint Check:

- No more than 50 litres to be kept in the work area, in a lockable metal enclosure.
- Container lids to be kept closed.
- Sources of ignition excluded within two metres.
- No smoking.
- Stocks of highly flammable paints to be kept in a suitable highly flammable liquid store with adequate ventilation.
- Petroleum licence for large quantities of petroleum based paints.
- Separate, well ventilated location for paint mixing area if possible.
- Electrical installation and equipment to be explosion protected.
- Local exhaust ventilation (LEV) for isocyanate paints.
- Local exhaust ventilation (LEV) inspection records.

### Paint Spraying Check:

- Control of substances hazardous to health (COSHH) Assessments.
- Effective segregation.
- Adequate ventilation.
- Local exhaust ventilation (LEV) system, filters, ducting, inspection records.
- Adequate personal protective equipment (PPE) provided and used.
- Maintenance of personal protective equipment (PPE).
- Prevention of sources of ignition.
- Maintenance of spray booth and controls.

## Storage Areas and Housekeeping

Many motor vehicle workshops have difficulty with maintaining good standards of housekeeping and storage. In many cases this is due to a general lack of space. As a result many injuries are caused by slips, trips and falls.

### Storage Check:

- Storage racks fixed to wall/floor.
- Strength of racks/overloading.

- Storage of goods on top of office accommodation should be avoided, especially if not load bearing.
- Guard rails and kick boards on mezzanine storage areas.
- Lighting and access.
- Waste storage and disposal arrangements.
- Waste removed from work area regularly.
- Oil spillages cleared promptly.
- Floors clean and dry.
- Gangways/walkways kept clear.
- Adequate toilet/eating facilities.
- Adequate First Aid provision.

## Key Action Steps

- Provide adequate information, instruction and training to all employees.
- Carry out general risk assessments on all work activities and monitor control measures.
- Check the provision, instruction, use, storage and records of issue of personal protective equipment.
- Carry out COSHH assessments, implement and monitor control measures.
- Check to ensure adequate ventilation.
- Make an assessment of noise levels.

## References

Health and safety in motor vehicle repair HS (G) 67, HSE Books 1991.  
Electrical installations in motor vehicle repair premises PM 37, HSE Books 1984.  
Selection and use of electric handlamps PM 38, HSE Books 1984.  
Electrical apparatus for use in potentially explosive atmospheres HS(G) 22, HSE Books 1984.  
The storage of flammable liquids in containers HS(G) 51, HSE Books 1990.  
Spraying of highly flammable liquids EH 9, HSE Books 1987.  
SI 1998/2306 – The Provision and Use of Work Equipment Regulations 1998 (PUWER '98)  
SI 1998/2307 – The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER '98)  
NURS Hardfacts No 5015 – PUWER '98  
NURS Hardfacts No 5023 – LOLER '98  
NURS Hardfacts No 5010 - Conducting Risk Assessments.  
The Dangerous Substances and Explosive Atmospheres Regulation 2002 SI 2002/2776 HMSQ.

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Norwich Union Risk Services operates a Risk Helpline during normal business hours for the cost of a local telephone call. The telephone number is:  
**0845 366 66 66**  
[www.nu-riskservices.co.uk](http://www.nu-riskservices.co.uk)