Loss Prevention Standards

Motor Vehicle Maintenance Workshops

Introduction

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. There have been over 7,000 injuries and 33 deaths in the motor vehicle repair (MVR) industry over the last 5 years. 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, and guidance on each of these areas is provided within this document.

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 110 volt but if 240 volt use of double insulated tools and residual current device (RCD)
- 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
- 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 safe working pressure (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, i.e. not perishing/split
- Welding screens
- Work in confined spaces avoided, and permit to work if applicable
- Cylinder storage should be separate for oxygen and fuel gases, preferably outside, in an open vented, lockable compound

Painting

Many paints and solvents used in vehicle repair work give off vapour which is both highly flammable and toxic. Paint can be 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 2 metres
- No smoking
- Stocks of highly flammable paints to be kept in a suitable highly flammable liquid store with adequate ventilation
- 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
- LEV inspection records to be kept

Paint Spraying Check:

- Control of Substances Hazardous to Health (COSHH) assessments
- Effective segregation and adequate ventilation
- LEV system, filters, ducting, inspection records
- Adequate personal protective equipment (PPE) provided and used
- Maintenance of 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, which can be 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 and strength check to prevent 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 including waste removed regularly
- Oil spillages cleared promptly and floors kept clean and dry
- Gangways/walkways kept clear
- Adequate welfare 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. Ensure employees are advised of the findings and that they sign to confirm they have read and understood the risk assessments
- 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
- Assess noise levels

Additional Information

- Example Risk Assessment for a Motor Vehicle Mechanical Repair Workshop: Health and Safety Executive (HSE)
- Health and Safety in Motor Vehicle Repair and Associated Industries – HSG261: HSE
- Reducing Ill Health and Accidents in Motor Vehicle Repair – INDG356: HSE
- Working Under Motor Vehicles Being Repaired – INDG434: HSE

Further risk management information can be obtained from Aviva Risk Management Solutions