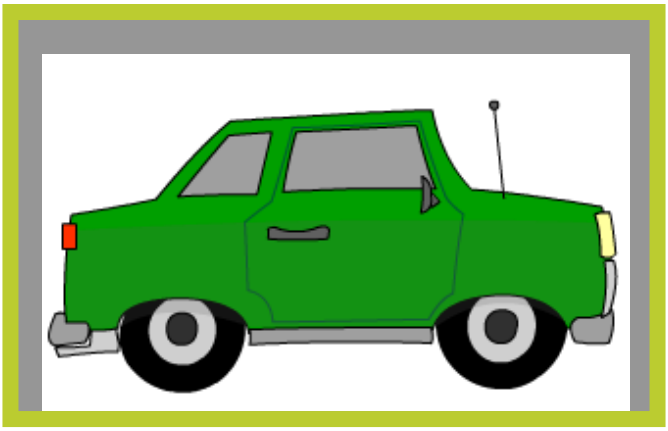
Automotive Health and Safety



Engine Safety

Examples of hazards

- Contact with moving parts such as drive belts, pulley or fans
- Electric shock
- Burns
- Carbon monoxide poisoning

Safety Tips

- Remove rings, metal watches and bracelets, and loose clothing such as a scarf before working on any engine
- Tie back long hair
- Keep your hands away from moving parts
- Use extreme caution around engine fans which many strike you, fling things at you, start unexpectedly, or catch dangling leads of strings
- Avoid touching hot engine parts, never open the radiator on a hot engine
- Do not run engines in enclosed, indoor spaces, and always guard against carbon monoxide poisoning
- Avoid electric shock from battery or ignition systems
- Never open the radiator cap on a hot engine – allow the engine to cool for at least an hour before attempting to open the cap. Even then, use extreme caution. Place a rag over the cap, then loosen it slowly to the first detent or stop. At this point any residual pressure and steam should be released. Wait until all pressure has escaped before removing the cap the rest of the way.

Beyond Rewards Inc.

Automotive Health and Safety

Vehicular Incidents

Vehicle movements can be difficult to predict. Auto mechanics have been seriously injured or killed by moving vehicles. Also, driving vehicles with which you are unfamiliar, or that may have defects in essential safety features such as brakes or steering, requires extra care and attention.

Examples of hazards

- A vehicle moving in an unexpected direction
- Defective brakes or steering
- Unfamiliar vehicle

Safety Tips

- Never walk or stand directly behind or in front of a vehicle with a driver behind the wheel
- Make eye contact with the driver and keep him or her in your line of sight
- Stay clear of vehicles in motion
- Stand to the side when directing vehicles over service pits or onto hoists
- When test-driving a car, adjust the seat, steering wheel, and mirrors so you can drive safely
- Fasten your seat belt
- Familiarize yourself with lights, turn signals and windshield washers before putting the vehicle in motion
- Follow the rules of the road
- Be alert – anticipate road conditions, vehicle problems, and the actions of other drivers

Auto Lift or Hoist

As one would expect from such a large and powerful piece of equipment, hoists have the positional to cause serious injury and death.

Examples of hazards

- Lift failure
- Lift used improperly
- Vehicle slipping or shifting

Safety tips

- Do not use an auto lift to hoist or support anything other than a vehicle
- Never overload the lift – check the manufacturers rated capacity on the nameplate attached to the lifts. If the nameplate is missing or you can't read it, ask your teacher, supervisor, or employer to check immediately with the manufacturer's representative before using
- Before driving a vehicle into the shop, be sure the lift area is free of the following:
    - workers
    - grease and oil
    - tools
    - cords and hoses
    - trash and other debris
- Do not allow customers or by-standers in the lift area or in the vehicle when the lift is in use

Automotive Health and Safety

Lockout

Lockout means to physically neutralize all energy in a piece of equipment to ensure that machinery or equipment won't start while a worker is doing maintenance or repairs. This can be done by turning off a master switch or by unplugging powered tools or equipment. Working on powered equipment that is not properly locked out can result in severe injuries and death. The most common injuries are severed fingers and crushed limbs, but injuries are sometimes fatal.

Examples of hazards

- Engine belts
- Engine fans
- Drive shaft
- Hoists
- Power and hydraulic equipment

Safety Tips

For any equipment that requires lockout, do not operate the equipment until you have been trained in how to lock it out.

Lockout involves the following steps:

1. Identify the vehicle or equipment that needs to be locked out
2. Shut off the machinery or equipment. Make sure that all moving parts have come to a complete stop. also ensure that the act of shutting off equipment does not cause a hazard to other workers
3. Identify and de-activate the main energy-isolating device for each energy source. There may be more than one source of power for some pieces of equipment, for example, both electric and pneumatic power for tools
4. Apply a personal lock to the energy-isolating device for each energy source, and ensure that all parts and attachments are secured against inadvertent movement. For a vehicle, remove the key from the ignition and place it in your pocket or another location where no other worker can access it while you are working on the vehicle.
5. Test the lock-out to make sure its effective and to verify that all live components have been de-energized.
6. Make sure no one else can start the engine that you're working on without you knowing about it
7. When you shut off a piece of equipment, make sure that all moving parts have come to a complete stop before touching it
8. Before you re-start a piece of equipment, ensure that no one else will be endangered

Beyond Rewards Inc.