General Safety Rules

1. Work Shop Safety

Safety means protecting yourself and others from possible danger and injuring in the shop, you are ' Safe' when you protect your eyes, your fingers, your hands all of yourself from danger as well as others.

1.1 Hazards in the work shop
- a) Faulty work habits
- b) Misuse of equipment
- c) Misuse of hand tools

a) **Faulty work habits**
- i) Smoking around fuel and solvents
- ii) Incorrect handling of paint, thinners, solvents, flammable liquids etc..
- iii) Blocking exits. A block exit could mean serious injury or even death during an emergency case such as fire.

b) **Misuse of equipments**

- i) Incorrect safety guarding of moving machinery
- ii) Misuse of flexible electric cords or worn cords. When used through holes the may cause fire
- iii) Improperly stored composed gas cylinders
- iv) Using hand held electric tools improperly grounded

C) **Misuse of hand tools**
- i) Keeping hand tools dirty and in poor conditions
- ii) Improper storing of hand tools
- iii) Using defective hand tools
- iv) Keeping sharp tools in pockets

1.2 Fire Prevention
- i) Store fuels properly
- ii) Keep the shop doors open, will ventilation where fuel vapours can exit
- iii) Wipe up the spilled fuel at once and keep the rags in a closed waste containers
- iv) Never smoke or light a cigarette around fuels. (Do not smoke in the workshops!)
- v) Fix leaking carburettors, fuel pumps fuel lone and fuel tank immediately
- vi) Make fine extinguishers available in the workshop and know perfectly well how to use them in case of fire

1.3 Personal Safety

Most of the dangers for an auto mechanic involve a running parts, road tests, etc.

a) Working on Vehicles

i) Fan on vehicles

- Never stand around the fan when an engine is being run
- Keep hands, rags and clothes away from the moving fan beat.

ii) Ignition high voltage circuit

- So not grab the spark plug cables with your bare hand when the engine is running

iii) Carburettor and fuel lines

- Never look in to the carburettor throat when starting or ruining an engine
- Never use an open can of gas to prime carburettors
- If you replace any part of the fuel system, do not drive the car for road test before you crank the engine for a while and check for any leaks

IV) **Radiator**

- When the engine is hot, take care of removing the radiator cap

V) **Manifold and Exhausts**

- Always treat the radiator and manifolds as if they were hot
- Be sure to connect the exhaust tube to the engine exhaust before running the engine in the shop.

Vi) **The hood**

- Always drop the hood open with an " iron stick" when working on an engine

Vii) **Welding**

- Always wear goggles while you are welding
- While welding a fuel tank drain it, and full it with mater or below it out with a compressed air

Viii**) Road test**

- It is best to have two men in the car during a road test. One does the testing the other watches the road

b) **Working switch chemicals**

i) Fire:-
- Know where the fire extinguishers and fire exits are:-
- Do not get in to confined area with a carbon tetrachloride type extinguishers

ii) Oil and other lubricants
- Make sure that there are no oil leakage on your working area

iii) Battery acid
- Do not smoke around a battery being charged. It gives off hydrogen which is extremely explosive.
- Avoid battery acid from setting in to your eyes or touching your skin.
- When mixing acid always pour slowly the acid in to the water the reverse mixing procedure may cause the mixture to boil and spatter with the force of apparent explosion.

c) Working on power tools
- The instruction for using any equipment should be studied carefully before the equipment is operated
- Hands and clothes should be kept away from the running machineries
- Disconnect the power source when you stop working on machines
- Clean, lubricate and cover the machine every time you finish working
- Never get under a vehicle which is standing on a jack. Support it with car stands and chock the wheels to keep the car from rolling
- Always use your legs and not and shoes while you are working in the shop

d) First aid:-
- Give first aid whenever required using the first aid kit available in the shop
- Depending on the type of accident, call for help (doctor or ambulance).

Extracted from:- Text Book of Auto mechanics

1. STORAGE

A. **Flammable Materials**:

Store Flammable material in safety container petroleum products like diesel fuel, lubricants, body paints are flammable at normal temperature as well as when heated

and should be stored outside the work shop. Engines should never be run in closed spaces with no ventilation system.

Oily rugs can cutch fire without a spark or flame, by spontaneous combustion. To prevent this always store oily rugs and west in a fire proof safety container. Do not over fill the safety container.

B. **Personal protective equipment**

For personal safety, proper closing, overhauls and house keeping are necessary . Buttoned up one piece overalls should be worn. Light safety helmet should be used when working under the vehicle. Safety foot wear should be worn.

Before starting work on the vehicle wrist watches or rings should be removed. Work shops should be clean free ;from idle equipment, spilt oil or grease. First aid kit should be available in the work place.

Cover long hair so it does not get caught in moving equipment. Were safety glasses any time we are in the shop to protect your ice. Gloves should be worn when working on rough or sharp metal and hot parts.

2. Wastage Disposing Method

A. **cleaning:**

A layer of oil, grease and dirt gets coated to the vehicle and its parts with time and usage. Before performing in a maintenance work on the vehicle the unwanted layer should be removed. This can be done by hand or by means of certain cleaning methods.

A safe shop is the clean shop. You can make the shop safe by keeping the floor clean. Cleaning up spilled liquids before starting work will make final clean up easier and quicker.

B. A place for burning wastes or to bury them should be prepared far away from the workshop.