

AUTOMOBILE WORKSHOP TOOLS AND EQUIPMENT

Cover Page – Slide 1

I welcome you all to this exciting session on Automobile Workshop Tools and Equipment.

Learning Outcomes – Slide 2

At the end of this session, it is my belief that we would have achieved the following Learning Outcomes:

- List automobile workshop tools and equipment.
- Discuss the uses of ramps in an automobile workshop, and,
- Differentiate between an Automobile Workshop Creeper and Ramp.

Introduction – Slide 3

If you work on your own vehicle in your garage or if you are a professional auto mechanic, you'll need a few common tools in your garage to get the job done. If you work on your vehicle or on the vehicles of others on a regular basis, these tools are a must-have for you.

The tools you use have an impact on your ability to perform auto servicing and maintenance. In the event that you do not have the proper automobile workshop tools list in your garage, you will encounter some difficulties. You won't be able to complete the task within the allotted time, or if you do, your performance will be subpar.

That's why you'll need a properly decorated garage, as well as a small collection of tools and equipment that will be required from the very beginning of your shop's operation. I'm going to share with you a list of auto mechanic tools and equipment in this section. I hope this list will be of assistance to you in your search for the best auto tools for your garage or repair shop.

Automobile Workshop Tools and Equipment – Slide 4

The following are the basic tools and equipment that would enable you to run an automobile workshop conveniently:

1. Pliers
2. Wrench Set
3. Ratchet and Socket Set
4. Screwdrivers
5. Hammer
6. Car Jacks
7. Jack Stands
8. Ramps
9. Creeper
10. Air Compressor
11. Multimeter
12. Wrecking Bar
13. Pry Bar
14. Rolling Tool Chest
15. Jump Starter
16. Brake Cleaner Spray
17. Pressure Washer
18. Brake Bleeder
19. Battery Carrier

We would now look at each of them in details.



Pliers – Slide 5

In an auto repair shop, pliers have a wide range of tasks to perform and a must-have in your automobile workshop tools list, starting from cutting and shaping wires to gripping bolts, removing nails and more, you'll find that there's a plier for every job.

So, if you don't have this handy tool in your garage, you're missing something. Try to buy a full set. But if the price of a full set exceeds your budget, go for a standard pair of pliers.

A set or a pair- whatever you buy, make sure that you're buying quality products. Cheap pliers with poor build quality break easily while performing a tough task. So, choose wisely.

Wrench Set – Slide 6

Wrenches are one of the most essential entry-level mechanic tools that every automotive mechanic need. Almost all automotive repair job needs a wrench.

Wrenches are used for gripping, fastening, turning, tightening, and loosening things like pipes, pipe fittings, nuts and bolts.

So, this is a must to have a wrench set in your garage. It would be better if you have both metric and standard set. But if you can't buy both, go for a metric set.

Ratchet and Socket Set – Slide 7

Ratchet and Socket Set is a top product in auto mechanic tools and equipment list. To help you work with bolts in tight places as well as awkward angles, a ratchet is probably the best tool. They help you **turn a nut or bolt without repositioning the tool on the fastener** — like you need to do with a wrench when there isn't enough room to turn it in a full circle.

As a result, in automotive workshops, ratchets are a must-have item.

Screwdrivers – Slide 8

A screwdriver is a tool, manual or powered, used for driving screws. A typical simple screwdriver has a handle and a shaft, ending in a tip the user puts into the screw head before turning the handle.

Hammer – Slide 9

Getting a hammer in an auto mechanic shop might not seem a necessary thing, but you'll feel the necessity when working with a jammed part of the vehicle. Sometimes grease, dirt, and rust jam some components. As a result, those require some extra effort to come off.

In such cases, a hammer will give you great relief. I think you should have a normal hammer as well as a mallet. Some components are weak and have a possibility to break if you hit with a regular hammer. Mallet helps you to take out those types of components.

Car Jacks – Slide 10

Many car jobs, especially when you need to work on tires, brakes, gas tanks and other part situated below the car, need you to lift the car. In those cases, car jacks are greatly helpful and a must have garage tools. Those help you to lift the car with less effort.

There are different types of car jacks you'll find in the market. I suggest you have at least two car jacks in your garage. Find jacks that are strong and sturdy. If you work on SUVs, make sure the jacks are strong enough to lift those.

Jack Stands – Slide 11

Another top auto mechanic tool and equipment is jack stands. ***Car jacks are used to lift the car, but when it comes about keeping the car lifted, jack stands are the tools you should depend on. After lifting the car, the stands are placed under the car and adjust properly to hold it.***

It is good to have 3-4 jack stands in a small professional garage. If buying 3-4 is not possible, buy at least two stands that come with good quality and able to hold at least 2-3 tons of weight. Also, after lifting a car, use at least two jack stands to hold it lifted. Otherwise, you are not safe under the car.

Ramps – Slide 12

Ramps are replacement of jack and jack stands if you want more stability. These come in pairs which are placed in a side of the garage. To lift your car, simply drive the car and climb on the ramps. After climbing, put stoppers behind the wheels if needed.

For oil change and other below-the-car maintenances, ramps are suitable. But there are some disadvantages too. Ramps don't allow a huge lift. Besides, for wheel and brake jobs, lifting with ramps won't help you because ramps restrict wheel movement.

However, if you are a pro and getting profits out of your garage, I suggest you install ramps. If you are just a beginner, not having ramps is totally okay.

Creeper – Slide 13

While working under the car, generally people use cardboard to keep the back safe. Movement is tough when you work lying on cardboard. Besides, cardboard can't ensure a comfortable lying surface for your back.

Here, let's creepers have your back. These are flat sleds with wheels. As a creeper has wheels, you can move easily lying on it. Besides, it offers comfort to your back as it has a padded surface. Another benefit of creeper is adjustability. You can adjust the size and angle in most creepers. Coming with pads, it saves you from injuries too.

Air Compressor – Slide 14

Starting from inflating tires, to use of air-tools, an air compressor, has a lot of tasks to do in an auto mechanic garage. So, consider having one in your garage. If inflating tire is the only need, compressors with low PSI will also work well. For other purposes, I suggest you buy one with high PSI. Those are costly but stay for a long time if maintained properly.

It is good to buy a portable air compressor. But if you don't buy a portable one, extend the hose up to twice the length of your garage. It'll help you to reach any corner of the garage.

Multimeter – Slide 15

For electric works of your car, a multimeter or multitester is a must-have auto mechanic tool. It helps to find out the electricity flow and identify dangerous hot wires. Analog and digital- both types of multimeters are found in the market. Analog multimeters show the reading with the help of a pointer. On the other hand, digital multimeters show the reading in digits.

Before buying, make sure that your multimeter can measure the voltage, electric current, as well as resistance. Also, invest a moderate amount on this tool. Cheap ones can't measure the reading properly. Thus, you'll fail to diagnose the problem.

Wrecking Bar – Slide 16

A wrecking bar is a strong steel bar with two different types of heads on the ends. It is used to get the stuck parts out using a leverage point.

At the time of choosing one, you can get a cheap one. But make sure that it is strong enough. Besides, make sure that you get a firm grip when you hold the bar.

Rolling Tool Chest – Slide 17

You are having all these tools in your garage to ensure your performance, but what if the tools are not found when needed?

You'll need a tool chest to keep the tools organized and available when needed. If the chest has wheels under it, you can take it with you at any corner of the garage.

If you even own a medium-sized garage, a rolling tool chest will ensure great comfort. Make sure that the chest is big enough to hold all your tools. But for comfortable handling and moving, don't invest on a huge chest.

Jump Starter – Slide 18

To save you when the car battery is dead, a jump starter has no replacement. A jumper can help you, but only if it is within the range of its cables. Jump Starters come with a long cable. So, you can easily awaken the dead battery.

Make sure that the jump starter you choose comes good build quality. Look for a starter that comes with heavy-duty cables as well as clamps. Also, portability is important. A portable jump starter will allow you to comfortably use this device in your garage. Check the customer reviews too.

Brake Bleeder – Slide 19

A Brake Bleeder is used to remove the air in your brake system, a technician will systematically open up a bleeder screw (valve) on each calliper (or on the wheel cylinders in a drum brake system) and drain off the air (and some fluid).

Bleeding the brakes is not necessarily a highly complex procedure. But it is an essential one.

While working on the brake of a vehicle, you won't have to waste the whole afternoon sitting and watching the brake bleeding slowly if you have a brake bleeder in your garage. This is a tool that helps you to finish the brake bleeding job easily and quickly.

At the time of buying, make sure that the reservoir is big enough to store fluids. Some bleeders come with a pressure gauge that helps to determine when to stop. Try to buy one with pressure gauge. Invest at least a moderate amount of it to get a good performing one.

Conclusion – Slide 20

Hey, so in the past few minutes, we have been able to look at:

- Automobile Workshop Tools and Equipment.

So, if you want your automotive maintenance and servicing tasks to be great, you'll have to invest on these auto mechanic tools and equipment. So, note down the names and start collecting those. I hope this will help you to get a good result in the future.

Also, there should be some common tools and equipment too. For example, you should have some cleaning equipment like soap, sponge, buckets; oil changing equipment like oil dripping pan, funnel; safety equipment like glasses, gloves; and other regular equipment like scissors, tape, zip tie, air tool oil, etc.

Thank you and Stay Safe. Bye.

