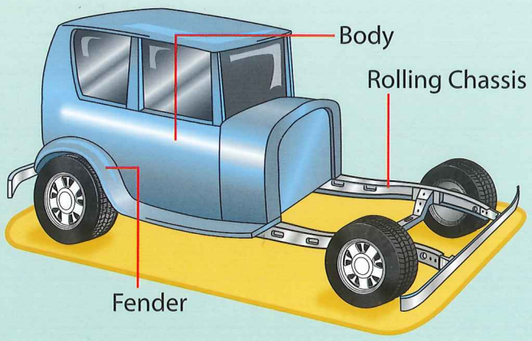
How to build a HOT ROD

Hot rodding is a practice that has been around for many years. It is when you "hot up" or improve the performance of an older car. Building a hot rod requires patience and skill, as it usually takes a few years before a car is complete. Lou and Tyron are friends who have done just that. They began with a derelict old rust bucket and built their sparkling maroon and gold masterpiece from scratch. Below is a procedure that explains how an enthusiast could build their own hot rod.

1 Start with a *body* on a rolling *chassis*. These can now be bought brand-new. The chassis is the strong, steel frame of a car that everything else, such as the body and the mechanical parts, bolts on to. The car pictured in the photograph is a reproduction '1928 Ford Model A' made from fibreglass.

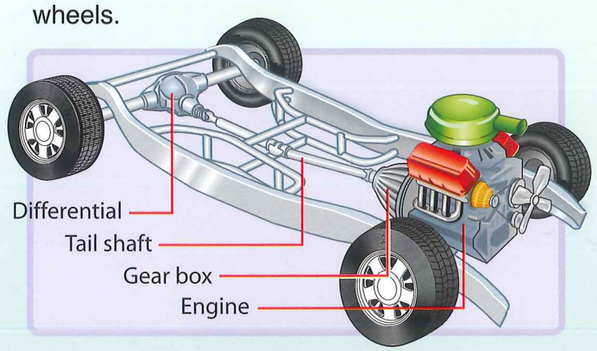


2 Unbolt and remove the body and *fenders* from the chassis. This allows easy access for when you add the mechanical parts to the car.

3 Acquire a *V8 engine* and automatic *gearbox* from an auto-wrecking yard. Send them to the mechanics to be reconditioned. A V8 engine is ideal because it performs strongly, while an automatic gearbox removes any need to worry about changing gears while driving. You can buy a *donor car*, which is a complete car, so you can take several mechanical parts from the one source, rather than searching all over the place.

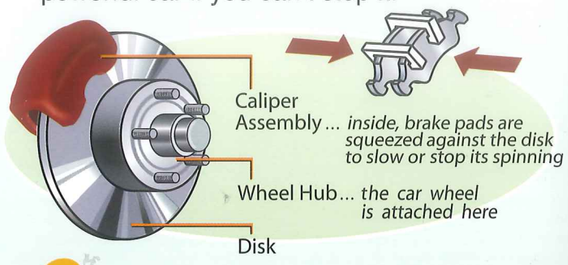
4 Bolt the engine and gearbox to the chassis. Add lots of *chrome* to the motor parts so they look really stylish. The gearbox is hidden under the floor of the car, so there is no need to make it look good.

5 Attach a *tail shaft*, which looks like a long, metal tube. This connects the engine to the *differential*. The differential is a mechanical device that takes the power from the engine, gearbox and tail shaft, and distributes it to the back wheels.



6 Add the front and rear *suspension*. This consists of parts such as *shock absorbers* and *springs*, which soften the bumps on the road. Without these components it would be a very rough ride — like being in a giant, rattling billycart.

7 Add *disc brakes* to the *axles*. The axle is a shaft that allows the wheels to spin. When you want to stop the wheels from turning — and make the car slow to a halt — you brake. This is achieved by having the disc brake pads clamp down on the discs attached to the axle. This is very important — it's no use having a powerful car if you can't stop it.



8 Bolt the *steering box* in place. This turns the front wheels and allows the car's direction to be controlled. Today many hot rodders also add power steering, and even air-conditioning so they have some of the comforts of modern cars.

9 Reattach the body of the car onto the chassis. Paint the car with many coats of *metalflake* paint. The small, silvery flakes in the paint add shine and depth to the car's colour. Pick a striking colour or combination of colours to show off your work.

10 Tow the car to an *auto-electrician*. Here all the *electrics* and *dashboard* instruments will be installed. The electrics allow the car's *starter motor* to work. A starter motor is a small electric engine that makes the V8 engine turn and eventually start.

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Deliver the car to an automobile *upholsterer* where all the seats, roof lining and door trims are upholstered. Upholstery consists of all the seat covers and other materials used to decorate the interior of a car. Always choose special upholstery and padding, because these are the finishing touches that make the car comfortable and special to look at.

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Add a few basics like doorhandles and some cool mag wheels. Have your car registered so it can be driven legally on the road and you are on your way.

Questions

1 Hot rodding means
- a to drive old cars.
- b to improve old cars.
- c to roll a chassis.

2 Why is a V8 engine ideal?
- a It performs strongly.
- b It stops you from having to change the gears.
- c It starts by itself.

3 What connects the engine and gearbox to the differential?
- a the axle
- b the motor
- c the tail shaft

4 The axle
- a makes the drive smoother.
- b brings the car to a halt.
- c allows the wheels to spin.

5 What are two things that are not essential when building a hot rod?
- a engines and gearboxes
- b a brand new chassis and power steering
- c suspension and disc brakes

6 What is really good about hot rodding?
- a You can design a car exactly how you want it.
- b You don't have to deal with car salesmen.
- c It gets rid of old cars.

Vocabulary

Find words in the text that match the meanings below. The word is in the section shown in brackets.

7 The frame of a machine (1)
8 A copy of an original (1)
9 Entry (2)
10 To put something on or in place (4)
11 Legally recorded (12)

Grammar

*Find an **adjective** (a word to describe a noun) in these sentences from the text.*

12 You can improve the performance of an older car.
13 The shaft looks like a long tube.
14 Chrome is very stylish.
15 The silvery flakes in the paint make it shine.

Back To The Text...

16 An automatic gearbox is recommended.
a true b false

17 All hot rods have air-conditioning.
a true b false

18 The gearbox should be chromed.
a true b false

Sequencing

*Look back through the card to find what you do first. Choose **a** or **b**.*

19 a Attach a tail shaft.
b Get a V8 engine.

20 a Install the shock absorbers.
b Install the steering box.

21 a Take the car to an upholsterer.
b Take the car to an auto-electrician.

Think About This

22 The photo at the top of page one, shows
- a the final product.
- b the donor car.
- c an unregistered car.

23 Look at the title. The word 'Rod' appears as part of
- a the roof.
- b the rear.
- c the engine.
- d the wheels.

Challenge Option

Design: Create a decal or image to go on the side of your hot rod.