

# 1 Hand tools 1



**Mr Fix it!**

**Great Advice When You Need It**

*Today's Column*

**Question:** *I recently bought a house, and something breaks every month. I want to fix things myself. What do I need?*  
- Frank G.

**Mr Fix it! Answers:**

Sometimes things break in houses. Calling a repair man is expensive. As a homeowner, you need tools. Go to the local hardware store. Most sell **tool kits** with the basic **hand tools**. They usually include a couple of **Phillips screwdrivers**, **flathead screwdrivers**, and an **adjustable wrench**. Some tool kits also have **slip-joint pliers** and **long-nose pliers**. Then buy a tape measure, a **claw hammer**, and a **utility knife** separately. Utility knives have **retractable blades**, so they last a long time. And these separate items can be found for less than ten dollars. Read about how to use these tools, and home improvement projects are easy.

1 What is the column mostly about?

- ☐ A an expensive repair man
 ☐ B a recommendation for tools
 ☐ C a local hardware store
 ☐ D a description of how long tools last

2 What are NOT included in tool kits?

- ☐ A tape measures
 ☐ B adjustable wrenches
 ☐ C Phillips screwdrivers
 ☐ D flathead screwdrivers

3 According to the columnist, what is true about utility knives?

- ☐ A The blades break frequently.
 ☐ B They are included in tool kits.
 ☐ C The blades are not always out.
 ☐ D They cost less than hammers.

## Vocabulary

3 Match the words with the definitions (A-E).

wrench retractable hand tool utility knife adjustable

A a manual device used for home improvement projects

B being able to pull back in

C a small cutting device

D a hand tool that tightens and loosens nuts and bolts

E being able to change sizes

## Vocabulary

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

Phillips screwdriver flathead screwdriver

1 A) A screw with a flat slot needs a .

B) A screw with a cross-shape on the head needs a .

Slip-joint pliers Long-nose pliers

2 A)  are adjustable.

B)  have needle-like pincers.

claw hammer tool kit

3 A) A  can drive in or remove nails.

B) Many tools are included in a .

## Listening

6 Listen to a conversation between a sales associate and a customer. Mark the following statements as *True* or *False*.

0:00 / 0:00

1 The customer needs Phillips and flathead screwdrivers.

True False

2 They do not sell hand tools individually.

True False

3 Buying tools in a set is less expensive than buying them one at a time.

True False

## Listening

7 Listen again and complete the conversation.

0:00 / 0:00

**Sales Associate:** 1)  , welcome to Bob's Hardware.

**Customer:** Hi. Can you tell me where the hand tools are?

**Sales Associate:** Sure. They're right 2)  . What are you looking for?

**Customer:** Well, I need some 3)    screwdrivers.

**Sales Associate:** Okay. 4)   full sets or individual screwdrivers.

**Customer:** Oh, okay. But I only need a few sizes. What do you recommend?

**Sales Associate:** I 5)   a full set.

**Customer:** Really? Why is that?

**Sales Associate:** It's cheaper than buying them separately. Plus, 6)   the sizes some day.

## 2 Hand tools 2

**GRASSER Hand Tools**

Use the right tool for the job.  
Consult our product list before starting any project.

| Product                                                      | Function: Use it to ...                  |
|--------------------------------------------------------------|------------------------------------------|
| wire cutter                                                  | strip and cut light to medium gauge wire |
| ball peen hammer                                             | shape metal and drive chisels            |
| hand saw                                                     | cut wood                                 |
| hacksaw                                                      | cut metal or plastic pipes               |
| sawhorse                                                     | support materials while cutting          |
| ratchet wrench (includes socket set and 2 socket extensions) | tighten or loosen bolts or nuts          |
| combination wrench                                           | work with multiple sizes of bolts        |
| spanner wrench                                               | access hard to reach bolts               |
| Allen wrench                                                 | turn Allen key bolts                     |
| nut driver                                                   | insert or remove nuts                    |
| pipe wrench                                                  | turn multiple size pipe connections      |

1 What is the purpose of the website?

- ☐ A to advertise an upcoming sale    ☐ B to explain product functions    ☐ C to compare hand and power tools    ☐ D to take online customer orders

2 What tool should be used to cut wood?

- ☐ A wire cutter    ☐ B hand saw    ☐ C hacksaw    ☐ D ball peen hammer

3 Which tool CANNOT work on different sizes of bolts?

- ☐ A Allen key    ☐ B pipe wrench    ☐ C combination wrench    ☐ D ratchet wrench and socket set

## Vocabulary

4 Fill in the blanks with the correct words and phrases from the word bank.



ratchet wrench   pipe wrench   ball peen hammer   Allen wrench   combination wrench

1 See which  fits the hexagonal recess in this bolt.

2 Tom used the open end of the .

3 The plumber used an adjustable .

4 Sue shaped the metal fitting with a .

5 Where are the sockets for this .

## Listening

6 Listen to a conversation between a customer and a tool company employee. Mark the following statements as *True* or *False*.

▶ 0:00 / 0:00

1 The man calls to get help choosing tools.

True  False

2 The man orders several pipe wrenches.

True  False

3 The man needs hand saws and hacksaws.

True  False

## Listening

7 Listen again and complete the conversation.

▶ 0:00 / 0:00

**Employee:** Grasser Hand Tools, how can I help you?

**Customer:** Hi, this is Tom from Russet Hardware. I'd like to 1)   .

**Employee:** Hi, Tom. What can I put you down for?

**Customer:** Well, I need five 2)  , a case of Allen wrench sets, and a box of spanner wrenches.

**Employee:** Okay. 3)  ?

**Customer:** Yes. I need three more of the small 4)   with replaceable blades.

**Employee:** 5)    the hand saws, or the hacksaws?

**Customer:** Oh, 6) .

# 11

## Types of cars

sports car

minivan

pickup truck

hatchback

2-door coupe

### MIKE BURR'S USED CARS

Located at Universe and Gulf Stream

### Weekend Sales Event!

**This weekend only, stop by for your new dream car!**

Whether you want a **compact** or a **sports car**,  
**we have it!**

We have used **4-door sedans** and **station wagons** starting at \$2,500!  
Buy your first **convertible** for \$6,000!  
Do you need four-wheel drive?  
Get your **pickup truck** or **SUV** with a \$1999 deposit!  
Trying to save money on gas?  
Jump into one of our **2-door coupes** or **hatchbacks**, and start saving now!  
Don't forget those big families!  
We have a variety of **minivans** and full size passenger **vans** as well.

**Hurry in this Saturday  
and Sunday!  
You won't find  
better prices anywhere!**

1 Convertibles cost less than 4-door sedans.

True

False

2 There are many types of minivans available.

True

False

3 The sales event lasts for a week.

True

False

## Vocabulary

3 Match the words with the definitions (A-G).

compact

station wagon

4-door sedan

convertible

hatchback

minivan

pickup truck

A a light truck with an open body

B a smaller version of a van

C a car with a removable roof

D a small car

E a car with a long body and lots of storage space

F a car with a door in the back that opens upward

G a car with four doors and trunk space

## Vocabulary

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

2-door coupe

van

1 A) The passenger  carries eight people.

B) The  barely fits two people.

SUV

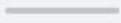
sports car

1 A) Alysa took her  on the four-wheel drive mountain trail.

B) Only Sarah and Sue fit in the small .

## Listening

6  Listen to a conversation between a car salesman and a customer. Choose the correct answers.

▶ 0:00 / 0:00   

1 What is the conversation mostly about?

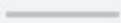
- ☐ A problems with a car
- ☐ B recommending a car
- ☐ C discussing a car's price
- ☐ D comparing two cars

2 What type of car does the man suggest the woman buy?

- ☐ A compact
- ☐ B SUV
- ☐ C sports car
- ☐ D minivan

## Listening

7  Listen again and complete the conversation.

▶ 0:00 / 0:00   

**Car Salesman:** Hello there! 1)    help you?

**Customer:** Hi. I'm 2)   a new car, one that my entire family can ride in.

**Car Salesman:** Well, I'm sure 3)    for you. How big is your family?

**Customer:** It's me, my four kids, and my husband.

**Car Salesman:** Big family! Do you all travel in the car?

**Customer:** We do. My parents live 4)    from us, and we often visit them.

**Car Salesman:** Hmm, you 5)   some extra space for luggage, too.

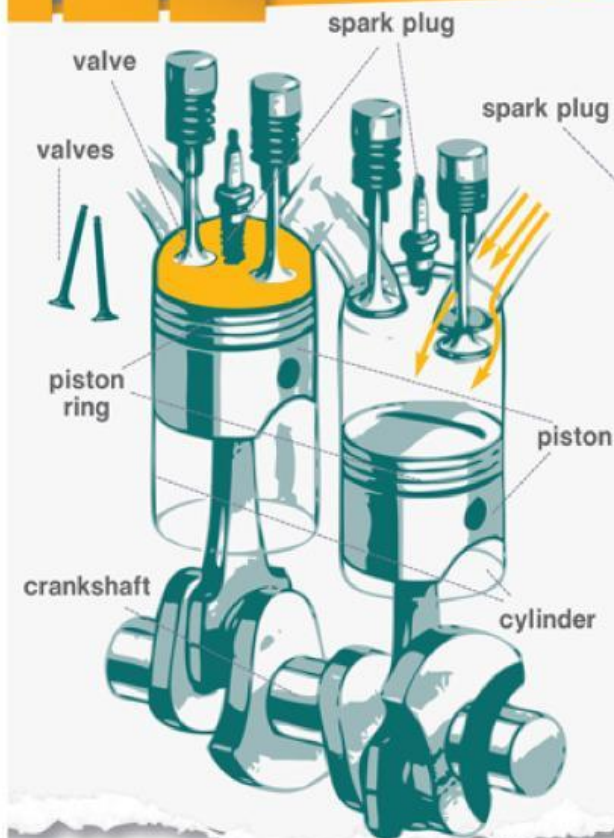
**Customer:** We do. The kids pack a lot.

**Car Salesman:** Well, I think a 6)  is the choice for you. Let me show you one.

# 1

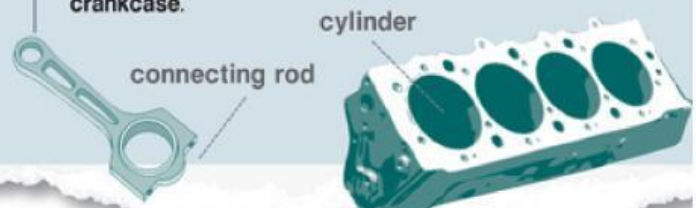
## Internal Combustion Engine

Scholar's Encyclopedia: I-J 644



### Internal Combustion Engine

An internal combustion engine operates in a cycle that compresses and ignites fuel and air to generate energy. The starting point is the **cylinder**. The cylinder runs through the **head** and down into the **engine block**. A **piston** within the cylinder moves up and down. At the start of the cycle, it pulls a mixture of fuel and air through **valves** and into the cylinder. It then moves upward compressing the fuel mixture. A **piston ring** forms a tight seal between the piston and the cylinder wall. This ensures that the fuel mixture cannot escape. It also keeps oil from the **sump** from entering the combustion chamber. Next, a **spark plug** fires and ignites the fuel mixture. The resulting explosion pushes the piston downward. This, in turn, moves a **connecting rod** attached to the piston. The connecting rod transfers the mechanical energy from the piston to a **crankshaft** contained within a **crankcase**.



- 1 Air enters the cylinder through the valves.
- 2 Fuel is compressed by the piston.
- 3 The crankshaft connects to the spark plug.

True

False

True

False

True

False

## Vocabulary

**3 Match the words with the definitions (A-F).**

piston ring   head   spark plug   connecting rod   crankcase   engine block

A body of engine

B holds large shaft in engine

C creates tight seal

D top part of engine

E transfers power from piston

F causes explosion

## Vocabulary

**4 Fill in the blanks with the correct words from the word bank.**

**word** BANK

crankshaft   valve   piston   sump   cylinder

1 A  controls the flow of air into an engine.

2 The  holds the engine's supply of oil.

3 The spark plug fires in the .

4 The  moves up and down in a cycle.

5 The connecting rod powers the .

## Listening

**6**  Listen to a conversation between an experienced mechanic and a new mechanic working on an engine. Choose the causes of the engine failure.

▶ 0:00 / 0:00  

- ☐ bad spark plugs
- ☐ oil leak
- ☐ cracked sump
- ☐ worn piston rings
- ☐ broken piston

## Listening

**7**  Listen again and complete the conversation.

▶ 0:00 / 0:00  

**Mechanic 1:** I'm still 1)   what caused the engine to fail.

**Mechanic 2:** I'm pretty certain that it was an 2)  .

**Mechanic 1:** Really? I was thinking 3)   .

**Mechanic 2:** It couldn't be that. The spark plugs are old, but they aren't 4) .

**Mechanic 1:** So the sump is cracked?

**Mechanic 2:** The sump 5)   .

**Mechanic 1:** It isn't? But then 6)     an oil leak?

**Mechanic 2:** Look inside the cylinder and tell me what you see.

**Mechanic 1:** The walls are discolored and damaged. It looks really dirty too.

**Mechanic 2:** Exactly. Do you have any idea what caused that?

**Mechanic 1:** My guess is that oil got in there. Ah, so it was the piston rings.

**Mechanic 2:** Exactly. They wore out and oil leaked into the chamber.