

# 1 Hand tools 1

long-nose pliers

claw hammer

Mr Fix it!

flathead screwdriver Phillips screwdriver slip-joint pliers

**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.

adjustable wrench

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.

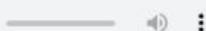
claw hammer tool kit

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.



**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 pein 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.

**word** BANK

ratchet wrench    pipe wrench    ball pein 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

hatchback

pickup truck

sports car

minivan

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

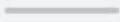
sports car

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?

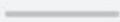
- A problems with a car
- B recommending a car
- C discussing a car's price
- D comparing two cars

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.

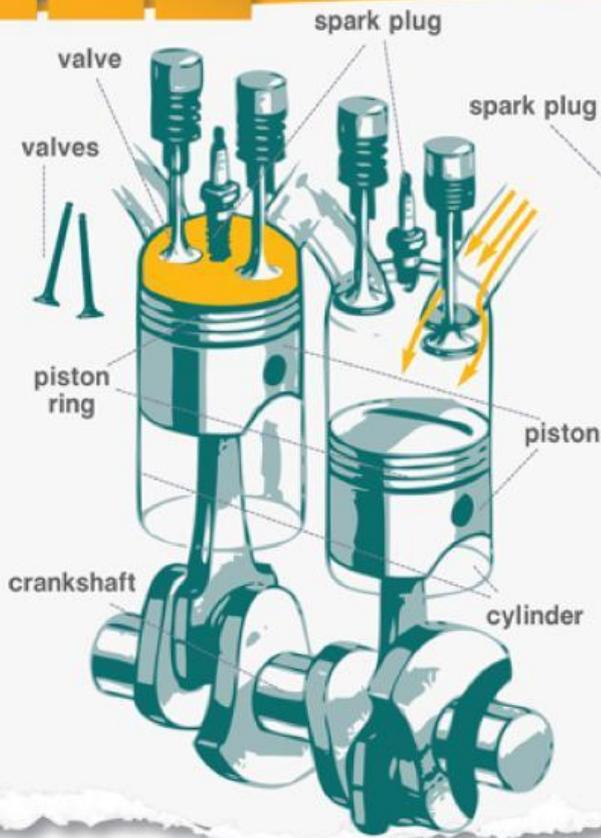
**Car Salesman:** Hmm, you 5)   some extra space for luggage, too.

**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.

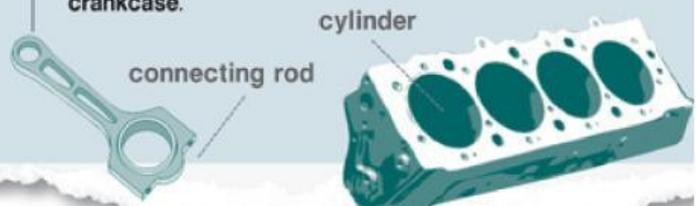
# 1 Internal Combustion Engine

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.