

FFA Forestry CDE  
Chainsaw Information  
Study Guide:

- 1) Name four things that can be done to prevent kickback. **Possible answers are:**
  - Hold the chain saw firmly with both hands**
  - Don't overreach**
  - Don't let the nose of the guide bar contact any object**
  - Begin cutting and continue at full throttle**
  - Don't cut above shoulder height**
  - Use devices such as low kickback chain**
  - Cut only one log at a time**
  - Use caution when reentering a previous cut**
  - Maintain saw chain properly**
  
- 2) Name 6 types of things that should be worn for safety when using a chainsaw.
  - Sturdy, snug-fitting clothing**
  - Gloves**
  - Sturdy boots with nonslip soles**
  - Safety hardhat**
  - Ear plugs**
  - Goggles or safety glasses**
  
- 3) What is the purpose of a wedge? What are they made of? **They help control the fall of the tree. Wood or plastic**
  
- 4) Name five additional safety precautions that should be followed when operating a chainsaw. **Any answers from the other safety precautions section on pages 2 and 3 of the manual.**
  
- 5) What is the gunning site used for? **it is used to check the required direction of the fall**
  
- 6) Describe the two recommended methods for starting a chainsaw.
  - On the ground – make sure chain brake is engaged, place on firm ground , grip the front handlebar firmly and press down. Put the toe of right foot into the rear handle and press down. Pull the starter grip.**
  
  - Off the ground – Make sure chain brake is engaged, grip the front handle, keep your arm on the front handle in a locked position. Hold the rear handle of the saw tightly between the legs just above the knees. Pull the starter grip.**

- 7) There are three reactive forces that may occur when operating a chainsaw. What are they? **Kickback, pull-in, pushback**
- 8) When do these reactive forces occur?  
**Kickback - The moving saw chain contacts a solid object or is pinched near the upper quadrant of the bar nose.**  
  
**Pull-in – The chain on the bottom of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood.**  
  
**Pushback – when the chain on the top of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood.**
- 9) What five things should be carefully considered before felling a tree?  
**The intended direction of the fall**  
**The natural lean of the tree**  
**Any unusually heavy limb structure**  
**Surrounding trees and obstacles**  
**The wind direction and speed**
- 10) What does limbing mean? **Removing the branches from a fallen tree**
- 11) What is the procedure for removing buttress roots? **first cut vertically into the root and then make the horizontal cut**
- 12) Should the chain be tightened while the saw is running? **no**
- 13) What are the two types of cuts used to fell a medium to large tree?  
**Conventional cut, open-face cut**
- 14) What is the hinge? What is its purpose? **It is the uncut part of the tree after the first two cuts have been made and it helps control the falling tree**
- 15) How should the chainsaw be carried? **The saw should be turned off, grip the front handle and place the muffler away from the body, the chain guard should be over the chain and guide bar and the bar should point behind you.**
- 16) What type of cut is used for small diameter trees? **Simple fan cut**

- 17) What are the two methods of cutting trees that have a diameter greater than the length of the guide bar. **The sectioning felling cut or plunge-cut method**
- 18) In relation to the tree where should the escape path be? **about a 45 degree angle and opposite the planned direction of the fall**
- 19) What does bucking mean? **Cutting a log into sections**
- 20) How far away should the chainsaw be from the fueling site before starting the engine? **at least 10 feet**
- 21) What symptoms or problems would indicate the saw has a dull chain? **An easy to cut wood becomes hard to cut and burn marks appear on the wood.**

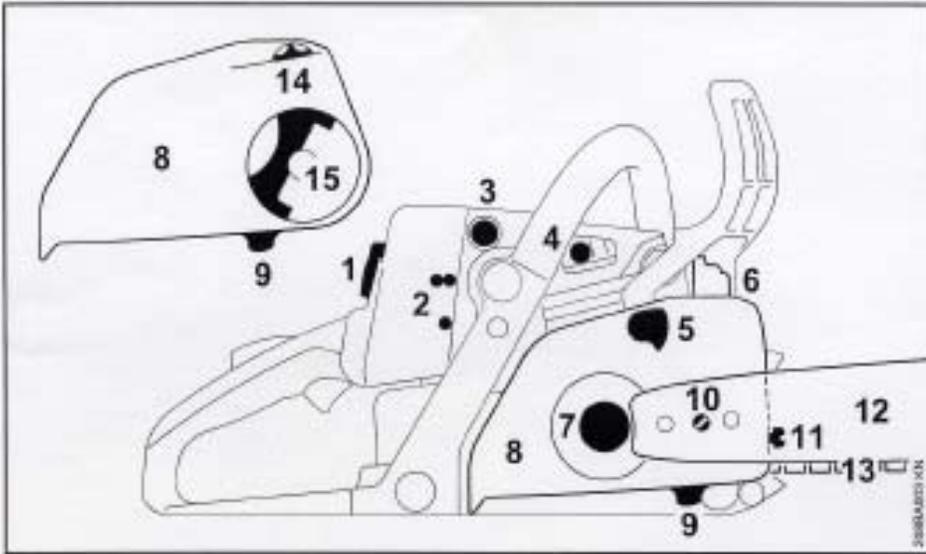
## Match the parts with the definition or purpose.

- |                         |                          |                                 |
|-------------------------|--------------------------|---------------------------------|
| ___ Twist Lock          | ___ Rear Hand Guard      | ___ Carburetor Adjusting Screws |
| ___ Chain Catcher       | ___ Spark Plug Boot      | ___ Fuel Filler Cap             |
| ___ Front Hand Guard    | ___ Muffler              | ___ Anti-Vibration System       |
| ___ Oilmatic Saw Chain  | ___ Chain Sprocket Cover | ___ Chain Brake                 |
| ___ Chain Tensioner     | ___ Clutch               | ___ Oil Filter Cap              |
| ___ Front Handle        | ___ Master Control Lever | ___ Bumper Spike                |
| ___ Fuel Pump           | ___ Chain Sprocket       | ___ Throttle Trigger Interlock  |
| ___ Starter Grip        | ___ Adjusting Wheel      | ___ Guide Bar Nose              |
| ___ Decompression Valve | ___ Handle of Wingnut    | ___ Throttle Trigger            |
| ___ Guide Bar           | ___ Rear Handle          |                                 |

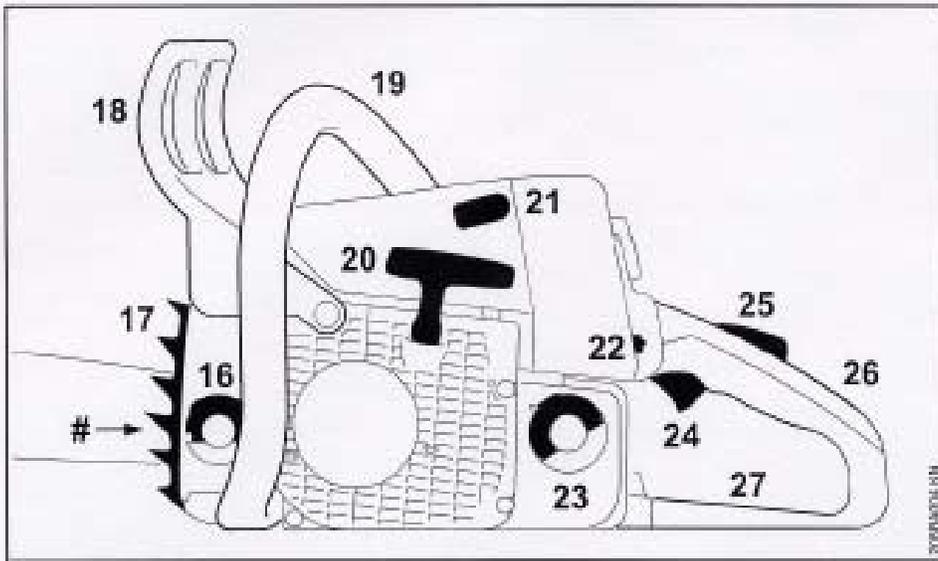
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- A. This system includes a number of buffers designed to reduce the transmission of vibrations created by the engine and cutting attachment to the operator's hands.
  - B. Lock for carburetor box cover.
  - C. Fills carburetor with fuel to simplify starting
  - D. A device to stop the rotation of the chain if activated in a kickback situation by the operator's hand or by inertia.
  - E. The toothed wheel that drives the saw chain.
  - F. Helps to reduce the risk of operator contact by a chain if it breaks or comes off the bar.
  - G. A loop consisting of cutters, tie straps and drive links.
  - H. Must be released to allow chain to be tensioned with adjusting wheel.
  - I. Toothed stop for holding saw steady against wood.
  - J. Part of the saw held in the left hand at the front of the saw.
  - K. Connects the spark plug with the ignition wire.
  - L. For closing the fuel tank.
  - M. Must be depressed before the throttle trigger can be activated.
  - N. Gives added protection to operator's right hand.
  - O. Couples engine to chain sprocket when engine is accelerated beyond idle speed.
  - P. For fine tuning the carburetor
  - Q. Releases compression pressure to make starting easier
  - R. Reduces engine exhaust noise and directs the exhaust gases.
  - S. Covers the clutch and the sprocket.
  - T. Permits precise adjustment of chain tension.
  - U. Supports and guides the saw chain.
  - V. Permits precise adjustment of chain tension.
  - W. For closing the oil tank

- X. Provides protection against projecting branches and helps prevent left hand from touching the chain if it slips off the handlebar.
- Y. Used for starting the engine.
- Z. Lever for choke control, starting throttle, run and stop positions.
- AA. Controls the speed of the engine.
- BB. The support handle for the right hand, located at the rear of the saw.
- CC. The exposed end of the guide bar.

Name the part:



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