Question block created by wizard

This exam contains 32 questions.

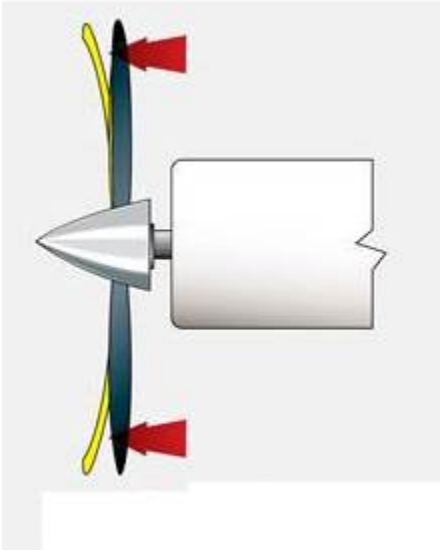
1. The propeller blade angle is defined as the acute angle between the airfoil section chord line (at the blade reference station) and which of the following?

a. The axis of blade rotation during pitch change.
b. The relative wind.
c. The plane of rotation.

2. How can work be calculated?

a. Work = thrust × slip
b. Work = velocity × distance
c. Work = thrust × distance

3. In the figure below is a propeller shown with full engine power and no forward speed. What is the effect of the bending of the blades.



a. The bending of the blades has no effect on the propeller slip.
b. The bending of the blades increases the propeller slip.
c. The bending of the blade decreases the propeller slip

4. What is the most dominant force that is acting on a propeller blade?

a. Aerodynamic twisting force.
b. Centrifugal twisting force.
c. Torque bending force.

5. The centrifugal twisting moment of an operating propeller tends to...

a. bend the blades in the direction of rotation
b. the low pitch angle.
c. increase the pitch angle

6. The propeller designed for one rotation and forward speed is a....

a. fixed pitch and ground adjustable propeller.
b. ground adjustable propeller.
c. fixed pitch propeller.

7. What operational force causes propeller blade tips to lag in the opposite direction of rotation?

a. Torque-bending force.
b. Thrust bending force.
c. Aero-dynamic twisting force.

8. What is the basic purpose of the small holes in the tip of a propellers made from wood?

a. To allow the moisture which may collect between the tipping and the wood to escape (vent the tipping).
b. To provide a means for inserting balancing shot when necessary.
c. To provide a means for periodically impregnating the blade with preservation material.

9. Which of the following functions requires the use of a propeller blade station?

a. Measuring blade angle.
b. Indexing blades.
c. Propeller balancing.

10. For what kind of engines is a test club propeller used?

a. Turbo shaft engines.
b. Free turbine engines on a test facility.
c. Reciprocating engines on a test facility.

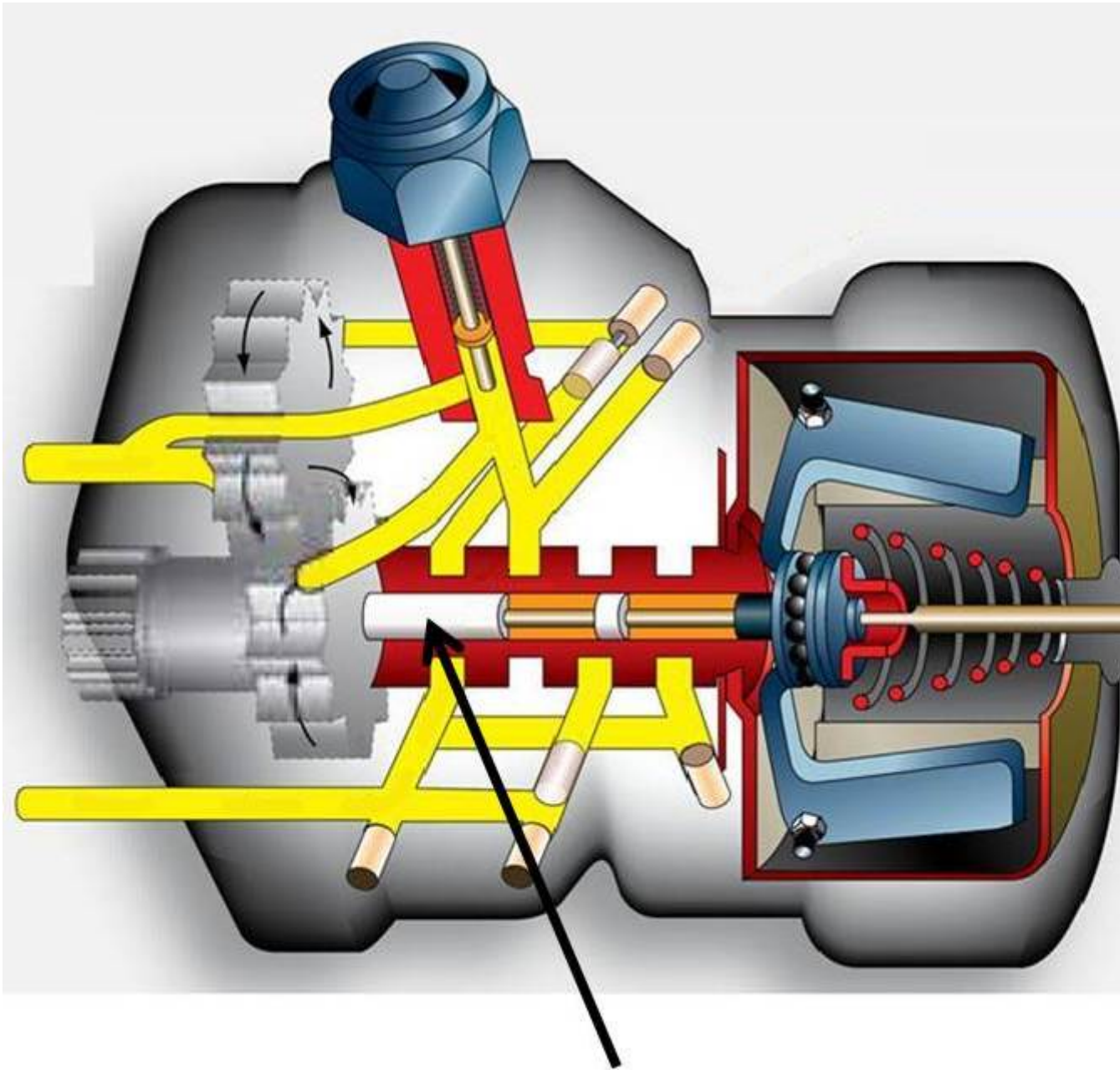
11. On which purpose is a test club propeller used?

a. The test club propeller is used to test and break in on both types of engines.
b. The test club propeller is used to test and break in turboprop engines.
c. The test club propeller is used to test and break in reciprocating engines.

12. When is it possible to move the propeller blades in a negative pitch?

a. When the landing gear is in contact with the runway.
b. During landing short before touch down.
c. In all flight conditions.

13. The arrow in the figure shows a component. What is this component called?

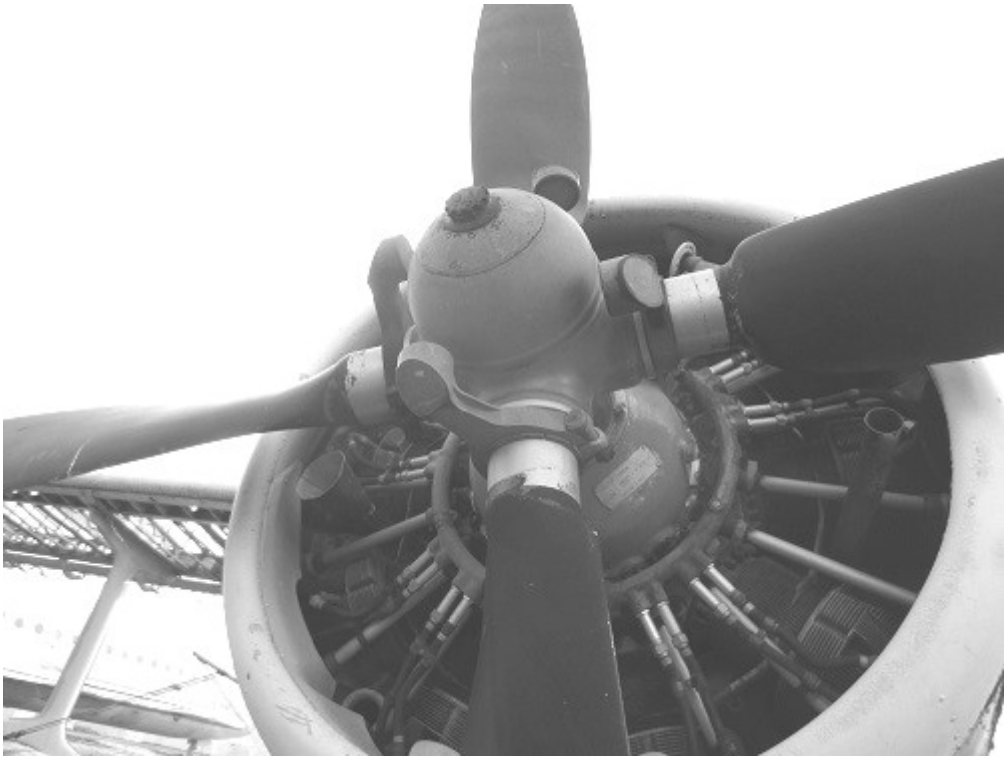


a. This component is called: oil distributer.
b. This component is called: pilot valve plunge
c. This component is called: propeller selector.

14. The propeller governor controls the?

a. linkage and counterweights from moving in and out.
b. oil to and from the pitch changing mechanism.
c. spring tension on the boost pump speeder spring.

15. Which of the following forces or combination of forces operates to move the blades on a constant speed counterweight-type propeller to the COARSE PITCH position?



a. Centrifugal force acting on the counter weights.
b. Propeller governor oil pressure acting on the propeller piston-cilinder arrangement.
c. Engine oil pressure acting on the propeller piston-cilinder arrangement and the centrifugal force acting on the counterweights.

16. What is the most powerful force on a constant speed propeller?

a. Centrifugal twisting force.
b. Aerodynamic twisting force.
c. The governor oil pressure.

17. When the oil pressure in a hydromatic propeller on both sides of the piston drops to zero, the propeller remains in the?

a. feathering position.

b. low angle position.
c. high angle position.

18. What happens if the control cable of the propeller system breaks down?

The return spring sets the governor control lever to....

a. low rpm.
b. the preset value rpm.
c. high rpm.

19. For safety purpose it is necessary to check the overspeed governors operation.

When does this check take place?

a. This check takes place during ground run-up procedures.
b. This check takes place during flight.
c. This check takes place before ground run-up procedures.

20. What is the function of the automatic propeller synchronizing system on the multi-engine aircraft?

a. To control the power output of all engines.
b. To control the tip speed of the propellers.
c. To control engine RPM and reduce vibration.

21. On most multi-engine aircraft, automatic propeller synchronizing is accomplished through the actuation of the....

a. propeller governors.
b. propeller control levers.
c. throttle levers.

22. The synchrophasing system....

a. changes the phase angle of the propeller.
b. changes the blade angle of the propeller.
c. changes the rpm of the propeller.

23. Ice formation on propellers, when an aircraft is in flight, will

a. decrease thrust and cause excessive vibration.
b. decrease available engine power.
c. increase aircraft stall speed and increase noise.

24. The brush block assembly as shown in the figure below is normally mounted on?

a. The engine case.
b. The propeller spinner bulhead.
c. The engine cowling.

25. Apparent engine roughness is often a result of propeller unbalance. The effect of a unbalanced propeller will usually be:

a. approximately the same at all speeds.
b. greater at low RPM.
c. greater at high RPM.

26. Cold straightening a bent aluminum propeller blade may be accomplishes by

a. an Approved Maintenance Organisation.
b. a person working under the supervision of the holder of a mechanic certificate with both airframe and powerplant ratings.
c. the holder of a mechanic certificate with power plant rating.

27. Inspection of propeller blades by dye penetrant inspection is accomplished to detect

a. corrosion on the blade tip.
b. torsional stress.
c. cracks or other defects.

28. A transverse crack or flaw of any size in an aluminum propeller blade is that the propeller blade has to be?

a. rejected.
b. a NDT inspection is required.
c. reworked.

29. Which of the following determines oil and grease specifications for lubrication of propellers?

a. Propeller manufacturers.
b. Airframe manufacturers.
c. Engine manufacturers.

30. An out of track propeller could be a result of?

a. Mounting bolts that are under- or over torqued.
b. A bent propeller flange.
c. Both answers are correct.

31. What should you do if you see any red oil on a propeller hub during storage preparation?

a. Stop preparation and diagnose the hub for cracks.
b. Do nothing to the oil and continue with the preparation.
c. Clean the oil so the propeller can be stored clean.

32. When a propeller is cleaned for inspection after long time storage, the propeller must ....

a. covered with lint free cloth after inspection.
b. sprayed with oil after inspection.
c. covered with corrosion preventative compound after inspection.