

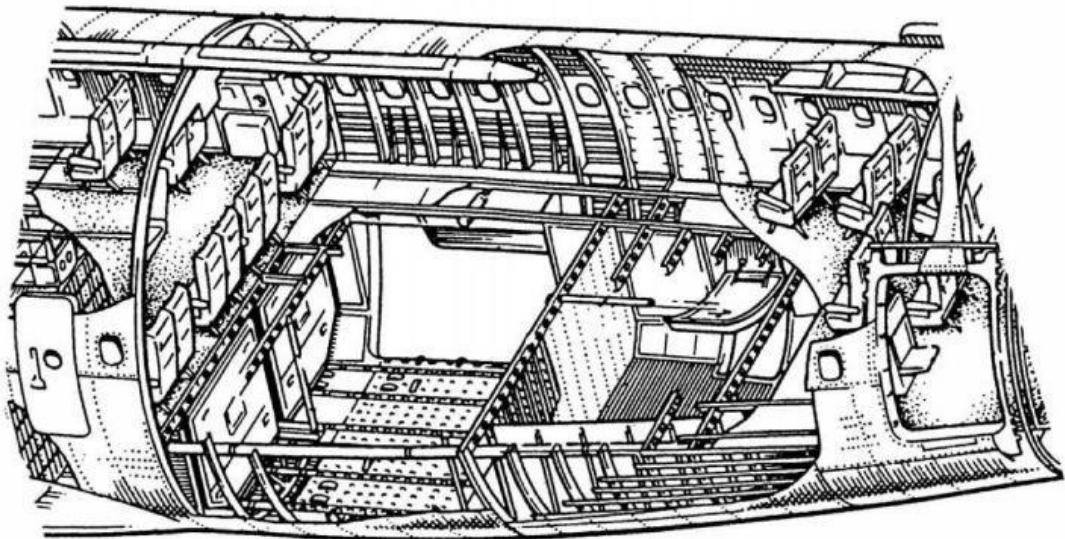
14. The tire pressure SHALL BE CHECKED every day. ....
15. Use the gage TO MEASURE the level. ....
16. The temperature DETECTS by a sensor. ....
17. The pump INCREASE the flow. ....
18. SET the lever to "DOWN" FOR EXTEND the gear. ....
19. There IS cracks on the frame, so CHECKING it. ....
20. The gas is RELEASING when the handle is PULLED. ....

**3** On the page opposite there is a cutaway view of the rear fuselage. The descriptions of precise locations correspond to the 20 terms above and below the view. Find the term which agrees with (matches) each location.

1. Mounted on the longerons. ....
2. Opens outwards and upwards. ....
3. Under the cabin floor, on tracks, side by side. ....
4. From one side of the cabin to the other. ....
5. Installed on the inside of the passenger doors and attached to the door sill during the flight. ....
6. They run around the fuselage. ....
7. They run along the cabin between the seat units. ....
8. Opens inwards and upwards. ....
9. Faces aft near the pax. door. ....
10. On the inner skin perpendicular to the frames. ....
11. In front of the cargo door. ....
12. 8 seats abreast. ....
13. Along the top of the fuselage. ....

- 14. Opens outwards and forwards. ....
- 15. Between the skin and the wall panels. ....
- 16. Under the seat rails, at right angles to the cross beams. ....
- 17. Over the seats. ....
- 18. When down, inside and flush with the door. ....
- 19. Between two frames, parallel to the floor. ....
- 20. Two or three next to each other. ....

ESCAPE SLIDE    CONTAINERS    CABIN WINDOWS    BALL MAT  
 AFT PASSENGER DOOR    DOOR HANDLE    FRAMES    CROSS BEAMS    AISLE  
 ATTENDANT SEAT



STRINGERS    GLASS WOOL BLANKETS    ANTENNA    LONGERONS    REAR  
 CARGO DOOR    OVERHEAD BAGGAGE RACKS    SEAT UNIT    ROW    SEAT  
 RAILS    BULK CARGO DOOR

**4** Think of all the actions you can do to these components. For example:  
KNOB: rotate, turn, set, pull, push, adjust.

1. push-button .....
2. light .....
3. fire handle .....
4. covers .....
5. circuit breaker .....
6. brakes .....
7. rotary selector .....
8. screw .....
9. plug .....
10. throttle levers .....
11. oil level .....
12. switch .....
13. cargo door .....
14. switch guard .....
15. seat-belt .....
16. printed circuit board .....
17. current .....
18. jack .....
19. escape slide .....
20. control cables .....

**5** It is important to be able to isolate the most important parts of a sentence. In this example the important parts are in bold type:

**This valve controls the cold airflow** bled from the fan exhaust which passes through the precooler in order **to regulate the temperature of** engine compressor **bleed air**.

In the examples below try to isolate the basic skeleton of the sentence by underlining the **SUBJECT**, the **VERB** and the **KEY WORD(S)**.

### 1. Support arm

The support arm is a cast light alloy box section with integral connection forks. Each connection fork is provided with standardized and replaceable bushes.

The door is attached to the support arm by means of upper and lower connection links.

The lower connection link is also connected to the lifting shaft of the door locking mechanism. An adjustable door buffer attached to the inner face of the support arm acts as a limit stop and shock absorber when the door is fully opened. A door stay mechanism installed in the support arm locks the door in the fully open position. The mechanism comprises a release button, actuating rod and lever, bellcrank, spring-loaded rod and locking hook.

2. If the output voltage of the d-c regulator attempts to rise above 16 vdc, the emitter of Q2202 follows this rise decreasing the conduction through Q2202. The decrease in current through Q2202 results in the base voltage of Q2201 rising, which in turn, decreases the current through Q2201. The result is that the output voltage returns to 16 vdc.

### 3. General

The air bled from the fifth stage of the compressor passes through four duct sections and a line-mounted valve of the on-off type. At the forward bulkhead of the intake cowl, the anti ice system interfaces with the swirl nozzle in the intake lip. The spent air then enters the cavity of the intake cowl aft of the forward bulkhead. The air passes through holes in the inner cap of the bulkhead between the skin inner barrel and the bulkhead.

Finally, the air exhausts overboard through the flush duct in the outer barrel.

The airflow pressure is controlled by an anti-ice valve which is of the butterfly type and electrically-operated.

**6** Try to put these different parts of a sentence into the correct order. Don't forget to check your answers with the Exercise Key.

1. through the reservoir filling system/the mechanic/to replenish the system/fills/the reservoir

.....

2. stores/the selected track number/ a battery-buffer memory/for later use

.....

3. the fuel supply/controls/to the other wing/a crossfeed valve

.....

4. to the cable/with the turnbuckle/the rod/connects/the lever

.....

5. a lever/to open the doors on the ground/a device/controls/without hydraulic power

.....

6. to personnel/must be depressurized/to prevent/the aileron control system/injury

.....

7. provides/to maintain or change attitude, altitude and heading/also/the AFCS/coordinated maneuvering

.....

8. to the retract port/the valve/when the flaps are retracted/pressure/directs/on each actuator

.....

9. the fuel control unit/from foreign material contamination/protects/the L.P. fuel filter

.....

10. the supply/for the system/contains/of oil/the oil tank

.....

11. the seals/in position/and/holds/a retaining ring/to make a pressure-tight joint/the pane

.....

12. 28 VDC/to turn on/a series circuit/through the lower contacts/the red light in the fire handle/applies

.....

13. amber lights/the STAB OUT-OF-TRIM indicators/on the pilot's control panel/are

.....

14. prevents/on the control quadrant/rapid movement/a gate/of the control lever

.....

15. frees/in the event of hydraulic power loss/the elevator control tabs/the tab lock-out mechanism/from both systems A and B

.....

**7** Read these texts and complete the missing word-endings with **-ED, -OR, -ER, -ING** or **-S**.

1. The wing tank pump\_\_\_ are locat\_\_\_ in a collect\_\_\_ box form\_\_\_ by root Rib 1 and Rib 2. Rib 2 is seal\_\_\_ except for vent hole\_\_\_ at the top and clack valve\_\_\_ at the bottom through which fuel gravitate\_\_\_ into the enclosure. Two inward-open\_\_\_ hing\_\_\_ panel\_\_\_ in Rib 2 provide access into this area. This configuration make\_\_\_ sure that the pump\_\_\_ are fully in fuel during flight maneuvers. Each pump has an intake pipe fitt\_\_\_ with a strain\_\_\_. A bypass pipe with suction valve enable\_\_\_ the engine to get fuel by suction if the pump\_\_\_ do not work.

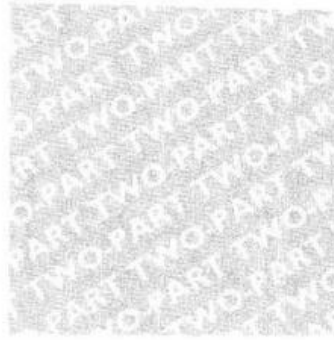
2. The pump is of the variable-displacement type. The rotat\_\_\_ assembly turn\_\_\_ all the time that the engine operate\_\_\_. The pump has nine piston\_\_\_ which are connect\_\_\_ to a moveable yoke plate. When the angle of the yoke plate change\_\_\_, the stroke of the piston\_\_\_ change\_\_\_ and the output of the pump is increas\_\_\_ or decreas\_\_\_. The compensat\_\_\_ valve supplie\_\_\_ servo pressure to the actuat\_\_\_ piston, which control\_\_\_ the angle of the yoke. A solenoid valve (controll\_\_\_ from the flight compartment) make\_\_\_ it possible to change the operation of the pump so that it do\_\_\_ not supply pressure to the system (depressuriz\_\_\_ mode). The EDP include\_\_\_ a block\_\_\_ valve which isolate\_\_\_ the pump from the hydraulic system when the pump operate\_\_\_ in the depressuriz\_\_\_ mode.

3. Each pressure reducing valve includes a control piston which operates a distribution slide valve through a spring R1 and a rock arm. When the pedal is released, the Yellow pressure at A is shut off and the brake port C is connected to the reservoir return B. When the pedal is pushed in, the volume of fluid moved by the master cylinder causes the displacement of the piston which then operates the rock arm and the slide valve; B is shut off and the pressure port A is connected to the brake port C. When line C is filled, the pressure pushes on the end of the slide valve (chamber D) which, through the rock arm, causes the spring R1 to compress; the control piston remains in the same position.

# PART

# 2

- H.** PHYSICAL CHARACTERISTICS
- I.** DIMENSIONS
- J.** PURPOSE
- K.** CONJUNCTIONS
- L.** ACTIONS
- M.** POSSIBILITY, PROBABILITY,  
NECESSITY, CONDITIONS



## INTRODUCTION

The 6 modules that comprise Part Two can be divided into three categories:

### GENERAL INFORMATION

- H. PHYSICAL CHARACTERISTICS
- I. DIMENSIONS

### IMPORTANT LANGUAGE FUNCTIONS

- J. PURPOSE
- K. CONJUNCTIONS
- M. POSSIBILITY, PROBABILITY, NECESSITY, CONDITIONS

### TECHNICAL VOCABULARY

- L. ACTIONS

The Language Functions need more time and concentration.

In J, we look at the different ways in which people talk about the objectives, targets, aims, functions of a system, etc.

In K, we try to distinguish between the different “link words”: words that connect the parts of a sentence and introduce cause, effect, comparison, addition, etc. Don’t worry. It takes a long time to assimilate them all. Learn them progressively, one at a time, starting with the most common ones.

In M, we use short but important words: “can”, “may”, “must”, “shall”, “need”, “should”, “if”, etc.

As in Part One, work gradually. Do not do all a module before continuing with the next one. Read the explanations. Study the examples. Do one exercise. Then go on to the next module. Come back to the previous module later and do another exercise. Later you will do the Review (p. 98). This is an easier, more effective way of learning. Think how several thin coats of paint are more resistant than one thick coat!