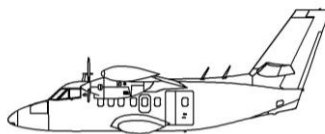




Aircraft Industries



DOCUMENTATION BULLETIN

DB No.: L410UVP-E/247d

Concerns: Airplane Flight Manual for the L410 UVP-E20 with H80-200 Engines and AV-725 Propellers
Doc. No. Do-L410-1218.2.

Subject: Issue of the revision No. 5.

Reason: Introduction of the procedure for BETA RANGE signalization.

Measure: Replace pages in above Airplane Flight Manual by the enclosed new pages.

To be carried out at the latest by: After the Bulletin receipt.

To be carried out by: Holder of the above-mentioned document.

Necessary material to be supplied by: Revision 5 of the AFM is enclosed to this bulletin.

Bulletin becomes effective: On the date of its issue.

Total number of pages: 1+13

A handwritten signature in blue ink, appearing to read "Jurák".

.....
Released: Pavel Jurák
Head of airworthiness dept.

The technical content of this document is approved under the authority of DOA ref. EASA.21J.119.

Issue date 15. 12. 2017

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LOG OF REVISIONS

The list of revisions is indicated in this Log of Revisions.

When a revision to this Manual is issued, the holder will be provided new revised pages. The holder of this Manual is responsible for ensuring that this Manual is current. The revised pages will be marked with the number and the date of issue of the revision.

A marginal notation will be used to indicate those parts of the contents of a page that have been revised.

Rev. No.	Revised pages	Description of Revision	Approved	Date
1	0-1, 0-2, 0-6 1-1, 2-1 4-8, 4-20, 7-10	Min. time for holding of the engine starting button and AFM correction.	 Ulrich Pavel Docum. dept. head under DOA Nr. EASA.21J.119	Jun 5/13
2	0-1, 0-2, 0-3, 1-1, 2-i, 2-4, 2-5, 4-i, 4-ii, 4-12, 4-19 to 4-48	Crosswind value increasing.	EASA based on major change approval No. 10052220 dated February 10 2015.	Dec 12/14
3	0-1, 0-2, 0-3, 1-1, 1-14, 1-15, 3A-i, 3A-ii, 3A-3 to 3A-23, 4-i, 4-6, 4-7, 4-11 to 4-14, 4-19, 4-22, 4-29, 4-30, 4-33, 4-39, 5-46, 5-48	Emergency fuel control circuit procedure modification. Minor AFM corrections.	 Ulrich Pavel Docum. dept. head under DOA Nr. EASA.21J.119	Sep 30/15
4	0-1, 0-2, 0-6, 1-1, 3-5, 3-6, 3-9, 4-7, 7-i, 7-7	Master switch installation. Lamp test procedure modification.	 Ulrich Pavel Docum. dept. head under DOA Nr. EASA.21J.119	Dec 16/15
5	0-1, 0-2, 1-1, 3A-i, 3A-ii, 3A-7 to 3A-26	Addition of Beta Range and Propeller Pitch Lock Signalling procedure.	EASA based on stand alone change approval No. 10064104 dated 15 December 2017	Dec 12/17

L 410 UVP-E20
with H80-200 engines & AV-725 propellers
FLIGHT MANUAL

Rev. No.	Revised pages	Description of Revision	Approved	Date

ABNORMAL PROCEDURES

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NOTE

During straight and level flight a feathered propeller may turn at not more than 50 RPM in the direction of engine shaft rotation, and not more than 20 RPM in the opposite direction.

EMERGENCY FEATHERING

If the propeller blades are not feathered 5 seconds after the MANUAL FEATHERING button has been pushed, move the PCL of the stopped engine back to its rearmost, "Feathered", position. The blades will in this case take max. 20 seconds to reach feathered position.

UNFEATHERING PROPELLER

TCL IDLE position

PCL initial FEATHER position

PROP FEATHERING/AUT. BANK CONTROL
 circuit breaker OFF and ON again

PCL FINE PITCH

NOTE

If the propeller unfeathering does not occur and n_P stabilizes at approximately 350 RPM, slowly increase n_G until n_P starts rising, but to 80% at the most.

BETA RANGE AND PROPELLER PITCH LOCK SIGNALLING

a) On final approach

When the amber BETA RANGE cell (in the Engine section of the CWD) comes on perform the following procedure on the affected engine:

TCL IDLE

MANUAL FEATHER push-button (under cover) PUSH

After manual feathering and also if propeller has not been feathered:

PCL FEATHER

b) During take-off

When the amber BETA RANGE cell (in the Engine section of the CWD) comes on:

Below V₁ abort take-off

Above V₁:

ELU LH, RH switch off

TAKE-OFF complete take-off

After take-off completing follow procedure c).

c) During other phases of the flight

When the amber BETA RANGE cell (in the Engine section of the CWD) comes on but amber PROPELLER PITCH LOCK cell does not come on, it is false signaling.

ELU LH, RH switch off

No further action is required.

When the amber BETA RANGE cell (in the Engine section of the CWD) and amber PROPELLER PITCH LOCK cell come on:

ELU LH, RH switch off

Flight. continue

CAUTION

ANY POWER REDUCTION UNDER 80 % NG CAN CAUSE
A DIFFERENCE IN PROPELLERS SPEEDS, I.E. A THRUST
ASYMMETRY.

Before descent, for affected engine:

TCL IDLE

MANUAL FEATHER push-button (under cover) PUSH

After manual feathering and also if propeller has not been feathered:

PCL FEATHER

Engine SHUT DOWN

Complete flight with one engine inoperative.

FUEL

USE OF EMERGENCY FUEL CONTROL CIRCUIT

The emergency fuel control circuit controls the engine in case of a normal fuel control system failure which is indicated by n_G hang-up, or a spontaneous increase in n_G , or a spontaneous drop of engine power the engine will not respond to movements of the TCL, or responds abnormally.

WARNING

BETA CONTROL AND REVERSE PITCH MUST NOT BE ENGAGED WHEN THE EMERGENCY CIRCUIT IS IN USE.

CAUTION

1. THE EMERGENCY CIRCUIT CAN BE USED ONLY WHEN THE FUEL PUMP OF THE AFFECTED ENGINE IS FUNCTIONING NORMALLY.
2. USING OF THE EMERGENCY CIRCUIT IS ALLOWED ONLY IN CASE OF NORMAL FUEL CONTROL SYSTEM FAILURE FOR COMPLETION OF FLIGHT ONLY.
ANY FURTHER AIRPLANE OPERATION WITH FUEL CONTROL SYSTEM FAILURE AND EMERGENCY CIRCUIT USING INSTEAD IS FORBIDDEN.

NOTE

1. Before switching-on, the emergency fuel control circuit switch-off the automatic feathering.
2. Engagement of the emergency fuel control circuit automatically disconnects the system which controls the fuel supply regulator, as well as the automatic engine starting cycle, the minimum fuel consumption valve which safeguards idling speed at higher altitudes, and limiter system function (except engine parameter exceeding signaling). Therefore, when this circuit is engaged, a check must be kept (especially during altitude changes) on the key parameters of the engine (n_G , ITT and TQ) to ensure that none of them exceeds the permissible maximum limits (for service limitations, see Section 2). At the same time, the n_G must not be allowed to fall below 60% at altitudes lower than 6,500 ft (2,000 m), or below 70% at altitudes above 6,500 ft (2,000 m).
3. At altitudes below 6,500 ft (2,000 m) the gas generator may fail to reach its maximum speed (99%) even when the Fuel stop cock/Emergency throttle lever is set to its foremost position.

(a) Engaging the emergency fuel control circuit

TCLIDLE

Fuel stop cock/Emergency throttle leverCheck OPEN position

ISOL. VALVE circuit breakerON

ISOLATION VALVE amber cell on the CWD
of the affected engineCheck ON

Fuel stop cock/Emergency throttle leverMove slowly forward from OPEN
position to emergency circuit area
to set minimum n_G

Set required power rating by slow displacement (min. 6 sec) of the Fuel stop cock/Emergency throttle
lever within the range of the OPEN position and the MAX. POWER position.

(b) Stopping an engine with the emergency circuit engaged

The sequence of steps is the same as in the normal engine stopping procedure - see Section 4.

NOTE

Each Emergency Circuit Usage for completion of flight mission has to
be reported to GEAC Customer Support Service prior to next flight
with description of event for further instruction and recorded in to
Engine Log Book and FCU Record Form.

**FAILURE OF AUTOMATIC SWITCHING-ON FUEL TRANSFER FROM WING-TIP
TANKS**

This failure is indicated by amber ACTUATE TRANSFER cell (RH or LH) in the Airframe section of the CWD.

WING TIP TANK FUEL TRANSFER switch
for the affected side on the right instrument panel.....ON

Green FUEL TRANSFER cell
in the Airframe section of the CWD.....CHECK ON

FAILURE OF FUEL TRANSFER FROM ONE WING-TIP TANK

NOTE

If fuel transfer fails from one wing-tip tank it is possible to use the fuel
from the other tip tank.

Aileron control is sufficient to maintain flight without bank in all configurations and required steering column
deflection does not exceed the half of available range.

MINIMUM FUEL PRESSURE

This is indicated by amber FUEL PRESSURE cell in the Engine section of the CWD.

NOTE

The reason for the fuel pressure drop is either failure of the fuel pump or full utilization of fuel in the group of tanks in use.

- Check that the FUEL PUMP LH (RH) circuit breaker on the overhead panel is switched-on.
- Check the MINIMUM FUEL signal.
- Check the fuel quantity in the group of tank in use. If necessary use cross feed.
- If you are in the flight level above 13,000 ft (4,000 m) descend below 13,000 ft (4,000 m)
- Check the fuel pressure on the three-pointer indicator. The pointer must indicate in the green sector (0.5 to 12 kp/cm²).

If previous instructions have been executed and the engine works normally then continue the flight and pay closely attention to the main parameters of the engine.

If the engine operates irregularly:

TCL of the faulty engine..... IDLE

Engine shutdown in flight (see page 3A-1)..... CARRY-OUT

FUEL LEAKAGE IN FLIGHT

Fuel leakage from a fuel tank filler cap which is not closed properly can be detected by the fuel mist that forms behind the trailing edge of the wing, and by fuel content in affected tanks changes faster than the contents of the other tanks. The fuel mist is visible only from the rear windows of the passenger cabin.

(a) If fuel leakage is observed soon after take-off:

- Return to airport of departure. Do not utilize fuel transfer system.

(b) If leakage is observed on route:

- Check how much fuel is left in tanks.

Depending on the fuel reserve, decide whether to continue to the nearest airport or whether to carry out an emergency landing.

Feed both engines with fuel from the tanks on the leaking side, by the procedure fuel crossfeed - see section 4.

Continue using fuel only from the leaking side, after the MINIMUM FUEL cell has come on, switch over to fuel crossfeed from the opposite group of fuel tanks.

ELECTRICAL SYSTEM

FAILURE OF ONE DC GENERATOR

This failure is indicated by amber DC GENERATOR (LH or RH) cell in the Electro section of the CWD.

Check the switches on the overhead panel to confirm that this is not a false alarm.

DC GENERATOR switch of failed unit OFF and then back ON again

If DC GENERATOR is fault:

DC GENERATOR switch of failed unit OFF

VA METER selector switch on the INVERTER SELECTION
panel Set first to BATTERY I VA and then to
BATTERY II VA position

Check the charging rate on the right volt/ammeter.

FAILURE OF ONE AC GENERATOR

This failure is indicated by amber AC GENERATOR (LH or RH) cell in the Electro section of the CWD.

Check the switches on the overhead panel to confirm that this is not a false alarm.

AC GENERATOR switch of failed unit OFF and then back ON again

If AC GENERATOR is fault:

AC GENERATOR switch of failed unit OFF

NOTE

The load on the failed AC generator is automatically transferred to the other AC generator.

FAILURE OF ONE 36 V AC INVERTER

This failure is indicated by amber INVERTER 36 V AC (I or II) cell in the Electro section of the CWD.

INVERTER 36V AC (I or II) switches on the overhead panel.....CHECK ON

INVERTER 36V AC (I or II) switches on the overhead panel.....OFF and then back ON again

If 36 V AC INVERTER is fault:

Failed inverter switch OFF

NOTE

1. All circuits previously fed by the failed inverter are automatically switched over to the other inverter.
2. The amber INVERTER 36V AC (I or II) cell will not go off after the faulty inverter has been switched off.

FAILURE OF BATTERY CIRCUIT

This failure is indicated by amber BATTERY cell in the Electro section of the CWD.

BATTERY switches on the overhead panel CHECK ON

VA METER selector switch on the inverter selection panel Set successively to BATTERY I VA and II VA

Charging of both batteries CHECK

BATTERY switch for the battery which is not charged..... SWITCH OFF

CAUTION

THE BATTERY SIGNAL CELL WILL NOT GO OFF AFTER THE
 FAULTY BATTERY HAS BEEN SWITCHED OFF.

BATTERY OVERHEATING

NOTE

In case of battery overheating a red warning light comes on. The warning lights are located on LH side of the glareshield of the instrument panel.

If the red warning light comes on:

BATTERY I (II) switch OFF

NOTE

If the BATTERY I, II switches are in OFF position, you can continue in flight. After landing report the failure to the ground staff.

VOLTAGE FAILURE ON THE S1A BUS-BAR

No voltage on the S1A bus-bar is indicated by the following instruments being out of service:

- (a) ADF I
- (b) Transponder I
- (c) RH artificial horizon
- (d) RH turn-and-bank indicator
- (e) Internal instrument illumination
- (f) 36 V AC inverter I
- (g) Feathering pump left and right
- (h) Landing gear control - basic circuit
- (i) Nose wheel steering systems
- (j) Landing gear position indicator
- (k) Wing flaps position indicator
- (l) LH ENGINE AND AIRFRAME CWD panel
- (m) Instrument panel lighting, circuit II
- (n) LH engine oil temperature indicator
- (o) Center landing and taxiing searchlight

- (p) LH wing tip tank fuel indicator
- (q) LH fuel gauge
- (r) Windshield deicing indication
- (s) Rudder trim and aileron trim tab controls
- (t) Indication of the air temperature in the heating duct and in the cabin
- (u) RH AC generator

INSTRUMENT PANEL/STBY CIRCUIT circuit breaker (at night)ON

I-SSR-II change-over switch (if installed)position II

NOTE

1. Extend landing gear by means of the emergency system.
2. Check the extension by the mechanical indicators on the landing gear nacelles and on the central control panel in the cockpit.
3. Keep directional control during landing by alternate braking, if necessary also by means of alternate reverse power.
4. If transponder II is not installed, inform ATC about transponder failure

VOLTAGE FAILURE ON THE S2B BUS-BAR

No voltage on the S2B bus-bar is indicated by the following instruments being out of service:

- (a) NAV I or GPS I (according to specific installation)
- (b) VHF I
- (c) Gyro compass I
- (d) Intercom I
- (e) LH artificial horizon
- (f) Standby artificial horizon
- (g) LH turn-and-bank indicator
- (h) RH engine oil temperature indicator
- (i) 115 V AC inverter I (if installed)
- (j) Standby lighting of the instrument panels

- (k) Passengers cabin lighting 1/3
- (l) FASTEN SEAT BELTS sign.
- (m) PITOT PRESSURE I and STATIC PRESSURE I heating
- (n) ELECTRO and R.H. ENGINE CWD panels
- (o) Signalization of engine fire
- (p) Automatic and manual feathering (LH and RH)/ Automatic bank control (LH and RH)
- (q) RH fuel gauge
- (r) RH tip tank fuel indicator
- (s) Front baggage compartment fire sign.
- (t) LH AC GENERATOR

PITOT PRESSURE II heating push-button
on the RH control panel Check whether switched on and
check proper function
of heating element

PITOT PRESSURE cock on the LH control panel.....Position II

NOTE

Instruct the passengers to fasten seat belts using the passenger
address system.

HYDRAULIC SYSTEM

HYDRAULICS OVERHEATING

If the amber HYDRAUL. cell (temperature of the hydraulic fluid is higher then 90°C) in the Engine section of the CWD light on:

- continue the flight,
- check pressure in the hydraulic system
- extend and retract twice landing gear to cool hydraulic fluid (observe VLE speed)

When cell HYDRAULIC remains on, land on the nearest suitable airport and inform ground staff.

During operation in hot conditions (temperature range from 40°C to 50°C) it is recommended to perform flights above FL 060 to avoid overtemperature of hydraulic fluid.

CONTROLS

EMERGENCY EXTENSION OF WING FLAPS 18°

WING FLAPS control lever 18°

WING FLAPS EMERGENCY EXTENSION lever DOWN (OPEN)

Emergency hydraulic pump..... pump until appropriate indication on wing flaps position indicator comes on

CAUTION

1. IF WING FLAPS EXTENSION SYSTEM FAILS, LAND WITH THE WING FLAPS EXTENDED TO 18° ONLY. MAINTAIN THE AIRSPEED OF 90 KIAS (167 km/hr IAS) UNTIL YOU PASS OVER THE RUNWAY THRESHOLD AND REACH THE HEIGHT OF 50 FT (15 m) ABOVE THE RUNWAY.
2. IF IT IS NECESSARY TO EMERGENCY EXTEND THE FLAPS AND LANDING GEAR THEN EXTEND LANDING GEAR FIRST.

NOTE

1. The wing flaps emergency extension lever is safety wired. Moving it down to extend the wing flaps breaks the wire.
2. Emergency extension of the flaps to the 18 degree position requires about 8 manual pumping strokes.

WING FLAPS RETRACTING FAILURE

The failure is indicated by constant signalization of flap position 18° even if the flap position selector has been moved to the position 0° after take-off.

Real position of the flaps CHECK

If the flaps have remained in the take-off position (18°):

Maintain climb with airspeed 124 KIAS (230 km/hr IAS)

After climbing maintain the airspeed not exceeding 135 KIAS (250 km/hr IAS). Recommended value of airspeed is 108 KIAS (200 km/hr IAS).

According to your decisionContinue in the flight

NOTE

The fuel consumption at the airspeed of 108 KIAS (200 km/hr IAS) at the altitude of 10,000 ft (3,000 m) is 230 kg/hr (507 lb/hr).

LANDING WITH FLAPS IN TAKE-OFF POSITION (18°)

At a height of 50 ft (15 m) above runway:

Flaps18°

Airspeed.....VREF 18 KIAS

TCLIDLE

At the height of 10 ft (3 m) above runway:

Airplane.....FLARE

Vertical speed200 to 100 fpm (1 to 0.5 m/s)

Immediately after touch-down according to conditions:

Push-button of spoilersPUSH and HOLD

NOTE

Spoilers can be controlled only by left pilot.

After nose-wheel touch down

Brakes.....APPLY

TCLREVERSE RATING as required

Below airspeed of approx. 30 KIAS

Push-button of spoilersRELEASE

SPONTANEOUS EXTENSION OF ONE ABC TAB DURING TAKE-OFF

Extension of a tab tends to bank the airplane.

The airplane..... Level by means of the ailerons

AUT. BANK CONTROL switch
on the central control panel OFF

If the ABC tab retracts:

Further flight Continue

If the ABC tab does not retract, trim the airplane using the aileron trim and do not exceed 111 KIAS (205 km/hr IAS). Decide whether to continue the flight or to land on the airport of departure. The fuel consumption at 108 KIAS (200 km/hr IAS) at the altitude of 10,000 ft (3,000 m) is 230 kg/hr (507 lb/hr).

LANDING GEAR

EMERGENCY EXTENSION OF LANDING GEAR

LANDING GEAR lever DOWN position

LANDING GEAR EMERGENCY EXTENSION lever down

Emergency hydraulic pump..... Pump until the 3 green lights on landing gear position indicator come on and until resistance on pump handle increases.

NOTE

1. The landing gear emergency extension lever is safety wired. Moving it down to extend the landing gear, breaks the wire.
2. Emergency extension of the landing gear requires about 60 manual pumping strokes. Time to landing gear extension is about 60 seconds.

If after the use of emergency hydraulic system some of the landing gear legs are stuck in the intermediate position (red light on the landing gear position indicator stays on) perform the following procedure:

Increase the airplane airspeed in horizontal flight to 135 KIAS (250 km/hr IAS)

Climb to safe altitude

Wait 60 seconds

Sideslip Perform

Smoothly push the rudder to the side of the stuck landing gear leg while maintaining the flight direction with ailerons. Maintain the rudder deflection until securing the landing gear leg in its locked down position and/or until reaching the maximum rudder deflection. Bank angle during this manoeuvre must not exceed 20°. Keep the maximum rudder deflection for a period of 10 seconds.

If locking of the landing gear leg does not take place:

SideslipRepeat 3 times

After repeating the sideslip 3 times without result:

Airplane swinging with bank of 30° to 45°Perform

Use the full control wheel deflection for airplane swinging. Perform this maneuvers max. 8 times.

NOTE

The LANDING GEAR EMERGENCY EXTENSION lever must be left in its DOWN position until the cause of the failure of the normal extension system has been found and rectified.

EMERGENCY BRAKING

PARKING BRAKE leverSTOP position

Emergency hydraulic pumpPump to build up necessary braking pressure (max. pressure 45 + 3 kp/cm² (640 + 43 psi))

CAUTION

THE ABS SYSTEM DOES NOT OPERATE WHEN EMERGENCY BRAKING IS USED.

NOTE

When the parking brake is used for slowing down, both main wheels are braked simultaneously there is no possibility of braking one wheel at the time. Therefore keep a constant check on the direction of the airplane and on the brake pressure. Maintain direction by means of rudder pedal control and, if necessary, by alternate use of either RH or LH engine reverse power.

FAILURE OF THE LANDING GEAR TO RETRACT AFTER TAKE-OFF

If the landing gear fails to retract either all green lights or all red lights do not go off after the LANDING GEAR lever has been moved into UP position.

If all green lights or all red lights have not gone off:

LAND. GEAR leverDOWN and then UP again

If the green or red signal light has not gone off:

LAND. GEAR leverDOWN

Extension of the landing gear according to
both light and mechanical indicationCHECK

Do not exceed the airspeed135 KIAS (250 km/hr IAS)

Make decision about landing on the nearest airport or continuing the flight.

NOTE

1. After landing report the failure to the ground personnel.
2. The fuel consumption will be min. 25% higher than that given in Flight Manual - Section 5.

DEFLATED TIRE ON ONE WHEEL

It is indicated by nose pitching down if the nose wheel tire burst and by banking and yawing if a main wheel tire burst.

(a) If the tire failure indication occurs during the take-off:

At an airspeed less or equal to V1 interrupt the take-off. Relieve the load on the wheel with faulty tire and use reverse power as required.

At an airspeed higher than V1 continue the take-off. Do not retract the landing gear, retract the flaps at altitude of 400 ft (122 m) and accelerate to 135 KIAS (250 km/hr IAS). Do not exceed this airspeed during further climb or cruise.

Make decision whether you land on the departure airport or the other airport. Take into account that flight with landing gear extended increases the fuel consumption min. 25% by compared to consumption given in Flight Manual - Section 5, Fuel consumption in horizontal flight.

Carry out the landing preferably on unpaved runway. Relieve load on the wheel with faulty tire and use reverse power as required.

(b) If the tire failure indication occurs during the landing:

Relieve load on the wheel with faulty tire and use reverse power as required.

NOTE

1. Maintain the straight direction by means of the breakers.
2. Relief load on wheel with faulty tire in the following way:
 - a) Nose wheel:
 - pull the control column back
 - brake by reverse power setting largely
 - b) Main wheel:
 - bank the airplane 30 to 50 to the side of good tire
 - after touch-down and during roll-out roll the aileron to the side of the good tire
 - do not brake the wheel with deflated tire
 - brake by reverse power setting largely.

DEICING SYSTEM

CAUTION

LEAVE THE ICING AREA IF DEICING SYSTEM IS FAILED.

NOTE

Function of the deicing wing sections may be checked visually during the flight.

ONE SECTION OF PNEUMATIC AIRFRAME DEICING FAILURE

Failure is signaled by a decrease of the pressure indicated on the pressure gauge on the pneumatic deicing control panel, when the faulty section - A, B or C - is engaged.

- Check whether engagement of the faulty section is accompanied by a rise of the ITT, either above the permissible maximum ITT or by more than 30 °C above the previous value. If yes, switch-over the function selector to MANUAL and do not use the faulty section any more.

TOTAL FAILURE OF PNEUMATIC AIRFRAME DEICING

The failure causes the pointer of the pressure gauge on the deicing system control panel to move out of the green sector (the pressure may either be too high or too low) and light A, B and C do not flash cyclic.

Pneumatic deicing system switch
on the deicing control panel.....OFF

CAUTION

WHEN THE DEICING SYSTEM IS INOPERATIVE AND THERE IS NO CERTAINTY THAT THE WINGS ARE FREE OF ICE, APPROACH FOR LANDING AT AIRSPEED OF 105 KIAS (195 KM/HR IAS) WITH WING FLAPS IN TAKE-OFF POSITION (18°). AVOID MOVING THE CONTROL SURFACES ABRUPTLY OR THROUGH LARGE ANGLES.

NOTE

Due to the higher landing airspeed, the landing distance will be 35% longer than normal.

PNEUMATIC DEICING TIMER RELAY FAILURE

This failure is signaled by going off of some or all of the light A, B and C on the control panel for the pneumatic deicing system.

TEST A, B, C push-button PUSH

If only one of the lights does not come on when it is tested, this means a burnt out bulb filament. Replace the bulb.

If failure is not due to a bulb:

Function selector of pneumatic deicing MANUAL

Selector switch next to lights Set to A, then B, then to C

Switching of this selector must come on the light for that section to which the selector is set. The manual holding time in each position and the total duration of the cycle must be adapted to the rate of ice accretion.

ELECTRIC WINDSHIELD HEATING FAILURE

If the outer panes of the windshield crack, or if sparking is observed in the heater element or the heater element bus bar:

WINDSHIELD HEATING LH or RH circuit breaker OFF

PROPELLER DEICING FAILURE

Simultaneous coming on of both amber PROPELLER DEICING cells in the Engine section of the CWD means main circuit failure of propeller deicing cycling switch.

PROP DEICING switch
on the right instrument panel STBY I or STBY II

Coming on of one of the amber PROPELLER DEICING cell or the alternate flashing of the amber PROPELLER DEICING cells on the LH and RH sides of the CWD means blades heating failure.

If engine vibrations become noticeable:

- Reduce engine power output, or stop the engine.

PITOT-STATIC SYSTEM

STATIC HEAD FAILURE

If the static pressure head failure is occurred, the vertical speed indicator and the altimeter do not respond to altitude changes.

STATIC PRESSURE I and II heater push buttons Check switching on

The green lights in these push-buttons must stay on.

(a) If the left hand instruments are affected:

EMERGENCY STATIC PRESSURE red cock OPEN

CAUTION

AFTER SWITCHING OVER TO EMERGENCY STATIC PRESSURE,
ADD 5.5 KIAS (10 KM/HR IAS) TO ALL CRITICAL OR SPECIFIED
AIRSPEEDS.

(b) If the right hand instruments are affected:

AUTOPILOT (if installed) DISCONNECT

- Continue the flight without any special measures.

WARNING

1. WHEN THE STATIC PRESSURE SYSTEM FOR THE RIGHT HAND SIDE INSTRUMENTS IS BLOCKED, THE "EXTEND LAND. GEAR" SIGNAL IS INOPERATIVE DURING THE DESCENT AND APPROACH BECAUSE IT IS ACTIVATED BY THE AIRSPEED AND ENGINE POWER SETTING.
2. "MAXIMUM AIRSPEED" SIGNAL IS INOPERATIVE DURING THE FLIGHT.

CAUTION

DISREGARD READINGS OF THE VERTICAL SPEED INDICATOR,
ALTIMETER AND AIRSPEED INDICATOR ON THE RIGHT
INSTRUMENT PANEL.

PITOT HEAD FAILURE

If the pitot pressure head failure is occurred, the airspeed indicator does not respond to airspeed changes in level flight.

(a) If the left hand instruments are affected:

PITOT PRESSURE black cockPosition II

(b) If the right hand instruments are affected:

AUTOPILOT (if installed).....DISCONNECT

- Continue in flight without any special measures.

WARNING

1. WHEN THE PITOT PRESSURE SYSTEM FOR THE RIGHT HAND SIDE INSTRUMENTS IS BLOCKED, THE "EXTEND LAND. GEAR" SIGNAL IS INOPERATIVE DURING THE DESCENT AND APPROACH BECAUSE IT IS ACTIVATED BY THE AIRSPEED AND ENGINE POWER SETTING.
2. "MAXIMUM AIRSPEED" SIGNAL IS INOPERATIVE DURING THE FLIGHT.

CAUTION

DISREGARD READINGS OF THE AIRSPEED INDICATOR ON THE RIGHT INSTRUMENT PANEL.

V_{MO} AIRSPEED OVERSHOOT

Maximum operating speed (V_{MO}) signalization is connected to pitot static system. When airspeed exceeds V_{MO} sonalert will sound.

When V_{MO} sonalert sounds:

Airplane controls

adjust pitch and / or power to reduce airspeed below V_{MO}.

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