

AS350 B3 - EMERGENCY PROCEDURES

AUDIO WARNINGS

1. Gong - Red warning light on caution panel
2. Continuous tone - NR below 360 rpm
- When max. take off limitations are exceeded >1.5 sec.
3. Intermittent tone - NR above 410 rpm

ENGINE FLAME OUT (AUTOROTATION)

1. Reduce collective
2. Maintain NR in upper green arc
2. Establish approximately 65 kts IAS
3. Select the OFF/IDLE/FLIGHT selector to off
4. Relight engine or continue AR
5. Manoeuvre helicopter into wind
6. At a height of approx. 65 ft, flare to a now-up attitude
7. At a height of 20-25 ft and at constant attitude, gradually apply collective to reduce sink rate
8. Resume level attitude before touch-down and avoid sideward movements
9. Gently reduce collective pitch after touch-down.

ENGINE RELIGHTING

1. Boost pump - ON
2. Ng below 5%
3. GOV (red and amber) warning lights - OUT
4. Starting selector - ON

ENGINE FIRE DURING START

1. Close fuel shut-off lever
2. Switch off boost-pump
3. Crank engine for 10 seconds
4. BATTERY switch: OFF

ENGINE FIRE DURING FLIGHT ("FIRE" ON)

1. Enter autorotation
2. Close fuel shut-off lever
4. GENERATOR - OFF
4. Switch off electrical master "ALL OFF"

TAIL ROTOR FAILURE (NO THRUST)

1. Enter autorotation if suitable

TAIL ROTOR CONTROL FAILURE

1. Set IAS to 70 kt
2. Pres HYD push button – reset after 5 sec.
3. Make shallow approach and perform run-on landing

SMOKE IN THE CABIN

A: Source of smoke identified

1. Corresponding system - OFF
2. If necessary, use fire extinguisher
2. Ventilate the cabin

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B: Source of smoke not identified

1. Heating/demisting - OFF
2. Electrical master switch - OFF
3. Ventilate the cabin
4. All switches (incl. BATT/GEN) - OFF
5. Battery ON
6. Electrical master switch - ON
7. Generator - ON
7. All consumers one by one – ON (until malfunction is detected)

MAIN SERVO CONTROL MALFUNCTION (BLOCKED CONTROLS)

1. Hydraulic switch on collective - OFF
Caution: Control forces are high when at high speed
2. Reduce speed to 60 kt – proceed as “HYD” light on

YAW SERVO CONTROL MALFUNCTION (BLOCKED PEDALS)

A: In Hover

1. If no yaw – land normally
2. If helicopter is yawing – hydraulic switch on collective OFF

B: In forward flight

1. Reduce speed to 40-60 kt
2. Hydraulic switch on collective - OFF
3. Perform run-on landing if necessary

VEMD FAILURES

A: Failure on one screen

1. Select the failed screen to OFF
2. Read information on other screen using the SCROLL push button on coll. or VEMD
NOTE: If top screen has failed, only T4 and Ng are available in 3 parameter mode

B: Failure on both screens

1. Check battery and generator ON
 2. Set IAS to max 100 kts (-2 kts/1000 ft)
 3. Carry out a no hover landing
- C: Caution message on VEMD
1. Lane 1 or 2 failed - Press OFF 1 (or 2)
 2. VEH parameter over limit
 3. ENG parameter over limit
 4. Crosstalk failed - Press OFF 1 (or 2)
 5. BRT control failed
 6. FLI failed - Check parameter
 7. GENE parameter over limit
 8. BAT parameter over limit
 9. BAT T
 10. GPS not available – Check GPS navigation system ON
 11. Over limit detected

ABNORMAL NR READINGS

A: NR Indicator Failure

1. Maintain torque > 10%
2. Land as soon as possible

NOTE: The NF value can be read on the VEMD screen. Press “SCROLL”, then “+” as many times as required to display the parameter in the rectangular window at the bottom of the FLI or 3-parameters screen.

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ENGINE SYSTEM FAILURES

A: Low engine oil pressure

1. Test WCA panel and check ENG.P. light illuminate
2. If light does not illuminate – Shut down engine and perform autorotation
3. If light illuminates – Land as soon as possible

B: Oil temperature higher than maximum

1. At low speed or in hover – Land if possible, stop the engine and check collar fan operating
 2. If landing impossible
 - Increase speed and reduce power
 - Fly at approx. 80 kt
 - Temperature should fall rapidly
- If temp. does not fall:
- Land as soon as possible
 - Reduce power then proceed as above

C: ANg indicator failure

1. Do not exceed max. torque values
2. Maintain T4 value <810°C

E: Torquemeter failure

1. Respect the following Ng(%) limits

F: T4 indicator failure

1. Comply with Ng and Tq limitations
2. Switch off heating system and do not try to start the engine

G: ANg and torque indication failure (when red GOV warning light)

1. VEMD switches to 3 parameter mode, displaying T4 and Ng numeric
2. Respect ANg limitation table (above) and T4 limit of 810°C

BLEED VALVE FLAG ON VEMD REMAINS ON IN FLIGHT

1. If possible, increase power to check if bleed valve closes

If bleed valve remains open:

1. Avoid sudden power changes – compressor stall may occur
2. Make a flat approach be prepared for decreased hover performance

RED LIGHTS

| | |
|------------------|---|
| FIRE | Refer to page 1 |
| HYD | <ol style="list-style-type: none">1. Reduce collective and airspeed to 40-60 kt3. HYD switch OFF4. Land as soon possible5. Perform a shallow approach with slight run-on landing |
| MGB P | <ol style="list-style-type: none">1. Reduce power2. Land as soon as possible |
| BATT TEMP | <ol style="list-style-type: none">1. Battery OFF2. Land as soon as possible |
| ENG P | <ol style="list-style-type: none">1. Reduce power2. Land as soon as possible |
| GOV | <ol style="list-style-type: none">1. Check flight parameters2. Unlock flight notch and adjust fuel flow to keep NR in green arc4. Make a shallow approach at 40 kt5. Reduce RPM on touch-down6. Reduce fuel flow before lowering collective |

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AMBER LIGHTS

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|------------------------|--|
| GENE | <ol style="list-style-type: none">1. Test DC voltage2. Check position of push-button3. Reset Generator4. If unsuccessful, switch off all unnecessary electrical equipment |
| BATT | <ol style="list-style-type: none">1. Check push-button ON2. Check voltage3. Continue flight depending on circumstances |
| HORN | <ol style="list-style-type: none">1. Push-button ON |
| DOORS | <ol style="list-style-type: none">1. Reduce airspeed to 120 kt2. If one or both doors are open or checking is impossible – land if possible or fly at reduced airspeed of 120 kt3. Descend at a low sink rate and make shallow approach |
| PITOT | <ol style="list-style-type: none">1. Check push-button ON2. Monitor airspeed indicator |
| FUEL | <ol style="list-style-type: none">1. Avoid large attitude changes. Approx 18 min flight time remain |
| TWT GRIP | <ol style="list-style-type: none">1. If necessary, turn twist grip to “FLIGHT” detent |
| GOV (permanent) | <ol style="list-style-type: none">1. Avoid abrupt power variations2. Land as soon as practical |
| GOV (flashing) | <ol style="list-style-type: none">1. Abort turbine start2. During AR Trng – abort training and return to base |
| FUEL FILT | <ol style="list-style-type: none">1. Reduce engine power2. If light extinguishes: continue with reduced power3. If light remains on, land as soon as possible |
| FUEL P | <ol style="list-style-type: none">1. Reduce engine power2. Select booster pump ON3. Land as soon as possible |
| MGB TEMP | <ol style="list-style-type: none">1. Test WCA panel if MGB.P light illuminates2. If it doesn't illuminate, proceed as with MGB P at zero3. If it illuminates, land and check the MGB oil level.4. If oil level is normal, fly to the nearest base |
| TGP CHIP | <ol style="list-style-type: none">1. Continue flight avoiding prolonged hovering |
| MGB CHIP | <ol style="list-style-type: none">1. Reduce engine power2. Monitor MGB P and MGB T lights. Should either one or both lights illuminate, refer to the according section for procedure. |
| ENG CHIP | <ol style="list-style-type: none">1. Land as soon as possible |