**MIP for ELA2 hot-air balloons**

To be performed at every 100-h/annual interval, whichever comes first.

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer’s maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be carried out wherever a check for improper installation/operation is performed.

1. **Envelope**

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| **System/component/area** | **Task and inspection detail** |
| Identification (type/serial number/registration plate) | Check for presence. |
| Crown ring | Inspect for damage/corrosion. |
| Crown line | Inspect for damage, wear, security of attachment. Check correct length. |
| Vertical-/horizontal-load tapes | Inspect joints with the crown ring, top of the envelope and wires. Inspect that all load tapes are undamaged along their entire length. Inspect base horizontal tape and edge of the envelope top. Inspect joint between base horizontal-load tape and vertical-load tapes. |
| Envelope fabric | Inspect the envelope fabric panels (including parachute and rotation vents, if fitted) for damage, porosity overheating or weakness. Unrepaired damage is within tolerance provided for by the manufacturer.  If substantial fabric porosity is suspected, a flight test should be performed, but only after a grab test has demonstrated that the balloon is safe to fly.  Perform grab test in accordance with the manufacturer’s instructions. |
| Flying cables | Inspect for damage (particularly heat damage). |
| Karabiners | Inspect for damage/corrosion. Operational check of karabiner lock. |
| Melting link and ‘tempilabel’ | Check and record maximum temperature indication (flag/tempilabel). |
| Control lines and attachments | Inspect for damage wear, security of knots.  Check proper length. Check lines attachments for damage, wear, security. |
| Envelope pulleys/guide rings | Inspect for damage, wear, free running, contamination, security of attachment. |

1. **Burner**

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| **System/component/area** | **Task and inspection detail** |
| Identification (type/serial number) | Check for presence and verify type/serial number installed. |
| Burner frame | Inspect welds for cracking. |
| Inspect tubes for distortion/deformation/cuts/gouges. |
| Inspect frame for security of fasteners (heat shields, flexi-corners). |
| Inspect frame lugs for wear and cracking. |
| Inspect general condition (corrosion, heat shields). |
| Gimballing | Operational check of stiffness and security of fasteners. |
| Leak check | Perform leak check of the burner. |
| Fuel hoses including manifolds | Inspect all hoses for wear, damage, leakage and service life limitations. Inspect O-ring seals, lubricate/replace as required. |
| Pressure gauges | Check that the pressure gauge reads correctly, and that lens is present. |
| Pilot valves/flame | Check shut-off, free movement, correct function, and lubricate if necessary. |
| Whisper valves/flame | Check shut-off, free movement, correct function, and lubricate if necessary. |
| Main valves/flame | Check shut-off, free movement, correct function, and lubricate if necessary. |
| Coils | Check for damage, distortion, security of fasteners. Inspect welds for cracking.  Check security of jets. Tighten or replace, as necessary. |

1. **Basket**

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| **System/component/area** | **Task and inspection detail** |
| Identification (type/serial number) | Check for presence. |
| Basket walls | Check the general condition of the basket walls. Inspect weave for damage, cracks/holes. Check for no sharp objects inside the basket. |
| Basket wires | Inspect for damage, check swaging and eye rings (thimbles). |
| Karabiners | Inspect for damage/corrosion. Operational check of karabiner lock. |
| Basket floor | Inspect for damage and cracks. |
| Runners | Inspect for damage, security of attachment. |
| Rawhide | Inspect for damage, wear and attachments to the floor. |
| Rope handles | Inspect for damage, security of attachment. |
| Cylinder straps | Inspect for damage, deterioration, approved type fitted. |
| Padded basket edge trim | Inspect for damage and wear. |
| Burner support rods | Inspect for damage, wear and cracking. |
| Padded burner support rod covers | Inspect for damage and wear. |
| Basket equipment | Check presence and functionality. |
| Pilot restraint and anchor | Inspect for security and condition. |
| Fire extinguisher | Check expiration date and protection cover. |
| First aid kit | Check for completeness and expiration date. |

1. **Fuel cylinders**

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| **System/component/area** | **Task and inspection detail** |
| Identification (type/serial number) | Check for presence. |
| Cylinder | Check if periodic inspections for each cylinder are valid (date) (e.g. 10 years’ inspection). |
| Cylinder body | Inspect for damage, corrosion. |
| Liquid valve | Inspect for damage, corrosion, correct operation. |
| Inspect O-ring seals, lubricate/replace as required. |
| Fixed liquid  Level gauge | Inspect for damage, corrosion, correct operation. |
| Contents  Gauge | Inspect for damage, corrosion, freedom of movement. |
| Vapour valve | Inspect for damage, corrosion, correct operation (including regulator). |
| Check quick-release coupling for correct operation, sealing. |
| Padded cover | Inspect for damage. Check for correct thickness. |
| Pressure relief valve | Inspect for contamination, corrosion. Check service life limit. |
| Assembly | Inspect, and test for leaks all pressure-holding joints using leak detector. |
| Perform functional test |

1. **Additional equipment**

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| **System/component/area** | **Task and inspection detail** |
| Instruments | Perform functional check. |
| Quick release | Perform functional check and inspect the condition of the latch, bridle and ropes for wear and deterioration. Check that the karabiners are undamaged and operate correctly. |
| Communication/navigation equipment (radio) | Perform operational check. |
| Transponder | Perform operational check. |