2.3.3 *Periodic Maintenance and Inspections.*

Model:	S/N:	Hours flown:	Date of inspection:
EV-97 teamEUROSTAR	Registration:	No. of takeoffs:	Inspection period:

Event #	Event description	Inspection			Carried out by:	Inspected by:
		after the first 25 hrs.	every 50 hrs.	every 100 hrs. or annually		
1.	Prior to the inspection clean and wash the aeroplane surfaces, if needed.	☒	☒	☒		
2.	**ENGINE**	see engine manufacturer´s instructions				
3.	**ENGINE COMPARTMENT**					
3.1.	**Fiberglass engine cowlings**					
3.1.1.	Check condition of cowlings and Camlock Fasteners. - repair any damage			☒		
3.1.2.	Remove engine cowling	☒	☒	☒		
3.1.3.	Visually check inside fireproof primer paint - Repaint if needeed - White color T 50, Norm V1000 N 56582		☒	☒		
3.2.	**Engine mount**					
3.2.1.	Visually check condition, attachment, security of attachment bolts; engine-engine mounting, engine mounting-firewall. Carefully check engine mount for cracks and other damage.	☒	☒	☒		
3.2.2.	Visually check condition of rubber silentblocks - replace those cracked or excessively deformed			☒		
3.3.	**Induction System**					
3.3.1.	Visually check condition, attachment and security of air filter at carburettor inlet . - clean filter acc. to the engine manual	☒	☒	☒		
3.3.2.	Visually check condition of carb. rubber adaptors.	☒	☒	☒		
3.3.3.	Check carburettor - condition, control cables attachment, lubricate cables at inlet to the Bowdens' conduits.	☒	☒	☒		
3.3.4	Check coolant carb heat system for security and leaks	☒	☒	☒		
3.4.	**Battery**					
3.4.1.	Visually check attachment and security		☒	☒		
3.4.2.	Check charging – charge if needed			☒		
3.4.3.	Visually check condition and attachment of battery leads – replace those damaged	☒	☒	☒		
3.5.	**Wiring**					
3.5.1.	Visually check condition and integrity of wires, connections, security of wires	☒	☒	☒		

3.6.	**Fuel system**					
3.6.1.	Visually check condition, integrity, attachment and security of hoses - replace those damaged	☒	☒	☒		
3.6.2.	Visually check fuel filter condition - replace dirty filter.	☒	☒	☒		
3.6.3.	Visually check system for leaks	☒	☒	☒		
3.7.	**Cooling system**					
3.7.1.	Visually check radiator for condition, secure attachment and leaks	☒	☒	☒		
3.7.2.	Visually check condition, attachment of hoses; check system for leaks	☒	☒	☒		
3.7.3.	Tighten hose clips if needed		☒	☒		
3.7.4.	Check coolant quantity in the expansion tank - add or change coolant acc. to the engine manual if needed	☒	☒	☒		
3.7.5 3.7.6	Visually check condition and attachment of overflow bottle on the firewall. Check condition of hose from expansion tank to overflow bottle. Check overflow bottle is approx. 1/3 full with engine cold.			☒		
3.8.	**Lubrication system**					
3.8.1.	Visually check condition and attachment of oil tank			☒		
3.8.2.	Check oil cooler for condition, attachment and leaks.	☒	☒	☒		
3.8.3.	Visually check hoses for condition, leaks, attachment and security - replace damaged hoses. Tighten hose clips if necessary.	☒	☒	☒		
3.8.4.	Check oil quantity - add or change oil acc. to the engine manual if needed	☒	☒	☒		
3.9.	**Exhaust system & optional cabin heat system**					
3.9.1.	Visually check exhaust pipes for condition, cracks, deformations or damage – repair / replace if necessary.	☒	☒	☒		
3.9.2.	Visually check condition and attachment of the muffler – repair / replace if necessary.	☒	☒	☒		
3.9.3.	Check joint security	☒	☒	☒		
3.9.4.	Visually check hose leading hot air into the cockpit for condition, integrity, attachment & security	☒	☒	☒		
3.9.5.	Check condition, function and control of the heating flap	☒	☒	☒		
3.9.6.	Check cockpit carbon monoxide detector. Replace before expiry date	☒	☒	☒		
3.10.	**Reinstall lower engine cowling**					
3.10.1.	Reinstall upper engine cowling when the inspection is completed and engine test run performed	☒	☒	☒		
3.11	**Lubricate per Lubricating Chart**	☒	☒	☒		
4.	**PROPELLER**	see manufacturer instructions +				
4.1.	**Blades**					
4.1.1.	Inspect blades for abrasions, cracks, paint damage, condition of blades leading edges and tips - repair according to the propeller manual	☒	☒	☒		
4.2.	**Spinner**					
4.2.1.	Visually check spinner for condition, abrasions, cracks, paint damage - repair any damage		☒	☒		
4.2.2.	Remove spinner		☒	☒		

4.3.	**Propeller**	see manufacturer instructions +				
4.3.1.	Check prop attachment bolt torque and security.		☒	☒		
4.3.2.	Check tracking			☒		
4.3.3.	Install spinner		☒	☒		
5.	**NOSEWHEEL LANDING GEAR**					
5.1.	**Nosewheel leg**					
5.1.1.	Check condition and attachment of the nosewheel leg (lift aeroplane nose) (see sect. 5)	☒	☒	☒		
5.2.	**Rubber bungees and rubber rebound stop**					
5.2.1	Visually check rubber bungees and rebound stop for deformation, cracks, excessive wear - replace if needed		☒	☒		
5.3.	**Tyre**					
5.3.1	Check tyres for condition, cuts, uneven or excessive wear and creep – replace if needed	☒	☒	☒		
5.3.2	Check tyre pressure - inflate if required.	☒	☒	☒		
5.4.	**Wheel**					
5.4.1	Visually check for cracks, permanent deformations - if damaged, replace			☒		
5.4.2	Check valve condition around the hole in the rim			☒		
5.4.3	Check condition of bearings, wheel free rotation, play			☒		
5.5.	**Noseleg bearings**					
5.5.1	Check security of bottom bearing attachment bolts.	☒	☒	☒		
5.6	**Nosewheel steering system**					
5.6.1	Check control rods for condition and rod ends for condition and security		☒	☒		
5.6.2	Check condition of nosewheel steering rod covers – repair if necessary			☒		
5.7	**Lubricate per Lubricating Chart**	☒	☒	☒		
6.	**MAIN LANDING GEAR**					
6.1.	**Fiberglass legs**					
6.1.1.	Visually check condition of fiberglass legs - repaint damaged areas, contact aeroplane manufacturer if cracks were found	☒	☒	☒		
6.1.2.	Inspect leg attachment into the fuselage (no play) - Lift the landing gear, (see POH sect. 8.4.3), and move each leg forward-backward, upward-downward; at the same time check wheel play on the axle - tighten attachment bolts if the leg has any play (see sect. 5)		☒	☒		
6.1.3.	Check security of axle to leg attachment screws		☒	☒		
6.1.4.	Check cloth cover where the undercarriage leg enters the fuselage. Reattach if loose.		☒	☒		
6.2	**Tyres**					
6.2.1	Check tyres for condition, cuts, uneven or excessive wear and creep- replace if needed	☒	☒	☒		
6.3	**Wheels**					
6.3.1	Visually check for cracks, permanent deformations - replace wheel in case of cracks			☒		

6.3.2	Check valve condition around the hole in the disc			☒		
6.3.3	Check condition of bearings, wheel free rotation, play		☒	☒		
6.4	**Brakes**					
6.4.1	Check attachment of brake system plastic hoses to the main leg			☒		
6.4.2	Visually check brake pads for condition and uneven wear.- replace pads if needed		☒	☒		
6.4.3	Check wear and security of brake discs			☒		
6.4.4	Check brake system for leaks - add brake fluid and bleed the system if a brake pedal has soft movement	☒	☒	☒		
7	**WING**					
7.1	**Wing**					
7.1.1	Visually check for loose rivets, deformation, cracks and damage - contact the aeroplane manufacturer if in doubt.	☒	☒	☒		
7.1.2	Check play of wing attachments – move the wing tip upward-downward, forward-rearward. Contact the aircraft manufacturer if play exceeds tolerances (see sect. 5)			☒		
7.1.3	Check condition and attachment of fiberglass wing tips			☒		
7.2	**Aileron**					
7.2.1	Visually check condition	☒	☒	☒		
7.2.2	Check free movement	☒	☒	☒		
7.2.3	Check aileron hinge	☒	☒	☒		
7.2.4	Check play (see sect. 5)		☒	☒		
7.2.5	Check security of control rod ends	☒	☒	☒		
7.2.6	Lubricate per Lubricating Chart	☒	☒	☒		
7.2.7	Remove inspection covers from the lower wing surface to check security and to lubricate control system joints. Refit covers.			☒		
7.2.8	Lubricate per Lubricating Chart.	☒	☒	☒		
7.3	**Flaps**					
7.3.1	Fully extend the flaps and visually check condition	☒	☒	☒		
7.3.2	Check flap hinges	☒	☒	☒		
7.3.3	Check play (see sect. 5)		☒	☒		
7.3.4	Check condition of flap control pin and wear of the groove at the flap root			☒		
7.3.5	Lubricate per Lubricating Chart	☒	☒	☒		
7.4	**Pitotstatic system**					
7.4.1	Check pitotstatic head attachment to wing.			☒		
7.4.2	Check pitostatic system for leaks			☒		
7.5	**Wing Attachments**					
7.5.1	Remove wing fillets	☒	☒	☒		
7.5.2	Visually check condition and security of wing attachments	☒	☒	☒		
7.6	**Lubricate per Lubricating Chart**	☒	☒	☒		

8.	**FUSELAGE**					
8.1	**Fuselage surface**					
8.1.1	Visually check for loose rivets, deformation, cracks and damage. - Contact the aeroplane manufacturer if in doubt.	☒	☒	☒		
8.1.2	Visually check external rivets near the landing gear attachment			☒		
8.1.3	Check condition and attachment of equipment, eg. radio antenna.			☒		
8.1.4	Check tail skid for condition and attachment			☒		
8.1.5	Visually check condition of fiberglass wing fillets			☒		
8.2	**Cockpit canopy**					
8.2.1	Visually check canopy for cracks, scratches and damage. Contact manufacturer if in doubt.	☒	☒	☒		
8.2.2	Check canopy lock for condition and operation	☒	☒	☒		
8.2.3	Check vents for condition and operation			☒		
8.2.4	Check gas struts operation - replace if faulty			☒		
8.2.5	Check canopy rubber seals.			☒		
9.	**HORIZONTAL TAIL UNIT**					
9.1	Visually check for – loose rivets, deformation, cracks, scratches and damage – contact the aeroplane manufacturer if in doubt.	☒	☒	☒		
9.2	Visually check condition and attachment of fiberglass tips			☒		
9.3	Check elevator for free movement	☒	☒	☒		
9.4	Check elevator hinge	☒	☒	☒		
9.5	Check play in stabilizer attachments - move the stabilizer frontward-rearward, upward-downward - contact the aeroplane manufacturer if play exceeds tolerances. (see sect. 5)		☒	☒		
9.6	Check security of control rod joint	☒	☒	☒		
9.6.1	Check elevator control circuit for play (see sect.5)		☒	☒		
9.7	**Trim tab**					
9.7.1	Visually check condition		☒	☒		
9.7.2	Check hinge		☒	☒		
9.7.3	Check control cables condition			☒		
9.7.4	Check tension of trim tab control cables and check securing the adjusting screws. Adjust tension if necessary.			☒		
9.8	Lubricate per Lubricating Chart	☒	☒	☒		
10.	**VERTICAL TAIL UNIT**					
10.1	Visually check for loose rivets, deformation, cracks, scratches and damage - contact the aeroplane manufacturer if in doubt.	☒	☒	☒		
10.2	Visually check condition and attachment of fiberglass tips			☒		
10.3	Check rudder for free movement	☒	☒	☒		
10.4	Check rudder hinge pins for wear and security	☒	☒	☒		
10.5	Check rudder end float (see sect.5)			☒		
10.6	Check security of rudder cable attachments.	☒	☒	☒		
10.7	Lubricate per Lubricating Chart	☒	☒	☒		

11.	**COCKPIT**					
11.1	**Instrument panel**					
11.1.1	Visually check condition and attachment of the instrument panel		☒	☒		
11.1.2	Check condition and attachment of individual instruments		☒	☒		
11.1.3	Check function of instruments	☒	☒	☒		
11.1.4	Check throttle and choke controls for free movement. Check throttle friction nut.	☒	☒	☒		
11.1.5	Inspect completeness and readability of placards		☒	☒		
11.2	**Seats**					
11.2.1	Visually check seat upholstery, remove upholstery			☒		
11.2.2	Visually check seats and backrests' condition			☒		
11.2.3	Check for loose rivets or any other damage on the seats			☒		
11.2.4	Visually check main landing gear leg attachments inside the fuselage			☒		
11.3	**Safety harness**					
11.3.1	Visually check condition, attachment, security and operation of buckles			☒		
11.4	**Hand control**					
11.4.1	Check hand control for free movement	☒	☒	☒		
11.4.2	Check all joints and bearings for wear and security.	☒	☒	☒		
11.4.3	Check control column stops for condition			☒		
11.4.4	Check pitot static hoses for water at lowest point of water collection loop (behind left hand cockpit side upholstery panel). Drain any water by disconnecting one end of drain loop. Reconnect after draining.		☒	☒		
11.4.5	Lubricate per Lubricating Chart	☒	☒	☒		
11.5	**Rudder control**					
11.5.1	Check for free movement.	☒	☒	☒		
11.5.2	Check cable tension.			☒		
11.5.3	Check cable stops for condition and security.			☒		
11.5.4	Check condition and security of cables and end fittings.	☒	☒	☒		
11.5.5	Lubricate per Lubricating Chart	☒	☒	☒		
11.6	**Flap and trim controls.**					
11.6.1	Remove cover	☒	☒	☒		
11.6.2	Check free movement of levers	☒	☒	☒		
11.6.3	Check operation of flap control lever lock (push button)		☒	☒		
11.6.4	Lubricate per Lubricating Chart	☒	☒	☒		
11.6.5	Replace Cover	☒	☒	☒		
11.6.6	Check trim lever friction force. Force to move lever should be min 1.0 kg at lever end. Adjust friction if necessary.		☒	☒		

3.4.3 *Lubricating Points*

Unit	Lubricating point	After the first 25 hrs.	Every 50 hrs.	Every 100 hrs or annually	Lubricant
Engine	• oil change acc. to Engine Manual				
	• carburettor control cable at inlet into the bowden (in engine compartment)	x	x	x	oil
	• choke control cable at inlet into the termination (in engine compartment)	x	x	x	oil
Nosewheel landing gear	• landing gear leg in the area of bushing	x	x	x	oil
	• bearings in pull rod terminals of landing gear control	x	x	x	oil
Main landing gear	• pins of brake pads' holders		x	x	grease
Ailerons	• hinges		x	x	oil
	• control hinge pin			x	grease
	• bell cranks, inside the wing			x	grease
	• hinge joint of rods under the wing fillet			x	grease
Flaps	• hinges	x	x	x	oil
	• all movable joints under the quadrant cover between the seats			x	grease
	• All movable joints under the baggage compartment bottom cover			x	grease
	• Flaps control pins (at a flap root)		x	x	grease
Elevator	• Elevator hinge		x	x	oil
	• Swivel bearing in the elevator control rod termination			x	grease
Rudder	• rudder pivots			x	grease
	• rudder control cables at attachment to the rudder			x	grease
Trim tab	• trim tab hinge	x	x	x	oil
	• control cables at inlets in to the terminations			x	grease
Stick control	• All movable joints in the cockpit			x	grease
Rudder control and brake pedals	• All movable joints in the cockpit			x	grease
	• Brake system control cables at inlets in the Bowdens (at brake pedals if right seat brake pedals are fitted)			x	grease

3.4.4 *Access Holes For Lubricating & Inspection*

The following are the inspection and access holes:

- Access covers on the wings lower surface - access to the aileron control rods and levers and to the pitot/static installation in the left half of the wing
- Access cover on the fuselage lower surface under the baggage compartment close to the fuel tank - access to the fuel tank installation
- Access cover on the fuselage lower surface in the middle of the rear section - access to the elevator control rods and a lever
- Wing fillets which cover space between the fuselage and wing - access to the wing-fuselage suspensions (wing folding mechanism if fitted)
- Cover sheet of control stick system in the cockpit
- Cover over flap & trim control levers in cockpit
- Baggage compartment floor – access to elevator and flap control linkage.