

REISSUE

MAINTENANCE MANUAL

of the

Z 242 L aircraft

VOL I.

DOC. No. 003.022.1

Applicable to S/N 0490, 0541, 0651 through 0689, 0691 and up.

Production No. :

Registration Mark :

Manufacturer :

ZLIN AIRCRAFT a.s.
765 81 Otrokovice
CZECH REPUBLIC

Tel.: +420 725 266 711
Fax : +420 226 013 830

THIS MAINTENANCE MANUAL SUPERSEDES ALL MAINTENANCE MANUALS OF THE Z 242L AIRCRAFT – VOL. I., IN ENGLISH VERSION, WHICH ARE NOT MARKED ON THE TITLE PAGE WITH DOC. No. 003.022.1.

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OTROKOVICE

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List of effective pages of Section 8 is not a part of this List. It is included in the above mentioned section 8.

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1	Revision of the airworthiness limitation and related changes in the maintenance schedule	0-3, 0-4, 0-5, 2-7, 2-21, 5-1, 5-8, 5-10, 5-26, 9-2 Deleted pages: 5-27, 5-28, 5-29, 5-30, 9-3, 9-4	Oct 1, 1997	INCORPORATED BY MANUFACTURER
2	Cold weather operation	0-3, 0-5, 3-14	Sep 30, 1998	INCORPORATED BY MANUFACTURER
3	Revision of the airworthiness limitation	0-3, 0-4, 0-5, 9-1, 9-2	Oct 7, 1998	INCORPORATED BY MANUFACTURER
4	Cold weather operation	0-3, 0-5, 2-34, 2-35, 3-14	Apr 30, 1999	INCORPORATED BY MANUFACTURER
5	Formal adaptations, reminder from aircraft operation near of the user	0-2, 0-3, 0-4, 0-5, 1-5, 2-14, 2-15, 2-22, 2-23, 2-34, 2-38, 2-51, 2-54, 2-55, 2-61, 2-63, 2-67, 3-8, 3-9, 3-12, 4-6, 4-10, 4-12, 4-13, 4-13a, 4-13b, 4-17, 4-18, 5-3, 5-4, 5-5, 5-6, 5-9, 5-10, 5-11, 5-13, 5-17, 5-18, 5-21, 5-21a, 5-21b, 6-8, 6-11, 6-19, 7-1, 7-8, 7-10, 7-13, 7-14, 7-18, 7-21, 7-22, 7-25, 7-26, 7-27, 7-29, 7-30, 7-31, 7-33, 7-34	Mar 20, 2000	INCORPORATED BY MANUFACTURER
6	Revision of the airworthiness limitation	0-3, 0-4, 0-5, 9-1, 9-2	Oct 31, 2000	INCORPORATED BY MANUFACTURER
7	Revision of the airworthiness limitation – using the AMU 1 acceleration monitoring unit	0-3, 0-4, 0-5, 9-1, 9-2	Oct 31, 2000	INCORPORATED BY MANUFACTURER
8	Revision of rubber hoses service life time	0-3, 0-4, 0-5, 5-13	Apr 13, 2001	INCORPORATED BY MANUFACTURER
9	Check of the "Tee" and the "Elbow" in Oil System	0-3, 0-4, 0-5, 5-5, 5-21a	Oct 7, 2002	INCORPORATED BY MANUFACTURER
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12	Revision of the airworthiness limitation	0-3, 0-4, 0-6, 9-1, 9-3	Apr 23, 2003	
13	1. Supplement of list of parts with limited operation time for aircraft operation over 5500 flight hours. 2. Formal arrangements of accompanying technical documentation.	0-3, 0-4, 0-6, 2-34, 4-26, 5-12, 6-1, 6-10A, 6-10B, 6-10C, 6-10D, 6-12, 6-13, 9-1, 9-2, 9-3, 9-4	Aug 15, 2003	
14	Operation on condition of the nose landing gear type 793-HPK-185-19, 793-HPK-185-19-7	0-3, 0-4, 0-6, 1-3, 3-6, 5-10, 5-18	Nov 20, 2003	
15	Revision of operation on condition of the nose landing gear type 793-HPK-185-19, 793-HPK-185-19-7.	0-3, 0-4, 0-6, 4-5, 4-6, 5-10, 6-16	Jan 14, 2005	
16	Formal arrangements of accompanying technical documentation	0-3, 0-4, 0-6, 2-15, 3-3, 4-13, 5-5, 5-10, 5-18	Jun 20, 2006	
17	Revision of the airworthiness limitation	0-3, 0-4, 0-6, 3-5, 3-6, 5-8, 9-1, 9-2, 9-3, 9-4, 9-5, 9-6	Mar 8, 2007	
18	Formal arrangements, reminder from aircraft operation near of the user	0-1, 0-3, 0-4, 0-6, 1-3, 2-2, 2-15, 2-61A, 2-63C, 2-63D, 4-24, 5-5, 5-9, 5-12	Jan 10, 2009	

1. INTRODUCTION

1.1. GENERAL

As required by Appendix G to FAR PART 23 the Manufacturer of the Z 242L Aircraft provides the Instruction or Continued Airworthiness of this aircraft. The Instructions are contained in several handbooks issued by the Airplane Manufacturer and completed with the appropriate Manuals, issued by the Manufacturers of other used products.

The set consists of:

- 1) The Z 242L Airplane Flight Manual (DOC. No. 003.012) - latest issue
- 2) The Z 242L Maintenance Manual-Vol.I - Airplane and its Systems, Handling, Servicing and Maintenance (DOC No. 003.022.1) - latest issue
- 3) The Z 242L Maintenance Manual-Vol.II - Inspections, Repairs and Overhauls (DOC. No. 003.032.1) - latest issue
- 4) The Z 242L Illustrated Parts Catalog (DOC. No. 003.040.3) - latest issue
- 5) The Z 242L Table of Dimensions, Limits and Clearances (DOC. No. 003.050) - latest issue
- 6) TEXTRON LYCOMING AEIO-360-A1B6 Operator's Manual completed with the latest issue of relevant Textron Lycoming Service Bulletins, Service Instructions and Service Letters.
- 7) Mühlbauer MTV-9-B-C/C-188-18a Operator's Manual, or HARTZELL Propeller Owner's Manual & Log Book (depending on the propeller type installed) with the latest edition of the corresponding service bulletins of the propeller manufacturer, included in it.
- 8) Operator's Manual of the Installed Standard and Optional Equipment and Appliances relevant to the particular airplane, issued by the products Manufacturers.
- 9) Maintenance and Operation Manual on Condition of the Nose Landing Gear Type 793-HPK-185-19, 793-HPK-185-19-7 - latest issue.

As mentioned above, the Maintenance Instructions are divided in the two Volumes:

Vol.I of the Maintenance Manual - Airplane and its Systems, Handling, Servicing and Maintenance - contains description of the airplane and its systems, basic control and operation information, servicing information and those Maintenance Instructions, necessary for daily operation, preventive maintenance up to Annual/100 hour Inspection.

Vol.II of the Maintenance Manual - Inspections, Repairs and Overhauls - contains Maintenance Information necessary for major Inspections/Maintenance, i.e. type B and C inspections after 500 and 1500 hours respectively. This Volume contains the special Manufacture Directives, i.e. procedural inspections for special operations including necessary worksheets/records.

The "Airworthiness Limitation Section" approved by the CAA is included as the last chapter of the Maintenance Manual-Vol. I (printed on "red papers").

Instructions and recommendations included in the Maintenance Instructions are based and verified by long experience with previous models of this airplane. It is user's interest to become acquainted and to observe these Instructions.

This Maintenance Manual is divided into chapters; numbers of pages and of figures are separate for each chapter.

Examples:

- numbering of pages: 1 - 4
 └───┬───┘ page number
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- numbering of figures: 2 - 8
 └───┬───┘ number of figure
 └───┬───┘ chapter number

1.2. CHANGES

1.2.1 All changes or supplements of this manual are performed as follows:

- 1) The aircraft manufacturer will send mandatory bulletin changes or newly corrected pages:
 - a) free of charge to CAI Prague and to all foreign aviation authorities that have announced entering the Z 242L aircraft in their aviation registers;
 - b) on the base of contractual relations (for a charge) to other Manual holders who ask sending bulletins.
- 2) The holder of the Technical Manual is obliged to:
 - a) carry out changes in accordance with the bulletin or replace original pages with corrected ones marked with the date of issue.
 - b) make an entry in the Log of Revisions, Section 0.

NOTE:

The changed or new parts of the text will be marked by vertical black line on the outer sheet margine.

1.3. GENERAL CHARACTERISTICS

The Z 242L aircraft is a two-seater, single engine, low-wing cantilever monoplane with security main landing gear and nose wheel. The aircraft is intended for training, performing acrobatics and for glider towing. The powerplant is composed of the TEXTRON LYCOMING AEIO-360-A1B6 engine and the MTV-9-B-C/C 188-18a propeller or HARTZELL HC-C3YR-4BF/FC 6890 propeller, delivered optionally. The reciprocating four-stroke four cylinder engine is air-cooled, provided with low-pressure fuel injection into manifold.

Both propellers are three-blade, hydraulic pitch control, constant-speed propellers. The MTV propeller blades are made of wood with composite skin; the blades surface is coated with acrylic vanish. The propeller blades of HARTZELL propeller are made of aluminium alloy.

The aircraft is approved for acrobatics and for inverted flights. Dimensional sketch of the aircraft is in Figure 1-1.

CHAPTER 2 - TECHNICAL DESCRIPTION

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Using brakes in sharp turns during taxiing allows the maximum strut (wheel) deflection approximately $\pm 38^\circ$.

The ring (31) on strut bearing serves to fastening the anchoring cable or chain during the aircraft parking (Section 4.13.).

2.5.3. **Aircraft wheels** (Fig. 2-11a, 2-11b)

To simplify tire removal and fitting on, the wheels are divided into two parts, interconnected by means of bolts with washers and nuts: three bolts at the nose wheel and six bolts at the main wheel. The wheels rotate on two bearings protected against impurities penetration.

At the extended wheel hub rim of both the wheels the brake disc carriers are riveted.

The following combinations of wheels, tubes and tires can be used at Z 242 L aircraft:

Name	Specification		
	Wheel (without tire)	Air tube	Tire
Main wheel	K 22-3100-7	GOODYEAR 6.00-6	GOODYEAR 6.00-6.5 (Part.No. 607 C 41-1)
		BARUM 420x150	BARUM 420x150 (Model 2)
		MITAS 420x150	MITAS 420x150
		MICHELIN 6.00-6	
Nose wheel	K 51-1100-7	GOODYEAR 5.00-5 TR67	GOODYEAR 5.00-5 (Part.No. 505 C 61-6) (Part.No. 505 C 61-8)
		BARUM 350x135 V561	BARUM 350x135
		MITAS 350x135	MITAS 350x135
		MICHELIN 5.00-5	

NOTE:

Numbers of wheels drawings presented in the above table identify wheels without tubes and tires.

CAUTION:

IT IS NECESSARY TO BE THE SAME COMBINATION OF WHEEL AND TIRE BOTH ON THE LEFT AND THE RIGHT MAIN GEAR LEG.

Fig. 2-9 Main Landing Gear Attachment

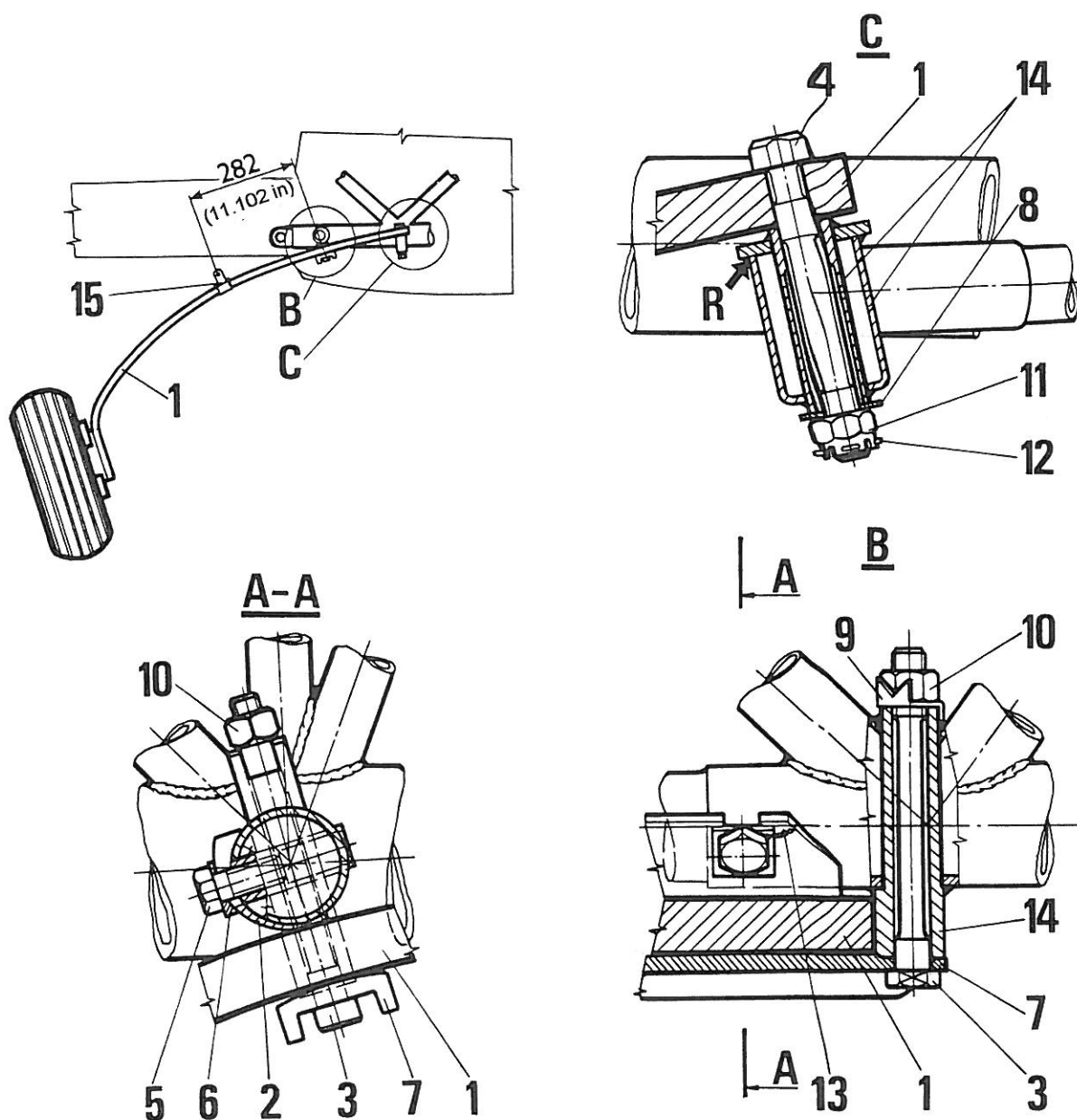
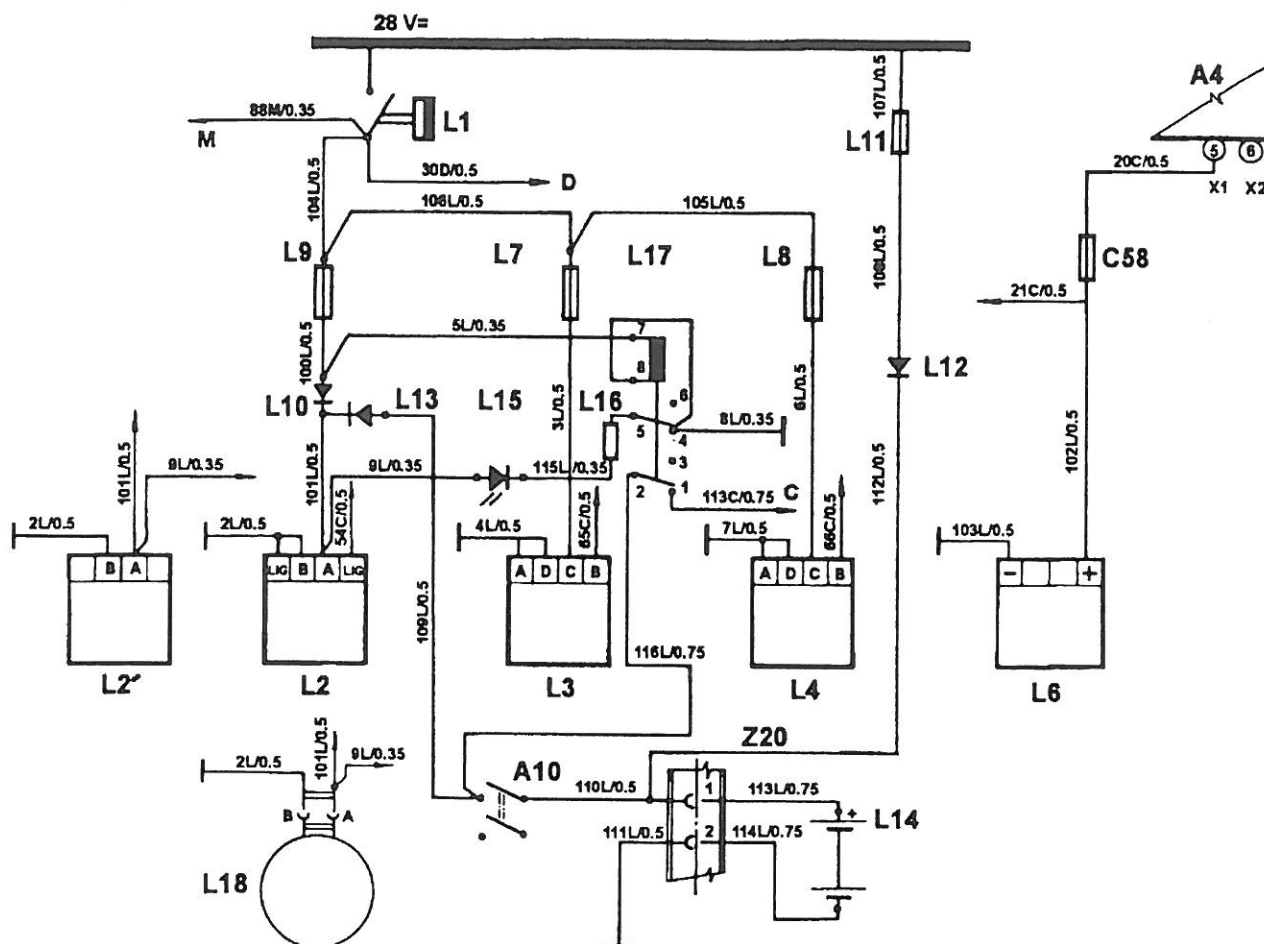


Fig. 2-31 Electrical System - Circuit Diagram L

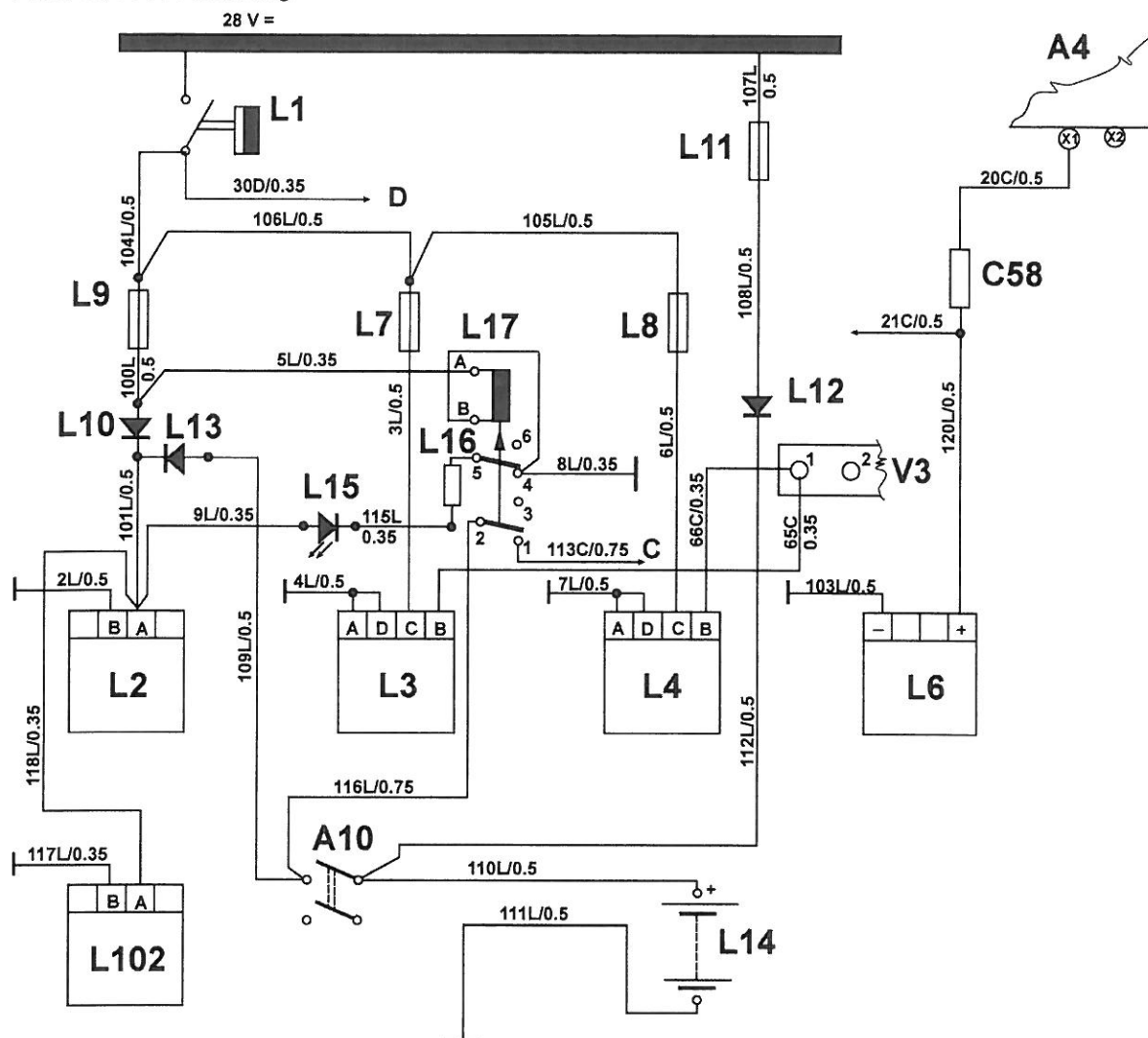
Up to S/N 0760 including



A4	contactor	MS - 24166 - D2
A10	master switch (C.U.LIGHT)	2V 45
C58	fuse	1A/250 V
L1	circuit switch (FLIGHT INSTR.)	AZS 5
L2	turn indicator (up to 19. series)	AIM TC 120-5AL
L2'	turn indicator (from 19. series)	S-TEC 6407-2BL
L3	horizon	AIM 510-8D or LUN 1241.A8G8W
L4	directional gyro	AIM 205-1BL
L6	clock	MD 91-LET
L7	fuse (ATT.GYR.)	1A/250 V
L8	fuse (DIR.GYR.)	1A/250 V
L9	fuse (TURN C.)	1A/250 V
L10	diode	KY 132/300
L11	fuse (BATTERY)	3.15 A/250 V
L12	diode	KY 708
L13	diode	KY 132/300
L14	battery SONNENSCHNEIN (2 pcs)	07190 18500 6Cx25; 1,1 Ah/12V
L15	diode (green)	LQ 1732
L16	resistor	1K5 1W
L17	relay	TKE 52 PDT or RP 2
L18	turn indicator (instead of L2)	LUN 1213.03-8
Z20	plug connection ŠR 4S: male female	LN 24 BPE 4 Š1 LN 24 KPE 4 G1

Fig. 2-31A Electrical system - Circuit Diagram L

From S/N 0761 including



A4	contactor	MS - 24166 - D2
A10	master switch	2V 45
C58	fuse (CLOCK) (optional)	1A/250 V
L1	circuit switch (FLIGHT INSTR.)	AZS 5
L2	turn indicator I	S-TEC 6407-28L or 6405-28L
L3	horizon	AIM 1200 or LUN 1241.A8G8W
L4	directional gyro	AIM 205-1BL
L6	clock	MD 91-LET or LC-2 or M800
L7	fuse (ATT.GYR.)	1A/250 V
L8	fuse (DIR.GYR.)	1A/250 V
L9	fuse (TURN C.)	1A/250 V
L10	diode	1N 4007
L11	fuse (BATTERY)	3.15 A/250 V
L12	diode	KY 708
L13	diode	1N 4007
L14	battery SONNENSCHN (2 pcs)	07190 18500 6Cx25; 1,1 Ah/12V
L15	diode (green)	LQ 1732
L16	resistor	1K5 1W
L17	relay	TKE 52 PDT
L102	turn indicator II (optional)	S-TEC 6407-28L or 6405-28L
V3	terminal board	74 K

Fig. 2-32A Electrical System - Circuit Diagram M

From S/N 0761 including

A21	checking block	L 143.8521B
D5	annunciator light display	08 LUN 2697.04-8
M1	cylinder head temperature and exhaust gas temperature indicator	ALCOR 47 028
M2	cylinder head temperature pick-up (ALCOR 42 535 compensated wiring)	ALCOR 86 251
M4	exhaust gas temperature pick-up (ALCOR 42 535 compensated wiring)	ALCOR 86 255
M5	oil temperature pick-up	LUN 1358.03-8
M6	quadruple indicator	LUN 1639.5X (NOTE)
M7	fuel quadruple indicator	LUN 1639.7X (NOTE)
M8	float gear (main tank L)	L 143.7231-08.00A (B)
M9	float gear (main tank L)	E 242.7231-07.00 (A)
M10	engine hours counter	HOBBS MODEL 15000
M11	pressure switch 0,18 K	LUN 1492.03-8
M13	float gear (external tank L)	Z 42.7270-25.00
M14	float gear (external tank R)	Z 42.7270-25.00
M16	fuel pressure pick-up	VS-3 (600 kPa)
M17	oil pressure pick-up	LUN 1563.01
M18	consumption gauge pressure pick-up	VSR-0,6 (60 kPa)
M19	fuse (FUEL IND. R)	1A/250 V
M20	fuse (ENG. IND.)	2A/250 V
M21	fuse (FUEL IND. L)	1A/250 V
M22	float gear (main tank R)	L 143.7241-08.00A (B)
M23	float gear (main tank R)	E 242.7241-07.00 (A)
M30	circuit breaker (ENGINE INSTR.)	AZS 5
M31,M32	block of resistors	L 143.8531
R1	resistor	RR W2 E560
R2	resistor	RR W2 E330
V1	terminal board	74 K
Z2	plug connection ŠR 14S: male female	ŠR 32 BPN 14 Š5U2 ŠR 32 KPN 14 G5U2
Z4,Z5	plug connection AMP 17-14: male female	990-443 990-444
Z8,Z9	plug connection AMP 13-7: male female	990-441 990-442

Markings on annunciator display D5:

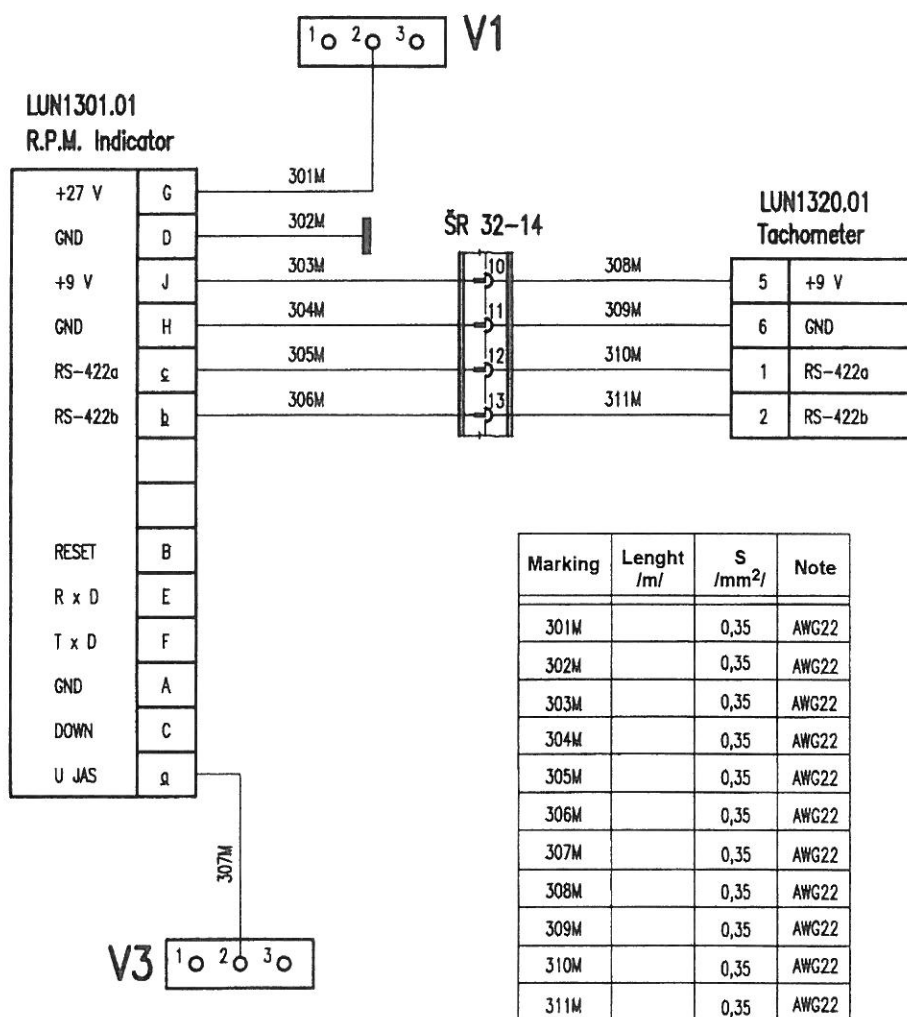
- (1) L FUEL LOW LEVEL
- (2) R FUEL LOW LEVEL
- (5) OIL PRESS LOSS

NOTE:

Number designated by „X“ at items M6 and M7 enables installation of quadruple indicators 50 and 70 series.

Fig. 2-32B Electrical System - Circuit Diagram M – LUN 1301.01 R.P.M. indicator connection

From S/N 0761 including



V1 Terminal board

74K

V3 Terminal board

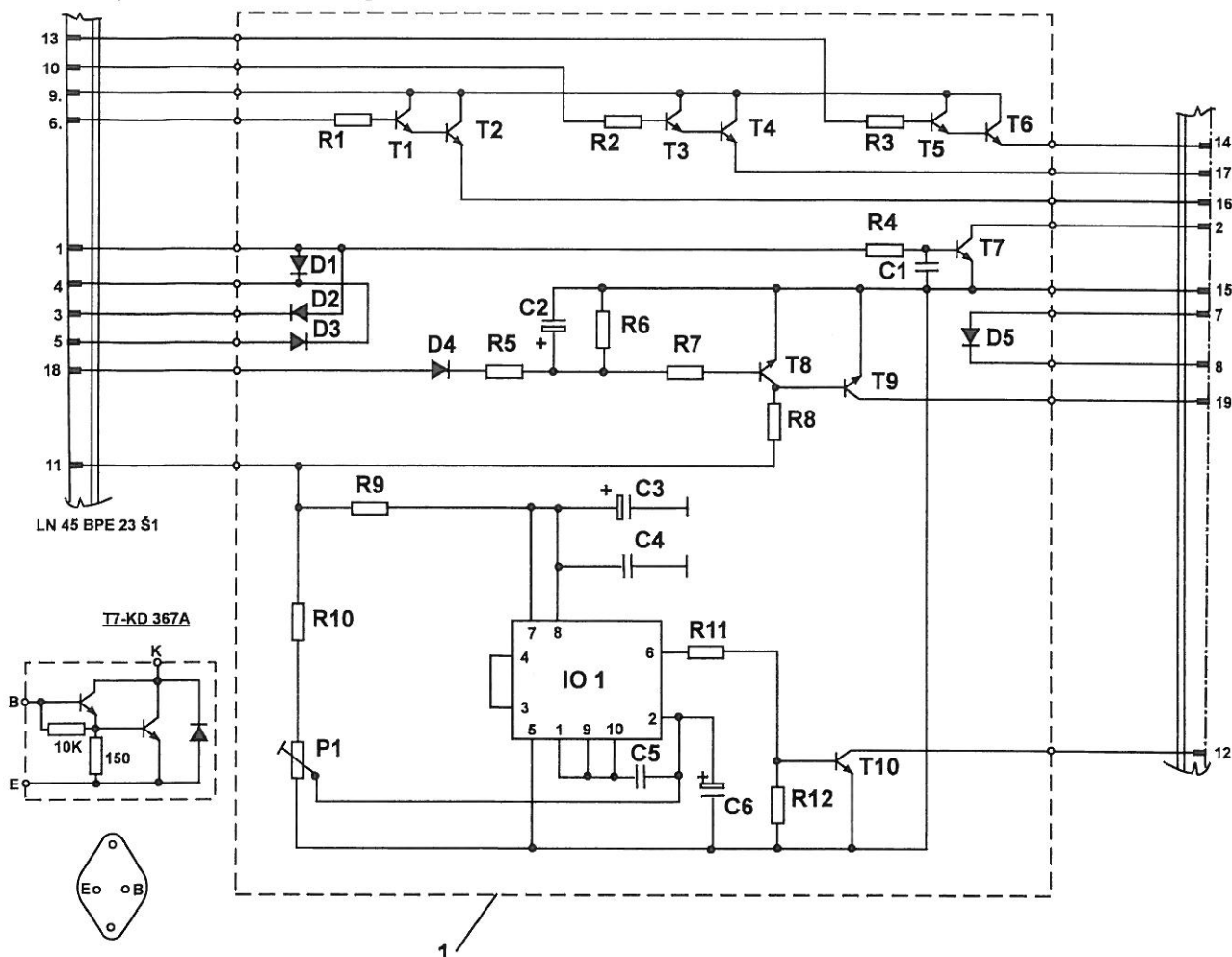
74K

ŠR 32-14 Plug connection

INTENTIONALLY LEFT BLANK

Fig. 2-33 Electrical system - L 143.8521 checking block diagram

Up to S/N 0740 including



C1	condenser	TK 764 68K/40V
C2, C6	condenser	TE 134 4M7
C3	condenser	WK 705 63 47M
C4	condenser	TK 764 68K/40V
C5	condenser	TK 774 100
D1, D2, D3	diode	KY 132/300
D4	diode	KA 262
D5	diode	KY 724 F
P1	potentiometer	TP 011 10K
R1, R2, R3, R8, R10, R11	resistor	MLT 0,5 4K7
R4	resistor	MLT 0,5 15K
R5, R6	resistor	MLT 0,5 10K
R7	resistor	MLT 0,5 22K
R9	resistor	MLT 0,5 47
R12	resistor	MLT 0,5 470
T1, T3, T5	transistor	KFY 46
T2, T4, T6	transistor	KD 502
T7	transistor	KD 367 A or KD 367 B
T8	transistor	KC 508
T9, T10	transistor	KU 611
IO 1	integrate circuit	MAA 723
1	printed circuit	

4.16. AIRCRAFT JACKING

The aircraft is jacked, e.g. at disassembly of the landing gear, levelling etc. by means of the front and rear lifting jacks (Fig. 4-6). Location of lifting jacks under the fuselage is given in Fig. 4-4. The front jack is placed below the first fuselage bulkhead so that the dish-shaped termination of supporting screws (Fig. 4-6, A, Item 1) lie below the rest welded on the first fuselage bulkhead. Floor unevenness can be corrected by a suitable adjustment of screws (4). Lifting bars (2) with supporting screws (1) are moved by turning nut (5).

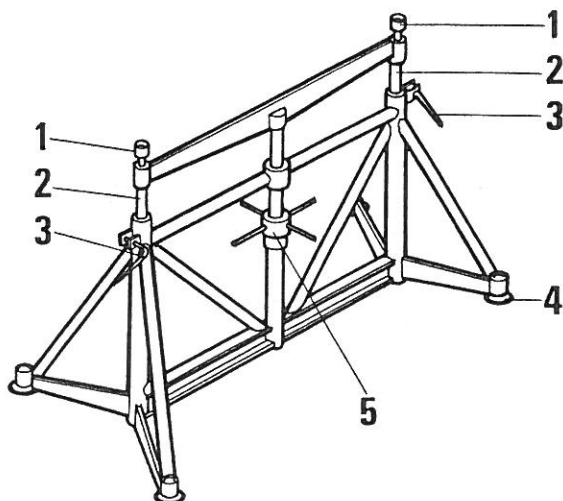
The rear jack is placed under the fourth bulkhead of the rear part of the fuselage, in front of the auxiliary tail skid. The bed (Fig. 4-6, B, Item 1) which leans against the fuselage, is moved by turning nut (2).

NOTE:

Jacking-points are marked on the fuselage by inscription SUPPORT HERE.

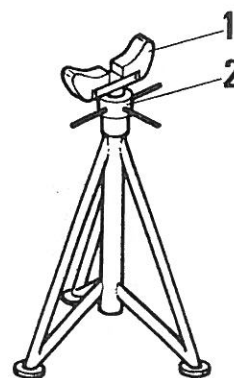
Fig. 4-6 Jacks for Aircraft Jacking

A - Front lifting jack
Drwg.No. Z42.9310-00.00



- 1 - Supporting screw
- 2 - Lifting bar
- 3 - Handle
- 4 - Screw with washer (4 pcs)
- 5 - Nut

B - Rear lifting jack
Drwg.No. Z42.9320-00.00



- 1 - Bed
- 2 - Nut

4.17. **RECOMMENDED OPERATING SUBSTANCES AND TIME INTERVALS**

No.	Use for	Operating substance		Time interval
		Name	Specification	
1.	Fuel tanks filling	Aviation gasoline 100 or 100 LL (Subsect. 4.6.1)	MIL-G-55/2F or ASTM-D 910-75	—
2.	Engine oil charge exchange	Aviation engine oil	See Section 4.18.	First 25 hrs, every 50 hrs or after 4 mths at max.
3.	Nose landing gear shock absorber and brake system filling	Hydraulic fluid	MIL-H-5606 A MIL-H-5606 F (A)	See par. 5.2.8, 3 (b) 5.2.8, 5 (b)
4.	Landing gear wheel bearings lubricating	Grease	MIL-G-81 322 E or MIL-G-3545	Once in a year, 500 hrs at max.
5.	Nose landing gear: - shock absorber struts joints - shimmy damper pins	Grease	MIL-G-7711 A (M) or MIL-G-24 139 A	Once in a year, 500 hrs at max.
	Engine controls: - throttle, mixture, propeller control rods joints, pins			
	Canopy: - emergency release - sliding mechanism - lock			
6.	Airframe lubricating: - control system joints/bearings - wing flap locking mechanism - control surfaces hingen/bearings - covers, inspection doors, hingen/locks			every 500 hrs (type "B" inspection)
7.	Adjustable rudder control greasing: (from S/N 0741 incl.)			every 100 hrs
8.	Greasing of cables of controls system			
9.	Disassembled parts cleaning, degreasing	Degreaser	—	—

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5.2. SCHEDULED MAINTENANCE CHECKS

5.2.1 PREPARATORY JOB

1. Documentation: check the records in the Aircraft Log Book (including the aerobatics periods), in the Engine Log Book and in the Propeller Log Book; check completion of the Service Bulletins.
2. Cleanliness: wash the cockpit interior and airplane surface.
3. Dismantling of covers:
 - Rear fuselage cover, rear upper fuselage cover, covers of upper wing attachment fittings (MM-I., Fig. 2-34, Items. 8, 13, 18).
 - Bottom fuselage cover, covers of lower wing attachment fittings, main landing gear suspensions covers (MM-I., Fig. 2-35, Items. 10, 13, 14).
 - Engine cowlings (MM-I, Subsect. 6.9).
4. Jacking: before the landing gear check inspection.

5.2.2 ENGINE INSTALLATION

1. Fuel System in Engine Compartment
 - a) Leakage and locking of joints, piping condition, condition and technical life of rubber hoses.
 - b) Clean fuel strainer on the fuel injector.
 - c) Clean input strainer on the firewall.
 - d) Injection nozzles: clean strainers and nozzles themselves.
 - e) Fuel pump: check for clogging the vent by fuel or oil.
2. Oil System
 - a) Leakage and locking of joints, condition and attachment of rubber hoses.
 - b) Drain and replace oil charge and the oil filter element.
 - c) Check and clean the strainers in oil inlet/outlet.
 - d) Oil cooler: leakage, damage.
 - e) Inverted flight oil system: clean according to last issue of Service Instruction Textron Lycoming No. 1397.
 - f) Adhesive joint in the "Tee" and "Elbow" fittings.
3. Engine Electrical System, Ignition
 - a) Spark plugs:
 - reposition of plugs;
 - condition and adjustment of electrodes.
 - b) High-tension ignition cable: attachment, tightening of joints at spark plugs/magnetos ends.
 - c) Engine electrical system wiring: condition and attachment of wires, cleanliness and tightening of plugs.
 - d) Alternator:
 - belt tensioning (see Service Instruction Textron Lycoming No. 1129);
 - alternator attachment

f 25	50	100 (AN)	S.I. (h)	Note	Sign.
	o	o			
	o	o			
	o	o			
	o	o			
o	o	o			
o	o	o		(1)	
o	o	o		(2)	
o	o	o		(3)	
		o		(4)	
o	o	o		(5)	
o	o	o		(1)	
o	o	o	4 mths max.	(6)	
o	o	o		(7)	
o	o	o			
			300h	(8)	
			1 Y	(55)	
		o		(9)	
		o		(10)	
o	o	o			
o	o	o			
		o			
		o			

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	f25	50	100 (AN)	S.I. (h)	Note	Sign.
(e) Ignition Magnetos:						
- Condition of contact breaker, contacts, oil in the breaker (see TLOM, Sect. 5, Subsect. 4, Point c).			o			
- Check ignition point adjustment (see TLOM, Sect.6, Subsect. 1, Point b .			o			
(f) Starter: lubricate (TLSI No. 1278, last issue).		As necessary			(52)	
4. <u>Air Inlet</u>						
(a) Air-inlet manifold: check condition, leakage, attachment.	o	o	o			
(b) Air-intake filter: check cleanliness, damage, replace if ne- cessary (MM-I., Sect. 4.7).			o			
5. <u>Cylinders</u>						
(a) Leakage on rocker-arm covers (TLOM , Sect. 5, Subsect. 3, Point f) .	o	o	o		(11)	
(b) Partically or completely broken ribs.			o			
(c) Check compression according to last issue of TL S.I. No. 1191).			o		(53)	
(d) Overheating: cylinders colour changed	o	o	o		(11a)	
6. <u>Exhaust System</u>						
(a) Heat-exchangers outer skin, noise-silencers (after dis- mantling heat-exchangers), manifold: burns-out, cracks (in the vicinity of welds), damage.	o	o	o			
(b) Manifold flanges: gas leaks.	o	o	o		(12)	
(c) Cockpit heating hoses, springs at the joint of front and aft exchangers: condition, damage.			o			
7. <u>Air-cooling System</u> : check attachment of baffles, cracks, damage.	o	o	o			
8. <u>Engine Suspension</u>						
(a) Check engine bed visually on cracks, corrosion.			o		(13)	
(b) Vibration dampers: condition, damage.			o		(13a)	
(c) Studs, nuts proper torquing, defects, locked.			o			
9. <u>Engine and Propeller Controls</u>						
(a) Control rods attachment: conditions, damage, proper travel.			o			
(b) Bolts in joints/hinges: locked with <u>stainless</u> cotter pins.			o			
(c) Flat springs used to attach flexible pull rods of engine and propeller control to the engine brackets: cracks (visually), deformations			o		(13b)	
10. <u>Engine Accessories</u> : check attachment of appliances on en- gine crankcase and firewall.			o			
11. <u>Engine Cowling</u>						
(a) Check on damage, cracks.			o			
(b) Quick-locks: condition, function, damage.			o			

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- Ailerons and flaps:
- (a) Hinges: corrosion, cracks, bearings rolled-in without play, nuts locked
 - (b) Ailerons mass balance: nuts of attachment bolt locked, cracks on horn (visually).
 - (c) Stops of the wing flaps (Fig. 2-8, items 4 and 14): distortion, deformation
- 5.2.6 EMPENNAGE
- 1 Stabilizer suspension and struts (MM-I., Fig. 2-6): general condition, crack in attachment area and struts weld beads, locking of nuts.
 - 2 Elevator and rudder hinges: condition, locking of nuts, bearings rolled-in without play.
 - 3 Skin and tips: damage, deformation, tips attachment screws tightened.
- 5.2.7 CONTROLS
- 1. Control stops: check on condition (squeezes, deformations).
 - 2. Cables:
 - a) Cables condition: corrosion, broken wires
 - b) Rudder, trim and flaps control cables tension
 - c) Cables cleanness and cables greasing
 - 3. Control system joints: nuts and turnbuckles locked
 - 4. Control function check: (incl. flaps, engine and propeller control): free movement of all parts of system, correct run
 - 5. Primary controls plays: do not exceed permitted values – judgment of quality.
- 5.2.8 LANDING GEAR
- (jack the airplane before landing gear check)
- 1. Tires: damage, wear (tire cord must not appear), creep on wheel rim (red marking), tire pressure.
 - 2. Landing gear wheels (after removal):
 - (a) Bearing: cleanness, check wear (damage, coloured shading by overheating), replace bearings if necessary (MM-I., subsect. 7.8.2 par. 3).
 - (b) Wheels casting: damage, cracks; repairs acc. MM-I., subsect. 7.8.2 par 1) and 7.8.3 par 1) (at changing of tire or max. 1500 hours, alternatively 12 years of operation.
 - (c) Nose wheel static mass-balance if necessary

f 50	100 (AN)	S.I. (h)	Note	Sign.
	o		(26)	
	o		(26)	
	o			
o	o		(26)	
	o		(26)	
	o		(21)	
	o		(27)	
	o		(28)	
	o		(28)	
	o			
	o			
	o		(29)	
o	o		(30)	
f100 (1Y)		1Y max. 500 h	(30a)	
	Acc. to text			
			(31)	

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f.50	100 (AN)	S.I. (h)	Note	Sign.
	o		(32)	
		Acc.to text		
	o		(1)	
	o			
	o		(34)	
	o		(34a)	
	o		(33)	
	o			
	o			
	o			
	o		(19)	
	o		(35)	
	o		(36)	
	o		(37)	
	o			
	o			
o	o			
o	o			
	o		(1)	
	o			
	o			
	o		(38)	
	o		(39)	
	o		(51)	
		1Y		

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5.2.11 INSTRUMENTS INSTALLATION

1. Check general condition of all items: damage, broken glass - MM-I., Sect. 7.10.
2. Check colour marking: readable, not damaged.
3. Engine instruments:
 - (a) Condition of wiring, locking of plugs.
 - (b) Check function.
 - (c) Hose of manifold pressure gauge: condition, technical life.
4. Annunciator lights: check function.
5. Magnetic compass: compensation (MM-I., Sect. 4.12).
6. Instruments calibration: observe time intervals required by re-levant operational rules.

5.2.12 GLIDER TOWING EQUIPMENT (optional)

1. Clean the tow-hook, cable control.
2. Attachment bolts nuts: check tightening, locking.
3. Tow-hook control cable: check corrosion, broken wires.
4. Pulley: free rotation, groove condition.
5. Tow-rope weak-link: check condition, damage, corrosion.

5.2.13 ELECTRICAL SYSTEM

1. Batteries:
 - (a) Primary battery (MM-I., Fig. 4-3, pos. 4): check electrolyte level/ density. Service the battery acc. MM-I., Sect. 4.9.
- Capacity test after 1 year.
 - (b) Turn and bank indicator emergency power source/battery (MM-I., Fig. 4-3, pos. 17).
- Check function after 100 hours.
- Capacity test after 1 year.
2. Wiring:
 - (a) Check cables attachment.
 - (b) Check visually general condition, insulation/screening da-mage, broken wires/cables.
3. Plugs: locking, corrosion, damage.
4. Electrical bonding and dischargers: replace the damaged or corroded ones as necessary.
5. Lighting: check function.
6. Fuses: replace, complete the spare fuses set if necessary.

f50	100 (AN)	S.I. (h)	Note	Sign.
	o			
	o			
	o			
	o		(40)	
	o		(38)	
	o		(41)	
		1Y		
		2Y		
	o			
	o			
	o		(28a)	
	o		(42)	
	o		(43)	
	o			
	o			
		1Y	(54)	
	o		(44)	
		1Y	(45)	
	o			
	o		(46)	
	o		(47)	
	o			
	o		(48)	
	o			

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5.2.14 COMM/NAV EQUIPMENT

(observe the special instructions of the equipment Manufacturer)

1. Antennas: check damage, attachment, corrosion.
2. Transceiver(s):
 - (a) Check general condition.
 - (b) Function check:
 - on ground correspondence with appropriate ground station
 - flight test/evaluation (during NAV system check).
 - (c) Ground measurements (if required by special operational rules).
3. Avionics check:
 - (a) Ground measurement on signal simulators.
 - (b) In-flight functional tests.
4. Emergency locator transmitter (ELT): check function according to special instructions given by ELT manufacturer. Check battery life.
5. Navigation system SN 3308 (if installed): replace projection lamp display from SN 3308.

5.2.15 FINAL JOB

1. Airplane lubrication: by means of recommended operating substances (MM-I., Sect 4.17 , 4.19.2.).
2. Assemblies: install all parts and covers removed during inspection.
3. Inspection holes, doors: close.
4. Canopy glass and airplane surface: clean, polish (MM-I., Sect. 4.1,4.2).
5. Entries: Make appropriate entries into airplane/appliances logbooks.

f 50	100 (AN)	S.I. (h)	Note	Sign.
	o			
	o			
	o			
	o			
	o			
	o		(49)	
	o			
	o		(50)	
		1Y (200 h max.)		
	o			
o	o			
o	o			
o	o			
o	o			

Used symbols and abbreviations:

f 25 - Inspection after first 25 oper. hours.

f 50 - Inspection after first 50 oper. hours.

50 - Inspection after each 50 oper. hours.

100 (AN)	}	- Inspection after each 100 oper. hours or after one year of operation which occurs sooner.

1Y - Inspection after one year of operation.

2Y - Inspection after two year of operation.

S.I. - Special Inspection.

(h) - Operational hours.

MM-I., (II) - Maintenance Manual-Vol. I., II. of the Z 242L aircraft.

TLOM - Textron Lycoming AEIO 360 Engine Operator's Manual.

TLS(B) - Textron Lycoming Service Instructions (Bulletins).