



LAA TYPE ACCEPTANCE DATA SHEET
TADS 972
YAK-52

Issue 2	Update of document to standard format. Minor editorial changes. Additional MPDs in section 2.5	Dated 22/02/21	JV
Revision A	Amendment of reference to seat harness integrity safety notice (SN-2021/006) in section 2.2	Dated 03/06/21	JV

This TADS is intended as a summary of available information about the type and should be used during the build, operation and permit revalidation phases to help owners and inspectors. Although it is hoped that this document is as complete as possible, other sources may contain more up to date information, e.g. the manufacturer's website.

Section 1 contains general information about the type.

Section 2 contains information about the type that is **MANDATORY** and must be complied with. The annual Permit to Fly renewal (revalidation) process requires a Declaration by the inspector and owner that the Requirements of Section 2 have been complied with.

Section 3 contains advisory information that owners and inspectors should review to help them maintain and operate the aircraft in an airworthy and safe condition. If due consideration and circumstances suggest that compliance with the requirements in this section can safely be deferred, is not required or not applicable, then this is a permitted judgement call. This section also provides a useful repository for advisory information gathered through defect reports and experience.

Section 1 - Introduction

1.1 UK contact

Until further notice the LAA will become the de facto contact point for this aircraft.

Light Aircraft Association, Turweston Aerodrome, Nr Brackley, Northants, NN13 5YD

Tel: 01280 846 786
Email: engineering@laa.uk.com
Website: www.lightaircraftassociation.co.uk

1.2 Description

The YAK-52 is a tricycle two-seat primary trainer, derived as a tandem cockpit variant of the single-seat Yak-50 aerobatic aircraft. Designed as a replacement for the Yak-18(A) trainer, the Yakovlev Design Bureau began detailed design in 1975 with the first (Romanian) prototypes flying in 1978 ahead of series production.

While designed in Russia, all Yak-52 production has been in Romania by IAv Bacau (Aerostar SA from 1991) under a royalty-free license. Series production began in 1979, the 1000th aircraft was delivered in 1987 and the last examples in 1998, with some 1800 built. Subsequently a small number of 'tail-dragger' variants were produced ad-hoc for the North American market.

The production serial numbering uses the following format:

YY(B)BBNN

YY (year of manufacture), (B)BB (2/3 digit batch number), NN (sequential number)



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The aircraft is fitted as standard with a Vedeneyev M-14P radial engine and Vpered V530TA-D35 constant speed propeller, with alternative three blade propellers from MT and Hoffman available. Optionally it may be fitted with skis for Winter operation. Note that the only propeller(s) approved for an individual aircraft are those listed on the individual aircraft's Operating Limitations document or in the [PTL/1](#) (Propeller Type List) for the type.

The Yakovlev Design Bureau has effectively ceased support for this aircraft and, through Russian aviation consolidation, now largely exists in name only. Similarly the Aerostar SA manufacturers in Romania have curtailed production of airframe component spares.

There is some interchangeability of consumable items with the Chinese Nanchang CJ-6 aircraft, which still has limited production, and this together with refurbished components allows the aircraft to remain viable.

Vedeneyev manufactured the last engines in 1998, however spares are still available from specialist M-14P engine overhaul facilities in Hungary, Lithuania and Romania.

In September 2019 the CAA approved the LAA's application to take over the airworthiness administration of those YAK-52s whose owners choose to transfer from an ex-Military Permit to Fly to an LAA administered Permit to Fly.

Section 2 – Mandatory information for owners, operators and inspectors

At all times, responsibility for the maintenance and airworthiness of an aircraft rests with maintenance organisations through continued airworthiness maintenance programme agreements. Condition No 3 of a Permit to Fly requires that: "the aircraft shall be maintained in an airworthy condition".

The Permit to Fly Operating Limitations document for the YAK-52 requires that: "the aircraft must be maintained in accordance with the requirements of LAA Type Acceptance Data Sheet 972" (this document). Specifically, Section 2 of this TADS describes those requirements. Declaration of compliance with this TADS means also that the relevant TADS concerning the engine, propeller and equipment fitted have also been consulted and the mandatory requirements described therein have been satisfied. The TADS number, along with the latest issue number, must be quoted on applications to revalidate the Permit to Fly.

2.1 Lifed Items

The manufacturer Aerostar SA, from 1991 (batch 113+), designated a 5000 hour airframe life (with modifications for prior batches), however this was not officially accepted by the Yakovlev Design Bureau for Russian (DOSAAF) training aircraft purposes.

In consequence UK registered YAK-52s have had to derive a rolling life extension procedure (modification AAS 5009, issued as AAN 29189) based on 600 hour/10 year inspections, with the LAA now owning the intellectual property rights to this programme.

Background: in 2008 the CAA approved Richard Goode Aerobatics modification AAS 5009 that, as AAN 29189, effectively supplanted MPD 1998-017R5 (last revised in 2004) that covered initial airframe life, life extension and associated overhauls.



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This modification was made necessary by the Yakovlev Design Bureau no longer having the resources to effectively administer its legacy fleet, an essential part of the MPD-defined process. The modification allowed life extensions to be made a wholly UK administered process.

The MPD specified the airframe initial life limitations in terms of implementation of spar modifications SBs 59-R, 60-R and 107-BD. The MPD also mandated that all aircraft incorporate these SBs at their next overhaul to extend their initial life. As determined by a combination of landings, airframe hours and calendar years derived from a table based on the aircraft's series production number. Aircraft from batches 113 (inclusive) should have all these SB's incorporated at manufacture.

The CAA stated in approving AAS 5009/AAN 29189, as an alternative life extension procedure to MPD 1998-017, that the MPD would be further revised to incorporate it. But this has subsequently not occurred and the MPD still stands as to the modification status required for life extension.

Given series production ended in 1998, and as the longest airframe initial calendar life covered by the MPD was 20 years, then as of 2018 (at the latest) all UK registered YAK-52s should have had an overhaul incorporating SBs 59-R, 60-R and 107-BD. Establishing this modification level as a common denominator across the UK registered fleet.

The absence of a revised MPD, by default, establishes modification AAS 5009/AAN 29189 as the only means of providing YAK-52 life extensions. Comprising a rolling life extension/overhaul programme of 10 years/600 hours/3500 landings, with a corresponding reduction in 'G' limitations to +5/-3.

For the avoidance of doubt, operation on an LAA Permit to Fly affords no alleviation with respect to these procedures.

The above components whose inspection is specified by Mandatory Airworthiness Directives must be inspected when due. Lifer items specified only by the manufacturer but not mandated by MPDs are advisory in strictly legal terms. The owner is responsible for deciding whether to implement these advisory life limits. Life extensions are carried out by approved maintenance companies on an approved programme sign-off carried out by the LAA (originally by White Waltham Airfield Ltd and Acro Aeronautical Services Ltd).

2.2 Maintenance Schedule

The aircraft must be maintained in accordance with a maintenance programme that has been in the past approved by the CAA for the purpose.

Notes:

- a. An Annual Check must be carried out coincident with renewal (revalidation) of the Permit to Fly by an approved maintenance organisation that has an approved LAA Inspector.
- b. The maintenance programme should be customized to include any relevant special requirements provided in the 'Aerobuild Yak 52 Maintenance Schedule ref: YAK 52' at issue 1 dated 3rd December 1993, including applicable Service Bulletins, as below.

Lifed Items – CAA MPDs and Service Bulletins

Those marked ** are legally mandatory.

Airframe

<i>Component</i>	<i>Reference</i>	<i>Component Life</i>	
		<i>Hours</i>	<i>Calendar</i>
Up-lock piston assemblies **	CAA MPD 1998-016R2	200 hours	3 years
Airframe: Life Extension **	CAA MPD 1998-017R5 (AAS 5009)	600 hours	10 years
Elevator control system pulley cracks: Inspection **	CAA MPD 2000-004	n/a	Annually
Pneumatic system reservoirs: Inspection **	CAA MPD 2004-004R1	n/a	Annually
Pneumatic system reservoirs: Hydrostatic test **	CAA MPD 2004-004R1	n/a	5 years
Barriers across rear fuselage **	CAA MPD 2004-006	n/a	Annually
Barrier rear cockpit aft of crotch strap **	CAA MPD 2008-005R1	n/a	Annually
Safety harness integrity **	CAA SN 2021-006	n/a	Annually
Electrical short circuit due to pneumatic corrosion inhibitor contamination	CAA Letter To Owners 2918	n/a	Annually

Engine

<i>Component</i>	<i>Reference</i>	<i>Component Life</i>	
		<i>Hours</i>	<i>Calendar</i>
Fuel system inspection / draining **	CAA MPD 2018-008	n/a	Annually
Engine TBO: M14P / PF **	CAA MPD 2019-002	750 hrs 1 st TBO 500 hrs 2 nd /3 rd TBO Limit 2250 hours	n/a
Flexible hoses	Manufacturer Schedule	n/a	Per Maintenance Programme
Carburettor diaphragm	Lithuanian CAA TSD-001/2006	n/a	6 years



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Overhaul period	GR 24	n/a	Refer GR24
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Propeller

<i>Component</i>	<i>Reference</i>	<i>Component Life</i>	
		<i>Hours</i>	<i>Calendar</i>
Propeller TBO: V530TA-D35	Vpered Service Bulletin	500 hours	6 years
Propeller TBO: MTV-9	MT Service Bulletin	Per service bulletin	Per service bulletin
Propeller TBO: HO-V-183	Hoffman Service Bulletin	Per service bulletin	Per service bulletin
Overhaul	GR17	n/a	Refer GR17

Fabric Coverings

<i>Component</i>	<i>Reference</i>	<i>Component Life</i>	
		<i>Hours</i>	<i>Calendar</i>
MPD 1997-019R2 **	Fabric covered control surfaces: Inspection	n/a	Check internally every 3 years
Fabric Condition	GR 8	n/a	Inspection period 3 years

2.3 Permit renewal procedure

The YAK-52 aircraft has been determined as a complex type primarily because the airframe includes a number of lifed items which are subject to individual life limits. For this, and other reasons, the annual renewal process differs slightly from applications involving simpler types; the following applies:

2.3.1 Inspector Qualification

Only LAA inspectors specifically authorised by the LAA for YAK certifications are approved to certify inspection of YAK aircraft. YAK approved inspectors have the YAK specifically listed as part of the scope of their LAA inspector approval. A list of inspectors eligible to inspect YAK's is included in the permit renewal section of the LAA website.

2.3.2 FWR-1 Application for Renewal

In addition to the FWR/1 form, an [LAA/FWR-1- Supp/YAK-52](#) form will need to be sent to LAA Engineering on application. This form requires some additional information pertinent to the type, including, if the aircraft is due a lifetime extension (every 10 years/600 hours), specialist documentation requiring an application fee to be paid.



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2.4 Airworthiness Directives

Airworthiness Directives (ADs) must be complied with. Yak-52 ADs are published by the CAA in Section 2 of [CAP 747](#), Mandatory Requirements for Airworthiness.

See also [CAA website](#) for details of any new ADs awaiting incorporation into CAP 747.

<i>AD</i>	<i>Mod / SB No</i>	<i>Description</i>	<i>Applicability/ Requirement</i>
EASA AD 2006-0345R1	n/a	Blade leading edge protection	MT / MTV propellers by annual inspection

2.5 Mandatory Permit Directives CAP 661

<i>CAA MPD</i>	<i>Description</i>	<i>Requirement</i>
1997-008R1	Aircraft lift extension	Superseded by MPD 1998-017
1997-009	Air start modification	Check compliance
1997-019R2	Fabric covered surfaces	Covering and repetitive inspection of control surfaces
1997-020R1	Ball latch harness replacement	Check compliance
1998-016R2	Inspection of uplock pistons	Check of gear uplock pistons
1998-017R5	Airframe life limitations and overhaul life	Check compliance
1998-020	Fabric covered control surfaces: Material	Check compliance
2000-004	Crack in elevator control system pulley	Inspect pulley for cracking
2004-004R1	Pneumatic system reservoirs	Maintenance procedures amendment and inspections
2004-006	Installation of barriers across the rear fuselage	Installation of barriers to prevent items jamming controls
2008-005R1	Installation of barrier on rear cockpit floor	Installation of barrier to prevent controls jamming
2018-008	Engine fuel system: inspection and draining	Inspection and continued maintenance actions on fuel system
2019-002	Engine life limit	Engine life limit of 2250 hours

Also check the LAA website for MPDs that are non-type specific ([TL2.22](#)).



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2.6 Generic Requirements (GR) CAP 747 and Civil Aircraft Airworthiness Information and Procedures (CAAIP) CAP 562

Airframe

<i>Item</i>	<i>Description</i>	<i>Requirement</i>
CAP 562 / SN 2020-003	CO contamination	See CAP 562 Leaflet B-190 for guidance & SN 2020-003 (Replaces AN 40)
CAP 562	Metal structures and corrosion/ protection	See CAP 562 Leaflets 51-50 and 51-60 for guidance (Replaces AN 73)

2.7 Flight Manual

A copy of the appropriate Aeroplane Flight Manual should be available to the owner and the Operating Manual.

Where information contained with the Flight Manual conflicts with that on the Operating Limitations document, then the Operating Limitations take precedence.

2.5 Maintenance Manual

A copy of the appropriate Maintenance Manual should be available to the maintenance organisation, this is 'Aerobuild Yak 52 Maintenance Schedule ref: YAK 52' issue 1 dated 3rd December 1993.

For engine, propeller and equipment refer to manufacturers' maintenance instructions.

2.9 Additional Placards

The Permit to Fly Operating Limitations document requires placards or instrument markings to be installed in accordance with the information shown thereon. The ANO also requires that an Occupant Warning placard be installed in full view of all occupants. Suitable placards are available from LAA HQ. The wording for the occupant warning placard is as follows:

"Occupant Warning - This Aircraft has not been Certificated to an International Requirement"

In addition, placards must be fitted restricting the aircraft to flight by day and under VFR only.

A fireproof identification plate must be fitted to the fuselage, engraved or stamped with the aircraft's registration letters.



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Section 3 – Advice to owners, operators and inspectors

3.1 General

The YAK-52 is a relatively maintenance-intensive aircraft compared to most others on the LAA fleet, by virtue of its complexity and the number of mandatory special inspection items associated with it.

The annual check needed at transfer to an LAA Permit to Fly and at each subsequent permit renewal is essentially the same as would be required under the maintenance programme, including any special recurring inspections for the type as specified in the Airworthiness Directives and Service Bulletins.

Any spare parts fitted must be in accordance with the parts manual and fit for purpose. While there is no requirement for a 'form one' to accompany a spare part for a Permit aircraft, the inspector must be satisfied that it is the correct part and in good order, i.e. within manufacturer's limits and not worn out, time expired or bogus.

Unlike many other vintage aircraft types operating on Permits to Fly, the Yak-52 is a well-documented type. On the plus side, this means that everything about the design is fully defined down to the last split pin and washer, and maintaining the aircraft to this standard should guarantee that the aircraft continues to perform exactly as it should. On the down side, for those with a yen to 'do their own thing' with their own custom tweaks and improvements, with a well-defined type like a YAK-52 any changes to the design standard, however small, have to be requested as modifications and only embodied if approved by LAA HQ. This is a different situation from most other LAA types where the design drawings are no longer available, or only in a very basic form. With those ill-defined types, owners and their LAA inspectors are left partly to their own devices to keep their machines airworthy by following 'standard aviation practice' rather than conforming to drawings and manuals.

As an example of the LAA mod requirements, changing the type of tyres, seat harnesses, propeller model, etc, would require a modification being applied for from LAA Engineering and the alternative parts only fitted if the modification has been approved for use on this individual aircraft by LAA HQ. Just because one YAK-52 might be seen with a particular 'mod' in place doesn't mean that others can automatically assume this is an approved alternative and follow suit. For full details of the LAA procedures for mods and repairs, mod application forms etc, refer to ['mods and repairs'](#) section of the LAA website - or call LAA HQ.

Due to the additional complexities associated with the YAK-52, YAK-52 aircraft maintenance (including transfers) may be dealt with only by inspectors with a specific approval to inspect this type. The LAA website provides a list of LAA inspectors approved for inspection of YAK-52 aircraft, in the permit renewal section.

3.2 Manufacturer's/Standard Options

The aircraft is fitted as standard with a Vedeneyev M-14P 360hp single-stage supercharged 9-cylinder radial engine and Vpered V530TA-D35 2-blade constant speed paddle propeller. A number of aircraft have been retrofitted with the M-14PF 400hp engine using an uprated supercharger, usually in conjunction with a 3-blade MT or Hoffman constant speed propeller.

Additional wing fuel tank capacity can also be installed to extend the aircraft's range.



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The CAA have approved numerous modifications that individual aircraft transitioning to the LAA will retain under 'grandfathering rights', without requiring LAA equivalent modification approval.

3.3 Manufacturer's Information (including Service Bulletins, Service Letters, etc)

Manufacturer's information takes the form of Service Bulletins originally published by Yakovlev Design Bureau and other European CAAs. In the absence of any over-riding LAA classification, inspections and modifications published in the SBs should be satisfied according to the recommendations therein. It is the owner's responsibility to be aware of and supply such information to their Inspector. The indicated compliance level shown below is as recommended by Yakovlev Design Bureau.

The LAA considers it mandatory that owners and maintainers have access to and review YAK-52 SBs. Regarding compliance, SBs not mandated by ADs are advisory in strictly legal terms; however, owners, who are ultimately responsible for deciding whether to implement an SB, should note that their duty of care might well be tested if they elected to ignore such advice and this were to result in an accident or injury.

Aircraft Service Bulletins

Page 212 in the (Russian) airframe log book shows SB compliance.

Aircraft from batch 113+ (inclusive) should have these SBs implemented at manufacture.

Those marked * are mandatory

Those marked ** are legally mandatory by MPD

Those marked *** are mandatory for an Aerostar SA 5000 hour life time (reference)

<i>Service Bulletin Number</i>	<i>Ref</i>	<i>Description</i>	<i>Applicable to the following series:</i>
152.0.0001.1	1 DK	Assurance of bonding of the elevator and the engine lower cowling	780102-790404
152.0.0002.1	2 DK *	Replacing the oil tank with sump of soldered design by oil tanks with sump of welded design	780102-790406
152.0.0009.2	3 DK	A. Enhancing the reliability of the carburettor heat intake pipe 526803-00 B. Reinforcing the mixture heat control handle 527001-80780102	780102-811215
152.2.0.0010.2	4 DK	Improving the effectiveness of the AK-50T compressor cooling	780102-800815
NOT APPROVED	5 DK	Replacing the engine control lever with KNR pushbuttons by engine control lever with PK-2E-2T pushbuttons	NOT APPROVED
152.1.0.003.1	6 DK	Replacing the PK-45 starting solenoid with a KP-4716 starting solenoid	780102-800605
152.1.0.004.1	7 DK	Removing the PPNG-15K (E 19) switch "FRONT COCKPIT GENERATOR - OFF - REAR COCKPIT"	780102-800815



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152.2.0.006.2	8 R	Replacing the control bolt 3059A-5-40 and control bushing 1363950-5-7-8 for fastening the braking lever 525103-01 onto the sleeves of nuts 525103-00 and 525104-00 by the control bolt 3059A-6-40 and bushing 525100-92	780102-801103
152.2.0.0011.2	9 DK ***	Strengthening of the fin skin	780102-811212, excl. 790204; 790205; 790301; 790309 and 800909
152.2.0.0012.2	10 DK *	Improving the effectiveness of the engine cooling	780102-800815
152.1.0.005.2	11 E	Operating parameters for fuel tanks	800802-801006, incl. 800708
152.3.0.0015.2	12 R	Improving the operating capability and the reliability of the pneumatic system	780102-800815
152.5.0.0020.2	13 BD	Modifying the ventilating and air charging device of the pneumatic system	780102-844415
152.2.0.0007.4	14 BK	Advisory bulletin referring to the modifications implemented in serial production	790405-811515
152.2.0.0008.4	15 E	Operating parameters of propeller	780102-790105
CANCELLED	16 DK	Replacing the 506500-10 bracket by the 526100-10 bracket	CANCELLED
152.2.0.0013.3	17 DK	Replacing the over-voltage protection circuit breaker AZP-1MB by circuit breaker AZP-A27	80102-811707
152.3.0.0016.1	18 DA ***	Replacing the bolts used for fastening the elevator balance weight by rivets	780102-822501
152.4.2.0019.2	19 R	Replacing the storage battery type "VARLEY" by a storage battery type 12ASAM-23	780102-822714
NOT APPROVED	20 DK	Strengthening the fitting 52683-62	NOT APPROVED
152.2.0.0014.4	21 E	Operating parameters of the engine mount ring	780102-821915
CANCELLED	22 DK	Advisory bulletin concerning the modifications adopted in the serial production	CANCELLED
152.3.3.0017.4	23 E	Defining the operating life for the airspeed indicator US-450 and the pressure transducer P-1 B	822301-822307
CANCELLED	24 DK	Installing the critical angle warning device SSKUA-1 on the airplane	CANCELLED
152.3.0.0018.4	25 E	Defining the oil thinning table and the diameter of the fuel to oil intake nozzle	780102-822615
CANCELLED	26 DA	Modifying the overload limit thresholds for the altimeters AM-9S	CANCELLED



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CANCELLED	27 DK	Securing the vent valve of the "VARLEY" accumulator connector	CANCELLED
152.5.0.0021.2	28 DA ***	A. Modifying the attachment of the elevator balance weight B. Replacing the fin reinforcement tapes	Spare parts kits 8010001-8203024
		C. Strengthening the fin reinforcement tapes	Spare parts kits 8010001-8310048
		D. Defining the bulletin 152.3.0.0016.1 (18 DA)	780102-822115
152.5.0.0025.4	29 BE	Advisory bulletin concerning the changes to spar & wing attachments in serial production	780102-844415
152.5.0.0022.2	30 BD	New propeller governor control lever 526500-36	780102-844415
CANCELLED	31 DK	Replacing the fuel system draining pipe	CANCELLED
152.5.0.0023.3	32 BU	Replacing the switch panel bus bar 527202-50-9	780102-833715
NOT APPROVED	33 DK	Advisory bulletin concerning the punch lock of the bolt attaching the middle seat belt to the fuselage	NOT APPROVED
152.5.0.0024.2	34 BD	Replacing the fuel pump intake nipple 526100-02	780102-844915
CANCELLED	35 DK	Replacing the pilots' seat belts	CANCELLED
152.5.0.0026.2	36 BD	Replacing the bracket 526500-10 on the R-2 propeller governor control system	780102-855707
152.5.0.0027.2	37 BD *	Replacing aileron mounting brackets 522007-10-1/2. Superseded by 75 BU	780102-855615
152.5.0.0028.2	38 R	Modifying the overload limit thresholds for the altimeters AM-9S	780102-855815
152.5.3.0042.2	39 DK	Replacing the trim tab wheels 525400-50 in the front and rear cockpits	780102-844915
152.5.3.0029.2	40 DK	New markings for the PVD (pitot) pipes	780102-855315
152.7.0.0039.3	41 R	Removal of the AD-50 pressure switch and redesign of pneumatic system on frame 0	780102-855215 excl. 833710 and 845001
152.6.2.0030.2	42 DK	Enhanced the electric wiring protection near AZRGK-10 switch, frame 2, right side	780102-855607
CANCELLED	43 DM	New design of the shock-absorber from the PVD system	CANCELLED
152.6.0.0034.2	44 R	Replacing the rudder trim tab	780102-856105 excl. 856001
152.6.0.0031.2	45 DK	Modifying the compressor cooling pipe fitting 526802-10 and mounting the collar 526802-17	780102-855815
CANCELLED	46 DK	Replacing the compressor outlet pipe	CANCELLED



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152.6.0.0032.2	47 R	Replacing the collar 526200-30 for fastening the separator tank in the oil system	780102-855815
152.6.0.0033.2	48 R	Improving the carburettor air filter box design	780102-855915
152.7.0.0040.3	49 R	Mounting the fuel tank on three brackets	780102-856215
CANCELLED	50 DK	Removing the screen of the wire connecting the adaptor ARK-15M to the pole antenna filter	CANCELLED
NOT APPROVED	51 DK	Thermal insulation of the storage battery compartment	NOT APPROVED
152.6.2.0035.2	52 R	Replacing the front and rear elevator trim tab operating wheels 525400-50	780102-822714
152.9.0.0072.3	53 BU *	A. Replacing the existing control sticks by control sticks of new design	80102-8910115
		B. Replacing the rear bearing 525101-50	780102-866415
52.7.0.0045.3	54 R	Advisory bulletin concerning the changes adopted in the serial production:	780102-856415
		A. Introduction of control locking washers B. Installing special washers 525900-38-1/2 and 525900-39-1/2	excl. 856001 866501-888615 incl. 856001
152.7.0.0049.3	55 U	Replacing the wires of the cylinder temperature transducers P1 and DTE-6T by wire type BPGRL	780102-867315
152.6.0.0036.4	56 E	Defining the "Servicing instructions"	780102-866415
152.7.0.0050.2	57 DK	A. Replacing the exhaust manifold 526801-00 and the air heater 527601-00	780102-855115
		B. Replacing the air heater 527601-00 and fittings 526801-270 and 526801-190	855201-866515
		C. Replacing the fittings 526801-270 and 526801-190	866601-867315
152.8.0.0059.2	58 BD *	Additional stiffening of the throttle and propeller pitch lever fasteners:	780102-866415
		A. Mounting the fastener at frame C4 B. Mounting the fastener between frames C1 and C2	780102-877715
152.6.0.0037.2	59 R **	Strengthening of the wing attachment fittings CAA MPD 1998-017 R5	780102-866415
152.6.0.0038.2	60 R **	Replacing the fuselage main spar CAA MPD 1998-017 R5	780102-866415
NOT APPROVED	61 DK	Replacing the material for the undercarriage up-lock balls	NOT APPROVED
152.7.0.0043.2	62 DK ***	Improving the security of the aileron balance weight (aileron screws)	856001-866915
NOT APPROVED	63 DK	Replacing the ailerons	NOT APPROVED
CANCELLED	64 DA	Inspection of the material for the control sticks pivots	CANCELLED



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NOT APPROVED	65 DK	Checking the wing-to-fuselage joint at frames C3 and C8	NOT APPROVED
152.7.0.0044.3	66 R ***	Replacing the joining bolts at frames C3 and C8 (8.5mm spar bolts), additional info in 88 BD	780102-866515
152.7.0.0046.3	67 R	Fastening the fittings of the hot air intake filter box by a clamp to the right-hand exhaust stub	780102-866915
152.7.0.0041.2	68 BD	Securing the knob for adjusting the rudder pedal travel	780102-866115
152.7.0.0047.3	69 BU	Strengthening the supports for fastening the inverter PT-200T	780102-877615
152.8.0.0060.3	70 BU ***	Improving the fastening of the rudder balance weight	780102-877615
152.7.0.0048.3	71 BD *	Replacing the oil separator tank 526202-00	780102-877615
152.7.0.0051.2	72 BD	Checking the rotating assembly of the flap control system	780102-867315
152.7.0.0052.4	73 BE	Modifying the "Servicing regulations" as a result of the Bulletin 72 BD becoming effective	780102-867315
152.7.0.0054.3	74 BU *	Mounting the propeller pitch and throttle quadrants limiters	780102-834015
152.8.0.0061.3	75 BU ***	Replacing the bracket 522007-10-1/2 for hanging the aileron on rib 7 and stiffening of the rib 7 tip wall. Supersedes 37 BD	780102-877515
152.7.0.0055.2	76 BD *	Replacing the ball joint body from the power plant control system (throttle cable rod ends)	780102-877503
152.8.0.0056.2	78 BD	Replacing the oil sump filter assembly	780102-888715
152.8.0.0057.4	79 BE	Modifying the documentation accompanying YAK-52 aircraft	780102-877301
152.8.0.0065.2	80 BD *	Additional information to bulletin 59R (strengthen right wing rear web at ribs 2 & 2A)	780102-888515
152.9.0.0084.2	81 BD	Strengthening the front cockpit compass and G-meter supports	780102-8910015
152.8.0.0058.2	82 BD	Replacing the bracket for fastening the rudder hinge to the fuselage	780102-899015
152.8.0.0067.2	83 BD	Stiffening the rib of the elevator trailing edge	780102-888915
152.9.2.0073.2	84 BD	Protection housing for the R-27 voltage regulator	780102-889009 excl. 888615
152.8.0.0062.3	85 BU	Mounting the flaps control seals	780102-888713 excl. 878415
152.8.0.0063.4	86 BE	Modifying the "Servicing instructions"	780102-888615
152.8.0.0068.2	87 BD *	Additional information to the bulletin 59R (reinforce rear spar, plate and oversize)	780102-866415



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152.8.0.0064.2	88 BD ***	Replacing the joint bolts at frames 3 and 8. Additional information to bulletin 66R	780102-888915
152.9.0.0069.2	89 BD *	Fuselage – strengthening of the spar (plate on main spar at brake rod hole)	780102-889115
152.9.3.0078.2	90 BD	Removal of GA-6 and AGI-1 from both cockpits when performing high energy aerobatic flights	780102-889015
152.9.0.0079.4	91 BE	Modifying the technical documentation as a result of applying bulletin 90BD	780102-889015
152.9.0.0070.2	92 BD	Strengthening the aileron rib no. 1	780102-889215
152.9.0.0071.2	93 BD ***	A. Modifying the elevator balance weight	780102-878315
		B. Mounting the rudder support bolts	780102-889115
		C. Strengthening the fin rib no. 3	780102-899015
152.9.0.0077.2	94 BU *	Removing pneumatic system water vapour freezing risk (Ø0.5mm restrictors relocated to rear gear selector valve and made Ø1.2mm)	780102-889009
152.9.0.0080.4	95 BE *	Modifying the technical documentation due to entering into force bulletin 94 BD	780102-889009
152.8.0.0064.4	96 BE	Increasing time before first overhaul to 600 hours	780102-889303
152.0.0.0089.2	97 BU **	Modified seat belt system with pin lock CAA MPD 1997-020R1	844701-9010815
152.0.0.0090.2	98 BE **	Modifying the technical documentation due to entering into force bulletin 97 BU	844701-901815
152.9.0.0083.2	99 BD	Strengthening the ventilating tubes of the generator and compressor	780102-899915
152.9.0.0074.2	100 BD	Securing the nuts for fastening the circuit breaker AZP-A2	780102-899515
152.9.2.0081.2	101 BD	Strengthening the support for fastening the circuit breaker AZP-A2	780102-899515
152.9.0.0075.4	102 BE	Defining the "Servicing instructions" for mounting the nose wheel	780102-899415
152.1.0.0095.2	103 BD	Separate draining of the fuel tanks	780102-899715
152.1.0.0096.4	104 BE	Modifying the technical documentation due to entering into force bulletin 103 BD	780102-899715
152.9.0.0076.4	105 BE *	Modifying the "Servicing regulation" paragraphs concerning the routing of the control system cables and tensions	780102-899615
152.9.0.0082.2	106 BD	Machining of the air heater valve	780102-899815
152.1.0.0094.2	107 BD **	Mounting a strengthening strap for the wing spar (high carbon steel spar strap) CAA MPD 1998-017 R5	780102-9111215
152.0.0.0088.2	108 BD	Modifying the gear actuator ball locks	780102-888409
152.0.0.0086.4	109 BE	Increasing the undercarriage operating life from 5000 to 6000 landings	780102-899815



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152.0.0.0086.4	110 BE	Modifying the "Servicing regulations" and the "Servicing instructions"	780102-899815
152.0.0.0091.4	111 BD	Strengthening of frame 0	780102-9010615
152.0.0.0087.2	112 BD	Modifying the passage of the control rods through the firewall and the engine baffles	780102-9010615
152.0.0.0092.2	113 BD	A. Replacing any worn-out guide rails of the sliding canopies	780102-9010915 <i>excl. 9010905</i>
		B. Mounting the rubber gaskets on the right-hand sliding canopy	
152.0.0.0093.2	114 BE	Modifying the technical documentation due to entering into force bulletin 113 BD	780102-9010915 <i>excl. 9010905</i>
152.0.0.0094.2	115 BE	Increasing the undercarriage service life to 7000 landings	<i>From 866501</i>
	<i>116 BE</i>	<i>Increase service life to 20 years for DOSAAF operated aircraft</i>	

Bulletin Nomenclature:

BA/DA: correct design and/or production flaws which caused interruption of the type's service

BD/DK: correct design and/or production flaws which did not cause interruption of the type's service

BU/U: improve the design, enhance reliability and/or increase lifetimes

BE/E: changes in operation documents such as lifetimes, TBOs, calendars, etc

BR/R: changes in overhaul/repair documents

3.4 Special Inspection Points

Signs of Overstress: Aerobatic aircraft operate under high-stress levels and therefore pre and post-flight walk-round inspections are important. Any evidence of control fabric damage, oil leaks, or airframe movement of any sort should be carefully investigated. Damage is easier to spot on aircraft which are kept clean.

Cockpit FOD: Owners should also consider the general implications of cockpit safety applicable to an aerobatic aeroplane. There have been several fatal YAK-52 incidents attributed to cockpit FOD. While precautionary fabric barriers have been installed at strategic locations in the fuselage to help mitigate such events, there is no substitute for a thorough cockpit and internal fuselage pre-flight inspection by the pilot.

3.5 Operational Issues

The requirement to take the 'draggy' YAK-52 airframe to its Vne speed of 420 km/h may involve considerable height consumption, in the order of 3,500 feet. Therefore surrounding airspace and topology limitations should be carefully considered prior to execution.

3.6 Standard Modifications

None

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Please report any errors or omissions to LAA Engineering: engineering@laa.uk.com