

Deliveries have commenced of our in-house built Europa Tri-gear trailers. The trailers have been improved in many areas of detail from the original. The trailer complies fully with all the legal requirements such as maximum width for a normal road car (no large 4 wheel drive vehicle necessary) and lighting. The wheel ramps pivot down to make running the aircraft on and off easy. A winch is now standard equipment. As the aircraft moves up the ramps, they automatically teeter such that the fuselage sits tail down. This brings the fin tip down to the same height as the propeller tips (when set at a 'Y' position) resulting in a maximum height of 1.96m (77" – 6ft 5").

Fully galvanised and equipped with tie down attachments, spare wheel, winch and retractable jockey wheel, the trailer's price is £3450.00.

Monowheel Europa trailers are also now in production. Price to be advised.

FACTORY TECH TALK

MODIFICATIONS AND SERVICE BULLETINS

Mandatory mods

The latest mandatory mod remains at Mod 70 – replacement of the tailplane mass balance arm.

Since the initial issue of this modification, experience in the field has, in some cases, resulted in the requirement for the retention of the original sideways support cables to position the mass balance arm's weights such that they run centrally between the sides of the slot in the control stop support structure. The cables proved, during static load testing, not to provide sufficient sideways support to comply with the requirements of JAR VLA, so the low friction guide strips are to be retained even when cables are used.

A new component, with which to facilitate cable attachment to the mass balance arm, replaces the spacer that goes behind the weights. It is basically a spacer that has lugs welded to it. The lugs' holes are positioned to be about in the same place as they were on the original mass balance arm to enable the original cables to be used. The design was made assuming that the cable is attached to the lugs using a shackle and pin (AN115-21 / SP4Y-B3) or, if a turnbuckle has been used, one end is attached directly to the lug. The cable-attaching lug/spacer assembly, part number TP18F, will be supplied on request and costs £15.00.

SERVICE BULLETINS

Service Bulletin 12

Back in March 2004, SB12 was issued which details a potential problem with the exhaust system that is fitted to the Rotax 912 / 912S engine (XS installation). Since the SB was issued, there have been few requests for the fix and so it was felt necessary to bring attention to it again.

Exhaust systems supplied between May 2002 and May 2003 may be affected and it is important that an inspection is made of the system a) to check whether or not it is subject to SB 12 and b) to carry out the necessary work to ensure continued safe operation of the aircraft.

SB 12 can be accessed via the factory web site, europa-aircraft.biz or a copy will be sent on request.

In summary, if you find that your exhaust system is affected and SB 12 is not complied with, there is the potential that an internal baffle may break loose and subsequently block the exhaust outlet and cause engine stoppage. The fix is straightforward; a perforated tube is inserted into the outlet (having first removed the tail pipe) until it contacts the baffle. This ensures that, even should the baffle become detached from its inside attachments, it cannot move to block the outlet. Please contact the factory if you discover that your system is affected.

BUILD MATTERS

Fuel filler hose – Europa Classic

The tooling used to make the rubber fuel filler hose, used in the Europa Classic, has been destroyed by the manufacturer, we recently discovered. It will be uneconomical to replace the tooling (several hundred pounds Sterling) and not helped by the fact that the price per hose would also be well over £100.

An alternative is to fit the XS type fuel filler assembly. The XS fuel filler cap is mounted on the starboard side of the fuselage, leading into a rigid moulded plastic filler tube before being connected to the fuel tank by a rubber elbow. This version of fuel filler system is used when fitting the extended baggage bay to the Classic. The centrally mounted Classic fuel filler hose would otherwise obstruct access to the baggage area.

Finger brakes – fluid type alternative update

Progress has been slow on finding the necessary seals for the twin master cylinders used in the Tri-gear finger brakes to enable the use of aircraft grade hydraulic fluid. We do have a new lead on the potential source for the seals, so we will persevere a little longer.

OPERATING ISSUES

Tri-gear finger brakes

Inside each master cylinder, situated between the piston and the first lip seal, is a plastic washer. This plastic washer has been the cause of problems such as sticking pistons with these master cylinders due to their being slightly too large in diameter.

Lately, it has also been noticed that the thickness of these washers is variable from unit to unit and even between cylinders of the same unit. If the washer is too thick, it can result in the lip seal not uncovering the small hole that links the cylinder to the reservoir supply when the brake is released. The solution is to either reduce this washer's thickness or to fit a spacer between the cylinder end nut to allow the piston to move further down the cylinder.

Manifold pressure gauges

Where a variable pitch or constant speed propeller is fitted, the use of engine rpm alone will not provide the information required by the pilot to know what power setting is being used. The other piece of information is the manifold pressure. Using the engine-operating manual (there is a table in the Rotax engine operator's handbook – see section 10) you will be able to see what your power setting is. In the UK, it is a mandatory requirement to fit a manifold pressure gauge but it should be considered as a necessary piece of equipment on all VP or CS propeller fitted Europas.

Manifold pressure gauges of 2¼" diameter are a stock item at the factory; 10 – 35" Hg for the 912/912S engines and 10 – 50" Hg for the 914 engine. The necessary plumbing and fittings are also available.

ROTAX ENGINES

Due to the large and growing number of Rotax engine owners and operators in the Europa community and the difficulties in keeping records when engines change hands, the issue of Rotax bulletins to individuals from the factory is no longer viable. All relevant information is available on the internet and may be accessed via the Rotax web site (rotax-aircraft-engines.com). You can type in your engine serial number and a list of all the relevant documents will be listed. Note that often a reference will be made to a bulletin with a 'UL' designation in the bulletin number (eg. SB-912-029UL). This bulletin will list engine serial numbers affected, but not contain the full information. You will find the full details in the bulletin that doesn't have the 'UL' designation (eg. SB-912-029).

AIRMASTER PROPELLERS

AC200 noise problem

The Airmaster propellers, using the Warp Drive blades, have proved to be a very effective enhancement to the Europa's performance and economy. There is a problem, though, that has been around for a while in that the AC200 controller can emit an annoying EMI (electromagnetic interference) pulse at a frequency of 1 per second. In G-GBXS, this pulse is usually only heard when tuned to radio frequencies below about 125.30MHz.

There is a fix for this type of noise, in the form of an upgrade to the firmware inside the controller. This upgrade is installed by computer, using a programme supplied by Airmaster, via a special lead that connects into the back of the controller.

Another type of EMI sometimes heard in the headsets is generated when the pitch control motor operates. In steady cruise this is not a problem, of course, but when changing power settings or the aircraft's speed, this noise can be irritating, especially as it can be quite loud.

It should be emphasized that none of this interference can be heard if the radio is switched off.

Airmaster has been working on a solution to this problem for a while and has made some progress. They will be testing an updated controller and, if successful and after a reasonable trial period has elapsed, an upgrade will be made available. If you suffer from EMI and haven't already contacted Airmaster, please do so. This will help them anticipate the demand for upgrades.