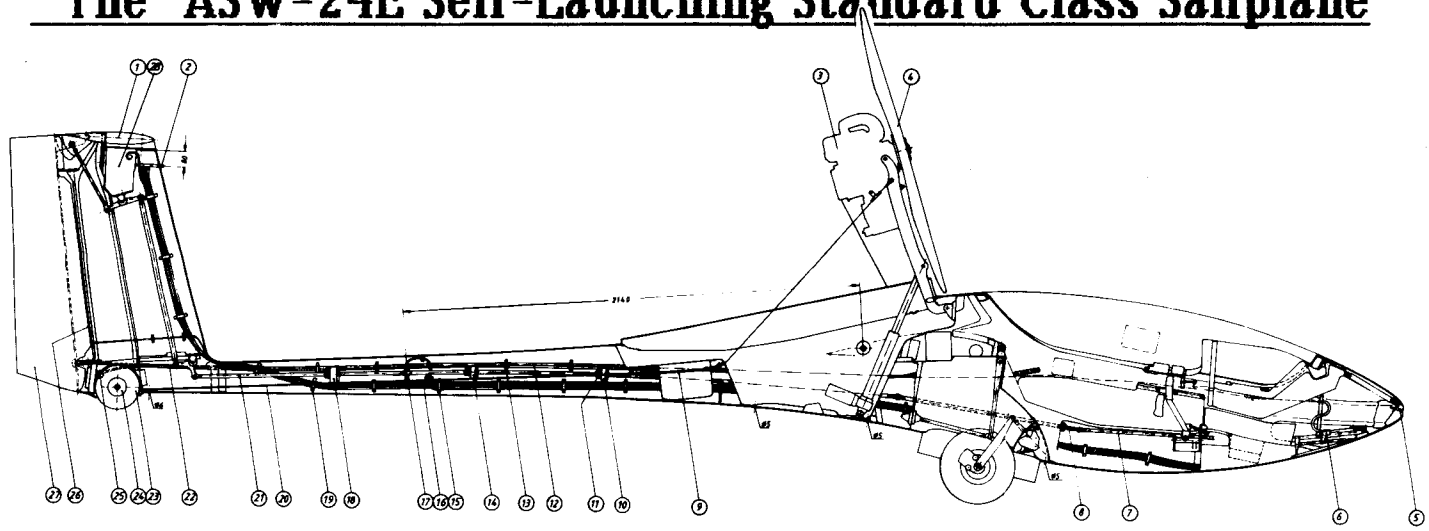
The ASW-24E Self-Launching Standard Class Sailplane



Seen above is the factory engineering schematic of the ASW-24E. The engine is Rotax Model Type 275 producing 24hp under standard conditions. At 815# weight a takeoff run of 656' clears a 50' obstacle at 1,312' with a climb rate of 452 fpm..standard conditions per handbook.. Starting is by a pull cable located on the right side of cockpit. No alternator or generator. Max L/D 43:1. Empty Weight-606#. Gross Weight-1,102 @ 10.24 lb/sq.ft. wing loading.

Self-Launching Sailplane Pilot's Assn.

N E W S L E T T E R

MAY - JUNE 1992

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IMPORTANT!!! If this newsletter has a red mark on the label, it is your LAST one! Please renew your membership. $20 US//$25 International

SELF-LAUNCHING FATALITY....

On April 25, 1992 Bobby Bridges lost his life during a self-launch in a DG-600M. According to the newpaper report of The Atlanta Journal "Bridges, 53, died Wednesday in a crash of DG-600 motorglider at a private airstrip in his back yard"

Bobby had previously flown the 600M twice, this being the #2 launch from his 2,700' grass strip at Noonan, GA. Cause at this time is unknown to SLSPA. It has been reported to SLSPA that the 600 was in a right hand turn at low altitude near some trees. The engine was reported to be running at full throttle at the time of impact. Stall/Spin is suspected. Wind and convective conditions unknown to SLSPA. Bob was a 34-year employee with Delta Airlines flying Boeing 757 and 767 domestic routes, according to The Atlanta Journal.. We all mourn this loss along with his wife, Nancy, son, Mark and daughter Allison.

Some Safety Considerations for Self-Launching>>>>>>>>>

1. Climb rate is as important as takeoff run.
2. There may be sinking air in the lee of obstacles ahead.
3. Engine output is less in higher temperatures.
4. Handbook recommended climb IAS is always higher than Minimum Sink Speed.
5. The "Launch Envelope" is narrow in a self-launching sailplane and all variables should be considered such as altitude, temp., launch surface, wind, convection, runway gradient & obstacles.

SELF-LAUNCHING CHECK LIST////////

1. WING LOADING; Climb rate is affected as is takeoff run. Expect at least 25-30% longer takeoff run with a high wing loading and 15-20% degradement of climb rate.

2. DENSITY ALTITUDE; High density altitude reduces engine power output and climb rate and increases ground roll.

3. RUNWAY SURFACE; A concrete (hard surface) runway can reduce takeoff run by as much as 10%.

4. WINDS; A 5kt headwind can shorten takeoff run by 20% A tailwind of 5 kts can lengthen takeoff distance by 35%.

5. CONVECTIVE FORCES; Climb rate can be reduced drastically by sink, resulting in a descent in extreme cases. If possible, launch without any vertical abstacles ahead.

6. AIRSPEED CONTROL; Maintain factory recommeded climb IAS to retain best climb rate. Bleeding off airspeed reduces climb rate.

STUDY AND KNOW YOUR SHIP'S LIMITATIONS FOR SELF-LAUNCH.
ASSURE YOUR ENGINE IS OPERATING AT ITS PROPER RPM.
ESTABLISH A GO-NO GO RUNWAY DECISION POINT.
DO NOT ASSUME THAT IF THE GUY IN FRONT OF YOU GOT OFF O.K. THAT YOU WILL. IF IN DOUBT....TAKE A TOW!!!

FOR SALE...

DG-400: Single owner, TTAF 240hrs; TTE 30 hrs. Cambridge M-Nav; Dittel 60M; Aerograf Baro; Tinted Canopy; Cobra Trailer....$65,000.

DG-400: Low time; most options; Cambridge S-Nav 3.5; Dittle 50 radio; Minden-fab one-man rigging trailer; All service work by Glaser-Dirks USA... $65,000

Contact: Glaser-Dirks USA 707-942-5727
FAX: 707-942-0885

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Ventus Ct: 1987; TTAF 385 hrs; TTE 16; 16.6 tips; Dittel 70M; Cambridge CAV-II; Cobra Trlr with 1-man rigging; 22ft 02; this ship has all options ; ailerons/flaps are sealed. It has always been hangared and is in mint shape. Call Paul Stone at 414-336-1396. Will carry 50% with appropriate guarantees.

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WANTED:

Grob 109 or fixed tractor engine motorglider in $25,000 price range. Call C.J. Everhardt at 504-456-0155

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MOTORGLIDER CHECKOUT:

Bill Eckert is a CFIG who owns and flys a Vivat side-by-side motorglider which he purchased new in 1991. He is setting up a commercial operation in Rutland, VT and is interested in checking out new MG pilots per FAA AC 61-94. Interested persons can contact him at 802-226-7450.

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A REPORT FROM SOUTH AFRICA.....

This is a condensation of a letter from Peter How Director of Performance Aviation located at Halfway House, South Africa. Peter is a DG Dealer for this area and flys a DG-400 + the new GROB SL.

1. Magellan GPS used with success in soaring. Cost: $1,200 US.

2. Terra Transponder antenna mounted forward of rudder pedals. Antenna seems to be masked at 10 degree angle dead behind, otherwise ok. Some spurious response when engine running. Seems to have solved by screening ignition cables with brade from RG213 antenna cable. Reports drain of 450ma with encoder on the line. Said Becker Transponder was 3 times higher.

3. Warns prop position sensor must place prop not absolutely vertical, otherwise damage from bolts on rear propeller door cover...nicks props trailing edge. Check it out on your ship.

4. Reports ignition box failure at only 15 hours engine time. Rotax should be advised of all such failure using a Failure/Defect report form. Improvements have been made in this item according to Rotax. Decapsulation is difficult.

5. Erroneous Fuel Readings; Located in non-soldered part in DEI. Peter How has DEI Circuit Diagram if any pilot needs one.

6. On visit to DG Factory, Peter made a request to Dirks to improve the VHF antenna wiring to minimize directional lobing of the antenna. According to Peter, if Glaser-Dirks uses the proper diapole such as Dittel does in their radio, the performance of the antenna will be greatly enhanced especially in the areas of electrical disturbance such as thunderstorms.

7. Gel Coat Cracks near Dive Brake edges; Peter advised by Dirks no problem as they are only in the gel coat, not in the structure.

More Info? Peter How
P.O. Box 232, Halfway House
1685, South Africa
011 802 1283

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PIK-20E/30 AD.....

Rotax, Replacement of Piston Pin Bearings. Applies to Rotax 501 and 505 engine serial numbers up to 3,332,827.
Effective date: 15 Dec 1991
Action: Replace piston pin bearings with a new design P/N 832320 within 100 hours of operation in accordance with Rotax Service Bulletin 505-05. If the temperature limits of the engine have been exceeded, replace bearings within 3 hours of operation. SLSPA has copies of Bulletin 505-05. Send SASE with $1 postage.

This issued from Civil Aviation Admin, PL 50, SF-01531, Vantaa, FINLAND.

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CALENDAR/////////

June 16-25 15M NATS-Minden

June 17-24 Records Camp-Tonopah

June 30-July 9 Sports NATS-Ephrata

July 5-20 European Intl. MG Championships- Rieti, ITALY

July 7-16 Open NATS-Hobbs

July 19-Aug 1 High Country Soaring SAFARI- Minden

July 21-30 Std and Aux Pwrd NATS-Littlefield/TX

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John Walklings Self-Launching Windrose/////
As taken from The Windrose Newsletter
Feb.Mar92

Dec 11th 1991: Inspected by FAA
Jan 19th. 1992: First flight which included 2 runway runs and a tow. During first engine runup could not move in soft dirt. Moved to runway for a run without lift off. Next runway run, lifted off 2-4 ft and reduced power to land and stop. A tow then taken to 3,000' where John stalled the ship at 50 mph. Engine then started and climb established at 500 fpm. The Kawasaki 440 engine was overspeeding at 7,000 rpm so John goes to idle and makes a landing pattern. On base leg, the engine is cut. Landing uneventful after heavy spoiler usage to get the bird down. John reports the ship was nose heavy; ailerons fairly stiff at flight loads; rudder fine. Anyone working on a Windrose, please contact him at:

John Walkling
8912 Shoreham Cir.
Knox, TN 37922
615-693-5567

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COCKPIT CLEANING IDEA....
Cleaning interior recesses under control stick, seat pan, engine bay and towhook can be difficult. Steve Wood has come up with a neat idea using a leaf blower. Be careful to not "blast" sensitive areas. You will be surprised at the amount of dirt and debris. Cover greased parts to avoid a coat of dust. Set blower to "sub-sonic".

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DG-600M EXHAUST MANIFOLD CRACKS/////

Steele Lipe reports the exhaust manifold was found cracked after 8 hrs engine time. Fractures were found at the bottom of the front weld and bottom of the rear weld of the exhaust pipe to the muffler body on the left side. He repaired using a doubler plate welded alongside the exhaust tube in proximity to the muffler body. Fore and aft gussets were then welded to the muffler body and another plate welded across the bottom from the muffler body to the doubling plate and the exhaust tube. He also removed the springs and replaced them with spacer tubes fixed in place with high tensile bolts. The result is a very rigid system except the exhaust tube is still free to vibrate using the original spring mounts. Steele has advised Glaser-Dirks of this "fix". More Info?

Steele Lipe
916-863-6576

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HAVE YOU CHANGED YOUR SPARK PLUGS THIS YEAR? WHAT DID THE OLD PLUGS LOOK LIKE?

FUEL AND OIL.... ISSUES AND ANSWERS

This account comes from SLSPA's visit at a Rotax Engine Seminar and from Jerry Kaufman who has done research on fuels and oils for the Solo engine. SLSPA makes no representations or claims that the following data nullifys or supercedes the info contained in the aircraft manuals. Check with your engine and airframe firms. A letter to Rotax has been submitted by SLSPA for factory clarification.

Rotax Seminar; This one-day seminar covered ultra-light Rotax engines which are essentially the same type of engine used in production sailplanes.

1. Approximately 2 weeks after mixing fuel and oil the octane rating of the fuel begins to degrade. Mix for immediate use and in smaller quantity.
2. Methanol and ethonol are not desirable in fuel. Alcohol up to 9% is ok but attracts moisture and can be bad on bearings.
3. LL100 not recommended. May produce sticking rings and white lead deposits on plugs. 50/50 mixture of LL100 and super unleaded 93 Oct auto gas is acceptable.
4. No paper filters in fuel system.
5. A richer oil mixture may produce carbon deposits.
6. Recommended Oils in order of preference;

Petroleum-based;
Pennzoil for 2-cycle aircooled engines
Blizzard (Rotax product)
Advantages: Mixes well. Coats all surfaces.

Petroleum and Synthetic Mixes;
AV-2 (40/50 ratio)

Synthetics;
AMSOIL
Yamalube R
Disadvantages; Low adhesion.
Advantages; Good for high temp.

SOLO ENGINES;

Per Shempp-Hirth; 30:1 mixing ratio. recommends SOLO 2-cycle oil. Referred Kaufman to SOLO's US Distributor.

Per SOLO US Dist.; Use SOLO 2-cycle Oil or if unavail. use Husqvarna, Toro or Stihl.. Choose a chainsaw oil over any other. Do not use outboard engine oil, snowmobile oil. 40:1 mixing ratio. SOLO oil is petroleum based. Synthetics not recommended.

FUEL; Super Unleaded 93 Octane. Buy from major oil co. not a discounter. No alcohol. 50/50 LL100+unleaded super ok Do not use fuel mixed for over 2 weeks.

Jerry Kaufman uses Bel-Ray H1R at 30:1 with 50/50 mix of LL100 and super unleaded mo-gas.

Look at your plugs. The ceramic insulator should have a light black oily film on it. A white plug indicates too little oil. With too much oil, carbon desposits can build up. To test, run engine at full power and shut down. Remove and inspect plugs. More info? Jerry Kaufman-303-482-9838. More to follow in next issue.