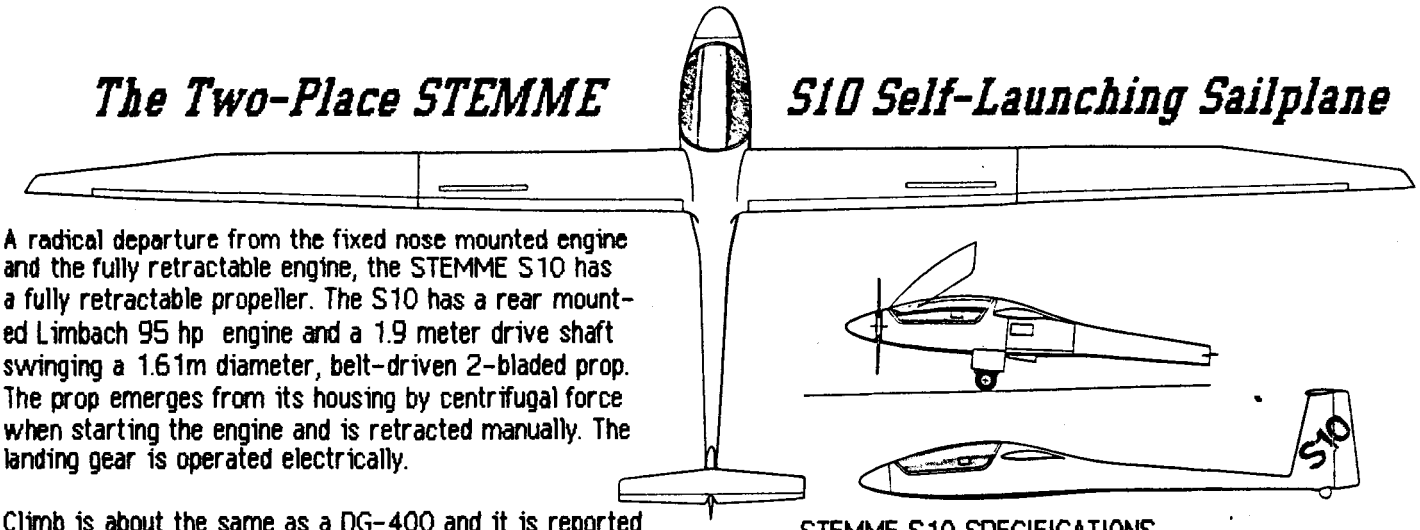
The Two-Place STEMME S10 Self-Launching Sailplane



A radical departure from the fixed nose mounted engine and the fully retractable engine, the STEMME S10 has a fully retractable propeller. The S10 has a rear mounted Limbach 95 hp engine and a 1.9 meter drive shaft swinging a 1.61m diameter, belt-driven 2-bladed prop. The prop emerges from its housing by centrifugal force when starting the engine and is retracted manually. The landing gear is operated electrically.

Climb is about the same as a DG-400 and it is reported to have a 2,000km cruise range. Price is in the 180,000dm range. The S10 meets the requirements of JAR-22. Wings are carbon fibre composites and fuselage is a hybrid construction of carbon and "Kevlar" covering a high tensile steel tube frame. More info: Stemme GmbH Flughafen-Lilienthaplatz, D3300 Braunschweig, Germany

STEMME S10 SPECIFICATIONS.....

Span.....23m	Fuse Length.....8.42 m
Cockpit width...1.16m	L/D@57kts.....50:1
Empty Weight....1,400#	Max. Weight.....1874#
Max. Wing Load.38 kg/m2	Stall speed.....40kts.
VNE speed.....145 Kts.	Climb Rate@SL.....600fpm
T.O. Distance.....1000ft.	Eng. On Cruise Spd..108kts

Self-Launching Sailplane Pilot's Assn.

NEWSLETTER

September-October 1990

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The Third National Auxiliary-Powered Soaring Championships...

Eight contestants flew 6 contest days at Littlefield, TX under the direction of Charlie Spratt. All days except one were POST tasks. The week before saw unprecedented rainfall and the contest weather proved to be soft for all except one day with cloud bases varying from 8 to 11,000 ft. The fastest man was Dave Stevenson on day five at 73.19mph and the farthest flight was 253.5 miles flown on day six by Bob Bridges.

On day three, there were landouts by three pilots due to going too low for safe engine extraction and failure of the engine to start. Every pilot with the exception of Harold Buck had to use his engine at least once. Both Dave Stevenson and Bob Bridges proved it was possible to run the engine at least once and still finish at the top. Day three was the turning point of the contest as the pilots who finished the task without an engine run or landing out secured a commanding lead over the field. Caprock Soaring Club and the City of Littlefield were outstanding hosts in every way and the field layout at Littlefield is tailor-made for contest flying.

Final Lineup:

Stevenson/DG-400.....5361
Bridges/Ventus CT.....5284
Buck/Ventus CM.....4699
Estrada/Ventus CM.....4364
Howell/PIK 30.....4234
Williams/DG-400.....4206
Martini/Nimbus 3DM....2823
Suddard/DG-400.....1491(withdrew on Day 4 with engine problems). It was the first MG nationals contest for Buck, Bridges, Howell, Estrada and Martini.

FUEL LEAKS-DG-400/ROTAX 505

Glaser-Dirks specifies changing all fuel lines every 5 years. One pilot recently experienced a massive leak at the carb. connection of the main fuel line while taxiing out for takeoff. Over 3 liters of fuel escaped during a 3 minute engine run. Fuel was at least an inch deep in the forward section of the engine bay and a two ft. stream of fuel was seen squirting out into the prop wash. No engine running malfunction noted.Investigation showed many holes and slits in the hose after pushing back the metal sheathing. The hoses were 5 years old! Check yours **NEXT** preflight!

Final Results 1st World Motorglider Championships/France....

CLASS 1

#/Pilot	1	2	3	4	5	6	7	8	9	Points
XX Lherm	2	2	1	1	1	1	1	1	1	6629
TT Bourgard	5	4	3	3	3	2	3	3	2	6372
GR Leindiger	3	7	6	5	4	4	4	4	3	6279
NX Knauss	6	3	2	2	2	3	2	2	4	6250
OP Nurminen	4	9	8	8	5	5	5	5	5	5899
WB Binder	13	10	9	9	8	7	6	6	6	5346
FA Perotti	8	5	4	6	6	6	10	8	7	5067
60 Jones	1	1	7	7	9	8	7	7	8	5021
SL Shea/US	7	6	5	4	7	9	8	9	9	4874
21 Schauble	10	12	11	12	12	10	9	10	10	4709
99Manzoni	12	13	13	13	13	13	13	11	11	4085
HN Wenger/Barritt-US	11	8	11	11	11	11	11	12	12	4056
J54Lefevre	9	11	10	10	10	12	12	13	13	3632
DGE Schurmeier/Aitken-US	14	14	14	14	14	14	14	14	14	1986
01 Jaksland	15	15	15	15	15	15	15	15	15	530

CLASS 2

TL Trieber	8	2	4	2	1	1	1	1	1	5105
DH Huttner	4	5	3	3	2	3	2	2	2	5009
XA Guntert	3	4	5	5	4	4	3	3	3	4873
600Clement	1	1	1	1	5	5	5	5	4	4752
22Pronzati	5	6	9	8	10	8	9	4	5	4736
NL Disma	15	12	12	12	8	9	8	7	6	4629
DT Fache	9	3	2	4	3	2	6	6	7	4625
IKHoligaus	6	8	8	7	6	7	7	8	8	4604
JE Roumet	17	11	7	9	9	6	4	9	9	4585
CDHoligaus	2	7	6	6	7	10	10	10	10	4113
S Treml	14	13	13	13	12	12	11	11	11	3961
JA Arau	7	10	11	11	13	11	12	12	12	3865
ZQPollard -US	11	9	10	10	11	13	13	13	13	3855
R9Buchanan -US	13	15	14	14	14	14	14	14	14	3548
WJVergani	10	16	15	15	15	15	15	15	15	2845
A3Greer/US	15	17	17	16	16	16	16	16	16	2373
ZONelson/US	12	14	16	17	17	17	17	17	17	2367

The Development of Motergliders...Part 1

IGC President, Peter Ryder has produced a valuable document dated Jan. 12, 1990 that brings to light the true impact of the developing motorglider designs. This paper will be presented in 2 parts.

"We do not need to discuss whether we want motorgliders or not. We have them and they are here to stay. Then why are we taking so much time worrying about definitions, rules and flight documentation? Here are just some of the reasons.

1. Motorgliders (MGs) are being produced in increasing numbers and glider pilots are buying them and using them for soaring performance flights. The motor almost eliminates the outlanding risk, contributes to safety and encourages pilots to attempt greater tasks. The self-launching glider requires less infrastructure to launch. Two-seater MGs, even those with relatively poor soaring performance are extremely useful for cross-country soaring practice. MGs make new types of competitions possible requiring fewer tow planes, helpers and the pilots get home every day. Today you can have a motor in your glider without any performance sacrifice.

Here are some problems....

Although the number of MGs have increased rapidly over the past few years, the numbers of countries in which they are flown under sporting conditions has not.The self-sustaining MG cannot be used for records unless used as a pure glider under the present rules setup. Motorgliders are flown in their own separate championships contributing to the increase in the annual number of championships thus requiring more contest staffs. Some people would like to see less World Record categories. Guess which ones they would like to eliminate.

The verification of MG performance flights places more demands on equipment and the Official Observer. And MGs are considerably more expensive than their powerless counterparts. What actions can be taken for the "travelling" MG which have more or less been shut out of major competitions by the high-performance ships.

Actions necessary by IGC.....

World Records....

1. Abolish the requirement of self-launching motorglider record flights.
2. Retain the above and establish a new record category for the sustainer engine MGs.
3. Abolish MG records altogether.

Championships....

1. Abolish MG championships and let MGs fly with gliders.
2. Retain MG championships and expand the number of "classes" that can enter.
3. Suggestions welcomed.

Badge Flights....

1. Modify the rules to include use of new digital baros and recording cameras.
2. Establish the technical requirements for the equipment.
3. Establish the cerification standards for such equipment.
4. Establish the documentation procedures for this equipment.

"We ugently need an active Motorglider Sub-Committee to work out these details with the Rules Sub-Committee and the newly founded Technical Sub-Committee. I hope we can find a solution to this problem at the next meeting. The IGC must, however, make the decisions on our general policy as soon as possible."

Next Issue will contain comments by Piero Morelli on Ryder's paper to IGC.

VENTUS CM SOLO ENGINE TUNING....

Several members who own CTs have found that takeoff performance is less than optimum until the engine is tuned to reach at least 6,000 rpm static. This is especially true when the aircraft is operated at higher field altitudes on hot days. Schempp-Hirth has been asked to comment on this and SLSPA will publish the answer as soon as available.

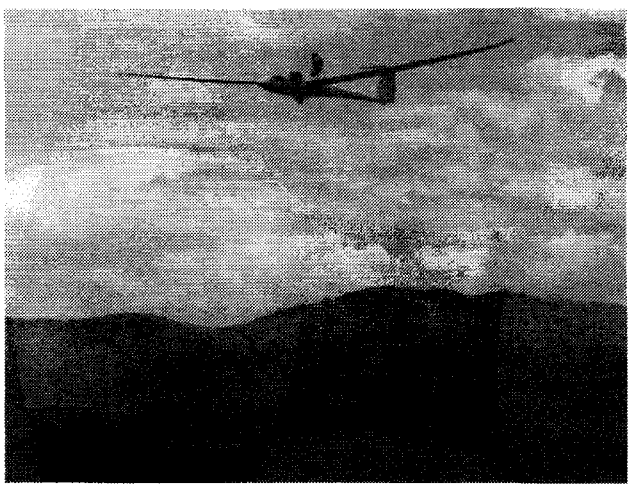
NOSE DOWN TRIM PROBLEMS ON DG-400

Pilots report that in order to cruise at over 70-80kts, a lot of forward trim is necessary resulting in negative elevator angles. Check your CG Range and compute the addition of weights in the nose to move the CG to the mid range or ,if you prefer, slightly aft of the mid range. The weights are secured with 6mm bolts at 2 threaded holes just forward of the rudder pedals on a platform. This is -1756mm forward from the Datum (L.E. of wing). Test fly with small additions until trim forces normalize. Most any gun shop can not only furnish the lead, but melt it into a mold to fit the shelf. WARNING: Each ship's individual CG envelope must be consulted with proper allowance for both maximum and minimum cockpit weights as well as CG limits.

ELECTRIC WINCH PULLS DG-400 FUSE INTO TRAILER.....

Bob Hagan of Evergreen, CO has installed a 12V Electric winch purchased from a boat yard to haul his 400 into the trailer. Power from his tow vehicle is used. If interested in how he did it, contact SLSPA or Bob at 303-674-4470.

DG-400 WING FUEL TANKS.....
If anyone is using these tanks, please contact SLSPA and provide details on how they work in flight and filling procedure.



Karl Abhau Climbs out of Douglas County Airport in his Ventus CM

PARTS SOURCES FOR TILLOTSON CARBS AND ELECTRONIC IGNITION SYSTEMS AS USED ON ROTAX 501 AND 505 ENGINES..

This information is courtesy of new member Ken Duncan and Jim Mosher both owners of PIK-20E/30. They have really done their homework on ferreting out where the parts are and all at very reasonable prices.

Bob Marshall 601 Sequoyah St., Brentwood, CA 415-634-3210. Bob is the U.S. Distributor for Rotax parts and can provide technical information as well.

Jack McKenny, P.O. Box 470, Arroyo Seco, NM 87415 Jack is listed in the SLSPA Roster and is very knowledgeable about the PIK-20E. He and Bud Schurmeier engineered the prop self-centereing device for the 20E and 30.

Santa Fe Power & Equipment Co. P.O. Box 4545, Santa Fe, NM 87502 505-471-8620. Ask for Bryan or Forest George. They race and overhaul Rotax-powered snowmoblies and know the ins and outs of all systems.

PARTS UNLIMITED, 204 W. Lawton St., Egerton, WI 53524 608-884-3461. They also have warehouses in NC,CA,TX,NV &WA. They require orders through dealers and will refer you to your nearest dealer. Overnight delivery is possible. Some price comparisons are:

	Rotax/Parts Unl.
505 Electronic Box	$416/$117
505 Charging Coils	$86/$28
505 Spark Coils	?/$18 P/N#2-204-211-114
Tillotson Carb Kit	$55/$14

N-WIRE 208-524-2776, Idaho Falls, ID, Frank Jast. Electronic Iginition experts. Can custom build to specs.

About the charging coils located behind the flywheel:

Backwards installation means the engine will not run under any circumstances. Do not assume your A&P knows this.

Marshall Distributing Co. Box 113, Cass City, MI 48726 517-872-2109 FAX: 517-872-5350. Ignition Coils, Rotax-Bosch Ignition Boxes, CDI Armatures, Tillotson Carbs, daiphragms and gasket sets plus Repair Kits.

Yankee Motorcycle Supply, 2424 Towson, Ft. Smith AR 72901, 501-782-3161. Tillotson carbs and parts. Rotax electronic boxes, coils.

Many thanks to Ken and Jim for these critical source locations.

WANTED==========

PIK-20E CALL ED BJORNRUD 206-868-2025
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