

132
PACKED
PAGES

**Britain's best-selling
R/C model flying magazine**

**FREE
PLAN**

CHAPTER 1



**EASY BUILD
SPORTSTER**

**VOL.57 NO.11
NOVEMBER 2014**

RCME & E

DYNAM DHC-2

BEAVER

ON TEST



mytime media MODELLING GROUP
11
9 770269 830229
£4.50

WE FLY THE BLACK HORSE

ROBIN DR400

Plus...



ROTORSPORT
Flying the new GyrOne



KNOW YOUR CYANO
Hints, tips and sage advice



LUTON L.A.4
Tony Hill's magnificent Minor



Maxi Lift

Displaying a hint of Cessna and Pilatus, the Maxi Lift definitely has an air of 'bitsa' about it.

AFTER A TRAUMATIC ASSEMBLY PROCESS LIAM SWARBRICK LOOKS FOR REDEMPTION WHEN SEAGULL'S NEW MULTI-PURPOSE MACHINE HEADS SKYWARDS

Seagull produce a wide variety of model aircraft covering all genres and, whilst the Maxi Lift is one of the latest, I've had trouble finding a category for it. It's not a scale model, a trainer, or an aerobat, yet it's a bit more than a basic sportster. It has the feel of a multi-task model – although it's not a stunning aircraft by any means – and definitely has an element of 'bitsa'

The engine installation took far longer than planned owing to the poor cowl (see text).



...I still can't believe how they fit models of this size into a veritable shoe box



about it, carrying an air of Cessna and Pilatus Porter.

Spanning 88" it's not what you'd consider small, indeed the recommended power ranges from a .75 – 1.25 glow all the way up to a 33cc petrol engine. There's no mention of electric power but there is, however,

lots of room to accommodate it. Built up in a traditional way from balsa and ply, this ARTF model is covered flawlessly in petrol proof Oracover and equipped with large flaps, a glider tow release and rather large toffee-dropping bomb bay doors. To all intents and purposes it looks like fun.



Woodwork and covering quality are up to Seagull's usual high standards but, not for the first time, they've struggled with the 'engineering'.

LOTTA MODEL

Now, the Maxi Lift gave the impression that it was a much smaller airframe on arrival, in fact I still can't believe how they fit models of this size into a veritable show box. Anyway, removing the parts for a quick mandatory bench fly revealed a lot of model for the money.

Irrespective of the guidance notes I always try to get a model standing on its own legs as soon possible, so at this point I decided to attach the undercarriage legs. These simply bolt into place and are adorned with large squidgy tyres. They're not quite tundra style but they're pretty close and should definitely help dampen hard landings.

A flicking through Seagull's instruction manual was next, although I have to say I was fairly unimpressed with the black and white blurry images. A few were reasonable, yet, coupled with the short captions that constitute instructions, there's little to help the inexperienced modeller. To my mind the builder should not have to use his own experience to try and figure out where things go.

Anyway, moving on, note that this one requires ten servos. Yes, ten! Two are



needed for ailerons, two for flaps, one for rudder, one for each elevator half (I used Hitec 5625MGs here), and one each for throttle, tow release and the bomb doors, Hitec 322HDs being more than adequate. Incidentally, note that the radio bay is hidden under a rear hatch and that there's lots of room. From here all the extension leads run under a fuselage doubler and across the bomb bay, which keeps the wires hidden and prevents any sort of fouling.

There are a number of choices available for the installation and position of any switches, with options near the



Despite the build issues she does fly well and her hauling capability is in no doubt.



'EXTREME BONDING SOLUTIONS'

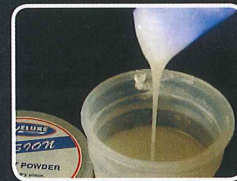
Fusion

Probably the strongest acrylic adhesive in your model shop!

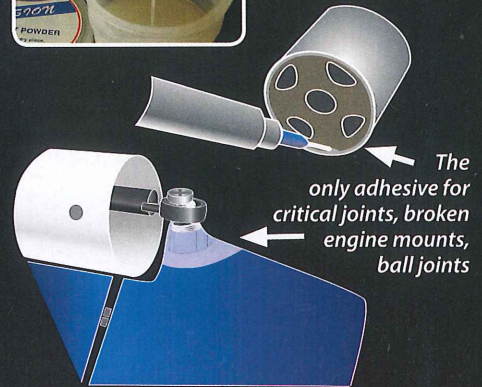
Fusion

Bonds:
Polyester,
Epoxy,
GRP,
Carbon Fibre,
Hard Plastics,
ABS, Acrylic,
Polycarbonate
& Aluminium.
Combined
contents 75 ml

£ 16.50



Perfect mixing consistency



The only adhesive for critical joints, broken engine mounts, ball joints

Specially designed for :

- Broken, highly stressed parts
- Bulk heads
- Engine mounts
- Repairs to hard plastics, broken joints, metal lugs
- Can be drilled, filled & tapped

Distributed to all good model shops in UK through Ripmax fast ordering system. www.ripmax.com



In Australia by Christian Traders - www.christiantraders.com.au

"Committed to finding innovative solutions to modelling tasks"

John Rinton

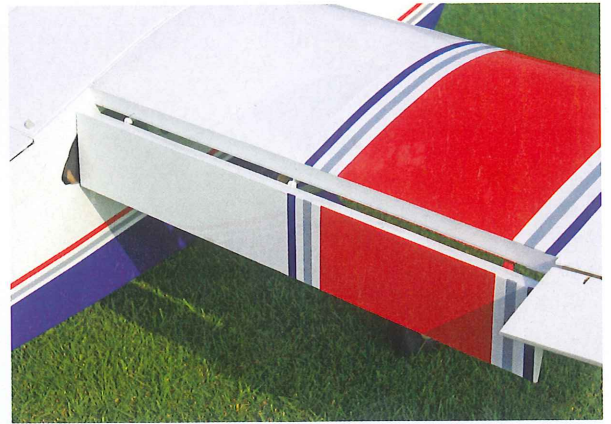
www.deluxematerials.com



The tank area under the forward nose hatch should be large enough for a 9 or 10 cell Li-Po.

A full 90° of flap makes diving to the patch Khe Sanh style a wonderfully sedate and controlled affair.

Big models fly better, as the Maxi Lift so ably proves.

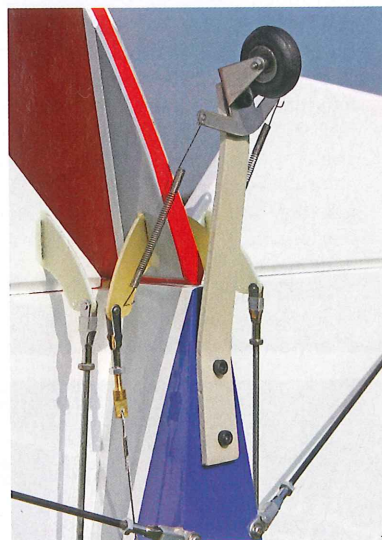
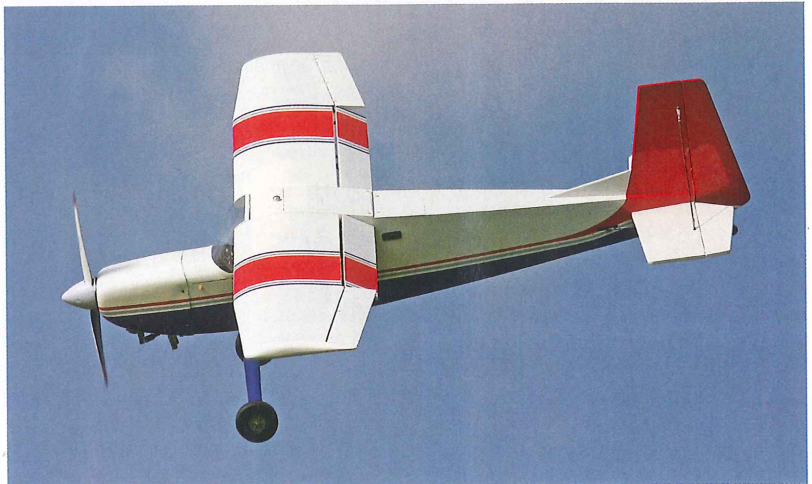


engine for ignition switches and at the rear, near to the receiver bay, for radio switches. Extension leads to the wings can also stay largely hidden by routing from the receiver bay up to yet another hatch deigned to facilitate easy wing attachment. All of these various hatches are fixed in place with nylon T-headed bolts and are dead easy to remove.

ENGINE

My powerplant came to fruition following a brief search of an online auction site where I found an AGM 30cc petrol engine for £100, posted. Having heard only good things about these and with them being so inexpensive compared to other 30cc options, I was more than willing to give one a go. It arrived just a few days later.

Since the mounting holes in the firewall are pre-drilled it took just a few minutes to install the AGM using the stand-offs that come with it. Incidentally, the Maxi Lift is also



supplied with a set of aluminium stand-offs although these are really too short for any rear induction engine as there just isn't enough clearance for the carb.

With the motor mounting bolts thread-locked into place, I installed the CDI ignition unit neatly into the tank bay along with the throttle servo, receiver and ignition batteries. These were a twin set of 2200mAh 2s Li-Po batteries running through a Castle

Creations 10amp regulator. Perhaps a little overkill, I'll grant you, but it does bring peace of mind. Meanwhile, setting out to plumb the tank revealed that I was bereft of a clunk – an oversight surely?

Good news came in the form of the throttle servo mount which is supplied ready to install in any position desired. As such, I glued it straight to the firewall to keep the linkage as short as possible. With all the gubbins neatly positioned up front all I had to do to complete the sharp end was sort out the cowl, but, alas, this is where the problems began.

TROUBLE WITH T' COWL

Simply stated, the cowl is smaller than the front of the fuselage – it just won't go over at all. The only option (with the engine being mounted inverted) was to chop out most of the cowl underside and try to stretch it over the bulkhead. This I tried but it still it wouldn't go. Pondering the problem I suddenly hit on the idea of moving the engine further forward.

Stripping it out meant a rework, and with no option but to use the parts I had to hand, I added the kit supplied stand-offs to the engine supplied stand-offs, fired up my lathe,

Hardware quality is good, with glass fibre horns and metal clevises.



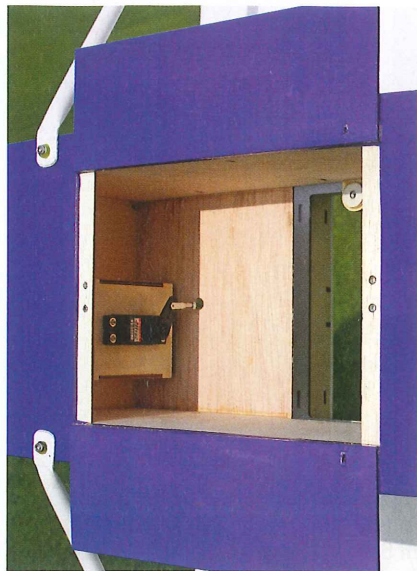
then turned the shorter kit stand-offs to the correct length (15mm). This reduced the amount of extra cowl I would have to remove and allowed it to sit a little further forward, with a neat gap for the spinner at the front and no fouling of the tank hatch at the rear. It should have taken just thirty minutes to fit a cowl with the engine in place. Instead it took me almost five hours!

Finally, I fitted a Just Engines 20 x 6" carbon prop, drilled and mounted to suit the engine. Sadly, however, the stock plastic spinner supplied in the kit had to be replaced as the prop hub was too large for it.

BACK ROOM

Fortunately the elevator servos are mounted in the rear section of the fuselage, near the tail, which helps achieve the correct C of G with the heavy 30cc petrol engine up front. Servos need to be fastened into place before the tailplane and fin can be glued in position. I used aliphatic glue to ensure there was adhesive in every nook and cranny and, with its slow set time, I had the opportunity to ensure that everything was square and true. The following day, when all was dry, I attached the tailplane struts. These were the perfect length and are clipped into place using 3mm clevises. Mind you, I quickly discovered that the elevator pushrods were also missing, so I used 3mm rods from my own stock and finished them off with a 3mm clevis at one end and a 3mm soldered connector and clevis at the other. The rudder is driven by a closed loop system and, with plastic tubes pre-fitted, arranging this was probably one of the quickest jobs on the whole project.

The bulk of the assembly work with this model is definitely fuselage related, indeed by comparison fitting the wing



Although the payload area is pretty big, the doors aren't held tightly shut.

servos and control surface linkages takes no time at all. The servos simply require screwing into the bays and the linkages attaching. You do have to fasten the flaps to the large flap hinges but it only takes a few minutes. It's almost as if the wings are from another model entirely, they went together so well.

Final rigging of the whole airframe with the wings attached revealed that the supplied aluminium wing struts are considerably over length, reinforcing my belief that nobody from Seagull had built a production kit. Accordingly, I had to crop 50mm off each strut and remake the ends (which did nothing at all for the paint job on the struts) before I could bolt them into position.

The final check was for the centre of gravity which, thankfully, fell right on the money, those metal gear servos in the tail really helping.





'EXTREME BONDING SOLUTIONS'

AERO T<CH EPOXY

**Non-drip.
Strong visible joints
for composite mouldings**

Aero T<ch Epoxy works because it :

- produces a tough, flexible bond to all types of composites, wood & metal
- contains active bond enhancing additives that work chemically
- is non-drip, visible, easy to use
- withstands the shocks of take-off & landing
- allows adjustment time by gelling in 2 hours
- delivers maximum strength across gaps in 1-2 days






1. Aero T<ch dispenser gun **£ 35.00**
2. Aero T<ch auto mix nozzles **£ 6.25**
3. Aero T<ch syringe. Ideal for small assembly tasks 25ml **£ 8.25**
4. Aero T<ch cartridge & nozzle 50ml **£ 15.00**

Aero T<ch is not just another epoxy. It has been specially developed by Deluxe Materials & tested by top modellers.

Recommended by






Distributed to all good model shops in UK through Ripmax fast ordering system. www.ripmax.com 

In Australia by Christian Traders - www.christiantraders.com.au

"Committed to finding innovative solutions to modelling tasks"

John Britton

www.deluxematerials.com





You couldn't ask for a better engine than the AGM 30, it's perfect for this model and oh-so reliable.

LIFTING MAX

I could lie and say that it was a perfect test-flying day but no, it was dull, overcast and windy. With the model assembled, the new motor primed and ready, I was pleased as punch when the AGM 30 fired at the first flick. I refuelled and started it again, then taxied out to the end of the strip, noting that ground handling was very easy with those big wheels and the direct tail wheel steering.

Those who love flying utility aircraft will be perfectly at home with this one, it's a great all-rounder.

I opted for around 15-degrees of flap for take-off and within just a few feet the Maxi Lift was up. I soon realised that the stock side-thrust wasn't quite enough but eliminated this with a little rudder trim. With the flaps tucked away and a trimming

circuit complete, I could open the tap and see what the model was capable of. Pulling hard on elevator had her pointing skywards although, at almost 12 lbs all-up, this is no homesick angel. Even so, she still had a relatively steady climb rate and wasn't lacking in any way on the power front. Putting the model

through a few basic aeros showed the roll rate to be a little slow and barrel-like, even with the differential I'd set at the Tx. That said, bringing in some rudder made fast flick rolls possible and I eventually programmed a simple CAR mix to add a little rudder with aileron at all times. Loops were as large as you like

DATAFILE

Name:	Maxi Lift			
Model type:	ARTF multi-purpose sportster			
Manufactured by:	Seagull Models			
UK distributor:	J. Perkins Distribution Ltd. www.jperkinsdistribution.co.uk			
RRP:	£229.99			
Wingspan:	87.6" (2222mm)			
Fuselage length:	61.2" (1555mm)			
Wing area:	1072.6sq. in. (69.2sq. dm)			
All-up weight:	11.5 – 12.1 lbs (5.2 – 5.5kg)			
Wing loading:	25oz / sq. ft.			
Functions (servos):	Aileron (2); rudder (1); flap (2); elevator (2); throttle (1); tow release (1); bomb doors (1)			
Rec'd engine:	.75 – 1.20 two-stroke .91 – 1.25 four-stroke 30 – 33cc petrol			
Engine fitted:	AGM 30cc petrol			
Quality:	<table border="1"> <tr> <td>Poor</td> <td>Acceptable</td> <td>Excellent</td> </tr> </table>	Poor	Acceptable	Excellent
Poor	Acceptable	Excellent		
Assembly:	<table border="1"> <tr> <td>Easy</td> <td>Intermediate</td> <td>Difficult</td> </tr> </table>	Easy	Intermediate	Difficult
Easy	Intermediate	Difficult		
Flying:	<table border="1"> <tr> <td>Novice</td> <td>Improver</td> <td>Experienced</td> </tr> </table>	Novice	Improver	Experienced
Novice	Improver	Experienced		



Sturdy hardware is essential on powerful flaps and make no mistake, these are powerful.

My only real disappointment (away from the problems with the build) has been the poor linkage for the bomb doors, which has been problematic. It's not very well thought out, to be honest, the result being that the weakness in the linkage doesn't really keep the doors shut with any amount of force. It would be far more effective if each door had its own servo – a mod' for later.



with similar performance in the bunt. Inverted flight requires a little more hands on than I would have imagined and you do find yourself pushing a good amount of down elevator. As for the stall, do bear in mind that she will bite eventually and flick.

In the circuit I find that flying around with take-off flap helps to keep the model pretty stable at a nice cruising speed. Knife-edge? Well, actually, yes! The Maxi Lift has a lot of fuselage side area and, therefore, needs very little rudder to hold it on its side. Having said that it does need a huge amount of opposite aileron to counter the roll with rudder. Side-slips are a particular forte and a bit of a doddle in that they can be flown very slowly with no sign of dropping a wing. This, I've found, can be taken one step further enabling a side-slipping one-wheel touch 'n' go to be performed with ease, the Maxi Lift taking my stick abuse in her stride.

Comparatively, the tow release is flawless, but only after I'd made a slight modification to allow a little more line clearance in the milled slot.

TOP TUG

A Maxi Lift with a 30cc petrol engine makes a great club glider tug and can haul 3m span gliders with ease. I'm 99% sure that it wouldn't have a problem taking up a 4m glider either. With the glider dropped off, a full flap dive to the patch for a landing shows just how powerful the brakes are. I can get the flaps down to 90-degrees of throw, whereupon the landing approaches can be incredibly short, the model almost hovering to the floor.

All in all the Maxi Lift is a great second model or even a great first petrol model. If you're not fussy about the appearance that is. It's a lot of model for the money, however once in the air the silly problems of the build are long forgotten.



'EXTREME BONDING SOLUTIONS' *Super Crylic!*

Tough task adhesive that bonds materials that cyano & epoxy cannot!

Builds strength across joints like epoxy



Used for flexible bonding:

- Toughened plastics, ABS, GRP, wood, aluminium, EPP foam
- Thin viscosity allows use with lightweight glasscloth for toughened bonded areas, repairs etc.
- Ideal for repairs to contaminated areas

Super Crylic! twin pack 60ml £ 16.25

	Setting time/minutes	Setting characteristics	Main uses
Fusion	5-15	Very hard, tough	Highly stressed joints
Super Crylic!	5-6	Flexible	Bonding & repairs to tough plastics with metal, wood etc
AeroT<ch Epoxy	60 mins (Full cure 24-48 hrs)	Flexible and thixotropic	Bonding wood formers into Epoxy, GRP.

Distributed to all good model shops in UK through Ripmax fast ordering system. www.ripmax.com



In Australia by Christian Traders - www.christiantraders.com.au

If you can't find DELUXE MATERIALS products in your local shop we are just one click away

<http://www.deluxematerials.co.uk>
Freephone: 0800 298 5121



www.deluxematerials.com