

CHALLENGER LIGHT SPORT

X SERIES

MODEL XL-65



The new Challenger Light Sport XL-65 is a high power, high lift aircraft for amphibious floats, heavy loads and high density altitudes. A new design 29.5 ft wing with Hoerner tips, new heavy load saddles, new heavy duty landing gear and new 20 USgal wing tanks along with a power package with 30% more thrust combine to allow a gross weight increase from 960 lbs to 1060 lbs. As an additional benefit the wing tanks also allow for the creation of a baggage compartment in the fuselage behind the passenger seat.

The new XL-65 is powered by the bespoke Challenger 582 Power Pack which has been the number one choice of owners since 2005. The ASTM certified Bombardier-Rotax 582 Mod 99 Blue Head engine produces 30% more horsepower and 34% more torque than its predecessor the 503. All this with a specific fuel consumption 23% lower! The engine is mated with a 2.6-to-1 redrive and three blade prop.

The oil injected Blue Head version of the 582 has proven itself in 10 years of real world use, delivering exceptional performance, excellent fuel economy and outstanding reliability in a wide range of conditions throughout the extremes of four season climates. The engine acquisition outlay is dramatically lower than for any aircraft in this class plus hourly operating and maintenance costs are unbeatable.

The new Challenger Light Sport X Series was originally designed expressly for diverse Canadian missions in a broad spectrum of terrain and temperatures. Development was driven by over thirty years of real world experience on wheels, skis and floats. The new X Series incorporates numerous features and design enhancements based on customer inputs.

Announced in 2010 the Challenger Light Sport X Series has replaced the Challenger II as the sales leader world wide. Challenger Light Sports are now flying on every continent but Antarctica!

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The new Challenger Light Sport XL-65 represents the most dramatic step forward ever taken. The goals were to be easier to build and easier to fly, more ergonomic and more rugged. XL-65's carry more payload farther and faster. Prices remain at very affordable levels even with engine and instruments.

The most visible of the X Series features is the distinctive new tapered tail which is much larger than on the earlier Challenger II models. The Light Sports also have differential ailerons to reduce adverse yaw. The result is easier, more conventional handling with much less rudder work, especially in turbulence.

The new tail is 10 inches higher and has a vertical stabilizer with 55% more side area which significantly increases directional stability. To further reduce adverse yaw the new aileron bellcranks are modified from the historical 1:1 so that the flaperons function as differential ailerons in the ratio 1.5 up to 1 down.

Importantly the new tail and aileron strike a balance between stability and maneuverability thus retaining the Challenger's renowned crosswind capabilities and side slipping prowess. Also retained is the ease of handling on water and ice with minimal windcocking when taxiing crosswind and docking.

Less visible but highly useful nevertheless are the standard wing tanks in the XL-65. These make room for a baggage compartment in the fuselage behind the passenger seat where the tank was located in the earlier Challenger II's. The XL-65's wing tanks contribute to increasing the gross weight to 1060 lbs.

The handling characteristics of the new Challenger Light Sport X Series are light and responsive. The combination of the new design light weight leading edge channel wrap and bottom ribs plus the proven fibreglass Hoerner wingtips now included as standard provides hitherto unheard of roll responsiveness. This brand new wing configuration provides for a great ride in turbulence and increased controllability.

The new wing design reduces drag for faster cruise speeds and it also provides increased lift and stability. The new wing is readily identified by its smooth leading edge and bottom ribs plus flush gussets attaching the ribs to the leading and trailing edge spars. In addition to the main lift strut fairings further drag reductions were effected by adding streamline fairings to the jury struts and stab struts.

The new solid aluminum main landing gear reduces drag by enabling use of improved gear leg fairings and eliminating all external cables. The internal carry through structures in the fuselage have been beefed up substantially. This new landing gear readily absorbs the bumps of rough farm fields and less elegant landings. The new hydraulic disc brakes make for very short stops. Customers asked for this!

Entry and exit is made easier by the redesigned cockpit side rails, doors and windscreen. The new pre fab instrument panel accommodates the new extended suite of instruments while still providing good leg clearance for taller pilots. On the XL-65 a new GPL heavy duty electric start system provides 30% more torque for faster starts. An optional new Quad City electric start system operates through the PTO end of the engine allowing a backup recoil starter to be simultaneously installed at the MAG end.

The complete XL-65 package includes everything necessary to go flying except paint and pilot. Available configurations include wheels, tundra tires, straight skis, wheel/skis, straight floats and amphibious floats. All are very affordable and switching between configurations is quick and easy.

The XL-65 airframe package includes instruments and all other standard and optional features as described in the detailed documentation. The power package includes engine, mounts, redrive, prop and everything else needed to get the air moving backward and the plane moving forward. To spread out cash flow the airframe package may be further split into tail, wings and fuselage sub-kits.

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The Challenger Light Sport XL-65 comes at no extra cost as a quick-build kit which is easy and fun to assemble. As with all Challengers the kits include factory-built tail, wings and fuselage with controls pre-installed. New for the Light Sports is a pre-cut anodized instrument panel as well as wiring harnesses for panel and engine. No special tools or skills are required. Realistic assembly times are in the neighborhood of 300 hours. A vastly better new manual has clear drawings, color pictures and punchy text.

Support is readily available via phone and email through an extensive network of Challenger techs. For owners who assemble their kits at odd hours there is 7x24 support via web sites and online forums.

Challenger Light Sports can be registered in the Amateur-Built category in the United States and Canada or in the Advanced Ultralight category in Canada. The Light Sport kits have a number of new features to facilitate the Amateur-Built route, for example control stops and a pilot accessible fuel shutoff.

In addition to the satisfaction of assembling your own airplane and knowing it inside and out, a huge advantage to registering as Amateur-Built or Advanced Ultralight is that you can do all maintenance and inspections yourself, or together with anyone you choose. Builder assistance services are also available.

Challengers may be flown with any fixed wing pilot certification - Recreational, Private, Commercial, etc. Challengers in Canada may also be flown with the economical Ultralight Pilot Permit and the simpler category 4 medical. Challengers in the United States registered as Amateur-Built may also be operated as LSA's and flown with the economical Sport Pilot Permit which only requires a driver's licence medical.

The Challenger line of aircraft provides choices with a range of performance, features and prices wide enough to suit just about every need and just about every budget. The new Light Sport models deliver wide ranging major improvements while retaining the docile nature of earlier Challengers including low stall speeds with no wing drops. Also retained is the outstanding STOL performance with takeoff and landing rolls in the 200-400 ft range as well as unmatched crosswind capabilities. Payload is impressive and is actually higher than in most two seat aircraft with much larger, more expensive engines.

From crisper handling to a more spacious cabin, the latest Challengers are not only more capable and comfortable they are better looking and quieter to boot! The versatility to go high and fast or to go low and slow, the capability to operate from short unimproved strips, the ability to fly with the doors off like a roadster with the top down, and the unmatched visibility from both seats combine to put the fun back into flying. There is nothing like a Challenger Light Sport - the ultimate Challengers!

Challengers emphasize the fun of building and flying your own airplane whereas virtually all of the new LSA's and AULA's follow the Cessna tradition of hermetically sealing the occupants away from the flying experience. Would you rather drive a mini-van on the freeway or a two-seat roadster on a winding country road? And why be restricted to the interstate when you can go direct on land, sea or snow!

In today's challenging economy the financial aspects of aircraft ownership are more critical than ever. The new Challenger Light Sports are less than a quarter of the cost of typical LSA and AULA aircraft. The low acquisition cost and very low operating and maintenance costs mean owners can afford to fly as often as they wish. Challenger owners never pause to think how much it will cost to go for a flight.

National Ultralight Inc. founded in 1983 is the world's leading distributor of Challenger aircraft. For more information visit www.challenger.ca. Contact us at 705-721-9811 or challenger@challenger.ca.