



Skylaunch Limited

(Glider Winches & Special Projects)
E11 – E14 Wem Industrial Estate,
Wem, Shropshire. SY4 5SD, ENGLAND
Sales/Technical: +44(0) 1939 235845
Accounts: +44(0) 1939 233023
Fax: +44(0) 1939 234059
Email: mike.groves@skylaunch.com
www.skylaunch.com



TECHNICAL BULLETIN – Engine warming / cool down procedure – 24/09/18



After over 30 years of experience using Big Block GM (Chevy) V8 engines for Glider launching they have proven to be the most suitable engines for these high load / short duration applications and there is no other engine which will give these characteristics for as low a price to buy, operate or repair.

Many of the Skylaunch winches engines have been in use over 20 years and some with more than 150,000 launches without any repairs or rebuilds.

In order to achieve the maximum life expectancy from your winch engine (and any engine) it is important to use a good warm up and cool down procedure.

It seems to be common practice at some Gliding Clubs to regularly start the winch and push it to max power when not fully warmed up and then the engine is switched off as soon as the parachute has landed by the winch - These engines will have a lower life expectancy and sometimes only last 8-10 years before the head gaskets may need renewing.

If safer practice is maintained then these engines would last much longer before needing any work despite the high load of launching gliders

The deterioration caused by improper engine warm up and cool down is very easy to remedy by a simple change of procedure:

1. Despite a warm up of the engine before launching, if it has been switched off a few minutes then the coolant temperature may still be correct but the combustion temperature will have cooled off.

So before each launch the Glider signaller / dispatcher should radio the winch with a 'Wake up call' to say "Next Glider will be _____", normally when the pilots are fastening their safety harnesses. This gives the winch driver 1-2 minutes to start the engine and preset the throttle settings etc.

This is also much easier and safer for the winch driver, as they can properly prepare and not be rushed into a launch.

This practice will greatly reduce the thermal shock on the engine.

2. At the end of the launch, leave the winch running for 1-2 minutes to allow the combustion temperature in the engine to cool off and coolant to pump around and through the radiator.

If launching is frequent then usually drivers leave the engine running between launch 1 and 2, then after launch 2 and 1-2 minutes of cool off time the engine can be switched off.

This also halves the high duty cycle required of the starter motor.

Just think: if Aero engines were treated the way winch engines often are then they would not last more than a day!

Looking after your winch engine will save the club money and possible down-time over the long term.

For any further advice please contact Skylaunch.



Director: A. Greaves Manager: M. Groves Company Secretary: T. Greaves
Registered Office: c/o ARCA, First Floor Offices, Allied House, Bryn Lane,
Wrexham LL13 9UT
Co. Reg No. 3598701 England VAT Reg No. 141 8937 95

