

NZJSA TECHNICAL INSPECTION RECORD

PRE-MEASURED – LS CLASS ONLY

Refer to Rulebook and measuring guidelines for full specifications and restrictions on elements to be checked

Complete this form and copy to the secretary of the NZJSA

Boat Details

Driver Name: _____

Boat Number: _____

Class: *LS*

P = Pass F=Fail NA=Not Applicable Circle

ENGINE	All Australian delivery style engine. Can be purchased from NZ, USA or Australia, but must be the following LS series only; LS1, LS2, L77, L76, L98, LS3	P / F / NA
CRANKSHAFT	Standard cast crank. 3.622. +/-002 Crank weight with reluctor wheel and 1 keyway – no spigot bearing, no crank gear. LS1-LS2-L76-77-98-LS3: Minimum crank weight 22.5kg	P / F / NA
CONRODS	Standard LS1, LS2,L77,L76,L98,LS3 rods only – no titanium rod or alloy. Conrod minimum weight: LS1 Minimum weight 600 grams LS2-L76-L77-L98-LS3 Minimum weight 630 grams Balancing must have one rod untouched.	P / F / NA
PISTONS	Piston to not protrude more than .009 from deck of block. Open, must be flat top only, no valve reliefs. Standard pin size +/- .005". Refer to block section for maximum bore size. Min weight of piston, complete with pin, rings, oil rings & clips. Minimum Weight LS1 620 Grams. Minimum Weight L76 – 77 – 98 – LS2 640 Grams. Minimum Weight LS3 660 Grams. One piston must remain untouched when balancing.	P / F / NA
Block	Alloy factory block 5.7 - 6.0 - 6.2, no aftermarket blocks	P / F / NA

	<p>Block bore Size</p> <p>LS1 = 3.900" - 3.920"</p> <p>LS2 – L76 – 77 – 98 = 4.00" - 4.020"</p> <p>LS3 = 4.065" - 4.075"</p> <p>No lightening of block other than machine faces or honing process for normal engine building practises.</p> <p>5.7L and 6.0L blocks may be sleeved to LS3 specification. LS3 blocks may also be sleeved. New sleeves must be in LS3 OEM position and 4.065" - 4.075" bore size. Blocks sleeved to LS3 specification must run piston and rods that match the LS3 specifications in this rule book.</p> <p>Engine main bearings, Rod and Cam bearings = Open.</p>	
Cam & Lifters	<p>Hydraulic LS GM Lifters only. No tie bar lifters allowed.</p> <p>5/16 pushrod 7.350 to 7.425 only. 080 wall thickness. Standard can be used.</p> <p>Cam must be one of the following</p> <p>GM Motorsport GMM JS1 229-235-110.5 max valve lift .615 inlet, exhaust 0.620</p> <p>Kelford SS108J 226-232-110 max valve lift inlet, exhaust 0.600</p>	P / F / NA
Timing Chain	<p>Any standard GM or aftermarket IWIS LS Single row chain.</p> <p>No variable cam timing. No double row chains.</p> <p>Cloyes timing set can be used Part Number. TGK364RCL</p>	P / F / NA
Sump	<p>Sump Open.</p> <p>Dry sump allowed.</p> <p>The crankshaft centre line to delta measurement cannot be less than 160mm.</p> <p>Vacuum pump allowed on wet sumps only.</p>	P / F / NA
Heads	<p>Following GM Head castings only.</p> <p>No lightening of heads other than machine faces for normal engine building practises. Ends of heads may be engraved with company logo's, but no excess material removal.</p> <p>Min head CC 64cc for LS1 (casting 241-243-853 only) when used on 5.7-6.0L. If used on 6.2L Min Head CC 66cc.</p> <p>Min head CC 64cc for LS2 (casting 243 only) when used on 5.7-6.0L. If used on 6.2L Min Head CC 66cc.</p> <p>Min head CC 66cc for L76, L77, L98, LS3 (casting 0821-823-5364). These</p>	P / F / NA

	heads can only be used on 6.0-6.2L.	
All Heads	<p>Standard GM/Holden head gasket 051-053.</p> <p>No welding of heads even for repairs.</p> <p>Standard valves only. No aftermarket.</p> <p>LS1 – LS2 Valve sizes 2.00" inlet 1.55" exhaust.</p> <p>L76 – L77 – L98 – LS3 Valve sizes 2.165" inlet 1.59" exhaust.</p> <p>Standard valve location. Valve Angle 15 degree +/- 0.5 degrees.</p> <p>Standard or Standard replacement head bolts allowed. ARP head bolts allowed. No Head studs allowed.</p> <p>Head Gasket part number GM or Victor Reinz / Mahle</p> <p>54660-26192PT – 157744 or 12498544 or 12622033-12589226</p> <p>.050" - .053" thickness.</p> <p>Old early LS1 can use the OEM fibre style gasket .050" - .053" thickness.</p> <p>No spring pocket modification.</p> <p>Porting allowed.</p> <p>No changing of valve angles to deck face.</p>	P / F / NA
Rockers	<p>Standard GM LS1, LS2, L77, L76, L98, LS3 rocker gear with a bearing trunion upgrade allowed.</p> <p>Must be 1.7 ratio only.</p> <p>This will be checked with a tool at the race track regularly, as instructed by The Safety and Risk Manager or Scrutineer.</p>	P / F / NA
Valve Springs	<p>Any beehive single spring allowed if using Kelford SS108J Camshaft.</p> <p>If using GMM JS1 Camshaft you must use PSI 1511ML Beehive springs.</p> <p>Standard or steel retainer. No Titanium.</p> <p>Standard or steel locks. No Titanium.</p>	P / F / NA
Computer	<p>Open.</p> <p>Injectors Open.</p>	P / F / NA
Harmonic Balancers	<p>Must be fully encased performance balancer or standard with inner and outer circled together. Must have retaining bolt and washer fitted.</p> <p>Minimum weight 4.2kg.</p>	P / F / NA
Inlet Manifold	<p>Standard manifold must remain completely standard.</p> <p>No porting, no extrude honing, no machining, no drilling, no tapping.</p> <p>Drilling and tapping allowed only to block of factory vacuum ports that</p>	P / F / NA

	<p>are not used.</p> <p>LS1 = 12560894, 12573572</p> <p>LS2 = 12589181</p> <p>L76 – 77 – 98 – LS3 = 12590124, 12602477, 12603477</p> <p>If directed by the NZJSA , you must swap your manifold with one supplied by the NZJSA. The Manifold supplied will be an equivalent part number to your current Manifold. A Scrutineer is required to be present during the changeover to cut and reseal the engine.</p> <p>Throttle Body; Open, maximum diameter 92mm. No Spacers between throttle body and manifold.</p>	
Fuel	<p>Control Fuel must be used when directed by the NZJSA.</p> <p>Ordinary pump unleaded fuel only, 98 octane max.</p> <p>The use of oxygenated fuels is prohibited.</p>	P / F / NA
Note	<p>“Minimum and maximum limits are set on certain items. THIS DOES NOT MEAN your engine will work if you go to all the minimums or maximums. Please work with the parts you purchase, and your engine builder to machine and configure what works with your engine, provided they are within the given tolerances.”</p> <p>If you intend to make a modification to your engine, and you are unsure if that modification is permitted within this class, you should always send an email to the NZJSDA secretary asking for a clarification on the ruling or modification.</p> <p>If it does not say you can use a part you must not be in belief that you could use an alternative part.</p> <p>Standard replacement parts only if not stated.</p> <p>All factory GM/Holden parts must be used unless it states open in the rule section.</p> <p>If in doubt you need to ask for clarification of the rules by the NZJSA.</p> <p>Dispensation requests will be considered on a case by case basis.</p>	P / F / NA
Seals	Seals as per NZJSA Engine Sealing Sheet (fill out & submit)	P / F / NA

Comments

Company
Stamp

Signed _____ Name _____