



BILAND SA-250

TECHNICAL SPECIFICATIONS



VERSION 1 / 2012
UPDATED JANUARY 1st, 2012



BILAND SA-250 ENGINE TECHNICAL SPECIFICATIONS

Preamble:

The following are the Technical Specifications for the BILAND SA-250 engine, as approved by the Australian Karting Association.

This engine is approved for use ONLY in the Open Performance class.

Unless otherwise specified, the engines must be original in all their components according to the BILAND SA-250 drawings.

Any removal, addition or polishing of material is strictly forbidden.

Sandblasting, glass bead blasting, peening, acid etching, spark eroding and/or any other method of metal removal or displacement is not allowed.

The use of thermal barrier coatings / ceramic coatings on or in the engine / engine components and on or in exhaust components is prohibited.

The use of anti friction coatings on or in the engine / engine components is prohibited.

ANY ALTERATIONS / MODIFICATIONS ARE STRICTLY PROHIBITED EXCEPT AS SPECIFICALLY AUTHORISED WITHIN THESE SPECIFICATIONS.

IF THESE SPECIFICATIONS DO NOT SAY YOU CAN MAKE A MODIFICATION, THEN YOU CANNOT.

BL 1.01

1. Only genuine Biland components that are specifically designed and supplied for the SA-250 engine are legal, unless otherwise specified.
2. Neither the engine nor any of its ancillaries may be modified in any way likely to improve performance, unless specifically authorised within these rules.
3. Only engines numbers imported by International Karting Distributors will be eligible for use in AKA competition.

BL 1.02 Engine Statistics:

Nominal Capacity	248.4cm ³
Original Bore	58.0mm
Theoretical Maximum Bore	58.01mm
Stroke	47mm
Volume of Combustion Chamber	12cm ³ (Repair Limit of 0.6cm ³)
Compression Ratio	11.35 : 1
Cooling System	Water

BL 1.03 Carburetor:

DELL'ORTO carburettor – 1 per cylinder. Carburettor Diameter 22mm.

1. The carburettor body, slide, needle, atomiser tube and atomiser insert is to remain as originally supplied and cannot be subject to any modification. No additions or additional machining, filing, drilling or polishing etc is permitted to these items, this includes the bore/throat.
2. "PHBL 22" cast in the housing of the carburettor
3. "BD" or "BS" stamped in the housing of the carburettor
4. Atomiser Tube stamped with "266DA" or "264DA"
5. Needle Stamped with D31 or others as nominated in the future
6. Slide Marked #30 Only
7. Other settings in the carburettor are free.
8. Carburettor throttle cannot be actuated by electro mechanical means.

BL 1.04 Camshaft:

Camshaft Drive Type	SOHC Belt	
Intake Lift	7.5mm	
Intake Opening Duration	268 Degree	
Intake Timing	Opens 25 Degree BTDC	Closes 63 Degree ABDC
Exhaust Lift	7.5mm	
Exhaust Opening Duration	268 Degree	



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Exhaust Timing

Opens 65 Degree BBDC

Closes 23 Degree ATDC

BL 1.05 Inlet Valve:

- Must be genuine item
- Maximum of 1 per cylinder according to the following specification.

Weight	24 GR
Diameter of Valve Stem	5mm
Diameter of Valve Head	26.5mm
Diameter of Seat	23.5mm
Diameter of Duct	21mm

BL 1.06 Exhaust Valve:

- Must be genuine item
- Maximum 1 per cylinder according to the following specification.

Weight	21 GR
Diameter of Valve Stem	5mm
Diameter of Valve Head	24mm
Diameter of Seat	21mm
Diameter of Duct	23mm

BL 1.07 Crankshaft and Conrods:

Length between axes of Conrod	84.5mm
Weight of Conrod	185 GR
Diameter of Big End	35mm
Diameter of Small End	16mm
Weight of Crankshaft	1720 GR
A1	93mm
A2	93mm
B1	32mm
B2	32mm
C1	20mm
C2	32mm

BL 1.08 Piston:

Weight of Piston	145 GR Complete
Number of Rings per Piston	3