

ORIGINAL



TWO STROKE OUTBOARD PETROL ENGINE HOMOLOGATION FILE

International Homologation File Number: 00531			
Homologation Valid from	1 st April 2015	Expiry:	31 st March 2025
Valid for the following classes:	CIRCUIT: OFFSHORE:	GT30	
Manufacturer:	Bombardier Recreation Products		
Engine Model:	Evinrude E30D		
Number Manufactured:	1000+		
At the date:	1 st May 2015		
Certified by the National Authority of:	Sweden (SVERA)		
At the date:	1 st March 2015		
UIM Homologation Group Inspector	Mikael Lundblad		
At the date:	1 st March 2015		
UIM Certification Approval:	Thomas Kurth		
At the date:	6th May 2015		
Running Production Changes			
Change Detail	Page No.		
Date Approved for Use	Approved by		
Change Detail	Page No.		
Date Approved for Use	Approved by		

Union Internationale Motonautique
1, Avenue des Castelans
98000 Monaco
Tel: +377 92 05 25 22 Fax: +377 92 05 04 60
uim@uim.sport

PICTURES

Photo of the complete engine, 45° from the front at the port side.



Photo of the complete engine, 45° from the front at the starboard side.



Photo of the complete engine, 45° from the rear at the port side.



Photo of the complete engine, 45° from the rear at the starboard side.



Photo without top cover, 45° from the front at the port side.



Photo without top cover, 45° from the front at the starboard side.

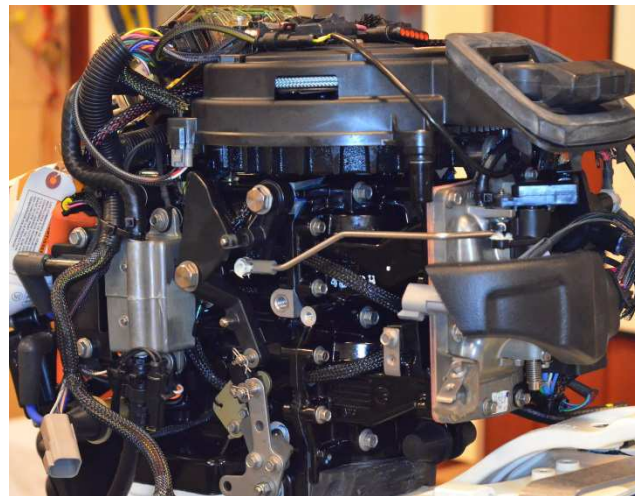
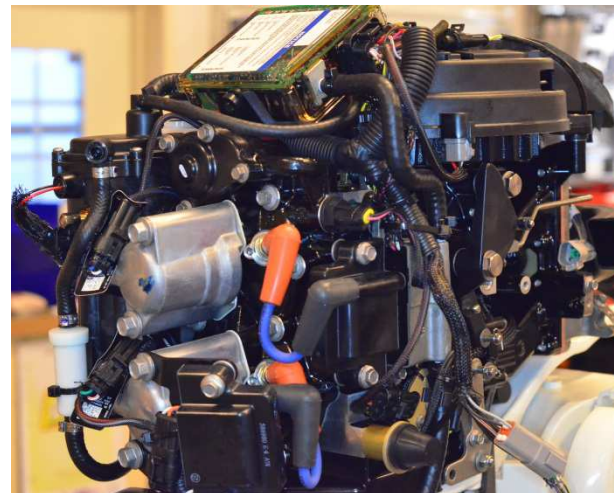


Photo without top cover, 45° from the rear at the port side.



Photo without top cover, 45° from the rear at the starboard side.



Cylinder head from the combustion chamber side



Cylinder head from the spark plug side.



Cylinder head showing combustion chamber.



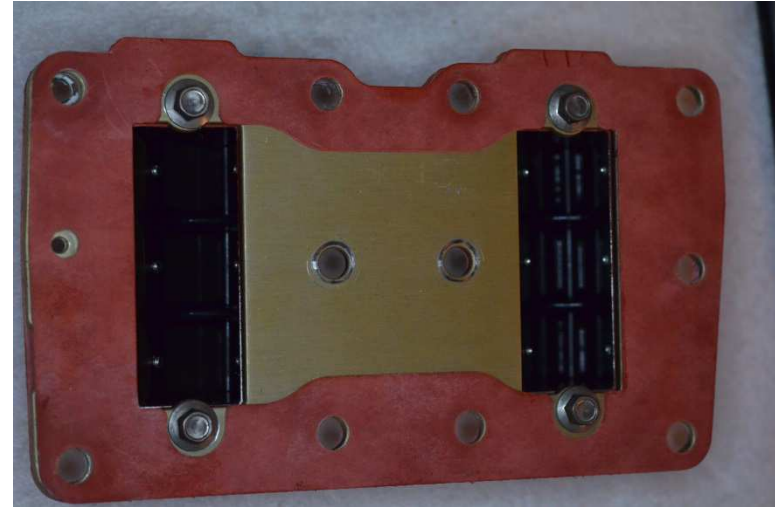
Cylinder head showing - detail



Reed valve assembly



Reed valve assembly – Inlet side



Reed block and reeds



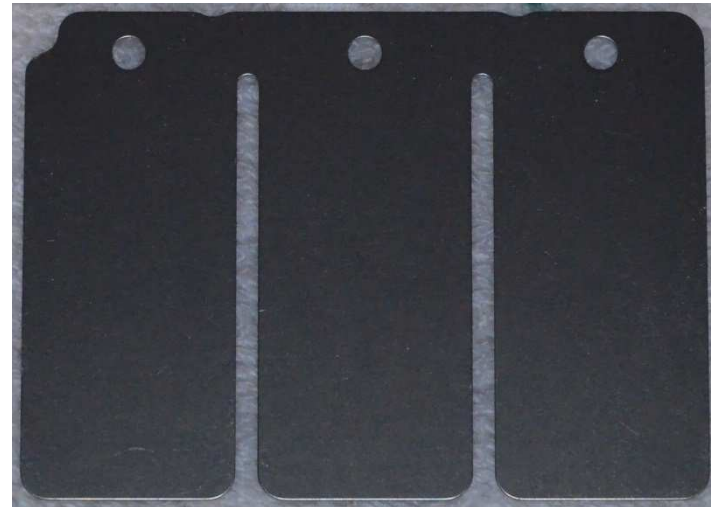
Reed stop - Measurement



Reed block



Reed



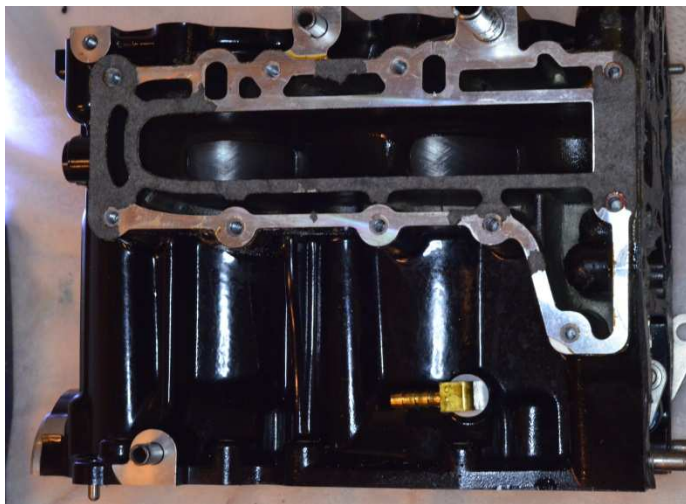
Cylinder block, viewed from crankshaft side.



Cylinder block, showing exhaust port gallery



Cylinder block viewed from port side



Cylinder block viewed from starboard side



Cylinder bore



Exhaust port



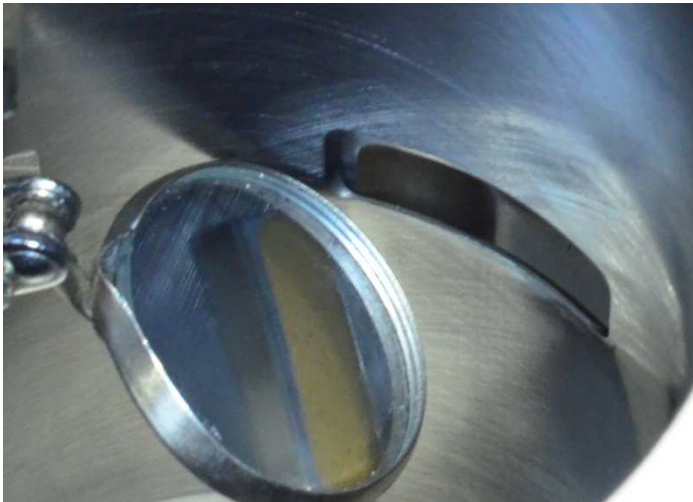
Exhaust port edge with chamfer



Transfer port 1



Booster port



Transfer port 2



Piston viewed from the top



Piston viewed from the bottom



Piston, viewed 45° from the wrist pin.



Piston, viewed 45° from the wrist pin.



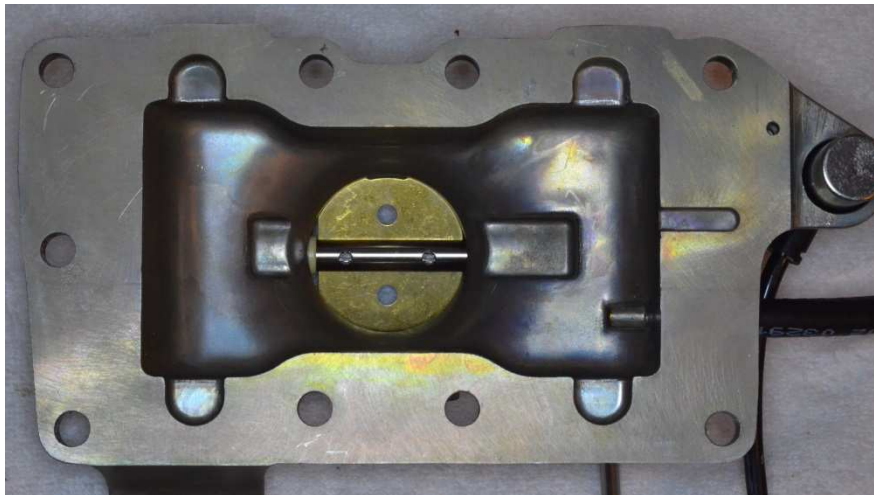
Connecting rod and crankshaft.



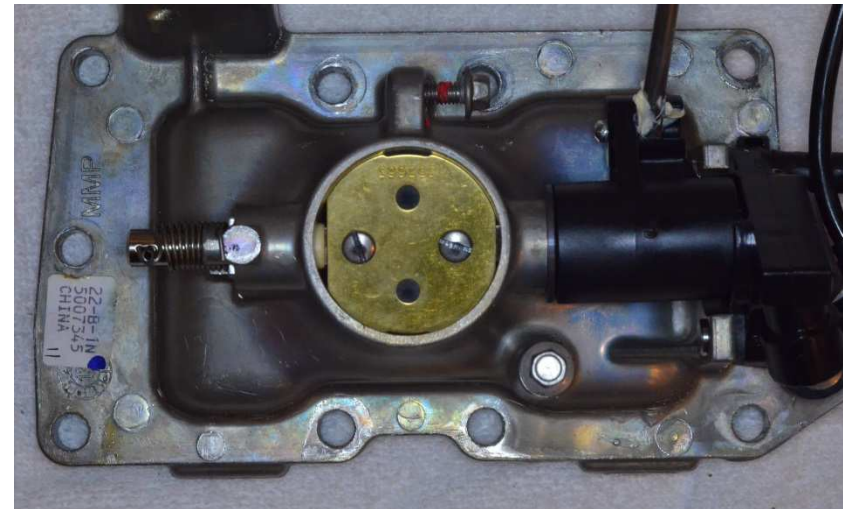
Flywheel



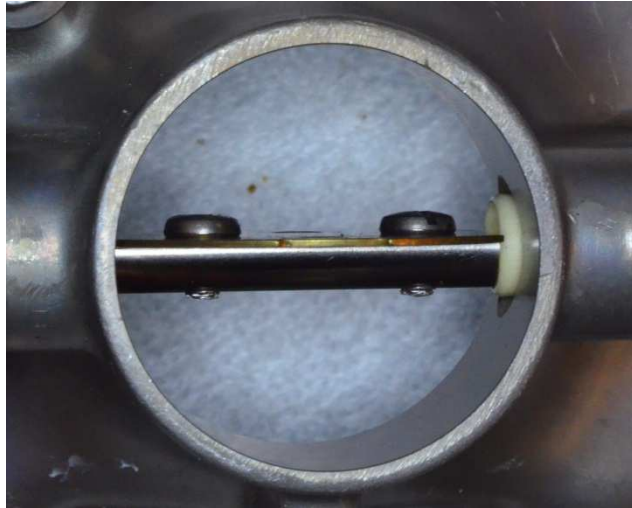
Intake plenum



Throttle house



Throttle bore



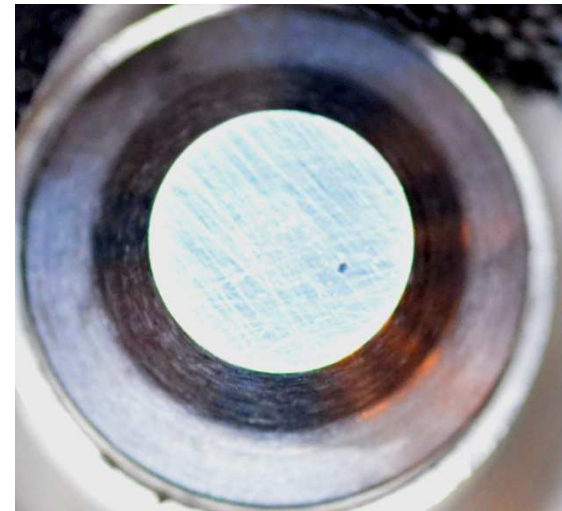
Intake silencer



Fuel Injector



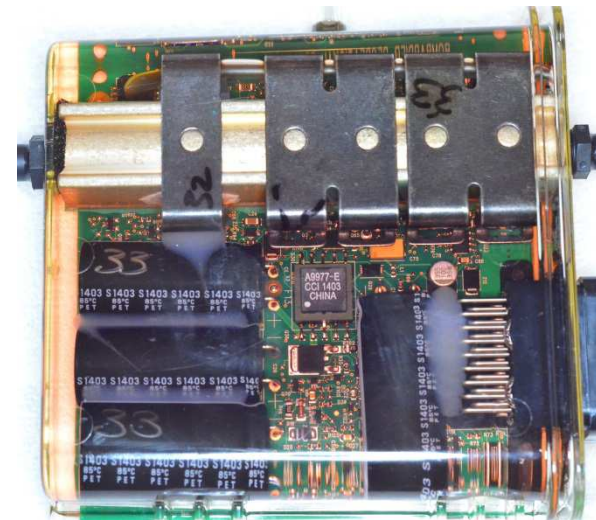
Fuel Injector - Close up



ECU box Front



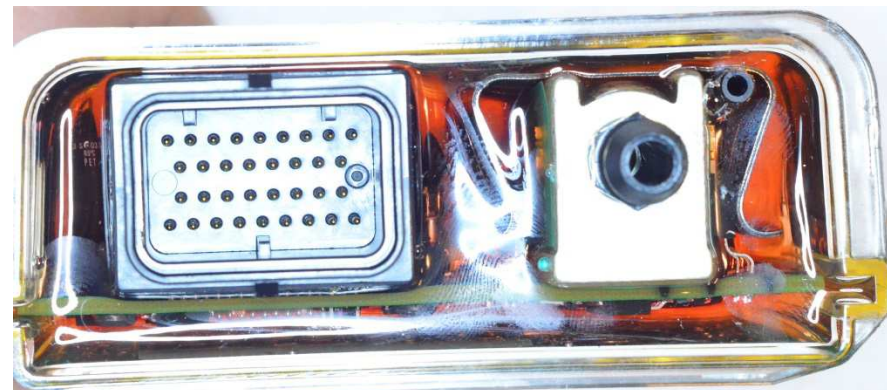
ECU box Back



ECU box part number



ECU box connections



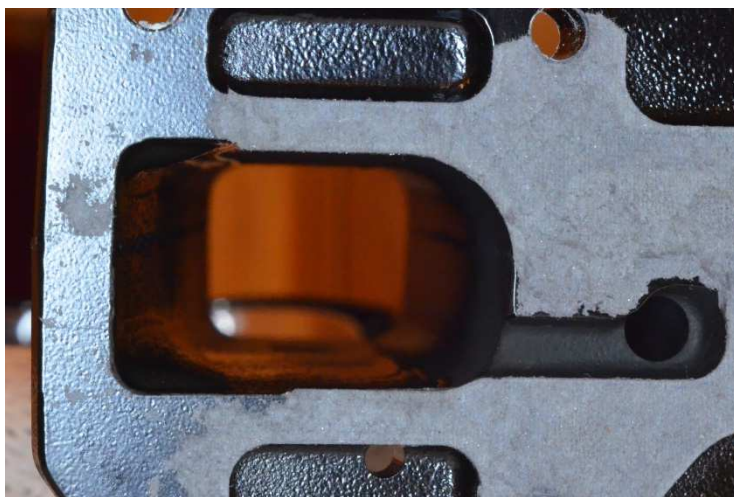
Inner house exhaust – viewed from block side



Inner house exhaust – viewed from gear house side



Internal exhaust tuner – viewed from gear house side



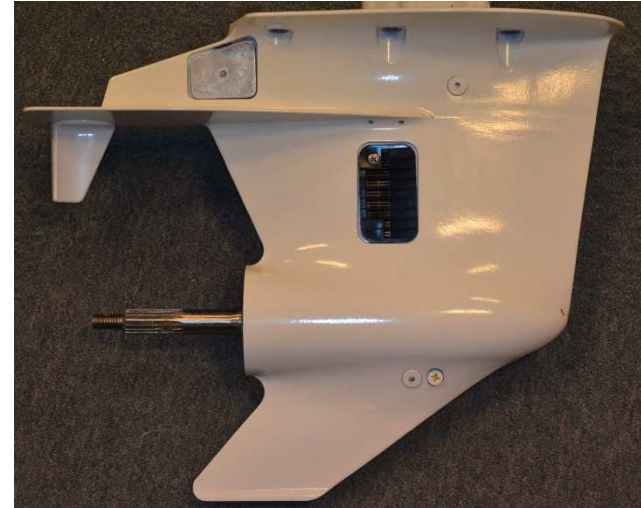
Internal exhaust tuner – gear house side



Gear house – Port side



Gear house – Starboard side



Gear house skag



Gear house skag



Gear house Exhaust



Gear house Exhaust



MEASUREMENTS

ENGINE FUEL

Type:	Pertol non leaded
Minimum octane required:	90 RON

ENGINE TYPE

Number of cylinders:	2 Cylinders
Cylinder arrangement:	In-line

ENGINE MAX ROTATIONAL SPEED

At 6250 rpm, the EMM (ECU) will shut off fuel and ignition spark to limit rotational speed of engine.

ENGINE BLOCK	Tolerance	Measurement	Unit
Bore	- 0.011/+0.026	76.00	mm
Stroke	+/- 0.08	63.50	mm
Capacity per cylinder	max	277.3	cc
Total Capacity	max	554.6	cc
Cylinder block material		Aluminium	
Cylinder liner material		Grey Iron	
Distance from crankshaft centreline to cylinder block deck face.	+/- 0.25	178.30	mm

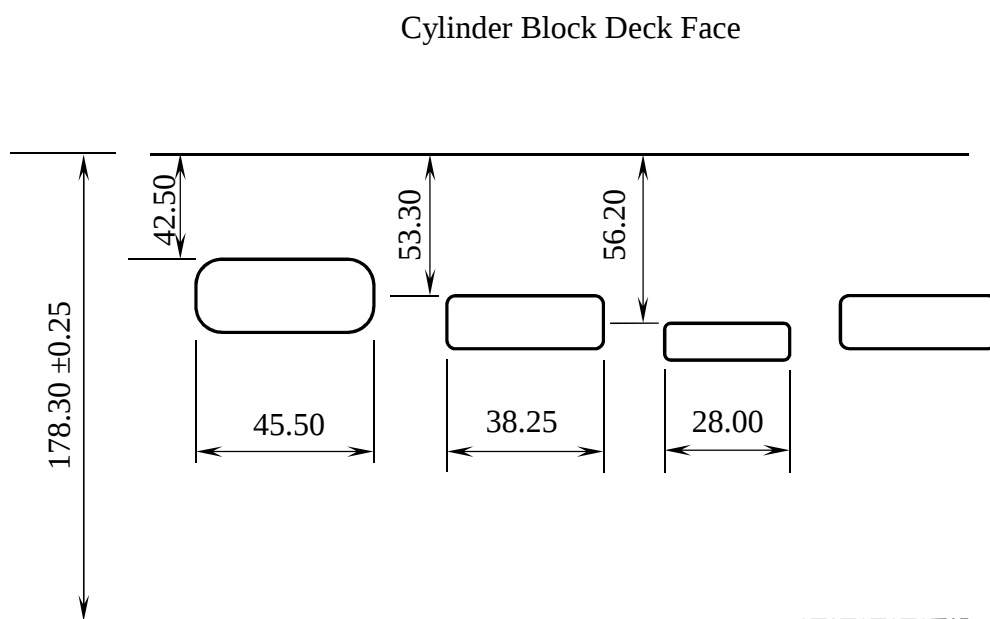
REED VALVE	Tolerance	Measurement	Unit
Reed thickness	+/- 0.02	0,20	mm
Reed lift (stop height, see picture)	max	20.0	mm
Reed material		Stainless steel	
Number and size of reed ports	max	(6x) 33,2x16,7	mm

Exhaust tuner	Tolerance	Measurement	Unit
Vertical length	+/- 0.5	277.0	mm
Exhaust tuner inlet	+/- 0.3	46.9x29.1	mm
Exhaust tuner outlet	+/- 0.3	54.3x44.3	mm

CYLINDER HEAD	Tolerance	Measurement	Unit
Cylinder head material		Aluminium	
Volume of combustion chamber (without volume of spark plug hole)	min	35.0	cc

CYLINDER PORT LAYOUT

Exhaust ports have chamfers
Dimensions shown ignore chamfers

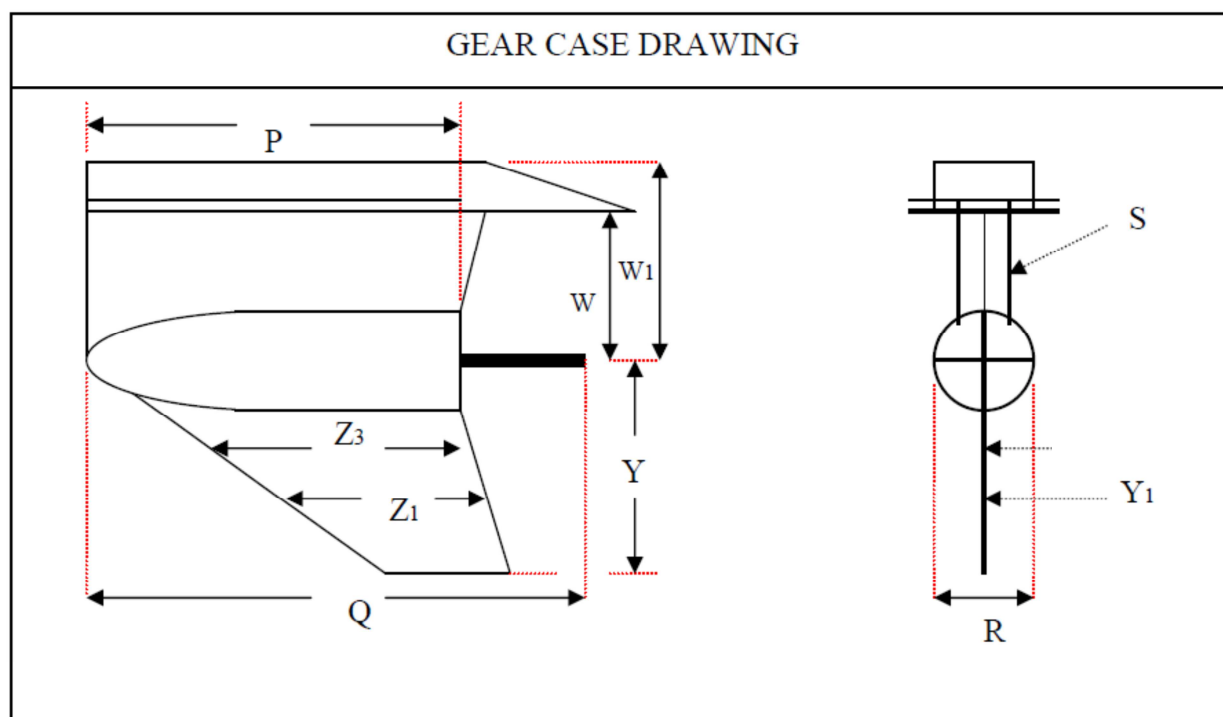


All port manufacture to a tolerance of ± 0.25 mm

PISTONS		Measurement	Unit
Material of piston		Aluminium	
Type and thickness of rings	Keystone	1.92	mm
	Flat	1.90	mm
CRANKSHAFT		Measurement	Unit
Number of main bearing journals		1 upper, 1 center, 1 lower	
	+/- 0.013	upper 41.250	mm
Diameter of main bearing journals	+/- 0.013	center 44.620	mm
	+/- 0.013	lower 51.955	mm
Diameter of connecting rod journals		30.011 – 30.016	mm
TYPE OF BEARINGS			
Piston Pin		Needle roller	
Connecting Rod journal		Needle roller	
Main journal		Top, center Needle roller	
		Bottom Ball rearing	
FUEL INJECTION		Measurement	Unit
Make ECU (EMM)		BRP	
Type of pump, model no.		1 Mechanical 1 Electric	
Total number of injectors		2	Injectors
Type of injectors		Fuel	
Diameter of throttle bore	+/- 0.20	38.00	mm
COOLING SYSTEM			
Type		Water	
Method		Thermostat controlled	
Pump		Pump	
Number of impeller blades		5	blades

WEIGHTS	Tolerance	Measurement	Unit
Piston (with rings)	min	350.0	g
Piston Pin	min	81.0	g
Crankshaft (inc main bearing & housings & seal rings & rods & pistons)	min	6150	g
Flywheel (with all rotating attachments)	min	5010	g

UNDERWATER UNIT	Tolerance	Measurement	Unit
Gear Ratio		13:28 (0.465)	
P Longitudinal length of gearcase torpedo	+/- 5.0	242,0	mm
Q Longitudinal dimension of gearcase including propeller shaft	max	359.0	mm
R Transverse dimension of gearcase	min	81.0	mm
S Thickness of strut	min	38.0	mm
Z1 Skeg chord length, 25mm above bottom	+/- 5.0	117.0	mm
Z3 Skeg chord length, 75mm above bottom	+/- 5.0	154.0	mm
W1 Distance from propeller shaft to upper flange	+/- 5.0	227.0	mm
W Distance from propeller shaft to anti-ventilation plate	+/- 5.0	147.0	mm
Y1 Thickness of skeg, 25mm above bottom	min	6.5	mm
Y Skeg depth from propeller shaft	+/- 5.0	133.0	mm



NOTES