CW Cylinder Bore Measurement Record

Block # / Run # : CW13 /2nd

Test Number: 93-0-025

Date: 1/15/2016

Tech:

Cylinder Bore Measurements w/o Stress Plate

Finish Target: (9- 13 Ra) µin
Bore Gauge Set: 87.5 mm

Piston to Wall Clearance: (.0225 - .0475) mm
Cylinder Cross HatchTarget: (25°-35°) Deg

Instrument Cntrl # 175

Cylinder Number	Location	Longitudinal Diameter (mm)	Transverse Diameter (mm)
	Top	87.516	87.52
1	Middle	87.512	87.518
	Bottom	87.508	87.516
	Top	87.518	87.524
2	Middle	87.52	87.518
	Bottom	87.518	87.516
	Top	87.516	87.518
3	Middle	87.516	87.512
	Bottom	87.514	87.512
	Top	87.506	87.524
4	Middle	87.506	87.52
	Bottom	87.506	87.516

Instrument Cntrl # CW6

Surface Finish (µin)	Piston Diameter (mm)	Piston Clearance (mm)
10.0 ra	87.474	0.042
10.8 ra	87.475	0.041
10.2 ra	87.475	0.037
11.0 ra	87.477	0.039

Instrument Cntrl # 135

Cylinder Number	Top Ring Gap	Second Ring Gap
1	0.065	0.070
2	0.065	0.070
3	0.065	0.070
4	0.065	0.070

REGAP/EOT

Cylinder Number	Top Ring Gap	Second Ring Gap
1	0.066	0.073
2	0.066	0.073
3	0.067	0.074
4	0.066	0.074

Approved

CW Engine Measurment Record

Engine Number: CW13 **Date:** 1-15-2016

Test Number: 93-0-025 **Technician:**

Instrument Cntrl # (*Journal*) CW02 **Instrument Cntrl # (*Bearing*) FD-02**

Main Bearing Journals (mm)				
Diameter: (51.978mm - 52.002mm)				
Journal Number	Horizontal Diameter	Vertical Diameter	Bearing Inside Diameter	Clearance .027mm - .052mm
1	51.986	51.986	52.014	0.028
2	51.987	51.987	52.022	0.035
3	51.988	51.988	52.022	0.034
4	51.988	51.988	52.022	0.034
5	51.988	51.988	52.019	0.031

Instrument Cntrl # (*Journal*) CW02 **Instrument Cntrl # (*Bearing*) FD-02**

Rod Bearing Journals (mm)				
Diameter: (51.978mm - 52.002mm)				
Journal Number	Horizontal Diameter	Vertical Diameter	Bearing Inside Diameter	Clearance .027mm - .052mm
1	51.991	51.991	52.032	0.041
2	51.989	51.989	52.034	0.045
3	51.990	51.990	52.022	0.032
4	51.989	51.989	52.022	0.033

Instrument Cntrl # (Endplay) CW03

Crankshaft End Play (0.22 mm - 0.45 mm) **.33mm**

CW HEAD DATA SHEET

HEAD # CW13
HEAD RUN # 2nd
DATE: 1/15/2016

Engine # CW13
Test # 93-0-025
Instrument Cntrl # (Valve Guide) 172
Instrument Cntrl # (Valve Stem) 133

	Valve Guide Diameter (5.51) mm	Valve Stem Diameter (5.5) mm	Clearance (0.03-0.07) mm
1A Intake	5.514	5.474	0.040
1B Intake	5.516	5.475	0.041
2A Intake	5.516	5.474	0.042
2B Intake	5.516	5.474	0.042
3A Intake	5.516	5.470	0.046
3B Intake	5.518	5.475	0.043
4A Intake	5.514	5.471	0.043
4B Intake	5.516	5.470	0.046

	Valve Guide Diameter (5.51) mm	Valve Stem Diameter (5.5) mm	Clearance (0.03-0.07) mm
1A Exhaust	5.520	5.462	0.058
1B Exhaust	5.514	5.464	0.050
2A Exhaust	5.518	5.463	0.055
2B Exhaust	5.520	5.461	0.059
3A Exhaust	5.526	5.463	0.063
3B Exhaust	5.516	5.462	0.054
4A Exhaust	5.520	5.461	0.059
4B Exhaust	5.516	5.461	0.055

Instrument Cntrl # (Length) CW04

	SPRING FREE LENGTH (47mm)	SPRING TENSION (@28.5 mm)
1A Intake	47.1 mm	47 Kilos
1B Intake	46.7 mm	46 Kilos
2A Intake	46.8 mm	46 Kilos
2B Intake	46.8 mm	46 Kilos
3A Intake	46.8 mm	46 Kilos
3B Intake	46.8 mm	46 Kilos
4A Intake	46.8 mm	46 Kilos
4B Intake	47 mm	47 Kilos

Instrument Cntrl # (Tension) Y1580

	SPRING FREE LENGTH (47mm)	SPRING TENSION (@28.5 mm)
1A Exhaust	46.9 mm	46 Kilos
1B Exhaust	47.1 mm	47 Kilos
2A Exhaust	46.9 mm	47 Kilos
2B Exhaust	46.8 mm	47 Kilos
3A Exhaust	46.9 mm	46 Kilos
3B Exhaust	46.7 mm	46 Kilos
4A Exhaust	46.8 mm	46 Kilos
4B Exhaust	46.8 mm	46 Kilos

Instrument Cntrl # (Lash) 148

Intake Valve Lash Measurement (.19 - .31) mm	
1F	0.254
1R	0.254
2F	0.254
2R	0.254
3F	0.229
3R	0.203
4F	0.229
4R	0.229

Exhaust Valve Lash Measurement (.30 - .42) mm	
1F	0.356
1R	0.356
2F	0.356
2R	0.356
3F	0.356
3R	0.356
4F	0.356
4R	0.356

Head Flatness: Good

Initials: DC