Report Forms

SEQUENCE VIBSJ

VERSION: ***VIBSJ VERSION 20020410***

CONDUCTED FOR:

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

C	V = VALID
	I = INVALID
	N = RESULTS CANNOT BE INTERPRETED (REFER TO COMMENT SECTION)

Lab: *CC*	Date Completed: *YYYYMMDD*	Time Completed: *HH:MM*	
Test Number			
Test Stand: *CCCCC*	Runs On The Stand: *CCCC*	Engine No.: *CCCCCCCCCCCCCC*	Runs on Engine: *CCCC*
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*			
Formulation/Stand Code: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*			
Alternate Codes	*CCCCCCCCCCCCCCC*	*CCCCCCCCCCCCCCC*	

In my opinion this test been conducted in a valid manner in accordance with the VIB Test Procedure (RR: D02-1469) and the appropriate amendments through the Information Letter System. The remarks included in the report describe the anomalies associated with this test.

SUBMITTED BY: _____

Testing Laboratory

_____

Signature

_____

Typed Name

_____

Title

Fig. A7.1 Test Report Cover

SEQUENCE VIBSJ
FORM 4
TEST RESULT SUMMARY
NON-REFERENCE & REFERENCE OIL TESTS

Lab: *CC*	Date Completed: *YYYYMMDD*	Time Completed: *HH:MM*	
Test Number			
Test Stand: *CCCCC*	Runs On The Stand: *CCCC*	Engine No.: *CCCCCCCCCCCCCC*	Runs on Engine: *CCCC*
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		Engine Serial Number:	
Formulation/Stand Code: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*			

TEST DOCUMENTATION		
	BC Before	Test Oil
Start Date		
Start Time		
End Date		
End Time		
Oil Test Length, hhh:mm		
Calibration Oil Batch		
Flush Oil Batch		
Laboratory Oil Code		
SAE Viscosity Grade		
TMC Oil Code (Reference Oil Tests Only)		
New Oil Viscosity @ 40 ˚C, cSt		
New Oil Viscosity @ 100˚C, cSt		
Total Test Length, hhh:mm		
Total Engine Hours @ EOT		
Most Recent Fuel Batch		

OVERALL RESULTS		
	BC Oil	Test Oil
	Before	Phase I
Fuel Consumed, kg		
Fuel Economy Improvement, %		
FEI Industry Correction Factor, %		
FEI Severity Adjustment, % (non-reference tests only)		
FEI Final Result, %		

Last Reference Oil Test on Stand/Engine History (Non-Reference Tests Only)			
Date Completed		Fuel Batch	
TMC Oil Code		SAE Viscosity Grade	
Oilcode		Calibration Oil Batch	
Runs on Stand		Runs on Engine	
		Phase I	Phase II
Final FEI Results			

Fig. A7.4 Test Result Summary - Non-reference and Reference Oil Tests

SEQUENCE VIBSJ
FORM 5
OPERATIONAL DATA ANALYSIS

Lab: *CC*	Date Completed: *YYYYMMDD*	Time Completed: *HH:MM*	
Test Number			
Test Stand: *CCCCC*	Runs On The Stand: *CCCC*	Engine No.: *CCCCCCCCCCCCCC*	Runs on Engine: *CCCC*
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*			
Formulation/Stand Code: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*			

Computed Averages						
Oil	Stage	BSFC kg/kW-h	BSFC C.V.%	Nominal Power kW	Weight Factor	Weighted Fuel Consumed kg
BC Oil	**1**			15.39	0.0802	
	2			2.18	0.0787	
	3			2.18	0.0848	
	4			15.39	0.0864	
	5			15.39	0.0699	
Total Fuel Consumed						

Computed Averages						
Oil	Stage	BSFC kg/kW-h	BSFC C.V.%	Nominal Power kW	Weight Factor	Weighted Fuel Consumed kg
Test Oil	**1**			15.39	0.0802	
	2			2.18	0.0787	
	3			2.18	0.0848	
	4			15.39	0.0864	
	5			15.39	0.0699	
Total Fuel Consumed						

Fig. A7.5 Operational Data Analysis

SEQUENCE VIBSJ
FORM 6

GENERAL PARAMETER LISTING

Lab: *CC*	Date Completed: *YYYYMMDD*	Time Completed: *HH:MM*	
Test Number			
Test Stand: *CCCCC*	Runs On The Stand: *CCCC*	Engine No.: *CCCCCCCCCCCCCC*	Runs on Engine: *CCCC*
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*			
Formulation/Stand Code: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*			

16 Hour Aging

	SPEC	AVERAGE [A]	MAX [A]	MIN [A]
1. Speed, r/min	1500 ± 5			
2. Torque, N-m	98 ± 0.10			
3. Oil Gallery Temperature, ˚C	125 ± 2			
4. Coolant Inlet Temperature, ˚C	105 ± 2			
5. Oil Circulation Temperature, ˚C	Record			
6. Coolant Out Temperature, ˚C	Record			
7. Intake Air Temperature, ˚C	27 ± 2			
8. Fuel to Flowmeter Temperature, ˚C	20 - 32			
9. Fuel to Fuel Rail Temperature, ˚C	20 ± 2			
10. Load Cell Temperature, ˚C	Record			
11. Oil Heater Temperature, ˚C	205 max			
12. Intake Air Pressure, kPa	0.05 ± 0.02			
13. Fuel to Flowmeter Pressure, kPa	100 min			
14. Fuel to Fuel Rail Pressure, kPa	205 - 310			
15. Intake Manifold Pressure, kPa abs.	Record			
16. Exhaust Back Pressure, kPa abs.	104 ± 0.20			
17. Engine Oil Pressure, kPa	Record			
18. Coolant Flow, L/min	130 ± 4			
19. Fuel Flow, kg/h	Record			
20. Intake Air Humidity, grains/kg	11.4 ± 0.8			
21. Air/Fuel Ratio	Record			
22. Crankcase Pressure, kPa	0.00 ± 0.25			

[A] *Based on a minimum of one determination per hour*

Fig. A7.6 General Parameter Listing

SEQUENCE VIBSJ
FORM 7
GENERAL PARAMETER SUMMARY

Lab: *CC*	Date Completed: *YYYYMMDD*	Time Completed: *HH:MM*	
Test Number			
Test Stand: *CCCCC*	Runs On The Stand: *CCCC*	Engine No.: *CCCCCCCCCCCCCC*	Runs on Engine: *CCCC*
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*			
Formulation/Stand Code: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*			

BC Oil

General Parameters

		Stage				
	Spec	**1**	**2**	**3**	**4**	**5**
1. Oil Circulation Temperature, ˚C	Record					
2. Coolant Out Temperature, ˚C	Record					
3. Fuel to Flowmeter Temperature, ˚C	20-32					
4. Delta Fuel to Flowmeter Temp., ˚C [A]	≤ 4					
5. Test Cell Temperature, ˚C	Record					
6. Load Cell Temperature, ˚C	Record					
7. Delta Load Cell Temperature, ˚C [A]	≤ 12					
8. Oil Heater Temperature, ˚C	205 max					
9. Intake Air Pressure, kPa	0.05 ± .02					
10. Fuel to Flowmeter Pressure, kPa	100 min					
11. Fuel to Fuel Rail Pressure, kPa	205 - 310					
12. Intake Manifold Pressure, kPa abs.	Record					
13. Engine Oil Pressure, kPa	Record					
14. Coolant Flow, L/min	130 ± 4					
15. Intake Air Humidity, grains/kg	11.4 ± 0.8					
16. Crankcase Pressure, kPa	0.00 ± 0.25					
17. Blowby, L/min [B]	Record					
18. Barometric Pressure, kPa	Record					

[A] Difference between the maximum stage average reading of the entire test and the individual stage average readings.

[B] Measurement not required by procedure.

Fig. A7.7 General Parameter Summary

SEQUENCE VIBSJ
FORM 8
GENERAL PARAMETER SUMMARY

Lab: *CC*	Date Completed: *YYYYMMDD*	Time Completed: *HH:MM*	
Test Number			
Test Stand: *CCCCC*	Runs On The Stand: *CCCC*	Engine No.: *CCCCCCCCCCCCCC*	Runs on Engine: *CCCC*
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*			
Formulation/Stand Code: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*			

Test Oil
General Parameters

		Stage				
	Spec	**1**	**2**	**3**	**4**	**5**
1. Oil Circulation Temperature, ˚C	Record					
2. Coolant Out Temperature, ˚C	Record					
3. Fuel to Flowmeter Temperature, ˚C	20-32					
4. Delta Fuel to Flowmeter Temp., ˚C [A]	≤ 4					
5. Test Cell Temperature, ˚C	Record					
6. Load Cell Temperature, ˚C	Record					
7. Delta Load Cell Temperature, ˚C [A]	≤ 12					
8. Oil Heater Temperature, ˚C	205 max					
9. Intake Air Pressure, kPa	0.05 ± .02					
10. Fuel to Flowmeter Pressure, kPa	100 min					
11. Fuel to Fuel Rail Pressure, kPa	205 - 310					
12. Intake Manifold Pressure, kPa abs.	Record					
13. Engine Oil Pressure, kPa	Record					
14. Coolant Flow, L/min	130 ± 4					
15. Intake Air Humidity, grains/kg	11.4 ± 0.8					
16. Crankcase Pressure, kPa	0.00 ± 0.25					
17. Barometric Pressure, kPa	Record					

[A] Difference between the maximum stage average reading of the entire test and the individual stage average readings

Fig. A7.8 General Parameter Summary