



Test Monitoring Center

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T-12 Information Letter 11-1
Sequence No. 8
April 15, 2011

ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: Mack Mailing List
SUBJECT: STWN Hardware Approval and Correction Factors

On April 5, 2010, via teleconference, the Mack Test Surveillance panel approved the use of hardware combination 'STWN'. Due to a severity shift observed with this hardware, the panel also approved correction factors for all five test parameters. Accordingly, section 11.6.3.1 has been revised and sections 11.6.2.1, 11.6.4.4, 11.6.5.1, 11.6.6.1, and Footnote 'B' to Table A2.1 have been added. The revised and new sections are attached.

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Attachment
c: ftp://ftp.astmtmc.cmu.edu/docs/diesel/mack/procedure_and_ils/T-12/il11-1.pdf

Distribution: Email

(Revises D 7422-10a, as amended by Information Letters 10-2 and 10-3)

11.6.2.1 *Correction Factor for Average Top Ring Weight Loss*—For all tests using the STWN hardware combination, multiply the average top ring weight loss from 11.6.2 by 0.95 to get the final average top ring weight loss result. Report the data on the appropriate form.

11.6.3.1 *Correction Factor for Average Cylinder Liner Wear*—For all tests using Batch R piston ring and cylinder liner hardware, multiply the average cylinder liner wear from 11.6.3 by 0.58 to get the final average cylinder liner wear result. For all tests using the SWTN hardware combination, multiply the average cylinder liner wear from 11.6.3 by 0.86 to get the final average cylinder liner wear result. Report the data on the appropriate form.

11.6.4.4 *Correction Factor for Δ Lead at EOT* —For all tests using the STWN hardware combination, determine the final Δ Lead at EOT result by applying the correction factor of 0.95 according to the following equation:

$$\Delta\text{Lead}_{\text{Final}} = \exp[(\ln(\Delta\text{Lead}) \times 0.95)] \quad (3)$$

Where:

$\Delta\text{Lead}_{\text{Final}}$ = final Δ Lead at EOT

ΔLead = value calculated per 11.6.4.3, equation (2)

Report the data on the appropriate form.

11.6.5.1 *Correction Factor for Δ Lead (250 to 300) h* —For all tests using the STWN hardware combination, determine the final Δ Lead (250 to 300) h result by applying the correction factor of 1.03 according to the following equation:

$$\Delta\text{Lead (250-300)}_{\text{Final}} = \exp[(\ln(\Delta\text{Lead 250-300}) \times 1.03)] \quad (4)$$

Where:

$\Delta\text{Lead (250-300)}_{\text{Final}}$ = final Δ Lead (250 to 300) h

$\Delta\text{Lead (250-300)}$ = value calculated per 11.6.5

Report the data on the appropriate form.

11.6.6.1 *Correction Factor for Oil Consumption*—For all tests using the STWN hardware combination, determine the final oil consumption result by applying the correction factor of 0.96 according to the following equation:

$$\text{OC} = \exp[(\ln(\text{OC}_{100-300}) \times 0.96)] \quad (5)$$

Where:

OC = final oil consumption

$\text{OC}_{100-300}$ = average oil consumption from 11.6.6

Report the data on the appropriate form.

TABLE A2.1 New Parts for Each Rebuild

Part Name	Mack Part Number	Quantity
1. Cylinder liners ^{A, B}	509GC471	6
2. Piston Assembly ^A		
Piston Crown	240GC5125M	6
Piston Skirt	240GC5119M	6
3. Piston Ring Set ^{A, B}		
#1 Compression ring	349GC3107	6
#2 Compression ring	349GC3108	6
Oil ring	350GC343	6
4. Overhaul gasket sets	57GC2176	2
	57GC2178A	1
	57GC2179	1
5. Spin-on filters	485GB3236	2
Centrifugal filter cartridge	239GB244B (57GC2134A Kit)	1
6. Engine coolant conditioner	25MF435B	1
7. Primary fuel filter	483GB470AM	1
8. Secondary fuel filter	483GB471M	1
9. Valve guides	714GB3111	24
10. Valve stem seals	446GC332	24
11. Inlet insert	13GC316	12
12. Exhaust insert	13GC317	12
13. Valve stem key	54GC25	48
14. Inlet Valve	690GC410	12
15. Exhaust Valve	688GC344	12
16. Connecting rod bearings ^B	M1062GBT100	6
17. Main Bearings ^B	M1057GCT100	7
18. Thrust Washers	714GC41	2
	714GC42	2

^A A P/N 57GC3137 cylinder rebuild kit contains items 1, 2, and 3.

^B Included in the STWN hardware combination.