

**Mack T-12 EGR Engine Test**

Mack Merit Rating, min. 1,000  
 Cylinder Liner Wear (Avg. 6 cylinders, 12 locations) 20  
 Top Ring Weight Loss ( Avg. of 6 Cylinders) 70  
 End of Test Lead 25  
 Delta Lead 250 - 300 hrs. 10  
 Oil Consumption (Phase II) 65

**Mack T-11 Engine Test**

Minimum TGA % Soot @ 4.0 cSt increase @ 100° C 3.50/3.38/3.33%  
 Minimum TGA % Soot @ 12.0 cSt increase @ 100° C 6.00/5.91/5.87%  
 Minimum TGA % Soot @ 15.0 cSt increase @ 100° C 6.70/6.59/6.55%

**Mack T-11A Used MRV TP-1**

180 hour T-11 Drain MRV, mPa-s, max. 25,000  
 MRV Yield Stress, Pa, <35

**Cummins ISM EGR Engine Test**

Cummins Merit Rating, min. 1,000  
 Crosshead Avg. Wt. Loss 5.7  
 Top Ring Weight Loss 100  
 Delta Oil Filter Differential Pressure 0 to 150 hr. 13  
 Average Engine Sludge / CRC Merits @ EOT 9.0  
 Average Injector Adjusting Screw Weight Loss, mg. 27

**Cummins ISB EGR Engine Test**

Average Slider Tappet Weight Loss, mg, max. 100  
 Average Cam Lobe Wear, µm, max. 55  
 Average Crosshead Weight Loss, max. R&R

**Caterpillar C13 Deposit/Oil ConsumptionTest**

CAT Merit Rating, min. 1,000  
 Oil Consumption Delta (125=>475 hours), g/hr. 25  
 Top Groove Carbon 46  
 Top Land Carbon 30  
 Second Ring Top Carbon 22  
 Hot-stuck piston ring NONE

**Caterpillar 1N**

Weighted Demerits, max. 286.2/311.7/323.0  
 Top Groove Fill, max. 20/23/25  
 Top Land Heavy Carbon, max. 3/4/2005  
 Oil Consumption (0-252 hrs) g/kwh, max. 0.5  
 Piston/ring/liner scuffing NONE  
 Piston ring stick NONE

**MERIT** Procedure full description, D4485 Annex partial description and MTAC

**TIERED** D4485 Annex CJ outlier determination

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**none** D4485 Annex CJ outlier determination

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**TIERED** D4485 Annex CJ outlier determination (copy A9 CI-4)

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**none** D4485 Annex CJ outlier determination (copy A9 CI-4)

**Caterpillar 1P**

Weighted Demerits, max. 350/378/390  
Top Groove Carbon, max. 36/39/41  
Top Land Carbon, max. 40/46/49  
Oil Consumption (0 to 360 hrs) g/hr, max. 12.4  
Final OC (312-360 hrs), max. 14.6  
Piston/ring/liner scuffing NONE

**Sequence IIIF Engine Test**

EOT Kinematic Viscosity / % Increase @ 40° C, max. 275%

**Sequence IIIG Engine Test** (alternative to IIIF)

EOT Kinematic Viscosity / % Increase @ 40° C, max. 150%

**Roller Follower Wear Test D 5596**

Average pin wear, mils, max. 0.30/0.33/0.36

**EOAT Test D 6894**

Aeration, volume %, max 8.0

**TIERED** D4485 Annex CJ outlier determination (copy A7 CH-4)  
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**none** D4485 Annex CJ outlier determination (copy A7 CH-4)  
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**MTAC** D4485 A1 CI-4 1/sqrt

**MTAC** D4485 A1 CI-4 ln

**TIERED** D4485 Annex CJ outlier determination (copy A9 CI-4)

**MTAC** D4485 A1 CI-4