

Sequence III in HD Categories

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Use of Seq. IIIG in HD Categories in D4485

Issue / Concern

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- Oil oxidation requirements for CG-4, CH-4, CI-4, and CJ-4 are defined by 4 different performance levels in the Sequence IIIF test
- The Sequence IIIG at SM viscosity increase limits is listed as an alternate the Sequence IIIF in all 4 categories
- Concern that the current format does not recognize the difference in performance between the Seq. IIIF & IIIG tests
- Propose clarification to reduce potential confusion
 - ❖ At a minimum, add a footnote indicating that the 2 Sequence III requirements in a given CX-4 category are not equivalent
 - ❖ For the longer term, consider alternate limits in the Seq. IIIG to match intended performance level

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Proposal – add new footnote

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Category	Test Method	Rated or Measured Parameter	Primary Performance Criteria		
			One-Test	Two-Test	Three-Test
CG-4					
	D 6984 (Sequence IIIF)	60 h viscosity (at 40°C) increase from 10 min sample, %, max	325	349	360
	or Sequence IIIG ^{AE}	Kinematic viscosity, % increase at 40°C max	150	173	184
CH-4					
	D 6984 (Sequence IIIF)	60 h Viscosity at 40°C, increase from 10 min sample, % max	295	275 (MTAC) ^U	275 (MTAC) ^U
	or Sequence IIIG ^{AE}	Kinematic viscosity, % increase at 40°C max	150	150 (MTAC)	150 (MTAC)
CI-4					
	D 6984 (Sequence IIIF) ^X	Kinematic viscosity (at 40°C), % increase, max	275	275 (MTAC)	275 (MTAC)
	or Sequence IIIG ^{AE}	Kinematic viscosity, % increase at 40°C max	150	150 (MTAC)	150 (MTAC)
CJ-4					
	D 6984 (Seq. IIIF)	Kinematic viscosity (at 40°C), % increase, max	275	275 (MTAC)	275 (MTAC)
	or, alternately, Sequence IIIG ^{AE}	Kinematic viscosity (at 40°C), % increase, max	150	150 (MTAC)	150 (MTAC)

^{AE} The Sequence IIIG limits shown are more restrictive than the corresponding limits in the Sequence IIIF, and are not intended to indicate equivalence. Results meeting the Sequence IIIG criteria stated can be used in lieu of the Sequence IIIF.