

Engine lube oil limits for S.E.M.T. Pielstick engines

Property	Method	Unit	Grade	Lower limit	Upper limit
Viscosity @40 °C	ISO 3104 (ASTM D445)	mm ² /s	SAE 30	75	Alarm level = 120 / Rejection = 135
			SAE 40	108	Alarm level = 180 / Rejection = 200
Viscosity @100 °C			SAE 30	9	Alarm level = 13 / Rejection = 14
			SAE 40	12	Alarm level = 17 / Rejection = 18,5
Flash point	ISO 2719 (ASTM D93)	°C	Drop of 50 °C with respect to that of fresh oil is alarming. Rejection ≤ 150 °C		
Water	ISO 3733 (ASTM D95)	% V/V	Alarm level ≥ 0.2%. Rejection ≥ 0.5%		
Pentane Insolubles	ASTM D893/B	% M/M	Alarm level ≥ 1.5%. Rejection ≥ 2.5%		
Base Number	ISO 3771 (ASTM D2896)	mgKOH/g	8 min. if running on distillate DMX (S = 1% max.)		
			15 min. if running on distillate DMA / DMC (S = 2% max.)		
			20 min. if running on residual fuels RMA 30 / RMD 80 (S = 4% max.)		
			25 min. if running on residual fuels RME 180 / RMK 700 (S = 4,5% max.)		
Wear & contamination elements		mg/kg (or ppm)	There are no specific limits. These are depending on several factors as fuel quality, running conditions, treatment efficiency, materials used for engine components. It is necessary to plot successive results on a curve and follow its trend to determine if there is an anomaly or not.		
Aluminium	ICP-PES Or AA				
Chromium					
Copper					
Iron					
Lead					
Nickel					
Silicon					
Sodium					
Tin					
Vanadium					