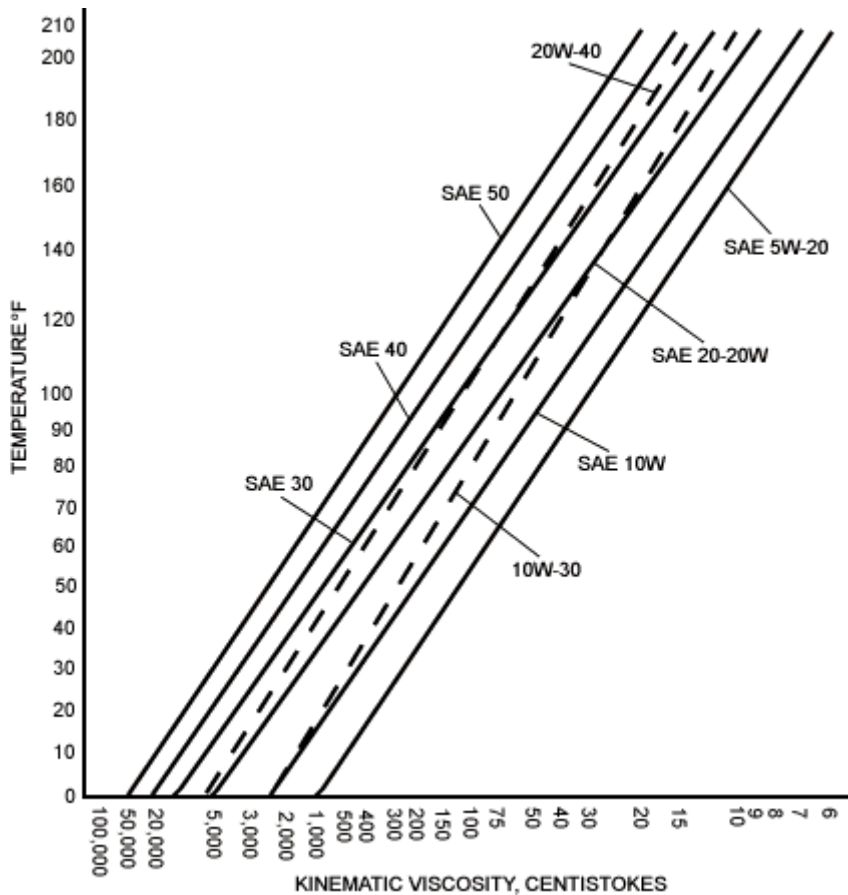
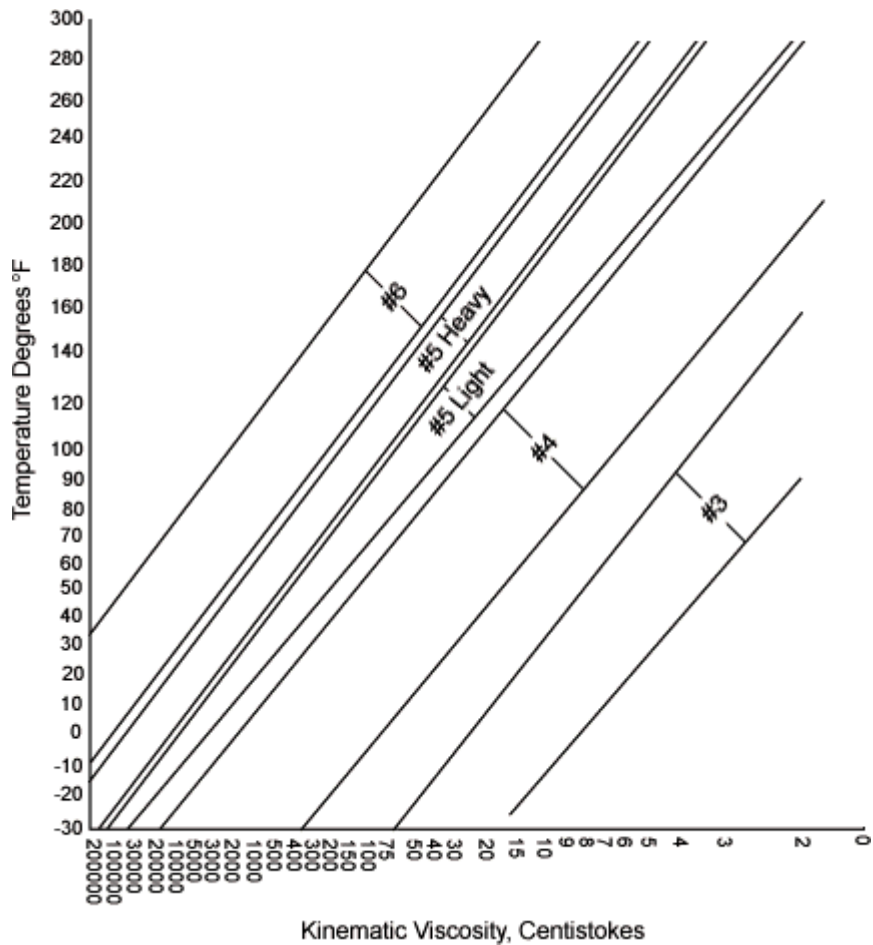


Viscosity of Crankcase Oils



Viscosity of Fuel Oils



Viscosity-Unit Conversions

Kinematic Viscosity

multiply	by	to obtain
ft ² /sec	92903.04	centistokes
ft ² /sec	0.092903	m ² /sec
m ² /sec	10.7639	ft ² /sec
m ² /sec	1000000.0	centistokes
centistokes	0.000001	m ² /sec
centistokes	0.0000107639	ft ² /sec

Absolute or Dynamic Viscosity

multiply	by	to obtain
lbf-sec/ft ²	47880.26	Centipoises
lbf-sec/ft ²	47.8803	Pascal-sec
centipoises	0.000102	kg-sec/m ²
centipoises	0.00000208854	lbf-sec/ft ² *
centipoises	0.001	Pascal-sec
Pascal-sec	0.0208854	lbf-sec/ft ²
Pascal-sec	1000	centipoises

*Sometimes absolute viscosity is given in terms of pounds mass. In this case, centipoises x 0.000672 = lbf/ft sec.

Absolute to Kinematic Viscosity

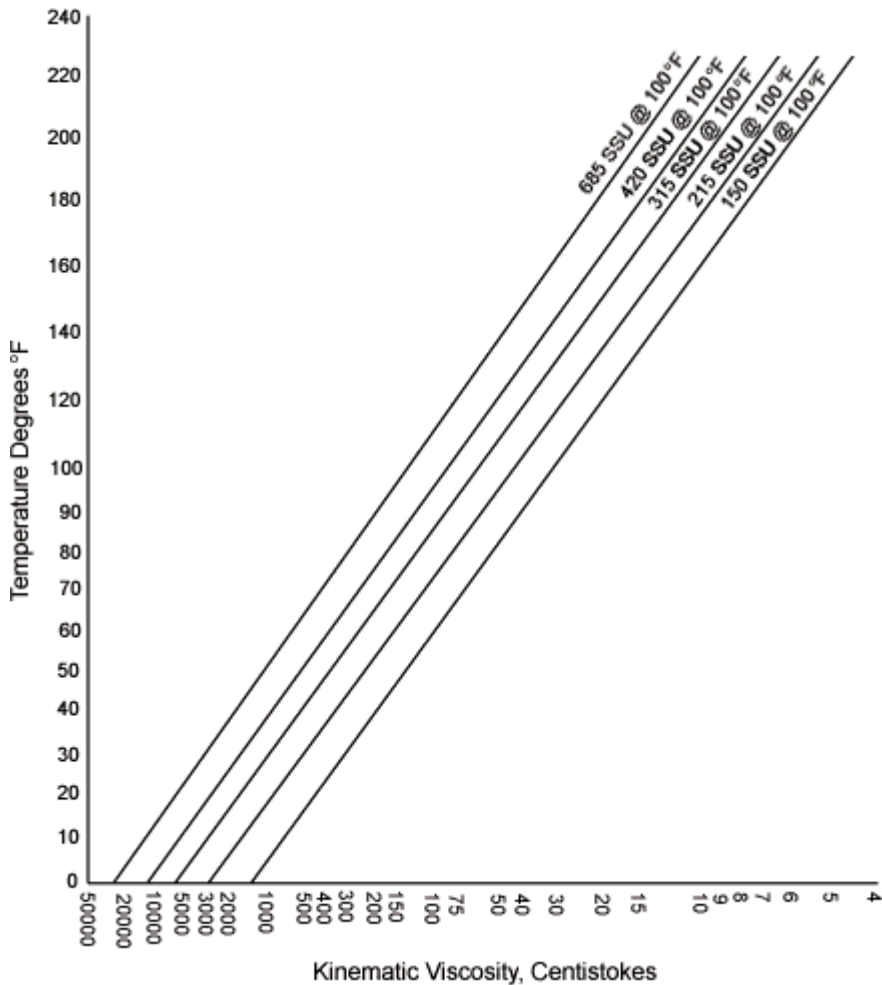
multiply	by	to obtain
centipoises	1/density (g/cm ³)	centistokes

multiply	by	to obtain
centipoises	$0.00067197/\text{density (lb/ft}^3)$	ft ² /sec
lbf-sec/ft ²	$32.174/\text{density (lb/ft}^3)$	ft ² /sec
kg-sec/m ²	$9.80665/\text{density (kg/m}^3)$	m ² /sec
Pascal-sec	$1000/\text{density (g/cm}^3)$	centistokes

Kinematic to Absolute Viscosity

multiply	by	to obtain
centistokes	density (g/cm ³)	centipoises
sq meters/sec	$0.10197 \times \text{density (kg/m}^3)$	kg-sec/m ²
ft ² /sec	$0.03108 \times \text{density (lb/ft}^3)$	lbf-sec/ft ²
ft ² /sec	$1488.16 \times \text{density (lb/ft}^3)$	centipoises
centistokes	$0.001 \times \text{density (g/cm}^3)$	Pascal-sec

Viscosity of Turbine Oils



Viscosity of Water

Temp °F	Absolute Viscosity	Kinematic Viscosity		
	Centipoises	Centistokes	SSU	ft ² /sec
32	1.79	1.79	33.0	0.00001931
50	1.31	1.31	31.6	0.00001410
60	1.12	1.12	31.2	0.00001217
70	0.98	0.98	30.9	0.00001059
80	0.86	0.86	30.6	0.00000930
85	0.81	0.81	30.4	0.00000869
100	0.68	0.69	30.2	0.00000739
120	0.56	0.57	30.0	0.00000609
140	0.47	0.48	29.7	0.00000514
160	0.40	0.41	29.6	0.00000442
180	0.35	0.36	29.5	0.00000385
212	0.28	0.29	29.3	0.00000319