

Technical specification of the lubricants for the POLARIS equipment.

version 2

purpose	Diesel engine oil*			Semi Synthetic Engine OIL*	Brake Fluid	Gearcase		
	API CJ-4	API CJ-4	API CJ-4	API CJ-4	DOT 4	Main Gearcase SAE J306**	Rear Gearcase SAE J306** / GL5 80W90	Front Gearcase SAE J306**
appearance (color)	Amber	Amber	Amber	Amber	Light Yellow	Purple	Amber	Amber
Viscosity grade (SAE J300)	10W-40	10W-30	15W-40	20W40				
Viscosity grade (SAE J306)						80W	80W90	70W or 75W?
API gravity at 15°C (59°F, ASTM D1298)	typical value around 34			typical value around 29,7	typical value around 3	typical value 33,9	typical value 26,8	typical value 24,8
viscosity at 40°C (ASTM D445) cSt	typical value around 94,5			typical value around 120	typical value around 4,5	typical value 49,6	typical value 139	25.9
typical value mentionned from the POLARIS technical document	around 14,20 cSt	not mentionned	not mentionned	around 13,60 cSt	typical value around 2,3			
viscosity at 100°C (ASTM D445) cSt SAE J300	between 12,5 and 16,3	between 9,3 and 12,5	between 12,5 and 16,3	between 12,5 and 16,3				
HTHS minimum according the SAE J300 requirements	3,5 cP	2,9 cP	3,7 cP	3,7 cP				
typical value mentionned from the POLARIS technical document						typical value around 8,10 cSt at least 7 cSt	typical value around 14,5 cSt between 13,5 cSt and 18,5 cSt	typical value around 5,89 cSt at least 4,1 cSt
viscosity at 100°C (ASTM D445) cSt SAE J306								
Flash point (ASTM D92) °C	typical value around 240			Typical value around 232		typical value 222	typical value 210	typical value 220
Pour point (ASTM D97) °C	typical value around -39			Typical value around -38		typical value -45	typical value -27	-56
Boiling point wet °C according the POLARIS requirements					around 169 shall be more than 155			
Boiling point wet °C according the DOT 4 requirements								
Boiling, point dry °C accordind the POLARIS requirements					around 272 shall be more than 230			
Boiling, point dry °C accordind the DOT 4 requirements								
* About the choice of the viscosity GRADE, POLARIS recommends to take in account of the Ambient Air Temperature Chart established from their Book RANGER Diesel Maintenance.								
** The technical specifications of the lubricants for the Main Gearcase, for the Rear Gearcase and for the Front Gearcase shall meet the SAE J306 requirements instead the SAE J300.								