D&E
Premium Turbine Oil

D & E oils are blended from high viscosity index (VI) pure paraffinic base stocks and contain very effective oxidation and corrosion inhibitors. These oils have very low carbon-forming tendencies and are very stable. They have good demulsibility characteristics and separate rapidly from water, which is important in turbine applications. They also show good air-release properties and excellent foam resistance.

D & E oils are recommended for use in light duty (no EP) reduction gears and circulating oil systems. They can be used as a hydraulic fluid where oil pressures are less than 1000 psi and where the presence of silver-plated parts makes the use of anti-wear containing oils inadvisable. They can also be used in such equipment as machine tools, presses and lifts, and as a lubricant for various pumps and motors, plain and anti-friction bearings where no antiwear performance is required. They are also excellent lubricating oils for certain rotary type air compressors and for airline oilers in pneumatic systems.

Light grades of D & E meet the specifications of the major turbine manufacturers for turbine oils in direct-drive, land-installed turbines and for gas turbine lubrication. D & E 77 satisfies the requirements of Canadian Government Standard 3-GP-357Mb for steam turbines and associated reduction gearing aboard naval vessels. It also satisfies the similar NATO O-240 and the British DEF-STAN 91-25 standards for such oils. Heavier grades of D & E, such as 220 and 320, are excellent lubricants for the dryer bearing lubrication systems of paper machines where filters as fine as 3 microns are sometimes used to ensure system cleanliness.

Features

D & E oils meet or exceed the specifications of the major turbine manufacturers and satisfy the following:

- Canadian Gov't Standard 3-GP-357Mb
- NATO O-240
- British DEF-STAN 91-25
- High viscosity
- Effective oxidation & corrosion inhibitor additives
- Separates readily from water
- Safe for delicate silver plated components

Benifits

- Prevents corrosion
- Resists foaming
- Resists oxidation — ensures long oil life
- Wide operating temperature range
- Excellent low-temperature fluidity

IRVING Lubricants

Version August 2012

sizes & part numbers

D&E

Typical performance results

ISO GRADE	22	32	46	68	77	100	150	220	320	460
AGMA GRADE			1	2		3	4	5	6	7
VISCOSITY **(D-445)** cSt @ 40ºC cSt @ 100ºC	 23.1 4.4	 32.1 5.3	 46.1 6.9	 68.9 8.8	 76.3 9.4	 100.3 11.2	 149.7 14.7	 222.3 19.8	 325.3 24.5	 457.4 30.1
VISCOSITY INDEX (D-2270)	98	95	105	100	99	97	97	102	96	95
POUR POINT (ºC) (D-97)	-42	-30	-33	-30	-30	-30	-24	-20	-3	-3
FLASH POINT (ºC) (D-92)	268	220	232	254	248	262	272	295	304	320
OXIDATION LIFE (HRS) (D-943)	2500 + ALL GRADES									
STRONG ACID No. (D-974) mg KOH/gm.	NIL ALL GRADES									
T.A.N. (D-974)	.21	.20	.18	.19	.19	.18	.22	.19	.21	.21
DENSITY (KG/L) @ 15ºC	0.865	0.876	0.879	0.882	0.882	0.884	0.890	0.893	0.899	0.900
API GRAVITY @ 15.6ºC	31.9	30.9	30.2	29.7	29.5	28.6	28.4	28.0	27.7	26.9
DEMULSIBILITY (54.6ºC) (D-1401) OIL WATER EMULSION (MIN.)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)	 40 40 0(5)
FOAM SEQ. I,III,III (D-892)	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0

Available sizes & part numbers

D&E	18.9L Pail (5.0 US gal)	205L Metal Drum (54.2 US gal)	205L Plastic Drum (54.2 US gal)	500L Cube (132.1 US gal)	1000L Cube (264 US gal)	Bulk
D&E 22		F0001650		F0001655	F0001660	
D&E 32	F0084040	F0011250	F0091750	F0001855	F0001860	B0001801
D&E 46	F0084240	F0011450		F0002055	F0002060	
D&E 68	F008434340	F0011550		F0002155	F0002160	
D&E 77		F0002250	F0002255	F0002260		
D&E 100	F0083640	F0010850		F0001255	F0001260	
D&E 150	F0083740	F0074850		F0001455		
D&E 220		F0011150		F0001755		
D&E 320	F0084140	F0011350		F0001955		
D&E 460		F0061450			F0061460	

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