



HICKS oils  
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**F O R M U L A**



## All-Weather Anti-Wear (AW) Hydraulic Oils

FORMULA 500® All-Weather Anti-Wear (AW) Hydraulic Oils are superior anti-wear hydraulic and circulating fluids specially formulated to provide maximum performance at a wide range of temperatures. These hydraulic oils offer outstanding resistance to sludge formation, are chemically and shear stable, and exhibit excellent anti-wear properties.

FORMULA 500® All-Weather AW Hydraulic Oils also contain anti-foam agents to limit air entrainment in hydraulic systems, and demulsifiers to separate water from the oil in the sump.

FORMULA 500® All-Weather AW Hydraulic Oils are zinc-based hydraulic fluids which are recommended for service in vane, piston, and gear pumps when used according to the manufacturers' recommendations. These oils provide maximum service life to these pumps as well as other system components.

FORMULA 500® All-Weather AW Hydraulic Oils meet the following specifications:

- Denison HF-0, 1, and 2
- Vickers M-2950-S, I-286-S
- Cincinnati Milacron P-68, 69, 70
- US Steel 126, 127, and 136
- DIN 51524, Parts 2 and 3

### Typical Properties:

| Product FORMULA 500® All-Weather AW Hydraulic Oils |             |           |           |           |
|--|-------------|-----------|-----------|-----------|
| Product Code                                       | 11211       | 11212     | 11213     | 11214     |
| ISO Viscosity Grade                                | 22          | 32        | 46        | 68        |
| Kinematic Viscosity @ 100°C, cSt (ASTM D-45)       | 5.43        | 6.60      | 8.32      | 11.1      |
| Kinematic Viscosity @ 40°C, cSt (ASTM D-445)       | 22.35       | 31.85     | 49.57     | 68.0      |
| Viscosity Index (ASTM D-2270)                      | 195         | 169       | 142       | 155       |
| Pour Point, C° (F°) (ASTM D-97)                    | -51,(-59.8) | -45,(-49) | -41,(-42) | -25,(-13) |
| Emulsion Separation, min (ASTM D-1401)             | 10          | 10        | 10        | 10        |
| Turbine Oxidation Test, hours (ASTM D-3241)        | 5000        | 5000      | 2500      | 2500      |
| RPVOT, min (ASTM D-2272)                           | 193         | 193       | 134       | 134       |
| API Gravity (ASTM D-1298)                          | 33.5        | 32.3      | 31.0      | 31.5      |
| Zinc, ppm  | 282         | 282       | 282       | 282       |