



MATERIALS/ FUELS &amp; LUB'S

FNHA-2-C-200.00

TABLE 1

| DESCRIPTION                                                                                                     | REQUIREMENTS   | UNITS  | METHODS             |
|-----------------------------------------------------------------------------------------------------------------|----------------|--------|---------------------|
| <b>Viscosity</b>                                                                                                |                |        |                     |
| At 100°C, min                                                                                                   | 8.0            | mm 2/s | ASTM D 445          |
| at 40°C, typical                                                                                                | 35.0           | mm 2/s | ASTM D 445          |
| at -40°F, max                                                                                                   | 17,000         | mPa.s  | ASTM D 2983         |
| Viscosity Index, typical                                                                                        | 210            |        |                     |
| <b>Viscosity Stability, Change at 100°C</b>                                                                     |                |        |                     |
| • Transmission/Hydraulic Oil Shear Test min.                                                                    | 7.0            | mm 2/s | 86548393            |
| • After 100 hr at 150°C (heat 200g of candidate oil in a 400ml glass beaker in an oven with gravity convection) | + 10%          |        |                     |
| <b>Physical Requirements</b>                                                                                    |                |        |                     |
| Pour Point, max                                                                                                 | - 45°          | C      | ASTM D 97           |
| Flash Point, min                                                                                                | 160°           | C      | ASTM D 92           |
| Foaming Tendency/ Stability                                                                                     |                |        |                     |
| Sequence 1, max                                                                                                 | 50/0           | ml     | ASTM D 892          |
| Sequence 2, max                                                                                                 | 100/0          | ml     | ASTM D 892          |
| Sequence 3, max                                                                                                 | 50/0           | ml     | ASTM D 892          |
| Copper Corrosion                                                                                                |                |        |                     |
| 3 Hr at 150°C                                                                                                   | 2b             |        | ASTM D 130          |
| 48 Hr at 120°C (weigh sample before and after test.)                                                            |                |        |                     |
| Record Weight Loss, max                                                                                         | 1.0            | mg     |                     |
| Rust Protection                                                                                                 | No Rust        |        | ASTM D 665 Method A |
| Wear Test Scar Dia. 60 min, 1500 RPM, 85°C, 40 kg, max                                                          | 0.40           | mm     | ASTM D 2266         |
| Seal Compatibility (See Section 5.2)                                                                            | pass           |        |                     |
| Water Sensitivity (See Section 5.1)                                                                             | pass           |        |                     |
| <b>Performance Requirements</b>                                                                                 |                |        |                     |
| 360 Hour Jenkins Cycle Test                                                                                     | pass           |        | 86509436            |
| Tandem Pump Durability Test                                                                                     | pass           |        | 86509437            |
| 5 X 16 Inching/ Shifting Quality                                                                                | pass           |        | 86509444            |
| 6 X 16 Transmission - 400 Cycle Stall Test                                                                      | pass           |        | 86509438            |
| 16 X 16 Transmission - 450 Cycle High Energy Test                                                               | pass           |        | 86509439            |
| 2000 Hr Field Test                                                                                              | pass           |        | 86509440            |
| Brake Test                                                                                                      | pass           |        | 86509441            |
| PTO Clutch Test                                                                                                 | pass           |        | 86509442            |
| Dynamic Coefficient of Friction                                                                                 | 0.095 - 0.135  |        | 86509443            |
| State Coefficient of Friction                                                                                   | 0.085 - 0.0110 |        | 86509443            |



NAME

STD 200 HYD OIL

ENGINEERING SPECIFICATION

REV.  
EFRAME  
2OF  
4

PART NUMBER

Documents  
86509445