

# Airframe manufacturers' service limit for Type IV and Type V fluids

| Analysis  | Boeing-Seattle  | Boeing-Long Beach (Douglas) | Airbus      | Bombardier  | Gulfstream   | Lockheed   | BAE         | Fokker      | Embraer     |
|---|---|-----------------------------|-------------|-------------|--------------|--|-------------|-------------|-------------|
| Appearance                                      | No cloudiness, phase separation, or precipitation; any color is acceptable. |                             |             |             |              | No cloudiness or precipitation. Color: blue/purple to gray | —           | —           | —           |
| Specific gravity @ 77°F (25°C)                  | 0.970–1.066   | 0.900–1.066                 | 0.970–1.066 | 0.995–1.066 | 0.995–1.066  | 0.989–1.065  | 0.995–1.066 | 0.999–1.057 | 0.995–1.066 |
| Moisture % (max.)                               | 0.8   | 0.7                         | 0.8         | 0.8         | 0.8          | 1.0  | 0.6         | 0.6         | 0.8         |
| Neutralization No. mg KOH/g (max.) <sup>a</sup> | 1.52  | 1.5                         | 1.0         | 1.5         | 1.5          | 1.5  | 0.75        | 1.0         | 1.5         |
| Kinematic viscosity @ 100°F (38°C), cSt         | 6.0–12.5  | 7.0–12.0                    | 6.0–12.5    | 6.0–12.5    | 6.0–12.5     | 7.0 (min.)   | 6.0 (min.)  | 7.0 (min.)  | 6.0–12.5    |
| Elemental contamination <sup>b</sup>            |   |                             |             |             |              |  |             |             |             |
| Calcium   | 50 ppm max.   | —                           | —           | —           | 50 ppm max.  | —  | —           | —           | —           |
| Potassium                                       | 50 ppm max.   | —                           | —           | —           | 50 ppm max.  | —  | —           | —           | —           |
| Sodium  | 50 ppm max.   | —                           | —           | —           | 50 ppm max.  | —  | —           | —           | —           |
| Chlorine  | 200 ppm max.  | 200                         | 200         | 200         | 200 ppm max. | 200  | 200         | 200         | 200         |
| Sulfur  | 500 ppm max.  | —                           | —           | —           | 500 ppm max. | —  | —           | —           | —           |
| Particle contamination #/100 mL (max.)          |   |                             |             |             |              |  |             |             |             |
| Class   | 9   | 9                           | 9           | 9           | 9            | 8  | 9           | 9           | 9           |
| 5–15 microns                                    | 128,000   | 128,000                     | 128,000     | 128,000     | 128,000      | 64,000   | 128,000     | 128,000     | 128,000     |
| 15–25 microns                                   | 22,800  | 22,800                      | 22,800      | 22,800      | 22,800       | 11,400   | 22,800      | 22,800      | 22,800      |
| 25–50 microns                                   | 4,050   | 4,050                       | 4,050       | 4,050       | 4,050        | 2,025  | 4,050       | 4,050       | 4,050       |
| 50–100 microns                                  | 720   | 720                         | 720         | 720         | 720          | 360  | 720         | 720         | 720         |
| >100 microns                                    | 128   | 128                         | 128         | 128         | 128          | 64   | 128         | 128         | 128         |

<sup>a</sup> Neutralization number for B-757 Center System is 0.5 mg KOH/g (max.).

<sup>b</sup> Contamination means quantities in excess of those introduced as a part of the base stock or additives package.