

Diesel Exhaust Fluid (DEF) fluid is a vital element in engine performance. Proper storage and use will help to insure maximum engine performance and a long, trouble-free experience with the installed engine.

DEF is a mixture of pure urea and de-ionized water that is injected into the exhaust stream by the SCR system. Temperature and humidity affect DEF consumption, with hot and dry climates resulting in greater DEF consumption. Temperatures also affect the quality of DEF and can impeded peak performance.

- DEF freezes at 12°F (-11°C). In winter months it should be stored above this temperature. If DEF does freeze in the machine tank during overnight storage between jobs, onboard systems enter into Thaw Control Mode to heat the DEF back to usable temperatures. Engine maximum torque may be limited while DEF is frozen.
- Temperatures above 86°F (30°C) causes DEF to break down, which releases ammonia into the onboard DEF tank or storage container. This breakdown of the DEF affects the quality of the DEF, which could yield warning messages or reduce engine performance of the machine, and may increase pressures within the storage containers. During DEF fill, or after any prolonged storage of DEF, if the smell of ammonia is present, the DEF fluid has started to break down and LeeBoy recommends it be changed or discarded.
- **⚠ WARNING** It is critical that you prevent contamination entering into the SCR system. Even trace amounts of contaminants introduced into the SCR system can cause damage.

⚠ WARNING DEF contains urea, therefore, wear eye protection, gloves and appropriate protective clothing when filling the tank and handling DEF. Avoid skin contact. Use only with adequate ventilation and avoid breathing vapor or mist. DO NOT get the substance in your eyes. In case of contact, immediately flush eyes for a minimum of 15 minutes. ALWAYS wash hands thoroughly after handling DEF.

If DEF is stored or used above 86°F (30°C), the DEF life will be reduced. DEF storage recommendations include:

- Store DEF in a clean, dry, well-sealed container in a well-ventilated location away from dust and direct sunlight.
- Keep DEF away from any container of gasoline and diesel fuel or other lubricants.
- Store DEF in a dedicated container that has not been used with other fluids, including funnels and hoses.
- If using pumps to fill DEF tanks, ensure the seals, O-rings and fittings on the dispensers are DEF-compatible.
- The best practice is to pour directly from the DEF container into DEF tank.
- Use a container size that allows DEF consumption in 2 months.

Other best practices for the use of DEF fluid:

- Fill DEF tank with every fuel fill to maintain fresh high quality DEF within the system.
- Avoid prolonged storage of DEF within the parked machine.
- Drain DEF fluid during prolonged storage.
- Drain DEF fluid during winter months when DEF may freeze for prolonged periods.

NOTICE At 80°F (26.6°C), DEF has a storage life of one (1) year.