Mitsubishi Engine North America

Procedures for preparation of engines for long term storage

Before putting an engine in storage for an extended period of time, following preserving measures should be taken.

1.1 Clean the outside of the engine. Any non-corrosive cleaning compound is adequate for this cleaning process.

1.2 With the engine warmed up, and stopped, drain the lubricating oil and replace with corrosion inhibiting preservation oil. The preservation oil used, will have to comply with one of the following industry standards: “JIS K2246 NP-9” “MIL-L-21260”.

1.3 The fuel tank must be filled completely with a thoroughly mixed combination of 90% diesel fuel and 10% corrosion inhibiting oil. Where practical it is advisable to drain all the fuel from the tank, make the 90/10 mixture as mentioned above and refill the tank.

1.4 Run the engine for approximately 10 minutes at 800rpm – 1000rpm to ensure that the corrosion inhibiting oil and fuel is distributed to all the parts of the engine.

1.5 After the engine is shut down, disconnect the silencer from the exhaust manifold or the turbochargers (whichever is applicable). If the engine is equipped with(a) turbocharger(s), disconnect the turbochargers from the exhaust manifold.
Spray the inside of the exhaust manifold, in the direction of the cylinder heads with the mixture of 90% diesel fuel and 10% corrosion inhibitor.

1.6 When the engine is not equipped with an air cleaner, spray the same 90/10 mixture as used in the exhaust, but now in the engine air intake.

1.7 Next, remove the rocker arm cover(s), remove the injectors and spray a mist of 90% diesel fuel and 10% corrosion inhibiting oil in the cylinders. Reassemble the injectors.

1.8 After injector reassembly, spray the rocker arms and the top of the cylinder head with a mixture of 90% diesel fuel and 10% corrosion inhibiting oil. After that, reinstall the rocker arm cover(s).

1.9 Remove all the “V” belts and spray the pulley grooves with corrosion inhibiting oil.

1.10 Using heavy gauge polyethylene sheet and tape, tightly seal the openings of the turbo charger air intake, or air cleaner air intake and the exhaust pipe, or exhaust opening.

1.11 Drain the coolant from the engine.
An exception does apply if the engine is filled with an extended life antifreeze coolant/water mixture. In that case the coolant can remain in the engine.

1.12 Apply corrosion inhibiting oil to the machined non-painted engine surfaces, if there are any.

1.13 Using heavy gauge polyethylene sheet and tape, tightly seal the starter-motor(s) and alternator(s). Put a desiccant inside the wrapping.

1.14 If applicable, disconnect the battery(ies) from the engine. Preferably remove the battery(ies) from the engine site and clean the battery terminals. Charge the battery(ies) and coat the battery terminals with a protective coating. Preferably store the battery(ies) in a dry cool place.

1.15 Cover the engine for dust or weather protection.

Note Store the engine in a well ventilated area.
Leave the fuel tank topped off with the 90/10 mixture used to fill the tank before.