

Lubrication & Maintenance Schedule for NSA Aerators

A NSA aerator is shipped without oil in the gearbox. Must add oil before turning it on.

See electric motor section for motor lubrication instructions.

PROCEDURE TO ADD OIL DURING INITIAL START-UP

(See document Is6012 for illustration)

Note: Do not add oil until the NSA aerator is erected to a permanent up-right position (+/- 30 degrees).

1. Install the aerator by following the installation procedures.
2. **Disconnect the power.**
3. Warm up oil to above 70 F.
4. Remove the 2" PVC oil fill/inspection cap. Use a flashlight to find the ¼" npt port on the shaft. Manually turn the electric motor fan to make the ¼" npt port face the 2" inspection port.
5. Open the oil change kit provided with the machine; screw the ¼" nipple into the shaft. Put a few drops of oil to the inlet of the pump to lubricate the impellers. Connect the other end of the nipple (make sure the washer is in place) to the pressure port of the pump. Connect the suction pipe to the inlet of the pump.
6. Check the direction of rotation of the drill. It should turn clock-wise when viewed from the handle end of the drill. Use the drill to pump all the oil supplied with each machine. Oil volumes are listed below. Note: the NSA aerators do not have oil level indicators.
7. Remove the nipple from the shaft. Close the oil fill port with the 2" PVC cap and pipe sealant. The cap needs to be air tight to avoid condensate in the machine.

Note: Oil has to be pumped into the gearbox through the shaft. Oil directly poured into the inspection port will not reach the gearbox.

Oil Volume Table (+/- 0.5 qt)

Model	Gearbox	Oil type	Volume	Frequency
NSA1	RI46	Exxon Spartan Synthetic EP220	3.0 qt	Every 6 months
NSA2	RSF159	Exxon Spartan Synthetic EP220	2.0Gal	Every 6 months
NSA3	RSF225	Exxon Spartan Synthetic EP220	3.0 Gal	Every 6 months
NSA4	W50D9	Exxon Spartan Synthetic EP220	8 Gal	Every 6 months

PROCEDURES TO CHANGE OIL

1. Remove oil by following the steps described above with reversed pump connection—the pump ports need to be reversed for removing oil from the gearbox. Prime the pump by filling the pump with oil through the suction port.

2. After the used oil is removed, reverse the pump ports to use the pump for refilling the gearbox.
3. Measure the exact amount of oil required and pump the oil into the gearbox.
4. Remove pipe nipple from the shaft and close the 2" oil fill port with a cap.