

# Keep Your Tank Breathing Clean Air

The air induction system on your M1-series tank is like a giant vacuum cleaner—it sucks up anything that gets close.

That's the reason for your tank's seals and filters. They screen out sand and dirt so that only clean air can get through. They also keep out larger debris that can dent, crack or break compressor blades.

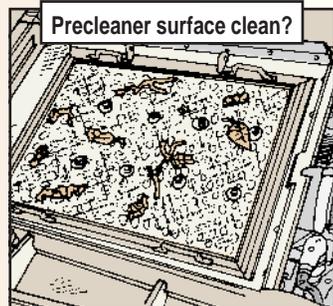
If you want them to continue to stop potential damage, pay special attention to these important PM points:

## Precleaner

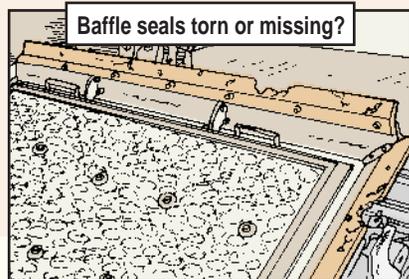
Trees and bushes make a good hiding place for your tank, but they also result in clogged air precleaners.

Leaves that fall on or near the air inlets get sucked onto the precleaner. Enough leaves will cut off airflow and lower power output.

If the AIR CLEANER CLOGGED FILTER light comes on, make the precleaner one of your first checks.

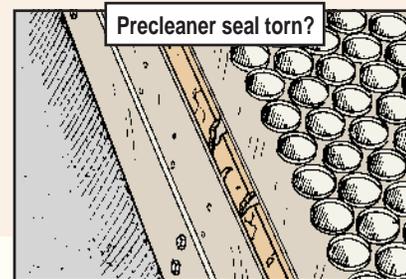


While you're there, take a close look at the baffle seals. Cracked, torn or missing seals allow dirt and oil from the engine to clog the air cleaner assembly element strainers.



NSN 5330-01-225-6106 gets a new short seal. The longer seal is NSN 5330-01-320-3696.

Next, eyeball the bottom precleaner seal. If the seal is missing, loose or



torn, replace it. NSN 5330-01-166-5798 gets a seal for the type A precleaner. The type B precleaner takes NSN 5330-01-329-6614.

A new seal is useless, though, unless you put it on right. Here's how:

**1.** Clean off the old seal and adhesive completely. To do it right you'll need a lot of elbow grease—combined with a rag, dry cleaning solvent and a wire brush.

**2.** Spread adhesive, NSN 8040-00-664-4318, in the seal groove. Use enough to hold the seal, but not so much that it squeezes out around the seal. The right amount of adhesive keeps the seal from sticking to the airbox frame and ripping loose every time you remove the precleaner.

**3.** Apply a very light coat of adhesive to the bottom of the new seal and press it into the groove with your finger. Take extra care not to twist the seal as you put the rounded side in the mounting groove. A twisted seal is not airtight.

**4.** Let the adhesive dry completely before you put the precleaner back in place. Put a dab of adhesive on a piece of paper. When it's dry, the seal should be, too.

## Skirt Seals

If you're having problems with clogged air cleaner intake filter elements (V-packs), missing fender skirt seals could be the cause. Those rubber strips are there to seal the area between the skirts and hull.



Missing seals allow dirt and dust to be sucked inside the fender skirts. The engine pulls the dirt into the air intake system where it clogs up the V-packs.

All the seals are important, but pay special attention to the seals at skirts 4, 5 and 6 on the left side of the vehicle. These seals are closest to the air intake grills and can let in the most dirt.

NSNs for the seals are listed in Figs 261-264 and 266 of TM 9-2350-255-24P-1 (Oct 92) for the M1, Figs 248-251 and 253 of TM 9-2350-264-24P-1 (Mar 96) for the M1A1, and Figs 235-238 and 240 of TM 9-2350-288-24P-1 (Sep 95) for the M1A2.

### V-Packs

The three V-packs on all tanks not equipped with the pulse jet system (PJS) should be removed, cleaned and inspected after every operation. V-packs on PJS-equipped tanks are self-cleaning. Removing the V-packs on these tanks will ruin the system.

The preferred cleaning method is the V-pack cleaning wand. You'll find info on the wand in the "unusual conditions" section of your -10-2 TM's operating instructions.



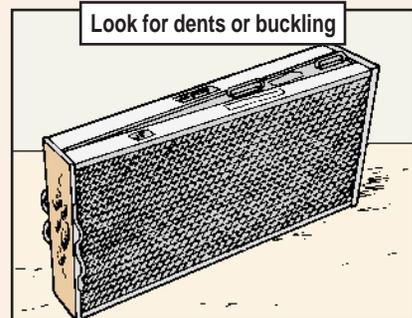
If the cleaning wand isn't available, shake the V-packs, making sure not to hit them against anything

harder than your hand. Brush dirt and dust from the elements with your hand. Then, have the elements properly cleaned by your unit maintenance folks as soon as possible.



While the V-packs are out, inspect the plenum box and elements for potential problems:

- ◆ Eyeball the bead on the front face of each V-pack element for dents or sharp edges that could cut the plenum box seal. Then check for buckling on the rear face of the element. Either problem means you need a new V-pack.
- ◆ Look for broken welds and cracks in the plenum air box. Dust trails along the welds and seams of the box are



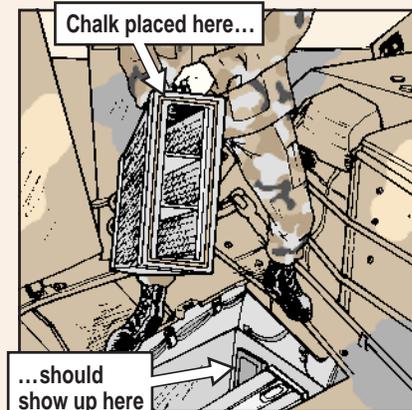
a good sign of a leak, so tell your mechanic.

◆ Look for torn, cracked or missing plenum box seals. A missing seal makes your tank NMC.

Those three seals also deteriorate over time, so check each one by measuring the depth of the depression made by the V-pack bead in the seal. If the depression measures more than 3/16 inch, get the plenum box seal replaced.

Here's another way to check the seals:

1. Apply chalk to the raised portion of the V-pack bead.
2. Install the V-pack and secure the holding clamp.
3. Remove the V-pack and eyeball the plenum box seal. There should be a complete chalk line around the seal from contact with the V-pack bead.



If the chalk line is broken, the V-pack may not be sealing correctly. So, get your mechanic to install a new seal, NSN 5330-01-098-6807. Remember to wipe the chalk off the V-pack bead and seal after testing.

This method works especially well if you are putting new V-packs in **without** replacing the plenum box seals. But, it's a good idea to put in new seals along with the new V-packs whenever possible.

