

M113-Series FOV...

WE'D BETTER GET STARTED ON THAT RAMP PMCS!

YEAH, THOSE ARE MONTHLY CHECKS NOW!

BEEFED-UP RAMP IS A HEAVYWEIGHT

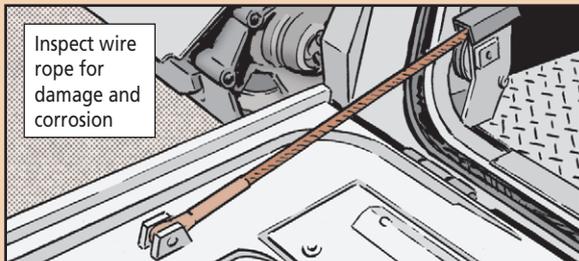
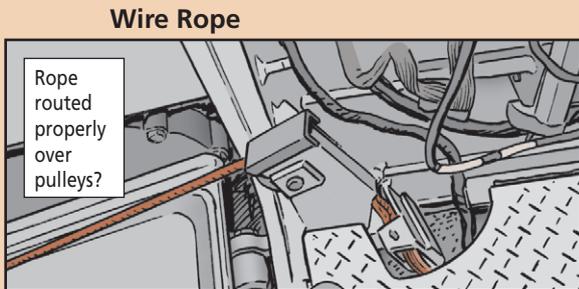
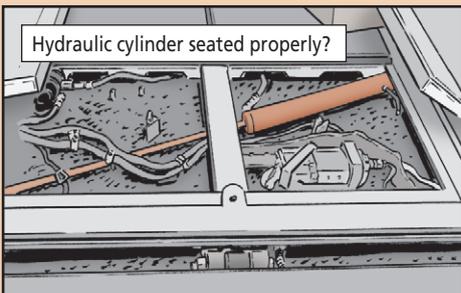
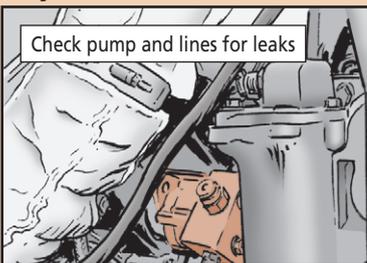
The ramp on an M113-series vehicle is heavy enough to begin with, mechanics. But as more armor was added, it got a whole lot heavier—going from 500 to 1,300 pounds!

While that's within the weight limit for the ramp pump—2,400 lbs (± 120 lbs)—the extra weight will stress the system. Ramp pump failure, fluid leaks and broken wire ropes due to rust, routing problems and damage are right at the top of the failure list.

That makes a good PMCS even more important. Vehicles with additional armor should be inspected monthly. Here's how:

Ramp Pump and Cylinder

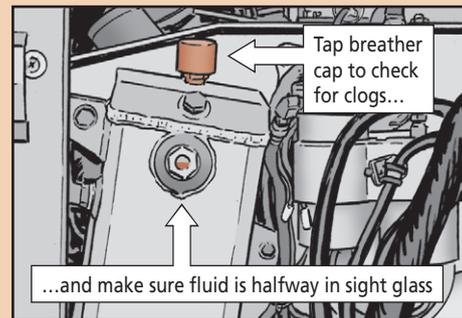
1. Check the hydraulic ramp pump and lines for leaks while raising and lowering the ramp.
2. With the hydraulic reservoir empty, remove the quick disconnect fluid return from the control valve to the fluid reservoir and check for blockage. Replace if damaged.
3. Remove the high-pressure supply hose quick disconnect from the control valve to the ramp pump and look for blockage. Replace the hose or valves if necessary.
4. Remove the rear floor plates and make sure the hydraulic cylinder is seated properly. The shaft should also move freely in the cylinder.
5. Look for blockages in the breather hose and hydraulic cylinder supply. Replace the hose if it's damaged.
6. Double-check to make sure all hoses are connected, then refill the hydraulic reservoir.



1. Make sure the wire rope is routed properly over the pulleys to the cylinder with no slack. The pulleys and hinge should not be binding or rusted.
2. Inspect the wire rope for nicks, flat spots, rust, broken strands and other visible signs of wear and corrosion. If you see any rust at all, replace the wire rope.
3. Lube the wire rope with a coat of wire rope grease, NSN 9150-00-530-6814.

Hydraulic Reservoir

- Tap the breather valve on top of the hydraulic reservoir. It should move up and down as you press and release it. If not, the breather is clogged and should be cleaned with dry cleaning solvent or replaced.
- Make sure all hoses are connected and the hydraulic reservoir is full. Fluid should be visible at the halfway point in the sight glass when the ramp is completely lowered.



Cautions

Remember to open the hull drain plugs after parking the vehicle. That drains water out of the hull and prevents rust. Make sure you use a drip pan and dispose of the contents in an appropriate container.

Never add more weight—like hanging extra supplies—to the ramp. Extra weight could exceed the pump's pressure limits and cause pump failure. You will also stretch the wire rope to a point where it cannot be adjusted to allow the ramp to close.

