

Subject
VMAC Underhood Throttle Control Adjustment

System or Parts affected

- VR 70
- VR 150

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Before you start



Place the truck in a safe operating position and block the wheels. Ensure that there are no people around the truck before beginning the test.

- Install the VMAC Test Tool directly into the Air Oil Separator Tank.
- Make sure that the ball valve is closed.
- Place the manual transmission in neutral or the automatic transmission in park and fully apply the park brake.
- Allow the engine to run until it is at operating temperature.
- Operate the air compressor system until the oil is warm.

Trouble shooting sections:

How to Adjust VR Throttle Max RPM setting



Note: When making adjustments to the throttle control module screws, count the turns as there are no stops for the adjustment screws, they will turn indefinitely.

- Observe the pressure gauge. Pressure should be approximately 150 psi and should idle down to VMAC Base Idle (**Diesel engine:** 1000 RPM approx. / **Gas engine:** 1100-1200 RPM approx.).
- Open ball valve on flow test tool A700052 (or similar) **with orifice removed**, to bleed off air and maintain 80-90 psi. 6. Leave the ball valve open on the test tool to maintain 80-90 psi.
- With the ball valve open, turn the max rpm screw until VR throttle is **Diesel engine:** 2100 RPM approx. / **Gas engine:** 2400 RPM approx. This will provide approx. 58CFM @ 95 – 105 PSI with VMAC Test Tool and correct Orifice in place). (See Figure 1)
- Max RPM is now set

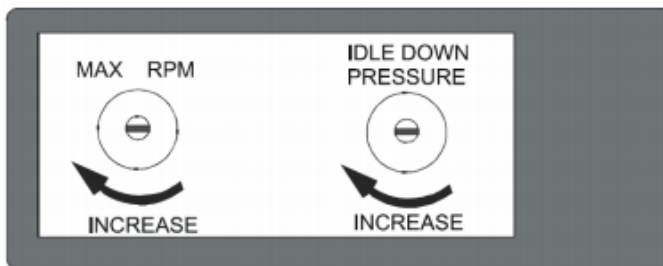


Figure 1

Document	Version	Department	Revision Details	Revised by	Tech	Engineering	Implemented
EXT-VR-015	A	Tech	Document Release	SP 9 Nov 2015	JP 9 Nov 2015	N/A	9 Nov 2015

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How to adjust the idle down screw (IDP)

**This must be done after max rpm is set*

- Turn system on and pressurize to 150 psi.
- Slowly open the ball valve to allow pressure to bleed off 10-15 psi (maintain pressure on gauge at 135-140 psi). At this point the RPM's should increase approx. 100 RPM.
- If RPM's do not increase, leave the ball valve open on the test tool to maintain pressure on gauge at 135-140 psi and adjust Idle Down Pressure screw *clockwise* until the RPM increases approx. 100 RPM.
- After you have completed adjustments, re-test. Turn off compressor system, turn off truck and redo testing.
- Open ball valve wide open so rpm increases to max (**Diesel engine:** 2100 RPM approx. / **Gas engine:** 2400 RPM approx.). Then close ball valve and let pressure build to 150 psi.
- Open the ball valve to allow pressure to bleed off 10-15 psi so pressure on gauge is 135-140 psi. At this point the rpms should just increase to (**Diesel engine:** 1000 RPM approx. / **Gas engine:** 1100-1200 RPM approx.).
- Throttle is now set up.

Demonstration

A video of this procedure can be found here: <http://youtu.be/xu2GCPoSy78>



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