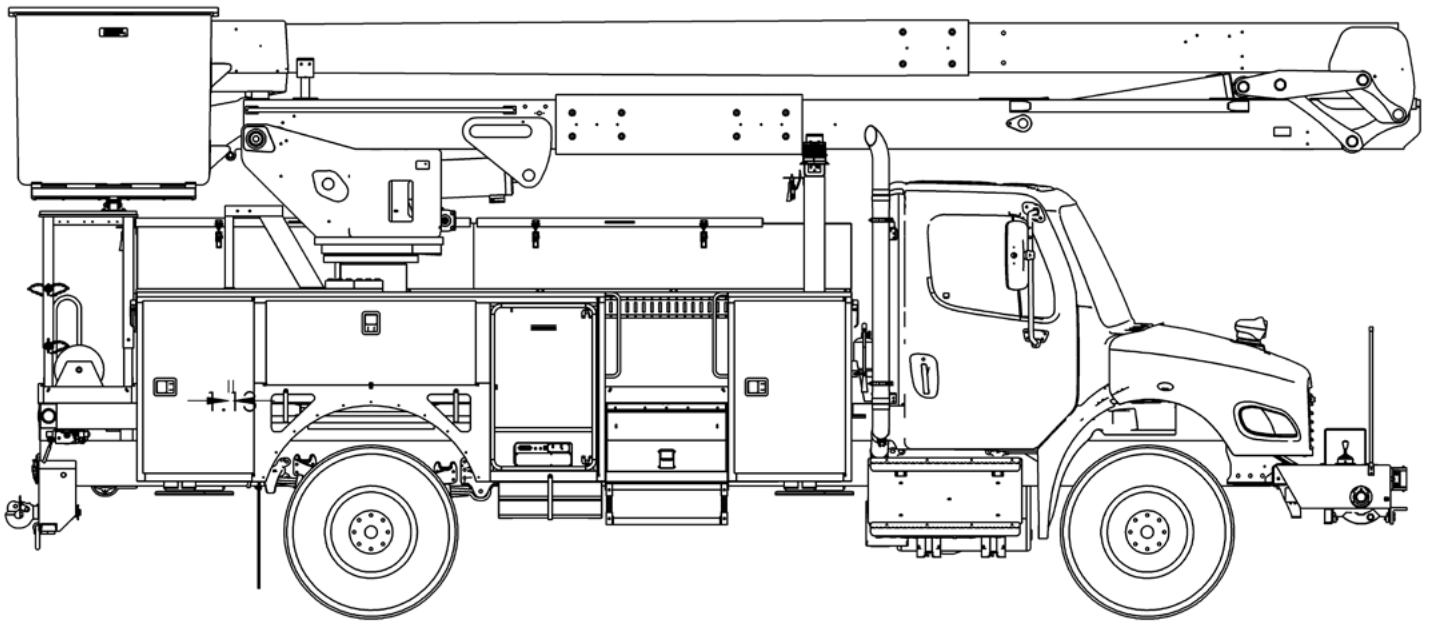




TECH TIPS

VACUUM PREVENTION SYSTEM TESTING ON CAT A AND B AERIAL DEVICES

NO. 27



SERVICE CALL:
VACUUM PREVENTION SYSTEM
TESTING ON CAT A AND B AERIAL
DEVICES



MODEL(S):
ALL TEREX CATEGORY A AND B
RATED AERIAL DEVICES




TOOLS NEEDED:
SEE INTRODUCTION


TEREX UTILITIES TECHNICAL SUPPORT TEAM

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! WARNING



Injection Hazard
Fluid escaping under pressure can penetrate skin and result in death or serious injury.



Relieve pressure before disconnecting hydraulic lines.
Stay clear of leaks and pin holes. Use a piece of cardboard or wood to search for leaks. Do not use hand.
Fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this type of injury, or gangrene will result.



DANGER

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury.

Many of the hazards identified in the Operator's Manual are also safety hazards when maintenance and repair procedures are performed.

DO NOT PERFORM MAINTENANCE UNLESS:

- ✓ You are trained and qualified to perform maintenance on this machine.
- ✓ You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- ✓ You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this Tech Tip is a supplement to the Service Manual. Consult the appropriate Service Manual of your machine for safety rules and hazards.



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CONTENTS

TECH TIP#27

TOC

4

| *Install the jumper hose*

| *Position booms*

**INTRODUCTION/TOOLS
STEP 1 - STEP 2**

5

| *Install jumper hoses*

| *Record values*

| *Connect vacuum pump*

STEP 3 - STEP 9

6

| *Draw a vacuum*

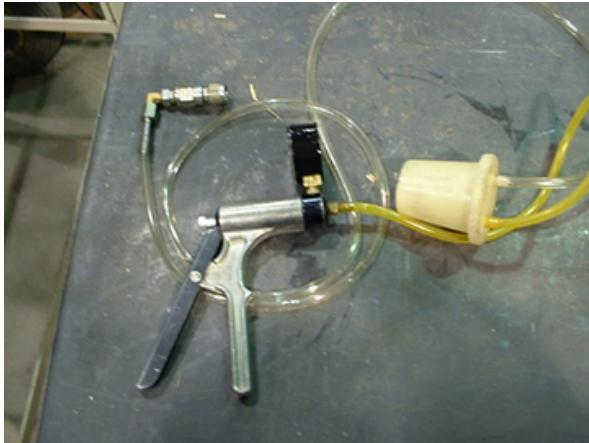
| *Record value.*

STEP 10 - STEP 13

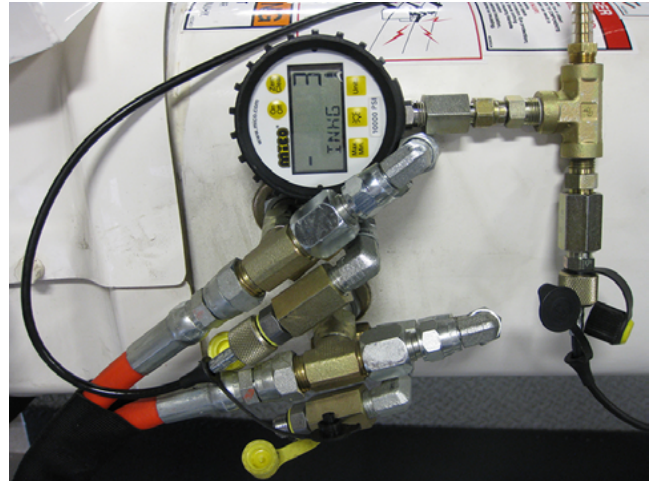
INTRODUCTION/TOOLS

Atmospheric Vent Test Set (P/N 488180)

*An automotive vacuum test kit with various fittings to hook up to the unit being tested may also be used.



P/N 488180 VACUUM TEST KIT



TESTING VACUUM CHECK - 5FC TOOLS

A jumper hose with pressure gauge and appropriate fittings (as outlined in the procedure) for in-line check valves.

STEP 1

Install the jumper hose with pressure gauge listed in Steps 5-7. Operate all unit functions to make sure hoses are filled with oil.



Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. **DO NOT** use your hand.

STEP 2

Position upper and lower booms horizontally. Over-center units can be positioned out flat or in the stowed position.

STEP 3

Turn off the chassis engine. Cycle the control handles to bleed off any trapped pressure.

STEP 4

In each configuration, the pressure reading should stabilize at 30-60 PSI and hold for a minimum of 30 seconds, indicating that the check valves will hold oil in the line.

STEP 5 - FULL FLOW UPPER CONTROLS

Install jumper hose with pressure gauge between the Tool Pressure and Tool Return couplers. If unit has “free flow return”, connect it to the Tool Return temporarily.

STEP 6 - PILOT OPERATED CONTROLS (IF EQUIPPED)

Install jumper hose with pressure gauge between the Power Assist pressure line and return.

STEP 7 - OPTION CONTROL VALVE (IF EQUIPPED)

Install jumper hose with pressure gauge between the Option Valve pressure line and return.

STEP 8

Record the value for each test performed and file the form with all other inspection records for unit tested.

STEP 9

Connect a vacuum pump equipped with a gauge to the test coupler.

Examples:

- **APPENDIX A:** TM Series
- **APPENDIX B:** Vacuum Check Valves at Upper Controls
- **APPENDIX B:** Testing Tool Circuit – 5FC
- **APPENDIX B:** Foot Valve Example



Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. **DO NOT** use your hand.

STEP 10

Draw vacuum until continuous oil or air flow is noted in the vacuum test hose.

STEP 11

Vacuum must not exceed 5 inches of Hg.

STEP 12

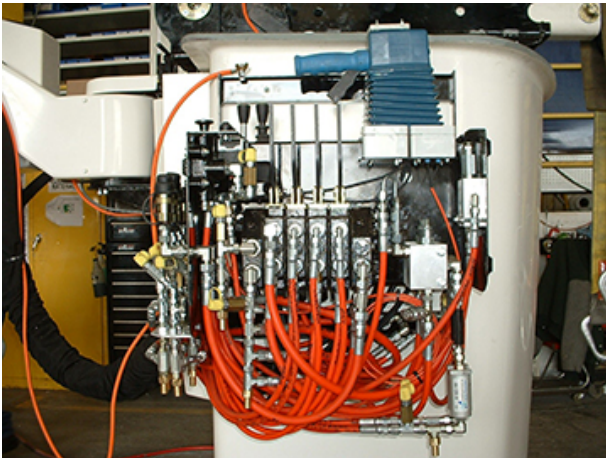
Record the value for the system tested in the inspection form for the unit tested.

STEP 13

Repeat Steps 9 – 12 for all vacuum check valves installed on unit.

APPENDIX: A

CATEGORY A - TM SERIES



TM PRIOR TO 2012

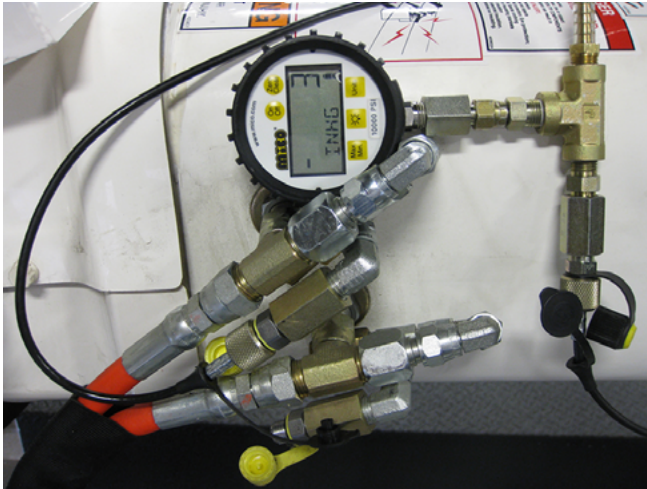


TM WITH ALUMINUM PLATFORM



TM TEST PORT LOCATION SINCE 2012

APPENDIX: B



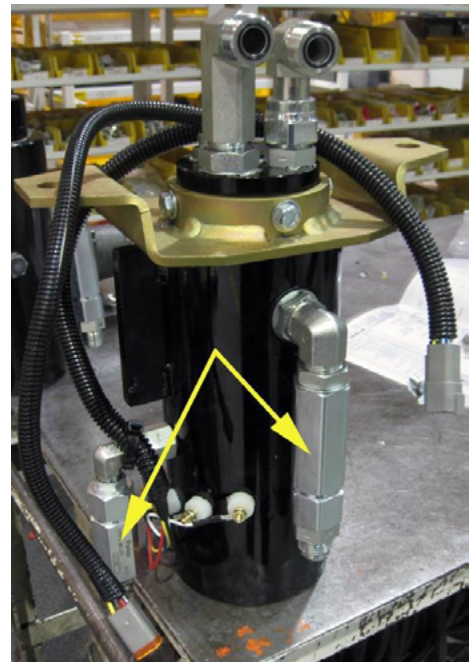
TESTING VACUUM CHECK VALVE - 5FC



VACUUM CHECK VALVE - UPPER CONTROL



TESTING FOOT VALVES



FOOT VALVE EXAMPLE



FOR FURTHER ASSISTANCE,
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