

 Preview Solution CBR-2218-6

Mack Chassis - Parker F3 Hydraulic Pump Troubleshooting

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Valid for

Mack Chassis - AN, GR, PI
Model years - 2023 to May 17th 2025

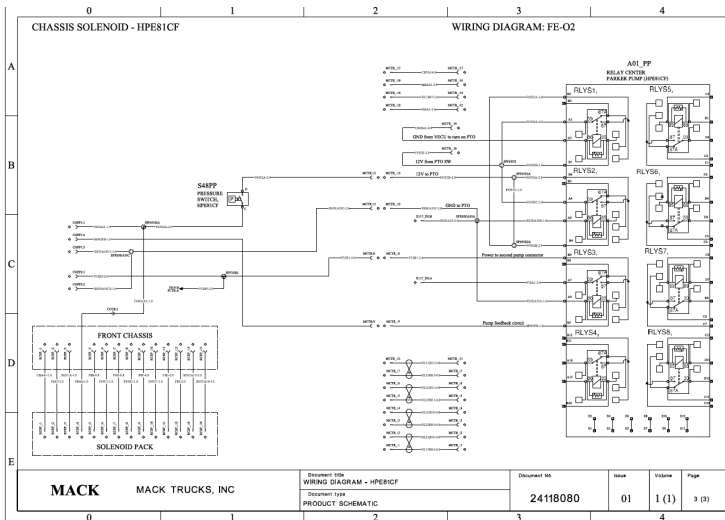
Troubleshooting information for a Parker F-3 hydraulic pump on a Mack chassis.

F3-81 / F3-101 Parker Clutched Bent Axis Piston Pump, Variants HPE81CF / HPE101CF

Checklist:

- Dash Overlay Harness Relay Center Part No. 24138338 is installed
- Reference Install Drawing 24159193
- Pressure Switch should be located after Protection Valve inside the LH Rail
- Pressure Switch should be Part No. 24157428 NO, Closes at 87±7 PSIG
- Verify the Transmission harness:
 - Trans Harness Part No. 24261342 with Crawler Gears
 - Trans Harness Part No. 24138336 without Crawler Gears
- Chassis Overlay Harness Part No. 24118077
- Reference Install Drawing Chassis Overlay Hyd Pum Eng Mtd 24160719
- Reference the Attached Wiring Diagram 24118080
- Check the following parameters P1CU6 = False

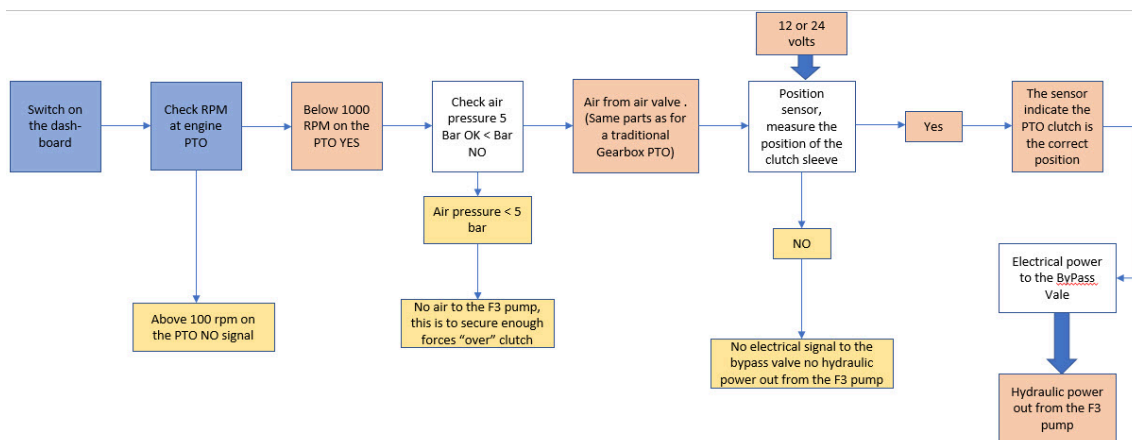
The **HPE81CF** wiring diagram can be found below. **Click on the image for a full-size diagram.**



F3 – 81 / F3 – 101 Pump Spare Parts

Description	Mack Part No.	Parker Part No.
Position Sensor	22412407	3789344
By-Pass Valve	21230083	3787048
12 Volt Solenoid Valve	20375467	3780818

Block diagram engaging the F3 pump

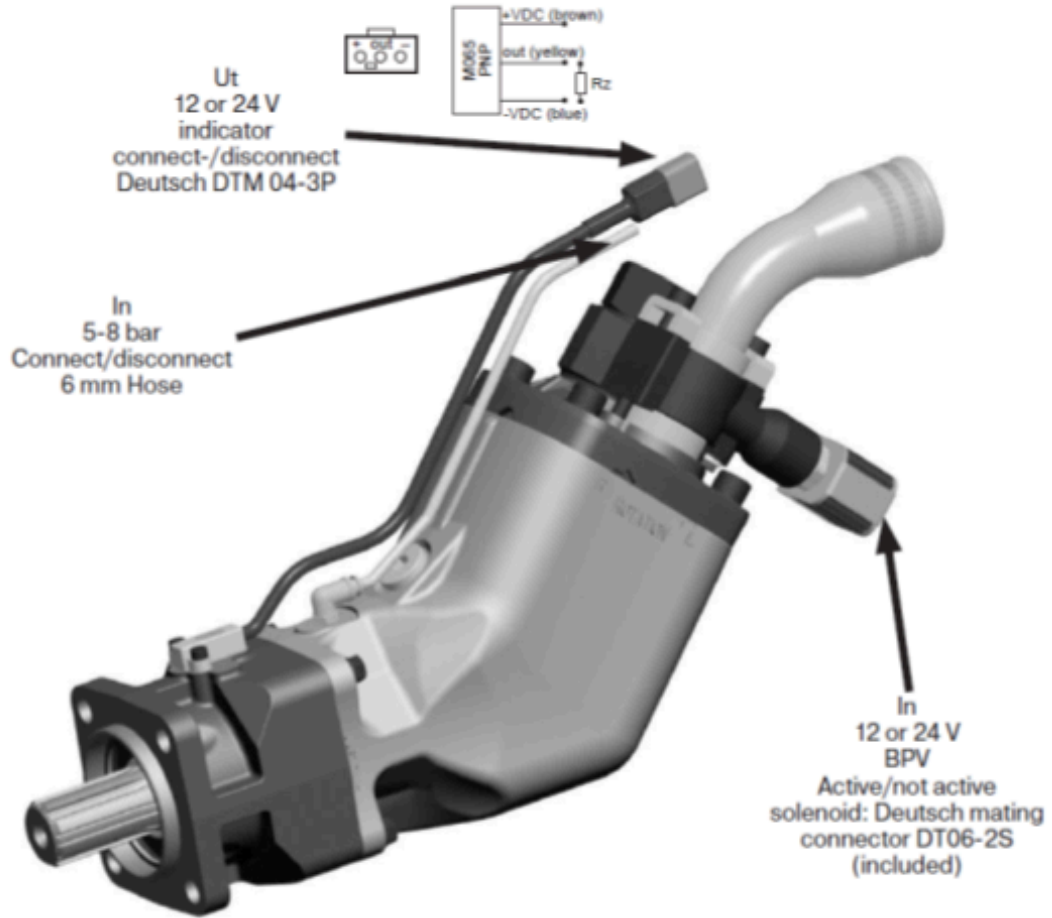


Product Demand

- Max engine speed before the F3 can be engaged (max shaft speed during engagement is 1000 rpm)
- Air pressure > 72.5 psi before the clutch can start to engage the pump

Interface





Related links and attachments

[Mack Wiring Diagram 24118080](#)



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