



Jacobs Engine Brake™ Service Letter No. 455R

SUBJECT: Solenoid Valve Application Guide For Caterpillar Products

MODELS AFFECTED: 310, 310A, 317, 317A/B/C/D/E, C336, 336A, 340, 340A, 346A/B/C/D, 349 and 349A

DATE: May 5, 1997

A number of new solenoid valve designs and configurations have been developed recently by Jacobs. The new solenoid valves have been incorporated into new production engine brakes as running changes. The new solenoid valves can also be used as service parts for older model brakes. The table below lists the current production and the recommended service part solenoid valve application for the engine brakes used on Caterpillar engines.

| Brake Model | Current Production | | Service Part | |
|-------------|--------------------|--------------|--------------------------|------------------------------------|
| | 12 VDC | 24 VDC | 12 VDC | 24 VDC |
| 310 | - | - | 01-021255 | - |
| 310A | 021255 | 021253 | 01-021255 | 01-021253 |
| 312A | 021255 | 021253 | 01-021255 | 01-021253 |
| 317 | - | - | 01-021254 | - |
| 317A/B/C | - | - | 01-021254 | - |
| 317D/E | 021254 | - | 01-021254 | - |
| C336 | 020239 | 020236 S/L-B | 01-020239 | 01-020236 S/L-B |
| | - | 020235 D/L-B | - | 01-020235 D/L-B |
| 336A | 020239 | 020236 | 01-020239 | 01-020236 |
| 340 | - | - | 01-019650 | - |
| 340A | 019650 | 021253 | 01-019650 | 01-021253 |
| 346A/B/C | - | - | 01-020237 | 01-020238 S/L-S ⁽¹⁾ (3) |
| 346D | 020237 | 020238 S/L-S | 01-020237 | 01-020238 S/L-S ⁽¹⁾ (3) |
| | - | 020235 D/L-B | - | 01-020235 D/L-B ⁽³⁾ |
| 349 | - | - | 01-020239 ⁽²⁾ | - |
| 349A | 020239 | - | 01-020239 ⁽²⁾ | - |

Notes:

- (1) Use harness P/N 018458 to connect to bullet-type spacer terminal. Use harness P/N 007450 to connect to blade-type spacer terminal.
- (2) Use harness P/N 021075 to connect to blade-type spacer terminal. Use harness P/N 020977 to connect to bullet-type spacer terminal.
- (3) When installing the solenoid, check to ensure the screw, screw terminal or blade is positioned so that it does not contact the brake housing.

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The table below presents a description of the configuration of the solenoid valve part numbers listed above.

| Part No. | Head Style | Voltage | Electrical Lead Attachment Style |
|----------|---------------|---------|------------------------------------|
| 019650 | 12-point head | 12 VDC | Dual Lead Horizontal Blade |
| 020235 | 6-point head | 24 VDC | Dual Lead Vertical Blade (D/L-B) |
| 020236 | 6-point head | 24 VDC | Single Lead Vertical Blade (S/L-B) |
| 020237 | 6-point head | 12 VDC | Single Lead Screw |
| 020238 | 6-point head | 24 VDC | Single Lead Screw (S/L-S) |
| 020239 | 6-point head | 12 VDC | Single Lead Vertical Blade |
| 021253 | 6-point head | 24 VDC | Dual Lead Horizontal Blade |
| 021254 | 6-point head | 24 VDC | Single Lead Horizontal Blade |
| 021255 | 6-point head | 12 VDC | Dual Lead Horizontal Blade |

The solenoid changes listed above are product improvements and are not subject to campaign. Inventory of originally specified solenoid valve part numbers as published in Jacobs Parts Manuals and Service Letters may continue to be used.