Jacobs Vehicle Equipment Company

Service Letter

Service Letter No. 446
October, 1995

SUBJECT: Solenoid Replacement Group (12 VDC) Screw

MODELS AFFECTED: 750/760/760A/765

Jacobs Vehicle Equipment Company has released a Solenoid Replacement Group (12 VDC) screw-type for use with Jake Brake models 750, 760, 760A and 765.

The current solenoid valve (P/N 016440) used in these model engine brakes has a 0.25" spade-style connector. Over time and use, these connectors can loosen, allowing the harness to separate from the solenoid terminal. The condition will render the engine brake housing inactive, reducing the overall retarding power available.

Use of this new solenoid group will prevent this condition from occurring by providing a screw-type connection at the solenoid valve and a harness adapter to allow for the use of the engine wiring harness without modification. This screw-type connection provides a positive attachment at the solenoid valve.

Part Number	Description
021484	**Solenoid Replacement Group (12 VDC) Screw**
01-020237	• Solenoid (12 VDC) S/L screw (including seal rings)
021413	• Harness adapter blade/screw
021483	• Instruction sheet

Instructions

1. Disconnect the solenoid valve harness from the solenoid valve blade connector.
2. Using a 7/8" socket and extension, unscrew the solenoid valve and remove it from the housing.
3. Clean out the solenoid valve bore in the housing. Use clean paper towels. Never use rags, as they may leave lint and residue which can plug the oil passageways.
4. Coat the new solenoid valve seal rings with clean engine oil. Install the upper and center seal rings on the solenoid valve body and the lower seal ring into the bottom of the solenoid bore.
5. Be sure the seals are seated properly, not twisted or rolled. Carefully screw the new screw terminal solenoid valve into the housing without unseating the seals.

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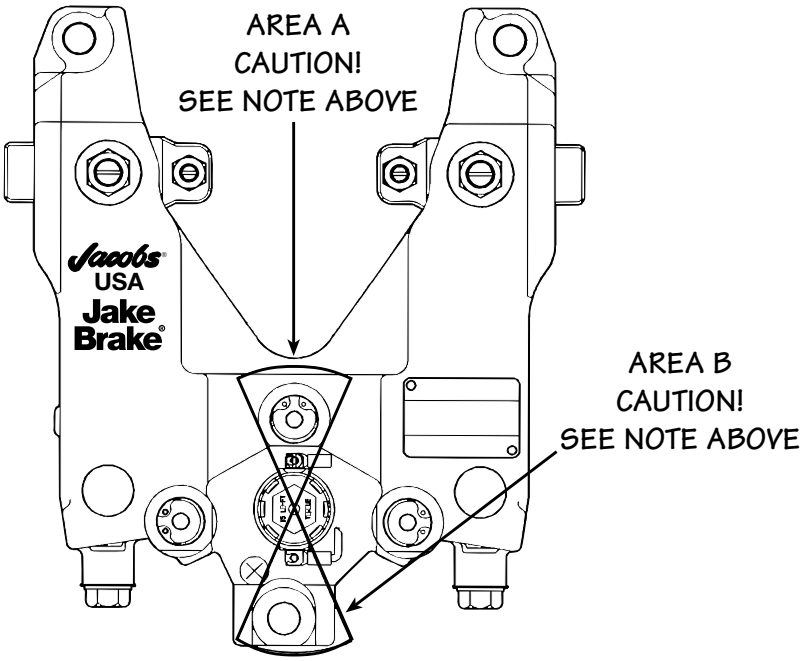
Pay careful attention to the orientation of the screw terminal. Jacobs does not recommend the use of a screw solenoid in which the screw orientation falls directly in line with the accumulator bore (Area A in illustration below), due to potential interference with the housing accumulator boss which could cause shorting. Jacobs also does not recommend the use of a screw solenoid in which the screw orientation falls directly opposite the accumulator bore (Area B in illustration below) due to potential interference with the engine valve cover which could cause damage to the solenoid. If the screw orientation ends up in either areas A or B, try a different screw-type solenoid until the screw ends up in an acceptable area.



6. Torque the solenoid valve to 15 lb.-ft. (20 N•m) using a 3/4" socket.
7. Firmly push the blade end of the Blade-to-Screw Adapter into the existing flag connector of the harness. Make sure the blade is pushed in all the way.
8. Use a screwdriver to tighten the solenoid screw connector with the fork end of the Blade-to-Screw connector between the screw base and the star lock washer to 7 lb.-in.
9. To maintain proper play in the wire, allow 1 - 2" of wire slack between the solenoid and the injector wire bundle. Excess wire slack should be tie wrapped to the injector wire bundle.
10. Repeat steps 1 - 8 for other Jake Brake housings.

This is a Jacobs product improvement and not subject to campaign.

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