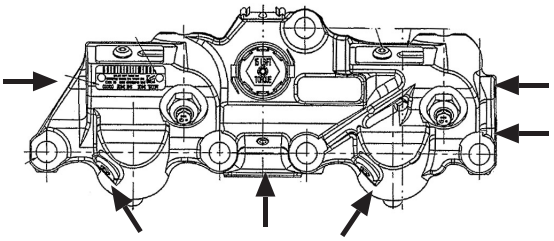
Jacobs Vehicle Systems™

TECHNICAL TIPS

JACOBS ENGINE BRAKE HOUSING PIPE PLUGS



While not necessary nor recommended, Pipe plugs in Jake Brake® engine brake housings are often removed during the process of rebuilding. Additionally, there are occasional instances of oil leakage and pipe plug back out. If one pipe plug exhibits these characteristics, check all other pipe plugs to ensure they are not leaking oil or backing out and that they maintain a torque of 80-110 lb/in (9NM – 13NM). In the event that a 1/16-27 pipe plug in a Jake Brake needs to be replaced the following installation procedure should be followed. (Next page)

SAFETY PRECAUTIONS

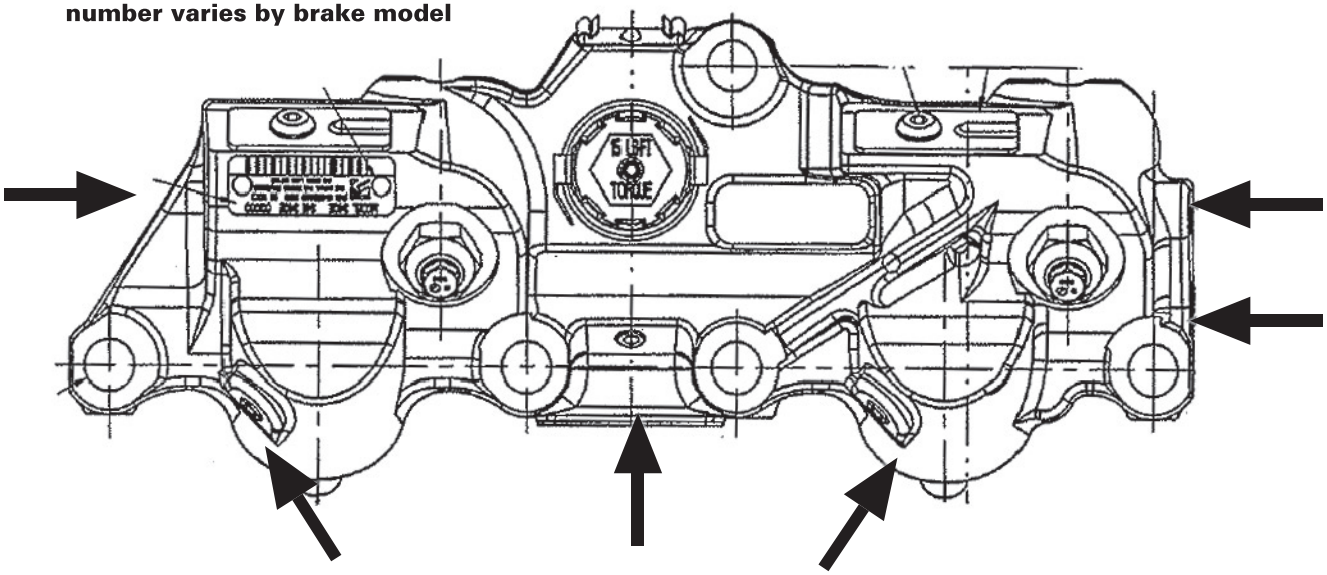
Note: Fuel, electrical equipment, exhaust gases and moving engine parts present potential hazards that could result in personal injury. Take care when installing an engine brake. Always wear eye protection. Always use correct tools and proper procedures as outline in this manual.

For additional information, visit:
www.jacobsvehiclesystems.com

TECHNICAL TIPS

JACOBS ENGINE BRAKE HOUSING PIPE PLUGS

Typical housing (Model 340E shown) contains 6 pipe plugs- number varies by brake model



Sample pipe plug locations

Pipe Plug Field Installation Procedure

1 Jacobs P/N 00-018485 is a 1/16"-27 NPT pipe plug-with Vibra-Seal 503, the most common pipe-plug in a Jake Brake. Vibra-Seal is a Loctite® thread sealant. An uncoated 1/16 –27 NPT pipe plug can also be used with Loctite® 271.

2 Blow out the subject housing pipe plug hole threads using an air gun equipped with a pipe nozzle extension. Protect air gun nozzle with a shop rag to prevent a safety incident from oil or debris blow back. The internal threads must be clean for a good seal. If the threads are damaged, destroyed, or missing, replace the housing.

3 Chase pipe plug hole threads with a 1/16-27 NPT tap if necessary.

4 Again, blow out the subject housing pipe plughole threads, using the procedure outlined in step two.

5 Clean pipe plug hole and surrounding area with brake wash. Let dry.

6 Spread a small drop of Loctite® 271 on the lead threads if not using Jacobs P/N 00-018485, allowing the compound to wick down the threads. Loctite should only be applied to the pipe plug itself. This will ensure that as you install it into the housing it will get evenly distributed on the threads in the housing. You want to avoid an excessive amount of Loctite being applied to a housing and leaking into a piston or bore area.

7 Using a 5/32" hex wrench, gently start threading the pipe plug by hand to avoid potential of cross threading- continue until plug is hand tight in the plug hole.

8 Using a torque wrench and 5/32" hex bit, torque to 80-110 lb/in (9NM – 13NM).

9 Double check torque value to ensure accuracy.

10 Allow Loctite to cure for approximately 10 minutes before activating brake housing & introducing oil to the brake housing.

ENGINEERED FOR THE ROAD AHEAD