



# MGM Brakes

A Division of Indian Head Industries, Inc.

## TECHNICAL BULLETIN

---

### SUBJECT: CAUSES OF NON-PRESSURE CHAMBER FAILURES AND RECOMMENDED CORRECTIVE ACTION

---

Some **severe service** type vehicles can cause non-pressure chamber (mounting plate) failures. Usually these failures result in cracks that originate at one of the mounting bolts and propagates towards the outside diameter. If left undetected, the mounting bolt may eventually pull loose from the steel stamped housing. Some of the causes of failure may include the following:

1. Off-highway vehicles with spring, rubber block, or walking beam suspensions.
2. Reverse Cam rotation
3. Higher than normal system air pressure
4. Improper match-up of non-pressure chamber to the mounting bracket.
5. Mounting brackets that are not reasonably flat.
6. Insufficient or excessive mounting nut torque.

Items 1, 2, and 3 are considered severe service applications while items 4, 5, and 6 can be corrected with good parts, good maintenance, and correctly specified parts.

MGM Brakes manufactures two basic non-pressure chambers; a double lobed design (figure 1) used for OEM power vehicle applications with the mounting bolts secured to the bracket vertical to the axle and a flat bottom design (figure 2) used for OEM trailer applications with the mounting bolt secured to the bracket horizontal to the axle. The flat bottom design with reinforcing pads is used for all aftermarket part numbers.



DOUBLE LOBE NPC  
FIGURE 1

FLAT-BOTTOM NPC  
FIGURE 2

MGM Brakes has been very successful in eliminating non-pressure chamber/mounting bolt failures on **severe service** applications with our unique welded in reinforced pads and mounting bolts in the flat bottom non-pressure chamber. This combination of welded components is applicable to trucks, busses, trailers, and off-highway vehicles.