DURA MAX®

The brand, shaping the future of SAFETY

DMDxxxx Series Piggyback

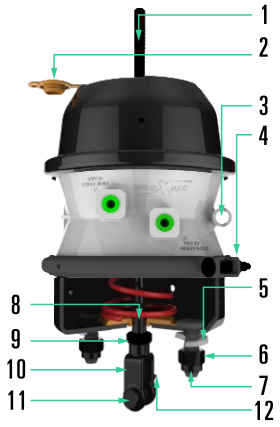
INSTALLATION and INSPECTION MANUAL

⚠ CAUTION : High compressed spring is loaded inside of the Spring Brake. It is VERY IMPORTANT to read all the manuals and follow the instruction. Releasing piggyback or spring chamber forcefully without proper instruction may cause death, severe personal injury and/or property damage. If Spring Brake is not caged, mounting Nut and Clamp Nut should never be released. This may cause severe injury.

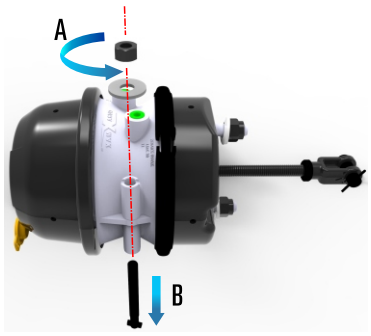
Removal of piggyback service part of bottom housing (NPC)

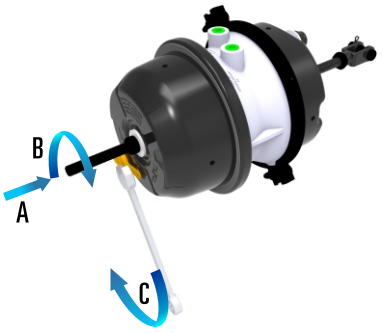
1. Prior to removal of the Bottom Housing (service part housing), it is mandatory that the Spring Brake is caged. If not caged, must be done before the removal.
2. Apply shop air pressure 6.2~8.3 bar (90~120 psi / 620~ 830 kPa) to Spring Chamber, unscrew the caging nut, washer, and bolt counterclockwise from the side of the chamber housing using ¾ inch (19mm) wrench.
3. Open the head cover, insert caging bolt to inner part of the piston chink, lock it by rotating to clockwise and screw the washer and nut to caging bolt to cage the spring brake.
4. After caging is done, exhaust all the air from inside of the spring brake.

DMD / Name of the component parts

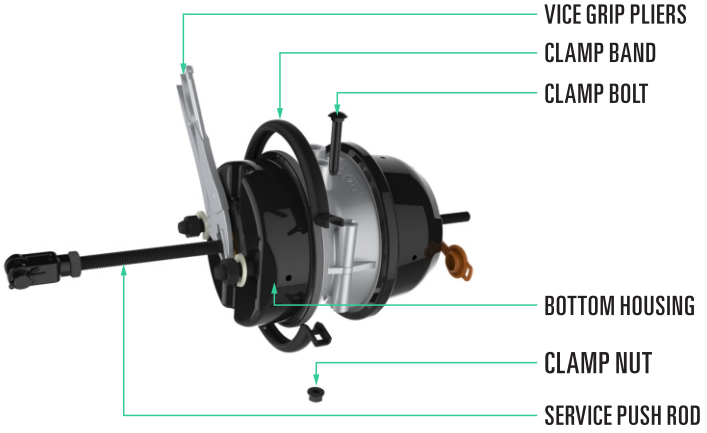


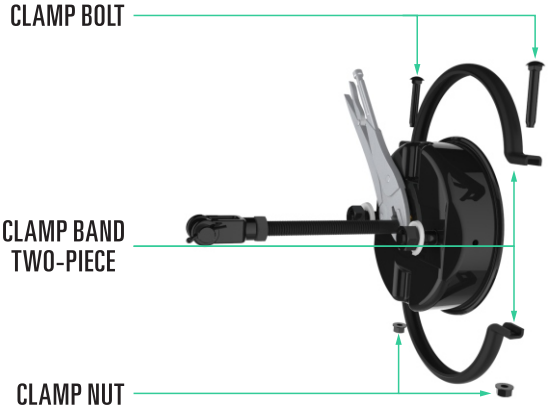
1. Caging Bolt
2. Cover, Head Housing
3. Caging Bolt Pocket
4. Clamp Bolt
5. Mounting Washer
6. Mounting Nut
7. Mounting Bolt
8. Push Rod
9. Yoke Nut
10. Yoke (Clevis)
11. Yoke Pin
12. Split Pin





5. When removing bottom housing, to prevent bouncing and to easily set airport or mounting bolt angle during the assembly, fixate service part pushrod to bottom housing's bottom surface with vice grip pliers. (Refer to picture below)





6. Following manufacturer's instructions precisely, using spanner wrench, release the air hose and the connector from the chamber. Marking before the separation to ensure the location of the air line and connector is highly recommended.
7. Separate service part clamp nut and remove the clamp band

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Piggyback Service Housing Assembly

1. It is mandatory that the Spring Brake is caged. If not caged, please follow DMDxxxx Series caging instruction.
   You can find that information in DMDxxxx Double Diaphragm Spring Brake Installation Manual.
2. Before assembling piggyback to existing bottom housing, inspect clamp band, bolt, nut, push rod, return spring and service housing for any damage and replace it.
3. Clean any oil, grease or dirt that is on service part pushrod plate and piggyback diaphragm. Check to see if the bottom housing vent hole is open completely.
4. Centered the new diaphragm to adaptor housing, seat service part to piggyback diaphragm and make sure airport, vent hole, and mounting bolt is in right angle.
   After that, put clamp band together alternately screwing each of the clamp nut to make it equivalent to each other.

5. Inspect clamp bolt, clamp nut and clamp band for proper assembled. Remove the vice grip pliers from service part pushrod.
6. Using Loctite glue or Teflon tape, tighten the chamber fitting to each of the correct position at 3.6kgf.m(25lbf.ft) torque. Connect the correct air hose to each position
7. Apply maximum air pressure (pneumatic)of 8.3 bar(120 psi/830kPa) to service port and using soapy water, inspect air leak at service clamp area and diaphragm assembled part.
8. Refer to DMDxxxx Spring Brake installation manual for chamber installation and uncaging instruction.

IMPORTANT : After reinstallation, make sure parking brake and service brake is working properly. Follow vehicle manufacturer's manual for brake adjustment.

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