

C20417 & C20425 SERVICE PROCEDURE

Subject: C11300 Replacement Procedure
Navistar #1893172C91

Models Affected: C20417 & C20425
Navistar #1891695C91 & 1891696C91

CAUTION! At no time should the capscrews securing the anchor bracket to the housing be loosened.

AIR CYLINDER REMOVAL

- 1 Disconnect the supply airline.
- 2 Remove the lower e-clip (closest to the bracket) at the clevis pin.
- 3 Push the clevis pin up and out of the clevis (away from the bracket).
- 4 Remove the e-clip and flat washer at the anchor pin.
- 5 Rotate the arm of the butterfly shaft out of the clevis, remove cylinder.

AIR CYLINDER ADJUSTMENT

- 1 Extend the cylinder to full travel using shop air pressure (minimum of 100 PSI and maximum 150 PSI).
- 2 Measure the distance between the clevis pin to anchor pin using vernier calipers, record this dimension. This measurement is extremely important as it determines the amount the butterfly closes. The pin to pin dimension must be within +/- .0025" on the replacement cylinder.



- 3 Release the air pressure allowing the cylinder to retract.
- 4 Remove the fitting.

INSTALLING THE REPLACEMENT CYLINDER

- 1 Loosely install the lock nut and clevis provided on the replacement cylinder.
- 2 Apply air pressure (minimum of 100 PSI and maximum 150 PSI) to the replacement cylinder to full extension.
- 3 Adjust the clevis to attain the distance recorded in step 2 of the "air cylinder adjustment" between the clevis to anchor pin using vernier calipers. Tighten the lock nut to 25 lbs ft (35 N•m) Recheck the distance between the clevis to anchor pin to ensure it did not change after tightening the lock nut. The pin to pin dimension must be within +/- .0025" on the replacement cylinder.



- 4 Install the cylinder muffler, torque to 15 in lbs (1.6 N•m).
- 5 Apply anti-seize to the anchor pin and clevis pin.
- 6 Install the air cylinder with the air port towards the side of the bracket bent down.
- 7 Install the washer on the anchor pin (rounded side towards the cylinder) and then the new e-clip provided.
- 8 Install the new clevis pin provided into the clevis through the arm. This will require the cylinder to be extended slightly to achieve alignment of the holes. Install the new lower pin e-clip provided.
- 9 Install the original air inlet fitting into the assembly.

Re-install the unit on the vehicle as per Navistar service procedures.