# SERVICE MANUAL

## T7.230 / T7.245 / T7.260
## T7.230 AutoCommand™ / T7.245 AutoCommand™
## T7.260 AutoCommand™ / T7.270 AutoCommand™
## TIER 4B (FINAL)

Tractor

Part number 47936456
English
November 2015

NEW HOLLAND AGRICULTURE

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**T7.230, T7.245, T7.260 – Standard**

| CONNECTOR X-022 - On harness 47841698 | | | |
|---|---|---|---|
| **PIN NUMBER** | **WIRE NUMBER** | **CIRCUIT REFERENCE** | **ELECTRICAL SCHEMATIC FRAME** |
| 1 | CM-3024 (YE) | From X-022 to **X-095** | **Wiring harnesses - Electrical schematic sheet 14 (55.100)** **Wiring harnesses - Electrical schematic sheet 15 (55.100)** **Wiring harnesses - Electrical schematic sheet 16 (55.100)** **Wiring harnesses - Electrical schematic sheet 17 (55.100)** **Wiring harnesses - Electrical schematic sheet 18 (55.100)** **Wiring harnesses - Electrical schematic sheet 19 (55.100)** **Wiring harnesses - Electrical schematic sheet 20 (55.100)** **Wiring harnesses - Electrical schematic sheet 23 (55.100)** **Wiring harnesses - Electrical schematic sheet 25 (55.100)** |
| 2 | CM-7005 (BL) | From X-022 to **X-095** | |
| 3 | CM-7080 (LG) | From X-022 to **X-095** | |
| 4 | CM-2130 (BR) | From X-022 to **X-095** | |
| 5 | CM-2051 (OR) | From X-022 to **X-095** | |
| 6 | CM-2042 (OR) | From X-022 to **X-095** | |
| 7 | CM-2140 (OR) | From X-022 to **X-091** | |
| 8 | CM-2062 (WH) | From X-022 to **X-091** | |
| 9 | CM-7910 (LB) | From X-022 to **X-092** | |
| 10 | CM-7935 (VT) | From X-022 to **X-091** | |
| 11 | CM-7401 (VT) | From X-022 to **X-093** | |
| 12 | CM-7400 (YE) | From X-022 to **X-095** | |
| 13 | CM-8050 (RD) | From X-022 to **X-097** | |
| 14 | CM-7930 (LB) | From X-022 to **X-092** | |
| 15 | CM-7940 (LB) | From X-022 to **X-095** | |
| 16 | CM-7960 (WH) | From X-022 to **X-097** | |
| 17 | CM-7431 (LB) | From X-022 to **X-092** | |
| 18 | CM-7915 (VT) | From X-022 to **X-091** | |
| 19 | CM-7000P (BL) | From X-022 to CM-SP-7000 | |
| 20 | CM-7945 (VT) | From X-022 to **X-095** | |
| 21 | CM-9036 (TN) | From X-022 to **X-095** | |
| 22 | CM-7225 (WH) | From X-022 to **X-091** | |
| 23 | CM-8045 (VT) | From X-022 to **X-095** | |
| 24 | CM-7985 (GN) | From X-022 to **X-095** | |
| 25 | CM-3295 (OR) | From X-022 to **X-100** | |
| 26 | CM-7235 (YE) | From X-022 to **X-095** | |
| 27 | CM-7581 (OR) | From X-022 to **X-094** | |
| 28 | CM-7760 (WH) | From X-022 to **X-095** | |
| 29 | CM-9035 (TN) | From X-022 to **X-095** | |
| 30 | - | - | |
| 31 | CM-7500 (GN) | From X-022 to **X-093** | |
| 32 | CM-5097 (PK) | From X-022 to **X-091** | |
| 33 | CM-5090 (PK) | From X-022 to **X-092** | |
| 34 | CM-5087 (PK) | From X-022 to **X-091** | |
| 35 | CM-5085 (PK) | From X-022 to **X-092** | |
| 36 | CM-5070 (TN) | From X-022 to **X-093** | |
| 37 | CM-5075 (PK) | From X-022 to **X-093** | |
| 38 | CM-5065 (TN) | From X-022 to **X-093** | |
| 39 | CM-9033 (TN) | From X-022 to **X-092** | |
| 40 | CM-9034 (TN) | From X-022 to **X-091** | |
| 41 | CM-7580 (BL) | From X-022 to **X-095** | |
| 42 | CM-7220 (GY) | From X-022 to **X-092** | |
| 43 | CM-7230 (GY) | From X-022 to **X-095** | |
| 44 | CM-7900 (LB) | From X-022 to **X-091** | |
| 45 | CM-7700 (BL) | From X-022 to **X-097** | |
| 46 | CM-5080 (PK) | From X-022 to **X-093** | |
| 47 | CM-5020A (TN) | From X-022 to CM-SP-5020 | |
| 48 | CM-7920 (LB) | From X-022 to **X-092** | |
| 49 | CM-2050L (GN) | From X-022 to CM-SP-2050 | |
| 50 | - | - | |
| 51 | CM-7525G (GN) | From X-022 to CM-SP-7525 | |

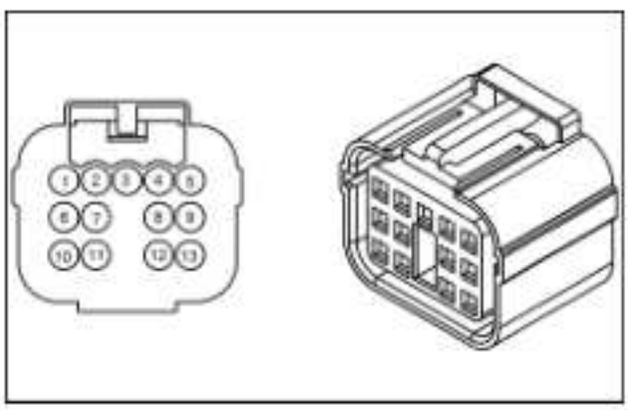


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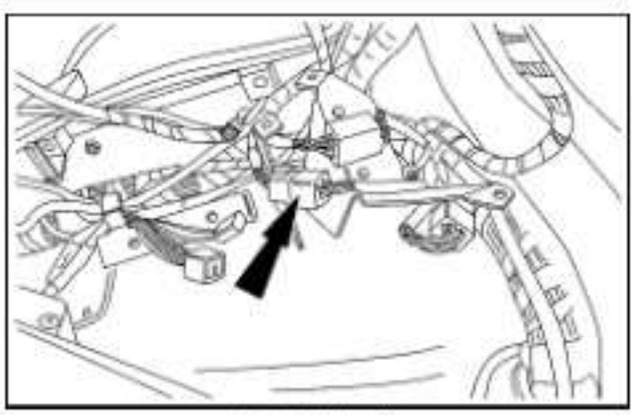
***CONNECTOR X-619 - Display interface (connector 1) or autoguidance interface (connector 1)***

**T7.230, T7.245, T7.260, T7.270 AutoCommand**
**T7.230, T7.245, T7.260 – Sidewinder II**

| CONNECTOR X-619 - On harness 47754421 | | | |
|---|---|---|---|
| **PIN NUMBER** | **WIRE NUMBER** | **CIRCUIT REFERENCE** | **ELECTRICAL SCHEMATIC FRAME** |
| 1 | CM-490A (GN) | From X-619 to **X-080** | **Wiring harnesses - Electrical schematic sheet 27 (55.100)**<br>**Wiring harnesses - Electrical schematic sheet 45 (55.100)**<br>**Wiring harnesses - Electrical schematic sheet 54 (55.100)**<br>**Wiring harnesses - Electrical schematic sheet 55 (55.100)** |
| 2 | CM-491A (YE) | From X-619 to **X-080** | |
| 3 | CM-492A (BK) | From X-619 to **X-080** | |
| 4 | CM-493A (RD) | From X-619 to **X-080** | |
| 5 | CM-5955E (GN) | From X-619 to CM-SP-5955 | |
| 6 | - | - | |
| 7 | - | - | |
| 8 | CM-5000DE (VT) | From X-619 to CM-SP-5000 | |
| 9 | CM-5960F (WH) | From X-619 to CM-SP-5960 | |
| 10 | - | - | |
| 11 | CM-7000R (BL) | From X-619 to CM-SP-7000 | |
| 12 | CM-1012J (VT) | From X-619 to CM-SP-1012 | |
| 13 | CM-057SW (BK) | From X-619 to CM-SP-057 | |




30



31

**Behind right-hand side trim (near C-pillar)**

**T7.230, T7.245, T7.260, T7.270 AutoCommand**



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# 12522-Inconsistent air and hydraulic pressure on the left Aoh

| | |
|---|---|
| T7.230 AutoCommand™ | ANZ --- APAC --- MEA |
| T7.230 Sidewinder II [ZFEZ30001 - ] | ANZ --- APAC --- MEA |
| T7.245 AutoCommand™ | ANZ --- APAC --- MEA |
| T7.245 Sidewinder II [ZFEZ30001 - ] | ANZ --- APAC --- MEA |
| T7.260 AutoCommand™ | ANZ --- APAC --- MEA |
| T7.260 Sidewinder II [ZFEZ30001 - ] | ANZ --- APAC --- MEA |
| T7.270 AutoCommand™ | ANZ --- APAC --- MEA |

## Control Module : UCM

**⚠WARNING**

**Loss of control hazard!**
**The brakes on your machine are hydraulically power-assisted. The brakes will still function with the engine off, but you must press harder on the pedal.**
**Failure to comply could result in death or serious injury.**

W0442A

***NOTE:*** *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

**Cause:**
The Universal Control Module (UCM) has detected an inconsistency between the air supply pressure and the expected hydraulic pressure on the rear left air over hydraulic (AoH) converter (low hydraulic pressure).

**Possible failure modes:**

1. Faulty rear left brake hydraulic system
2. Faulty rear left air over hydraulic converter
3. Faulty rear left brake pressure sensor

**Solution:**

1. Check for the error code.
   Clear the error code. Operate the machine and check the system for normal operation.

   A. If the error code is still present, continue to Step **2**.

2. Check for other related error codes.
   Check for other error codes with the UCM or the EBM related to pressure faults or an air over hydraulic fault.

   A. If other error codes are displayed, continue to these tests.

   B. If no related error codes are present, continue to Step **3**.

3. Carry out pressure testing on the brake hydraulic system.
   Carry out the Anti-lock Brake System pressure testing procedure, for further information refer to **Anti-lock Brake System (ABS) - Pressure test (33.350)** checking for any rear left hydraulic faults on the machine.

   A. If a hydraulic fault is identified, repair or replace as required. Operate the machine and check the brakes for normal operation.

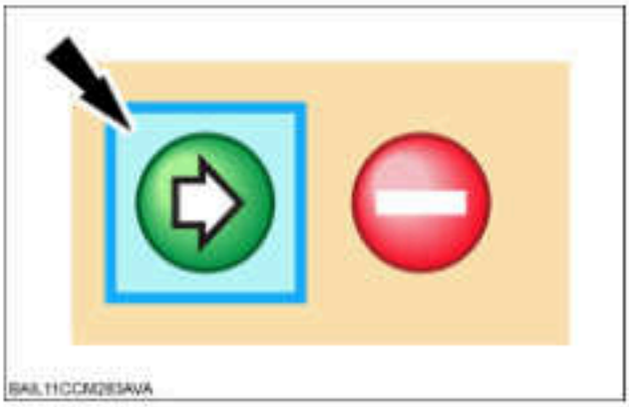
   B. If no faults are identified with the rear left hydraulic circuit, replace the left hand brake pressure sensor at connector **X-981** on the rear left air over hydraulic converter. Operate the machine and check the brakes for normal operation.



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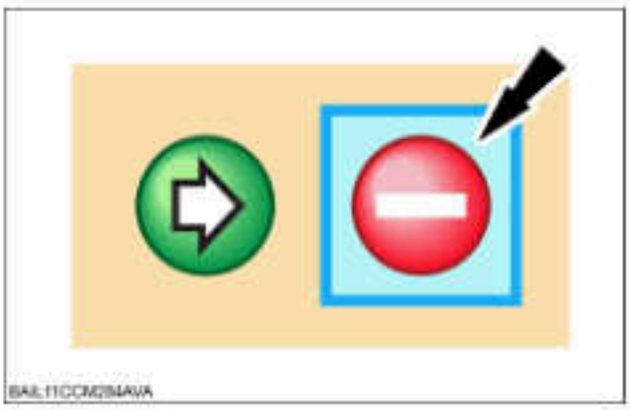
Step 5a. RAMP Test Procedure:

- On the DATAR Scope, in the bottom left corner, verify the capture trigger is "ready" to start capturing data. This is indicated with a green ball highlighted in blue as shown in the figure to the right. If the scope is not ready, then press the keyboard SPACE bar to change the scope trigger state to ready.
- Press and hold the UP SHIFT button on the transmission shift lever to run the RAMP test. The machine display will count up to 100 and then back to 0. When the test is finished the display will show "END". This test will take about 20 seconds.




BAIL11CCM283AVA 27

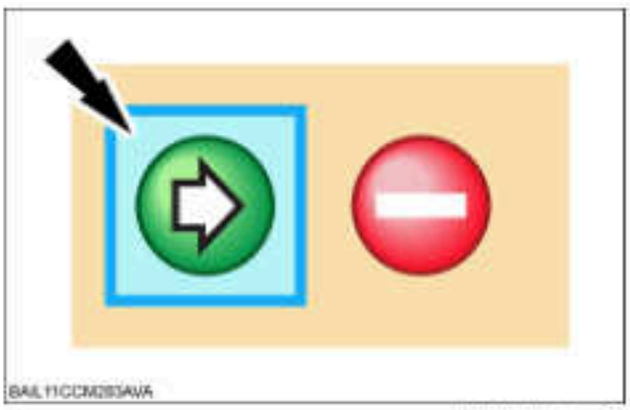
- On the DATAR Scope, when the test ramp is finished, then press the PC SPACE bar to capture and hold the result trace.
- Compare the DATAR measured trace with the expected result trace shown on the next Valve Test Assistant screen. (Remember ALT-TAB to switch between the programs)




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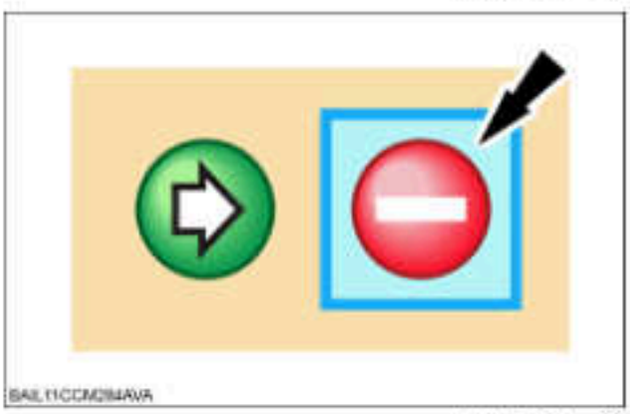
Step 5b. STEP test procedure:

- On the DATAR Scope, in the bottom left corner, verify the capture trigger is "ready" to start capturing data. This is indicated with a green ball highlighted in blue as shown in the figure to the right. If the scope is not ready, then press the keyboard SPACE bar to change the scope trigger state to ready.
- Press and hold the DOWN SHIFT button on the transmission shift lever to run the STEP test. The machine display will count up from 1 to 4. When the test is finished the display will show "END". This test will take about 5 seconds.




BAIL11CCM283AVA 29

- On the DATAR Scope, when the test ramp is finished, then press the PC SPACE bar to capture and hold the result trace.
- Compare the DATAR measured trace with the expected result trace shown on the next Valve Test Assistant screen. (Remember ALT-TAB to switch between the programs)




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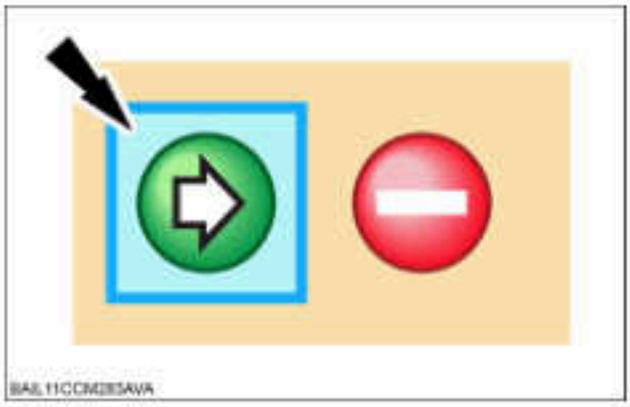
***NOTE:*** *During the step test, the machine software makes two quick engagements of the clutch. With some clutches, there will be a banging sound.*



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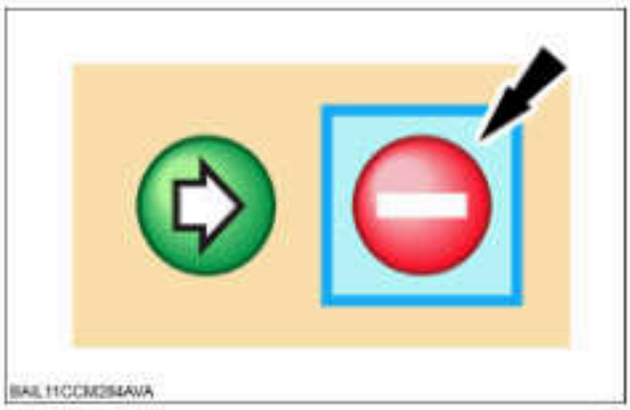
Step 5a. RAMP test procedure:

- On the DATAR Scope, in the bottom left corner, verify the capture trigger is "ready" to start capturing data. This is indicated with a green ball highlighted in blue as shown in the figure to the right. If the scope is not ready, then press the keyboard SPACE bar to change the scope trigger state to ready.
- Press and hold the UP SHIFT button on the transmission shift lever to run the RAMP test. The machine display will count up to 100 and then back to 0. When the test is finished the display will show "END". This test will take about 20 seconds.




BAIL11CCM283AVA 27

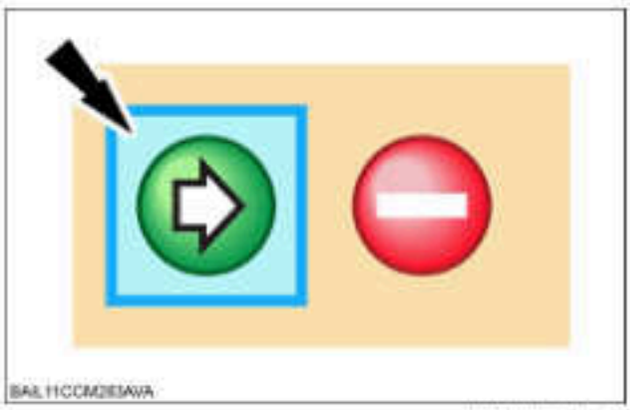
- On the DATAR Scope, when the test ramp is finished, then press the PC SPACE bar to capture and hold the result trace.
- Compare the DATAR measured trace with the expected result trace shown on the next Valve Test Assistant screen. (Remember ALT-TAB to switch between the programs)




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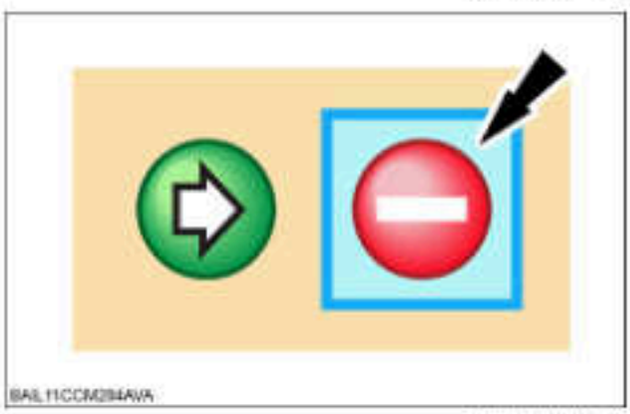
Step 5b. STEP test procedure:

- On the DATAR Scope, in the bottom left corner, verify the capture trigger is "ready" to start capturing data. This is indicated with a green ball highlighted in blue as shown in the figure to the right. If the scope is not ready, then press the keyboard SPACE bar to change the scope trigger state to ready.
- Press and hold the DOWN SHIFT button on the transmission shift lever to run the STEP test. The machine display will count up from 1 to 4. When the test is finished the display will show "END". This test will take about 5 seconds.




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- On the DATAR Scope, when the test ramp is finished, then press the PC SPACE bar to capture and hold the result trace.
- Compare the DATAR measured trace with the expected result trace shown on the next Valve Test Assistant screen. (Remember ALT-TAB to switch between the programs)

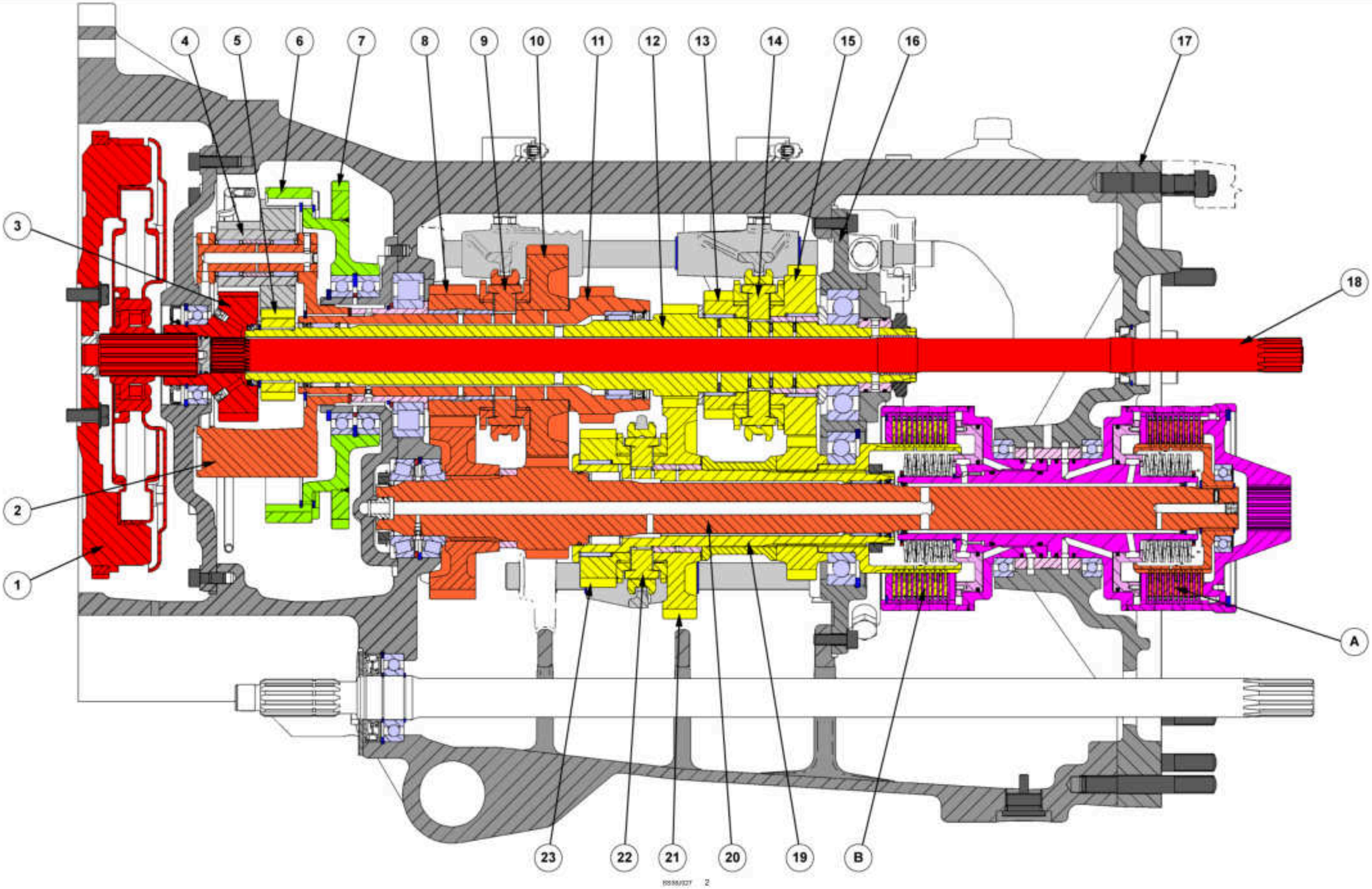



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***NOTE:*** *During the step test, the machine software makes two quick engagements of the clutch. With some clutches, there will be a banging sound.*



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