

Illustration 1

g00860708

4C-8195 Control service tool

- (1) Mode switch
- (2) Clear switch
- (3) Scroll switch

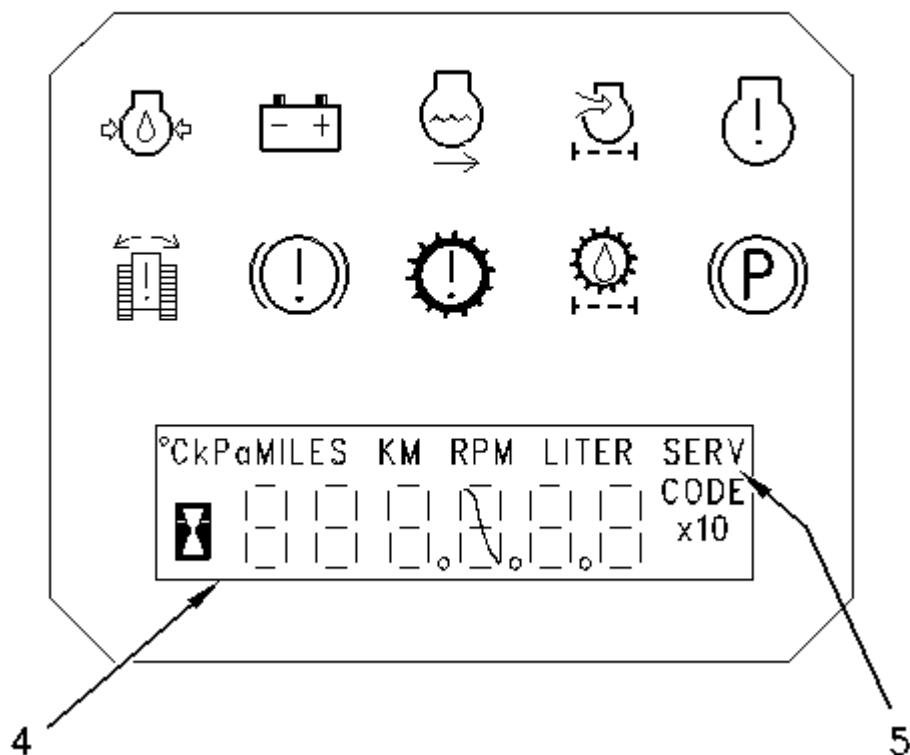


Illustration 2

g00597263

Typical example of the main display module of the Caterpillar monitoring system

(4) Display area. (5) Diagnostic code indicator ("SERV CODE").

Table 2

| Calibration Modes   |                               |                        |
|---|-------------------------------|------------------------|
| Parking Brake Status  | Submode <sup>(1)</sup> Number | Submode Description    |
| <b>Steering/Braking Calibration Mode</b><br><b>Mode No. 6... , D5N, D6N, D6R Series II, D7R Series II, 572R Series II, D8R Series II, D10R, and D11R</b><br><b>Mode No. 5... D5M, D6M, D6R, and D7R</b> |                               |                        |
| ON  | 01                            | Set Application        |
| OFF   | 02                            | Left Brake Adjustment  |
| OFF   | 03                            | Right Brake Adjustment |

|  |      |   |
|--|------|---|
| ON   | 04   | Left Steer Clutch High Pressure Adjustment  |
| ON   | 05   | Right Steer Clutch High Pressure Adjustment |
| OFF  | 06   | Left Brake Low Pressure Adjustment          |
| OFF  | 07   | Right Brake Low Pressure Adjustment         |
| ON   | 08   | Left Steer Clutch Low Pressure Adjustment   |
| ON   | 09   | Right Steer Clutch Low Pressure Adjustment  |
| <b>Transmission Calibration Mode</b><br><b>Mode No. 7... D5N, D6R Series II, D7R Series II, 572R Series II, D8R Series II, D10R, and D11R</b><br><b>Mode No. 6... D5M, D6M, D6N, D6R, D7R and 561N</b> |      |   |
| ON   | 20   | Set Forward High Speed Lockout              |
| ON   | 21   | Set Reverse High Speed Lockout              |
| ON   | 22   | Transmission Direction Lever Adjustment     |
| ON   | 31   | Clutch 1 Engagement Calibration             |
| ON   | 32   | Clutch 2 Engagement Calibration             |
| ON   | 33   | Clutch 3 Engagement Calibration             |
| ON   | 34   | Clutch 4 Engagement Calibration             |
| ON   | 35   | Clutch 5 Engagement Calibration             |
| ON   | 40   | Clutch Fill Calibration                     |
| <b>Component Data Display Mode</b><br><b>Mode No. 8... D6R Series II, D7R Series II, D8R Series II, D10R, and D11R</b><br><b>Mode No. 7... D5M, D6M, D6R, and D7R</b>                                  |      |   |
| ON   | None | Component Data                              |

<sup>(1)</sup> Only the submodes that are required for a particular machine will appear. Submodes 10 through 19, 23 through 30, and 36 through 39 are not used at this time.

Service personnel access the calibration submodes by using the **4C-8195** Control Service Tool .

**To Enter A Mode** - Press and hold the mode switch (1) . Release the mode switch when the desired mode number from the chart is shown in display area (4) .

**To Scroll Through The Submodes** - Press and hold the scroll switch (3) . Release the scroll switch when the correct number for the submode is being shown.

**To Adjust A Value Within A Submode** - The "+" and "-" positions of clear switch (2) are used to change the value within a submode.

**To Scroll Through The Component Identifiers Of Component Data Display Mode** - Use the "+" and "-" positions of clear switch (2) in order to move through the component list.

## Component Data Display Mode

**Note:** The component data display mode for the D5M, D6M, D6R, D7R, and 572R is mode number 7. For the D6R Series II, D7R Series II, D8R Series II, the mode is mode number 8.

The component data display mode will show the values of data that is received by the ECM from system components of the power train. Each component is referenced by a unique Component Identifier. Use the "+" and "-" positions of the clear switch that is on the service tool to move through the component list. The identifying number for a component will be displayed for 2 seconds. The parameter value for that component will be displayed after the identifying number is displayed. The components are listed in numerical order of the identifying number. For a list of component identifiers, see the table below. The values for different types of components appear in the following forms:

- The data for the position sensor is displayed in "%" duty cycle.
- The data for the temperature sensor is displayed in °C.

Data for switches is displayed by using "O" and "C" for each throw of the switch. "O" stands for "Open". "C" stands for "Closed". The normally open contact is displayed by the left character for double-throw switches. The normally closed contact is displayed by the right character.

Currents for proportional solenoids are shown on a 0 - 255 scale. "0" represents no current and "255" represents full current (1.25 Amperes).

Currents for On/Off solenoids are displayed by using "0" for OFF and "1" for ON.

## Performing Calibrations With the Cat ET Service Tool

In order to perform calibrations by using the Cat ET service tool, connect Cat ET service tool and select the steering/braking/trans ECM. Select "Calibrations" from the "Service Menu" and then select the desired calibrations from the sub-menu. The calibrations are grouped into general categories.

**Note:** Steering, clutch/brake pressure calibrations and brake touch-up calibrations will include calibrations that do not apply for differential steering tractors. For differential steering tractors, unselect all calibrations in these two categories except left brake low pressure calibration and left brake touch-up calibration. These are the only calibrations that apply to differential steering machines in these two categories. If the other calibrations are performed in these categories Cat ET service tool will indicate that the procedure failed. This failure warning can be ignored. Once the desired calibrations have been selected the calibration process can be performed by pressing the "Begin" key and then following the instructions displayed on the screen.

**Note:** If a calibration fails when you use the Cat ET service tool, try performing the same calibration by using the Caterpillar Monitoring System.

Table 3