# SERVICE REPAIR

# MANUAL

Hyster B219 (E30HSD2, E35HSD2, E40HSD2) Forklift
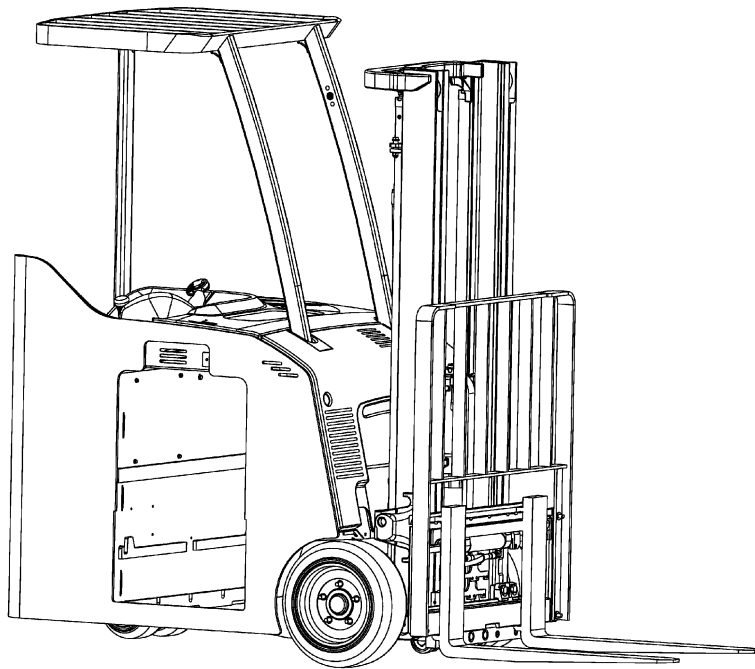
# HYSTER

# USER INTERFACE

## SERVICE-LEVEL FUNCTIONS
## ON-BOARD DASH DISPLAY

## $\Rightarrow$S/N B219N02184L

### E30HSD$_2$, E35HSD$_2$, E40HSD$_2$
### [B219]



# HYSTER

# SAFETY PRECAUTIONS
# MAINTENANCE AND REPAIR

- The Service Manuals are updated on a regular basis, but may not reflect recent design changes to the product. Updated technical service information may be available from your local authorized Hyster® dealer. Service Manuals provide general guidelines for maintenance and service and are intended for use by trained and experienced technicians. Failure to properly maintain equipment or to follow instructions contained in the Service Manual could result in damage to the products, personal injury, property damage or death.

- When lifting parts or assemblies, make sure all slings, chains, or cables are correctly fastened, and that the load being lifted is balanced. Make sure the crane, cables, and chains have the capacity to support the weight of the load.

- Do not lift heavy parts by hand, use a lifting mechanism.

- Wear safety glasses.

- DISCONNECT THE BATTERY CONNECTOR before doing any maintenance or repair on electric lift trucks. Disconnect the battery ground cable on internal combustion lift trucks.

- Always use correct blocks to prevent the unit from rolling or falling. See HOW TO PUT THE LIFT TRUCK ON BLOCKS in the **Operating Manual** or the **Periodic Maintenance** section.

- Keep the unit clean and the working area clean and orderly.

- Use the correct tools for the job.

- Keep the tools clean and in good condition.

- Always use **HYSTER APPROVED** parts when making repairs. Replacement parts must meet or exceed the specifications of the original equipment manufacturer.

- Make sure all nuts, bolts, snap rings, and other fastening devices are removed before using force to remove parts.

- Always fasten a DO NOT OPERATE tag to the controls of the unit when making repairs, or if the unit needs repairs.

- Be sure to follow the **WARNING** and **CAUTION** notes in the instructions.

- Gasoline, Liquid Petroleum Gas (LPG), Compressed Natural Gas (CNG), and Diesel fuel are flammable. Be sure to follow the necessary safety precautions when handling these fuels and when working on these fuel systems.

- Batteries generate flammable gas when they are being charged. Keep fire and sparks away from the area. Make sure the area is well ventilated.

> **NOTE:** The following symbols and words indicate safety information in this manual:
>
> ### ⚠ WARNING
> **Indicates a hazardous situation which, if not avoided, could result in death or serious injury.**
>
> ### ⚠ CAUTION
> **Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury and property damage.**
>
> **On the lift truck, the WARNING symbol and word are on orange background. The CAUTION symbol and word are on yellow background.**

# TABLE OF CONTENTS

Thanks very much for your reading,

Want to get more information,

Please click here, Then get the complete manual

# JustClickHere

# TABLE OF CONTENTS (Continued)

---

This section is for the following models:

E30HSD$_2$, E35HSD$_2$, E40HSD$_2$ [B219]

---

# General

## DESCRIPTION

This topic describes the functions of the display panel that are available to the service technician. With a proper Service-level password, a service technician can access menu items that are not visible at Operator or Supervisor-level access.

**NOTE:** Some menu functions can only be accessed through the dash display by using a Service-level password. These functions include truck speed settings, acceleration rates, and audible/visual alarm settings.

**NOTE:** The initial setup of the Supervisor password must be performed by a service technician accessing the menu system with a Service-level password. The Supervisor password must be set up before a supervisor can access the menu functions. The default Service-level password as shipped from the factory is 55555 This should be changed to a different number by the technician during initial setup.

The dash display is a multifunction device. It contains a button keypad, a series of LED indicator lights, and an LCD screen. See Figure 1.
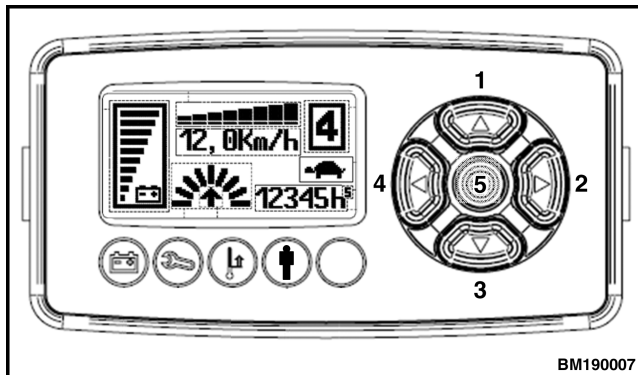


*Figure 1. Dash Display*

## Button Keypad

The button keypad is located on the right side of the display. It consists of four buttons arranged in a circle with a fifth button in the center. The buttons are numbered 1 through 5, starting with button 1 at the top and continuing clockwise and ending with button 5 situated in the center of the keypad.

## LED Indicator Lights

The LED indicator lights are located on the display below the LCD screen and to the left of the button keypad. The lights illuminate to notify the operator of certain conditions. The function of each light (in order from left to right) is as follows:
- Battery
- Wrench
- Thermometer
- Operator Pedal
- Optional

## LCD Screen

The LCD screen displays the following when the key is ON:
1. Battery Charge Indicator
2. Turtle Mode Indicator
3. Hourmeter (Tenths)
4. Hourmeter (Hours)
5. Throttle Command
6. Actual Speed
7. Steer Tire Position
8. Run Direction
9. Performance Mode Indicator

## DASH DISPLAY MENU ACCESS

To access the dash display menu system:
1. Turn the key or keyless switch to the **ON** position.
2. Depress the center button (#5) on the display two times.
3. The Enter Password screen will now appear on the LCD. Enter your five-digit Service-level password. The factory default Service-level password is 55555.

To enter your password at the ENTER PASSWORD screen, enter the appropriate digit in the highlighted area of the display. Use the appropriate button on the display keypad to enter any digit between 1 and 5. The cursor will automatically move to the next position after a number has been entered. Repeat until all five digits of your password have been entered. Upon successful entry of your Service-level

password, the display will enter the Service menu system. If an incorrect password is entered, the display will ask for the password to be entered again. The menu system can be exited at any time by pressing the LEFT (#4) button repeatedly.

```
┌─────────────────────────────────────┐
│   ┌─────────────────────────────┐   │
│   │                             │   │
│   │          ENTER              │   │
│   │                             │   │
│   │        PASSWORD             │   │
│   │                             │   │
│   │        - - - - -            │   │
│   │                             │   │
│   └─────────────────────────────┘   │
└─────────────────────────────────────┘
```
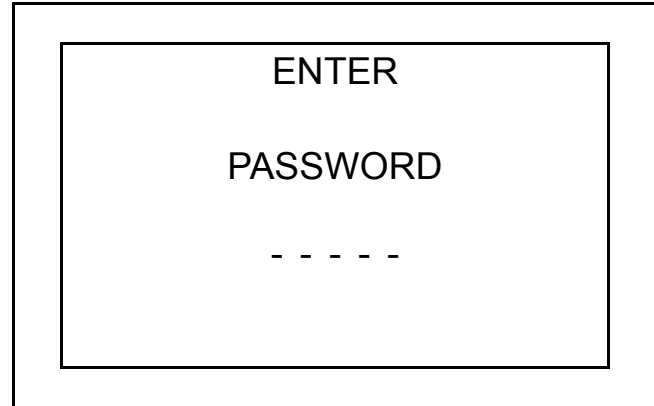
# Menu Navigation

**NOTE:** The display menus are revolving and will repeat when you scroll beyond the last menu item.

Upon successful entry of your Service-level password, the Service menu screen will appear on the dash display LCD screen. See Figure 2 for lift trucks equipped with Display Software v3.0. See Figure 3 for lift trucks equipped with Display Software v3.02. Menu navigation is accomplished by using the display buttons. From inside the menu, the buttons function as follows:
1. **UP** - Scroll up within a menu, or increase the value of a setting when making a parameter adjustment.

2. **RIGHT** - Scroll right within a menu. Will move you into the next submenu or activate the highlighted parameter to allow parameter value adjustments.
3. **DOWN** - Scroll down within a menu, or decrease the value of a setting when making a parameter adjustment.
4. **LEFT** - Scroll left within a menu. Will move you to the previous menu when depressed. Press repeatedly to exit the menu system.
5. **ENTER** - Press to accept parameter value adjustments. Press twice to access the Enter Password screen.
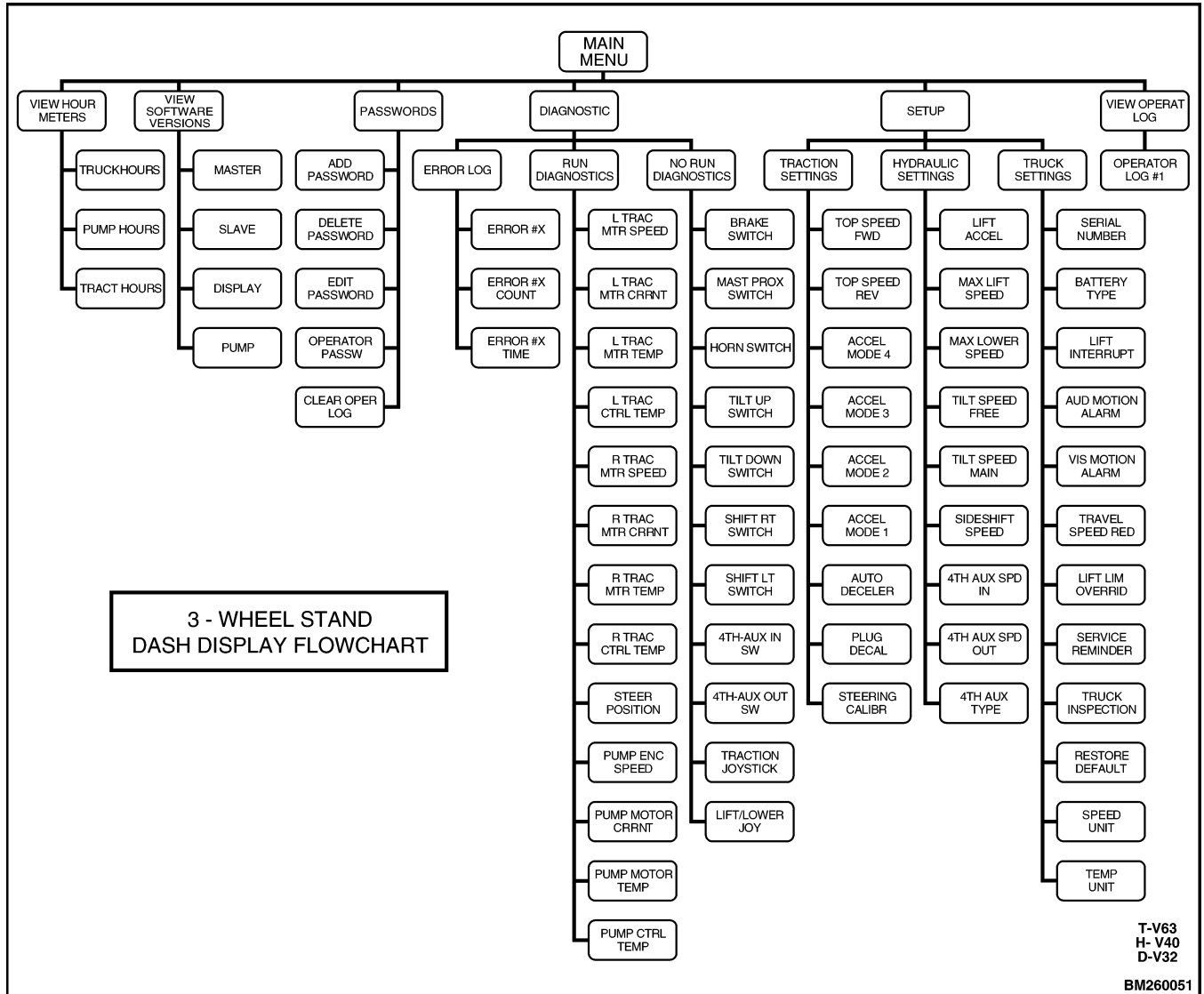
*Figure 2. Menu Navigation Flowchart (Display Software v3.0)*

MAIN
MENU

VIEW HOUR METERS — VIEW SOFTWARE VERSIONS — PASSWORDS — DIAGNOSTIC — SETUP — VIEW OPERAT LOG

**VIEW HOUR METERS**
- TRUCK HOURS
- PUMP HOURS
- TRACT HOURS

**VIEW SOFTWARE VERSIONS**
- MASTER
- SLAVE
- DISPLAY
- PUMP

**PASSWORDS**
- ADD PASSWORD
- DELETE PASSWORD
- EDIT PASSWORD
- OPERATOR PASSW
- CLEAR OPER LOG

**DIAGNOSTIC**

ERROR LOG — RUN DIAGNOSTICS — NO RUN DIAGNOSTICS

**ERROR LOG**
- ERROR #X
- ERROR #X COUNT
- ERROR #X TIME

**RUN DIAGNOSTICS**
- L TRAC MTR SPEED
- L TRAC MTR CRRNT
- L TRAC MTR TEMP
- L TRAC CTRL TEMP
- R TRAC MTR SPEED
- R TRAC MTR CRRNT
- R TRAC MTR TEMP
- R TRAC CTRL TEMP
- STEER POSITION
- PUMP ENC SPEED
- PUMP MOTOR CRRNT
- PUMP MOTOR TEMP
- PUMP CTRL TEMP

**NO RUN DIAGNOSTICS**
- BRAKE SWITCH
- MAST PROX SWITCH
- HORN SWITCH
- TILT UP SWITCH
- TILT DOWN SWITCH
- SHIFT RT SWITCH
- SHIFT LT SWITCH
- 4TH-AUX IN SW
- 4TH-AUX OUT SW
- TRACTION JOYSTICK
- LIFT/LOWER JOY

**SETUP**

TRACTION SETTINGS — HYDRAULIC SETTINGS — TRUCK SETTINGS

**TRACTION SETTINGS**
- TOP SPEED FWD
- TOP SPEED REV
- ACCEL MODE 4
- ACCEL MODE 3
- ACCEL MODE 2
- ACCEL MODE 1
- AUTO DECELER
- PLUG DECAL
- STEERING CALIBR

**HYDRAULIC SETTINGS**
- LIFT ACCEL
- MAX LIFT SPEED
- MAX LOWER SPEED
- TILT SPEED FREE
- TILT SPEED MAIN
- TILT VALV ACC
- TILT VALV DEC
- HYD MTR DEC
- SIDESHIFT SPEED
- 4TH AUX SPD IN
- 4TH AUX SPD OUT
- 4TH AUX TYPE

**TRUCK SETTINGS**
- SERIAL NUMBER
- BATTERY TYPE
- BDI MAX ADJ
- BDI MIN ADJ
- BDI ADJ STARTUP
- BDI DELTA RESET
- LIFT INTERRUPT
- AUD MOTION ALARM
- VIS MOTION ALARM
- TRAVEL SPEED RED
- LIFT LIMIT OVERRIDE
- SERVICE REMINDER
- TRUCK INSPECTION
- SIMUL-TANEITY
- RESTORE DEFAULT
- SPEED UNIT
- TEMP UNIT

**VIEW OPERAT LOG**
- OPERATOR LOG #1

3 - WHEEL STAND
DASH DISPLAY FLOWCHART

BM260061

*Figure 3. Menu Navigation Flowchart (Display Software v3.02)*

# Service-Level Menu

The Service-Level menu allows a service technician access to the dash display menu system to troubleshoot or adjust truck systems and settings. With a proper Service-level password, a service technician can access menu items that are not visible at Operator or Supervisor-level access. See Table 1. At the Service-Level Menu, the following submenu choices are available:

    VIEW HOURMETERS
    SOFTWARE VERSIONS
    PASSWORD
    DIAGNOSTIC
    SET UP
    VIEW OPERAT LOG

*Table 1.  Service-Level Menu*
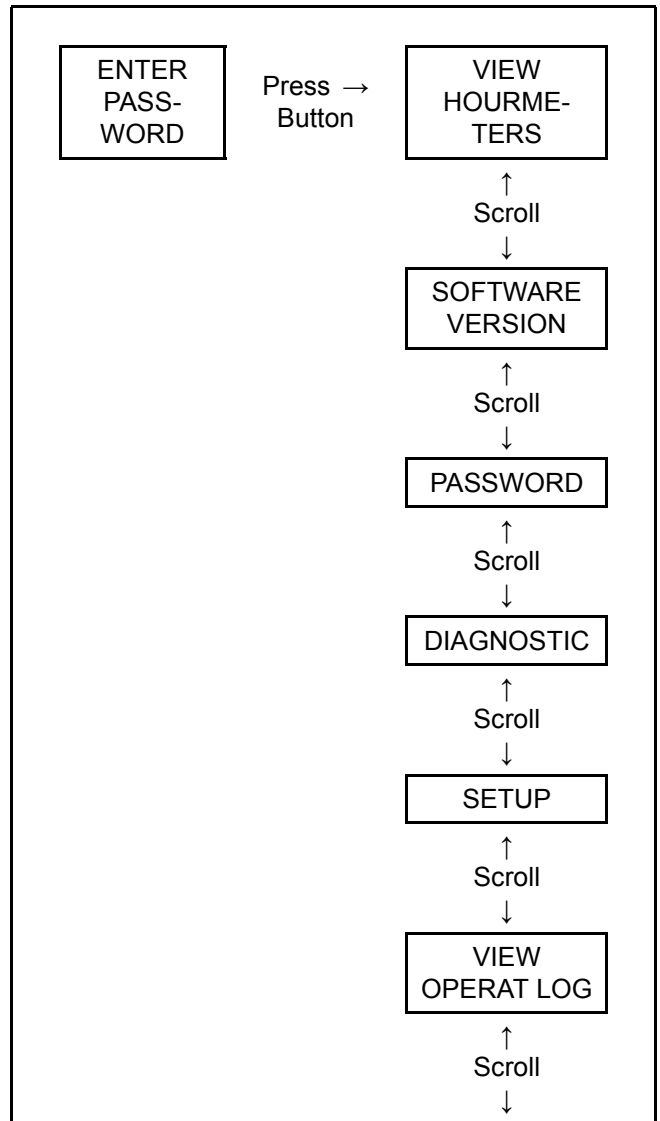
## VIEW HOUR METERS

Hour meter data is incrementally stored in the display during operation and the data is recorded in the RH Traction controller every 6 minutes. If there is a loss of power, data is not lost. At every key on, the display hours synchronize with the master. Within the VIEW HOUR METERS menu you can view the three different hour meter functions. See Table 2. Scroll through the VIEW HOUR METERS menu using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

*Table 2. View Hour Meters Menu*
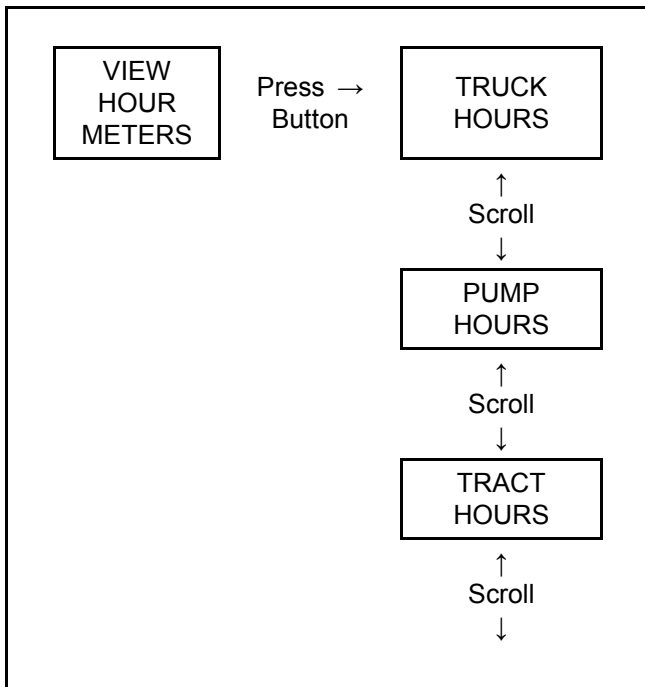


## Truck Hours

The TRUCK HOURS hour meter accumulates time when the key is ON and the brake pedal is DOWN. This hour meter is secure and cannot be reset manually.
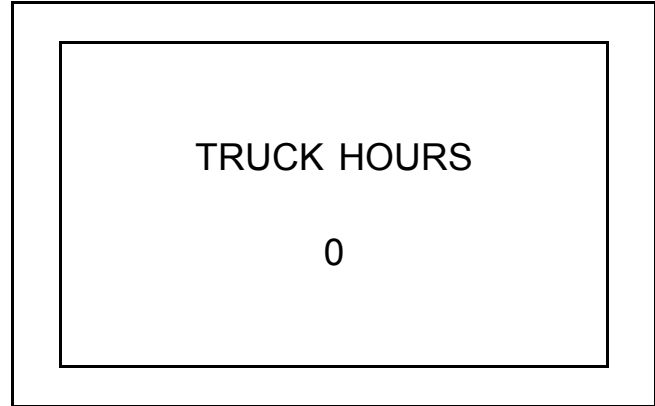


## Pump Hours

The PUMP HOURS hour meter shows the accumulated time for operation of any hydraulic function, including lowering.
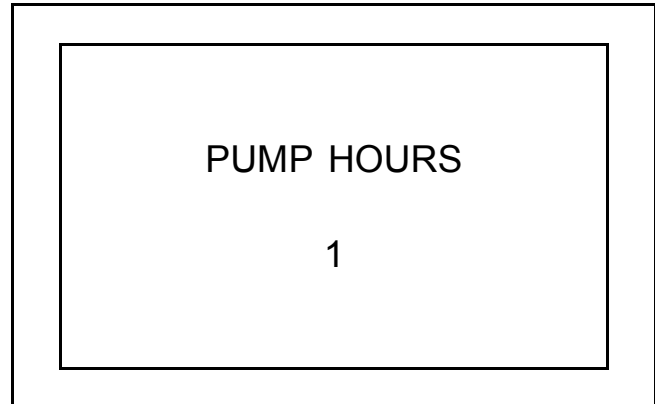
## Tract Hours

The TRACT HOURS hour meter shows the accumulated time for all traction motor activity.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │                           │  │
│  │                           │  │
│  │      TRACT HOURS          │  │
│  │                           │  │
│  │          2                │  │
│  │                           │  │
│  │                           │  │
│  └───────────────────────────┘  │
│                                 │
└─────────────────────────────────┘
```
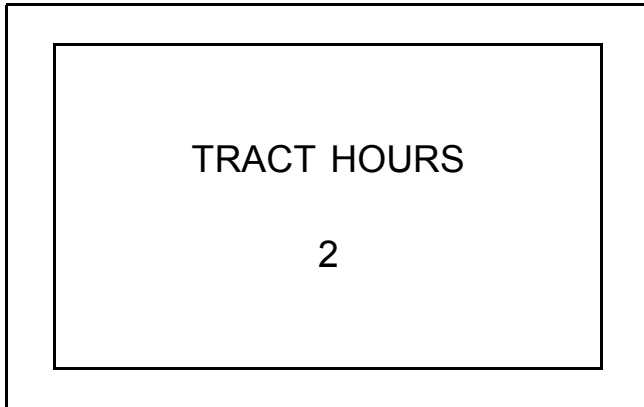
## SOFTWARE VERSION

Within the SOFTWARE VERSION menu, you can view the software version number for the RH Traction Controller (Master), LH Traction Controller (Slave), Dash Display, and Pump Controller. See Table 3. Scroll through the SOFTWARE VERSION menu using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

*Table 3. Software Version Menu*

```
┌───────────────────────────────────────────────┐
│  ┌──────────┐                    ┌──────────┐  │
│  │  SOFT-   │   Press →          │          │  │
│  │  WARE    │   Button           │  MASTER  │  │
│  │ VERSION  │                    │          │  │
│  └──────────┘                    └──────────┘  │
│                                       ↑        │
│                                     Scroll      │
│                                       ↓        │
│                                  ┌──────────┐  │
│                                  │  SLAVE   │  │
│                                  └──────────┘  │
│                                       ↑        │
│                                     Scroll      │
│                                       ↓        │
│                                  ┌──────────┐  │
│                                  │ DISPLAY  │  │
│                                  └──────────┘  │
│                                       ↑        │
│                                     Scroll      │
│                                       ↓        │
│                                  ┌──────────┐  │
│                                  │  PUMP    │  │
│                                  └──────────┘  │
│                                       ↑        │
│                                     Scroll      │
│                                       ↓        │
└───────────────────────────────────────────────┘
```
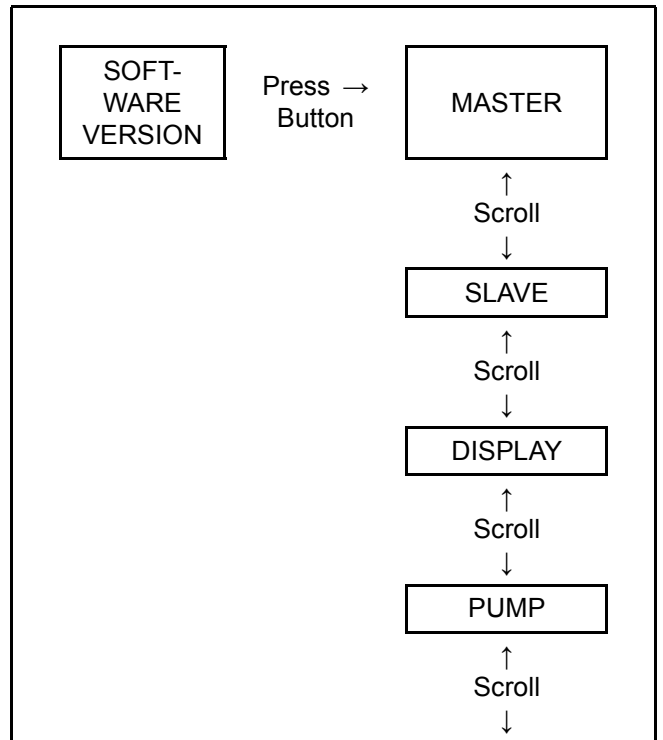
## Master

MASTER shows the revision level of the software currently installed on the RH Traction controller.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │                           │  │
│  │                           │  │
│  │         MASTER            │  │
│  │                           │  │
│  │          0.00             │  │
│  │                           │  │
│  │                           │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```

## Slave

**NOTE:** The master and slave controllers should always have the same software version. If not, contact Resident Service Engineering through the Contact Management System.

SLAVE shows the revision level of the software currently installed on the LH Traction controller.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │                           │  │
│  │                           │  │
│  │         SLAVE             │  │
│  │                           │  │
│  │          0.00             │  │
│  │                           │  │
│  │                           │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```

## Display

DISPLAY shows the revision level of the software currently installed on the Dash Display.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │                           │  │
│  │                           │  │
│  │         DISPLAY           │  │
│  │                           │  │
│  │          0.00             │  │
│  │                           │  │
│  │                           │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```
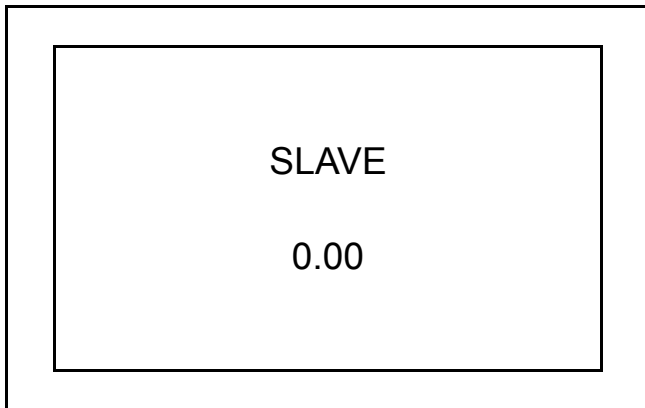
## Pump

PUMP shows the revision level of the software currently installed on the Pump Motor controller.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │                           │  │
│  │                           │  │
│  │          PUMP             │  │
│  │                           │  │
│  │          0.00             │  │
│  │                           │  │
│  │                           │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```
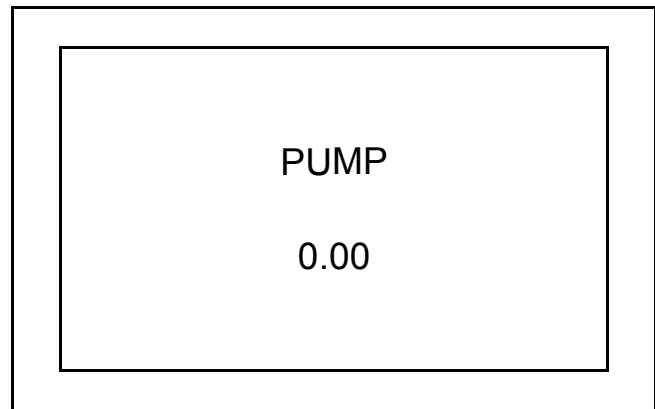
## PASSWORD

The passwords are stored in a directory which can be accessed from this menu. The service technician can add, edit, or delete supervisor or operator passwords and clear the operator log from this menu. See Table 4. Scroll through the PASSWORD menu using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

*Table 4.  Password Menu*

| PASS-WORD | Press → Button | ADD PASSWORD |
|-----------|----------------|--------------|
| | | ↑ |
| | | Scroll |
| | | ↓ |
| | | DELETE PASSWORD |
| | | ↑ |
| | | Scroll |
| | | ↓ |
| | | EDIT PASSWORD |
| | | ↑ |
| | | Scroll |
| | | ↓ |
| | | OPERATOR PASSW |
| | | ↑ |
| | | Scroll |
| | | ↓ |
| | | CLEAR OPER LOG |
| | | ↑ |
| | | Scroll |
| | | ↓ |
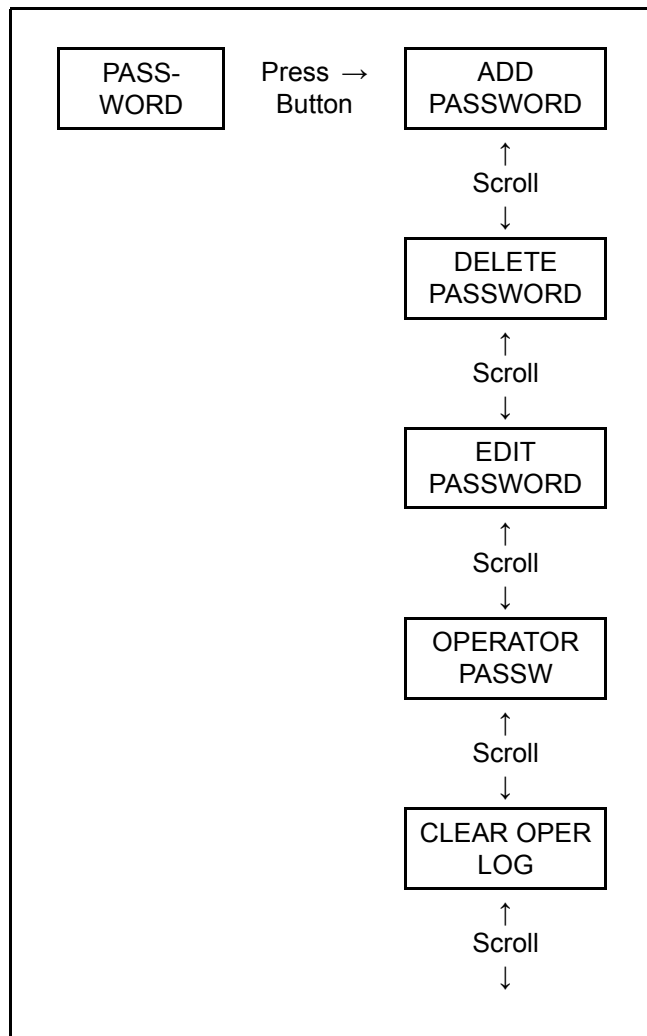
- **Password** - In the password display, you are allowed a five digit password utilizing the numbers 1 through 5 (zero is not a valid number). Values between 11111 and 55555 are valid.

- **Alphanumeric Name** - In the password display, you are allowed characters to insert a name. All characters and numbers are allowed. Use the UP (#1) and DOWN (#3) buttons to scroll through the characters and press the Enter (#5) button to enter the desired selection.
- **Mode Limit** - For each password, you can set the maximum performance mode allowed. This is set under the "M" character of the password display. The number correlates directly to the performance modes 1 through 4.
- **User Type** - For each password, you can set the access level or "User Type" under the "V" character. The "O" is selected for operator, the "S" for supervisor, and the "T" for service technician.

### Add Password

Use this menu to add operator, supervisor, or technician passwords. To enter a new password at the ADD PASSWORD screen, enter the password to be added and press enter to activate.

ADD PASSWORD

ENTER PASSW M V

1 1 1 1 1 - - - - - 3 0
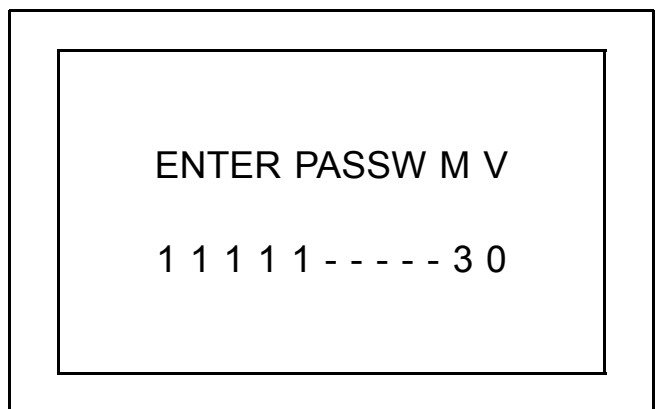
## Delete Password

Use this menu to delete operator or supervisor passwords. To delete a password at the DELETE PASSWORD screen, enter the password to be deleted and press enter to finalize.

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │                       │  │
│  │    DELETE PASSWORD    │  │
│  │                       │  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │   ENTER PASSW M V      │  │
│  │                       │  │
│  │  1 1 1 1 1 - - - - - 3 0│  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```
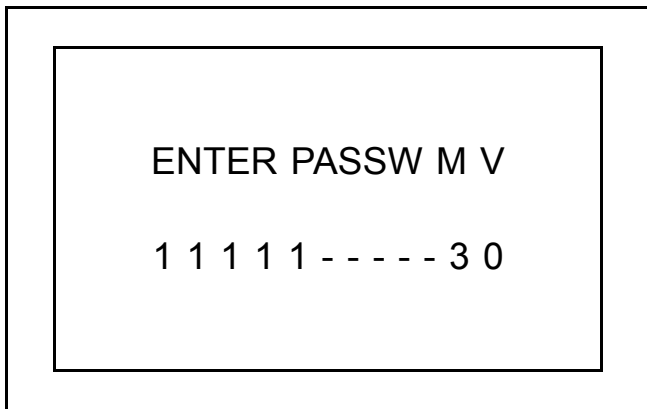
## Edit Password

Use this menu to edit operator or supervisor passwords. To edit a password at the EDIT PASSWORD screen, enter the password to be edited and press enter to select. Change the password and press enter to select.

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │                       │  │
│  │     EDIT PASSWORD     │  │
│  │                       │  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │   ENTER PASSW M V      │  │
│  │                       │  │
│  │    NO PASSWORD        │  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```
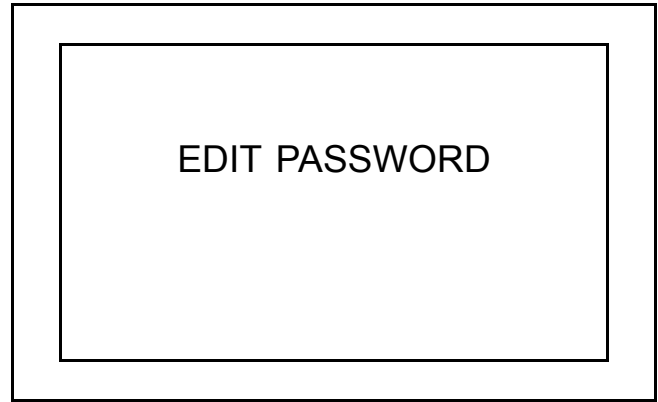
## Operator Passw

Use this screen to turn the operator password feature ON or OFF.

```
┌──────────────────────────────────┐
│  ┌────────────────────────────┐  │
│  │                            │  │
│  │     OPERATOR PASSW         │  │
│  │                            │  │
│  │         OFF                │  │
│  │                            │  │
│  │                            │  │
│  └────────────────────────────┘  │
└──────────────────────────────────┘
```
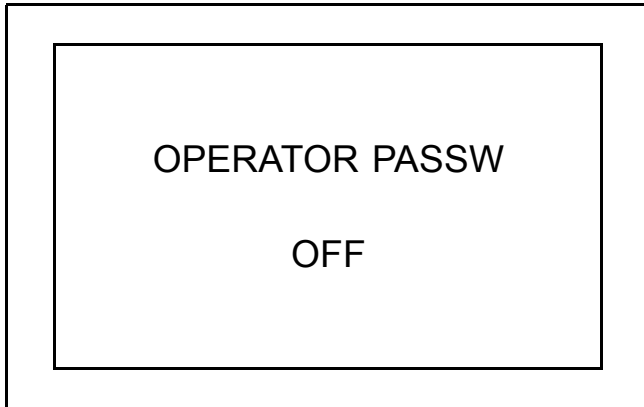
## Clear Oper Log

Use this screen to clear all stored information from the operator log.

```
┌──────────────────────────────────┐
│  ┌────────────────────────────┐  │
│  │                            │  │
│  │                            │  │
│  │     CLEAR OPER LOG         │  │
│  │                            │  │
│  │                            │  │
│  └────────────────────────────┘  │
└──────────────────────────────────┘
```
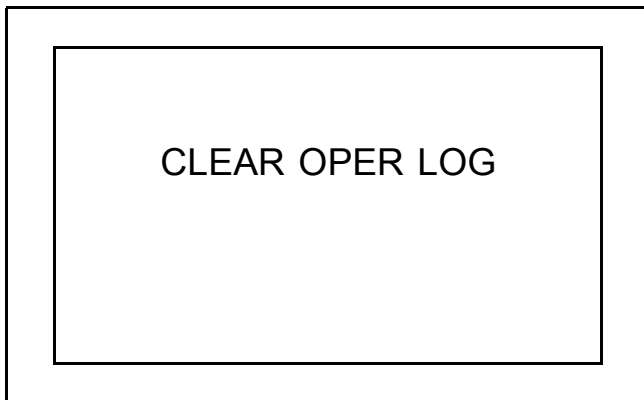
## DIAGNOSTIC

The DIAGNOSTIC MENU allows the service technician to view the ERROR LOG, and to enter submenus for RUN DIAGNOSTICS and NO RUN DIAGNOSTICS. See Table 5. Scroll through the DIAGNOSTIC menu using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

*Table 5.  Diagnostic Menu*

```
┌─────────────────────────────────────────────────┐
│  ┌───────────┐   Press →      ┌───────────────┐  │
│  │ DIAGNOS-  │   Button       │  ERROR LOG    │  │
│  │   TIC     │                └───────────────┘  │
│  └───────────┘                        ↑          │
│                                    Scroll        │
│                                       ↓          │
│                                ┌───────────────┐ │
│                                │  RUN DIAG-    │ │
│                                │  NOSTICS      │ │
│                                └───────────────┘ │
│                                       ↑          │
│                                    Scroll        │
│                                       ↓          │
│                                ┌───────────────┐ │
│                                │  NO RUN DI-   │ │
│                                │  AGNOSTICS    │ │
│                                └───────────────┘ │
│                                       ↑          │
│                                    Scroll        │
│                                       ↓          │
└─────────────────────────────────────────────────┘
```
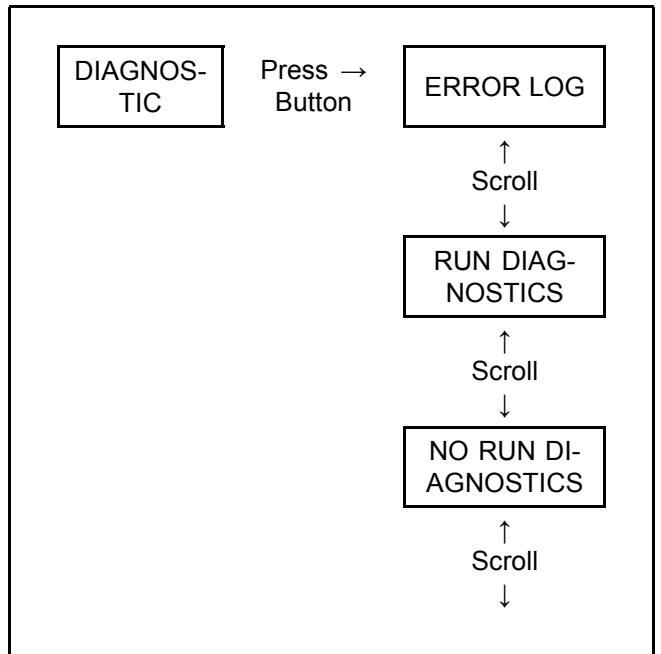
## Error Log

The ERROR LOG keeps record of fault codes as they occur. The code number, occurrence, and hour meter time are displayed for each event. Scroll through the ERROR LOG using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

```
ERROR LOG              1
#

CODE                754R

COUNT                  1

TIME                 847
```
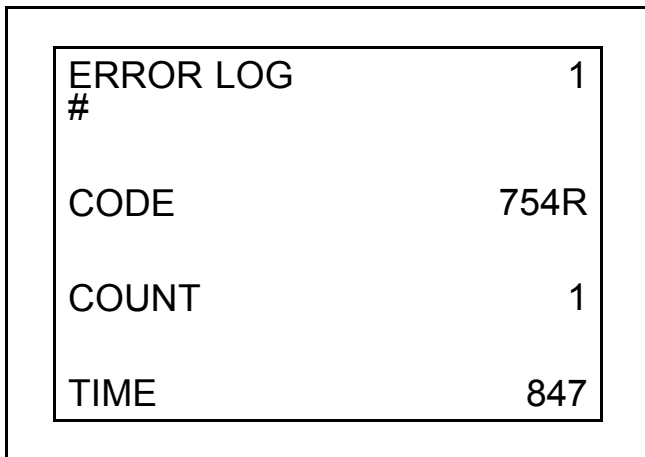
## Run Diagnostics

The RUN DIAGNOSTICS menu allows the service technician to view data from truck components while the truck is operating. See Table 6. Scroll through the RUN DIAGNOSTICS menu using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

*Table 6.  Run Diagnostics Menu*

```
┌──────────────┬──────────────┬──────────────┐
│ RUN DIAG-    │  Press →     │ L TRACT MTR  │
│ NOSTICS      │  Button      │ SPEED        │
└──────────────┴──────────────┴──────────────┘
                                    ↑
                                  Scroll
                                    ↓
                              L TRACT MTR
                              CRRNT
                                    ↑
                                  Scroll
                                    ↓
```

*Table 6.  Run Diagnostics Menu (Continued)*

```
              L TRACT MTR
              TEMP
                  ↑
                Scroll
                  ↓
              L TRACT
              CTRL TEMP
                  ↑
                Scroll
                  ↓
              R TRACT
              MTR SPEED
                  ↑
                Scroll
                  ↓
              R TRACT
              MTR CRRNT
                  ↑
                Scroll
                  ↓
              R TRACT
              MTR TEMP
                  ↑
                Scroll
                  ↓
              R TRACT
              CTRL TEMP
                  ↑
                Scroll
                  ↓
              STEER
              POSITION
                  ↑
                Scroll
                  ↓
              PUMP ENC
              SPEED
                  ↑
                Scroll
                  ↓
```
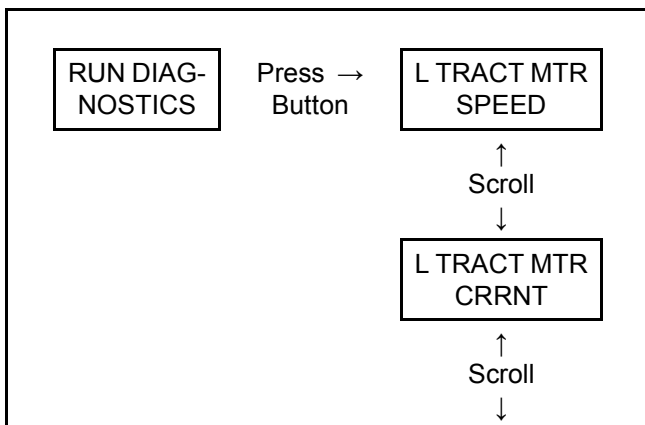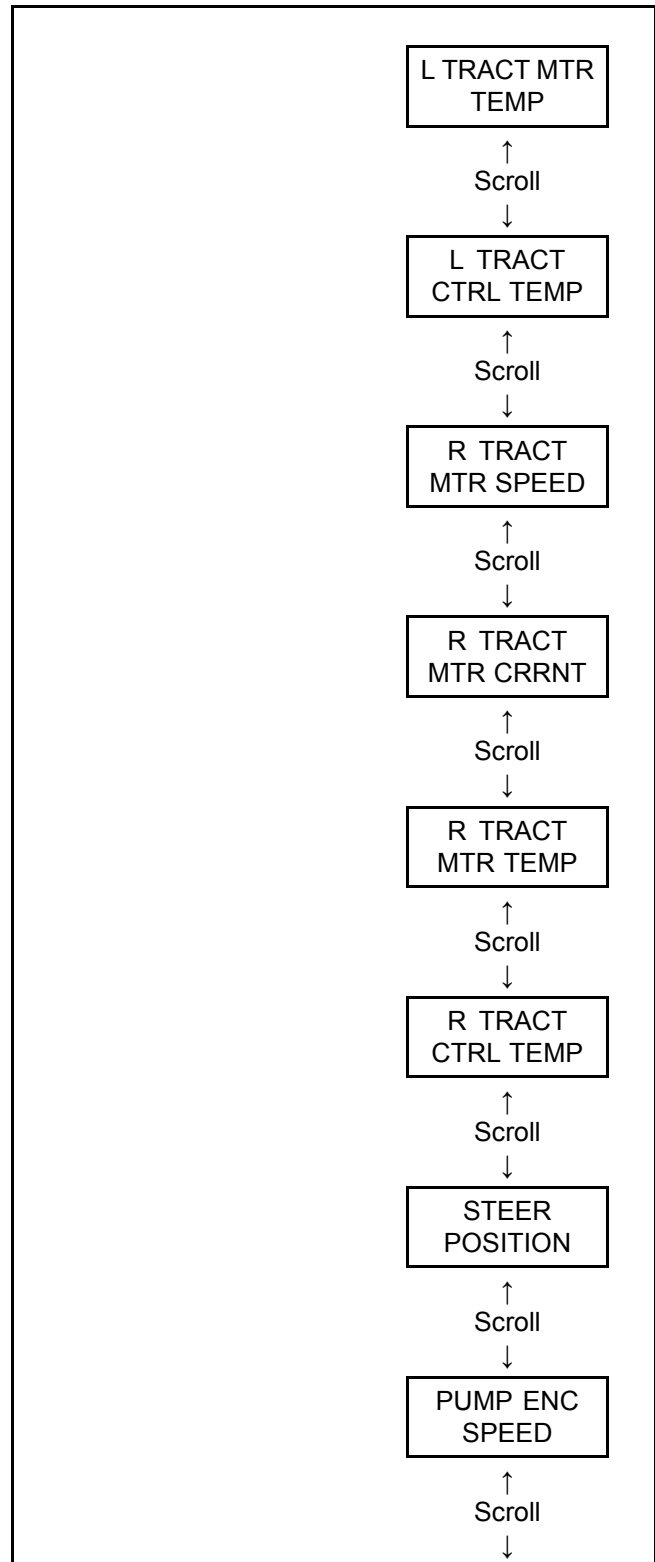
*Table 6. Run Diagnostics Menu (Continued)*

```
                    ┌──────────────┐
                    │    PUMP      │
                    │    MOTOR     │
                    │    CRRNT     │
                    └──────────────┘
                          ↑
                        Scroll
                          ↓
                    ┌──────────────┐
                    │    PUMP      │
                    │    MOTOR     │
                    │    TEMP      │
                    └──────────────┘
                          ↑
                        Scroll
                          ↓
                    ┌──────────────┐
                    │  PUMP CTRL   │
                    │    TEMP      │
                    └──────────────┘
                          ↑
                        Scroll
                          ↓
```

*Left Traction Motor Speed*

```
        ┌──────────────────────────┐
        │                          │
        │   L TRACT MTR SPEED      │
        │                          │
        │          mph             │
        │                          │
        └──────────────────────────┘
```
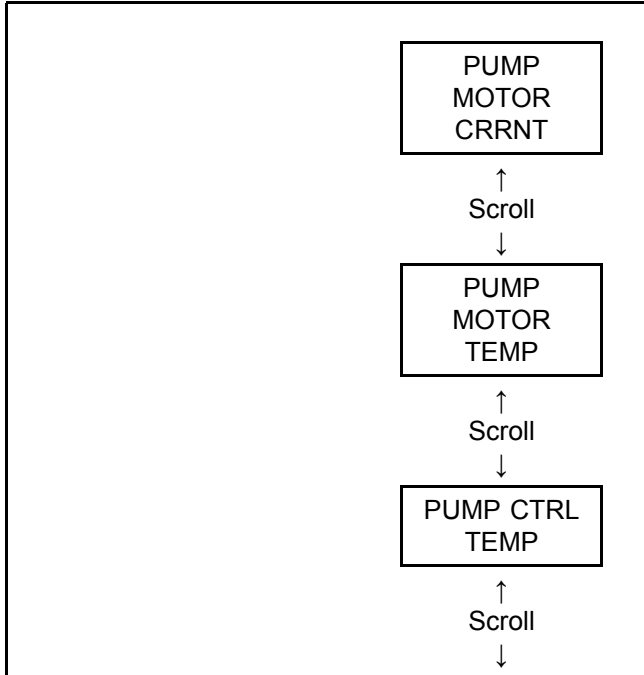
*Left Traction Motor Current*

```
        ┌──────────────────────────┐
        │                          │
        │   L TRACT MTR CRRNT      │
        │                          │
        │           A              │
        │                          │
        └──────────────────────────┘
```
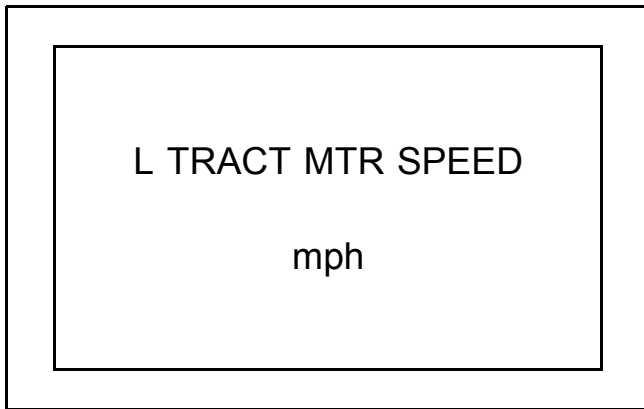
*Left Traction Motor Temp*

```
        ┌──────────────────────────┐
        │                          │
        │   L TRACT MTR TEMP       │
        │                          │
        │          °F              │
        │                          │
        └──────────────────────────┘
```
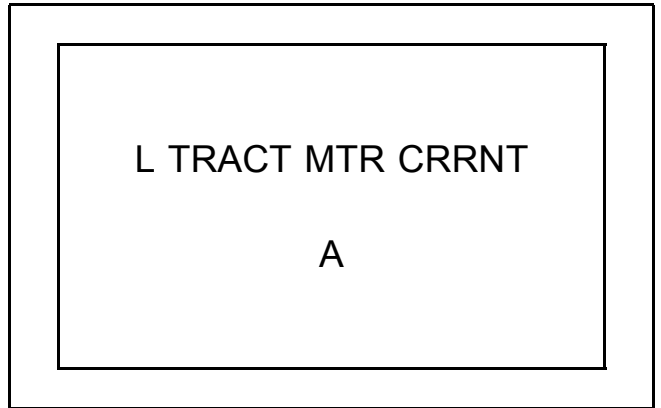
*Left Traction Controller Temp*

```
        ┌──────────────────────────┐
        │                          │
        │   L TRACT CTRL TEMP      │
        │                          │
        │          °F              │
        │                          │
        └──────────────────────────┘
```
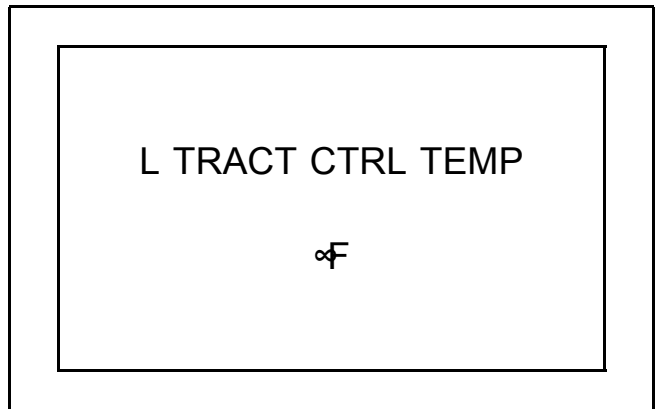
*Right Traction Motor Speed*

R TRACT MTR SPEED

mph
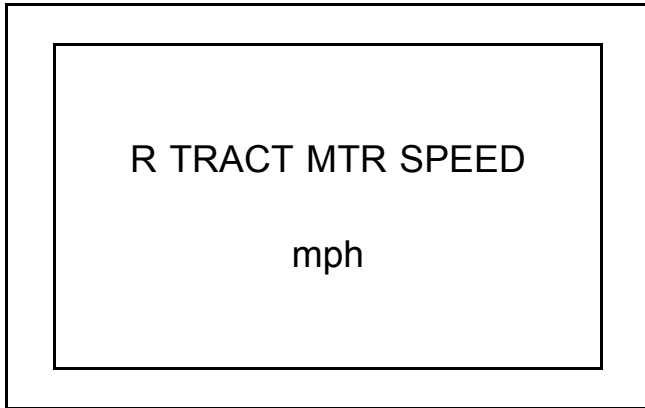
*Right Traction Controller Temp*

R TRACT CTRL TEMP

∘F

*Right Traction Motor Current*

R TRACT MTR CRRNT

A
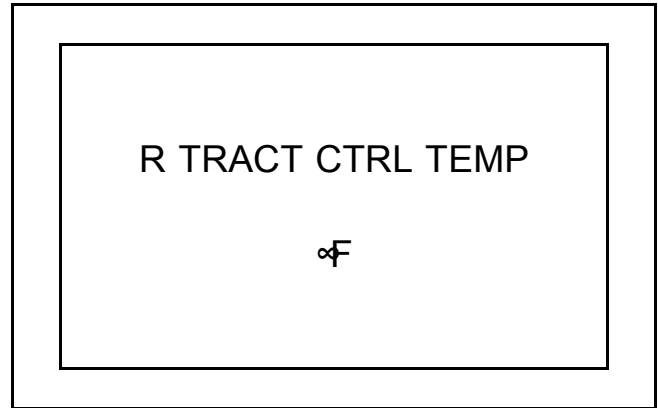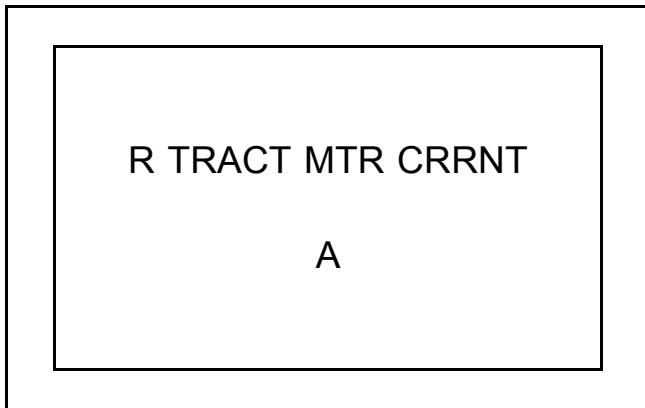
*Steer Position*

STEER POSITION

∞
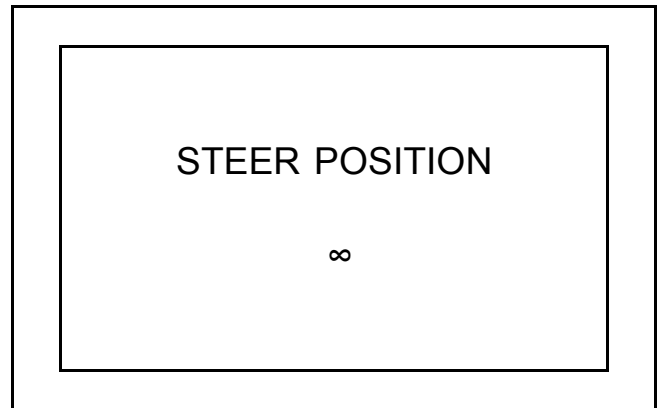
*Right Traction Motor Temp*

R TRACT MTR TEMP

∘F
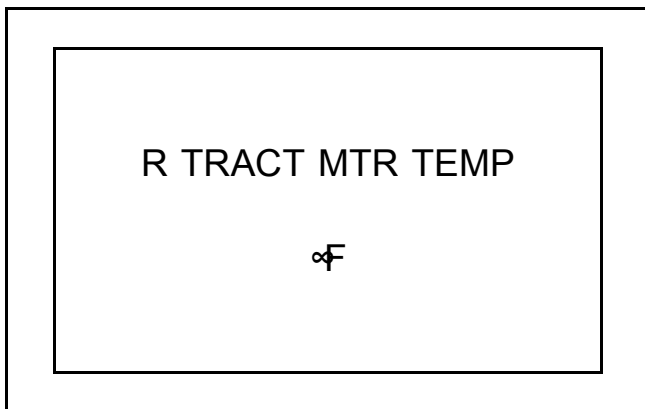
*Pump Motor Speed*

PUMP MOTOR SPEED

Hz
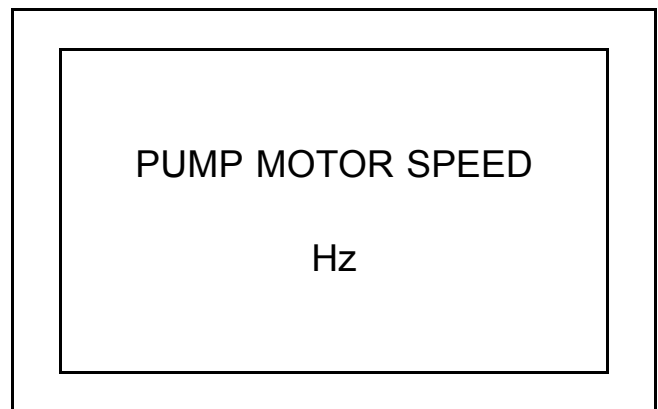
*Pump Motor Current*

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │                       │  │
│  │  PUMP MOTOR CRRNT     │  │
│  │                       │  │
│  │        A              │  │
│  │                       │  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```

*Pump Motor Temp*

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │                       │  │
│  │  PUMP MOTOR TEMP      │  │
│  │                       │  │
│  │        °F             │  │
│  │                       │  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```
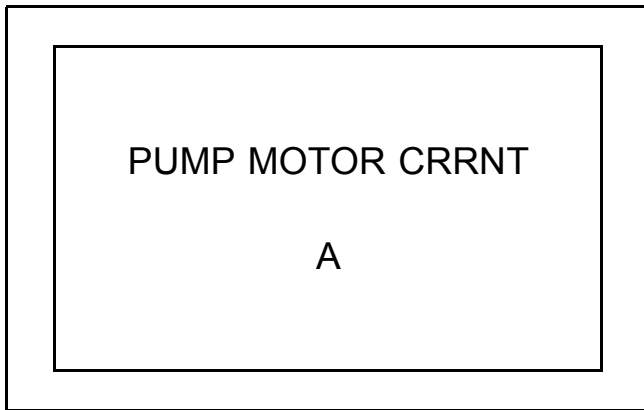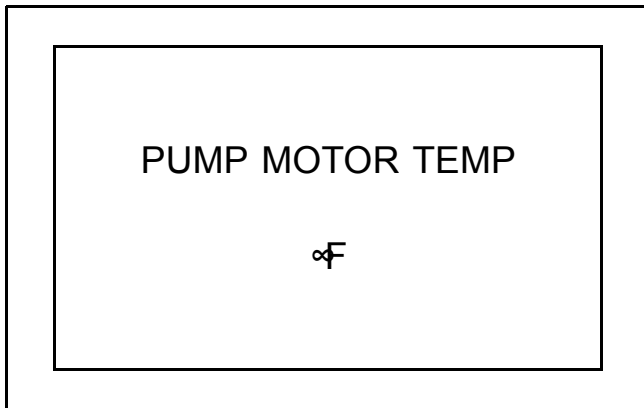
*Pump Controller Temp*

```
┌─────────────────────────────┐
│  ┌───────────────────────┐  │
│  │                       │  │
│  │                       │  │
│  │  PUMP CTRL TEMP       │  │
│  │                       │  │
│  │        °F             │  │
│  │                       │  │
│  │                       │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```
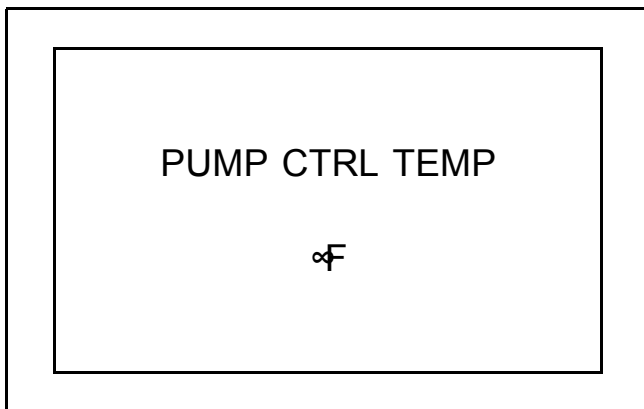
## No Run Diagnostics

The NO RUN DIAGNOSTICS menu allows the service technician to view data from truck components while the truck is not operating. The truck is disabled while the NO RUN DIAGNOSTICS menu is activated. All joystick commands can be viewed through the display, as well as brake pedal switch, and mast proximity switch (if equipped). See Table 7. Scroll through the NO RUN DIAGNOSTICS menu using the UP (#1) and DOWN (#3) buttons and press the RIGHT (#2) button to enter the desired selection. Press the LEFT (#4) button to return to the previous menu.

*Table 7. No Run Diagnostics Menu*

```
┌─────────────────────────────────────────────┐
│  ┌──────────┐              ┌──────────────┐  │
│  │ NO RUN   │   Press →    │   BRAKE      │  │
│  │ DIAGNOS- │   Button     │   SWITCH     │  │
│  │ TICS     │              │              │  │
│  └──────────┘              └──────────────┘  │
│                                  ↑           │
│                                Scroll        │
│                                  ↓           │
│                            ┌──────────────┐  │
│                            │ MAST PROX    │  │
│                            │ SWITCH       │  │
│                            └──────────────┘  │
│                                  ↑           │
│                                Scroll        │
│                                  ↓           │
│                            ┌──────────────┐  │
│                            │   HORN       │  │
│                            │   SWITCH     │  │
│                            └──────────────┘  │
│                                  ↑           │
│                                Scroll        │
│                                  ↓           │
│                            ┌──────────────┐  │
│                            │  TILT  UP    │  │
│                            │  SWITCH      │  │
│                            └──────────────┘  │
│                                  ↑           │
│                                Scroll        │
│                                  ↓           │
│                            ┌──────────────┐  │
│                            │ TILT DOWN    │  │
│                            │ SWITCH       │  │
│                            └──────────────┘  │
│                                  ↑           │
│                                Scroll        │
│                                  ↓           │
│                            ┌──────────────┐  │
│                            │ SHIFT  RT    │  │
│                            │ SWITCH       │  │
│                            └──────────────┘  │
│                                  ↑           │
│                                Scroll        │
│                                  ↓           │
└─────────────────────────────────────────────┘
```