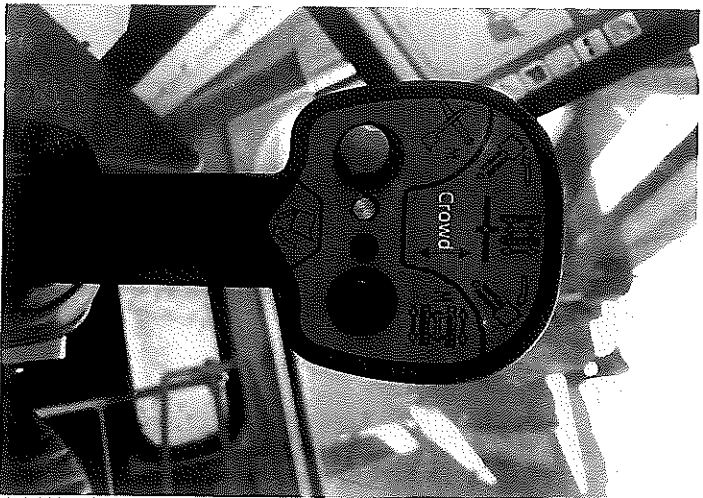


Mike Green

Joysticks and manuals do not show proper controls orientation for crowd and hoist.

These pictures show correct function to match our existing controls.



Left Joystick

- Dig and Propel mode buttons
- Dipper Trip trigger



Right Joystick

- Hoist and Crowd brake switches
- All brakes button
- Horn Trigger
- All brakes button does not set propel brakes, switching from propel to dig sets propel brakes.

SOLVING MINING'S TOUGHEST CHALLENGES

THROUGH WORLD-CLASS
PRODUCTS & DIRECT SERVICE

Loading Control Center

XPC Operator Seat Retrofit

Chad Farran

JOYGLOBAL

Every customer is a reference™

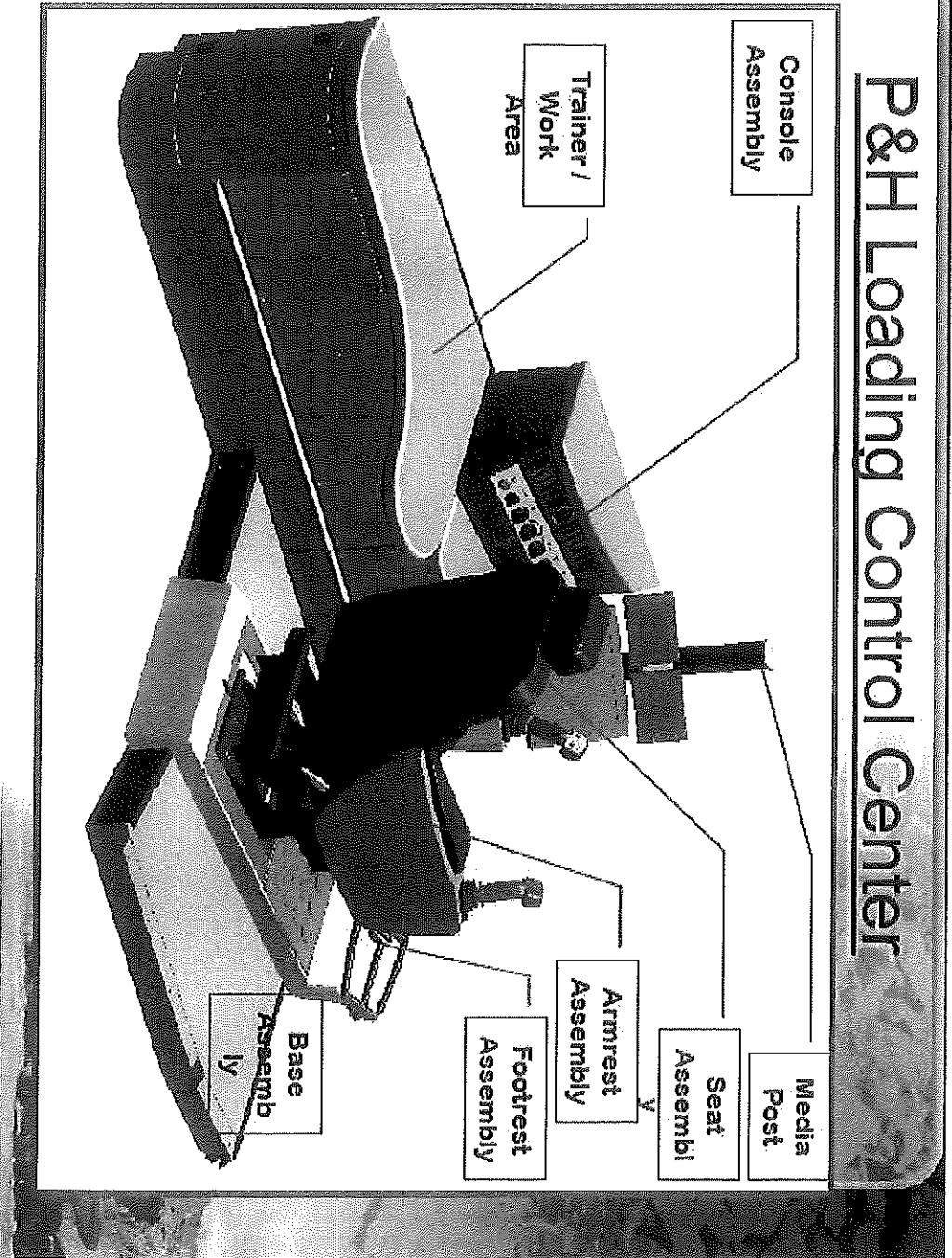
Loading Control Center Design Benefits

- All dig controls and accessories are easy to reach
 - Fewer Switches and Buttons (no RH Console)
 - Greater Operator Comfort
 - Fewer Distractions and less Operator Fatigue
 - Jump Seat
 - Safe Access to Test Signals

- ***End Result: Improved Productivity***

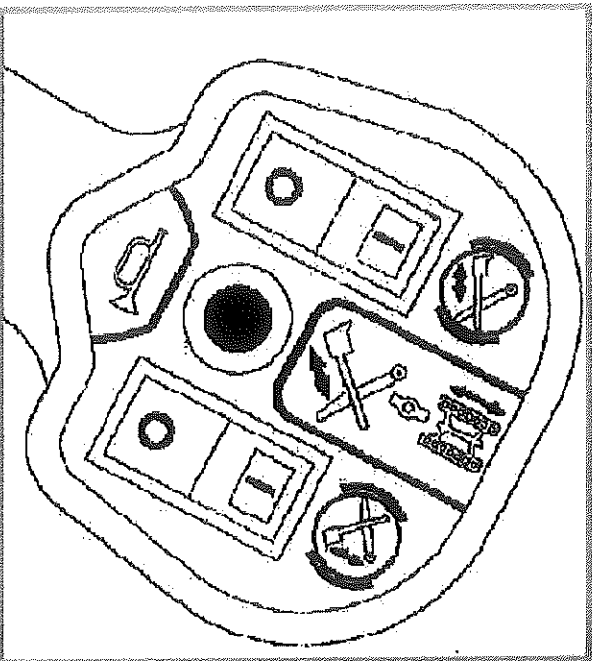
Loading Control Center

P&H Loading Control Center



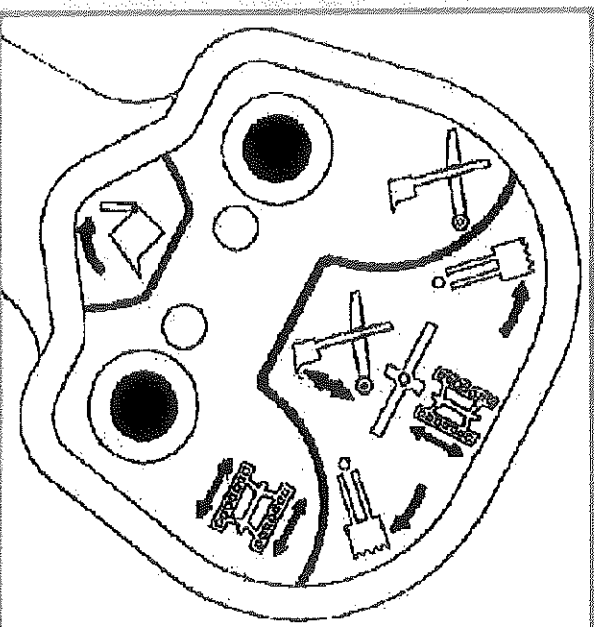
XPC Style Seat

Joysticks



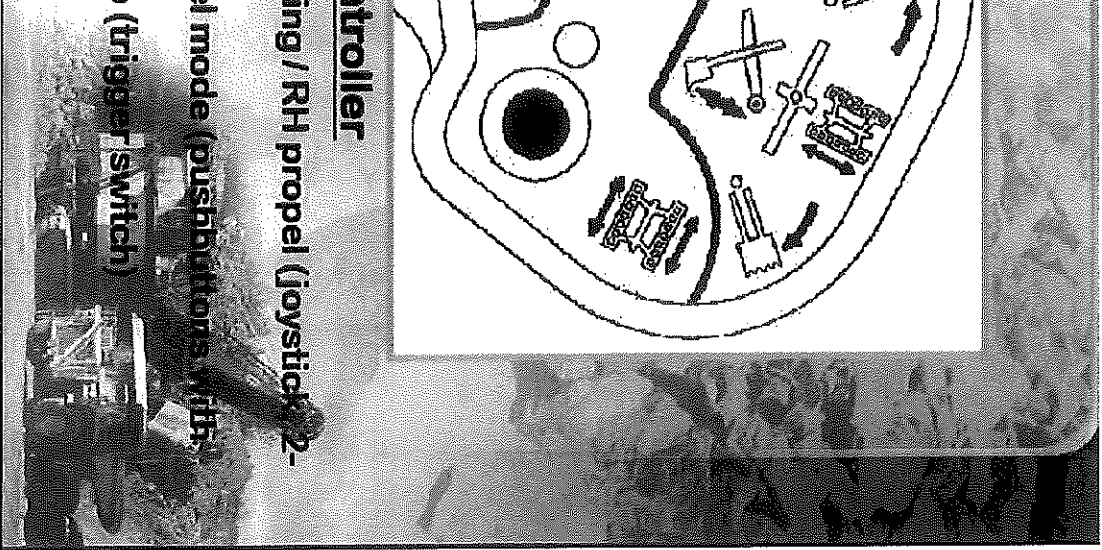
Left Controller

- Crowd / LH propel (joystick, 1 axis)
- Hoist & crowd brakes (rocker switch)
- Horn (trigger switch)
- All brakes set (pushbutton)



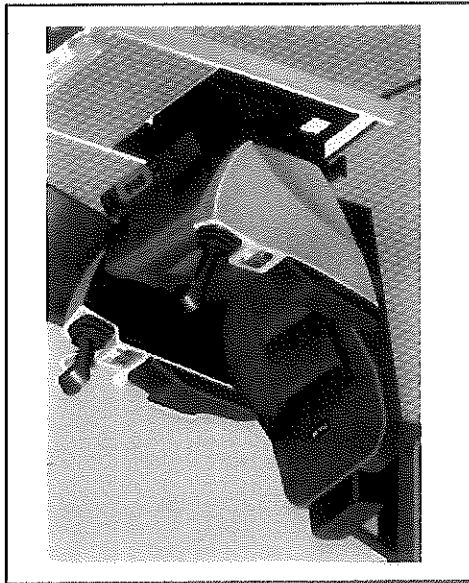
Right Controller

- Hoist & swing / RH propel (joystick, 2-axis)
- Dig / propel mode (pushbuttons with LEDs)
- Dipper trip (trigger switch)



Questions?

Figure 3-5: Loading Control Center - Seat



3.2.1.1 Seat

Figure 3-4: Loading Control Center



The Loading Control Center consists of the operator's seat, left joystick controller, left switch panel, right switch panel, and right joystick controller, as shown in Figure 3-4.

3.2.1 Loading Control Center

Operator's Station Controls and Indicators
Centurion Operator Manual

Seat Dimensions

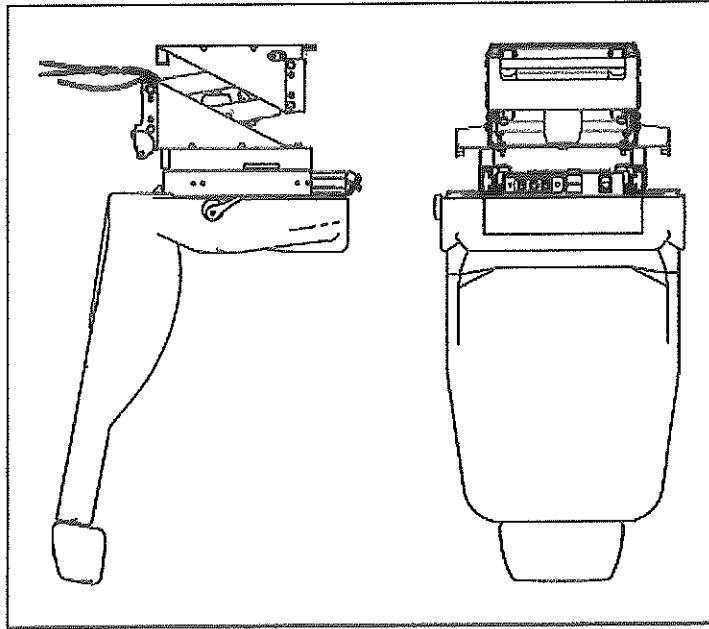


Figura 3-6: Operator's Seat

- Height
- 48.00 inches (bottom of headrest)
- Length
- 27.75 inches
- Width
- 26.50 inches
- Weight
- 130 lbs.

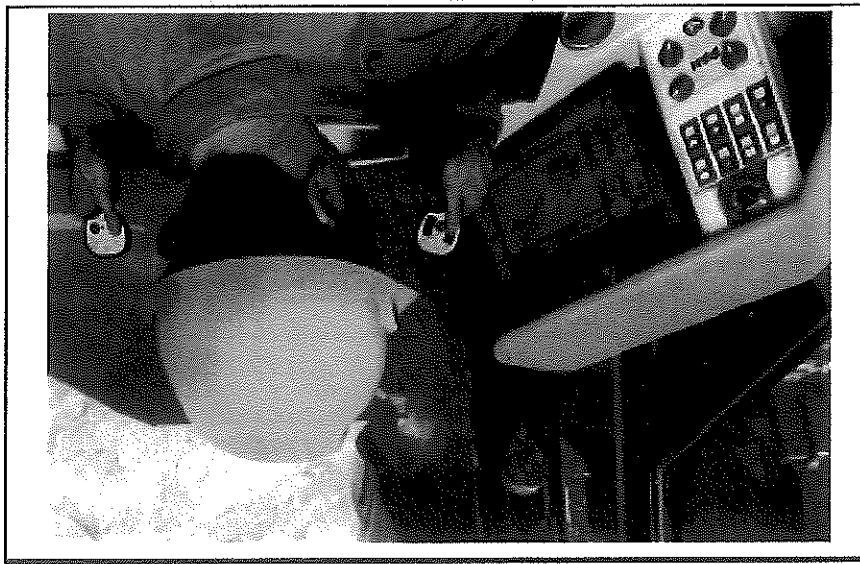
3. 6-Way Power Adjustment Controls

- Location
- Front of seat cushion.
- Switches
- Type
- Multi-direction switch
- 2 Toggle switches
- Number
- 3
- Function
- The center switch moves the seat forwards and backwards to achieve the most comfortable position.
- The same switch can be moved up and down to control seat height.
- The toggle switches change seat height by tilting the seat cushion up or down.
- The left toggle switch controls the seat cushion front angle (up or down).
- The right toggle switch controls the seat cushion rear angle (up or down).

4. 4-Way Air Lumbar Controls

- Location
- Right of the 6-way Power Adjustment Controls
- Position
- Up - Inlates lumbar support
- Down - deflates lumbar support
- Function
- The switch can be used to adjust the lumbar supports by increasing or decreasing the amount of air to the lumbar supports.

Figure 3-9: Loading Control Center



Refer to Figure 3-9 and Table 3-2
Features and Specifications

- Primary Controls
 - The primary controls consist of the Joystick Controllers and the Swivel Panels.
 - Auxiliary Controls
 - The auxiliary controls consist of the Control Panel Assembly.
- The controls and indicators utilized by the operator can be separated into two distinct operation assemblies:
- This combination provides performance and features never before available in an electronic joystick. This joystick uses a dual magnet configuration and is designed for maximum flexibility in features and tactile feel.
- The P&H Load Control Center contains two joystick controllers (left and right). The joystick is designed around the rugged mechanism of a traditional 4-way hydraulic joystick, but it utilizes non-contacting Hall technology for increased life and more dependable performance in the field.

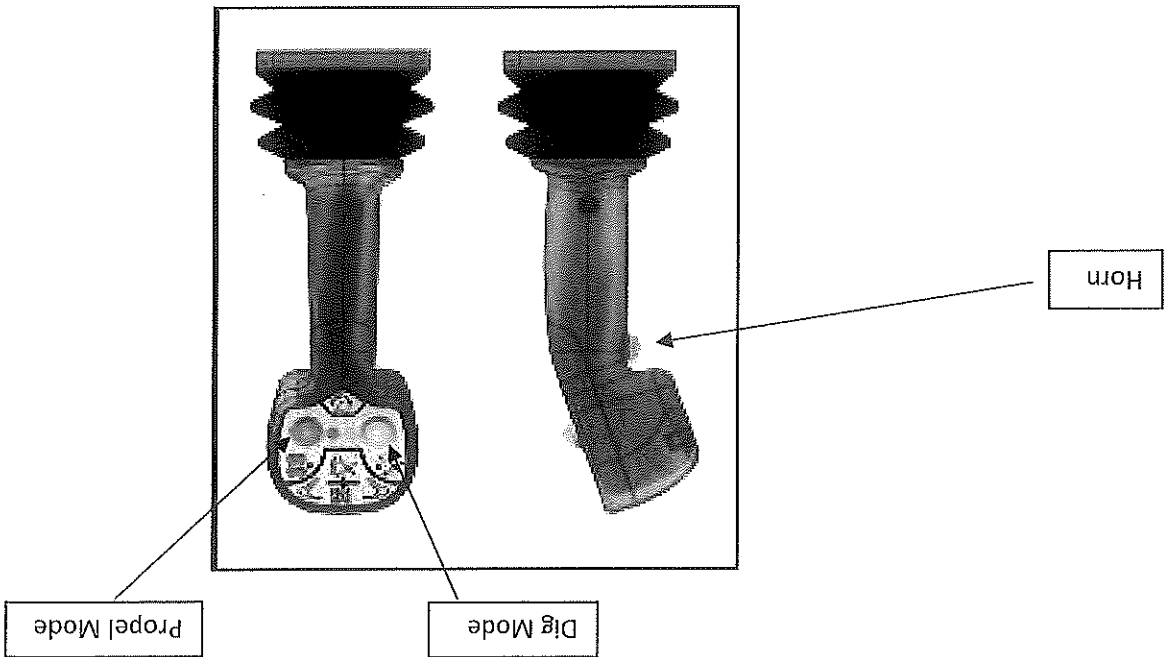
3.2.2 Joystick Controllers

Operator's Station Controls and Indicators
Caterpillar Operator Manual



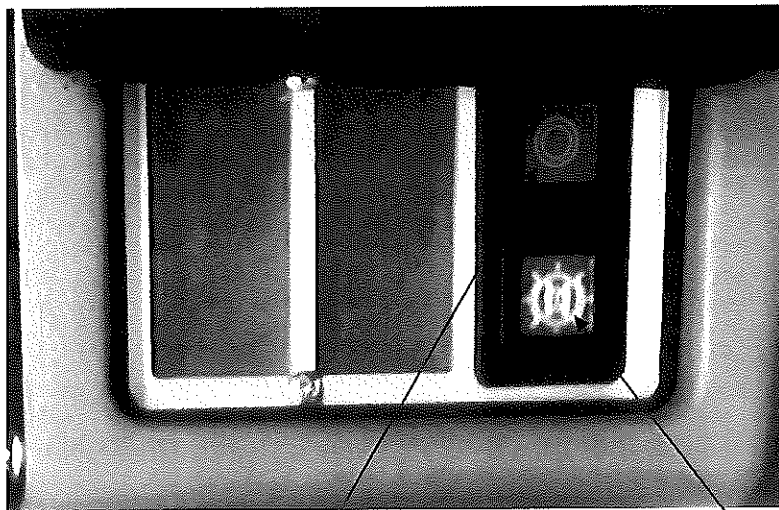
- 1. Dig Mode
 - Swing/Crowd
 - Swing Left / Swing Right
 - Crowd / Retract
- 2. Propel Mode
 - Left Propel
 - Forward
 - Reverse
- 3. Horn

The Left Joystick Controller provides the operator control of the following functions:



3.2.1 Left Joystick Controller

3.2.3 Left Switch Panel



Propel Brake Set
Indication

Propel Brake Release
Indication

This panel is part of the Operator's primary control. It consists of:

- Propel Brake Indication