



# Technical Manual

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Output.....184 lpm @ 2100 rpm

### Steer / Brake Pump

Type.....Pressure Compensated Piston  
 Output.....106 lpm @ 2100 rpm

### Cylinders

Type..... Double Acting  
 Rods..... Case Hardened and Hard Chromed  
 Steering- 2 off..... 101.6mm (Bore) x 796mm (Stroke) x 63.6mm (Rod) with Cushioning  
 Lift - 2 off..... 215.9mm (Bore) x 290mm (Stroke) x 101.6mm (Rod) with Cushioning  
 Tilt - 2 off..... 215.9mm (Bore) x 645mm (Stroke) x 101.6mm (Rod)  
 Load Ejector - 2 off ..... 75mm (Bore) x 1500mm (Stroke) x 44.45mm (Rod)

### Steering/Brake Accumulator

Type..... Piston  
 Steering - Quantity x Capacity ..... 1 x 5.7 litre  
 Brake - Quantity x Capacity ..... 1 x 1.9 litre  
 Operating Pre-charge Pressure ..... 6.2 mPa

### Steering System

Type..... Closed Centre, Articulated  
 Actuation: .....Orbital  
 Crossover Relief..... 17.3 mPa

### Main Valve Bank

Control Valve: ..... Closed Centre / In-line  
 Actuation: ..... Remote Hydraulic Pilot  
 Main Relief:..... 20.69 mPa  
 Port Relief: ..... 22.352 mPa

### Service Brake System

Type.....4 x Totally Enclosed, Liquid Cooled POSI-STOP (at each wheel end)  
 Application ..... Spring Applied Hydraulic Release Front and Rear  
 Actuation ..... Foot Pedal, Reverse Modulating

### Park and Emergency Brake System

Type.....4 x Totally Enclosed, Liquid Cooled POSI-STOP (at each wheel end)  
 Application ..... Spring Applied Hydraulic Release Front and Rear  
 Actuation ..... Loss of Pneumatic or Hydraulic Pressure / Hand Control / Cab Door Interlocked

### Articulation

Bearing Type and Size .....Pin & Spherical Bearing (top), Bush (bottom) Fully Sealed  
 Bush Material ..... Hardened Steel  
 Pin Material ..... Hardened Steel  
 Articulation Range ..... +/- 45°

### 3.12 Steering Control

The steering wheel controls the flow of hydraulic oil to the steering cylinders. As the cylinders stroke, the vehicle articulates to the LEFT or to the RIGHT.

Turning the wheel ANTI-CLOCKWISE articulates the vehicle away from the driver. This effectively turns the vehicle to the LEFT in the forward direction (load end).

Turning the wheel CLOCKWISE articulates the vehicle towards the operator. This effectively turns the vehicle to the RIGHT in the forward direction (load end).

**NOTE:** The machine will turn in the opposite directions when travelling in forward and reverse. Operator training and familiarity with LHD operation is important to ensure that collisions are avoided.

**NOTE:** If the door is opened or the park brake is applied, the machine is fitted with failsafe steering system that will immediately dump the steering system pressure. This is to protect the Operator or personnel from being crushed in the articulation area. It is also used to protect Operator's working on or near the RAS system with the engine running. Steering cannot be used until the doors are shut and latched and the park brake control reset to the OFF position.

### 3.13 Engine On / Off Switch

The ON / OFF switch controls the supply of pilot air pressure to the safety shutdown circuit. To start the engine, place the switch in the ON position.

To shutdown the engine place the switch in the OFF position.

### 3.14 Engine Start Button

Depressing the engine start button charges the safety circuit and engages the starter motor to start the engine. There is a delay of approximately 4-5 seconds from when the button is depressed till when the starter engages.

**NOTE:** The start button will not activate the starter motor unless:

1. The transmission is in Neutral.
2. The park brake is applied.
3. The operator compartment door is closed and latched.
4. The engine safety shutdown circuit shows no fault.
5. The Engine ON / OFF Switch is "ON".

**NOTE:** Depress the throttle pedal 1/3 before a start to ensure sufficient fuel is available and immediately remove your finger from the start button when the engine fires.

### 4.3 Hydraulic System

1. Lower the lift arm and place the fork tynes flat on the ground.
2. Shut down the diesel engine.
3. Fit a Danger Tag to the main air on/off valve in the Operator's compartment.
4. Connect the steering lock and chock the wheels.
5. Depress the Attachments Quick Connects pressure release button located in the Operator's compartment. This will remove any residual pressure stored in the push plate / winch / PTO circuit.
6. Observe both steering and brake pressure gauges located in the Operator's compartment. The hydraulic system features a steering and brake accumulator automatic bleed circuit which will remove hydraulic pressure from both accumulators once the diesel engine has stopped. This normally takes approximately thirty seconds. The steering and brake accumulators can also be bled via rotation of the steering wheel and actuation of the service brake pedal, once the engine has been shut down.
7. Remove the hydraulic tank pre-charge pressure (50kPa) by cracking the hydraulic tank filler cap.

## WARNING

**Ensure all loads are mechanically supported before removal of any hydraulic lines. Hydraulic fluid may be hot. Wear personal protective equipment such as safety glasses, long sleeve shirt and gloves.**



**WARNING:** Do handle the exhaust filter element without wearing suitable eye protection, gloves and dust mask as the particulate caught by the filter may be harmful to the respiratory system. Immediately wash any particulate matter from the skin with warm, soapy water. Refer to FBL-40 service manual for the replacing the element.

**NOTE:** The diesel aerosol particulate can be safely handled when wet.

3. Check that all of the lights are working. There are two forward and rear facing headlights. If the optional beacon is fitted check that it is operational.
4. Visually inspect the exhaust system for any leaks.
5. The functional tests are normally supplemented by mine specific function testing. For example periodic brake testing and hydraulic actuation of steer / lift may also be carried out. It is important to ensure personnel are clear of the vehicle before attempting any of these additional tests.

Refer the FBL-40 service manual for exhaust gas emission testing requirements.

## 16. Cookie Plate use

A cookie plate is available to be used with the fork tynes on the FBL-40. The following outlines the use of the cookie plate.

### 16.1 Attaching and Removing the Cookie Plate

To attach the cookie plate

1. Lift out the retaining pins on either side of the cookie plate.
2. Align the fork tynes with the slots in the cookie plate and drive machine forward until the holes for the retaining pins are aligned between the fork tynes and the cookie plate.
3. Insert the pins and lower the excess securing chain for the pins into the adjacent slot in the top of the cookie plate.

To remove the cookie plate

The method of removing the cookie plate is the opposite sequence to attaching. Ensure the cookie plate retaining pins are removed and the keeper chain is clear before driving the machine away from the cookie plate.

### 16.2 Securing a Load to the Cookie Plate

All loads for the cookie plate should be within the capacity of the machine and properly secured. There are a series of holes around the circumference of the cookie plate for securing the load. The load should be secured using properly rated chains.

**WARNING:** ALWAYS check that the cookie plate retaining pins are secure and properly installed before using the machine. Failure to confirm that the pins are installed may result in the cookie plate and load sliding off the fork tynes.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL