

Rio Tinto 2 x G110 Functionality & Operation

1. Alarms/Contingency

Tank Filling:

- Hydraulic over fill prevention valves inside tanks closes to 98% at Safe Fill Level.
- Independent Battery-Operated High-Level Audible Alarm fitted to tank top as standard.
- Fill point is inside bunded pump bay to contain spills.

Dispensing:

- Stop button located at unloading pump start /stop control panel.
- Pump fitted with independent bypass pressure relief back to suction.
- Easy to use start / stop station mounted next to meter.
- Pump internal bypass to prevent overpressure of pipework.
- Dry break nozzle nozzle has built in auto shut off.
- Tanks fitted with anti siphon valve on suction.
- All dispensing equipment mounted inside pump bay to contain any leaks.

2. Functionality

Tank Filling

1. Fuel delivery driver will attend site and check tank levels utilising tank top dipstick to calculate ullage.
2. Delivery driver opens pump bay doors.
3. Delivery driver connects code hose to fill point of desired tank.
4. Delivery driver checks all manual valves are closed prior to fill.
5. Delivery driver manually operates valving as per table below dependant on desired tank to be filled.
6. Delivery driver opens truck valve and starts on board truck pump to fill tank.
7. Delivery driver to monitor tank levels via dipstick, pipework and tank top vent during unloading and cease filling operations in the event of any witnessed abnormalities.
8. In case of Emergency, operator closes fill valve and shuts down onboard truck pump.
9. Upon completion of filling chosen tank, tanker driver closes all valves.



Tank Filling (Continued)

Tank Filling Operation			
Into	From	Open	Close
LHS Tank	LHS Tank	L-1 / L-2	L-3 / R-3
LHS Tank	RHS Tank	R-1 / R-3 / L-2	L-1 / R-2 / R-2
RHS Tank	RHS Tank	R-1 / R-2	R-3
RHS Tank	LHS Tank	L-1 / R-3 / R-2	L-2 / L-3 / R-1

HV Dispensing

1. HV dispensing operator parks HV alongside tank in appropriate location.
2. Check default valving when dispensing from same tank & reel combo.
 - o LHS (Left Hand Side) Tank dispense through LHS hose reel – Valve L-4 & L-5 Open. Valve L-6 to be closed.
 - o RHS (Right Hand Side) Tank dispense through RHS hose reel – Valve R-4 & R-5 open. Valve R-6 Closed.
 - o In the event there is equipment failure and dispensing via reel from opposing tank is required, please follow valve operation as per table below.
3. HV dispensing operator unlocks reel locking pin to allow reel to roll freely, lifts dry break nozzle from pump bay and pulls hose out to HV.
4. HV dispensing operator connects nozzle onto HV truck tank receiver.
5. HV dispensing operator will ensure meter is reset to zero & activates the dispensing pump via depressing the start button on the fuels control panel.
6. Pump will start dispensing product through the hose reel and dry break nozzle to fill HV.
7. The mechanical meter inside the pump bay will provide manual metering data to the HV operator to track volumes dispensed.
8. Once dry break nozzle has auto shut off due to full tank, operator to stop pump via stop button on control panel.
9. HV operator will place the nozzle back in the pump bay and reel in hose reel using the retract reel button.
10. HV operator to manually reset the mechanical meter reading back to zero by rotating the reset knob to the right of the meter
11. HV dispensing operation is complete.

Dispensing Operation			
Into	From	Open	Close
LHS Reel	LHS Tank	L-4 / L-5	L-6
LHS Reel	RHS Tank	L-5 / L-6 / R-4	L-4 / R-5 / R-6
RHS Reel	RHS Tank	R4 - R5	R-6 / L-6
RHS Reel	LHS Tank	R-5 / L-4 / L-5	R-4 / R-6 / L-5

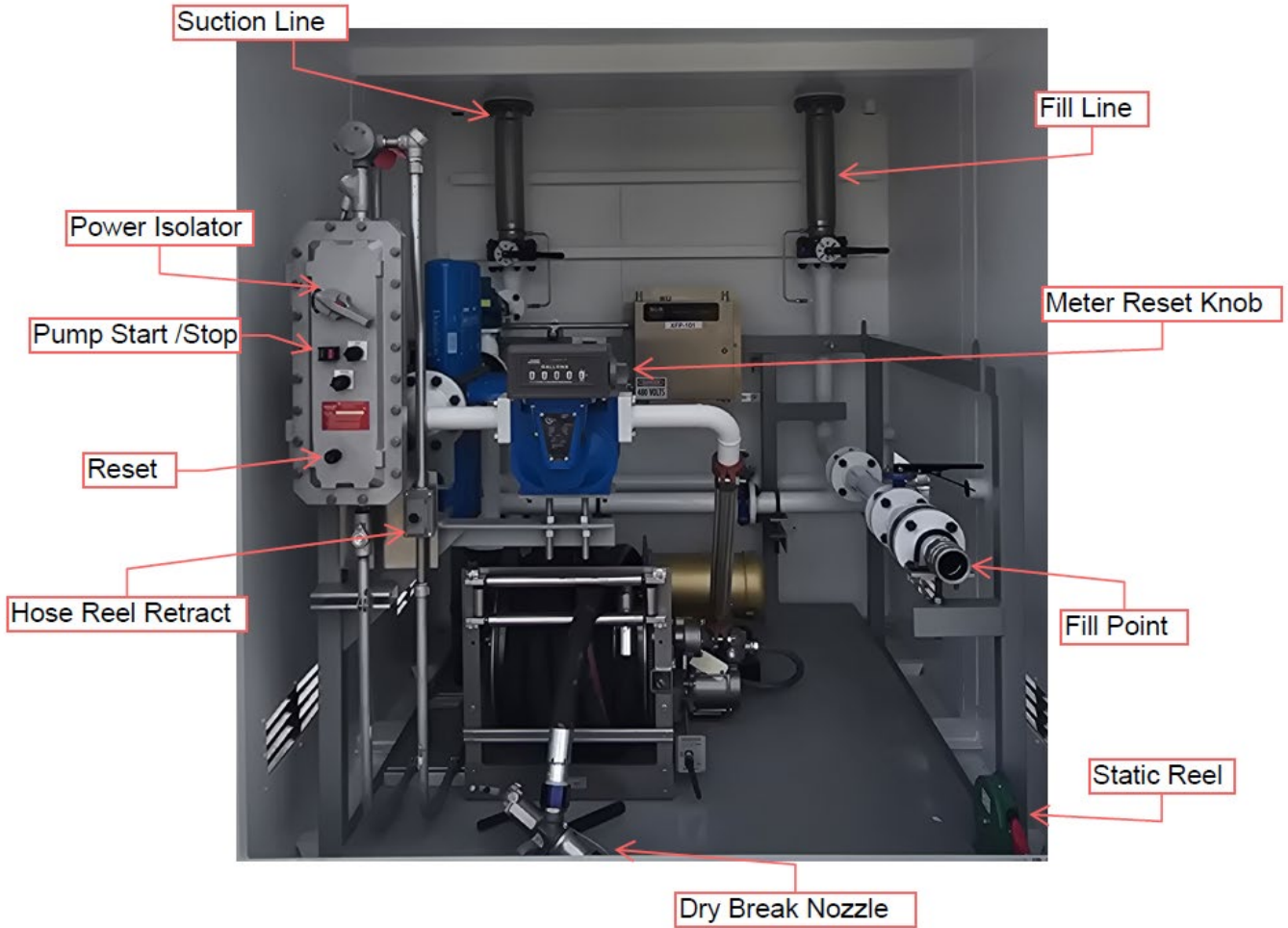


Figure 1: Pump Bay Diagram



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