

ROADMENDER DBP 350 MAINTENANCE & TROUBLESHOOTING GUIDE

In order to achieve the smooth running and optimum performance of each machine you are referred for guidance to the Operating and Daily Maintenance sections within the Roadmender DBP 350 User & Service Manual, in addition to **SECTION 1: MAINTENANCE** of this guide.

This recommends relevant daily tasks to be carried out by your crews. All of these actions are also included in the pre-operating Training Program that Billian provide to your Operating crew when the machines are purchased.

Consequently, careful and regular daily care of the machine will be rewarded by good service. In the unlikely event of a problem occurring, please refer to **SECTION 2: TROUBLESHOOTING** on page 4 of this Guide, along with the relevant section(s) in the Roadmender DBP 350 User & Service Manual.

SECTION 1: MAINTENANCE

Each day BEFORE first use:

- i. Fill with Diesel
- ii. Check engine oil level
- iii. Check hydraulic oil level (do not overfill).
- iv. *Check radiator coolant level*
- v. *Confirm the emergency stops are working*
- vi. *Check inside burner housing to confirm the burner is secure and the bolts are tight*

Each day AFTER use:

- i. Clean the drum (when the drum is hot using the custom scraper)
- ii. Confirm the battery isolation switch is turned off
- iii. Confirm the master burner switch is turned off
- iv. *(If the machine is being used on a daily basis, then Grease as outlined below)*

Three times weekly:

Grease all 3 grease nipples located on the opposite side of the machine to the control levers as shown below:



GREASE DRUM BEARING

1. Drum bearing grease nipple
2. Chain grease nipple
3. Drum rollers grease nipple

Every week:

- i. Clean the magic eye in the burner control box with a cloth
- ii. Check Chain for tension

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- **Roadmender DBP 350 Roadmender Machine Maintenance Tasks**
(recommended service interval = 200 hours)

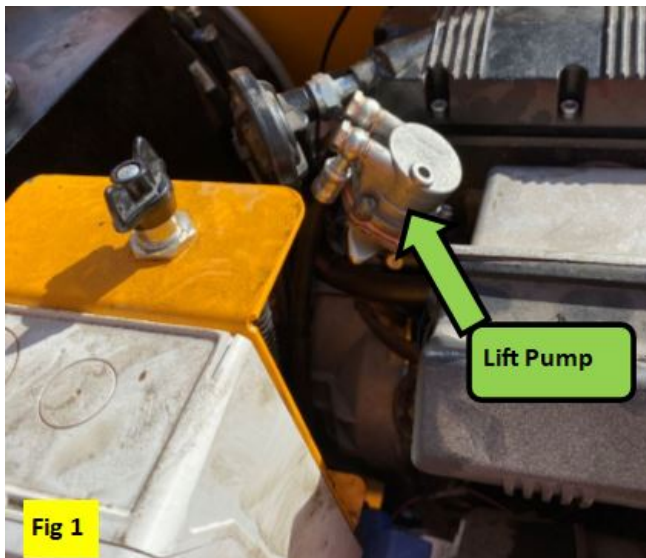
Machine Component	PPM Action
Engine	Service engine
Burner	Check and clean magic eye
Generator	Clean and check operation
Hydraulic Pump	Check for leaks
Hydraulic Motor	Check operation
Hydraulic Rams	Check for leaks
Sprockets	Check teeth for undue wear. Grease them.
Drum Rollers	Grease, check wear and replace if worn
Drum Bearing	Grease
Limit Switches	Check operation
Chain	Check tension slack & adjust
Engine Fuel Filter	Replace each visit
Burner Fuel Filter	Replace each visit
Air Filter	Replace each visit
Oil Filter	Replace each visit
Suction Hydraulic Filter	Replace each visit
Return Hydraulic Filter	Replace each visit
Generator Belt	Check, tighten. Replace if necessary
Drum Bearing	Grease
Check Oil Level	Drain and replace each visit
Check coolant level	Drain and replace each visit
Burner securing bolts	Check and tighten

SECTION 2: TROUBLESHOOTING

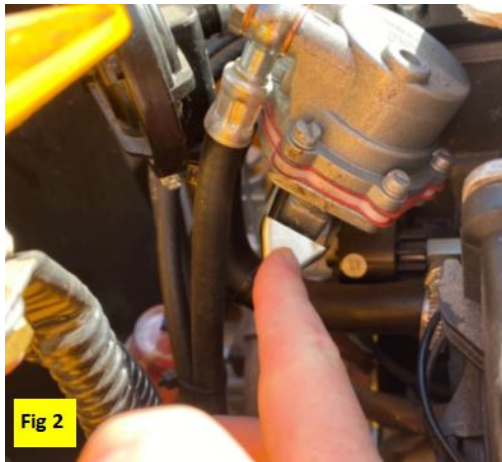
a. Engine does not start.

- i. Check fuel level (fill if required)
- ii. Prime engine if engine has been starved of fuel (see instructions in RED below)
- iii. Check Battery Isolation Switch is in 'ON' position.
- iv. Ensure engine compartment doors are closed properly (limit switch on left hand engine door stops engine running when open).
- v. Check emergency stop switches are not activated.
- vi. Check Sufficient power from Battery (Engine does not turn over – replace battery).
- vii. Check fuse behind ignition key.
- viii. Check Air Filter – clean if dirty.
- ix. Check Oil level – top up as required.
- x. Check Fuel Feed Filters – clean or replace as required.
- xi. Check fastenings on fuel pipe are tight

INSTRUCTIONS on how to Prime the Engine if it has been starved of fuel:



The fuel filter attached to the lift pump will be empty and will need to be filled with fuel using the lift pump (Fig 1)



Pump the lever on the bottom of the lift pump (Fig 2) until you see the fuel filling the fuel filter (Fig 3). Once the filter is full, pump the lever another 4 or 5 times to make sure the system is primed.



Once the fuel filter is full, then engine will start.

If the engine still will not start - Refer to engine Manual or contact your Service Provider.

- b. **Burner will not fire up** (engine is working).
 - i. Check the master burner switch is ON
 - ii. Check the burner door is fully closed (so the limit switch on the raising arm is engaged)
 - iii. Check Alternator/Generator power supply is switched to 220v / Blue. (Burner will not work if switched to 110v / yellow)
 - iv. Push the RED button on the Riello control box inside the burner housing.

- v. Check the magic eye is clean (requires a short Phillips screwdriver to remove the Riello control box). Push the RED button after replacing the Riello control box.
- vi. Check the Burner Timer is not at Zero and the timer is counting down
- vii. Check the fuel valve underneath the tank is on.
- viii. Refer to Burner manual.

The Burner will not work if the power generation is less than 48-52 ohms. If this is the case consult your Service Provider.

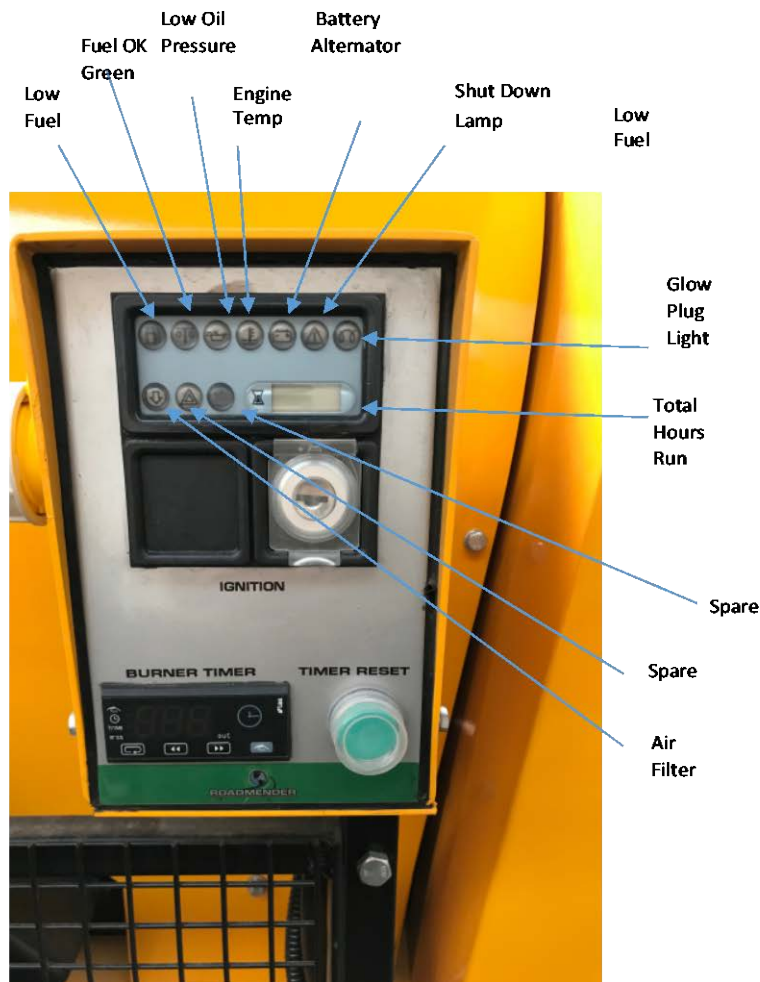
c. Drum will not rotate / is rotating too slowly

- i. Turn up the flow control valve (With the right engine door open and the LEFT engine door closed, loosen the bottom disk then dial up the top disk on the flow control valve until the drum is rotating at the desired speed. Then tighten the bottom disk to lock it in place. Make sure both engine doors are closed properly.
- ii. Check Lever 2 is engaged.
- iii. Check for Hydraulic leaks around motor.
- iv. Check Hydraulic filter – clean if required.
- v. Check the tension in the chain.
- vi. Check the teeth on the sprockets for undue wear.

CONTROL PANEL WARNING LAMPS

The photograph below explains what each warning lamp is for.

CONTROL PANEL ON LOMBARDINI ENGINE LDW 1000



Yellow Glow Plug:

When starting the machine (turn on battery isolation switch, insert ignition key and turn to the RIGHT to prime for 10 seconds) until the yellow glow plug light goes out. Then start the engine with the ignition key.

Safety Beacon:

This will illuminate as soon as the engine has started.