

- 1. Skip / Bucket.
- 2. Gear Lever.
- 3. Operating Handles.
- 4. Drive Lever.
- 5. Strapping Points.
- 6. Throttle Lever.
- 7. 4-Wheel Drive Engagement Levers.
- 8. Oil Fill and Dipstick.
- 9. Skip Release Lever.
- 10. Lifting Eye.
- 11. Park Brake Lever
- 12. Friction Wheel (This engages the 4-wheel Drive option)

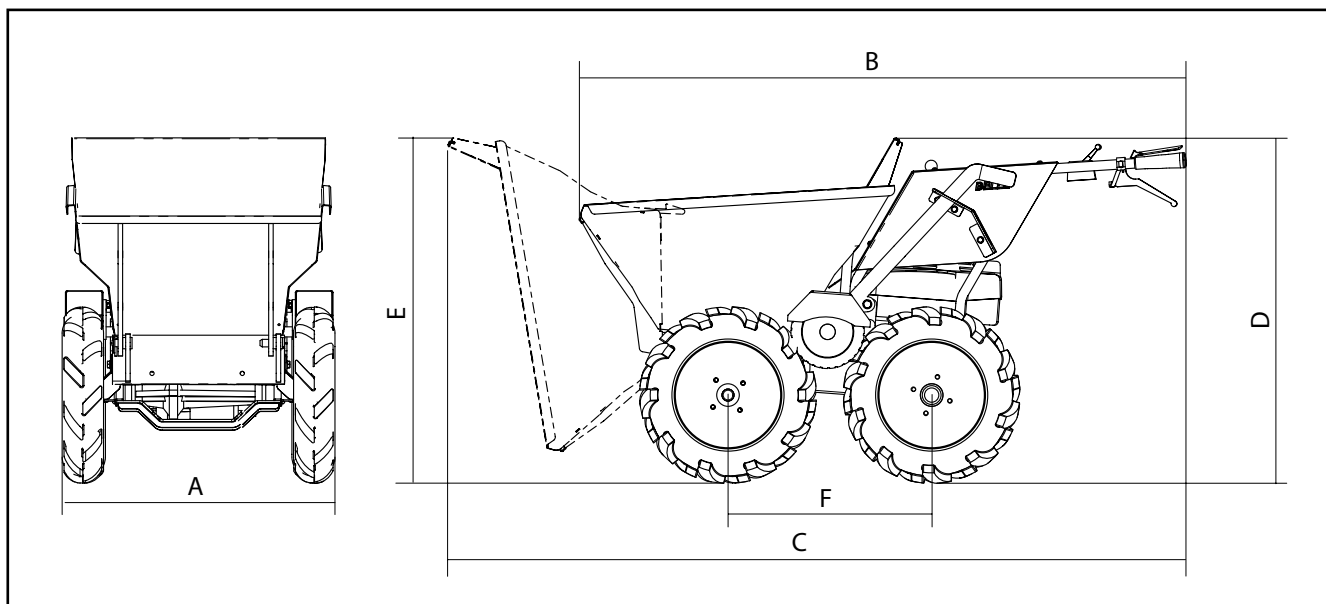
## Environment

### Safe Disposal.



Instructions for the protection of the environment.  
The machine contains valuable materials. Take the discarded apparatus and accessories to the relevant recycling facilities.

Component	Material.
Handle	Steel
Hand Grips	Rubber
Chassis	Steel
Engine	Aluminium and Steel
Gearbox	Aluminium, Steel and Phosphor Bronze
Skip	Steel
Various Parts	Steel and Rubber



	<b>BMD 300</b>
A - Machine Width (mm)	716
B - Machine Length (mm)	1588
C - Machine Length During Tipping (mm)	1957
D - Machine Height (mm)	925
E - Machine Height During Tipping (mm)	859
F - Wheel Base	528
Engine Model	Honda GXV160 (5.5Hp)
Engine Type	Unleaded Petrol
Maximum Engine RPM	3000
Maximum Travel Speed - Forward (Km/h)	6
Maximum Travel Speed - Reverse (Km/h)	2.6
Skip Capacity - Fill Volume (Ltr)	113
Skip Capacity - Heaped Volume (Ltr)	134
Tyre Pressure (PSI / Bar)	30 / 2.1
Tyre Size (in)	4.00 x 10
Tyre Pressure - Friction Wheel (PSI / Bar)	35 / 2.4
Tyre Size - Friction Wheel (in)	9 x 3.5 -4
Machine Weight (kg)	155
Maximum Axle Weight (kg)	300
Maximum Uphill Gradient	20°
Maximum Downhill Gradient	20°
Noise Level (dB(A))	101
3 Axis Vibration (m/s <sup>2</sup> )	6.6
Usage Time (Mins)	
- EAV 2.5 m/s	68
- ELV 5.0 m/s	272

# General Safety



For your own personal protection and for the safety of those around you, please read and ensure you fully understand the following safety information. It is the responsibility of the operator to ensure that he/she fully understands how to operate this equipment safely. If you are unsure about the safe and correct use of the BMD Minidumper, consult your supervisor or Belle Group.



## **WARNING**

Improper maintenance can be hazardous. Read and Understand this section before you perform any maintenance, service or repairs.

- This equipment is heavy and must not be lifted single-handedly, **GET HELP** and use suitable lifting equipment.
- Cordon off the work area and keep members of the public and unauthorized personnel at a safe distance.
- Personal Protective Equipment (PPE) must be worn by the operator when ever this equipment is being used (see Health & Safety).
- Make sure you know how to safely switch this machine **OFF** before you switch it **ON** in case you get into difficulty.
- Always switch **OFF** the engine before transporting, moving it around the site or servicing it.
- During use the engine becomes very hot, allow the engine to cool before touching it. Never leave the engine running and unattended.
- Never remove or tamper with any guards fitted, they are there for your protection. Always check guards for condition and security, if any are damaged or missing, **DO NOT USE THE BMD MINIDUMPER** until the guard has been replaced or repaired.
- Do not operate the machine when you are ill, feeling tired, or when under the influence of alcohol or drugs.
- Do not stand the machine on end with the engine running.
- Do not use the BMD Minidumper to transport people.
- Do not release the brake suddenly when travelling forward at speed with a heavy load as the machine may topple forward.
- When travelling downhill, engage the reverse gear with the clutch lever fully engaged and parking brake lever pressed down (brake off). Close the throttle if necessary so that engine braking controls the speed.
- Always ensure that when moving downwards on a hill, the machine is travelling in reverse.

## Fuel Safety



## **WARNING**

Petrol is flammable. It may cause injury and property damage. Shut down the engine, extinguish all open flames and do not smoke while filling the fuel tank. Always wipe up any spilled fuel.

- Before refuelling, switch off the engine and allow it to cool.
- When refuelling, **DO NOT** smoke or allow naked flames in the area.
- Spilt fuel must be made safe immediately, by using sand. If fuel is spilt on your clothes, change them.
- Store petrol in an approved, purpose made container away from heat and ignition sources.
- If fuel is spilt when re-fuelling the tank, wipe off the excess and wait 2 minutes before re-starting.

# Health And Safety



## Vibration.

Some vibration from the operation is transmitted through the handle to the operator's hands. **DO NOT** exceed the maximum usage times. (See Technical Data section)

## PPE (Personal Protective Equipment).

Suitable PPE must be worn when using this equipment i.e. Safety Goggles, Gloves, Ear Defenders, Dust Mask and Steel Toe capped footwear. Wear clothing suitable for the work you are doing. Tie back long hair and remove any jewellery which may catch in the equipment's moving parts.

## Petrol Machines.

Fuel.

Do not ingest fuel or inhale fuel vapours and avoid contact with your skin. Wash fuel splashes immediately. If you get fuel in your eyes, irrigate with copious amounts of water and seek medical attention as soon as possible.

## Exhaust Fumes

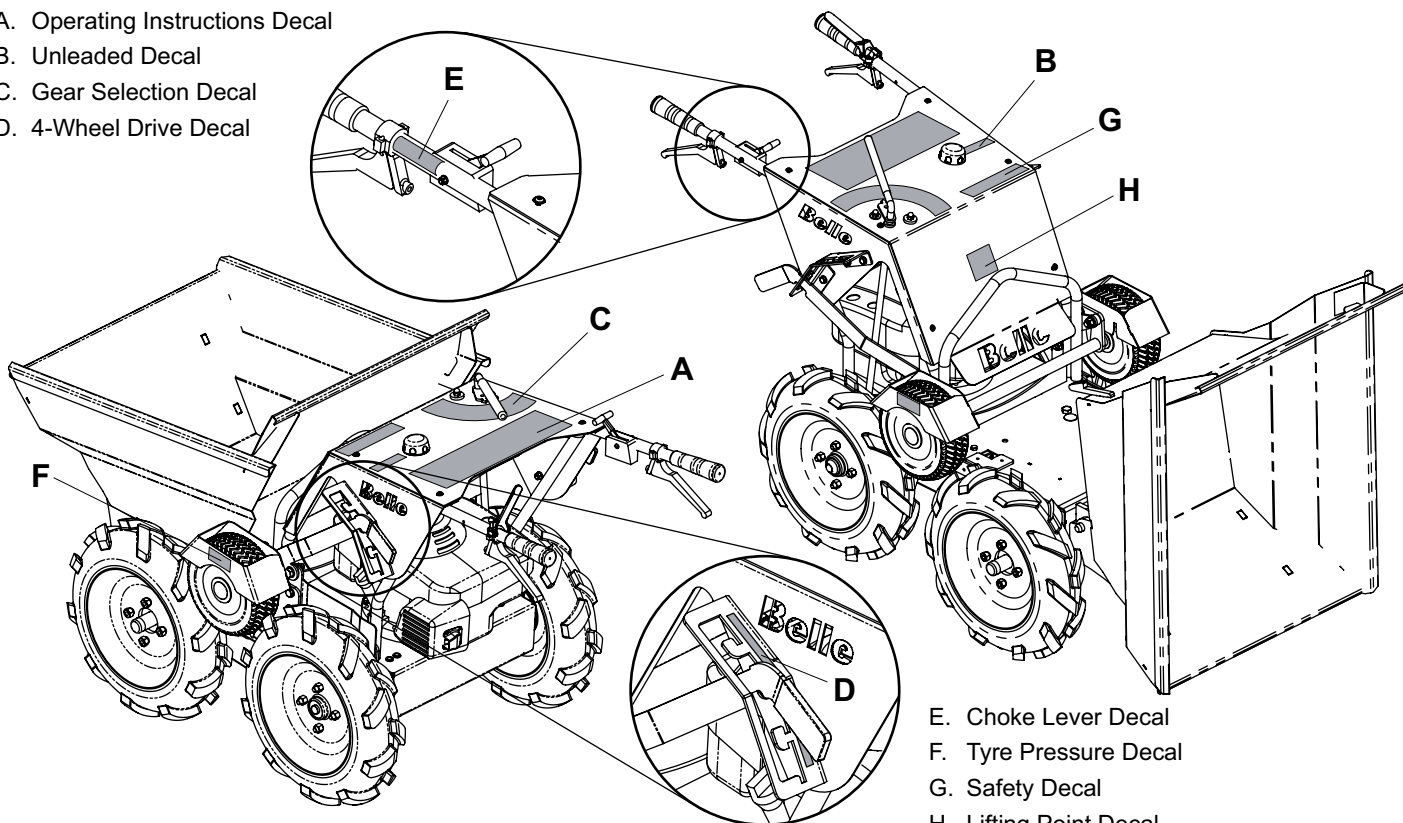


## **WARNING**

The exhaust fumes produced by this equipment are highly toxic and can kill!

Do not operate the BMD Minidumper indoors or in a confined space, make sure the work area is adequately ventilated.

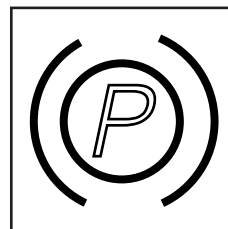
- A. Operating Instructions Decal
- B. Unleaded Decal
- C. Gear Selection Decal
- D. 4-Wheel Drive Decal



- E. Choke Lever Decal
- F. Tyre Pressure Decal
- G. Safety Decal
- H. Lifting Point Decal

## A - Operating Instructions Decal

1. Select the Neutral Gear position.
2. Select the Choke position.
- 3a. Move the Fuel Valve to the 'ON' position.
- 3b. Start the Engine using the Recoil Start.
4. Select desired Engine Speed.
5. Select desired Gear.
6. Press down the Brake Lever and at the same time, Pull-up the Clutch Lever to operate the machine.
- 7a. Release the Clutch Lever to stop the machine.
- 7b. Release the Brake Lever to apply the Park Brake.
8. **DO NOT** change gear whilst the machine is in motion.
9. To release the Skip., Pull-up the Skip Release Lever and then lift-up the back end of the machine using the handles.
10. Select the 'OFF' position to stop the machine.



**Park Brake**

## B - Unleaded Decal

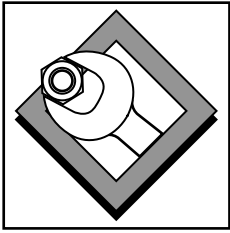
Only use 'SP95 Unleaded Petrol'.

## C - Gear Selection Decal

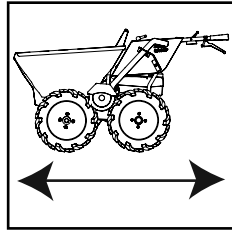
- 1 = Reverse Gear. Can be used on slopes with a gradient less than 20°.
- 0 = Neutral Position.
- 1 = 1st Gear. Can be used on slopes with a gradient less than 20°.
- 2 = 2nd Gear.
- 3 = 3rd Gear.
- 4 = 4th Gear. Should only be used on flat ground with no load.

**PLEASE NOTE:-** The machine should not be used on a slope with a gradient of more than 20°.

## D - 4 Wheel Drive Decal

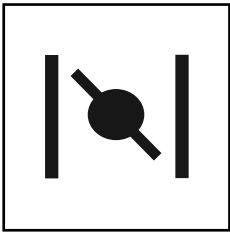


**Service Position  
Only**

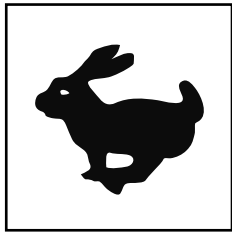


**4 Wheel Drive /  
Working Position**

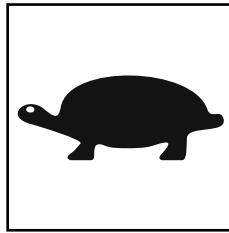
## E - Choke Lever Decal



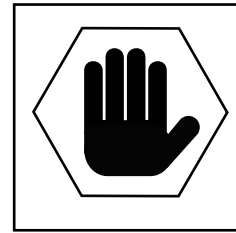
**Choke  
Position**



**Fast Engine Speed  
Position**



**Slow Engine Speed  
Position**



**'OFF' Position**

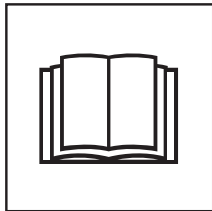
## F - Tyre Pressure Decal

- The front and rear tyre pressures must be **30 PSI / 2.1 Bar**.
- The Friction Wheel tyre pressures must be **35 PSI / 2.4 Bar**.

## G - Safety Decal



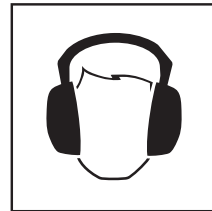
**WARNING!**



**Please Read  
Operators Manual**



**Wear Protective  
Footwear**

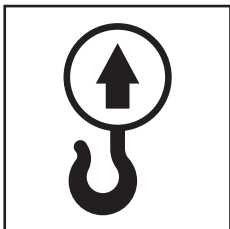


**Wear Ear  
Protection**



**Wear Eye  
Protection**

## H - Lifting Point Decal



**Lifting Point**



## Pre-start Checks

### Pre start-up inspection.

The following Pre-start-up inspection must be performed before the start of each work session or after every four hours of use, whichever is first. Please refer to the service section for detailed guidance. If any fault is discovered, the BMD Minidumper must not be used until the fault is rectified.

1. Thoroughly inspect the BMD Minidumper for signs of damage. Check components are present and secure.
2. Check fluid lines, hoses filler openings, drain plugs and any other areas for signs of leakage. Fix any leaks before operating.
3. Check the engine oil level and top up as necessary.
4. Check the engine fuel level and top up as necessary.
5. Check for fuel and oil leaks.



## Start and Stop Procedure

### Honda GXV 160 Petrol Engine

#### Starting

1. Turn the fuel shut off valve to the ON position. See Diagram 1
2. Move the throttle control to the choke position. Do not use the choke when the engine is warm. Move the throttle control slightly Maximum RPM (Hare) position.
3. Pull the starter grip lightly until resistance is felt, then pull briskly.  
NOTE:- Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.
4. If the choke was used to start the engine, move the throttle to the fast (or high) position as soon as the engine warms up enough to run smoothly without use of the choke.

#### Throttle Lever

5. Position the throttle control for the desired engine speed. For best engine performance, it is recommended that the engine be operated with the throttle in the fast (or high) position.



### CAUTION

For safety reasons, the maximum operating speed must be adjusted with a special tool. Please consult your authorised Honda dealer for this operation.

6. Using a tachometer, check the engine speed. If you can't obtain the top no load engine speed specified, consult your Honda dealer.

#### Stopping

7. Move the throttle control to the stop position. The fuel cock will automatically turn off.
8. When the engine has stopped, turn the fuel valve to the OFF position if you do not intend to restart the engine soon. See Diagram 2.

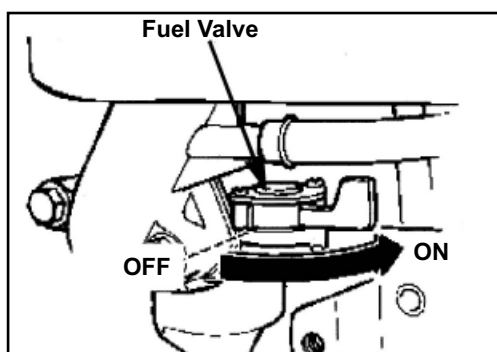


Diagram 1

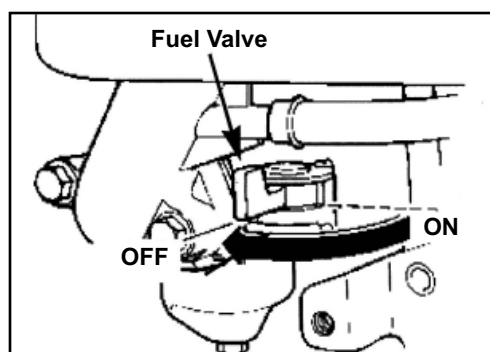


Diagram 2

## Gear Selection Options

- 1st Gear = Climbing steep slopes, steps or ramps.
- 2nd Gear = Climbing slopes.
- 3rd Gear = Travelling on level ground when laden.
- 4th Gear = Travelling on level ground when unladen.

## Operating the BMD Minidumper

1. Start the engine.
2. With the engine running, select the gear by turning the Gear Lever (2) to the desired position.
3. Release the brake by pressing the red Park Brake Lever (11) down towards the operating handle and pull the Drive Lever (4) upwards to engage drive. The machine will now begin to move.
4. Once the machine is moving the throttle can be opened or closed to increase or decrease the speed of the machine. (If more speed is required, follow steps 2, 3 and 4 but select a higher gear than is currently in use)

**NOTE:** The gears cannot be altered whilst the machine is in motion.



### CAUTION

If it is necessary to travel down a slope of more than 15° when fully laden, ensure that the machine is turned round and reverse down the slope.

## Emptying the Skip

1. Stop the machine by releasing the Drive Lever (4) followed by releasing the red Park Brake Lever (11).
2. Once the machine has become stationary compress the Skip Release Lever (9) and slightly lift-up the rear of the machine. The Skip (1) will tip forwards disposing of its contents.
3. When the Skip (1) is empty, push back to its original position. The Skip (1) will lock into place automatically.

**Note:** The numbers shown in brackets above refer to the pictures shown in the Machine Description section of the booklet.

# Troubleshooting Guide



Problem	Cause	Remedy
Engine will not start.	No fuel getting to engine.	Open fuel tap.
		Fill fuel tank.
	Engine switched off.	Switch engine on.
	Spark plug fouled.	Clean, check and reset plug gap.
	Engine cold.	Close choke.
	Engine flooded.	Open choke, fully open throttle, pull recoil starter until engine fires.
	Cutout switch wire	Reconnect disconnected wire.
BMD Minidumper does not move whilst engine is running.	Gear is not properly selected.	Ensure Gear Lever is not in-between two different gears.
	Drive Belt is not tight enough.	Tighten Drive Belt
Front wheels are spinning whilst 4-wheel drive is engaged.	Under inflated tyres.	Inflate tyres to 30 psi.

The following tools are required for essential maintenance procedures and are not supplied with the machine.

- 17mm Socket
- 10mm Spanner
- 19mm Spanner
- 19mm Socket
- 2 x 13mm Spanners
- Pliers
- 14mm Plug Socket
- 17mm Spanner

### Gearbox Oil

There should be no maintenance required as this is a sealed Gearbox. If there are any signs of leakage, stop using the machine and contact your local dealer or the Belle Group.

### Machine Cleaning

Clean the machine after it has been used to prevent the collection of hardened debris. Hardened debris is very difficult to remove. To clean it use an old brush or hand brush with water.

**NOTE:** Never pressure wash or hose down the engine. Clean only with a cloth or compressed air.

### Park Brake

The Parking Brake operates automatically when the red Parking Brake Lever is in the upright position. A spring holds the brake on until the lever is compressed to release it. Correct adjustment is critical. If the brake cable is too tight the brake spring will not be applying full pressure to the brake arm. If the brake cable is too slack, the brake may not release correctly when the lever is depressed and the brake will drag causing overheating and wear to the brake pads and damage to the gearbox.

### Air Filter

If it is dirty, proceed as follows:-

*Foam Element* - Wash the element in a solution of washing-up liquid and water. Allow the element to dry, then soak in clean engine oil and squeeze out the excess oil. If the engine smokes during start-up then too much oil has been left on the foam.

*Paper Element* - Tap the element on a hard surface or blow from inside using compressed air to remove any excess dust within the filter. Replace every 200 hours or if it is extremely dirty.

Routine Maintenance		Every 20 hours	Every 50 Hours	Every 75 Hours	Every 200 Hours
Engine Oil	Change	✓			
Air Filter	Check Condition		✓		
	Clean / Replace				✓
Spark Plug	Change				✓

### Oil / Fuel Type & Quantity - Spark Plug Type

	Oil type	Quantity (Litre)	Fuel Type	Capacity (Litre)	Spark Plug Type	Electrode Gap (mm)
<b>Petrol Honda GXV160</b>	S.A.E. 10W 30	0.65	Unleaded	2.0	BPR5ES	0.7 - 0.8

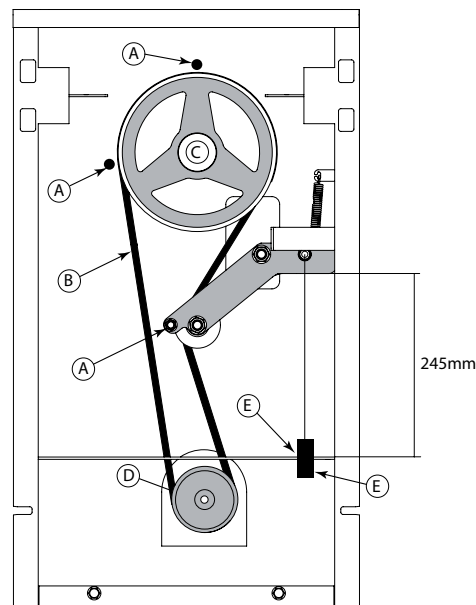
**Note:** Remove all Oil and Fuel before tipping the machine over.

### Belt Removal (On Machines Up To Serial No. 141778)

1. Remove the 6 x M8 Bolts from the Sump Guard and then remove the Sump Guard from the machine.
2. Remove 3 X Bolts (A). This will allow you to remove the Belt (B).  
NOTE:- Ensure the Belt is removed from the Engine pulley (D) first.

### Belt Fitting (On Machines Up To Serial No. 141778)

1. Place the Belt (B) onto the transmission pulley (C), and then onto the engine pulley (D).
2. Ensure the Belt (B) runs on the outside of the Clutch Tensioning Arm. (See the diagram on the right to see the route of the Belt (B))
3. Add Bolt (A) to the Clutch Tensioning Arm and tighten so that the arm is 245mm from the Cross Plate (See the diagram on the right).  
If adjustment is required, tweak the 2 Nuts (E) until correct distance is achieved.
4. Attach the Sump Guard using the 6 x M8 Bolts to a torque setting of 28Nm.





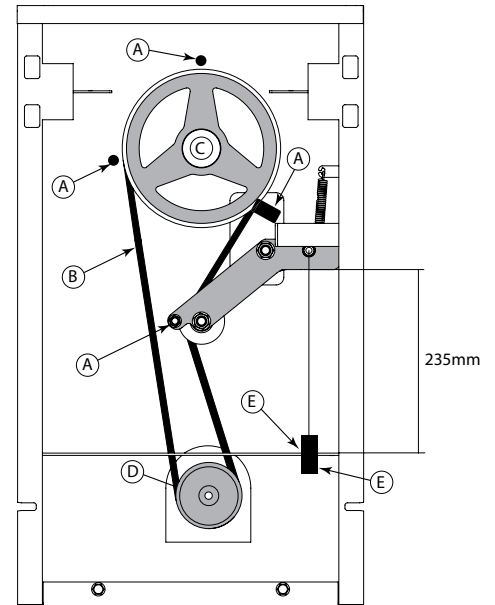
**Note:** Remove all Oil and Fuel before tipping the machine over.

## Belt Removal (On Machines From Serial No. 141779)

1. Remove the 6 x M8 Bolts from the Sump Guard and then remove the Sump Guard from the machine.
2. Remove 4 X Bolts (A). This will allow you to remove the Belt (B).  
NOTE:- Ensure the Belt is removed from the Engine pulley (D) first.

## Belt Fitting (On Machines From Serial No. 141779)

1. Place the Belt (B) onto the transmission pulley (C), and then onto the engine pulley (D).
2. Ensure the Belt (B) runs on the outside of the Clutch Tensioning Arm. (See the diagram on the right to see the route of the Belt (B))
3. Add Bolt (A) to the Clutch Tensioning Arm and tighten so that the arm is 235mm from the Cross Plate (See the diagram on the right).  
If adjustment is required, tweak the 2 Nuts (E) until correct distance is achieved.
4. Attach the Sump Guard using the 6 x M8 Bolts to a torque setting of 28Nm.



# Warranty

Your new Belle Group 'BMD' Minidumper is warranted to the original purchaser for a period of one-year (12 months) from the original date of purchase. The Belle Group warranty is against defects in design, materials and workmanship.

The following are not covered under the Belle Group warranty:

1. Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instructions.
2. Alterations, additions or repairs carried out by persons other than Belle Group or their recognised agents.
3. Transportation or shipment costs to and from Belle Group or their recognised agents, for repair or assessment against a warranty claim, on any machine.
4. Materials and/or labour costs to renew, repair or replace components due to fair wear and tear.

The following components are not covered by warranty.

- Drivebelt/s
- Engine air filter
- Engine spark plug

Belle Group and/or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose.

### Warranty Claims

All warranty claims should firstly be directed to Belle Group, either by telephone, by Fax, by Email, or in writing.

For warranty claims:

Tel: +44 (0)1538 380000

Fax: +44 (0)1538 380038

Email : [Warranty@belle-group.co.uk](mailto:Warranty@belle-group.co.uk)

Write to:

Belle Group Warranty Department,  
Unit 5, Bode Business Park,  
Ball Haye Green,  
Leek,  
Staffordshire, ST13 6BW  
England.



# How To Use This Manual

This manual has been written to help you operate and service the BMD Minidumper safely.

This manual is intended for dealers and operators of the BMD Minidumper.

## Foreword

The '**Environment**' section gives instructions on how to handle the recycling of discarded apparatus in an environmentally friendly way.

The '**Machine Description**' section helps you to familiarize yourself with the machine's layout and controls.

The '**General Safety**' and '**Health and Safety**' sections explain how to use the machine to ensure your safety and the safety of the general public.

The '**Trouble Shooting**' guide helps you if you have a problem with your machine.


The '**Servicing**' section is to help you with the general maintenance and servicing of your machine.


The '**Warranty**' Section details the nature of the warranty cover and the claims procedure.

The '**Declaration of Conformity**' section shows the standards that the machine has been built to.

## Directives with regard to the notations.


Text in this manual to which special attention must be paid are shown in the following way:

 **CAUTION** The product can be at risk. The machine or yourself can be damaged or injured if procedures are not carried out in the correct way.

 **WARNING** The life of the operator can be at risk.



# WARNING

 **WARNING** Before you operate or carry out any maintenance on this machine YOU MUST READ and STUDY this manual.

**KNOW** how to safely use the unit's controls and what you must do for safe maintenance. (NB Be sure that you know how to switch the machine off before you switch on, in case you get into difficulty.)

**ALWAYS** wear or use the proper safety items required for your personal protection. If you have **ANY QUESTIONS** about the safe use or maintenance of this unit, ASK YOUR SUPERVISOR OR CONTACT: **BELLE GROUP (UK): +44 (0) 1298 84606**



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*Belle Group reserves the right to change machine specification without prior notice or obligation.*