

## INSTRUCTION MANUEL

### BETON SCREED BTS-35H





# Beton Trowel nv

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Use this guide along with the parts lists attached to locate and identify components of your screed. When ordering replacement parts, be sure to provide the model number and serial number.

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## Foreword

### Quality assurance / machine break in

The machine is the product of extensive engineering development designed to give long life and unmatched performance. The screeds are shipped fully assembled, and only require filling with fuel and a brief check of lubricant levels in preparation for operation.

You can help ensure that your screed will perform at top levels by observing a simple routing on first use. Consider that your new screed is like a new car. Just as you would break in a new car to the road or any new machine to the job, you should start gradually and build up to full use. Learn what your machine can do and how it will respond. Refer to the engine manufacturer's manual for run-in times. Full throttle and control may be used after this time period, as allowed by material. This will serve to further break in the machine on your specific application, as well as provide you with additional practice using the machine.

We thank you for the confidence you have placed in us by purchasing a Beton Trowel machine and wish you many years of satisfied use.

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## 1 Safety precautions

- ❖ Do not use the screed, fitted with a gasoline engine, indoors or in poorly ventilated areas. Ensure there is sufficient ventilation to avoid inhaling exhaust gasses, as they may be harmful.
- ❖ Avoid touching the electrical cables or spark plug cap while the engine is running to avoid electric shock.
- ❖ Check the fuel tank and lines for leaks before starting engine.
- ❖ Wear appropriate personal protective equipment while operating the screed.
- ❖ Protective footwear, safety glasses, hearing protection, padded gloves, and a dust mask are highly recommended.
- ❖ Wear work gloves and safety glasses while refueling the screed.
- ❖ Ensure sufficient ventilation during refueling to avoid a build-up of dangerous fumes.
- ❖ Refuel the screed only after the engine has cooled after use.
- ❖ Avoid smoking or open ignition sources such as furnaces, welders or torches during refueling.
- ❖ Avoid contact of limbs with the vibrating blade or base unit during operation. Use only the handles to control the screed.
- ❖ Some vibration in the control handles during operation is normal. Take appropriate measures dictated by your workplace regulations to minimize health effects of vibration exposure.
- ❖ Regular maintenance and inspection of the screed can prevent injuries caused by

## 2 Initial setup

Upon removing the screed from its box for the first time, you will find the base unit with the handles removed for shipping. The left handle is sitting freely in the box, while the right handle is attached to the base unit by its electrical cable and throttle control cable. The throttle control cable is not connected to the engine during shipping to avoid damage to the cable and engine.

To connect the throttle cable, first set up the handles using the clamps and hex key provided. Set the length and rotation to suit the operator. Then:

- ❖ Open the Honda engine air filter cover by gently squeezing the clip on the inside front of the black filter housing, and rotate the housing cover back out of the way.
- ❖ Pull the throttle cable over to the engine throttle wheel.
- ❖ Rotate the silver throttle wheel so that the larger hole is pointing toward the top of the engine.
  - Slide the stainless steel throttle cable through the slot in the throttle wheel.
- ❖ Pull the stainless steel throttle cable downward to insert the slug fitting into the large hole in the throttle wheel.
- ❖ Place the threaded fitting of the throttle cable conduit into the clamp below the throttle wheel.
- ❖ Tighten the nuts of the threaded fitting onto the clamp to lock the conduit in place. Adjust the tension and length of the throttle cable by moving these nuts.
- ❖ With the throttle grip at the end of the right operator handle released, the throttle wheel on the Honda engine should be at the zero position.
  - After verifying the operation of the throttle cable by squeezing the throttle grip a few times, replace the air filter cover on the Honda engine. Your screed is now ready to use!

## 3 Operation

### 1 Operating principal

An eccentric weight mounted on the exciter shaft contained within the vibration housing is driven at high speed by a clutch drive system. This high speed shaft revolution causes the rapid vibratory motion of the blade as well as imparting a forward motion.

The screed is designed to run at an engine speed (engine take off shaft) of 3600 rpm. (normally considered full throttle). Running the engine at lower rpm's will result in a decrease of consolidation force and lower travel speed. It will create excessive "out-of-synch" vibrations resulting in poor consolidation, maneuverability, excessive wear to the machine, and discomfort to the operator.

### 2 Starting procedure: warm climate

Open fuel valve on gas tank. Set throttle lever to "Fast" idle position, set choke to closed position, start engine. Open choke slightly to prevent flooding. Move to "Open" or "Run" position when engine is warm, increase throttle to maximum operation position (3600 rpm).

### 3 Starting procedure: cold climate

Follow same procedure as above but allow longer warm-up period – 3 to 5 minutes. In cold weather, oil is much heavier to move and requires more time to work its way into the moving parts. If maximum power is not attained, allow further warm-up time. Fill fuel tank with clean gasoline, use safety approved gas containers. DO NOT MIX OIL WITH GASOLINE – USE UNLEADED GAS ONLY.

### 4 Stopping procedure

- ❖ Throttle engine down.
- ❖ Depress or turn off stop switch

## 5 Operation

- ❖ On level surfaces the screed moves forward or backward rapidly, depending on the tilt of the handle. On uneven surfaces or inclines, light forward pressure on handle may be required to assist the screed in moving. Lean the handle up or away from you to make the screed travel toward you (i.e. forward). Lean the handle down or toward you to make the screed travel away from you (i.e. backward).
- ❖ ALWAYS OPERATE THE MACHINE AT FULL THROTTLE. If excessive vibration is felt through the handle, do not operate until the engine is checked and set at its maximum running speed of 3600 rpm.
- ❖ The handle has four (4) adjustment clamps to allow the operator to use the screed more comfortably. Ensure that the screws of all of these clamps are tightened to securely hold the handle sections rigidly. A loose clamp will cause that section to rotate and/or slide away from the desired position.

## 6 Lubrication

- ❖ **ENGINE OIL:** Always check engine oil before starting and at regular intervals thereafter. Use proper engine oil as recommended – see chart below. Keep engine oil clean, change accordingly. Fill crankcase to levels as recommended in manufacturer's engine manual.



## 4 Maintenance

### 1 Maintenance plan




Routine Service Intervals		Each use	After 1.5 months or 50 hrs	Each 3 months or 100 hrs	Each 6 months or 200 hrs	Each 9 months or 300 hrs	Each 12 months or 400 hrs
<b>General Inspection:</b>							
Rubber Cap	Check		o	o	o	o	o
Warning stickers	Check		o	o	o	o	o
Test run:	Check operation		o	o	o	o	o
<b>Engine:</b>							
Engine oil	Check Level	o	o	o	o	o	o
	Change		o		o		o
Engine oil filter	Replace				o		o
Oil cooler	Clean			o	o	o	o
Cooling Fins	Clean		o	o	o	o	o
Air cleaner	Check - clean	o	o	o	o	o	o
	Replace						o
Air Intake Line	Check				o		
	Replace						2 yrs
Fan Belt	Check tightness				o		o
	Replace						500 hrs
Valve clearance	Check-adjust				o		o
Fuel filter	Check & Clean			o	o	o	o
	Replace				o		o
Fuel Tank	Clean						500 hrs
Engine wiring	Check						o

## 2 **Service**

Due to the nature and environment of use, the machines could be exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your Screed.

- ❖ It is highly recommended that all maintenance and repairs are carried out by approved dealers.
- ❖ Always use genuine replacement parts; use of foreign parts may void your warranty and result in injury or damage to property.
- ❖ Refer to your engine manual for details of engine cleaning, maintenance, and your engine's warranty coverage.
- ❖ Clean concrete, dust, and residue from the blade and base unit daily. Failure to do so will result in decreased performance and premature failure.
- ❖ The blade and lower base unit (i.e. below the engine) can be cleaned with a water sprayer. Avoid getting water inside the engine housing or into the on/off switch on the handle.
- ❖ Clean the engine ventilation openings using a brush or damp cloth. Dirt, grease, or concrete entering the ventilation openings will reduce engine cooling, leading to premature engine wear and failure. Refer to your engine manual for more information.

## 5 Labels

SAFETY PRECAUTIONS	
	<p><b>! DANGER</b></p> <p><b>EXPLOSION HAZARD</b> Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes.</p>
	<p><b>WARNING</b></p> <p><b>BURN HAZARD</b> Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.</p>
	<p><b>! CAUTION</b></p> <p><b>ROTATING HAZARD</b> Never place hands or feet inside safety guard rings. Serious injury will result from contact with rotating blades.</p>
	<p><b>! CAUTION</b></p> <p><b>MOVING PARTS</b> Before starting the machine ensure that all guards and safety devices are in place and functioning properly.</p>
	<p><b>! ATTENTION</b></p> <p><b>READ OWNERS MANUAL</b> Read and understand operator's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.</p>

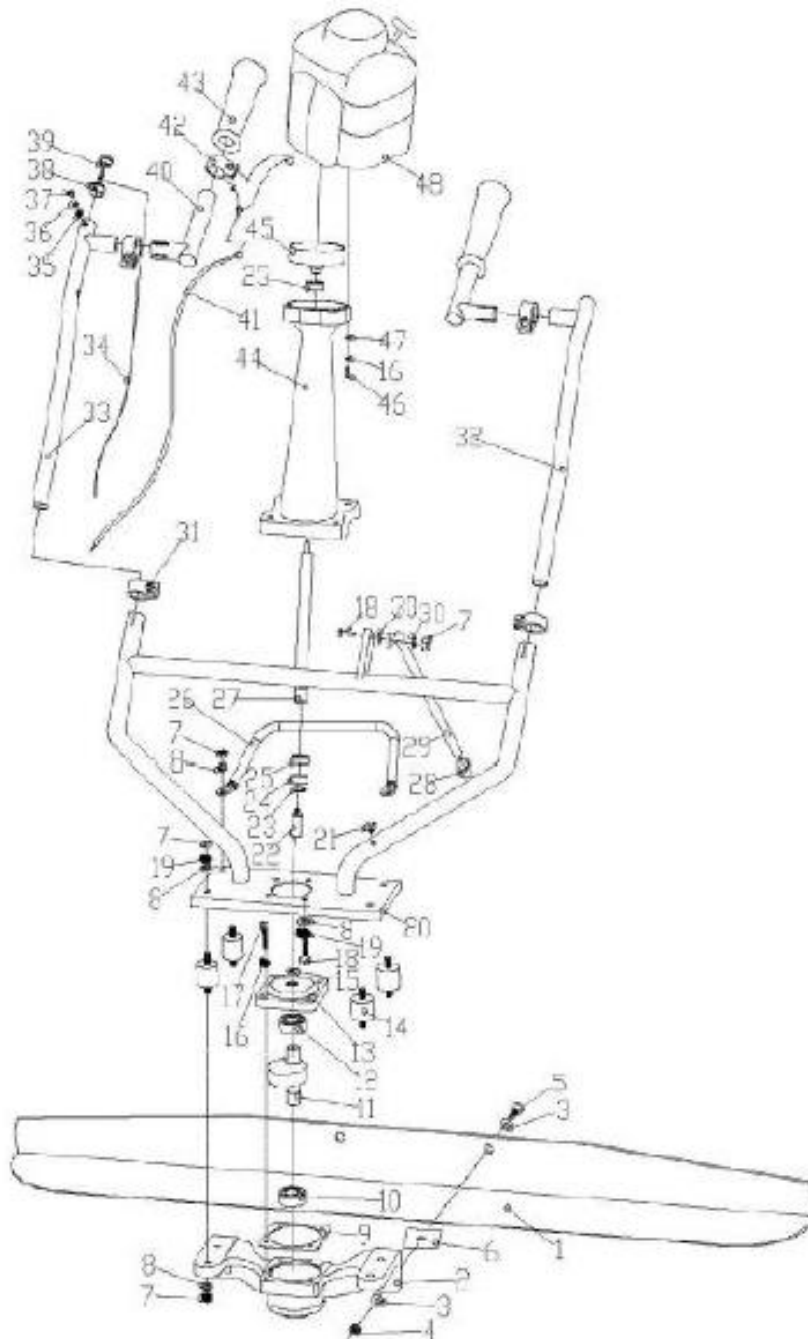
## Specifications

### 1 Technical data sheet

<b>MODEL</b>	<b>BTS35H</b>
<b>ENGINE</b>	HONDA GX35 1.3 HP 4-STROKE
<b>WEIGHT (WITHOUT BLADE)</b>	12.7 KG
<b>SOUND POWER</b>	50 dBA
<b>VIBRATION (HANDLE)</b>	< 9 M/S SQ

<b>BLADE</b>	
<b>SIZE</b>	<b>WEIGHT</b>
1.2 M	2.9 KG
1.8 M	4.4 KG
2.4 M	5.8 KG
3.0 M	7.3 KG
3.7 M	8.7 KG
4.5 M	10.2 KG
4.9 M	11.6 KG

## 2 Parts



ITEM NO.	PARTS NO.	DESCRIPTION	QTY
1	MG12-0012	SCREED BLADE	1
2	MG12-0102	VIBRATION BRACKET	1
3	GB97.1-12	WASHER 12	4
4	GB889.2-M12x1.25	SCREW M12X1.25	2
5	GB5785-M12X1.25X55	BOLT M12X1.25X55	2
6	MG12-0013	COLLAR	1
7	GB889.1-M8	SCREW M8	9
8	GB97.1-8	WASHER 8	12
9	MG12-0105	GASKET	1
10	GB276-82203-2RS	BEARING 82203-2RS	1
11	MG12-0103	ECCENTRIC SHAFT	1
12	GB297-3202-2RS	BEARING 3202-2RS	1
13	MG12-0104	BEARING COVER	1
14	MG12-0200A	VIBRATION DAMPER	4
15	GB9871.1-FB153007MQ	OIL SEAL FB 15 30 7 MQ	1
16	GB93-6	SPRING WASHER 6	8
17	GB70.1-M6X25	HEXAGONAL BOLT M6X25	4
18	GB5783-M8X25	BOLT M8X25	5
19	GB93-8	SPRING WASHER 8	6
20	MG12-0760	HANDLE FRAME	1
21	MG12-0774	RUBBER PAD	1
22	MG12-0410	RUBBER CONNECTION	1
23	GB894.1-12	RETAINING RING 12	1
24	GB276-8201-2RS	BEARING 8201-2RS	1
25	GB276-8201-ZZ	BEARING 8201-ZZ	2
26	MG12-0300	GRIP FOR HANDLE	1
27	MG12-0402	DRIVE SHAFT	1
28	MG12-0771	STAND	1
29	MG12-0772	STAND RUBBER	1
30	MG12-0773	WASHER	2
31	MG12-0740	HOSE CLAMP	1
32	MG12-0710	HANDLE INTUBATION (LEFT )	1
33	MG12-0750A	HANDLE INTUBATION (RIGHT )	1
34	MG12-0022	WIRE 1mm <sup>2</sup>	1
35	GB97.1-5	WASHER 5	1
36	GB93-5	SPRING WAHSER 5	1
37	GB818-M5X8	CROSS RECESS HEAD SCREW M5X8	1
38	MG12-0750A.01	INTERNAL THREAD COVER	1
39	KG001	ON OFF SWITCH	1
40	MG12-0732	HANDLE GRIP SECTION	2
41	MG12-0500	TROTTLER CABLE ASSY.	1
	MG12-0500B	TROTTLER CABLE ASSY.	1
42	MG12-0720	THROTTLE LEVER	1
43	MG12-0731	GRIP FOR HANDLE	1
44	MG12-0401A	SUPPORTING FRAME	1
	MG12-0401B	SUPPORTING FRAME	1
45	MG12-0420	CLUTCH ASSY.	1
46	GB5783-M8X35	BOLT M8X35	4
47	GB97.1-6	WASHER 6	4
48	HONDA GX35	PETROL ASSY.	1
	1E44F-2A	PETROL ASSY.	1
	ROBIN EH035	PETROL ASSY.	1