

INSTRUCTION MANUEL

BETON SCREED BTS-35H.1





Beton Trowel bv

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.

Copyright

© Copyright 2021 by Beton Trowel.

Contact

BETON TROWEL
Nijverheidsstraat 10
1840 Londerzeel
BELGIUM
www.betontrowel.com

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.

Table of contents

Foreword	3
1 Safety precautions	5
2 Setup of the screed	6
3 Operation	7
1 Operation principal	7
2 Starting procedure: warm climate	7
3 Starting procedure: cold climate	7
4 Stopping procedure	7
5 Operation	8
6 Lubrication	8
4 Maintenance	9
1 Maintenance plan	9
2 Service	10
5 Labels	11
6 Specifications	12
1 Technical data sheet	12
2 Parts	13

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
General Inspection:							
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
Engine:							
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>! DANGER</p> <p>EXPLOSION HAZARD Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes.</p>
	<p>WARNING</p> <p>BURN HAZARD 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>! CAUTION</p> <p>ROTATING HAZARD Never place hands or feet inside safety guard rings. Serious injury will result from contact with rotating blades.</p>
	<p>! CAUTION</p> <p>MOVING PARTS Before starting the machine ensure that all guards and safety devices are in place and functioning properly.</p>
	<p>! ATTENTION</p> <p>READ OWNERS MANUAL Read and understand operator's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.</p>

Specifications

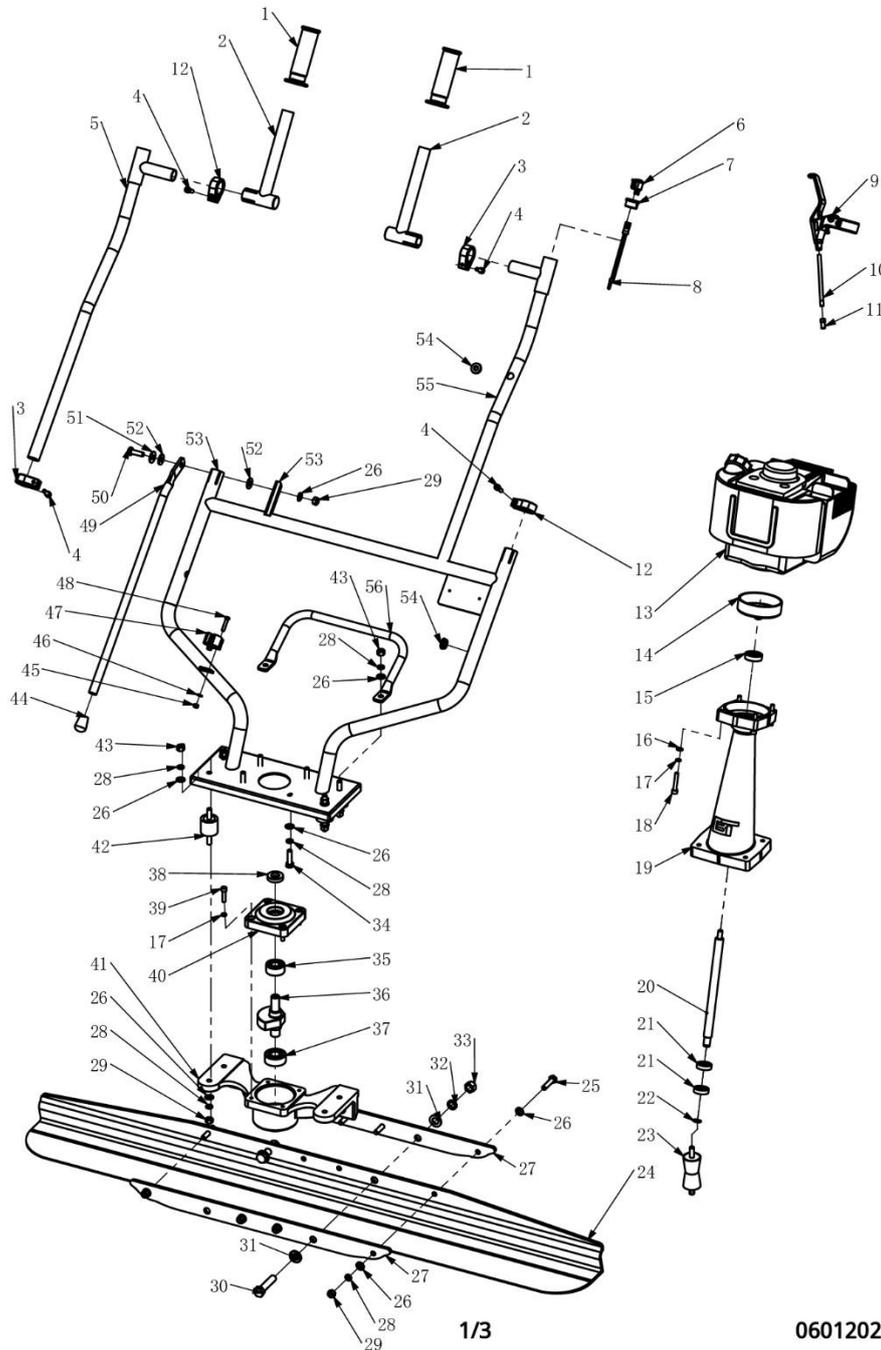
1 Technical data sheet

MODEL	BTS35H.1
ENGINE	HONDA GX35 1.3 HP 4-STROKE
WEIGHT (WITHOUT BLADE)	12.7 KG
SOUND POWER	50 dBA
VIBRATION (HANDLE)	< 9 M/S SQ

BLADE	
SIZE	WEIGHT
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

SPARE PARTS LIST



06012021

EUROSCREED BTS35H.1			
No.	Description	Code	Qty
1	Handle Grip	ES300101	2
2	Handle Grip Section	ES300113	2
3	Handle Clamp, Left	ES300114	2
4	Allen Screw M6	ES300116	4
5	Handle Section, Right	ES300119	1
6	Switch	ES300104	1
7	Switch Bush	ES300105	1
8	Wire	ES300121	1
9	Throttle Lever	ES300103	1
10	Throttle Cable	ES300102	1
11	Nut M6	ES300122	1
12	Handle Clamp, Right	ES300115	2
13	Engine	HONGX35NST	1
14	Clutch Drum	ES300112	1
15	Bearing	ES300111	1
16	Washer M6	ES300124	4
17	Spring Washer M6	ES300126	8
18	Allen Screw M6	ES300118	4
19	Housing	ES300127	1
20	Drive Shaft	Es300110	1
21	Bearing	ES300109	2
22	Circlip	ES300108	1
23	Vibration Isolation Shaft	ES300107	1
24	Blade		1
25	Bolt M8	15080350	4
26	Washer M8	11080000	21
27	Blade Flange	2602-00036-2	2
28	Washer M8	12080000	16
29	Lock Nut M8	13080001	9
30	Bolt M12x55	15120550	2
31	Washer M12	11120000	4
32	Spring Washer M12	12120000	2
33	Lock Nut M12	13120001	2
34	Bolt M8	ES300128	4

No.	Description	Code	Qty
35	Bearing	ES300130	1
36	Rotator	ES300132	1
37	Bearing	ES300131	1
38	Oil Sealing	ES300133	1
39	Allen Screw M6	ES300117	4
40	Flange	ES300134	1
41	Vibration Case	ES300135	1
42	Shock Absorber	ES300106	4
43	Nut M8	ES300123	4
44	Rubber End	ES300136	1
45	Lock Nut M5	EE300137	2
46	Washer M5	ES300125	2
47	Clamp	ES300100	1
48	Bolt M5	ES300138	2
49	Kick Stand	ES300139	1
50	Bolt M8	ES300129	1
51	Washer M8	ES300140	1
52	Nylon Washer	ES300141	2
53	Handle Base	ES300142	1
54	Wire Holder	ES300143	2
55	Handle Section, Left	ES300120	1
56	Carry Handle	ES200144	1