

fast · simple · efficient

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**BJJ Kleinmaschinen Corp.**



# Instruction Manual

## **BJJ-Riding Arena Leveller**

**Model: 13 HP Honda**

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These instructions for use are to be read carefully before unpacking and before the Riding Arena Leveller is put into operation. The instructions are to be exactly followed. The safety notes in particular are always to be observed!



## **Foreword**

Thank you very much for placing your trust in a BJJ product.

With the BJJ Riding Arena Leveller you have acquired a high-quality product. To ensure that it will give you many years of reliable service, please read through the instructions for use carefully and observe the maintenance instructions.

## **Times of use**

In accordance with the German Noise Protection Ordinance of 1.8.1987, the machine must not be used close to adjacent residential areas on Sundays and on public holidays and on working days from 13.00 to 15.00 hrs and from 19.00 to 7.00 hrs.

## Meaning of the symbols



Read the manual carefully



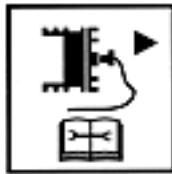
No rides to be given.  
No stepping on machine/ equipment parts



For maintenance and repair work remove sparking plug connector!



Do not drive on slopes!



## Safety precautions

**THESE INSTRUCTIONS ARE INTENDED FOR YOUR SAFETY. PLEASE READ CAREFULLY!**

1. Read these operating instructions as well as all of the instructions which are supplied together with components.
2. Keep children and unauthorised adults away from the equipment.
3. Do not drive the BJJ Riding Arena Leveller, if children or animals are nearby. The driver is responsible for ensuring an adequate safety distance!
4. Only the driver himself/herself may be conveyed by the machine. It is strictly forbidden to permit additional persons to ride on the machine. Such persons can be dangerously injured (tools, rotating wheels, falling off, slipping down etc.). Moreover, the machine components are not designed for such loads.
5. Care must be taken when handling fuel. **Fire hazard!**
  - a. Use only approved fuel cans.
  - b. Never remove the fuel tank cap or top up fuel while the engine is running or is hot. Allow the engine to cool down for a few minutes before doing this. Never fill the tank in enclosed spaces. Immediately wipe up spilled fuel.
  - c. Do not smoke while filling up with fuel.
  - d. Do not start the engine in closed rooms. If the engine is started in the garage, open the doors. The exhaust fumes contain CARBON MONOXIDE, an ODOURLESS and LETHAL GAS.
  - e. Never park the machine with a full tank in a room in which the gases can come into contact with naked flames or sparks. Before parking in enclosed spaces, always allow the engine to cool down.
  - f. Before any operational use the fuel level is to be checked. During refilling leave enough space for the expansion of the fuel in the tank which can be caused by engine heat or the effects of sunshine.
6. Do not wear any loose-fitting clothing that could get caught up in the moving parts.

7. Remove objects such as wire, rods and similar from the work area.
8. Check all operating elements before starting the engine and before starting work in order to ensure faultless functioning. Also loosen the locking device of the rake!
9. Engage the clutch slowly in order to prevent the leveller from leaping forwards.  
Warning - there is a danger of being thrown off the seat!
10. In the case of transporting travel with raised tools: Drive only very slowly! Never use the 4th and 5th gears for "fast travel", as there is a danger of tilting over in bends. On slopes and in sharp bends, the driving speed is to be reduced further. Here the utmost care is required, so that you do not topple over or lose control of your vehicle. On slopes changes of direction are to be avoided or only permitted in bottom gear!
11. Do not use the machine on more than 10 ° gradients.
12. Do not use the Riding Arena Leveller for towing loads!
13. The machine must not be put to use on public footpaths, roads or squares, but used only on private land.
14. Ensure the firm fit of bolts and nuts so that the operational reliability of your machine is ensured.
15. Do not make any structural alterations to the machine and use only the manufacturer's original parts.

## **Use for the intended purpose**

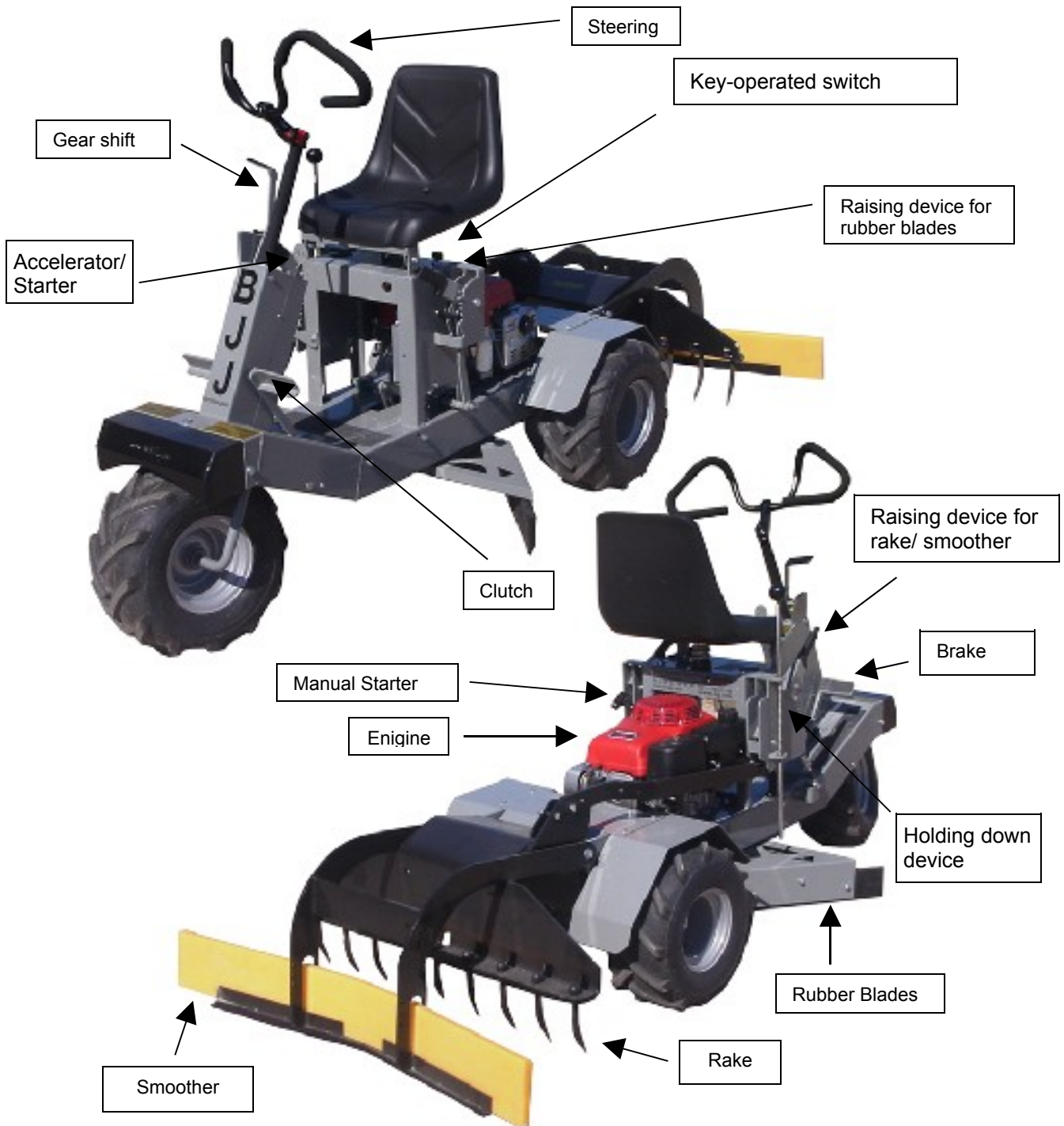
The BJJ Riding Arena Leveller was developed and constructed exclusively for the care of level or slightly inclined (up to 5°) riding grounds and riding arenas. Therefore the Riding Arena Leveller is intended exclusively for private use on straight and level riding grounds, bridle paths, riding arenas, in ventilated indoor riding arenas etc.




Care with the BJJ Riding Arena Leveller is carried out with loose material that has been thrown up being moved towards the middle of the vehicle, a rake behind the rear wheels loosening up the riding surface and a smoothing bar located after the rake carrying out final smoothing of the riding arena surface. The surface material must be free of relatively large items such as stones, sticks or other solid objects. Any use going beyond this shall be considered as not for the intended purpose. For damage/injury/loss incurred as a result of any use not for the intended purpose the manufacturer shall not be liable; the risk involved in this shall be borne by the user alone.

Use for the intended purpose also includes observance of the operating, maintenance and servicing conditions prescribed by the manufacturer.

The BJJ Riding Arena Leveller is not registered as a road vehicle!

# The BJJ-Riding Arena Leveller



- 
 Key-operated switch  
**„OFF“ position**
- 
 Turn key-operated switch anti-clockwise  
 90° = „On“  
 135° = „Start“
- 
 Key-operated switch  
**Part turn „Start“, „On“**

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## Operating instructions

### Starting the engine:

- Check the oil level and the fuel tank level (see also above). If necessary top up.
- Release the parking brake.
- Engage lifting devices for plastic blades and rake with smoothing bar at the top.
- At the top, engage lifting devices for plastic blades and rake with smoother.
- Set gear shift to "Neutral" (Marking "N" in the switch lever window and/or gear shift lever parallel to the steering column).
- Move accelerator forwards when engine is cold (choke symbol); with a hot engine set "Full throttle"
- To start up, get onto the driving seat and turn the ignition key under the seat in a clockwise direction as far as the stop (135°). The engine usually does not start up immediately, but after 2 to 8 seconds, since the petrol feed line to the engine compartment has to be filled up again.
- Immediately after start-up, set to the required speed of rotation. The maximum speed should be used only when maximum power is required.

### General notes on driving

People must not be in the area driven over, therefore ensure safety distances are observed! In the case of animals - particularly of horses – additional care is required, as they could take fright and panic. Therefore the use of the Riding Arena Leveller close to them is not advisable!

### Start-up

- Release the catch on the fastening bracket between the rake and the smoother.
- Get onto the driving seat, release the parking brake, set the speed of rotation, press the clutch right down, engage 1<sup>st</sup> gear. Slowly release the clutch.

### Driving without using the tools

- Use only low gears (up to 3rd gear). In curves and inclines, engage no higher than 2nd gear with very great care!
- Do not use public roads, paths and squares.

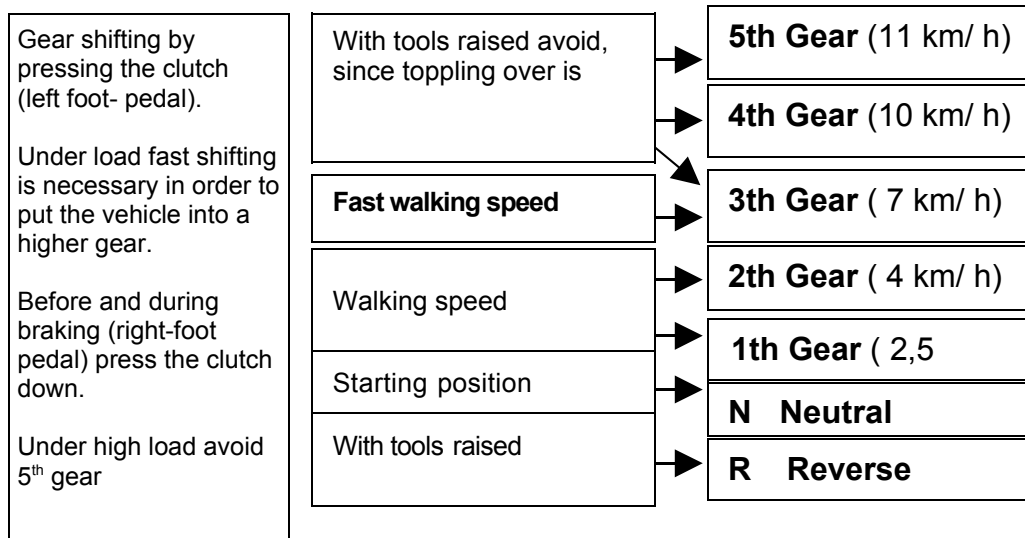
### Reversing

- This should be done only with tools raised.
- Press clutch right down, set gearshift lever to the "R" position, set low acceleration, slowly release clutch. **Warning: the steering is very direct!**

### Choice of gears

The BJJ Riding Arena Leveller has a safety circuit and can be started only in the "Neutral" setting. Putting into gear and driving are only possible, if the driver places his/her weight on the seat. In that way the seat contact switch is actuated.

## Choice of gears (Overview)



Three-wheeled vehicles have, in principle, a tendency to topple over in curves. This danger increases during driving in inclined positions. Therefore on inclines and in curves drive only cautiously at "walking speed"! In the case of working tools, the BJJ Riding Arena Leveller cannot tilt over on straight and level ground.

Start-up must not be effected in 1st gear. In the case of a low load on the tools, a higher gear can be used, the clutch having to be released only slowly. In order to protect the gearbox, however, never start up in 4th or 5th gear. In the event of an excessively high load on the tools, start-up is not possible even in first gear. The tools must then be raised and engaged during travel.

### Emergency off

Should there not be enough time to come to a standstill by braking, pressing the clutch and switching to the "N" position or to stop the engine by setting the accelerator pedal to "Stop", the same effect can be achieved by removing the weight from the seat (standing up). The engine then stops running.

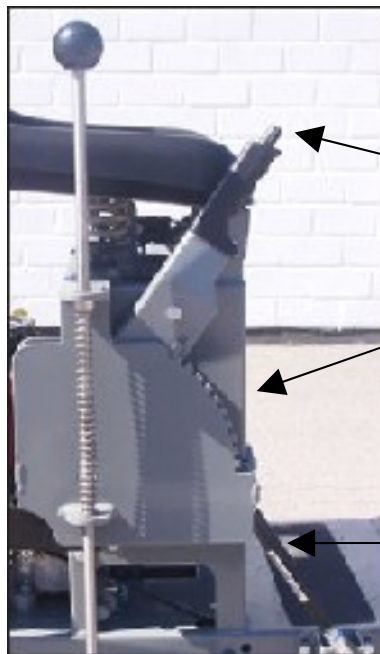
### Switching off the engine

As far as possible switch the engine off only by turning the key in the ignition lock: counter clockwise up to the stop.

**Then remove the key as a precaution or leave it in the "OFF" position.**

## Raising and lowering the tools

Ergonomically the tools can be actuated best from the driver's seat. They can even be adjusted during travel by means of the lever arranged laterally beside the driver's seat. The lever on the left seen in the direction of travel adjusts the working height of the rubber blade, the one on the right the rake with the smoother.



Push button

Ratchet  
-mechanism

Gas pressure  
spring

The heavy tools are supported by a gas pressure spring. It absorbs energy during lowering of the tool in use.

To release the lever from the latching mechanism actuate the push button with the thumb.

**Lowering of the tools:**

Move lever downwards.

**Raising the tools:**

Move lever upwards

The tools work with dead weight. The final position of the tools in the bottom latched position is not necessarily reached immediately on a hard riding surface, but only after it has been driven over several times. If that is not sufficient, additional weights are necessary which can be suspended from the rake.

## Rubber blades

The ends of the blades consist of resistant rubber, the outer ends of which form the widest part of the vehicle. As a result of the direct view of the rubber blades, with precise vehicle control parallel to the boards, accurate clearing of material is possible. In order to achieve this, and for safety reasons, the vehicle must be driven slowly during this work cycle.



## Troubleshooting

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Engine does not start	Shortage of fuel	Fill up tank
	Starter battery	
	Gear engaged	Set gear shift lever to "Neutral"
	Sparking plug connector not correctly plugged in	Check and plug in firmly
	Carburettor fouled	Go to a specialist garage
	Air filter fouled	
	No ignition spark	
	Engine "drowned"	Clean or replace spark plug
Engine does not start or dies when a gear is engaged	Seat contact switch or gear shift displaced or defective	Check switches (by specialist garage)
Engine power drops off	Air filter fouled	Check specialist garage
Lifting tool no longer functioning	Push-button mechanism defective	Go to a specialist garage
	Support bent	
	Gas pressure spring defective	
Steering hard	Steering rod bent	Go to a specialist garage
	Not enough air in tyres	Fill up with air (1 bar)
Travelling mechanism defective	V-belt defective	Go to a specialist garage

In the event of problems BJJ Kleinmaschinen GmbH customer service can also be called. The telephone number is: **+49 (0) 28 02 / 8072 866**

## Spare parts list BJJ Riding Arena Leveller Honda 13,0 HP

Spare Part	Amount	Spare Part	Amount
13 PS Honda	1	Type- & warning signs	Set
Gearbox	1	Scews & split pins	Set
Battery, 18 Ah, 12 V	1	Battery holding plate	1
Change relay	1	Non sleep covering	Set
Starter lock	1	Brake pads	2
Starter relay	1	Cable loom	1
Fuse 5 A	1	Gas spring 750 N	1
Fuse 100A	1	Chassis	1
V-Belt	1	Bumber	1
V-Belt pulley (Motor)	1	R/H wing	1
V-Belt pulley (Gearbox)	1	L/H wing	1
Tensioner Pulley	1	Cover plate	1
Clutch lever	1	Brake pedal with bearing	1
Clutch spring	1	Gear lever with holder	1
Front wheel (complete) 1 bar	1	Lever for throttle	1
R/H Rear wheel (complete) 1 bar	1	Steering rod cover plate	1
L/H Rear wheel (complete) 1 bar	1	Pusher with parallel guidance	1
Handle Bars	1	Axle rods for pusher	Set
Handle Bar Holders	1	Pusher lever	1
Steering Rod	1	Rubber plates for pusher	Set
Seat	1	Rake	1
Seat console	1	Straight prongs	9 Pieces
Seat contact switch	1	Curved prongs	9 Pieces
Seat spring with clamp	1	Spring prongs	9 Pieces
Gearbox Switch (neutral pos.)	1	smoother	1
Throttle cable	1	Plastic board for smoother	1
Gear change cable	1	7,5kg Supplementary weight	1
Brake cable	1	Lever for rake and smoother	1
Clutch push rods	1	Handle, knob & spring for lever	Set
Rotary pieces	Set	Pull rod for tools	1
Sleeves / bearings	Set	Hold down rod	Set
Steering rod bearing	1	Shockabsorber	Set
		Gas spring for Smoothing mat	1
		Smoothing mat	Set

In the case of queries and purchase orders, it is necessary to state the serial number and the type (see rating plate): **Phone: +49/ 2802 / 8072 866 • Fax: +49/ 2802 / 808 190**

## Technical Data

Working width	1,2 m
Dimensions (w x l x h)	1,2 x 2,25 x 1,28 m
Weight	280 kg
Starting options	Electric starter/ hand starter
Maximum power	9,0 kW
Speed of rotation	3000 1/min.
Tank volume	2,3 l
Battery	Closed, maintenance-free, 12 V, 18 Ah
Fuse	80 A/ 100 A, medium-fast
Gears	5 Forth, Neutral, Reverse
Maximum speed	Ref. page 6
Rear wheels	18" x 9,5" x 8"
Front wheel	18" x 9,5" x 8"
Service tyre pressure	1,0 bar, in the back right and left tire pressure has to be absolutely equal
Noise measurement acc. to EN 836	96 dB(A)
Vibration values according to EN 836	Steering wheel: 3,0 m/s, Seat: 5,0 m/s
Max. permitted gradient	10 % = 17,1 °

## Inspection points

- Engine according to Honda (oil change, sparking plug change, air filter,...)
- Checking of the Bowden cables, all screws, bearings and split pins
- State of exhaust
- Check prongs on the rake, to ensure firm fit, and for wear
- Brake, Functioning of the parking brake
- Spring path of brake and clutch
- Electrical safety circuit (seat contact switch, gear setting)
- Anti-slip flooring
- Tool functions with lifting devices
- Gear shift setting
- Condition of the blade rubbers
- Air pressure in tyres
- Steering, steering play
- Check V-belt and position of V-belt guide plate
- Battery check, Electric fuses
- Check "CHOKE" and functions on accelerator cable

## Terms of guarantee

We provide a guarantee for a period of two years in private used riding arenas and one year in professional used in riding schools from the date of delivery for freedom from defects corresponding to the respective state of the art and the purpose for which the machine is used.

The prerequisite for any claim under the guarantee is the correct and proper treatment of the machine and observance of the instructions for use. The purchaser shall be entitled to have the faults remedied (reworking or rectification of defects).

Any faults and defects arising shall be remedied by garages authorised by us in your area or by the manufacturer. All claims going beyond the guarantee shall be excluded. There shall be no entitlement to the supply of a replacement.

Damage arising from non-observance of the instructions for use, unauthorised changes to the structure or the fitting of parts from other companies, as well as maintenance work, do not come under the guarantee. Natural wear and tear shall be excluded from the scope of the guarantee.

Every service rendered under the guarantee shall be dependent upon the presentation of the invoice for the purchase of the BJJ Riding Arena Leveller.

Any possible damage in transit is not to be reported to us but to your responsible railway goods department or the forwarder, as otherwise these claims for damages may be forfeited.


## Declaration of conformity

**BJJ Kleinmaschinen Corp.  
Ulrichstrasse 107, D-46519 Alpen**



certifies that the BJJ Riding Arena Leveller is in conformity with the harmonised EC Directives 89/392/EEC, 89/336/EEC.

Alpen, October 1<sup>st</sup> 2004

  
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Dr.-Ing. Jürgen Repenning  
Managing Director

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Nassauische Sparkasse Wiesbaden (NASPA) · bank code 510 500 15 · Account No.: 100 231 875 · Managing director: Dr.-Ing. Jürgen Repenning · the company is registered at Rheinberg Registry Court under No. HRB 2611 · Court of jurisdiction: Rheinberg · Turnover tax ID-No.: DE 813251128 · Local tax office Moers · taxpayer's account No.: 119/5744/0254