



OPERATOR MANUAL

MODELS: RP850G and RP850D



REVERSIBLE PLATE

A 100% employee-owned American manufacturer

TABLE of CONTENTS

RP850G / RP850D

| | |
|--|----------------|
| FOREWORD | 4 |
| TECHNICAL DATA | 5 - 8 |
| Machine Specifications | 6 - 7 |
| Noise and Vibration Data | 8 |
| HEALTH & SAFETY | 9 - 15 |
| Safety Use | 10 |
| Safety Precautions | 11 - 15 |
| OPERATION | 17 - 24 |
| Description | 18 |
| Improper Use | 18 |
| Who Is Allowed To Operate The Machine? | 18 |
| Conversions And Modifications To The Machine | 18 |
| Safety Information In The Operating And Maintenance Instructions | 18 |
| Transporting The Machine | 19 |
| Starting The Machine | 19 |
| Prior to starting | 19 |
| Starting | 19 |
| Starting with battery jump leads | 19 |
| Starting in enclosed spaces, tunnels, mines, or deep ditches | 19 |
| Machine Control | 20 |
| Parking The Machine | 20 |
| Filling Fuel | 20 |
| Maintenance and Repairs | 20 - 21 |
| Handling Batteries | 21 |
| Testing | 21 |
| Equipment Overview | 21 |
| Operating Control At The Tow-Bar | 21 - 22 |
| Adjusting The Tow-Bar | 22 |
| Operating The Engine (Honda) | 22 |
| Starting the engine | 22 |
| Operating The Engine (Hatz) | 23 |
| Starting the engine | 23 |
| Switching off the engine | 23 |
| Electric start (Hatz only) | 23 |
| Switching off the engine | 23 - 24 |
| Operation | 24 |
| Loading And Transportation | 24 |
| MAINTENANCE | 25 - 28 |
| General Notes | 26 |
| Maintenance Schedule | 27 |
| Lubrication Schedule | 28 |
| Alternative Lube Oil Table | 28 |
| Maintenance Work (Honda Engine) | 29 |
| Filling up with fuel | 29 |
| Checking the engine oil level | 29 |
| Cleaning the air filter element | 29 |
| Maintenance Work (Hatz Engine) | 30 |
| Filling up with fuel | 30 |
| Checking the engine oil level | 30 |
| Cleaning the dry air filter | 30 - 31 |
| Cleaning | 31 |
| CALIFORNIA PROPOSITION 65 WARNING | 35 |

FOREWORD

These instructions include:

- Safety regulations
- Operating instructions
- Maintenance instructions

These instructions have been prepared for operation on the construction site and for the maintenance engineer.

These instructions are intended to simplify operation of the machine and to avoid malfunctions through improper operation.

Observing the maintenance instructions will increase the reliability and service life of the machine when used on the construction site and reduce repair costs and downtimes.

Always keep these instructions at the place of use of the machine.

Only operate the machine as instructed and follow these instructions.

Observe the safety regulations as well as the guidelines of the civil engineering trade association. Observe the safety rules for the operation of road rollers and compactors and the pertinent regulations for the prevention of accidents.

Stone Construction Equipment, Inc. is not liable for the function of the machine when used in an improper manner and for other than the intended purpose.

Operating errors, improper maintenance and the use of incorrect operating materials are not covered by the warranty.

The above information does not extend the warranty and liability conditions of business of Stone Construction Equipment, Inc.

Warranty Information

Please enter the following data. This will help expedite any service or warranty work.

1. Machine Type: _____

Machine S/N: _____

2. Engine Type: _____

Engine S/N: _____

3. VIN: _____

4. Purchase Date: _____

5. Dealer/Distributor Information:

Name: _____

Address: _____

Phone #: _____

Fax #: _____

Location of above information:

1. Information on S/N tag.
2. Information on engine tag.
3. Information on S/N tag - if applicable.
4. Date you purchased machine.
5. Dealer machine was purchased from.

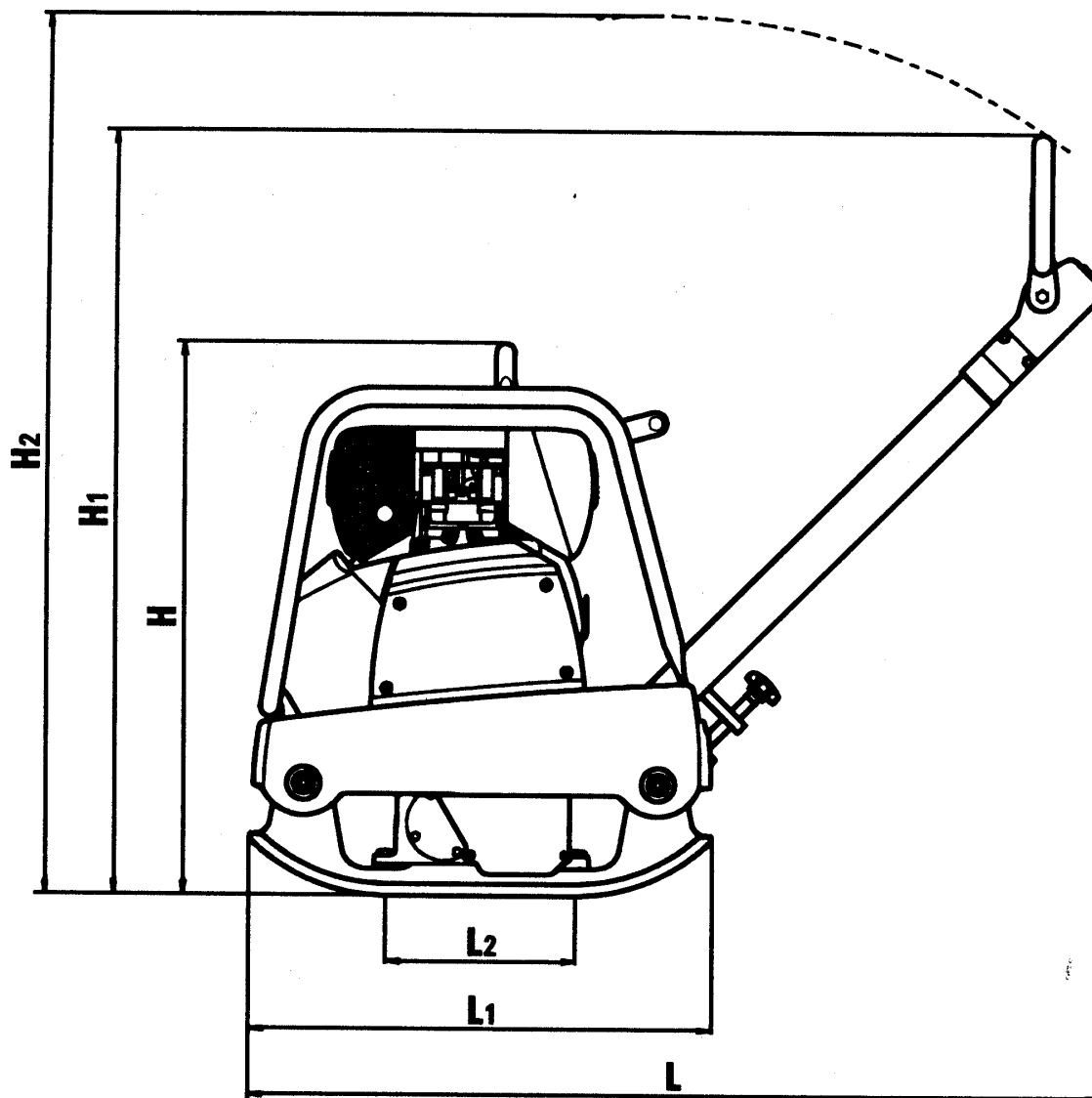
Stone Construction Equipment, Inc.
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TECHNICAL DATA

TECHNICAL DATA

RP850G / RP850D

MACHINE SPECIFICATIONS



TECHNICAL DATA

RP850G / RP850D

MACHINE SPECIFICATIONS

| RP850G / RP850D SPECIFICATIONS | | |
|---------------------------------------|---|---|
| MODEL | RP850G | RP850D |
| Dimensions | | |
| Length L | 53.7 in (1365 mm) | 53.7 in (1365 mm) |
| Length L1 | 33.9 in (860 mm) | 33.9 in (860 mm) |
| Length L2 | 16.1 in (410 mm) | 16.1 in (410 mm) |
| Height H | 29.5 in (750 mm) | 30.7 in (780 mm) |
| Height H1 | 40.2 in (1,020 mm) | 40.2 in (1,020 mm) |
| Height H2 | 46.5 in (1,180 mm) | 46.5 in (1,180 mm) |
| Width Basic Unit I | 17.7 in (450 mm) | 17.7 in (450 mm) |
| Width Basic Unit II | 23.6 in (600 mm) | 23.6 in (600 mm) |
| Weights | | |
| Basic Unit I | 529.1 lbs (240 kg) | 584.2 lbs (265 kg) |
| Basic Unit II | 562.2 lbs (255 kg) | 617.3 lbs (280 kg) |
| Drive | | |
| Motor Type | Honda GX 270 Gasoline | Hatz 1 B 30 Diesel |
| Type of Construction | 1 Cylinder, 4-Stroke | 1 Cylinder, 4-Stroke |
| Power | 9.0 HP (6.6 kW) | 6.0 HP (4.6 kW) |
| by speed | 3,100 RPM (51.6 Hz) | 3,000 RPM (50 Hz) |
| Cooling System | Air | Air |
| Fuel Consumption | .5 gal/hr (2.1 liters/hr) | .3 gal/hr (1.3 liters/hr) |
| Maximum Sloping Position | 20° | 30° |
| Maximum Gradeability | 35% | 35% |
| Drive | Via Centrifugal Clutch and V-Belt | Via Centrifugal Clutch and V-Belt |
| Shift (forward/reverse) | Hydraulic | Hydraulic |
| Operating Speed | | |
| Basic Unit I | 85 ft/min (0 - 26 m/min) | 85 ft/min (0 - 26 m/min) |
| Basic Unit II | 85 ft/min 0 - 26 m/min | 85 ft/min 0 - 26 m/min |
| Vibration | | |
| Centrifugal Force | 8,542.7 lbs (38 kN) | 8,542.7 lbs (38 kN) |
| Vibration Frequency | 3,900 VPM (65 Hz) | 3,900 VPM (65 Hz) |
| Maximum Performance | | |
| Basic Unit I | 7,535 ft ² /hr (700 m ² /hr) | 7,535 ft ² /hr (700 m ² /hr) |
| Basic Unit II | 10,075 ft ² /hr (936 m ² /hr) | 10,075 ft ² /hr (936 m ² /hr) |
| Filing Quantities | | |
| Fuel Tank | 1.6 gal (6.0 liters) | 1.3 gal (5.0 liters) |
| Optional Extras | | |
| Vulkollan Plate | X | X |
| Protective Cover | X | X |
| Electric Starter | -- | X |
| Mounting Brackets 75 | X | X |

TECHNICAL DATA

Noise and Vibration Data

NOISE AND VIBRATION DATA

The following listed noise and vibration data according to the EC machine directive in the version (91/368/EEC) was determined at the rated speed of the drive motor with vibration with the machine placed on a resilient base.

Values can deviate in normal use depending on the conditions prevailing at the place use.

NOISE DATA

The noise emission specified in appendix 1. subclause 1.7.4.f of the EC machine directive for

| | The sound pressure level at the operator workplace is L_{PA} | The sound power level L_{WA} |
|-------|--|--------------------------------|
| Honda | 103.7 dB(A) | 114.8 dB(A) |
| Hatz | 104.7 dB(A) | 114.8 dB(A) |

These noise levels were measured according to ISO 3744 for the sound power level (L_{WA}) and ISO 6081 for the sound pressure level (L_{PA}) at the operator workplace.



SINCE THE PERMISSIBLE NOISE RATING LEVEL OF 89 DB (A) CAN BE EXCEEDED WITH THIS MACHINE, THE OPERATOR MUST WEAR SUITABLE HEARING PROTECTION.

VIBRATION DATA

Hand-arm vibration values according to appendix 1, subclause 3.6.3.a of the EC machine directive:

The weighted effective value of acceleration, determined according to ISO 8662, part 1, is about 4.8 m/s² (Honda) and 3.9 m/s² (Hatz).

HEALTH & SAFETY

SAFETY USE

These machines are designed to carry out the function of compacting material of the non-cohesive, bituminous and granular varieties.

If used correctly they will provide an effective and safe means of compaction and meet the appropriate performance standards.

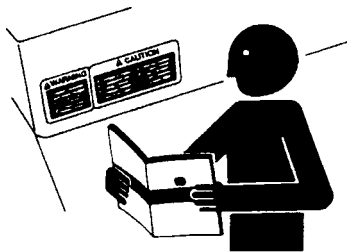
It is essential that the driver/operator of the machine is adequately trained in its safe operation, be authorized to drive it, and have sufficient knowledge of the machine to ensure that it is in full working order, before being put to use.

SAFETY PRECAUTIONS

Before using this equipment, study this entire manual to become familiar with its operation. Do not allow untrained or unauthorized personnel, especially children, to operate this equipment. Use only factory authorized parts for service.

When warning decals are destroyed or missing, contact the Manufacturer immediately at 1-800-888-9926 for replacement. For the safety of yourself and others, it is imperative that the following rules are observed. Failure to do so may result in serious injury or death.

FOLLOW SAFETY INSTRUCTIONS



- Carefully read all safety messages and decals in this manual and on your machine safety signs. Keep decals in good condition. Replace missing or damaged decals. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs and decals are available through your dealer.
- Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.
- Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.
- If you do not understand any part of this manual and need assistance, contact your dealer.

UNDERSTAND SIGNAL WORDS

▲ DANGER

▲ WARNING

▲ CAUTION

- A signal word – DANGER, WARNING, or CAUTION – is used with the safety-alert symbol. DANGER identifies the most serious hazards.
- DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



- This notation appears before warnings in the text. It means that the step which follows must be carried out to avoid the possibility of personal injury or death. These warnings are intended to help the technician avoid any potential hazards encountered in the normal service procedures. We strongly recommend that the reader takes advantage of the information provided to prevent personal injury or injury to others.

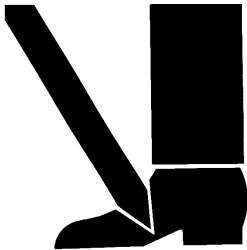
HEALTH & SAFETY

Safety Precautions

USE COMMON SENSE WHEN HANDLING FUELS



- Transport and handle fuel only when contained in approved safety container.
- Do not smoke when refueling or during any other fuel handling operation.
- Do not refuel while the engine is running or while it is still hot.
- If fuel is spilled during refueling, wipe it off from the engine immediately and discard the rag in a safe place.
- Do not operate the equipment if fuel or oil leaks exist - repair immediately.
- Never operate this equipment in an explosive atmosphere.



- Keep feet clear of all plates.
- Keep work area free of bystanders.
- For foot protection, wear steel toe shoes or toe pads.



- Ear protection required when operating this equipment.



HOT SURFACES

- Muffler, engine, and engine shroud may be hot.
- Allow all components in the engine compartment to cool before performing any service work.



- Never operate unit in a poorly ventilated or enclosed area.
- Avoid prolonged breathing of exhaust gases.
- Engine exhaust fumes can cause sickness or death.

HEALTH & SAFETY

Safety Precautions



- Qualified personnel only. No untrained operators. Serious injury may occur.
- Users must be trained to operate this machine. Read the Operator's Manual and Engine Owner's Manual. Learn to operate this roller safely.
- Do not operate across the sides of hills, machine may tip over.
- Do not operate at the edge of mats or roads, machine may tip over.
- Do not park the machine on hills.



- Hydraulic system produces high pressures--incorrect hose replacement can cause serious personal injury. When performing service, refer to Operator's Manual for hose identification and connections.



- Caution: Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury.
- Hydraulic fluid escaping under pressure from a very small hole can be almost invisible. Use a piece of cardboard or wood to search for possible leaks.
- Never use your hands to detect pressure leaks.
- Hydraulic tank temperature can reach 180° F maximum.

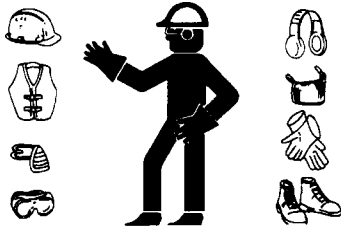


- Pressurized release of fluids from hydraulic system can cause serious burns.

HEALTH & SAFETY

Safety Precautions

WEAR PROTECTIVE CLOTHING



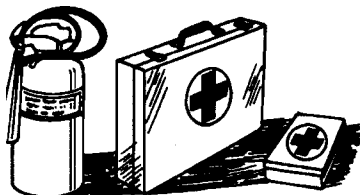
- Wear close fitting clothing and safety equipment appropriate to the job.
- Prolonged exposure to loud noise can cause impairment or loss of hearing.
- Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.
- Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

PRACTICE SAFE MAINTENANCE



- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.
- Securely support any machine elements that must be raised for service work.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.
- Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

PREPARE FOR EMERGENCIES



- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

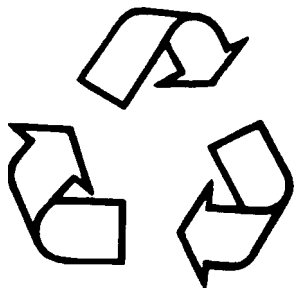


- Starting fluid (ether) is highly flammable, do not use or an explosion or fire may result.



PREVENT BYPASS STARTING

- Avoid possible injury or death from engine runaway.
- Do not start engine by shorting across starter terminal. Engine will start with PTO engaged if normal circuitry is bypassed.
- Start engine only from operator's station with PTO disengaged or in neutral.



DISPOSE OF WASTE PROPERLY

- Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.
- Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.
- Do not pour waste onto the ground, down a drain, or into any water source.
- Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.
- Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center.

OPERATION

OPERATION

RP850G / RP850D

This STONE machine has been built according to the state-of-the-art in compliance with the pertinent rules. Nevertheless, these machines can still constitute a hazard to persons and property if:

- not used for the intended purpose,
- not operated by suitable qualified and instructed personnel,
- modified or converted in an improper manner,
- the pertinent safety regulations are not observed.

For this reason, any person entrusted with the operation, maintenance or repair of the machine is obligated to read and follow the operating instructions and particularly to observe the safety regulations. If necessary, this must be confirmed by the signature of the company using the machine.

Furthermore, the following must be made known and observed:

- pertinent regulations for the prevention of accidents,
- generally recognized safety rules,
- country-specific regulations

DESCRIPTION

The RP850G/RP850D is a reversible vibrating plate operating on the basis of the twin-shaft vibration system principle.

The engine drives the exciter on the baseplate via a centrifugal clutch and a v-belt. The exciter produces the vibration required for compaction as a result of the built-in imbalance.

The machine is guided at the tow-bar grip. It is operated with the operating controls on the tow-bar.

The RP850G/RP850D is suitable for all compaction work in the fields of civil engineering and road construction.

All ground materials such as sand, gravel, sludge, crushed stone, asphalt and composite sett paving can be compacted.

IMPROPER USE

The machine can constitute hazards if not used by instructed personnel or for other than the intended purpose. Machine is not to be used on hard concrete, hardened bituminous surfacing or frozen soil.

WHO IS ALLOWED TO OPERATE THE MACHINE?

Only suitably qualified, instructed and authorized persons over 18 years of age may operate the machine. Maintenance and repairs, particularly on the hydraulic system, require special knowledge and must be undertaken only by qualified personnel.

CONVERSIONS AND MODIFICATIONS TO THE MACHINE

Unauthorized modifications and conversions of the machine are not permitted for safety reasons.

Spare parts and special equipment not delivered by us are also not approved by us. The installation and/or the use of such parts can also have a detrimental effect on the operating safety.

The manufacturer disclaims all liability for any damage resulting from the use of non-original parts or special equipment.

SAFETY INFORMATION IN THE OPERATING AND MAINTENANCE INSTRUCTIONS

Important:

Refers to special information on how to use the machine most efficiently.

Attention:

Refers to special information and/or orders and prohibitions directed towards preventing damage.

Danger:

Refers to orders and prohibitions designed to prevent injury or extensive damage.

OPERATION

RP850G / RP850D

TRANSPORTING THE MACHINE

Only load and transport the machine as specified in the operating instructions.

Only use suitable means of transport and lifting gear with sufficient bearing capacity!

Attach suitable slinging means to the points of attachment provided.

Only use sturdy loading ramps with sufficient bearing capacity. The ramp inclination must be flatter than the gradient climbing ability of the machine.

Secure the machine to prevent it from tilting or slipping.

It is highly dangerous to walk or stand under suspended loads.

Secure the machine on transport vehicles to prevent it from rolling, slipping and tilting.

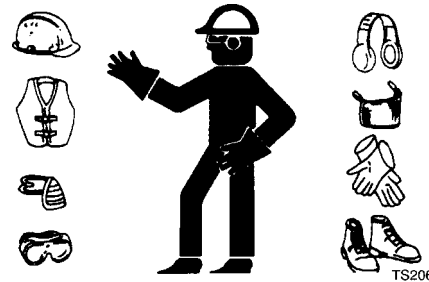
STARTING THE MACHINE

Prior to starting

- Park the machine on level ground.
- Check the engine oil level.
- Check the fuel level.
- Top up missing lubricants according to the lubrication specifications chart.
- Check screw conditions for tightness.
- Check condition of engine and machine.
- Observe the safety regulations.
- Observe the operating and maintenance instructions.
- Before putting the machine into service, please read the operating manual for the engine.

Familiarize yourself with the operating and control elements and the mode of operation of the machine and the working environment. This includes, e.g. obstacles in the working area, bearing capacity of the ground and the necessary safety provisions.

Use personal protective equipment (safety footwear, hearing protection, etc.)



Check to ensure that all safety devices are firmly in place.

Do not start the machine if instruments or control devices are faulty.

Starting

For machines with hand start, only use the safety cranks tested by the manufacturer and precisely follow the operating instructions of the engine manufacturer.

To crank-start diesel engines, note the correct position to the engine and the correct hand position on the crank.

The hand crank must be turned with maximum force until the engine starts, otherwise the crank can rebound.

precisely follow the starting and stopping procedures specified in the operating instructions and observe indicator lights.

Only start and operate machine with an electric starter from the instrument panel.

Starting and operation of the machine in potentially explosive atmospheres is forbidden!

Starting with battery jump leads

Connect positive to positive and negative to negative (earthing lead). Always connect the earthing lead last and disconnect first! Incorrect connection will cause serious damage to the electrical system.

OPERATION

RP850G / RP850D

Starting in enclosed spaces, tunnels, mines or deep ditches

Engine exhaust fumes are highly dangerous!

For this reason, when operating the machine in enclosed spaces, tunnels, mines or deep ditches, it is important to ensure that there is sufficient air to breathe (see UVV "Construction Work", VBG 37, paragraphs 40 and 41).

MACHINE CONTROL

Operating devices that adjust themselves automatically when released in normal use must be locked.

Check protective devices and brakes for proper functioning prior to operation.

When reversing, particularly on the edges and banks of ditches, as well as in front of obstacles, the machine operator can fall or be crushed.

Always keep a safe distance away from the edges and banks of ditches and refrain from any actions that could cause the machine to topple over.

Always control the machine so that hand injuries through hard objects are avoided.

Always ascend slopes carefully in a direct path.

Reverse up steep slopes to prevent the machine from toppling over onto the machine operator.

If faults on the safety devices or other faults detrimental to the safe operation of the machine are noticed, operation of the machine must be stopped immediately and the faults remedied.

When undertaking compaction work in the vicinity of buildings or above pipelines and similar, check the effect of the vibrations on the buildings and pipes and stop compaction work if necessary.

PARKING THE MACHINE

Park the machine on a firm, level surface.

Shut down the drive and secure it to prevent accidental movement and unauthorized use. If available, close the fuel valve. Do not place or store equipment with integrated moving gear on the chassis. The moving gear is intended only for transportation purposes.

FILLING FUEL

Only fill fuel with the engine shut down. No open fire, do not smoke. Do not spill any fuel, collect discharging fuel in a suitable container and prevent fuel from seeping into the soil. Ensure that the filler cap is tight. Leaky fuel tanks constitute an explosion hazard and must therefore be replaced immediately.

MAINTENANCE AND REPAIRS

Observe the maintenance, inspection and adjustments and intervals specified in the operating instructions, as well as the information for part replacement.

Maintenance work must be undertaken only by qualified and authorized persons.

Maintenance and repairs must only be undertaken with the drive stationary.

Only carry out maintenance and repairs when the machine is parked on a firm and even surface and is secured to prevent it from rolling.

When changing larger assemblies and individual components, only use suitable and perfectly functioning hoisting and lifting gear with suitable bearing capacity. Attach and secure parts to lifting gear carefully!

Spare parts must comply with the technical requirements of the manufacturer. Therefore only use original spare parts.

Before working on hydraulic lines, these must previously be rendered pressureless. Hydraulic oil discharging under pressure can cause serious injuries.

Work on hydraulic devices must be undertaken only by persons with a special knowledge of hydraulics and the necessary experience.

OPERATION

RP850G / RP850D

DO NOT adjust pressure relief valves.

Drain hydraulic oil at operating temperature.
CAUTION - risk of scalding!

Collect discharging hydraulic oil and dispose of the same in an environmentally-friendly manner.

DO NOT start the engine with hydraulic oil drained!

After completing all work (with the system still pressureless), inspect all connections and bolted connections for leaks.

Inspect all hoses and bolted connections for leaks at regular intervals (depending on time used), even when no safety-related faults are visible.

Before working on the electrical system of the machine, disconnect the battery and insulate by covering or remove.

Inspect the electrical equipment of the machine at regular intervals. Faults such as loose connections, worn or scorched cables must be remedied immediately.

HANDLING BATTERIES

Transport filled batteries upright to prevent acid spillage.

During transport, secure the battery to prevent it from tilting, short-circuit, slipping and damage.

Keep away from sparks, naked flames and other sources of ignition.

DO NOT place any tools on the battery.

Avoid contact of acid with skin and clothing. In case of contact, wash off acid immediately with clean water and seek medical advice.

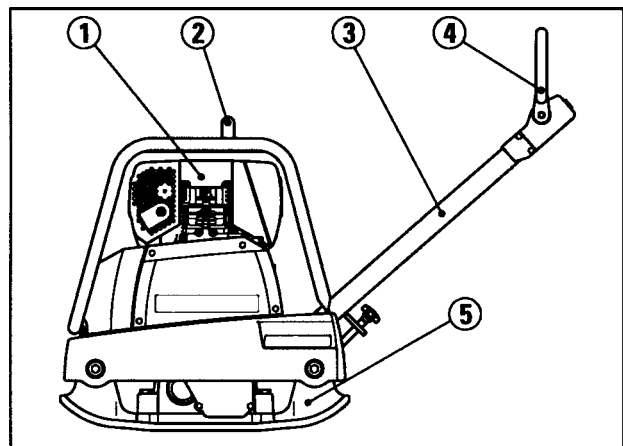
Dispose of unused batteries in a proper manner.

Properly refit and inspect all protective devices after maintenance and repairs.

TESTING

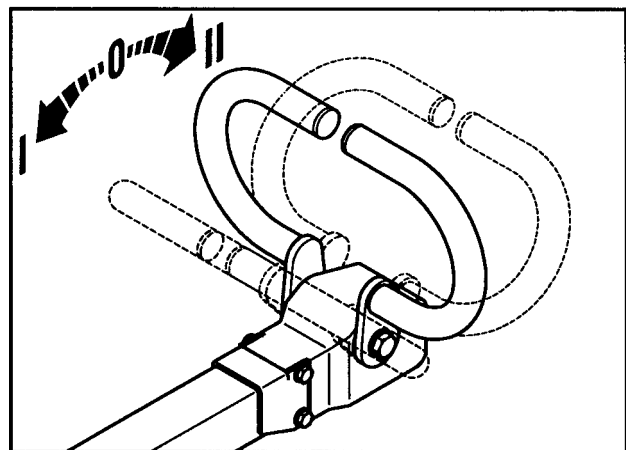
Road rollers, trench rollers and vibrating plates must be tested for safety by an expert depending on the particular application and operating conditions as required, however at least once a year.

EQUIPMENT OVERVIEW



1. Engine
2. Central point suspension
3. Tow-bar
4. Operating control/tow-bar
5. Base plate with exciter

OPERATING CONTROL AT THE TOW-BAR



- I. Forward
- II. Reverse

OPERATION

RP850G / RP850D

The control lever serves for adjustment of the unbalances in the exciter and in turn for continuous regulation.

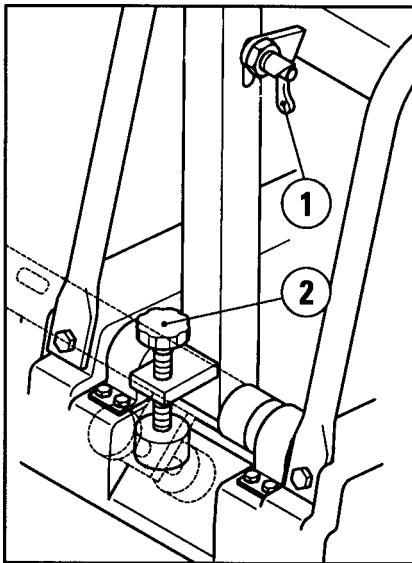
- Forward (I) / point compacting (0) / reverse (II)
- the speed of the machine

Important: The control lever remains automatically in position only when set to the maximum forward travel setting (I). In any other position, the control lever moves in the direction of maximum forward travel when released. If the control lever is operated too quickly several times, the shift lever will block in reverse travel. In this case:

- Release lever in forward travel position up to maximum forward travel position.
- Blocking is cleared within a few seconds and perfect shifting is possible.

The control lever can be operated only with the engine running. The lever blocks if operated when the machine is stationary. Blocking is immediately cleared when the engine is restarted.

ADJUSTING THE TOW-BAR

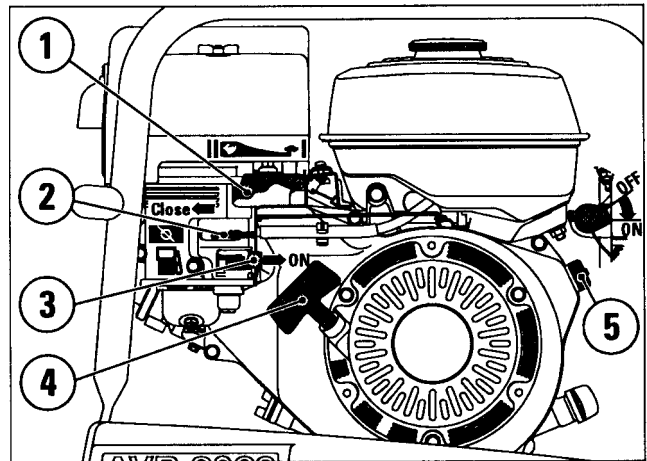


By turning adjustment screw (2), the tow-bar can be set to any position so as to obtain the best working height on the tow-bar grip.

In case of loading and transport, the tow-bar has to be locked in an upright position by turning up the locking bolt.

When loading and transporting, the tow-bar must be located vertical by moving the latch (1).

OPERATING THE ENGINE (Honda)



Starting the engine

Important: To prevent engine damage through oil deficiency, the engine is provided with a low oil warning system. If the oil level is too low, the engine switches off automatically (the engine switch remains in the ON position).

1. Move fuel tap (3) to "ON".
2. Move choke lever (2) to "CLOSE".
3. Adjust engine speed control lever (1) to full load.
4. Move engine switch (5) to "ON".
5. Pull starter handle (4) slightly until a resistance is felt, then pull out sharply.
6. Allow engine to warm up for 1 to 2 minutes.
7. As the engine warms up, gradually move the choke lever to the "OPEN" position.

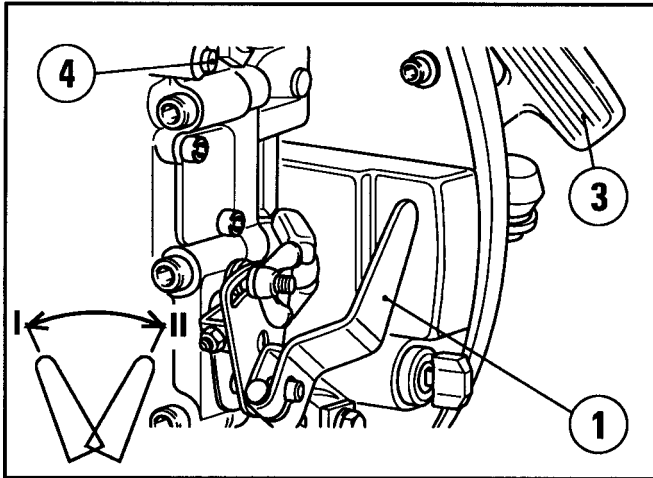
Attention:

- DO NOT allow starter handle to rebound against the engine. Guide starter cable back by hand to the rest position.
- DO NOT operate choke lever if engine is warm or at high outside temperature.

OPERATION

RP850G / RP850D

OPERATING THE ENGINE (Hatz)



Starting the engine

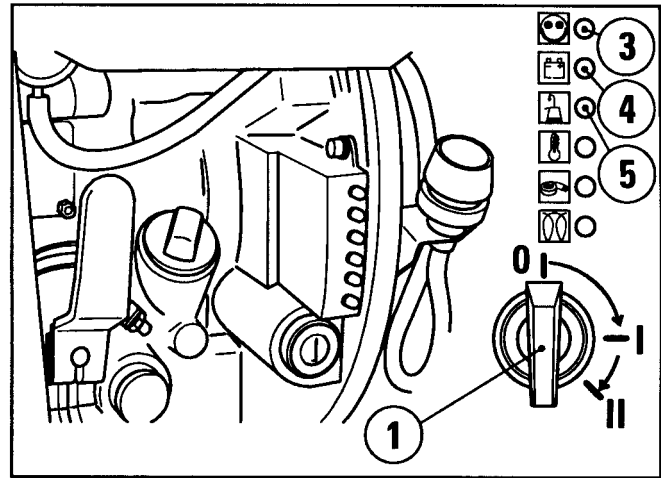
1. Adjust engine speed control lever (1) to full load "II".
2. Slowly pull out handle (3) with rope, until detectable resistance can be felt.
3. Allow the rope to run back in to enable you to utilize the whole length of rope for the starting procedure.
4. Take hold of the handle (3) with both hands.
5. Pull the starting rope with increasing speed until the motor starts up.
6. Allow the engine to warm up for 1 to 2 minutes when idling.

Important: If the motor does not ignite after several unsuccessful attempts at starting, move the speed control lever back into the stop position and pull the starting rope through slowly, 5 times. Then repeat the starting procedure.

Switching off the engine

1. Adjust engine speed control lever to idle position (I).
2. Press motor stop button (4) until the motor stops running.
3. Release the stop button (stop button must return to its initial position).

Electric start (Hatz only)



1. Adjust engine speed control lever to full load.
2. Insert the ignition key (1) and turn to "I", charging indicator lamp (4) and oil pressure lamp (5) must light.
3. Turn ignition key "II". As soon as the engine starts, release the ignition key.

Attention:

- The ignition key must spring back to position "II" automatically and must remain in this position during operation.
- The charging and oil pressure indicator lamps must extinguish directly after each start.
- Before each new start, turn the ignition key back to "0".
- Indicator lamp (3) lights to show that the engine is operating.

Switching off the engine

1. Adjust engine speed control lever to idle position (I).
2. Press motor stop button (4) until the motor stops running.
3. Release the stop button (stop button must return to its initial position).
4. Charging indicator lamp and oil pressure indicator lamp light.
5. Turn ignition key to "0" and remove.

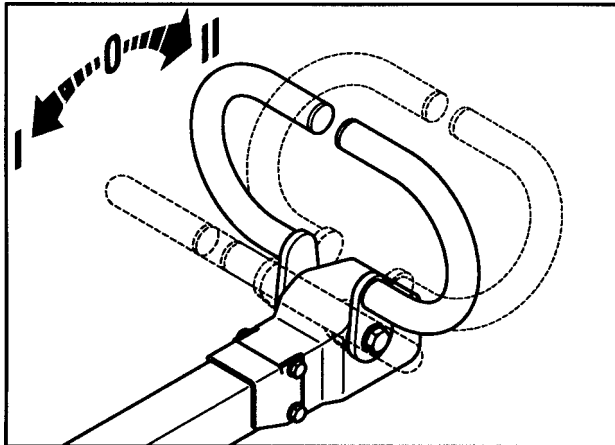
OPERATION

RP850G / RP850D

Danger:

At the end of work or interruptions, take measures to prevent unauthorized access to the ignition key.

OPERATION



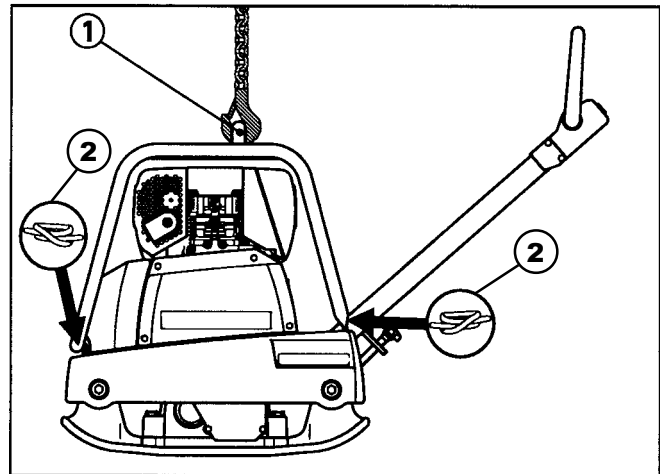
1. Allow engine to warm up for 1 to 2 minutes when idling.
2. Adjust the engine speed control lever to full load position.

Attention: The engine speed should always be well below or well above the engaging speed of the centrifugal clutch * since, otherwise, the clutch linings will wear very quickly or could even be destroyed!

* ca. 2000 1/min.

- Adjust the direction of travel and speed at the control lever.
- Guide and steer the machine at the control arm.

LOADING AND TRANSPORTATION



Danger:

- Only use sufficiently strong and secure loading ramps when loading.
- Secure the machine against rolling or slipping off and against tipping over.
- Ensure that persons are not put at risk.
- ALWAYS use the fastening points provided when loading, lashing or lifting the machine.
- NEVER stand or walk under suspended loads. This is extremely dangerous!

After being loaded onto the means of transportation, the machine should be:

- Lashed in place (2),
- Lock the tow-bar.

Use the center-of-gravity suspension point (1) in order to lift the machine.

MAINTENANCE

MAINTENANCE

RP850G / RP850D

GENERAL NOTES

Careful maintenance:

- ♦ increased service life
 - ♦ increased function
 - ♦ reduced downtimes
 - ♦ increased reliability
 - ♦ reduced repair costs
- Observe the safety regulations!
 - Maintenance work should only be carried out when the engine is shut off.
 - The engine and machine should be cleaned thoroughly before carrying out maintenance work.
 - Park the machine on a flat surface and secure it.
 - Ensure that operating materials and replaced parts are disposed of safely and in an environmentally-friendly way.
 - Before commencing work on any electrical equipment, disconnect the battery and cover it with insulating materials.
 - DO NOT confuse “PLUS” and “MINUS” poles on the battery.
 - It is essential that short-circuits be prevented in cables carrying current.
 - Burnt out light bulbs in indicator lamps should be replaced immediately.
 - When cleaning the machine with a high-pressure water jet, do not spray the electrical components directly.
 - After washing the components, blow-dry them with compressed air in order to prevent surface leakage current and corrosion.

MAINTENANCE

RP850G / RP850D

MAINTENANCE SCHEDULE (Hatz = ● / Honda = ◆)

| Works | Intervals | Daily | 20 Hours | 50 Hours | 100 Hours | 250 Hours | 500 Hours | As Required |
|---|-----------|-------|--------------------|----------|-----------|-----------|-----------|-------------|
| Clean machine | | ●◆ | | | | | | |
| Check engine oil level ¹⁾ | | ●◆ | | | | | | |
| Change engine oil ¹⁾ | | | ●◆ (first time) | | ◆ | ● | | |
| Clean oil filter ¹⁾ | | | ● (first time) | | | ● | | |
| Check air filter ¹⁾ | | ●◆ | | | | | | |
| Change air filter ¹⁾ (● XA 504 26 000) (◆ X 17210 ZE2 822) | | | | | | | ● | ◆ |
| Change fuel filter ¹⁾ (● XA 504 40 500) | | | | | | | ● | |
| Check exciter oil level | | | | ●◆ | | | | |
| Change exciter oil (or annually) | | | | | | ●◆ | | |
| Check hydraulic oil level | | | | | | | | ●◆ |
| Check v-belt | | | | | ●◆ | | | |
| Retighten screwed connections | | | | | ●◆ | | | |
| Check rubber buffers | | | | | ●◆ | | | |
| Check, adjust the valve clearance ¹⁾ | | | | | | ●◆ | | |

¹⁾ Observe the engine manual

Lubrication Schedule

| Lubrication Point | Quantity | Change intervals (operating hours) | Lubrication | Order No. |
|-------------------|------------|------------------------------------|--------------------------------------|------------|
| Honda | 1.1 liters | 100 * | Engine Oil API SG-CE SAE 10W40 | 806 01 100 |
| Hatz | 1.1 liters | 250 * | Engine Oil API SG-CE SAE 10W40 | 806 01 100 |
| Exciter | 1.1 liters | 500 ** or annually | Engine Oil API SG-CE SAE 10W40 | 806 01 100 |
| Hydraulic | .65 liters | not necessary | Spec. Hydro-Oil ISO-VG32 | 806 01 030 |

* first time after 20 op. hours

** first time after 100 op. hours

Alternative Lube Oil Table

| | Engine Oil API SG-CE SAE 10W40 | Gear Oil in Accordance With JDM J 20 A | Spec. Hydro-Oil ISO- VG32 | ATF Oil |
|------------------|--------------------------------------|--|---------------------------------------|----------------|
| DEUTZ OEL | HD-C 10W40 TLL 10W40 * | GO-SP | Spec. Hydro-OI W32, H-EP 32 BA ** | Dexron II D |
| ARAL | Multi Turboral | Fluid HGS | ----- | Dexron II D |
| BP | Vanellus Multigr., Vanellus FE * | Hydromatic TF-SD | Energol EHPM 32 | Dexron II D |
| ESSO | XD 3+LDX, CDX | Torque Fluid 56 | Univis N 32 | Dexron II D |
| FINA | Kappa FE; Kappa Turbo DI | Transfluid AS | Hydran TSX 32; Biohydran TMP 32 ** | Finamatic II D |
| SHELL | Super 3 | Donax TD | Tellus W 32, Naturelle HFE 32 ** | Dexron II D |
| TOTAL | Rubia XT, Rubia FE * | ----- | ----- | Dexron II D |

* semi-synthetic light-duty oils

** biological multi-purpose hydraulic oils

MAINTENANCE

RP850G / RP850D

MAINTENANCE WORK (Honda Engine)

Attention: Only the maintenance work that has to be performed daily is included in this operating manual. Please refer to the engine operating manual and to the maintenance instructions and intervals listed therein.

Filling up with fuel

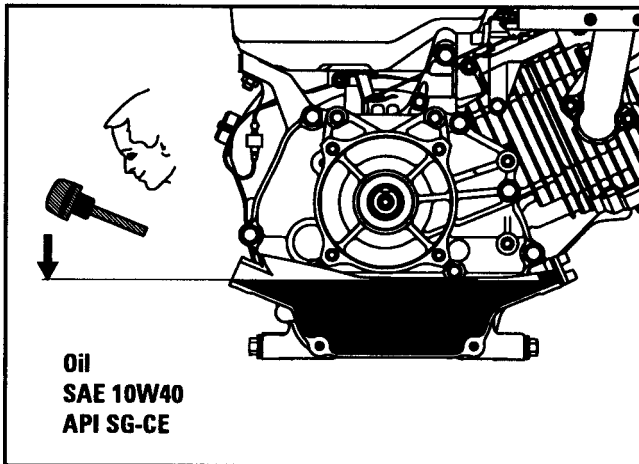
Danger:

- Fill fuel tank only when engine is switched OFF.
- No naked flames.
- No smoking.
- NEVER fill fuel tank in enclosed areas.

To check fuel level:

1. Clean the area around the fuel filling socket.
2. Open the cap.
3. Check the fuel level visually.
4. If necessary, fill up with fuel.
(unleaded automotive gasoline)

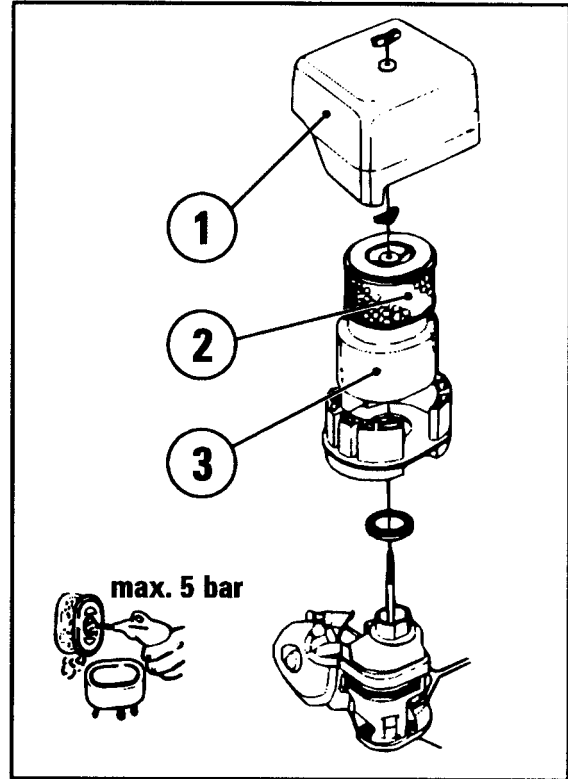
Checking the engine oil level



1. Park the machine horizontally.
2. Clean the area around the oil filler cap.
3. Open the oil filler cap.
4. Check the oil level.
5. Refill up to the edge of the oil filler cap if necessary.
6. Check the seal on the dipstick and replace if necessary.
7. Close the oil filler cap.

8. Allow the engine to run for approximately 1 minute and check oil level again with engine switched off.

Cleaning the air filter element



Attention:

- NEVER run the engine without the air cleaner. Rapid engine wear will result.
- DO NOT allow dust to enter the carburetor.

1. Remove the filter cover (1).
2. Take out the filter element (2 & 3).
3. Check the filter element, replace if damaged.

For slight clogging:

1. Clean the filter element (2) by tapping lightly.
2. Blow it from inside to outside with dry, compressed air.

For heavy clogging:

1. Wash the filter element (3) in a non-flammable cleaning solution and allow to dry thoroughly.

MAINTENANCE

RP850G / RP850D

Danger:

- NEVER use fuel or cleaning solutions with a low flash point for cleaning the filter element!
 - DO NOT smoke in the working area, avoid open fire and sparks - fire and explosion hazard!
 - Hazard of eye injuries - use safety goggles!
1. Soak the filter element (3) with clean motor oil, squeeze out excess oil.
 2. Replace the filter element (2 & 3).
 3. Fit the cover (1) and fasten.

MAINTENANCE WORK (Hatz Engine)

Attention: Only the maintenance work that has to be performed daily is included in this operating manual. Please refer to the engine operating manual and to the maintenance instructions and intervals listed therein.

Filling up with fuel

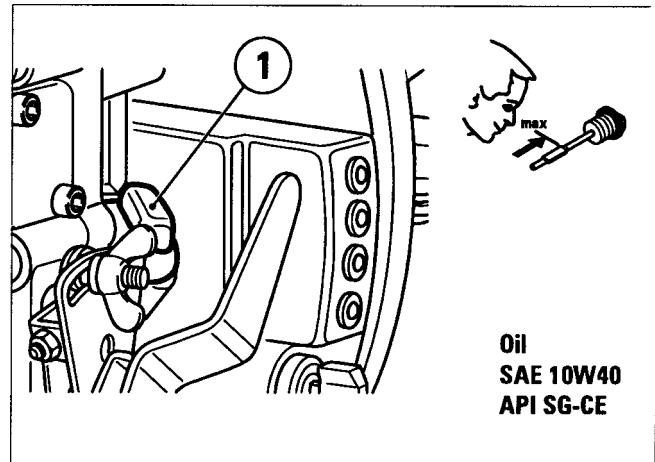
Danger:

- Fill fuel tank only when engine is switched OFF.
- No naked flames.
- No smoking.
- NEVER fill fuel tank in enclosed areas.

To check fuel level:

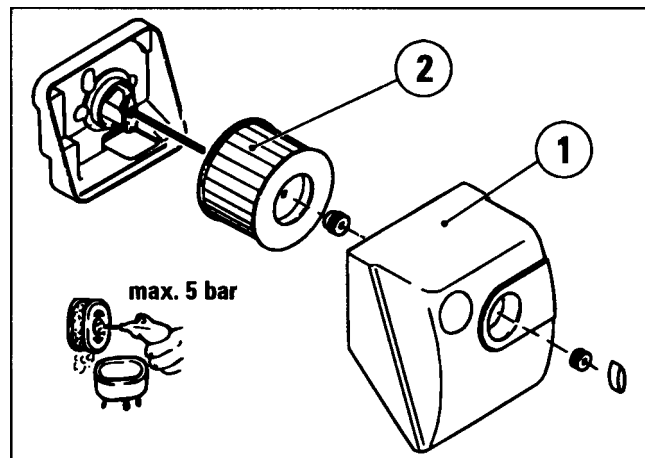
1. Clean the area around the fuel filling socket.
2. Open the cap.
3. Check the fuel level visually.
4. If necessary, fill up with fuel (diesel).

Checking the engine oil level



1. Position the vibration plate so that the motor is in a vertically upright position.
2. Clean around the dipstick area.
3. Pull out dipstick (1) and wipe clean.
4. Push dipstick back in with twisting movement by hand then pull out again with similar twisting movement.
5. Read off the oil level on the dipstick and, if necessary, top to the “maximum” mark.

Cleaning the dry air filter



The maintenance intervals for the filter cartridge depend on the amount of dust. A blocked filter is apparent from a lack of performance and/or black smoke.

1. Unscrew lid of air filter (1).
2. Remove filter cartridge (2).

MAINTENANCE

RP850G / RP850D

3. Check the filter element for damage to the filter paper and check sealing surfaces.
Change damaged filter elements.
4. Clean filter housing and lid.

Attention:

- **NEVER run the engine without the air cleaner - rapid engine wear will result**

- **Make sure that no dirt or foreign bodies get into the suction opening to the motor.**

Replace filter element or clean appropriately.

If there is any dry fouling: Blow out the filter cartridge with dry air under pressure (max. 5 bar) from the inside outwards, until no more dust comes out.

Danger:

- **Hazard of eye injuries - use safety goggles!**

If there is damp or oily fouling or if the cartridge is damaged in any way, replace it.

CLEANING

Clean the machine thoroughly daily.

Attention:

- After cleaning, check all cables, hoses, pipes and screwed fittings for leaks, loose connections, chafe marks and other damage.
- Any faults that are detected should be rectified immediately.
- DO NOT use any flammable or aggressive substances for cleaning purposes.

**CALIFORNIA PROPOSITION 65 WARNING:
Operation of this equipment and/or engine exhaust
from this product contains chemicals known to the
State of California to cause cancer, birth defects,
or other reproductive harm.**



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The Way It Ought To Be.*

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