

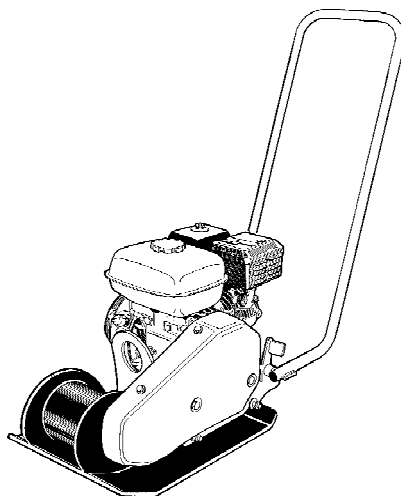
Instruction manual

ILF082-1EN5.pdf
Operation & Maintenance

Forward moving vibration plate
LF82

Engine
Honda GX160

Serial number
28200082-



LF82 is a forward vibratory plate compactor suitable for all types of granular soils. It can also be used for block paving applications when equipped with the optional polyurethane plate.
The LF plates are designed for operation in well ventilated spaces, as all combustion engine machines.


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Introduction


Warning symbols

 **WARNING !** Marks a danger or a hazardous procedure that can result in life threatening or serious injury if the warning is ignored.

 **CAUTION !** Marks a danger or hazardous procedure that can result in damage to the machine or property if the warning is ignored.

Safety information

 **We recommend that the operator reads the safety instructions in this manual carefully. Always follow the safety instructions. Ensure that this manual is always easily accessible.**

 **Read the entire manual before starting the machine and before carrying out any maintenance.**

 **Ensure good ventilation (extraction of air by fan) where the engine is run indoors.**

General

This manual contains instructions for machine operation and maintenance.

The machine must be correctly maintained for maximal performance.

The machine should be kept clean so that any leakages, loose bolts and loose connections are discovered at as early a point in time as possible.

Inspect the machine every day, before starting. Inspect the entire machine so that any leakages or other faults are detected.

Check the ground under the machine. Leakages are more easily detected on the ground than on the machine itself.



THINK ENVIRONMENT ! Do not release oil, fuel and other environmentally hazardous substances into the environment. Always send used filters, drain oil and fuel remnants to environmentally correct disposal.

This manual contains instructions for periodic maintenance normally carried out by the operator.



Additional instructions for the engine can be found in the manufacturer's engine manual.

Safety - General instructions

(Also read the safety manual)

Symbols

The signal words WARNING and CAUTION used in the safety instructions have the following meanings:



WARNING! Indicates danger or hazardous procedure that could result in serious or mortal injury if the warning is disregarded.



Caution! Indicates danger or hazardous procedure that could result in damage to machinery or property if the warning is disregarded



Important rules for your safety

The machine must not be modified without the prior consent of the manufacturer. Use only original parts.

Use only the accessories recommended by Dynapac.

If modifications not approved by Dynapac are carried out, these could result in serious injury to yourself or others.

- These recommendations are based on international safety standards. You must also observe any local safety regulations which may be in force. Read all instructions carefully before operating the machine. Keep the instructions in a safe place.
- Signs and stickers giving important information about safety and maintenance are supplied with every machine. Make sure they are legible. The ordering numbers for new stickers can be found in the spare parts list.
- Machine and accessories may only be used for their intended purpose.
- For reasons of product safety, the machine must not be modified in any way.
- Replace damaged parts immediately. Replace all wear parts in good time.

Always pay attention to what you are doing.

Use your common sense. Do not use the machine if you are tired or under the influence of drugs, alcohol or other substances which can effect your vision, reaction ability or judgement.



Safety equipment

Long exposure to loud noise without ear protectors can cause permanent damage to hearing.



Long exposure to vibrations can damage the hands, fingers and wrists. Do not use the machine if you experience discomfort, cramp or pain. Consult a doctor before resuming work with the machine.

Always use approved safety equipment.

The operator, and people in the immediate vicinity of the working area, must wear:

- A protective helmet
- Protective goggles
- Hearing protection
- Mask in dusty environments
- Reflective clothing
- Protective gloves
- Protective shoes

Avoid wearing loosely fitting clothing that might get caught in the machine. If you have long hair, cover it with a hair net.

This will occur regardless of whether the forward/reverse lever is in neutral or the drive mode.

Dynapac machines feature a handle design that absorbs a large part of the machine vibrations. Depending on the operation, ground conditions and exposure time, the recommended limits for hand/arm vibrations may be exceeded. Where necessary, take suitable measures such as wearing protective gloves or not vibrating on previously compacted material.

Be alert to acoustic signals from other machines in the working area.

Do not use a machine that is leaking fuel.

The working area

Do not use the machine near flammable material or in explosive environments. Sparks can be emitted from the exhaust pipe, and these can ignite flammable material. When you take a pause or have finished working with the machine, do not park it on or near flammable materials.

The exhaust pipe can get very hot during operation, and can cause certain material to ignite. Make sure that there are no other personnel inside the working area while the machine is in use. Keep the worksite clean and free of extraneous objects.

Store the machine in a safe place, out of unauthorized's reach, preferably in a locked container.

Filling up fuel (Petrol/Diesel)

Petrol has an extremely low flash point and can be explosive in certain situations. Do not smoke! Ensure there is good ventilation.



Keep away from all hot or spark-generating objects when handling fuel. Wait until the machine has cooled before filling the tank. Fill the tank at least 3 metres away from where you intend to use the machine to avoid fire. Avoid spilling petrol, diesel or oil on the ground.

Protect your hands from contact with petrol, diesel and oil. Open the tank cap slowly to release any overpressure that might exist in the tank. Always take care to use the right type of fuel. Do not overfill the tank. Inspect the machine for fuel leakage regularly.

Before starting

read the instruction manual and thoroughly familiarise yourself with the machine and all its functions, and check that:



- All handles are free from grease, oil and dirt.
- The machine has no visible faults.
- All protective devices are securely fastened into place.
- All control levers are in the neutral position.

Start the machine according to the instruction book.



Operation

Keep your feet well clear of the machine



Do not operate the machine in poorly ventilated spaces. There is a risk of carbon monoxide poisoning.

Only use the machine for the purpose for which it is intended. Ensure that you know how to stop the machine in the event of an emergency.



Always exercise extreme caution when driving the machine on slopes. Always ensure that all personnel in the vicinity are higher up the slope than the machine. Always drive straight up and down on slopes. Do not exceed the maximum gradability of the machine according to the instruction book. Always stay clear of the machine when operating on slopes or in trenches.

Never touch the engine, exhaust system or eccentric element of the machine. They become extremely hot during operation and may result in burns. Do not touch the V-belts or the rotating parts during operation.

Parking

Always park the machine on ground which is as level and firm as possible.

Before leaving the machine:

- Apply the parking brake
- Turn off the engine and remove the ignition key.



Loading/Unloading

Under no circumstances remain under or in the immediate vicinity of the machine when it is being lifted by a crane or similar appliance. Only use marked lifting points. Always make sure that all lifting devices are dimensioned for the weight of the machine.

Maintenance

Maintenance work may only be carried out by skilled personnel. Never carry out any type of maintenance work while the machine is in motion or the engine running.

Working with the hydraulic system

Regular maintenance of hydraulic systems is extremely important.

Minor damage or split hoses/couplings can have devastating consequences. Bear in mind that the hydraulic hoses are made of rubber and can deteriorate with age, with the consequent risk of splitting. Whenever there are uncertainties as to durability and wear, replace hoses with new original hoses from Dynapac.

Working with batteries

Batteries contain toxic and corrosive sulphuric acid. Wear protective glasses and avoid getting acid on your skin, clothes or on the machine. If you get acid in your eyes, rinse them with water for at least 15 minutes and seek immediate medical treatment. The gas that is emitted by the battery is inflammable and explosive. When fitting or changing batteries, always be careful not to short circuit the battery terminals.

Repairs

Never use a machine that is damaged.
As qualified repairs require trained personnel, please get in touch with your nearest authorized workshop.

Extinguishing fires

In the case of a fire in the machine, if possible use an ABE-class powder extinguisher. However, a BE-type carbon dioxide fire extinguisher may also be used.

Battery charging

Use a voltage-regulated battery charger (constant voltage). A switched two-stage charger with constant voltage is recommended. A two-stage charger automatically reduces the charging voltage (14.4 V) to trickle charging (13.3 V) when the battery is fully charged.

Suitable battery chargers for 230 Volt:

Optima Model RTC 12/7-S-230

LADAC Model LADAC 512

Tudor Model 61715 Tudor

Storage/Trickle charging

A discharged battery will freeze at a temperature of about (-7°C). A fully charged battery will freeze at (-67°C). A battery that is not being used should be fully charged before being put aside. Trickle charging is not normally required during a period of 6 to 8 months. If a battery has not been in use for a long period, it is recommended that it be fully charged before being used. Trickle charging is recommended a couple of times during the season (especially in winter).

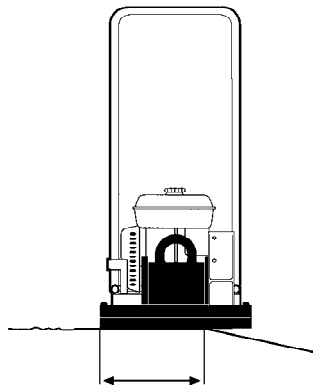
Safety - when operating

Driving near edges

When operating along edges, at least 2/3 of the plate should be on a surface with full bearing strength.



If the machine tips over, switch off the engine before attempting to lift the machine.



At least 2/3

Fig. The positioning of the machine when driving near edges

Slopes

Ensure that the work area is secure. Wet and loose earth reduces manoeuvrability especially on sloping ground. Always exercise extreme caution on sloping and uneven terrain.

Never work on slopes that exceed the capabilities of the machine. The maximum slope of the machine in operation is 20° (depending on the condition of the ground).

The tilting angle is measured on a hard level surface with the machine stationary. Vibration switched OFF and all tanks full. Remember that loose ground, vibration switched ON, and driving speed can all cause the machine to topple even on a lesser slope than specified here.

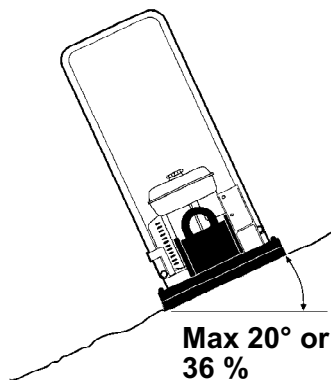


Fig. Operation on slopes



Where possible, avoid driving across slopes. Instead, drive straight up and down when working on sloping ground.



Never leave the machine with the engine running.

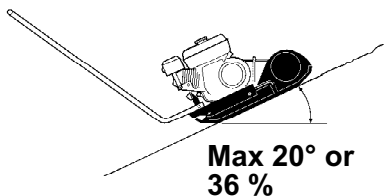


Fig. Operation on slopes

**Technical specifications -
Noise/Vibrations/Electrical**

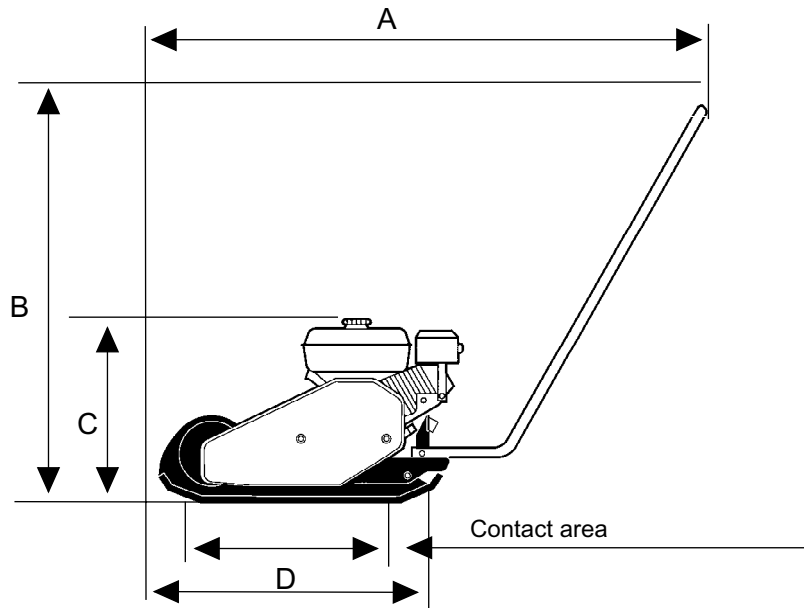
Noise levels

The below noise and vibration levels have been determined in accordance with the operating cycle on a macadam base described in EU Directive 2000/14/EC

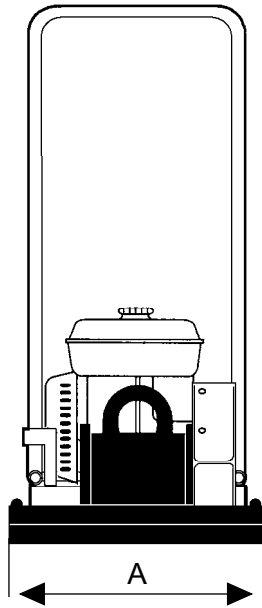
	Honda
Measured sound power level, L_{wA} dB (A)	102
Guaranteed sound power level, L_{wA} dB (A)	104
Sound pressure level at operator's ear (EN 500-4), L_{pA} dB (A)	92
Hand and arm vibrations (EN500-4), a_{hv} m/s ²	
Standard handle	16,5
Low vibration handle	5,8
Hand and arm vibrations, permitted working hours per day, (calculated on action value of 2.5 m/s ² as per 2002/44/EC),	
Standard handle	0,1
Low vibration handle	1,4

Values may differ from those above depending on operating conditions.

Technical specifications - Dimensions



Dimensions	
A mm (in)	1000 (39.3)
B mm (in)	895 (35.2)
C mm (in)	460 (18.1)
D mm (in)	540 (21.2)
Contact area, m2, (sq feet)	0,1766 (1.9)



Dimensions	
A mm (in)	460 (18.1)

Technical specifications - Weights and volumes

Fluid volumes

Fuel tank, lit (qts)	3,6 (3.8)
Crank case, l (qts)	0,6 (0,6)
Fuel consumption, l/h	1,21

Weights

Net weight, kg (lbs)	74 (163)
Operating weight EN500, kg (lbs)	75,5 (166)

Technical specifications - General

Compaction data

Honda

Vibration frequency, Hz (rpm)

90 (5400)

Centrifugal force, kN (lbf)

18 (4.05)

Amplitude, mm (in)

1,1 (0.04)

Engine

Manufacture/Model

Honda GX 160
4-stroke
Manual start

Power

4.1 kW (5.5 hp)

Rated Speed

3,600 rpm

Idling

1,400±150 rpm

Performance

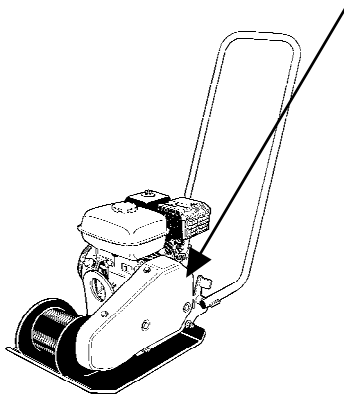
Working speed m/min

25

Machine plate - Identification

Machine plate

Fill in all data below when delivering and commissioning the machine



Engine model

Engine number

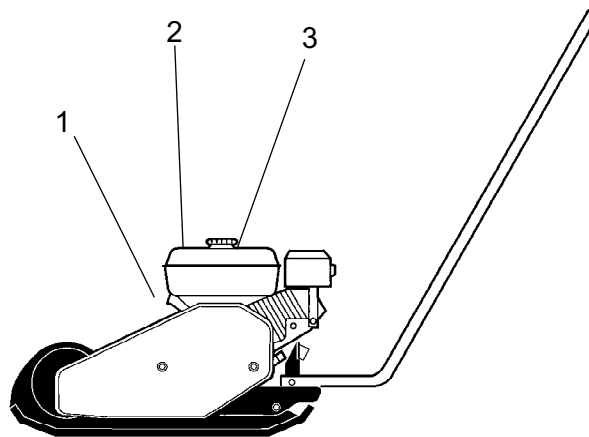
Fig. Location of machine plate.

The plate specifies the manufacturer's name and address, the type of machine, the PIN product identification number (serial number), operating weight, engine power and year of manufacture. (on machines supplied to outside the EU, there are no CE markings and in some cases no year of manufacture.)

When ordering spare parts specify the machine's PIN number.

Safety decals
Machine specifications- Decals

Location of decals

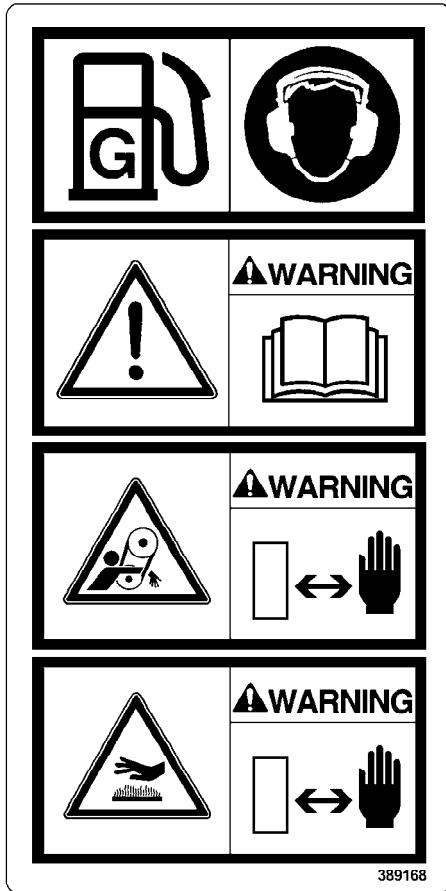


- 1. Lifting point
- 3. Collective warning sticker

Item no.
281269
389168

- 2. Guaranteed Sound Power level

Item no.
791292



Fuel

Use ear protectors

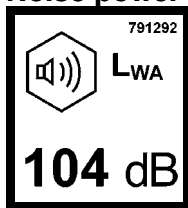
-The operator must read the safety, operation and maintenance instructions before operating the machine.

- Warning, hand and arm entanglement. Keep your hands at a safe distance from the danger zone.

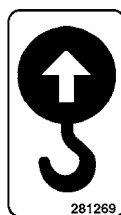
-Warning - hot surfaces in the engine compartment. Keep your hands at a safe distance from the danger zone.

Info-decals

Noise power level



Lifting point



Operation - Starting

Before starting, Honda

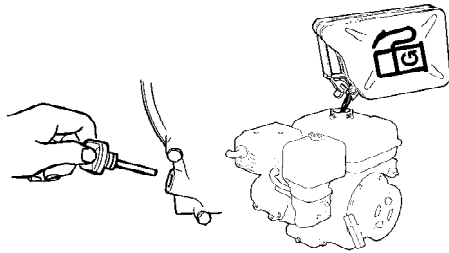
Follow the general safety precautions supplied with the machine on delivery. Check that daily maintenance has been carried out.

We recommend that you also read the detailed motor instructions supplied with the machine.

1. Check the engine oil level.
2. Fill the fuel tank with fuel.
3. Check that all operating controls are working.
4. Ensure that there is no leakage of oil and that all bolted joints are tight.

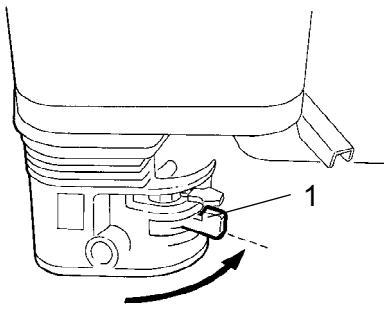


On new machines the oil must be changed after 20 working hours.

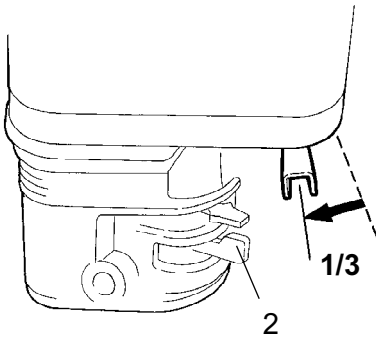


Starting the engine

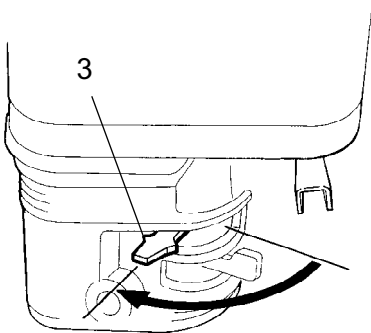
1. Open the fuel cock (1).



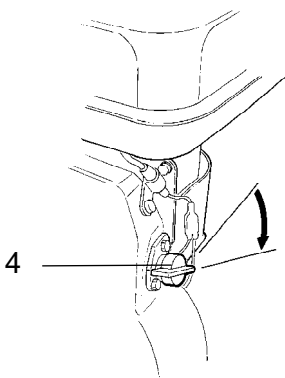
2. Put the throttle lever to middle position (2).



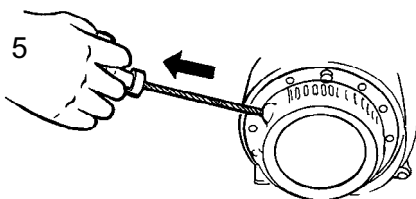
3. Close the choke if the engine is cold; if the engine is warm or the ambient temperature high push it in half way or let it stay open.



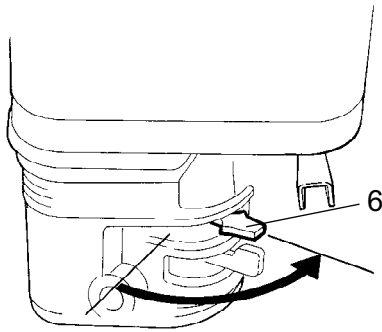
4. Turn the engine switch to the ON position (4).



5. Pull back the handle slowly until resistance is felt, let the handle move forward and then pull sharply to start the engine. Do not allow the starter handle to hit the engine. Release carefully to prevent damage to the starting device.



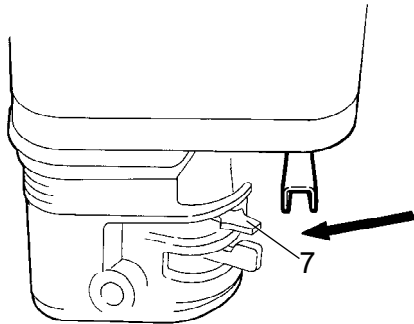
6. Open up the choke gradually until it is fully open.



7. Let the engine run on idle for a few minutes before running it at full capacity.



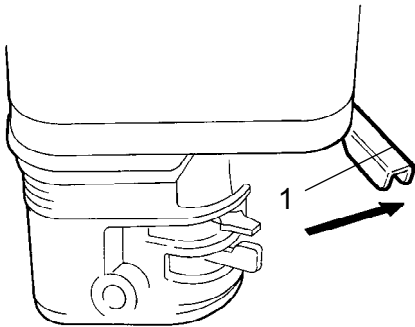
***Never run the machine at intermediate rpm.
Always use full gas.
To low an rpm may damage the centrifugal
clutch***



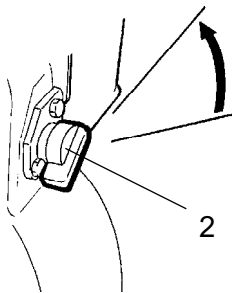
Operating - Stopping

Stopping the engine

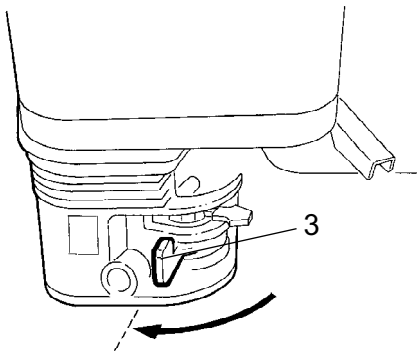
1. Push in the throttle and let the engine run on idle for a minute (1).



2. Turn the engine switch to the OFF position. (2).



3. Close the fuel cock. (3).



Miscellaneous

Lifting

Lifting/Towing



Never walk or stand under a lifted machine.



Use only the safety frame lifting point (1) for lifting the machine.



The lifting equipment must be in dimensioned in order to fulfill all regulations. Before lifting check that rubber elements (2) and safety frame (1) are correctly attached and not damaged.

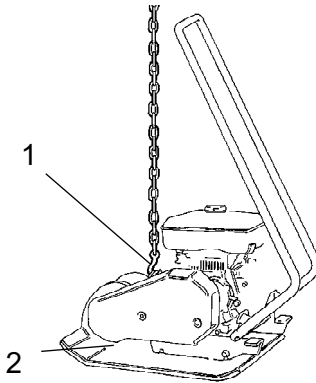


Fig. Machine ready for lifting

1. Lifting hook
2. Rubber element

Transport

Transporting the machine



Always secure the machine for all transportation. Place lashing strap in a U shape around the bottom plate and secure both front and rear.

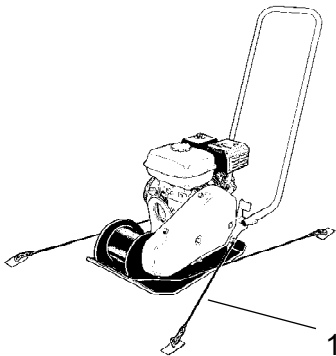





Fig. Machine ready for transportation

1. Lashing strap

Maintenance - Lubricants and symbols

	ENGINE OIL	Use SAE 15W/40, Shell Universal Engine Oil TX15W-40
	FUEL	Use unleaded petrol of standard quality
	GREASE, ECCENTRIC ELEMENT	SKF LGHT-3



Stop the engine before refilling the fuel tank. Never refuel near an open flame or sparks, which could start a fire. Do not smoke. Use pure fuel and clean filling equipment. Take care not to spill fuel.

Maintenance - Maintenance schedule

Service and service points

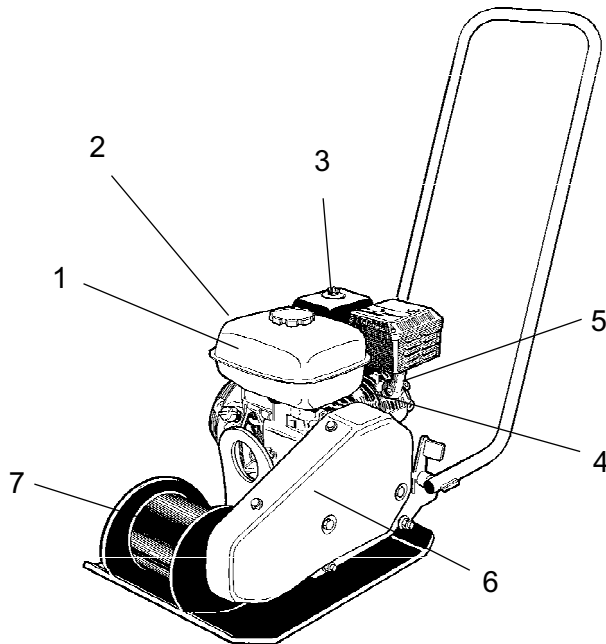


Fig. Service and service points

- | | |
|----------------|---------------------|
| 1. Fuel tank | 5 Dipstick |
| 2. Fuel filter | |
| 3. Air filter | |
| 4. Spark plug | 6 V-belt |
| | 7 Eccentric element |



Study the engine instruction book and also follow the maintenance instructions.

Maintenance - Maintenance schedule

Every ten operating hours (Daily)

Please consult the list of contents for page and section references!

Action	Comment
Before the first start of the day	
Check and replenish fuel	
Check and replenish lube oil	
Check for oil leaks	
Check the air cleaner's drain valve	For engines equipped with cyclone Refer to the engine manual
Clean / replace air filter	
Check the tightness of all nuts and bolts	
Keep the machine clean	
Check / Clean the engine's cooling flanges	Refer to the engine manual
Check the engine's air filter indicator	Refer to the engine manual
Check that the controls are not damaged or do not jam	
Checking the oil level in the springloaded leg	Applies to DYNAPAC's LT series

After the first 20 hours of operation

Please consult the list of contents for page and section references!

Action	Comment
Change lube oil	
Clean / replace air cleaner elements	
Change the oil in the eccentric element/springloaded leg.	Only for oil-lubricated eccentric element.
Check the engine speed	
Check and adjust valve clearance	Applies to diesel engines Refer to the engine manual

Maintenance - Maintenance schedule

Every 100 hours of operation

Please consult the list of contents for page and section references!

Action	Comment
Change engine oil	Applies to petrol engines Refer to the engine manual
Check and clean the spark plug	Applies to petrol engines Refer to the engine manual
Check the vibration dampers	
Check the engine speed	
Check the V-belt	Applies to belt-driven machines
Clean the carburettor's fuel cock	Applies to petrol engines Refer to the engine manual
Clean the silencer's spark catcher	Applies to petrol engines Refer to the engine manual

Every 500 hours of operation (Yearly)

Please consult the list of contents for page and section references!

Action	Comment
Adjust valve head clearance for intake and exhaust valves	Refer to the engine manual
Clean / check fuel filter / tank	Refer to the engine manual
Replace air filter	
Changing the oil in the eccentric element	Only for oil lubricated eccentric elements.
Clean the engine's cooling flanges	Refer to the engine manual
Clean and adjust the carburettor	Applies to petrol engines Refer to the engine manual
Check the fuel injection pump	Applies to diesel engines Refer to the engine manual
Check the fuel injection nozzle	Applies to diesel engines Refer to the engine manual
Change the oil in the engine	Refer to the engine manual
Drain the fuel system of water	Applies to diesel engines Refer to the engine manual
Replace the fuel filter.	Applies to diesel engines Refer to the engine manual
Clean the oil filter	Applies to diesel engines Refer to the engine manual

Maintenance - 10h

Checking the engine, Honda

1. Check the oil level (1)
2. Check the fuel level (2)
3. Check for oil leaks
4. Check the air filter (3)



Save the oil and dispose of it in an approved manner.

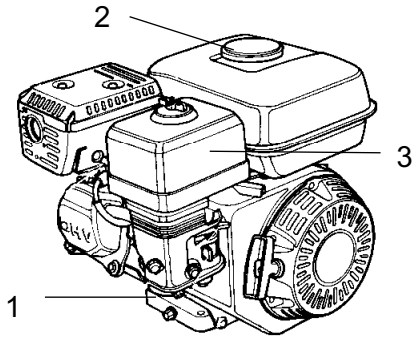


Fig. Engine 1. Oil dipstick
2. Fuel cap
3. Air filter

Checking bolted joint

Check and, where necessary, tighten screws and nuts.

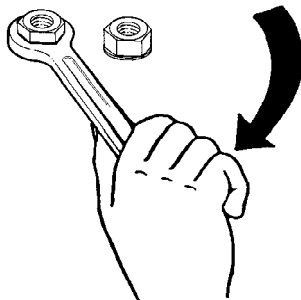


Fig. Checking bolted joint

Replacing air filter, Honda

Clean or replace the air filter, depending on its condition.

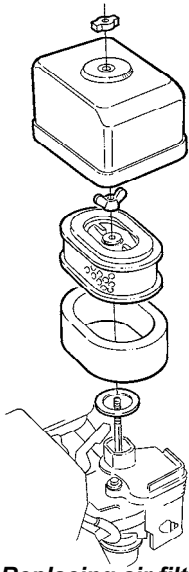


Fig. Replacing air filter.

Cleaning the machine.

Keep machine clean.



Never aim a water jet directly at the fuel filler cap. This is particularly important when using a high-pressure cleaner.



Fig. Cleaning the machine.

Do not spray water directly onto electrical components or the instrument panels. Place a plastic bag over the fuel filler cap and secure with a rubber band. This will prevent water from entering the venting hole in the filler cap. This could otherwise cause operational disturbances, such as clogged filters.

Maintenance - 20h

Replacing engine oil, Honda

Change the oil in the engine.

Check the engine speed



Use the oil drainage hose on machines that are equipped with this.



Save the oil and dispose of it in an approved manner.

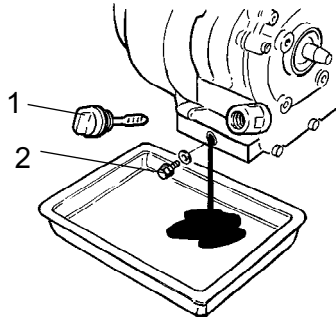


Fig. Engine
1. Oil dipstick/Filling
2. Drainage plug

Maintenance - 100h

Replacing engine oil, Honda

Change the oil in the engine.

Check the engine speed



Use the oil drainage hose on machines that are equipped with this.



Save the oil and dispose of it in an approved manner.

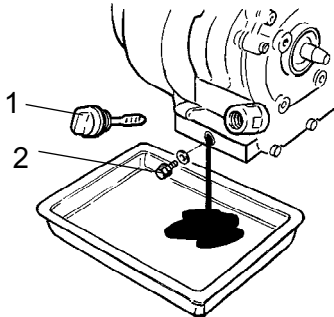


Fig. Engine
1. Oil dipstick/Filling
2. Drainage plug

Checking the V-belt

1. Take off the protective cover and inspect the V belt.

2. To adjust belt tension, loosen the four engine-plate bolts and slide it backwards.

3. Check the ruling, tighten the screws and reinstall the protective cover.



Never run the machine without the protective cover over the V belt.

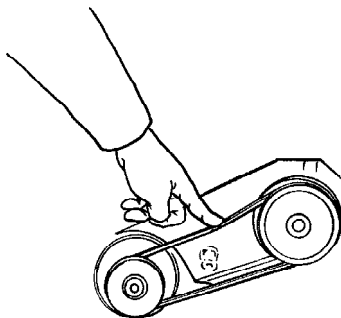


Fig. Checking the V-belt
1. V-belt

Checking spark plug

1. Check and clean/replace the spark plug.

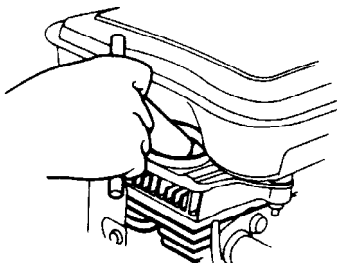


Fig. Replacing spark plug.

Inspection of vibration damper

1. Inspection of vibration damper

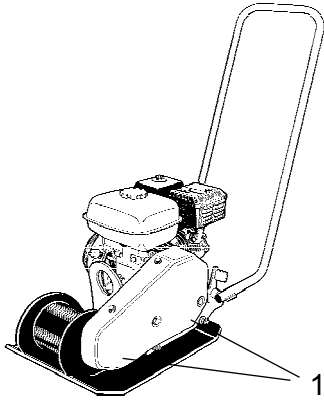


Fig. Vibration damper.
1. Vibration damper

Maintenance - 500h

Cleaning of fuel tank/filter

1. Inspect and clean fuel tank/filter



Collect fuel spillage and hand over to disposal facility.

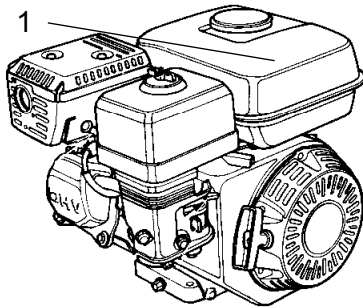


Fig. Engine.
1. Fuel tank

Inspection and adjustment of engine.

1. Clean and adjust the carburetor.
2. Clean the engine cooling flanges.
3. Adjust the engine's valve clearance.

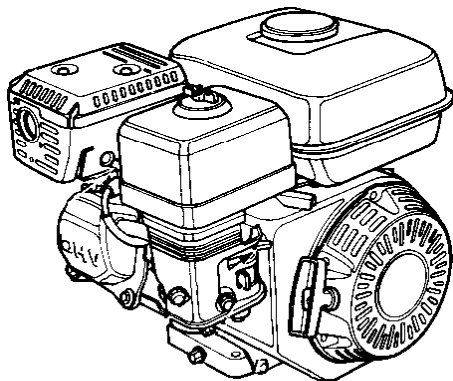


Fig. Engine

Replacement of air filter

Replace air filter.

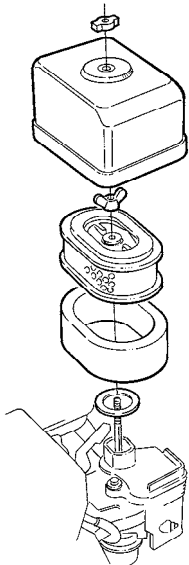


Fig. Replacement of air filter.

Replacement of engine oil and filter.

1. Replace the fuel filter.
2. Change the engine oil.
3. Replace air filter.



Collect oil and hand over to disposal facility.
Also hand over used oil filter to disposal facility.

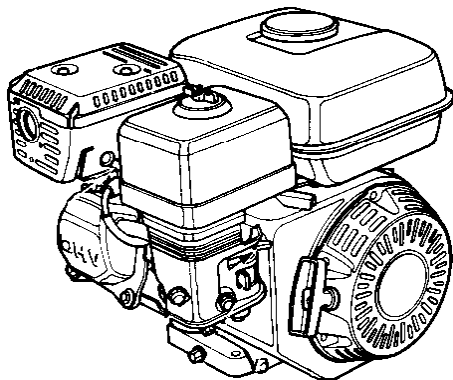


Fig. Engine

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