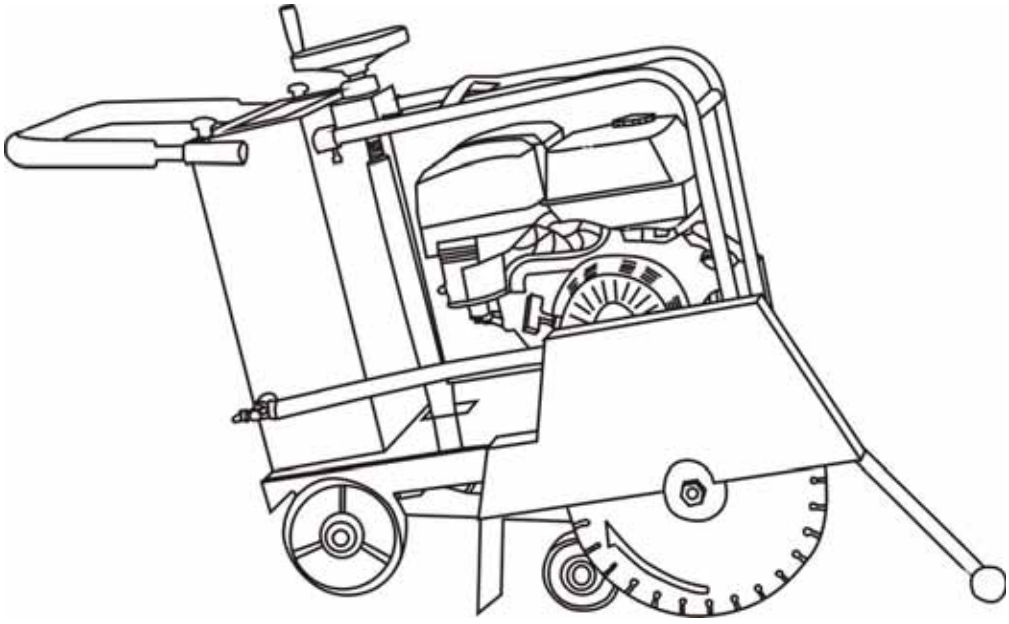
PDQG400
GASOLINE POWERED FLOOR SAW
Owner's Manual



SAVE THIS MANUAL FOR FUTURE REFERENCE

This manual provides information regarding the operation and maintenance of these products. We have made every effort to ensure the accuracy of the information in this manual. We reserve the right to change this product at any time without prior notice.

Please keep this manual available to all users during the entire life of the floor saw.

Foreword

For your own safety and protection from bodily injuries, carefully read, understand and follow the safety instructions in this manual.

Please operate and maintain your machine in accordance with the instructions in this manual.

Defective machine parts are to be replaced as soon as possible.

We expressly reserve the right to technical modifications even without express due notice – which aim at improving our machines or their safety standards.

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Safety instructions

General instructions

1. Floor saws may only be operated by persons who are at least 18 years of age are physically and mentally fit for this job have been instructed in operating saws and proved their ability for the job to the employer may be expected to carry out the job they are charged with carefully. The persons must be assigned the job of operating joint cutters by the employer.
2. Both the manufacturer's operating instructions and these safety instructions for floor saws have to be observed.
3. The persons charged with the operation of floor saws have to be made familiar with the necessary safety measures relating to the machine. In case of extraordinary uses the employer shall give the necessary additional instructions.
4. It is possible that these floor saws exceed the admissible sound level of 90 dB (A). According to the rules for the prevention of accidents regarding emission of noise, the employees have to wear ear protection if the sound level reaches 90 dB (A) or more.

Operation

1. The functioning of operating levers or elements is not to be influenced or rendered ineffective.
2. Only use cutting blades which correspond to the saw with respect to circumferential speed and engine speed.
3. Always use the correct cutting blade for the material to be worked on.
4. When starting the engine make sure you have assumed a proper position with respect to the engine and that your hands are placed properly on the crank.
5. When starting the engine or whilst lifting or putting down the machine with a running engine, take care that the cutting blade is not touching anything.
6. During operation the operator may not leave control elements.
7. The operator has to switch off the engine of the joint cutter before leaving the machine. He has to secure the machine against rolling and overturning.
8. Do not smoke or handle open fire near this machine.
9. The tank lid must fit tightly. Shut fuel cock if available when stopping the engine. For long distance transport of machines operated by fuel or fuel mixtures, the fuel tank has to be drained completely.

   Attention! Leaky fuel tanks may cause explosions and must therefore be replaced immediately.
10. Stop engine before filling fuel tank. When refilling fuel tank, do not allow fuel to come into contact with the hot part of the engine or spill onto the ground.
11. Make sure that sufficient fresh air is available when operating cutters

with combustion engines in enclosed areas, tunnels, adits and deep trenches.

12. Floor saws must be used in connection with water (wet cutting) in order to avoid the formation of fine dusts which are injurious to your health. Make sure that the water supply is sufficient during wet cutting.
13. Don not operates this machine in areas where explosions may occur.
14. When working in the vicinity of inflammable materials, always have water or a fire extinguisher handy. Take extra special care when there is danger of explosive fumes.
15. During operation always wear goggles and long leather gloves. Also wear tight fitting clothes, firm high boots to protect against sparks and a helmet.
16. No not twist, thrust, knock or drop the machine during operation, otherwise the cutting blade will be dam aged. The cutting blade is only designed for radial load.
17. Fix protective hood in lowest position before starting engine.
18. No persons are to be in the vicinity of the floor saw, in front of the floor saw during operation.
19. The operator has to stop the blade before starting a new cut.
20. Work calmly and cautiously so as not to endanger others.

Safety checks

1. Floor saws may only be operated with all safety devices installed.
2. Before starting operation, the operator has to check that all control and safety devices function properly.
3. Daily, before starting operation makes sure that: the cutting blade is in proper condition.
4. The cutting blade fits tightly.
5. In case of defects of the safety devices or other defects reducing the operational safety of the floor saw, the supervisor has to be informed immediately.
6. In case of defects jeopardizing the operational safety of the saw, the machine has to be switched off immediately.

Maintenance

1. Only use original spare parts. Modifications to this machine including the adjustment of the maximum speed set by the manufacturer. In case of nonobservance all liabilities shall be refused.
2. Switch off the motor and remove spark plug cap from spark plug before carrying out maintenance jobs to avoid unintentional operation of the machine. Deviations from this are only allowed if the maintenance jobs require a running motor.
3. Caution when checking the ignition system. The electronic ignition system produces a very high voltage.
4. as soon as maintenance and repair jobs have been completed all safety devices have to be reinstalled

Transport

1. Do not place the cutting disc on the ground, to avoid possible damages during transport of the same. To protect the cutting blade, swing the blade to its maximum upward position by way of the height adjustment / cutting depth adjustment and lower down the protective hood as far as possible. If need be, take off cutting blade from floor saw.
2. During transport, loading and unloading of floor saws by means of lifting devices, appropriate slinging means or hoods have to e used on the lifting points provided for this purpose on the machine.
3. The load carrying capacity of the loading ramps has to be sufficient and the ramps have to b secure such that they cannot turn over. Make sure that no one be endangered by machines turning over or lop ping or by moving machine parts.
4. When being transported on vehicles floor saws have to be secured against rolling, slipping or overturning.

Maintenance checks

According to the conditions and frequency of use, floor saws have to be checked for safe operation at least once a year by skilled technicians, and have to be repaired if necessary.

Please also observe the corresponding rules and regulations valid in your country.

Type	PDQG400
Operating weight kg	100
Power transmission	From engine via V-belt to blade
diameter of blade mm	400
Thickness of blade mm	3,3-5
Circumferential speed m/s	46
Revolution of blade rpm	3000
Max. cutting depth mm	150
Water consumption l/h	100
Water tank l	26
Drive motor	Air-cooled single-cylinder 4 stroke gasoline engine
Piston displacement cm^3	419

Engine speed rpm	3600
Nominal output HP	16
Fuel	Normal or lead-free gasoline
Max. fuel consumption l/h	3.0
Tank capacity l	6.5

Description

Field of applications

Main application: cutting expansion joints in concrete and asphalt surfaces.
Repair jobs on roads, e.g. cutting out damaged patches of either asphalt or concrete road surfaces.
Straightening black-top and concrete surfaces.
Demolition jobs and renovation of old dwellings.
Cutting precast concrete elements.
Cutting expansion joints and recesses for installations in floor toppings.
Laying induction loops and cables in signal systems (upon request).

Description of function

The floor saw should only be operated in a forward direction
The engine, which is fixed to the base plate, drives the blade via three V-belts. The torque is transmitted frictionally via V-belt pulley on to the V-belts.
The revs on the engine can be infinitely varied using the throttle control lever; the optimum cutting speed of the blade is only achieved with the engine working at full load.
In order to facilitate the starting, the engine is provided with a choke.
The engine works according to the 4-stroke principle, is started by means of a recoil starter, takes in the air via a dry air filter.
A hand crank is used to operate the infinitely variable height adjuster on the blade.
Depth adjustment: the blade guard can be swung away upwards for easier fixing and removing of the blade.

General instruction for the use of diamond blades

Never use a blade of a diameter larger than necessary to cut a certain depth.
In case the blade stops operating, take it out of the cut before starting the engine anew. If the engine stops operating while in a cut, check V-belt for proper tension. Check flanged nut for tight fitting (left hand thread).
Cut a straight line; mark the line clearly allowing the operator to follow it easily without having to guide it from one side to the other to come back

to the line (do not cut narrow curves).
Sufficient drive power is essential, therefore always cut with engine at full throttle.

Caution: special care is required when working on slopes (lanes and surfaces). Make sure the machine is not exerting a lateral pressure on the blade.

Never exceed maximum speed indicated on the blade!
Only use the appropriate cutting blade for the material you are going to cut (asphalt, concrete,…). We have an extensive selection of diamond blades in different grades of qualities for you.

Lowering the blade and taking it out of the cut

The blade is lowered and taken out of the cut by means of a hand crank turn of the crank corresponds to a cutting depth of approx. 5 mm.
With floor saws without automatic advance floor saw, the operator does not have complete control over the pushing force which may be exerted to a greater extent form the one side or the other. For this reason and in order to prevent the blade from being jammed and the motor from being killed, the cuts always have to be carried out in one go when using the floor saw. Observe recommended conditions for cutting. Do not cut crushed stone or similar materials when using a diamond blade. Uneven wear may occur when cutting road edges or two different materials. Special care is require if the material to be cut contains inclusions such as reinforcements, etc. as this would easily over load the blade. Proceed carefully when staring to cut, lower the blade slowly.

Transport to work site

Only use suitable lifting equipment with a minimum lifting capacity of 120 kg for the transport of the floor saw.
Always switch off motor during transport!
Attach appropriate secure lifting devices to the central lifting point provided for this purpose (form fastening method no. 1 both points must be used).
Tie down the joint cutter securely during transport on the loading surface of a vehicle.

- To avoid damage during transport, remove the blade beforehand.
- Note: also refer to the specifications in chapter, safety instructions.

Operation

Starting

1. Oil level check
   Insert dipstick in oil filter neck, but without screwing in. if oil level is low, fill to the top of the oil filter neck with high grade Fuchs titan Unic 10W40 MC oil.

   Attention! Place machine in horizontal position before checking engine oil level.

2. Dual-air cleaner > dual element type <
   Check the air cleaner elements to be sure they are clean and in good condition. Clean or replace the elements if necessary.
3. Fuel
   Use any regular grade automotive gasoline (unleaded gasoline is preferred) with a pump octane rating of 86 or higher.
   Never use an oil/gasoline mixture or dirty gasoline: avoid getting dirt, dust or water in the fuel tank,
   Caution: gasoline substitutes are not recommended, they may be harmful to the fuel system components.

Starting the engine

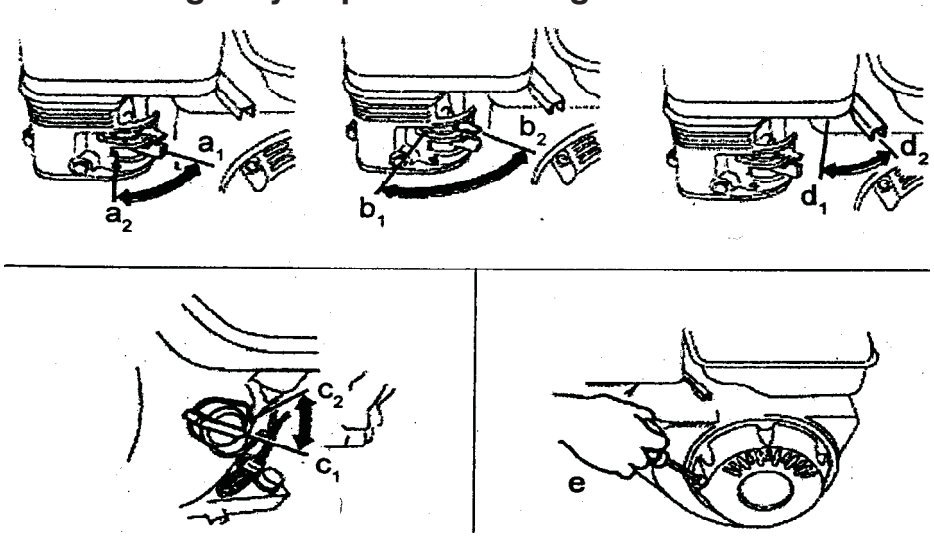
a) Turn the fuel valve to the ON (al) position.
b) Move the choke lever to the CLOSE (b1) position.

Note: if the engine is warm or the air temperature is high, move the control lever away from the CHOKE (d2) position as soon as the engine starts.

c) Move the throttle lever slightly to the left.

With recoil starter: turn the engine switch to the ON (c1) position. Pull the starter grip lightly until resistance is felt, then pull briskly.

Caution: do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.



Operation

As the engine warms up, gradually move the choke lever to the OPEN (b2) position. Position the throttle lever for the desired engine speed.

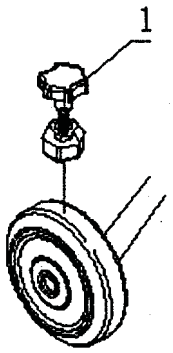
Stopping the engine

To stop the engine in an emergency, turn the engine switch to the OFF position. Under normal conditions, use, and the following procedure:

a) Move the throttle lever fully to the right.
b) Turn the engine switch to the OFF position.

c) Turn the fuel valve to the OFF position.

Parking brake (accessory)



The rear left wheel can be blocked by pressing down the hand brake (1). By pressing it upward the wheel will be released again.

ATTENTION! Check the correct tightening of the parking break on a regular basis and also check the setting of the pressure hand brake (1).

Readjust the pressure hand brake (1) if necessary.

Maintenance schedule

Check all external screw connections for tight fit approx.8 hours after first operation.		
Parts	Maintenance jobs	Maintenance
Air filter Fuel Motor oil Other parts	Check for external damage and tight fit. Check foam and filter insert clean or replace if necessary. Check tank lid for tight fit, replace if necessary. Check oil level, top up if necessary. Check cutting disc for damages and correct tightening-change and or adjust if necessary. Pay attention to the directional arrow on the disc. Control smooth working of the height adjustment. Control water supply.	Daily
Motor oil	First oil change.	After 20 hours
Ignition system	Clean spark plug, check spark plug gap 0,7 mm.	Monthly
Motor oil	Oil changes.	100 hours
Valve clearance	Check, set-0, 15 mm intake valve, 0, 20 mm exhaust valve.	300hours

Motor Oil

Change: Drain the oil while the motor is still warm to assure rapid and complete draining.

1. Remove the oil filler cap drain plug to drain the oil.
2. Install the drain plug, and tighten it securely.
3. Refill with the recommended oil and check oil level.

Motor oil capacity: 1.1 1 (1, 06 USqt., 1,78 lmp pt)

Air filter

Air cleaner service: A dirty air cleaner will restrict air flow to the carburetor, to prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the motor in extremely dusty

areas.

Warning: Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.
Caution: Never run the engine without the air cleaner. Rapid engine wear will result.

Duel type

1. Remove the wing nut and the air cleaner cover. Remove the elements and separate them. Carefully check both elements for holes or tears and replace if damaged.
2. Foam element: Wash the element in a solution of household detergent and warm water, then rinse thoroughly, or wash in nonflammable or high flash point solvent. Allow the element to dry thoroughly. Soak the element in clean engine oil, and squeeze out the excess oil. The engine will smoke during start up if too much oil is left in the foam.
3. Paper element: Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air through the filter from the inside out. Never try to brush the dirt off; brushing will force dirt into the fibers.

   Replace the paper element if it is excessively dirt.

Fuel tank

Fuel strainer cup cleaning: Turn the fuel valve to off. Remove the sediment cup and O-ring, and wash them in nonflammable or high flash point solvent. Dry them thoroughly, and reinstall securely. Turn the fuel valve on, and check for leaks.

Spark plug

Spark plug service: Recommended spark plug: BP6ES-11, BPR6ES-11(NGK), W20EP-U11, and W20EPR-U11 (ND).

Caution: Never use a spark plug of incorrect heat range.

To ensure proper motor operation, the spark plug must be properly gapped and free of deposits.

1. Remove the spark plug cap, and use a spark plug wrench to remove the plug.

Warning: If the motor has been running, the muffler will be very hot. Be careful not to touch the muffler.

2. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
3. Measure the plug gap with a feeler gauge. The gap should be 0, 7-0, 8 mm (0.039-0.043 in). Correct as necessary by bending the side electrode.
4. Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross threading.
5. After the spark plug is seated, tighten 1/2 turn after the spark plug seats to compress the washer. If reinstalling a used spark plug, tighten 1/8-1/4 turn after the sparkplug seats to compress the washer.

Caution: The spark plug must be securely tightened. An improperly

tightened spark plug can become very hot and may damage the motor.

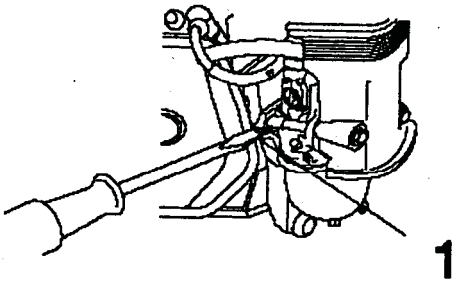
Carburetor

Carburetor adjustment

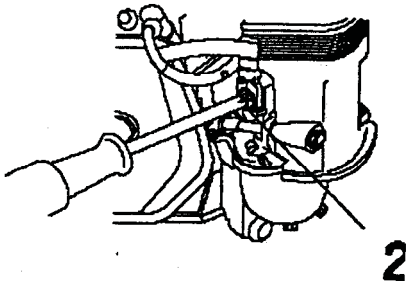
Start the motor and allow it to warm up to normal operating temperature. With the motor idling, turn the pilot screw in or out to the setting that produces the highest idle rpm. The correct setting will usually be approximately 21/4 turns from the fully closed position.

Caution: Do not tighten the pilot screw against its seat, this will damage the pilot screw or seat. After the pilot screw is correctly adjusted, turn the throttle stop screw to obtain the standard idle speed.

Standard idle speed: 1400±150 rpm



1. Pilot screw



2. Throttle stop screw

Mechanical part

Tightening the V-belt

Check V-belt tension when carrying out the weekly maintenance of the engine. Tighten belt if necessary, proceed as follows: loosen fastening nuts of motor on the top and lock nuts of the belt tightening screws. Tighten belt by tightening screw uniformly as required. Tighten fastening screws and lock nuts.

Disassembly of blade

Only replace blade when engine is at a standstill. Loosen star grip, remove guard, block shaft on the backside using the fork spanner SW27. loosen hexagon nut clockwise (left thread). Free floor saw from dust and dirt each time when work has been completed. Check blade to make sure whether it is fit for further use.

Assembly of blade

Checking a new blade

Make sure blade type is suited for the material to be cut. Observe proper circumferential speed, see under “specifications”.

The inner bore (with bushing) must fit the shaft exactly to guarantee

perfectly true running of the blade.
Make sure blade is in perfect condition.
Caution: pay special attention to the correct turning direction of the blade!
That is, the turning direction arrow on the blade must agree in direction with the arrow on the protection hood.
The blade must turn in the direction of the arrow.

- Clean flanges and check them for even running before in stalling the diamond blade.
- Install blade properly, check for proper attachment.
- Place lining piece (label) under each pressure disc when using bakelite blades.
- Install blade and pressure disc on shaft. Tighten hexagon nut in anti-clockwise direction (left-hand thread).