



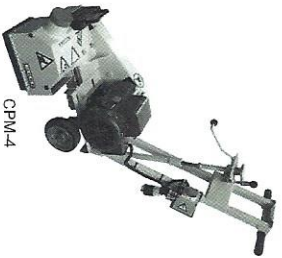
Operator's Instruction Manual

Walk-Behind Scarifer

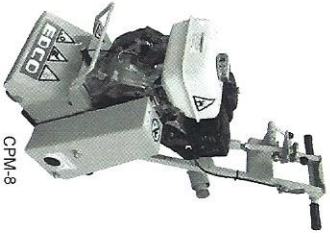
Models CPL-8, CPM-4, 8 & 10



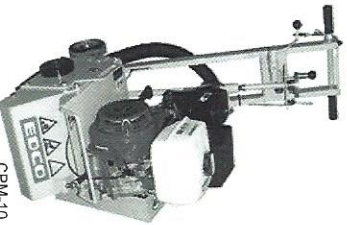
CPL-8



CPM-4



CPM-8



CPM-10

Gasoline/Electric
Concrete/Asphalt Planer



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READ AND UNDERSTAND THE OPERATORS INSTRUCTION MANUAL THOROUGHLY BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.
Death or serious injury could occur if this machine is used improperly.

SAFETY MESSAGES

SAFETY Instructions are preceded by a graphic alert, symbol of DANGER, WARNING, or CAUTION.

DANGER Indicates an imminent hazard which, if not avoided, will result in death or serious injury.

WARNING Indicates an imminent hazard which, if not avoided, can result in death or serious injury.

CAUTION Indicates hazards which, if not avoided, could result in serious injury and/or damage to the equipment.

GASOLINE/PROPANE POWERED EQUIPMENT

WARNING Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

WARNING Gasoline is extremely flammable and poisonous. It should only be dispensed in well ventilated areas, and with a cool engine.

WARNING Small gasoline engines produce high concentrations of carbon monoxide (CO) example: a 5 HP 4 cycle engine operation in an enclosed 100,000 cu. ft. area with only one change of air per hour is capable of providing deadly concentrations of CO in less than fifteen minutes. Five changes of air in the same area will produce noxious fumes in less than 30 minutes. Gasoline or propane powered equipment should not be used in enclosed or partially enclosed areas. Symptoms of CO poisoning include: headache, nausea, weakness, dizziness, visual problems and loss of consciousness. If symptoms occur - get into fresh air and seek medical attention immediately.

ELECTRICAL POWERED EQUIPMENT

WARNING Extreme care must be taken when operating electric models with water present. Ensure power cord is properly grounded, is attached to a Ground-Fault-Interrupter (GFI) outlet, and is undamaged.

Check all electrical cables - be sure connections are tight and cable is continuous and in good condition. Be sure cable is correctly rated for both the operating current and voltage of this equipment.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with qualified electrician or service person if there is any doubt as to whether the outlet is properly grounded. Adhere to all local codes and ordinances.

NOTE: In the event of a malfunction or breakdown, grounding provides a path of least resistance for the electric current to dissipate. The motor is equipped with a grounded plug and must be connected to an outlet that is properly installed and properly grounded. DO NOT modify the plug provided on the motor. If the plug does not fit the outlet have a qualified electrician install the proper receptacle.

Switch motor OFF before disconnecting power.

Do not disconnect power by pulling cord. To disconnect, grasp the plug, not the cord.

Unplug power cord at the machine when not in use and before servicing.

GENERAL INSTRUCTIONS

Equipment should only be operated by trained personnel in good physical condition and mental health (no fatigue). The operator and maintenance personnel must be physically able to handle the bulk weight and power of this equipment.

This is a one person tool. Maintain a safe operating distance to other personnel. It is the operator's responsibility to keep other people (workers, pedestrians, bystanders, etc.) away during operation. Block off the work area in all directions with roping, safety netting, etc. for a safe distance. Failure to do so may result in others being injured by flying debris or exposing them to harmful dust and noise.

This equipment is intended for commercial use only.

For the operator's safety and the safety of others, always keep all guards in place during operation.

Never let equipment run unattended.



Personal Protection Equipment and proper safety attire must be worn when operating this machinery. The operator must wear approved safety equipment appropriate for the job such as hard hat and safety shoes when conditions require. Hearing protection MUST be used (operational noise levels of this equipment may exceed 85db). Eye protection MUST be worn at all times.

Keep body parts and loose clothing away from moving parts. Failure to do so could result in dismemberment or death.

Do not modify the machine.

Stop motor/engine when adjusting or servicing this equipment. Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this machine can ignite flammable materials or vapors.

DUST WARNING

WARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints, and
- Crystalline silica from bricks and concrete and other masonry products.

Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your risk, work in a well-ventilated area, use a dust control system, such as an industrial-style vacuum, and wear approved personal safety equipment, such as a dust/particulate respirator designed to filter out microscopic particles.



Read and understand the Operator's Manual, and the Engine/Motor Manufacturer's Owner's Manual. Before operating this equipment, Death or serious injury can result if this machine is used improperly.



⚠ DANGER ⚠

⚠ WARNINGS ⚠

Safety Guidelines

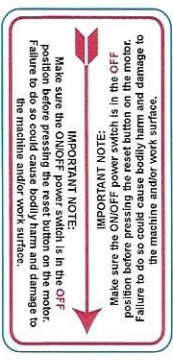
- Eye and ear protection must be worn at all times when this machine is in use. During normal use, sound levels exceed 85dB. Use only ANSI approved safety glasses to help prevent eye injury. Everyday eyeglasses have only impact resistant lenses, they are NOT safety glasses.
- Operator must wear appropriate clothing and footwear. Do not wear loose clothing or jewelry that can get tangled or caught in moving parts. Steel toe safety shoes should be worn.
- Maintain the machine in safe operating condition with all guards in place and secure, all mechanical fasteners tight, all controls in working order and the machine configured for the job application. Be sure all safety decals can be clearly read and understood. Replace damaged or missing decals immediately.
- The CPL-8, CPM-4-8 & 10 Planers are designed to plane flat, horizontal concrete or asphalt slabs. They may be called Planers, Mills, Grinders or Scarifiers and may be equipped with gasoline, propane engines or electric motors. They are designed to be operated by a single operator from a position at the rear of the equipment.
- Keep a safe operating distance to other personnel in the area and never leave the machine running unattended.
- Avoid deck inserts, pipes, columns, openings, electrical outlets, or any objects protruding from slab surface.
- Never operate this machine while under the influence of drugs, alcohol or when taking medications that impair the senses or reactions, or when excessively tired or under stress.

For Electric Models:

⚠ DANGER ⚠

Electric motors must be properly grounded at all times. Check the outlet box to be sure the electrical service is properly grounded. Be sure adequate power is available. Insufficient power will cause a motor to overheat and burn out. Use only grounded extension cords correctly sized for the current draw and voltage drop (amp rating and length). Never use frayed, damaged, taped or under rated extension cords. Electrical shock could result in death or serious injury to the operator and damage to the equipment.

NOTE: On 5HP, single-phase, turn rotary power switch to the OFF position before pressing the manual reset button on the motor. On 3 phase push button on control box before pressing reset on the motor. Failure to do so could cause bodily harm and damage to the machine and/or work surface.



⚠ DANGER ⚠

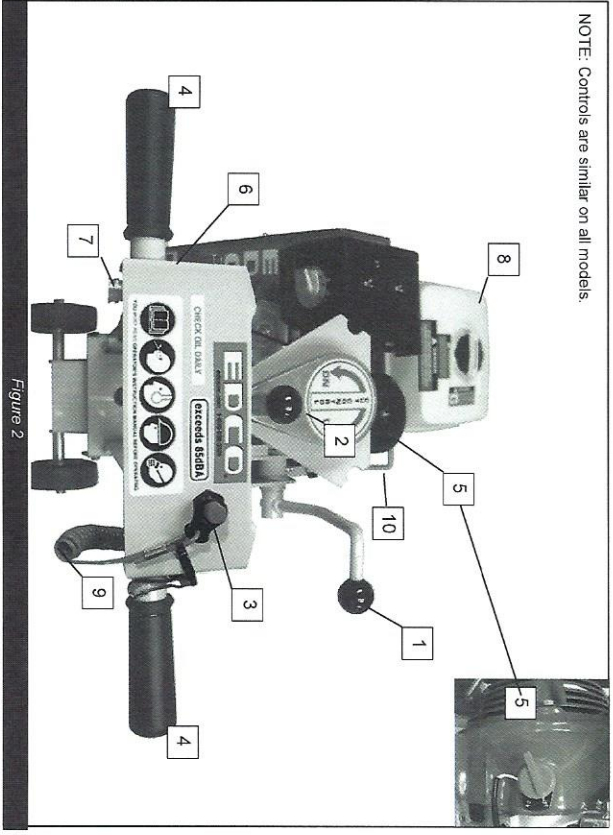
For Gasoline or Propane Models: Do not operate gasoline or propane powered equipment without adequate ventilation. Carbon monoxide is an invisible, odorless gas that can kill. NEVER REFUEL A HOT ENGINE OR AN ENGINE WHILE IT IS RUNNING. Only refuel a cool "stopped" engine in a well ventilated area. Properly clean any spilled fuel before starting the engine. Safety warnings and guidelines do not by themselves eliminate danger. They are not given as substitutes for proper accident prevention and good judgement.

Operating Instructions

- | | |
|-------------------------------------------|-------------------------------------------------------------------------|
| 1. Cutter Head Lever | 7. Water Hook Up |
| 2. Depth Control Knob | 8. Fuel Tank * |
| 3. Emergency Stop Tether (CPM-10) | 9. Emergency Stop Switch Lanyard (CPM-10) * |
| 4. Stop button on (CPM-4 & CPM-8) * | 10. Easy Lift Handle |
| 5. Cushioned Handles | 11. Fuel Lockoff Solenoid Toggle For Propane Models Only. (Not Shown) * |
| 6. Ignition Switch (Position will vary) * | |
| 7. Throttle Control * | |

* Not on Electric models

NOTE: Controls are similar on all models.



CP18, CPM-4-8-10 OPERATING INSTRUCTIONS

When using Hi-carbon steel or Tungsten Carbide cutter wheels:

IMPORTANT!

Read the engine manufacturer's manual, familiarize yourself with engine start procedures.

BEFORE STARTING THE ENGINE: *Gasoline models only

Be sure that the cutter drum assembly has been properly installed and the cutter drum shaft is in place and secured.

1. Select a level place at the job site. Set the "disengage lever" in the full DOWN position. Refer to (Figure A). It is most important to determine the position of the cutter wheels as they relate to the slab or floor surface. If the drum assembly is filled with cutters, the cutter wheels will most likely contact the slab when the "disengage lever" is lowered. Refer to (Figure B). Turn the "depth adjustment crank" UP until the cutter wheels are clear of the slab. Refer to (Figure A). Follow these instructions each time before the engine is started to prevent accidental damage to the slab.

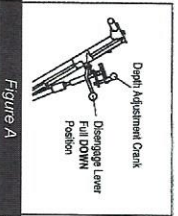


Figure A

2. Raise the "disengage lever" to the full UP position. DO NOT force the lever. If resistance is felt, turn the "depth adjustment crank" DOWN one or two turns. This will allow the "disengage lever" to reach its normal full UP position. Refer to (Figure C).
3. Check level of oil in engine crankcase. (engines are usually shipped dry, oil must be added as per engine manufacturers instructions). *
4. Check fuel level (follow engine manufacturers instructions). *

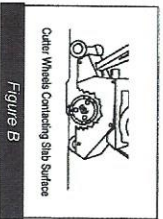


Figure B

5. Be sure all guards (belt, motor, cutter wheel) are in place and secure.
6. Vacuum hose port should have hose attached or cap installed to control dust generated during the cutting operation.
7. Locate engine on/off switch, if the engine is so equipped. On some engines the throttle control is also the engine shut-off switch. Familiarize yourself with this operation. *

8. All EDCO gasoline engine operated planers are equipped with a STOP switch, usually located on the handle. Use this switch for emergency engine shut-off. *
9. Cold engine starting: Be sure fuel line valve is open. Set choke (separate lever on some engines - others have choke as part of throttle control). Open throttle (full to engage choke) 3/4 to full on engines with a separate choke. Turn engine ignition switch ON. Be sure emergency STOP switch is ON. *
10. Before starting determine that the recoil starter assembly turns freely, starter rope pulls easily and the rope retracts properly. *

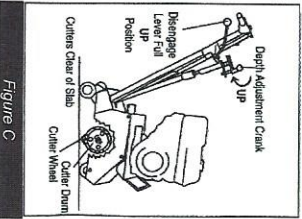


Figure C

Before Starting the Machine:

- Perform a visual inspection of the entire machine and all daily maintenance according to the *Maintenance Schedule* on page 19.
- Locate and be familiar with all engine/motor and operating controls.
- For Gasoline models, obtain the *Engine Manufacturer's Owner's Manual*. Read it and understand it before continuing. Follow the engine manual for break-in instructions.
- Use the correct cutters for the job. Be sure cutter drum is balanced, the number, size and type of cutter wheels are correct and the cutter drum shaft is locked and secured.

- Be sure all fasteners are tight and secure, check for signs of metal cracking or fatigue, inspect for damage to electrical wiring, damage to fuel lines, check bearings, etc.
- Be sure all guards are in place. Do not operate unless cutter drum guard is in place and secure.
- Inspect work area to determine the presence and location of deck inserts, pipes, columns and objects protruding from the slab surface so that they may be avoided during operation.

Starting the Engine/Motor:

For Electric Models:

- Be sure the "ON/OFF" rotary cam switch is in "OFF" position.
- Hook up the correct voltage/phase electrical power source by plugging into the connector provided. If the cord does not mate with the connector, consult a qualified licensed electrician before continuing.
- Verify that the electrical current being supplied is the proper voltage and phase required to run the equipment.
- Check motor rotation. Cutter drum rotation on the model CPM machines is "down cut." DO NOT use if drum rotation is incorrect - have a qualified electrician make the necessary change in the main control panel or motor connection box.

For Gasoline Models:

- Consult the *Engine Manufacturer's Owner's Manual* and follow the directions for starting the engine and allow the engine to warm up.

Lanyard Kill Switch (CPM-10 Only):

- The CPM-10 comes equipped with a lanyard kill switch. The operator should attach the snap hook around his wrist or to his belt. If control of the machine is lost the hook will pull free and release from the stop switch, immediately stopping the machine.



⚠ DANGER ⚠

DO NOT operate gasoline/propane powered equipment without adequate ventilation. Carbon monoxide is an invisible, odorless gas that can kill.



CUTTING

Starting the Cut:

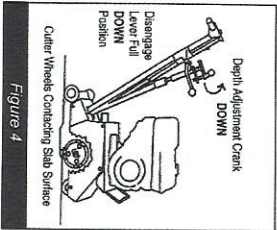
- Slowly lower the cutter head to the slab surface with the cutter head lever. (Figure 2, Item 1) & (Figure 4)
- Lift the knob of the Depth Control to unlock and turn the hand wheel slowly until the cutter head contacts the slab (you will hear the sound of the cutter wheels contacting the slab). Continue adjusting the depth of cut until the desired depth is reached; max depth of cut 3/8" (9.5 mm).
- Use an Industrial Vacuum Dust Control System for dry planing operations.
- Optional water hookup also available.

To Stop Cutting:

- Move cutter head control lever to raise cutter head assembly above slab surface.
- For gasoline and propane models, close throttle and turn the ignition switch to the "off" position.
- For electric models, depress the "OFF" button.

After Cutting:

- At the end of the day, clean the entire machine after it has cooled. Check for worn or damaged cutters and perform any required maintenance. See Maintenance Schedule page 19 and Instructions on page 17.
- If water was used for dust control - - - clean slurry under machine before it dries.



Cutting Heads / Drums:

- Drum assembly revolves at approximately 1200-1800 R. P. M.; Model CPM-10 is a "down-cut" planer, Model CPM-8 is a "down-cut" planer, and ScanLite-8 is a down-cut planer, Model CPM-4 is an "up-cut" planer. Depth of cut is completely determined by the material to be cut, horsepower of the engine/motor and spacing of the cutter wheels on the cutter head.
- All cuts should be started from a stationary position - when the cutting depth is reached the planer should then move forward.
- The engine/motor should not labor. Run at full speed and adjust forward speed to fit the work being performed. Very hard concrete will have to be cut at a slower pace than asphalt or deteriorated surfaces.
- If it is necessary to make deep cuts - make several shallow cuts to achieve the desired depth. If the cutting depth is set too deep the cutter wheels will not be able to absorb the shock and damage to the equipment will result.
- The cutter wheels have an oversized arbor hole. This "play" is needed to absorb some of the shock of the cutter contacting the concrete and allow the cutter to "rebound" from the surface.
- Cutting speed is directly proportional to the amount of material to be removed in one pass; an example - cutters spaced on 1" centers will penetrate to a greater depth than those spaced at 1/2" centers, and the planer will move forward faster. Most of the material in the path of the cutting head will be removed either by the cutters themselves or through the natural hammering action and spalling of the material being cut. A later pass with cutters spaced closer together will remove the ridges.

To Reach Maximum Depth in Concrete:

- It is best to make several passes - increments of 1/32-1/8" or even less if surface is extremely hard.
- Use coarse (wide spacing) for initial passes. Complete job with medium spacing. Never use a fine spaced cutter head to cut deeper than 1/32-1/8".
- Some concrete slabs, especially if they are covered with water a good deal of the time or if they have been treated with hardeners, develop an extremely high surface strength.
- Material removal depth should not exceed 1/32-1/8" per pass thus requiring several passes to reach the desired depth of cut.

To Cut Asphalt:

- This surface can be easier to penetrate than concrete. In some instances depths of 1/4" per pass can be achieved with the larger machines. In general though, 1/8" per pass is still standard and should be maintained until the hardness of the asphalt is determined.

Note: Specific information on asphalt cutting is available upon request.

Fine Cutting:

- This assembly should be used for very shallow or cleaning operations. Check with dealer for special cutter wheels for removal of paint build-up or similar surface coatings.

DRY PLANING

Dry Planing:

Dry Planing creates a large volume of airborne dust. For health reasons, the operator should wear an applicable respirator. The dust may contain chemicals known to cause serious illnesses, including Silicosis a fatal disease of the lungs. Check the chemical properties of the material to be removed and follow all EPA/OSHA regulations.



- An Industrial vacuum, capable of handling high volume of fine dust, such as the VAC-200 (Figure 5), should be used when dry planing with this machine. If the material being used is hazardous or contains Silica - the vacuum unit should be capable of removing Respirable Silica and hazardous particles of less than 3 microns and if necessary, have the capability to be equipped with a HEPA filter.
- Most standard drum type units use a paper bag filter. The dust created during planing is extremely fine and will clog the filter bag of these units and eventually damage the vacuum's motor. In addition, damage to the CPM-4-8-10 engine could occur.
- The collected debris and filters should be disposed of according to procedures that comply with current EPA/OSHA standards.



FOR YOUR SAFETY AND WELL BEING



What to Expect from your CPL-8, CPM-4, CPM-8, CPM-10 EDCO Concrete Planer

The CPL-8, CPM-4-8-10 EDCO concrete Planers were designed to remove material from the surface of concrete slabs. The material may consist of excess concrete, coatings, contaminants such as industrial debris, sealer, paint, production line spill and virtually any foreign substance that creates a safety or health hazard on walks, passageways or floor surfaces.

The EDCO planers are primarily used for surface preparation in commercial and industrial buildings. The machine's total weight is an advantage when used on upper floors where lbs per sq. feet is an important factor. We have kept the overall width to less than 36 inches (91 cm) to allow for passage through most commercial doorways.

Since the maximum depth of cut is 1/2" (2 cm) in increments of 1/32" to 3/16", it is not suited for removal of very hard concrete such as the kind found on roads, bridge decks or runways. This work is best accomplished by heavy duty milling machines built for that purpose.

The basic mechanical structure consists of a fabricated steel frame, a power source - electric, gasoline, or propane (an air motor can also be adapted), and a rotating drum like cutter head that can be raised or lowered to a chosen depth by the operator.

The CPM-4 model is designed with an "up-cut" rotation of the cutter drum assembly, consequently a milling type action occurs. The CPM-8, CPM-10 and CPM-8 are down-cut machines.

The push units require very little manual labor to operate - the operator controls speed, forward and reverse directions. Note that it will cut in forward or reverse directions.

The 4" to 10" inch wide drum assemblies consist of a welded cage holding 4, 6 or 8 hardened shafts - locked in place during operation and removable when replacing cutters.

Several styles and sizes of cutters are available. All types of cutters may be used on all sizes of drum assemblies. Cutters vary in size - 2 - 3/8" for light removal, 3" diameter for longer life. Additional cutter wheel specifications can be found on literature and price lists.

The efficiency of the planer is determined by 3 factors - the hardness and type of surface to be removed, the type of cutting tool and the power behind the cutters.

Since the hardness of the surface cannot be changed and the cutter type is limited to present state of the art material and the power source is fixed - there may be conditions that are beyond the capability of the planer. To exceed these limits will only cause problems. Cutter life will be shortened drastically, excessive vibration will most likely cause the scarifier to self destruct.

EDCO cannot accept responsibility if the conditions found on the job site exceed the ability of the equipment to meet the contractor's expectations. It is the obligation of the purchaser, user or renter to determine the compatibility of the planer with the job to be performed.

We at EDCO are prepared to assist the user. We can provide technical information and comparison data on jobs of a similar nature. Given information on the project we can advise the contractor which tools, in our opinion, will suit the job best, approximate production rates and possibly arrange a demonstration or suggest an alternative method or equipment.

EDCO concrete planers, when properly used, will perform efficiently and economically, but as with all "demolition" equipment, unless proper maintenance is provided they tend to wear out faster than other mechanical devices.

It is important that each job be considered individually. Testing should be carried out and a determination made if the project is feasible under the circumstances. In those instances where no other alternative is available, various changes in procedure can be tried - shallower cutting depth, slower forward speeds, spacing of cutters changed - extra weight added. We do not guarantee life of cutters, depth of cut, life of equipment (except for workmanship). Equipment of this type is capable of self destruction through misuse or abuse and the owner/operator is the vital component that can mean success or failure of the project.

Our technical information has been obtained from years of experience on all types of job sites and we will gladly share this information with you. New materials are constantly being introduced - concrete is made harder with additives, chemicals and new curing techniques. We try to keep up with these changes, it's a never ending job for us and we need your cooperation to provide us with accurate job site conditions and information.

SMI Dust and Silica Warning

WARNING

Grinding/cutting/drilling of masonry, concrete, metal and other materials can generate dust, mists and fumes containing chemicals known to cause serious or fatal injury or illness, such as respiratory disease, cancer, birth defects or other reproductive harm. If you are unfamiliar with the risks associated with the particular process and/or material being cut or the composition of the tool being used, review the material safety data sheets and/or consult your employer, the manufacturer/supplier, governmental agencies such as OSHA and NIOSH and other sources on hazardous materials, California and some other authorities, for instance, have published lists of substances known to cause cancer, reproductive toxicity, or other harmful effects.

Control dust, mist and fumes at the source where possible. In this regard use good work practices and follow the recommendations of the manufacturer/suppliers, OSHA/NIOSH, and occupational and trade associations. Water should be used for dust suppression when wet grinding/cutting/drilling is feasible. When the hazards from inhalation of dust, mists and fumes cannot be eliminated, the operator and any bystanders should always wear a respirator approved by NIOSH/MSHA for the material being used.

WARNING

Grinding/cutting/drilling of masonry, concrete and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick, clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When grinding/cutting/drilling such materials, always follow the respiratory precautions mentioned above.