



# OPERATING INSTRUCTIONS

## FLEXTOOL PROFINISH RIDE-ON POWER TROWEL FP836-3, FP1046-3



Version 1.0 (August 2023)

FOR MORE INFORMATION VISIT [flextool.com.au](https://flextool.com.au)

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## INTRODUCTION

Thank you for your selection of Flextool equipment.

Flextool have specialised in the design and manufacture of quality products since 1951.

We have taken care in the design, manufacture, and testing of this product. Should service or spare parts be required, prompt and efficient service is available from our extensive dealer network.

### General Safety Instructions for the Operation of Power Equipment

The goal of Flextool is to produce power equipment that helps the operator work safely and efficiently. The most important safety device for this or any tool is the operator. Care and good judgement are the best protection against injury. All possible hazards cannot be covered in this manual however we have tried to highlight some of the important items, individuals should look for and obey Caution, Warning and Danger signs placed on equipment and displayed in the workplace. Operators should read and follow safety instructions packed with each product.

Learn how each machine works. Even if you have previously used similar machines, carefully check out each machine before you use it. Get the "feel" of it and know its capabilities, limitations, potential hazards, how it operates, and how it stops.

## APPLICATIONS

The power trowel can be used for trowelling concrete surface through floating and finishing operations. Two types of blades can be fitted with the trowel: combination and finishing blades.

Applications include, but are not limited to:

- Large industrial and commercial floors
- Warehouse floors

## FUNCTIONS AND CONTROLS

The troweling machine reproduces the action of hand troweling while giving a high-quality dense finish with wear resistance. The angle of the blades is adjustable during operation from a floating position, with the full blade area in contact to flatten the surface, to a finishing position with the blades tilted to give a finished surface.



The figure above shows the location of the controls and components for this ride on trowel. The functions of controls are described below:

1. Handle Grip/Handlebar – When operating the trowel, hold both handgrips with hands. Replace handgrips when they are worn or damaged.
2. Blade Pitch Control – Turn the blade pitch control clockwise to increase blade pitch, and counter-clockwise to decrease blade pitch moving.
4. Throttle Control Pedal – Controls the speed of engine. Push down the pedal to increase engine speed lift upwards to decrease engine speed.
5. Safety Stop Pedal – If the operator loses control, releasing foot pressure will stop the machine.
6. Trowel Arm – NEVER use broken or bent trowel arms. Check for arm alignment if blades show uneven wear or some wear earlier than others only when machine stopped and isolated.
7. Blades and Pans – Combination blades, finishing blades and pan floats can be fitted with the trowel.
8. Guard Ring – NEVER put hands or feet inside the guard ring while the engine is running.

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## HAZARDS AND RISKS

- NEVER allow an untrained person to operate machine without adequate instruction.
- ENSURE all users read, understand, and follow the operating instructions.
- SERIOUS INJURY may result from improper or careless use of this machine.
- Ride-on Power trowels are heavy units and require a mechanical lifting device/crane. Where provided, use the lifting eye for mechanical lifts using approved lifting devices.

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## MECHANICAL HAZARDS

- DO NOT operate the machine unless all protective guards are in place.
- ENSURE that the motor operation switch is in the OFF position and the spark plug ignition lead is disconnected before removing the guards or making adjustments.
- DO NOT increase the governed no-load motor speed above 3500 rpm. Any increase may result in personal injury and damage to the machine.
- Be sure the safety stop pedal is working properly, not fixed in the "ON" position. While operating machine, if control is lost by the operator, remove foot from runaway pedal to shut off the engine.
- Take care not to come in contact with the muffler when the engine is hot, since it may result in severe burns..
- Keep hands and feet clear of rotating or moving parts as they will cause injury if contact is made.
- DO NOT place fingers, hands, or feet within the Ring Guard while machine is still running.
- It is important that the operator is seated and balanced when starting the engine ensuring the area is clear of people.
- When starting the trowel do not exceed ¼ throttle setting. A higher setting could engage the centrifugal clutch causing the blades to rotate.
- Be careful with the trowel around pipes sticking out of the floor or other obstacles. Should the trowel blades catch on these, serious damage to the machine or harm to the operator may result.
- ENSURE that repairs to the motor and machine are carried out by QUALIFIED personnel.

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## FIRE AND EXPLOSION HAZARDS

- PETROL is extremely flammable and explosive under some conditions.
- ENSURE that petrol is only stored in an approved storage container.
- DO NOT refuel the motor while it is in operation or hot.

- DO NOT refuel the motor in the vicinity of sparks, naked flames, or a person smoking.
- DO NOT overfill the fuel tank and avoid spilling petrol when refuelling. Spilled petrol or petrol vapor may ignite. If spillage occurs, ensure that the machine is dry before starting the motor.
- ENSURE that the fuel tank cap is securely fitted after refuelling.
- ENSURE a serviceable appropriate type and size fire extinguisher is readily available for immediate use.

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## CHEMICAL HAZARDS

- DO NOT operate or refuel a petrol motor in a confined space without adequate ventilation.
- CARBON MONOXIDE exhaust gases from internal combustion motor driven units can cause death in confined spaces.

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## NOISE HAZARDS

- EXCESSIVE NOISE can lead to temporary or permanent loss of hearing.
- WEAR an approved hearing protection device to limit noise exposure, as required by Occupational Health and Safety regulations.

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## VIBRATION HAZARD

- EXCESSIVE exposure to prolonged or extreme whole body and hand vibration, can cause permanent injury.
- Ensure any abnormal or excessive vibration in equipment is reported.
- Grip controls as lightly as possible within the bounds of safety using vibration absorbing gloves.

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## PERSONAL PROTECTIVE EQUIPMENT

- WEAR protective goggles, clothing and footwear while operating the machine.

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## ADDITIONAL HAZARDS

- Slips/trips/falls are major causes of serious injury or death. Beware of obstacles or water left on the walking or work surface.
- Exercise caution and ensure that the perimeter of elevated formwork or platforms is protected.
- Always maintain good footing when stepping on to the Ride-on Trowel so that you do not slip.
- Ensure there are no electrical leads or hoses on floor being trowelled.

For further information on hazards, please refer to the risk assessment document available on [flextool.com.au](http://flextool.com.au)

**OPERATION**

**INSPECTION**

The following items should be checked on a daily basis before operating the trowel.

- Engine oil level
- Gearbox oil level
- Blade condition and pitch control operation
- V-belt clutch operation
- Safety Stop Switch operation

**ENGINE OPERATION**

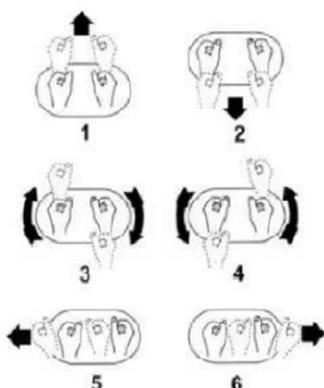
1. Move the engine Fuel Valve Lever to “ON” position.
2. Move the Safety Stop Switch to “ON” position or hold safety switch pedal down with foot.
3. Place the Choke Lever in the “CLOSED” position.
4. Rotate the Ignition key to Start the Engine – Electric start feature.
5. If the engine has started, return the Choke Lever to “OPEN” position; If the engine has not started, repeat 1 to 5 steps above.
6. Run the engine for a few minutes and make sure the machine is in normal working condition.
7. Test the Safety Stop Switch or safety switch pedal. This test should be conducted in a clear area. Remove left foot from the ‘safety switch pedal’, with the engine at idle. The engine should shut down.
8. DO NOT TAPE UP, TAMPER WITH OR DISABLE THESE SAFETY DEVICES
9. To start trowelling, gradually push down on the foot pedal to achieve the desired blades speed specific to concrete surface conditions.

**MACHINE OPERATION**

Steering the machine on a slab is relatively simple but does require some practice prior to actually working with the machine.

The illustration shows the necessary hand movements required to move the trowel in the desired direction.

- 1 - forward
- 2 - reverse
- 3 - rotate clockwise
- 4 - rotate counter-clockwise
- 5 - left sideways
- 6 - right sideways



For straight line movements (forward and reverse) move the handles in the same direction you wish to travel.

Move the handles in the opposite directions to produce rotation on the machine axis.

Left handle forward, right handle backwards for clockwise direction.

Left handle backwards, right handle forward for the counter-clockwise direction.

Sideways direction is achieved by moving the right handle either the left or right direction.

To familiarize a new operator with the ride-on trowel the following steps should be taken:

- With the operator seated on the machine prior to starting the unit show them the function of the ignition switch, safety switch pedal, throttle control, steering handles, and blade tilt levers. Prior to starting the unit, ensure the operator knows the emergency stop procedure. To stop the unit the operator can either release pressure from the safety switch pedal or release the throttle control.
- Once the operator is familiar with these controls, they need to practice steering the trowel. The best place for this is on a large section of finished concrete which is at ground level.
- With the blades in the flat position have the operator depress the safety switch pedal and start the unit without depressing the throttle control. With both hands on the steering handles the operator should depress the throttle control to about halfway and obtain a feeling for the steering by making the machine hover in the one spot.
- Once the operator feels confident and is able to make small steering inputs to maintain the position of the unit, they may then practice riding the machine in a straight line and making 180 degree turns. This is best done at full throttle as the machine is easiest to control at full rpm.
- The operator should continue to practice operating the unit until they are familiar with the steering and operation of the unit. The operator should not start working with the machine until they are capable of being in complete control of the machine and their actions while operating the machine.

**SERVICE**

- ENSURE to complete service and maintenance as scheduled in the equipment and engine owner's manual.
- Use only genuine parts and accessories to ensure compatibility and safe use of equipment.
- ENSURE where applicable to remove spark plugs, disconnect battery from motor and isolate power cable from power outlet prior to undertaking any maintenance and repair.
- ENSURE guards, safety switch and any other safety mechanisms are free from damage and installed prior to testing and returning product to service.
- WEAR PPE when servicing and repairing equipment (gloves, glasses, dust mask and steel cap boot) to reduce risk of cuts, burns, crushing, eye injuries, skin exposure to fuel or oils, dust inhalation, etc.
- NEVER work underneath equipment suspended by lifting device or on ramps.
- For preventive maintenance of the engine, please refer to the Owner's Manual of the engine fitted supplied with the equipment.

**TROWEL SERVICE MAINTENANCE SCHEDULE**

The following schedule should be followed when performing regular maintenance of the equipment:

Description	Operation	Daily (8-10 Hours)	Weekly (50-60 Hours)	Monthly (200-300 Hours)	Yearly (2000-2500 Hours)
V-Belt	Check/Replace		•		
Gearbox Oil	Check	•			
Trowel Arms	Grease	•			
	Remove/Clean			•	
Blades	Check/Replace		•		
Thrust Collar/ Bushing	Remove/Clean			•	
Blade Arms	Adjust			•	
Arm Bushing	Check/Replace				•
Wear Ring	Check/Replace				•
Shaft Seals	Check/Replace				•
Pitch Control Cable	Check				•
Clutch	Remove/Clean			•	

**ENGINE SERVICE MAINTENANCE SCHEDULE**

Description	Operation	Daily (8-10 Hours)	Weekly (50-60 Hours)	Monthly (200-300 Hours)	Yearly (2000-2500 Hours)
Engine Oil	Check	•			
	Change		•	•	
Air Cleaner	Check	•			
	Clean			•	
	Change				•
Spark Plug	Check			•	
	Replace				•
Air Filter	Check	•			
Fuel Filter	Replace				•

**STORAGE AND TRANSPORT**

- ALWAYS use certified and tested loading ramps.
- ENSURE loading ramps are regularly inspected by competent person for damage or material fatigue.
- NEVER drag or pull the equipment by the hose or power cord.
- ALWAYS follow correct manual handling techniques.
- NEVER allow any person to stand underneath equipment while lifting.
- NEVER lift equipment while connected to power outlet or when engine is running.
- ENSURE where applicable to shutdown engine and isolate power cable from power outlet prior to before transporting.
- ALWAYS secure equipment during transport by using suitable tie down points on both equipment and vehicle.
- Ensure all equipment is restraint according to the NVHR load restraint guidelines.
- ALWAYS inspect straps and ropes for damage prior to use.
- ENSURE where applicable to lock castor wheels or lay equipment flat during transport and storage to prevent unwanted movement.

**OIL AND LUBRICANTS**

Model	Engine Oil		Gearbox Oil		Spider Plate / Arm Grease
	Type	Capacity (ml)	Type	Capacity (ml)	Type
FP836-3	SAE 10W-30	1500	SAE 10W-30	Until fill hole overflow	EP2 Grade Grease
FP1046-3	SAE 10W-30	2300	SAE140 or AGMA 8 equivalent	Until fill hole overflow	EP2 Grade Grease

**TECHNICAL DATA**

Model	Operating Weight (kg)	Trowel Diameter mm (in)	Number of Blades	Rotor Speed Range (rpm)	Blade Pitch Max (deg)	Fuel / Water Tank Capacity (L)	Lifting Hook	Wheel Kit Inclusion	Engine Make & Model	Max Rated Power (hp)	Fuel Type
FP836-3	385	915 (36)	8	50-140	30	20	Yes	Yes	Honda GX690	27	
FP1046-3	520	1165 (46)	10	50-140	30	20	Yes	Yes	Vanguard 613400	35	

COMPATIBLE BLADES AND ACCESSORIES

COMBINATION BLADES

Suits Model	Size mm (in)
FP836-3	205 x 355 (8 x 14)
FP1046-3	205 x 455 (8 x 18)



FINISHING BLADES

Suits Model	Size mm (in)
FP836-3	152 x 355 (6 x 14)
FP1046-3	210 x 460 (8 x 18)



PAN FLOAT

Suits Model	Size mm (in)
FP836-3	940 (37)
FP1046-3	1175 (46)



WHEEL KIT



For easy onsite manoeuvrability.  
(included with all Flextool Ride-On models).

TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSES AND CORRECTION
Motor will not start	<ul style="list-style-type: none"> <li>• Check the ON/OFF switch to ensure that it is switched 'ON'</li> <li>• Check the fuel supply</li> <li>• If a Honda motor is fitted check the crankcase oil level as an oil sensor device is fitted to these motors which prevents starting and stops the motor when oil level is low</li> <li>• Ensure the spark plug ignition lead is connected</li> <li>• Check the carburetor jet and bowl to ensure they are clean</li> </ul>
Motor stops	<ul style="list-style-type: none"> <li>• Check the fuel supply</li> <li>• Check that the fuel cock is turned on</li> <li>• Check the condition of the air filter</li> </ul>
Petrol motor lacks power	<ul style="list-style-type: none"> <li>• Check the condition of the air filter</li> <li>• Check the condition of the spark plug</li> </ul>



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This manual summarises our best knowledge of the product based on the information available at the time of publication. You should read this manual carefully and consider the information in the context of how the product will be used. Our responsibility for products sold is subject to our standard terms and conditions of sale.

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