

# TCG 500 Floor Grinder

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## Operation and Maintenance Manual



## DECLARATION OF CONFORMITY

We,

Trelawny SPT Limited of  
Trelawny House, 13 Highdown Road, Sydenham Industrial Estate, Leamington Spa, Warwickshire, CV31  
1XT, United Kingdom,

Declare that under our sole responsibility for supply/manufacture of the product

Name of product \_\_\_\_\_

Model, Serial Number \_\_\_\_\_

Year of production \_\_\_\_\_

to which this document relates is in conformity with the provisions of the following Directive(s), Normative Documents and their relevant Standards:

- |                            |   |
|----------------------------|---|
| <b>2006/42/EC</b>          | <b>MACHINERY DIRECTIVE</b>  |
| <b>2006/95/EC</b>          | <b>LOW VOLTAGE DIRECTIVE</b><br><b>(Applicable only to products using electric power)</b> |
| <b>EN ISO 11148-4:2012</b> | <b>HAND HELD NON-ELECTRIC</b><br><b>(Non-Rotary Percussive Tools)</b>                     |

Year and place of issue,  
2019  
Leamington Spa, England.



Adam Dickinson,  
Managing Director.

CZ	<p>Prohlášení o přizpůsobení          My, společnost Trelawny SPT Limited          podáváme daňové přiznání, že výrobek a dodávka výrobku          název výrobku          Model, výrobní číslo          Rok výroby          Pro které se průkaz týká, je přizpůsobení s zásobou od následující příkazov a jejich pohotovosti:          98/37/EC Příkaz soustrojí          73/23/EC Příkaz nízkého napětí (upotřebitelné jediné do výrobku použití elektrické energie)</p>	LT	<p>ATITIKTIES DEKLARACIJA          Mes, Trelawny SPT Limited          Prisiimdami visą atsakomybę, deklaruojuame, kad tiekiamas / gaminamas produktas          Produkto pavadinimas          Modelis, serijos numeris          Pagaminimo          Kuriam taikoma ši deklaracija, atitinka šių direktyvų, norminių aktų ir su jais susijusių standartų reikalavimus:          98/37/EC Įrangos direktyva          73/23/EC Žemos įtampos direktyva (taikoma tik elektriniams įrengimams)</p>
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DK	<p>Erklæring om overensstemmelse          Vi, Trelawny SPT Limited          Erklærer hermed at under vores ene forhandling ansvar for vores forhandling/produktion af          produktet          Produkt navn          Model, serie nummer          Produktionsår          For hvilket dette dokument referer, at det er i overensstemmelse med bestemmelser af følgende          direktiver, normative dokumenter og deres relevante standard:          98/37/EC Machinery directive          73/23/EC Low voltage directive</p>	NL	<p>EENVORMIGHEIDSVERKLARING          Wij, Trelawny SPT Limited          Verklaart dat wij de volledige verantwoordelijkheid dragen voor het leveren/fabriceren van het          volgende product:          Naam van het product          Type, Serienummer          Productiejaar          En verklaren dat het product waarnaar dit document verwijst eenvormig is met de voorzieningen          van de volgende Richtlijn(en), Normatieve Documenten en hun relevante Standaarden:          98/37/CE MACHINERIECHTLIJN          73/23/CE LAAGSPANNINGSRICHTLIJN (uitsluitend van toepassing bij producten die          elektrische stroom gebruiken)</p>
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ES	<p>Declaración de Conformidad          Nosotros, Trelawny SPT Limited          Declaramos que bajo nuestra completa responsabilidad de la fabricación/suministro del producto          Nombre del Producto          Modelo, No de Serie          Año de producción          A quien este documento se refiere, está de acuerdo con lo relacionado en la Directriz, Normativa          Documentada y sus relevantes standards:          98/37/EC Directorio de Maquinaria          73/23/EC Directorio de Bajo Voltaje (Aplicable solamente a productos que funcionen con          electricidad)</p>	PT	<p>DECLARAÇÃO DE CONFORMIDADE CE          A empresa TRELAWNY SPT LIMITED          Declara, sob sua inteira responsabilidade, que o fornecimento/fabrico do seguinte produto:          Designação do produto          Modelo, Número de Série          Ano de produção          a que esta declaração se refere, está em conformidade com o preceituado nas Directivas e          Normas Comunitárias abaixo indicadas:          98/37/EC DIRECTIVA DE MÁQUINAS          73/23/EC DIRECTIVA DE BAIXA VOLTAGEM (Aplicável apenas a produtos que utilizam energia          eléctrica)</p>
FI	<p>ILMOITUSVAHVISTUS          Me, Trelawny SPT Limited          Vahvistamme tuotteiden toimittamisesta/valmistamisesta          Tuotenimi          Malli, sarjanumero          Valmistusvuosi          Tällä todistuksella vahvistamme säädökset seuraviin ohje/ohjesiin, Yleisiin papereihin ja niihin          liittyvät vaatimukset:          98/37/EC KONEISTON OHJEET          73/23/EC PIENJÄNNITTE OHJEET (tarvitaan ainoastaan tuotteille jotka käyttävät sähkövoimaa)</p>	RU	<p>СВИДЕТЕЛЬСТВО О СООТВЕТСТВИИ          Мы, Trelawny SPT Limited          Заявляем, что несем полную ответственность за поставку/производство нижеуказанной          продукции          Наименование изделия          Модель, серийный номер          Год выпуска          на которую выдано настоящее Свидетельство, и которая соответствует положениям          следующей(их) Директив(ы), нормативным документам и относящимся к ним стандартам:          98/37/EC ДИРЕКТИВА ПО МЕХАНИЗМАМ          73/23/EC ДИРЕКТИВА ПО НИЗКОВОЛЬТНОМУ ОБОРУДОВАНИЮ          (распространяется только на изделия с электропитанием)</p>
FR	<p>DÉCLARATION DE CONFORMITÉ          Nous, soussignés Trelawny SPT Limited          déclarons que le produit sous-nommé          Nom du produit          Modèle et Numéro de Série          Année de production          et pour lequel nous prenons entière responsabilité pour sa fourniture et manufacture, est conforme          aux clauses des directives suivantes, documents normatifs et normes qui s'y appliquent:          98/37/EC DIRECTIVE POUR LA MACHINERIE          73/23/EC DIRECTIVE POUR BAS VOLTAGE (n'est applicable qu'aux produits utilisant l'énergie          électrique)</p>	SE	<p>FÖRSÄKRAN OM ÖVERENSSTÄMMELSE          VI, TRELAWNY SPT LIMITED          FÖRKLARAR ATT VI MED ENSAMT ANSVAR ANSKAFFAT / TILLVERKAT PRODUKTEN          PRODUKTNAMN          MODELL och SERIE NUMMER          Tillverkningsår          TILL VILKEN DETTA DOKUMENT HÄNVISAR, ÄR I ÖVERENSSTÄMMELSE MED FÖLJANDE          DIREKTIV, NORMATIVA DOKUMENT OCH DERAS RELEVANTA STANDARDER          98/37/EC MASKINDIREKTIV          73/23/EC LÅGSTRÖMSDIREKTIV (TILLÄMPLIG PÅ ELEKTRISK DRIVNA PRODUKTER)</p>
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# OPERATION

## Foreword

Thank you for your purchase of the TRELAWNY Professional use TCG500 Floor Grinder.

This manual contains the necessary maintenance information for you to ensure proper operation and care for this machine.

**See also the manual that is supplied by the engine manufacturer.**

**It is essential for you to read through these manuals thoroughly.**

In the unlikely event that you experience problems with your TCG500, please do not hesitate to contact your local Trelawny dealer or agent. We always welcome feedback and comments from our valued customers.

## General Information

Before operating, performing maintenance or repairing the TCG500 FLOOR GRINDER this manual must be read and understood by the operator, if in any doubt, ask your supervisor before using this equipment.

Local safety regulations must be followed at all times. Failure to follow these instructions could result in damage to the TCG500 and/or personal injury.

Trelawny SPT Limited disclaims all responsibility for damage to persons or objects arising as a consequence of incorrect handling of the machine, failure to inspect the machine for damage or other faults that may influence the operation prior to starting work, or failure to follow the safety regulations listed or applicable to the job site.

This machine is primarily designed for the smoothing of concrete, marble and terrazzo surfaces. It can be used both indoors and out. This machine must not be used in a fixture.

Electric models are more suitable for indoor use because of the toxic exhaust gases that are produced by petrol or diesel engines.

## Safety

WEAR SAFETY BOOTS, FACE MASK, SHATTERPROOF GLASSES, HELMET, GLOVES and any other personal protective equipment required for the working conditions. Avoid loose clothing; this may become trapped in moving parts and cause serious injury.

TO AVOID NUISANCE DUST, connect an industrial vacuum cleaner (minimum 3000watts or equivalent) to the 50mm (2") vacuum port situated at the rear of the machine.

ENSURE THAT THE WORK PLACE IS WELL VENTILATED. Avoid operating engine-powered machines in an enclosed area, since engine exhaust gases are poisonous.

BE VERY CAREFUL WITH HOT COMPONENTS. The exhaust and other parts of the engine are hot during operation and can remain hot for some time after shutdown.

**DO NOT REFUEL THE ENGINE WHILE THE ENGINE IS HOT OR RUNNING**, there is a very real danger from explosion – always refuel when the engine is cold, and in the open air.

During transportation fasten fuel cap tightly and close fuel cock.

**DO NOT OPERATE ELECTRIC VERSIONS IN WET CONDITIONS.**

CAUTION THIS MACHINE IS HEAVY. It weighs between (114kg/251lbs) and (144kg /317 lbs) dependent on power unit.

Do not lift this machine manually.

## Risk of Hand-arm Vibration injury

These tools may cause Hand-arm Vibration Syndrome injury if their use is not adequately managed.

We advise you to carry out a risk assessment and to implement measures such as; limiting exposure time [i.e. actual trigger time, not total time at work], job rotation, ensuring the tools are used correctly, ensuring the tools are maintained according to our recommendations, and ensuring

that the operators wear personal protective equipment [PPE] particularly gloves and clothing to keep them warm and dry.

Employers should consider setting up a programme of health surveillance to establish a benchmark for each operator and to detect early symptoms of vibration injury.

We are not aware of any PPE that provides protection against vibration injury by attenuating vibration emissions.

**See 'Specifications' section for vibration emission data.**

Further advice is available from our Technical Department.

We strongly advise you to visit the Health & Safety Executive website <http://www.hse.gov.uk/vibration> This site provides excellent advice and information on HAV and currently, includes a Hand-arm Vibration Exposure Calculator that is easy to use to work out the daily vibration exposure for each of your operators.

## Media Types & Applications

### Grinding Blocks

All can be used wet or dry

### Coarse grinding blocks

These are fitted as standard on machines fitted with the grinding block option. These are designed for the rapid removal of material. They produce a surface finish suitable for directly laying floor coverings or for two part epoxy paint coatings and for the first grind of terrazzo floor surfaces.

### Medium grinding blocks

These are less aggressive than the coarse blocks, they should provide a surface finish suitable for painting or used as the next stage to the coarse grinding blocks, when achieving a polished surface on terrazzo tiles or other marble type surfaces.

### Fine grinding blocks

These are the least aggressive of all the grinding media. These are generally only used for final finishing to provide a surface suitable for final polishing.

# OPERATION

In addition, scarifying blocks and wire brushes are available which can be fitted in place of the grinding blocks.

A new replaceable segment disc is now available allowing the operator to quickly change the tooling without any special equipment.

## **Diamond Disc machine**

The machine is fitted with a 20 segment diamond disc for medium concrete as standard (see below for specification). There are also 10 segment discs for very aggressive grinding and 16 segment discs for aggressive grinding available. The 20 segment disc are the most economical and least aggressive.

All discs can be used wet or dry.

### **Grinding disc 20 segment (Blue)**

(Soft bonded diamond)

Premium disc.

For medium to hard material, granite, cured concrete or terrazzo.

### **Grinding disc 20 segment (Black)**

(Medium bonded diamond)

Premium disc.

For medium or general abrasive materials - medium strength concrete or adhesives.

### **Grinding disc 20 segment (Red)**

(Hard bonded diamond)

Premium disc.

For softer or abrasive materials - green (less than 48hrs old) or medium strength concrete, or adhesives.

## **Pre-Start Check**

### **ALL VERSIONS**

Check all bolts and screws for tightness. Ensure that all fittings are secure.

Check the drive belts for correct tightness. There should normally be approximately 13mm (1/2") of free play when the belt is depressed in the middle position between the two pulleys.

To check and set the belt tension, refer to the *Belt installation & Adjustment* section.

Engine versions check the engine oil level (the engine will not start if the oil level is low.) If low, refill with the relevant motor oil recommended in the engine manufacturers operating

and maintenance manual.

The TCG500 is supplied with a specially commissioned electric motors and starter switch assembly.

Each unit is fully tested and the overload relays have been calibrated and set according to the manufactures specifications. In the event of malfunction on a new machine, the owner should first check that the power supply on site is suitable and adequate.

All cables should be fully uncoiled and never left wrapped around cable reels or tied in loops. The starter box is fitted with a safety feature to protect the motor and relays from damage. The starter boxes are preset and under no circumstances should they be tampered with, stripped down or adjusted, otherwise it will invalidate the warranty.

The starter control box lid must be unscrewed to gain access to the Black or Blue reset button, ensure that the supply is disconnected prior to opening the lid.

### **110v Motor**

The motor requires the minimum of a 32amp, 110v power supply. Always use the shortest possible length of extension cable. To avoid voltage drop the cable must be a minimum core wire size of 2.5mm<sup>2</sup> but preferably 4.0mm<sup>2</sup> cross-section. The maximum length of cable can then be 15 metres and 30 meters respectively.

Use a centre tap transformer with a continuous rated output of at least 3.0KVA. In practice this means that a 5.0KVA transformer must be used. Manufacturers have different methods of rating their equipment.

All transformers and cables should be fitted with 32amp plugs and sockets.

The 240v supply to the 110v transformers ideally should be rated to at least 20amp if supply problems are to be avoided, but taking care not to overload, a 13amp supply could be used.

### **240v and 415v Motors**

Take particular care when using 240v or 415v Machines, ensure that the electrical supply is earthed and that breakers and fuses are correct for the loading.

The 240v motor requires the minimum of a 13amp, 220v power supply.

The 415v motor requires the minimum of a 10amp, 380v power supply. Always use the shortest possible length of extension cable. To avoid voltage drop the cable must have a minimum core wire size of 2.5mm<sup>2</sup> cross-section area. Maximum length of cable 30 meters.

## **Starting**

**Machines fitted with petrol engines** and manual lift mechanism.

The cutter heads must be raised off the floor surface before starting the Honda engine from cold.

### **ENGINE VERSIONS**

#### **CAUTION**

Beware of **POISONOUS FUMES.**

Start and operate only in well-ventilated areas.

The engine is fitted with an automatic choke, this only operates with the throttle lever in the fast position, on starting this will cause the centrifugal clutch to engage and the grinding discs to rotate.

Using the handle situated on the front of the machine "Jack" up the grinding blocks clear of the floor surface, this will require approximately 40 turns of the handle until the cutters are fully raised up and the handle comes to a stop.

Once the engine is hot, subsequent starting can be carried without the safety lift mechanism being used; **starting must only be carried out with the engine throttle lever in the idle/tick-over position.**

**Ensure that the rear axle is in the forward transport position.**

#### **Be careful with HOT COMPONENTS.**

The exhaust and other engine parts are hot during and for some time after operation. Do not touch them.

# Maintenance

Check that there is sufficient fuel in the fuel tank. (See manufactures hand book for type)

Check that the engine oil level is correct. (See pre-start check)

Ensure that the machine is started on a level surface.

Open the engine fuel tap.

For cold engine starting, the 5.5hp and 11hp engines have an automatic choke, apply full throttle to operate.

Set the engine switch to the "on" position.

Check that the machine has been "Jacked up" (Honda engine versions only)

Pull the 'hold to run' lever against the handle bar  
Pull the recoil starter cord handle.

## **IMPORTANT**

Do not pull the recoil starter cord to the end of its travel as it may cause damage to the engine or injury to the operator.

When the engine starts, recoil the cord slowly.

Do not allow the cord to snap back to its start position.

After the engine starts, move the throttle lever towards the idle/tick-over position until the engine runs smoothly.

After a minute or two reduce to a quarter open throttle setting and warm up the engine for a further 2~3 minutes before setting to tick over.

The warm up procedure is particularly important during cold weather.

## **Machines fitted with an electric motor**

### **IMPORTANT:**

Pull back on the handle bars to **raise the cutters off the floor**, pull the 'hold to run' lever against the handle bar and press the green start button on the switch box, then gently lower the cutters onto the surface being worked.

### **: EMERGENCY SHUTDOWN :**

Release the "Hold to run lever" on the handle bar and/or switch off the ignition switch on engine versions.

## **Machine Operation**

Remove all of the weights, if fitted, from the front of the machine .

Take care when removing the weights they weigh approximately 18kg each.

(Please refer to manual handling recommendations when lifting.)

Connect a suitable commercial vacuum which has been designed for the collection of concrete dust and possibly toxic paint particles, Trelawny can supply special HEPA filtered vacuums suitable for these applications.

There is a choice of two axle positions dependent on the finish required; you can swing the axle from its forward position (also the Transport position), to the rear position for a more aggressive action. Always start with the axle in the forward position.

**On engine-powered machines**, ensure that the engine is running at **tick over** (Slow run position).

Whilst holding the 'hold to run' lever against the handle bar, turn the lift mechanism handle anti-clockwise to lower the grinding blocks onto the floor surface. Continue to turn the handle anti-clockwise until the handle engages with an indent, holding the handle in place pointing towards the rear.

Grasp the handle bar firmly, and continue to hold the "hold to run" lever against the handle bar.

Slowly increase the engine speed and the centrifugal clutch will automatically engage the grinding discs at around the half throttle open position. Use full throttle when using additional weights allowed.

(Maximum of two weights on the 5.5hp machines, these are available as optional extras)

(Maximum of three weights on 11hp machines)

**On electric-powered machines**, continue to hold the "hold to run" lever against the handle bar.

The machine may oscillate slightly during use, which is normal. Move the machine slowly backwards and forwards, slightly swinging the machine right and left to cover the centre area between the grinding discs; this will ensure that a uniform finish is achieved. Complete a small area noting the performance; on engine versions reduce the throttle to tick over. Then on both engine and electric motor versions release the 'hold to run' lever to stop the machine, inspect the finish produced. Move the axle to the rear position or change the grade of grinding blocks or diamond discs or add a Trelawny weight if required on petrol engine machines and recheck performance and surface finish.

**Please note:** - No additional weights are fitted on 110v & 240v electric machines due to power limitations and a maximum of one weight on the 400v 3ph 5.5kw machine.

## **Shut Down**

On electric powered machines, simply release the "hold to run" lever. On engine powered machines, move the engine's throttle lever to the slow speed position. (This avoids the engine becoming washed internally by neat fuel if switched off from high engine revolutions.)

Release the 'hold to run' lever and switch off the engine's ignition switch. Close the engine fuel cock.

On both electric and engine powered machines, swing the axle to the forward position for transportation.

After the engine or motor has completely cooled, clean off any concrete dust from external components and remove any heavy build up of concrete dust from inside the front dust skirt, (See start of "**Grinding Block Replacement**" section for safe method of gaining access to inside of front dust skirt).

Take care when using hoses or pressure washers and clean within the dust skirt area only.

Do not to allow water to be directed at or splashed onto the engine, electric motor or any electrical components. Once clean and dry, cover the machine to protect it and store the grinder in a dry place.

# Maintenance

## Belt Installation & Adjustment

### Removal

If fitted, remove all of the weights from the front of the machine.

Take care when removing the weights they weigh approximately 18kg each.

(Please refer to manual handling recommendations when lifting.)

Remove the top cover by unscrewing the two 10mm wing bolts either side of the chassis.

Loosen the engine/motor mounting plate bolts to allow the engine to move along the chassis engine/motor mounting bolt slots. Slide both the V-belts off the gearbox drive pulley and then remove them from the engine/motor pulley.

### Installation

Slide both the new belts onto the engine/motor pulley first, locating them in the grooves. Then slide the lower belt over the gearbox drive pulley and into the lower groove on the pulley, followed by the upper belt into the upper groove. Adjust the engine/motor position using the adjusting bolt and then tighten the engine/motor mounting plate bolts, ensure the belt tension is correct. **(Do not over tighten)**

Tighten all engine bolts, refit the top cover and tighten the wing bolts and replace the weights as required.

#### **IMPORTANT**

Normal slack should be approximately 13mm (1/2") when the belts are depressed in the middle position between the engine pulley and gearbox pulley.

## LUBRICATION

Remove the blanking plug (31), covering the inspection hole on top of the gearbox. Using an implement, apply a liberal amount of a copper based high melting point grease to the teeth on the visible large gears.

Using a grease gun, apply a high melting point bearing grease to the grease nipples situated on the six bearing housings on the gearbox. Lubricate once every three months.

## Grinding Block Replacement

Switch off the engine powered versions and allow the engine to **cool completely**, disconnect electric motor powered versions from its power supply.

### **IMPORTANT:**

**Ensure that the axle is swung into the forward "transport/grinding position."**

Place the machine on a flat and level surface.

Remove all weights, if fitted, from the front of the machine.

Raise the front skirt by loosening the two 10mm guard retaining wing bolts on either side of the machine and also the 8mm hexagon headed bolt at the front of the machine, slide the guard up to the top of the slots and tighten the bolts temporarily.

Tilt the machine backwards to rest on its handle bar.

**On 11 hp engine powered machines**, place one of the supplied weights onto the two locating pins on the arms of the handle.

**On electric and 5.5hp powered machines**, place a heavy object (10kg sand bag, etc.) across the upper part of the handle bar or rope down for additional security.

Take note how the grinding blocks and wedges have been assembled, using a suitable wooden drift, knock out the grinding block, not the wooden wedge.

Dispose of the used grinding blocks according to local legislation.

Fit each new grinding block squarely into the grinding plate location corner at the outer flat face of the grinding disc.

Secure with a new wooden wedge, between the block and the inner face of the grinding block, knock the wedge into position using a suitable drift.

### **Note:**

Do not use a mix of old and new grinding blocks, this will cause rapid wear of the new blocks and could cause the machine to become uncontrollable, unstable and dangerous in use.

Re-adjust the lower guard and tighten the fixing bolt and wing bolts.

## Fitting Diamond Discs

Switch off engine powered versions and allow the engine to **cool completely**, disconnect electric motor powered versions from its power supply.

Place the machine on a flat and level surface.

Remove all weights from the front of the machine if fitted.

### **IMPORTANT:**

**Ensure that the axle is swung into the forward "transport/grinding position."**

Tilt the machine backwards to rest on its handle bar.

**On engine powered machines**, place one of the weights, if fitted, locating the holes in the weight with the two pins on the arms of the handle.

**On electric powered machines**, place a heavy object (10kg sand bag, etc.) across the upper part of the handle bar or rope down for additional security.

Raise the grinding block guard by loosening the two 10mm guard retaining wing bolts on either side of the machine and also the 8mm bolt at the front of the machine, slide the guard up to the top of the slots and tighten the bolts temporarily.

Remove any build up of material from around the grinding discs retaining nuts and bolts.

Remove all the lock nuts situated at the bottom the grinding discs from the corresponding M10 cap head bolts.

# Maintenance

Unscrew all of the M10 bolt from above the grinding disc drive shaft hubs until the grinding disc is released, support the grinding disc as you do so, there is no need to remove the bolts from the flexible coupling.

Store the grinding head assemblies for future use, and check as per 3-month machine storage when refitting.

Offer the Diamond Disc adapter up to the flexible coupling with the recess in the centre of the hub towards the coupling.

Screw in one of the M10 bolts, in to a hole in the Diamond Disc adapter and secure with a Nyloc Nut.

Repeat with the other two bolts.

Fully tighten all the bolts holding the cap head bolt stationary using a suitable Allen key, screw the M10 Nyloc nut onto the bolt and tighten to torque of 55nm (40lbs/ft) against the Diamond Disc adapter.

Repeat with second grinding assembly.

Using a 10mm Allen Key in the centre spigot secure the Diamond Discs to the adapters using the M12 countersunk socket head screws.

Reposition the front dust skirt and retighten the 10mm wing bolts and 8mm hexagon headed bolt.

## Machine Storage

### Long period storage: over 3months

Clean outside of machine, inspect the grinding blocks for wear; replace any worn parts as required.

Remove any build up of material from inside of grinding disc area following step in start of "**Grinding Block Replacement**" Section .

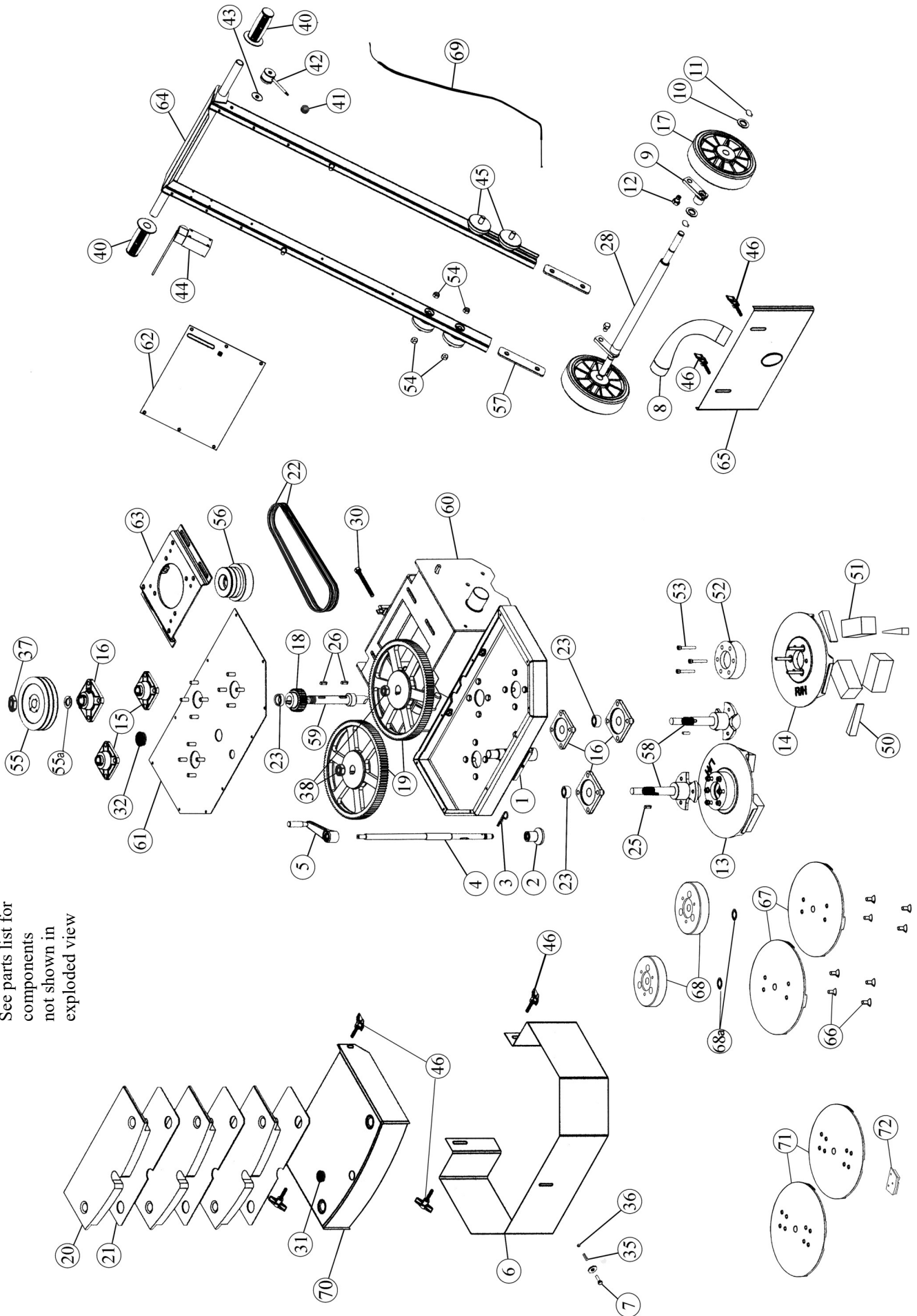
Cover the machine to protect it: Store the machine in a dry place.

Be sure to check security of wooden wedges after any lay up period.

FAULT	CAUSE	ACTION
Engine stops suddenly or does not run correctly	No fuel in the fuel tank.	Refuel fuel tank. (See safety section.)
	Spark plug faulty.	Replace spark plug.
	Fuel blockage.	Check fuel line and strainer.
	Air filter partially blocked.	Replace air cleaner element.
	Low oil level. (Engine cut off switch is fitted)	Rectify leaks and replenish oil.
Motor stops suddenly or does not run correctly	Loose wiring, incorrect voltage, or blown fuse.	Check connections and power supply or replace fuse.
Engine/motor runs but the grinding heads do not move.	Drive Belts slack or failed.	Replace Belt or adjust tension.
	Centrifugal clutch faulty on engine versions	Replace clutch assembly
	No grinding blocks fitted	Check grinding discs for any damage, replace if necessary. Fit new grinding blocks
Grinder is slow or erratic	Loose or a failed drive belts.	Adjust drive belt, or replace.
	Surface too rough.	Use Trelawny TFP200/250 surface Planer to produce a smoother surface or to remove bulk of material prior to grinding. Change grinding blocks to a coarser grade.
Engine will not start	No fuel in the fuel tank	Refuel fuel tank, see safety precautions.
	Low oil level	Rectify oil leaks and replenish oil.
	Water in fuel	Drain fuel tank, float chamber, and refuel.
	Incorrect fuel in tank, i.e. diesel in petrol tank	Clean out fuel tank, all fuel lines and carburettor float chamber. Refuel with correct fuel.
	Spark plug faulty	Replace spark plug
Motor will not start	Power supply is not switched on, blown fuse, voltage incorrect, loose wiring, or faulty motor or starter box components.	Confirm that the power supply is switched on. Rectify loose wiring, replace blown fuse or replace motor or starter box.
Use above information in conjunction with the Honda Operation and Maintenance Manual.		
If problem has not been cured by any of the above actions, contact your local Trelawny SPT dealership for assistance.		



# EXPLODED VIEW



See parts list for components not shown in exploded view



# PARTS LIST

Item	Part No	Description	Item	Part No	Description
56	350.9126	Clutch (Petrol Engines only)			<b>5.5HP N4 Shaft Engine spares prior 2014 (Not shown)</b>
	350.9124	Pulley Taperloc (Electric Motors only)		350.9190	Clutch Retaining Washer
	350.9124A	Bush Taperloc 24mm (Electric Motors only)		350.9191	Collet
57	350.9165	Handle Clamping Plate		350.9192	Collet Nut
58	350.9119	Driven Shaft (Large Gear)		350.9500	Honda 5.5hp Petrol Engine (N4 Shaft single keyway)
59	350.9118	Drive Shaft (Small Gear)		350.6015	Key 1/4" x 1/4" x 58mm
60	350.2010	Chassis & Gearbox Assembly		832.1050	Split Pin Throttle Cable Retaining
61	350.9102L	Top Plate		812.1030	M3 Washer (Throttle Cable Retaining)
62	350.9103	Electric Starter Box Mounting Plate		350.9126	Clutch Assembly
63	350.9100M	Engine/Motor Mounting Plate 5.5HP & Elec Motors)			
	350.9100N	Engine Mounting Plate (11HP Engine & 400v Electric)			<b>5.5HP N1 Shaft Engine spares after 2014 (Not shown)</b>
64	350.9101A	Handle Assembly		345.9500	Honda 5.5hp Petrol Engine (N1 Double woodruff keyway)
65	350.9109	Vacuum Take-off		350.9126A	Clutch Assembly
66	350.9141	M12 x 25 Countersunk Socket Screw		350.9190	Clutch Retaining Washer
67	350.5610R	Diamond Disc (10 segment concrete)		345.9150	Woodruff Key
	350.5610RA	Diamond Disc (10 segment asphalt)			
	350.5620R	Diamond Disc (20 segment concrete)			
	350.5620RA	Diamond Disc (20 segment asphalt)			
	350.5610G	Diamond Disc (10 segment universal)			<b>11Hp Engine spares (Not Shown)</b>
	350.5620G	Diamond Disc (20 segment universal) - fitted as standard		350.9520	Honda 11 hp Petrol Engine GXV 340 K1
	350.9142	Diamond Disc Adapter Kit		350.9178	Throttle Cable Spring Mounting Bracket
68	350.9143	Diamond Disc Adapter (includes 68a)		350.7010	Cable Return Spring
68a	809.3005	O'Ring x 2		350.6015	1/4" x 58mm Key
69	350.9175	Throttle Cable complete		832.1050	Split Pin Throttle Cable Retaining
70	350.9130	Top Cover		812.1030	M3 Washer (Throttle Cable Retaining)
71	350.5660	Six Segment Quick Release Plate (2 x required)		350.6003	Engine Pulley Bolt 1 1hp Honda
72	See Page 13/14)	Quick Fit Tooling (12 x required - half the amount can be fitted for an aggressive production rate, but a higher wear rate.)		350.6004	Engine Pulley Bolt Spacer 1 1hp Honda










# PARTS LIST

Item	Part No	Description	Item	Part No	Description
<b>110/220v Duel voltage Electric Motor spares (Not Shown)</b>					
	350.9570	110/220v Electric Motor		841.2024	Panel Mounting Plug (Lovato) 230v
	320.9143	110v Starter		841.2616	Contactors (Lovato) 230v
	320.9147	220v Starter		841.2625	Overload Relay 230v/415v 4-6.5amp
	350.9123	Drive Pulley Retaining Washer		841.2621	Start Contact (Lovato) all versions
	350.6011	Electric Motor Pulley Spacer			
	841.2102	110v Yellow Plug for extension lead	<b>415v Lovato Starter Box Components (Not Shown)</b>		
	841.2104	230v Blue Plug for extension lead.		841.2026	Panel Mounting Plug (Lovato) 415v
				841.2617	Contactors (Lovato) 415v
				841.2626	Overload Relay 230v/415v 9-15amp
<b>415v 3ph Electric Motor (Not Shown)</b>					
	325.9186	Electric Starter 380/440V 3ph		841.2621	Start Contact (Lovato) all versions
	350.9575	415v 50/60hz 5.5kw 7hp flange motor	<b>Lafert Motor Components (see exploded view page 15)</b>		
	350.6012	Electric Motor Pulley Spacer	14	841.2650	Icar or Ducati start capacitor (Black)
	350.9100A	Flange mounting	14	841.2660	Facon or Ducati run capacitor (White)
	841.2106	415v Red Plug for extension lead	5	841.2670	SE01 Electronic starter switch
			24	841.2680	Fan
<b>WEG Components 110v (Not Shown)</b>					
	841.2640	Plastic Starter Box & Lid inc buttons	22	841.2690	Fan Cover
			9/11	841.2694	Terminal box and lid
			<b>Others not show in exploded view</b>		
<b>WEG Components 230v/415v (Not Shown)</b>					
	841.2642	230v/415v Starter Box & Lid inc buttons		345.9828	Deadmans Complete Assembly inc lever
	841.2640A	Overload Relay 230v only (RW27D17)		345.9800	Deadmans Handle Switch Box only
	841.2640	Contactors 230v only (CWM18.10 )		345.9826	Deadmans upper switch assembly inc lever
<b>110v Lovata Starter Box Components (Not Shown)</b>					
	841.2022	Panel Mounting Plug (Lovato) 110v		320.9300	M5 x 50 Screws for Deadmans Handle x 2 required
	841.2615	Contactors (Lovato) 110v		320.9310	M5 Plain Washer x 4 required
	841.2620	Start Contactors (Lovato) 110v		320.9150	Spacer Plate (Electric) x 2 required
	841.2624	230/415v Overload Relay 4/6.5amp			
	841.2621	Start Contact (Lovato) all versions			

# Media Types - Metal Bond Tooling

Image	Part Number	Tooling Description
	365.5495L	<b>PCD Removal Diamond Anti-clockwise</b> For removal of coatings, adhesives & toppings
	365.5495R	<b>PCD Removal Diamond Clockwise</b> For removal of coatings, adhesives & toppings
	365.5500	<b>16 Grit Single (Quick Release) Soft Bond</b> For very course grinding and thin coating removal
	365.5500/2	<b>16 Grit Double (Quick Release) Soft Bond</b> For very course grinding and thin coating removal
	365.5501	<b>30 Grit Single (Quick Release) Soft Bond</b> For Hard Concrete
	365.5502	<b>30 Grit Single (Quick Release) Medium Bond</b> For Medium Hardness concrete
	365.5503	<b>30 Grit Single (Quick Release) Hard Bond</b> For Soft Concrete or for very rough concrete
	365.5501/2	<b>30 Grit Double (Quick Release) Soft Bond</b> For Hard Concrete
	365.5502/2	<b>30 Grit Double (Quick Release) Medium Bond</b> For Medium Hardness concrete
	365.5503/2	<b>30 Grit Double (Quick Release) Hard Bond</b> For Soft Concrete or for very rough concrete
	365.5504/2	<b>70 Grit Double (Quick Release) Medium Bond</b> For Light Grinding and Scratch Removal
	365.5506/2	<b>120 Grit Double (Quick Release) Medium Bond</b> For Light Grinding and Scratch Removal

# Media Types - Resin Bond Tools

Image	Part Number	Tooling Description
	365.5605	50 Grit Hybrid
	365.5610	100 Grit Hybrid
	365.5620	200 Grit Hybrid
	365.5602A	200 Grit Resin Bond
	365.5604A	400 Grit Resin Bond
	365.5608A	800 Grit Resin Bond
	365.5618A	1500 Grit Resin Bond
	365.5635A	3000 Grit Resin Bond
	350.5666	<b>Polishing Adapter Plate</b> Used to attach the "Polishing Tools" to the quick release plate

# EXPLODED VIEW

## 110v & 230v Motors

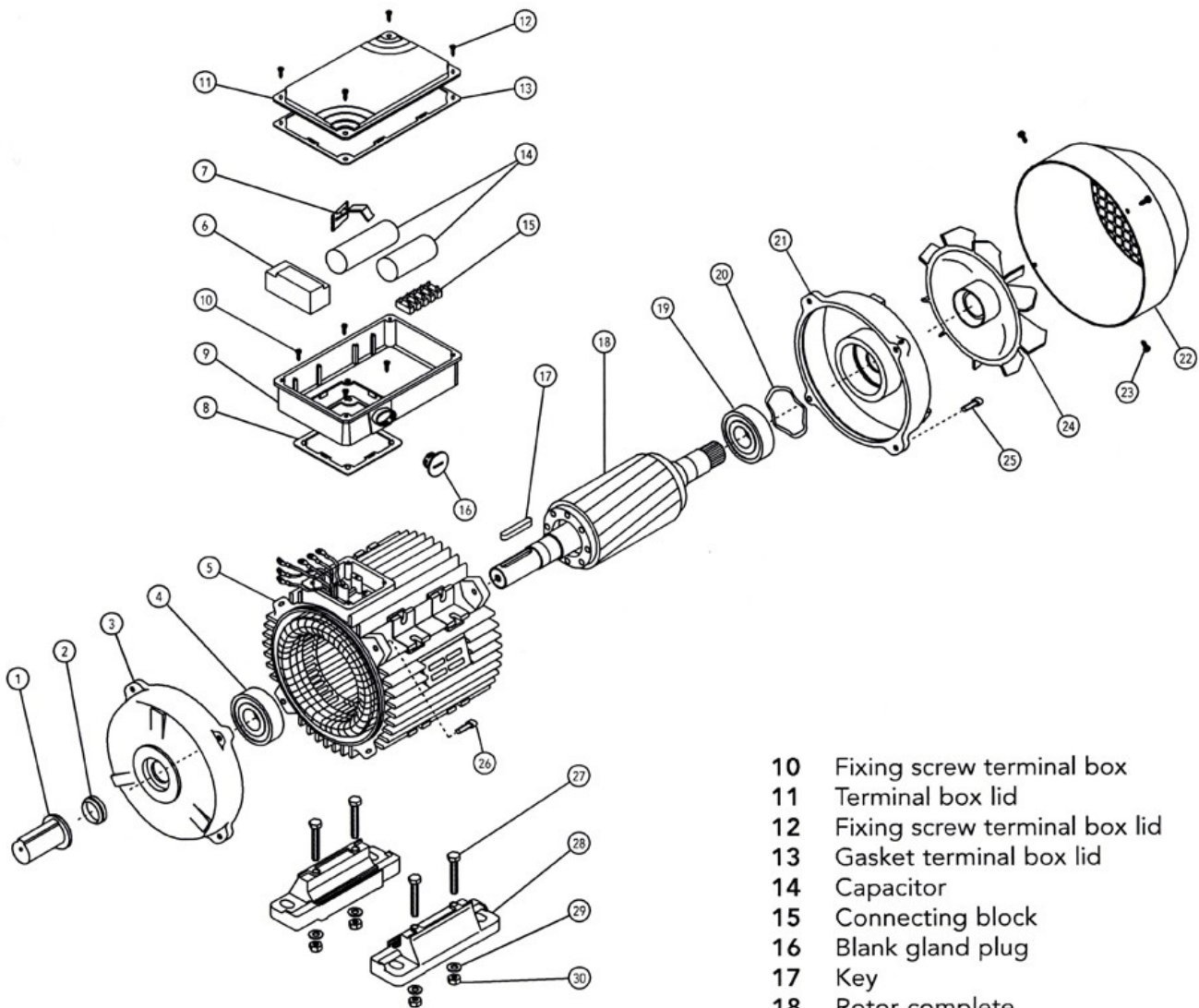
Only the most commonly used motor components are carried in stock at Trelawny SPT Ltd.

These items are listed under the Lafert Motor heading in the parts list on the page 12.

### Note:

Endsheild Drive End Flange not shown in item 3.

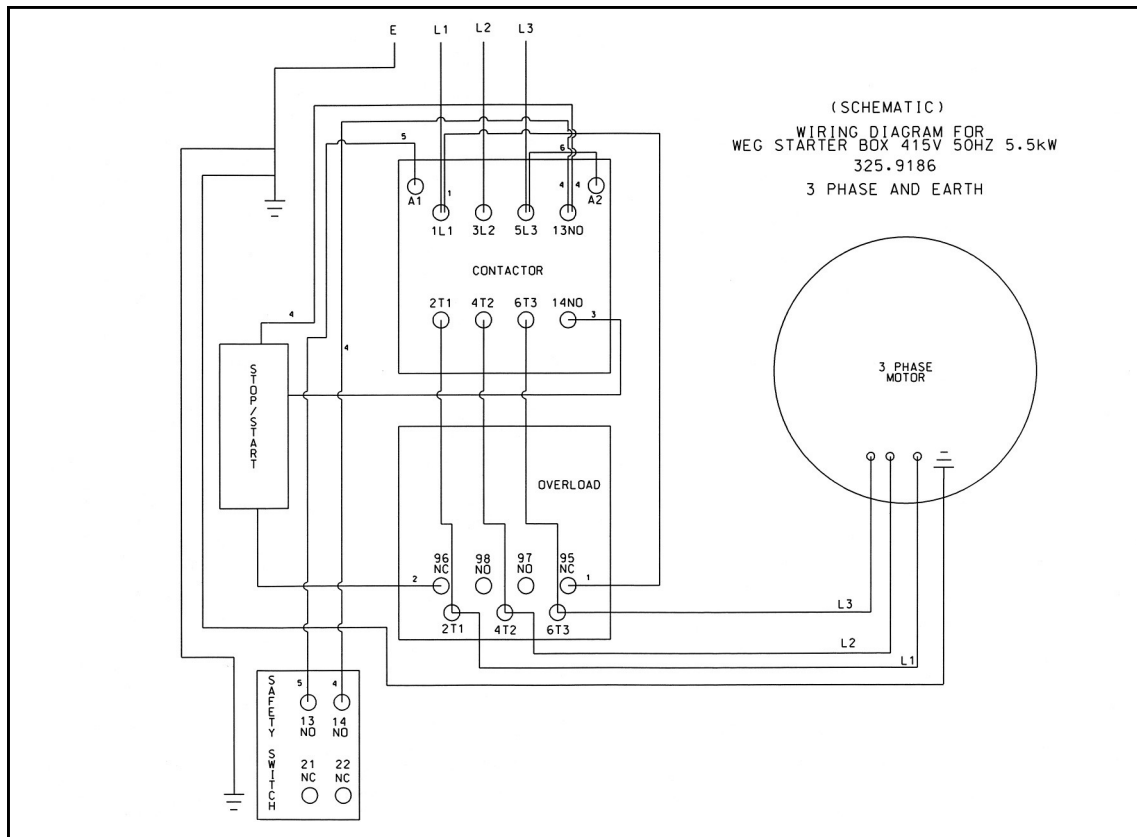
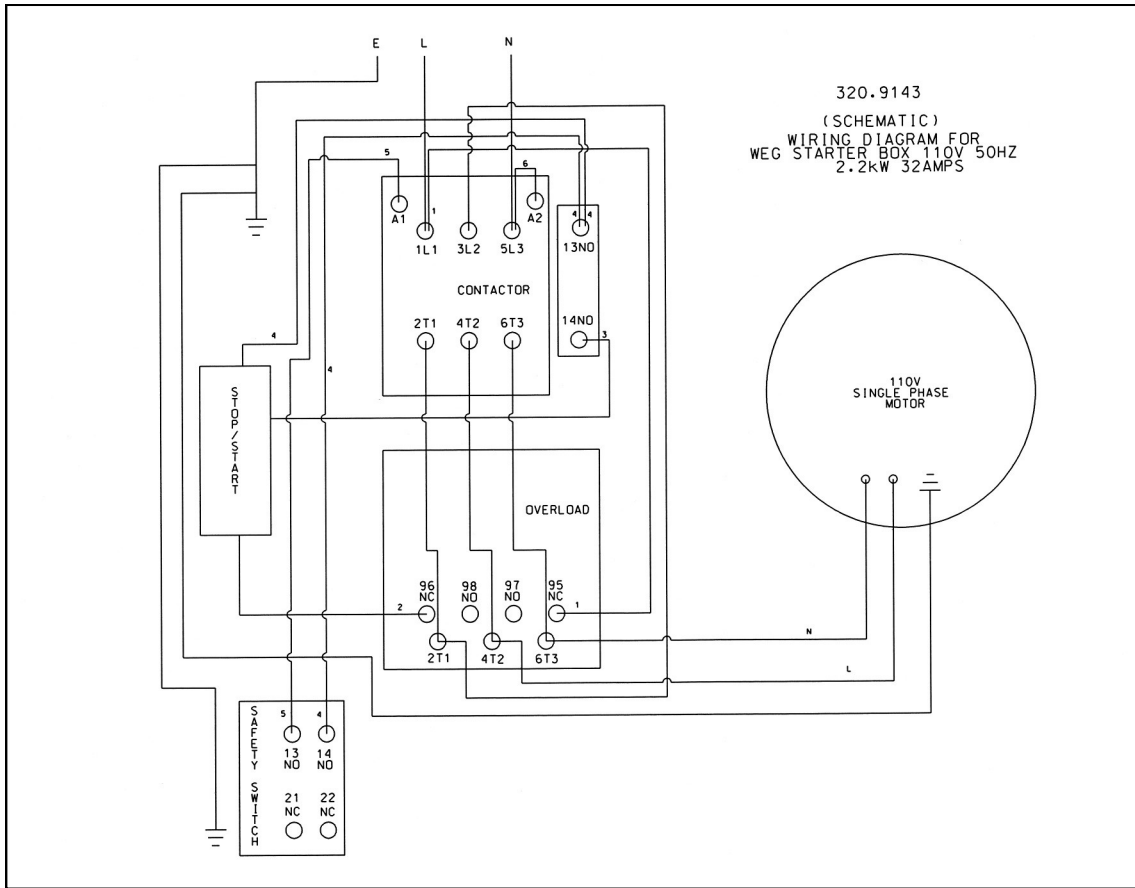
Items 27,28,29 & 30 are not used on the Grinder.



### PART DESCRIPTION

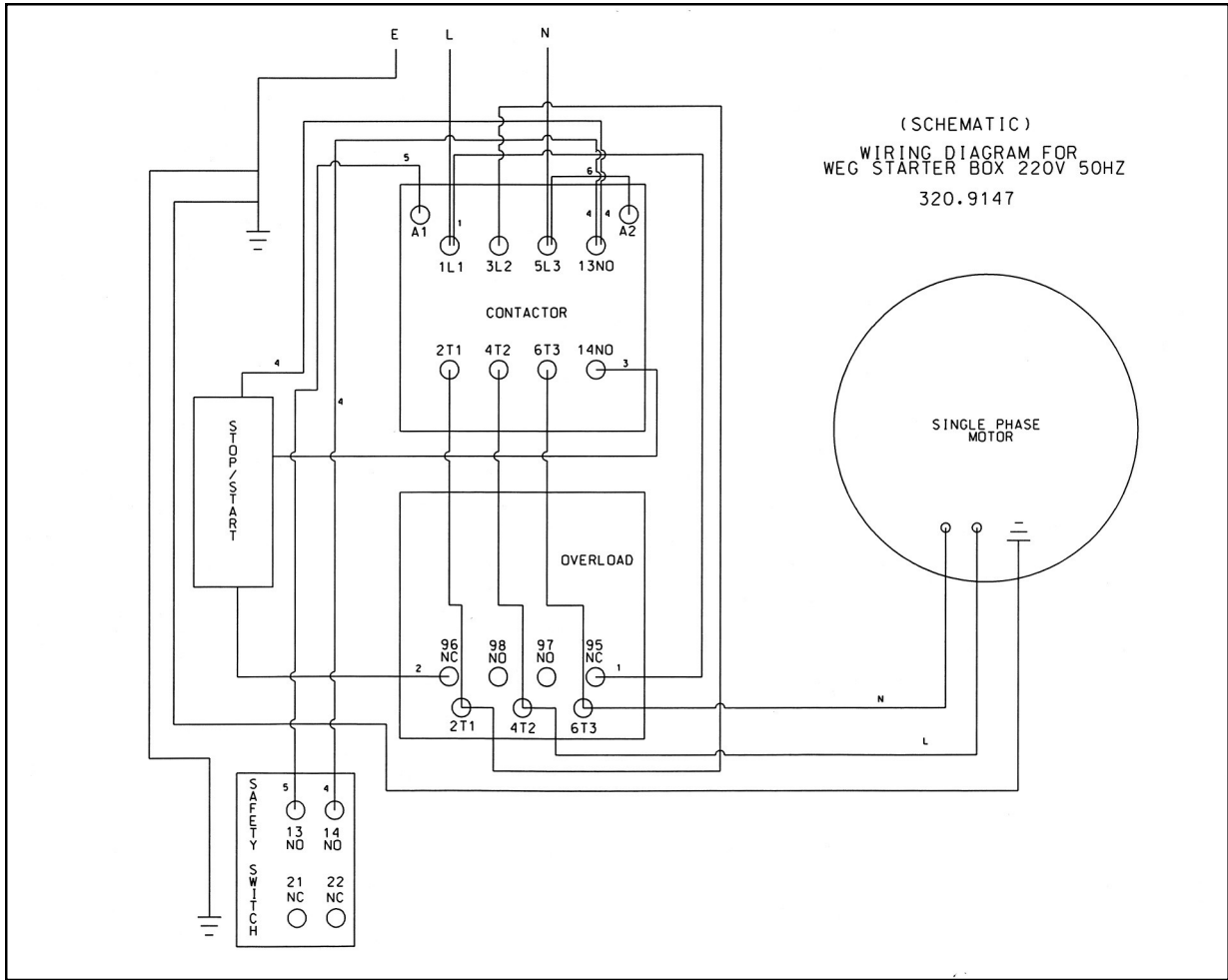
- |   |                         |    |                                     |
|---|-------------------------|----|-------------------------------------|
| 1 | Shaft protection        | 10 | Fixing screw terminal box           |
| 2 | Dust seal drive end     | 11 | Terminal box lid                    |
| 3 | Endshield drive end     | 12 | Fixing screw terminal box lid       |
| 4 | Bearing drive end       | 13 | Gasket terminal box lid             |
| 5 | Stator frame            | 14 | Capacitor                           |
| 6 | Starter                 | 15 | Connecting block                    |
| 7 | Fixing device capacitor | 16 | Blank gland plug                    |
| 8 | Gasket terminal box     | 17 | Key                                 |
| 9 | Terminal box            | 18 | Rotor complete                      |
|   |                         | 19 | Bearing non-drive end               |
|   |                         | 20 | Pre-load washer                     |
|   |                         | 21 | Endshield non-drive end             |
|   |                         | 22 | Fan cover                           |
|   |                         | 23 | Fixing screw fan cover              |
|   |                         | 24 | Fan                                 |
|   |                         | 25 | Fixing bolt endshield non-drive end |
|   |                         | 26 | Fixing bolt endshield drive end     |
|   |                         | 27 | Fixing bolt motor feet              |
|   |                         | 28 | Motor feet                          |
|   |                         | 29 | Fixing washer motor feet            |
|   |                         | 30 | Fixing nut motor feet               |

# WIRING DIAGRAMS



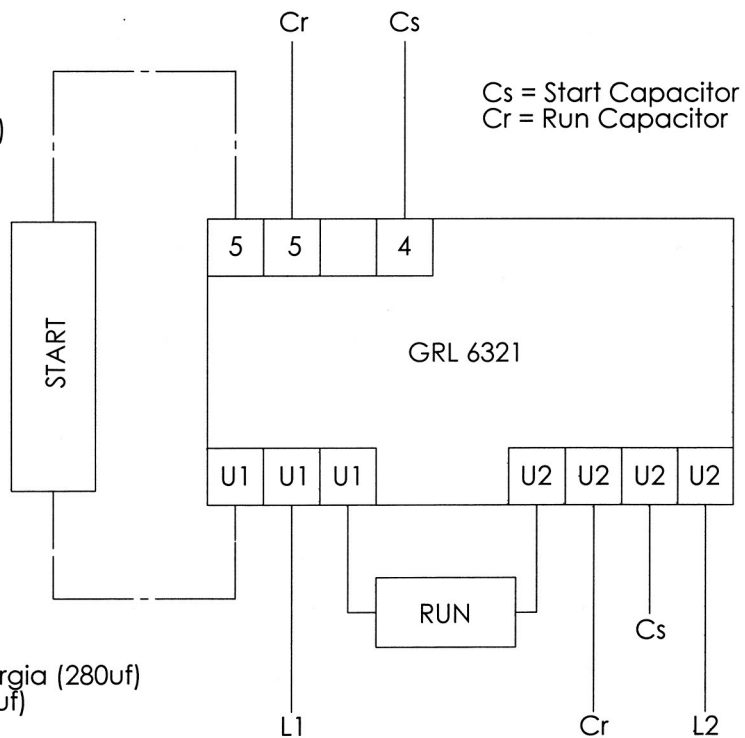


# WIRING DIAGRAMS



## GAMAK ELECTRIC MOTOR 220V

To change direction of rotation  
 swap main winding leads (Black/Brown)  
 at terminals U1 and U2



### Capacitors

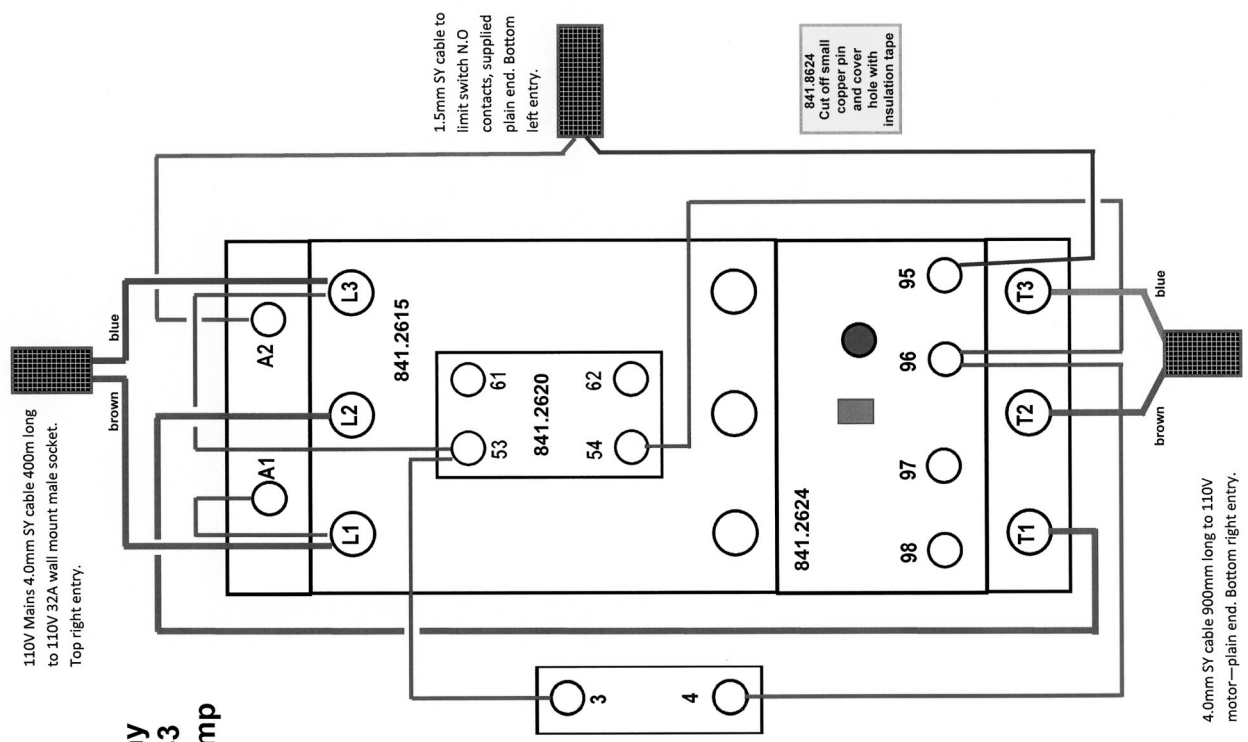
841.2750 - Black: Mortorstart Ducati Energia (280uf)

841.2760 - White: Micronkon CBB60 (60uf)

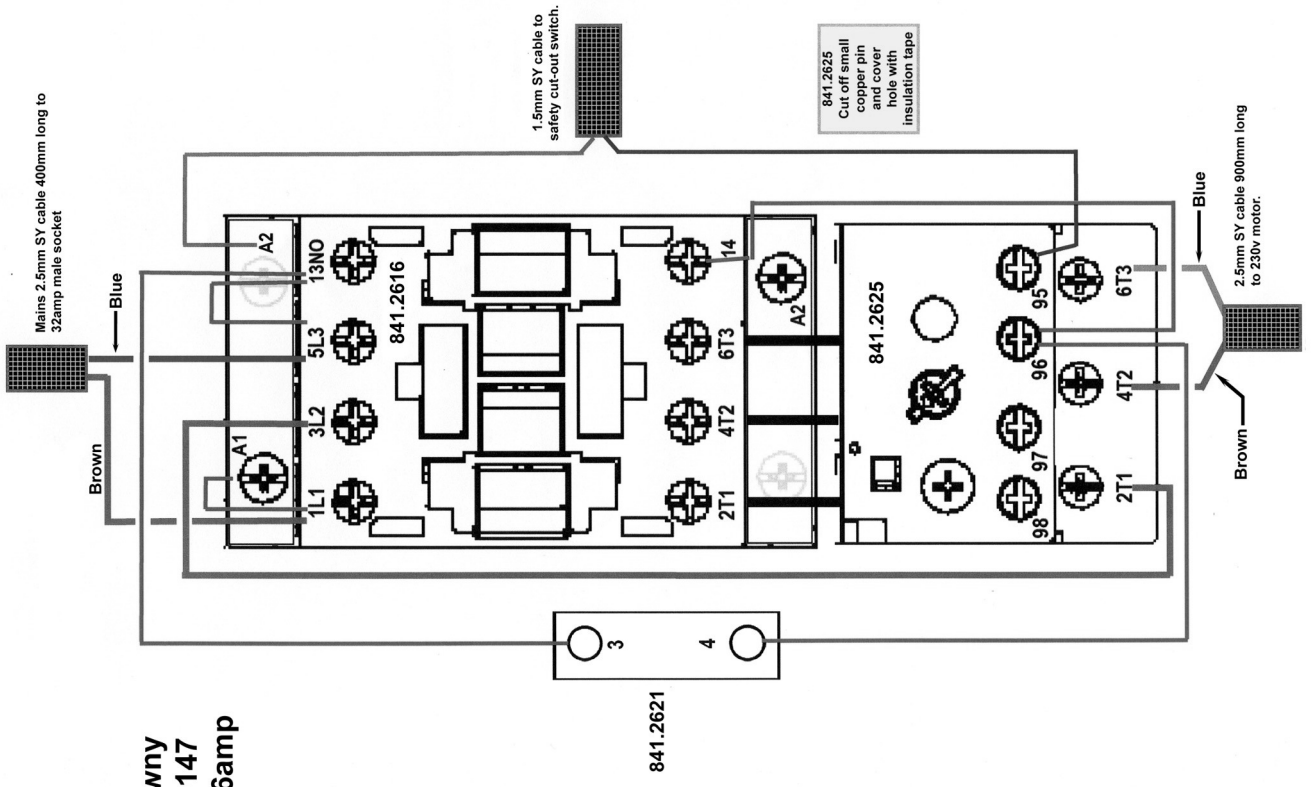
841.2770 - Gamak Swich: GRL6312

# STARTER BOX WIRING DIAGRAMS (LOVATO)

**Trelawny  
320.9143  
110v 32amp**

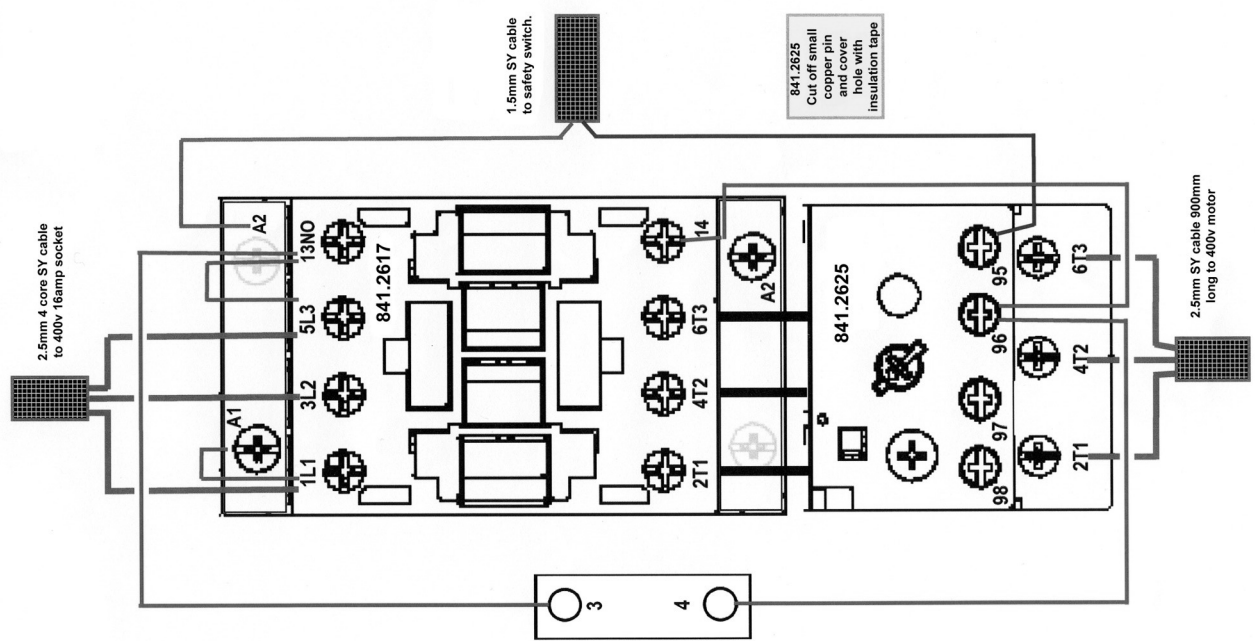


**Trelawny  
320.9147  
230v 16amp**

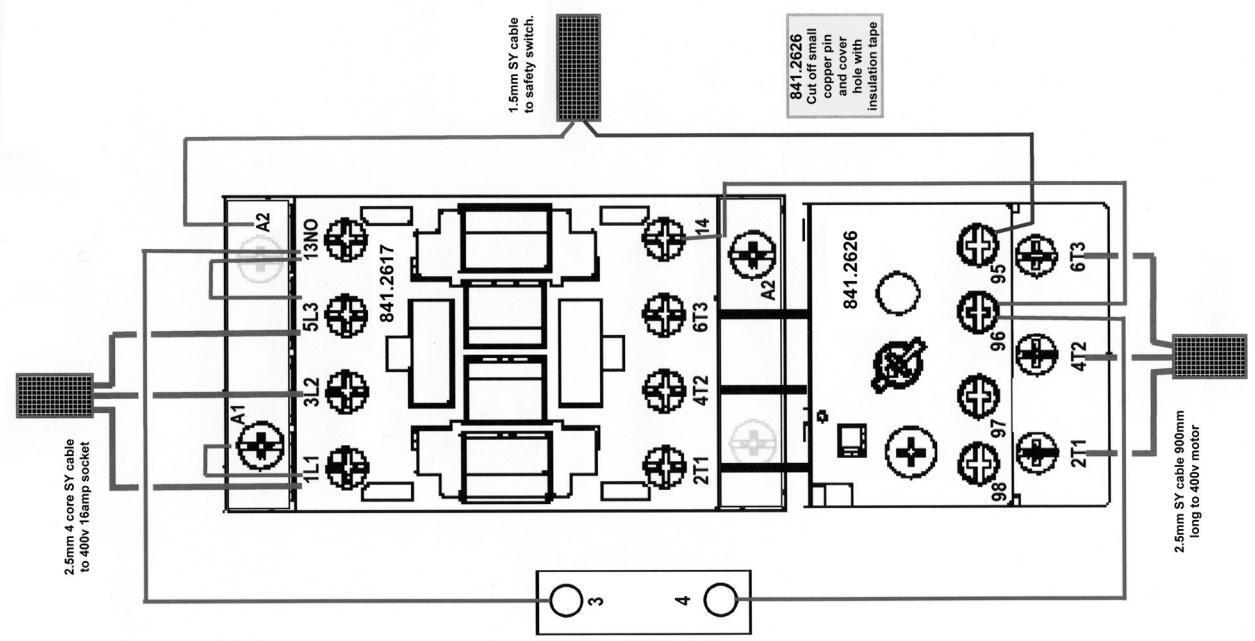


# STARTER BOX WIRING DIAGRAMS (LOVATO)

**Trelawny**  
**325.9161**  
**415v 6.5amp**



**Trelawny**  
**325.9186**  
**415v 11amp**



# TECHNICAL SPECIFICATIONS

Height	914 mm	36"
Width	660 mm	26"
Length	1220 mm	48"
Cutting width	590 mm	23 inch
Average depth of cut (dependent on concrete)	1 mm	0.040 inch
Disc rpm approximately	Approximately 360 rpm	
Working distance from wall	48 mm	2.0"
Additional weight blocks	17.5 kg each	38.5 lbs each
<b>Light Duty Power units</b>		
<b>Electric Motors</b>	Dual voltage	
	3.0HP 230/110v 50/60hz	2.2 kw (15.5amp / 20.0amp)
	7.5HP 400v 50/60hz	5.5kw (10.8amp)
	114kg	251lbs
<b>Honda engine</b>	5.5 hp	4.1 kilowatt
Approximate Fuel Consumption (230PSh)	1.6 litres per hour	0.35 gall per hour
Weight	114kg	251lbs
<b>Heavy Duty Power unit</b>		
	11 hp Honda	6.4 kilowatt
Approximate Fuel Consumption (250PSh)	3.5 litres per hour	0.77 gall per hour
Weight (including two weights)	179kg	395lbs
No weights are normally fitted on electric versions, apart from 400v 5.5kw 7.5hp machine which can have a maximum of one 17.5kg weight fitted. Maximum of two weights on 5.5hp Honda engine versions, (optional extra). Maximum of three weights on 11hp Honda engine versions (two supplied).		
<b>Electric Motors</b>		
Noise $L_{WA}$ SWL	93.5dB (A)	
Declared Noise emissions in accordance with EN ISO 15744: 2008		
<b>Honda 5.5HP Engine</b>		
Noise $L_{WA}$ SWL	97.9dB (A)	
<b>Honda 11HP Engine</b>		
Noise $L_{WA}$ SWL	94.2dB (A)	
Declared Noise emissions in accordance with EN ISO 15744: 2008		
Vibration (AEQ) at the Handle Bar (Electric Models)	$a=1.6 \text{ m/s}^2$ (K= 0.88m/s <sup>2</sup> )	
(Petrol Models)	$a=2.09 \text{ m/s}^2$ (K= 0.33m/s <sup>2</sup> )	
Noise level measured in accordance with	EN ISO 15744: 2008	
Vibration measured in accordance with	BS EN ISO 5349-1: 2001	
	BS EN ISO 5349-2: 2002	

(k) \*\* Equals the factor of uncertainty, which allows for variations in measurement and production. Vibration Data figures are tri-axial, which gives the total vibration emission. Because of various factors, the range of vibration emission during intended use can vary. The vibration is dependent on the task, the operators grip, and feed force employed etc.

NOTE: The above vibration levels were obtained from tri-axial measurements to comply with the requirements of "The Control of Vibration at Work Regulations 2005\*" and the revisions to the (8662) now EN ISO 28927:2012 and EN ISO 20643:2005 series of standards. These values are at least 1.4 times larger than the values obtained from single axis measurements.

\*Based on European Union Council Directive 2002/44/EC (Physical Agents (Vibration) Directive)

This tool has been designed and produced in accordance with the following directives: 2006/42/EC Machinery Directive

If your company has any problem with our products or would like to discuss the possibility of an improvement being made to them, then please do not hesitate to contact us. Your comments are both important and appreciated.

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This applies to trademarks, model denominations, part numbers and drawings.

Use only genuine Trelawny spares.

**The use of non-Trelawny spare parts invalidates the warranty.**



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