



- ⓖⓑ Operators Manual
- ⓕ Manuel De L'Opérateur
- Ⓟ Manual de Operação

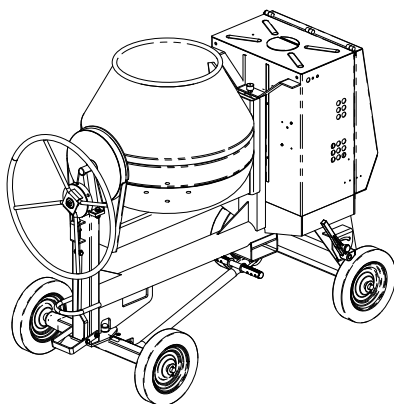
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PREMIER ***XT***



- Spare Parts Book
- Pièces détachées
- Lista de Peças

44

EC DECLARATION OF CONFORMITY / DECLARATION CE DE CONFORMITE / DECLARACIÓN DE CONFORMIDAD CE / DECLARAÇÃO CE DE CONFORMIDADE / EG-VERKLARING VAN OVEREENSTEMMING / EF OVERENSSTEMMELSESEKRLÆRING



We, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB**, hereby certify that if the product described within this certificate is bought from an authorised Belle Group dealer within the EEC, it conforms to the following EEC directives: 2006/42/CE (This directive replaces directive 98/37/EC), Electromagnetic Compatibility Directive 2004/108/CE (as amended by 89/336/EEC, 92/31/EEC & 93/68 EEC). The Waste Electrical and Electronic Equipment (WEEE) 2002/96/CE, the low voltage directive 2006/95/CE, BS EN ISO 12100-1:2003 Safety of machinery and associated harmonised standards, where applicable. Noise emissions conform to directives 2000/14/EC Annex V & 2005/88/EC

Noise Technical files are held by Ray Neilson at the Belle group Head Office address which is stated above.



Nous soussignés, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK17 0EU, GB**, certifions que si le produit décrit dans ce certificat est acheté chez un distributeur autorisé Belle Group au sein de la CEE, il est conforme aux normes CEE ci-après: 2006/42/CE (Cette norme remplace la norme 98/37/CE), Norme compatible pour l'électromagnétisme 2004/108/CE (modifié par 89/336/EEC, 92/31/EEC & 93/68 EEC). Les déchets électriques, et d'équipement électronique 2002/96/CE, caractéristiques basse tension 2006/95/CE, BS EN ISO 12100-1:2003 Norme de sécurité des machines et des critères associés et configurés, si applicable. Les émissions de bruit sont conformes à la directive 2000/14/CE Annexe V et 2005/88/EC.

Bruit des fichiers techniques sont détenues par Ray Neilson à l'adresse du groupe Belle Siège qui est indiqué ci-dessus.



La Sociedad, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK 17 0EU, GB**, por el presente documento certifica que si el producto descrito en este certificado es comprado a un distribuidor autorizado de Belle Group en la CEE, este es conforme a las siguientes directivas: 2006/42/CE de la CEE (Esta directiva sustituye a la Directiva 98/37/CE), Directiva 2004/108/CE sobre Compatibilidad Electromagnética (según enmiendas 89/336/EEC, 92/31/EEC & 93/68 EEC). Los residuos eléctricos y electrónicos (RAEE) 2002/96/CE, Directiva sobre Bajo Voltaje 2006/95/CE, BS EN ISO 12100-1:2003 de Seguridad de Maquinaria y Niveles armonizados estándares asociados donde sean aplicables. Emisión de Ruidos conforme a la Directiva 2000/14/CE Anexo V y 2005/88/EC.

Archivos de ruido técnicos están en manos de Ray Neilson en la dirección del grupo Belle Sede de la que se ha dicho.



O signatário, **Belle Group Sheen UK, Sheen, Nr Buxton, Derbyshire, SK 0EU, GB**, pelo presente, declara que se o produto descrito neste certificado foi adquirido a um distribuidor autorizado do Belle Group em qualquer país da UE, está em conformidade com o estabelecido nas seguintes diretivas comunitárias: 2006/42/CE (Esta directiva substitui a Directiva 98/37/CE), Directiva de Compatibilidade Electromagnética 2004/108/CE (conforme corrigido pelas 89/336/EEC, 92/31/EEC & 93/68 EEC). O Elétrico de Desperdício e Equipamento Eletrónico (DEEE) 2002/96/CE, a directiva de baixa voltagem 2006/95/CE, BS EN ISO 12100-1:2003 Segurança da maquinaria e às normas harmonizadas afins se aplicáveis. As emissões de ruído respeitam e estão dentro das diretivas para máquinas 2000/14/EC Anexo V & 2005/88/EC

Arquivos de ruido técnicos são detidos por Ray Neilson no endereço Escritório Belle grupo Cabeça que é dito acima.



Ondergetekende, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB**, verklaren hierbij dat als het product zoals beschreven in dit certificaat is gekocht van een erkende Belle Group dealer binnen de EEG, het voldoet aan de volgende EEG richtlijnen: 2006/42/CE (Deze richtlijn vervangt Richtlijn 98/37/EC), Electromagnetische Compatibility Richtlijn 2004/108/CE (geamendeerd door 89/336/EEC, 92/31/EEC & 93/68 EEC). De afgedankte elektrische en elektronische apparatuur (AEEA) 2002/96/CE, de Laagspannings Richtlijn 2006/95/CE, BS EN ISO 12100-1:2003 Veiligheid van Machines en hieraan gekoppelde geharmoniseerde Standaarden, waar deze van toepassing is. Geluidshinder te voldoen aan de richtlijnen 2000/14/EG en 2005/88/EG bijlage V.

Lawaai Technische dossiers zijn in handen van Ray Neilson op de Belle groep hoofdkantoor adres, dat staat boven.



Vi, **Belle Group Sheen UK, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, GB**, erklærer hermed, at hvis det i dette certifikat beskrevne produkt er købt hos en autoriseret Belle Group forhandler i EU, er det i overensstemmelse med følgende EØF-direktiver: 2006/42/CE (Dette direktiv erstatter direktiv 98/37/EF), 2004/108/EØF (som ændret ved 89/336/EEC, 92/31/EØF & 93/68 EØF), Afkald af elektrisk og elektronisk udstyr (WEEE) 2002/96/CE, lavspændingsdirektivet 2006/95/CE, BS EN ISO 12100-1:2003 Maskinsikkerhed og tilhørende harmoniserede standarder, hvor det er relevant. Støjemission i overensstemmelse med direktiverne 2000/14/EF bilag V og 2005/88/EF.

Støj Tekniske filer er i besiddelse af Ray Neilson på Belle-gruppen hovedkontoret adresse, som er nævnt ovenfor.

PRODUCT TYPE	TYPE DE PRODUIT.....	TIPO DE PRODUCTO
MODEL.....	MODELE	MODELO
SERIAL No.....	N° DE SERIE	N° DE SERIE
DATE OF MANUFACTURE.....	DATE DE FABRICATION	FECHA DE FABRICACIÓN.....
SOUND POWER LEVEL MEASURED /(GUARANTEED)	NIVEAU DE PUISSANCE SONORE MESUREE /(GARANTIE)	NIVEL DE POTENCIA ACÚSTICA MEDIDO /(GARANTIZADO)
WEIGHT	POIDS	PESO
TIPO DE PRODUCTO.....	PRODUCTTYPE.....	PRODUKTTYPE.....
MODELO	MODEL	MODEL
NO. DE SÉRIE	SERIENUMMER	SERIENR.....
DATA DE FABRIC.....	FABRICAGEDATUM	FREMSTILLINGSDATO
NIVEL DE POTÊNCIA DE SOM MEDIDO /(GARANTIDO) .....(GARANETERET)	GEMETEN GELUIDSSTERKTE/NIVEAU /(GEGARANDEERD)	LYDEFFEKTNIVEAU MÅLT /
PESO.....	GEWICHT	VÆGT.....

Signed by:

Signature:

Medido por:

Assinado por:

Getekend door:

Underskrevet af:

Ray Neilson

Managing Director - On behalf of BELLE GROUP (SHEEN) UK.

Le Directeur Général - Pour le compte de la SOCIETE BELLE GROUP (SHEEN) UK.

Director Gerente - En nombre de BELLE GROUP (SHEEN) UK.

Director-Geral - Em nome de BELLE GROUP (SHEEN) UK.

Algemeen Directeur - Namens BELLE GROUP (SHEEN) UK.

Administrerende direktør - På vegne af BELLE GROUP (SHEEN) UK.

Place of Declaration - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK
Lieu de déclaration - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK
Declaración hecha en - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK
Lugar de Declaração - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK
Plaats van de Verklaring - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK
Sted i erklæring - Sheen, Nr. Buxton, Derbyshire, SK17 0EU, UK

Date of Declaration - 2000

Date de déclaration - 2000

Fecha de la declaración - 2000

Data da Declaração - 2000

Datum van de verklaring - 2000

Dato for erklæringen - 2000



Engine Warranty

The engines installed in the Belle Premier XT range of mixers carry a 12 month warranty. Any problems encountered with the engine, during the warranty period should be dealt with by the relevant approved engine dealer, nearest to yourself.

If you require the name of your nearest approved engine dealer, a full listing is available on request from Belle.

Serial Numbers

ATTENTION! Make a note of the serial numbers of your machine and always quote them in any communication with a Belle Group Dealer.

MACHINE SERIAL NUMBER

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ENGINE / MOTOR SERIAL NUMBER

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Introduction

Congratulations on the purchase of this quality concrete mixer from the Belle Group range.

This machine is manufactured to conform to the EEC directives currently in force and is issued with a declaration of conformity and therefore displays the CE mark, applicable in territories where they are enforced.

Read this manual carefully, observing all operating and safety instructions before, during and after using your machine. Maintain your machine in good working order.

When maintaining this machine only the manufacturer's original spare parts may be used. The user will lose any possible claims if replacement parts used are other than the makers original spare parts.

Retain this manual with your machine for future reference.

SAFETY AND ACCIDENT PROTECTION

Operating Instructions :

All persons who apply, assemble, operate, start, control, maintain or repair this machine must read and understand these operating instructions.

Owner Responsibility :

The owner must ensure that only qualified persons operate, maintain, or repair this machine.

Storage :

When not in use, store in a dry, locked place. Keep away from children.

Operation for the Intended Purpose :

Mixers are intended for the production of concrete, mortar and plaster. The mixer must be used for its intended purposes and is not suitable for the mixing of flammable or explosive substances. The mixers must not be used in an explosive atmosphere.

MAINTENANCE AND REPAIRS

Only authorised dealers should repair the mixer, and within the requirements of the CE mark (where applicable), where no deviation to the original specification must take place.



WARNING

Any maintenance and repairs carried out, to any of the electric motors components must be undertaken by a qualified electrician.

REPLACEMENT PARTS

Contact your nearest Belle Group dealer. When ordering replacement parts, please quote the product type, serial number & engine/motor model. Detail the part required in conjunction with the parts list provided, indicating the Page Number, Item Number and quantity required.

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Belle Group reserves the right to change machine specification without prior notice or obligation.

Warning Symbols



WEAR EAR PROTECTION



FIRE AND EXPLOSIVE RISK



READ OPERATOR
MANUAL



WEAR EYE PROTECTION



WEAR PROTECTIVE
FOOTWEAR



LIFTING POINT

WARNING - IMPORTANT

The Premier range of mixers are intended for industrial use, the following plug types are supplied fitted to the product:

110V motor - 32 amp rated BS4343 plug type.

230V motor - 16 amp rated BS4343 plug type.

415V motor - 32 amp rated BS4343 plug type.

Fitting a plug - **WARNING THIS PRODUCT MUST BE EARTHED**

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:

GREEN / YELLOW = EARTH, BLUE = NEUTRAL, BROWN = LIVE

The wire which is coloured Green and Yellow must be connected to the terminal in the plug marked E or coloured Green and Yellow. The wire which is coloured Brown must be connected to the terminal in the plug marked L or coloured Red. The wire which is coloured Blue must be connected to the terminal in the plug marked N or coloured Black.

Always ensure before connecting to the supply that the supply voltage is the same as the rated voltage marked on the motor.

READ THESE SAFETY INSTRUCTIONS

Please read and understand all running/safety instructions before operating this machine.



CAUTION

The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction. Children should be supervised to ensure that they do not play with the appliance.

BEFORE STARTING THE MIXER

- Check that all guards are in position and correctly fitted.
- **DO NOT** wear loose clothing or jewellery that may become entangled in the workings of this machine. Suitable clothing as follows should meet relevant EEC/local safety standards: overalls, work boots, goggles, face mask, gloves and ear defenders etc.
- On electric powered mixers, ensure that any trailing cable is protected against damage and not liable to be tripped over or trapped underneath the mixer.
- **Belle strongly recommends the use of a Residual Current Device on 220-240v electrics.**
- Remove all packaging material before operating.

WHEN OPERATING THE MIXER

- Keep engine housing lid closed whilst it is mixing.
- Keep unauthorised persons away from mixing drum.
- Keep area around the mixer clear of obstructions which could cause persons to fall onto moving parts.
- Always ensure mixer is on level ground before mixing.
- Ensure rear wheel brakes are applied before operating the mixer.
- **DO** become familiar with the controls before operating this machine.
- **DO** ensure plenty of ventilation when running the diesel engines in a confined area.
- **DO** replace any worn/damaged warning decals.
- **DO** ensure the drum is rotating while emptying the mixer.
- **DO** always switch off and remove the plug from the socket if leaving the machine unattended.
- **DO NOT** transport this mixer when mixing.
- **BEWARE** of the danger zones.

EMERGENCY STOP

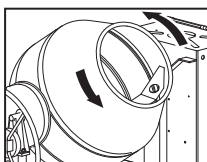
See Operating Instructions Section for details.

FIRE FIGHTING

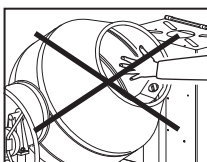
If your mixer catches fire, turn off the electric supply.

Using a dry powder or CO2 fire extinguisher put out the fire. If the fire can not be put out, keep away and call the fire brigade.

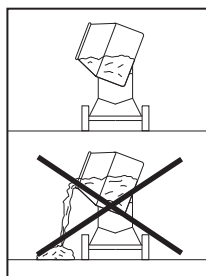
If you are in any doubt about the safety condition of your machine, please consult your nearest Belle dealer or Belle direct.



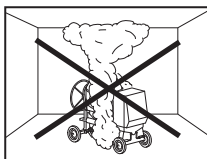
DRUM ROTATES ANTI-CLOCKWISE



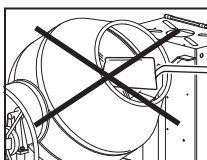
DO NOT PUT ANY PART OF YOUR BODY IN THE DRUM



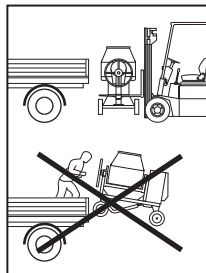
ALWAYS WORK WITHIN THE RATED CAPACITY



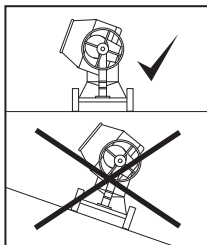
ALWAYS MIX IN WELL VENTILATED PLACES EXHAUST FUMES CAN KILL



DO NOT PUT SHOVEL IN THE DRUM



LOAD AND UNLOAD FROM THE TRANSPORT CORRECTLY
(See Transport Section in Manual)



ALWAYS MIX ON LEVEL GROUND



DO NOT FILL WITH FUEL OR LUBRICATION OILS WHILST ENGINE IS RUNNING

LOADING BY FORK LIFT

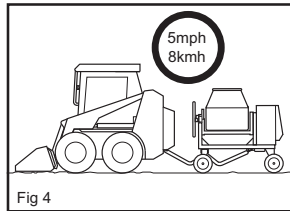
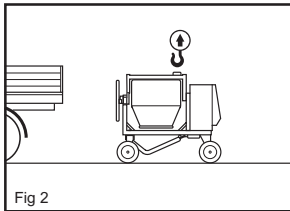
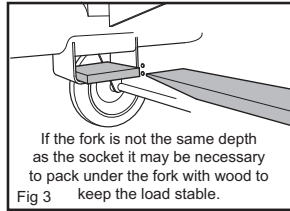
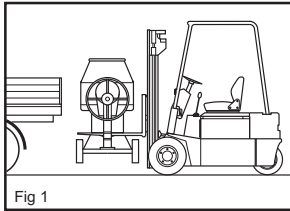
- For normal site to site transporting, the usual method of loading into a pick-up truck or trailer should be used. A fork socket (Fig 3) is located beneath the main frame to enable the mixer to be loaded using a forklift (Fig 1).

LOADING BY CRANE

- To expose the lifting eye, turn the drum so it is facing down, (Fig 2).
- Ensure the lifting ropes are inspected to the current Health and Safety guidelines and are sufficient to carry the total weight of the mixer. See technical data. Ensure the lifting hook is correctly located prior to lifting the machine.
- **DO NOT** stand underneath the machine whilst it is being lifted.

TOWING

- These mixers are designed for on site towing only, maximum speed 5mph/8 kmh (Fig 4), for short periods of time.
- **DO NOT** tow on a public highway.



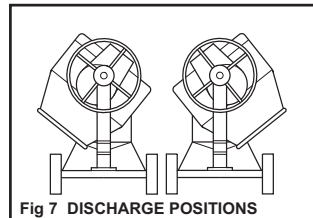
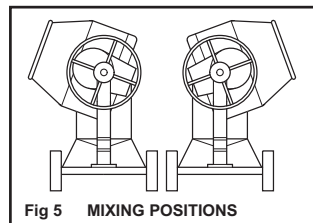
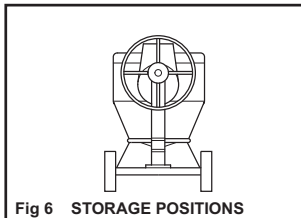
Mixing Positions

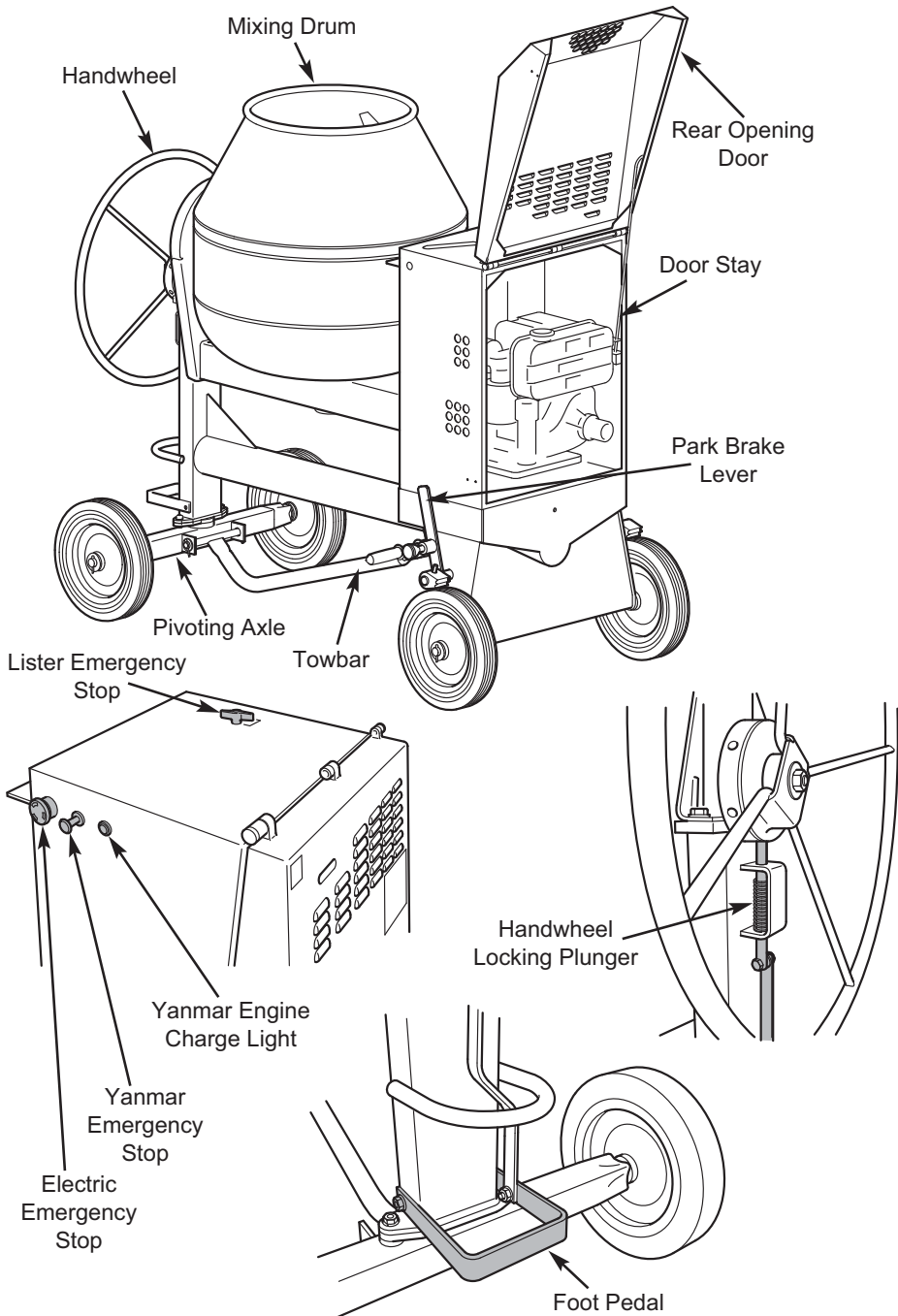
DRUM TILTING

The hand wheel gives an easy positive control of the drum which can be locked in the stored, mix, and discharge position.

The drum is locked in position by a self locating plunger which engages into the handwheel. To move the drum the locating plunger must be dis-engaged, this is done by pressing down on the footpedal (this is situated just above the pivoting front axle), the handwheel will now move freely allowing the re-positioning of the drum, to relock the drum in position, release the footpedal and rotate the handwheel until the self-locating locking plunger engages into the handwheel ring.

- **DO NOT** put your hand through the hand wheel.
- **ALWAYS** keep both hands on the hand wheel.





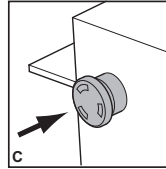
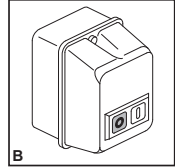
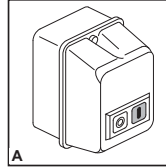
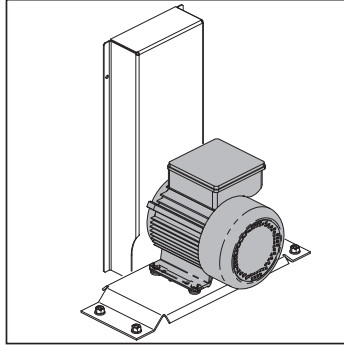
1. ELECTRIC MOTOR : VARIANTS

STOPPING

- 1.1 Depress RED Button (or on/off toggle switch if fitted to the Off position) to stop mixer (Fig B).

STARTING

- 1.2 Lift rear door.
- 1.3 Feed supply cable out through the rear of the mixer and plug into power supply.
- 1.4 Depress GREEN Button (or on/off toggle switch if fitted to the On position) to start mixer (Fig A).



- Ensure supply cable is safely stored before moving mixer.
- Keep rear door shut when mixer is running

EMERGENCY STOP

- 1.5 Depress large RED Button, situated on top left hand side of power unit housing (Fig C).

2. YANMAR (ELECTRIC START)

STOPPING

- 2.1 Press Red Lever (Fig D).

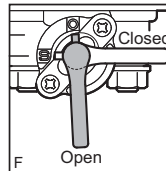
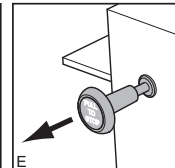
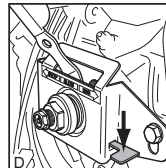
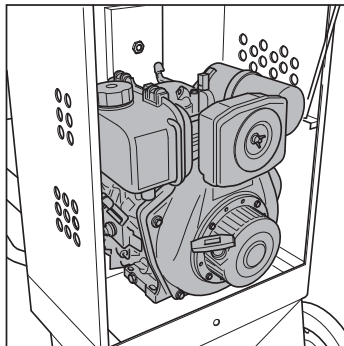
- **Note:** Red indicator light glows when engine charging system fails.
- **Ensure that when machine is not in use that ignition is switched OFF, or battery failure may occur.**

EMERGENCY STOP

- 2.2 Pull the handle on the side of the power unit box to STOP the machine (Fig E).

COLD STARTING

- 2.3 Lift rear door.



- Open fuel cock if fitted (Fig F).

- 2.4 In cold starting situations the engine requires 2cc of engine oil (10w-30) to be applied using oil applicator. The oil should be inserted into the engine by removing the rubber plug on the priming port, ensure the plug is replaced (Fig G).

- 2.5 Ensure the Emergency Stop Button is pushed in (Fig H).

- 2.6 Set the engine speed lever (situated on the left hand side of engine) to the run position (Fig I).

- 2.7 Turn ignition key clockwise until engine turns over, release key when engine starts. If engine fails to start, repeat process of cold start.

- **Note:** Once an attempt to start the engine has failed, before re-trying the key must be turned back to the OFF position.
- **DO NOT operate with rear door open.**

WARM STARTING

- 2.8 Repeat process above from 2.5.

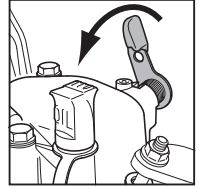
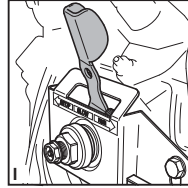
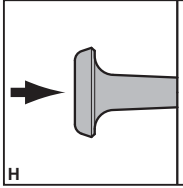
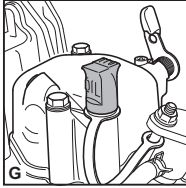
3. YANMAR (RECOIL START) Back Up to Electric Start

STOPPING

3.9 Press red lever (Fig D).

EMERGENCY STOP

3.10 Pull the handle on the side of the power unit box to STOP the machine (Fig E).



COLD STARTING

3.11 Lift rear door.

Open fuel cock if fitted (Fig F).

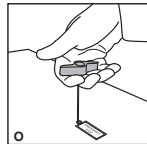
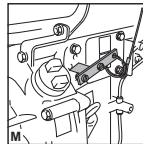
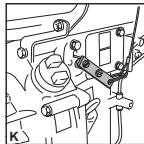
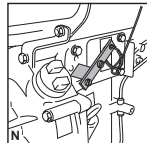
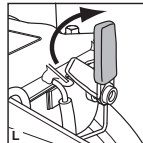
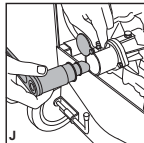
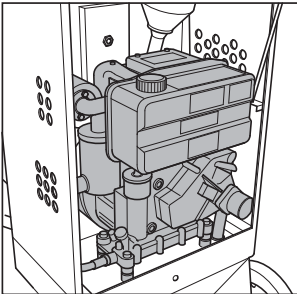
- 3.12 In cold starting situations the engine requires 2cc of engine oil (10w-30) to be applied using oil applicator. The oil should be inserted into the engine by removing the rubber plug on the priming port, ensure the plug is replaced (Fig G).
- 3.13 Ensure the Emergency Stop Button is pushed in (Fig H).
- 3.14 Set the engine speed lever (situated on the left hand side of engine) to the run position (Fig I).
- 3.15 Pull out the recoil starting handle to the point where you feel a strong resistance, then return back the install position. Push over the decompression lever (top right hand side of engine) this will return automatically when the recoil handle is pulled for the second time.
- 3.16 Apply both hands to the recoil starting handle and pull briskly, if engine does not start repeat from 3.15.

- **DO NOT** operate with rear door open.

WARM STARTING

3.17 Repeat process above from 3.14.

4. LISTER PETTER : CRANK HANDLE START



- Caution should be taken when starting unit, always use Anti-Kick Back Starting Handle.
- Ensure handle is correctly engaged in crank barrel (Fig J) before cranking engine.
- Ensure Oil & Fuel levels are checked daily before starting engine.
- Ensure rear door stay is correctly engaged before working in power unit area.
- Keep rear door closed when mixer is running.

4 STOPPING

4.1 Open rear door and move Start / Stop lever to the STOP position (Fig L).

COLD STARTING

4.2 Lift rear door.

4.3 Lift Safety Button up, locate Starting Handle in crank barrel and turn until handle engages (Fig J).

4.4 Engage Start / Stop lever into START position (Fig K).

4.5 Push decompression lever into vertical position and hold (Fig L).

4.6 Crank the engine as fast as possible and move the de-compressor lever into the running position whilst continuing to crank briskly until the engine starts.

4.7 Once the engine starts remove handle and place back in storage, then move Start/Stop lever into the RUN position (Fig M).

WARM STARTING

4.8 Follow the above instructions from 2.2 to 2.6, however start engine with the Start / Stop lever in the RUN position.

EMERGENCY STOP

4.9 Pull handle on top of power unit box (Fig O).

Before starting any maintenance or repairs, stop engine or switch off motor, and isolate from the main power supply. On completion of maintenance, check that the mixer functions correctly and that all guards are correctly fitted.

ELECTRIC MOTORS

All portable electric appliances are dangerous if abused. This machine will only operate on one voltage. Check the power supply to ensure it corresponds to the voltage as stamped on the motor. Make sure that the motor is switched off before you plug it into the power supply.

220-240v -Always use a Residual Current Device ("RCD"), (earth leakage trip), plugged directly into the 220-240v socket. If using an extension cable, plug it directly into the RCD.

110v -When using a portable transformer it must have a minimum output of 6.3kw and be continuously rated.

- **DO NOT** use an extension cable between the transformer and the power supply.

The symbols on the ON/OFF switch are 0=OFF and I=ON in accordance with international standards.

⚠ If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent. (See Wiring Diagram on Page 15.)

EXTENSION CABLES

If you need to use an extension cable it must be no longer than 30 metres (100 feet) in length. The wire section for 220-240v must be 2.5mm². The wire section for 110v must be 4mm² on 100XT and 6mm² on other models. Ensure that the extension cable is carefully laid out avoiding liquids, sharp edges and places where vehicles might run over it. Unroll it fully or it will overheat and could catch fire. Make sure that any extension cable connections are dry and safe.

COMBUSTION ENGINES

- **Be aware of exhaust venting directions.**

The engine needs a regular oil check. Try not to run low on fuel as this may result in sediment from the bottom of the tank doing damage to the injector and pump. **Repairs and rectification of pipework and components affected by contaminants in fuel cannot be accepted as warranty, neither will faults caused or contributed to by the machine running out of fuel.** You may need to bleed the fuel system free of air before starting. For initial engine fill or top up use a suitable engine oil of a 10W/30 grade. In your own interests read the makers instruction leaflet issued with the machine before starting up.

DRUM (Removal and Fitment)

This can be instantly removed by unscrewing it counter clockwise in the vertically up position. Lift the drum off the machine using a fork lift, with the forks under the base of the drum. When replacing make sure that the drum shaft is greased before it is fully screwed down on to the shoulder of the shaft, ensure the drum is fully screwed down on to the shoulder or damage will occur. Take care when screwing on the drum, spinning on fast may damage the gearbox.

CLEANING

Wipe off any external material. **DO NOT** use petrol, turpentine, lacquer or paint thinner, dry cleaning fluids or similar products. Never let any liquids near the engine/motor. Use 1" gravel and clean water to clean the inside of the drum.

- **DO NOT** use bricks etc. as this will damage the drum.

DRIVE BELT

- **DO NOT** try to adjust with the engine / motor running.
- **DO NOT** run slack.
- **DO NOT** operate machine with guards removed.

The drive belt is under constant even tension by a spring loaded jockey, this requires no attention. The bearings are sealed for life.

GEARBOX OIL

Note: The original gearbox oil is a synthetic oil and must not be mixed with a mineral oil.

Full gearbox fill 1.0 ltrs, check regularly.

The gearbox was originally filled with: Total :- Transmission W 75W/90 viscosity

Equivalent oils:

Shell :- Tivela SA, Tivela WA, Dentax W
Texaco :- Synlube 90
Esso :- GX 75W/90

Mobil :- Glygoyle 22
Castrol :- WM or Alpha SN150
Caltex :- Synthetic gear lubricant

LUBRICATION AND RUNNING

See Maintenance Schedule Section and Operating Instructions.

Remember that diesel engines vibrate more, so regularly check all nuts and bolts are tight.

To help assist engine running-in, all engines are despatched with an initial fill lubricating oil which must be changed after 100 hours.
All subsequent oil changes must be as specified below.

Lister-Petters 32 & 10 Engines

	Daily	Every 125 Hrs	Every 250 Hrs	Every 500 Hrs	Every 1000 Hrs	Every 2000 Hrs
Check the fuel & lubricating oil levels	✓					
Check for oil & fuel leaks	✓					
Clean, or replace, the air cleaner element under very dusty conditions	✓					
Check the condition of the battery, if fitted		✓				
Clean or replace the air cleaner element under moderately dusty conditions		✓				
Drain the sump and refill with new oil of the correct type and specification as given in engine handbook		✓	✓			
Clean or replace the injectors if the exhaust is dirty			✓			
Renew the fuel filter element if the fuel being used is not perfectly clean			✓			
Replace the air cleaner element				✓		
Examine exhaust & induction systems for leaks, damage or restrictions				✓		
Renew the fuel filter element				✓		
Check the battery charge winding system; refer to Workshop Manual				✓		
Check the valve clearances					✓	
Decarbonise if the engine performance has deteriorated					✓	
Clean the cylinder barrel and head fins					✓	
Clean the banjo union at the cylinder head end of oil feed pipe					✓	
Drain, flush and refill the fuel tank						✓

Mixer	Daily	50 Hours	250 Hours	500 Hours	1000 Hours
Grease Yoke Pivot		✓			
Grease Tipping Gear (10 Operations of Grease Gun)			✓		
Remove Drum and Grease Shaft			✓		
Check Nuts and Bolts	✓				
Check Gearbox Oil				✓	✓
Check Components for Leaks	✓				

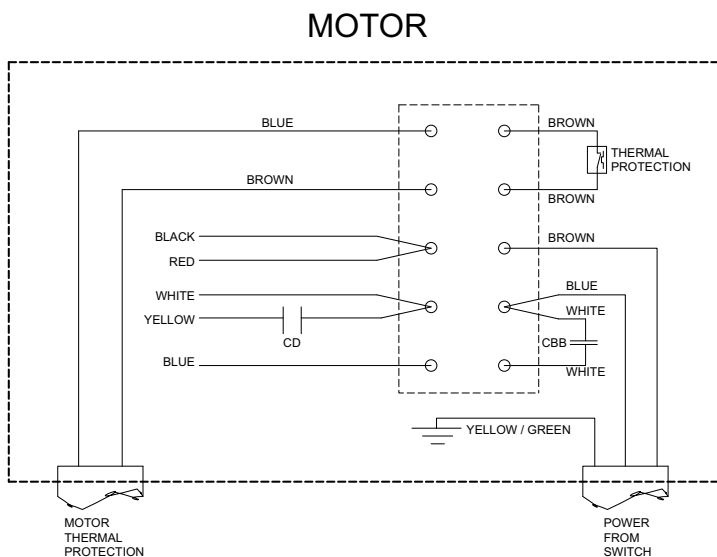
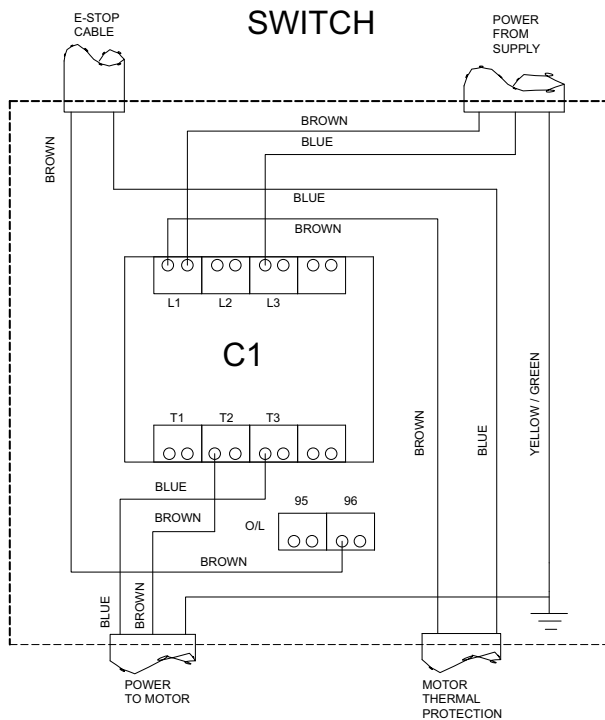
Items marked "✓✓" should be serviced by an authorized YANMAR dealer, unless the owner has proficient mechanical ability and the proper tools.

Parts with an asterisk mark " * " are related to the CARB ULG rules.

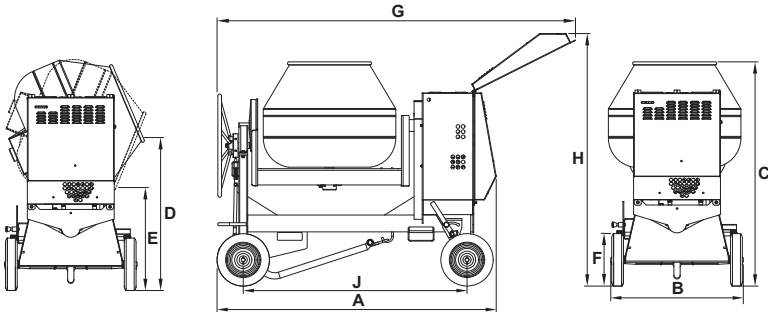
Yanmar L48 Engine ➡ April '04

	Every month or Every 500 Hrs	Every 3 months or Every 200 Hrs	Every 6 months or Every 400 Hrs	Every year or Every 1000 Hrs
Check the fuel level and refill. - Before Operation				
Drain the fuel tank	✓			
* Clean the fuel filter		✓		
* Replace the fuel filter			✓	
Check for fuel / oil leakage - After Operation				
* Fuel injection nozzle, Check the injection condition			✓✓	
* Check the fuel injection timing			✓✓	
* Check the fuel injection pump				✓✓
Check the lube oil level in the oil pan and refill - Before Operation				
Replace the lube oil	1st time	2nd & after		
Clean lube oil filter	1st time		2nd & after	
Check for lube oil leakage - After Operation				
Check the valve clearances				✓
* Check the air cleaner element		✓		
* Replace the air cleaner element			✓	
Check the battery liquid level and refill - Before Operation				
Check the warning lamps - When Engine Is Started				
Adjusting the intake and exhaust valve clearance			✓✓	

Mixer	Daily	50 Hours	250 Hours	500 Hours	1000 Hours
Grease Yoke Pivot		✓			
Grease Tipping Gear (10 Operations of Grease Gun)			✓		
Remove Drum and Grease Shaft			✓		
Check Nuts and Bolts	✓				
Check Gearbox Oil				✓	✓
Check Components for Leaks	✓				



Technical Data



	100XT	150XT	175XT	200XT
A - OVERALL LENGTH (MM)	1665	1665	1890	1890
B - OVERALL WIDTH (MM)	900	900	900	900
C - OVERALL HEIGHT (MM)	1468	1568	1049	1077
D - LOADING HEIGHT (MM)	613	607	713	680
E - DISCHARGE HEIGHT (MM)	350	350	350	350
F - DIAMETER OF WHEELS (MM)	2100	2100	2200	2200
G - OVERALL LENGTH - DOOR OPEN (MM)	1950	1950	1950	1950
H - OVERALL HEIGHT - DOOR OPEN (MM)	1120	1120	1520	1520
J - WHEEL BASE	1120	1120	1520	1520
CUBIC FEET IN/OUT	5/3.5	7/5	8/6	10/7
MIXED BATCH OUTPUT (LTR)	110	160	180	220
MAX DRUM CAPACITY (LTR)	250	300	350	400
MAX DRY MIX DRUM CAPACITY IN (LTR)	160	220	250	310
DRUM SPEED (RPM)	19	19	19	19

ELECTRIC RANGE													
	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT	
UNLADEN WEIGHT (Kg)	305.5	314.5	322.5	325	303.5	312.5	320.5	323	305.5	314.5	322.5	325	
NOMINAL VOLTAGE (V)	110				240				415				
NOMINAL CURRENT (Amp)	13.7				6.6				3.6				
NOMINAL POWER					1.5								
VOLTAGE FREQUENCY (Hz)					50								
MOTOR RPM	1350				1430				1500				
MOTOR PROTECTION	Thermal / NVR												
POWER CONSUMPTION (Kwh)	1.5												
SOUND POWER LEVEL (LWA)	87dB(A)												
DIESEL RANGE	LISTER				YANMAR								
	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT					
UNLADEN WEIGHT (Kg)	367	376	392.5	395	334.5	343.5	350.5	353.5					
ENGINE MODEL	LT1 (Build 32)		LT1 (Build 10)		L48								
NOMINAL POWER (KW)	0.75		1.9		2.3								
STARTING METHOD	Hand Crank				Electric / (Recoil Backup)								
FUEL CAPACITY	5				2.5								
SOUND POWER LEVEL (LWA)	99 dB(A)												



Mixing Hints

Mix Ratios

The correct mix ratio (cement:sand:stone) depends on the type of application; harder concrete requires more cement, rougher applications require more aggregate. The ratios given below are guidelines: best proportions may depend on the quality of sand/stone used.

First put in the water - around 7 litres (1½ gallons), using more or less depending on the type of mix required. Add some aggregate before adding cement, to avoid sticking. Work consistently to the ratio of ingredients for whatever type of concrete mix you are working to.

Getting A Good Mix

The approximate mixing time for concrete is 2-4 minutes from when all the material (including the water) has been added - over-mixing can reduce strength and cause segregation of the coarser aggregates.

Beware of low grade aggregates; these will only lead to trouble later on with sinking and frost spoiling the appearance of the pour. Also do not get the concrete mix too wet as this can reduce strength and make it less able to withstand weathering.

Looking After Your Mixer

Never throw material into the mixer - trickle it steadily over the rim or it will stick firmly to the back of the drum and can only be dislodged by stopping the mixer.

Keep your mixer clean - material left in the drum will harden, and attract more on each use until the mixer is useless.

Do not throw bricks into a mixer drum to clean it out. The best method is a mix of 1" (2½cm) gravel and clean water - use plenty of it, as this will do the job in half the time.

APPLICATIONS	QUANTITIES		
	CEMENT	SAND	STONE
MOST ORDINARY	1	2	4
FOUNDATIONS	1	3	6
ROUGH MASS CONCRETE	1	4	8
WATERTIGHT FLOORS,TANKS PITS ETC.	1	1.5	3



Warranty

Your new Belle Group Premier XT is warranted to the original purchaser for a period of one-year (12 months) from the original date of purchase. The Belle Group warranty is against defects in design, materials and workmanship.

The following are not covered under the Belle Group warranty:

1. Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instructions.
2. Alterations, additions or repairs carried out by persons other than Belle Group or their recognised agents.
3. Transportation or shipment costs to and from Belle Group or their recognised agents, for repair or assessment against a warranty claim, on any machine.
4. Materials and/or labour costs to renew, repair or replace components due to fair wear and tear.

The following components are not covered by warranty.

- Drive Belt
- Engine air filter
- Engine spark plug

Belle Group and/or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose.

Warranty Claims

All warranty claims should firstly be directed to Belle Group, either by telephone, by Fax, by Email, or in writing.

For warranty claims:

Belle Group Warranty Department,
Sheen, Nr. Buxton
Derbyshire
SK17 0EU
England.

Tel : +44 (0)1298 84606,

Fax : +44 (0)1298 84722

Email : warranty@belle-group.co.uk

Les moteurs installés dans la gamme de ces bétonnières bénéficient d'une garantie de 12 mois. Tout problème rencontré avec le moteur pendant la période de garantie doit être traité par le revendeur agréé le plus proche de chez vous.

Si vous voulez avoir le nom du revendeur le plus proche de chez vous, une liste est disponible sur demande.

Numéros de série

ATTENTION! Noter les numéros de série et les avoir pour toute communication avec un revendeur Belle.

NUMERO DE SERIE MACHINE

NUMERO DE SERIE MOTEUR

Introduction

Félicitation pour votre achat de cette bétonnière de qualité de la gamme Belle Group.

Cette machine est fabriquée pour être conforme aux normes européennes actuelles, elle dispose d'une déclaration de conformité et porte donc la marque CE, applicable aux territoires où ces normes sont mises en application.

Lisez ce manuel soigneusement, observez toutes les instructions de manipulation et de sécurité durant l'utilisation et entretenez votre machine en bon état de marche.

Pour l'entretien de cette machine, seules les pièces de rechange originales du fabricant peuvent être utilisées. L'utilisateur perdra toute possibilité de réclamations si les pièces de rechange utilisées sont autres que les pièces de rechange originales du fabricant.

Conservez ce manuel avec votre machine pour les références.

PREVENTION DE SURETE ET D'ACCIDENTS Instructions d'utilisation :

Toutes les personnes qui utilisent, assemblent, mettent en marche, entretiennent ou réparent cette machine, doivent lire et mettre en ouvre les consignes d'utilisation.

Responsabilité du Propriétaire :

Le propriétaire doit s'assurer que seules les personnes qualifiées utilisent, entretiennent ou réparent cette machine

STOCKAGE :

Stocker la machine dans un endroit sec et fermé, éloigné des enfants.

Précautions d'emploi :

Les bétonnières sont prévues pour la production du béton, du mortier et du plâtre. Elles doivent être utilisées dans ce cadre et n'est pas appropriée au mélange de substances inflammables ou explosives. Ne doit pas être employée dans une atmosphère explosive.

MAINTENANCE ET RÉPARATIONS :

Seules les personnes autorisées doivent réparer la bétonnière et dans le cadre des exigences CE, par rapport auxquelles aucune déviation aux spécifications originales ne doit avoir lieu.



ATTENTION

N'importe quelle maintenance et réparations effectuées à chacun des composants électriques doit être entrepris par un électricien qualifié.

REPLACEMENT DE PIECES

Contactez votre revendeur Belle le plus proche. Quand vous commandez des pièces, veuillez indiquer le modèle de la machine, ainsi que le numéro de série. Indiquez la pièce voulue en accord avec les vues éclatées, en indiquant la référence de la pièce et la quantité voulue.

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Belle Group a adopté une politique de développement permanent de ses produits et se réserve le droit de modifier les manuels sans préavis.

F

Symboles d'Avertissement



LUNETTES DE PROTECTION



RISQUE DE FEU ET D'EXPLOSION



LIRE LE MANUEL



PROTEGES OREILLES



PORTER DES CHAUSSURES DE PROTECTION



POINT DE LEVAGE

AVERTISSEMENT - IMPORTANT

Les bétonnières Premier XT sont prévus pour un usage professionnel, les types de prises suivants sont fournis et sont adaptés aux exigences du produit.

moteur 110V - 32 amp prise de type BS4343.

moteur 230V - 16 amp prise de type BS4343.

moteur 415V - 32 amp prise de type BS4343.

BRANCHER UNE PRISE PEUT ETRE DANGEREUX

IMPORTANT: les fils sont colorés et suivent les codes suivants :

VERT/JAUNE = TERRE

BLEU = NEUTRE

MARRON = PHASE

Le fil de couleur jaune/vert doit être connecté au terminal marqué E ou coloré vert/jaune.
 Le fil marron doit être connecté au terminal marqué L ou coloré en rouge.
 Le fil coloré en bleu doit être connecté au terminal marqué N ou coloré en noir.
 Assurez-vous toujours avant de vous relier à la source d'alimentation que la tension d'alimentation est identique à la tension du moteur.

LIRE CES INSTRUCTIONS DE SECURITE

Prrière de lire ces instructions de sécurité avant toute utilisation de la machine.



ATTENTION

La machine ne doit pas être utilisée par des enfants ou des personnes à handicap physique, sensoriel ou mental des capacités, ou le manque d'expérience et de connaissance, sauf si elles ont été données de surveillance ou de l'instruction. Les enfants doivent être surveillés pour s'assurer qu'ils ne jouent pas avec la machine.

AVANT DE DEMARRER LA BETONNIERE

- Vérifiez que toutes les protections sont en position et sont correctement adaptées.
- **Ne portez pas de vêtements larges ou de bijoux** qui se pourraient se bloquer dans la machine
- Les vêtements doivent être conformes à toutes les normes de sécurité CEE concernant: combinaisons, chaussures de travail, lunettes, masques, gants, protections acoustiques, etc.
- S'assurer que les câbles qui traînent sont protégés de tout dommage et qu'ils ne risquent pas de faire trébucher quelqu'un ou d'être écrasés sous la bétonnière.
- **Il est recommandé d'utiliser un dispositif à intensité résiduelle sur les circuits électriques 230V ou 240V.**
- Enlever tout emballage avant utilisation.

UTILISATION DE LA BETONNIERE

- Garder le capot moteur fermé pendant le malaxage.
- Eloigner toute personne non autorisée du tambour
- Veiller à ce que la zone autour de la bétonnière soit libérée de tout obstacle qui pourrait provoquer la chute de personnes.
- S'assurer que la bétonnière se trouve sur une surface bien horizontale avant l'utilisation.
- S'assurer que les freins soient mis avant l'utilisation.
- S'assurer que les pieds de la bétonnière soient calé en position basse avant de travailler
- **Assurer une aération importante lorsque les moteurs tournent dans un endroit fermé.**
- **Remplacer tout adhésif endommagé**
- **Vérifier que le tambour tourne pendant que la bétonnière est vidée.**
- **Toujours désactiver et débrancher la prise** électrique de la machine laissée sans surveillance.
- **Ne pas déplacer quand la bétonnière tourne**
- **Attention aux zones dangereuses.**

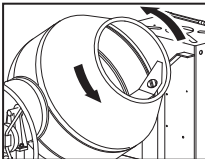
ARRET D'URGENCE

Voir section instructions d'utilisation pour les détails.

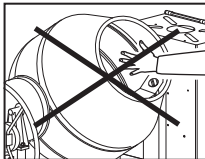
PREVENTION INCENDIE

Si la bétonnière prend feu, couper l'alimentation électrique. Eteindre le feu à l'aide d'un extincteur à poudre sèche ou à CO². Si le feu ne peut être éteint, rester à distance et contacter les pompiers.

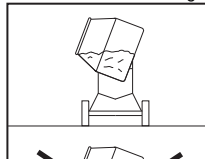
En cas de doute quant aux conditions de sécurité de la machine veuillez contacter votre Concessionnaire agréé Belle.



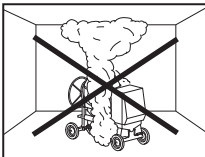
SENS DU ROTATION DU TAMBOUR



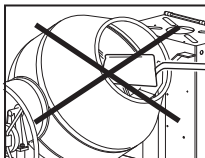
NE PAS METTRE DE PARTIE DE VOTRE CORPS DANS LE TAMBOUR



TOUJOURS TRAVAILLE AVEC LA CAPACITE RECOMMANDEE



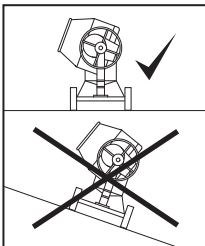
TOUJOURS MALAXER DANS UN ENDROIT VENTILE, LES VAPEURS PEUVENT TUER.



NE PAS METTRE DE PELLE DANS LE TAMBOUR



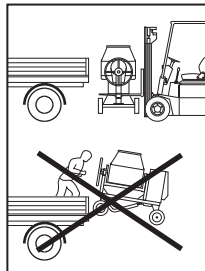
TOUJOURS MALAXER SUR UN SOL PLAT



TOUJOURS MALAXER SUR UN SOL PLAT



NE PAS METTRE D'ESSENCE OU DE LUBRIFIANTS PENDANT QUE LE MOTEUR TOURNE



CHARGER ET DECHARGER DE LA TRANSPORT CORRECTEMENT (Voir la Section des transports du Manuel)

CHARGEMENT PAR CHARIOT ELEVATEUR

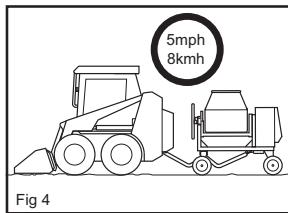
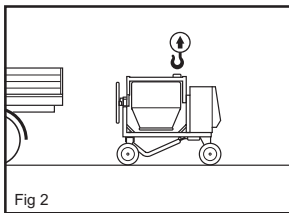
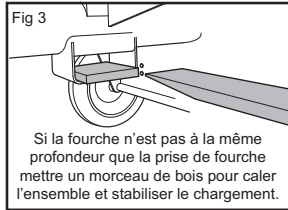
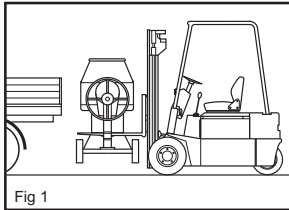
- La méthode de chargement habituelle dans un camion ou une remorque doit être utilisée. La prise de fourche (Fig 3) est située sous le châssis principal pour permettre à La bétonnière d'être chargée en utilisant une fourche d'élévation (Fig 1).

CHARGEMENT PAR GRUE

- Pour avoir accès au point de levage tourner le tambour la cuve vers le bas (Fig2)
- S'assurez que l'ensemble de levage est conforme aux normes et peut supporter le poids de la machine. Voir les données techniques. S'assurez que le crochet de levage est correctement fixé avant de soulever la machine.
- **Ne vous tenez pas sous la machine tandis qu'elle est soulevée.**

BETONNIERES TRACTABLES

- Ces bétonnières doivent être tractées sur le chantier uniquement, à une vitesse maximale de 5 miles à l'heure (8km / heure).
- Ne les tractez pas sur une route nationale par exemple.

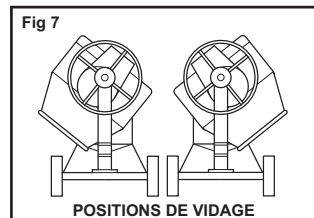
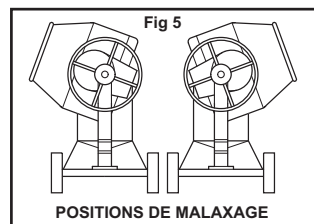
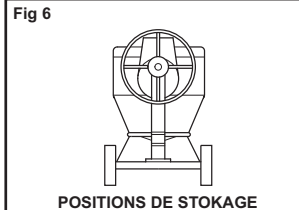
**INCLINAISON DU TAMBOUR**

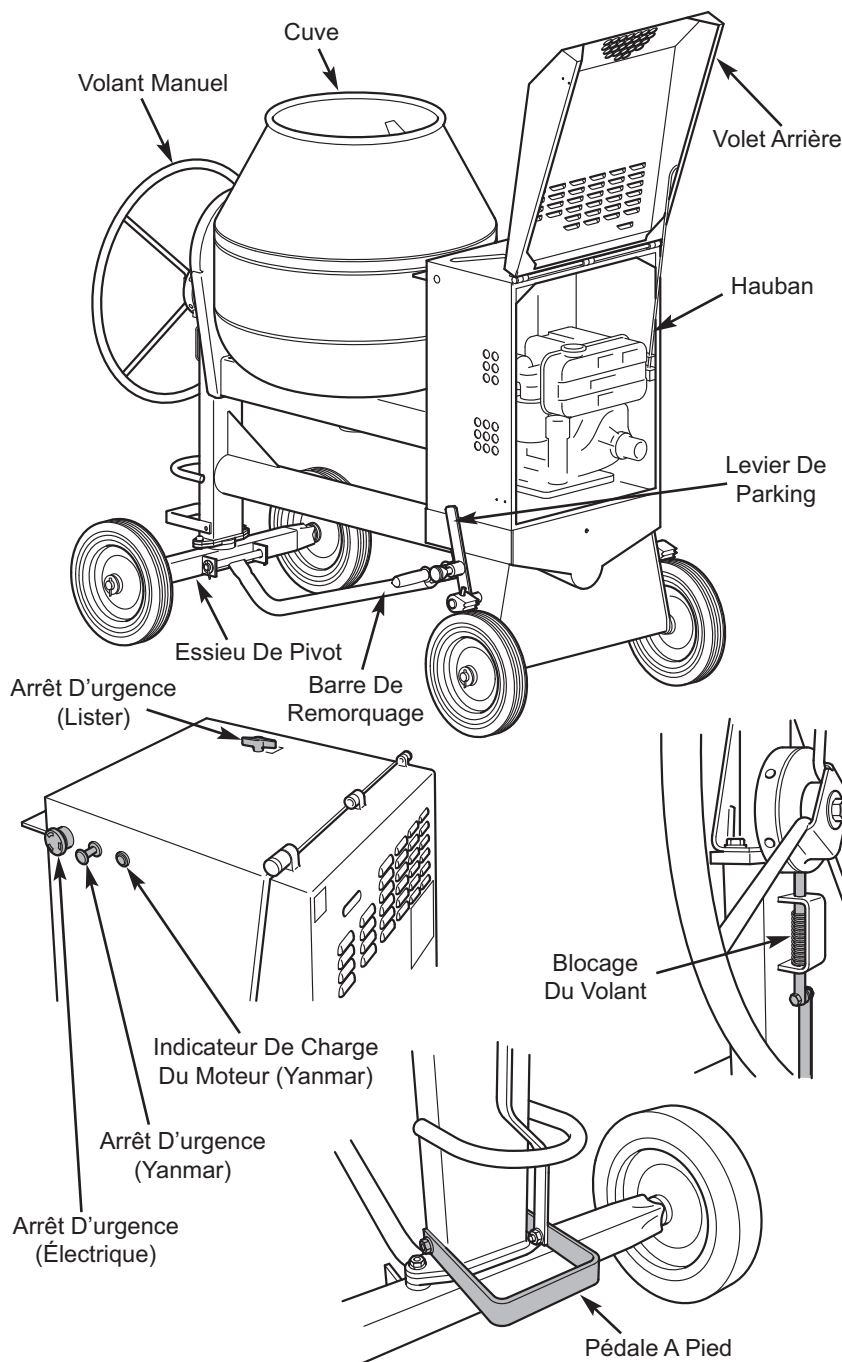
Le volant permet un contrôle facile du tambour qui peut être bloqué en position de stockage, mis en position de malaxage ou de vidage.

Le tambour se verrouille sur différentes positions grâce à un piston situé dans le volant. Pour bouger le tambour, le piston doit être désengagé en abaissant la pédale située juste en dessous de l'axe pivotant.

Le volant de commande se déplacera maintenant librement permettant le re-positionnement du tambour. Pour bloquer le tambour sur une position, libérer la pédale et tourner le volant jusqu'à ce que le piston s'enclenche dans l'anneau du volant.

- **Ne mettez pas votre main à travers le volant de commande.**
- **Toujours garder ses deux mains sur le volant de commande.**





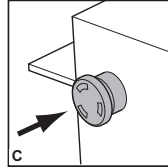
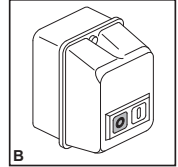
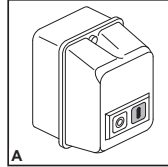
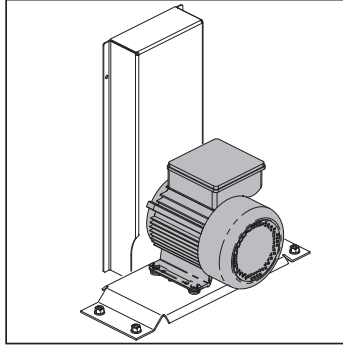
1. MOTEUR ELECTRIQUE: VARIANTS

ARRET

- 1.1 Enfoncez le bouton rouge ou sur off) pour arrêter la bétonnière (Fig B).

DEMARRAGE

- 1.2 Soulever le capot arrière.
- 1.3 Sorter le câble d'alimentation par l'arrière de la bétonnière et placer la prise dans la source d'alimentation.
- 1.4 Enfoncez le bouton vert (ou appuyer sur on) pour démarrer la bétonnière (Fig A).



- **Assurez-vous que le câble d'alimentation est bien rangé avant de déplacer la bétonnière.**
- **Garder le capot fermé quand la bétonnière est en marche**

ARRET D'URGENCE

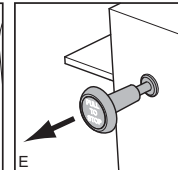
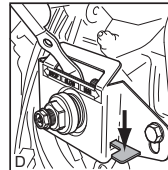
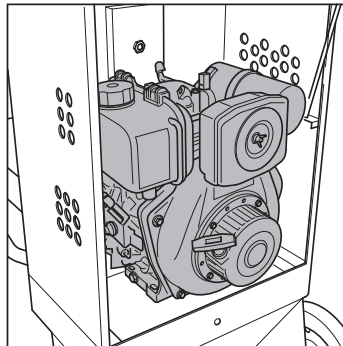
- 1.5 Enfoncez le bouton rouge, situé en haut à gauche de l'unité moteur (Fig C).

2. YANMAR (DEMARRAGE ELECTRIQUE)

ARRET

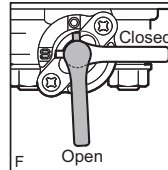
- 2.1 Appuyez sur le levier rouge (Image D)

- **Notez** que la lumière rouge s'allume lorsque la charge du moteur ne fonctionne pas.
- **Assurez vous que lorsque la machine ne marche pas, l'allumage est éteint, ou alors des problèmes de batterie pourraient survenir.**



ARRET D'URGENCE

- 2.2 Tirez la poignée sur le côté de l'unité moteur pour arrêter la machine (Image E)



DEMARRAGE A FROID

- 2.3 Soulevez le volet arrière.

- **Ouvrez le robinet essence (Figure F).**

- 2.4 Dans des situations de froid démarrage, l'engin nécessite 2 cc d'huile moteur (10w30), et ceci en utilisant un applicateur a huile. L'huile doit être introduite dans le moteur, en enlevant le bouchon en caoutchouc, assurez vous que le bouchon est reposé. (image G)
- 2.5 Assurez vous que l'arrêt d'urgence est poussé (Image H)
- 2.6 Réglez le bouton de réglage de vitesse (situé sur la gauche du moteur) en position de marche (Image I)
- 2.7 Tournez la clé de démarrage dans le sens des aiguilles d'une montre, jusqu'à ce que le moteur se mette en route. Si cela ne marche pas, activez le processus de démarrage a froid.

- **Notez** que, une fois qu'une tentative de mise en marche du moteur a échoué, la clé doit être replacée en position OFF avant de recommencer.
- **NE PAS** opérer avec le volet arrière ouvert

DEMARRAGE A CHAUD

- 2.8 répétez le processus ci-dessus (2.5)

3. LANCEUR YANMAR, en réserve du démarrage électrique

ARRET

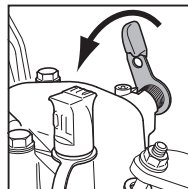
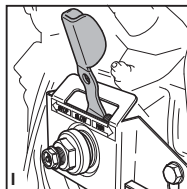
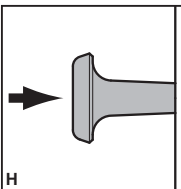
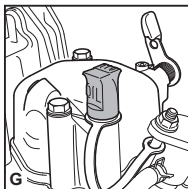
3.9 Appuyez sur le levier rouge (Image D)

ARRET D'URGENCE

3.10 Tirez la poignée sur le côté de l'unité moteur pour arrêter la machine (Image E)

DEMARRAGE A FROID

3.11 Soulevez le volet arrière.



- Ouvrez le robinet essence (Figure F).

3.12 Dans des situations de froid démarrage, l'engin nécessite 2 cc d'huile moteur (10w30), et ceci en utilisant un applicateur à huile. L'huile doit être introduite dans le moteur, en enlevant le bouchon en caoutchouc, assurez vous que le bouchon est reposé. (Image G)

3.13 Assurez vous que l'arrêt d'urgence est poussé (Image H)

3.14 Réglez le bouton de réglage de vitesse (situé sur la gauche du moteur) en position de marche (Image I)

3.15 Tirez la poignée du lanceur jusqu'au point où vous sentez une résistance forte, puis retournez à la position de départ. Appuyez sur le levier de décompression, en haut à droite du moteur, cela reviendra automatiquement lorsque la poignée de lanceur est tirée pour la deuxième fois.

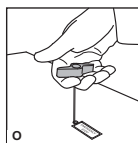
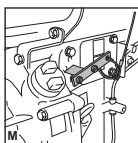
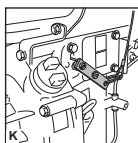
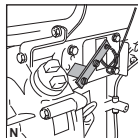
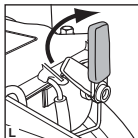
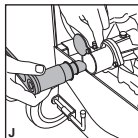
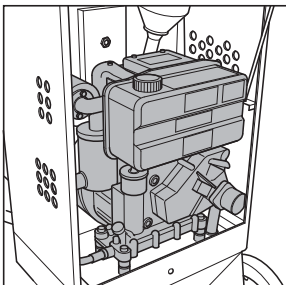
3.16 placez les deux mains sur la poignée du lanceur et tirez sèchement. Si le moteur ne démarre pas, répétez le processus à partir de 3.15

- NE PAS opérer avec le volet arrière ouvert.

DEMARRAGE A CHAUD

3.17 répétez le processus ci-dessus (3.15)

4. LISTER PETER : CRANK HANDLE START



- Des précautions doivent être prises lors du démarrage, utilisez toujours la poignée de démarrage « anti kick back » = pas de coup retour.
- Assurez vous que la poignée est correctement enclenchée (figure J) avant d'activer le moteur.
- Assurez vous que les niveaux d'huile et d'essence sont vérifiés quotidiennement avant de mettre en route le moteur.
- Assurez vous que le levier de blocage du volet arrière est en position correcte avant de travailler sur l'unité moteur.
- Gardez le volet arrière fermé lorsque la machine est en marche

4 ARRET

4.1 Stylo porte arrière et se déplacer Start / Stop de levier à la position STOP (Fig L).

DEMARRAGE A FROID

4.2 levez le volet arrière

4.3 levez le levier de sécurité, localisez la manivelle de démarrage sur le mécanisme et tournez jusqu'à ce que la poignée s'engage (Image J)

4.4 engagez le levier start/stop dans la position START. (Image K)

4.5 poussez le levier de décompression dans une position verticale et maintenez la. (Image L)

4.6 Actionnez la manivelle aussi vite que possible, et placez le levier de décompression en position marche, tout en continuant d'actionner la manivelle sèchement jusqu'à ce que le moteur marche

4.7 Une fois que le moteur démarre, remplacez la dans son emplacement, et placez le levier Start/Stop dans la position « RUN » (marche) (Image M)

DEMARRAGE A CHAUD

4.8 suivez les instructions de 2.2 à 2.6, mais activez cependant le moteur avec le levier start/stop en position « RUN » (marche) .

ARRET D'URGENCE

4.9 Tirez la poignée sur le dessus de l'unité moteur (Image O)

Avant d'entreprendre toute opération d'entretien ou de réparation, couper le moteur et l'isoler de l'alimentation de secteur.
Une fois l'entretien terminé, vérifier que la bétonnière fonctionne correctement et que toutes les protections sont correctement montées.

MOTEURS ELECTRIQUES

Tous les équipements électriques portables sont dangereux s'ils sont mal utilisés. Cette machine ne fonctionne que sur une seule tension. Vérifier que la tension d'alimentation correspond à la tension indiquée sur la plaque signalétique. S'assurer que le moteur est éteint avant de brancher la machine à la source d'alimentation.

220/240v - Toujours utiliser un dispositif à tension résiduelle (déclenchement de fuite à la terre) directement branché dans la prise 220/240V. Si l'on utilise une rallonge, la brancher directement dans le dispositif à tension résiduelle.

110v - En cas d'utilisation d'un transformateur portable, il doit avoir une sortie minimale de 6,3 kW et être réglé en continu.

- **Ne pas utiliser de rallonge entre le transformateur et l'alimentation**

Les symboles sur le commutateur "marche/arrêt" sont conformes 0=OFF et I=ON aux normes internationales.

 **Si le cordon d'alimentation est endommagé, il doit être remplacé par un cordon d'alimentation ou de l'ensemble de la disposition du fabricant ou de son agent de service. (Voir Schéma de câblage à la page 28.)**

RALLONGES

Si une rallonge est nécessaire, celle-ci ne doit pas dépasser une longueur de 30 mètres. La section du fil doit être de 2,5 mm² pour 220/240v et 4mm² pour 110v (100XT), 6mm² 110v (toutes autres modèles). S'assurer que la rallonge est soigneusement installée en évitant les liquides, les arêtes vives et les lieux de passage des véhicules. Faire en sorte que la rallonge ne puisse pas être écrasée sous la bétonnière. La dérouler complètement pour qu'elle ne surchauffe pas. S'assurer que tous les branchements de la rallonge sont secs et sûrs.

COMBUSTION ENGINES

- **Soyez conscients des instructions concernant l'échappement.**

Le moteur nécessite une vérification régulière de l'huile. N'essayez pas de fonctionner avec peu d'essence, cela pourrait provoquer la formation de résidus au fond du réservoir, endommageant ainsi l'injecteur et la pompe. Les réparations de la tuyauterie et autres composants provoqués par de l'encrassement ne peuvent pas être traités sous garantie, de même que les soucis causés par une machine manquant d'essence. Vous pouvez par exemple libérer l'air du système à essence avant de commencer.

Pour remplir le moteur initialement, ou l'ajustement du niveau, utilisez une huile moteur d'un grade 10w/30. C'est dans votre propre intérêt que de lire les instructions du manuel avant utilisation.

Ajustement de la cuve

Celle-ci peut être ôtée rapidement en dévissant dans le sens inverse des aiguilles d'une montre, à la position verticale. Enlevez la cuve en utilisant un chariot élévateur, avec les dents du chariot placées sous la base de la cuve. Lors du remplacement, assurez-vous que l'axe de la cuve est correctement graissé avant de le revisser dans son emplacement. Assurez-vous que la cuve est vissée correctement. Attention lorsque vous revissez la cuve, visser trop vite pourrait endommager l'engrenage.

NETTOYAGE

Essuyer tous les matériaux extérieurs. NE pas utiliser d'essence, de térebenthine, de laque ou de diluant pour peinture, de liquides pour nettoyage à sec ou de produits similaires. Ne jamais laisser des liquides à proximité du moteur. Utiliser des graviers de 1" et de l'eau propre pour nettoyer l'intérieur du tambour.

- **NE PAS** utiliser de briques, etc. qui risqueraient d'endommager le tambour.

COURROIE

- **NE** tenter AUCUN réglage pendant que le moteur tourne.
- **NE PAS** utiliser si la courroie est détendue
- **NE PAS** utiliser la machine sans les protections

La courroie est sous tension constante ce qui ne nécessite pas d'intervention particulière. Roulements graissés à vie.

HUILE ENGRENAGE

Notez que l'huile originale pour l'engrenage de la cuve est une huile synthétique et ne doit pas être mélangée à une huile minérale. L'engrenage remplit 1 litre, vérifiez cela régulièrement.

L'engrenage fut rempli d'origine avec l'huile Total Transmission W75/W90 viscosité.

Huiles équivalentes :

Shell :- Tivela SA, Tivela WA, Dentax W
Texaco :- Synlube 90
Esso :- GX 75W/90

Mobil :- Glygoyle 22
Castrol :- WM or Alpha SN150
Caltex :- Synthetic gear lubricant

LUBRIFICATION ET UTILISATION

Voir la section maintenance et instructions d'utilisation.

Rappelez-vous que les moteurs diesel vibrent davantage, vérifiez régulièrement que tous les écrous et les boulons sont serrés.

Pour aider le moteur en marche, tous les moteurs sont expédiés avec un remplissage d'huile de lubrification, qui doit être changée après 100 heures.
Tous les changements d'huile doivent être tels que définies ci-dessous.

Moteurs Lister-Petter 32 & 10

	Quotidien- nement	125 Heures	250 Heures	500 Heures	1000 Heures	2000 Heures
Vérifier le carburant et l'huile de graissage des niveaux	✓					
Vérifier les fuites d'huile et de carburant	✓					
Nettoyez ou remplacez le filtre à air élément de très poussiéreux	✓					
Vérifier l'état de la batterie, le cas échéant		✓				
Nettoyez ou remplacez le filtre à air élément modérément poussiéreux sous conditions		✓				
Le carter de vidange et de remplissage avec de l'huile de type et la spécification du moteur tel qu'il figure dans l'ouvrage		✓	✓			
Nettoyez ou remplacez les injecteurs, si les gaz d'échappement est sale			✓			
Renouveler l'élément de filtre à carburant si le carburant utilisé n'est pas parfaitement propre			✓			
Remplacer le filtre à air élément				✓		
Examiner les systèmes d'échappement et de l'induction de fuites, de dommage ou de restrictions				✓		
Renouveler l'élément de filtre à carburant				✓		
Vérifiez la charge de la batterie du système d'enroulement, se référer à l'atelier manuel				✓		
Vérifiez la soupape de dégagement					✓	
Decarbonise si les performances du moteur s'est détériorée					✓	
Nettoyez le cylindre et la tête nageoires					✓	
Nettoyez le banjo union à la fin de la culasse tuyau d'alimentation d'huile					✓	
Égoutter, rincer et remplir le réservoir de carburant						✓

Bétonnière	A Chaque	50 Heures	250 Heures	500 Heures	1000 Heures
Graisser l'axe de potence		✓			
Graisser le boîte réduction (10 graissages)			✓		
Enlever le tambour, graisser l'arbre			✓		
Vérifier les boulons et écrous	✓				
Vérifier l'huile/boîte de réduction				✓	✓
Remplir le graisseur		✓			
Vérifier les composants/fuites	✓				

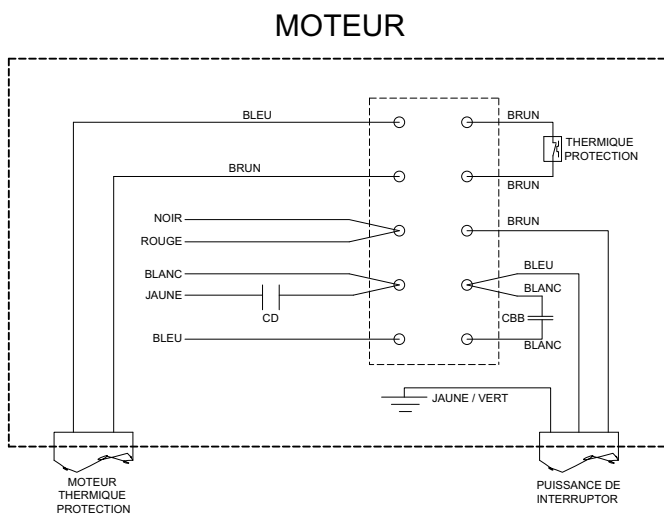
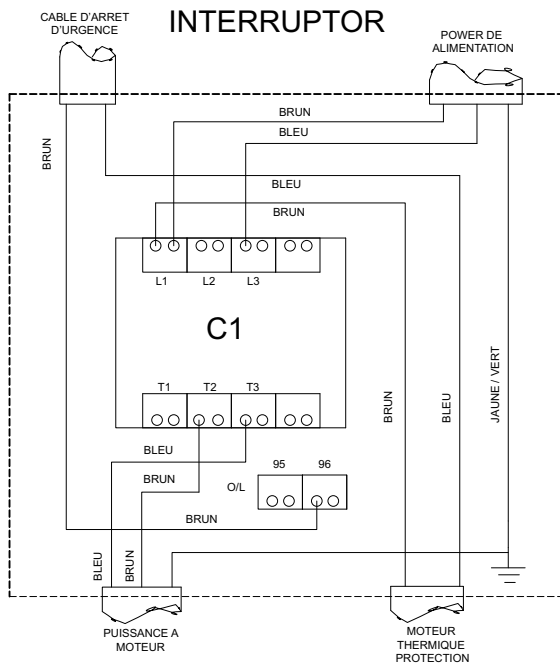
Les points marqués "✓✓" devraient être desservies par un YANMAR concessionnaire, à moins que le propriétaire a la maîtrise et la capacité mécanique des outils adéquats.

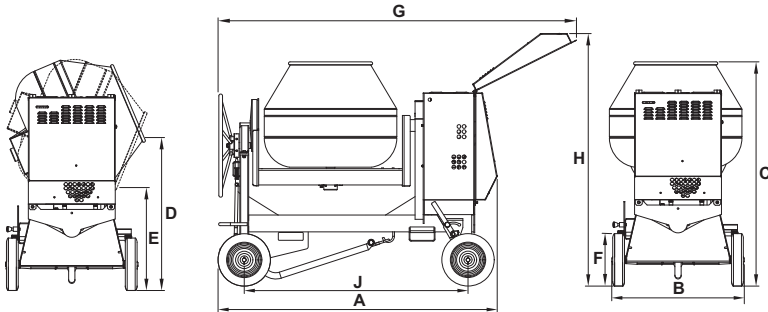
Parts d'un astérisque marque " * " sont liés à la CARB ULG règles.

Moteur Yanmar L48 ➡ Avril '04

	Chaque monate ou 100 Heures	Chaque 3 monates ou 200 Heures	Chaque 6 monates ou 400 Heures	Chaque années ou 1000 Heures
Vérifiez le niveau de carburant et de recharge. - Avant l'opération				
Égoutter le réservoir de carburant	✓			
* Nettoyez le filtre à carburant		✓		
* Remplacer le filtre à carburant			✓	
Vérifiez le carburant / huile de fuite - Après l'opération				
* Buses d'injection de carburant, injection Vérifiez la condition			✓✓	
* Vérifiez l'injection			✓✓	
* Vérifiez la pompe d'injection de carburant				✓✓
Vérifiez le niveau d'huile dans le carter d'huile et de recharge - Avant l'opération				
Remplacer l'huile de graissage	1er temp	2e & après		
Nettoyez le filtre à huile de lubrification	1er temp		2e & après	
Vérifier les fuites d'huile de graissage - Après l'opération				
Vérifiez la soupape de dégagement				✓
* Vérifiez le filtre à air élément		✓		
* Remplacer le filtre à air élément			✓	
Vérifiez le niveau du liquide de batterie et la recharge - Avant l'opération				
Vérifiez les feux d'avertissement - Lorsque le moteur est démarré				
Réglage de la soupape d'admission et d'échappement d'apurement			✓✓	

Betonniere	A Chaque	50 Heures	250 Heures	500 Heures	1000 Heures
Graisser l'axe de potence		✓			
Graisser le boîte réduction (10 graissages)			✓		
Enlever le tambour, graisser l'arbre			✓		
Vérifier les boulons et écrous	✓				
Vérifier l'huile/boîte de réduction				✓	✓
Remplir le graisseur		✓			
Vérifier les composants/fuites	✓				





	100XT	150XT	175XT	200XT
A - LARGEUR TOTALE (MM)	1665	1665	1890	1890
B - LONGEUR TOTALE (MM)	900	900	900	900
C - HAUTEUR TOTALE (MM)	1468	1568	1049	1077
D - HAUTEUR DE CHARGEMENT (MM)	613	607	713	680
E - HAUTEUR DE DECHARGEMENT (MM)	350	350	350	350
F - DIAMETRE DES ROUES (MM)	2100	2100	2200	2200
G - LARGEUR TOTALE - CAPOT OUVERT (MM)	1950	1950	1950	1950
H - HAUTEUR TOTALE - CAPOT OUVERT (MM)	1120	1120	1520	1520
J - LARGEUR AU NIVEAU DES ROUES	1120	1120	1520	1520
CUBIC FEET IN/OUT	5/3.5	7/5	8/6	10/7
CAPACITE DE MALAXAGE (LTR)	110	160	180	220
CAPACITE DE LA CUVE (LTR)	250	300	350	400
MAX DRY MIX DRUM CAPACITY IN (LTR)	160	220	250	310
VITESSE DU TAMBOUR (RPM)	19	19	19	19

MODELES D'ELECTRIQUE	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT
	POIDS À VIDE (KG)	305.5	314.5	322.5	325	303.5	312.5	320.5	323	305.5	314.5	322.5
TENSION NOMINALE (V)	110				240				415			
COURANT NOMINAL (AMP)	13.7				6.6				3.6			
PUISSANCE NOMINALE	1.5											
FRÉQUENCE (HZ)	50											
RÉGIME DU MOTEUR	1350				1430				1500			
SYSTÈME DE PROTECTION	Thermal / NVR											
CONSOMMATION D'ÉNERGIE (KWH)	1.5											
NIVEAU DE PUISSANCE SONORE (LWA)	87dB(A)											
	LISTER				YANMAR							
MODELES DIESEL	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT				
POIDS À VIDE (Kg)	367	376	392.5	395	334.5	343.5	350.5	353.5				
MODELE	LT1 (Build 32)		LT1 (Build 10)		L48							
PUISSANCE NOMINALE (KW)	0.75		1.9		2.3							
DEMARRAGE	Manivelle				Electrique / (Lanceur)							
CAPACITE D'ESSENCE	5				2.5							
NIVEAU DE PUISSANCE SONORE (LWA)	99 dB(A)											

Ratios de Malaxage

Le bon ratio de malaxage (ciment : sable : la pierre) dépend du type d'application ; un béton plus dur exige plus de ciment, des applications plus approximatives exigent plus d'agrégat. Les rapports donnés ci-dessous sont à titre indicatif : les meilleures proportions peuvent dépendre de la qualité du sable/de pierre utilisés.

D'abord, mettez environ 7 litres d'eau (1 ½ gallons), plus ou moins selon le type de malaxage voulu. Ajouter de l'agrégat avant d'ajouter le ciment, pour éviter tout collage. Pour obtenir le malaxage souhaité, il faut travailler correctement sur le rapport de mélange des matériaux

Obtenir un bon mélange

Le temps approximatif de malaxage pour le béton est de 2-4 minutes de quand tout les matériel ont été ajoutés (eau y compris) – un surdosage peut réduire la force et causer la séparation des agrégats plus bruts.

Il faut faire attention aux agrégats de qualité inférieure; ceux-ci peuvent causer des désagréments lors des chutes de températures, de gel pouvant abîmer son écoulement.

Il ne faut également pas obtenir un mélange de béton trop humide car celui-ci peut réduire la force et la rendre moins résistant à la séparation.

Entretien votre bétonnière

Ne jamais jeter de matériel dans la bétonnière – L'écoulement va se solidifier au-dessus de la jante ou elle se collera fermement à l'arrière du tambour et ne pourra être enlevé qu'en arrêtant la bétonnière.

Maintenir votre bétonnière propre - le matériel durcira dans le fût gauche, et ceci à chaque utilisation jusqu'à ce que la bétonnière soit inutilisable.

Ne pas jeter de briques dans le tambour de la bétonnière pour la nettoyer. La meilleure méthode est de malaxer de 1" (2 ½ centimètre) de gravier et d'eau propre – Utilisez la abondamment, et ceci vous prendra la moitié de votre temps de travail.

APPLICATIONS	QUANTITE		
	CIMENT	SABLE	PIERRE
LE PLUS ORDINAIRE	1	2	4
FONDATEMENTS	1	3	6
MASSE DE BETON BRUT	1	4	8
BETON IMPERMEABLE, RESERVOIRS, CUVETTES ETC.	1	1.5	3

Garantie

La Premier XT de Belle Group est garantie à l'acquéreur d'origine un an (12 mois) à partir de la date originale de l'achat. La garantie Belle Group s'applique à tous défauts de matériaux ou à un vice de conception ou de fabrication.

La garantie Belle Group ne couvre pas ce qui suit :

1. Dégâts causés par un usage abusif, négligent, une chute ou tous autres dégâts similaires causés par le non-respect des instructions concernant l'assemblage, l'utilisation ou les opérations d'entretien à effectuer par l'utilisateur, ou résultant de celle-ci.
2. Toutes modifications, additions ou réparations effectuées par des personnes autres que les responsables de Belle Group ou ses agents agréés.
3. Les frais de transport ou d'expédition pour retourner l'appareil à Belle Group, ou ses agents agréés, et le renvoyer, en vue de le faire réparer ou évaluer après revendication sous garantie.
4. Les coûts des matériaux et/ou de la main-d'œuvre requis pour remplacer, réparer ou renouveler les composants en raison d'une usure raisonnable.

Sont exclus de la garantie les composants suivants :

- Courroie(s) d'entraînement
- Filtre à air de moteur
- Bougie de moteur

Belle Group et/ou ses agents agréés, directeurs, employés ou assureurs ne sont pas tenus responsables de tous dégâts consécutifs ou autres, pertes ou dépenses encourus en relation avec l'utilisation de l'appareil, ou l'incapacité d'utiliser l'appareil dans un but quel qu'il soit.

Réclamations sous garantie

Il faut tout d'abord adresser toutes réclamations sous garantie à Belle Group par téléphone, fax, e-mail ou par courrier. Pour les revendications sous garantie :

Tel : +44 (0)1298 84606,

Fax : +44 (0)1298 84722

Email : warranty@belle-group.co.uk

Prière d'écrire à :

Belle Group Warranty Department, Sheen, Nr. Buxton, Derbyshire, SK17 0EU, England.



Garantia Do Motor

O motor instalado na gama de betoneiras Belle PREMIER XT tem uma garantia de 12 meses. Quaisquer problemas havidos com o motor durante o período da garantia devem ser resolvidos com o concessionário autorizado do motor mais perto de si.

Se precisar de saber o nome do concessionário autorizado mais perto de si, solicite a lista dos mesmos à Belle.

Números de Série

ATENÇÃO! Anote os números de série do seu equipamento e indique-os sempre em qualquer contacto com o concessionário Belle Group.

NÚMERO DE SÉRIE DA MÁQUINA

NÚMERO DE SÉRIE DO MOTOR



Introdução

Parabéns pela compra da sua betoneira da gama Belle Group.

Esta máquina é fabricada de acordo com as directivas da CEE em vigor e é fornecida com uma declaração de conformidade e com os autocolantes da marca CE, aplicáveis nos territórios onde têm força de lei.

Leia cuidadosamente este manual e respeite todas as instruções de segurança e operação antes, durante e depois de utilizar o seu equipamento. Mantenha a máquina em boas condições de funcionamento.

Quando fizer assistência à sua máquina só deve utilizar peças originais. O utilizador perde qualquer possibilidade de reclamar se as peças utilizadas forem de qualquer marca que não a original.

Mantenha este manual com a sua máquina para futuras consultas.

SEGURANÇA E PROTECÇÃO DE ACIDENTES

Instruções De Operação:

Todas as pessoas que utilizarem, montarem, operarem, arrancarem, controlarem, manterem ou repararem esta máquina devem ler e compreender estas instruções de operação.

Responsabilidade Do Proprietário:

O proprietário deve certificar-se que só pessoas qualificadas podem operar, manter ou assistir esta máquina.

Armazenamento:

Quando não a estiver a utilizar, armazene-a num local seco e fechado. Mantê-la fora do alcance de crianças.

Utilização Para Os Fins A Que Foi Destinada:

As misturadoras são concebidas para a produção de betão, argamassa e rebocos. A misturadora só deve ser usada para os fins para que foi concebida e não é indicada para misturar substâncias inflamáveis ou explosivas. As misturadoras não devem ser usadas em atmosferas explosivas.

MANUTENÇÃO E REPARAÇÃO

Só os distribuidores autorizados devem reparar as misturadoras e de acordo com os pressupostos da marca CE (quando aplicável), sem prejuízo das especificações originais.



AVISO

Quaisquer manutenções e reparações feitas em quaisquer componentes dos motores eléctricos devem ser realizadas por electricistas qualificados.

PEÇAS DE SUBSTITUIÇÃO

Contacte o distribuidor Belle Group mais próximo. Quando encomendar peças de substituição por favor indique o tipo de produto, o número de série e o modelo do motor. Selecione a peça requerida da lista de peças fornecida indicando o número da página, o número do item pretendido e a quantidade requerida.

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A Belle Group reserva o direito de mudar as especificações da máquina sem aviso prévio.

Símbolos



PROTECÇÃO AURICULAR



RISCO DE FOGO E EXPLOÇÃO



LER O MANUAL DE
OPERAÇÃO



PROTECÇÃO OCULAR



CALÇADO DE PROTECÇÃO



PONTO DE ELEVAÇÃO

WARNING - IMPORTANTE

The Premier range of mixers are intended for industrial use, the following plug types are supplied fitted to the product:

110V motor - 32 amp rated BS4343 plug type.

230V motor - 16 amp rated BS4343 plug type.

415V motor - 32 amp rated BS4343 plug type.

Fitting a plug - **WARNING THIS PRODUCT MUST BE EARTHED**

IMPORTANTE: The wires in the mains lead are coloured in accordance with the following code:

VERDE / AMARELO = EARTH, AZUL = NEUTRO. CASTANHO = SOB TENSÃO.

O fio de cor Verde e Amarela deve ser ligado ao terminal que está marcado com a letra E ou com a cor de Verde e Amarela. O fio de cor Castanho deve ser ligado ao terminal que está marcado com a letra L ou com a cor Vermelha. O fio de cor Azul deve ser ligado ao terminal que está marcado com a letra N ou com a cor de Preta.

Always ensure before connecting to the supply that the supply voltage is the same as the rated voltage marked on the motor.

LEIA ESTAS INSTRUÇÕES DE SEGURANÇA

Por favor leia e compreenda todas as instruções de utilização e segurança antes de começar a operar com a máquina.

**CUIDADO**

O equipamento não é para ser usado por crianças ou pessoas com capacidades físicas, sensoriais ou mentais reduzidas, ou falta de experiência e conhecimento a menos que sejam supervisionadas ou instruídas. As crianças devem ser supervisionadas de modo a garantir que não brincam com o equipamento.

ANTES DE LIGAR A BETONEIRA

- Verifique se todas as protecções estão correctamente montadas e bem fixas..
- Não usar roupa larga ou jóias que possam prender-se durante o trabalho com a máquina. A roupa adequada deve ser de acordo com as regras de segurança da CEE e locais: Fatos macaco, botas de trabalho, óculos de protecção, máscara anti-poeiras, luvas, protectores auriculares, etc...
- Assegure-se de que todos os cabos de reboque estão protegidos contra danos e que não estão susceptíveis de se tropeçar neles nem de ficarem presos por baixo da betoneira.
- **Recomendamos a utilização de um Dispositivo de Corrente Residual numa tomada de 220-240v.**
- Remover todo o material de embalagem antes de iniciar a utilização.

QUANDO OPERAR COM A MISTURADORA

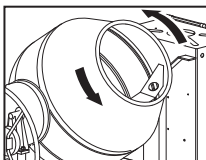
- Manter a porta do compartimento do motor fechada durante a operação de mistura.
- Manter as pessoas não autorizadas longe da cuba.
- Manter a área à volta da misturadora livre de obstáculos, que possam causar a queda de pessoas nas peças móveis.
- Assegurar-se que a misturadora está nivelada antes de começar a produzir.
- Verificar se os travões das rodas posteriores estão accionados antes de começar a operar.
- Familiarizar-se com os controlos antes de começar a operar.
- Verificar se há ventilação adequada quando utilizar motores diesel em áreas confinadas.
- Substituir quaisquer autocolantes de aviso que estejam gastos, danificados ou em falta.
- Assegurar-se que a cuba está a rodar enquanto se esvazia a misturadora.
- **DESLIGUE** sempre e retire a ficha da tomada se deixar a máquina sozinha.
- Não transportar a misturadora enquanto está a trabalhar.
- Manter-se afastado de zonas perigosas.

PARAGEM DE EMERGÊNCIA

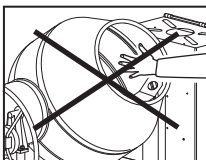
Consultar o capítulo "Instruções de Operação".

COMBATE A INCÊNDIO

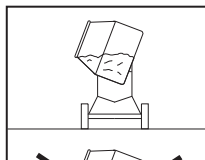
Se a sua betoneira pegar fogo, desligue a corrente eléctrica. Utilizando um extintor de pó seco ou de CO2 apague o incêndio. Se não conseguir apagar o incêndio, mantenha-se longe e chame os bombeiros. Se tiver dúvidas quanto à condição de segurança da sua máquina, é favor contactar o Concessionário de Assistência autorizado da Belle.



A CUBA RODA NO SENTIDO CONTRÁRIO AO DOS PONTeiros DO RELÓGIO



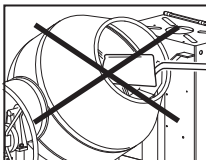
NÃO METER QUALQUER PARTE DO CORPO NA CUBA



NÃO ULTRA PASSAR A CAPACIDADE DE INDICADA



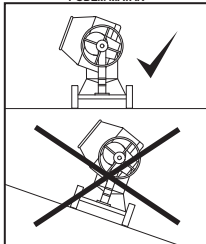
TRABALHAR SEMPRE EM LOCAIS BEM VENTILADOS OS FUMOS DE ESCAPE PODEM MATAR



NÃO METER PÁS DE CARGA NA CUBA



CARREGAR E DE CARREGAR CORRECTAMENTE A BETONEIRA PARA O MEIO DE TRANSPORTE UTILIZADO (Ver Capítulo de Transporte neste Manual)



TRABALHAR SEMPRE EM SOLO NIVELADO



NÃO ATESTAR DE ÓLEO OU COMBUSTÍVEL COM O MOTOR A TRABALHAR

CARREGAMENTO COM EMPILHADOR

- Para transportar de um local para o outro, deve-se utilizar uma carrinha ou um camião. A betoneira tem um encaixe próprio para o garfo (Fig. 3) localizado por baixo da estrutura principal para permitir a utilização dum empilhador para carregar a máquina (Fig. 1)

CARREGAMENTO COM GRUA

- Rodar a cuba para baixo para o olhal ficar na posição de carga adequada (Fig. 2).
- Assegurar-se que os cabos de elevação foram inspecionados de acordo com as directivas de saúde e segurança e são suficientemente fortes para aguentar o peso da betoneira. Ver as características técnicas. Verificar se o gancho de elevação está correctamente posto antes de iniciar a elevação.
- Não se manter debaixo da máquina enquanto esta está a ser carregada.

REBOQUE

- Estas betoneiras estão preparadas para ser rebocadas por curtos períodos de tempo e a uma velocidade máxima de 8 Km/Hora (Fig. 4).
- NÃO rebocar em auto-estrada.

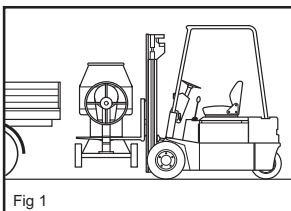


Fig 1



Fig 3

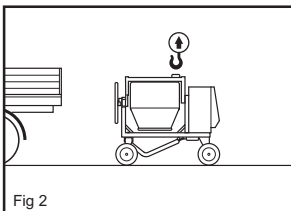


Fig 2

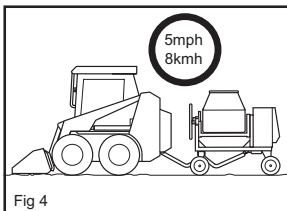


Fig 4

Posições De Mistura

INCLINAÇÃO DA CUBA

O volante manual proporciona um controlo fácil da cuba que pode ser bloqueada nas posições de armazenagem, mistura e descarga.

A cuba pode ser bloqueada por um dispositivo de fecho que engata no volante. Para mover a cuba o dispositivo deve ser desengatado, isto é feito pressionando o pedal que está situado acima da barra frontal pivotante. O volante movimentar-se-á livremente permitindo o reposicionamento da cuba. Para voltar a bloquear a cuba na posição pretendida libertar o pedal e rodar o volante até que o dispositivo de fecho engate no volante.

- **NÃO** meter a mão através do volante.
- Manter **SEMPRE** ambas as mãos no volante.

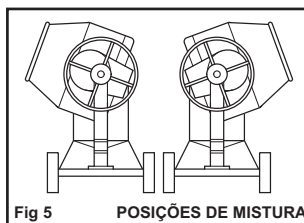


Fig 5

POSIÇÕES DE MISTURA

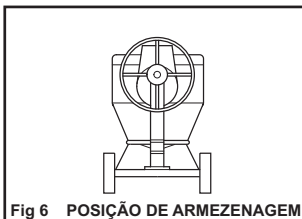


Fig 6

POSIÇÃO DE ARMEZENAGEM

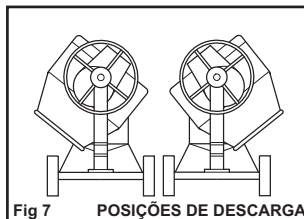
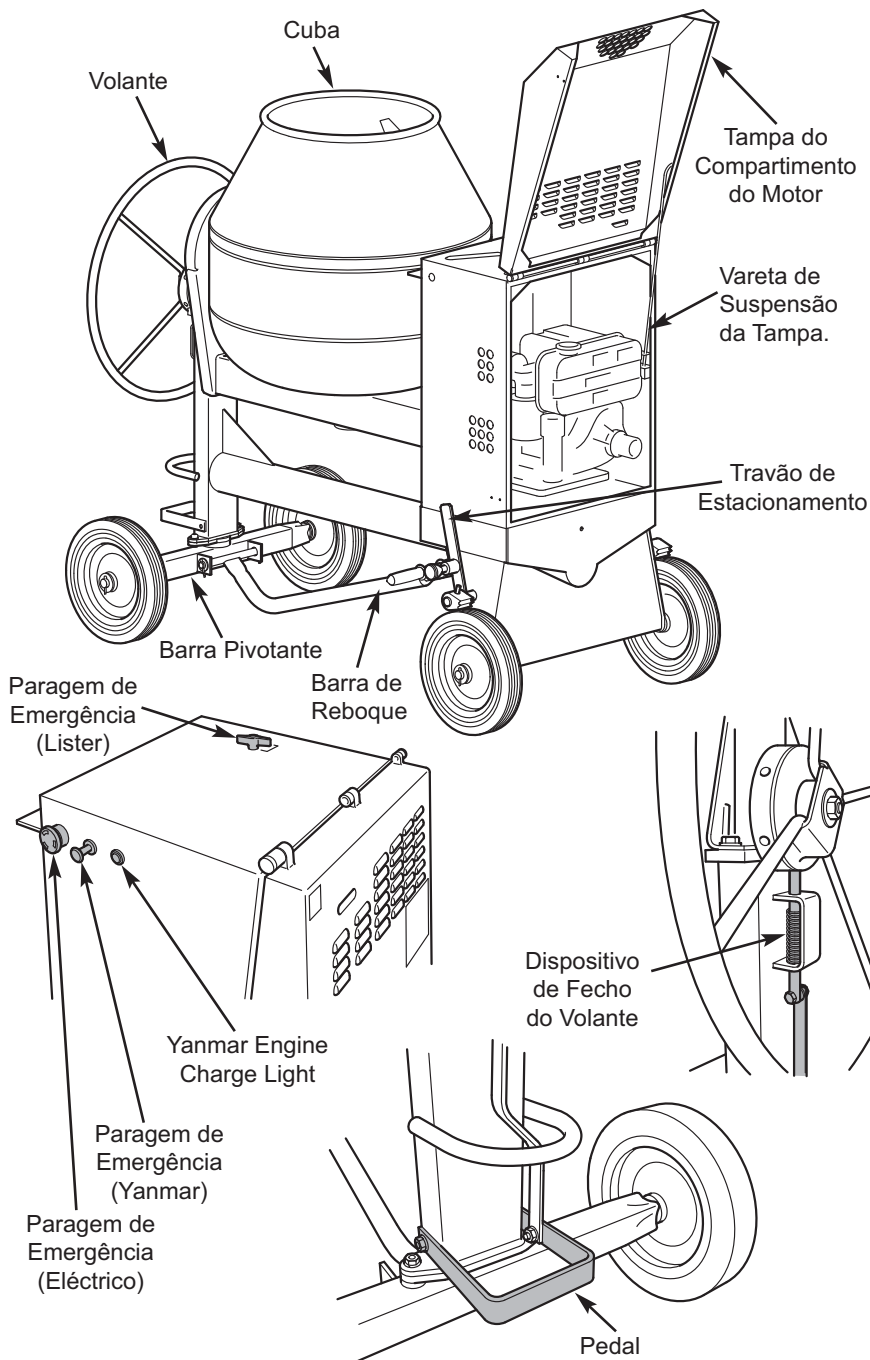


Fig 7

POSIÇÕES DE DESCARGA

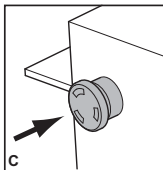
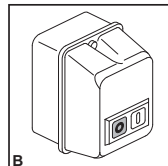
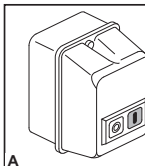
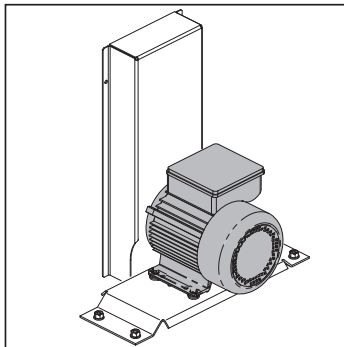


1. ELECTRIC MOTOR : VARIANTS**STOPPING**

- 1.1 Depress RED Button (or on/off toggle switch if fitted to the Off position) to stop mixer (Fig B).

STARTING

- 1.2 Lift rear door.
1.3 Feed supply cable out through the rear of the mixer and plug into power supply.
1.4 Depress GREEN Button (or on/off toggle switch if fitted to the On position) to start mixer (Fig A).



- Ensure supply cable is safely stored before moving mixer.
- Keep rear door shut when mixer is running

EMERGENCY STOP

- 1.5 Depress large RED Button, situated on top left hand side of power unit housing (Fig C).

2. YANMAR (ELECTRIC START)**STOPPING**

- 2.1 Press Red Lever (Fig D).

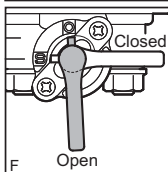
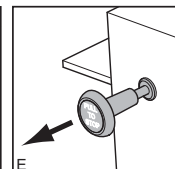
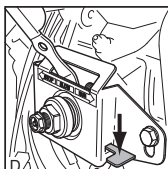
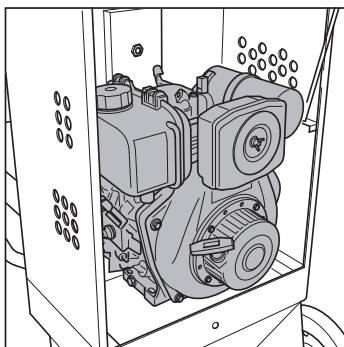
- **Note:** Red indicator light glows when engine charging system fails.
- **Ensure that when machine is not in use that ignition is switched OFF, or battery failure may occur.**

EMERGENCY STOP

- 2.2 Pull the handle on the side of the power unit box to STOP the machine (Fig E).

COLD STARTING

- 2.3 Lift rear door.



- Open fuel cock if fitted (Fig F).

- 2.4 In cold starting situations the engine requires 2cc of engine oil (10w-30) to be applied using oil applicator. The oil should be inserted into the engine by removing the rubber plug on the priming port, ensure the plug is replaced (Fig G).

- 2.5 Ensure the Emergency Stop Button is pushed in (Fig H).

- 2.6 Set the engine speed lever (situated on the left hand side of engine) to the run position (Fig I).

- 2.7 Turn ignition key clockwise until engine turns over, release key when engine starts. If engine fails to start, repeat process of cold start.

- **Note:** Once an attempt to start the engine has failed, before re-trying the key must be turned back to the OFF position.
- **DO NOT operate with rear door open.**

WARM STARTING

- 2.8 Repeat process above from 2.5.

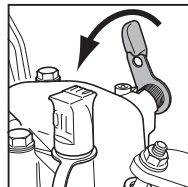
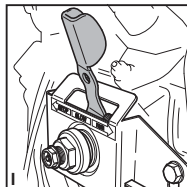
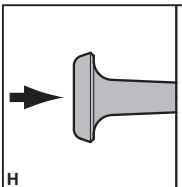
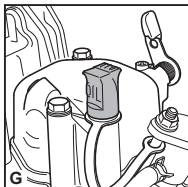
3. YANMAR (RECOIL START) Back Up to Electric Start

PARAR

3.9 Press red lever (Fig D).

EMERGENCY STOP

3.10 Pull the handle on the side of the power unit box to STOP the machine (Fig E).



ARRANQUE A FRIJO

3.11 Levantar a tampa do compartimento do motor.

Open fuel cock if fitted (Fig F).

3.12 In cold starting situations the engine requires 2cc of engine oil (10w-30) to be applied using oil applicator. The oil should be inserted into the engine by removing the rubber plug on the priming port, ensure the plug is replaced (Fig G).

3.13 Ensure the Emergency Stop Button is pushed in (Fig H).

3.14 Set the engine speed lever (situated on the left hand side of engine) to the run position (Fig I).

3.15 Pull out the recoil starting handle to the point where you feel a strong resistance, then return back the install position. Push over the decompression lever (top right hand side of engine) this will return automatically when the recoil handle is pulled for the second time.

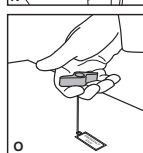
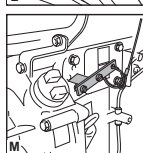
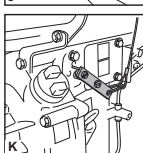
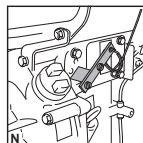
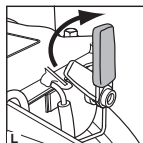
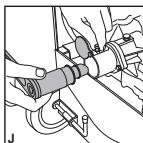
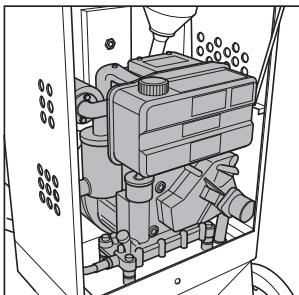
3.16 Apply both hands to the recoil starting handle and pull briskly, if engine does not start repeat from 3.15.

- DO NOT operate with rear door open.

ARRANQUE A QUENTE

3.17 Seguir as instruções acima desde 3.14.

4. LISTER PETTER : ARRANQUE POR MANIVELA



- Dever-se-á ter muita cautela quando se faz o arranque da máquina. Usar sempre a manivela de arranque "anti-choice"
- Certificar-se que a manivela está correctamente inserida no canhão de arranque antes de accionar o motor.
- Verificar os níveis de óleo e de combustível diariamente antes do arranque.
- Verificar se a vareta de suspensão da tampa do compartimento do motor está devidamente fixa antes de efectuar o arranque.
- Manter a tampa do compartimento do motor fechada durante a operação de mistura.

4 PARAR

4.1 Abrir a tampa e mover a alavanca Ligar/Parar "start/stop" para a posição de paragem "stop" (Fig. L).

ARRANQUE A FRIO

4.2 Levantar a tampa do compartimento do motor.

4.3 Levantar o botão de segurança pôr a manivela no canhão de arranque e girar a manivela até engatar. (FIG. J)

4.4 Mover a alavanca Ligar/Parar "start/stop" para a posição de Ligar "start" (Fig. K).

4.5 Empurrar a alavanca de descompressão para a posição vertical e manter (Fig. L).

4.6 Fazer o arranque do motor tão depressa quanto possível e mover a alavanca de descompressão para a posição de trabalho enquanto continua a girar energicamente a manivela até o motor disparar.

4.7 Depois do motor arrancar, retirar a manivela e colocá-la no suporte. Depois mover a alavanca de Ligar/Parar "start/stop" para a posição de Trabalhar "RUN" (Fig. M).

ARRANQUE A QUENTE

4.8 Seguir as instruções acima desde 1.2 a 1.6. contudo arranque o motor com a alavanca de Ligar/Parar "start/stop" na posição de Trabalhar "RUN".

PARAGEM DE EMERGÊNCIA

4.9 Puxe a alavanca que está no topo do compartimento do motor (Fig O).

Antes de iniciar qualquer trabalho de manutenção ou reparação pare o motor.

Depois de acabar o trabalho, verifique se a betoneira funciona correctamente e se todas as protecções estão devidamente montadas.

MOTOR ELÉCTRICA

Todos os aparelhos eléctricos portáteis são perigosos se se abusar deles. Esta máquina só operará sob uma tensão. Verifique a corrente eléctrica para se assegurar de que corresponde à tensão indicada na placa de características. Make sure that the motor is switched off before you plug it into the power supply.

220-240v - Utilize sempre um Dispositivo de Corrente Residual ("RCD") (disparo de fuga de terra), directamente ligado à tomada de 230v. Se utilizar uma extensão, ligue-a directamente a um RCD.

110v - Se utilizar um transformador portátil, este deve ter um rendimento mínimo de 2,5kw e a uma taxa contínua. Usar sempre um dispositivo de corrente residual (RSD) entre os 230v fornecidos e o transformador.

- **NÃO** utilize uma extensão entre o transformador e a alimentação eléctrica.

Os símbolos no interruptor ON/OFF são 0 (Vermelho)= OFF (desligado) e I (Verde)= ON (ligado) de acordo com as normas internacionais.

⚠ If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent. (See Wiring Diagram on Page 15.)

EXTENSION CABLES

If you need to use an extension cable it must be no longer than 30 metres (100 feet) in length. The wire section for 220-240v must be 2.5mm². The wire section for 110v must be 4mm² on 100XT and 6mm² on other models. Ensure that the extension cable is carefully laid out avoiding liquids, sharp edges and places where vehicles might run over it. Unroll it fully or it will overheat and could catch fire. Make sure that any extension cable connections are dry and safe.

MOTORES DE COMBUSTÃO

- **Cuidado com a direcção dos gases de escape.**

O motor necessita que o óleo seja verificado regularmente. Tente não trabalhar com o nível de combustível demasiado baixo pois isso pode criar sedimentos na base do depósito e danificar o ejector e a bomba. A reparação e rectificação das tubagens e componentes afectados pelos contaminantes do combustível não são aceites em garantia nem tão pouco as avarias causadas ou influenciadas pela máquina ficar sem combustível. Pode ser necessário sangrar o sistema de combustível para retirar o ar antes de arrancar. Para atestar um motor novo, usar um óleo adequado com um grau 10W/30. No seu próprio interesse leia o folheto de instruções do fabricante que é fornecido com a máquina antes de começar a utilizá-la.

CUBA (remoção e montagem)

A cuba pode ser rapidamente removida desapertando-a no sentido dos ponteiros do relógio na posição vertical. Retire a cuba da máquina utilizando um empilhador com os garfos colocados por baixo da base da cuba. Quando substituir a cuba, certifique-se que o respectivo veio é previamente lubrificado e está completamente apertado no ressalto assim como a cuba. Caso contrário podem ocorrer danos. Tenha em atenção que ao aparafusar a cuba não a rode demasiado rápido pois pode danificar a transmissão.

LIMPEZA

Retirar qualquer material externo. **NÃO** usar gasolina, terebentina, laca, solvente, produtos de limpeza a seco ou similares. Nunca deixe quaisquer líquidos perto do motor. Usa gravilha e água limpa para limpar o interior da cuba.

- **NÃO** utilizar tijolos, etc.... Podem danificar a cuba.

CORREIA DE TRANSMISSÃO

- **NÃO** tentar ajustá-la com o motor a trabalhar.
- **NÃO** trabalhar com a betoneira se a correia estiver folgada.
- **NÃO** operar a máquina sem as protecções devidamente colocadas.

A correia de transmissão está sempre tensionada por um esticador de mola. Os rolagentos são herméticos.

ÓLEO DE TRANSMISSÃO

Nota: O óleo original da transmissão é sintético e não deve ser misturado com óleo mineral.

Atestar a transmissão com 1 (um) litro. Verificar regularmente.

A transmissão é de origem atestada com: Total Transmission com viscosidade W 75W/90

Óleos equivalentes:

Shell :- Tivela SA, Tivela WA, Dentax W

Texaco :- Synlube 90

Esso :- GX 75W/90

Mobil :- Glygoyle 22

Castrol :- WM or Alpha SN150

Caltex :- Synthetic gear lubricant

LUBRIFICAÇÃO E FUNCIONAMENTO

Consultar o capítulo Tabela de Manutenção e Instruções de Operação

Tomar em atenção que os motores diesel vibram mais. Assim, devem-se verificar regularmente se os parafusos e as porcas estão apertados.

O óleo que é fornecido com os motores deve ser mudado depois das 100 horas. As mudanças seguintes devem ser efectuadas conforme a seguir se indica.

Motores Lister Petter 32 E 10

	Diário	Cada 125 Hrs	Cada 250 Hrs	Cada 500 Hrs	Cada 1000 Hrs	Cada 2000 Hrs
Verificar os níveis de combustível e lubrificantes.	✓					
Verificar se há fugas de óleo ou de combustível	✓					
Limpar ou substituir o elemento do filtro de ar quando estiver muito sujo.	✓					
Verificar o estado da bateria.		✓				
Limpar ou substituir o elemento do filtro de ar, se estiver moderadamente sujo.		✓				
Drenar o óleo do cârter e atestar com novo óleo de acordo com as especificações do fabricante		✓	✓			
Limpar ou substituir os ejectores se o escape tiver sujo.			✓			
Se o combustível utilizado contiver impurezas, substituir o elemento do filtro de combustível.			✓			
Substituir o elemento do filtro de ar.				✓		
Verificar se há fugas, danos ou restrições nos sistemas de escape e de indução.				✓		
Substituir o elemento do filtro de combustível.				✓		
Verificar os enrolamentos da bobina do sistema de carga da bateria. Consultar o manual de oficina.				✓		
Verificar as aberturas das válvulas.					✓	
Descarbonizar o motor se o rendimento deste estiver abaixo do normal.					✓	
Limpar o tambor do cilindro e as alhetas da cabeça.					✓	
Limpar o cachimbo na cabeça do cilindro do tubo de alimentação do óleo.					✓	
Drenar, injectar um jacto de ar e atestar o depósito de combustível.						✓

Betoneira	Diário	Cada 50 Hrs	Cada 250 Hrs	Cada 500 Hrs	Cada 1000 Hrs
Lubrificar o pivot do engate boca de lobo		✓			
Lubrificar o sistema de inclinação da cuba (10 disparos com a pistola de lubrificação)			✓		
Retirar a cuba e lubrificar o veio			✓		
Verificar parafusos e porcas	✓				
Verificar o óleo da transmissão				✓	✓
Verificar se há fugas em quaisquer dos componentes	✓				

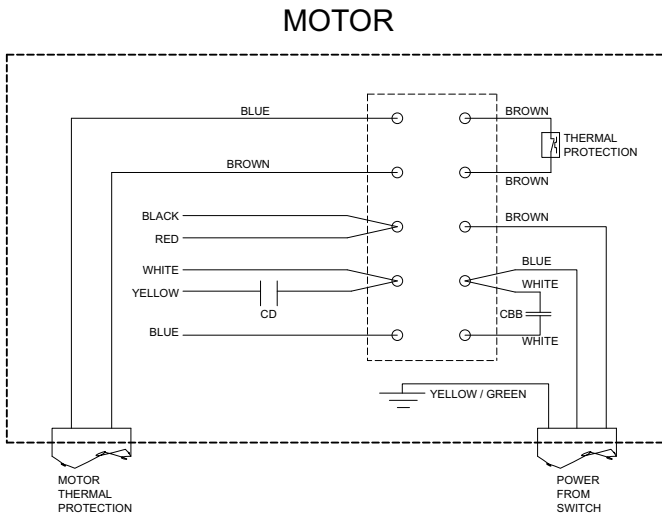
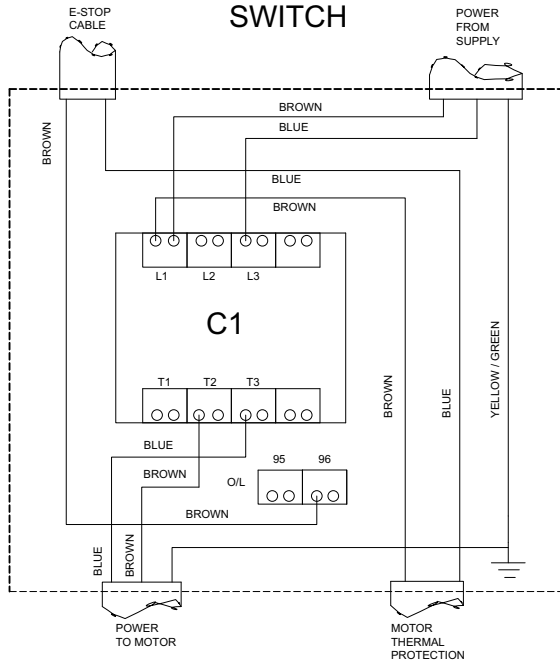
Items marked "✓✓" should be serviced by an authorized YANMAR dealer, unless the owner has proficient mechanical ability and the proper tools.

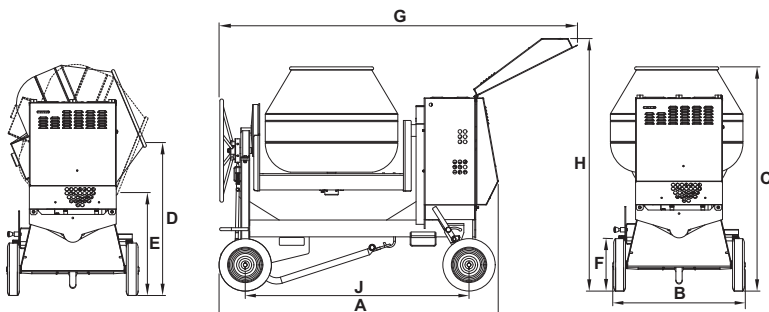
Parts with an asterisk mark " * " are related to the CARB ULG rules.

Yanmar L48 Engine ➡ April '04

	Every month or Every 500 Hrs	Every 3 months or Every 200 Hrs	Every 6 months or Every 400 Hrs	Every year or Every 1000 Hrs
Check the fuel level and refill. - Before Operation				
Drain the fuel tank	✓			
* Clean the fuel filter		✓		
* Replace the fuel filter			✓	
Check for fuel / oil leakage - After Operation				
* Fuel injection nozzle, Check the injection condition			✓✓	
* Check the fuel injection timing			✓✓	
* Check the fuel injection pump				✓✓
Check the lube oil level in the oil pan and refill - Before Operation				
Replace the lube oil	1st time	2nd & after		
Clean lube oil filter	1st time		2nd & after	
Check for lube oil leakage - After Operation				
Check the valve clearances				✓
* Check the air cleaner element		✓		
* Replace the air cleaner element			✓	
Check the battery liquid level and refill - Before Operation				
Check the warning lamps - When Engine Is Started				
Adjusting the intake and exhaust valve clearance			✓✓	

Betoneira	Diário	Cada 50 Hrs	Cada 250 Hrs	Cada 500 Hrs	Cada 1000 Hrs
Lubrificar o pivot do engate boca de lobo		✓			
Lubrificar o sistema de inclinação da cuba (10 disparos com a pistola de lubrificação)			✓		
Retirar a cuba e lubrificar o veio			✓		
Verificar parafusos e porcas	✓				
Verificar o óleo da transmissão				✓	✓
Verificar se há fugas em quaisquer dos componentes	✓				





	100XT	150XT	175XT	200XT
A - COMPRIMENTO TOTAL (MM)	1665	1665	1890	1890
B - LARGURA TOTAL (MM)	900	900	900	900
C - ALTURA TOTAL (MM)	1468	1568	1049	1077
D - ALTURA DE ENCHIMENTO (MM)	613	607	713	680
E - ALTURA DE DESCARGA (MM)	350	350	350	350
F - DIÂMETRO DAS RODAS (MM)	2100	2100	2200	2200
G - COMPRIMENTO TOTAL – PORTA ABERTA (MM)	1950	1950	1950	1950
H - ALTURA TOTAL – PORTA DO MOTOR ABERTA (MM)	1120	1120	1520	1520
J - DISTÂNCIA ENTRE EIXO	1120	1120	1520	1520
CAPACIDADE DE CARGA E DÉBITO DA CUPA EM PÉS CUBICOS	5/3.5	7/5	8/6	10/7
DÉBITO DE MISTURA (LTR)	110	160	180	220
CAPACIDADE MÁXIMA DA CUBA (LTR)	250	300	350	400
CAPACIDADE MÁXIMA DA CUBA COM MISTURA SECA (LTR)	160	220	250	310
VELOCIDADE DA CUBA (RPM)	19	19	19	19

ELECTRIC RANGE													
	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT	
UNLADEN WEIGHT (Kg)	305.5	314.5	322.5	325	303.5	312.5	320.5	323	305.5	314.5	322.5	325	
NOMINAL VOLTAGE (V)	110				240				415				
NOMINAL CURRENT (Amp)	13.7				6.6				3.6				
NOMINAL POWER	1.5												
VOLTAGE FREQUENCY (Hz)	50												
MOTOR RPM	1350				1430				1500				
MOTOR PROTECTION	Thermal / NVR												
POWER CONSUMPTION (Kwh)	1.5												
SOUND POWER LEVEL (LWA)	87dB(A)												
DIESEL RANGE	LISTER				YANMAR								
	100XT	150XT	175XT	200XT	100XT	150XT	175XT	200XT					
PESO SEM CARGA (Kg)	367	376	392.5	395	334.5	343.5	350.5	353.5					
MODELO DO MOTOR	LT1 (Build 32)		LT1 (Build 10)		L48								
POTÊNCIA NOMINAL (KW)	0.75		1.9		2.3								
MÉTODO DE ARRANQUE	Manivela				Electric / (Recoil Backup)								
CAPACIDADE DO DEPÓSITO DE COMBUSTÍVEL	5				2.5								
NÍVEL SONORO (LWA)	99 dB(A)												

Proporções de mistura

A proporção correcta de mistura (cimento, areia, pedra) depende do tipo de aplicação: betão mais duro requer mais cimento, aplicações mais grosseiras requerem mais agregados. As proporções abaixo mencionadas são meramente indicativas: as melhores proporções também dependem da qualidade da areia/pedra utilizada.

Primeiro, deitar a água – cerca de 7 litros (1 ½ galões) usando mais ou menos água dependendo do tipo de mistura requerida. Adicionar algum agregado antes de juntar o cimento para evitar que a mistura fique pastosa. Misturar consistentemente a proporção de ingredientes seja qual for o tipo de mistura de betão em que se está a trabalhar.

Como obter uma boa mistura

O tempo de mistura de betão aproximado é de 2-4 minutos a partir do momento em que todos os ingredientes (incluindo a água) foram adicionados. Misturar em demasia pode reduzir a consistência e causar a segregação dos agregados mais grosseiros. Ter em atenção os agregados de baixo grau; estes conduziram, mais tarde, a deficiências afundando ou dando um aspecto gelado à mistura.

Também não se deve produzir um betão demasiado húmido porque isso reduz a consistência e diminui a resistência ao clima.

Cuidados a ter com a betoneira

Nunca atirar com material para dentro da betoneira – passá-lo sobre a borda e deixá-lo cair devagar ou este colar-se-á à parte posterior da cuba e depois só poderá ser retirado se se desligar a betoneira.

Manter a betoneira limpa. O material deixado na cuba endurecerá e aumentará o volume em cada utilização até a betoneira ficar inoperacional.

Não atirar tijolos para dentro da cuba da betoneira com a finalidade de a limpar. O melhor método é uma mistura de 2,5 cm (1") de gravilha e água limpa. Esta solução reduzirá o tempo de limpeza para metade.

APLICAÇÕES	QUANTIDADES		
	CIMENTO	AREIA	PEDRA
MAIS COMUM	1	2	4
FUNDAÇÕES	1	3	6
CONCRETO DE MASSA GROSSA	1	4	8
SOLOS, TANQUES, POÇOS I IMPERMEÁVEIS, ETC	1	1.5	3

A sua nova Premier XT da Belle Group é garantida ao comprador original pelo período de um ano (12 meses) a contar da data da compra. A garantia da Belle Group cobre todos os defeitos de concepção, materiais e mão-de-obra.

A garantia Belle Group não cobre:

1. Prejuízos causados pelo abuso, má utilização, quedas ou resultantes do incumprimento das instruções de manutenção, operação e montagem.
2. Alterações, incorporações ou reparações realizadas por pessoal não qualificado pela Belle Group.
3. Custos de embalagem e transporte de ou para a Belle Group ou seus Distribuidores autorizados para reparação ou orçamento de qualquer máquina em garantia.
4. Os custos de material e/ou mão-de-obra para renovar, reparar ou substituir componentes devido a desgaste normal.

Os seguintes componentes não são abrangidos pela garantia:

- Correia(s) de transmissão
- Filtro de ar do motor
- Vela de ignição do motor

A Belle Group e/ou os seus representantes autorizados, directores, empregados ou seguradores não podem ser responsabilizados por danos consequentes ou terceiros, perdas ou prejuízos, resultantes da utilização incorrecta da máquina para qualquer fim.

Reclamações de garantia

Todas as reclamações de garantia devem ser dirigidas à Belle Group por telefone, fax, e-mail ou por carta.

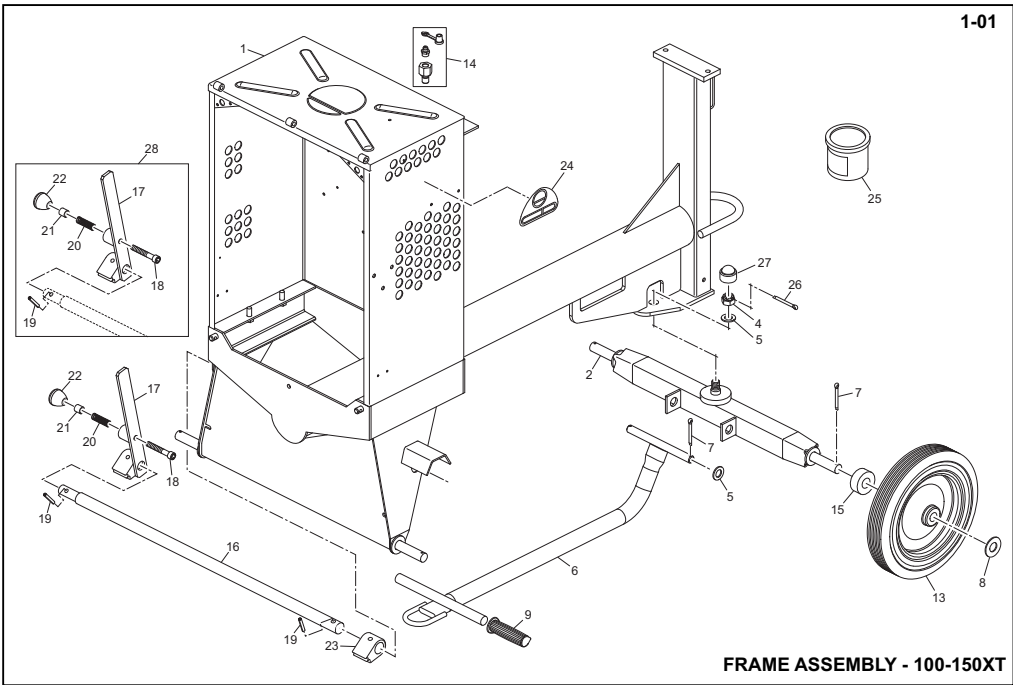
Para reclamações de garantia:

Belle Group Warranty Department,
Sheen, Nr. Buxton
Derbyshire
SK17 0EU
England.

Tel : +44 (0)1298 84606,

Fax : +44 (0)1298 84722

Email : warranty@belle-group.co.uk

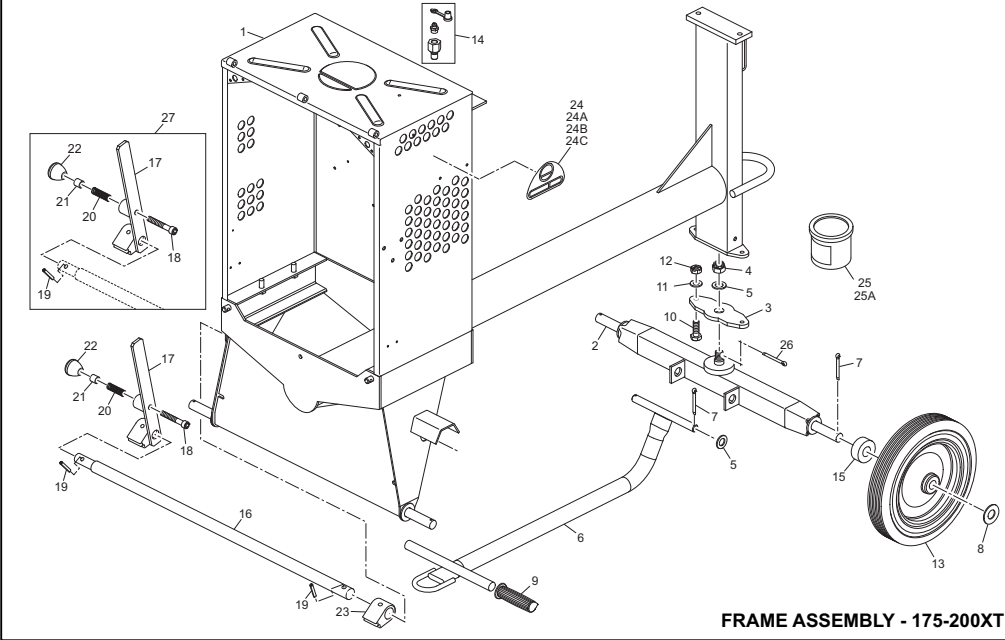


FRAME ASSEMBLY - 100-150XT

Frame Assembly - 100-150XT

1-01

1	909/11200.....1	Frame (100/150XT)
2	909/12300.....1	Axle
3		
4	8/20002.....1	Nut (M20)
5	4/2001.....3	Washer (M20)
6	909/11100.....1	Towbar
7	3/0006.....6	Split Pin
8	4/0009.....4	Washer (M26)
9	XS35.....2	Handle Grip
10		
11		
12		
13	60/0284.....4	Wheel
14	909/20000.....1	Grease Nipple Assembly (↳ June'04)
15	909/99996.....4	Spacer
16	909/17402.....1	Brake Bar
17	909/99998.....1	Lever
18	7/10015.....1	Screw (M10x65)
19	3/0044.....2	Spirol Pin
20	2/0027.....1	Spring
21	909/99997.....1	Spacer
22	74/0001.....1	Knob
23	909/17401.....1	Brake Cam
24	800/23402.....1	Decal (100XT)
24A	800/22702.....1	Decal (150XT)
25	1/0519.....A/R	Orange Paint (Tin)
25A	1/0507.....A/R	Orange Paint (Spray)
26	3/0049.....1	Split Pin
27	3/4034.....1	Cap
28	909/99840SP.....1	Handbrake Lever Kit

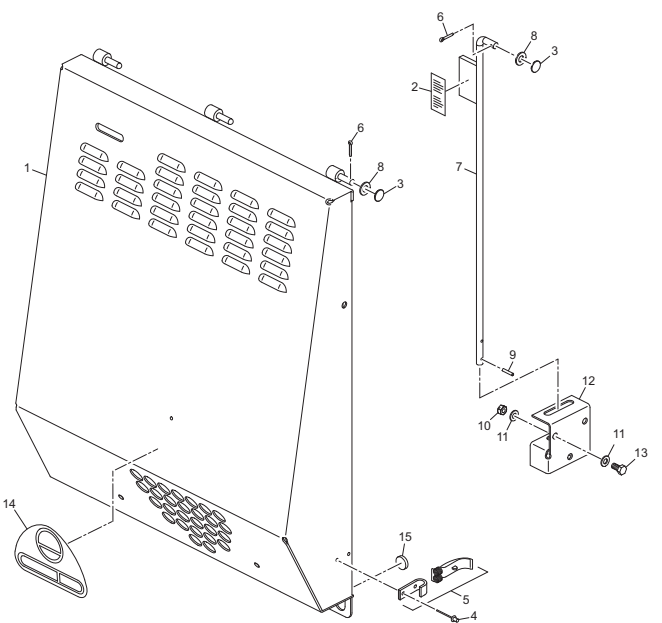
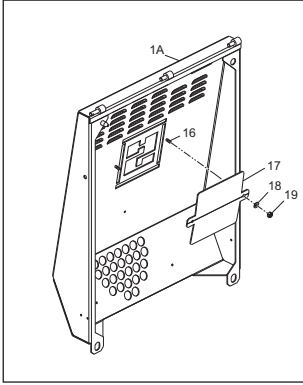


FRAME ASSEMBLY - 175-200XT

Frame Assembly - 175-200XT

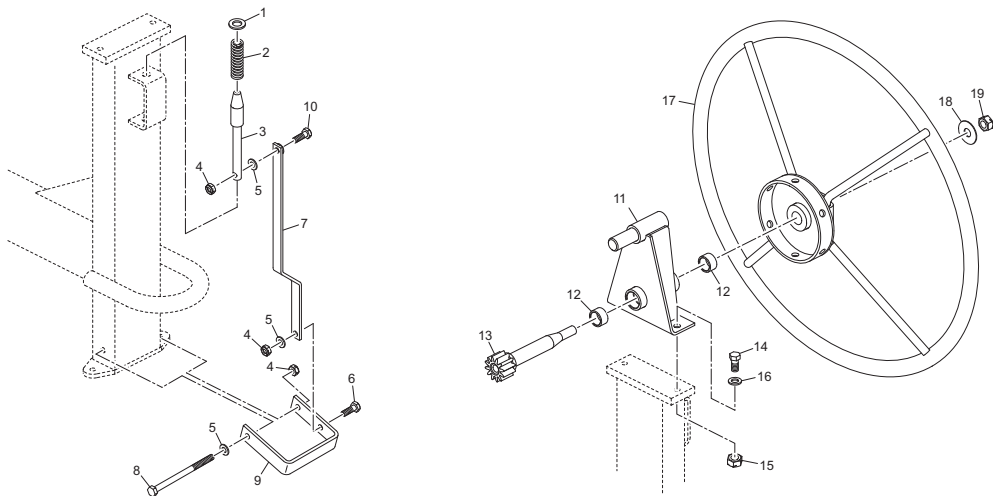
1-02

1	909/11600	1	Frame (175/200XT)
2	909/12300	1	Axle
3	909/99935	1	Plate
4	8/20002	1	Nut (M20)
5	4/2001	3	Washer (M20)
6	909/11100	1	Towbar
7	3/0006	6	Split Pin
8	4/0009	4	Washer (M26)
9	XS35	2	Handle Grip
10	7/10010	2	Screw (M10x30)
11	4/1005	2	Washer (M10)
12	8/10001	2	Nut (M10)
13	60/0284	4	Wheel
14	909/20000	1	Grease Nipple Assembly (↳ June'04)
15	909/99996	4	Spacer
16	909/17402	1	Brake Bar
17	909/99998	1	Lever
18	7/10015	1	Screw (M10x65)
19	3/0044	2	Spiral Pin
20	2/0027	1	Spring
21	909/99997	1	Spacer
22	74/0001	1	Knob
23	909/17401	1	Brake Cam
24	800/22802	1	Decal (175XT)
24A	800/22902	1	Decal (200XT)
25	1/0519	A/R	Orange Paint (Tin)
25A	1/0507	A/R	Orange Paint (Spray)
26	3/0049	1	Split Pin
27	909/99840SP	1	Handbrake Lever Kit



Door Assembly

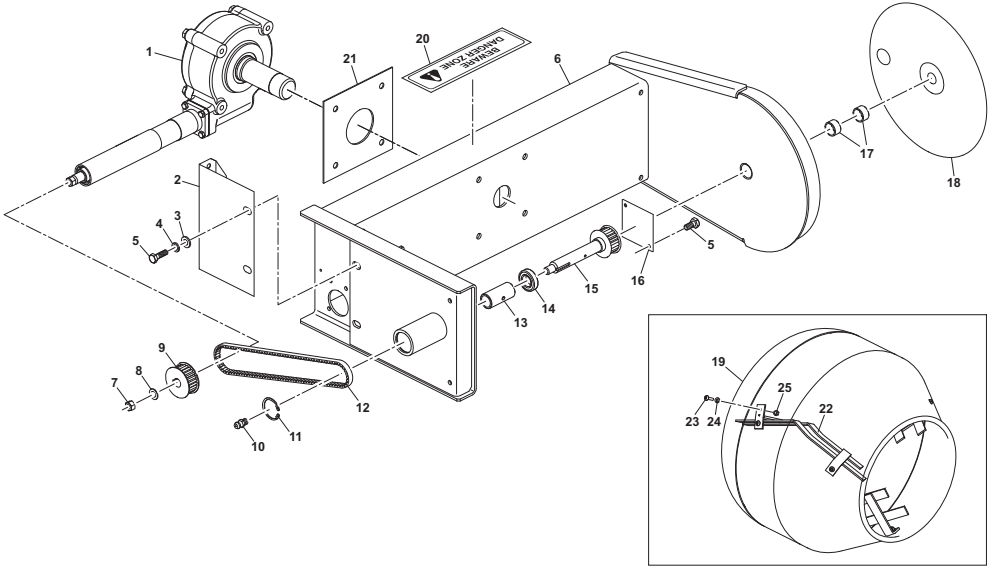
1	909/10400	1	Cover
1A	909/19700	1	Hewden Rear Door Assembly
2	800/99903	1	Decal
3	PS071	2	Cap
4	3/0008	8	Rivet
5	908/10700	2	Catch
6	3/0003	2	Split Pin
7	909/17600	1	Door Stay
8	4/10001	2	Washer (M10)
9	3/0013	2	Spirol Pin
10	8/8002	3	Nut (M8)
11	4/8006	6	Washer (M8)
12	909/99959	1	Bracket
13	7/8008	3	Screw (M8x16)
14	800/23401	1	Decal (100XT)
14	800/22701	1	Decal (150XT)
14	800/22801	1	Decal (175XT)
14	800/22901	1	Decal (200XT)
15	3/3000	2	Pad
16	915/00131	2	Stud
17	909/99806	1	Infil Plate
18	4/8006	2	Washer (M8)
19	8/8002	2	Nut (M8)



Wheel Assembly

3-01

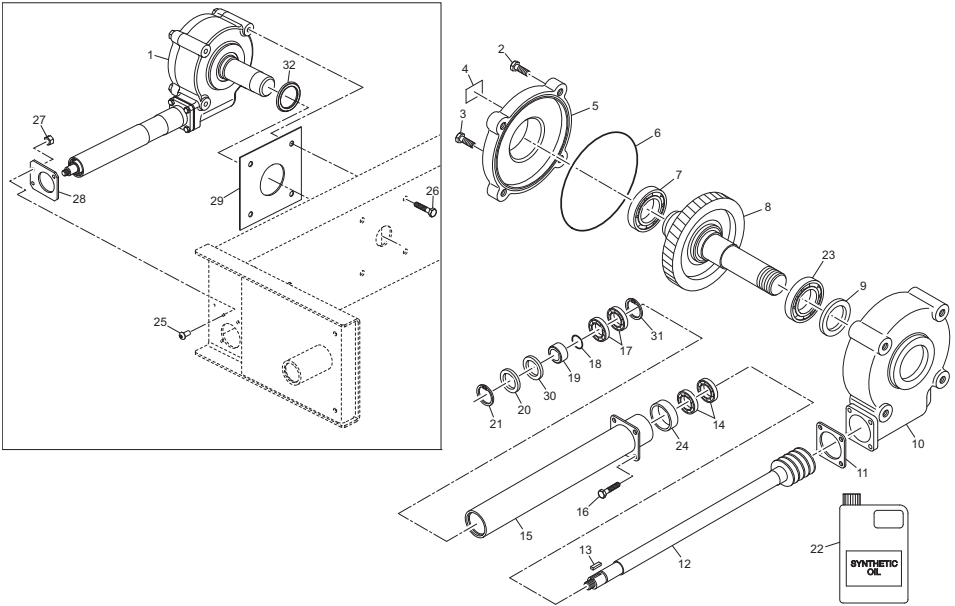
1	4/1601.....1	Washer (M16)
2	2/0029.....1	Spring
3	909/99910.....1	Plunger
4	8/10001.....3	Nut (M10)
5	4/1005.....7	Washer (M10)
6	7/10010.....1	Screw (M10x30)
7	909/99926.....1	Plunger Link
8	9/10015.....1	Bolt (M10x150)
9	909/99929.....1	Foot Pedal
10	9/10004.....1	Bolt (M10x35)
11	909/14800.....1	Pivot
12	50/000016.....2	Composite Bush
13	909/14900.....1	Tip Gear
14	7/12013.....2	Screw (M12x35)
15	8/12001.....2	Nut (M12)
16	4/1204.....4	Washer (M12)
17	909/10500.....1	Hand Wheel
18	4/1607.....1	Washer (M16)
19	8/16003.....1	Nut (M16)



Yoke Assembly

4-01

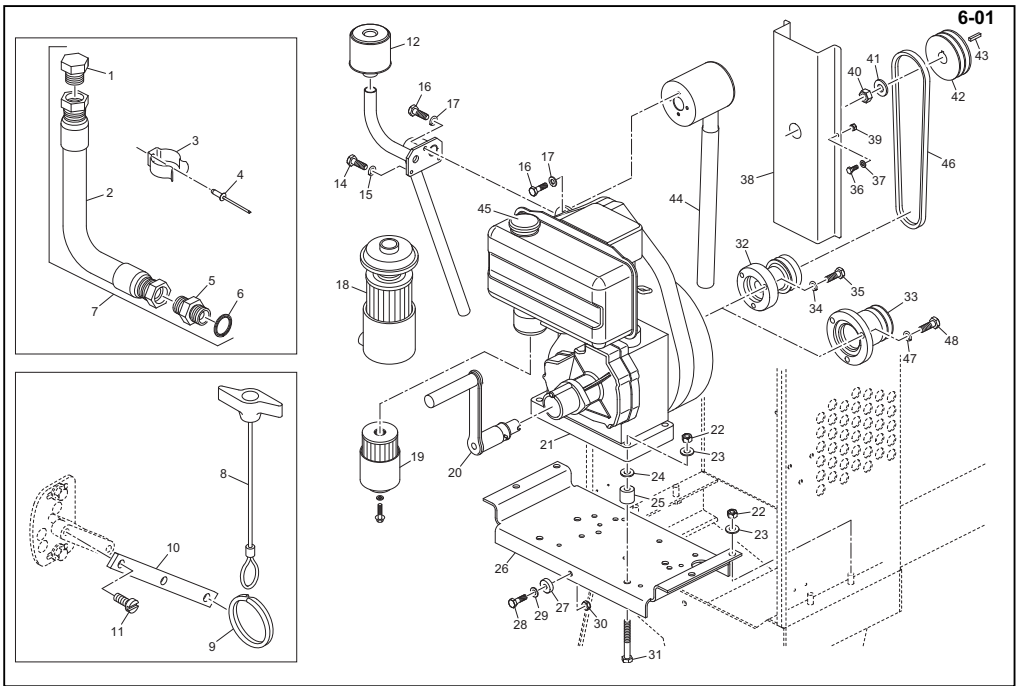
1	5-01	1	.....	Gearbox
2	909/99942	1	.....	Guard
5	7/6032	5	.....	Screw (M6x12)
6	909/10700	1	.....	Yoke (100/150XT)
6A	909/12200	1	.....	Yoke (175/200XT)
7	8/12003	1	.....	Nut (M12)
8	4/1205	1	.....	Washer (M12)
9	908/15700	1	.....	Pulley (→ May '04)
9A	909/99807	1	.....	Pulley (→ May '04)
10	500/06100	1	.....	Grease Nipple (→ Jan '09)
11	PS022	1	.....	Circlip
12	908/15500	1	.....	Drive Belt (→ May '04)
12A	21/0163	1	.....	Drive Belt (→ May '04)
13	909/30500	1	.....	Layshaft Kit (→ Jan '09)
13A	909/99834	1	.....	Spacer (→ Feb '09)
14	909/30500	2	.....	Bearing (→ Jan '09)
14A	53/0071	2	.....	Bearing (→ Feb '09)
15	909/13100	1	.....	Layshaft (→ May '04)
15A	909/19900	1	.....	Layshaft Kit (→ May '04, → Jan '09)
15B	909/30400	1	.....	Layshaft (→ Feb '09)
16	908/15900	1	.....	Cover
17	50/000016	2	.....	Bush
18	908/21200	1	.....	Cover
19	909/18300	1	.....	Drum (c/w Paddles) (100XT)
19A	909/18400	1	.....	Drum (c/w Paddles) (150XT)
19B	909/18500	1	.....	Drum (c/w Paddles) (175XT)
19C	909/18600	1	.....	Drum (c/w Paddles) (200XT)
20	800/10441	2	.....	Decal Danger Zone
21	5-01	1	.....	Plate
22	909/19100	1	.....	Paddle Kit (100XT) (→ July '02)
22A	909/19200	3	.....	Paddle Kit (150XT) (→ July '02)
22B	909/19300	3	.....	Paddle Kit (175XT) (→ Oct '02)
22C	909/19400	3	.....	Paddle Kit (200XT) (→ Aug '02)
23	7/12017	9	.....	Screw (M12 x 30)
24	4/1201	9	.....	Washer (M12)
25	8/12001	9	.....	Nut (M12)



Gearbox Assembly

5-01

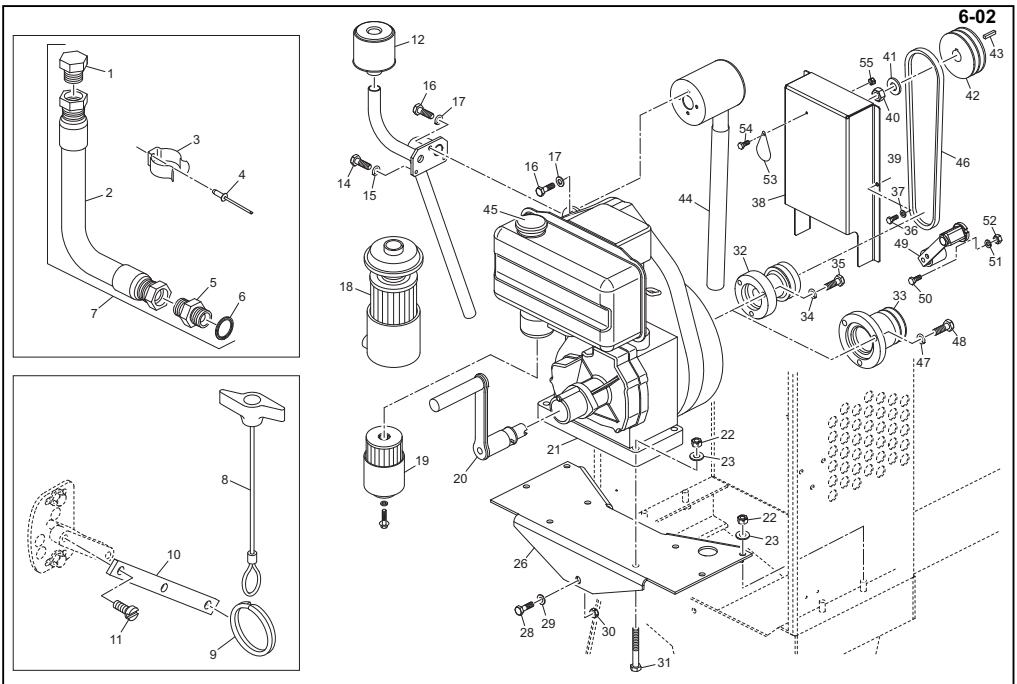
1	909/16100.....1	Gearbox Assy (100/150XT) (→ PM40005925)	29	909/99995.....1	Plate (→ PM40005925)
1A	909/13000.....1	Gearbox Assy (175/200XT) (→ PM40005925)	29	909/99810.....1	Plate (→ PM40005926)
1B	909/20300.....1	Gearbox Assy (100/150XT) (→ PM40005926)	30	909/12903.....1	Spacer
1C	909/20200.....1	Gearbox Assy (175/200XT) (→ PM40005926)	31	3/9003.....1	Circlip
2	7/12014.....4	Bolt (M12x40)	32	5/0067.....1	Seal
3	XS01.....1	Bung			
4	908/14100.....1	Decal			
5	PS111.....1	Cover			
6	5/0022.....1	Seal			
7	PS002.....1	Bearing			
8	909/17300.....1	Mainshaft			
9	5/0044.....1	Seal			
10	909/13001.....1	Case			
11	5/0043.....1	Gasket			
12	909/15000.....1	Wormshaft (100/150XT)			
12A	909/12800.....1	Wormshaft (175/200XT)			
13	908/99901.....1	Key			
14	53/0010.....2	Bearing			
15	909/15100.....1	Tube Carrier (100-150XT)			
15A	909/12900.....1	Tube Carrier (175-200XT)			
16	7/8012.....4	Bolt (M8x25)			
17	PS013.....2	Bearing			
18	5/0015.....1	Seal			
19	909/12904.....1	Spacer			
20	PS016.....1	Seal			
21	MS22.....1	Circlip			
22	1/0120.....A/R	Oil			
23	53/0004.....1	Bearing			
24	909/12902.....1	Spacer			
25	7/8049.....3	Screw (M8x16)			
26	7/12004.....4	Bolt (M12x25)			
27	8/8002.....3	Nut (M8)			
28	908/16000.....1	Plate			



Engine Assembly (Lister → July'02)

6-01

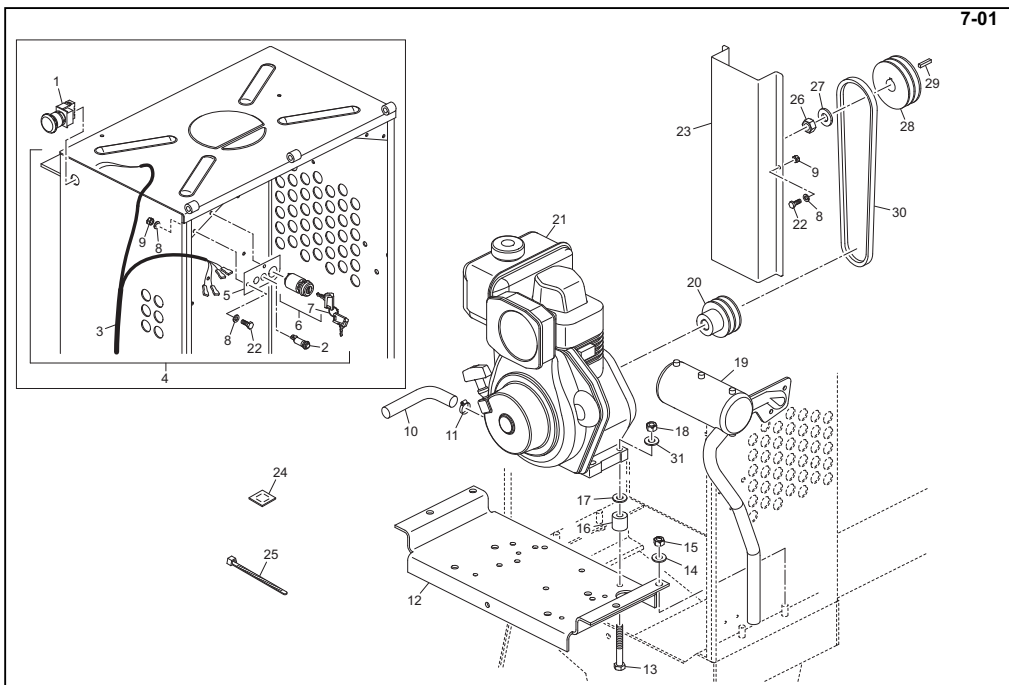
1	6/0003.....1	Blank	31	9/12018.....4	Bolt (M12x100) (→ July'02)
2	32/0116.....1	Hose	32	PS040.....1	Pulley (Build 10)
3	3/1010.....1	Clip	33	PS097.....1	Pulley (Build 32)
4	3/0043.....1	Rivet	34	4/1003.....3	Washer (M10)
5	6/0020.....1	Adaptor	35	9/10009.....3	Bolt (M10x45)
6	5/0020.....1	Seal	36	9/6001.....2	Screw (M6x16)
7	39/1220.....1	Hose Kit	37	4/6001.....4	Washer (M6)
8	21/0107.....1	Stop Cable	38	909/99941.....1	Guard (→ July'02)
9	2/0010.....1	Ring	39	8/6002.....2	Nut (M6)
10	908/21800.....1	Lever	40	8/16002.....1	Nut (M16)
11	7/4002.....2	Screw (M4)	41	4/1602.....1	Washer (M16)
12	PS087.....1	Air Filter (Build 32)	42	909/99964.....1	Pulley
13	909/14100.....1	Exhaust (Build 32)	43	909/99968.....1	Key
14	9/6001.....2	Bolt (M6x16)	44	909/14400.....1	Exhaust (Build 10)
15	4/6005.....2	Washer (M6)	45	908/18700.....1	Cap
16	7/8008.....3	Bolt (M8)	46	21/0109.....2	Belt (A37)
17	4/8003.....3	Washer (M8)	47	4/1202.....3	Washer (M12)
18	908/14200.....1	Air Filter (Build 10)	48	9/12006.....3	Bolt (M12x35)
19	908/18600.....1	Fuel Filter	-	800/21510.....A/R	Decal Lister Maintenance
20	908/22500.....1	Handle	-	800/21531.....A/R	Decal Lister Starting
21	908/20800.....1	Engine (Build 32)	-	800/99916.....A/R	Decal Lister Noise
21A	908/20900.....1	Engine (Build 10)			
22	8/12001.....8	Nut			
23	4/1205.....12	Washer (M12)			
24	4/1201.....24	Washer (M12) (→ July'02)			
25	909/99975.....4	Spacer (→ July'02)			
26	909/99986.....1	Engine Deck (→ July'02)			
27	909/99980.....1	Spacer (→ July'02)			
28	9/10004.....1	Bolt (M10x35) (→ July'02)			
29	4/1005.....2	Washer (M10)			
30	8/10001.....1	Nut (M10)			



Engine Assembly (Lister (→ July'02)

6-02

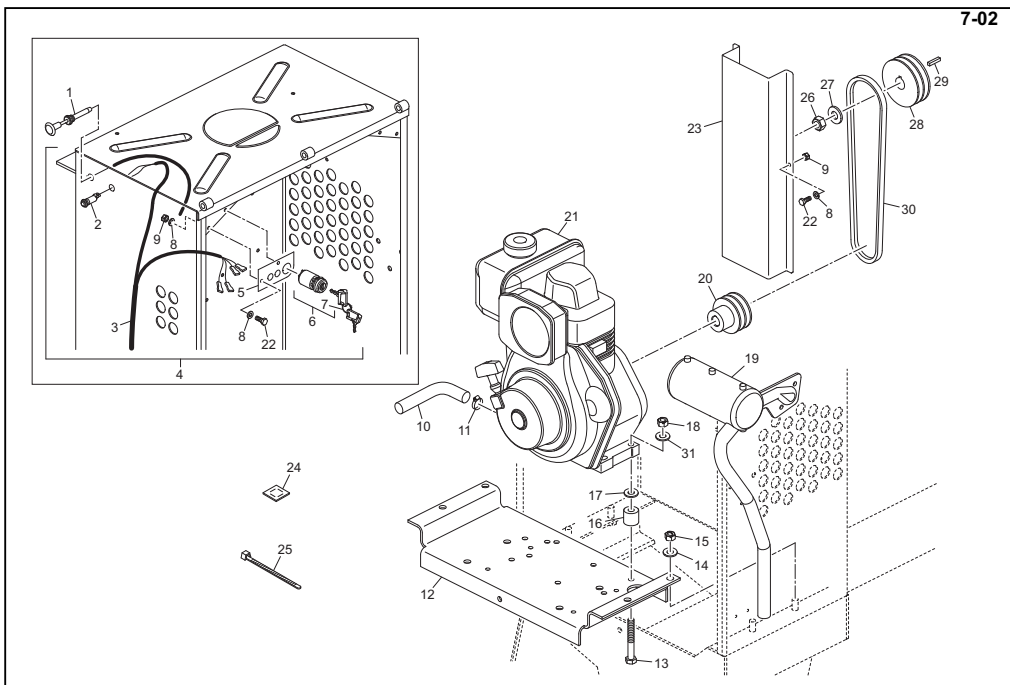
1	6/0003.....1	Blank	31	9/12019.....4	Bolt (M12x55) (→ July'02)
2	32/0116.....1	Hose	32	PS040.....1	Pulley (Build 10)
3	3/0008.....1	Clip	33	PS097.....1	Pulley (Build 32)
4	3/0043.....1	Rivet	34	4/1003.....3	Washer (M10)
5	6/0020.....1	Adaptor	35	9/10009.....3	Bolt (M10x45)
6	5/0020.....1	Seal	36	9/6001.....2	Screw (M6x16)
7	39/1220.....1	Hose Kit	37	4/6001.....4	Washer (M6)
8	21/0107.....1	Stop Cable	38	909/99802.....1	Guard (Build 10) (→ July'02)
9	2/0010.....1	Ring		909/99903.....1	Guard (Build 32) (→ July'02)
10	908/21800.....1	Lever	39	8/6002.....2	Nut (M6)
11	7/4002.....2	Screw (M4)	40	8/16002.....1	Nut (M16)
12	PS087.....1	Air Filter (Build 32)	41	4/1602.....1	Washer (M16)
13	909/14100.....1	Exhaust (Build 32)	42	909/99964.....1	Pulley
14	9/6001.....2	Bolt (M6x16)	43	909/99968.....1	Key
15	4/6005.....2	Washer (M6)	44	909/14400.....1	Exhaust (Build 10)
16	7/8008.....3	Bolt (M8)	45	908/18700.....1	Cap
17	4/8003.....3	Washer (M8)	46	21/0109.....2	Belt (A37)
18	908/14200.....1	Air Filter (Build 10)	47	4/1202.....3	Washer (M12)
19	908/18600.....1	Fuel Filter	48	9/12006.....3	Bolt (M12x35)
20	908/22500.....1	Handle	49	909/99999.....1	Jockey Belt Tensioner (→ July '02)
21	908/20800.....1	Engine (Build 32)	50	7/5020.....1	Screw (M5x10) (→ July '02)
21A	908/20900.....1	Engine (Build 10)	51	4/5002.....1	Washer (M5) (→ July '02)
22	8/12001.....8	Nut	52	5/5002.....1	Nut (M5) (→ July '02)
23	4/1205.....12	Washer (M12)	53	909/99819.....1	Swing Plate (→ Jan '09)
24			54	7/5002.....1	Screw (M5 x 12) (→ Feb '09)
25			55	8/5003.....1	Nut (M5)
26	909/99991.....1	Engine Deck (→ July'02)	-	800/21510.....A/R.....	Decal Lister Maintenance
27			-	800/21531.....A/R.....	Decal Lister Starting
28	9/10005.....1	Bolt (M10x25) (→ July'02)	-	800/99916.....A/R.....	Decal Lister Noise
29	4/1005.....2	Washer (M10)			
30	8/10001.....1	Nut (M10)			



Engine Assembly (Yanmar → Oct'01)

7-01

1	70/0049	1	Emergency Stop Button (→ Oct'01)	31	4/1005	4	Washer (M10)
2	70/0012	1	Indicator Red	-	800/10420	A/R	Decal Hot Parts
3	71/0167	1	Harness (Stop/Start) (→ Oct'01)	-	800/21512	A/R	Decal Yanmar Maintenance
4	71/0157	1	Harness Assy (Complete) (→ Oct'01)	-	800/21520	A/R	Decal Charge Light
5	909/99972	1	Ignition Switch Plate	-	800/21530	A/R	Decal Yanmar Starting (→ Oct'01)
6	70/0184	1	Ignition Switch (C/W Keys)	-	800/99916	A/R	Decal Yanmar Noise
7	70/0185	1	Ignition Keys	-	800/99916	1	Decal Motor Noise
8	4/6001	8	Washer (M6)				
9	8/6002	4	Nut (M6)				
10	31/0105	1	Drain Hose				
11	200/08400	1	Jubilee Clip				
12	909/99986	1	Engine Deck				
13	9/10011	4	Bolt (M10x50)				
14	4/1204	4	Washer (M12)				
15	8/12001	4	Nut (M12)				
16	909/99976	4	Spacer				
17	4/1001	24	Washer (M10)				
18	8/10001	4	Nut (M10)				
19	909/14300	1	Exhaust				
20	909/99970	1	Pulley				
21	20/0023	1	Engine Yanmar L40 ARE-BE (→ Oct'01)				
22	9/6001	4	Screw (M6x16)				
23	909/99941	1	Guard				
24	900/99903	A/R	Pad				
25	1/0005	A/R	Cable Tie				
26	8/16002	1	Nut (M16)				
27	4/1602	1	Washer (M16)				
28	909/99964	1	Pulley				
29	909/99968	1	Key				
30	21/0110	2	Belt (A36)				



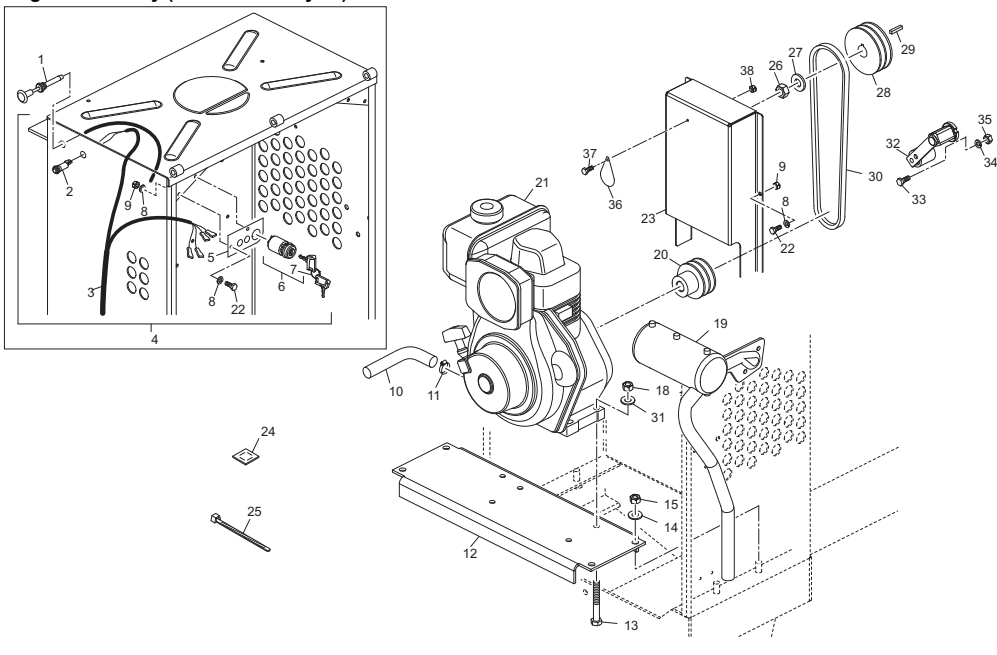
Engine Assembly (Yanmar) (→ Oct'01 → July'02)

7-02

1	21/0114	1	Emergency Stop & Cable Assy (→ Oct'01)	31	4/1005	4	Washer (M10)
2	70/0012	1	Indicator Red	-	800/10420	A/R	Decal Hot Parts
3	71/0174	1	Harness (Stop/Start) (→ Oct'01)	-	800/21512	A/R	Decal Yanmar Maintenance
4	71/0173	1	Harness Assy (Complete) (→ Oct'01)	-	800/21520	A/R	Decal Charge Light
5	909/99972	1	Ignition Switch Plate	-	800/21534	A/R	Decal Yanmar Starting (→ Oct'01)
6	70/0184	1	Ignition Switch (C/W Keys)	-	800/99916	A/R	Decal Yanmar Noise
7	70/0185	1	Ignition Keys				
8	4/6001	8	Washer (M6) (→ July'02)				
9	8/6002	4	Nut (M6) (→ July'02)				
10	31/0105	1	Drain Hose				
11	200/08400	1	Jubilee Clip				
12	909/99986	1	Engine Deck (→ July'02)				
13	9/10011	4	Bolt (M10x50) (→ July'02)				
14	4/1204	4	Washer (M12)				
15	8/12001	4	Nut (M12)				
16	909/99976	4	Spacer (→ July'02)				
17	4/1001	24	Washer (M10) (→ July'02)				
18	8/10001	4	Nut (M10)				
19	909/14300	1	Exhaust				
20	909/99970	1	Pulley				
21	20/0024	1	Engine Yanmar				
			L40 ARE-BE-BE2 (→ Oct'01)				
22	9/6001	4	Screw (M6x16) (→ July'02)				
23	909/99941	1	Guard (→ July'02)				
24	900/99903	A/R	Pad				
25	1/0005	A/R	Cable Tie				
26	8/16002	1	Nut (M16)				
27	4/1602	1	Washer (M16)				
28	909/99964	1	Pulley				
29	909/99968	1	Key				
30	21/0110	2	Belt (A36) (→ July'02)				

Engine Assembly (Yanmar $\rightarrow$ July '02)

7-03

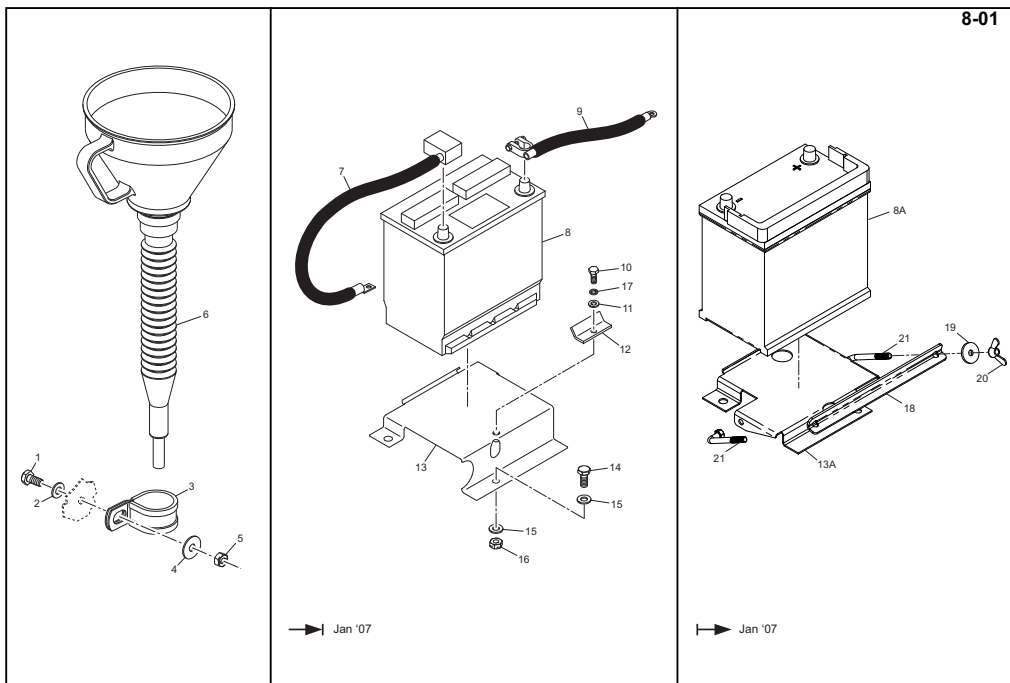


Engine Assembly (Yanmar $\rightarrow$ July '02)

7-03

1	21/0114	1	Emergency Stop & Cable Assy
2	70/0012	1	Indicator Red
3	71/0174	1	Harness (Stop/Start)
4	71/0173	1	Harness Assy (Complete)
5	909/99972	1	Ignition Switch Plate
6	70/0184	1	Ignition Switch (C/W Keys)
7	70/0185	1	Ignition Keys
8	4/6001	10	Washer (M6) ($\rightarrow$ July '02)
9	8/6002	5	Nut (M6) ($\rightarrow$ July '02)
10	31/0105	1	Drain Hose
11	200/08400	1	Jubilee Clip
12	909/99992	1	Engine Deck ($\rightarrow$ July '02)
13	9/10005	4	Bolt (M10x45) ($\rightarrow$ July '02)
14	4/1204	4	Washer (M12)
15	8/12001	4	Nut (M12)
16			
17			
18	8/10001	4	Nut (M10)
19	909/14300	1	Exhaust
20	909/99970	1	Pulley
21	20/0024	1	Engine Yanmar L48 ARE-SE
22	9/6001	5	Screw (M6x16) ($\rightarrow$ July '02)
23	909/99801	1	Guard ($\rightarrow$ July '02)
24	900/99903	A/R	Pad
25	1/0005	A/R	Cable Tie
26	8/16002	1	Nut (M16)
27	4/1602	1	Washer (M16)
28	909/99964	1	Pulley
29	909/99968	1	Key
30	21/0117	2	Belt (A35.5) ($\rightarrow$ July '02)

31	4/1005	4	Washer (M10)
32	909/99999	1	Jockey (Belt Tensioner) ($\rightarrow$ July '02)
33	7/5020	1	Screw (M5x10) ($\rightarrow$ July '02)
34	8/5002	1	Nut (M5) ($\rightarrow$ July '02)
35	4/5002	1	Washer (M5) ($\rightarrow$ July '02)
36	909/99819	1	Swing Plate ($\rightarrow$ Jan '09)
37	7/5002	1	Screw (M5 x 12) ($\rightarrow$ Feb '09)
38	8/5003	1	Nut (M5)
-	800/10420	A/R	Decal Hot Parts
-	800/21512	A/R	Decal Yanmar Maintenance
-	800/21520	A/R	Decal Charge Light
-	800/21534	A/R	Decal Yanmar Starting
-	800/99916	A/R	Decal Yanmar Noise



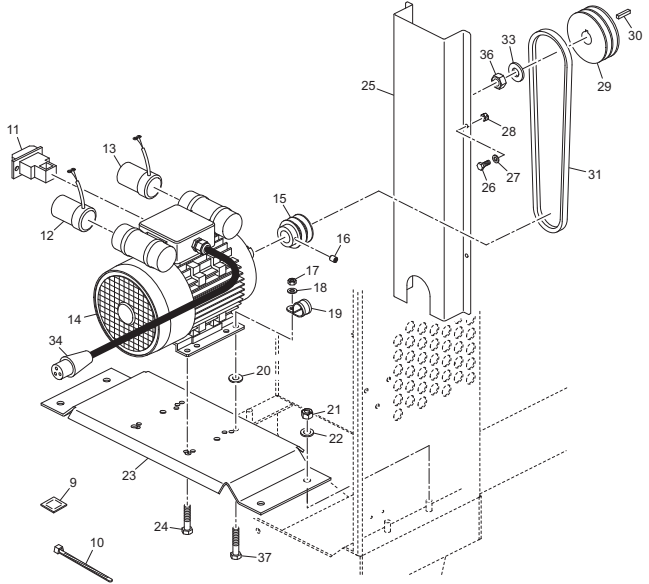
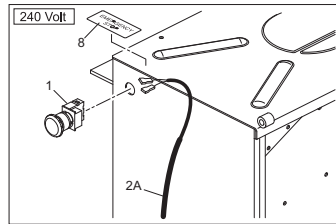
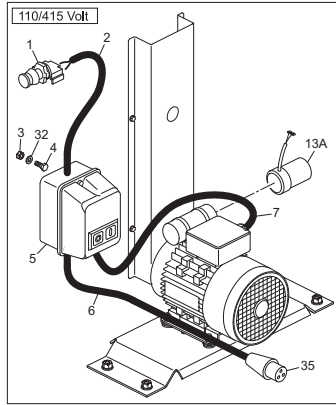
Funnel Assembly / Battery Assembly

8-01

1	7/8008.....1	Bolt (M8x16)
2	4/8006.....1	Washer (M8)
3	200/06560.....1	P-Clip
4	4/8008.....1	Washer (5/16")
5	8/8002.....1	Nut (M8)
6	92/99901.....1	Funnel
7	140/05500.....1	Cable (Positive)
8	909/99818.....1	Kit Battery (→ Jan '07)
8A	100/05300.....1	Battery (→ Jan '07)
9	140/05100.....1	Cable (Earth)
10	7/8011.....1	(M8x20)
11	4/8006.....1	Washer (M8)
12	909/99949.....1	Clamp
13	909/15800.....1	Battery Deck (→ July '02)
13	909/99817.....1	Kit Battery Deck (→ Jan '07)
13A	909/99816.....1	Battery Deck (→ Jan '07)
14	7/10005.....1	Bolt (M10x25)
15	4/1005.....2	Washer (M10)
16	8/10001.....1	Nut (M10)
17	4/8003.....1	Washer Spring (M8)
18	909/99814.....1	Clamp Battery
19	05.3.062.....2	Washer (Dia 30 x 3.3)
20	8/8012.....2	Wing Nut (M8)
21	909/99815.....2	Pivot Clamp

Motor Assembly (→i July'02)

9-01



Motor Assembly (→i July'02)

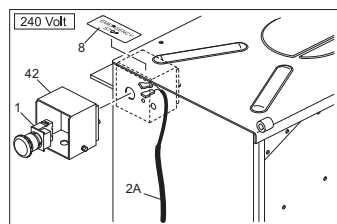
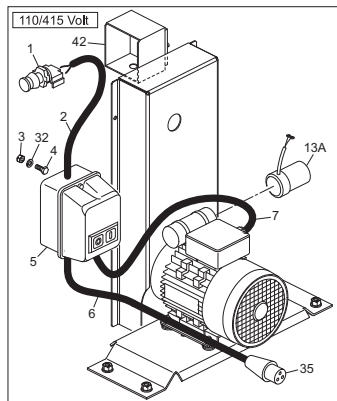
9-01

1	70/0049	1	Switch Emergency Stop
2	71/0159	1	Harness Emergency Stop (110V / 415V)
2A	71/0172	1	Harness Emergency Stop (240V)
3	8/4004	2	Nut (M4)
4	9/4001	2	Bolt (M4x12)
5	908/22000	1	Switchbox (110V)
5A	908/20000	1	Switchbox (415V)
6	71/0160	1	Harness Power (c/w 110V 32Amp Plug)
6A	71/0165	1	Harness Power (c/w 415V 32Amp Plug)
7	71/0161	1	Harness Motor (110V)
7A	71/0166	1	Harness Motor (415V)
8	900/11600	1	Decal Emergency Stop
9	900/99903	A/R	Pad
10	1/0005	A/R	Cable Tie
11	70/0044	1	Switch
12	70/0043	1	Run Capacitor (240V)
13	70/0042	1	Start Capacitor (240V)
13A	70/0187	1	Start Capacitor (110V)
14	38	1	Motor (110V)
14A	38A	1	Motor (240V)
14B	908/19900	1	Motor (415V)
15	908/14800	1	Pulley
16	7/8006	1	Screw (M8x10)
17	8/8002	4	Nut (M8)
18	4/8006	4	Washer (M8)
19	900/10200	1	P-Clip
20	4/8008	24	Washer (M8) (→i July'02)
21	8/12001	4	Nut (M12)
22	4/12004	4	Washer (M12)
23	909/99937	1	Motor Deck
24	9/8008	3	Bolt (M8x30) (→i July'02)
25	909/99940	1	Guard
26	9/6001	4	Screw (M6x16) (→i July'02)
27	4/6001	8	Washer (M6) (→i July'02)

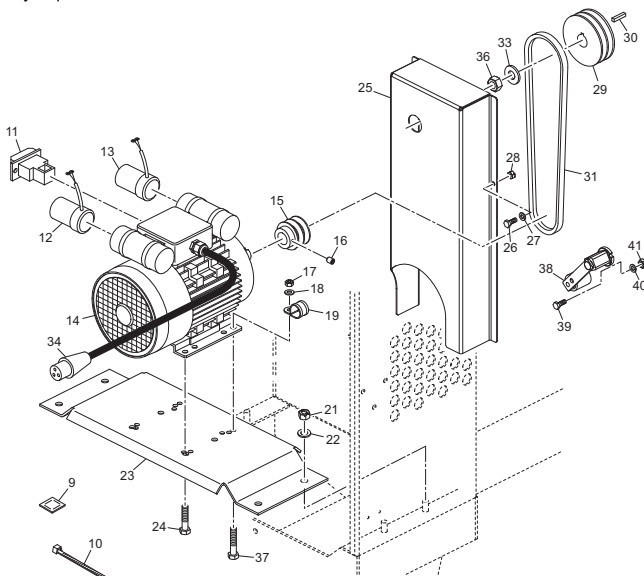
28	8/6002	4	Nut (M6) (→i July'02)
29	909/99964	1	Pulley
30	909/99968	1	Key
31	20/0110	2	Belt (A37) (→i July'02)
32	4/4001	2	Washer
33	4/1602	1	Washer (M16)
34	918/28500	1	Plug (240V 16 amp)
35	918/30100	1	Plug (110V 32 amp)
35A	70/0189	1	Plug (415V 32 amp)
36	8/16002	1	Nut (M16)
37	9/8003	1	Bolt (M8x35) (→i July'02)
38	909/20400	1	Replacement Motor Kit (110V)
38A	909/20600	1	Replacement Motor Kit (240V)
-	800/21513	1	Decal Motor Maintenance
-	800/21533	1	Decal Motor Start Up

Motor Assembly (→ July'02, → Mar'06)

9-02



Item 42, should only be fitted by a qualified electrician.



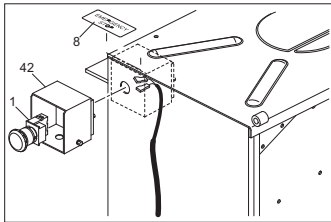
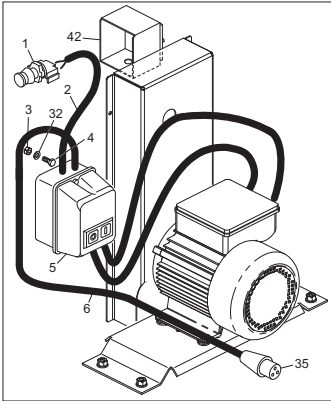
Motor Assembly (→ July'02, → Mar'06)

9-02

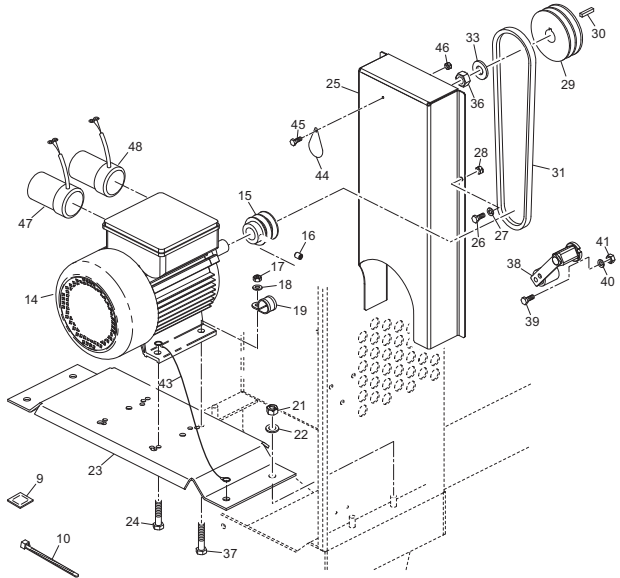
1	70/0049	1	Switch Emergency Stop	28	8/6002	4	Nut (M6)
2	71/0159	1	Harness Emergency Stop (110V / 415V)	29	909/99964	1	Pulley
2A	71/0172	1	Harness Emergency Stop (240V)	30	909/99968	1	Key
3	8/4004	2	Nut (M4)	31	21/0111	2	Belt (A38) (→ July'02)
4	9/4001	2	Bolt (M4x12)	32	4/4001	2	Washer
5	908/22000	1	Switchbox (110V)	33	4/1602	1	Washer (M16)
5A	908/20000	1	Switchbox (415V)	34	918/28500	1	Plug (240V 16 amp)
6	71/0160	1	Harness Power (c/w 110V 32Amp Plug)	35	918/30100	1	Plug (110V 32 amp)
6A	71/0165	1	Harness Power (c/w 415V 32Amp Plug)	35A	70/0189	1	Plug (415V 32 amp)
7	71/0161	1	Harness Motor (110V)	36	8/16002	1	Nut (M16)
7A	71/0166	1	Harness Motor (415V)	37	24	4	Bolt (M10x25) (→ July'02)
8	900/11600	1	Decal Emergency Stop	38	909/99999	1	Jockey (Belt Tensioner) (→ July'02)
9	900/99903	1	Pad	39	7/5020	1	Screw (M5x10) (→ July'02)
10	1/0005	A/R	Cable Tie	40	8/5002	1	Nut (M5) (→ July'02)
11	70/0044	1	Switch	41	4/5002	1	Washer (M5) (→ July'02)
12	70/0043	1	Run Capacitor (240V)	42	909/20100	1	Emergency Stop Cover Kit (→ March'04)
13	70/0042	1	Start Capacitor (240V)	43	909/20400	1	Replacement Motor Kit (110V)
13A	70/0187	1	Start Capacitor (110V)	43A	909/20600	1	Replacement Motor Kit (240V)
14	43	1	Motor (110V)	-	800/21513	1	Decal Motor Maintenance
14A	43A	1	Motor (240V)	-	800/21533	1	Decal Motor Start Up
14B	908/19900	1	Motor (415V)	-	800/99916	1	Decal Motor Noise
15	908/14800	1	Pulley				
16	7/8006	1	Screw (M8x10)				
17	8/10001	4	Nut (M10) (July'02)				
18	4/1005	8	Washer (M10) (July'02)				
19	900/10200	1	P-Clip				
20	4/8008	24	Washer (M8)				
21	8/12001	4	Nut (M12)				
22	4/12004	4	Washer (M12)				
23	909/99937	1	Motor Deck				
24	7/10005	4	Bolt (M10x25) (→ July'02)				
25	909/99804	1	Guard (→ July'02)				
26	9/6001	4	Screw (M6x16)				
27	4/6001	8	Washer (M6)				

Motor Assembly (→ Apr'06)

9-03



Item 42, should only be fitted by a qualified electrician.

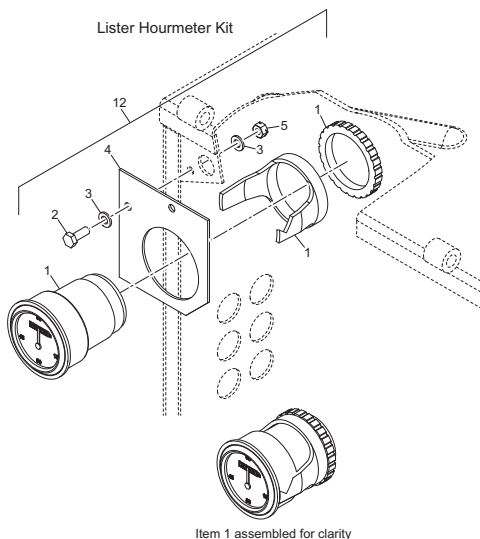


Motor Assembly (→ Apr'06)

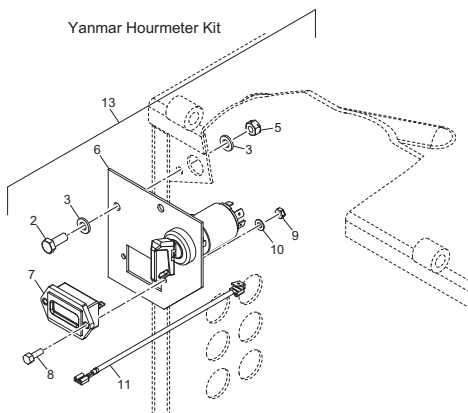
9-03

1	70/0049	1	Switch Emergency Stop	28	8/6002	4	Nut (M6)
2	71/0251	1	Harness Emergency Stop	29	909/99964	1	Pulley
3	8/4004	2	Nut (M4)	30	909/99968	1	Key
4	9/4001	2	Bolt (M4x12)	31	21/0111	2	Belt (A38)
5	908/22000	1	Switchbox (110V)	32	4/4001	2	Washer
5A	908/20000	1	Switchbox (415V)	33	4/1602	1	Washer (M16)
5B	70/0240	1	Switchbox (230V)	35	918/30100	1	Plug (110V 32 amp)
6	71/0160	1	Harness Power (c/w 110V 32Amp Plug)	35A	70/0189	1	Plug (415V 32 amp)
6A	71/0165	1	Harness Power (c/w 415V 32Amp Plug)	35B	918/28500	1	Plug (240V 16 amp)
6B	71/0252	1	Harness Power (c/w 230V 16Amp Plug)	36	8/16002	1	Nut (M16)
8	900/11600	1	Decal Emergency Stop	38	909/99999	1	Jockey (Belt Tensioner)
9	900/99903	A/R	Pad	39	7/5020	1	Screw (M5x10)
10	1/0005	A/R	Cable Tie	40	8/5002	1	Nut (M5)
14	20/0078	1	Motor (110V)	41	4/5002	1	Washer (M5)
14A	20/0079	1	Motor (240V)	42	909/20100	1	Emergency Stop Cover Kit
14B	908/19900	1	Motor (415V)	43	71/0249	1	Earth Cable
15	908/14800	1	Pulley	44	909/99819	1	Swing Plate (→ Jan '09)
16	7/8006	1	Screw (M8x10)	45	7/5002	1	Screw (M5 x 12) (→ Feb '09)
17	8/10001	4	Nut (M10)	46	8/5003	1	Nut (M5)
18	4/1005	8	Washer (M10)	47	70/0244	1	Capacitor Start (110v)
19	900/10200	1	P-Clip	47A	70/0242	1	Capacitor Start (230v)
20	4/8008	24	Washer (M8)	48	70/0245	1	Capacitor Run (110v)
21	8/12001	4	Nut (M12)	48A	70/0243	1	Capacitor Run (230v)
22	4/12004	4	Washer (M12)	-	800/21513	1	Decal Motor Maintenance
23	909/99937	1	Motor Deck	-	800/21533	1	Decal Motor Start Up
24	7/10005	4	Bolt (M10x25)	-	800/99916	1	Decal Motor Noise
25	909/99804	1	Guard				
26	9/6001	4	Screw (M6x16)				
27	4/6001	8	Washer (M6)				

Lister Hourmeter Kit



Yanmar Hourmeter Kit

**Hourmeter Assembly (Lister & Yanmar)****10-01**

1	70/0039.....1	Engine Hour Meter (Lister)
2	9/6001.....2	Bolt M6 x 16 Hex BZP
3	4/6001.....4	Washer M6 Form A BZP
4	909/99944.....1	Plate Lister Hourmeter
5	8/6002.....2	Nut M6 BINX BZP
6	909/99945.....1	Plate Yanmar Hourmeter
7	100/02400.....1	Engine Hour Meter (Yanmar)
8	9/4001.....2	Bolt M4 x 12
9	8/4004.....2	Nut M4
10	4/4001.....2	Washer M4
11	71/0171.....2	Harness Hour Meter (Yanmar)
12	OPM/04/DIO.....1	Hourmeter Kit (Lister)
13	OPM/05/DIO.....1	Hourmeter Kit (Yanmar)



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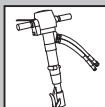
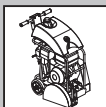
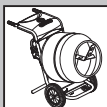
BarOmix...

FORT...

Limex...

Richard Fraisse...

Plettac



COMPACTING...

MIXING...

CONCRETING...

CUTTING...

BREAKING...

MOVING...

WHEELBARROWS...

SCAFFOLDING