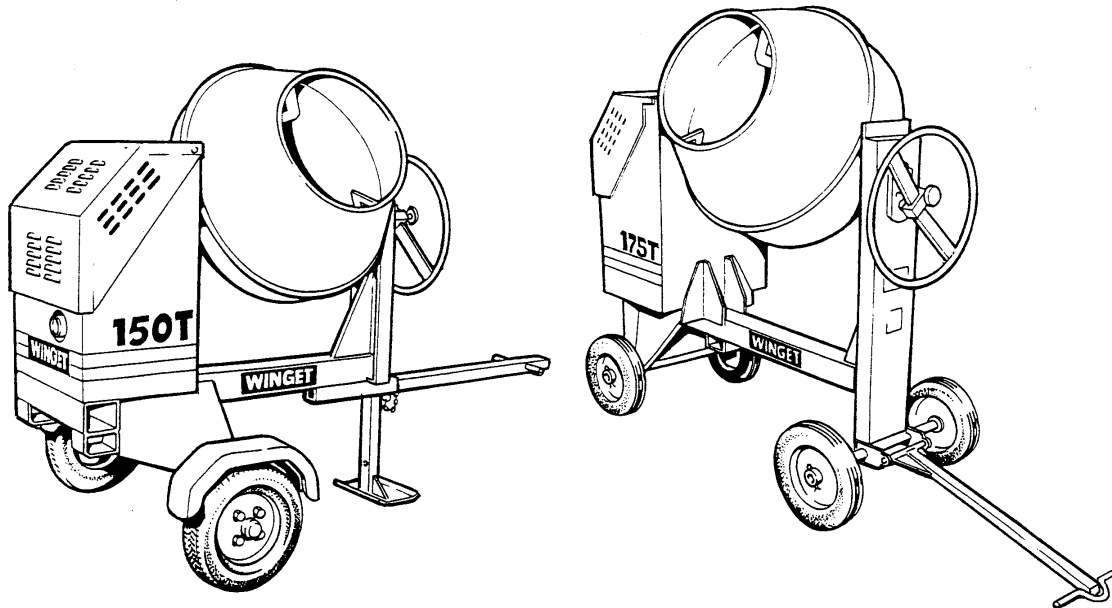


MIXERS

100T 150T 175T



OPERATORS HANDBOOK & PARTS

Manual V601318

September 2018

WINGET

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PARTS

Illustrations of all mixer components (at rear of book)

THE HANDBOOK

The contents of this Handbook, although correct at the time of publication may be subject to alteration by the Manufactures without notice. Winget Limited operate a policy of continuous product development. Therefore, some illustrations or text within this publication may differ from your machine.

WARNING



The operator must read all the Handbook and fully understand its contents before attempting to operate the machine.

THE HANDBOOK MUST NOT BE REMOVED FROM THE MACHINE.

The Handbook must be kept clean and in good condition. Additional copies of the Handbook can be obtained from your Distributor.

The contents of this Operator's Handbook are designed as a guide to the machine's controls, operation, working capacities and maintenance. It is **not** a training manual.

Only trained operators should use this machine. Contact the C.I.T.B. or equivalent body for advice on training.

WARNING



In this Handbook are **WARNING** notes. They are preceded by this symbol:

WARNING



These notes are used to indicate the procedure being described in the Handbook must be followed to avoid serious injury or death to yourself or to others; or damage to the machine.

The warnings are also used to protect the machine from unsafe servicing practices.

Pay particular attention to the warnings given in the Handbook.

If you have any doubts about any aspect of the machine's capability or servicing procedures, you must consult the manufacturer.

WARRANTY TERMS & CONDITIONS

The Manufacturer assures you that if any part of the machine becomes defective due to faulty manufacture or materials within 12 months from the date of purchase, the part will be repaired or replaced under warranty free of charge by any authorised Winget Distributor. Warranty repairs **must** be carried out by Winget Distributors.

This Warranty is given to the first owner and may be transferred to subsequent owners for the balance of the Warranty period.

The Manufacturer's liability only extends to the costs of repair or replacement of the faulty parts and necessary labour charges involved in the repairs. The Company accepts no liability for any consequential loss, damage or injury, resulting directly or indirectly from any defect in the goods.

Items not covered by Warranty and considered to be the customer's responsibility include normal maintenance services; replacement of service items and consumables; replacement required due to abuse, accident, misuse or improper operation; replacement of wearable items e.g. pins, bushes, brake linings, clutch linings etc.

The Warranty will not apply where the equipment is modified, converted, or used for purposes other than those for which it was designed, unless clearance for the modifications etc. have been granted by the Manufacturer, in writing.

The Pre-Delivery Inspection and Warranty Registration Document must be completed correctly and returned to the Manufacturer within 7 days of sale date. Failure to do so may result in the claim being subsequently rejected.

Tyres and tubes are not covered by Warranty, but are covered by the tyre manufacturer's own warranty system which provides against defects in material or workmanship. Engines are covered separately by the engine manufacturers, and engine warranty repairs must be handled by the relevant engine manufacturers' distributors.

No claim will be considered if other than genuine Winget Limited parts, which must be obtained from Winget Limited via an authorised Distributor, are used to effect a repair, or if lubricants other than those recommended by Winget Limited are used.

The equipment must be serviced in accordance with the service schedules laid down by Winget Limited. Evidence that these have been complied with may be required before Warranty Claims are reimbursed.

The Manufacturer's policy is one of continuous improvement. Winget Limited reserve the right to change specifications without notice. No responsibility will be accepted for discrepancies which may occur between specification of machines and the descriptions contained in publications.

Safety is the responsibility of the persons working with this machine. Think “safety” at all times. ***Read and remember the contents of this Handbook.***

MACHINE MODIFICATION

WARNING



Any modifications to the machine will affect its working parameters and safety factors. Refer to the Manufacturers before fitting any non-standard equipment or parts.

The manufacturers accept no responsibility for any modifications made after the machine has left the factory, unless previously agreed by the Manufacturers in writing. The Manufacturers will accept no liability for damage to property, personnel or the machine if failure is brought about due to such modifications, or fitment of spurious parts.

OPERATION

WARNING



Only trained operators should use this machine.

Always be aware of local and national regulations governing the use of the machine.

Always ensure that all guards are in position and correctly fitted.

Electrically driven mixers: Always ensure that the power supply has been correctly connected by a qualified electrician.

Electrical cables must be of a suitably armoured type. Ensure that they are protected from damage and not liable to be tripped over.

Do not connect to a household socket!

Use only with an RCD protected supply. Only connect via special feeding point (e.g. power distribution panel on building site with fault-current-breaker).

Only authorised persons should be allowed to operate the mixer, or be in the immediate area.

Never add fuel or lubricant to the machine while it is running.

Keep the area around the machine clear of obstructions which could cause persons to fall onto moving parts.

Keep the body and clothing clear of all moving and hot parts.

Always ensure that during operation the mixer is standing on stable and level ground and that the wheels are chocked.

Keep the engine/motor housing lid closed when the engine or electric motor are running.

The towing speeds of *Fast Tow* mixers, when used on public highways, may be subject to local or national road traffic regulations.

ENGINE**WARNING**

Starting any diesel engine can be dangerous in the hands of inexperienced people. Operators must be instructed in the correct procedures before attempting to start any engine.

Always obtain advice before mixing oils; some oils are not compatible. If in doubt, drain and refill.

The materials used in the manufacture and treatment of some filters and elements may cause irritation or discomfort if they come into contact with the eyes or mouth and they may give off toxic gases if they are burnt.

Engine lifting eyes must not be used to lift the complete machine.

Ether based cold start aids in aerosol cans must not be used under any circumstances.

EXHAUST GASES CONTAIN CARBON MONOXIDE WHICH IS A COLOURLESS, ODOURLESS AND POISONOUS GAS THAT CAN CAUSE UNCONSCIOUSNESS AND DEATH.

ELECTRICAL SYSTEMS**WARNING**

Starting engines that are fitted with charge windings which have been disconnected from the battery will cause irreparable damage unless the stator leads from the rectifier/regulator have been removed.

The following points must be strictly observed when charge windings are fitted otherwise serious damage can be done.

Never remove any electrical cable while the battery is connected in the circuit.

Only disconnect the battery with the engine stopped and all switches in the OFF position.

Always ensure that cables are fitted to their correct terminals. A short circuit or reversal of polarity will ruin diodes and transistors.

Never connect a battery into the system without checking that the voltage and polarity are correct.

Never flash any connection to check the current flow.

Never experiment with any adjustments or repairs to the system.

The battery and charge windings must be disconnected before commencing any electric welding when a pole strap is directly or indirectly connected to the engine.

BATTERIES CONTAIN SULPHURIC ACID WHICH CAN CAUSE SEVERE BURNS AND PRODUCE EXPLOSIVE GASES. If the acid has been splashed on the skin, eyes or clothes flush with copious amounts of fresh water and seek immediate medical aid.

SERVING & MAINTENANCE

WARNING



Never allow unqualified personnel to attempt to remove or replace any part of the machine, or anyone to remove large or heavy components without adequate lifting equipment.

Before maintenance work is begun, ensure that the engine is stopped, or that the electric motor is switched off, and isolated from the mains.

Note: Pressing the stop or emergency stop buttons on the mixer will not isolate the machine from the mains

Always conform to service schedules except when an emergency calls for immediate action, or adverse conditions necessitate more frequent servicing.

Always report any defect at once, before an accident or consequential damage can occur.

On completion of maintenance, check that the machine functions correctly, and that all guards are correctly fitted.

Disposal of waste oil. Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

DECALS

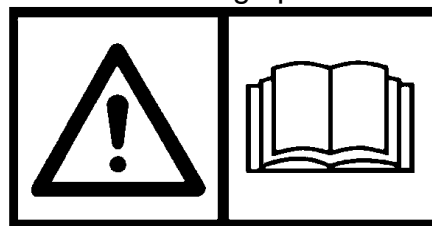
Ensure that all warning decals fitted to the mixer are legible. If any should become detached, they must be replaced immediately.

Descriptions of the pictorial decals are as follows:

Fuel tank filling point.



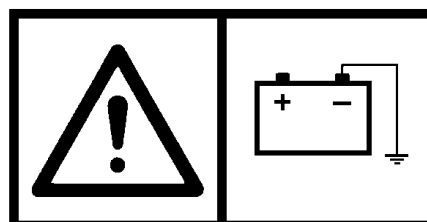
Read Operators Handbook, or Operators Handbook storage place.



Attach lifting hooks to this eye.



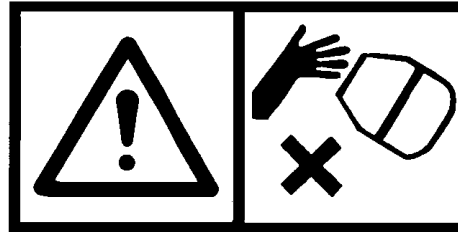
The battery negative terminal is connected to earth.



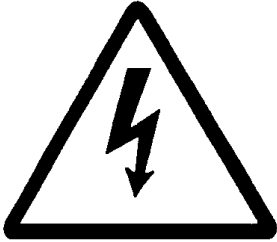
Remove starting handle.



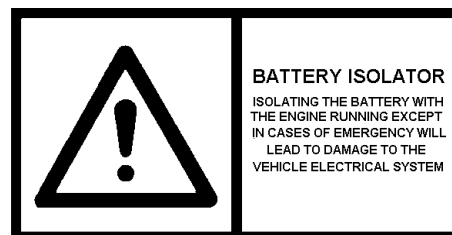
Keep hands clear of drum.



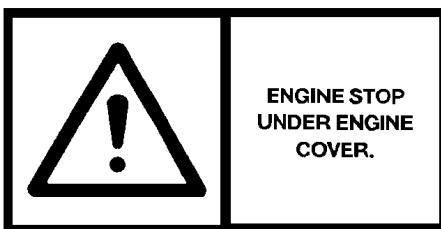
Beware of electrical hazards.



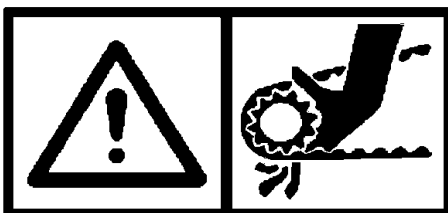
Battery isolator.



Engine stop.



Keep clear of chain drives.



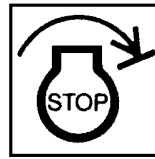
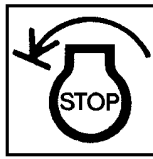
These surfaces may be hot.



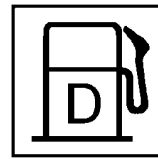
ISO 8999 safety symbols used with Lister/Petter engines



Read the handbook



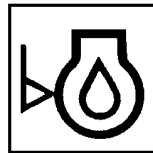
Stop control (on engine)



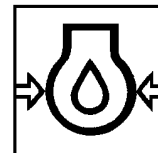
Diesel fuel fill



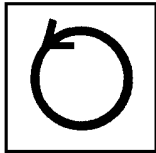
Engine oil fill



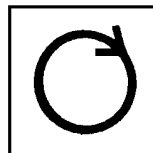
Engine oil level



Engine oil pressure



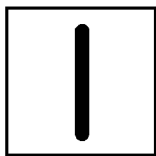
Anti-clockwise rotation



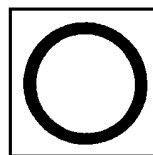
Clockwise rotation



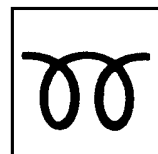
Lifting eye - engine only



On



Off



Pre-heat



Rotational speed control



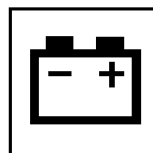
Linear speed control



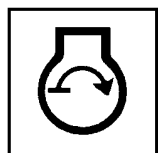
Tachometer



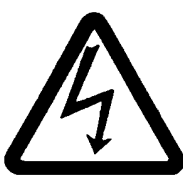
Elapsed hours



Battery charging



Engine cranking



Electrical hazards



General hot surface warning

Lashing down & Lifting points

General

Care should be taken when lifting or transporting the mixer to ensure that lifting or retaining straps are in good condition and the following procedures must be followed when lifting or lashing down to avoid causing unnecessary damage.

It is recommended that chains or webbing slings are used to lift the mixer via the lifting point on the trunnion and that ratchet type webbing straps are used to lash the mixer down.

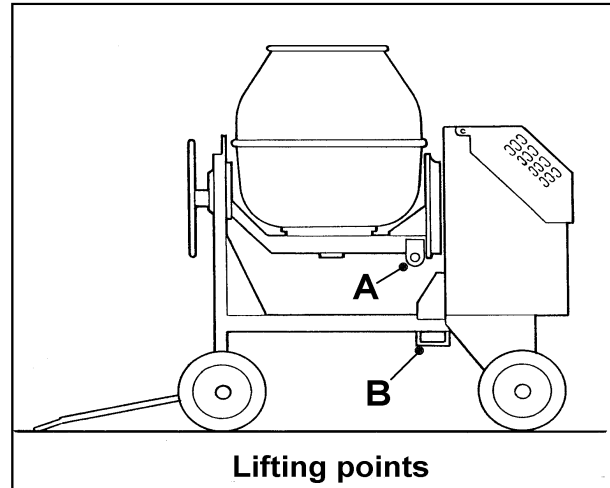
Lifting the Mixer (Crane)

Turn the drum and trunnion through 180deg. and, using the locking pin in the tilting handwheel, lock the assembly in this position with the lifting eye 'A' uppermost. Attach suitable lifting equipment to the lifting eye and slowly take the weight. Do not 'snatch' the mixer otherwise damage may be caused to the lifting point, trunnion or lifting equipment. To prevent the drawbar swinging freely as the mixer clears the ground, rest the drawbar's 'T' handle on the mainframe below the upturned drum. If the mixer is on site and the wheels are immersed in dried concrete or mortar the wheels must be freed before attempts are made to lift the mixer. Be aware that the mixer will tend to swing as it clears the ground.

Lifting the Mixer (Forklift/Telehandler)

Using the tilting handwheel locking plunger, lock the drum upright as illustrated overleaf. If the wheels are immersed in dried concrete or mortar, free them before attempting to lift the mixer.

Spread the fork tines and carefully position the forks below the mainframe so that one tine enters and passes through



the bracket 'B' below the mainframe, the other fork should be spread as wide as possible. Position the carriage as close as possible to the mixer and rest the mixer's drawbar on one of the fork tines to prevent it swinging freely.

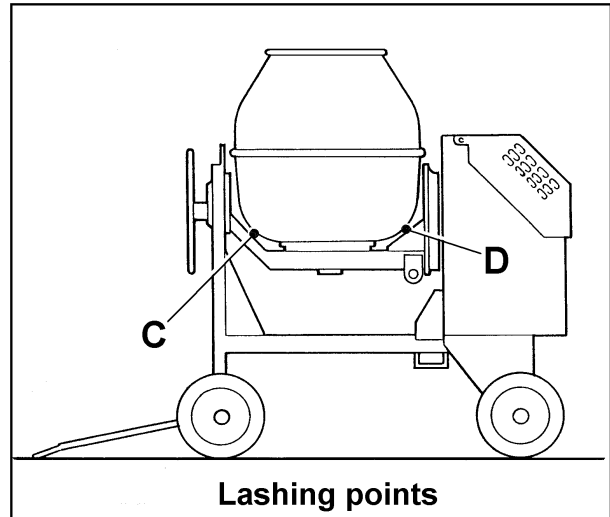
Slowly tilt the carriage back slightly to prevent the mixer rocking forward and raise the mixer just clear of the ground. Do not raise the mixer unnecessarily high, keep the height to the minimum required to clear any obstructions without unduly obstructing your forward vision. When travelling keep your speed to the minimum and when loading vehicles do not raise the mixer to the height of the bed until the mixer is close to the vehicle. Similarly when unloading vehicles lower the mixer just clear of the ground as soon as it clears the side of the vehicle.

Lashing Down

It is recommended that unless the mixer is pulled up against a headboard or some form of substantial wheel chocks that two ratchet type webbing straps are used to retain the mixer, one pulling to the rear and one pulling to the front. The drum should be locked in the upright position

shown above to keep the centre of gravity as low as possible.

Position the mixer on the vehicle bed and chock the rear wheels to prevent it rolling until lashed down. Turn the front axle so that the drawbar is below the mixer and not forming an obstruction on the vehicle bed. Lock the drum in the upright position. Pass one of the webbing straps between the drum and trunnion at point 'C' and secure the strap down to retaining hooks on the vehicle bed in front of the mixer. Pass the second strap between the drum and trunnion at point 'D' and secure the strap down to retaining hooks on the vehicle bed to the rear of the mixer. Tighten the straps by means of the ratchets until the mixer is securely held.



INSTALLING THE MIXER ON SITE

Welded to the mixer are lifting points. These are provided to assist with loading or unloading the mixer and for transportation across site.

WARNING *For mixer weights, see "Specifications"*



Never carry mixers by their lifting points on public roads.

Do not tow four wheeled mixers across uneven ground.

The ground on which the mixer stands must be level and stable. Ensure that the wheels are chocked.

Electrically driven mixers:

Always ensure that the power supply is correctly connected or disconnected by a qualified electrician.

Electrical cables must be of a suitably armoured type. Ensure that they are protected from damage and are not liable to be tripped over.

Do not connect to a household socket!

Use only with an RCD protected supply. Only connect via special feeding point (e.g. power distribution panel on building site with fault-current-breaker).

ENGINE OPERATION

WARNING *As soon as the engine has started the mixing drum will begin to rotate.*

**Before starting the engine:**

Ensure the engine is free to turn without obstruction.

Check that the lubricating oil level is

correct. The oil sump must be filled to the 'full' mark on the dipstick; do not overfill.

Check that the fuel supply is adequate and the system is primed.

Electric key start machines only:

Ensure that the battery is connected, fully charged and serviceable.

ENGINE SAFETY

WARNING *The following pages of engine operating instructions are of a general nature and should be read in conjunction with, or substituted by the engine manufacturers instructions.*



Starting any diesel engine can be dangerous in the hands of inexperienced people.

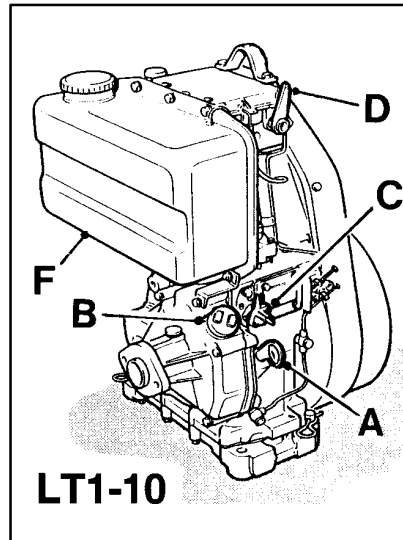
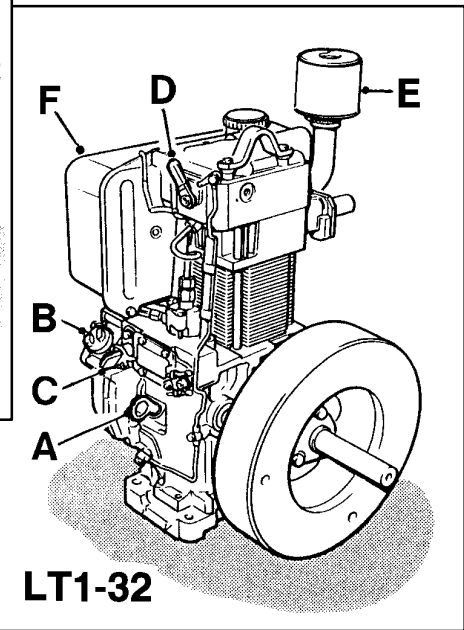
Before attempting to start any engine the operator should read the 'Safe Working' section of this book and be conversant with the use of the engine controls and the correct starting procedures.

ETHER BASED COLD START AIDS IN AEROSOL CANS MUST NOT BE USED UNDER ANY CIRCUMSTANCES.

EXHAUST GASES CONTAIN CARBON MONOXIDE WHICH IS A COLOURLESS, ODOURLESS AND POISONOUS GAS THAT CAN CAUSE UNCONSCIOUSNESS AND DEATH.

LT/LV1 engine**Description**

- A Dipstick
- B Lubricating oil filler
- C Engine control
- D Decompressor lever
- E Air cleaner
- F Fuel tank

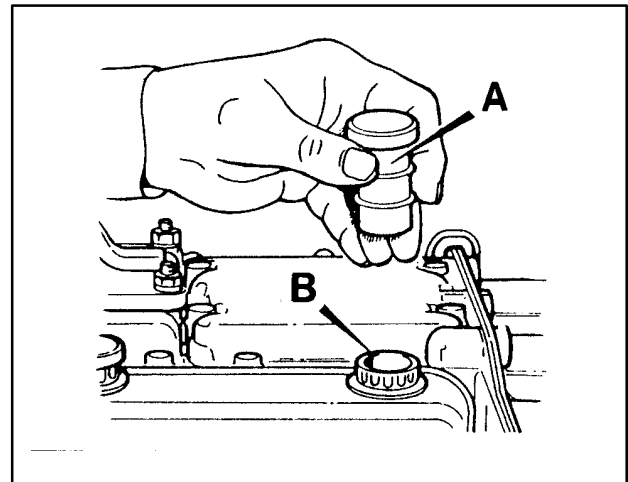
**LT1-10****LT1-32****The cold start aid (where fitted)**

The cold start aid is fitted to the combustion air intake port and is used when the ambient temperature is below -10 deg.C (14 deg.F).

With the fuel turned on, turn the engine for up to 20 revolutions to prime the fuel and lubrication systems.

Withdraw the plunger (A) and fill one third of the cup (B) with the same type of lubricating oil as used in the engine

Replace the plunger and inject the oil just before starting the engine



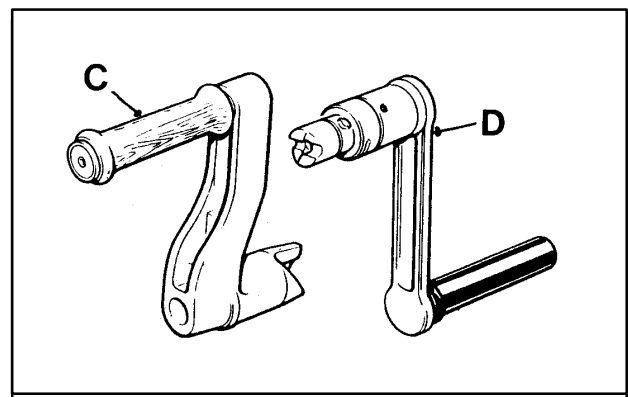
WARNING *The device must not be used more than three times in succession during the same attempt to start the engine.*

**The starting handle(s)**

A non-limited kick-back handle (C) or limited kick-back handle (D) system may be fitted to the engine.

The two handles are not interchangeable and care must be taken to ensure the correct type is retained with the engine.

Always use the correct starting handle which has been designed for the engine.



Ensure there are no burrs on the handle.

Before attempting to use the handle, clean and lightly oil that part of it which fits onto the engine.

Hand starting the engine

Select the excess fuel position by gently pulling the engine control lever (**L**) outward over the middle catch (**M**) and turning it fully clockwise.

Move the decompressor lever towards the flywheel (**N**).

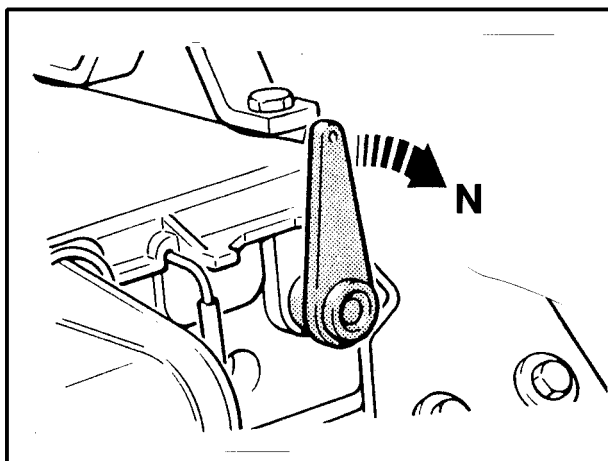
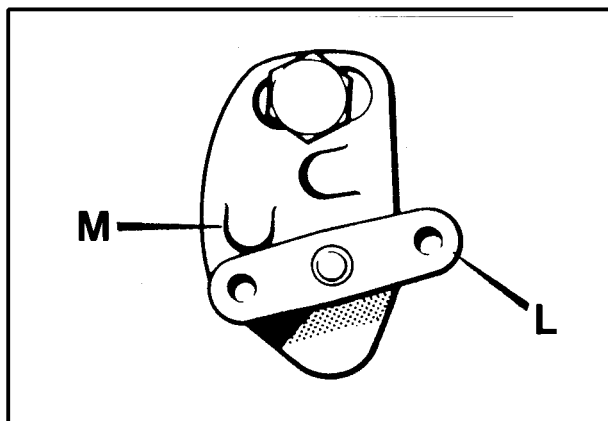
Insert the correct handle (See: 'Starting handles') into the starting housing.

Turn the engine slowly for up to 20 turns to prime the combustion chamber and lubricating oil system.

Maintaining a firm grip on the starting handle, crank the engine really fast and when sufficient speed is obtained move the decompressor lever towards the gear end and continue to crank until the engine fires.

Retain a firm grip on the handle and remove it from the engine.

Close the engine lid and ensure that it stays closed while the engine is running.



WARNING *Do not stop the engine with a load in the drum.*



Stopping the engine

Turn the engine control anti-clockwise to the STOP position and hold it there until the engine comes to rest.

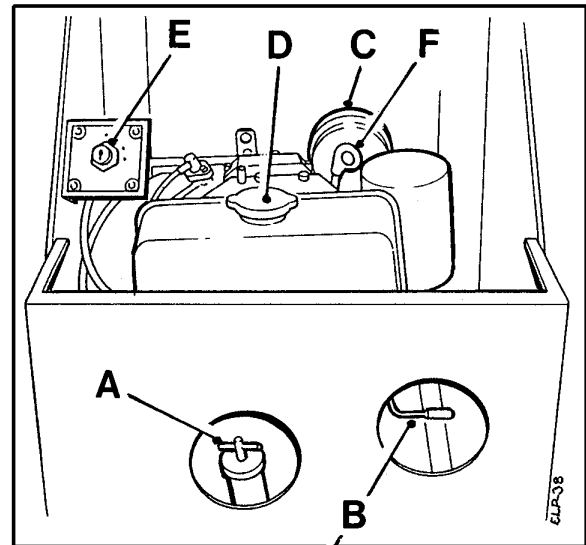
WARNING *Never stop the engine by using the decompressor lever, or valve damage may occur.*



AC1-05 engine (Electric start with key)

Description

- A Oil filler
- B Engine control
- C Air cleaner
- D Fuel tank
- E Key switch
- F Dipstick



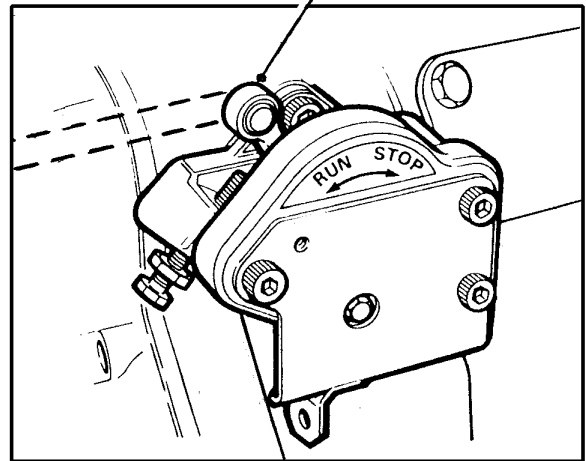
Starting the engine

Pull the lever **(B)** towards you. This will move the engine control anti-clockwise into the RUN position.

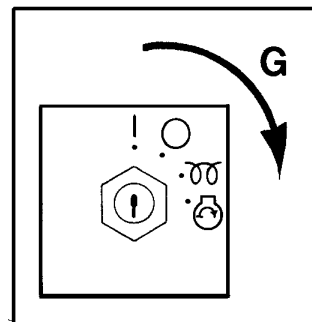
Turn the start key clockwise **(G)** and release immediately the engine fires.

Do not operate the start key for more than 20 seconds at a time.

Close the engine lid and ensure that it stays closed while the engine is running.



WARNING Do not stop the engine with a load in the drum.



Stopping the engine

Push lever **(B)** forwards to move the engine control to the STOP position, then wait until the engine comes to rest.

After the engine has stopped ensure the electric start key is switched off.

WARNING Never stop the engine by using the decompressor lever, or valve damage may occur.



Yanmar L40/L48

Description

- A Fuel cock
- B Engine speed lever
- E Starting key

Electric starting the engine

Open the fuel cock (A). Put the engine start lever to the RUN position (B).

Turn the starting key (E) clockwise to START position.

Remove your hand from the key as soon as the engine starts.

If the engine does not start after 10 seconds, wait a while (for about 15 seconds) before attempting to start again.

WARNING *If the starting motor is turned for too long, the battery will go flat and motor seizure will occur. Always leave the starting key turned on, in the ON position, while the engine is running.*



Check monthly that the battery fluid is at the correct level.

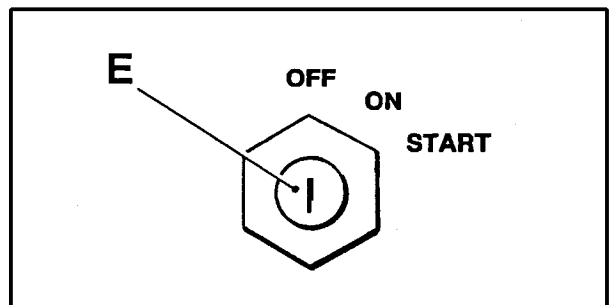
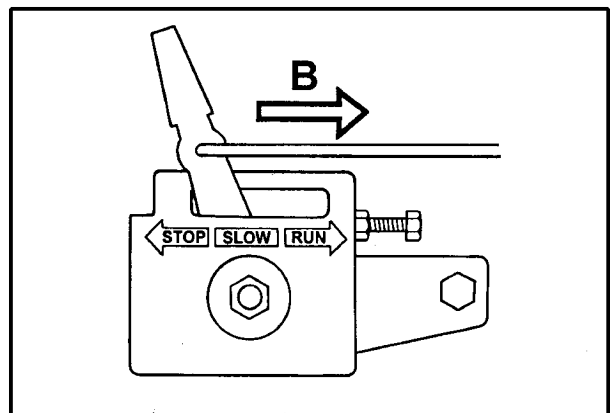
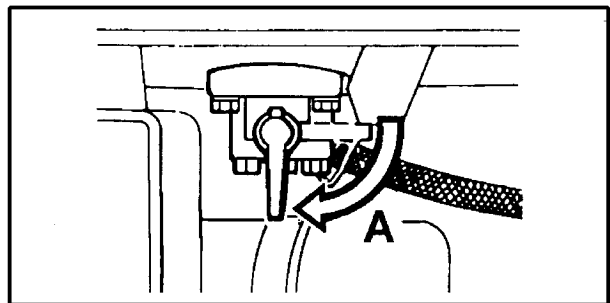
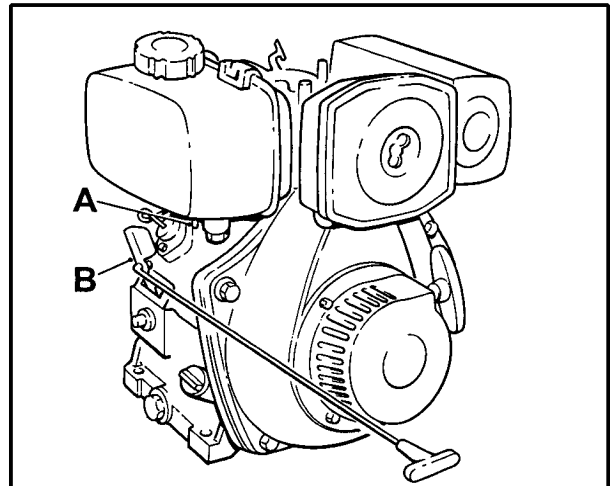
Cold Starting

In cold weather, if the engine is hard to start, remove the rubber plug of the rocker arm cover and add 2cc of engine oil before starting. *Do not add more than 2cc of engine oil to prevent internal engine damage.*

WARNING *Never use any cold starting aids such as ether (Easy start), gasoline, paint ether or other volatile liquid or gas.*



Keep the rubber plug in the cover except when adding oil.



If the plug is not in place, rain, dirt and other contaminants may enter the engine and cause accelerated wear of internal parts.

Yanmar L40/L48

Stopping the engine

Before stopping the engine, move the engine speed lever to SLOW speed, and run the engine for about 3 minutes with no load.

Return the engine speed lever to the STOP position.

With electric-start engines, turn the starter key to the OFF position.

Set the fuel cock lever to the CLOSED position.

Slowly pull out the recoil handle until pressure is felt (that is, to the point in the compression stroke where the intake and exhaust valves are closed), and leave the handle in this position. This prevents rust from forming while the engine is not in use.

WARNING



If the engine keeps on running even after the speed lever is placed at STOP position, stop the engine by closing the fuel cock.

When stopping the engine, reduce the load slowly. Do not stop the engine suddenly since it may cause the temperature to rise abnormally.

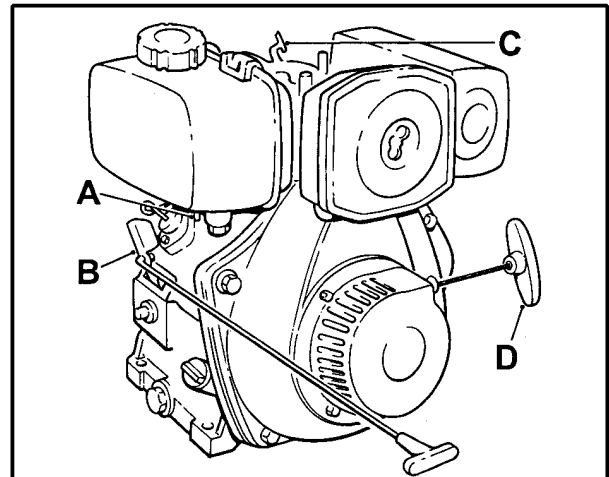
Do not stop the engine with the decompression lever.

Yanmar L40/L48

Manual starting in the event of a flat battery

Description

- A Fuel cock
- B Engine speed lever
- C Decompression lever
- D Recoil starting handle



Starting the engine

Open the fuel cock (A).

Put the engine start lever to the RUN position (B).

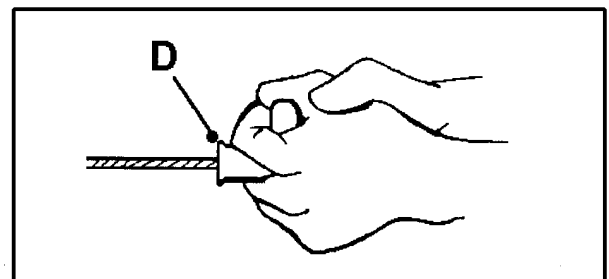
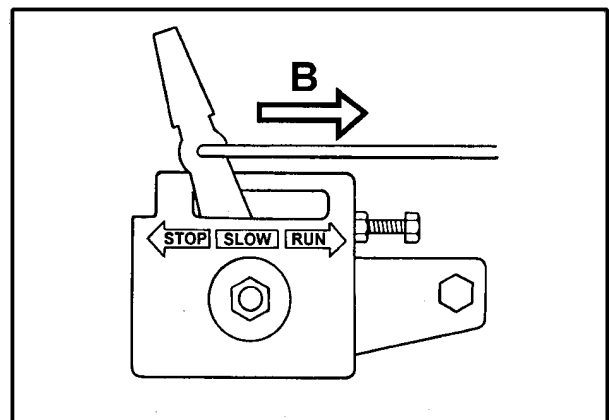
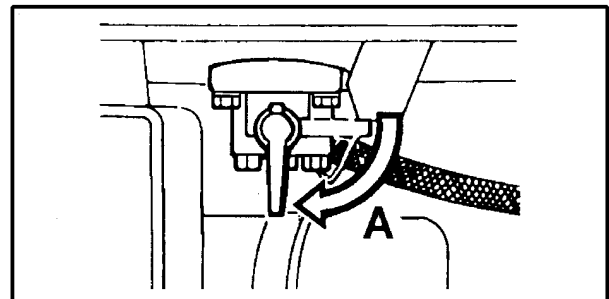
Turn the start key to ON.

Pull out the recoil starting handle (D) slowly until you feel a strong resistance, then return it to the initial position.

Push down the decompression lever (C). It will return automatically when the recoil starter is pulled.

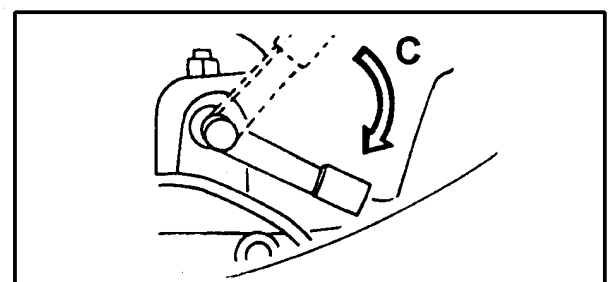
Grip the recoil starting handle (D) firmly with both hands. Pull the rope hard and fast. Pull it all the way out.

The engine should now have started. If it has not, repeat the procedure.



Cold Starting

In cold weather, if the engine is hard to start, use the same cold start procedure as described on page 2.5.



Honda

The following engine operating instructions should be read in conjunction with the Honda Owner's Manual.

Starting the engine

Turn the fuel valve to the **ON** position.

Move the choke lever to the **CLOSED** position.

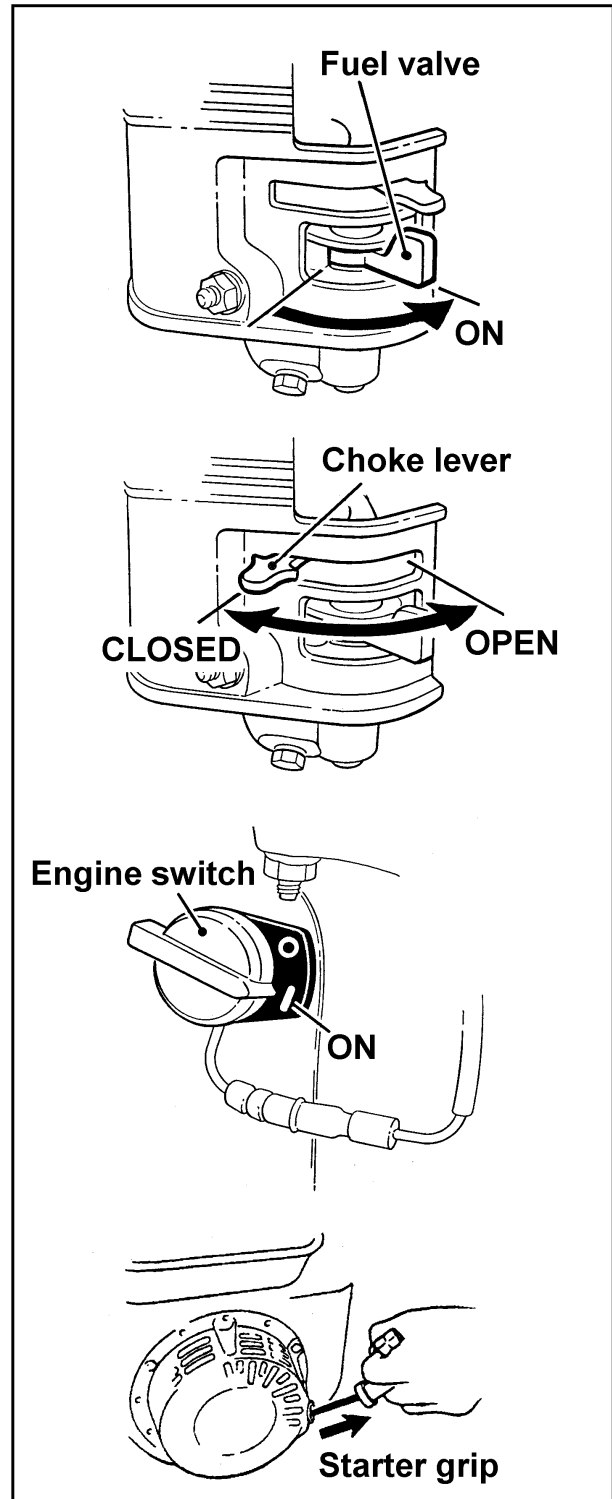
Do not use the choke if the engine is warm or the air temperature is high.

Turn the engine switch to the **ON** position.

Pull the starter grip lightly until resistance is felt, then pull briskly.

Do not allow the starter grip to snap back. Return it gently to prevent damage to the starter.

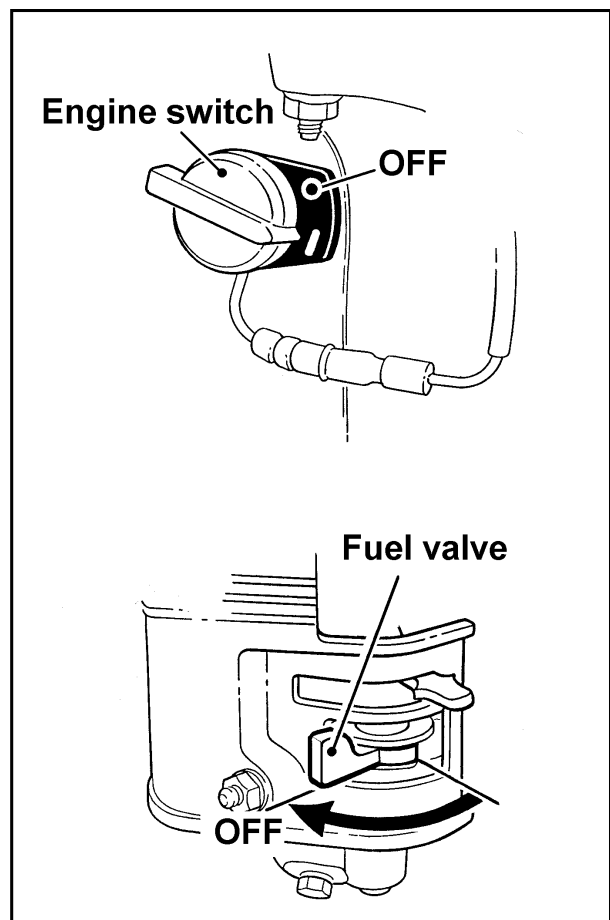
Note: There is no throttle adjustment. The engine speed is set at the factory and there should be no attempt to change it.



Stopping the engine

To stop the engine, turn the engine switch to the **OFF** position.

Turn the fuel valve to the **OFF** position.



2.10

OPERATION

Electric motors

To start and stop:

Gain access to start button by raising the motor cover (50).

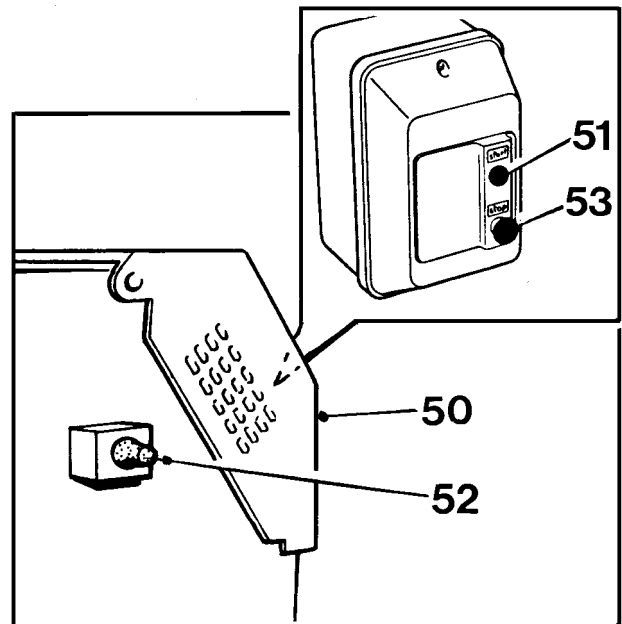
Start the motor by pressing button (51). Lower the motor cover (50).

To stop the motor, press button (52). (Pressing button (53) will also stop it.)

WARNING In an EMERGENCY, press button (52) to stop the motor.



Pressing buttons (52) or (53) will not isolate the mixer from the mains.



Before mixing

The operator must calculate the correct percentages of water and aggregates to be mixed.

WARNING Cements can cause skin irritation; wear protective clothing.

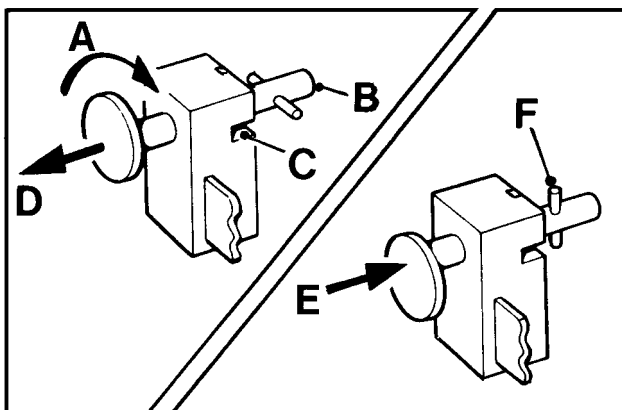
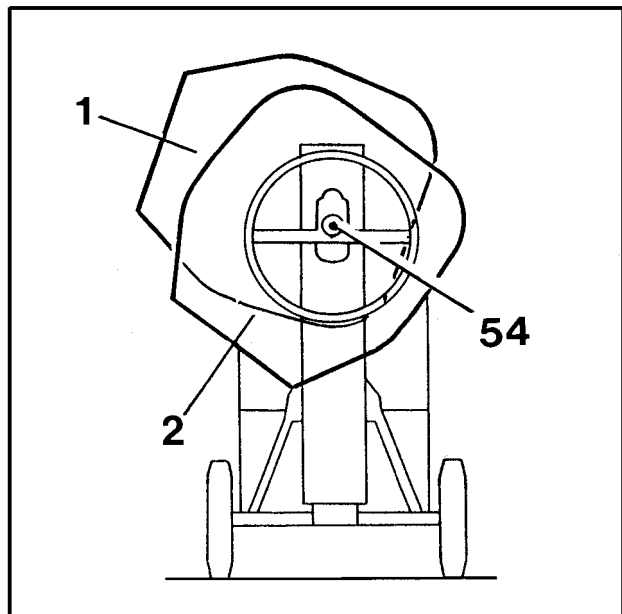


Mixer drum positions

The locking plunger (54) holds the mixing drum in one of the following positions *Charge and Mix (1)* or *Discharge (2)*.

To release the handwheel: Rotate the plunger (A) until the cross-pin (B) aligns with the slot (C), then pull the plunger outwards (D).

To lock the handwheel: Align the plunger with the appropriate hole in the frame, then push (E) and rotate the plunger until the cross-pin is vertical (F).



Mixing

Turn the drum to *Charge and Mix* position (1).

With the mixer running; charge the drum with the correct percentages of water and aggregates, then allow mixing to continue for about two minutes.

Ensure that a suitable container has been positioned by the side of the mixer to catch the discharging load.

Turn the drum to *Discharge (2)*, and allow the load to run into the container.

Rotation of the drum

Looking at the mouth of the drum, all of the engines and motors drive the drum in a clockwise direction. The only exception is the Honda engine that drives the drum anti-clockwise.

At the end of the working day

- A** Thoroughly clean out the mixing drum with water and gravel.
- B** Stop engine, and remove the starting handle to prevent unauthorised use of the machine.
- C** Grease the machine.
- D** If the mixer has a diesel engine, fill the fuel tank.
- E** If the mixer has an electric motor, it must be isolated from the mains.

INSTALLING/REMOVING THE LIGHTING BOARD (WHERE FITTED)

Where a lighting board is supplied with the Mixer, follow the procedure below to install and remove the lighting board when preparing for road towing or for use on site.

The board locates on the rear lower panel of the mixer and is secured by two threaded wing nuts.

To attach, locate the threaded studs on the rear of the board into the two holes in the rear lower panel. Secure in place using the wing nuts hand tightening until the board is secure.

The lighting cable should pass through the engine housing wrap around the mainframe centre section and drawbar before being plugged into the towing vehicles trailer lighting socket.

To remove, unplug the lighting cable from the towing vehicle. Unwrap the lighting cable and pass back through the engine housing. Remove the two wing nuts and lift the board clear of the mixer. Store safely until required.

SERVICE SCHEDULE

(See also the relevant Engine Workshop Manual)

IMPORTANT!
For servicing the Yanmar and Honda engines, see the engine Operation Manual

| | |
|--|--|
| Every day | |
| Links & hinges: | Lubricate. |
| Shafts & bearings: | Lubricate. |
| Engine: (see <i>Engine Manual</i>) | Check fuel and lubricating oil levels. Check for oil and fuel leaks. Clean/replace air cleaner element under very dusty conditions |

| | |
|--|--|
| Every week (or 50 hours running) <i>The above and following items</i> | |
| Nuts, bolts and keys. | Tighten (<i>Each week for first month</i>): |
| Drive chains & belts: | Lubricate & check tension, check V belt tension on ES engines. |
| Drum Bevel Gears: | Lubricate with open gear fluid. |

| | |
|--|--|
| Every 125 hours. <i>The above and following items</i> | |
| Engine: | Clean/replace air cleaner element under moderately dusty conditions. |
| Battery (<i>where fitted</i>): | Check condition. |

| | |
|--|--|
| Every 250 hours. <i>The above and following items</i> | |
| Nuts, bolts & keys: | Tighten. |
| Engine: | Change lubricating oil. (and filter on AC1 engines only). Check valve clearance. (<i>see Engine Manual</i>). Clean/replace injectors if exhaust is dirty. (<i>see Engine Manual</i>). Renew fuel filter element if the fuel is not perfectly clean. |

| | |
|--|--|
| Every 500 hours. <i>The above and following items</i> | |
| Engine: | Replace air cleaner element. Check exhaust and induction for leaks, damage or restrictions. Renew fuel filter element. Check battery charge winding system. (<i>see Engine Manual</i>). |

| | |
|---|---|
| Every 1000 hours. <i>The above and following items</i> | |
| Engine: (see <i>Engine Manual</i>) | Decarbonise if the engine performance has deteriorated. Clean cylinder barrel and head fins. Clean restrictor banjo union at the cylinder head end of the oil feed pipe. Flush and refill fuel tank. |

| | |
|---|--|
| Every 5000 hours. <i>The above and following items</i> | |
| Engine: | Major overhaul, if necessary. (<i>see Engine Manual</i>) |

SERVICING PROCEDURE

Greasing and lubrication

WARNING *It is essential that oils and grease used for servicing do not become contaminated with sand or cement dust.*



Every day

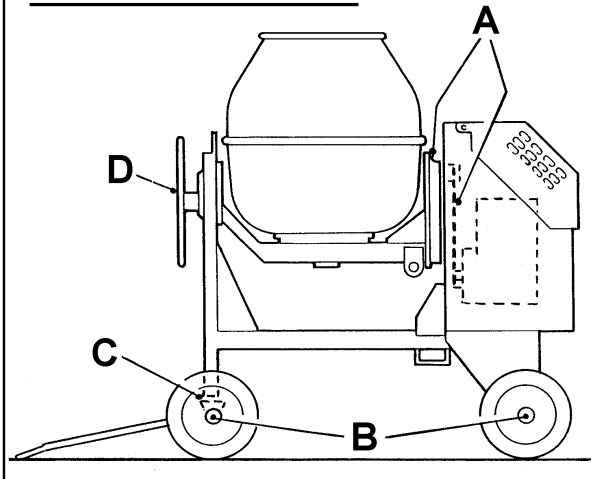
Apply a little engine oil to pins, joints and hinges etc. to ensure that they move easily and are free from corrosion.

Shafts and bearings fitted with grease nipples must be greased using a good quality medium grease.

Bearings must not be allowed to run dry. When greasing it is better to give a little frequently rather than a lot at long intervals.

Lubrication Points

| | | |
|----------|-----------------|---------------|
| A | Drive chains: | <i>Oil</i> |
| B | Wheels: | <i>Grease</i> |
| C | Steering joint: | <i>Oil</i> |
| D | Locking plunger | <i>Oil</i> |



Drum drives

Every week (or 50 hours running)

Drive chains:

Lubricate drive chains (**A**) with a little engine oil.

Check the tension of the chains and adjust if necessary as follows:

On the slack side of the chain there should be free movement equal to the length of one pitch of the chain.

i.e. If the pitch of the chain is 20mm, then the movement on the slack side should be 20mm.

Never over-tighten the chain as this will put excessive strain on engine bearings causing vibration and wear.

Drive belts:

WARNING *NEVER oil belts.*



Check the tension of the belt and adjust if necessary. The belt should deflect no more than 2 to 3 mm using thumb pressure.

Never over-tighten the belt as this will put excessive strain on engine bearings causing vibration and wear.

Bolt torques

Every week for the first month, then every three months

Check the tightness of all bolts, nuts, and keys etc. Pay particular attention to engine mounting bolts.

Engine, general servicing

Under very dusty conditions, air cleaners, lubricating oil and fuel filters will require more frequent attention. (see the "Service Schedule" on page 3. 1)

WARNING *The materials used in the manufacture and treatment of some filters and elements may cause irritation or discomfort if they come into contact with the eyes or mouth and they may give off toxic gases if they are burnt.*

Air cleaner

Every day or 125 hours (see schedule)

Change the Air Cleaner as follows:

L T/LV1-32 engines

Slacken the clip (A)

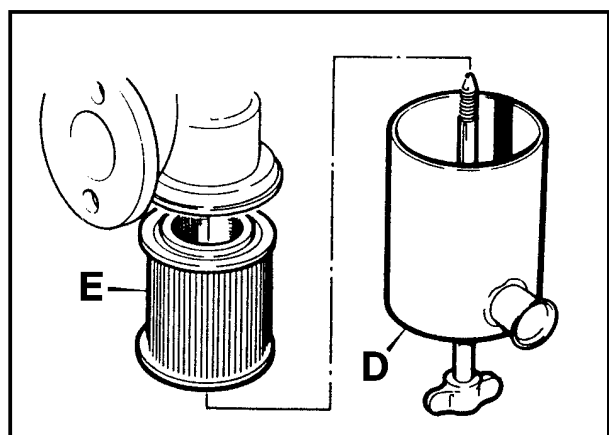
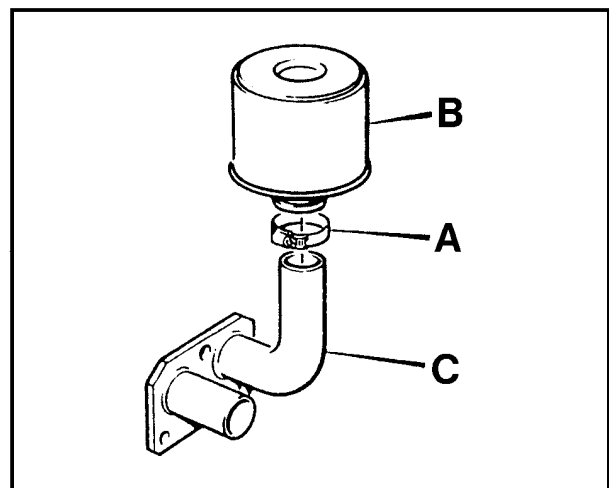
Remove the cleaner (B) from the manifold (C).

Fit a new cleaner assembly.

LT/LV1-10 engines

Remove the cover (D) by removing the centre bolt.

Remove the old element (E) and fit a new one.



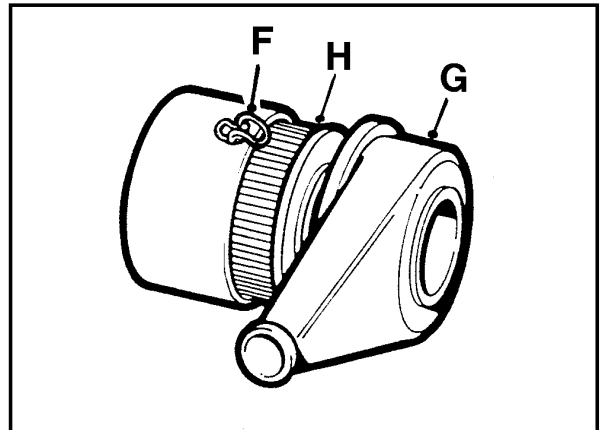
AC1-05 engines

Release the clips (**F**) and lift off the cover (**G**). Remove the element (**H**) from the cleaner body.

Clean the cleaner body and cover (**G**) of all dust.

Fit a new element and joint if necessary.

Replace the cover (**G**).

**ENGINE LUBRICATION OIL****Every day**

Check lubrication oil level with the dipstick. Top up if necessary.

Every 250 hours

Drain and refill the oil sump (also on AC1 engines replace oil filter) as follows:

WARNING

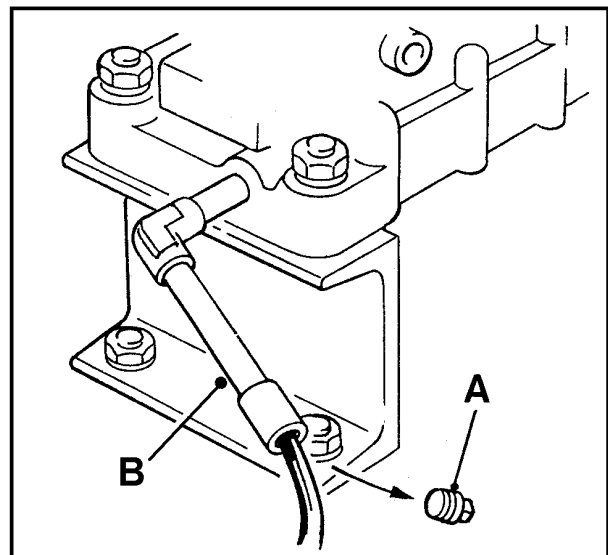
Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

Oils and fuels can cause skin irritation. Wear suitable protective clothing to prevent skin contact.

If possible run the engine immediately before draining the oil.

Note: During 2003 the metal drain pipe (**B**) was replaced by a flexible drain hose (*not illustrated*).

Place a suitable container under the drain plug. Remove the drain plug (**A**) and drain oil.



Clean and coat the threads of the drain plug with Hylomar PL32/M or Three Bond 1110B.

Replace the drain plug (**A**) taking care not to overtighten it.

AC1-05 engines only

Change oil filter as follows:

The oil filter is mounted inside the crankcase at the gear end and consists of a detachable cover containing the element which is secured by a centre bolt into the crankcase.

Unscrew the centre bolt (C) and withdraw the filter cover (D) and the element (E).

Clean the cover and chamber.

Do not attempt to clean the old filter element. Dispose of it safely.

If necessary fit new seal (F).

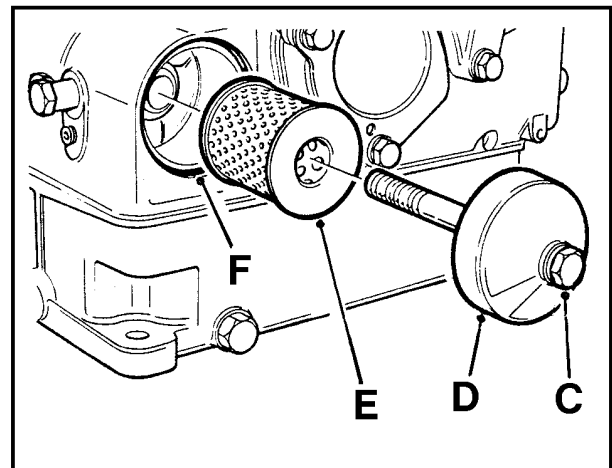
Fit a new element into the crankcase and replace the cover.

Tighten the centre bolt to a maximum torque loading of 13.6Nm (10.0lbf ft).

Fill the sump through the oil filler to the top mark on the dipstick (B).

Start the engine, run it for a few minutes and check the drain plug does not leak.

Stop the engine, allow the oil to settle and check the level on the dipstick. Add more oil if necessary.



Fuel filter

Every 250 hours or 500 hours (see schedule)

Before changing the filter read the warnings in the "Safe working" section of this handbook.

Change LT/LV1 fuel filters as follows:

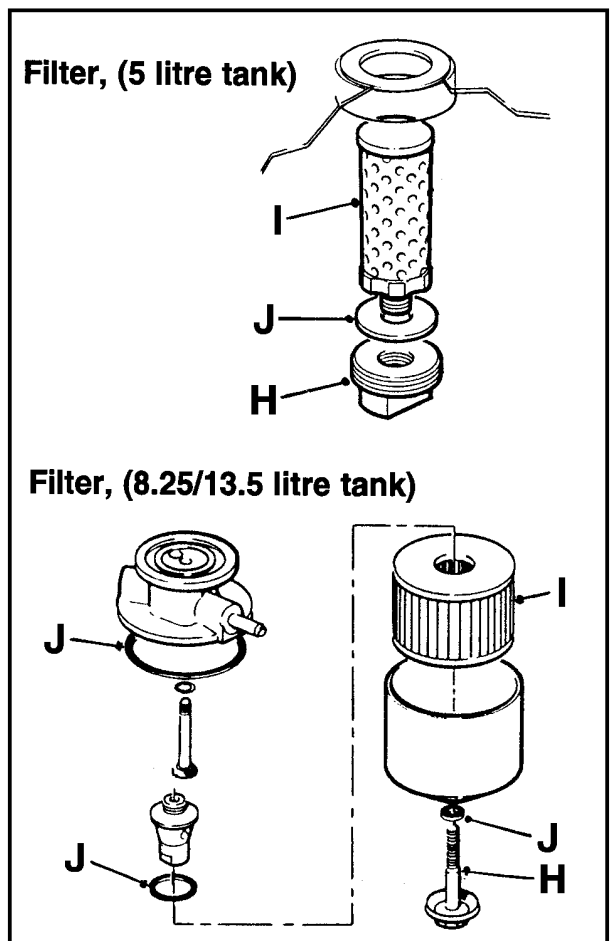
Remove the retaining bolt or plug (H).

Remove the old element (I) and joints (J).

Fit a new element and new joints.

Replace and tighten the retaining bolt or plug (H).

Prime the fuel system.



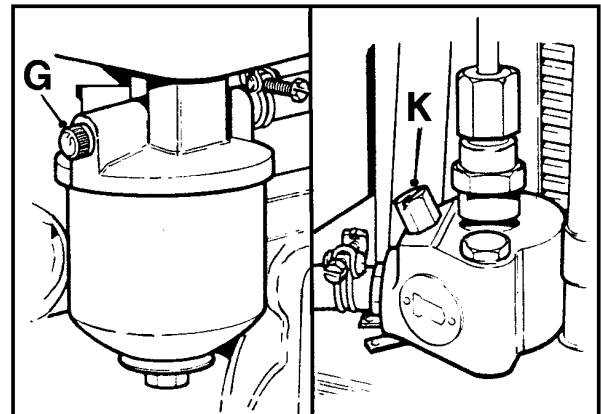
Prime LT/LV1 fuel system as follows:

Fill the fuel tank.

Move the engine control lever to the 'RUN' position.

Vent the filter through bleed screw (G) until a full air free flow of fuel is obtained.

Vent fuel through the pump bleed screw (K) until a full air free flow of fuel is obtained.

**Change AC1-05 fuel filters as follows:***Tank mounted filter*

Care should be taken to ensure the jubilee clip fitted to polypropylene fuel tanks is not slackened or removed.

Remove the fuel pipe from the tank and drain the tank.

Unscrew the plug (L) from the tank and remove the plug and element from the bottom of the tank.

Unscrew the element (M) from the plug and discard it.

Discard the joint (N).

Fit a new joint over the element screw spigot.

Screw the new element onto the plug; **use the nut section of the element only.**

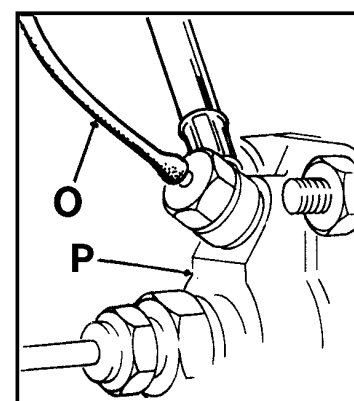
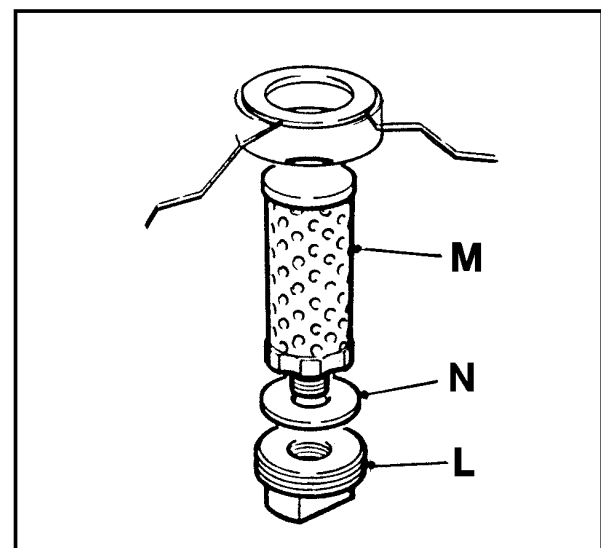
Screw the plug and element into the bottom of the tank.

Replace the fuel pipe.

Fill the fuel tank and, if necessary, prime the fuel system.

Note: *The fuel system fitted to the AC11 engine is self priming, however in some instances it may be necessary to assist with priming as follows:*

Pull the rubber leak-off pipe (O) away from the fuel pump (P) to allow air to escape.



When no air bubbles are escaping push the rubber hose **(0)** back onto the fuel pump.

Crank the engine until the injector is heard to 'squeak'.

BATTERY

WARNING



*BATTERIES CONTAIN
SULPHURIC ACID WHICH
CAN CAUSE SEVERE
BURNS AND PRODUCE
EXPLOSIVE GASES.*

*If the acid has been splashed
on the skin, eyes or clothes
flush with copious amounts of
fresh water and seek
immediate medical aid.*

Check the battery as follows:

Wear protective gloves and goggles.

Clean the top of the battery filler plug area.

Remove the filler plugs and check that the electrolyte level is 6.0-9.0mm (0.25-0.37in) above the tops of the separators.

If necessary top up with distilled water.

In cold weather distilled water should only be added immediately before running the engine.

Replace and tighten the filler plugs.

Check that the terminal connections are tight; petroleum jelly will help to protect them from corrosion

Mixer drum assembly

The drum is manufactured in two halves joined together by a drum clip. This allows either half to be replaced separately.

Some export machines are delivered with the drum cone and blades detached. This is to aid shipping.

There are two methods of reassembling the two halves of the drum, they are:

1 Assembling drum using special clamping tool.

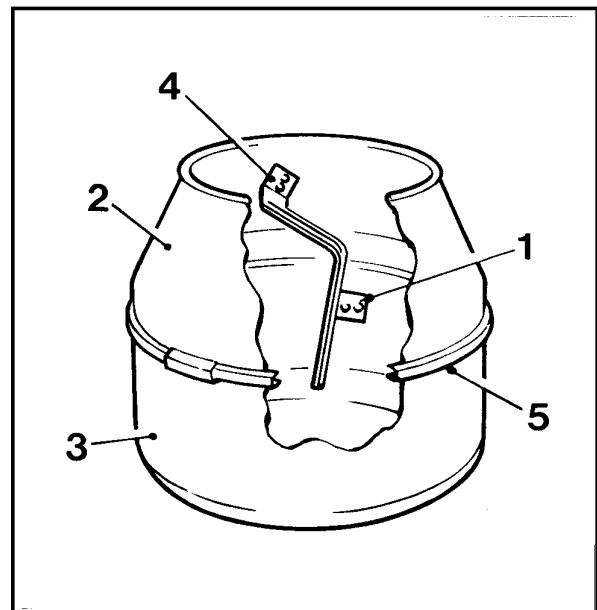
(The special clamping tool, part number 513204000 can be obtained from any Winget distributor.)

- A** Bolt the two blades into the drum base **(1)**. Tighten the bolts with fingers only.
- B** Smear silicone sealant around the mating flanges of the cone **(2)** and drum base **(3)**. (see 'Specifications' for mixer drum sealant)

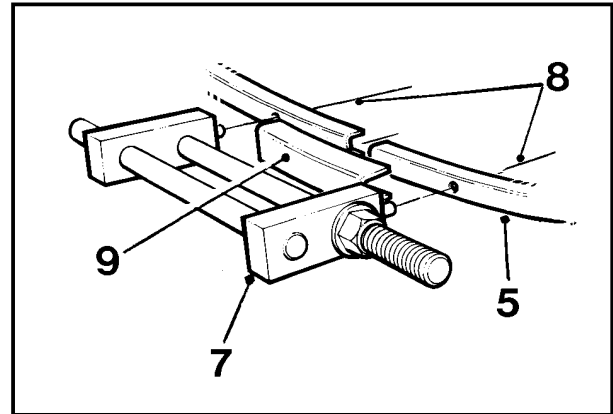
WARNING *When applying silicone sealer, prevent contact with skin by wearing suitable gloves.*



- C** Lift the cone **(2)** over the blades and position it on the drum base **(3)**.
- D** Turn the cone until the two holes at the top of each blade **(4)** align with the holes in the cone. Fit bolts and tighten with fingers only.
- E** Smear silicone sealant around the inside face of the drum clip **(5)** (leave 150mm each end of the clip clear of sealant to avoid risk of fire when welding).
- F** Locate the drum clip around the periphery of the drum base and cone flange.

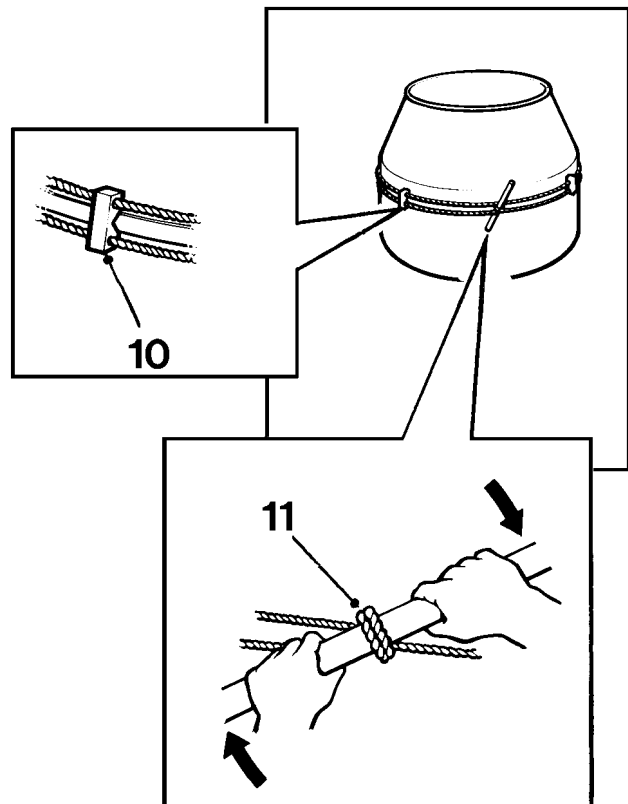


- G** Locate the clamping tool (7) into the two holes (8) of the drum clip. Tighten the tool securely using a suitable spanner.
- H** Centralise the bridge piece (9) on the drum clip between the jaws of the clamping tool.
- I** Weld the bridge piece (9) to the drum clip (5). Remove the clamping tool (7).
- J** Tighten securely all of the blade fixing bolts.



2 Assembling drum using a tourniquet.

- A** If the special clamping tool is not available a tourniquet can be used as illustrated by looping a length of rope through four blocks of wood (10), each block having a vee cut, and two holes to take the rope.
- B** Twist the rope around a bar (11) to tighten the drum clip.
- C** All other aspects of the assembly are the same as "Assembling the drum using special clamping tool".



Mixer drum drive overhaul

On reassembling the drum drive, after an overhaul, the following points must be observed:

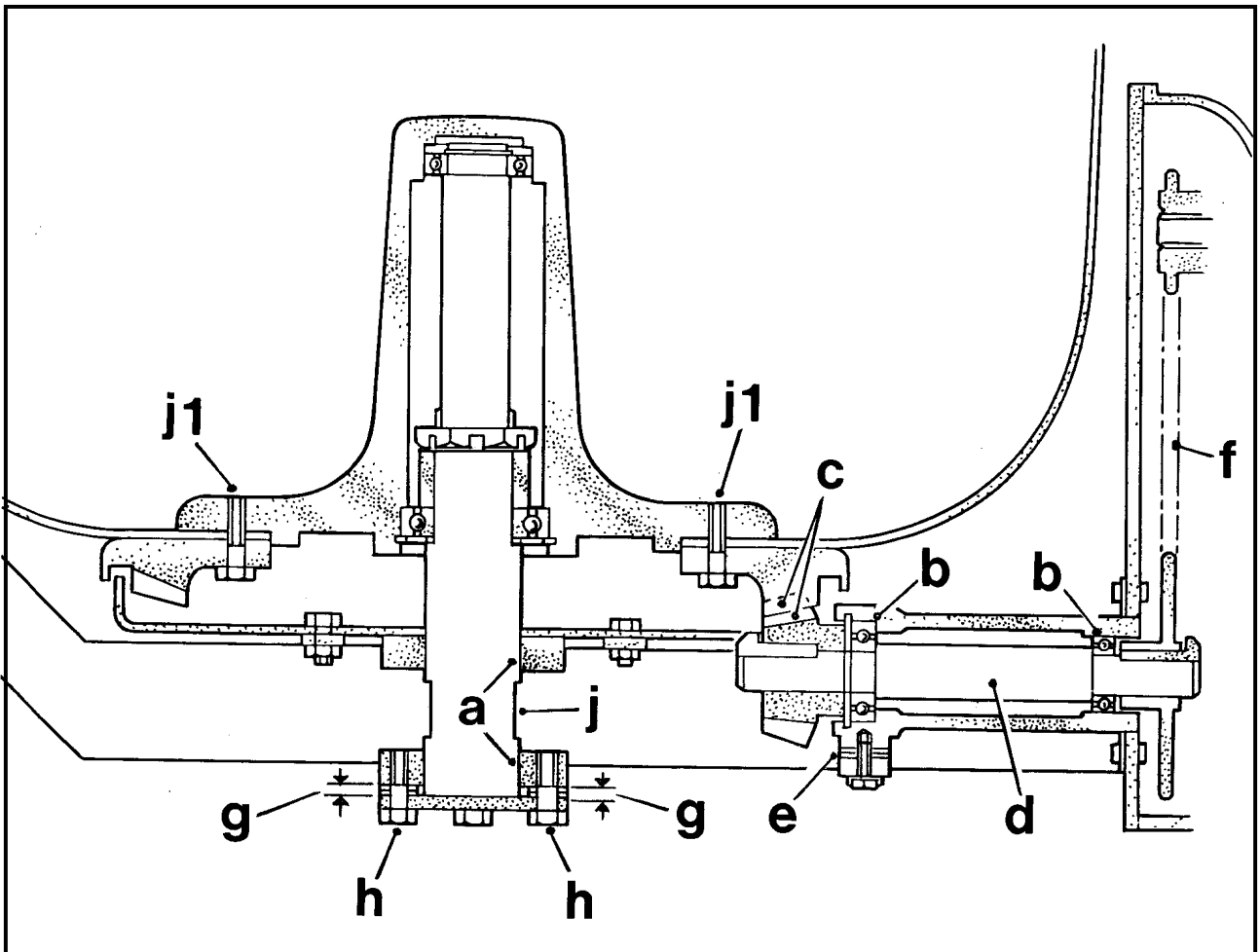
- A** Coat with an anti-seize compound the drum shaft (**j**) at points (**a**), and the screws (**j1**)
- B** The bearings (**b**) on either end of the bevel pinion shaft (**d**) are sealed for life and therefore require no maintenance.
- C** The bevel gears (**c**) are to be coated liberally with Open Gear Fluid.

D The bevel pinion assembly (**d**) must be set horizontally in the trunnion. Do this as follows:

Ensure that the drive chain (**f**) is correctly adjusted, then set the bevel pinion assembly (**d**) horizontal by adjusting shims (**e**).

E To adjust the mesh of the bevel pinion gears proceed as follows:


Allow the bevel gear to sit fully in mesh with the bevel pinion. Check the number of washers required to fill the gap (**g**) between the drum shaft flange and the trunnion face. Remove one washer from each side, fit screws (**h**) and tighten.



Suspension Units

Two wheeled mixers, "Fast tow"

The suspension units require no maintenance as they are a sealed unit. They have an internal construction of rubber rollers and have ends that are sealed with nylon bushes.

 **WARNING** *Do not subject suspension units to excessive heat (such as welding) as this could damage the rubber and nylon components.*

Before towing your mixer on the road:

Check wheel nuts for tightness.
Check that the wheel bearings have been greased and that the nuts and split pins have been inserted properly on to the ends of the stub axles.

To gain access to the wheel bearings remove the plastic or metal cap from the centre of the wheel. Do this by carefully prizing off the cap with a screwdriver or tapping it with a block of wood.

There are two types of hub bearings:

- 1 The ball race type has a spacer between the bearings. With this hub the nut has to be screwed up very tightly.
- 2 The taper roller type, where the nut must not be over tightened. There must be a small amount of end float (.004"). Usually it is sufficient to tighten the nut up fully, then unscrew it half a turn. Make sure that the split pin is then inserted.

Tyres

Check the tyres for wear, damage and deterioration.

Check tyre pressures only when the tyres are cold.

(see "specifications" section for tyre pressures)

Lubricants

Mixers are factory filled with the following TOTAL oils

| | | |
|--|----------------|--------------------|
| Engine, LT/LV1: lubricating oil | Rubia B 10W/30 | 1.3 litres |
| AC1-05: lubricating oil | Rubia B 10W/30 | 2.7 litres |
| Yanmar L40/L48: lubricating oil | Rubia B 10W/30 | 0.8 litre |
| Honda: lubricating oil | Rubia B 10W/30 | 0.6 litre |
| <i>Note: In cold weather engines are to be filled with 10W oil to aid starting</i> | | |
| LT/LV1: fuel | | 5.0 or 8.25 litres |
| AC1-05: fuel | | 5.1 litres |
| Yanmar L40/L48: fuel | | 2.5 litres |
| Honda: fuel | | 3.6 litres |

| | |
|------------------------|---------------------|
| Electric motor bearing | Multis EP 2 |
| Drive chains | Rubia B 20W/30 |
| Bevel gears | Open gear fluid |
| Drum shaft | Anti-seize compound |
| Grease nipples | Multis EP 2 |
| Linkages and hinges | Rubia B 20W/30 |

Noise levels of mixers. Measured in accordance with EC Directive 2000/14/EC
Models 100T, 150T and 175T

| | | |
|--------|---------|----------------------------|
| LPA 80 | LWA 101 | (All engines except Honda) |
| LPA 85 | LWA 101 | (Honda only) |

Drum speed

Handbrake

| | |
|--------|---|
| 22 rpm | Tested to hold on a 5° & 10° slope with 600Kg of test weights applied |
|--------|---|

Tyre pressures

| | |
|----------------------|---------------------------------|
| 50 lbin ² | (Two wheeled "Fast tow" mixers) |
|----------------------|---------------------------------|

Mixer drum sealant

| | |
|------------------|------------------------|
| Silicone sealant | (part number V2000772) |
|------------------|------------------------|

Engines and Motors

| | Lister-Petter | | | Yanmar | Honda | Electric motors |
|-------------|-------------------------|-------------------------|----------------------|-------------------|---------------------|---|
| | Standard | | Option | Option | Option | Option |
| | LT/LV1-10 @ 1000 rpm | LT/LV1-32 @ 1000 rpm | AC1-05 @ 1500 rpm | L40 @ 3000 rpm | GX160 @ 2850 rpm | 110v or 240v @ 1420 rpm |
| 100T | ----- | 0.76kW (1hp) | 2.05kW (2.75hp) | 2.5kW (3.4hp) | 3.4kW (4.5hp) | 0.75kW (1hp) 240v 1.1kW (1.5hp) 110v |
| 150T | ----- | 0.76kW (1hp) | 2.05kW (2.75hp) | 2.5kW (3.4hp) | 3.4kW (4.5hp) | 1.1kW (1.5hp) |
| 175T | 1.9kW (2.5hp) | ----- | 2.05kW (2.75hp) | 2.5kW (3.4hp) | 3.4kW (4.5hp) | 1.1kW (1.5hp) |

DIMENSIONS

Four wheel models

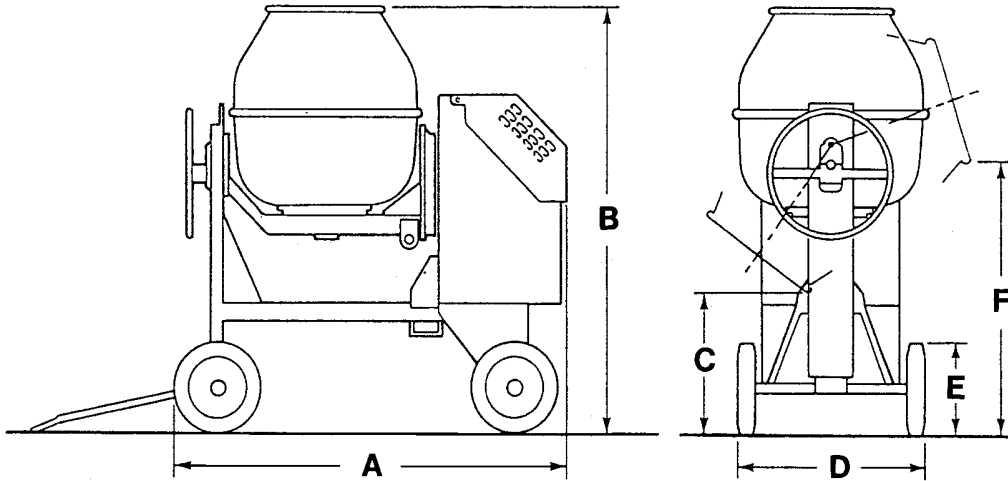
| | 100T | 150T | 175T |
|---|------|------|------|
| A | 1515 | 1650 | 1680 |
| B | 1560 | 1730 | 1780 |
| C | 520 | 555 | 520 |
| D | 800 | 800 | 800 |
| E | 355 | 355 | 355 |
| F | 1000 | 1100 | 1110 |

Weight (approx) LV1 Eng

| 100T | 150T | 175T |
|-------|-------|-------|
| 375kg | 425kg | 460kg |

Weight (approx) L48 Eng

| 100T | 150T | 175T |
|-------|-------|-------|
| 340kg | 400kg | 420kg |



Two wheel models

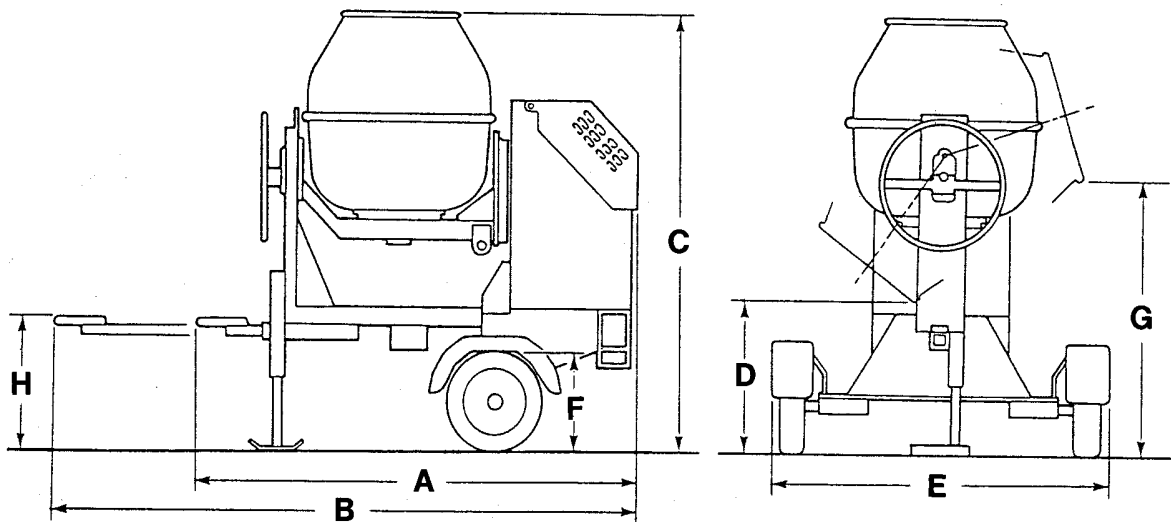
| | 100T | 150T | 175T |
|---|-------------|--------|------|
| A | 1805 | 1890 | 2060 |
| B | 2390 | 2490 | 2640 |
| C | 1610 | 1760 | 1840 |
| D | 565 | 600 | 590 |
| E | 1325 | 1325 | 1350 |
| F | 4.80/4.00-8 | 145R10 | |
| G | 1035 | 1140 | 1180 |
| H | 490 | 490 | 450 |

Weight (approx) LV1 Eng

| 100T | 150T | 175T |
|-------|-------|-------|
| 395kg | 445kg | 500kg |

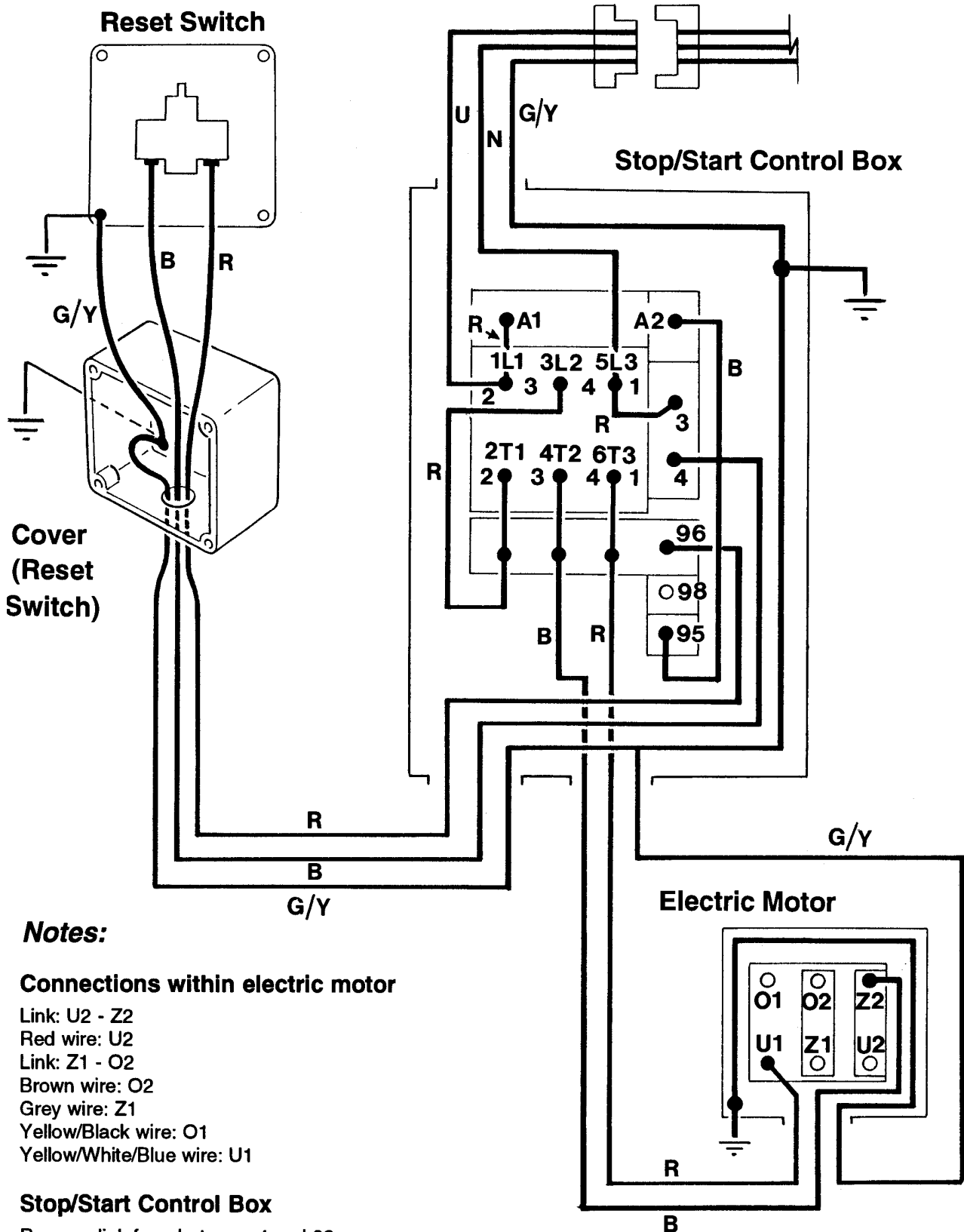
Weight (approx) L48 Eng

| 100T | 150T | 175T |
|-------|-------|-------|
| 365kg | 420kg | 460kg |



ELECTRICALLY DRIVEN MIXERS WIRING CIRCUIT

Electrical connections must only be made by a suitably qualified electrician.



Notes:

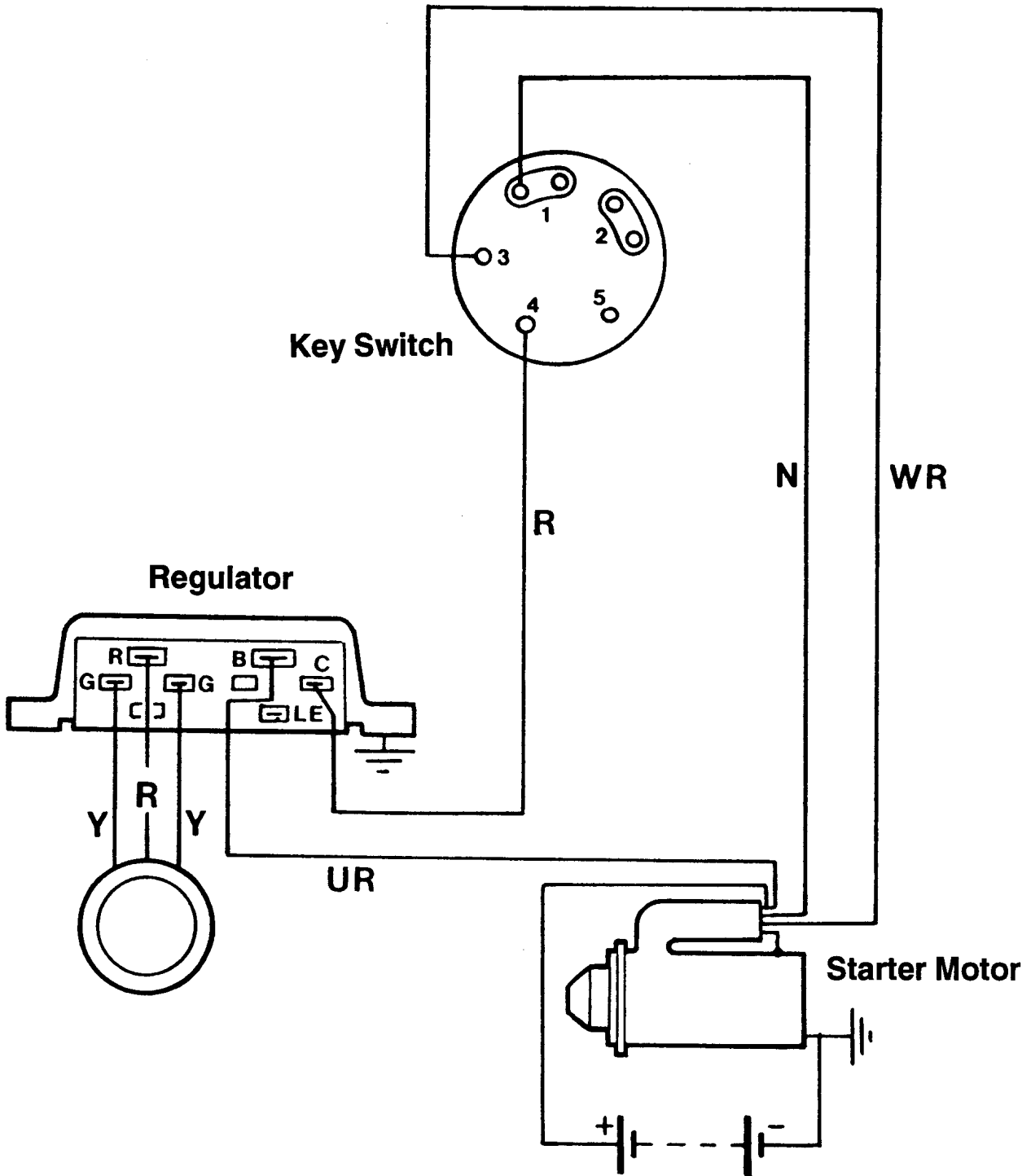
Connections within electric motor

- Link: U2 - Z2
- Red wire: U2
- Link: Z1 - O2
- Brown wire: O2
- Grey wire: Z1
- Yellow/Black wire: O1
- Yellow/White/Blue wire: U1

Stop/Start Control Box

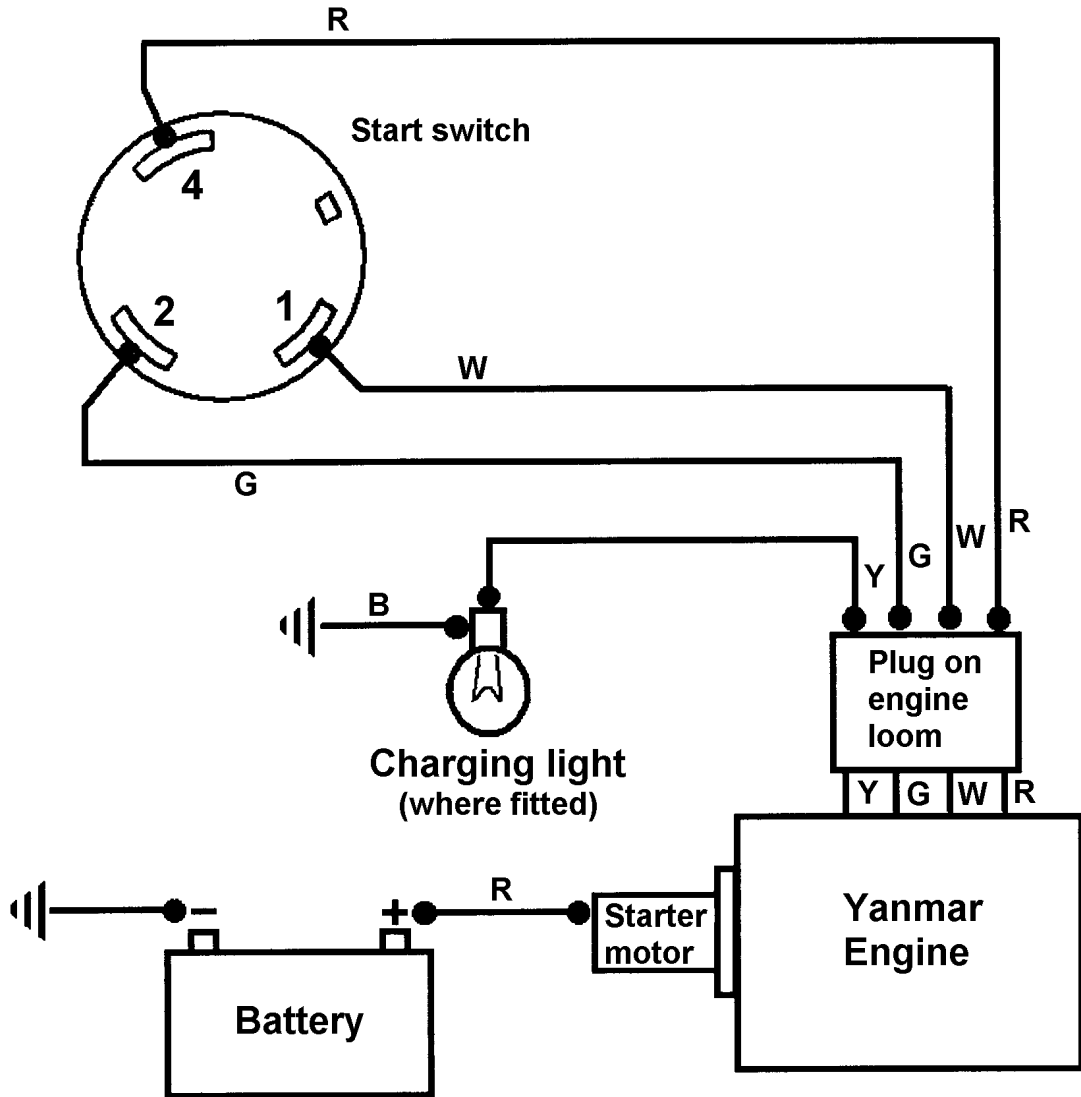
Remove link from between 4 and 96

LISTER-PETTER AC1-05 KEY START WIRING CIRCUIT



YANMAR L40/48 KEY START WIRING CIRCUIT

In addition to the circuit shown below, the engine is fitted with its own loom.
(see Yanmar service literature)



Wire colours

- R Red
- B Black
- G Green
- W White
- Y Yellow

NOTE: Wire identification

The red wire to the battery is much thicker than the red wire to the start switch.

PARTS

**Mixers built
UP TO
February 1988**

**Mixers built
FROM
February 1988**

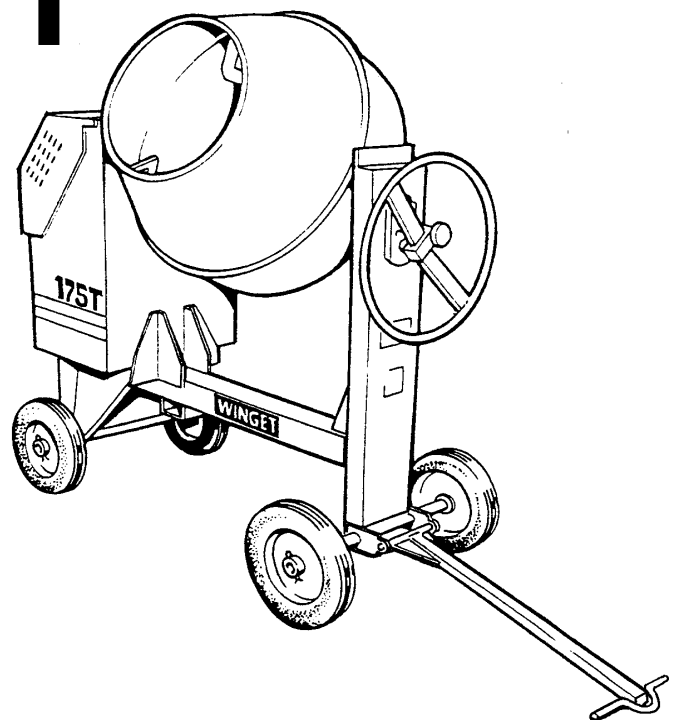
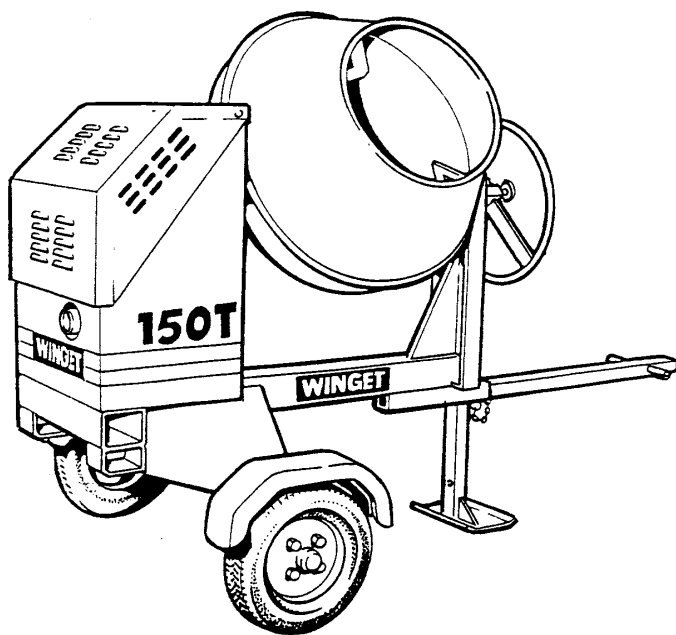
<<< To front of book

Mixers

100T

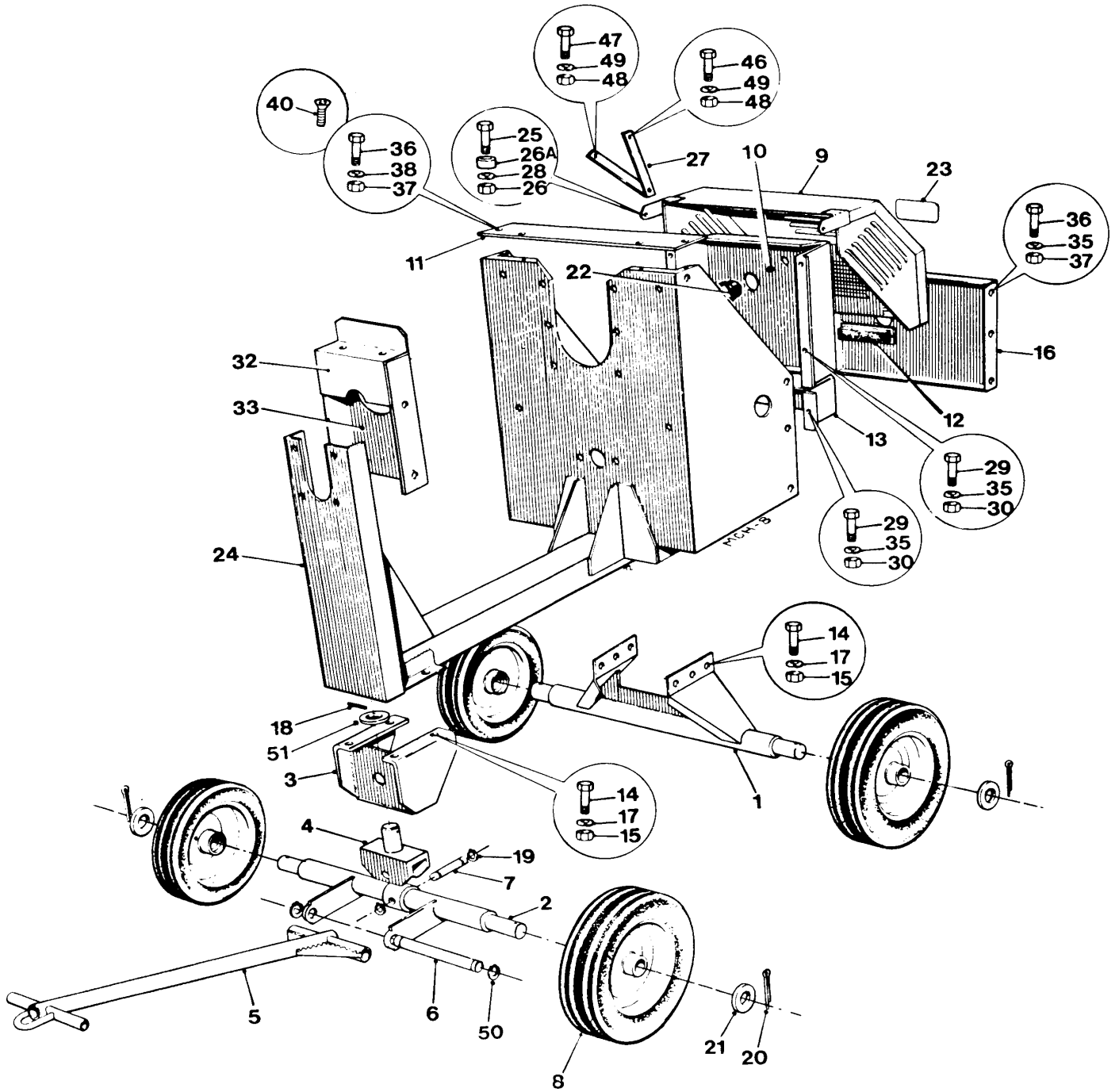
150T

175T



Mixers built UP TO February 1988

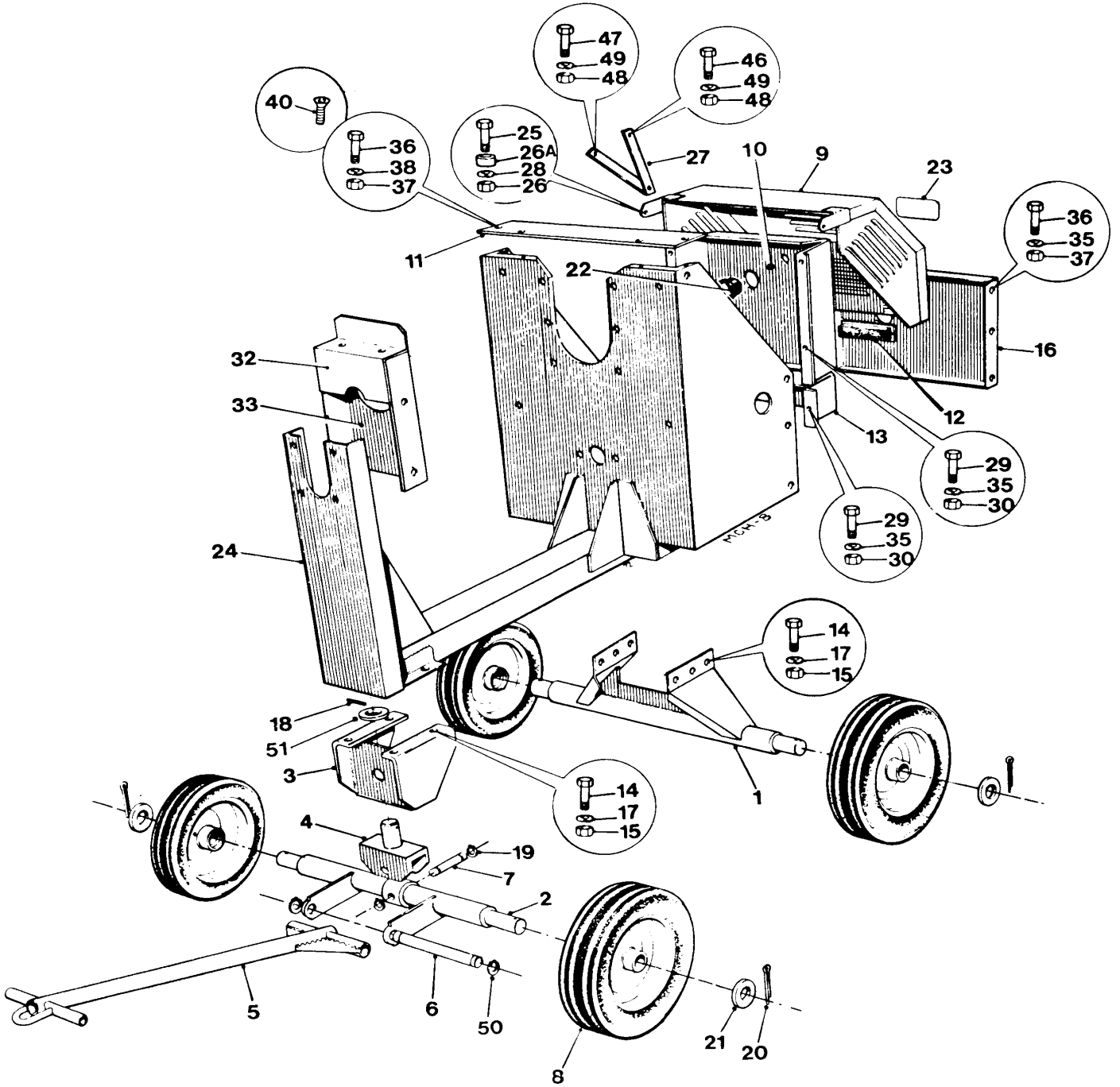
| | |
|---|---------------|
| FOUR WHEEL MAINFRAME | A - 1 |
| TWO WHEEL MAINFRAME, slow tow | A - 2 |
| TWO WHEEL MAINFRAME, fast tow | A - 3 |
| DRUM | B - 1A |
| TRUNNION & TILT WHEEL | B - 1B |
| DRUM DRIVE | B - 1C |
| LISTER DRIVE ASSEMBLY | C - 1 |
| PETTER DRIVE ASSEMBLY | C - 2 |
| HATZ DRIVE ASSEMBLY | C - 2A |
| ELECTRIC CHAIN DRIVE ASSEMBLY | C - 3 |
| ELECTRIC BELT DRIVE ASSEMBLY | C - 4 |
| START SWITCHES (electric belt drive) | C - 5 |
| DECALS & PLATE | D - 1 |
| SPECIAL TOOLS | D - 3 |
| NUMERICAL INDEX, up to February 1988 | INDEX |



FOUR WHEEL MAINFRAME & GUARDS

A - 1

| Item | Part no | Serial no | Description | Qty |
|--------------------------------------|-----------|-----------|--|-----|
| 100T | | | | |
| 1 | 513275100 | / Feb 88 | AXLE, rear | 1 |
| 2 | 513197900 | | AXLE, front | 1 |
| 150T & 175T | | | | |
| 1 | 513275200 | / Feb 88 | AXLE, rear, | 1 |
| 2 | 513203400 | | AXLE, front | 1 |
| 3 | 513274900 | | BRACKET, front axle swivel | 1 |
| 4 | 513154500 | | SWIVEL, front axle | 1 |
| 5 | 513154700 | | TOWBAR | 1 |
| 6 | 513154800 | | PIN, pivot, towbar | 1 |
| 7 | 513155000 | | PIN, pivot, front axle | 1 |
| 8 | 475106000 | | WHEEL, cushion tyred | 4 |
| Alternative wheel arrangement | | | | |
| 8 | 513198500 | | WHEEL, steel, 16" x 4" | 4 |
| 9 | 513286800 | | LID, engine housing | 1 |
| 10 | 513248700 | | GUARD, chain | 1 |
| 11 | 513287000 | | TOP PLATE, housing | 1 |
| 12 | 513205300 | | STOP, engine housing lid | 1 |
| 13 | 513205700 | | GUARD, sprocket (<i>Petter AC1ZS</i>) | 1 |
| 13 | 513266900 | | GUARD, sprocket (<i>Lister LT1</i>) | 1 |
| 13 | 513205600 | | GUARD, sprocket (<i>Electric 2.23hp</i>) | 1 |
| 13 | 513291000 | | GUARD, 'V' pulley (<i>Elec. 1hp & 1.5hp</i>) | 1 |
| 14 | 69S05E | | BOLT | 10 |
| 15 | 192S05 | | NUT | 10 |
| 100T | | | | |
| 16 | 513269900 | | PLATE, closing (<i>Petter AC1ZS</i>) | 1 |
| 16 | 513270000 | | PLATE, closing (<i>Lister LT1</i>) | 1 |
| 16 | 513270100 | | PLATE, closing (<i>Electric 2.23hp</i>) | 1 |
| 16 | 513269900 | | PLATE, closing (<i>Electric 1hp</i>) | 1 |
| 150T & 175T | | | | |
| 16 | 513270200 | | PLATE, closing (<i>Petter AC1ZS</i>) | 1 |
| 16 | 513270300 | | PLATE, closing (<i>Lister LT1</i>) | 1 |
| 16 | 513270400 | | PLATE, closing (<i>Electric 2.23hp</i>) | 1 |
| 16 | 513270200 | | PLATE, closing (<i>Electric 1hp & 1.5hp</i>) | 1 |
| 17 | 10S04 | | WASHER, flat | 10 |
| 18 | 353830650 | | PIN, spirol | 1 |
| 19 | 132412010 | | CIRCLIP | 4 |
| 20 | 44S05K | | PIN, split | 4 |
| 21 | 10S20 | | WASHER, flat | 4 |

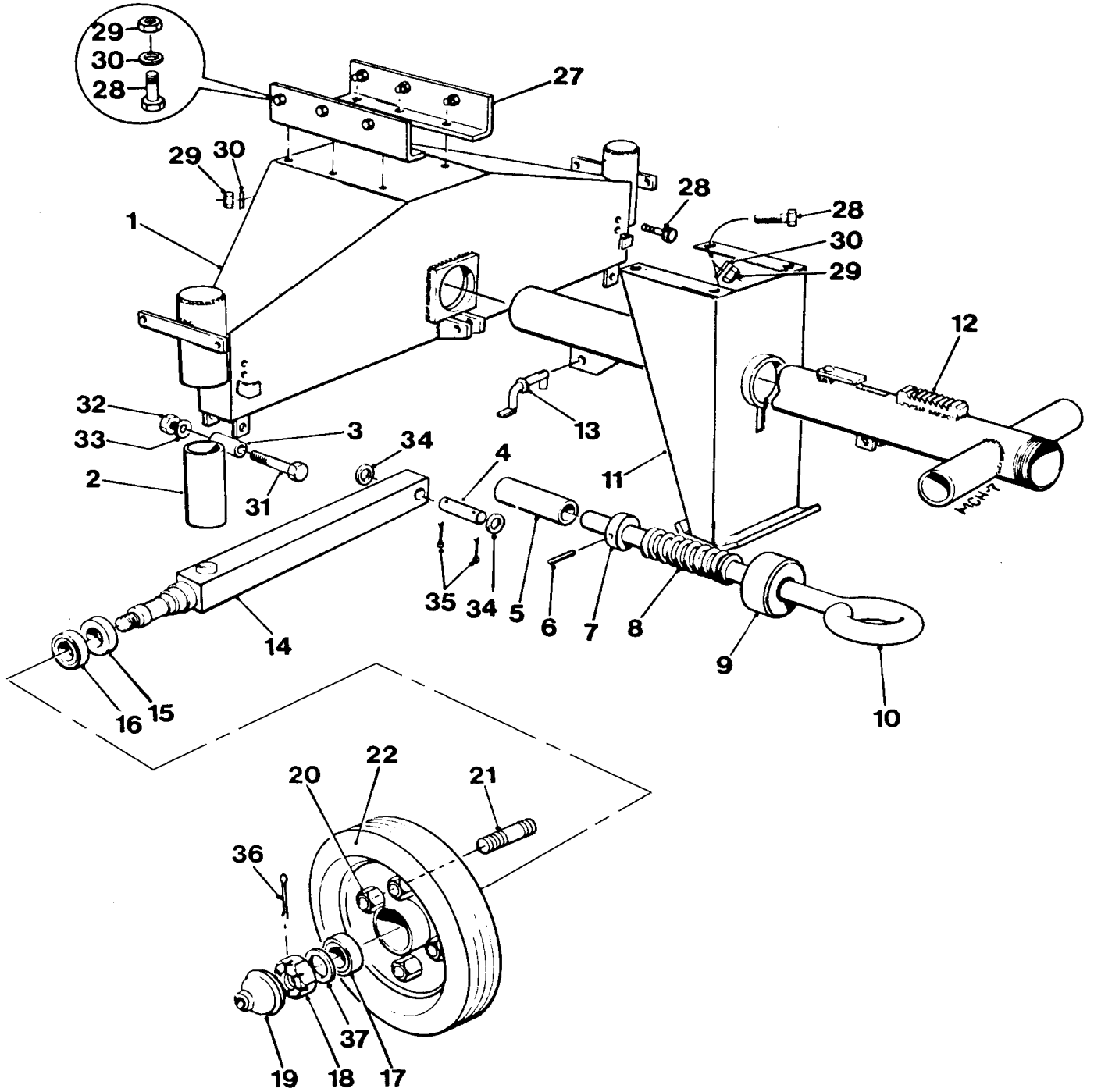


FOUR WHEEL MAINFRAME & GUARDS

A - 1

| Item | Part no | Serial no | Description | Qty |
|------------------------|-----------|------------------|--|-----|
| 22 | 241859000 | | PLUG, polythene | 1 |
| 23 | 504600900 | | DECAL (see page D - 1) | 1 |
| 24 | 513268400 | | MAINFRAME, 100T | 1 |
| 24 | 513269400 | | MAINFRAME, 150T & 175T | 1 |
| 25 | 11S04C | | SCREW, set | 2 |
| 26 | 7S01 | | NUT | 2 |
| 26A | 513340800 | | SPACER | 1 |
| 100T | | | | |
| 27 | 513280600 | / 999 \$ | STAY, housing lid | 1 |
| 27 | 513287200 | \$ 1000 / Feb-88 | STAY, housing lid | 1 |
| 150T & 175T | | | | |
| 27 | 513280600 | / 499 \$ | STAY, housing lid | 1 |
| 27 | 513287200 | \$ 500 / Feb-88 | STAY, housing lid | 1 |
| 28 | 17S05 | | WASHER, spring | 2 |
| 29 | 66S03CC | | SCREW, set | 6 |
| 30 | 104S03 | | NUT | 10 |
| | 513198400 | | GUARD, tilt wheel, assembly | 1 |
| 32 | 513198402 | | GUARD, upper | 1 |
| 33 | 513198401 | | GUARD, lower | 1 |
| 34 | 332719000 | | NUT, captive | 2 |
| - | 513285000 | | BRACKET, starting handle (not illustrated) | 1 |
| 35 | 41S05 | | WASHER, spring | 12 |
| 36 | 66S02BB | | SCREW, set | 12 |
| 37 | 104S02 | | NUT | 12 |
| 38 | 41S04 | | WASHER, spring | 12 |
| 40 | 206S03C | | SCREW, c'sunk socket head | 2 |
| 41 | 104S01 | | NUT | 4 |
| 42 | 7S02 | | NUT | 2 |
| 43 | 41S03 | | WASHER, spring | 6 |
| 44 | 200S03G | | SCREW | 2 |
| 45 | 66S03CC | | SCREW, set | 4 |
| 46 | 6S02Z | | BOLT | 1 |
| 47 | 6S02C | | BOLT | 1 |
| 48 | 87S02 | | NUT, binx | 2 |
| 49 | 10S02 | | WASHER, flat | 2 |
| 50 | 132412010 | | CIRCLIP | 2 |
| 51 | 10S09 | | WASHER, flat | 1 |

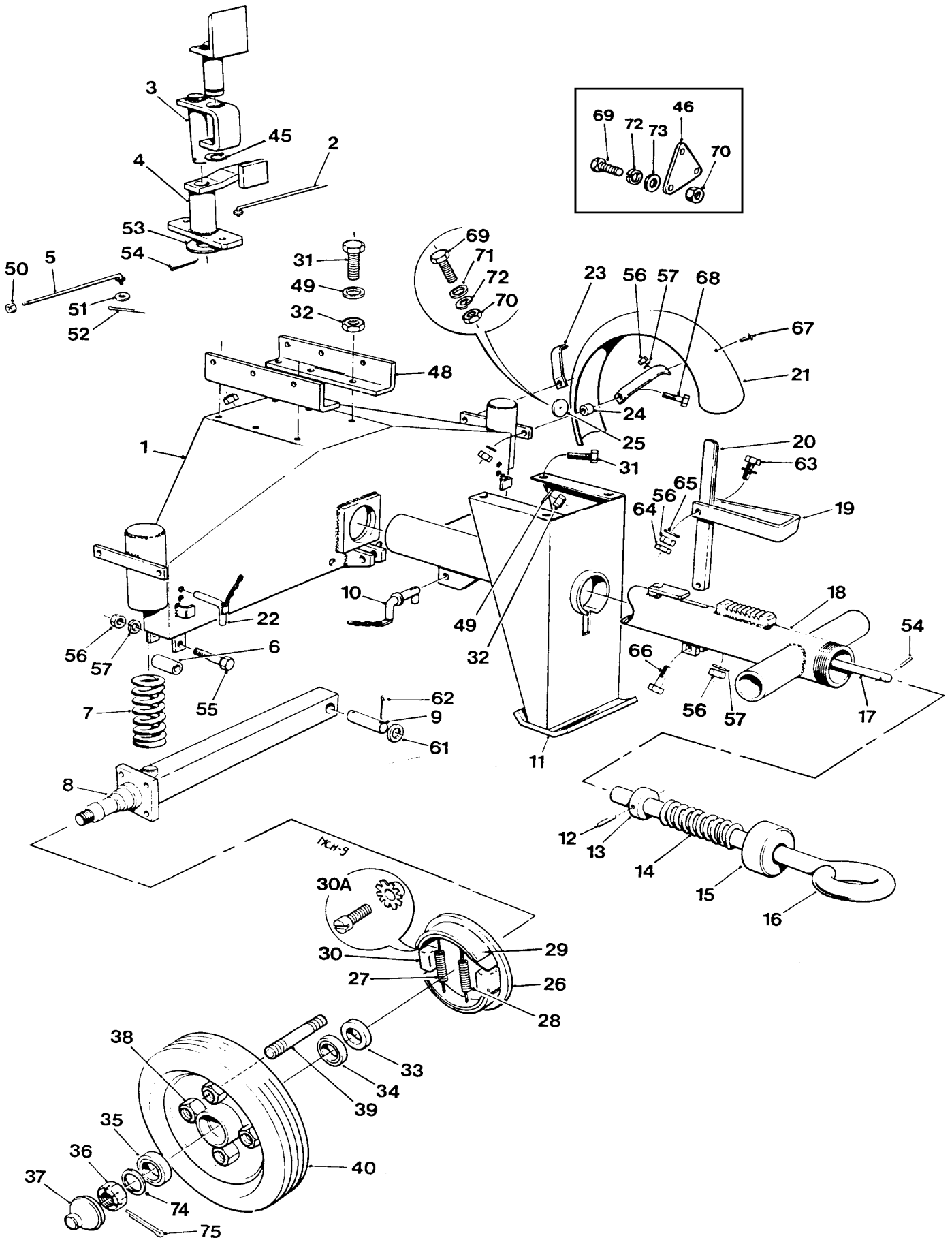
\$ Machine serial numbers



TWO WHEEL MAINFRAME, slow tow

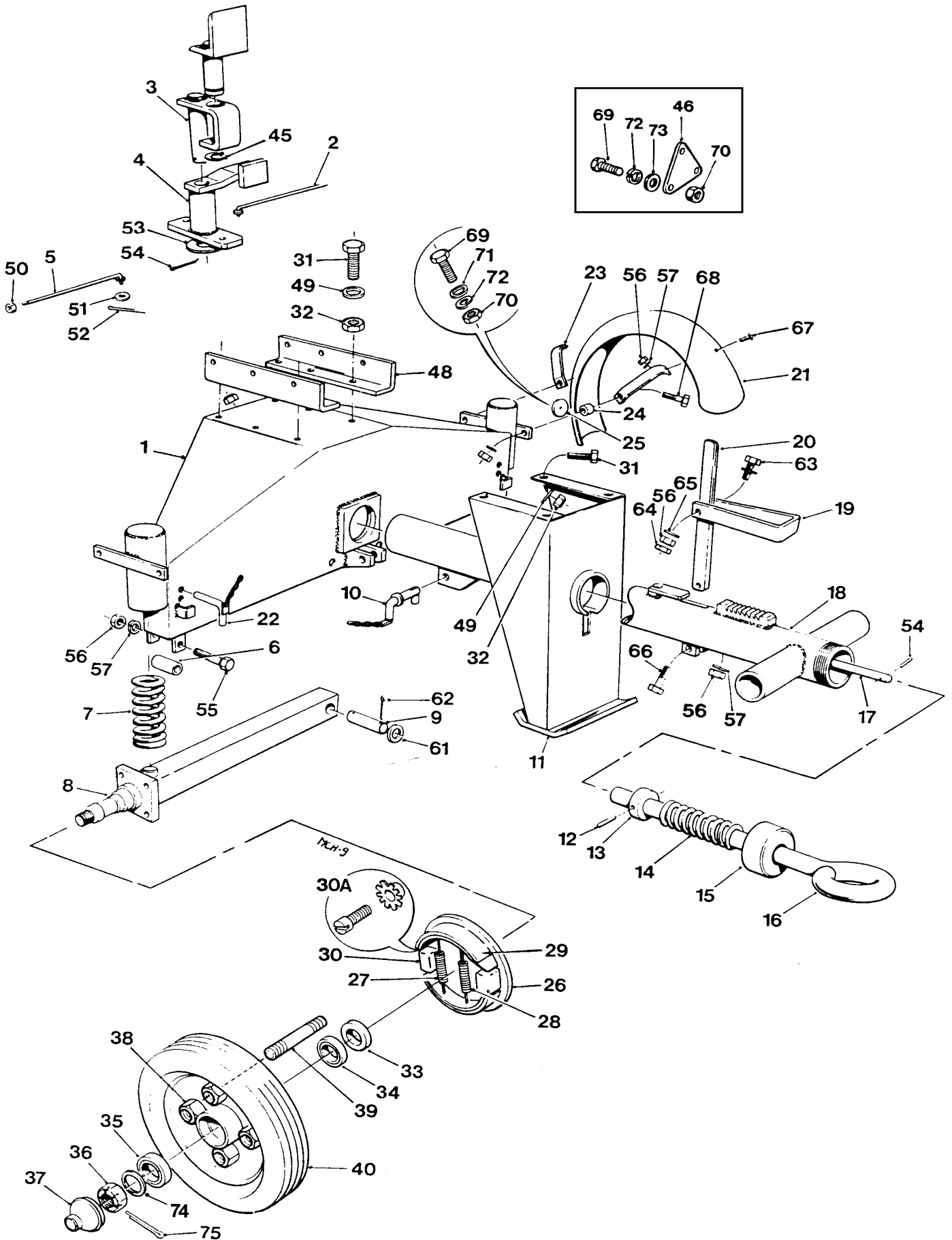
A - 2

| Item | Part no | Serial no | Description | Qty |
|------|------------|-----------|-----------------------------|-----|
| 1 | 513276400 | / Feb 88 | AXLE | 1 |
| 2 | 513169500 | | SPACER, axle | 2 |
| 3 | 513168900 | | SPACER, stub axle retaining | 2 |
| 4 | 513168500 | | PIN, pivot | 2 |
| 5 | 513169600 | | SPACER, towbar | 1 |
| 6 | 352410120 | | PIN, mills | 1 |
| 7 | 501386200 | | COLLAR, towing rod | 1 |
| 8 | 501362300 | | SPRING, compression | 1 |
| 9 | 513169200 | | CAP, end | 1 |
| 10 | 513169400 | | ROD, towing | 1 |
| 11 | 513167700 | | LEG, support | 1 |
| 12 | 513167400 | | TOWBAR | 1 |
| 13 | 513167600 | | PIN, drop nose | 1 |
| 14 | 513236500 | | STUB AXLE | 2 |
| 15 | 475117019 | | SEAL, oil | 2 |
| 16 | 475117006 | | BEARING, roller taper | 2 |
| 17 | 30097A0140 | | BEARING, roller taper | 2 |
| 18 | 475117024 | | NUT, slotted | 2 |
| 19 | 475117004 | | HUB CAP | 2 |
| 20 | 475117002 | | NUT, wheel | 8 |
| 21 | 475117003 | | STUD, wheel | 8 |
| 22 | 475117021 | | WHEEL, assembly | 2 |
| - | - | | RIM, wheel (order assembly) | 2 |
| - | 475118002 | | HUB | 2 |
| - | 475117007 | | TYRE | 2 |
| - | 475117008 | | TUBE | 2 |
| 27 | 513275900 | | SUPPORT, axle | 1 |
| 28 | 69S05E | | SCREW, set | 16 |
| 29 | 192S05 | | NUT, binx | 16 |
| 30 | 10S04 | | WASHER, flat | 16 |
| 31 | 69S03M | | SCREW, set | 2 |
| 32 | 104S03 | | NUT | 2 |
| 33 | 41S05 | | WASHER, spring | 2 |
| 34 | 10S06 | | WASHER, flat | 4 |
| 35 | 44S03G | | PIN, split | 4 |
| 36 | 44S03C | | PIN, split | 2 |
| 37 | 10S05 | | WASHER, flat | 2 |



TWO WHEEL MAINFRAME, fast tow

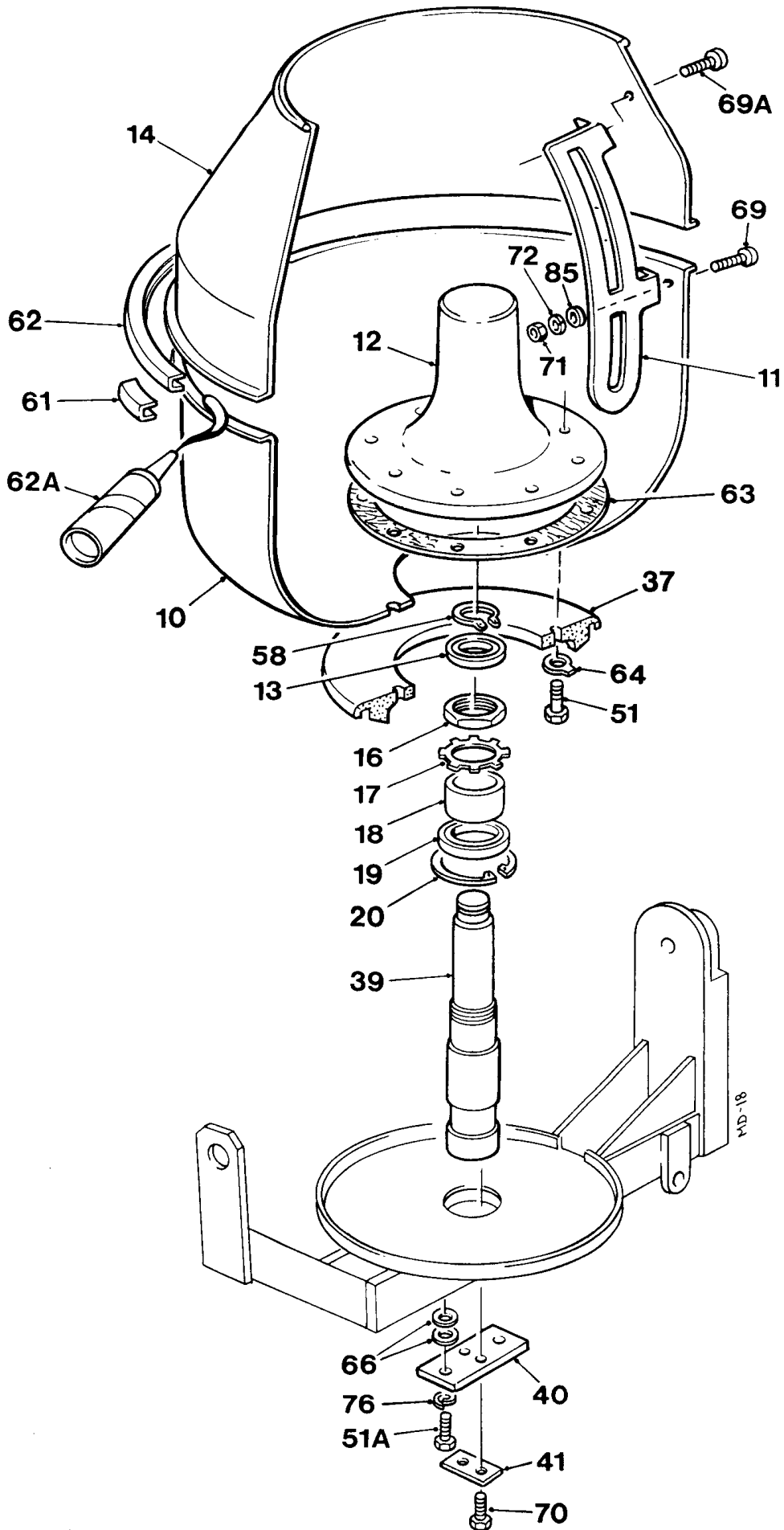
| Item | Part no | Serial no | Description | Qty |
|-------|------------|-----------|--|-------|
| 1 | 513276400 | / Feb 88 | AXLE | 1 |
| 2 | 513209900 | | ROD, brake, nearside | 1 |
| 3 | 513169000 | | ARM, compensating | 1 |
| 4 | 513209800 | | ARM,, brake operating | 1 |
| 5 | 513210000 | | ROD, brake, offside | 1 |
| 6 | 513168900 | | SPACER, stub axle retaining | 2 |
| 7 | 513169100 | | SPRING, suspension | 2 |
| 8 | 513236701 | | STUB AXLE, L.H. (illustrated) | 1 |
| ..... | 513236702 | | STUB AXLE, R.H. (not illustrated) | 1 |
| 9 | 513168500 | | PIN, pivot, stub axle | 2 |
| 10 | 513167600 | | PIN, drop end | 1 |
| 11 | 513167700 | | LEG, support | 1 |
| 12 | 352410120 | | PIN, mills | 1 |
| 13 | 501386200 | | COLLAR, towing rod | 1 |
| 14 | 501362300 | | SPRING, compression | 1 |
| 15 | 513169200 | | CAP, end | 1 |
| 16 | 513169400 | | ROD, towing, straight | 1 |
| 17 | 513168800 | | ROD, push | 1 |
| 18 | 513167400 | | TOWBAR | 1 |
| 19 | 513168700 | | RETAINER, handbrake | 1 |
| 20 | 513168600 | | HANDBRAKE | 1 |
| 21 | 513167900 | | MUDGUARD | 2 |
| 22 | 513167500 | | PIN & CHAIN, stabiliser | 2 |
| 23 | 513168200 | | SUPPORT, mudguard | 4 |
| 24 | 513237100 | | SPACER | 4 |
| 25 | 386102000 | | REFLECTOR, round | 2 |
| - | 475117010 | | BRAKE ASSEMBLY, R.H. (illustrated) | 1 |
| - | 475117011 | | BRAKE ASSEMBLY, L.H. (not illustrated) | 1 |
| 26 | 475117012 | | BACK PLATE, R.H. (illustrated) | 1 |
| - | 475117013 | | BACK PLATE (not illustrated) | 1 |
| 27 | 475117014 | | SPRING, pull off | 2 |
| 28 | 475117015 | | SPRING, pull off | 2 |
| 29 | 475117016 | | BRAKE SHOE (set of 2) | set 2 |
| 30 | 475117017 | | EXPANDER, R.H. (illustrated) | 1 |
| - | 475117018 | | EXPANDER, L.H. (not illustrated) | 1 |
| 30A | V600164 | | ADJUSTER | 1 |
| 31 | 69S05E | | BOLT | 16 |
| 32 | 192S05 | | NUT, binx | 16 |
| 33 | 475117019 | | SEAL, oil | 2 |
| 34 | 475117006 | | BEARING, roller taper | 2 |
| 35 | 30097A0140 | | BEARING, roller taper | 2 |



TWO WHEEL MAINFRAME, fast tow

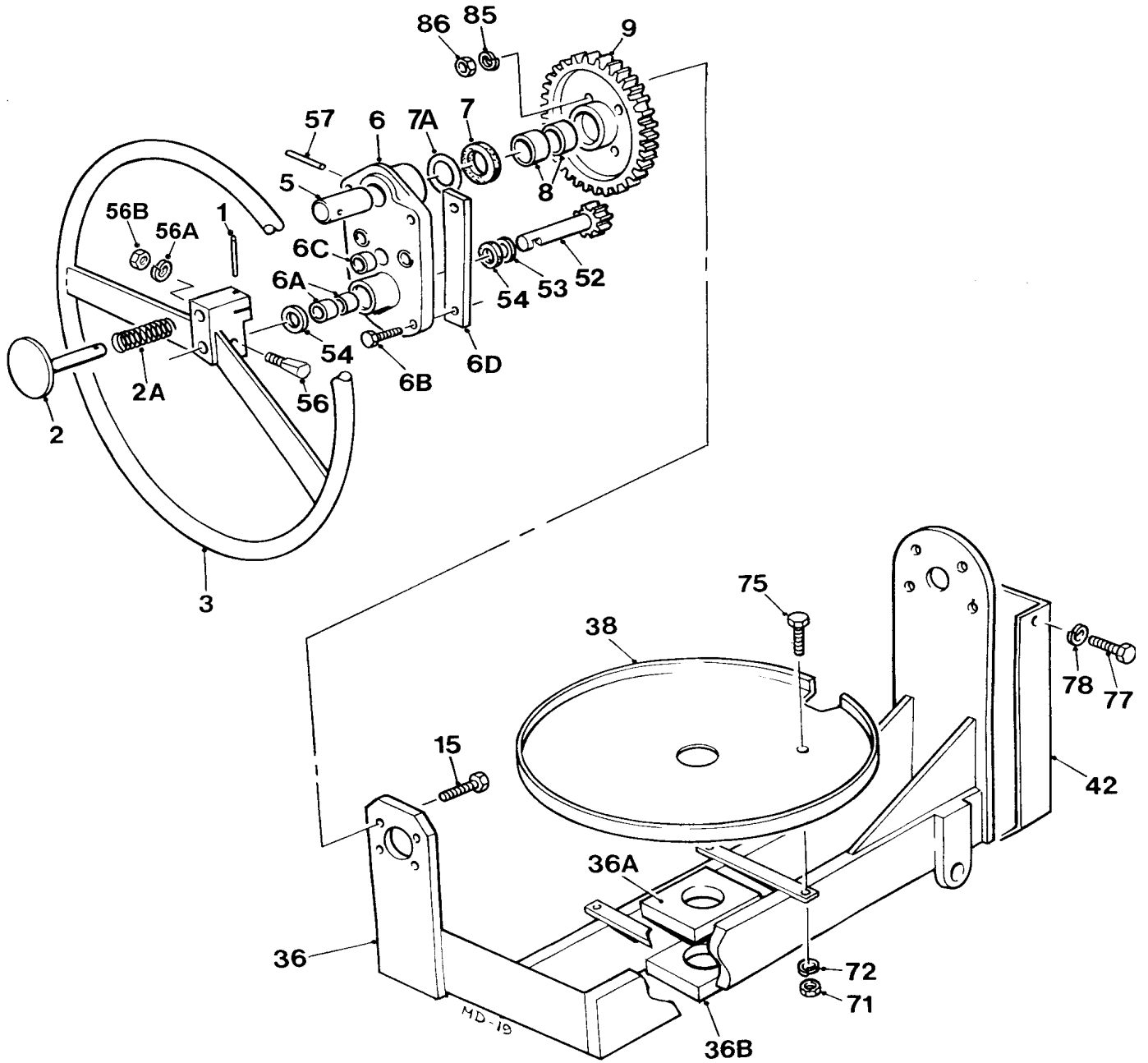
A - 3

| Item | Part no | Serial no | Description | Qty |
|-------|-----------|-----------|--|-----|
| 36 | 475117020 | | NUT, slotted | 2 |
| 37 | 475117004 | | HUB CAP | 2 |
| 38 | 475117002 | | NUT, wheel | 8 |
| 39 | 475117003 | | STUD, wheel | 8 |
| 40 | 475117000 | | WHEEL, assembly | 2 |
| ..... | ..... |  | RIM, wheel (<i>order assembly</i>) | 2 |
| ..... | 475118001 | | HUB, wheel | 2 |
| ..... | 475117007 | | TYRE | 2 |
| ..... | 475117008 | | TUBE | 2 |
| 45 | 142324000 | | CIRCLIP | 1 |
| 46 | 332119000 | | REFLECTOR, triangular (<i>fitted as alternative to item 25</i>) | 2 |
| 48 | 513275900 | / Feb-88 | SUPPORT, axle | 2 |
| 49 | 10S04 | | WASHER, flat | 16 |
| 50 | 95S02 | | NUT, locking | 2 |
| 51 | 10S02 | | WASHER, flat | 2 |
| 52 | 44S02B | | PIN, split | 2 |
| 53 | 10S05 | | WASHER, flat | 1 |
| 54 | 44S03E | | PIN, split | 2 |
| 55 | 69S03M | | BOLT | 2 |
| 56 | 104S03 | | NUT | 13 |
| 57 | 41S05 | | WASHER, spring | 11 |
| 58 | 66S02CC | | BOLT | 8 |
| 59 | 192S02 | | NUT, binx | 8 |
| 60 | 41S04 | | WASHER, spring | 8 |
| 61 | 10S06 | | WASHER, flat | 4 |
| 62 | 44S03G | | PIN, split | 4 |
| 63 | 69S03H | | BOLT | 2 |
| 64 | 203S04 | | NUT, locking | 2 |
| 65 | 10S03 | | WASHER, flat | 2 |
| 66 | 66S03C | | BOLT | 2 |
| 67 | 200S03G | | SCREW | 4 |
| 68 | 69S03G | | BOLT | 4 |
| 69 | 284S03E | | SCREW | 5 |
| 70 | 83S03 | | NUT | 5 |
| 71 | 10S73 | | WASHER, flat | 2 |
| 72 | 41S02 | | WASHER, spring | 5 |
| 73 | 463504000 | | WASHER, rubber | 3 |
| 74 | 10S05 | | WASHER, flat | 2 |
| 75 | 44S03C | | PIN, split | 2 |



DRUM**B - 1A**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------------------------|------------|
| 10 | 513152901 | | BASE, drum, 100T | 1 |
| 10 | 513161001 | | BASE, drum, 150T & 175 | 1 |
| 11 | 513151100 | | BLADE, mixing, 100T | 2 |
| 11 | 513157500 | | BLADE, mixing, 150T & 175 | 2 |
| 12 | 513149600 | | DRUM CENTRE | 1 |
| 13 | 88S07D | | BEARING | 1 |
| 14 | 513152902 | | CONE, drum, 100T | 1 |
| 14 | 513161002 | | CONE, drum, 150T | 1 |
| 14 | 513203202 | | CONE, drum, 175T | 1 |
| 16 | 513208800 | | NUT, locking | 1 |
| 17 | 22096210 | | WASHER, locking | 1 |
| 18 | 513152300 | | DISTANCE PIECE, drum shaft | 1 |
| 19 | 88S20D | | BEARING | 1 |
| 20 | 132390000 | | CIRCLIP | 1 |
| 37 | 513150100 | | BEVEL GEAR, drum | 1 |
| 39 | 513152200 | | SHAFT, drum | 1 |
| 40 | 513152000 | | FLANGE, drum shaft | 1 |
| 41 | 513152100 | | WASHER, tab | 1 |
| 51 | 66S05D | | SCREW | 8 |
| 51A | 28S05G | | SCREW | 2 |
| 58 | 142330000 | | CIRCLIP | 1 |
| 61 | 513203900 | | BRIDGE PIECE, 100T | 1 |
| 61 | 513203800 | | BRIDGE PIECE, 150T & 175T | 1 |
| 62 | 513203600 | | CLIP, drum, 100T | 1 |
| 62 | 513203100 | | CLIP, drum, 150T & 175T | 1 |
| 62A | V2000772 | | SEALANT | tube 1 |
| 63 | 513202800 | | GASKET | 1 |
| 64 | 513199800 | | WASHER, tab | 6 |
| 66 | 10S04 | | WASHER, flat | AR |
| 69 | 200S03E | | SCREW, blade upper, 100T | 4 |
| 69A | 200S03G | | SCREW, blade lower, 100T | 4 |
| 69 | 200S03G | | SCREW, 150T & 175T | 8 |
| 70 | 28S05G | | SCREW | 2 |
| 71 | 104S03 | | NUT | 8 |
| 72 | 41S05 | | WASHER, spring | 8 |
| 76 | 41S07 | | WASHER, spring | 2 |
| 85 | 10S03 | | WASHER, flat | 13 |



TRUNNION & TILT WHEEL

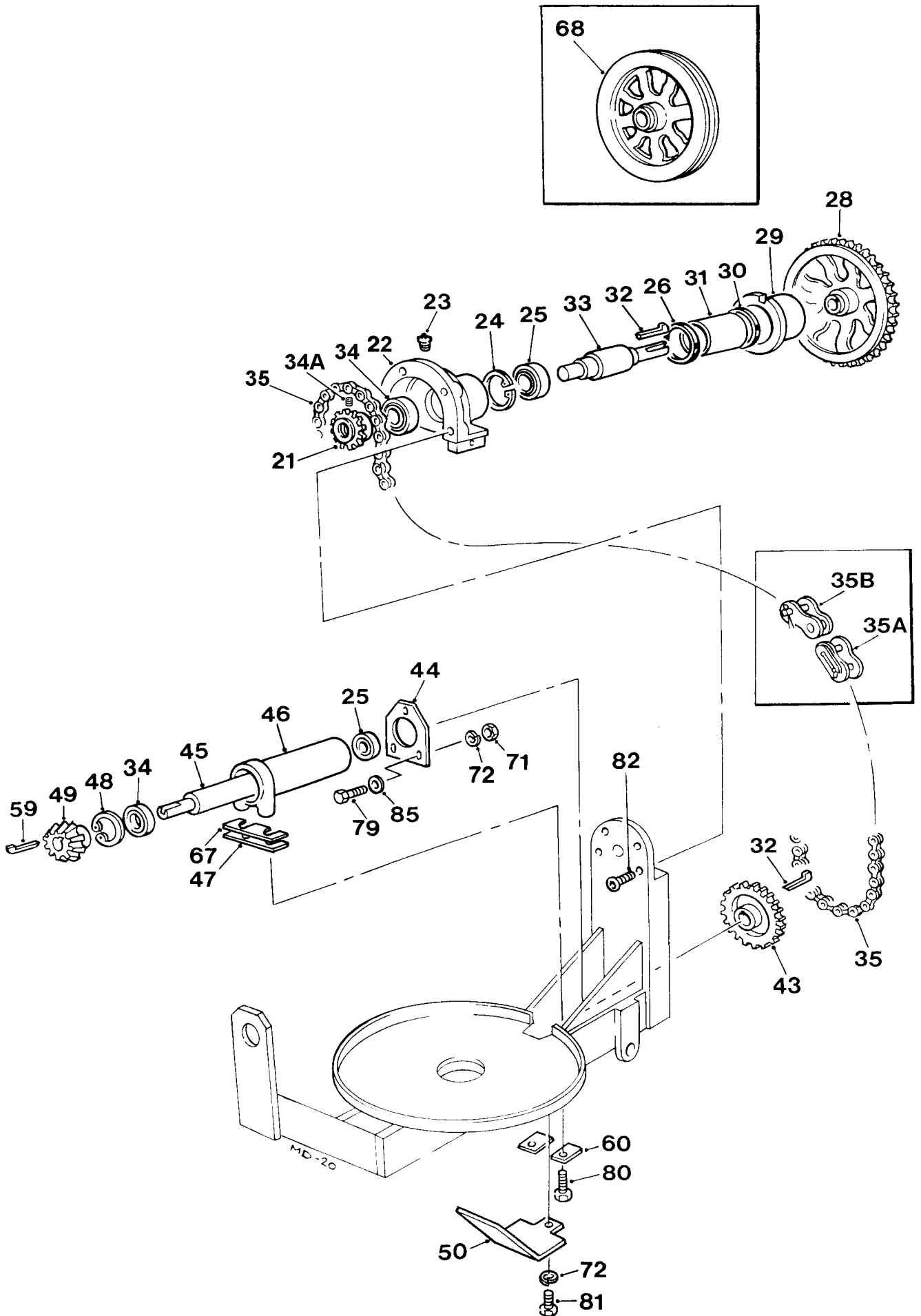
B - 1B

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|--|-----|
| 1 | 54S01A | | PIN, spirol | 1 |
| 2 | 513194400 | | PLUNGER, locking | 1 |
| 2A | 513345300 | | SPRING | 1 |
| 3 | 513194500 | | HANDWHEEL | 1 |
| 5 | 513151000 | | STUB, trunnion journal | 1 |
| - | 513149400 | | BRACKET, tilting, assembly | 1 |
| 6 | - | | BRACKET, tilting (<i>order assembly</i>) | 1 |
| 6A | 112821000 | | BUSH | 2 |
| 6B | 103S04C | | SCREW, socket head cap | 4 |
| 6C | 114625320 | | BUSH | 3 |
| 6D | 513212300 | | RETAINING BAR, tilting bracket | 2 |
| 7 | 225520280 | | FELT SEAL | 1 |
| 7A | 10S09 | | WASHER, flat | AR |
| 8 | 112820000 | | BUSH | 2 |
| 9 | 513149300 | | GEAR, tilting | 1 |
| | 145226000 | | PLUG, core (<i>not illustrated</i>) | 1 |
| 15 | 6S03E | | BOLT | 4 |
| 36 | 513211400 | | TRUNNION, 100T | 1 |
| 36 | 513211500 | | TRUNNION, 150T & 175T | 1 |
| 36A | 513212000 | | PLATE, upper (<i>welded</i>) | 1 |
| 36B | 513212000 | | PLATE, lower (<i>welded</i>) | 1 |
| 38 | 513153000 | | GUARD, bevel gear | 1 |
| 42 | 513152700 | | GUARD, chain, 100T | 1 |
| 42 | 513203300 | | GUARD, chain, 150T & 175T | 1 |
| 52 | 513151500 | | PINION, tilting | 1 |
| 53 | 10S18 | | WASHER, flat | 1 |
| 54 | 225514220 | | WASHER, felt | 2 |
| 56 | 513151400 | | PIN, cotter | 1 |
| 56A | 41S05 | | WASHER, spring | 1 |
| 56B | 2S04 | | NUT | 1 |
| 57 | 55S07Q | | PIN, spirol | 1 |
| 71 | 104S03 | | NUT | 4 |
| 72 | 41S05 | | WASHER, spring | 4 |
| 75 | 66S03CC | | SCREW, set | 4 |
| 77 | 66S02CC | | SCREW, set | 2 |
| 78 | 41S04 | | WASHER, spring | 2 |
| 85 | 10S03 | | WASHER, flat | 4 |
| 86 | 107S14 | | NUT, 'Nyloc' self-locking | 4 |

B - 1C

100T, 150T & 175T Mixers

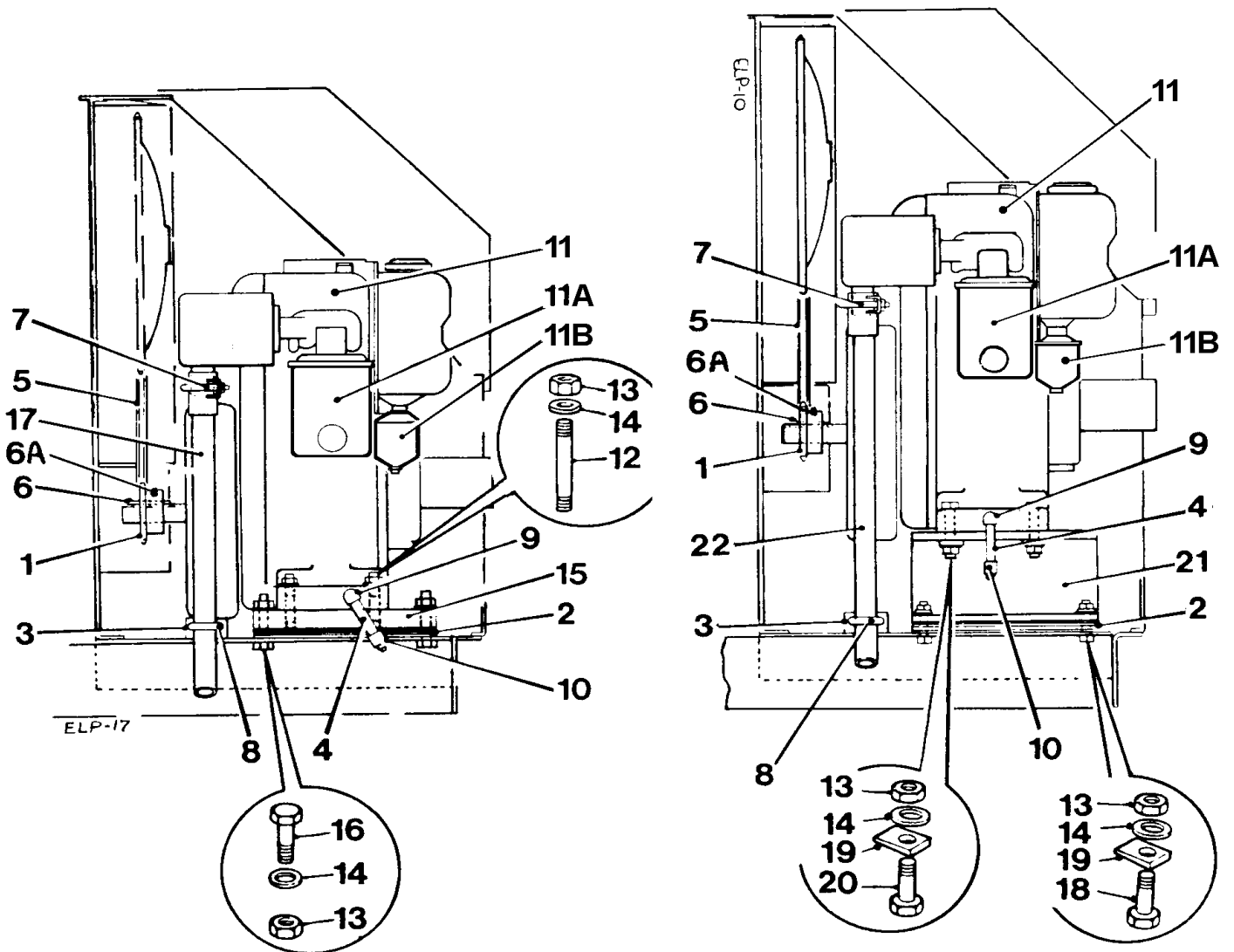
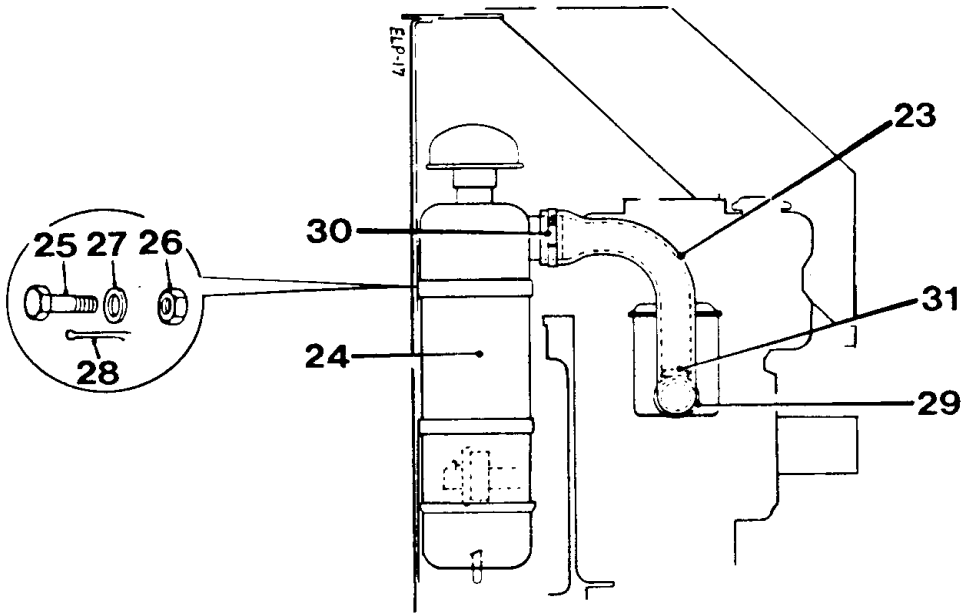
up to February 1988



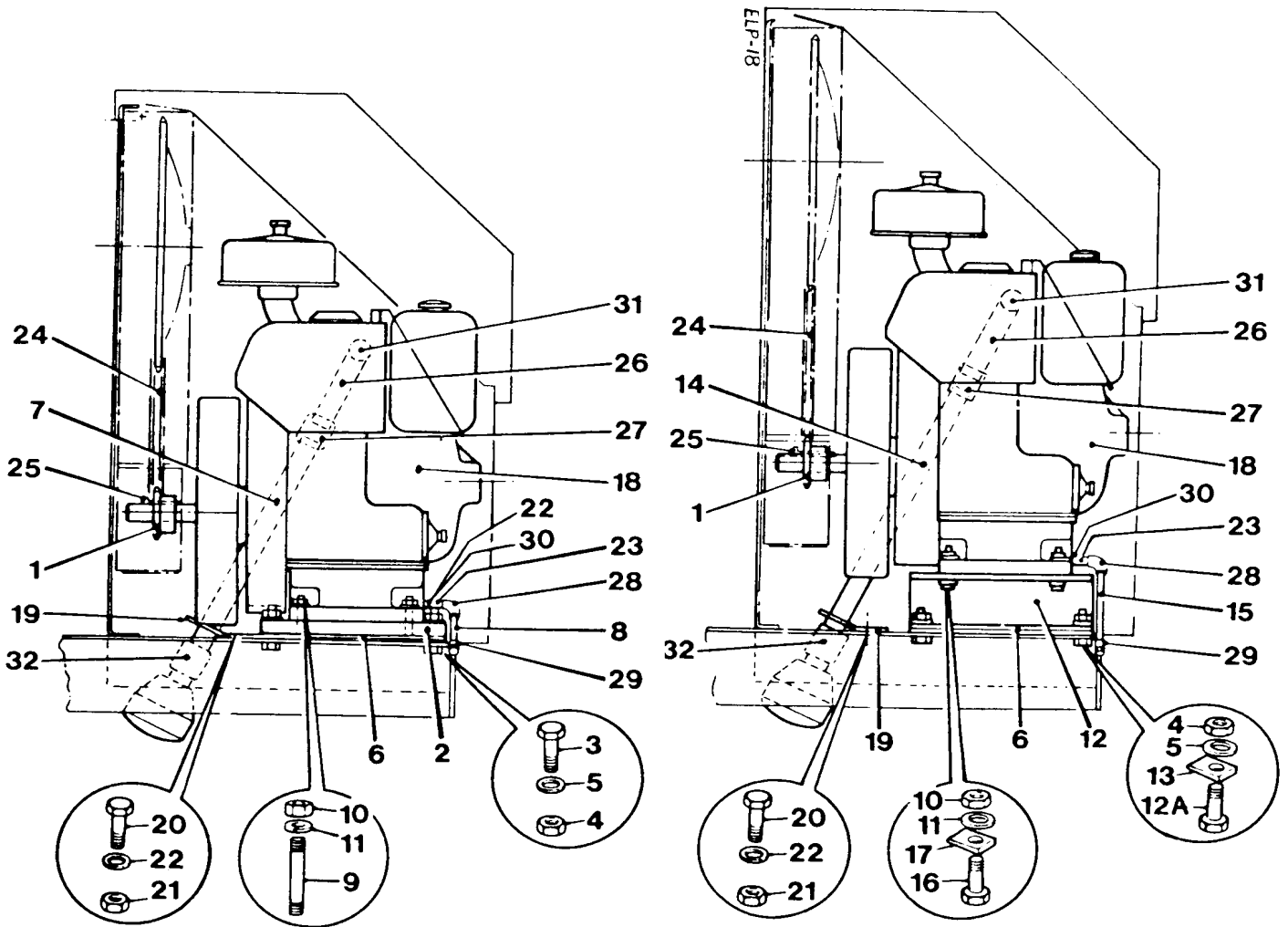
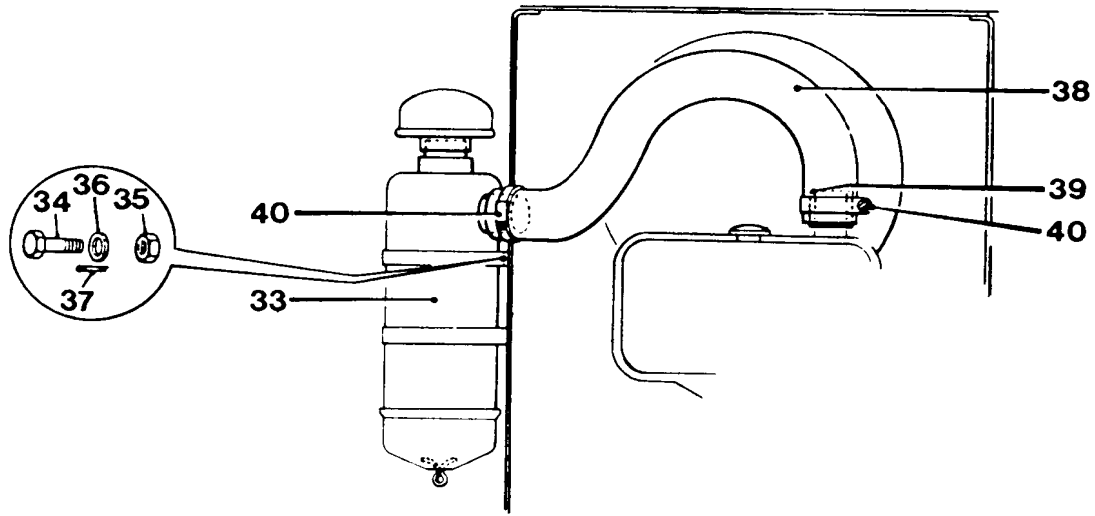
DRUM DRIVE

B - 1C

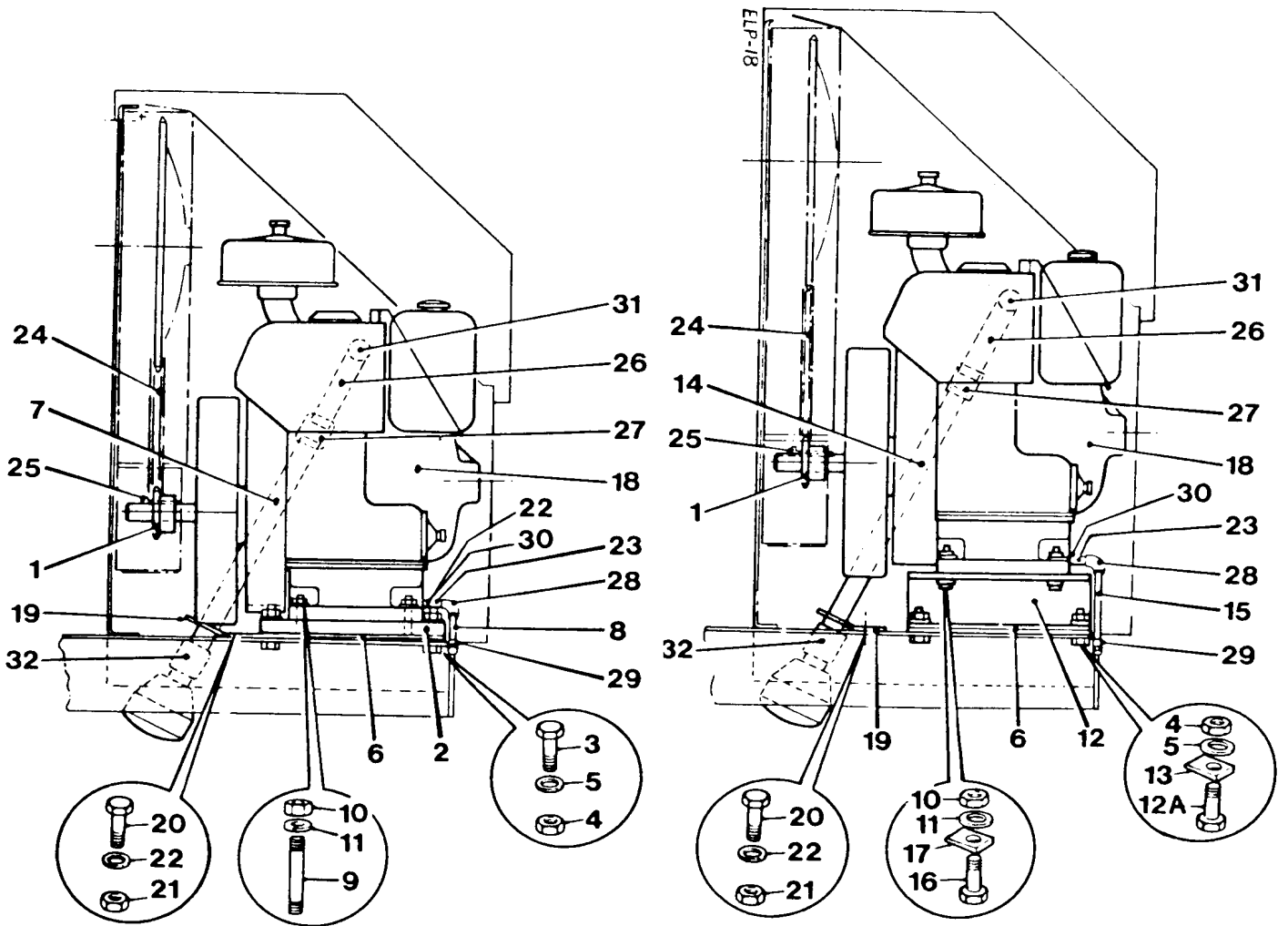
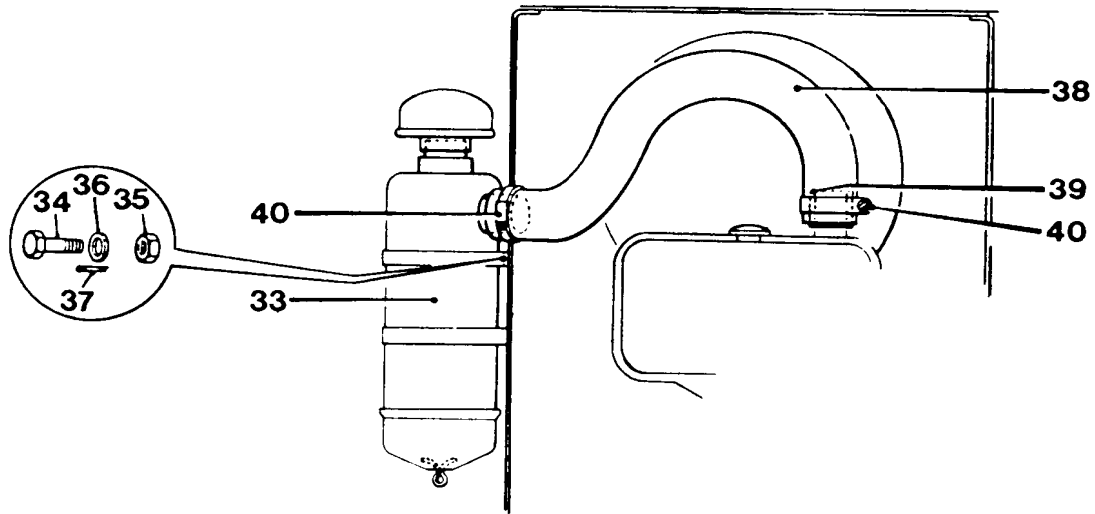
| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|---|--------|
| 21 | 513151600 | | SPROCKET, countershaft | 1 |
| 22 | 513149700 | | JOURNAL, trunnion | 1 |
| 23 | 315803100 | | PLUG, lubricating | 1 |
| 24 | 132352000 | | CIRCLIP | 1 |
| 25 | 88S15D | | BEARING | 2 |
| 26 | 225104410 | | FELT STRIP | 2 |
| 28 | 513150200 | | CHAINWHEEL, countershaft | 1 |
| 29 | 513150400 | | BEARING, trunnion | 1 |
| 30 | 225104410 | | FELT STRIP | 1 |
| 31 | 513153100 | | BEARING | 1 |
| 32 | 300204140 | | KEY, gib head | 2 |
| 33 | 513151700 | | COUNTERSHAFT | 1 |
| 34 | 88S05D | | BEARING | 2 |
| 34A | 57S04D2 | | SCREW, grub | 1 |
| 35 | 134105056 | | CHAIN, 100T | 1 |
| 35 | 134105060 | | CHAIN, 150T & 175T | 1 |
| 35A | 134105002 | | LINK, connecting | 1 |
| 35B | 134105001 | | LINK, half | AR |
| 43 | 513150300 | | SPROCKET, bevel pinion shaft | 1 |
| 44 | 513298900 | | PLATE, adjusting | 1 |
| 45 | 513152500 | | SHAFT, bevel pinion, 100T | 1 |
| 45 | 513158700 | | SHAFT, bevel pinion, 150T & 175T | 1 |
| 46 | 513149800 | | HOUSING, pinion shaft, 100T | 1 |
| 46 | 513160700 | | HOUSING, pinion shaft, 150T & 175T | 1 |
| 47 | 513152400 | | PACKING PIECE (set of 4) | sets 2 |
| 48 | 132362000 | | CIRCLIP | 1 |
| 49 | 513278400 | | BEVEL PINION | 1 |
| 50 | 513211800 | | GUARD, bevel pinion | 1 |
| 59 | 300204140 | | KEY, gib head | 1 |
| 60 | 513211900 | | WASHER, tab | 2 |
| 67 | 513211700 | | PACKER | 1 |
| 68 | 513290700 | | PULLEY, 'V', (electric motors only) | 1 |
| 71 | 104S03 | | NUT | 3 |
| 72 | 41S05 | | WASHER, spring | 4 |
| 79 | 66S03C | | SCREW | 3 |
| 80 | 66S03D | | SCREW | 2 |
| 81 | 66S03AA | | SCREW | 1 |
| 82 | 208S03F | | SCREW, c/sunk socket | 4 |
| 85 | 10S03 | | WASHER, flat | 3 |



| Item | Part no | Serial no | Description | Qty |
|--|------------|-----------|-------------------------------------|-------|
| 1 | 513248300 | / Feb-88 | SPROCKET, engine | 1 |
| 2 | 513248400 | | SHIMS | set 1 |
| 3 | 513266800 | | BRACKET, exhaust | 1 |
| 4 | 513256500 | | PIPE, oil drain | 1 |
| 5 | 134105095 | | CHAIN, roller | 1 |
| 6 | 300204160 | | KEY, gib head | 1 |
| 6A | 57S05D2 | | SCREW, grub | 1 |
| 7 | 354051002 | | CLAMP & SADDLE | 1 |
| 8 | 354051003 | | CLAMP | 1 |
| 9 | 241102000 | | ELBOW, female | 1 |
| 10 | 241902000 | | SOCKET | 1 |
| 11 | 354051000 | | ENGINE, Lister LT1, assembly | 1 |
| 11A | EL60131350 | | FILTER, air | 1 |
| 11B | EL20113118 | | FILTER, fuel | 1 |
| 100T | | | | |
| 12 | 411411250 | | STUD | 4 |
| 13 | 61S05 | | NUT, binx | 8 |
| 14 | 12S23 | | WASHER, flat | 8 |
| 15 | 513266700 | | BASE BLOCK, engine | 2 |
| 16 | 8S05H | | BOLT | 4 |
| 17 | 513259100 | | PIPE, exhaust | 1 |
| 150T & 175T | | | | |
| 13 | 61S05 | | NUT, binx | 8 |
| 14 | 12S23 | | WASHER, flat | 8 |
| 18 | 8S05E | | BOLT | 4 |
| 19 | 105S06 | | WASHER, taper | 8 |
| 20 | 8S05J | | BOLT | 4 |
| 21 | 513267402 | | CHANNEL, engine, L.H. (illustrated) | 1 |
| - | 513267401 | | CHANNEL, engine, R.H. (not ill.) | 1 |
| 22 | 513267500 | | PIPE, exhaust | 1 |
| 23 | 513277900 | | PIPE, inlet, rubber | 1 |
| Machines fitted with Cyclopac air cleaner | | | | |
| 24 | 220236000 | | AIR CLEANER | 1 |
| 25 | 11S03B | | SCREW, set | 4 |
| 26 | 61S03 | | NUT, binx | 4 |
| 27 | 12S18 | | WASHER, flat | 4 |
| 28 | 353323025 | | PIN, split | 1 |
| 29 | 394411000 | | STRIP, rubber | 1 |
| 30 | 97S13 | | CLIP, jubilee | 1 |
| 31 | 97S12 | | CLIP, jubilee | 1 |



| Item | Part no | Serial no | Description | Qty |
|------------------------|-----------|-----------|--|-------|
| 1 | 513267300 | / Feb-88 | SPROCKET, engine | 1 |
| 100T | | | | |
| 2 | 513267000 | | BLOCK, engine base | 2 |
| 3 | 8S05H | | BOLT | 4 |
| 4 | 61S05 | | NUT, binx | 4 |
| 5 | 12S23 | | WASHER, flat | 4 |
| 6 | 513248400 | | SHIMS | set 1 |
| 7 | 513267100 | | PIPE, exhaust | 1 |
| 8 | 513278100 | | PIPE, oil drain | 1 |
| 9 | 411411035 | | ST | 4 |
| 10 | 61S04 | | NUT, binx | 4 |
| 11 | 12S20 | | WASHER, flat | 4 |
| 150T & 175T | | | | |
| 4 | 61S05 | | NUT, binx | 4 |
| 5 | 12S23 | | WASHER, flat | 4 |
| 10 | 61S04 | | NUT, binx | 4 |
| 11 | 12S20 | | WASHER, flat | 4 |
| 12 | 513267600 | | CHANNEL, engine base, R.H. | 1 |
| - | | | CHANNEL, engine base, L.H. | 1 |
| 12A | 8S05F | | BOLT | 4 |
| 13 | 105S06 | | WASHER, taper | 4 |
| 14 | 513267700 | | PIPE, exhaust | 1 |
| 15 | 513278200 | | PIPE, oil drain | 1 |
| 16 | 8S04E | | BOLT | 4 |
| 17 | 105S03 | | WASHER, taper | 4 |
| 18 | 354074100 | | ENGINE, Petter AC1ZS | 1 |
| 19 | 513267200 | | BRACKET, exhaust | 1 |
| 20 | 11S05C | | SCREW, set | 1 |
| 21 | 7S05 | | NUT | 1 |
| 22 | 17S06 | | WASHER, spring | 1 |
| 23 | 513278000 | | PIPE, oil drain | 1 |
| 24 | 134105093 | | CHAIN, roller | 1 |
| 25 | 300204160 | | KEY, gib head | 1 |
| 26 | 240308000 | | BEND, 90deg, exhaust | 1 |
| 27 | 241908000 | | SOCKET, exhaust | 1 |
| 28 | 241102000 | | ELBOW, female | 1 |
| 29 | 241902000 | | SOCKET | 1 |
| 30 | 240100400 | | NUT, locking | 1 |
| 31 | 240708000 | | ELBOW, m/f, 90deg | 1 |
| 32 | 241908000 | | SOCKET, exhaust, 'T' models only | 1 |
| 32 | 241108000 | | SOCKET, exhaust, 'TFT' & export models | |

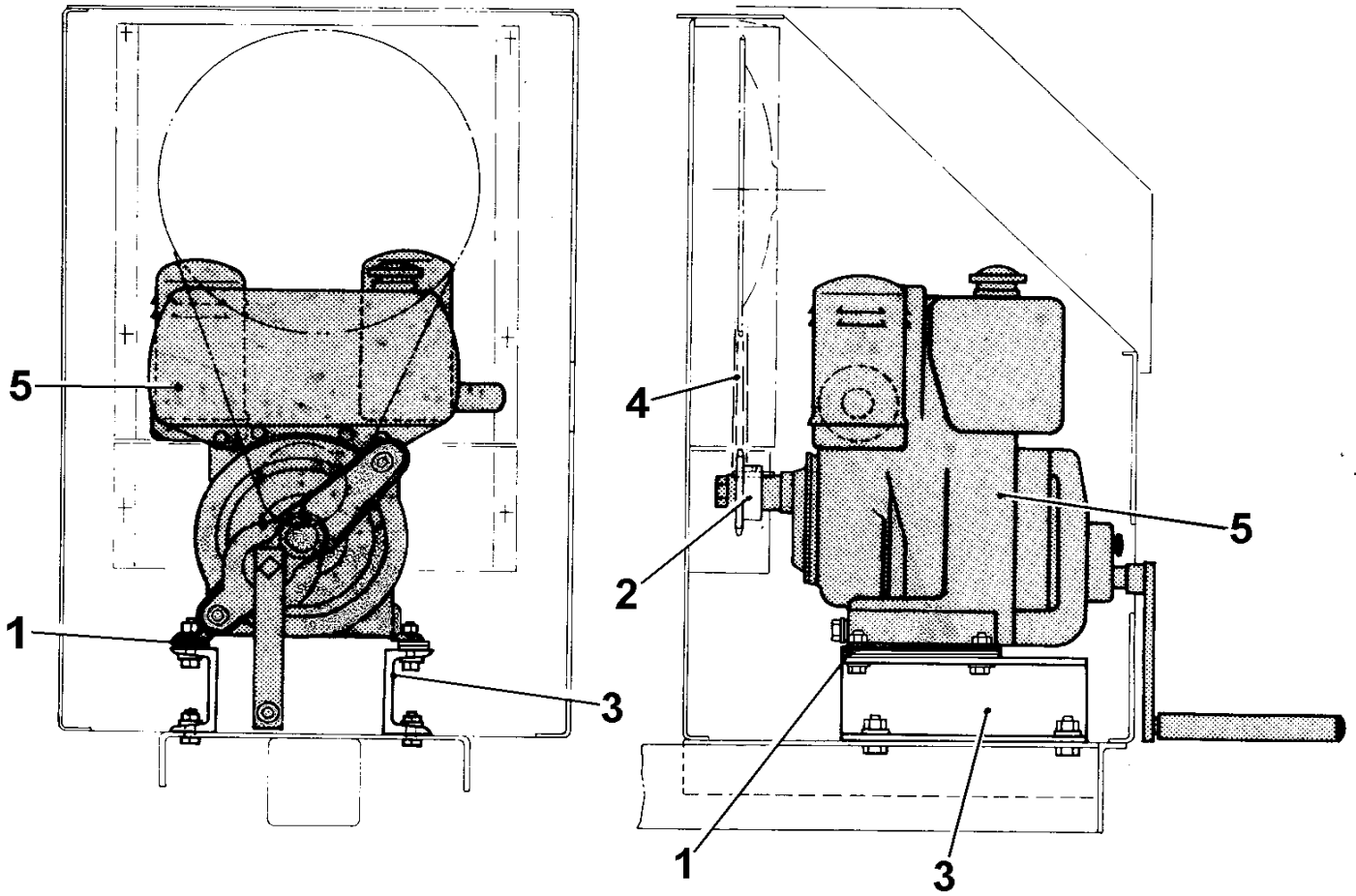


| Item | Part no | Serial no | Description | Qty |
|------|---------|-----------|-------------|-----|
|------|---------|-----------|-------------|-----|

Continued >>>>

Machines fitted with Cyclopac air cleaner

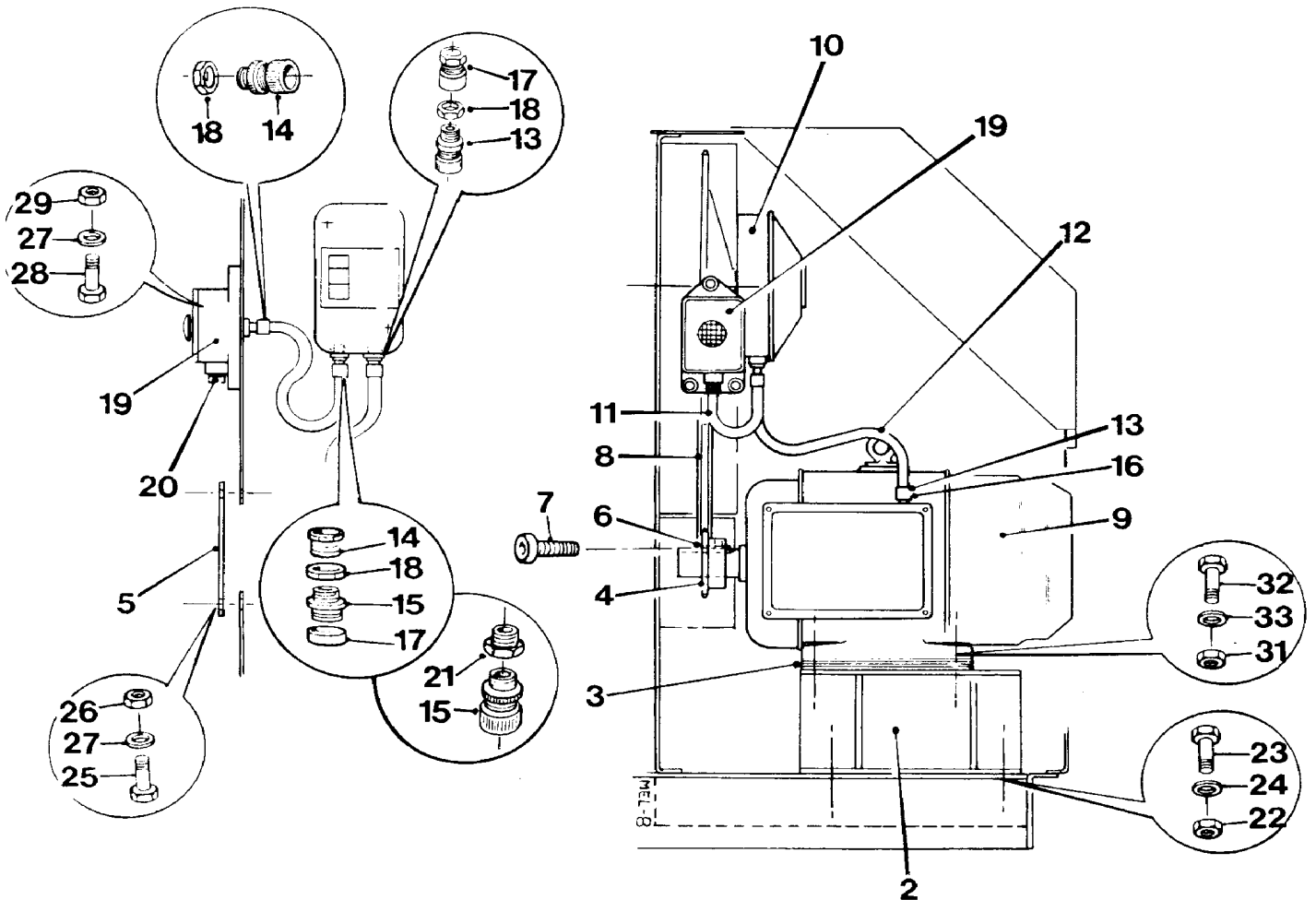
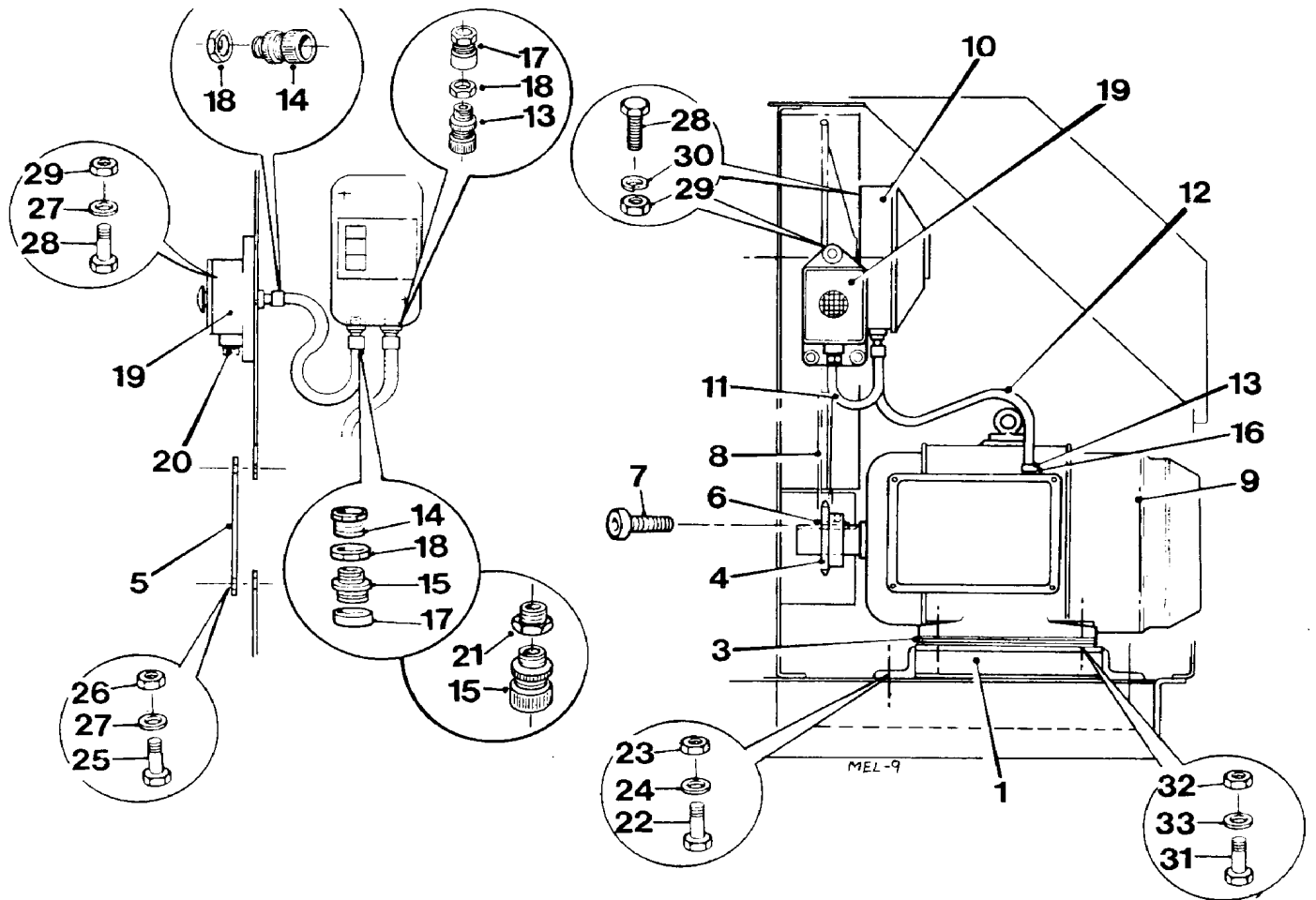
| | | | | |
|----|-----------|--|----------------|---|
| 33 | 220236000 | | AIR CLEANER | 1 |
| 34 | 11S03B | | SCREW, set | 4 |
| 35 | 61S03 | | NUT, binx | 4 |
| 36 | 12S18 | | WASHER, flat | 4 |
| 37 | 353323025 | | PIN, split | 1 |
| 38 | 260817001 | | HOSE, flexible | 1 |
| 39 | 260512012 | | HOSE, rubber | 1 |
| 40 | 97S13 | | CLIP, jubilee | 1 |



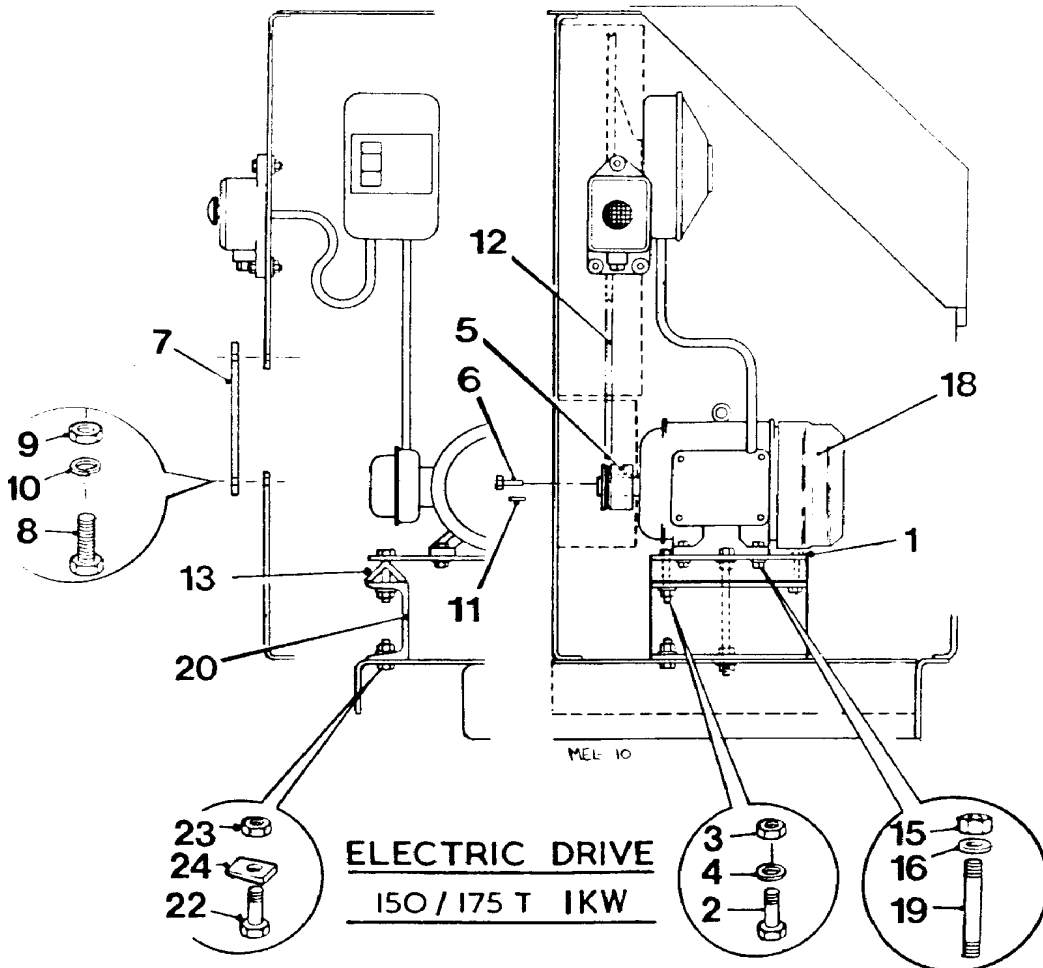
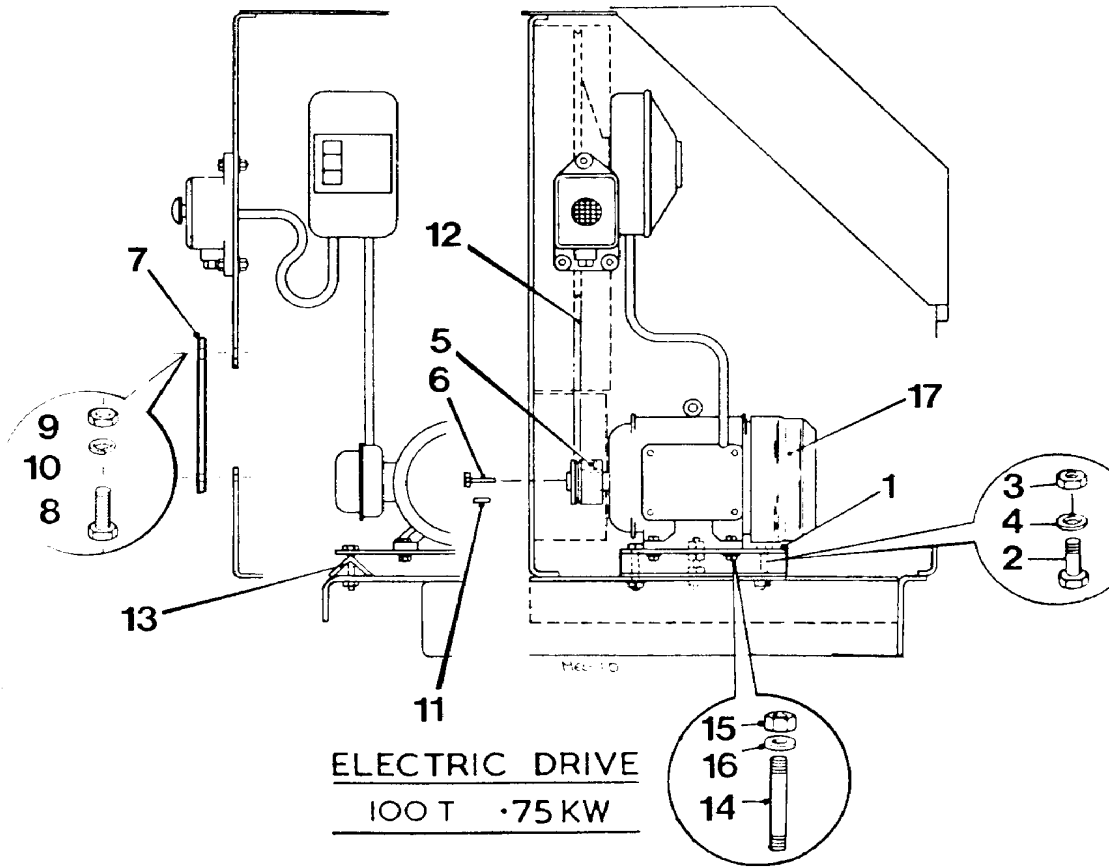
DRIVE ASSEMBLY, HATZ

C - 2A

| Item | Part no | Serial no | Description | Qty |
|-------|-----------|-----------|--|-------|
| 1 | 513214400 | | SHIM | set 1 |
| 2 | 513214500 | | SPROCKET <i>with</i> | 1 |
| ..... | 188S04C2 | | SCREW, cone point socket | 1 |
| 3 | 513283600 | | CHANNEL, engine supports <i>with</i> | set 1 |
| ..... | 66S05D | | SCREW, set | 4 |
| ..... | 192S05 | | NUT, Binx | 4 |
| ..... | 105S06 | | WASHER, tapered | 4 |
| 4 | 134105094 | | CHAIN, roller | 1 |
| 5 | 354072950 | | ENGINE, "Hatz" air cooled <i>with</i> | 1 |
| ..... | 6S03E | | SCREW, set | 4 |
| ..... | 87S03 | | NUT, Binx | 4 |
| ..... | 105S04 | | WASHER, tapered | 4 |



| Item | Part no | Date | Description | Qty |
|------------------------|------------|----------|---|-------|
| 100T | | | | |
| 1 | 513267800 | / Feb-88 | BASE, motor | 1 |
| 150T & 175T | | | | |
| 2 | 513268001 | | CHANNEL, motor base, L.H. (illustrated) | 1 |
| - | 513268002 | | CHANNEL, motor base, R.H. (not ill.) | 1 |
| 3 | 513267900 | | SHIM, motor base | set 1 |
| 4 | 513198900 | | SPROCKET, motor | 1 |
| 5 | 513271200 | | COVER, housing back plate | 1 |
| 6 | 304710032 | | KEY, parallel | 1 |
| 7 | 188S04D2 | | SCREW, socket head | 1 |
| 8 | 134105095 | | CHAIN | 1 |
| 9 | 202492300 | | MOTOR, electric, 110/115v | 1 |
| 9 | 202485000 | | MOTOR, electric, 220/240v | 1 |
| 10 | 208301300 | | STARTER, Crabtree, 110/115v | 1 |
| 10 | 208303800 | | STARTER, Allen West, 220/240v | 1 |
| 11 | 131730776 | | CONDUIT | 1 |
| 12 | 131731000 | | CONDUIT | 1 |
| 13 | 131271000 | | COUPLING, 20mm | 2 |
| 14 | 131270000 | | COUPLING, 16mm | 2 |
| 15 | 131570016 | | SOCKET, reducing | 1 |
| 16 | 131575020 | | SOCKET | 1 |
| 17 | 131470000 | | BUSH, brass | 2 |
| 18 | 56S13 | | NUT, locking | 4 |
| 19 | 208870000 | / Oct-04 | SWITCH, stop, OBSOLETE | 1 |
| ..... | V602651 | / Oct-04 | KEY | |
| 19 | 208880000 | Oct-04 / | SWITCH, stop | 1 |
| ..... | V603623 | Oct-04 / | KEY | |
| 20 | 133470000 | | PLUG, stopping | 1 |
| 21 | 30097A0213 | | RING, shifter | 1 |
| 22 | 8S05C | | BOLT | 4 |
| 23 | 61S05 | | NUT, binx | 4 |
| 24 | 12S23 | | WASHER, flat | 4 |
| 25 | 11S02A | | SCREW, set | 4 |
| 26 | 7S02 | | NUT | 4 |
| 27 | 17S03 | | WASHER, flat | 4 |
| 28 | 11S01B | | SCREW, set | 5 |
| 29 | 7S01 | | NUT | 5 |
| 30 | 17S02 | | WASHER, spring | 5 |
| 31 | 8S04F | | BOLT | 4 |
| 32 | 61S04 | | NUT, binx | 4 |
| 33 | 12S20 | | WASHER, flat | 4 |



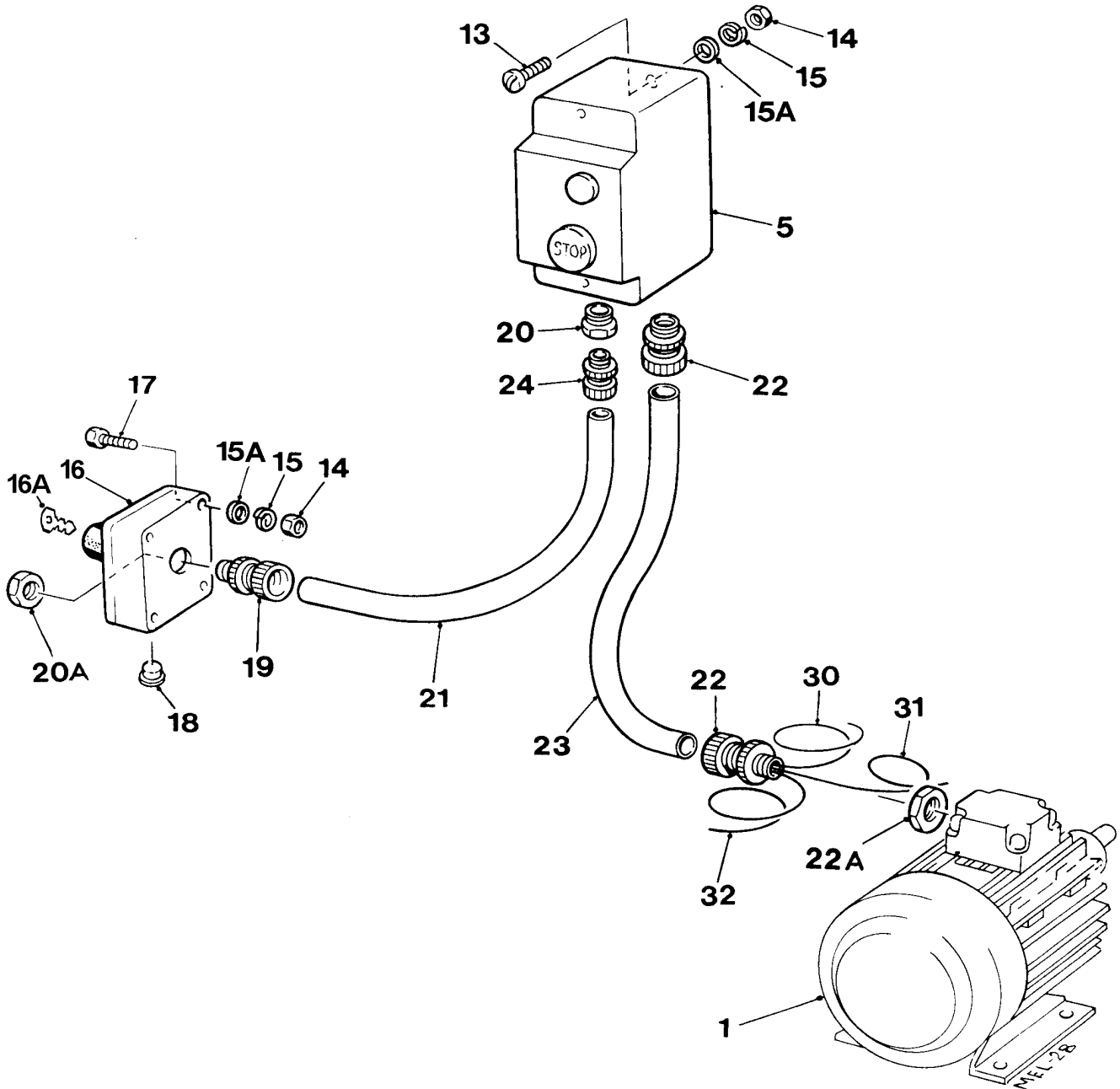
| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|-----------------------|-----|
| 1 | 513290400 | / Feb-88 | PLATE, motor mounting | 1 |
| 2 | 8S05H | | BOLT | 2 |
| 3 | 61S05 | | NUT, binx | 2 |
| 4 | 12S23 | | WASHER, flat | 2 |
| 5 | 513290600 | | PULLEY, 'V' | 1 |
| 6 | 57S03D2 | | SCREW, socket head | 1 |
| 7 | 513271200 | | PLATE, cover | 1 |
| 8 | 11S02A | | SCREW, set | 4 |
| 9 | 7S02 | | NUT | 4 |
| 10 | 17S03 | | WASHER, spring | 4 |
| 11 | 304710040 | | KEY, parallel | 1 |
| 12 | 397400100 | | BELT, 'V' | 1 |

100T

| | | | | |
|----|-----------|--|--------------------------------------|---|
| 13 | 513290300 | | ANGLE, motor adjusting | 1 |
| 14 | 411411275 | | STUD | 1 |
| 15 | 7S05 | | NUT | 4 |
| 16 | 17S06 | | WASHER, spring | 4 |
| 17 | 202493500 | | MOTOR, electric, 240v, .75kw (1hp) | 1 |
| 17 | 202493600 | | MOTOR, electric, 110v, 1.1kw (1.5hp) | 1 |

150T & 175T

| | | | | |
|----|-----------|--|--------------------------------------|---|
| 13 | 513290300 | | ANGLE, motor adjusting | 1 |
| 15 | 7S05 | | NUT | 4 |
| 16 | 17S06 | | WASHER, spring | 4 |
| 18 | 202493700 | | MOTOR, electric, 240v, 1.1kw (1.5hp) | 1 |
| 18 | 202493800 | | MOTOR, electric, 110v, 1.1kw (1.5hp) | 1 |
| 19 | 411411200 | | STUD | 1 |
| 20 | 513290500 | | SPACER, motor mounting | 1 |
| 21 | 513290300 | | ANGLE, adjusting | 1 |
| 22 | 8S05D | | BOLT | 2 |
| 23 | 7S05 | | NUT | 2 |
| 24 | 105S05 | | WASHER, taper | 2 |



DANFOSS' START SWITCHES, electric belt drive

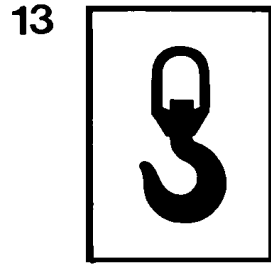
C - 5

| Item | Part no | Serial no | Description | Qty |
|------------------|-------------|-----------|--|---------|
| 1 | - | | ELECTRIC MOTOR <i>(see Index page)</i> | 1 |
| 5 | 208398600 | | STARTER, 240v, 100T, 150T & 175T | 1 |
| | - 208398500 | | CASE, starter | 1 |
| | - 192928000 | | CONTACTOR | 1 |
| | - 207818001 | | RELAY, overload | 1 |
| 5 | 208398800 | | STARTER, 110v, 100T | 1 |
| | - 208398500 | | CASE, starter | 1 |
| | - 192928000 | | CONTACTOR | 1 |
| | - 207818003 | | RELAY, overload | 1 |
| 5 | 208398900 | | STARTER, 110v, 150T & 175T | 1 |
| | - 208398500 | | CASE, starter | 1 |
| | - 192928000 | | CONTACTOR | 1 |
| | - 207818004 | | RELAY, overload | 1 |
| 13 | 16S06C | | SCREW, cheese head | 2 |
| 14 | 7S01 | | NUT | 4 |
| 15 | 17S02 | | WASHER, spring | 4 |
| 15A | 267S03 | | WASHER, flat | 4 |
| 16 | 208870000 | / Oct-04 | # SWITCH, stop, assembly # OBSOLETE: use 208880000 | 1 |
| 16A | V602651 | / Oct-04 | KEY, stop switch | 1 |
| 16 | 208880000 | Oct-04 / | SWITCH, stop, assembly | 1 |
| ..... | 208880000A | Oct-04 / | MUSHROOM key reset, c/w keys | 1 |
| ..... | 208880000B | Oct-04 / | CONTACTOR | 1 |
| ..... | 208880000C | Oct-04 / | ENCLOSURE | 1 |
| 16A | V603623 | Oct-04 / | KEY, stop switch | 2 |
| 17 | 11S01C | / Oct-04 | SCREW, set | 2 |
| 17 | 11S01D | Oct-04 / | SCREW, set | |
| 18 | 133470000 | | PLUG, stop switch casing | 1 |
| 19 | 131270000 | | COUPLING, 16mm | 1 |
| 20 | 131570016 | | SOCKET, reducing | 1 |
| 20A | 133266050 | | NUT, backing | 1 |
| 21 | 131766010 | | CONDUIT, 16mm | 1 |
| 22 | 131271000 | | COUPLING, 20mm | 2 |
| 22A | 133272000 | | NUT, backing | 1 |
| 23 | 131770010 | | CONDUIT, 20mm | 1 |
| 24 | 131270000 | | COUPLING, 16mm | 1 |
| 110 volts | | | | |
| 30 | 30788101 | | WIRE, black | 1 metre |
| 31 | 30788102 | | WIRE, red | 1 metre |
| 32 | 30788103 | | WIRE, green/yellow | 1 metre |
| 240 volts | | | | |
| 30 | 144750000 | | WIRE, black | 1 metre |
| 31 | 144700100 | | WIRE, red | 1 metre |
| 32 | 144700200 | | WIRE, green/yellow | 1 metre |

2

| | | | |
|----------------|------------|--|-------|
| WINGET | | WINGET LIMITED P.O. Box 64, Athlone, Wick, Co. Wick, Ireland Tel: 0120415151 Fax: 0120415110 | |
| Model | _____ | | |
| Serial No. | _____ | | |
| Engine No. | _____ | | |
| Capacity | Mass (kg) | _____ | |
| SRO No. | Power (kW) | _____ | |
| Year Of Manuf. | Eng. (rpm) | Drum (rpm) | _____ |

V200337
A Gredex Group Company



3

DANGER

KEEP ENGINE HOUSING
LID CLOSED WHEN
ENGINE IS RUNNING

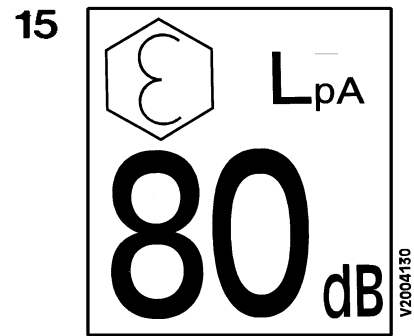


4

SAFETY WARNING

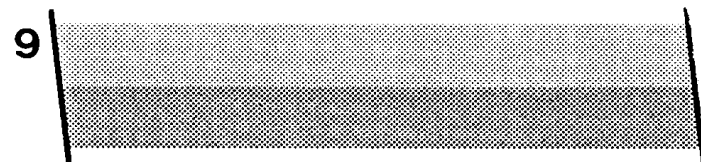
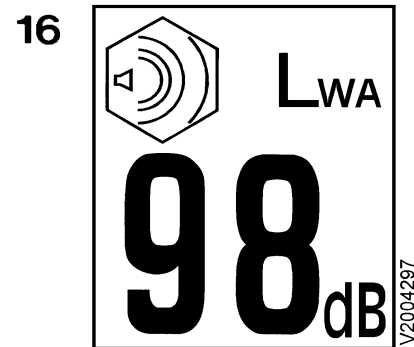
- 1 Before starting this machine, the operator should be familiar with the operating instructions issued by the manufacturer.
- 2 The manufacturer's rated capacity must never be exceeded.
- 3 Before carrying out any maintenance, servicing, or greasing, always ensure that the engine has been switched off. Never work on a machine while it is running.

W504694600



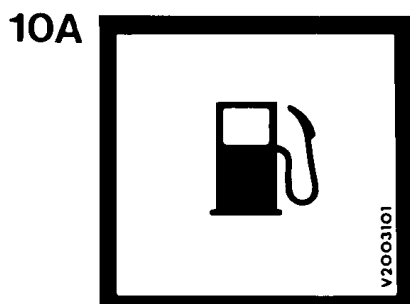
8

WINGET



10

DIESEL FUEL



18

FAILURE TO FOLLOW THE MANUFACTURERS INSTRUCTIONS WHEN STARTING THE ENGINE, MAY CAUSE DAMAGE TO THE MACHINE

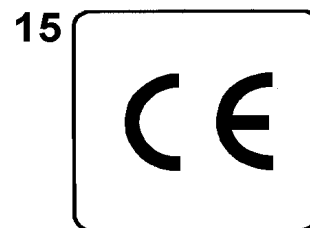
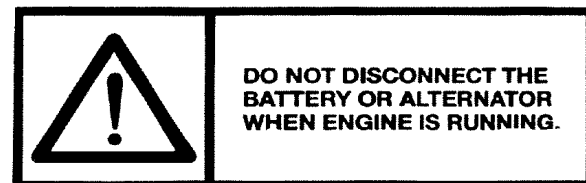
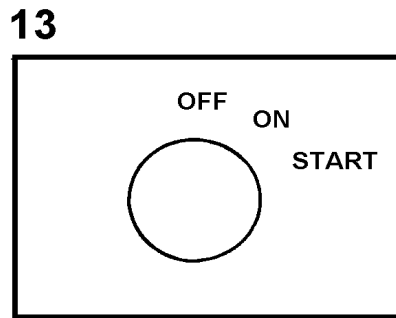
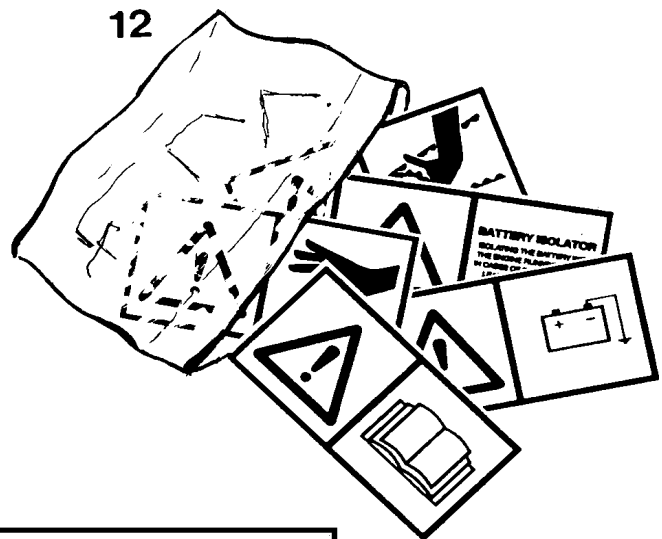
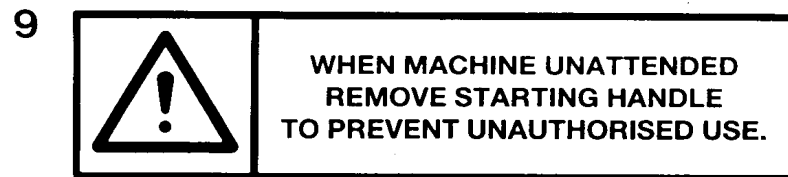
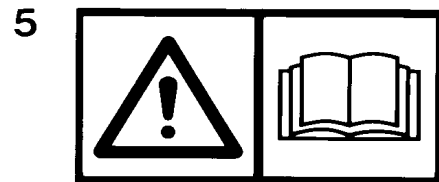
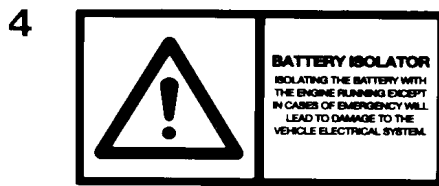
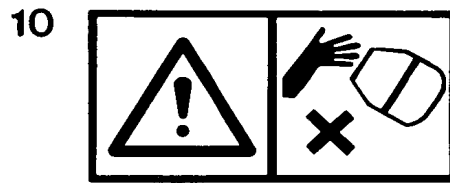
DECALS & PLATES**D - 1**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---|------------|
| | | | | 1 |
| 2 | V2003037 | | PLATE, serial | 1 |
| — | 15S01A | | SCREW | 4 |
| 3 | 504600900 | | DECAL, "Engine housing lid closed" | 1 |
| 4 | 504694600 | | DECAL, "Safety Warning" | 1 |
| 8 | V2003039 | | DECAL, "WINGET" logo, | 3 |
| 9 | V2003038 | | DECAL, stripe, 2 colour | AR |
| 10 | — | | DECAL, diesel fuel (<i>OBSOLETE: use item 10A</i>) | |
| 10A | V2003101 | | DECAL, "Diesel fuel" | 1 |
| 13 | V2003665 | | DECAL, "Sling point" | 1 |
| 14 | V2003598 | | DECAL, "British made" | 1 |
| 15 | V2004130 | | DECAL, "LPA 80" | 1 |
| 16 | V2004297 | | DECAL, "LWA 98" | 1 |
| 17 | V2004307 | | DECAL, "Electrical hazard" | 1 |
| 18 | V2005208 | | DECAL, "Engine starting procedure" | 1 |

1 **100 T**

2 **150 T**


3 **175 T**




DECALS & PLATES**D - 2**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---|------------|
| 1 | V2003105 | | DECAL, "100T", Black | 2 |
| 1 | V602436 | | DECAL, "100T" White (<i>Not illustrated</i>) | - |
| 2 | V2003106 | | DECAL, "150T" Black | 2 |
| 2 | V602437 | | DECAL, "150T" White (<i>Not illustrated</i>) | - |
| 3 | V2003107 | | DECAL, "175T" Black | 2 |
| 3 | V602438 | | DECAL, "175T" White (<i>Not illustrated</i>) | - |
| 4 | V2004227 | | DECAL, "Battery isolator" | 1 |
| 5 | V2004229 | | DECAL, "Operators handbook" | 1 |
| 6 | V2004235 | | DECAL, "Negative earth" | 1 |
| 7 | V2004282 | | DECAL, "Hot surface" | 1 |
| 8 | V2004281 | | DECAL, "Chain drive" | 1 |
| 9 | V2004288 | | DECAL, "Remove start handle" | 1 |
| 10 | V2004289 | | DECAL, "Keep hands clear of drum" | 1 |
| 11 | V2004302 | | DECAL, Engine stop" | 1 |
| 12 | V601906 | | KIT, decals, 100T, 150T, 175T Each kit contains all of the decals required for one machine. | 1 |
| 13 | V2005218 | | DECAL "Key switch" | 1 |
| 14 | V2004796 | | DECAL "Do not disconnect battery" | 1 |
| 15 | V2004223 | | DECAL "CE mark" | 1 |


1

| | |
|---|---|
|  | <p>IN COLD WEATHER, IF THE ENGINE IS HARD TO START, REMOVE THE RUBBER PLUG ON THE ROCKER COVER AND ADD NO MORE THAN 2cc OF ENGINE OIL BEFORE STARTING AS RECOMMENDED IN THE ENGINE OPERATORS HANDBOOK. ALWAYS REFIT THE RUBBER PLUG.</p> <p><small>V2005276</small></p> |
|---|---|


2

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|---|--|
|  | <p>LWA</p> <p>101 dB</p> <p><small>V2005311</small></p> |
|---|--|

3


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|---|---|
|  | <p>LpA</p> <p>85 dB</p> <p><small>V2004131</small></p> |
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4

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|---|--|
|  | <p>THE RECOIL STARTER SHOULD ONLY BE USED AS AN "EMERGENCY" MEANS OF STARTING THE ENGINE AND SHOULD BE USED WITH CARE. BE AWARE THAT STARTING THE ENGINE WITH THE RECOIL DUE TO THE ABSENCE OF THE START KEY OR BATTERY OR BECAUSE THE BATTERY IS DISCHARGED WILL RESULT IN DAMAGE TO THE ALTERNATOR.</p> <p><small>V2005214</small></p> |
|---|--|

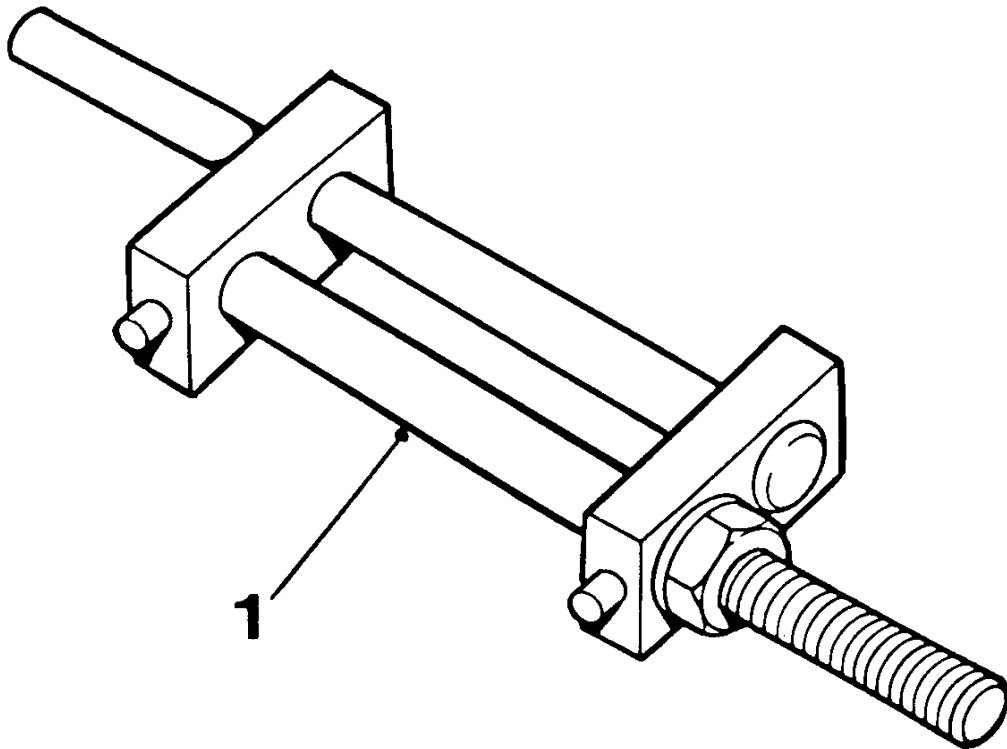


6

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|---|--|
|  | <p>IMPORTANT!</p> <p>TO AVOID INJURY OR MACHINE DAMAGE DO NOT ENGAGE LOCKING PLUNGER WHILST HANDWHEEL IN MOTION</p> |
|---|--|

DECALS & PLATES**D - 2A**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------------------|------------|
| 1 | V2005276 | | DECAL, " Engine cold starting" | 1 |
| 2 | V2005311 | | DECAL, "LWA 101" | 1 |
| 3 | V2004131 | | DECAL, "LPA 85" | 1 |
| 4 | V2005214 | | DECAL, "The recoil starter" | 1 |
| 5 | FSE357 | | DECAL, "ENGINE STOP" | 1 |
| 6 | V2005630 | | DECAL, "Locking Plunger" | 1 |



SPECIAL TOOLS

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------|------------|
| 1 | 513204000 | | CLAMP, drum clip | 1 |

NUMERICAL INDEX

Mixers built up to 1988

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| 22096210 | B - 1A | 134105002 | B - 1C | 208398500 | C - 5 |
| 30788101 | C - 5 | 134105056 | B - 1C | 208398600 | C - 5 |
| 30788102 | C - 5 | 134105060 | B - 1C | 208398800 | C - 5 |
| 30788103 | C - 5 | 134105093 | C - 2 | 208398900 | C - 5 |
| 112820000 | B - 1B | 134105094 | C - 2A | 208870000 | C - 3 |
| 112821000 | B - 1B | 134105095 | C - 1 | 208870000 | C - 5 |
| 114625320 | B - 1B | 134105095 | C - 3 | 220236000 | C - 1 |
| 131270000 | C - 3 | 142324000 | A - 3 | 220236000 | C - 2 |
| 131270000 | C - 5 | 142330000 | B - 1A | 225104410 | B - 1C |
| 131270000 | C - 5 | 144700100 | C - 5 | 225104410 | B - 1C |
| 131271000 | C - 3 | 144700200 | C - 5 | 225514220 | B - 1B |
| 131271000 | C - 5 | 144750000 | C - 5 | 225520280 | B - 1B |
| 131470000 | C - 3 | 145226000 | B - 1B | 240100400 | C - 2 |
| 131570016 | C - 3 | 192928000 | C - 5 | 240308000 | C - 2 |
| 131570016 | C - 5 | 192928000 | C - 5 | 240708000 | C - 2 |
| 131575020 | C - 3 | 192928000 | C - 5 | 241102000 | C - 1 |
| 131730776 | C - 3 | 202485000 | C - 3 | 241102000 | C - 2 |
| 131731000 | C - 3 | 202492300 | C - 3 | 241108000 | C - 2 |
| 131766010 | C - 5 | 202493500 | C - 4 | 241859000 | A - 1 |
| 131770010 | C - 5 | 202493600 | C - 4 | 241902000 | C - 1 |
| 132352000 | B - 1C | 202493700 | C - 4 | 241902000 | C - 2 |
| 132362000 | B - 1C | 202493800 | C - 4 | 241908000 | C - 2 |
| 132390000 | B - 1A | 207818001 | C - 5 | 241908000 | C - 2 |
| 132412010 | A - 1 | 207818003 | C - 5 | 260512012 | C - 2 |
| 132412010 | A - 1 | 207818004 | C - 5 | 260817001 | C - 2 |
| 133266050 | C - 5 | 208301300 | C - 3 | 300204140 | B - 1C |
| 133470000 | C - 3 | 208303800 | C - 3 | 300204140 | B - 1C |
| 133470000 | C - 5 | 208398500 | C - 5 | 300204160 | C - 1 |
| 134105001 | B - 1C | 208398500 | C - 5 | 300204160 | C - 2 |

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| 304710032 | C - 3 | 475117007 | A - 2 | 513150200 | B - 1C |
| 304710040 | C - 4 | 475117007 | A - 3 | 513150300 | B - 1C |
| 315803100 | B - 1C | 475117008 | A - 2 | 513150400 | B - 1C |
| 332119000 | A - 3 | 475117008 | A - 3 | 513151000 | B - 1B |
| 332719000 | A - 1 | 475117010 | A - 3 | 513151100 | B - 1A |
| 352410120 | A - 2 | 475117011 | A - 3 | 513151400 | B - 1B |
| 352410120 | A - 3 | 475117012 | A - 3 | 513151500 | B - 1B |
| 353323025 | C - 1 | 475117013 | A - 3 | 513151600 | B - 1C |
| 353323025 | C - 2 | 475117014 | A - 3 | 513151700 | B - 1C |
| 353830650 | A - 1 | 475117015 | A - 3 | 513152000 | B - 1A |
| 354051000 | C - 1 | 475117016 | A - 3 | 513152100 | B - 1A |
| 354051002 | C - 1 | 475117017 | A - 3 | 513152200 | B - 1A |
| 354051003 | C - 1 | 475117018 | A - 3 | 513152300 | B - 1A |
| 354072950 | C - 2A | 475117019 | A - 2 | 513152400 | B - 1C |
| 354074100 | C - 2 | 475117019 | A - 3 | 513152500 | B - 1C |
| 386102000 | A - 3 | 475117020 | A - 3 | 513152700 | B - 1B |
| 394411000 | C - 1 | 475117021 | A - 2 | 513152901 | B - 1A |
| 397400100 | C - 4 | 475117024 | A - 2 | 513152902 | B - 1A |
| 411411035 | C - 2 | 475118001 | A - 3 | 513153000 | B - 1B |
| 411411200 | C - 4 | 475118002 | A - 2 | 513153100 | B - 1C |
| 411411250 | C - 1 | 501362300 | A - 2 | 513154500 | A - 1 |
| 411411275 | C - 4 | 501362300 | A - 3 | 513154700 | A - 1 |
| 463504000 | A - 3 | 501386200 | A - 2 | 513154800 | A - 1 |
| 475106000 | A - 1 | 501386200 | A - 3 | 513155000 | A - 1 |
| 475117000 | A - 3 | 504600900 | A - 1 | 513157500 | B - 1A |
| 475117002 | A - 2 | 504600900 | D - 1 | 513158700 | B - 1C |
| 475117002 | A - 3 | 504694600 | D - 1 | 513160700 | B - 1C |
| 475117003 | A - 2 | 513149300 | B - 1B | 513161001 | B - 1A |
| 475117003 | A - 3 | 513149400 | B - 1B | 513161002 | B - 1A |
| 475117004 | A - 2 | 513149600 | B - 1A | 513167400 | A - 2 |
| 475117004 | A - 3 | 513149700 | B - 1C | 513167400 | A - 3 |
| 475117006 | A - 2 | 513149800 | B - 1C | 513167500 | A - 3 |
| 475117006 | A - 3 | 513150100 | B - 1A | 513167600 | A - 2 |

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| 513167700 | A - 3 |
| 513167900 | A - 3 |
| 513168200 | A - 3 |
| 513168500 | A - 2 |
| 513168500 | A - 3 |
| 513168600 | A - 3 |
| 513168700 | A - 3 |
| 513168800 | A - 3 |
| 513168900 | A - 2 |
| 513168900 | A - 3 |
| 513169000 | A - 3 |
| 513169100 | A - 3 |
| 513169200 | A - 2 |
| 513169200 | A - 3 |
| 513169400 | A - 2 |
| 513169400 | A - 3 |
| 513169500 | A - 2 |
| 513169600 | A - 2 |
| 513194400 | B - 1B |
| 513194500 | B - 1B |
| 513197900 | A - 1 |
| 513198400 | A - 1 |
| 513198401 | A - 1 |
| 513198402 | A - 1 |
| 513198500 | A - 1 |
| 513198900 | C - 3 |
| 513199800 | B - 1A |
| 513202800 | B - 1A |
| 513203100 | B - 1A |
| 513203202 | B - 1A |
| 513203300 | B - 1B |

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| 513203400 | A - 1 |
| 513203600 | B - 1A |
| 513203800 | B - 1A |
| 513203900 | B - 1A |
| 513204000 | D - 3 |
| 513205300 | A - 1 |
| 513205600 | A - 1 |
| 513205700 | A - 1 |
| 513208800 | B - 1A |
| 513209800 | A - 3 |
| 513209900 | A - 3 |
| 513210000 | A - 3 |
| 513211400 | B - 1B |
| 513211500 | B - 1B |
| 513211700 | B - 1C |
| 513211800 | B - 1C |
| 513211900 | B - 1C |
| 513212000 | B - 1B |
| 513212300 | B - 1B |
| 513214400 | C - 1A |
| 513214500 | C - 1A |
| 513236500 | A - 2 |
| 513236701 | A - 3 |
| 513236702 | A - 3 |
| 513237100 | A - 3 |
| 513248300 | C - 1 |
| 513248400 | C - 1 |
| 513248400 | C - 2 |
| 513248700 | A - 1 |
| 513256500 | C - 1 |
| 513259100 | C - 1 |
| 513266700 | C - 1 |
| 513266800 | C - 1 |

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| 513266900 | A - 1 |
| 513267000 | C - 2 |
| 513267100 | C - 2 |
| 513267200 | C - 2 |
| 513267300 | C - 2 |
| 513267401 | C - 1 |
| 513267402 | C - 1 |
| 513267500 | C - 1 |
| 513267600 | C - 2 |
| 513267700 | C - 2 |
| 513267800 | C - 3 |
| 513267900 | C - 3 |
| 513268001 | C - 3 |
| 513268002 | C - 3 |
| 513268400 | A - 1 |
| 513269400 | A - 1 |
| 513269900 | A - 1 |
| 513269900 | A - 1 |
| 513270000 | A - 1 |
| 513270100 | A - 1 |
| 513270200 | A - 1 |
| 513270200 | A - 1 |
| 513270300 | A - 1 |
| 513270400 | A - 1 |
| 513271200 | C - 3 |
| 513271200 | C - 4 |
| 513274900 | A - 1 |
| 513275100 | A - 1 |
| 513275200 | A - 1 |
| 513275900 | A - 2 |
| 513275900 | A - 3 |
| 513276400 | A - 2 |
| 513276400 | A - 3 |

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| 513277900 | C - 1 |
| 513278000 | C - 2 |
| 513278100 | C - 2 |
| 513278200 | C - 2 |
| 513278400 | B - 1C |
| 513280600 | A - 1 |
| 513283600 | C - 2A |
| 513285000 | A - 1 |
| 513286800 | A - 1 |
| 513287000 | A - 1 |
| 513287200 | A - 1 |
| 513287200 | A - 1 |
| 513290300 | C - 4 |
| 513290300 | C - 4 |
| 513290300 | C - 4 |
| 513290400 | C - 4 |
| 513290500 | C - 4 |
| 513290600 | C - 4 |
| 513290700 | B - 1C |
| 513291000 | A - 1 |
| 513298900 | B - 1C |
| 513340800 | A - 1 |
| V2003037 | D - 1 |
| 103S04C | B - 1B |
| 104S01 | A - 1 |
| 104S02 | A - 1 |
| 104S03 | A - 1 |
| 104S03 | A - 2 |
| 104S03 | A - 3 |
| 104S03 | B - 1A |
| 104S03 | B - 1B |
| 104S03 | B - 1C |
| 105S03 | C - 2 |

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| 105S05 | C - 4 |
| 105S06 | C - 1 |
| 105S06 | C - 2 |
| 105S06 | C - 2A |
| 107S14 | B - 1B |
| 10S02 | A - 1 |
| 10S02 | A - 3 |
| 10S03 | A - 3 |
| 10S03 | B - 1A |
| 10S03 | B - 1B |
| 10S03 | B - 1C |
| 10S04 | A - 1 |
| 10S04 | A - 2 |
| 10S04 | A - 3 |
| 10S04 | B - 1A |
| 10S05 | A - 2 |
| 10S05 | A - 3 |
| 10S05 | A - 3 |
| 10S06 | A - 2 |
| 10S06 | A - 3 |
| 10S09 | A - 1 |
| 10S09 | B - 1B |
| 10S18 | B - 1B |
| 10S20 | A - 1 |
| 10S73 | A - 3 |
| 11S01B | C - 3 |
| 11S01C | C - 5 |
| 11S02A | C - 3 |
| 11S02A | C - 4 |
| 11S03B | C - 1 |
| 11S03B | C - 2 |
| 11S04C | A - 1 |

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| 11S05C | C - 2 |
| 12S18 | C - 1 |
| 12S18 | C - 2 |
| 12S20 | C - 2 |
| 12S20 | C - 2 |
| 12S20 | C - 3 |
| 12S23 | C - 1 |
| 12S23 | C - 1 |
| 12S23 | C - 2 |
| 12S23 | C - 2 |
| 12S23 | C - 3 |
| 12S23 | C - 4 |
| 15S01A | D - 1 |
| 16S06C | C - 5 |
| 17S02 | C - 3 |
| 17S02 | C - 5 |
| 17S03 | C - 3 |
| 17S03 | C - 4 |
| 17S05 | A - 1 |
| 17S06 | C - 2 |
| 17S06 | C - 4 |
| 17S06 | C - 4 |
| 188S04C2 | C - 2A |
| 188S04D2 | C - 3 |
| 192S02 | A - 3 |
| 192S05 | A - 1 |
| 192S05 | A - 2 |
| 192S05 | A - 3 |
| 192S05 | C - 2A |
| 200S03E | B - 1A |
| 200S03G | A - 1 |
| 200S03G | A - 3 |
| 200S03G | B - 1A |

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| 203S04 | A - 3 |
| 206S03C | A - 1 |
| 208S03F | B - 1C |
| 267S03 | C - 5 |
| 284S03E | A - 3 |
| 28S05G | B - 1A |
| 30097A0140 | A - 2 |
| 30097A0140 | A - 3 |
| 30097A0213 | C - 3 |
| 41S02 | A - 3 |
| 41S03 | A - 1 |
| 41S04 | A - 1 |
| 41S04 | A - 3 |
| 41S04 | B - 1B |
| 41S05 | A - 1 |
| 41S05 | A - 2 |
| 41S05 | A - 3 |
| 41S05 | B - 1A |
| 41S05 | B - 1B |
| 41S05 | B - 1C |
| 41S07 | B - 1A |
| 44S02B | A - 3 |
| 44S03C | A - 2 |
| 44S03C | A - 3 |
| 44S03E | A - 3 |
| 44S03G | A - 2 |
| 44S03G | A - 3 |
| 44S05K | A - 1 |
| 54S01A | B - 1B |
| 55S07Q | B - 1B |
| 56S07 | C - 5 |
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| 57S05D2 | C - 1 |
| 61S03 | C - 1 |
| 61S03 | C - 2 |
| 61S04 | C - 2 |
| 61S04 | C - 2 |
| 61S04 | C - 3 |
| 61S05 | C - 1 |
| 61S05 | C - 1 |
| 61S05 | C - 2 |
| 61S05 | C - 2 |
| 61S05 | C - 3 |
| 61S05 | C - 4 |
| 66S02BB | A - 1 |
| 66S02CC | A - 3 |
| 66S02CC | B - 1B |
| 66S03AA | B - 1C |
| 66S03C | A - 3 |
| 66S03C | B - 1C |
| 66S03CC | A - 1 |
| 66S03CC | A - 1 |
| 66S03CC | B - 1B |
| 66S03D | B - 1C |
| 66S05D | B - 1A |
| 66S05D | C - 2A |
| 69S03G | A - 3 |
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| 69S05E | A - 1 |
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| 69S05E | A - 3 |
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| 6S02Z | A - 1 |
| 6S03E | B - 1B |
| 6S03E | C - 2A |
| 7S01 | A - 1 |
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| 7S01 | C - 5 |
| 7S02 | A - 1 |
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| 7S05 | C - 2 |
| 7S05 | C - 4 |
| 7S05 | C - 4 |
| 7S05 | C - 4 |
| 83S03 | A - 3 |
| 87S02 | A - 1 |
| 87S03 | C - 2A |
| 88S05D | B - 1C |
| 88S07D | B - 1A |
| 88S15D | B - 1C |
| 88S20D | B - 1A |
| 8S04E | C - 2 |
| 8S04F | C - 3 |
| 8S05C | C - 3 |
| 8S05D | C - 4 |
| 8S05E | C - 1 |
| 8S05F | C - 2 |
| 8S05H | C - 1 |
| 8S05H | C - 2 |
| 8S05H | C - 4 |
| 8S05J | C - 1 |
| 95S02 | A - 3 |
| 97S12 | C - 1 |
| 97S13 | C - 1 |

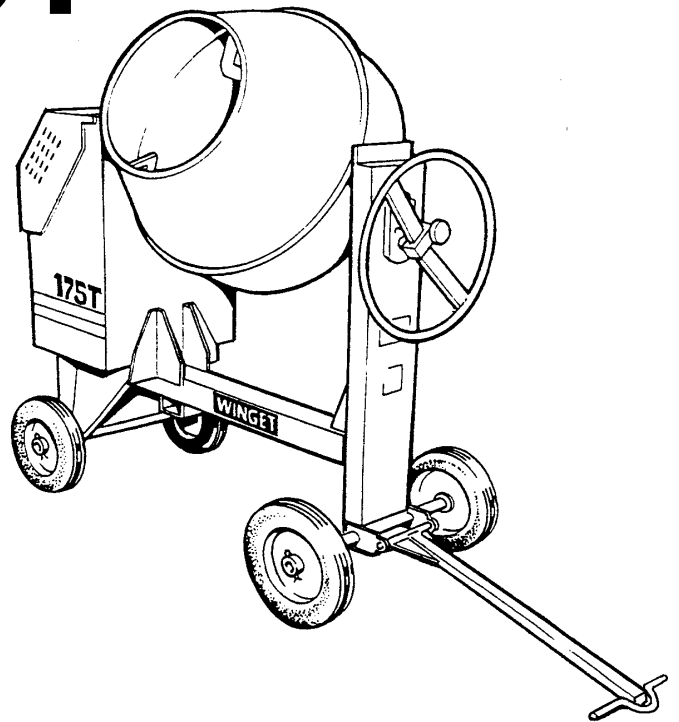
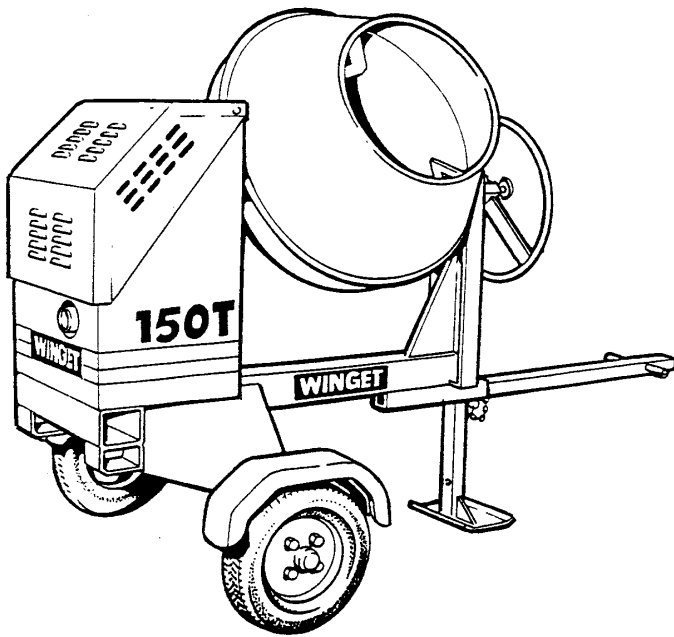
| Part no | Page no |
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| 97S13 | C - 2 |
| V2000772 | B - 1A |
| V2003038 | D - 1 |
| V2003039 | D - 1 |
| V2003101 | D - 1 |
| V2003105 | D - 2 |
| V2003106 | D - 2 |
| V2003107 | D - 2 |
| V2003598 | D - 1 |
| V2003665 | D - 1 |
| V2004130 | D - 1 |
| V2004223 | D - 2 |
| V2004227 | D - 2 |
| V2004229 | D - 2 |
| V2004235 | D - 2 |
| V2004281 | D - 2 |
| V2004282 | D - 2 |
| V2004288 | D - 2 |
| V2004289 | D - 2 |
| V2004297 | D - 1 |
| V2004302 | D - 2 |
| V2004307 | D - 1 |
| V2004796 | D - 2 |
| V2005218 | D - 2 |
| V2005276 | D - 2A |
| V2005311 | D - 2A |
| V600164 | A - 3 |
| V601906 | D - 2 |
| V602436 | D - 2 |
| V602437 | D - 2 |
| V602438 | D - 2 |
| V602651 | C - 5 |

Mixers

100T

150T

175T

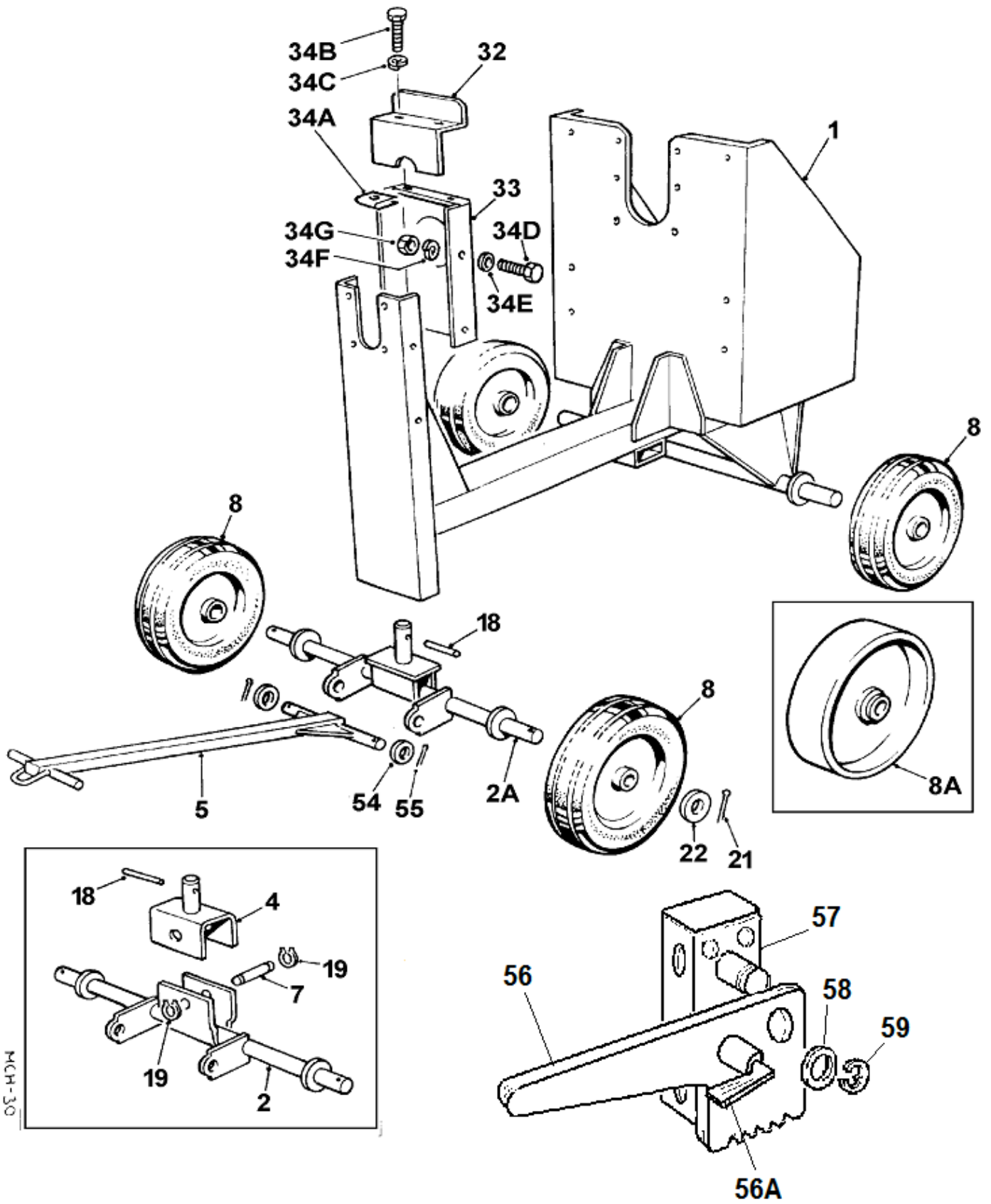


Mixers built FROM February 1988

| | |
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| FOUR WHEEL MAINFRAME (100T & 150T) | A - 1A |
| MESH GUARDS (Honda engine) | A - 1AA |
| COVERS & GUARDS (100T & 150T) | A - 1B |
| FOUR WHEEL MAINFRAME (175T) | A - 2A |
| COVERS & GUARDS (175T) | A - 2B |
| COVERS & GUARDS (AC1-05 Electric start engine) | A - 3 |
| TWO WHEEL MAINFRAME (100T & 150T) | A - 4 |
| TWO WHEEL MAINFRAME (175T) | A - 5 |
| DRUM | B - 1A |
| TRUNNION & TILT WHEEL | B - 1B |
| DRUM DRIVE | B - 1C |
| LISTER - PETTER LT1/LV1-32 (100T & 150T) | C - 1 |
| LISTER - PETTER LT1/LV1-10 (175T) | C - 1A |
| ELECTRIC DRIVE (100T) | C - 2A |
| ELECTRIC DRIVE (150T) | C - 2B |
| ELECTRIC DRIVE (175T) | C - 2C |
| START SWITCHES (electric drive) | C - 3 |
| LISTER - PETTER AC1 (electric start) | C - 4 |
| YANMAR L40/L48ARE-SE/L48N5SJ1 (electric start) | C - 5 |
| STARTING CIRCUIT, Yanmar L40/L48 ARE-SE/L48N5SJ1 | C - 6 |
| STOP CABLE, Yanmar L48N5SJ1 | C-6A |
| HONDA GX160K1 (hand start) | C - 7 |
| DECALS & PLATES | D - 1 |
| SPECIAL TOOLS | D - 3 |
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A - 1A

100T & 150T Mixers from February 1988



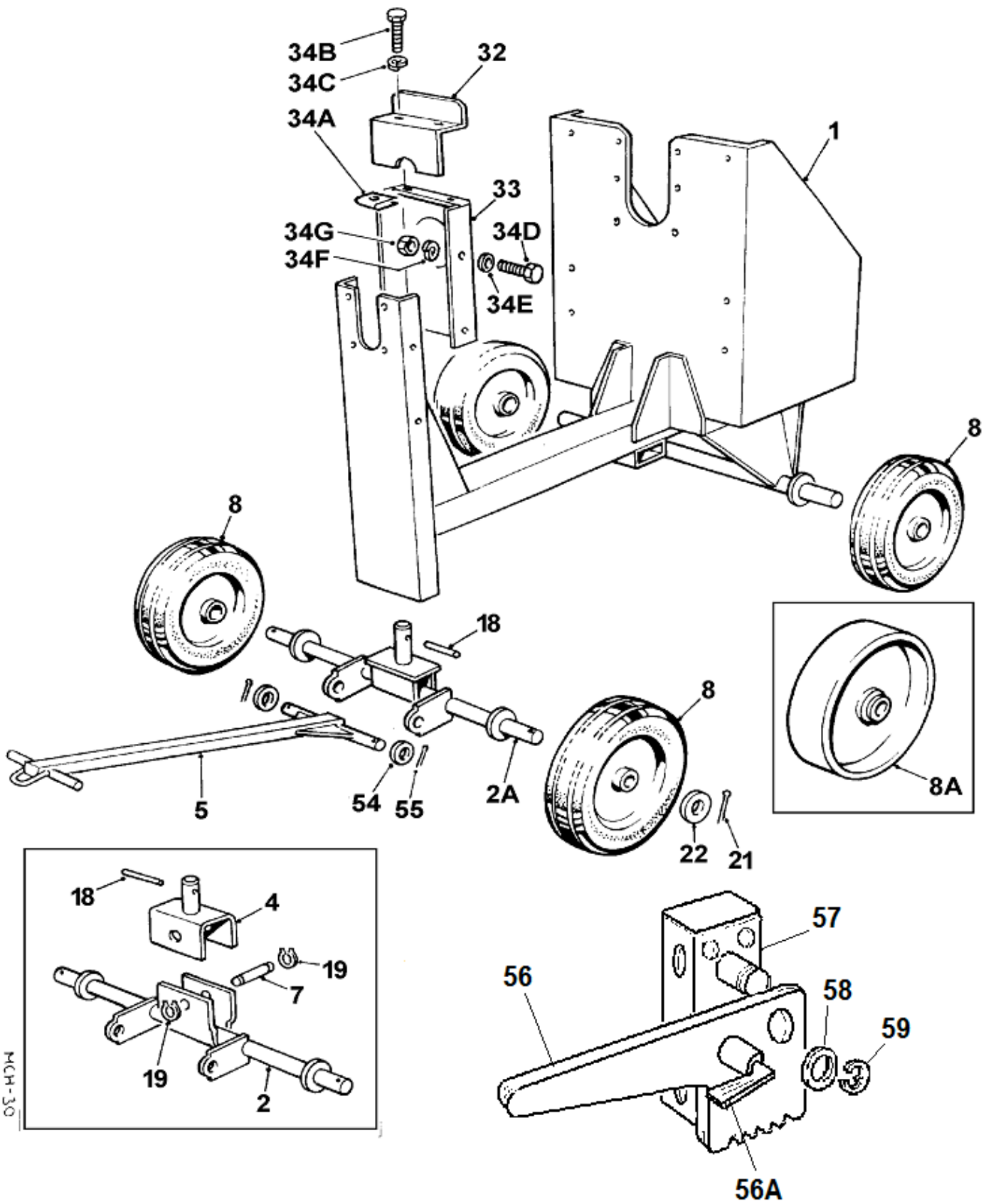
MCH-30

FOUR WHEEL MAINFRAME & TOW BAR

A - 1A

| Item | Part no | Serial no | Description | Qty |
|--------------------------|-----------|--------------------|---|-----|
| 1 | 513340900 | | MAINFRAME, 100T (Not Honda eng.) | 1 |
| 1 | 513363900 | | MAINFRAME, 100T (With Honda eng.) | 1 |
| 1 | 513341000 | | MAINFRAME, 150T | 1 |
| 2 | 513341100 | / 05641 | AXLE, front, 100T | 1 |
| 2A | 513358100 | 05642 / | AXLE, front, 100T | 1 |
| 2 | 513341100 | / 01725 | AXLE, front, 150T | 1 |
| 2A | 513358100 | 01726 / | AXLE, front, 150T | 1 |
| 4 | 513154500 | / 05641 | SWIVEL, front axle, 100T | 1 |
| 4 | 513154500 | / 01725 | SWIVEL, front axle, 150T | 1 |
| 5 | 513341200 | | TOWBAR | 1 |
| 7 | 513155000 | / 05641 | PIN, pivot, front axle, 100T | 1 |
| 7 | 513155000 | / 01725 | PIN, pivot, front axle, 150T | 1 |
| 8 | 475106000 | 100T /06312 | WHEEL, cushion tyre, 355mm (14") dia | 4 |
| 8 | 475106000 | 150T /02311 | WHEEL, cushion tyre, 355mm (14") dia | 4 |
| 8 | 475115000 | 06313/ 100T | WHEEL, cushion tyre, 405mm dia | 4 |
| 8 | 475115000 | 02312/ 150T | WHEEL, cushion tyre, 405mm dia | 4 |
| Alternative wheel | | | | |
| 8A | 513198500 | | WHEEL, steel, 400x100mm (16" x 4") (Obsolete, no longer available) | 4 |
| 18 | 353830650 | | PIN, spirol | 1 |
| 19 | 132412010 | / 05641 | CIRCLIP, 100T | 2 |
| 19 | 132412010 | / 01725 | CIRCLIP, 150T | 2 |
| 20 | 10S09 | | WASHER, flat | 4 |
| 21 | 44S05G | | PIN, split | 4 |
| - | 513198400 | | GUARD, tilt wheel, assembly | 1 |
| 32 | 513198402 | | GUARD, upper | 1 |
| 33 | 513198401 | | GUARD, lower | 1 |
| 34A | 332719000 | | NUT, captive | 2 |
| 34B | 11S02B | | SCREW, set | 2 |
| 34C | 17S03 | | WASHER, spring | 2 |
| 34D | 66S03CC | | SCREW, set | 4 |
| 34E | 10S03 | | WASHER, flat | 4 |
| 34F | 41S05 | | WASHER, spring | 4 |
| 34G | 104S03 | | Nut | 4 |
| 54 | 10S17 | | WASHER, flat | 2 |
| 55 | 44S03D | | PIN, split | 2 |

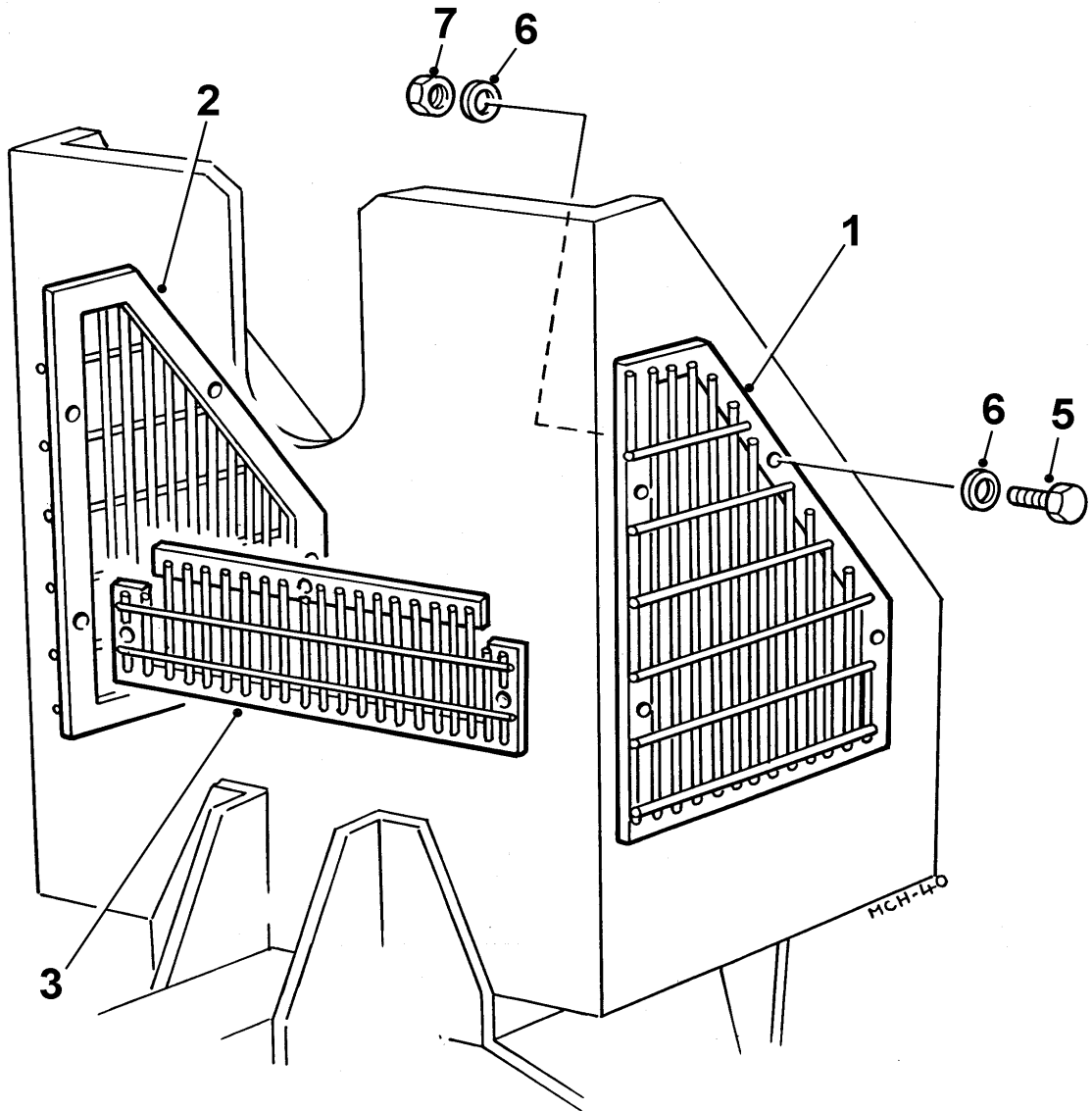
continued>>>



MCH-30

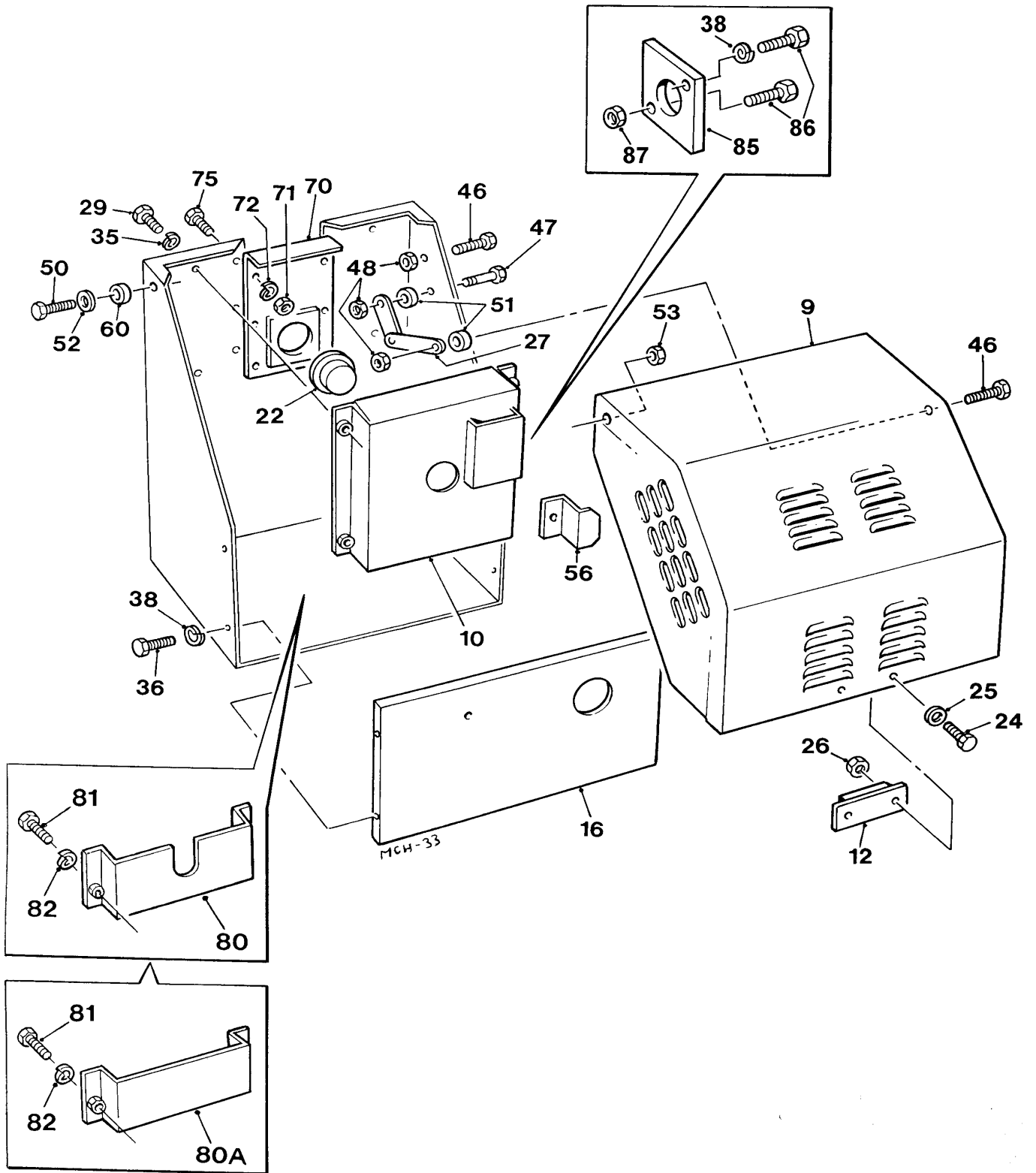
FOUR WHEEL MAINFRAME & TOW BAR**A - 1A**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---------------------------------|------------|
| | | 11195/ 05637/ | 100T 150T | |
| 56 | 513370700 | | LEVER, handbrake, assembly | 1 |
| 56A | 513370800 | | CATCH, sprung | 1 |
| 57 | 513370600 | | PIVOT, bracket | 1 |
| 57A | 11S04C | | SCREW, set, not illustrated | 2 |
| 57B | 17S05 | | WASHER, spring, not illustrated | 2 |
| 57C | 267S06 | | WASHER, flat, not illustrated | 2 |
| 58 | 10S18 | | WASHER, flat | 1 |
| 59 | 132412010 | | CIRCLIP | 1 |



MESH GUARDS**A - 1AA**

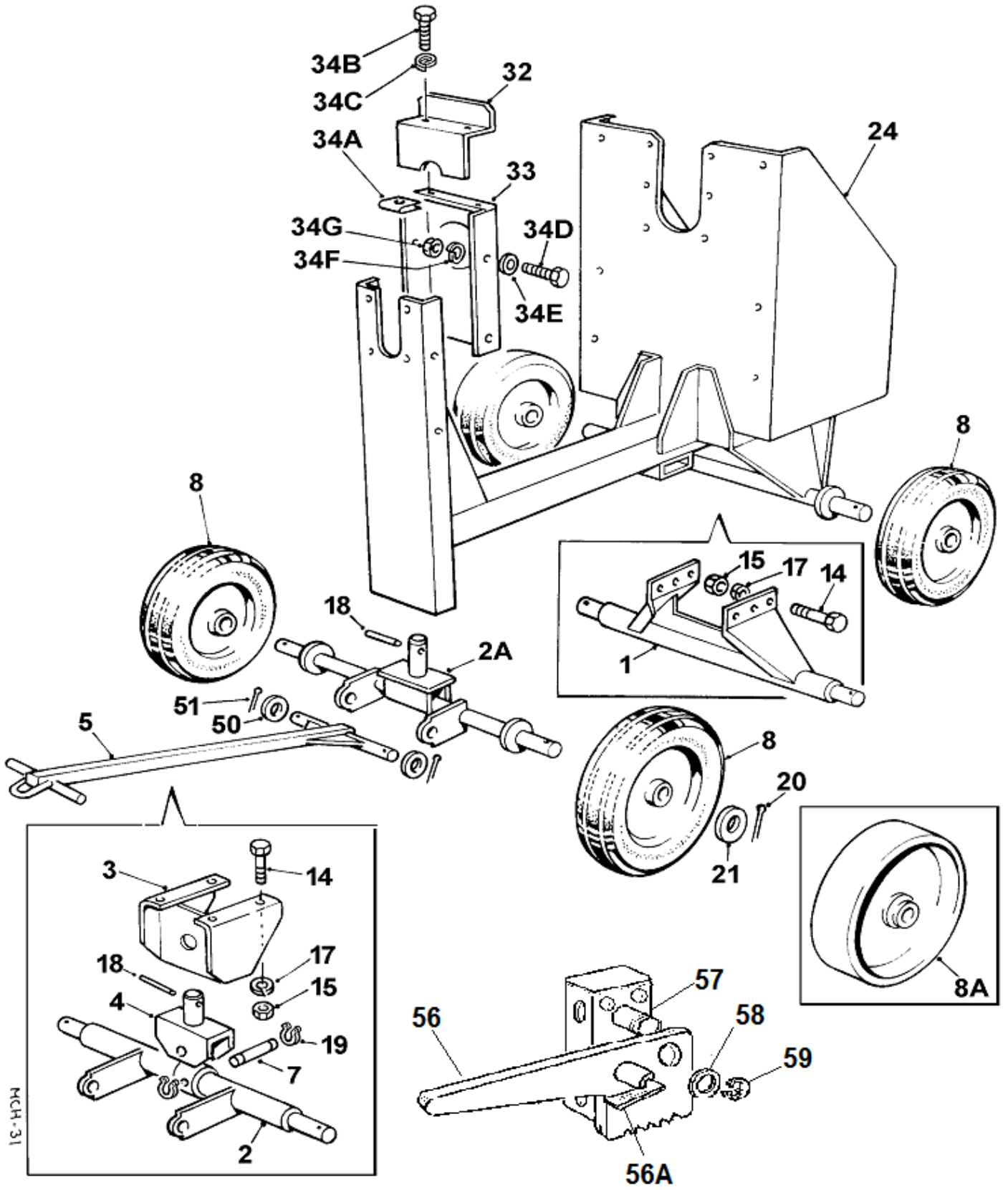
| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------|------------|
| 1 | 513364300 | | GUARD, mesh, L.H. | 1 |
| 2 | 513364400 | | GUARD, mesh, R.H. | 1 |
| 3 | 513364500 | | GUARD, mesh, rear | 1 |
| 5 | 11S02B | | SCREW, set | 11 |
| 6 | 267S04 | | WASHER, flat | 22 |
| 7 | 61S02 | | NUT, self locking | 11 |



COVERS & GUARDS

A - 1B

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|---|-----|
| 9 | 513341300 | | LID, engine housing | 1 |
| 10 | 513341400 | | GUARD, chain/belt | 1 |
| 12 | V2003109 | | STOP, rubber (<i>screw-in bobbin</i>) | 2 |
| 12 | 513205300 | | STOP, rubber (<i>two screw block</i>) | 1 |
| 16 | 513341500 | | PLATE, 100T , (<i>Not Honda engine</i>) | 1 |
| 16 | 513364100 | | PLATE, 100T , (<i>With Honda engine</i>) | 1 |
| 16 | 513341600 | | PLATE, 150T | 1 |
| 22 | 241859000 | | PLUG, polythene | 1 |
| 24 | 11S02A | | SCREW, set | 2 |
| 25 | 267S04 | | WASHER, flat | 2 |
| 26 | 61S02 | | NUT, Binx, self-locking | 2 |
| 27 | 513287200 | | STAY, housing lid | 1 |
| 29 | 11S02B | | SCREW, set | 4 |
| 35 | 17S03 | | WASHER, spring | 4 |
| 36 | 11S02B | | SCREW, set | 4 |
| 38 | 17S03 | | WASHER, spring | 4 |
| 46 | 28S02E | | SCREW, set | 2 |
| 47 | 6S02E | | BOLT | 1 |
| 48 | 87S02 | | NUT, binx, self-locking | 3 |
| 50 | 11S04E | | SCREW, set | 2 |
| 51 | 513340800 | | SPACER | 2 |
| 52 | 267S06 | | WASHER, flat | 4 |
| 53 | 7S04 | | NUT | 2 |
| 56 | 513285000 | / 05641 | BRACKET, starting handle, 100T | 1 |
| 56 | 513285000 | / 01725 | BRACKET, starting handle, 150T | 1 |
| 56 | ..... |  | <i>(Not used with Yanmar or Honda engines)</i> | |
| 60 | 555170000 | | SPACER | 2 |
| 70 | 513151800 | | BRACKET, trunnion | 1 |
| 71 | 104S03 | | NUT | 6 |
| 72 | 41S05 | | WASHER, spring | 6 |
| 75 | 66S03CC | | SCREW, set | 6 |
| 80 | 513355800 | | GUARD, (<i>electric motors only</i>) | 1 |
| 80A | 513362400 | | # GUARD, (150T with Yanmar eng. only) | 1 |
| 81 | 11S02A | | SCREW, set | 2 |
| 82 | 17S03 | | WASHER, spring | 2 |
| | | 06737 / | # 100T (<i>with Yanmar & Honda engines only</i>) | |
| | | 02719 / | # 150T (<i>with Yanmar engines only</i>) | |
| 85 | 513362600 | / | # PLATE | 1 |
| 86 | 11S02D | / | # SCREW, set | 2 |
| 87 | 61S02 | / | # NUT, Binx | 1/2 |

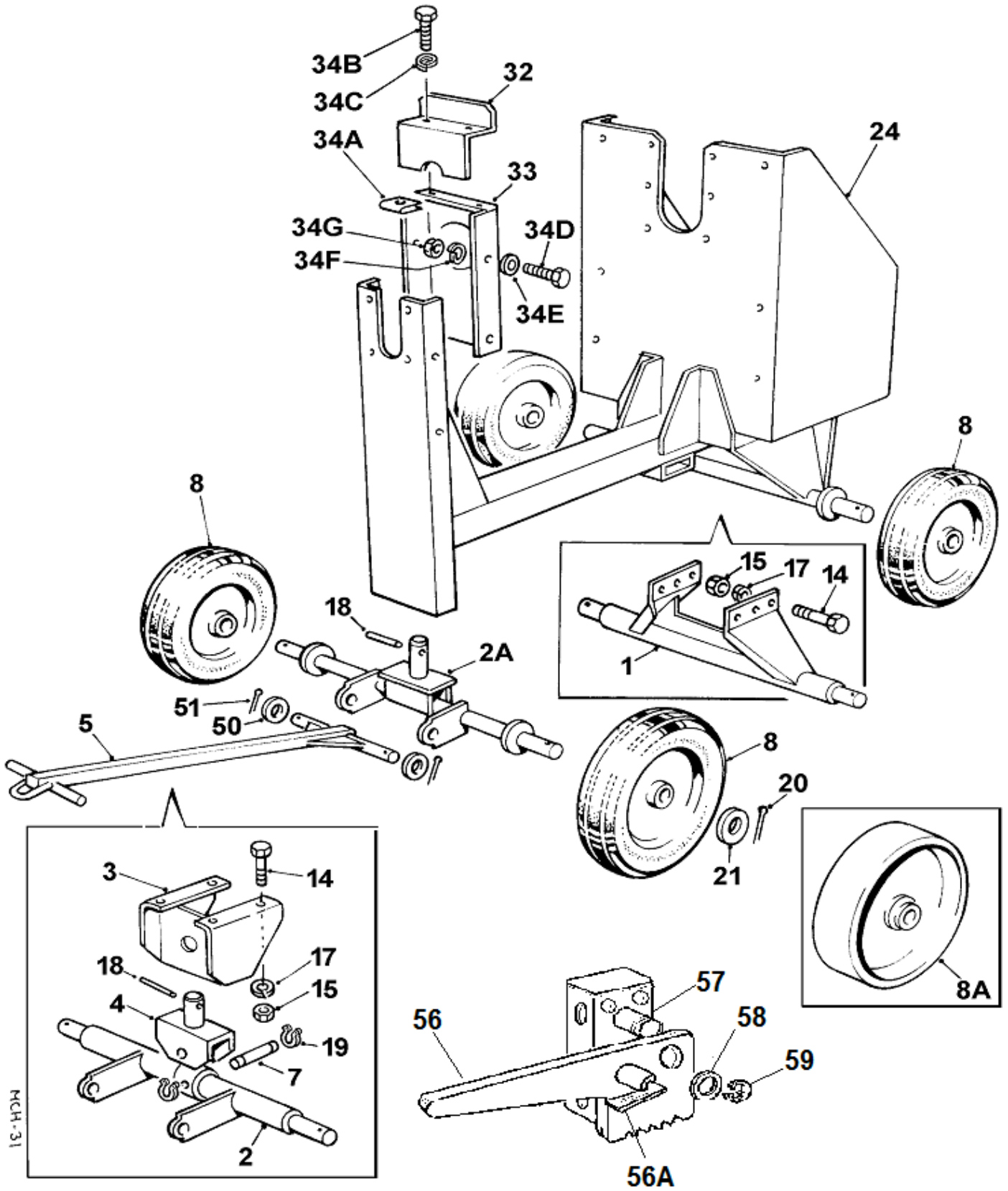


FOUR WHEEL MAINFRAME & TOW BAR

A - 2A

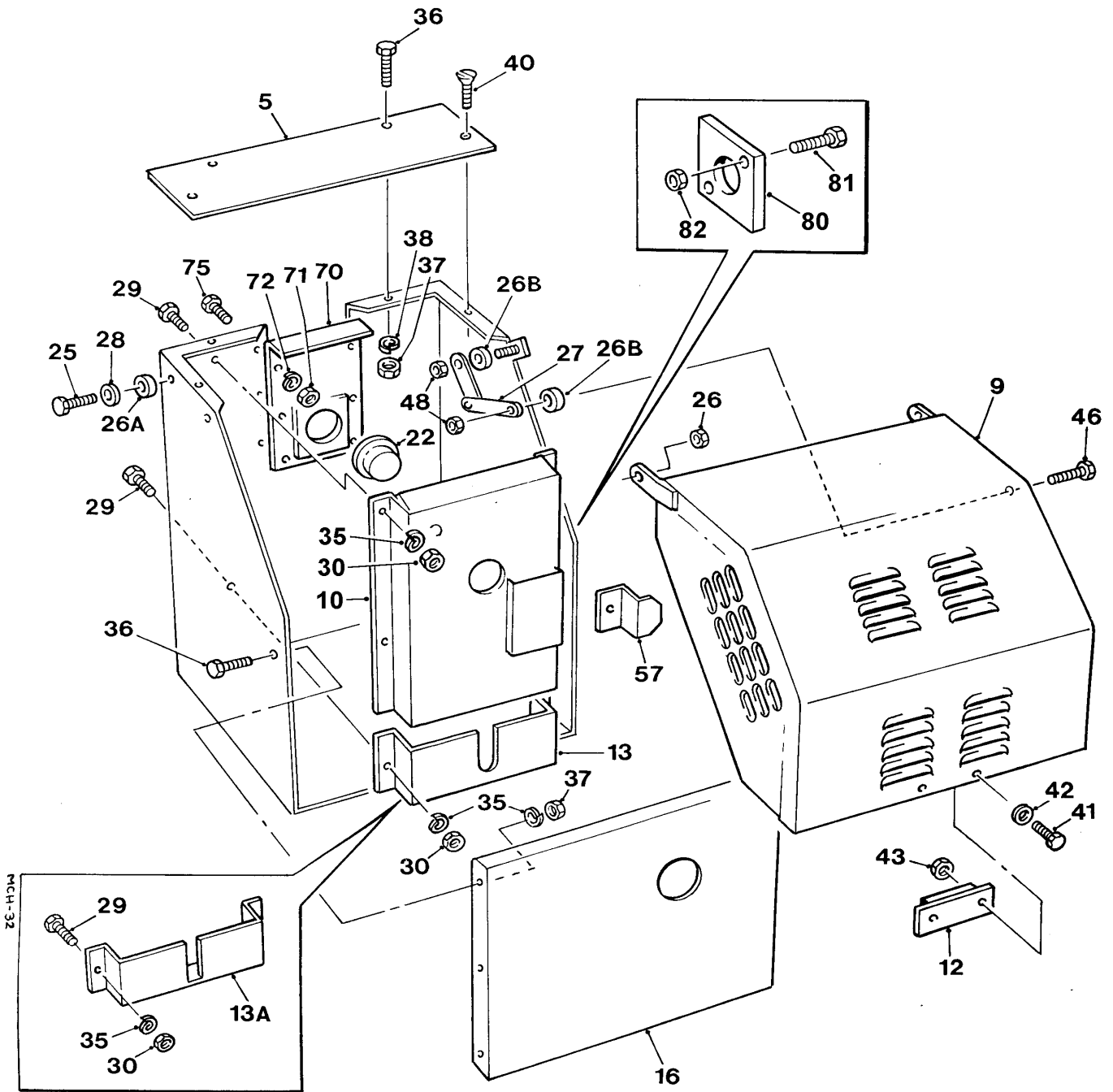
| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|--|-----|
| 1 | 513275200 | / 01725 | AXLE, rear | 1 |
| 2 | 513203400 | / 01725 | AXLE, front | 1 |
| 2A | 513358100 | 01726 / | AXLE, front | 1 |
| 3 | 513274900 | / 01725 | BRACKET, front axle swivel | 1 |
| 4 | 513154500 | / 01725 | SWIVEL, front axle | 1 |
| 5 | 513341200 | | TOWBAR | 1 |
| 7 | 513155000 | / 01725 | PIN, pivot, front axle | 1 |
| 8 | 475106000 | / 02277 | WHEEL, cushion tyre, 355mm (14") dia | 4 |
| 8 | 475115000 | 02282 / | WHEEL, cushion tyre, 405mm (16") dia | 4 |
| | | | Alternative wheel | |
| 8A | 513198500 | | WHEEL, steel, 400x100mm (16" x4") (Obsolete, no longer available) | 4 |
| 14 | 69S05E | | BOLT | 10 |
| 15 | 192S05 | | NUT | 10 |
| 17 | 10S04 | | WASHER, flat | 10 |
| 18 | 353830650 | | PIN, spirol | 1 |
| 19 | 132412010 | / 01725 | CIRCLIP | 2 |
| 20 | 44S05G | | PIN, split | 4 |
| 21 | 10S09 | | WASHER, flat | 4 |
| 24 | 513269400 | | MAINFRAME | 1 |
| - | 513198400 | | GUARD, tilt wheel, assembly | 1 |
| 32 | 513198402 | | GUARD, upper | 1 |
| 33 | 513198401 | | GUARD, lower | 1 |
| 34A | 332719000 | / June-96 | NUT, captive (Replaced by nuts welded to guard) | 2 |
| 34B | 11S02B | | SCREW, set | 2 |
| 34C | 17S03 | | WASHER, spring | 2 |
| 34D | 66S03CC | | SCREW, set | 4 |
| 34E | 10S03 | | WASHER, flat | 4 |
| 34F | 41S05 | | WASHER, spring | 4 |
| 34G | 104S03 | | NUT | 4 |
| 50 | 10S17 | | WASHER, flat | 2 |
| 51 | 44S03D | | PIN, split | 2 |

continued>>>



FOUR WHEEL MAINFRAME & TOW BAR**A - 2A**

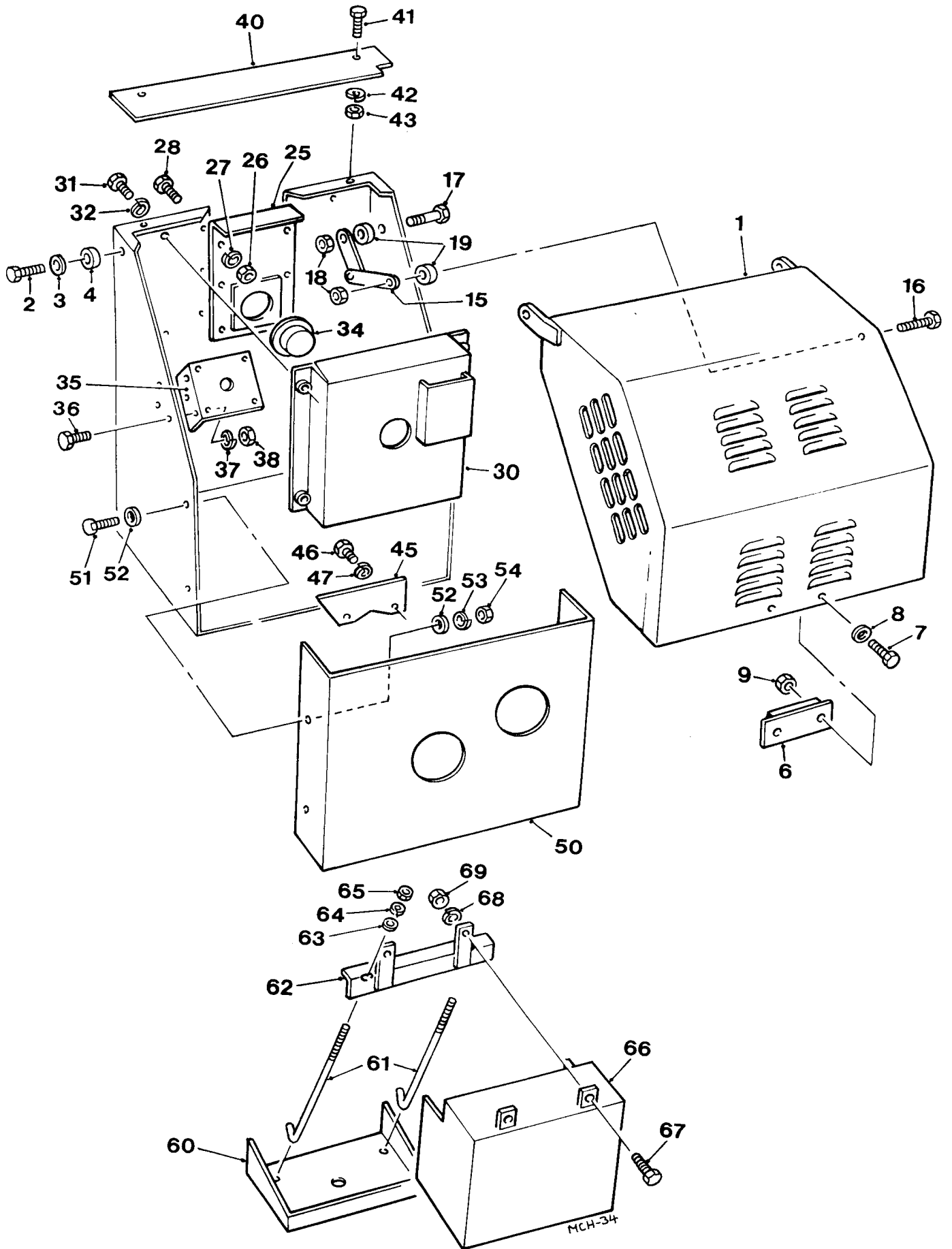
| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---------------------------------|------------|
| | | 05604/ | 175T | |
| 56 | 513370700 | | LEVER, handbrake, assembly | 1 |
| 56A | 513370800 | | CATCH, sprung | 1 |
| 57 | 513370600 | | PIVOT, bracket | 1 |
| 57A | 11S04C | | SCREW, set, not illustrated | 2 |
| 57B | 17S05 | | WASHER, spring, not illustrated | 2 |
| 57C | 267S06 | | WASHER, flat, not illustrated | 2 |
| 58 | 10S18 | | WASHER, flat | 1 |
| 59 | 132412010 | | CIRCLIP | 1 |



COVERS & GUARDS

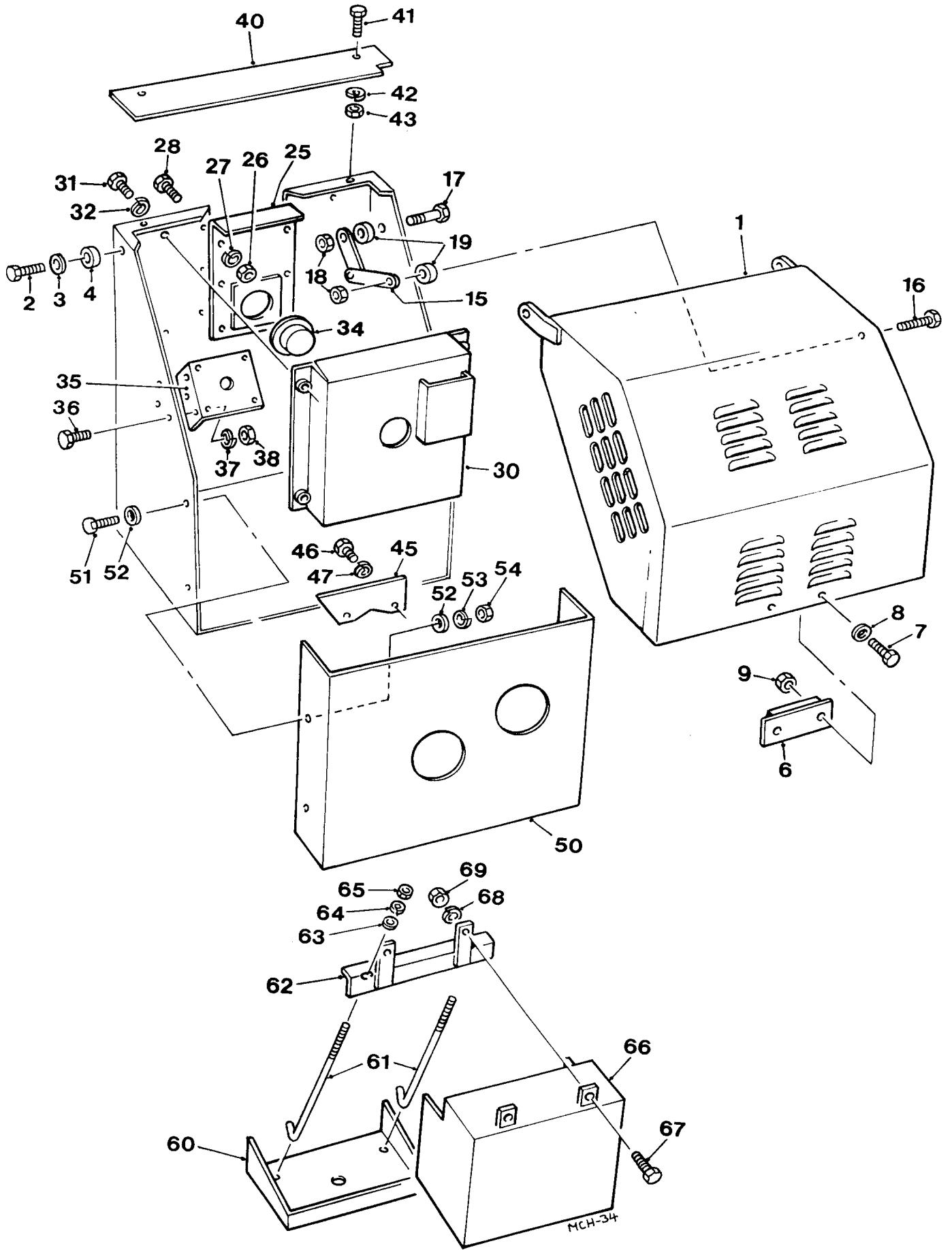
A - 2B

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|--|-----|
| 5 | 513287000 | | TOP PLATE, engine housing | 1 |
| 9 | 513286800 | | LID, engine housing | 1 |
| 10 | 513248700 | | GUARD, chain | 1 |
| 12 | V2003109 | | STOP, rubber (round screw-in bobbin) | 1 |
| 12 | 513205300 | | STOP, rubber (two screw block) | 1 |
| 13 | 513266900 | | GUARD, sprocket, diesel engine | 1 |
| 13A | 513205600 | | GUARD, sprocket, electric motor | 1 |
| 16 | 513270300 | | PLATE, closing | 1 |
| 22 | 241859000 | | PLUG, polythene | 1 |
| 25 | 11S04E | | SCREW, set | 2 |
| 26 | 7S04 | | NUT | 2 |
| 26A | 555170000 | | SPACER | 2 |
| 26B | 513340800 | | SPACER | 2 |
| 27 | 513287200 | | STAY, housing lid | 1 |
| 28 | 267S06 | | WASHER, flat | 2 |
| 29 | 66S03CC | | SCREW, set | 6 |
| 30 | 104S03 | | NUT | 6 |
| 35 | 41S05 | | WASHER, spring | 12 |
| 36 | 11S02A | | SCREW, set | 2 |
| 36A | 66S03CC | | SCREW, set | 6 |
| 37 | 7S02 | | NUT | 4 |
| 37A | 104S03 | | NUT | 6 |
| 38 | 17S03 | | WASHER, spring | 4 |
| 40 | 52S02C | | SCREW, c'sunk socket head | 2 |
| 41 | 11S02A | | SCREW, set | 2 |
| 42 | 267S04 | | WASHER, flat | 2 |
| 43 | 61S02 | | NUT, Binx, self-locking | 2 |
| 46 | 6S02E | | BOLT | 1 |
| 48 | 87S02 | | NUT, binx | 2 |
| 57 | 513285000 | | BRACKET, starting handle | 1 |
| 70 | 513151800 | | BRACKET, trunnion | 1 |
| 71 | 104S03 | | NUT | 6 |
| 72 | 41S05 | | WASHER, spring | 6 |
| 75 | 66S03CC | | SCREW, set | 6 |
| 80 | 513362600 | 02719 / | PLATE, (<i>with Yanmar engines</i>) | 1 |
| 81 | 11S02C | 02719 / | SCREW, set, (<i>with Yanmar engines</i>) | 2 |
| 82 | 61S02 | 02719 / | NUT, Binx, (<i>with Yanmar engines</i>) | 2 |



COVERS & GUARDS (Lister-Petter AC1-05 Electric Start) A - 3

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|-----------------------|------------|
| 1 | 513286800 | | LID, engine housing | 1 |
| 2 | 11S04C | | SCREW, set | 2 |
| 3 | 267S06 | | WASHER, flat | 2 |
| 4 | 555170000 | | SPACER | 2 |
| 6 | 513205300 | | STOP, rubber | 1 |
| 7 | 11S02A | | SCREW | 2 |
| 8 | 267S04 | | WASHER, flat | 2 |
| 9 | 61S02 | | NUT, Binx | 2 |
| 15 | 513287200 | | STAY, housing lid | 1 |
| 16 | 6S02E | | BOLT | 1 |
| 17 | 28S02E | | SCREW, set | 1 |
| 18 | 87S02 | | NUT, Binx | 2 |
| 19 | 513340800 | | SPACER | 2 |
| 25 | 513151800 | | BRACKET, trunnion | 1 |
| 26 | 104S03 | | NUT | 6 |
| 27 | 41S05 | | WASHER, spring | 6 |
| 28 | 66S03CC | | SCREW, set | 6 |
| 30 | 513341400 | | GUARD, chain | 1 |
| 31 | 11S02A | | SCREW, set | 4 |
| 32 | 17S03 | | WASHER, spring | 4 |
| 34 | 241859000 | | PLUG, polythene | 1 |
| 35 | 513359200 | | BRACKET, start switch | 1 |
| 36 | 11S03A | | SCREW, set | 3 |
| 37 | 17S04 | | WASHER | 3 |
| 38 | 7S03 | | NUT | 3 |
| 40 | 513358900 | | PLATE, top infill | 1 |
| 41 | 11S02A | | SCREW, set | 2 |
| 42 | 17S03 | | WASHER, spring | 2 |
| 43 | 7S02 | | NUT | 2 |
| 45 | 513359100 | | PLATE, belt guard | 1 |
| 46 | 66S03C | | SCREW, set | 1 |
| 47 | 41S05 | | WASHER, spring | 1 |
| 50 | 513358400 | | PLATE, closing | 1 |
| 51 | 11S02A | | SCREW, set | 4 |
| 52 | 267S04 | | WASHER, flat | 8 |
| 53 | 17S03 | | WASHER, spring | 4 |
| 54 | 7S02 | | NUT | 4 |

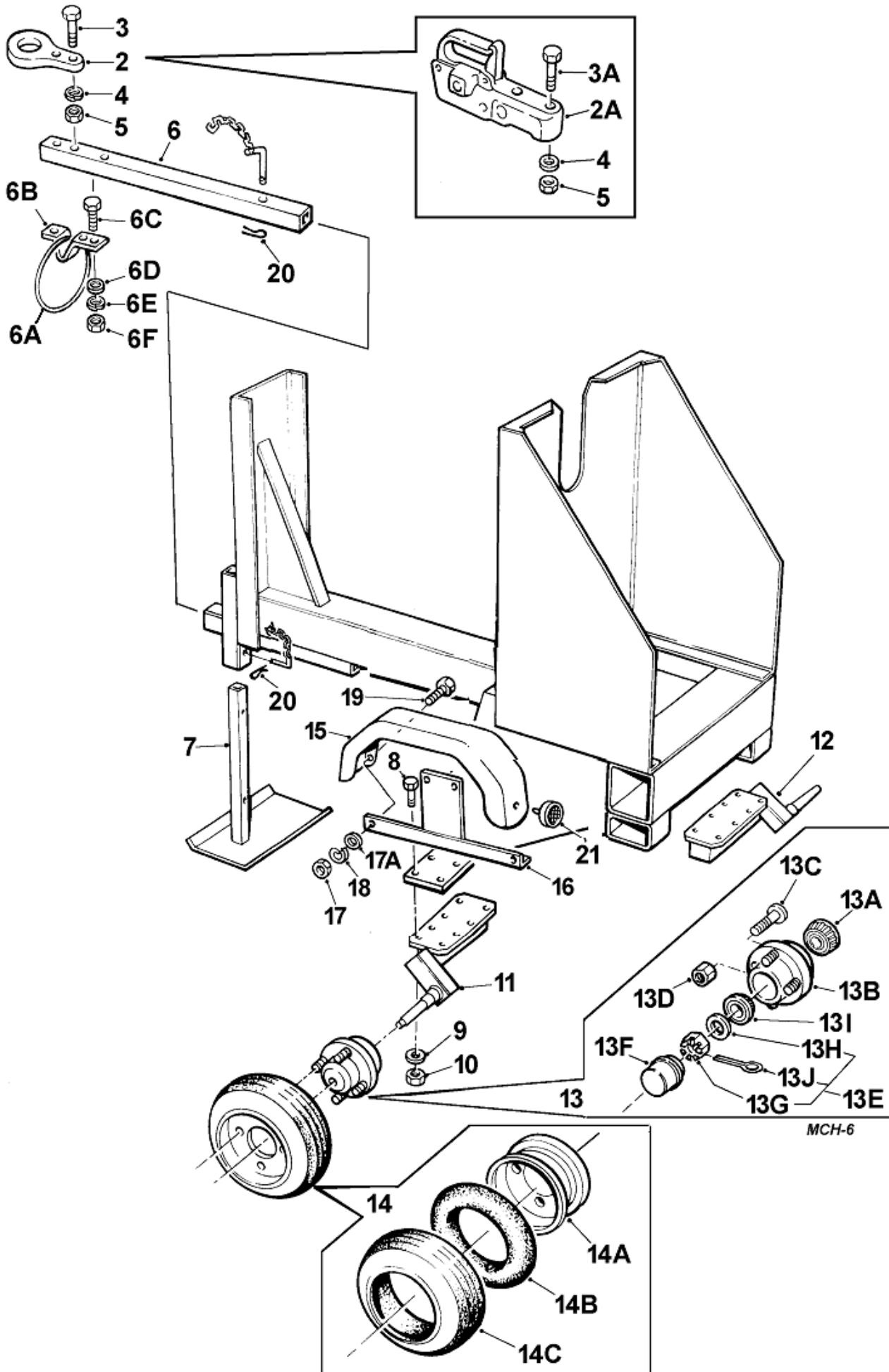


COVERS & GUARDS (Lister-Petter AC1-05 Electric Start) A - 3

| Item | Part no | Serial no | Description | Qty |
|------|---------|-----------|-------------|-----|
|------|---------|-----------|-------------|-----|

Continued>>>

| | | | | |
|----|-----------|--|--------------------------------------|---|
| 60 | 513358500 | | BRACKET, battery (welded to chassis) | 1 |
| 61 | V2004120 | | ROD | 2 |
| 62 | V2004055 | | CLAMP | 1 |
| 63 | 267S04 | | WASHER, flat | 2 |
| 64 | 17S03 | | WASHER, spring | 2 |
| 65 | 7S04 | | NUT | 2 |
| 66 | 513358600 | | COVER, battery | 1 |
| 67 | 11S04B | | SCREW, set | 2 |
| 68 | 17S05 | | WASHER, spring | 2 |
| 69 | 7S04 | | NUT | 2 |

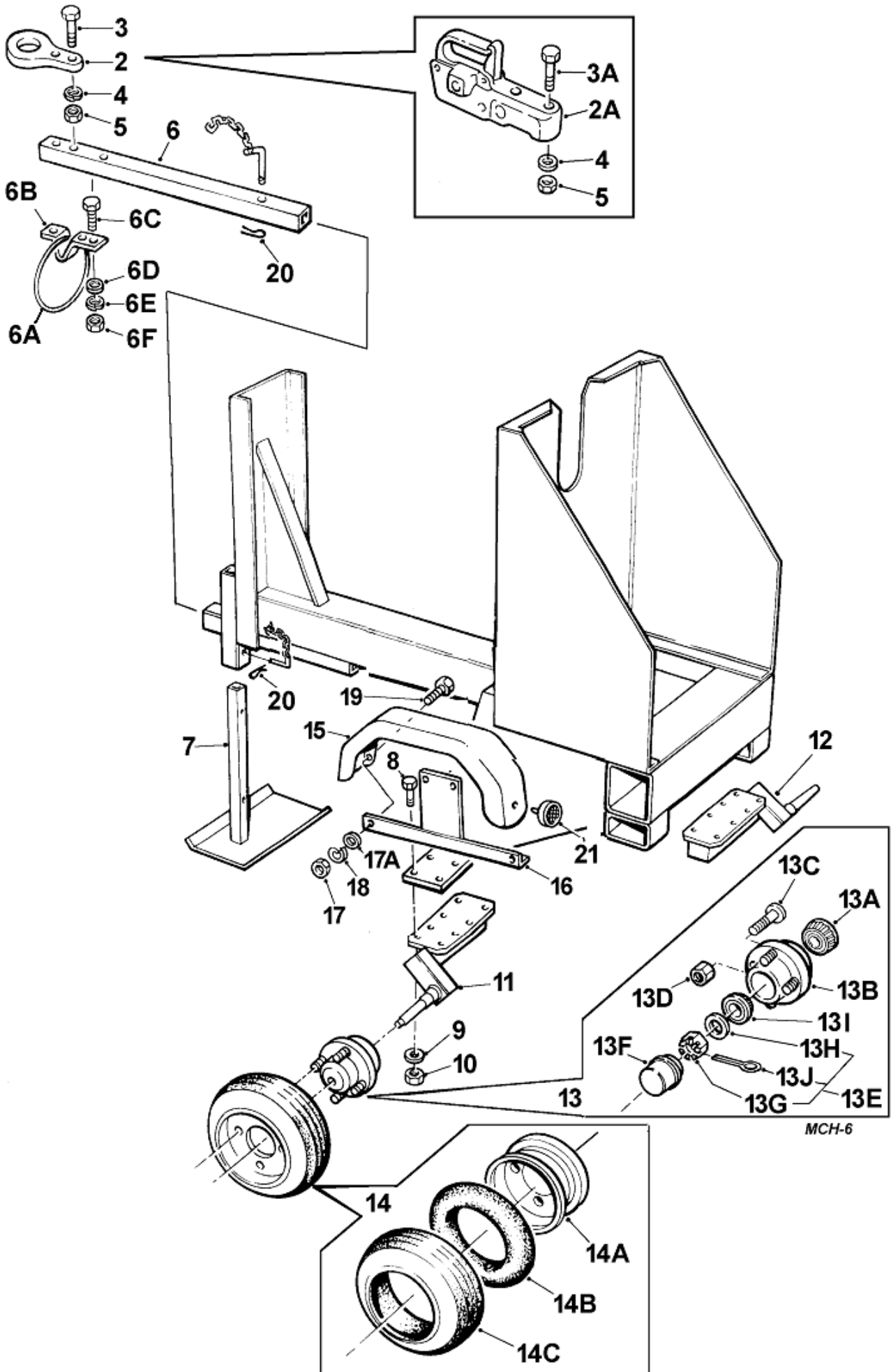


TWO WHEEL MAINFRAME & TOW BAR

A - 4

| Item | Part no | Date | Description | Qty |
|------|-----------|----------|--|----------|
| - | 513342200 | | MAINFRAME, assembly, 100T | 1 |
| - | 513342300 | | MAINFRAME, assembly, 150T | 1 |
| 1 | 513344200 | | MAINFRAME, 100T | 1 |
| 1 | 513344300 | | MAINFRAME, 150T | 1 |
| 2 | 513344000 | | EYE, towing | 1 |
| 2A | 513364700 | Nov-03 / | COUPLING, towing | 1 |
| 3 | 8S04E | | BOLT | 2 |
| 3A | 8S04L | Nov-03 / | BOLT | 2 |
| 4 | 267S06 | | WASHER, spring | 2 |
| 5 | 59S03 | | NUT | 2 |
| 6 | 513343800 | | ARM, towing, adjustable | 1 |
| 6A | V2004765 | | CABLE, breakaway, towbar | 1 |
| 6B | V2004765A | | SUPPORT, towbar | 1 |
| 6C | 11S04C | | SCREW, set | 3 |
| 6D | 267S06 | | WASHER, flat | 3 |
| 6E | 17S05 | | WASHER, spring | 3 |
| 6F | 7S04 | | NUT | 3 |
| 7 | 513343900 | | LEG, adjustable | 1 |
| 8 | 8S03B | | BOLT | 16 |
| 9 | 267S05 | | WASHER, flat | 16 |
| 10 | 61S03 | | NUT, locking | 16 |
| 11 | 475130300 | | # SUSPENSION UNIT, L.H. | 2 |
| 12 | 475130400 | | # SUSPENSION UNIT, R.H. | 2 |
| 13 | 475130200 | | # HUB, wheel, assembly | 2 |
| 13A | V600149 | | KIT, bearing | 2 |
| 13B | V600150 | | HUB | 1 |
| 13C | V600151 | | \$ KIT, stud, imperial 3/8" UNF | set of 4 |
| 13C | V603612 | | \$ KIT, stud, metric M10 fine | set of 4 |
| 13D | V600152 | | \$ KIT, nut, imperial 3/8" UNF | set of 4 |
| 13D | V603611 | | \$ KIT, nut, metric M10 fine | set of 4 |
| | | | \$ <i>When ordering state whether "Metric" or "Imperial"</i> | |
| 13E | V600153 | | KIT, fastening | 1 |
| 13F | V600154 | | CAP | 1 |
| 13G | 216S08 | | NUT, "metric" | 1 |
| 13G | 92S07 | | NUT, "imperial" | 1 |
| 13H | 10S05 | | WASHER | 1 |
| 13I | 475117006 | | BEARING | 1 |
| 13J | 44S03C | | PIN, split | 1 |
| 14 | 475117021 | | # WHEEL, assembly | 2 |
| 14A | V600155 | | RIM, wheel | 1 |
| 14B | 475117008 | | TUBE, inner | 1 |
| 14C | 475117007 | | TYRE | 1 |

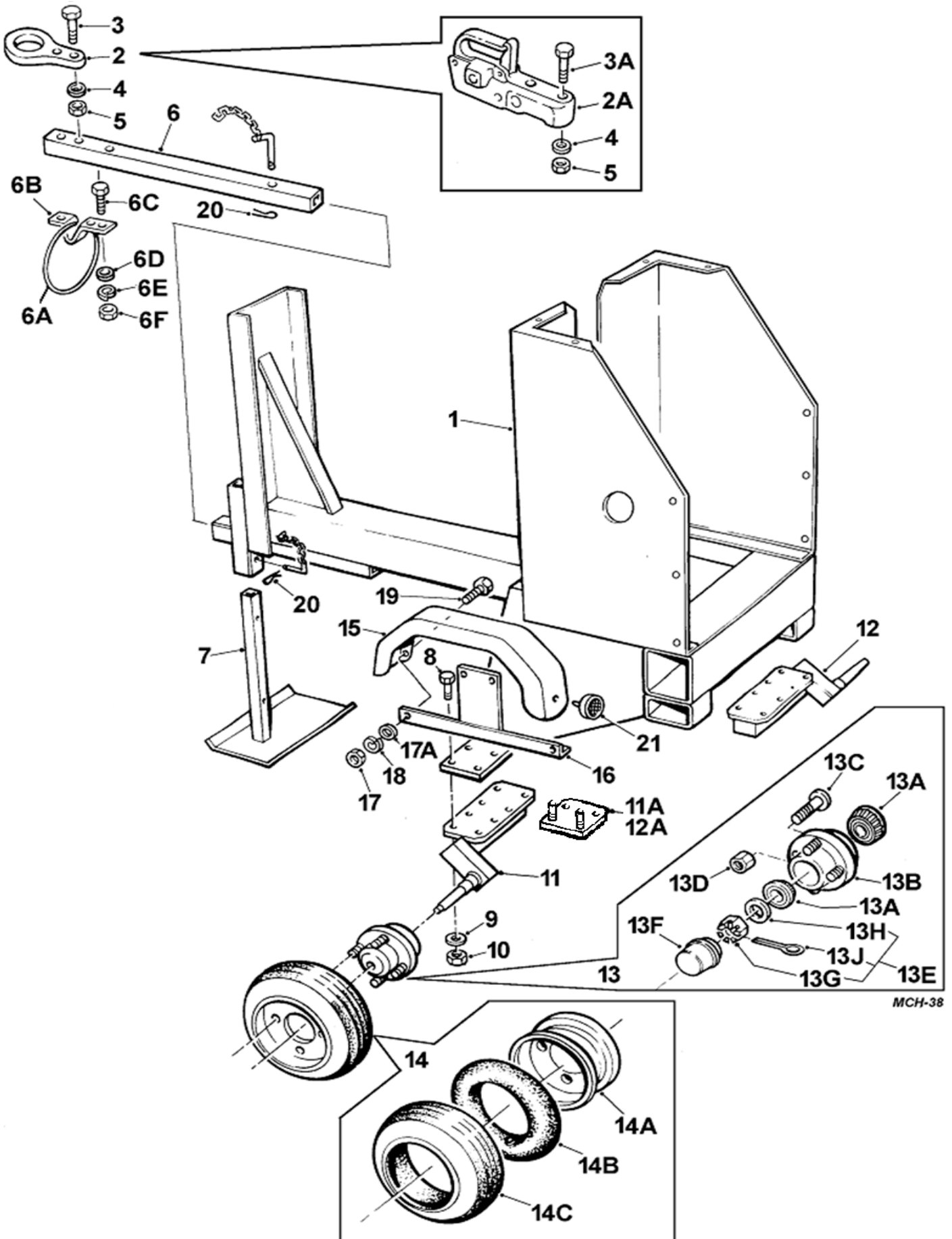
Items 11, 12, 13, & 14 are supplied as part of kit suspension. Part number 513343700



TWO WHEEL MAINFRAME & TOW BAR

A - 4

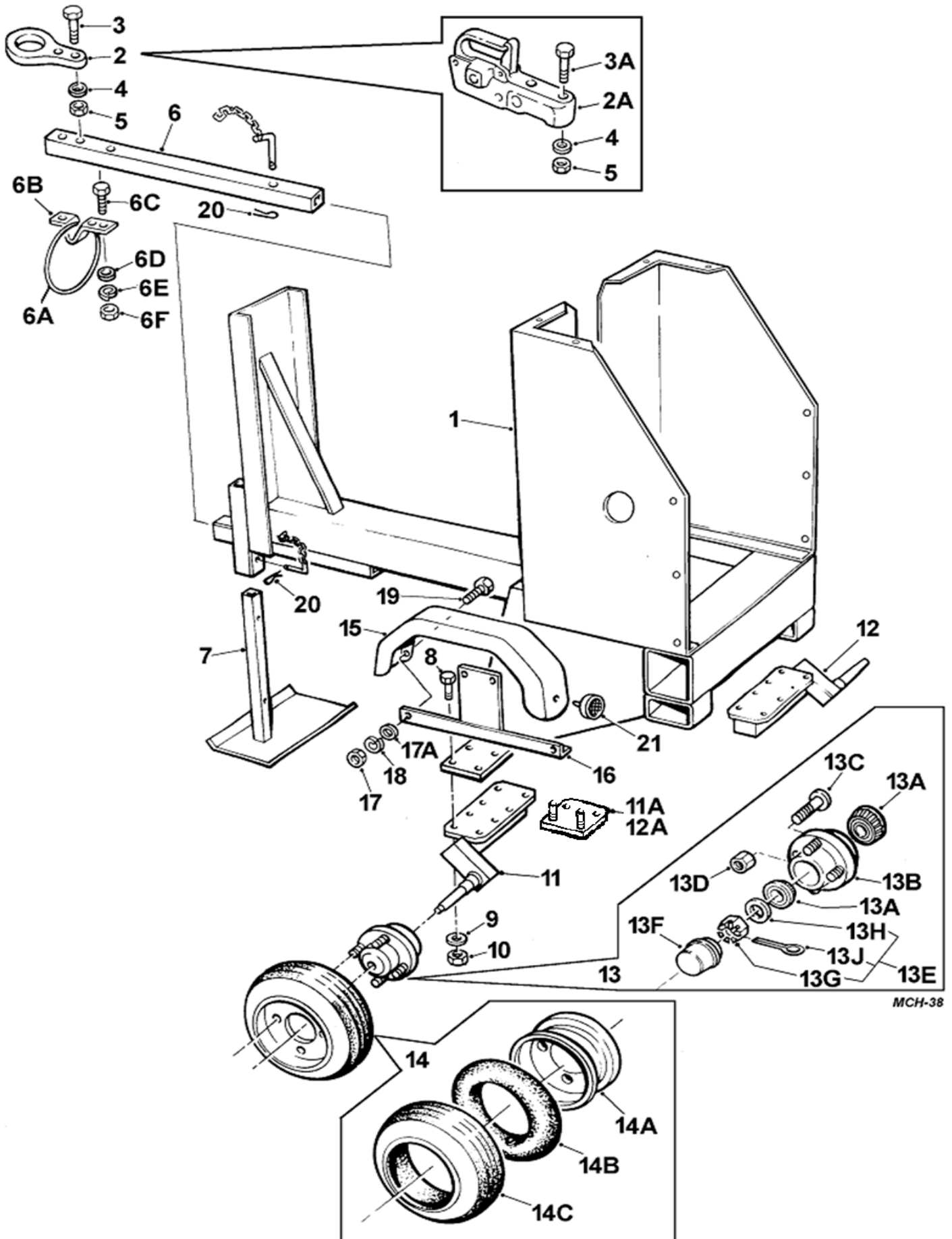
| Item | Part no | Serial no | Description | Qty |
|--|------------|-----------------|--|-----|
| 15 | 513167900 | 804120 / | MUDGUARD | 2 |
| 16 | 513345700 | 804120 Sept '16 | BRACKET, mudguard | 2 |
| 16 | 513345700 | Sept '16 / | BRACKET, mudguard | 2 |
| 17 | 104S03 | 804120 / | NUT | 6/8 |
| 17A | V2004220 | Sept '16 / | WASHER, flat | 4 |
| 18 | 41S05 | 804120 / | WASHER, spring | 6/8 |
| 19 | 200S03E | 804120 / | SCREW, round head | 6/8 |
| 20 | 902S02 | 804120 / | PIN, lynch | 2 |
| 21 | 386102000 | 804120 / | REFLECTOR, red, non triangular, rear of mudguard, not EU from serial nos below | 2 |
| <i>Following parts are not illustrated</i> | | | | |
| <i>From serial nos 100T-09456, 150T-05103</i> | | | | |
| 22 | 386103000 | | REFLECTOR, white, non triangular front of mudguard | 2 |
| 22A | 513369300S | | BRACKET, reflector, white, straight | 2 |
| 22B | 11S01A | | SCREW, set | 4 |
| 22C | 267S03 | | WASHER, flat | 6 |
| 22D | 59S13 | | NUT, nyloc | 4 |
| 23 | 386104000 | | REFLECTOR, amber, non triangular top of mudguard | 2 |
| 23A | 513369300F | | BRACKET, reflector, amber, folded | 2 |
| 23B | 11S01A | | SCREW, set | 4 |
| 23C | 267S03 | | WASHER, flat | 6 |
| 23D | 59S13 | | NUT, nyloc | 4 |
| 24 | V2006349 | | BOARD, lighting | 1 |
| 24A | 513369700 | | BUSH, flanged, plastic | 4 |
| 25 | 513369600 | | PLATE, lighting board mounting | 1 |
| 25A | 8S04F | | BOLT, plate retaining | 2 |
| 25B | V2004220 | | WASHER, special | 4 |
| 25C | 59S03 | | NUT, nyloc | 2 |
| 26 | V2006351 | | NUT, winged | 2 |
| 27 | 267S06 | | WASHER, flat | 2 |



TWO WHEEL MAINFRAME & TOW BAR

A - 5

| Item | Part no | Serial no | Description | Qty |
|---|-----------|-----------|---|-----|
| ..... | 513345100 | 02184 / | MAINFRAME, assembly | |
| 1 | 513360200 | | MAINFRAME, 175T FT | 1 |
| 2 | 513344000 | | EYE, towing | 1 |
| 2A | 513364700 | Nov-03 / | COUPLING, towing | 1 |
| 3 | 8S04E | | BOLT | 2 |
| 3A | 8S04L | Nov-03 / | BOLT | 2 |
| 4 | 267S06 | | WASHER, spring | 2 |
| 5 | 59S03 | | NUT | 2 |
| 6 | 513343800 | | ARM, towing, adjustable | 1 |
| 6A | V2004765 | | CABLE, breakaway, towbar | 1 |
| 6B | V2004765A | | SUPPORT, towbar | 1 |
| 6C | 11S04C | | SCREW, set | 3 |
| 6D | 267S06 | | WASHER, flat | 3 |
| 6E | 17S05 | | WASHER, spring | 3 |
| 6F | 7S04 | | NUT | 3 |
| 7 | 513343900 | | LEG, adjustable | 1 |
| 8 | 11S05E | | SCREW, set | 16 |
| 8A | 11S05F | 05250/ | SCREW, set, <i>use with 11A & 12A</i> | 4 |
| 9 | 267S07 | | WASHER, flat | 16 |
| 10 | 61S05 | | NUT, locking | 16 |
| 11 | 475130500 | | SUSPENSION UNIT, L.H. | 2 |
| <i>Peak Dynamic Suspension units with a longer radius arm introduced from S/No 05250. If replacing earlier units with Peak they must be replaced in pairs</i> | | | | |
| 11A | 513370200 | 05250/ | BRACKET, mudguard LH (PEAK SUS) | 1 |
| 11B | 59S04 | 05250/ | NUT, nyloc | 2 |
| 11C | 267S07 | 05250/ | WASHER, flat | 2 |
| 12 | 475130600 | | SUSPENSION UNIT, R.H. | 2 |
| <i>Peak Dynamic Suspension units with a longer radius arm introduced from S/No 05250. If replacing earlier units with Peak they must be replaced in pairs</i> | | | | |
| 12A | 513370100 | 05250/ | BRACKET, mudguard RH (PEAK SUS) | 1 |
| 12B | 59S04 | 05250/ | NUT, nyloc | 2 |
| 12C | 267S07 | 05250/ | WASHER, flat | 2 |
| 13 | 475130800 | | HUB, wheel, assembly | 2 |
| 13A | V602718 | | KIT, bearing | 2 |
| 13B | V602719 | | HUB | 1 |
| 13C | V602721 | | KIT, stud | 4 |
| 13D | V602720 | | KIT, wheel nut | 4 |
| 13E | V600153 | | KIT, fastening | 1 |
| 13F | V602722 | | CAP | 1 |
| 13G | 216S08 | | NUT, "metric" | 1 |
| 13G | 92S07 | | NUT, "imperial" | 1 |
| 13H | 10S05 | | WASHER | 1 |
| 13J | 44S03C | | PIN, split | 1 |



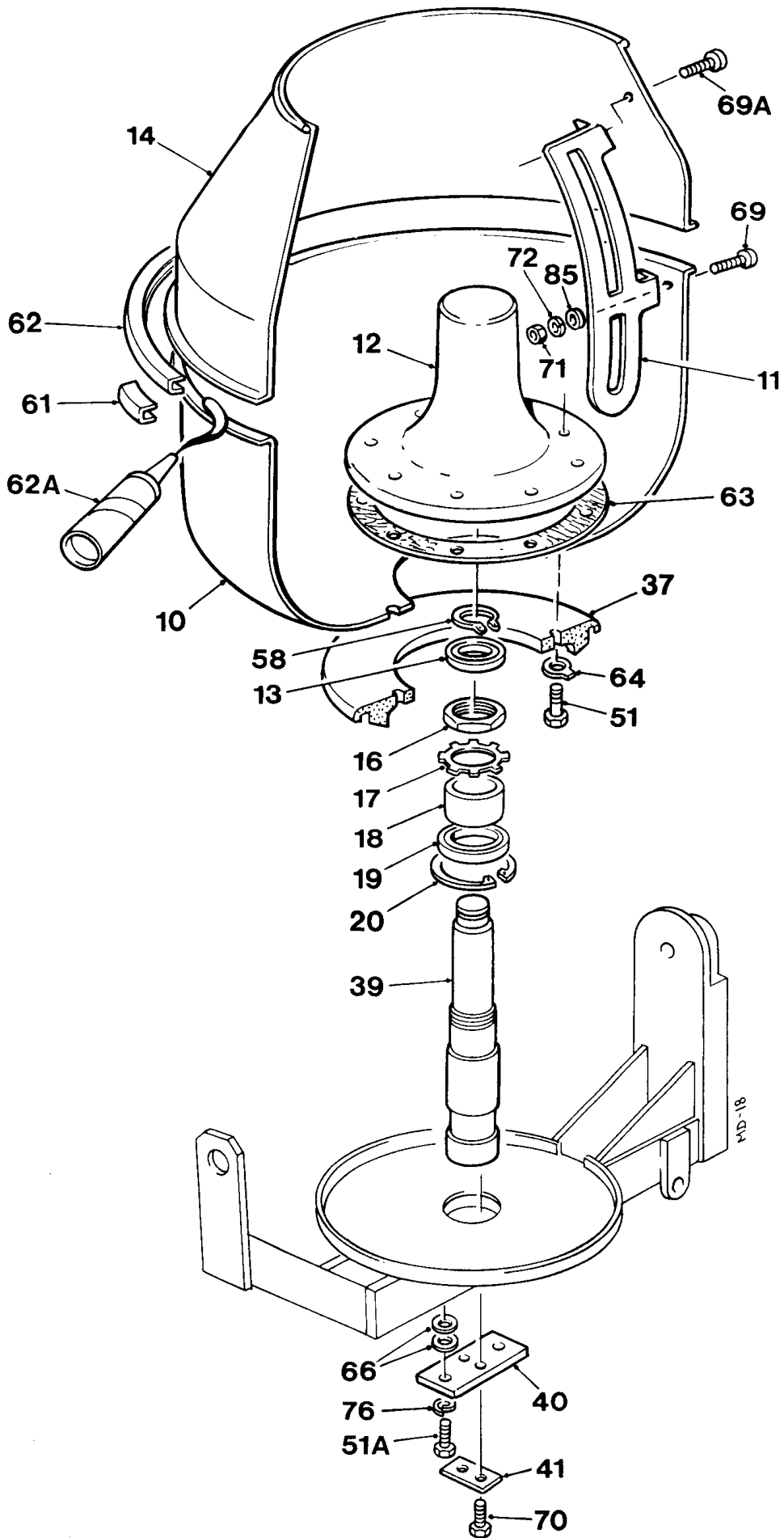
| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|---|-----|
| 13H | 10S05 | | WASHER | 1 |
| 13J | 44S03C | | PIN, split | 1 |
| 14 | 475130700 | | WHEEL, assembly, 10" | 2 |
| 14A | V602717 | | RIM, wheel, 10" | 1 |
| 14B | 475123001 | | TUBE, inner | 1 |
| 14C | 475123002 | | TYRE, 10" | 1 |
| 15 | 513361000 | | MUDGUARD, plastic | 2 |
| 16 | 513361100 | | BRACKET, mudguard | 2 |
| 17 | 104S03 | | NUT | 8 |
| 17A | V2004220 | | WASHER, "Special" | 8 |
| 18 | 41S05 | | WASHER, spring | 8 |
| 19 | 200S03E | | SCREW, round head | 8 |
| 20 | 902S02 | | PIN, lynch | 2 |
| 21 | 386102000 | | REFLECTOR, red, non triangular rear of mudguard | 2 |

Following parts are not illustrated

| | | | | |
|-----|-----------|--------|--|---|
| 21A | 386103000 | 05101/ | REFLECTOR, white, non triangular front of mudguard | 2 |
| 21B | 11S01A | 05101/ | SCREW, set, reflector mounting | 2 |
| 21C | 267S03 | 05101/ | WASHER, flat | 2 |
| 21D | 59S13 | 05101/ | NUT, nyloc | 2 |
| 22 | V2006349 | 05101/ | BOARD, lighting | 1 |
| 22A | 513369700 | 05101/ | BUSH, flanged, plastic | 4 |
| 23 | 513369600 | 05101/ | PLATE, lighting board mounting | 1 |
| 23A | 8S04F | 05101/ | BOLT, plate retaining | 2 |
| 23B | V2004220 | 05101/ | WASHER, special | 4 |
| 23C | 59S03 | 05101/ | NUT, nyloc | 2 |
| 23D | V2006351 | 05101/ | NUT, winged | 2 |
| 23E | 267S06 | 05101/ | WASHER, flat | 2 |

The mudguard, item no 15, part no 513361000, is normally supplied fitted with a rectangular amber side reflector, should the mudguard not be supplied with the integral reflectors the following parts may be fitted

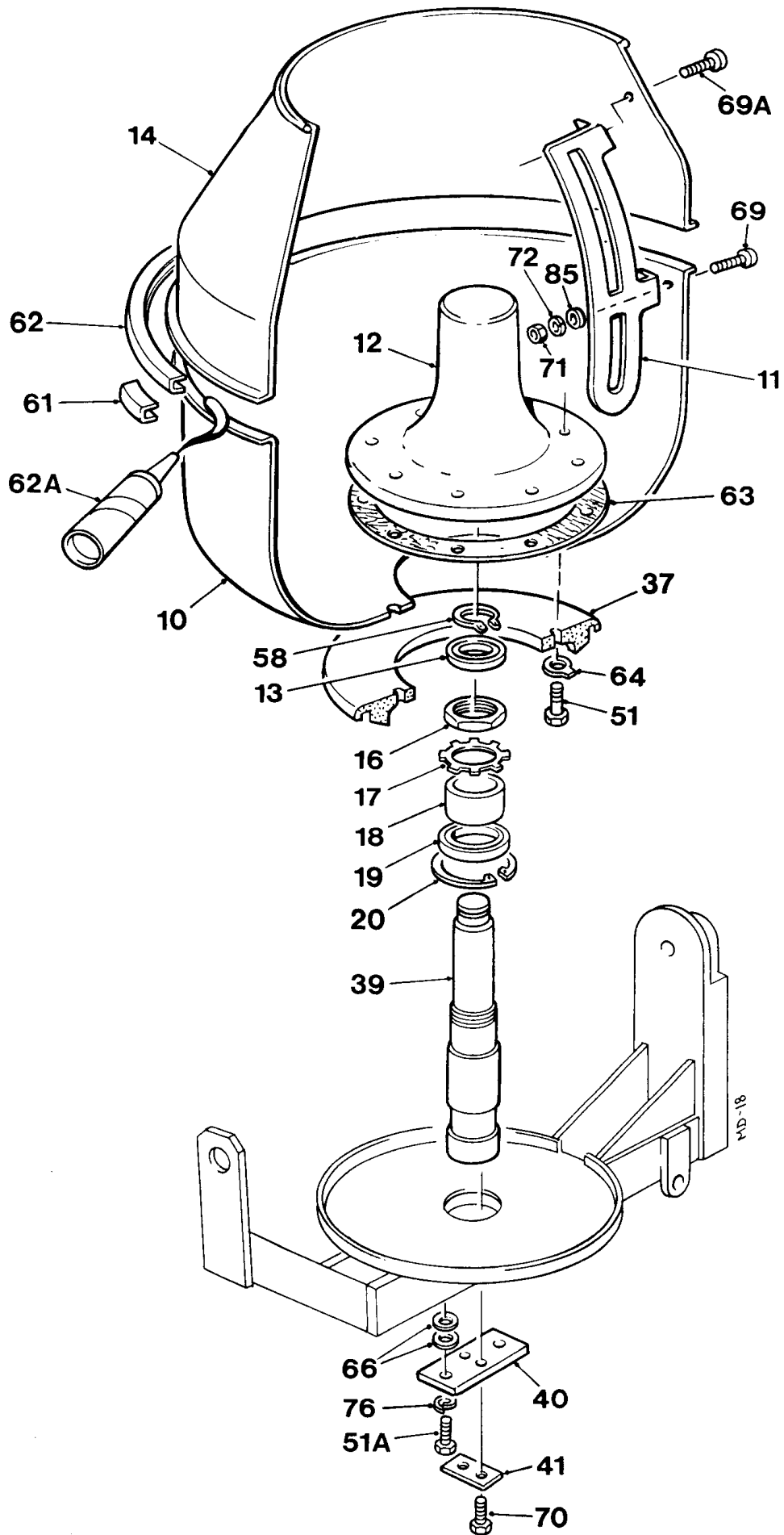
| | | | | |
|-----|------------|--------|--|----|
| 24 | 386104000 | 05101/ | REFLECTOR, amber, non triangular top of mudguard | 2 |
| 24A | 513369300F | 05101/ | BRACKET, folded, amber reflector | 2 |
| 24B | 11S01A | 05101/ | SCREW, set | 6 |
| 24C | 267S03 | 05101/ | WASHER, flat | 10 |
| 24D | 59S13 | 05101/ | NUT, nyloc | 6 |



DRUM

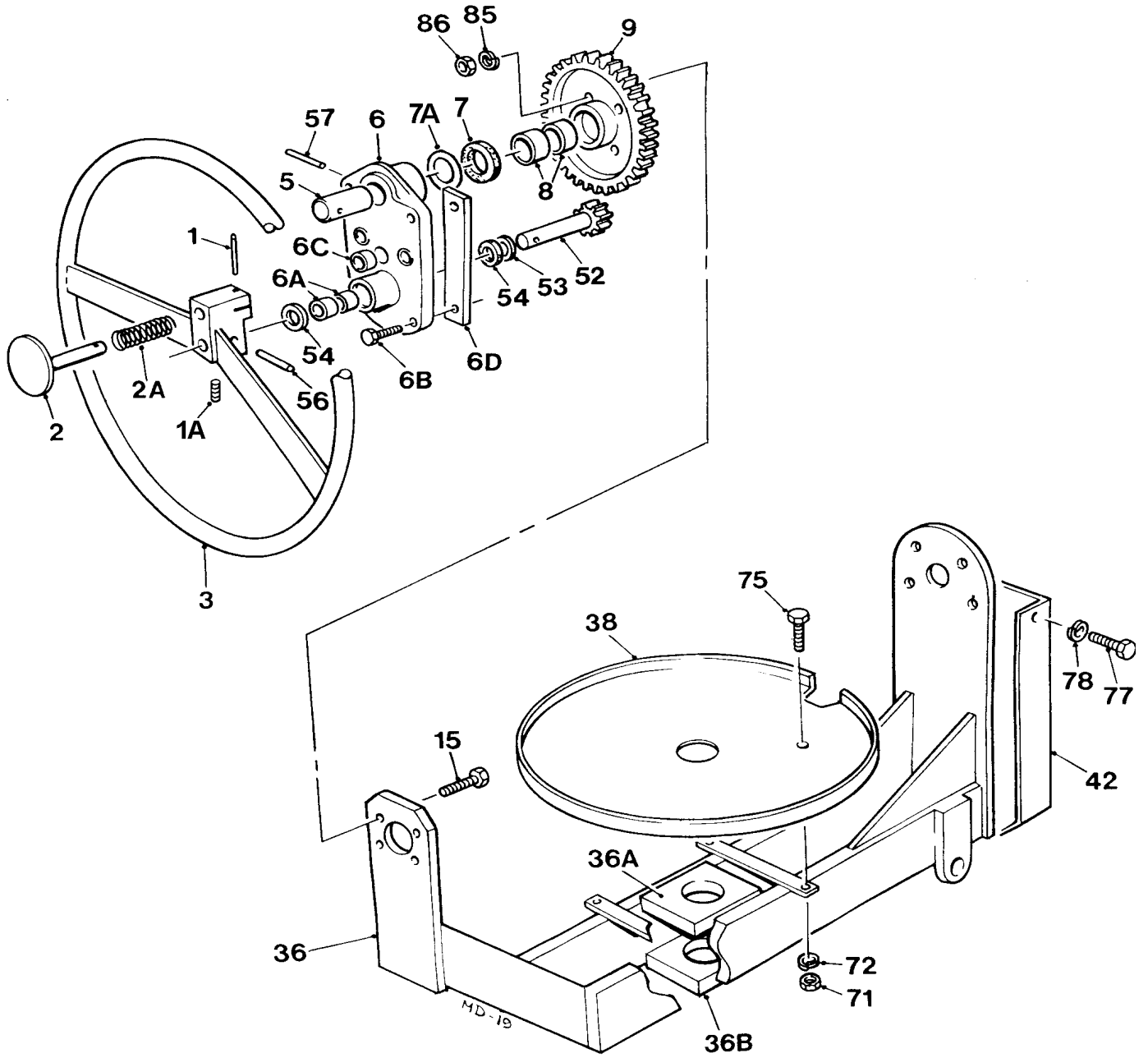
B - 1A

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|---|--------|
| 10 | 513152901 | | BASE, drum, 100T | 1 |
| 10 | 513161001 | | BASE, drum, 150T & 175T | 1 |
| 11 | 513151100 | | BLADE, 100T (<i>Not Honda engines</i>) | 2 |
| 11 | 513363100 | | BLADE, 100T (<i>With Honda engines</i>) | 2 |
| 11 | 513157500 | | BLADE, 150T & 175 | 2 |
| 12 | 513149600 | | DRUM CENTRE | 1 |
| 13 | 88S07D | | BEARING | 1 |
| 14 | 513152902 | | CONE, drum, 100T | 1 |
| 14 | 513161002 | | CONE, drum, 150T | 1 |
| 14 | 513203202 | | CONE, drum, 175T | 1 |
| 16 | 513208800 | | NUT, locking | 1 |
| 17 | 22096210 | | WASHER, locking | 1 |
| 18 | 513152300 | | DISTANCE PIECE, drum shaft | 1 |
| 19 | 88S20D | | BEARING | 1 |
| 20 | 132390000 | | CIRCLIP | 1 |
| 37 | 513150100 | | BEVEL GEAR, drum | 1 |
| 39 | 513152200 | | SHAFT, drum | 1 |
| 40 | 513152000 | | FLANGE, drum shaft | 1 |
| 41 | 513152100 | | WASHER, tab | 1 |
| 51 | 66S05D | | SCREW | 8 |
| 51A | 28S05G | | SCREW | 2 |
| 58 | 142330000 | | CIRCLIP | 1 |
| 61 | 513203900 | | BRIDGE PIECE, 100T | 1 |
| 61 | 513203800 | | BRIDGE PIECE, 150T & 175T | 1 |
| 62 | 513203600 | | CLIP, drum, 100T | 1 |
| 62 | 513203100 | | CLIP, drum, 150T & 175T | 1 |
| 62A | V2000772 | | SEALANT | tube 1 |
| 63 | 513202800 | | GASKET | 1 |
| 64 | 513199800 | | WASHER, tab | 6 |
| 66 | 10S04 | | WASHER, flat | AR |
| 69A | 200S03E | | SCREW, blade upper, 100T , obsolete, use | |
| 69A | 301S06F | | SCREW, blade upper, 100T , metric | 4 |
| 69 | 200S03G | | SCREW, blade lower, 100T , obsolete, use | |
| 69 | 301S06H | | SCREW, blade lower, 100T , metric | 4 |
| 69A | 200S03G | | SCREW, blade upper, 150T/175T obsolete, use | |
| 69A | 301S06H | | SCREW, blade upper 150T/175T metric | 4 |
| 69 | 200S03H | | SCREW, blade lower, 150T/175T obsolete, use | |
| 69 | 301S06J | | SCREW, blade lower 150T/175T metric | 4 |



DRUM**B - 1A**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---|------------|
| 70 | 28S05G | | SCREW | 2 |
| 71 | 104S03 | | NUT, imperial, obsolete, use | |
| 71 | 7S04 | | NUT, metric | 8 |
| 72 | 41S05 | | WASHER, spring, imperial, obsolete, use | |
| 72 | 17S05 | | WASHER, spring, metric | 8 |
| 76 | 41S07 | | WASHER, spring | 2 |
| 85 | 10S03 | | WASHER, flat, imperial, obsolete, use | |
| 85 | 267S06 | | WASHER, flat, metric | 8 |



TRUNNION & TILT WHEEL

B - 1B

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|--------------------------------------|-----|
| 1 | 54S01A | | PIN, spirol | 1 |
| 1A | 57S06F1 | 05999 / | SCREW, grub, 100T | 1 |
| 1A | 57S06F1 | 02026 / | SCREW, grub, 150T | 1 |
| 1A | 57S06F1 | 02021 / | SCREW, grub, 175T | 1 |
| 2 | 513194400 | | PLUNGER, locking | 1 |
| 2A | 513345300 | 803866 / | SPRING, plunger, 100T | 1 |
| 2A | 513345300 | 801072 / | SPRING, plunger, 150T | 1 |
| 2A | 513345300 | 801081 / | SPRING, plunger, 175T | 1 |
| 3 | 513345400 | | HANDWHEEL | 1 |
| 5 | 513151000 | | STUB, trunnion journal | 1 |
| - | 513149400 | | BRACKET, tilting, assembly | 1 |
| 6 | - | | BRACKET, tilting (order assembly) | 1 |
| 6A | 112821000 | | BUSH | 2 |
| 6B | 103S04C | | SCREW, socket head cap | 4 |
| 6C | 114625320 | | BUSH | 3 |
| 6D | 513212300 | | RETAINING BAR, tilting bracket | 2 |
| 7 | 225520280 | | FELT SEAL | 1 |
| 7A | 10S09 | | WASHER, flat | AR |
| 8 | 112820000 | | BUSH | 2 |
| 9 | 513149300 | | GEAR, tilting | 1 |
| 15 | 6S03E | | BOLT | 4 |
| 36 | 513211400 | | TRUNNION, 100T | 1 |
| 36 | 513211500 | | TRUNNION, 150T & 175T | 1 |
| 36A | 513212000 | | PLATE, upper (welded) | 1 |
| 36B | 513212000 | | PLATE, lower (welded) | 1 |
| 38 | 513153000 | | GUARD, bevel gear | 1 |
| 42 | 513152700 | | GUARD, chain, 100T | 1 |
| 42 | 513203300 | | GUARD, chain, 150T & 175T | 1 |
| 52 | 513345600 | | PINION, tilting | 1 |
| 53 | 10S18 | | WASHER, flat | 1 |
| 54 | 225514220 | | WASHER, felt | 2 |
| 56 | 513374900 | | PIN, grooved | 1 |
| 57 | 55S07Q | | PIN, spirol | 1 |
| 71 | 104S03 | | NUT | 4 |
| 72 | 41S05 | | WASHER, spring | 4 |
| 75 | 66S03CC | | SCREW, set | 4 |
| 77 | 66S02CC | | SCREW, set | 2 |
| 78 | 41S04 | | WASHER, spring | 2 |
| 85 | 10S03 | | WASHER, flat | 4 |
| 86 | 107S14 | | NUT, 'Nyloc' self-locking | 4 |

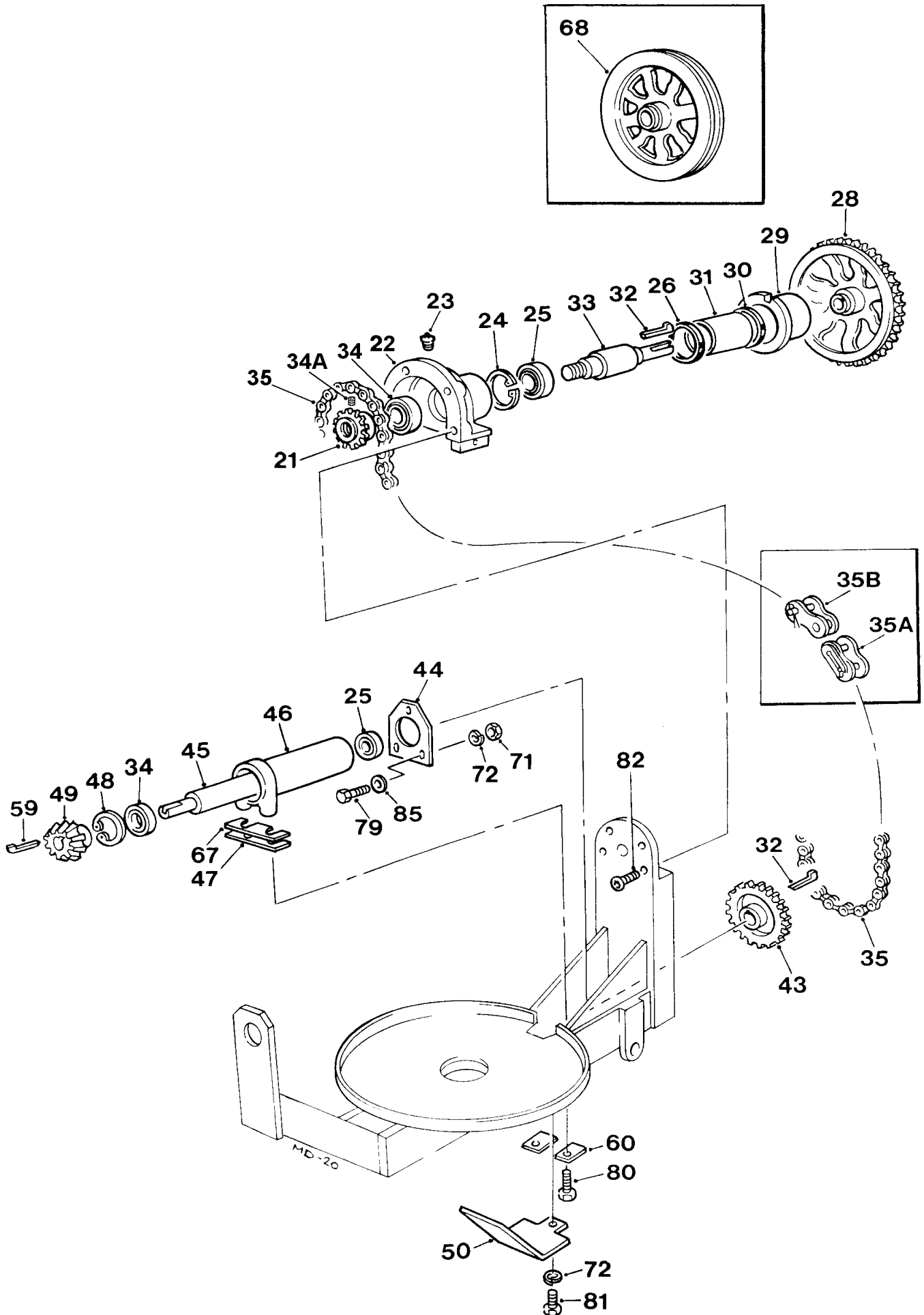
DRUM DRIVE

B - 1C

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|---|--------|
| 21 | 513151600 | | SPROCKET, countershaft, L.H. thread (Not Honda engines) | 1 |
| 21 | 513363200 | | SPROCKET, countershaft, R.H. thread (With Honda engines) | 1 |
| 22 | 513149700 | | JOURNAL, trunnion | 1 |
| 23 | 315803100 | | PLUG, lubricating | 1 |
| 24 | 132352000 | | CIRCLIP | 1 |
| 25 | 88S15D | | BEARING | 2 |
| 26 | 225104410 | / Jan-97 | FELT STRIP, ' Obsolete ' use 'O' ring | 2 |
| 26 | 49S41 | Jan-97 / | O' RING, 79mm I/D | 1 |
| 28 | 513150200 | | CHAINWHEEL, countershaft | 1 |
| 29 | 513150400 | | BEARING, trunnion | 1 |
| 30 | 225104410 | / Jan-97 | FELT STRIP, ' Obsolete ' use 'O' ring | 1 |
| 30 | 49S42 | Jan-97 / | O' RING, 75.5mm I/D | 1 |
| 31 | 513153100 | | BEARING | 1 |
| 32 | 300204140 | | KEY, gib head | 2 |
| 33 | 513151700 | | COUNTERSHAFT, L.H. thread (Not Honda engines) | 1 |
| 33 | 513363300 | | COUNTERSHAFT, R.H. thread (With Honda engines) | 1 |
| 34 | 88S05D | | BEARING | 2 |
| 34A | 57S04D2 | 06707 / | SCREW, grub, 100T | 1 |
| 34A | 57S04D2 | 02678 / | SCREW, grub, 150T & 175T | 1 |
| 35 | 134105056 | | CHAIN, 100T | 1 |
| 35 | 134105060 | | CHAIN, 150T & 175T | 1 |
| 35A | 134105002 | | LINK, connecting | 1 |
| 35B | 134105001 | | LINK, half | AR |
| 43 | 513150300 | | SPROCKET, bevel pinion shaft | 1 |
| 44 | 513298900 | | PLATE, adjusting | 1 |
| 45 | 513152500 | | SHAFT, bevel pinion, 100T | 1 |
| 45 | 513158700 | | SHAFT, bevel pinion, 150T & 175T | 1 |
| 46 | 513149800 | | HOUSING, pinion shaft, 100T | 1 |
| 46 | 513160700 | | HOUSING, pinion shaft, 150T & 175T | 1 |
| 47 | 513152400 | | PACKING PIECE (set of 4) | sets 2 |
| 48 | 132362000 | | CIRCLIP | 1 |
| 49 | 513278400 | | BEVEL PINION | 1 |
| 50 | 513211800 | | GUARD, bevel pinion | 1 |

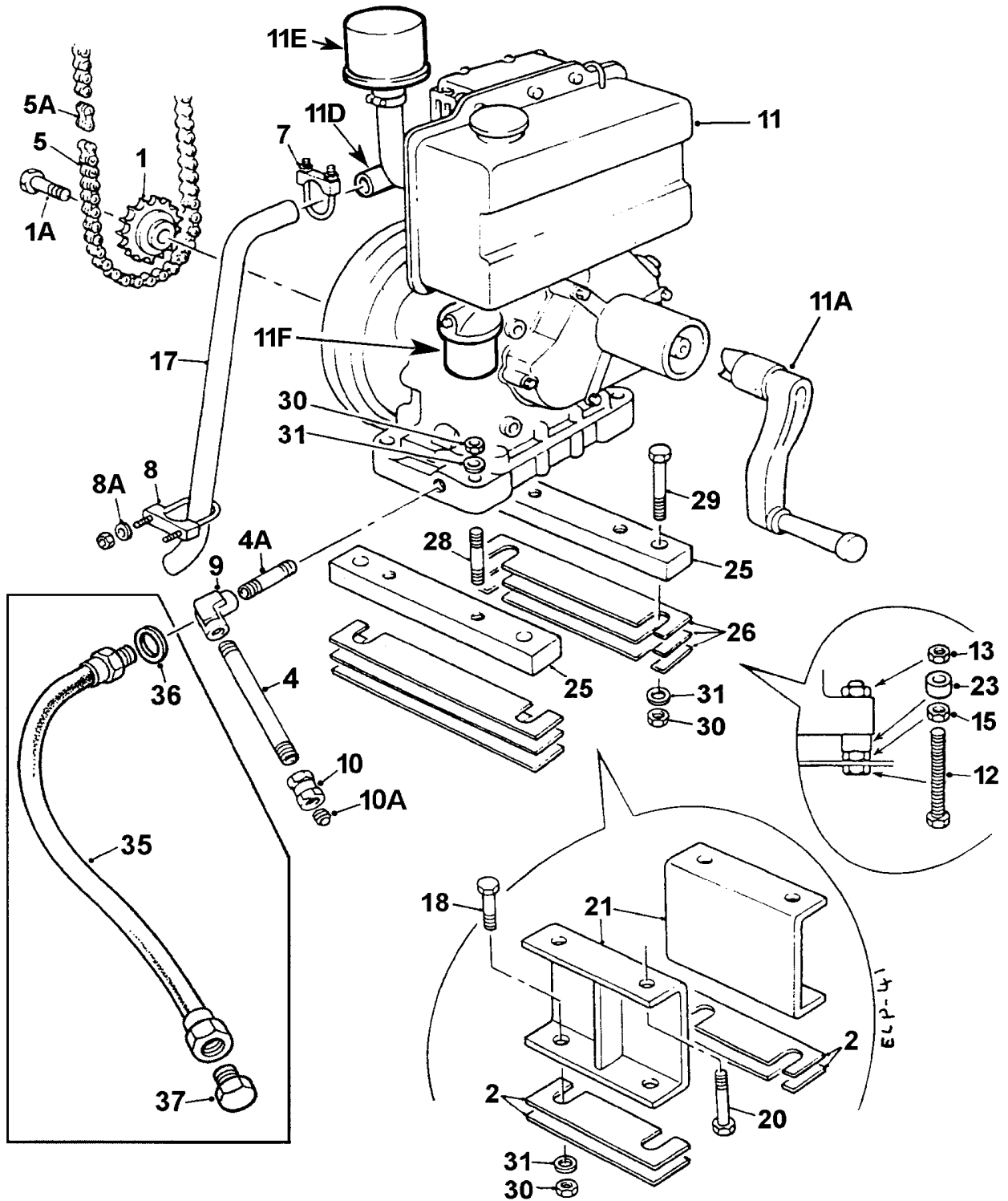
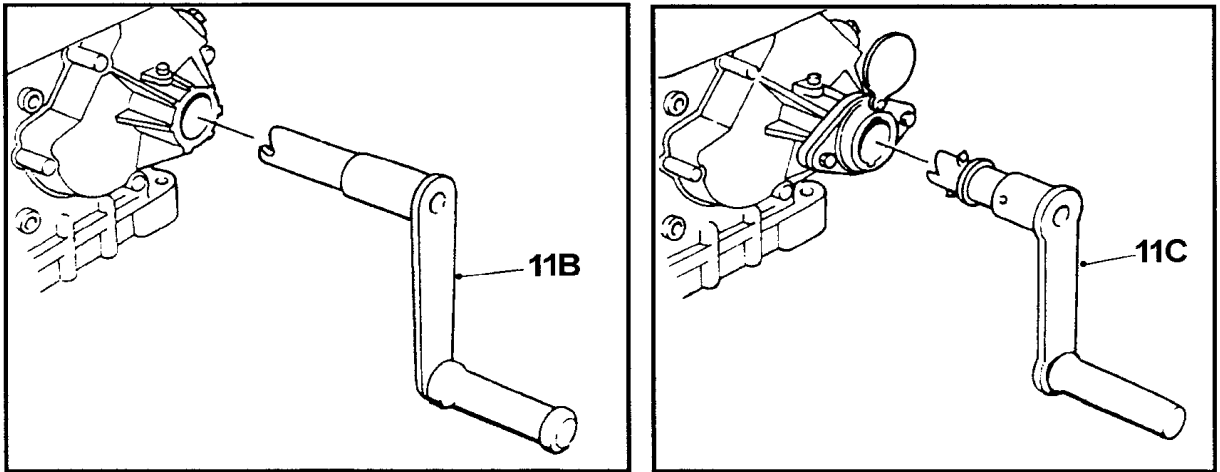
B - 1C

100T, 150T & 175T Mixers from February 1988



DRUM DRIVE**B - 1C**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---|------------|
| 59 | 300204140 | | KEY, gib head | 1 |
| 60 | 513211900 | | WASHER, tab | 2 |
| 67 | 513211700 | | PACKER | 1 |
| 68 | 513290700 | | PULLEY, 'V', for electric motors, Yanmar and Honda engines | 1 |
| 71 | 104S03 | | NUT | |
| 72 | 41S05 | | WASHER, spring | 4 |
| 79 | 66S03C | | SCREW | 3 |
| 80 | 66S03D | | SCREW | 2 |
| 81 | 66S03AA | | SCREW | 1 |
| 82 | 208S03F | | SCREW, c/sunk socket | 4 |
| 85 | 10S03 | | WASHER, flat | 3 |



| Item | Part no | Serial no | Description | Qty |
|------|------------|------------------|---|--------|
| 1 | 513344100 | | SPROCKET, engine, assembly | 1 |
| 1A | EL60222040 | | SCREW, retaining | 1 |
| 2 | 513127500 | | KIT, shims, 150T | pack 1 |
| — | 513127501 | | SHIM, 3mm, 150T | 6 |
| — | 513127502 | | SHIM, 1.5mm, 150T | 4 |
| — | — | Jan-95 / | SHIM, 0.7mm, 150T | 2 |
| 4 | 513278200 | (year) / 1995/96 | PIPE, 125mm long, 1/4" BSP | 1 |
| 4 | 513359800 | 1995/96 / 2003 | PIPE, 125mm long, 1/2" BSP | 1 |
| 4A | 513256500 | (year) / 1995/96 | PIPE, 60mm long, 1/4" BSP | 1 |
| 4A | 513359700 | 1995/96 / 2003 | PIPE, 60mm long, 1/2" BSP | 1 |
| 5 | 134105095 | | CHAIN, roller | 1 |
| 5A | 134105002 | | LINK, connecting | 1 |
| — | 134105001 | | LINK, half (<i>not illustrated</i>) | 1 |
| 7 | 153S01 | | CLAMP, pipe | 1 |
| 8 | 153S01 | | CLAMP, pipe | 1 |
| 8A | 267S04 | | WASHER, flat | 4 |
| 9 | 241102000 | (year) / 1995/96 | ELBOW, female, 1/4" BSP | 1 |
| 9 | 241104000 | 1995/96 / 2003 | ELBOW, female, 1/2" BSP | 1 |
| 10 | 241902000 | (year) / 1995/96 | FITTING, straight female, 1/4" BSP | 1 |
| 10 | 241904000 | 1995/96 / 2003 | FITTING, straight female, 1/2" BSP | 1 |
| 10A | 241702000 | (year) / 1995/96 | PLUG, oil drain, 1/4" BSP tapered | 1 |
| 10A | 241704000 | 1995/96 / 2003 | PLUG, oil drain, 1/2" BSP tapered | 1 |
| 11 | 354052000 | | ENGINE, Lister-Petter LT1/LV1-32 "Export" ("UK/EEC" upto 1995) | 1 |
| 11A | EL60150016 | / Jan-95 | # STARTING HANDLE | 1 |
| 11B | EL60252971 | Jan-95 / | # STARTING HANDLE, without anti kickback | 1 |
| 11 | 354054200 | Jan-95 / | ENGINE, Lister-Petter LT1/LV1-32 "UK/EEC" | 1 |
| 11C | EL375231 | Jan-95 / | # STARTING HANDLE, with anti kickback | 1 |

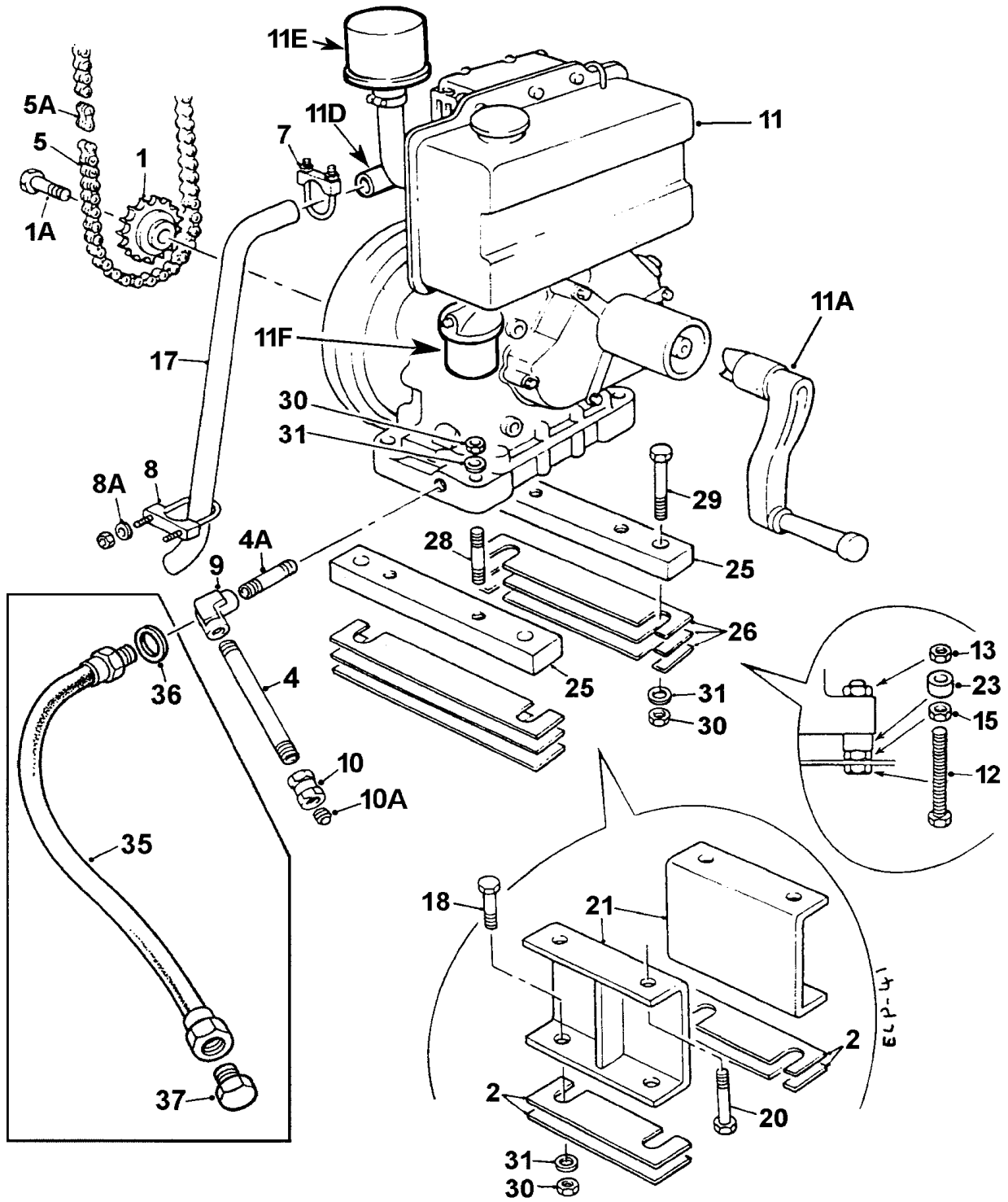
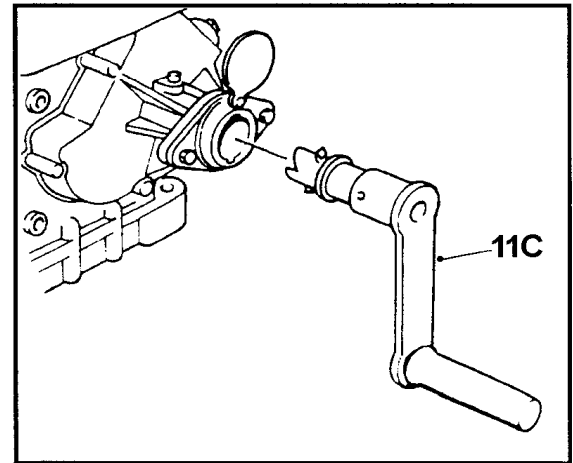
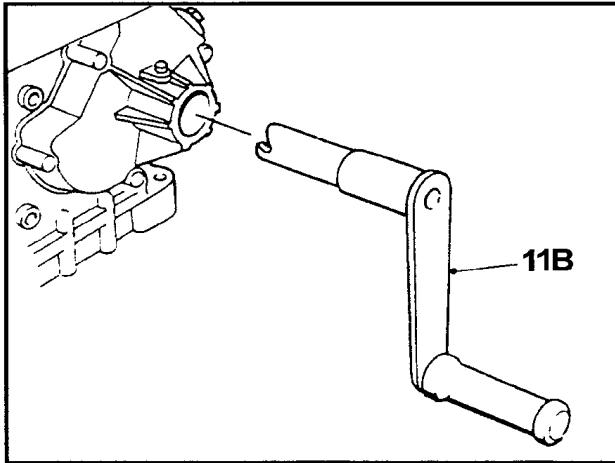
When ordering starting handles,
specify the type required

NOTE : ENGINE CHANGE Lister-Petter LT1-32 to LV1-32

From mixer serial numbers: 100T 07978 and 150T 03813.

Early in 2005 the Lister-Petter LT1-32 was superseded by the LV1-32. The engines as complete assemblies are interchangeable as are consumable items such as filters etc. Major items such as fuel injection pump, cylinder and piston, crankshaft, and conrod are different and when ordering spares it is important to quote the engine type.

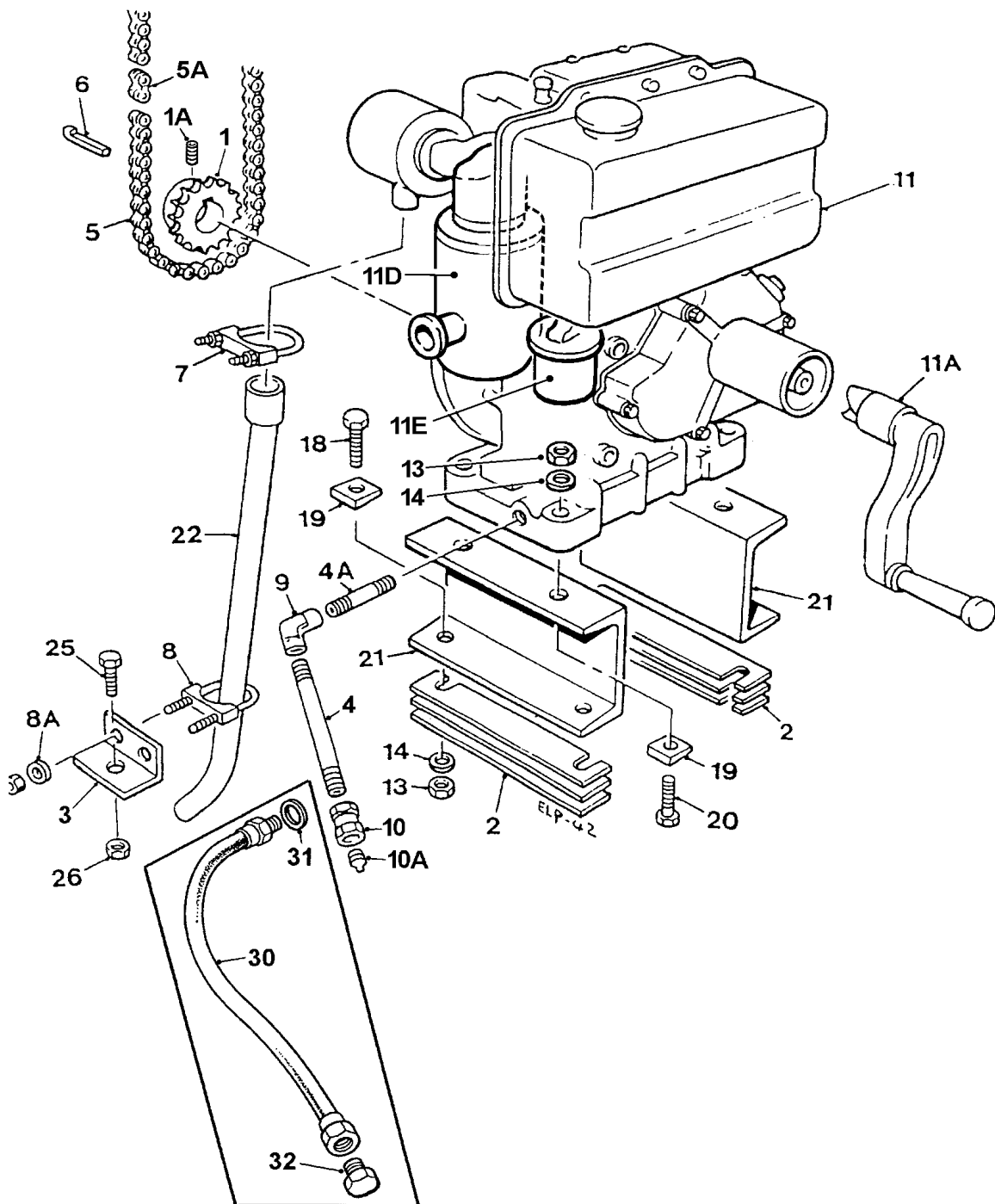
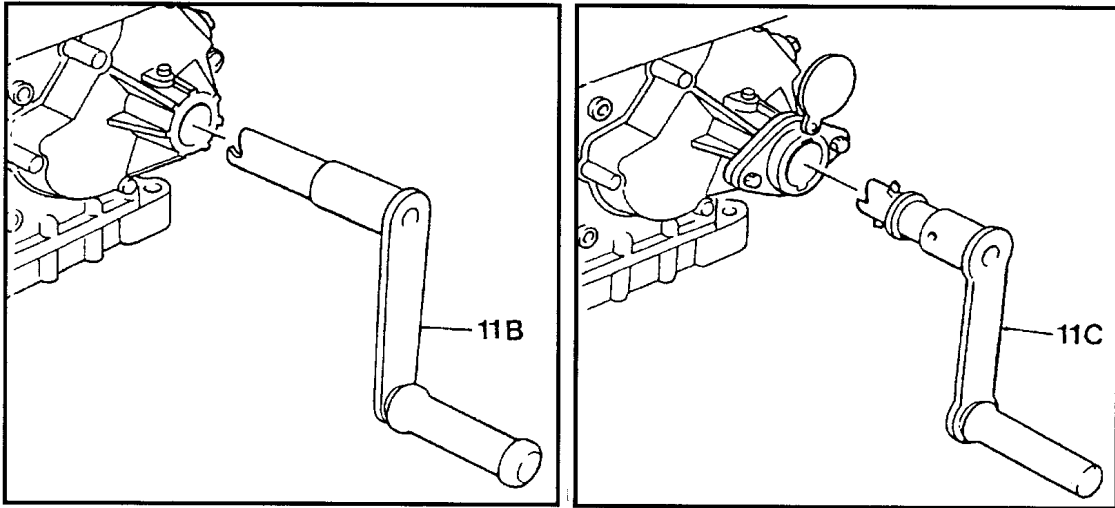
C - 1 100T & 150T Mixer *from February 1988*



| Item | Part no | Serial no | Description | Qty |
|---------------------------|----------------|------------------|--|------------|
| Continued >> | | | | |
| 11D | EL60142480 | | MANIFOLD, engine exhaust (part of engine) | 1 |
| 11E | EL60142520 | | FILTER, air | 1 |
| 11F | EL20113118 | | FILTER, fuel | 1 |
| 12 | 11S05T | / 1995/96 | SCREW, set, 100T | 4 |
| 13 | 61S05 | / 1995/96 | NUT, binx "Binx", self-locking, 100T | 4 |
| 15 | 7S05 | / 1995/96 | NUT, 100T | 4 |
| 17 | 513341900 | | PIPE, exhaust, 100T | 1 |
| 17 | 513342500 | | PIPE, exhaust, 150T | 1 |
| 18 | 8S05F | | BOLT, 150T | 4 |
| 20 | 8S05H | | BOLT, 150T | 4 |
| 21 | 513343000 | | CHANNEL, engine base, 150T | 2 |
| 23 | 513340500 | (year) / 1995/96 | SPACER, 100T | |
| 25 | 513266700 | 1995/96 / | BASE BLOCK, engine, 100T | 4 |
| 26 | 513248400 | 1995/96 / | KIT,shims, 100T | pack 1 |
| — | 513248401 | 1995/96 / | SHIM, 10G. 100T | 6 |
| — | 513248402 | 1995/96 / | SHIM, 16G. 100T | 4 |
| — | 513248403 | 1995/96 / | SHIM, 14G. 100T | 2 |
| — | 513248404 | 1995/96 / | SHIM, 18G. 100T | 2 |
| — | — | Dec-96 / | SHIM, 22G. 100T | 2 |
| 28 | V601339 | 1995/96 / | STUD, 100T | 4 |
| 29 | 8S05H | 1995/96 / | BOLT, 100T | 4 |
| 30 | 61S05 | | NUT, "Binx", self-locking | 8 |
| 31 | 267S07 | | WASHER, flat | 8 |
| 35 | 513362800 | 2003 / (year) | HOSE, sump oil drain | 1 |
| 36 | 100S04 | 2003 / | SEAL, bonded | 1 |
| 37 | 127S04 | 2003 / | PLUG, blanking | 1 |

C - 1A

175T Mixer from February 1988



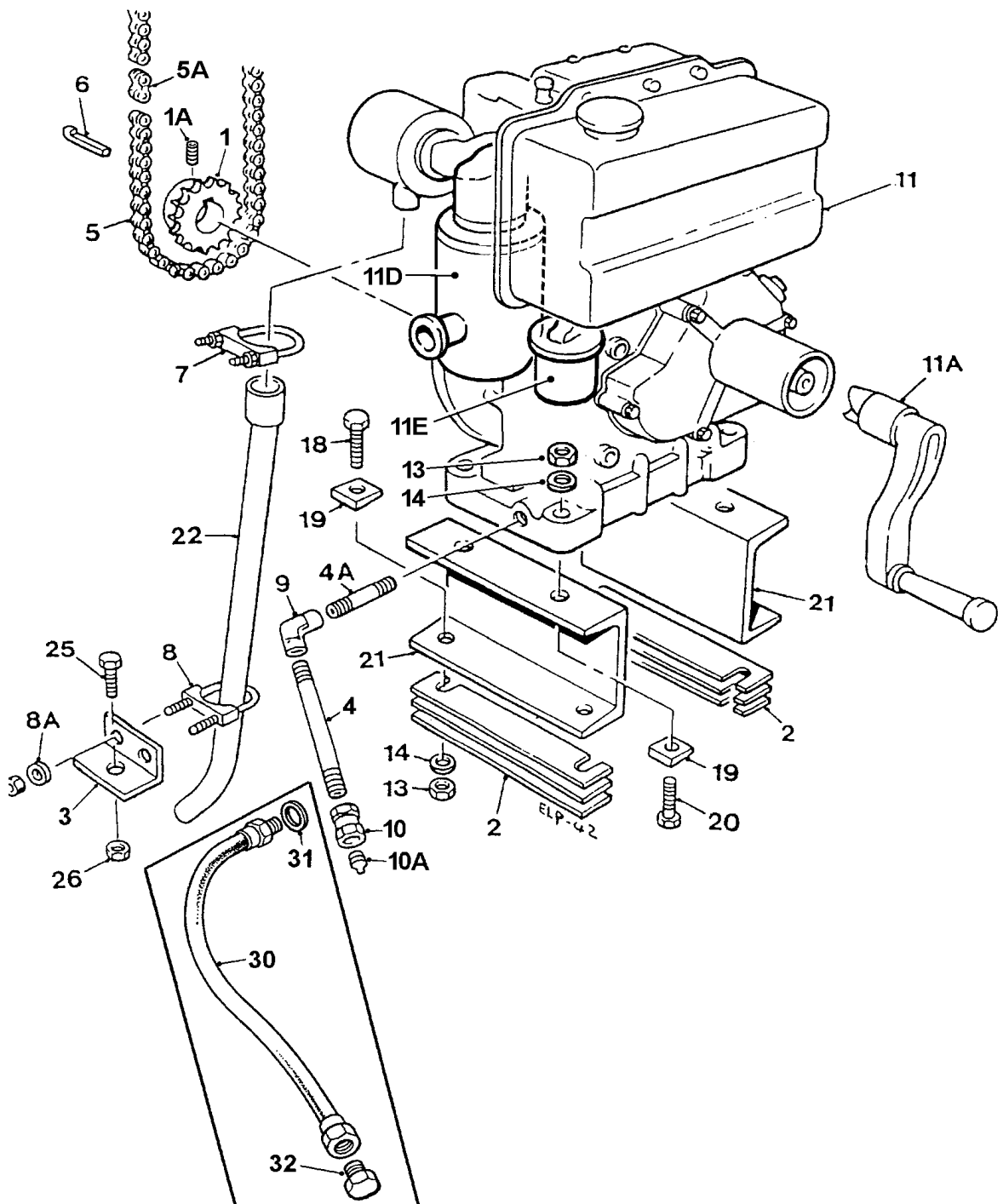
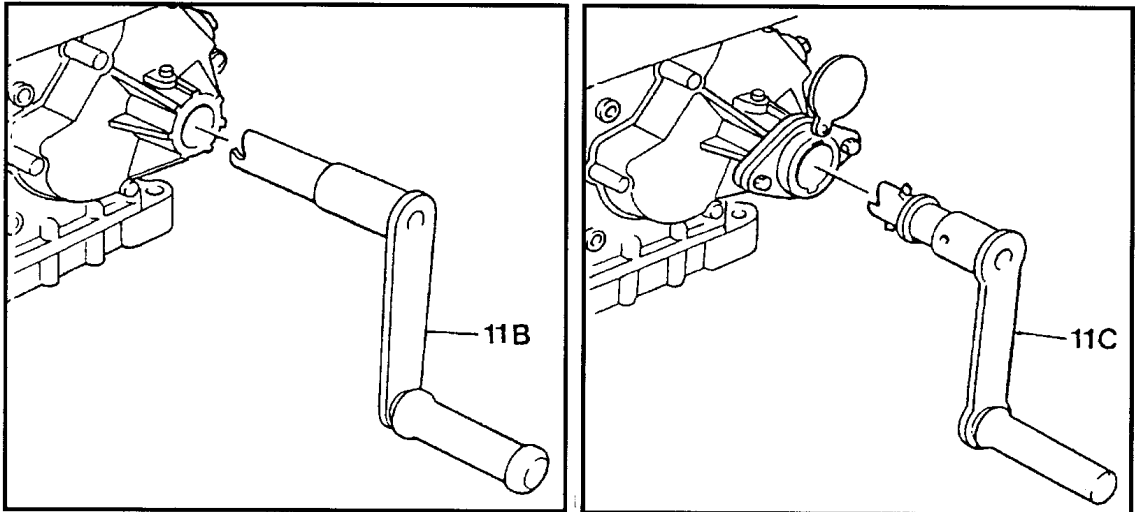
| Item | Part no | Serial no | Description | Qty |
|------|------------|------------------|--|--------|
| 1 | 513248300 | | SPROCKET, engine | 1 |
| 1A | 57S05D2 | 02679 / | SCREW, grub | 1 |
| 2 | 513248400 | | SHIMS | pack 1 |
| 3 | 513266800 | | BRACKET, exhaust | 1 |
| 4 | 513278200 | (year) / 1995/96 | PIPE, 125mm long, 1/4" BSP | 1 |
| 4 | 513359800 | 1995/96 / 2003 | PIPE, 125mm long, 1/2" BSP | 1 |
| 4A | 513256500 | (year) / 1995/96 | PIPE, 60mm long, 1/4" BSP | 1 |
| 4A | 513359700 | 1995/96 / 2003 | PIPE, 60mm long, 1/2" BSP | 1 |
| 5 | 134105095 | | CHAIN, roller | 1 |
| 5A | 134105002 | | LINK | 1 |
| — | 134105001 | | LINK, half (<i>not illustrated</i>) | 1 |
| 6 | 300204160 | | KEY, gib head | 1 |
| 7 | 354051005 | | CLAMP, exhaust | 1 |
| 8 | 153S01 | | CLAMP, exhaust | 1 |
| 8A | 267S04 | | WASHER, flat | 2 |
| 9 | 241102000 | (year) / 1995/96 | ELBOW, female, 1/4" BSP | 1 |
| 9 | 241104000 | 1995/96 / 2003 | ELBOW, female, 1/2" BSP | 1 |
| 10 | 241902000 | (year) / 1995/96 | FITTING, straight female, 1/4" BSP | 1 |
| 10 | 241904000 | 1995/96 / | FITTING, straight female, 1/2" BSP | 1 |
| 10A | 241702000 | (year) / 1995/96 | PLUG, oil drain, 1/4" BSP tapered | 1 |
| 10A | 241704000 | 1995/96 / 2003 | PLUG, oil drain, 1/2" BSP tapered | 1 |
| 11 | 354051000 | | ENGINE, Lister-Petter LT1/LV1-10 "Export" (“UK/EEC” up to 1995) | 1 |
| 11A | EL60150016 | / Jan-95 | # STARTING HANDLE | 1 |
| 11B | EL60252971 | Jan-95 / | # STARTING HANDLE, without anti kickback | 1 |
| 11 | 354054100 | Jan-95 / | ENGINE, Lister-Petter LT1/LV1-10 "UK/EEC" | |
| 11C | EL375231 | Jan-95 / | # STARTING HANDLE, with anti kickback # When ordering starting handles specify the type required. | 1 |
| 11D | EL60131350 | | FILTER, air | 1 |
| 11E | EL20113118 | | FILTER, fuel | 1 |

NOTE : ENGINE CHANGE Lister-Petter LT1-10 to LV1-10

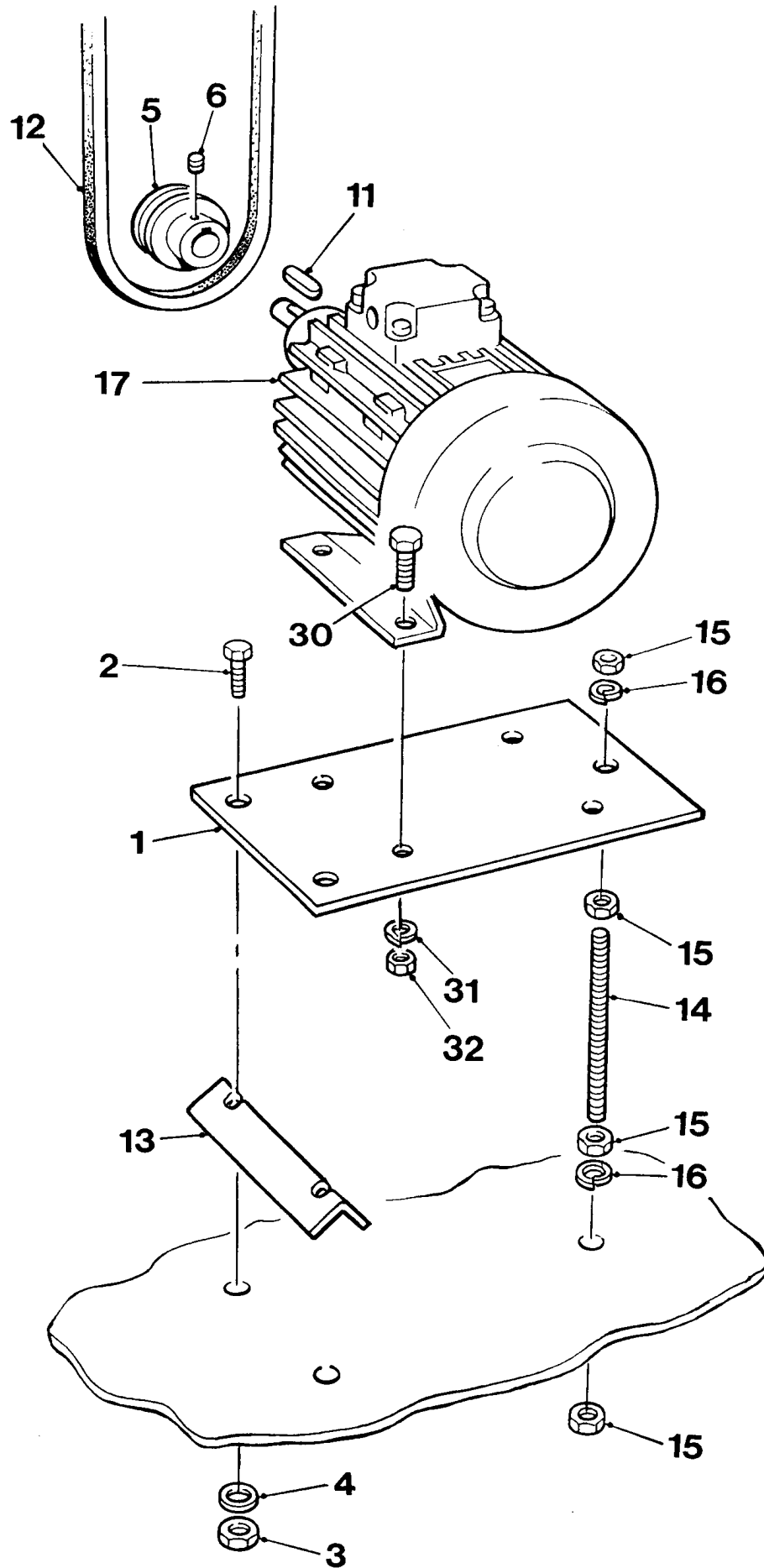
Late in 2003 the Lister-Petter LT1-10 was superseded by the LV1-10. The engines as complete assemblies are interchangeable as are consumable items such as filters etc. Major items such as fuel injection pump, cylinder and piston, crankshaft, and conrod are different and when ordering spares it is important to quote the engine type.

C - 1A

175T Mixer from February 1988

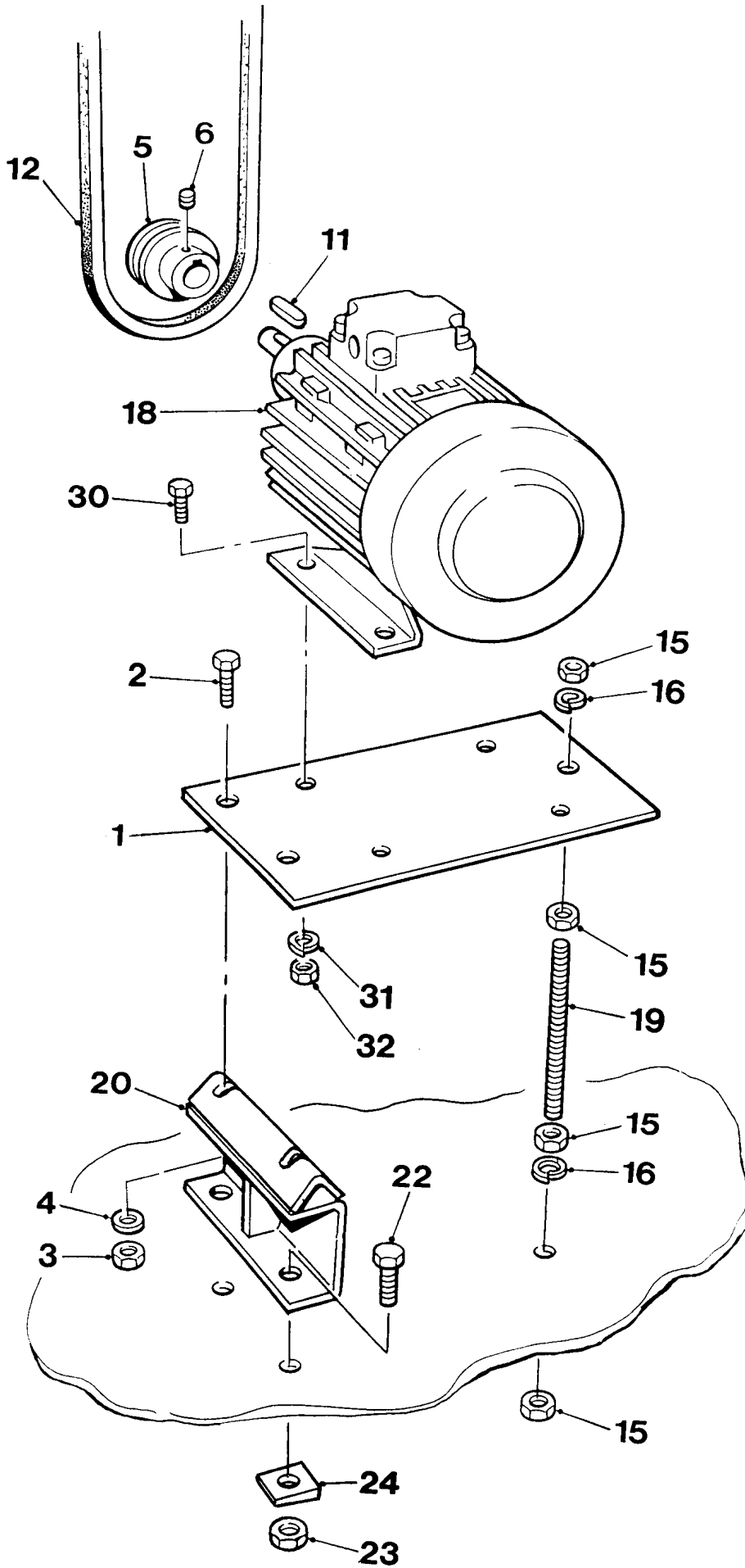


| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---------------------------|------------|
| 13 | 61S05 | | NUT, "Binx", self-locking | 8 |
| 14 | 267S07 | | WASHER, flat | 8 |
| 18 | 8S05E | | BOLT | 4 |
| 19 | 105S05 | | WASHER, taper | 8 |
| 20 | 8S05J | | BOLT | 4 |
| 21 | 513267400 | | CHANNEL, engine base, | 2 |
| 22 | 513267500 | | PIPE, exhaust | 1 |
| 25 | 66S05A | | SCREW, set | 1 |
| 26 | 192S05 | | NUT, "Binx", self-locking | 1 |
| 30 | 513362800 | 2003 / (year) | HOSE, sump oil drain | 1 |
| 31 | 100S04 | 2003 / | SEAL, bonded | 1 |
| 32 | 127S04 | 2003 / | PLUG, blanking | 1 |



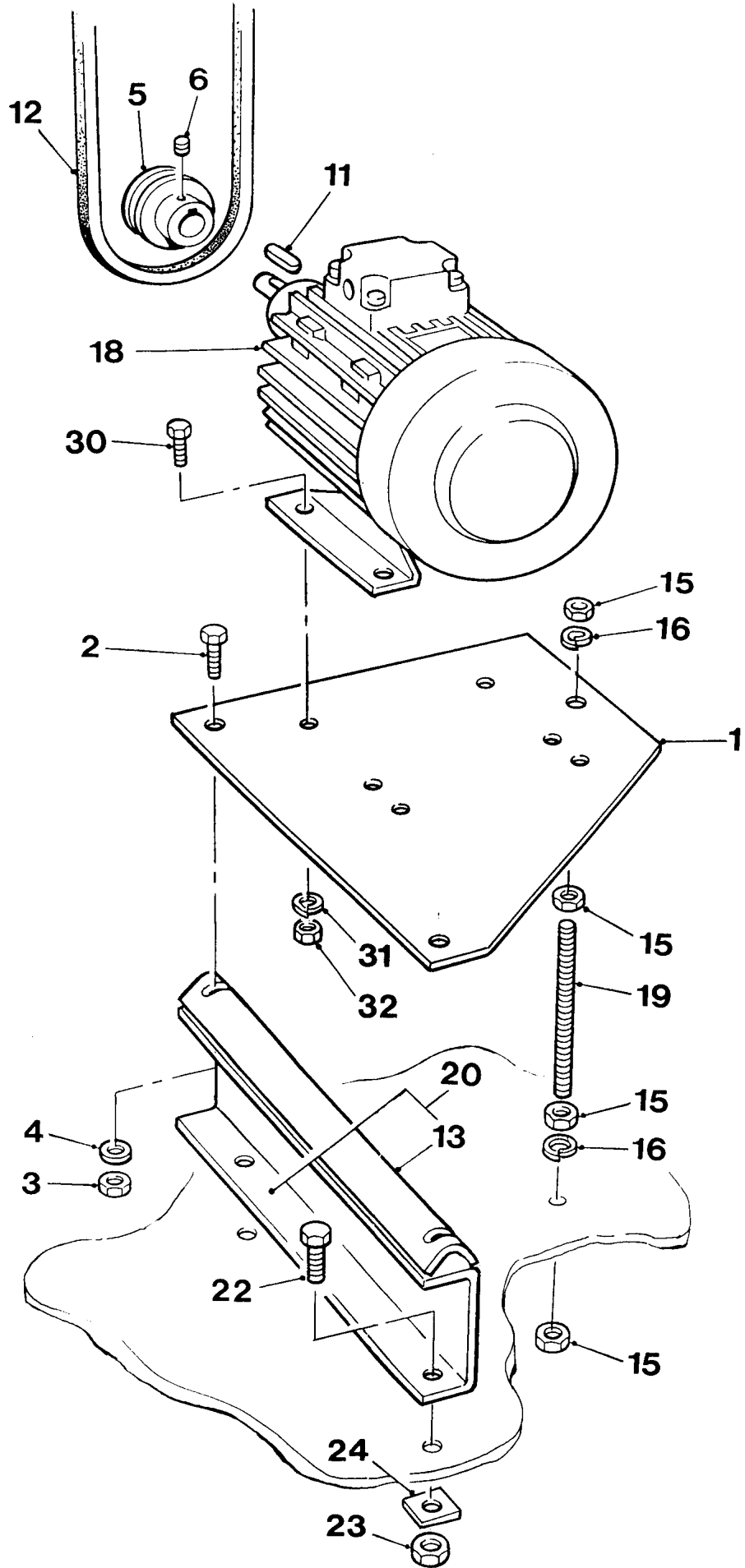
ELECTRIC (240/110 volt) drive assembly**C - 2A**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------------------------|------------|
| 1 | 513342100 | | PLATE, motor mounting | 1 |
| 2 | 8S05H | | BOLT | 2 |
| 3 | 61S05 | | NUT, "Binx" | 2 |
| 4 | 267S07 | | WASHER, flat | 2 |
| 5 | 513290600 | | PULLEY, 'V' | 1 |
| 6 | 57S04D2 | | SCREW, grub | 1 |
| 11 | 304710840 | | KEY, parallel | 1 |
| 12 | 397400300 | | BELT, 'V' | 1 |
| 13 | 513342000 | | ANGLE, motor adjusting | 1 |
| 14 | 513333100 | | STUD | 1 |
| 15 | 7S05 | | NUT | 4 |
| 16 | 17S06 | | WASHER, spring | 2 |
| 17 | 202493500 | | MOTOR, electric, 240v, .75kW (1hp) | 1 |
| 17 | 202493600 | | MOTOR, electric, 110v, 1.1kW (1.5hp) | 1 |
| 30 | 66S03A | | SCREW, set | 4 |
| 31 | 41S05 | | WASHER, spring | 4 |
| 32 | 104S03 | | NUT | 4 |



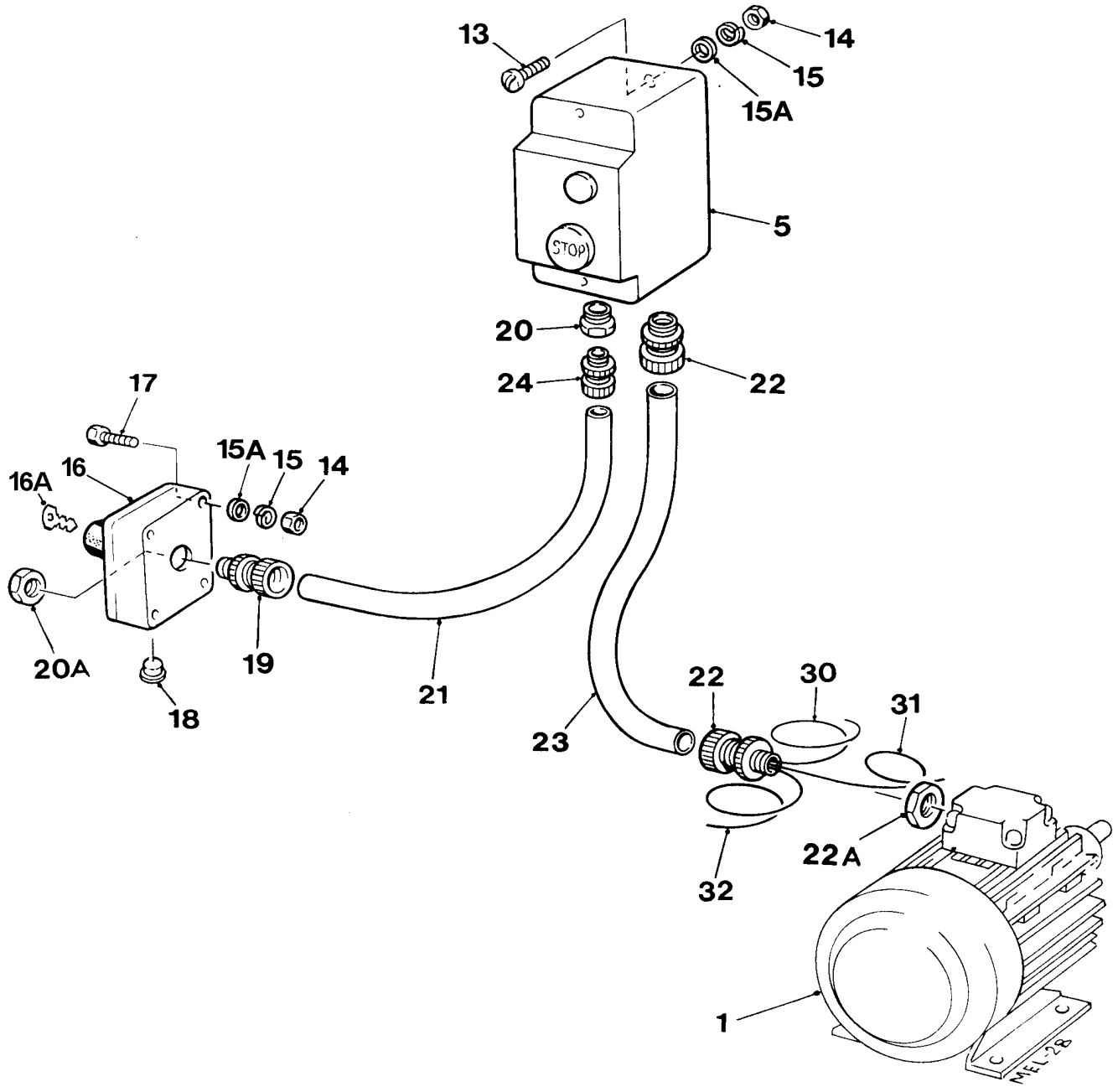
ELECTRIC (240/110 volt) drive assembly**C - 2B**

| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|--------------------------------------|-----|
| 1 | 513342100 | / Feb-90 | PLATE, motor mounting | 1 |
| 1 | 513350000 | Feb-90 / | PLATE, motor mounting | 1 |
| 2 | 8S05H | | BOLT | 2 |
| 3 | 61S05 | | NUT, self-locking "Binx" | 2 |
| 4 | 267S07 | | WASHER, flat | 2 |
| 5 | 513290600 | | PULLEY, 'V' | 1 |
| 6 | 57S04D2 | | SCREW, grub | 1 |
| 11 | 304710840 | | KEY, parallel | 1 |
| 12 | 397400300 | | BELT, 'V' | 1 |
| 13 | — | | | |
| 15 | 7S05 | | NUT | 4 |
| 16 | 17S06 | | WASHER, spring | 2 |
| 18 | 202493700 | | MOTOR, electric, 240v, 1.1kW (1.5hp) | 1 |
| 18 | 202493800 | | MOTOR, electric, 110v, 1.1kW (1.5hp) | 1 |
| 19 | 513333100 | | STUD | 1 |
| 20 | 513343400 | | CHANNEL, motor mounting, | 1 |
| 22 | 8S05D | | BOLT | 2 |
| 23 | 61S05 | | NUT, self-locking, "Binx" | 2 |
| 24 | 105S05 | | WASHER, taper | 2 |
| 30 | 66S03A | | SCREW, set | 4 |
| 31 | 41S05 | | WASHER, spring | 4 |
| 32 | 104S03 | | NUT | 4 |



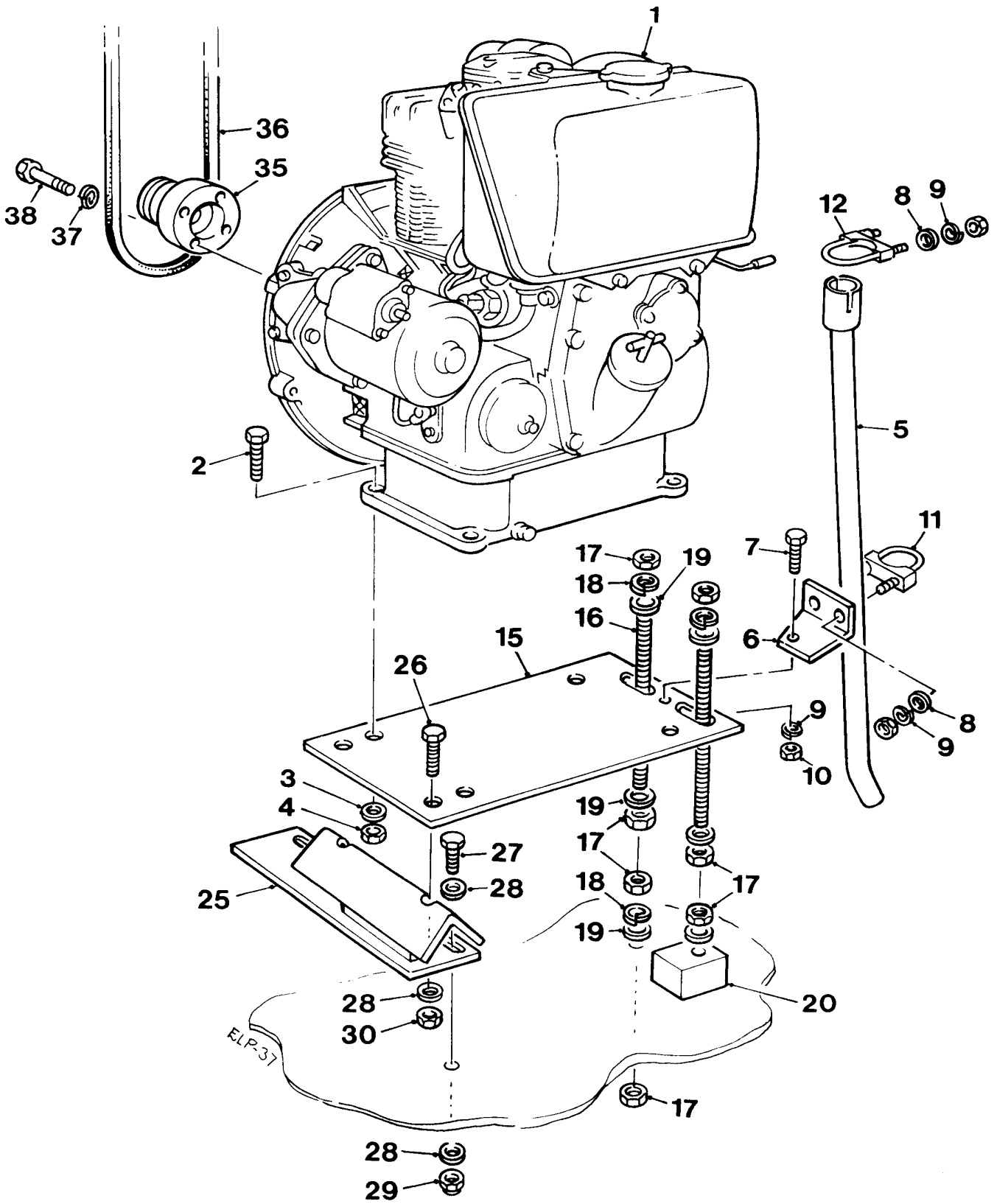
ELECTRIC (240/110 volt) drive assembly**C - 2C**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--|------------|
| 1 | 513290400 | | PLATE, motor mounting | 1 |
| 2 | 8S05H | | BOLT | 2 |
| 3 | 61S05 | | NUT, self-locking "Binx" | 2 |
| 4 | 267S07 | | WASHER, flat | 2 |
| 5 | 513290600 | | PULLEY, 'V' | 1 |
| 6 | 57S04D2 | | SCREW, socket head | 1 |
| 11 | 304710840 | | KEY, parallel | 1 |
| 12 | 397400300 | | BELT, 'V' | 1 |
| 13 | 513290300 | | ANGLE, (<i>Welded part of item 20</i>) | 1 |
| 15 | 7S05 | | NUT | 4 |
| 16 | 17S06 | | WASHER, spring | 2 |
| 18 | 202493700 | | MOTOR, electric, 240v, 1.1kw (1.5hp) | 1 |
| 18 | 202493800 | | MOTOR, electric, 110v, 1.1kw (1.5hp) | 1 |
| 19 | 513333100 | | STUD | 1 |
| 20 | 513290500 | | CHANNEL, motor mount, (<i>Includes item 13</i>) | 1 |
| 22 | 8S05D | | BOLT | 2 |
| 23 | 61S05 | | NUT, self-locking, "Binx" | 4 |
| 24 | 105S05 | | WASHER, taper | 2 |
| 30 | 66S03A | | SCREW, set | 4 |
| 31 | 41S05 | | WASHER, spring | 4 |
| 32 | 104S03 | | NUT | 4 |



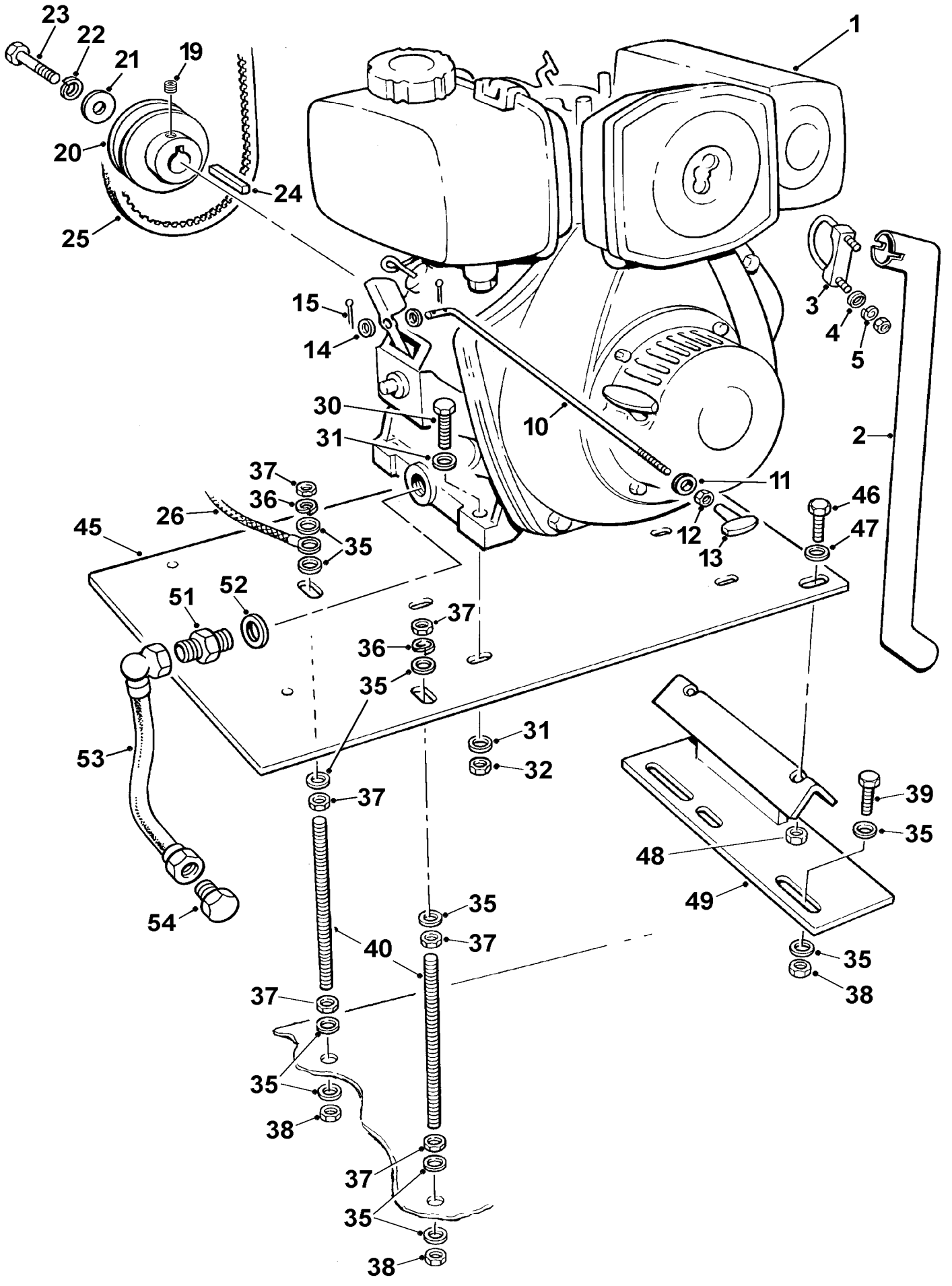
START SWITCHES, electric drive

| Item | Part no | Date | Description | Qty |
|------------------|------------|----------|--|---------|
| 1 | ..... |  | ELECTRIC MOTOR (see Index page) | 1 |
| 5 | 208398600 | | STARTER, Danfoss 240v, 100T, 150T & 175T | 1 |
| ..... | 208398500 | | CASE, starter | 1 |
| ..... | 192928000 | | CONTACTOR | 1 |
| ..... | 207818001 | | RELAY, overload | 1 |
| 5 | 208398800 | | STARTER, Danfoss 110v, 100T | 1 |
| ..... | 208398500 | | CASE, starter | 1 |
| ..... | 192928000 | | CONTACTOR | 1 |
| ..... | 207818003 | | RELAY, overload | 1 |
| 5 | 208398900 | | STARTER, Danfoss 110v, 150T & 175T | 1 |
| ..... | 208398500 | | CASE, starter | 1 |
| ..... | 192928000 | | CONTACTOR | 1 |
| ..... | 207818004 | | RELAY, overload | 1 |
| 13 | 16S06C | | SCREW, cheese head | 2 |
| 14 | 7S01 | | NUT | 4 |
| 15 | 17S02 | | WASHER, spring | 4 |
| 15A | 267S03 | | WASHER, flat | 4 |
| 16 | 208870000 | / Oct-04 | # SWITCH, stop, assembly # OBSOLETE: use 208880000 | 1 |
| 16A | V602651 | / Oct-04 | KEY, stop switch | 1 |
| 16 | 208880000 | Oct-04 / | SWITCH, stop, assembly | 1 |
| ..... | 208880000A | Oct-04 / | MUSHROOM key reset, c/w keys | 1 |
| ..... | 208880000B | Oct-04 / | CONTACTOR | 1 |
| ..... | 208880000C | Oct-04 / | ENCLOSURE | 1 |
| 16A | V603623 | Oct-04 / | KEY, stop switch | 2 |
| 17 | 11S01C | / Oct-04 | SCREW, set | 2 |
| 17 | 11S01D | Oct-04 / | SCREW, set | |
| 18 | 133470000 | | PLUG, stop switch casing | 1 |
| 19 | 131270000 | | COUPLING, 16mm | 1 |
| 20 | 131570016 | | SOCKET, reducing | 1 |
| 20A | 133266050 | | NUT, backing | 1 |
| 21 | 131766010 | | CONDUIT, 16mm | 1 |
| 22 | 131271000 | | COUPLING, 20mm | 2 |
| 22A | 133272000 | | NUT, backing | 1 |
| 23 | 131770010 | | CONDUIT, 20mm | 1 |
| 24 | 131270000 | | COUPLING, 16mm | 1 |
| 110 volts | | | | |
| 30 | 30788101 | | WIRE, black | 1 meter |
| 31 | 30788102 | | WIRE, red | 1 meter |
| 32 | 30788103 | | WIRE, green/yellow | 1 meter |
| 240 volts | | | | |
| 30 | 144750000 | | WIRE, black | 1 meter |
| 31 | 144700100 | | WIRE, red | 1 meter |
| 32 | 144700200 | | WIRE, green/yellow | 1 meter |



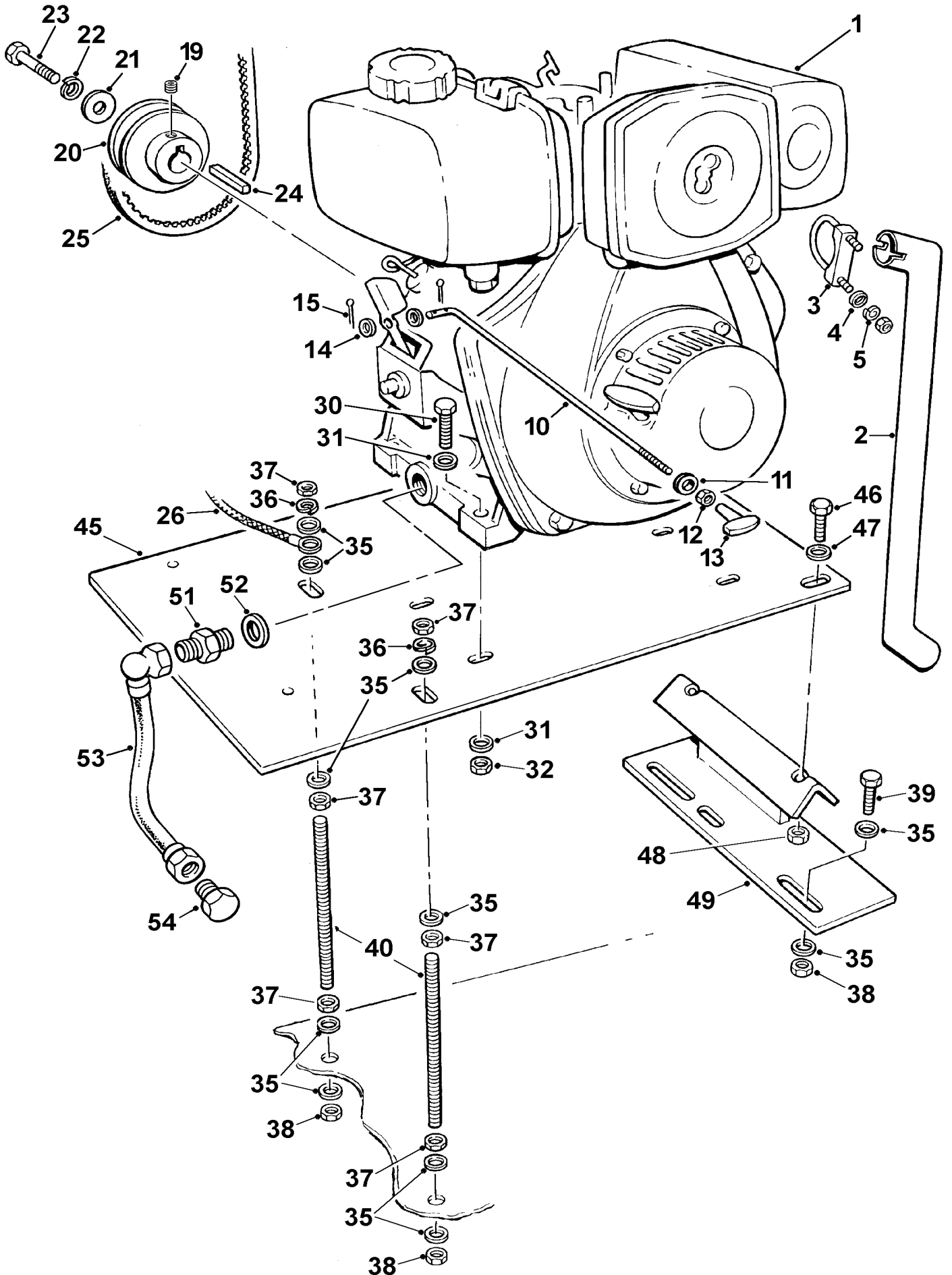
LISTER-PETTER AC1 (electric start)**C - 4**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|----------------------------|------------|
| 1 | V2004253 | | ENGINE, Lister/Petter AC1 | 1 |
| 2 | 11S04F | | SCREW, set | 4 |
| 3 | 267S06 | | WASHER, flat | 4 |
| 4 | 61S04 | | NUT, self- locking "Binx" | 4 |
| 5 | 513267500 | | PIPE, exhaust | 1 |
| 6 | 513359300 | | BRACKET, exhaust | 1 |
| 7 | 11S03C | | SCREW, set | 1 |
| 8 | 267S05 | | WASHER, flat | 4 |
| 9 | 17S04 | | WASHER, spring | 5 |
| 10 | 7S03 | | NUT | 1 |
| 11 | 153S01 | | CLAMP | 1 |
| 12 | 153S03 | | CLAMP | 1 |
| 15 | 513358700 | | PLATE, engine mounting | 1 |
| 16 | 513333100 | | STUD | 2 |
| 17 | 7S05 | | NUT | 7 |
| 18 | 17S06 | | WASHER, spring | 3 |
| 19 | 267S07 | | WASHER, flat | 6 |
| 20 | 513359000 | | PLATE (welded to chassis) | 1 |
| 25 | 513358800 | | SUPPORT | 1 |
| 26 | 11S04F | | SCREW, set | 2 |
| 27 | 11S04D | | SCREW, set | 2 |
| 28 | 267S06 | | WASHER, flat | 6 |
| 29 | 59S03 | | NUT, self- locking "Nyloc" | 2 |
| 30 | 61S04 | | NUT, self- locking "Binx" | 2 |
| 35 | 513358300 | | PULLEY, special | 1 |
| 36 | 397400100 | | BELT | 1 |
| 37 | 41S04 | | WASHER, spring | 4 |
| 38 | 6S02E | | BOLT | 4 |



Engine & mounts

| Item | Part no | Serial no | Description | Qty |
|---|-----------|-----------|---|-----|
| NOTE: For Battery, start switch & loom, see page C-6 | | | | |
| | | 06737 / | 100T | |
| | | 02719 / | 150T & 175T | |
| 1 | V2005210 | | ENGINE, Yanmar L40A/L48A/L48N | 1 |
| From Serial nos 09571-100T & 05135-150T/175T L48A replaced by L48N, Engines are interchangeable, check model before ordering filters etc | | | | |
| 2 | 513361600 | | PIPE, exhaust | 1 |
| 3 | 153S02 | | CLAMP, exhaust | 1 |
| 4 | 267S05 | | WASHER, flat | 2 |
| 5 | 17S04 | | WASHER, spring | 2 |
| 10 | 513362100 | / 07364 | ROD, engine stop, 100T | 1 |
| 10 | 513362100 | / 03347 | ROD, engine stop, 150T | 1 |
| 10 | 513362300 | / 03305 | ROD, engine stop, 175T | 1 |
| <i># Deleted with the above RODS (Item 10)</i> | | | | |
| 11 | 254820000 | / # | GROMMET, open (<i>Fitted in eng. cover</i>) | 1 |
| 12 | 7S02 | / # | NUT | 1 |
| 13 | V2005213 | / # | HANDLE, 'T', engine stop | 1 |
| 14 | 267S04 | / # | WASHER, flat | 2 |
| 15 | 44S02B | / # | PIN, split | 2 |
| 19 | 57S04D2 | | SCREW, grub | 1 |
| 20 | V2005220 | | PULLEY | 1 |
| 21 | V2004220 | | WASHER, 'Special' | 1 |
| 22 | 17S04 | | WASHER, spring | 1 |
| 23 | 8S03D | | BOLT | 1 |
| 24 | 305110550 | | KEY, parallel | 1 |
| 25 | 397400200 | | BELT, 'V', 100T | 1 |
| 25 | 397400600 | | BELT, 'V', 150T & 175T | 1 |
| 26 | ..... |  | CABLE, negative (<i>See page C-6</i>) | 1 |
| 30 | 8S03D | | BOLT | 4 |
| 31 | 267S05 | | WASHER, flat | 8 |
| 32 | 61S03 | | NUT, self- locking "Binx" | 4 |
| 35 | 267S07 | | WASHER, flat | 13 |
| 36 | 17S06 | | WASHER, spring | 2 |
| 37 | 7S05 | | NUT | 6 |
| 38 | 61S05 | | NUT, self- locking "Binx" | 4 |
| 39 | 11S05D | | SCREW, set | 2 |
| 40 | 513333100 | | STUD | 2 |



Engine & mounts

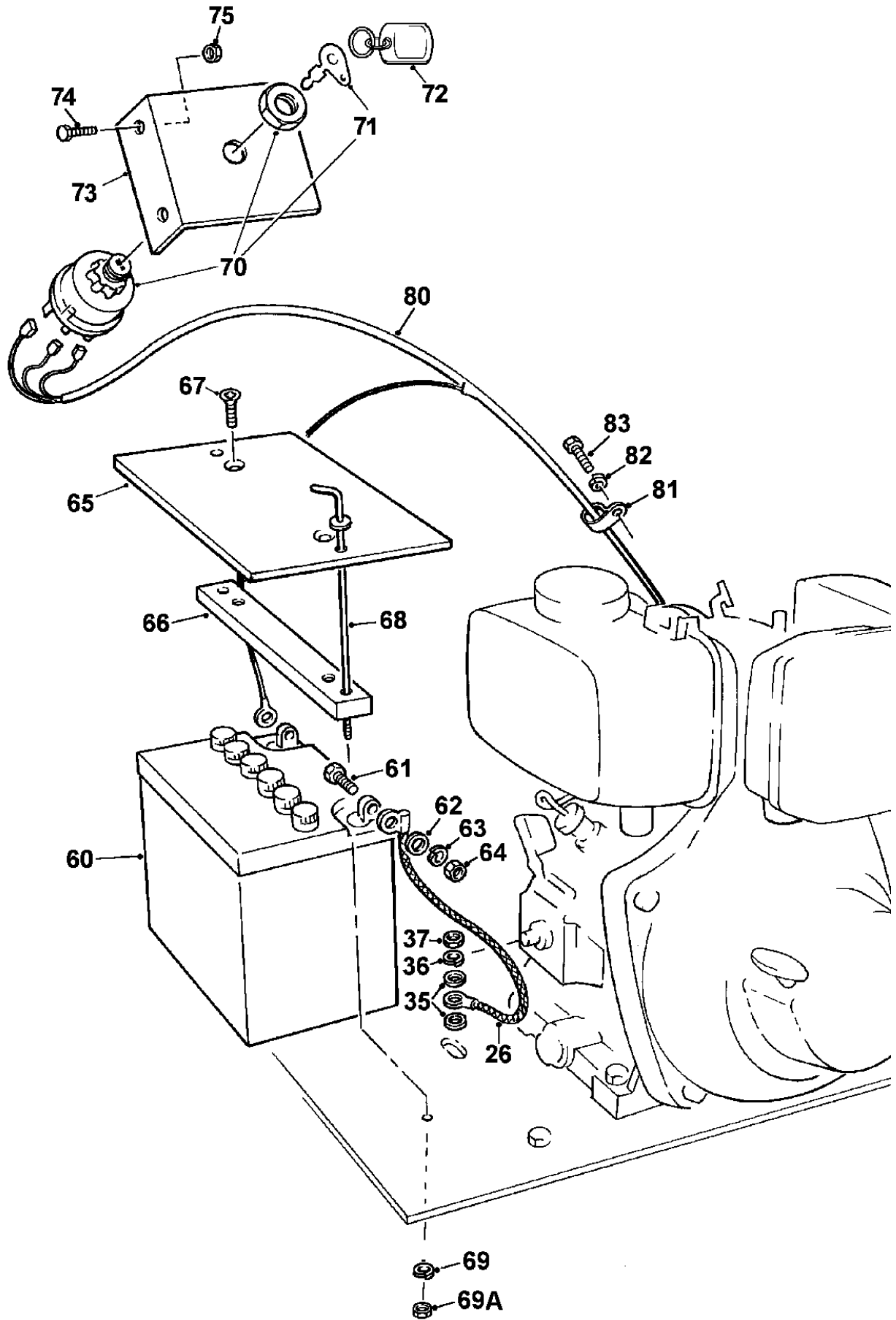
| Item | Part no | Serial no | Description | Qty |
|------|-----------|-----------|----------------------------------|-----|
| 45 | 513361800 | | PLATE, engine mounting | 1 |
| 46 | 8S04D | | BOLT | 2 |
| 47 | V2004220 | | WASHER, flat | 2 |
| 48 | 61S04 | | NUT, self- locking "Binx" | 2 |
| 49 | 513358800 | | SUPPORT, bracket | 1 |
| 51 | 325S04 | \$ / | ADAPTOR, male/male | 1 |
| 52 | 298S05 | \$ / | SEAL, bonded | 1 |
| 53 | 31S02LL | \$ / | HOSE, hydraulic | 1 |
| 54 | 127S03 | \$ / | PLUG, blanking, engine oil drain | 1 |

\$ *From mixer serial numbers*

07373 / **100T**

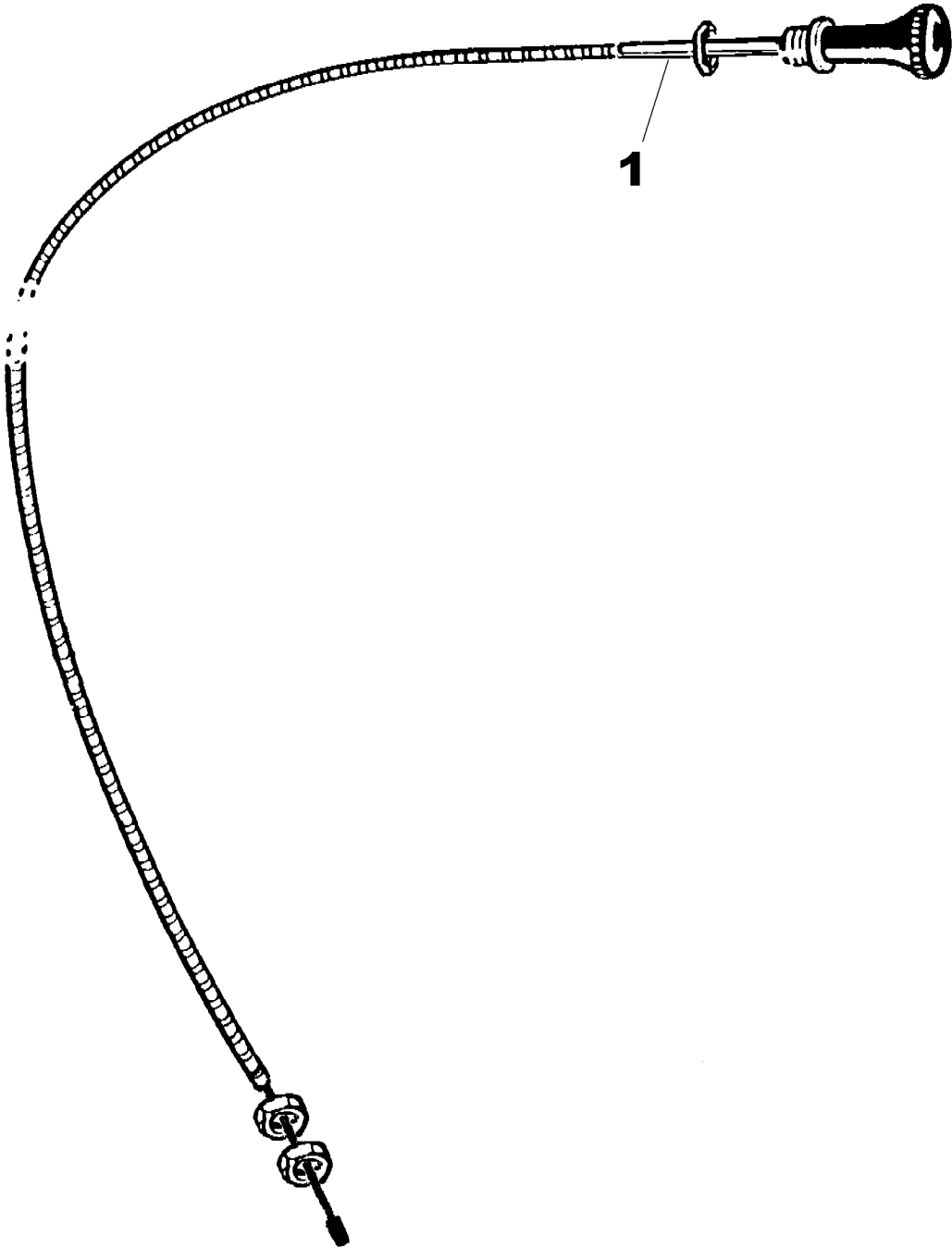
03347 / **150T**

03387 / **175T**



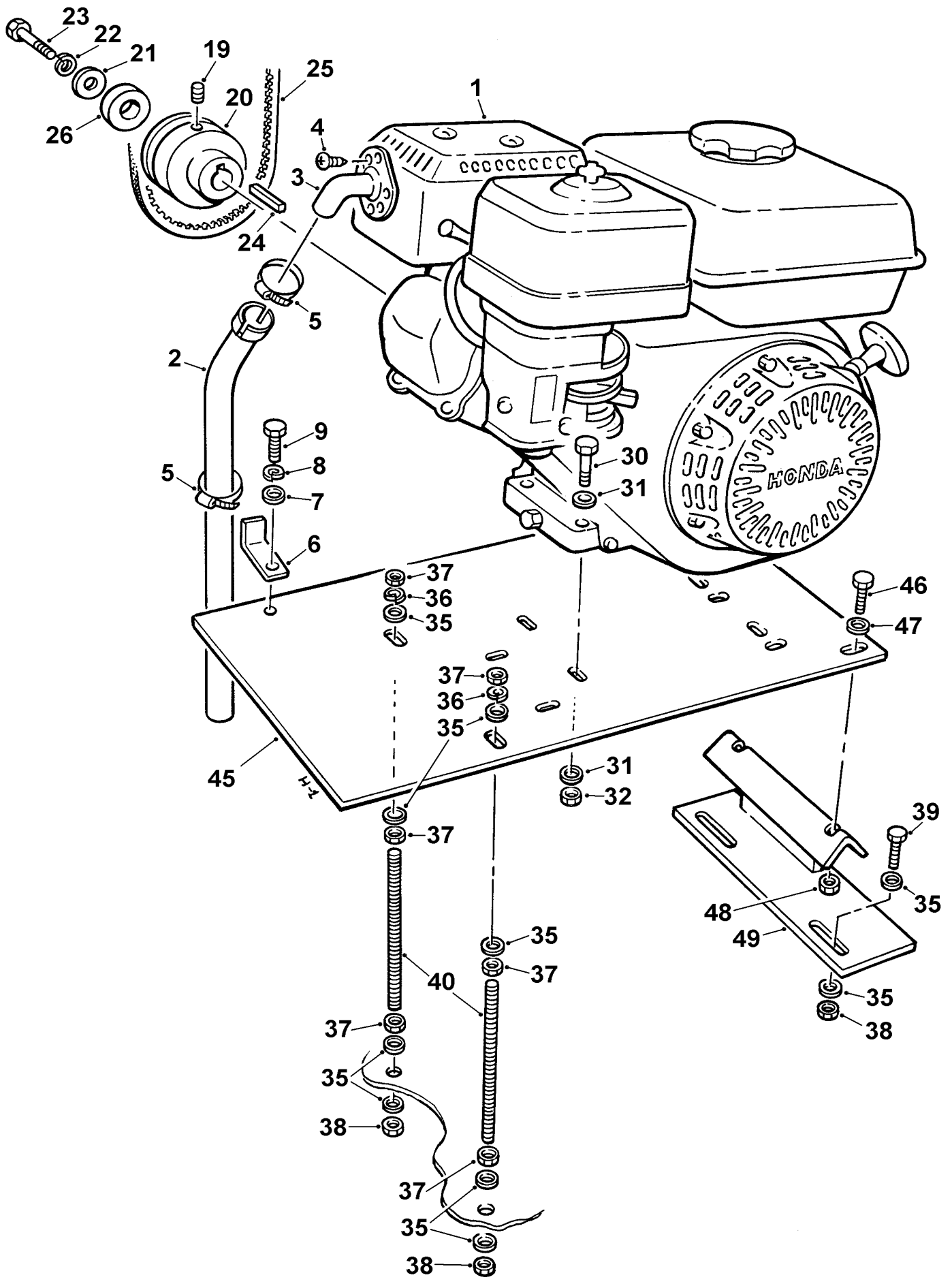
Battery, start switch & loom

| Item | Part no | Serial no | Description | Qty |
|------|-----------|--------------------|---------------------------------------|-----|
| | | 06737 / 02719 / | 100T 150T & 175T | |
| 26 | V2005211 | | CABLE, negative | 1 |
| 35 | 267S07 | | WASHER, flat | 2 |
| 36 | 17S06 | | WASHER, spring | 1 |
| 37 | 7S05 | | NUT | 1 |
| 60 | 109S11 | | BATTERY, 12 volt | 1 |
| 61 | 11S02B | | SCREW, set | 2 |
| 62 | 267S04 | | WASHER, flat | 2 |
| 63 | 17S03 | | WASHER, spring | 2 |
| 64 | 7S02 | | NUT | 2 |
| 65 | 513362000 | | COVER, battery | 1 |
| 66 | 513361900 | | CLAMP, battery | 1 |
| 67 | 52S02E | | SCREW, counter sunk | 2 |
| 68 | 513361700 | | ROD, battery clamp | 2 |
| 69 | 17S03 | | WASHER, spring | 2 |
| 69A | 7S02 | | NUT | 2 |
| 70 | V2003561 | | SWITCH, start, c/w key | 1 |
| 71 | V601179 | | KEY | 2 |
| 72 | V2003540 | | KEY RING | 1 |
| 73 | 513359200 | | BRACKET, start switch | 1 |
| 74 | 11S03A | | SCREW, set | 2 |
| 75 | 61S03 | | NUT, self-locking, 'Binx' | 2 |
| 80 | 513362200 | | LOOM | 1 |
| 81 | V2005209 | | CLIP, 'P' | 1 |
| 82 | 17S04 | | WASHER, spring | 1 |
| 83 | 11S03A | | SCREW, set | 1 |



YANMAR L48N5SJ1 (electric start)**C - 6A****Emergency stop cable**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|-------------------------|------------|
| | | 11195 / | 100T | |
| | | 05637 / | 150T | |
| | | 05604 / | 175T | |
| 1 | 513370900 | | CABLE, emergency stop | 1 |
| 2 | 267S04 | | WASHER, flat | 2 |
| 3 | V2006398 | | TIE, Cable, panel mount | 1 |



HONDA GX160K1 (hand start)
Engine & mounts

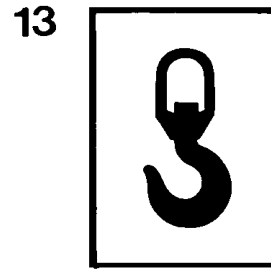
C - 7

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---------------------------|------------|
| 1 | 354073260 | 07395 / | ENGINE, Honda GX160K1 | 1 |
| 2 | 513363600 | | PIPE, exhaust | 1 |
| 3 | 513363700 | | ELBOW, exhaust | 1 |
| 4 | 214S03 | | SCREW, self tapping | 2 |
| 5 | 97S05 | | CLIP, pipe | 2 |
| 6 | 513363800 | | BRACKET, exhaust | 1 |
| 7 | 267S04 | | WASHER, flat | 1 |
| 8 | 17S03 | | WASHER, spring | 1 |
| 9 | 11S02A | | SCREW, set | 1 |
| 19 | 57S04D2 | | SCREW, grub | 1 |
| 20 | 513363000 | | PULLEY | 1 |
| 21 | V2004220 | | WASHER, 'Special' | 1 |
| 22 | 17S04 | | WASHER, spring | 1 |
| 23 | 11S03D | | SCREW, set | 1 |
| 24 | 305110550 | | KEY, parallel | 1 |
| 25 | 397400400 | | BELT, 'V', (100T) | 1 |
| 26 | 513363400 | | SPACER | 1 |
| 30 | 8S03D | | BOLT | 4 |
| 31 | 267S05 | | WASHER, flat | 8 |
| 32 | 61S03 | | NUT, self- locking "Binx" | 4 |
| 35 | 267S07 | | WASHER, flat | 13 |
| 36 | 17S06 | | WASHER, spring | 2 |
| 37 | 7S05 | | NUT | 6 |
| 38 | 61S05 | | NUT, self- locking "Binx" | 4 |
| 39 | 11S05D | | SCREW, set | 2 |
| 40 | 513333100 | | STUD | 2 |
| 45 | 513361800 | | PLATE, engine mounting | 1 |
| 46 | 8S04D | | BOLT | 2 |
| 47 | 267S06 | | WASHER, flat | 2 |
| 48 | 61S04 | | NUT, self- locking "Binx" | 2 |
| 49 | 513364600 | | SUPPORT, bracket | 1 |

2

| | | | |
|----------------|------------|--|-------|
| WINGET | | WINGET LIMITED P.O. Box 47, Church Hill, Boring, Essex, B4 6SW Tel: (01204) 475161 Fax: (01204) 475170 | |
| Model | _____ | | |
| Serial No. | _____ | | |
| Engine No. | _____ | | |
| Capacity | Mass (kg) | _____ | |
| SRO No. | Power (kW) | _____ | |
| Year Of Manuf. | Eng. (rpm) | Drum (rpm) | _____ |

V200337
A Siskin Group Company



3

DANGER

KEEP ENGINE HOUSING
LID CLOSED WHEN
ENGINE IS RUNNING

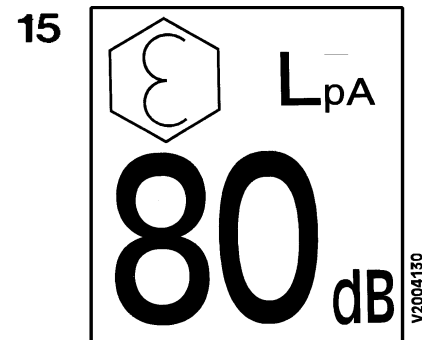


4

SAFETY WARNING

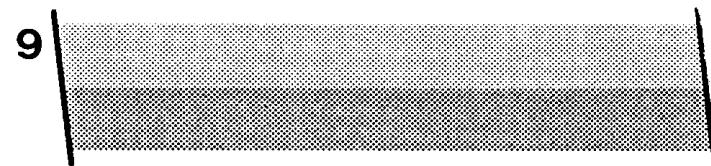
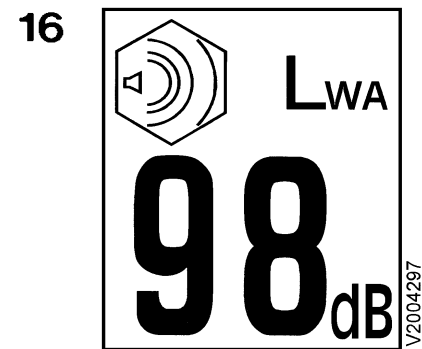
- 1 Before starting this machine, the operator should be familiar with the operating instructions issued by the manufacturer.
- 2 The manufacturer's rated capacity must never be exceeded.
- 3 Before carrying out any maintenance, servicing, or greasing, always ensure that the engine has been switched off. Never work on a machine while it is running.

W504694600



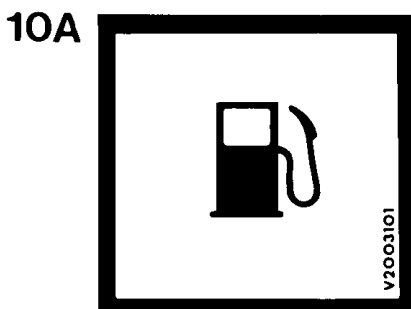
8

WINGET



10

DIESEL FUEL



18

FAILURE TO FOLLOW THE MANUFACTURERS INSTRUCTIONS WHEN STARTING THE ENGINE, MAY CAUSE DAMAGE TO THE MACHINE

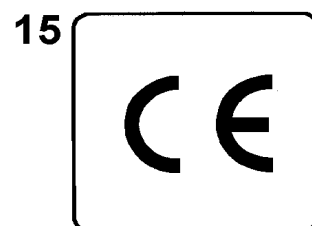
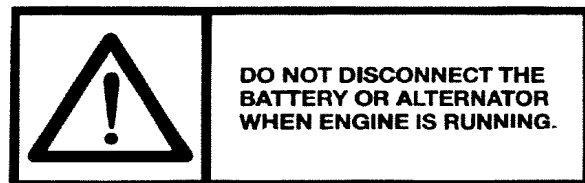
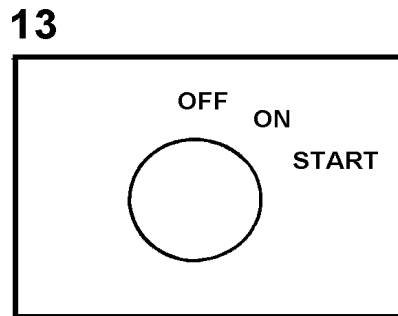
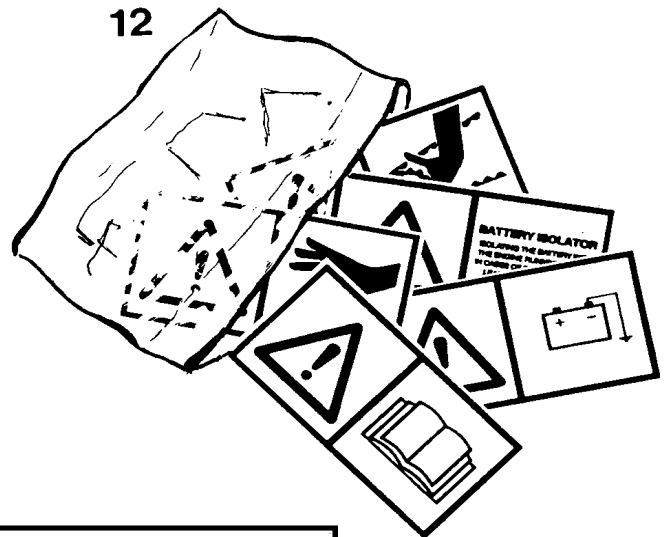
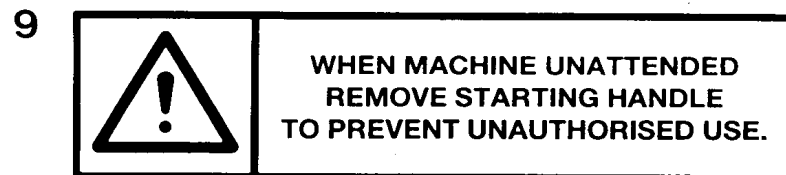
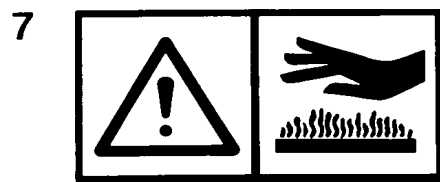
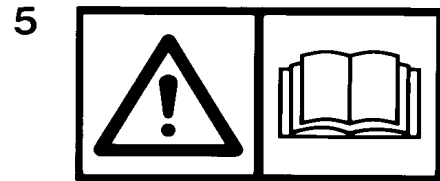
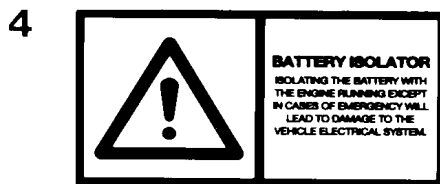
DECALS & PLATES**D - 1**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---|------------|
| | | | | 1 |
| 2 | V2003037 | | PLATE, serial | 1 |
| — | 101S05B | | RIVET. pop | 4 |
| 3 | 504600900 | | DECAL, "Engine housing lid closed" | 1 |
| 4 | 504694600 | | DECAL, "Safety Warning" | 1 |
| 8 | V2003039 | | DECAL, "WINGET" logo, | 3 |
| 9 | V2003038 | | DECAL, stripe, 2 colour | AR |
| 10 | — | | DECAL, diesel fuel (<i>OBSOLETE: use item 10A</i>) | |
| 10A | V2003101 | | DECAL, "Diesel fuel" | 1 |
| 13 | V2003665 | | DECAL, "Sling point" | 1 |
| 14 | V2003598 | | DECAL, "British made" | 1 |
| 15 | V2004130 | | DECAL, "LPA 80" | 1 |
| 16 | V2004297 | | DECAL, "LWA 98" | 1 |
| 17 | V2004307 | | DECAL, "Electrical hazard" | 1 |
| 18 | V2005208 | | DECAL, "Engine starting procedure" | |

1 **100 T**

2 **150 T**


3 **175 T**




DECALS & PLATES**D - 2**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|---|------------|
| 1 | V2003105 | | DECAL, "100T", Black | 2 |
| 1 | V602436 | | DECAL, "100T" White (<i>Not illustrated</i>) | - |
| 2 | V2003106 | | DECAL, "150T" Black | 2 |
| 2 | V602437 | | DECAL, "150T" White (<i>Not illustrated</i>) | - |
| 3 | V2003107 | | DECAL, "175T" Black | 2 |
| 3 | V602438 | | DECAL, "175T" White (<i>Not illustrated</i>) | - |
| 4 | V2004227 | | DECAL, "Battery isolator" | 1 |
| 5 | V2004229 | | DECAL, "Operators handbook" | 1 |
| 6 | V2004235 | | DECAL, "Negative earth" | 1 |
| 7 | V2004282 | | DECAL, "Hot surface" | 1 |
| 8 | V2004281 | | DECAL, "Chain drive" | 1 |
| 9 | V2004288 | | DECAL, "Remove start handle" | 1 |
| 10 | V2004289 | | DECAL, "Keep hands clear of drum" | 1 |
| 11 | V2004302 | | DECAL, Engine stop" | 1 |
| 12 | V601906 | | KIT, decals, 100T, 150T, 175T Each kit contains all of the decals required for one machine. | 1 |
| 13 | V2005218 | | DECAL "Key switch" | 1 |
| 14 | V2004796 | | DECAL "Do not disconnect battery" | 1 |
| 15 | V2004223 | | DECAL "CE mark" | 1 |

1


| | |
|---|---|
|  | <p>IN COLD WEATHER, IF THE ENGINE IS HARD TO START, REMOVE THE RUBBER PLUG ON THE ROCKER COVER AND ADD NO MORE THAN 2cc OF ENGINE OIL BEFORE STARTING AS RECOMMENDED IN THE ENGINE OPERATORS HANDBOOK. ALWAYS REFIT THE RUBBER PLUG.</p> <p><small>V2006276</small></p> |
|---|---|

2

| | |
|---|---|
|  | <p>LWA</p> <p>101 dB</p> <p><small>V2006311</small></p> |
|---|---|



4

| | |
|---|--|
|  | <p>THE RECOIL STARTER SHOULD ONLY BE USED AS AN "EMERGENCY" MEANS OF STARTING THE ENGINE AND SHOULD BE USED WITH CARE. BE AWARE THAT STARTING THE ENGINE WITH THE RECOIL DUE TO THE ABSENCE OF THE START KEY OR BATTERY OR BECAUSE THE BATTERY IS DISCHARGED WILL RESULT IN DAMAGE TO THE ALTERNATOR.</p> <p><small>V2005214</small></p> |
|---|--|



6

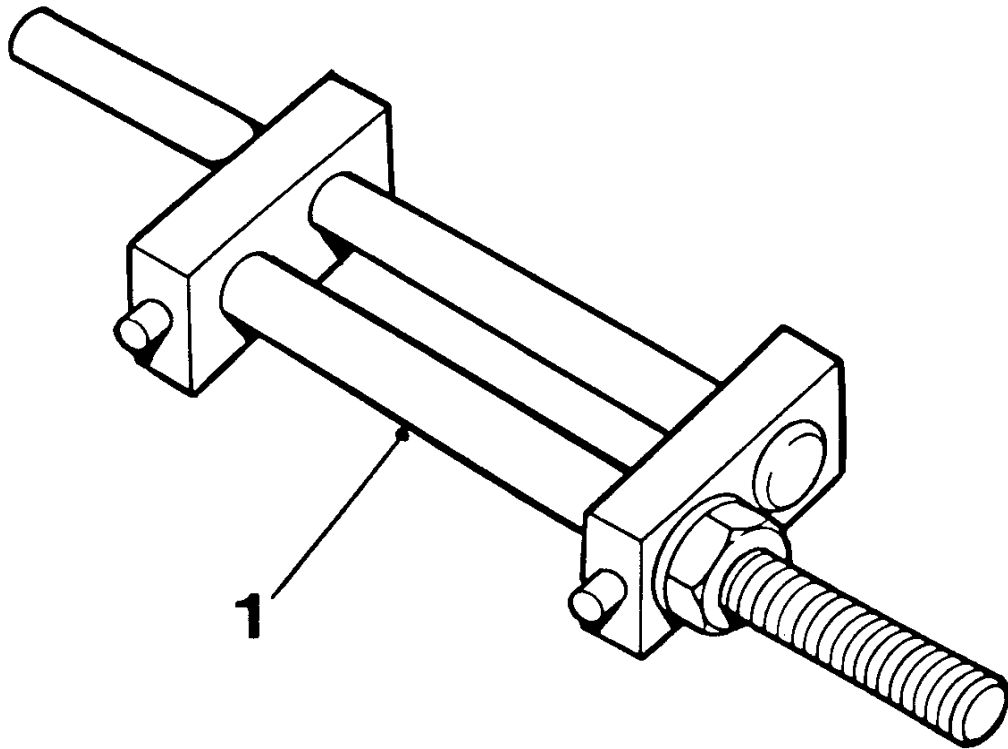
| | |
|---|--|
|  | <p>IMPORTANT!</p> <p>TO AVOID INJURY OR MACHINE DAMAGE DO NOT ENGAGE LOCKING PLUNGER WHILST HANDWHEEL IN MOTION</p> |
|---|--|

7

| |
|---|
| <p>EMERGENCY STOP</p> <p>TO BE USED IN EMERGENCY ONLY</p> |
|---|

DECALS & PLATES**D - 2A**

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------------------|------------|
| 1 | V2005276 | | DECAL, " Engine cold starting" | 1 |
| 2 | V2005311 | | DECAL, "LWA 101" | 1 |
| 3 | V2004744 | | DECAL, "Eye Protection" | 1 |
| 4 | V2005214 | | DECAL, "The recoil starter" | 1 |
| 5 | FSE357 | | DECAL, "ENGINE STOP" | 1 |
| 6 | V2005630 | | DECAL, "Locking Plunger" | 1 |
| 7 | 513371100 | | DECAL, "Emergency Stop" | 1 |



SPECIAL TOOLS

| Item | Part no | Serial no | Description | Qty |
|-------------|----------------|------------------|--------------------|------------|
| 1 | 513204000 | | CLAMP, drum clip | 1 |

NUMERICAL INDEX

Built from February 1988

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| 30788102 | C - 3 | 208870000 | C - 3 | 475106000 | A - 1A | 513152902 | B - 1A |
| 30788103 | C - 3 | 225104410 | B - 1C | 475106000 | A - 2A | 513153000 | B - 1B |
| 112820000 | B - 1B | 225514220 | B - 1B | 475115000 | A - 2A | 513153100 | B - 1C |
| 112821000 | B - 1B | 225520280 | B - 1B | 475117006 | A - 4 | 513154500 | A - 1A |
| 114625320 | B - 1B | 241102000 | C - 1 | 475117007 | A - 4 | 513154500 | A - 2A |
| 131270000 | C - 3 | 241102000 | C - 1A | 475117008 | A - 4 | 513155000 | A - 1A |
| 131271000 | C - 3 | 241104000 | C - 1 | 475123001 | A - 5 | 513155000 | A - 2A |
| 131570016 | C - 3 | 241104000 | C - 1A | 475123002 | A - 5 | 513157500 | B - 1A |
| 131766010 | C - 3 | 241702000 | C - 1 | 475130100 | A - 4 | 513158700 | B - 1C |
| 131770010 | C - 3 | 241702000 | C - 1A | 475130200 | A - 4 | 513160700 | B - 1C |
| 132352000 | B - 1C | 241704000 | C - 1 | 475130300 | A - 4 | 513161001 | B - 1A |
| 132362000 | B - 1C | 241704000 | C - 1A | 475130400 | A - 4 | 513161002 | B - 1A |
| 132390000 | B - 1A | 241859000 | A - 1B | 475130500 | A - 5 | 513167900 | A - 4 |
| 132412010 | A - 1A | 241859000 | A - 2B | 475130600 | A - 5 | 513194400 | B - 1B |
| 132412010 | A - 2A | 241859000 | A - 3 | 475130700 | A - 5 | 513198400 | A - 1A |
| 133266050 | C - 3 | 241902000 | C - 1 | 475130800 | A - 5 | 513198400 | A - 2A |
| 133470000 | C - 3 | 241902000 | C - 1A | 504600900 | D - 1 | 513198401 | A - 1A |
| 134105001 | B - 1C | 241904000 | C - 1 | 504694600 | D - 1 | 513198401 | A - 2A |
| 134105001 | C - 1 | 241904000 | C - 1A | 513127500 | C - 1 | 513198402 | A - 1A |
| 134105001 | C - 1A | 254820000 | C - 5 | 513127501 | C - 1 | 513198402 | A - 2A |
| 134105002 | B - 1C | 300204140 | B - 1C | 513127502 | C - 1 | 513198500 | A - 1A |
| 134105002 | C - 1 | 300204160 | C - 1A | 513149300 | B - 1B | 513198500 | A - 2A |
| 134105002 | C - 1A | 304710840 | C - 2A | 513149400 | B - 1B | 513199800 | B - 1A |
| 134105056 | B - 1C | 304710840 | C - 2B | 513149600 | B - 1A | 513202800 | B - 1A |
| 134105060 | B - 1C | 304710840 | C - 2C | 513149700 | B - 1C | 513203100 | B - 1A |
| 134105095 | C - 1 | 305110550 | C - 5 | 513149800 | B - 1C | 513203202 | B - 1A |
| 134105095 | C - 1A | 315803100 | B - 1C | 513150100 | B - 1A | 513203300 | B - 1B |
| 142330000 | B - 1A | 332719000 | A - 1A | 513150200 | B - 1C | 513203400 | A - 2A |
| 144700100 | C - 3 | 332719000 | A - 2A | 513150300 | B - 1C | 513203600 | B - 1A |
| 144700200 | C - 3 | 353830650 | A - 1A | 513150400 | B - 1C | 513203800 | B - 1A |
| 144750000 | C - 3 | 353830650 | A - 2A | 513151000 | B - 1B | 513203900 | B - 1A |
| 192928000 | C - 3 | 354051000 | C - 1A | 513151100 | B - 1A | 513204000 | D - 3 |
| 202493500 | C - 2A | 354051005 | C - 1A | 513151600 | B - 1C | 513205300 | A - 1B |
| 202493600 | C - 2A | 354052000 | C - 1 | 513151700 | B - 1C | 513205300 | A - 2B |
| 202493700 | C - 2B | 354054100 | C - 1A | 513151800 | A - 1B | 513205300 | A - 3 |
| 202493700 | C - 2C | 354054200 | C - 1 | 513151800 | A - 2B | 513205600 | A - 2B |
| 202493800 | C - 2B | 386102000 | A - 4 | 513151800 | A - 3 | 513208800 | B - 1A |
| 202493800 | C - 2C | 386102000 | A - 5 | 513152000 | B - 1A | 513211400 | B - 1B |
| 207818001 | C - 3 | 397400100 | C - 2A | 513152100 | B - 1A | 513211500 | B - 1B |
| 207818003 | C - 3 | 397400100 | C - 2B | 513152200 | B - 1A | 513211700 | B - 1C |
| 207818004 | C - 3 | 397400100 | C - 2C | 513152300 | B - 1A | 513211800 | B - 1C |
| 208398500 | C - 3 | 397400100 | C - 4 | 513152400 | B - 1C | 513211900 | B - 1C |
| 208398600 | C - 3 | 397400200 | C - 5 | 513152500 | B - 1C | 513212000 | B - 1B |

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| 513248300 | C - 1A | 513340800 | A - 2B | 513358800 | C - 4 | 107S14 | B - 1B |
| 513248400 | C - 1 | 513340800 | A - 3 | 513358800 | C - 5 | 109S11 | C - 6 |
| 513248400 | C - 1A | 513340900 | A - 1A | 513358900 | A - 3 | 10S03 | A - 1A |
| 513248401 | C - 1 | 513340500 | C - 1 | 513359000 | C - 4 | 10S03 | A - 2A |
| 513248402 | C - 1 | 513341000 | A - 1A | 513359100 | A - 3 | 10S03 | B - 1A |
| 513248403 | C - 1 | 513341100 | A - 1A | 513359200 | A - 3 | 10S03 | B - 1B |
| 513248404 | C - 1 | 513341200 | A - 1A | 513359200 | C - 6 | 10S03 | B - 1C |
| 513248700 | A - 2B | 513341200 | A - 2A | 513359300 | C - 4 | 10S04 | A - 2A |
| 513256500 | C - 1 | 513341300 | A - 1B | 513359700 | C - 1 | 10S04 | B - 1A |
| 513256500 | C - 1A | 513341400 | A - 1B | 513359700 | C - 1A | 10S05 | A - 4 |
| 513266700 | C - 1 | 513341400 | A - 3 | 513359800 | C - 1 | 10S09 | A - 1A |
| 513266800 | C - 1A | 513341500 | A - 1B | 513359800 | C - 1A | 10S09 | A - 2A |
| 513266900 | A - 2B | 513341600 | A - 1B | 513360200 | A - 5 | 10S09 | B - 1B |
| 513267400 | C - 1A | 513341900 | C - 1 | 513361000 | A - 5 | 10S17 | A - 1A |
| 513267500 | C - 1A | 513342000 | C - 2A | 513361100 | A - 5 | 10S17 | A - 2A |
| 513267500 | C - 4 | 513342100 | C - 2A | 513361600 | C - 5 | 10S18 | B - 1B |
| 513269400 | A - 2A | 513342100 | C - 2B | 513361700 | C - 6 | 11S01C | C - 3 |
| 513270300 | A - 2B | 513342200 | A - 4 | 513361800 | C - 5 | 11S02A | A - 1B |
| 513274900 | A - 2A | 513342300 | A - 4 | 513361900 | C - 6 | 11S02A | A - 2B |
| 513275200 | A - 2A | 513342500 | C - 1 | 513362000 | C - 6 | 11S02A | A - 3 |
| 513278200 | C - 1 | 513343000 | C - 1 | 513362100 | C - 5 | 11S02B | A - 1A |
| 513278200 | C - 1A | 513343400 | C - 2B | 513362200 | C - 6 | 11S02B | A - 2A |
| 513278400 | B - 1C | 513343800 | A - 4 | 513362300 | C - 5 | 11S02B | C - 6 |
| 513285000 | A - 1B | 513343800 | A - 5 | 513362400 | A - 1B | 11S03A | A - 3 |
| 513285000 | A - 1B | 513343900 | A - 4 | 555170000 | A - 1B | 11S03A | C - 6 |
| 513285000 | A - 2B | 513343900 | A - 5 | 555170000 | A - 2B | 11S03C | C - 4 |
| 513286800 | A - 2B | 513344000 | A - 4 | 555170000 | A - 3 | 11S03D | C - 5 |
| 513286800 | A - 3 | 513344000 | A - 5 | V2003037 | D - 1 | 11S04B | A - 3 |
| 513287000 | A - 2B | 513344100 | C - 1 | 103S04C | B - 1B | 11S04C | A - 3 |
| 513287200 | A - 1B | 513344200 | A - 4 | 104S03 | A - 1A | 11S04C | A - 4 |
| 513287200 | A - 2B | 513344300 | A - 4 | 104S03 | A - 1B | 11S04C | A - 5 |
| 513287200 | A - 3 | 513345100 | A - 5 | 104S03 | A - 2A | 11S04D | C - 4 |
| 513290300 | C - 2C | 513345300 | B - 1B | 104S03 | A - 2B | 11S04E | A - 1B |
| 513290400 | C - 2C | 513345400 | B - 1B | 104S03 | A - 3 | 11S04E | A - 2B |
| 513290500 | C - 2C | 513345600 | B - 1B | 104S03 | A - 4 | 11S04F | C - 4 |
| 513290600 | C - 2A | 513345700 | A - 4 | 104S03 | A - 5 | 11S05D | C - 5 |
| 513290600 | C - 2B | 513350000 | C - 2B | 104S03 | B - 1A | 11S05E | A - 5 |
| 513290600 | C - 2C | 513355800 | A - 1B | 104S03 | B - 1B | 11S05T | C - 1 |
| 513290700 | B - 1C | 513358100 | A - 1A | 104S03 | B - 1C | 153S01 | C - 1 |
| 513298900 | B - 1C | 513358100 | A - 2A | 104S03 | C - 2A | 153S01 | C - 1A |
| 513333100 | C - 2B | 513358300 | C - 4 | 104S03 | C - 2B | 153S01 | C - 4 |
| 513333100 | C - 2C | 513358400 | A - 3 | 104S03 | C - 2C | 153S02 | C - 5 |
| 513333100 | C - 4 | 513358500 | A - 3 | 105S05 | C - 1A | 153S03 | C - 4 |
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| 17S03 | A - 1A | 267S06 | C - 5 | 57S04D2 | C - 2B | 6S02E | C - 4 |
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| 17S03 | A - 2A | 267S07 | C - 1 | 57S04D2 | C - 5 | 7S01 | C - 3 |
| 17S03 | A - 2B | 267S07 | C - 1A | 57S05D2 | C - 1A | 7S02 | A - 2B |
| 17S03 | A - 3 | 267S07 | C - 2A | 57S06F1 | B - 1B | 7S02 | A - 3 |
| 17S03 | C - 5 | 267S07 | C - 2B | 59S03 | A - 4 | 7S02 | C - 5 |
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| 17S04 | A - 3 | 267S07 | C - 4 | 59S03 | C - 4 | 7S03 | A - 3 |
| 17S04 | C - 4 | 267S07 | C - 5 | 61S02 | A - 1B | 7S03 | C - 4 |
| 17S04 | C - 5 | 267S07 | C - 6 | 61S02 | A - 2B | 7S04 | A - 1B |
| 17S04 | C - 6 | 28S02E | A - 1B | 61S02 | A - 3 | 7S04 | A - 2B |
| 17S05 | A - 3 | 28S02E | A - 2B | 61S02 | C - 6 | 7S04 | A - 3 |
| 17S05 | A - 4 | 28S02E | A - 3 | 61S03 | A - 4 | 7S04 | A - 4 |
| 17S05 | A - 5 | 28S05G | B - 1A | 61S03 | C - 5 | 7S04 | A - 5 |
| 17S06 | C - 2A | 41S04 | B - 1B | 61S03 | C - 6 | 7S05 | C - 1 |
| 17S06 | C - 2B | 41S04 | C - 4 | 61S04 | C - 4 | 7S05 | C - 2A |
| 17S06 | C - 2C | 41S05 | A - 1A | 61S04 | C - 5 | 7S05 | C - 2B |
| 17S06 | C - 4 | 41S05 | A - 1B | 61S05 | A - 5 | 7S05 | C - 2C |
| 17S06 | C - 5 | 41S05 | A - 2A | 61S05 | C - 1 | 7S05 | C - 4 |
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| 192S05 | A - 2A | 41S05 | A - 3 | 61S05 | C - 2A | 7S05 | C - 6 |
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| 200S03G | B - 1A | 41S05 | B - 1C | 61S05 | C - 1 | 88S07D | B - 1A |
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| 267S04 | C - 5 | 44S05G | A - 1A | 66S03CC | A - 1B | 8S05D | C - 2C |
| 267S04 | C - 6 | 44S05G | A - 2A | 66S03CC | A - 2A | 8S05E | C - 1A |
| 267S05 | A - 4 | 49S41 | B - 1C | 66S03CC | A - 2B | 8S05F | C - 1 |
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| 267S05 | C - 5 | 52S02C | A - 2B | 66S03CC | B - 1B | 8S05H | C - 2A |
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CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm