

OPERATING INSTRUCTIONS & SPARE PARTS LIST 2B2000

DUMPER (CAPACITY 2000KG) PRODUCED UPTO FEBRUARY 1988

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INTRODUCTION

This Parts & Operators Manual is a re-print of the manual last published in 1984 and contains some amended part numbers.

Note: This publication is applicable to machines produced upto February 1988 ending with Machine Serial No. 800131

Health & Safety legislation and working practices applicable to Site Dumpers, both 2 and 4 wheel Drive, Rigid Chassis and Articulated Chassis have changed considerably in the years since this manual was last published and immediately following this Introduction are notes on the Safe Use of Site Dumpers. These notes supersede and replace all previous 'Dumper Safety' notes issued with Winget 2B2000 Two Wheel Drive Dumpers.

Reference is made on a number of pages to 'bolt c/w nut and washer', this no longer the case, fixings such as nuts, bolts, screws and washers should be ordered as individual items. A number of Whitworth and B.S.F fixings are now no longer available, in these cases the nearest metric equivalent size will be supplied.

The contents of this manual although correct at the time of publication, may be subject to alteration by the manufacturers without notice and Winget Limited can accept no responsibility for any errors or omissions contained within the following pages. Nor can we accept any liability whatsoever arising from the use of this manual howsoever caused.

Winget Limited operate a policy of continuous product development. Therefore, some illustrations or text within this publication may differ from your machine.

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SAFE WORKING

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

The safe working recommendations for specific tasks are found with the instructions for the relevant operation in 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.

TRAINING

WARNING Only trained operators should use this machine.



Operators should hold an appropriate full motor vehicle driving licence and undergo both a safety awareness course and a driver training course for Site dumpers run by the C.ITB or equivalent body leading to the award of a CTA.

It is strongly recommended that operators read the H.S.E. publication "Safe Working with Small Dumpers" which is available from government bookshops (HMSO) or from other bookshops quoting the following number ISBN 011 8836935. Another useful publication is British Standard number BS 6264, "Procedure for Operator Training For Earth Moving Machinery" available from the British Standard Institution.

RUNNING-IN

WARNING While a gradual 'running-in' of a new engine is not necessary, it is extremely important that the instructions given in *Section 2 "Operation"* on "Running-in a new engine" should be followed very closely during the first fifty hours of operation.

DRIVING

WARNING *NEVER* use the machine for purposes other than those for which it was designed. This machine was designed to carry loads such as soil, clay, sand, wet concrete, stone or other similar materials. It was not designed to carry loads which may move around in the skip uncontrollably, nor to carry any loads or materials which overhang the skip in any way. If in any doubt as to the suitability of this machine for a particular task, contact your nearest Distributor or the Manufacturer for advice.

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

NEVER commence work with the machine until the "Daily (or every ten hours)" service checks have been made. (*See Service Section* for details)

ALWAYS check wheel nut tightness daily.

NEVER carry passengers.

1.2

Ensure that the seat is securely fixed to the machine. Where seat belt restraints are fitted as part of Rops/Fops protection they must be worn. Check that the seat belt is in good condition, free from cuts and frayed edges.

ALWAYS remain in the driving seat whenever the engine is running. Never attempt to operate any controls unless seated.

ALWAYS apply the parking brake before leaving the driver's seat.

NEVER dismount with the engine running, and never leave the machine unattended with the key in the starter switch.

When Battery Isolators are fitted they must be activated only when the engine is turned off except in cases of emergency.

Activating a Battery Isolator when the engine is running can result in damage to the electrical components and circuits.

NEVER fill the fuel or hydraulic tanks with the engine running.

ALWAYS drive only on surfaces that are known to be stable.

ALWAYS keep the floor plates and walkways clean.

NEVER drive the machine close to the edge of any excavation. Always use effective wheel stops to prevent the machine running close to the edge. Make sure that the stops are in proportion to the size of the wheels and are set sufficiently far enough back from the edge of any excavation to prevent the weight of the load causing a collapse.

NEVER adjust the tyre pressures in an attempt to improve traction on soft ground or obtain a softer ride on hard ground. Incorrectly adjusted tyres can affect the steering and handling characteristics.

NEVER attempt to free a machine which is 'bogged down' by pushing with the bucket of a backhoe loader, tracked excavator or other similar machine.

NEVER make unnecessary "crash stops" when travelling at speed, especially in forward direction.

NEVER work under an unpropped skip. If the dumper was supplied with a special skip support always ensure that it is used.

SAFE WORKING

SKIPS AND LOADING

WARNING NEVER exceed the rated payload. The weights of all loads above skip water

level must be checked.

NEVER remain on the machine when loading the skip with excavators or loaders. Stop the engine, apply the parking brake, dismount, and stand well clear.

ALWAYS ensure that the load is evenly distributed in the skip.

NEVER carry loads or heap materials in such a manner as to affect the forward vision.

ALWAYS take extra care when tipping non free running loads.

NEVER use the skip in a tipped position to bulldoze heaped materials level or to backfill material into excavations.

TOWING

WARNING NEVER attempt to start the engine of a dumper by towing or pushing.



Dumpers are not designed as towing vehicles. However, trailers may be towed provided that:

The combined weight of the trailer and its load does not exceed the 1 dumper "drawbar pull of 250kg (2500N)" and dumper "drawbar load of 50kg (500N)".

2 Trailers may be towed in first gear on level dry ground, provided a purpose made towing pin is used.

3 The dumper skip must be loaded with half the rated payload to ensure tyre adhesion when braking.

NEVER tow loads up, down or across gradients.

GRADIENTS

WARNING NEVER operate Two Wheel Drive rigid chassis dumpers on any gradients



which exceed 10% (1 in 10), or across gradients which exceed 10% (1 in 10).

ALWAYS remember that slippery or loose surface conditions can adversely affect safe machine operation, including braking, particularly on gradients.

ALWAYS choose routes that avoid steep, slippery or loose gradients.

NEVER coast down gradients. Always negotiate gradients in first gear.

ALWAYS drive forwards up gradients when loaded.

ALWAYS reverse down gradients when loaded.

ALWAYS keep the load facing uphill.

NEVER park on a gradient. If this is unavoidable, ALWAYS chock the wheels.

NEVER attempt to turn on a gradient

NEVER tow up, down or across a gradient.

NEVER operate high discharge or rotating skips on gradients.

HYDRAULICS

1.4

WARNING *ALWAYS* "Dump" residual pressure from the system before leaving the machine or before carrying out any maintenance or adjustments.

If maintenance work requires the skip to be in the raised position, then it must be raised and supported before dumping the pressure.

Dump pressure by switching off the engine, then moving the hydraulic control lever several times in each direction.

NEVER leave the machine unattended with pressure in the system.

ALWAYS purge hydraulic rams before commencing work. With the engine running operate the hydraulic control to fully extend and retract the rams.

ALWAYS practise the greatest cleanliness in maintaining hydraulic components.

SERVICING

WARNING *ALWAYS* report any defect at once, before an accident or consequential damage can occur.

ALWAYS conform to service schedules except where:

- 1 Warning lights or warning indicators call for immediate attention.
- Adverse conditions necessitate more frequent servicing.

ALWAYS wear correctly fitting protective clothing. Loose or baggy clothing can be extremely dangerous when working on running engines or machinery.

ALWAYS, where possible, work on or close to engines or machinery only when they are stopped. If this is not practical, remember to keep tools, test equipment and all parts of your body well away from the moving parts.

ALWAYS "Dump" pressure from the hydraulic system before carrying out any kind of maintenance or adjustment. (see Service - Hydraulic system).

ALWAYS avoid contact with exhaust pipes, exhaust manifolds and silencers when the engine is running; these can be very hot.

ALWAYS work out of doors, or in a well-ventilated area.

NEVER run an engine in an enclosed space. Exhaust fumes in enclosed areas can kill.

SAFE WORKING

ALWAYS disconnect battery cables and remove battery before using an external charger, carrying out welding repairs or to prevent unauthorised usage when unattended or during a repair.

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

NEVER attempt to modify or repair Rops Frames or Fops Canopies by welding, drilling or any other means. Attempts to do so will invalidate Rops/Fops Certification.

ALWAYS obtain advice before mixing oils; some are incompatible. If in doubt drain and refill.

NEVER allow oils and fuels to come into regular contact with skin. This can lead to serious skin diseases including, medical evidence suggests, skin cancer. ALWAYS wear protective gloves when handling oils and fuels whether topping up, draining or refilling. ALWAYS wash hands if oils or fuels come into contact with the skin.

Many liquids used in this machine are harmful if taken internally or splashed into the eyes. In the event of accidentally swallowing oils, fuels, anti-freeze, battery acid etc, *DO NOT* encourage vomiting, seek qualified medical assistance immediately.

ALWAYS dispose of waste oils and fuels 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.

Equipment which includes friction materials will sometimes contain asbestos. When removing friction material dust from components, such as when servicing brakes or clutches, do not blow out with an airline; it could be harmful to inhale the dust. Remove the dust with a vacuum cleaner or wipe clean with a damp rag. Waste should be placed in a sealed container, marked, and disposed of in accordance with local or national regulations.

The accumlated dust found in clutch housings may contain lead/antimony. No food should be eaten at a work place contaminated by this dust. Hands must be washed before eating. Do not blow out dust with an airline.

NEVER work under an unpropped skip. If the dumper was supplied with a special Skip Support always ensure that it is used.

ALWAYS ensure that when using a starting handle that it is clean and in good condition. Keep the engine starting dog and the part of the starting handle that mates with it lightly lubricated (*Refer to the Engine Handbook*).

PREPARATION FOR USE

Before the Dumper is put into service, always check the following points:-ENGINE Check the oil level on the dipstick, topping up if necessary.

GEARBOX

Check the oil level on the dipstick, topping up if necessary.

DRIVE AXLE & STEERING BOX

Remove filler/level plugs from drive axles and steering box and check that oil is up to bottom of holes. Top up if necessary, through filler/level plugs.

FUEL TANK

Fill tank with diesel oil until approximately 1" from the top. NOTE: Never allow fuel level to fall below 2" deep in the bottom of the tank.

HYDRAULIC TANK (IF FITTED)

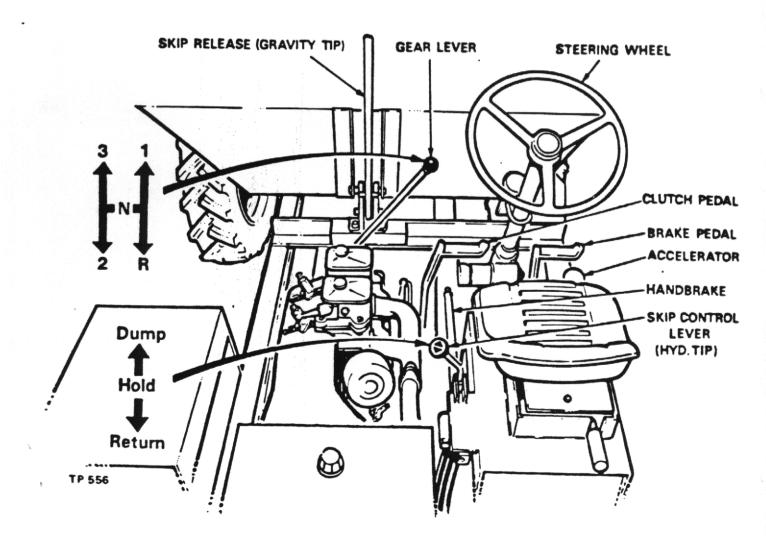
Fill the hydraulic tank to within 2" of the top. Before removing the cap, clean the surrounding area to prevent the possible entry of foreign matter.

HYDRAULIC BRAKE SYSTEM (IF FITTED)

Ensure that the fittings are tight on pipes and check for leaks.

MISCELLANEOUS

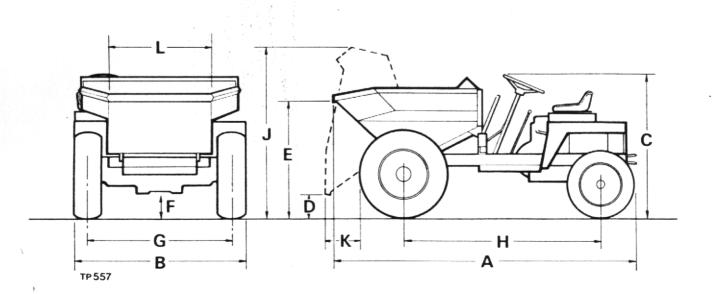
Check all wheel nuts for tightness. Check all nuts and bolts for tightness, loose nuts and bolts may lead to damage not covered by warranty. N.B. FOR FURTHER INFORMATION ABOUT LUBRICATION AND RECOMMENDED OILS SEE RECOMMENDED LUBRICANT CHART & GENERAL MAINTENANCE SECTION.



MACHINE SPECIFICATION FWD. TIP SKIP (GRAVITY & HYDRAULIC)

3

A Overall Length	3130 mm (123")
B Overall Width	1750 mm (69")
C Overall Height	1485 mm (58")
D Skip Ground Clearance (Tipped)	89 mm (3 ¹ / ₂ '')
E Skip Loading Height	1255 mm (49")
F Ground Clearance - Salisbury Axle	290 mm (11")
Newage Axle	315 mm (12")
G Track	1450 mm (57")
H Wheelbase	2006 mm (79")
J Max. Height when Tipped	1662 mm (65½'')
K Discharge Forward of Tyre	$370 \text{ mm} (14\frac{1}{2}'')$
L Prow Width	570 mm (14 ²)
Axle Articulation	
	330 mm (13")
Turning circle between Kerbs	9450 mm (372")
Unladen Weight (Gravity Tip)	1168 Kg. (2576 lbs.)
(Hydraulic Tip)	1280 kg. (2822 lbs.)
FUEL TANK 25 lit. (5.5 galls.) HYDRAULIC TANK 25 lit. (5.5 galls.) ENGINES PETTER PH2 @ 1650 RPM LISTER ST2 @ 2000 RPM	TYRES Drive Axle 10.5 x 18 x 6 ply Steer Axle 5.5 x 16 x 6 ply GEARBOX .85 Lit. (1½ pts.)
SKIP	
Max Payload 2000 Kg. (4409 lbs.)	Full & Levelled 950 lit. (33.5 cu.ft.)
Liquid Capacity 830 lit. (29 cu.ft.)	Heaped 1340 lit. (33.5 cu.ft.)
Elquid Capacity 050 III. (25 cu.IL.)	Heaped 1540 IIC. (47 Cu. IC.)
ROAD SPEEDS - NEWAGE AXLE PETTER ENGINE LISTER ENGINE	ROAD SPEEDS - SALISBURY AXLE PETTER ENGINE LISTER ENGINE
GEAR M.P.H. K.P.H. M.P.H. K.P.H.	GEAR M.P.H. K.P.H. M.P.H. K.P.H.
1ST 2.46 3.95 2.90 4.70	1ST 2.93 4.71 3.50 5.60
2ND 5.74 9.23 6.90 11.10	2ND 6.80 10.94 8.27 13.30
3RD 10.61 17.07 12.80 20.60	3RD 12.59 20.25 15.26 24.60
REV. 2.75 4.43 3.30 5.30	REV. 4.57 7.35 3.90 6.30



A	Overall Length	3400 mm (134")
В	Overall Width	1750 mm (69")
С	Overall Height	1690 mm (67'')
D	Skip Ground Clearance (Tipped)	
E	Skip Loading Height	570 mm (22")
		1410 mm (56")
F	Ground Clearance - Salisbury Axle	290 mm (11")
	Newage Axle	315 mm (12")
G	Track	1450 mm (57")
H	Wheelbase	2006 mm (79")
J	Max. Height when Tipped	2000 mm (79)
K	Discharge Forward of Tyre	
L	Prow Width	
	Axle Articulation	220 - (1011)
		330 mm (13")
	Turning circle between Kerbs	9450 mm (372")
•	Unladen Weight	1300 Kg. (2866 lbs.)
FIEL	TANK 25 lit (5.5 collo)	

FUEL TANK 25 lit. (5.5 galls.) HYDRAULIC TANK 25 lit. (5.5 galls.) ENGINES PETTER PH2 @ 1650 RPM LISTER ST2 @ 2000 RPM

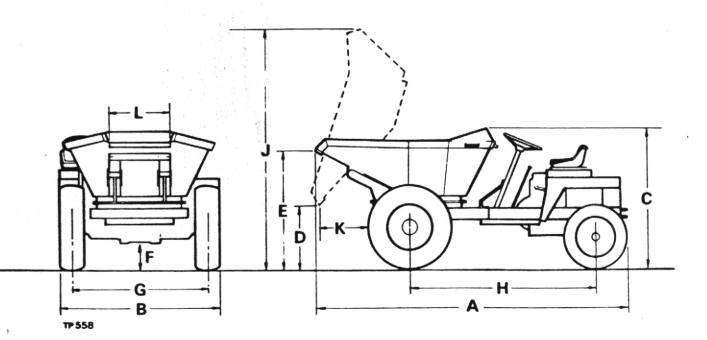
SKIP - Narrow Mouth Max Payload 1630 Kgs. (3590 lbs.) Liquid Capacity 680 lit. (24 cu.ft.)

ROAD	SPEEDS	- NEWAGE	AXLE	۹.
	PETTER	ENGINE	LISTER	ENGINE
GEAR	M.P.H.	K.P.H.	M.P.H.	K.P.H.
1ST	2.46	3.95	2.90	4.70
2ND	5.74	9.23	6.90	11.10
3RD	10.61	17.07	12.80	20.60
REV.	2.75	4.43	3.30	5.30

1300 Kg. (2866 lbs.) TYRES Drive Axle 10.5 x 18 x 6 ply Steer Axle 5.5 x 16 x 6 ply GEARBOX .85 Lit. (1½ pts.)

SKIP - Wide Mouth Max Payload 1630 Kgs. (3590 lbs.) Liquid Capacity 680 lit. (24 cu.ft.)

ROAD	SPEEDS ·	- SALISBU	RY AXLE	
	PETTER	ENGINE	LISTER	ENGINE
GEAR	M.P.H.	K.P.H.	M.P.H.	K.P.H.
1ST	2.93	4.71	3.50	5.60
2ND	6.80	10.94	8.27	13.30
3RD	12.59	20.25	15.26	24.60
REV.	4.57	7.35	3.90	6.30



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MACHINE SPECIFICATION

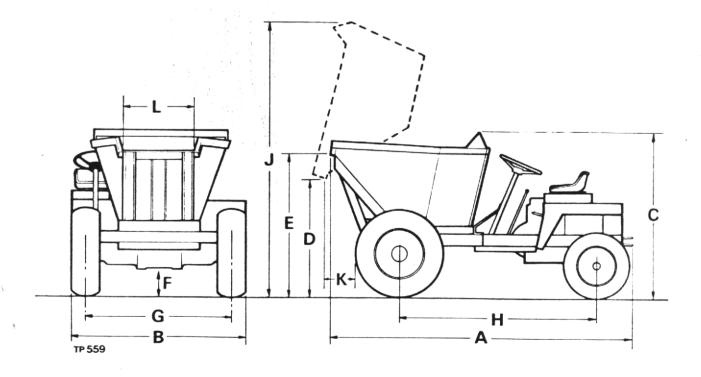
HIGH DISCHARGE SKIP

		HIGE SKIP
A B C D E F G	Overall Length Overall Width Overall Height Skip Ground Clearance (Tipped) Skip Loading Height Ground Clearance - Salisbury Axle Newage Axle Track	2900 mm (114") 1750 mm (69") 1660 mm (65") 1580 mm (62") 1525 mm (60") 290 mm (11") 315 mm (12")
H J K	Wheelbase Max. Height when Tipped Discharge Forward of Tyre Prow Width Axle Articulation Turning circle between Kerbs Unladen Weight	1450 mm (57") 2006 mm (79") 2645 mm (8'8") 32 mm (1½") Wide 1067 mm (3'6") 330 mm (13") 9450 mm (372") 1325 Kg.(2920 1bs.)
HYD	L TANK 25 lit. (5.5 galls.) RAULIC TANK 25 lit. (5.5 galls.) INES PETTER PH2 @ 1650 RPM LISTER ST2 @ 2000 RPM	TYRES Drive Axle 10.5 x 18 x 6 ply Steer Axle 5.5 x 16 x 6 ply GEARBOX .85 Lit. (1½ pts.)
Liqu	Payload 2000 Kg. (4410 lbs.) aid Capacity 760 lit. (27 cu.ft.)	
ROAL	SPEEDS - NEWAGE AXLE PETTER ENGINE LISTER ENGINE M.P.H. K.P.H. M.P.H. K.P.H.	ROAD SPEEDS - SALISBURY AXLE PETTER ENGINE LISTER ENGINE GEAR M.P.H. K.P.H. M.P.H. K.P.H.

	PETTER	ENGINE	LISTER	ENGINE
GEAR	M.P.H.	K.P.H.	M.P.H.	K.P.H.
1ST	2.46	3.95	2.90	4.70
2ND	5.74	9.23	6.90	11.10
3RD	10.61	17.07	12.80	20.60
REV.	2.75	4.43	3.30	5.30

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E GEAR M.P.H. K.P.H. M.P.H. K.P.H. 1ST 2.93 4.71 3.50 5.60 2ND 6.80 10.94 8.27 13.30 3rd 12.59 20.25 15.26 24.60 REV. 4.57 7.35 3.90 6.30



STARTING

- 1. Lift red-painted overload situated on fuel pump immediately above priming lever and move fuel pump racks into fully-open position.
- Operate priming lever six times.

NOTE: This is unnecessary if engine is already warm.

- 3. Lift decompression lever positioned on top of engine and turn engine as fast as possible using starting handle. When engine is turning at a good speed knock down decompression lever and engine should fire.
- 4. If engine does not fire, lift decompression lever and slowly crank engine a few times before attempting to start again. Where ambient temperature is 5°F (-15°C) or below, a cold starting aid should be fitted.

STOPPING

Hold the fuel pump rack in the fully forward position, or lift the priming lever to the horizontal, until engine stops, then release.

OPERATION (LISTER ENGINE)

STARTING

1. Pull out overload lever and lift to its highest position.

NOTE: This is unnecessary if engine is already warm.

- 2. Lift decompression levers positioned on top of engine and turn engine as fast as possible using starting handle. When engine is turning at a good speed knock down decompression levers and engine should fire.
- 3. If engine does not fire, lift decompression lever and slowly crank engine a few times before attenting to start again. Where ambient temperature is 5°F (-15°C) or below, a cold starting aid should be fitted.

4. Set overload lever horizontal when engine starts.

STOPPING

Push overload lever to its lowest position.

IMPORTANT

- 1. DO NOT stop engine by means of decompression levers, this will lead to damaged valve seats and cylinder head joints.
- DO NOT stop engine by closing fuel tap or by allowing fuel tank to run dry, this will allow air into fuel lines and necessitate bleeding and priming system.

GEAR CHANGING

The Dumper is fitted with three Forward and one Reverse gear. When changing gear, the clutch pedal is used in the normal way.

SKIP RELEASE LEVER (Gravity Skip)

To tip skip pull back lever and release skip. To return skip to carrying position, pull skip back and ensure that skip is locked in skip catch.

SKIP CONTROL LEVER (Hydraulic Skip)

1. Control lever has three positions DUMP, HOLD & RETURN.

2. Push lever forward to DUMP to deposit load.

3. Pull lever back to RETURN to return skip to carrying position.

ROTATING SKIP (IF FITTED)

Pull cranked release lever on turntable catch fully back to release turntable. Revolve skip to required position. To lock in position lift release lock lever and ensure that locking lug locates in turntable locking plate. Cranked release lever will return to its former position.

GENERAL MAINTANANCE

PERIODIC MAINTENANCE

3

DAILY check engine oil level and fill to full mark on dipstick, if necessary.

DAILY fill fuel tank, or as often as proves necessary to approximately 1" of top. Never allow there to be a depth of less than 2" of fuel tank.

DAILY check tyre pressures and condition of tyres.

DAILY check all nuts and bolts and tighten if necessary.

WEEKLY check oil level in gearbox and fill to full mark on dipstick if necessary.

WEEKLY remove filler/level plugs from drive axles and steering box. Oil level should be to bottom of holes. Top up if necessary through filler/level plugs.

WEEKLY check oil level in hydraulic tank. Always clean the surrounding area before removing cap to prevent possible entry of foreign matter. Fill tank, if necessary to 2" of top.

WEEKLY check that fittings are tight on feed pipe from hydraulic tank. Check for leaks.

WEEKLY apply grease to all grease nipples.

WEEKLY check all nuts and bolts and tighten if necessary.

LUBRICATION

Period	Description	Lubrication	No. of Points
Daily	Engine Fuel Tank	Engine Oil Diesel Fuel	1 1
Weekly	Gearbox Drive Axles Hydraulic Tank Footbrake Pedal Accelerator Pedal Clutch Pedal Clutch Cross Shaft Skip Pivot Handbrake Prop Shafts & Universal Joints Steering Box	Gearbox Oil Axle Oil Hydraulic Oil Grease Gun Grease Gun Grease Gun Grease Gun Grease Gun Grease Gun Grease Gun	1 2 1 1 1 1 2 2 1 4

NOTE: For full details of the lubrication and maintenance of the engine refer to Manufacturer's Manual. BRAKE ADJUSTMENT (DRUM BRAKES)

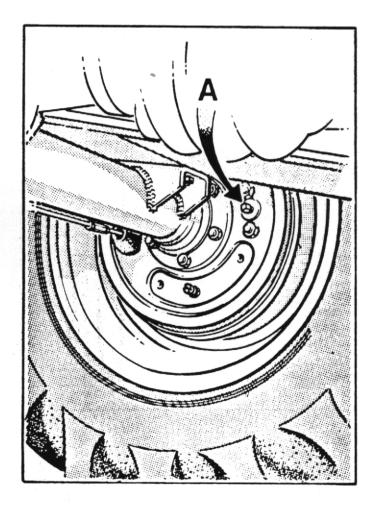
- 1. Ensure handbrake is fully off.
- 2. Pull off rubber cover from brake adjuster (A).
- 3. Screw adjuster clockwise until brakes are fully on.
- 4. Slacken adjuster anti-clockwise until brake shoes are just clear of drum. This will cause shoes to be centralised on drums and ensure that whole brake Lining area is used.

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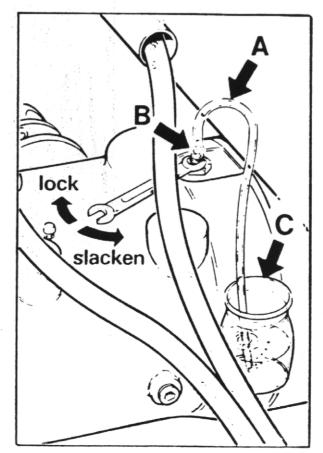


BRAKE SYSTEM (Newage Axle)

The brake system is designed to require the minimum of maintenance and no defects should normally occur. If air is present in the system, it will be indicated by sluggish response of the brakes and by spongy action of the brake pedal. This may be due to air being introduced at a loose joint. Any defects must be remedied immediately and the complete system bled. To bleed the system, proceed as follows:-

- 1. Check that all connections are tight and all bleed screws are closed.
- 2. Check that there is sufficient oil in main hydraulic tank.
- 3. Attach bleeder tube (A) (See Fig.) to the bleed screw (B) on front axle and immerse other end in a small quantity of hydraulic oil contained in a glass jar (C). Slacken bleed screw and operate brake pedal up and down to its full stroke, until oil pumped into the jar contains no air bubbles. Hold down pedal and close bleed screw. Remove bleeder tube and release pedal.
- 4. Carry out the procedure on the bleedscrew on the rear axle and continue until all air has been bled from the system.
- 5. Lock all the bleed screws.
- 6. Apply normal working load on brake pedal for two or three minutes and examine the entire system for leaks.
- NOTES:- ALWAYS ENSURE THAT FREE PLAY EXISTS BETWEEN BRAKE PEDAL AND MASTER CYLINDERS. UNLESS THE PISTONS IN BOTH MASTER CYLINDERS ARE ALLOWED TO FULLY RETURN, BRAKE PRESSURE WILL BUILD UP AND THE BRAKES WILL REMAIN ON.

THE NEWAGE AXLE HAS SELF ADJUSTING BRAKES WHICH AUTOMATICALLY MEANS THAT THE DUAL LIFE LINE SAFETY SYSTEM IS ALWAYS READY TO RESPOND IN THE EVENT OF PROBLEMS.



MAIN HYDRAULIC SYSTEM

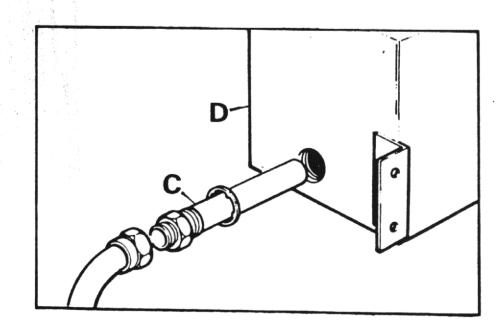
The main hydraulic system controls the dumping and return of the skip. If the skip fails to operate or does so extremely slowly, carry out the following procedures until the fault is rectified.

- 1. Check that hydraulic tank is full of oil.
- 2. (a) Drain Hydraulic tank.
 - (b) Unscrew suction filter (C) from tank (D) and wash in white spirit. Dry with moisture-free compressed air.
 - (c) Replace suction filter and filler cap assembly.
 - (d) Check hydraulic pump drive belts and adjust if necessary.

NOTE:- If suction filter cannot be throughly cleaned, fit a new one.

- 3. Check that hydraulic pressure is correct.
 - (a) Fit a 2000 p.s.i. gauge into hydraulic line to base of rams.
 - (b) Operate control lever to dump skip and check that pressure reading on gauge is 1750 p.s.i. when ram is fully-extended and relief valve is "blowing".

If none of these procedures correct the fault, contact your local Winget agent. Periodically check the hose between the pump and the hydraulic tank to ensure that it is not deformed. Any deformation in the hose may result in a restricted flow and damage to the pump.



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		RECOMMENDED LUBR	LUBRICATING OILS - NE	NEWAGE AXLE		
COMPANY	ENGINE	NEWAGE DRIVE AXLE	TRANSFER BOX	GEARBOX	WHEEL BEARINGS 4 OTHER GREASE POINTS	HYDRAULIC SYSTEM
(U.K.) SUMMER WINTER	ESSOLUBE GDX 20M		GEAR OIL 85W/140	ESSOLUBE HDX 30	BEACON 2	NUTO H32
ESSO • ABOVE 32°C 0°C - 32°C (OVENELAS) BELLON 0°C	ESSOLUBE HDX 30 ESSOLUBE HDX 20M ESSOLUBE HDX 10M	TORQUE FLUID 62	GEAR OIL CP 854/140 GEAR OIL CP 854/140 GEAR OIL CP 804	ESSOLUBE HDX 30	BEACON 2	NUTO H68 NUTO H32 NUTO H22
(U.K.) SUMMER WINTER	DEUSOL CR1 20	AGRICASTROL AS	DEUSOL EP 90	DEUSOL CR1 30	CASTROL SPHEEROL APT 2	
CASTROL ABOVE 32°C 0C - 32°C 0C - 32°C (OVERSEDS) BELOW 0°C	DEUSOL CR1 30 DEUSOL CR1 20 DEUSOL CR1 10	AGRICASTROL AS	DEUSOL GEAR EP 140 DEUSOL GEAR EP 90 DEUSOL GEAR EP 80	DEUSOL CR1 30	CASTROL SPHEEROL APT 2	CASTROL HYSPIN AWS 32
(U.K.) SUMMER WINTER	MOZ/07 TIO XS ALLETOR		SPIRAX 90 EP	ROTELLA SX OIL 30	RETINAX A	
SHELL ABOVE 32°C 0°C - 32°C (OVERSEAS) BELOW 0°C	ROTFLLA SX OTL 30 ROTELLA SX OTL 20/20M ROTELLA SX OTL 10M		SPIRAX 140 EP Spirax 90 EP Spirax 80 EP	ROTELLA SX OIL 30	RETINAX A	TELEOS OLE 31
(U.K.) SUMMER WINTER	VENELLUS M20W		GEAR OIL SAE 90EP	VANELLUS M30	ENERGREASE L2	
BP ABOVE 32°C 0 c - 32°C (OVENSEEAS) BELLON 0°C	VENELLUS M30 Vanellus M20W Vanellus M10W		GEAR OIL SAE 140EP GEAR OIL SAE 90EP GEAR OIL SAE 80EP	VANELLUS M30	ENERGREASE L2	
(U.K.) SUMMER WINTER	DELVAC 1220		MOBILUBE HD 90 MOBILUBE GX 90	DELVAC 1230		
ABOVE 32 ⁹ C	DELVAC 1230 DELVAC 1220	MOBILFLUID 422	MOBILUBE HD140 MOBILUBE GX 140	÷.	MOBILGREASE MP	DTE 24
OVEREASE (SAERENO)	DELVAC 1210		MOBILUBE HD 90 MOBILUBE GX 90		MOBILGREASE SUPER	
ALL TEMPERATURES	DELVAC SPECIAL 104-30		MOBILUBE HD 80 MOBILUBE GX 80	DELVAC 1230		
(U.K.) SUMMER WINTER	CENTLUBE SUPREME 20M-20		EP 90	CENTLUBE SUPREME 30	REGULUS A2	CENTURY PWL A HYD. OIL
MALKERS CENTURY AFOVE 32 C 0 C - 32 C (OVEREAS) BELOW 0 C	CENTLUBE SUPPENE 30 CENTLUBE SUPPENE 204-20 CENTLUBE SUPPENE 10M		UNTVERSAL BOW-140 GEAR OIL	CENTLUBE SUPREME 30	REGULUS A2	PWLC PWLA P313
		L IN THE UNLIKELY E EQUIVALENT OILS SUPP	LY EVENT OF THE ABOVE OILS NOT BEING SUPPLIED BY A REPUTABLE MANUFACTURER	LS NOT BEING AVAILABLE MANUFACTURER MAY BE USED.	LE USED.	

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COMPANY		ENGINE	DRIVE AXLE TRANSFER BOX • STEERING BOX	GEARBOX	WHEEL BEARINGS 4 OTHER GREASE POINTS	HYDRAULIC SYSTEM
·	SUMMER	ESSOLUBE HDX 20W	GEAR OIL GP 85M140	ESSOLUBE HDX 30	BEACON 2	NUTO H32
ESSO ABCV 0 - [OVERSEAS] BELO	ABCVE 32° 0 - 32 ⁸ BELOW 0°C	ESSOLUBE HDX 30 ESSOLUBE HDX 20M ESSOLUBE HDX 10M	GEAR OIL GP 85W/140 GEAR OIL GP 85W/140 GEAR OIL GP 80W	ESSOLUBE HDX 30	BEACON 2	NUTO H88 NUTO H32 NUTO H22
(U.K.) SI	SUMMER WINTER	DEUSOL CR1 20	DEUSOL GEAR EP 90	DEUSOL CR1 30	CASTROL SPHEEROL APT 2	
VS)	ABOVE 32°C 0 - 32°S BELOM 0 ^S C	DEUSOL CR1 30 DEUSOL CR1 20 DEUSOL CR1 10	DEUSOL GEAR EP 140 DEUSOL GEAR EP 90 DEUSOL GEAR EP 80	DEUSOL CR1 30	CASTROL SPHEEROL APT 2	CASTROL HYSPIN AWS 32
	SUMMER	ROTELLA SX OIL 20/20W	SPIRAX 90 EP	ROTELLA SX OIL 30	RETINAX A	
SHELL ABOVE 0 - 3 (OVERSEAS) BELOV	ABOVE 32°C 0 - 32°S BELOW 0 ^S C	ROTELLA SX OIL 30 ROTELLA SX OIL 20/20W ROTELLA SX OIL 10W	SPIRAX 140 EP Spirax 90 EP Spirax 80 EP	ROTELLA SX OIL 30	RETINAX A	TELLUS OIL 37
.к.)	SUMMER WINTER	VANELLUS M20W	GEAR OIL SAE 90EP	VANELLUS M30	ENERGREASE L2	
BP ABOVE 0 - 3 (OVERSEAS) BELOW	ABOVE 32°C 0 - 32°S BELOM 0 ^S C	VANELLUS M30 VANELLUS M20W VANELLUS M10W	GEAR OIL SAE 140 EP GEAR OIL SAE 90 EP GEAR OIL SAE 80 EP	VANELLUS M30	ENERGREASE L2	ENERGOL HLP 65
6	SUMMER	DELVAC 1220	MOBILUBE HD 90 MOBILUBE GX 90	DELVAC 1230		
ABOVE	ABOVE 32 ⁰ C	DELVAC 1230	MOBILUBE HD 140 MOBILUBE GX 140	e T	MOBILGREASE MP SUPER	DTE 24
0 - 32 ⁰ C (OVERSEAS) BELOW 0 ⁰ C	- 32°C LOW 0°C	DELVAC 1220 DELVAC 1210	MOBILUBE HD 90 MOBILUBE GX 90 MOBILUBE HD 80 MOBILUBE HD 80			
ALL TEMPERATURES		DELVAC SPECIAL 10M-30	\$	DELVAC 1230		
U.K.) SU VI	SUMMER VINTER	CENTLUBE SUPREME 20M-20	EP 90	CENTLUBE SUPREME 30	REGULUS A2	CENTURY PWLA HYD. OIL
	32°C	CENTLUBE SUPREME 30 CENTLUBE SUPREME 20W-20 CENTLUBE SUPREME 10W	UNIVERSAL BOM-140 GEAR OIL	CENTLUBE SUPREME 30	REGULUS A2	PWLC PWLA P313
		IN THE UNLIK	ELY EVENT OF SUPPLIED BY	THE ABOVE OILS NOT BEING AVAI A REPUTABLE MANUFACTURER MAY	AVAILABLE MAY BE USED	

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RECOMMENDED TORQUE FIGURES FOR FASTENERS

DESCRIPTION

TIGHTENING TORQUE

	lb.ft.	Kg.m.	
Bolt & Nut M6	8	(1.1)	
Bolt & Nut M8	21	(3.0)	
Bolt & Nut M10	42	(5.9)	¢
Prop Shaft Bolts 3/8" UNF	29	(4.32)	
Prop Shaft Bolts 7/16" UNF	46	(6.85)	
Engine Bolts/Nuts M12	72	(10.7)	
Axle Bolts 붗" UNF	72	(10.7)	€
Wheel Nuts 5/8" BSF	180	(25)	
Wheel Nuts 7/8" BSF	300	(42)	
Wheel Nuts M18	200	(28)	
Axle Bolts/Nuts M16	180	(26.8)	1

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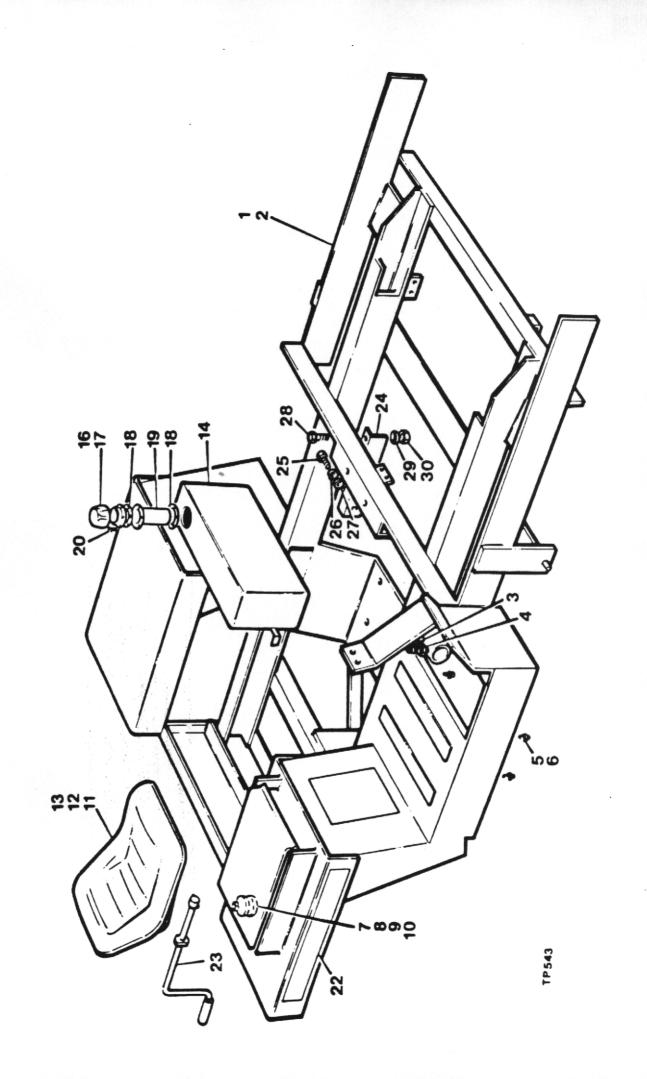
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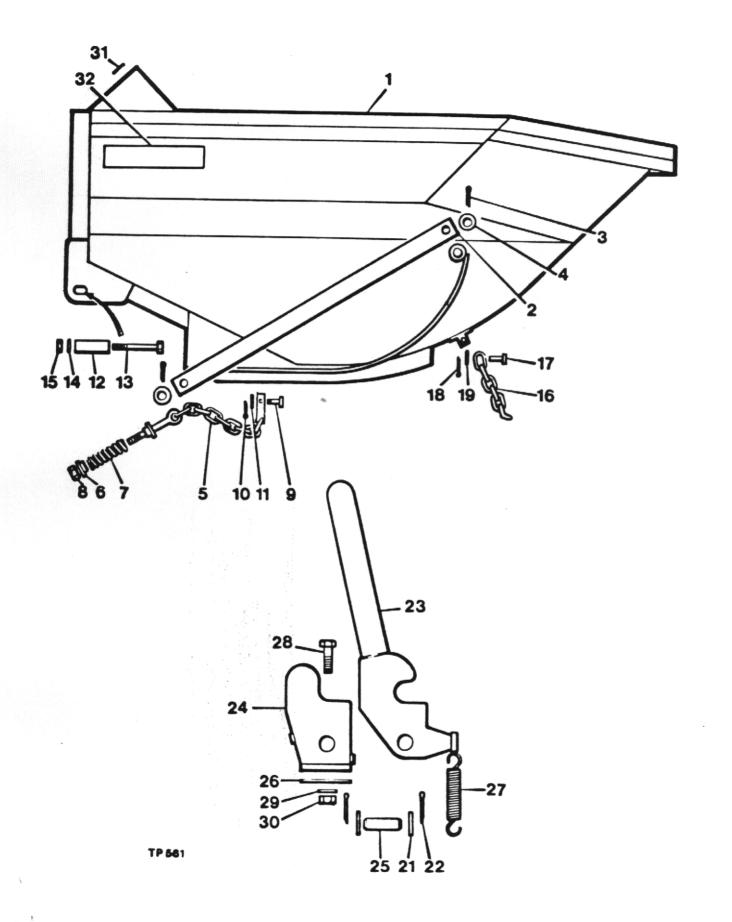


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CHASSIS

1	tem	No.	Part No.	Description	Qty.
	1		40298.A01	Chassis (Petter)	
	2		40298.A02	Chassis (Lister)	1
	3		57S.07H1	Setscrew - Hex. Skt. Hd. M12 x 25	1
	4		56S.05	Nut - Hex. Half M12	
	- 5		1315.03	Nipple - Greece	2
	6		1765.01	Nipple - Grease	3
				Cap - Grease Nipple	3
	7		10519.A01	Spring - Seat	1
	8		115.04C	Screw M10 x 25	î
	9		C180B	Washer 3/8" I.D.	1
	10		595.03	Nut M10	i
	11		20072.A01	Seat	
	12		695.02C	Screw 5/16" UNC	1
	13		415.04	We have $5/16^{\circ}$ T D	4
				Washer 5/16" I.D	4
	14		30286.A04	Tank - Diesel Oil (Petter)	1
	15		10565.A01	Cap - Filler (Comprising items 16 - 20)	1
	16		10565.A0102	Cap	-
	17		10565.A0101	Gasket - Cork	1
	18		10565.A0103	Gasket - Paper	1
	19		10565.A0104	Strainer	2
	20		82S.03F	Screw	1 6
	21		10317.A01		•
	22			Label - Chassis	1
	~~		20235.A15	Label - Machine Identification	2
	23		20155.A03	Handle - Starting	1
	~				1
	24		20282.A06	Bracket - Gearbox Mounting	1
	25		285.03D	Screw 3/8" UNF x 3/4"	2
	26		41S.05	Washer - Spring 3/8" UNF I.D.	2
	27		105.03	Washer 3/8" I.D	2
	28		6S.05C	Screw 불" UNF x 1불"	
	29		105.04		
	3 0		1075.16	Nut ½" UNF Nyloc	1
					1
	31		20132.A02	Label - Dumper Safety (Not illustrated)	1
	32		1015.05D	Rivet - Pop	6
	33		10546.A03	Label - "Diesel Oil" - (Not illustrated)	
				Dieber Oli - (NOL illustrated)	1
	34		11S.02B	Screw M6 x 20 (Fuel Filter Bowl)-(Not illus.)	2
	3 5		125.14	Washer 6 I/D	2
	36		75.02	Nut M6	2
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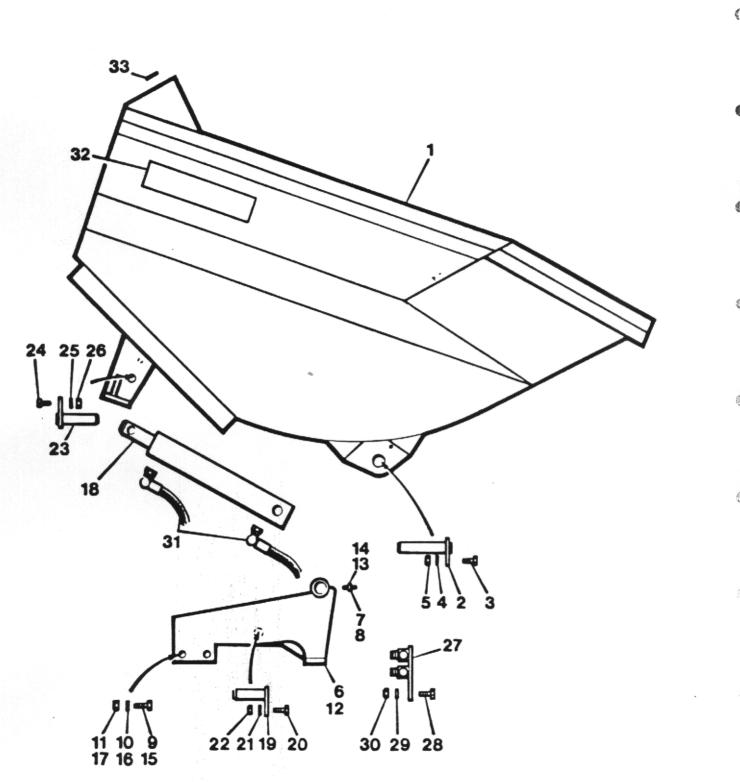
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		SKIP - GRAVITY TIP	2B2000
Item No.	Part No.	Description	Qty.
1	40320.A01	Skip	
2	10892.A03	Arm - Radius	2
3	44S.05	Pin - Split 3/16" x 2"	4
4	105.06	Washer	4
5	20286 400		
6	20286.A09 L303	Chain - Skip Check	2
7	L256B	Collar - Spring	4
8	59S.11	Spring	2
9	10650.A04	Nut - Lock M16 Nyloc	2
10	44S.03C	Pin - Clevis	2
11	105.04	Pin - Split 1/8" x 1"	•• 2
	105.04	Washer - Plain ≵" I.D	2
12	C140A	Tube - Catch	1
13	8S.060	Bolt M16 x 110	1
14	125.07	Washer M16 I.D	2
15	595.11	Nut M16	1
16	20286.A08	Chain France	
17	10650.A19	Chain - Front	2
18	44S.02B	Pin - Clevis	2
19	105.03	Pin - Split 1/8" x 1"	2
	105.05	Washer = Plain	2
20	40296.A01	Catch - Skip (Comprising items 21 - 25)	1
21	10S.06	Washer - Plain 2" I.D.	2
22	44S.04E	Pin - Split 5/32" x 1 ¹ / ₂ "	2
23	10912.A02	Lever	1
24	10912.A04	Body	1
25	40296.A0105	Pin - Pivot	1
26	10054.A04	Packer	
27	C173B	Packer Spring	
28	11S.06C	Screw M16 x 45	
29	125.07	Washer - Plain M16 I.D.	
30	59S.11	Nut - Hex M16 Nyloc	
			2
31	10541.A14	Label - Payload	1
32	10976.A03	Label - "Wibau Winget"	2
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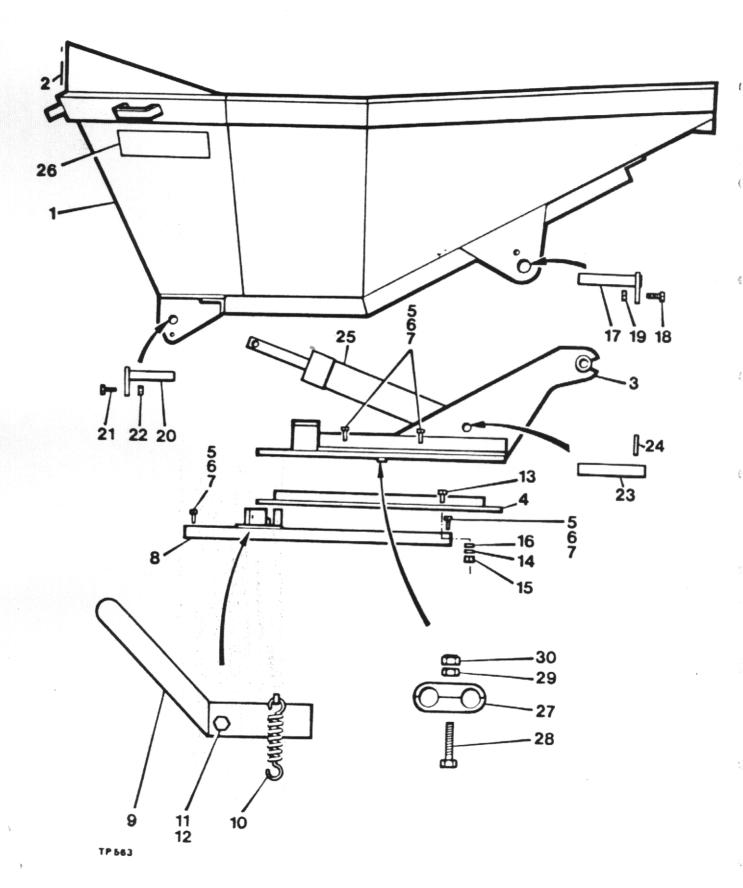
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SKIP - HYDRAULIC TIP

Item	No.	Part No.	Description	Qty
1		40320.A02	Skip	1
2		10470.A10	Pin - Skip Pivot	2
3		11S.04D	Screw M10 x 30	2
4		125.19	Washer - Spring 10 I.D	2
5		595.03	Nut - Nyloc M10	2
6		30126.A14	Bracket - Pivot R.H	1
7		1315.03	Nipple - Grease	1
8		176S.01	Cap - Grease Nipple	1
9		8S.05E	Screw M12 x 45	3
10		175.06	Washer - Spring 12 I.D	3
11		75.05	Nut M12	3
12		30126.A15	Bracket - Pivot L.H	1
13		1315.03	Nipple - Grease	1
14		1765.01	Cap - Grease Nipple	1
15		8S.05E	Screw M12 x 45	3
16		175.06	Washer - Spring 12 I.D	3
17		75.05	Nut M12	3
18		30121. A 06	Ram	2
19		10470.A11	Pin - Ram Pivot	2
20		11S.04D	Screw M10 x 30	2
21		125.19	Washer 10 I.D	2
22		595.03	Nut - Nyloc M10	2
23		10470.A12	Pin - Ram Pivot	2
24		11S.04D	Screw M10 x 30	2
25		125.19	Washer 10 I.D	2
26		595.03	Nut - Nyloc M10	2
27		10464.A02	Tee - Hydraulic	1
28		11S.03C	Screw M8 x 25	2
29		175.04	Washer - Spring 8 I.D	2
30		75.03	Nut M8	2
31		315.020	Hose (Tee to Rams)	4
32		10976.A03	Label - "Wibau Winget"	2
33		10541.A14	Label - Payload	

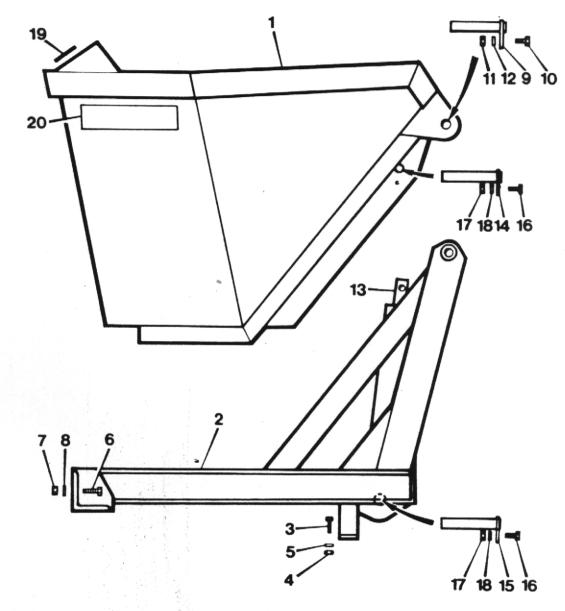
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		SKIP - ROTATING	
Item No.	Part No.	Description	Qty
1	40217.A01	Skip - Narrow Mouth	1
1	40217.A02	Skip - Wide Mouth	
2	10536.A02	Label - Warning (Free Running Loads)	1
3	40116.A03	Frame - Skip	1
4	10640.A02	Ring - Slewing	1
5	8S.05D	Bolt - Hex M12 x 40	
6	125.22	Washer - Plain M12	
7	595.04	Nut - Nyloc M12	8
8 -	30306.A02	Frame - Mounting	
9	40296.A03	Catch	
10	C.173C	Spring - Return	2
11	8S.05H	Bolt - Hex. Hd. M12 x 60	
12	75.05	Nut - Lock M12	
13	11S.05D	Screw - Hex. M12 x 30	
14	12S.22	Washer - Plain M12	
15	595.04	Nut - Nyloc M12	
16	1055.05	Washer - Taper	4
17	10522.A04	Pin - Pivot	
18	11S.04C	Screw - Hex. Hd. M10 x 25	2
19	595.03	Nut - Nyloc M10	2
20	10919.A01	Pin - Pivot	1
21	11S.04C	Screw - Hex. Hd. M10 x 25	
22	595.03	Nut - Nyloc M10	1
23	10720.A02	Pin - Pivot	1
24	55S.07Q	Pin - Tension	-
25	30113.A04	Ram - Hydraulic	1
26	10976.A03	Label - "Wibau Winget"	2
27	187S.08JJ	Clamp - Hose	1
28	11S.02H	Screw M6 x 50	1
29	75.02	Nut - Hex. Full M6	_
30	615.02	Nut - Binx M6	1
31	187S.08JJ	Clamp - Double Pipe (Fixed to Mounting Frame)	
32	11S.02H	Screw - Hex. Hd. M6 x 50	1
33	595.14	Nut - M6	1

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SKIP - HIGH DISCHARGE

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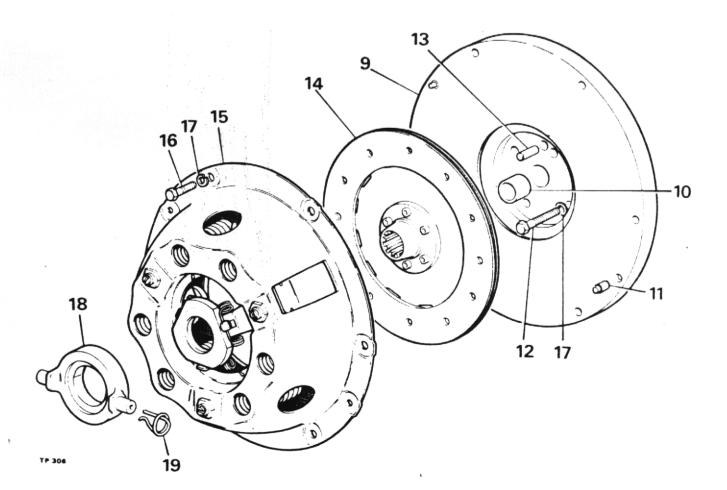
Item No.	Part No.	Description	Qty.
1	40299.A01	Skip	1
2	40252.A02	Frame Assu	_
3	11S.05E	Frame Assy.	1
4	595.04	Bolt	2
5	125.22		2
6	115.06G	Washer - Plain (""")	2 2
7	595.11	Bolt (Frame fixing-Rear)	
8		Nut (" " ")	2
0	105.05	Washer - Plain (" ")	2
9	10932.A01	Pivot Pin - Skip	
10	11S.04C	Bolt (ping the second s	2
11	595.03	Bolt (Pivot pin Retaining) Nut (""")	2
12	10S.04	Nut (" " ") Washer (" " ")	2 2
13	30302.A01	Rom - Clrin	-
14	10919.A02	Ram - Skip	1
15	10919.A03	Pin - Ram Pivot - Top	1
16	11S.03C	Pin - Ram Pivot - Bottom	1
17	75.03	Bolt (Pivot pin Retaining)	2
18		NUE (" " ")	2
10	175.04	Washer - Spring (" " ")	2
19	10536.A02	Label - Warning "Free Running Loads"	1
20	10976.A03	Label - "WIBAU"	2

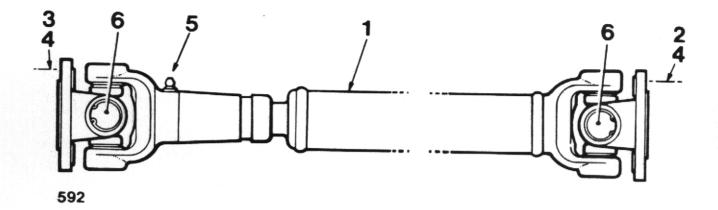
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ENGINE & CLUTCH

Item	No.	Part No.	Description	Qty.
1		PH2	Engine - Petter	
2		ST2	Engine - Lister	
3		6S.05D	Bolt ½" UNF x 1 5/8" (Engine to Chassis)	,
4		10S.04	Washer ½" I/D	4
5		1075.16	Nut ½" UNF Nyloc	4 4
6		L259P	Dog - Starter (Petter)	1
7		L259L	Dog - Starter (Lister)	1
8		185S.05D4	Setscrew - Hex. Skt. 7/16" BSW x 불"	2
9		10580.A02	Flywheel	1
10		10580.A0101	Bush	1
11		10580.A0102	Dowel	1
12		1S.02C	Bolt 5/16" BSF x 12" Wire Locked (Petter)	4
12		6S.02B	Bolt 5/16" UNF x 12" Wire Locked (Lister)	4
13		C321	Dowel	1
14		10598.A02	Plate - Drive	1
15		10597.A01	Cover	1
16		285.02D	Screw 5/16" UNF x 注"	6
17		41S.04	Washer 5/16" I/D	6
18		10579.A01	Bearing - Release	1
19		10579.A0101	Spring - Retaining	-
20		10987.A01	Clutch Cover (Lister only)-(Not illustrated)	2 1

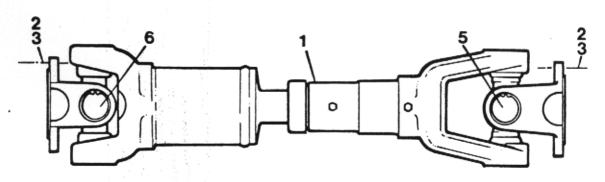




PROPSHAFT

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Item No.	Part No.	Description	Qty.
1 2 3 4 5 6	30165.A05 28S.04H ESE214 107S.15 176S.01 10980.A01	Propshaft - Newage Axle Bolt 7/16" UNF x 1½" (Propshaft to Gearbox) . Bolt 7/16" UNF x 1½" (Propshaft to Axle) Nut - Thin 7/16" UNF Nyloc Cap - Grease Nipple Kit - Repair	4 4 8 4

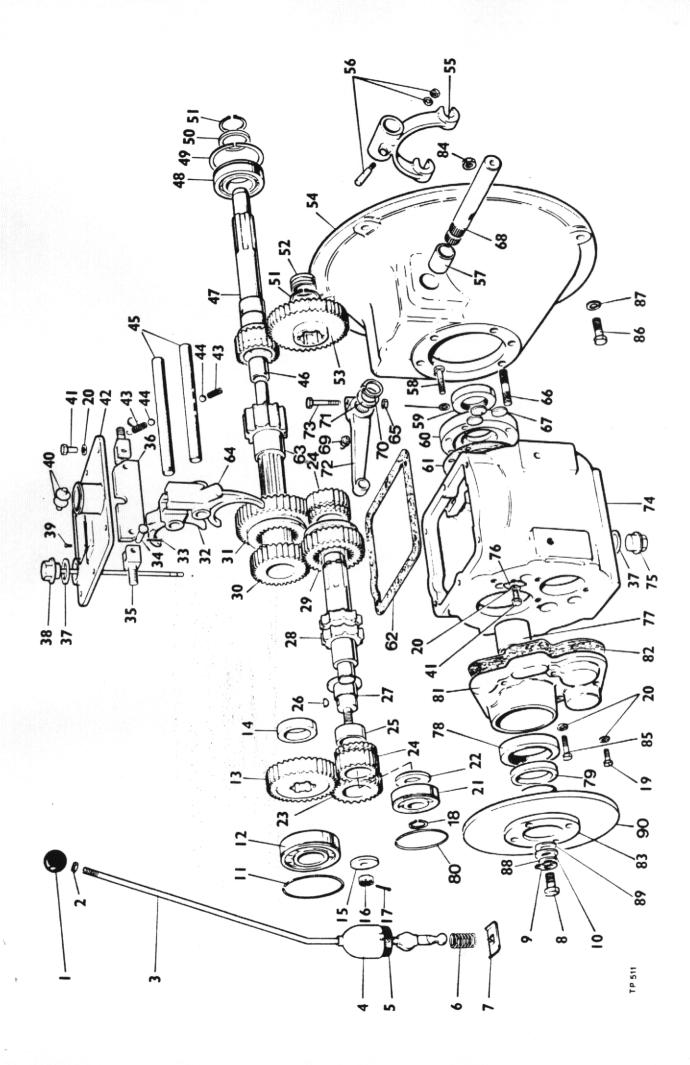


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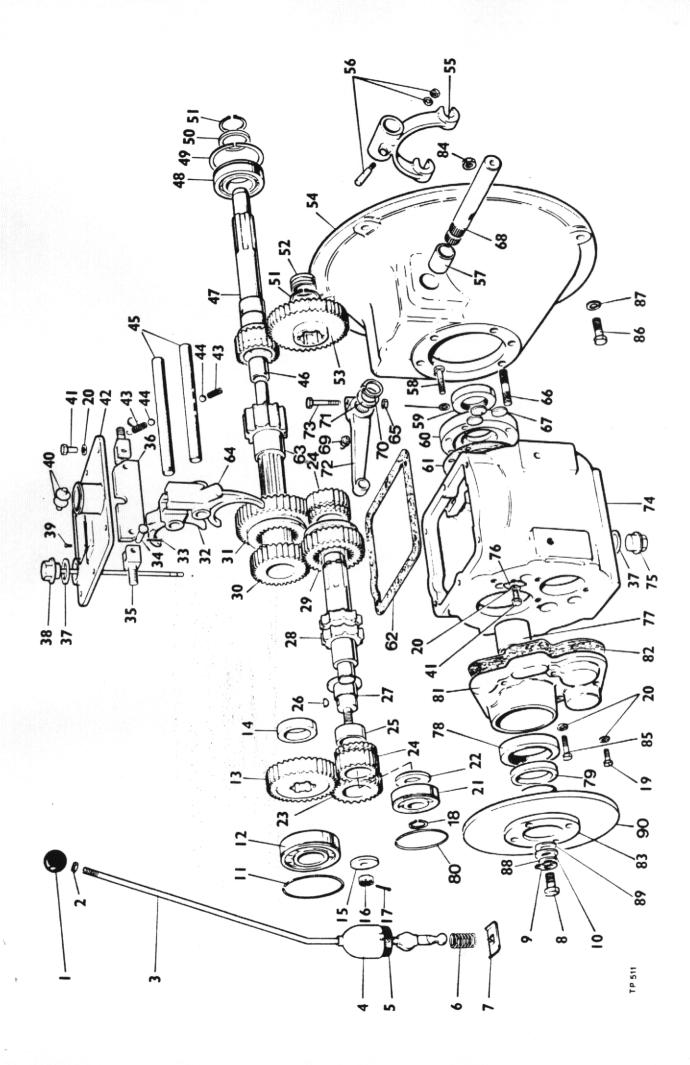
PROPSHAFT

Item No.	Part No.	Description	Qty.
1	40114.A03	Propshaft - Salisbury Axle	1
2	ESE214	Bolt 7/16" UNF x 12"	8
3	1075.15	Nut - Thin 7/16" UNF Nyloc	
4	176S.01	Cap - Grease Nipple	4
5	10307.A01	Kit - Repair	A/R
6	10207.A01	Kit - Repair	



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rrem	NO.	Part No.	Description	Qty.
		30101.A05	Gearbox Complete	
1		30101.A0201	Knob - Gear Lever	1
2		25.04	Locknut - Gear Lever	1
3		20097A05	Lever - Gear	1
4		30101.A0203	Cap - Gear Lever	1
5		30101.A0204	COVEL - GEAT LEVET	1
6		30101.A0205	Spring - Gear Lever	1
7		30101.A0206	Plate - Gear Lever Retaining	1
8		28S.05E	Bolt	1
9		30101.A0207	wabilet - lap	1
10		30101.A0208	Washer	1
11		30101.A0209	Ring - Snap	1
12		30101.A0210	Bearing - Mainshaft Rear	1
13		30101.A0211	Gear - Output	1
14		30101.A0212	Spacer - Output Gear	1
15		30101.A0213	Washer - Reverse Pinion Shaft	1
16		30101.A0214	Nut - Reverse Spindle	1
17		44S.02C	Pin - Split	1
18		30101.A0215	Circlip	1
19		28S.01D	Bolt	1
20		135.02	Washer - Spring	3
21		30101.A0216	Bearing & Layshaft	17
22		30101.A0217	Spacer - Bearing	1
23		30101.A0218	Pinion - Reverse	1
24		30101.A0219	Gear - Reverse Speed	2
25		30101.A0220	Bush - Reverse Pinion	2
26		30101.A0221	Key - Reverse Pinion Shaft	1
27		30101.A0222	Shaft - Reverse Pinion	1
28		30101.A0223	Layshaft	1
29		30101.A0224	Gear - 2nd. Speed Sliding	1
30		30101.A0225	Gear - Second Speed	1
31		30101.A0226	Gear - Ist. Speed	1 1
32		30101.A0227	FOLK - 2nd, and 3rd Selector	1
33		445.01C	spiit interlock	2
34		30101.A0228	i in clevis interlock	2
35		30101.A0229	Inceriock - Stud	-
36		J0101.A0250	riate - interlock	2 1
37		30101.A0231	washer - Sealing	2
38		30101.A0232	DIPSCICK	1
39		30101.A0233	Screw - Drive	4
40		30101.A0234	rad - Gear Lever	2
41		28S.01C	DOIL	7
42 43		30101.A0235	cover - Top	1
43		30097.A0185	spring - Detent	2
44 45		30101.A0236	Ball - Detent	2
		30101.A0237	Shart - Selector	2
46 47		30101.A0238	rilmary Shaft - Bearing	1
47		30101.A0239	Shalt - Primary	1
48 49		30101.A0240	bearing - Input	1
		30101.A0241	king - Snap	1
50		30101.A0242	spacer - Bearing	1
51		30101.A0243	Circlip	2
52		30101.A0244	bush - Layshaft	1
53		30101.A0245	Gear - 1st. Reduction	1



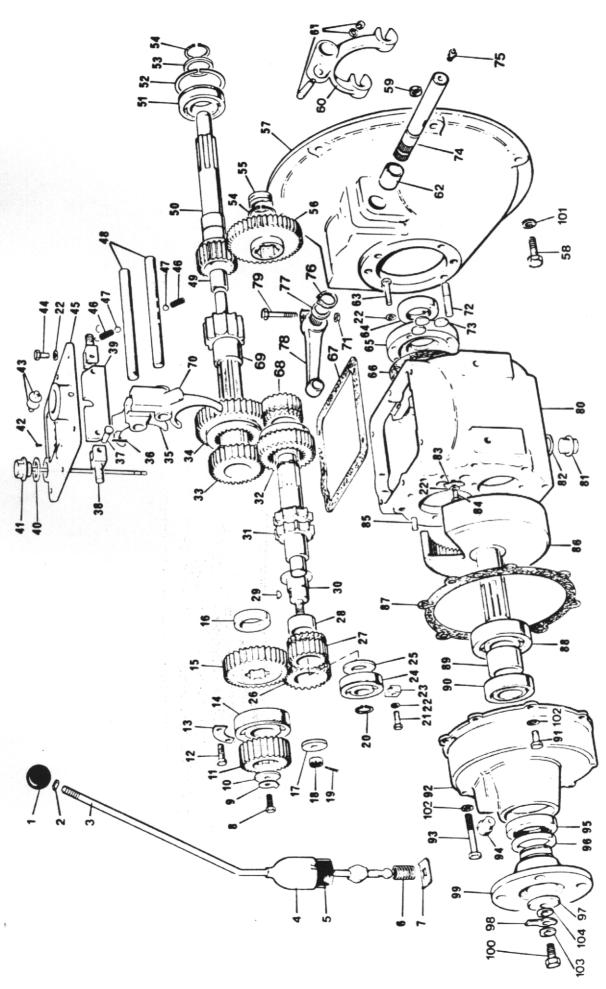
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GEARBOX (Cont'd)

]	tem	No.	Part No.	Description	Qty.
	54		30101.A0246	Housing - Clutch	1
	55		30097.A0110	Fork - Clutch Release	1
	56		30097.A0111	Cotter, Nut and Washer S/A	1
	57		30097.A0114	Bush - Cross Shaft	2
	58		6S.01A	Bolt - Front Cover	4
	59		30101.A0247	Oil Seal - Input	•
	60		30101.A0248	Cover - Front	1
	61		30101.A0249	Gasket - Front Cover	1
	62		30101.A0250	Gasket - Top Cover	1
	63		30101.A0251	Mainshaft	1
	64		30101.A0252	Fork - 1st. and Reverse Selector	1
	65		9S.01	Nut - Clutch Lever	1
	66		30101.A0253	Stud - Clutch Housing	1
	67		30101.A0255	Stud - Clutch Housing Plug - Welch	6
	68		30101.A0255		3
	69		1318.01	Shaft - Clutch Cross	1
	70			Nipple - Grease	2
	70		30101.A0256	Circlip	1
	72		30097.A0133	Washer - Cross Shaft	1
	. –		30097.A0109	Lever - Clutch Release	1
	73		6S.01C	Bolt - Clutch Lever	1
	74		30101.A0258	Gearcase	1
	75		30097.A0163	Plug - Drain	1
	76		30101.A0259	Strip - Selector Locking	1
	77		30101.A0260	Spacer	1
	78		30097.A0132	Seal - Oil Rear	1
	79		30101.A0265	Shield - Dust	1
	80		30101.A0261	Ring - Snap	1
	81		30101.A0262	Cover - Output	1
	82		30101.A0263	Gasket - Output Cover	1
	83		30218.A0203	Coupling	1
	84		1075.03	Nut (Clutch Housing)	6
	85		6S.01	Bolt	2
	86		3S.03E	Bolt 3/8" BSF x 1" Long (Petter)	6
	86		69S.03E	Bolt 3/8" UNC x 1" Long (Lister)	8
	87		41S.05	Bolt 3/8" UNC x 1" Long (Lister) Washer-Spring - 3/8" Dia.	6
	88		30143.A0111	Washer - Fibre	1
	89		30143.A0101	Washer - Fibre	1
	90			Disc - Handbrake	1
	91		1765.01	Cap - Grease Nipple	2
					2

IMPORTANT: With effect from G/Box Batch No.B 1238 the following changes will take place:-Item Old Part No. Description New Part No. 38 30101.A0232 Dipstick 30218.A0223 28 30101.A0223 Layshaft 30101.A0266 52 30101.A0244 Bearing - Layshaft 30101.A0267

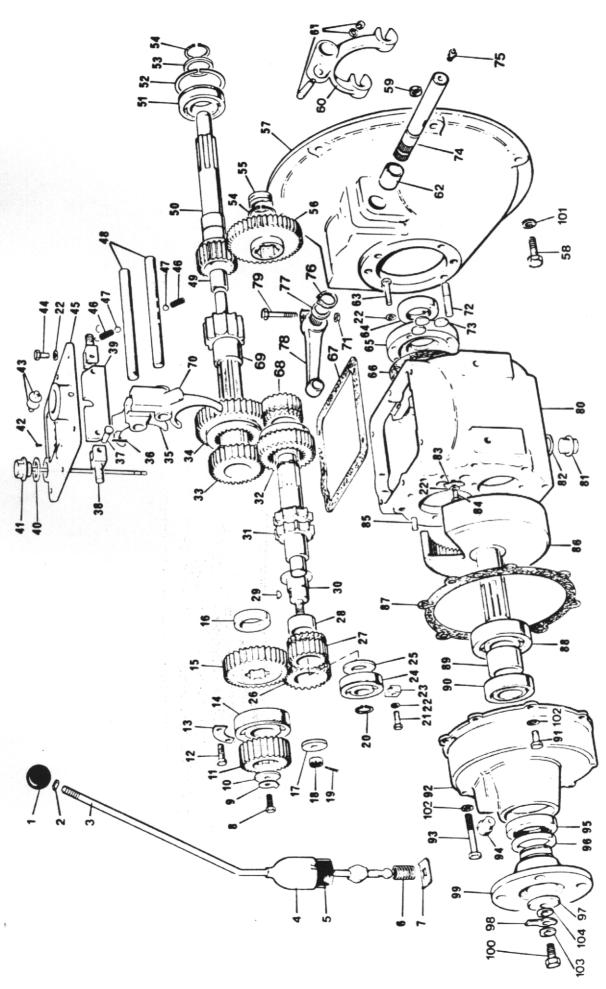
The layshaft will only be supplied complete with bearing as a replacement under part no. 30101.A0268 and will be totally interchangeable with current layshaft.



TP 512

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	Item	No.	Part No.	Description	Qty.
			30190.A04	Gearbox Complete	1
	1		30101.A0201	Knob - Gear Lever	-
	2		955.03	Locknut - Gear Lever 3/8" UNF Half Nut	1
	3		20097.A05	Lever - Gear	1
	4		30101.A0203	Cap - Gear Lever	1
	5		30101.A0204	Cover - Gear Lever	1
	6		30101.A0205	Spring - Gear Lever	1
	7		30101.A0206	Plate - Retaining Gear Lever	1
	8		285.03E	Screw - Weinsheft 2/0" INT - 10 -	1
	9		30190.A0101	Screw - Mainshaft 3/8" UNF x 1" Long Lockwasher - Tab	1
	10		30190.A0102	Lockwasher - Tab	1
	11		30190.A0102	Washer - Reduction Pinion	1
	12		28S.01B	Pinion - Reduction	1
	13		30190.A0104	Screw - Bearing Retainer 2" UNF x 2" Long	2
	14			Bearing - Retainer, Small	1
	15		30101.A0210	Bearing - Mainshaft Rear	1
	16		30101.A0211	Gear - Output	1
	10		30101.A0212	Spacer - Output Gear	1
	18		30101.A0213	Washer - Reverse Pinion Shaft	1
	19		1025.04	Nut - Reverse Spindle 7/16" UNF Castle	1
	20		445.02C	Pin - Split 3/32" Dia., x 1" Long	1
	20 21		30101.A0215	Circlip	1
	21		285.01D	Screw 1" UNF x 1" Long	2
	22		67S.01	Washer - Shakeproof ‡" Dia	12
	23		30190.A0105	Clip - Layshaft Bearing	2
	24 25		30101.A0216	Bearing - Layshaft	2
			30101.A0217	Spacer - Bearing	1
	26		30101.A0218	Pinion - Reverse	1
	27		30101.A0219	Gear - Reverse Speed	2
	28		30101.A0220	Bush - Reverse Pinion	1
	29		30101.A0221	Key - Reverse Pinion Shaft	1
	30		30101.A0222	Shaft - Reverse Pinion	1
	31 32		30101.A0223	Layshaft	1
	33		30101.A0224	Gear - Second Speed Sliding	1
			30101.A0225	Gear - Second Speed	1
	34		30101.A0226	Gear - First Speed	1
	35		30101.A0227	Fork - Selector 2nd and 3rd	1
	36 37		445.01C	Pin - Split Interlock 1/16" Dia. x 1" Long	2
	38		30101.A0228	Pin - Clevis Interlock	2
	39		30101.A0229	Stud, - Interlock	2
			30101.A0230	Plate - Interlock	1
	40		425.05	Seal - Dipstick	1
	41		30101.A0232	Dipstick	1
	42		30101.A0233	Screw - Drive	4
•	43		30101.A0234	Pad - Gear Lever	2
	44 45		285.01C	Screw - Top Cover 2" UNF x 5/8" Long	6
			30101.A0235	Cover - Top	1
	46		30097.A0185	Spring - Detent	2
	47		30101.A0236	Ball - Detent	2
	48		30101.A0237	Shaft - Selector	2
	49 50		30101.A0238	Bearing - Primary Shaft	1
	50		30101.A0239	Shaft - Primary	1
	51		30101.A0240	Bearing - Input	1
	52		30101.A0241	Ring - Snap	1
	53 54		30101.A0242	Spacer - Bearing	1
	54		30101.A0243	Circlip	2



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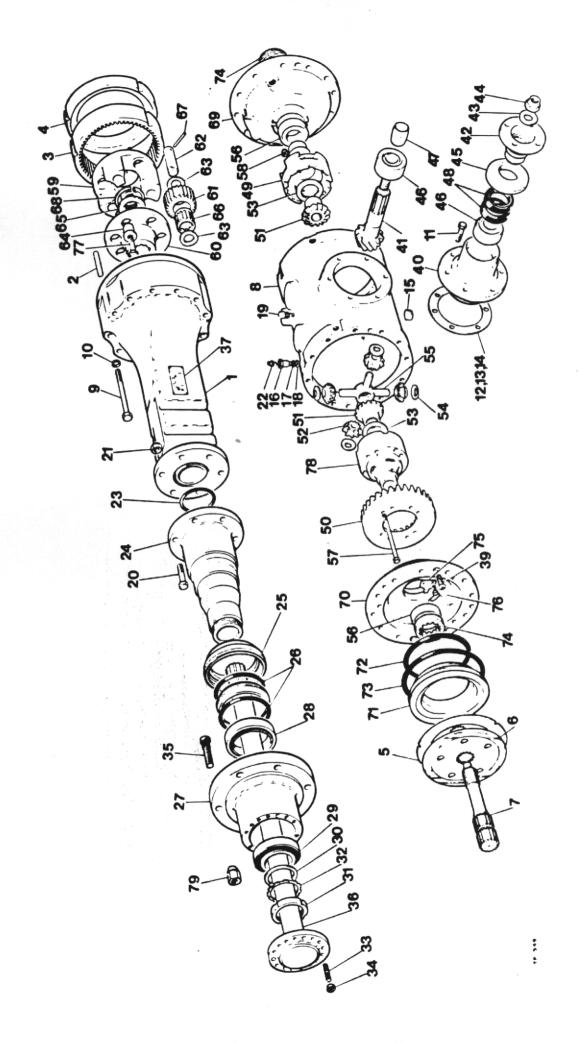
GEARBOX (Cont'd.)

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Item No.	Part No.	Description	Qty.
55	30101.A0244	Ruch - Louchaft	
56	30101.A0245	Bush - Layshaft	1
57	30101.A0245	Gear - 1st. Reduction	1
58	3S.03E	Housing - Clutch	1
50	JJ. UJL	Setscrew - Clutch Housing 3/8" BSF x 1" Long	
58A	69S.03E	(Petter).	6
2011	070.052	Setscrew - Clutch Housing 3/8" UNC x 1" Long	
59	30190.A0116	(Lister) . Nut - Nyloc 3/8" UNF	6
60	30097.A0110	-	6
61	30097.A0111		1
62	30097.A0114	Cotter, Nut and Washer S/A Bush - Cross Shaft	1
63	6S.01B	Bolt - Front Cover 2" UNF x 12" Long	2
64	30101.A0247	Oil Seal - Input	4
65	30101.A0248	Cover - Front	1
66	30101.A0249	Joint - Front Cover	1
67	30101.A0250	Joint - Top Cover	1
68	30101.A0219	Gear - Reverse Speed	1
69	30190.A0106	Mainshaft	2
70	30101.A0252	Mainshaft Fork - Selector 1st. and Reverse	1
71	9S.01	Nut - Clutch Lever &" UNF	1
72	30101.A0253	Stud - Clutch Housing	1
73	30101.A0254	Disc - Sealing, Selector Shaft	6
74	30101.A0255	Shaft - Clutch Cross	3
75	1315.06	Nipple - Grease	1
76	30101.A0256	Circlip	2
77	30101.A0257	Washer - Cross Shaft	1
78	30097.A0109	Lever - Clutch Release	1
79	6S.01C	Bolt - Clutch Lever 1" UNF x 12" Long	1
80	30190.A0107	Casing	1
81	30190.A0108	Plug - Drain	1
82	42S.05	Seal - Drain Plug	1
83	30101.A0259	Strip - Selector Locking	1
84	285.01C	Setscrew 2" UNF x 5/8" Long	1 2
85	30097.A0155	Dowel	2
86	30190.A0110	Gear - Internal	1
87	30190.A0112	Joint - Reduction Housing	1
88	30190.A0111	Bearing - Internal Gear Front	1
89	30101.A0260	Spacer	1
90	30190.A0113	Bearing - Internal Gear Rear	1
91	285.02D	Screw - Hex. Head 5/16" UNF x 2" Long	4
92	30190.A0114	Housing - Reduction	1
93	6S.02J	Bolt - Hex. Head 5/16" UNF x 22" Long	4
94	30097.A0171	Breather	1
95	30097.A0132	Oil Seal, Rear	1
96	30101.A0265	Shield - Dust	1
97	30101.A0208	Washer - Coupling	i
9 8	30101.A0207	Washer - Lock	1
9 9	30218.A0203	Coupling	î
100	285.05E	Screw, Coupling 2" UNF x 1" Long	1
101	41S.05	Washer - Spring 3/8"	6
102	41S.04	Washer - Spring 5/16"	8
103	30143.A0111	Washer - Fibre	1
104	30143.A0101	Washer - Fibre	î
105	1765.01	Cap - Grease Nipple (Not Illustrated)	2
		••	_

IMPORTANT: With effect from G/Box Batch No.B 1238 the following changes will take place:-۰. Old Part No. Description Item New Part No. 41 30101.A0232 Dipetick 30218.A0223 31 30101.A0223 Layshaft **30101.A**0266 55 30101.A0244 Bearing - Layshaft 30101.A0267

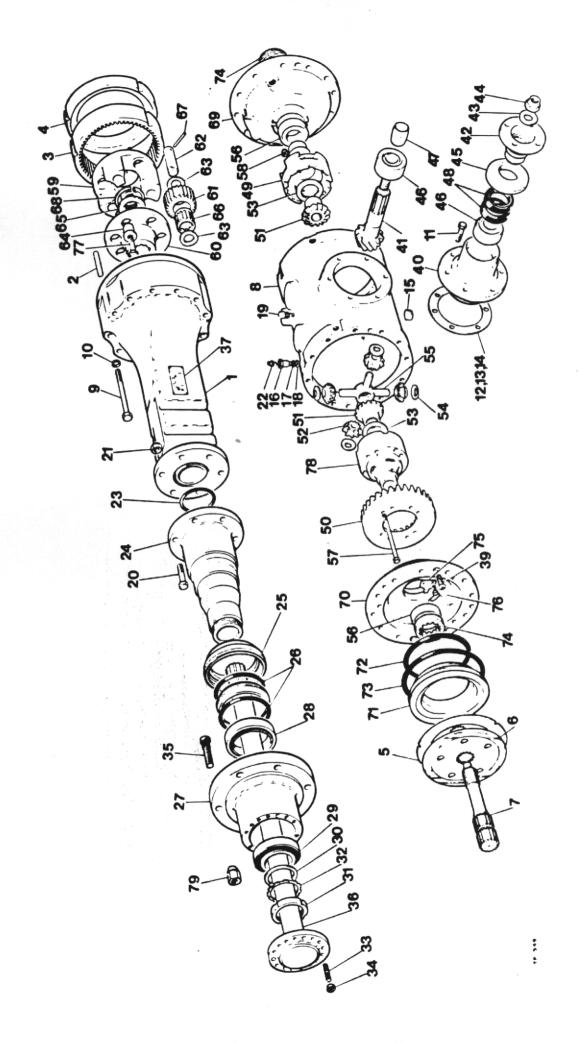
The layshaft will only be supplied complete with bearing as a replacement under part no. 30101.A0268 and will be totally interchangeable with



DRIVE AXLE

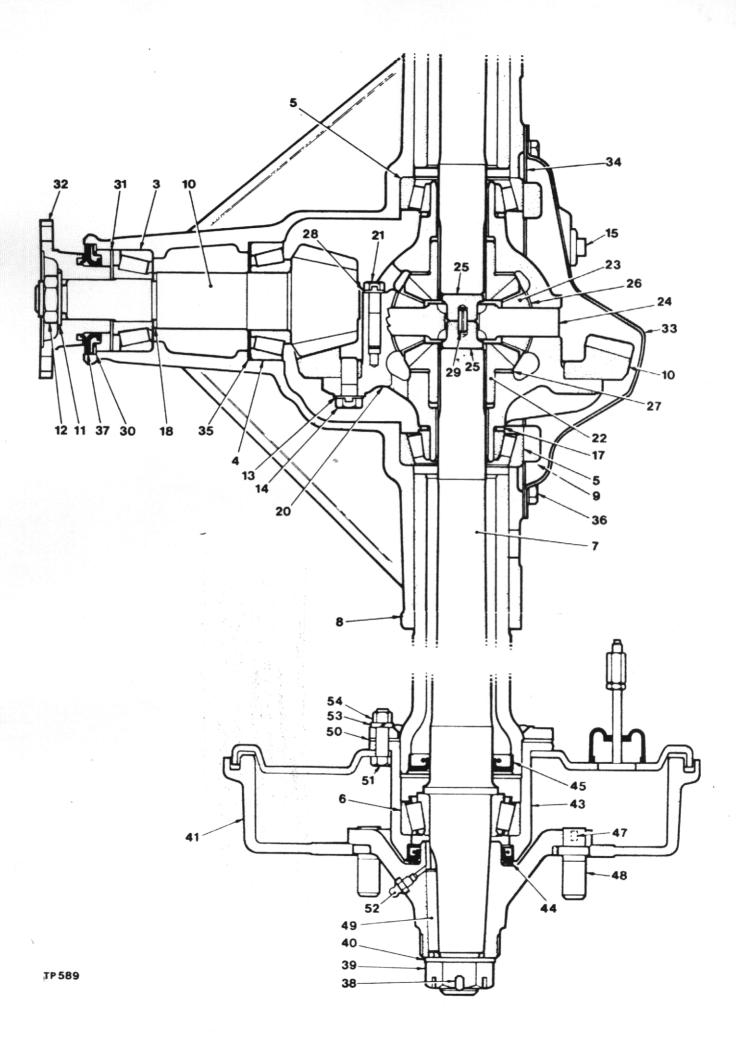
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		DRIVE AXLE	
Item No. P	'art No.	Description	Qty Per Axle
3	0082.A02		
	0082.A0201	Axle complete	•
	0082.A0202	Axle Arm	. 2
	0082.A0203	Pin	. 6
	0082.A0204	Annulus	. 2
	0082.A0205	Brake Spacer Plate	. 2
	0082.A0206	Brake Fixed Plate	. 2
-	0082.A0207	Oil Immersed Brake Disc	2
-	0082.A0208	Sun Gear	2
	S.040	Main Axle Casing	1
	75.04	Bolt	24
-	15.04	Spring Washer	24
-	0082.A0209	Hex. Hd. Screw	6
	0082.A0210	Pinion Adjusting Shim	A/R
	0082.A0210	Pinion Adjusting Shim	A/R
	0082.A0211	Pinion Adjusting Shim	A/R
•	0082.A0212	Hex. Socket BSP TR Plug	2
	9S.02	Brake Pipe Adaptor	2
	0082.A0269	'0' Ring	2
		Dowty Washer	2
	0082.A0214	Relief Valve	1
	S.05E	Bolt	12
	95.04	Nyloc Nut	12
	0082.A0215	Brake Bleed Valve	2
	0082.A0268	'0' Ring	2
	0082.A0216	Stub Axle	2
	0082.A0217	Oil Seal Housing	2
	0082.A0218	Hub Oil Seal	2
	0082.A0219	Hub	2
	0082.A0220	Hub Inner Bearing	2
	082.A0221	Hub Outer Bearing	2
	0082.A0222	Hub Bearing Spacer	2
	J082.A0223	Bearing Lock Nut	2
	J082.A0224	Tab Washer	2
	0082.A0267	Stud	16
	5.04	Nyloc*Nut	16
	1082.AU225	Wheel Stud	12
	082.A0226	Axle Shaft	2
	082.A0227	Label	1
	S.01A	Hammer Drive Screw	4
	082.A0266	Hex. Socket Button Hd. Screw	4
	082.A0228	Input Pinion Cartridge	1
	082.A02/0	Spiral Bevel Wheel & Pinion Assy	1
	082.A0230	Drive Flange	1
	082.A0231	Drive Flange Washer	1 .
	082.A0232	Drive Flange Nut	1
	082.A0233	Oil Seal Cover	1
	082.A0234	Pinion Bearing	2
47 30	082.A0235	Pinion Bearing Spacer	1
	082.A0236	Pinion Oil Seal	2
49 30	082.A0237	Diff. Case Process Assembly R.H.	1
	082.A0239	Diff. Wheel	2
	082.A0240	Diff. Pinion	4
53 30	082.A0241	Diff. Wheel Thrust Washer	2
		Diff. Pinion Thrust Washer	2
		Diff. Spider	
		Diff. Bearing	1 2
		Bolts	2
	•	Nyloc Nuts	
		Planet Carrier	8
			2



DRIVE AXLE (Cont'd)

Item No	. Part No.	Description Qty	
60	30082.A0246	rer Axie	().
61	30082.A0247	Carrier Drive	
62	30082.A0248	Planet Gear	
63	30082.A0249	Planet Pin	
64	30082.A0250	Planet Thrust Washer 12	
65	30082.A0251	Planet Carrier Bush	
66	30082.A0252	Axle Shaft Thrust Spacer	
67	30082.A0253	Planet Cage Roller	
68	30082.A0265	Spring Dowel	
69	30100.A0208	Circlip 2	
70	30100.A0209	Brake Cylinder R.H 1	
71	30100.A0210	Brake Cylinder L.H 1 Brake Piston	
72	30100.A0211	Brake Piston 2	
73	30082.A0259	Piston Oil Seal-Set	
74	30082.A0260	Bearing Adjusting Nut	
75	30082.A0261	Adjusting Nut Lock Plate 2	
76	30082.A0262	Screw Lock Plate	
77	30082.A0263	Planet Carrier Bolt	
78	10668.A02	Diff. Case L.H 1	
		Wheel Nut 12	
79	40298.A0107	Plate - Clamp (Not illustrated)	
80	6S.06AA	Plate - Clamp (Not illustrated) 2 Bolt 5/8" UNF x 7支" 4	
81	1075.17	Nut - Nuloc $5/8"$ INF	
82	6S.05AA	Nut - Nyloc 5/8" UNF	
83	1075.16	Bolt $\frac{1}{2}$ " UNF x $7\frac{1}{2}$ "	
		Nut - Nyloc ½" UNF 4	
84	DM.196	Label - Recommended Lubrication (Not illustrated) 1	



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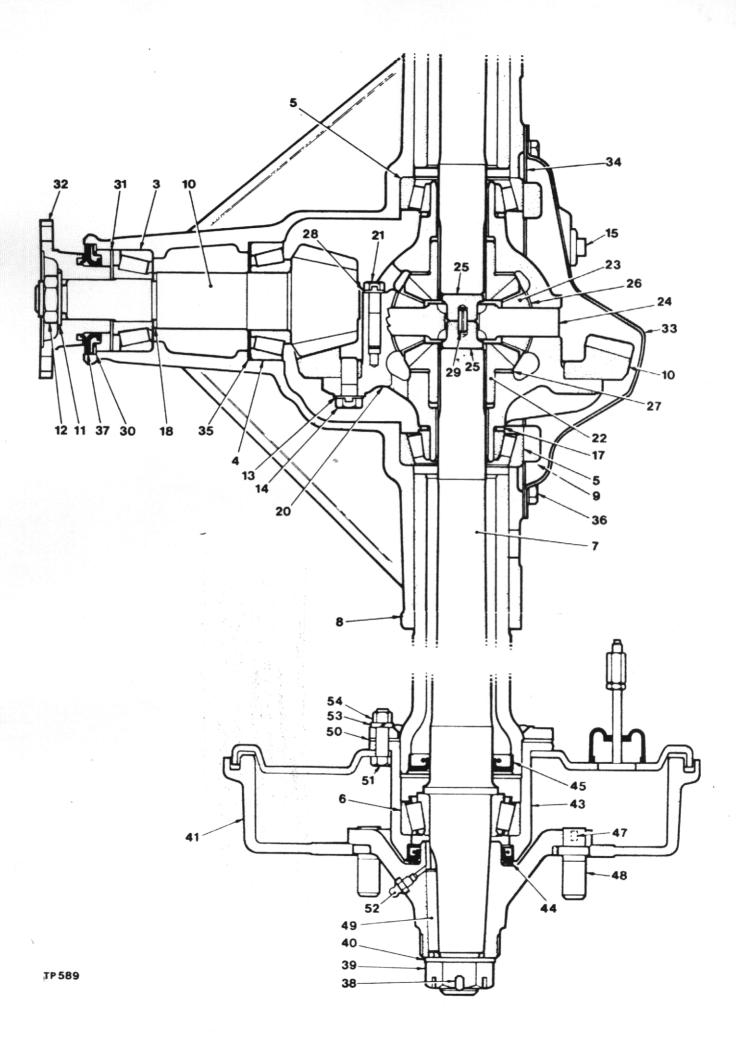
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SALISBURY AXLE (30309.A01)

Item			
No.		Part No.	Description Qty
1			Brake Assembly L.H. (See
			Separate illustration)
2			Brake Assembly R.H. (See
			Separate illustration)
3		20166 10110	
		30166.A0110	Bearing - Service 1
4		30166.A0111	Bearing - Service 1
5 6		30166.A0112	Bearing - Service 2
7		30309.A0101	Bearing - Service 2
1		30309.A0102	Shaft - Axle 2
8		30309.A0103	Carrier & Tube (includ. item 9) 1
9		30166.A0103	Bolt 4
-		50100.40105	DOIL 4
10		30309.A0104	Gear - Service Assy. (including
			items 11 - 14) 1
11		30166.A0105	Washer 2
12		30166.A0106	Locknut 2
13		30166.A0107	Lockstrap 6
14		30166.A0108	Bolt - Drive Gear 12
15		30166.A0109	Plug - Filler Level 3
16		30166.A0105	Washer 1
17		30166.A0113	Shim .028 A/R
17		30166.A0114	
17		30166.A0115	
17		30166.A0116	
17		30166.A0117	
17		30166.A0118	
17		30166.A0119	
17	•	30166.A0120	
17		30166.A0121	
17		30166.A0122	Shim .037 A/R Shim .038 A/R
17		30166.A0123	Shim .039 A/R
17		30166.A0124	Shim .039 A/R Shim .040 A/R
17		30166.A0125	Shim .040 A/R Shim .045 A/R
± 1		J0100.A0125	Shim .045 A/R
18		30166.A0126	Shim .030 A/R
18	2	30166.A0127	Shim .031 A/R
18		30166.A0128	Shim .032 A/R
18		30166.A0129	Shim .033 A/R
18		30166.A0130	Shim .034 A/R
18		30166.A0131	Shim .035 A/R
18		30166.A0132	Shim .036 A/R
18		30166.A0133	Shim .037 A/R
18		30166.A0134	Shim .038 A/R
18		30166.A0135	Shim .039 A/R
18		30166.A0136	Shim .040 A/R
19		30242.A0134	Case - Diff (Incl. items 20-29) 1
20		30242.A0135	Case - Diff Sub Assembly 1
21		30242.A0136	Bolt 8
22		30242.A0137	Gear - Side 2
23		30242.A0138	Pinion Mate 4
24		30242.A0139	Shaft - Cross 1
25		30242.A0140	Spacer - Split 2
26		30242.A0141	Washer - Thrust 4



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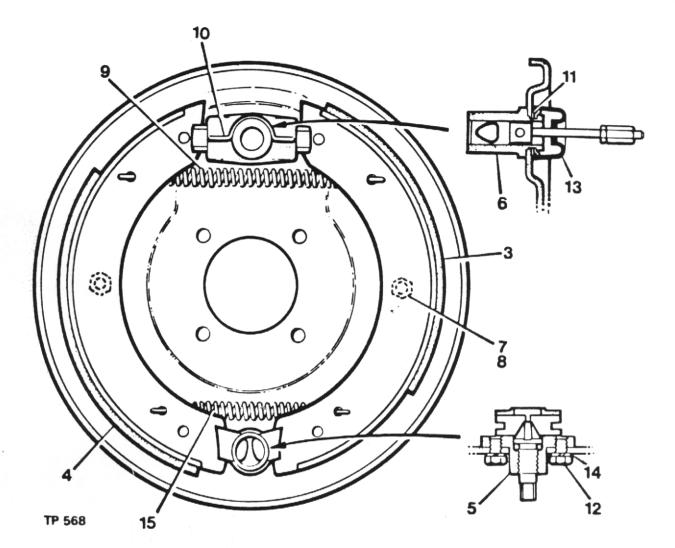
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Item			
No.	Part No.	Description	<u>.</u>
		Description	Qty
27	30242.A0142	Washer - Thrust	
28	30242.A0143	Strap - Lock	2
29	30242.A0144	Pin - Roll	4
	J0242.M0144	FIII - ROII	1
30	30166.A0146	Gasket - Oil Seal	
31	30166.A0147		1
32	30309.A0114	Slinger - Pinion Oil	1
33	30242.A0145	Flange - Companion	1
34	30166.A0149	Cover - Gear Carrier	1
54	J0100.R0149	Gasket - Carrier Cover	1
35	30166.A0150	Shi- 002	
35	30166.A0151	Shim .003	•
35	30166.A0152	Shim .005	A/R
35	30088.A0114	Shim .010	A/R
55	J0000.A0114	Shim .030	A/R
36	30242.A0146		
37		Bolt & Washer	10
38	30166.A0156	Seal - Pinion Oil	1
	30166.A0158	Cotter - Shaft	2
39	30166.A0159	Nut - Shaft	2
40	30166.A0160	Washer - Shaft	2
41	30309.A0105~	Drum – Brake ·····	2
1.0	20200 1010/		
42	30309.A0106	Bearing - Hub Assy.including	
		items 43,44)	2
47	30171.A0103	Dowel - Stud Locking	5
48	30171.A0105	Stud - Wheel	5
10			
49	30242.A0151	Key – Shaft	2
50			
50	30166.A0172	Shim .003	A/R
50	30166.A0173	Shim .005	A/R
50	30166.A0174	Shim .010	A/R
50	30166.A0175	Shim .030	A/R
51	30309.A0111	Bolt	12
52	30309.A0112	Nipple - Grease	2
53	30309.A0113	Lockwasher	12
54	30166.A0185	N	12
55	6S.05G	Bolt (Axle fixing-Salisbury) .	8
56	105.26	Washer - (Axle fixing-Salisbury	
	가 있는 것이 있는 속에서 같은 것 같은 것	Hyd. M/C ·	8
		Gravity M/C .	6

DRUM BRAKE



Item No.	Part No.	Description	Qty.
1 2	20298.A02 20298.A03	Drum Brake Assembly L.H Drum Brake Assembly R.H	
3 4	20298.A0201 20298.A0202	Shoe & Lining - leading Shoe & Lining - trailing	
5 6	20298.A0203 20298.A0204	Adjuster Assembly Expander Assembly	
7 8 9 10 11 12 13 14	20298.A0205 20102.A0310 20298.A0207 20298.A0208 20298.A0209 20298.A0210 20298.A0211 20298.A0212	Post - Steady Locknut Spring - Shoe Return Spring - Retaining Plate - Locking - Expander Set Bolt - Adjuster Unit Cover - Dust Washer - Spring	2 1 1 2 1 2
15	20298.A0213	Spring - Shoe Return	1

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1875	•••••	WHEELS & TYRES - SALISBURY AXLE	1875
Item	No. Part No.	Description	Qty
1	24S.63	Wheel - Front L.H. complete	1
2	24S.64	Wheel - Front R.H. complete	1
3	30183.A03	Rim - Wheel	1
4	205.01	Tyre 10.5 x 18 x 6 ply	2
5	235.04	Tube	2 2
6	24S.35	Wheel - Rear complete	2
7	20129.A03	Rim - Wheel	2
8	215.01	Tyre 5.5 x 16 x 4 ply	2
9	235.01	Tube	2
10	C.177	Nut - Wheel 5/8 BSF	16
1963		WHEELS & TYRES - NEWAGE AXLE	1963
11	24S.15	Wheel - Front L.H. complete	1
12	24S.16	Wheel - Front R.H. complete	1
13	30193.A01	Rim - Wheel	2
14	205.01	Tyre 10.5 x 18 x 6 ply	2
15	235.04	Tube	2
16	CSE.197	Nut - Wheel	12
17	24S.35	Wheel - Rear complete	2
18	20129.A03	Rim - Wheel	2
19	215.01	Tyre 5.5 x 16 x 4 ply	2
20	235.01	Tube	2
21	C.177	Nut - Wheel 5/8 BSF	6

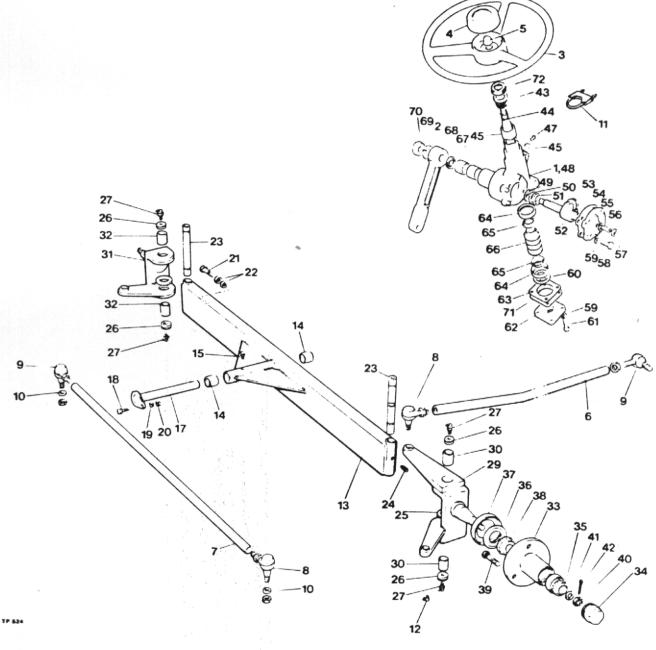
IMPORTANT - (Machines with Newage Axles Only)

A modified wheel rim has been introduced on Machines fitted with rotating skips, eventually this modified wheel will be fitted to all Newage Axled Machines. It is essential that the correct wheel assembly number is quoted when ordering replacements. The wheel rim part number is stamped on the wheel rim.

NEW NUMBERS

Item No.	Part No.	Description	Qty.
11	24S.69	Wheel Assy complete - Front L.H	1
12	24S.70	Wheel Assy complete - Front R.H	1
13	30183.A02	Rim - Wheel	1
14	205.01	Tyre 10.5 x 18 x 6 ply	
15	235.04	Tube	

NOTE CHECK RIM & TYRE SIZE BEFORE ORDERING PARTS.



STEERING

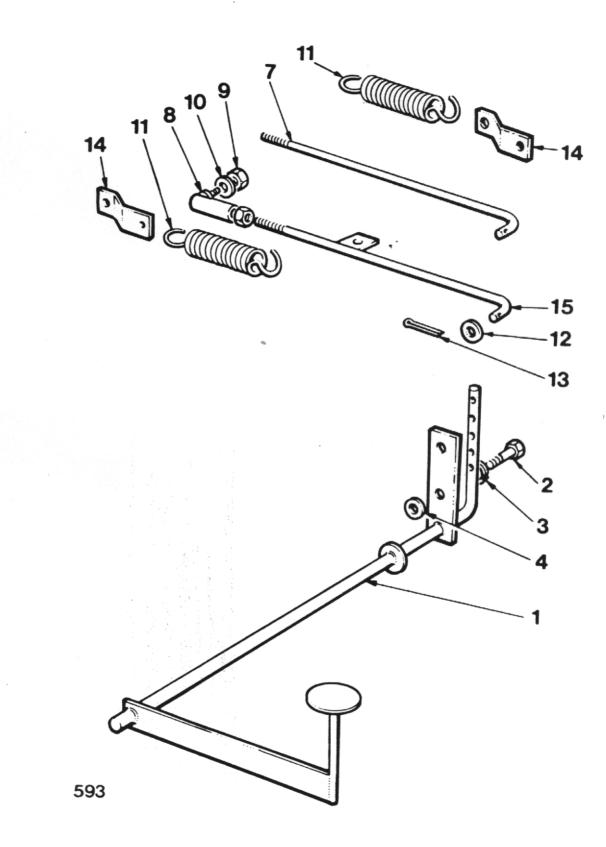
Item No.	Part No.	Description	Qty
1 2 3 4 5 6 7 8 9	40294.A02 40294.A0101 40064.A01 10314.A01 C318 10868.A02 10868.A03 C159R.H. C195L.H.	Steering Box Drop Arm Steering Wheel Steering Wheel Cap Dome Nut 5/8" UNF Drag Link 34" Track Rod 49" Steering Ball End R/H (c/w Nuts)	1 1 1 1 1 1 1 1 2
10	105.04	Steering Ball End L/H (c/w Nuts) Washer 1/2" I/D	2
11 12	153S.07 176S.01	Steering Box Clamp Grease Nipple Caps (Ball Ends)	1

STEERING AXLE

Item No.	Part No.	Description	Qty
13	30298.A02	Steering Axle	1
14	4SHL91	Axle Pivot Bush	2
15	131S.02	Grease Nipple 90°	1
16	1765.01	Grease Nipple Cap	, 1
17	20161.A05	Axle Pivot Pin Assy	
18	8S.04C	Bolt M10 x 35	1
19	125.19	Washer M10	1
20	75.04	Nut M10 Nyloc	1
21	11S.06K	Screw M16 x 50 Long (Steering Stop)	2
22	56S.06	Nut (Half) M16 (Steering Stop)	4
23	L264	King Pin	2
24	185S.05D4	Setscrew (King Pin Retainer)	2
25	C175	Thrust Washer	2
26	C180A	Felt Washer	4
27	1315.02	Grease Nipple 90°	4
28	1765.01	Grease Nipple Cap	4
29	L267R.H.	Stub Axle (R.H.)	1
30	C190	King Pin Bush	2
31	L267L.H.	Stub Axle (L.H.)	1
32	C190	King Pin Bush	2
33	C186	Hub Assy. (Complete) - (Compr. Items 34 - 39)	2
34	C186-A	Hub Cap	1
35	С186-В	Bearing - Hub - Outer	1
36	C186-C	Oil Seal - Hub Bearing	1
37	C186-D	Dust Cover	1
38	С186-Е	Bearing - Hub - Inner	î
39	C186-F	Wheel Stud	3
40	975.07	Nut 5/8P BSF	1
41	105.05	Washer	1
42	44S.02C	Split Pin	1

STEERING BOX

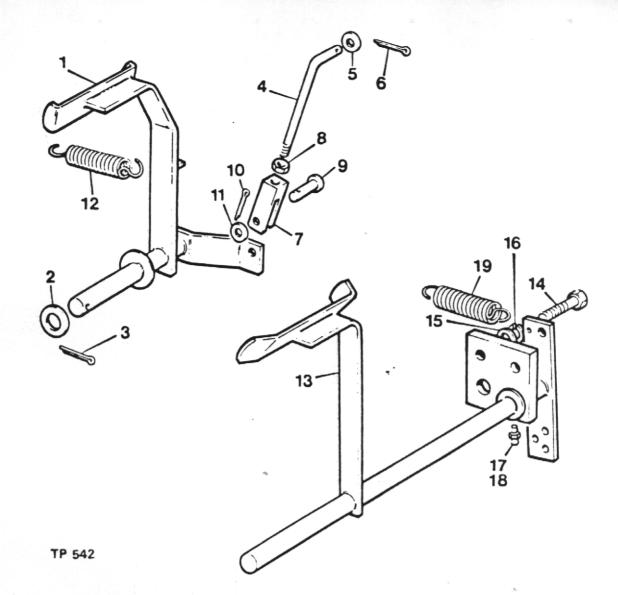
Item N	No. Part No.	Description	Qty.
43	40294.A0102	Bush - Column Top	1
44	40294.A0103	Inner Shaft	ī
45	40294.A0104	Outer Tube	î
46	40294.A0105	Oil Plug	ī
47	40294.A0106	Pin	ī
48	40294.A0107	Steering Box (case and cover plate)	î
49	40294.A0108	Thrust Washer	2
50	40294.A0109	Shim	A/R
51	40294.A0110	Thrust Washer	2
52	40294.A0111	Rocker Shaft c/w Roller	1
53	40294.A0112	Cover Plate Gasket	A/R
54	40294.A0113	Cover Plate and Bush	1
55	40294.A0114	Spring Washer	1
56	40294.A0115	Adjuster Screw	1
57	40294.A0116	Adjuster Screw Locknut	1
58	40294.A0117	Setscrew	4
59	40294.A0118	Spring Washer	8
60	40294.A0119	Washer	1
61	40294.A0120	Setscrew	4
62	40294.A0121	Bottom Gap	1
63	40294.A0122	Shim	A/R
64	40294.A0123	Outer Race	2
65	40294.A0124	Cage and Balls	2
66	40294.A0125	Cam	. 1
67	40294.A0126	Bush	2
68	40294.A0127	Oil Seal	1
69	40294.A0128	Spring Washer	1
70	40294.A0129	Nut	î
71	40294.A0130	Bottom Cap Liner	2
72	40294.A0131	Inner Column Shroud	1
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1913	•••••	ACCELERATOR PEDAL	1913
Item	No. Part No.	Description	Qty.
1 2 3 4 5 6	20231.A03 85.04C 175.05 125.19 1315.03 1765.01	Pedal - Accelerator Bolt M10 x 35 Washer - Spring 10 I/D Washer - Flat 10 I/D Nipple - Grease (Not illustrated) Cap - Grease Nipple (Not illustrated)	1 2 2 1 1
1901	•••••	ACCELERATOR ROD (PETTER)	1901
7 8 9 10 11 12 13	10362.A07 C160B 2S.02 10S.01 C173D 12S.02 44S.02B	Rod - Accelerator Ball End Nut ¹ / ₂ " BSF Washer ¹ / ₂ " I/D Spring - Return Washer M6 I/D Pin - Split 3/32" x ¹ / ₂ "	1 2 1 1 1
14	C163	Retainer - Spring	1
1902	•••••	ACCELERATOR ROD (LISTER)	1902
15 8 9 10 11 12 13	10362.A08 C160B 2S.02 10S.01 C173D 12S.02 44S.02B	Rod - Accelerator Ball End Nut Ż" BSF Washer Ż" I/D Spring - Return Washer M6 I/D Pin - Split 3/32" x Ž"	1 2 1 1 1
14	C163	Retainer - Spring	1



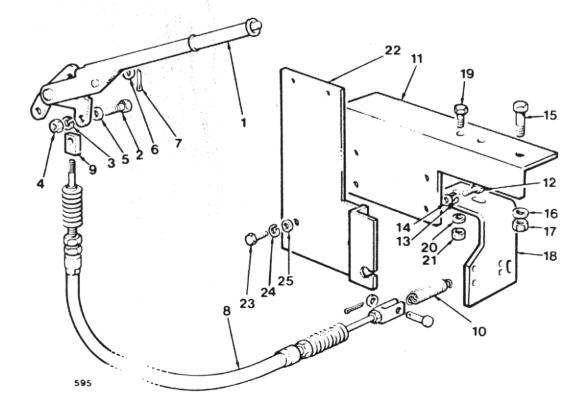
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1879	•••••	CLUTCH PEDAL & BRAKE PEDAL	1879
Item No.	Part No.	Description	Qty.
1	20096.A09	Pedal - Clutch	1
2	150S.10	Washer	1
3	44S.05E	Pin - Split 3/16" x 1½"	1
4	10481.A03	Rod - Clutch	1
5	105.03	Washer 3/8"	
6	44S.03C	Pin - Split 1/8" x 1"	1
7	C174J	Clevis	1
8	955.03	Nut 3/8" UNF	1
9	10650.A18	Pin - Clevis	1
10	44S.02C	Pin - Split 3/32" x 1"	1
11	105.03	Washer 3/8"	1
12	C173B	Spring - Return	1
13	20232.A04	Pedal - Brake	1
14	8S.04C	Bolt M10 x 40	
15	125.19	Washer 10 I.D	
16	175.05	Washer - Spring M10 I.D	2
17	1315.03	Nipple - Grease	2
18	1765.01	Cap - Nipple	
			2
19	C173B	Spring	1

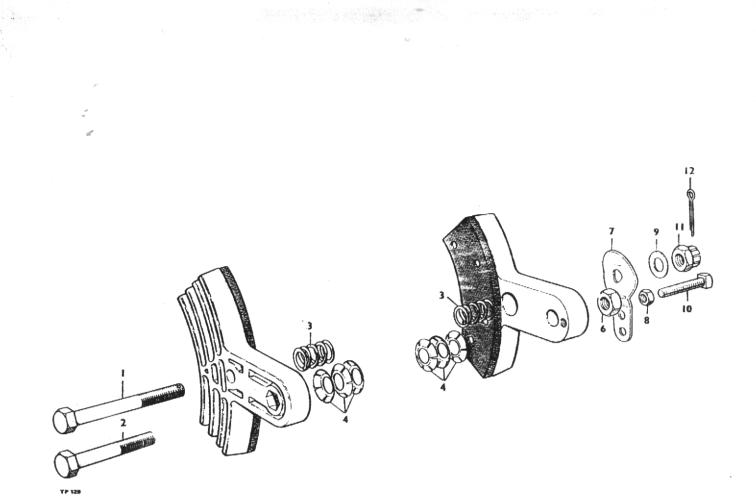
HANDBRAKE

Item No.	Part No.	Description	Qty
1	20208.A01	Lever - Handbrake	1
2	11S.04D	Screw M10 x 30	2
3	175.05	Washer - Spring 10 I/D	2
4	75.04	Nut M10	2
5	125.19	Washer 10 I/D	2
6	10S.03	Washer 3/8" I/D	1
7	44S.01C	Pin - Split	1
8	20273.A02	Cable - Handbrake	1
9	L309	Block	ī
10	C173D	Spring - Return	1
11	20282.A09	Bracket - Gearbox Mounting	1
12	28S.03D	Screw 3/8" UNF x 3/4"	
13	41S.05	Washer - Spring 3/8" I/D	2
14	105.03	Washer 3/8" I/D	2
15	6S.05C	Screw 불" UNF x 1불"	1
16	105.03	Washer ½" I/D	1
17	1075.16	Nut ½" UNF Nyloc	1
18	20282.A10	Bracket - Caliper Mounting	1
19	115.03C	Screw M8 x 25	2
20	125.18	Washer 8 I/D	2
21	595.12	Nut M8 Nyloc	2
22	20282.408	Bracket	1
23	285.03D	Screw 3/8" UNF x 3/4"	2
24	415.05	Washer - Spring 3/8" I/D	
25	105.03	Washer - Plain 3/8" I/D	2 2
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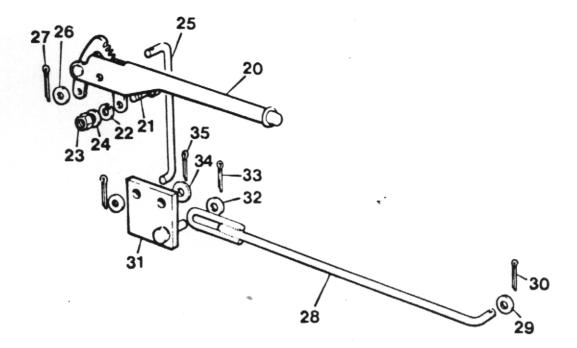
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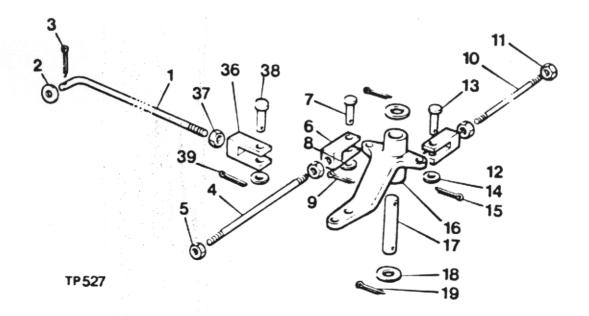
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CALIPER, parking brake

Item	Part no	Description	Qty
1A	10578A01	CALIPER, one pair, assembly	1
1	28S02T	SCREW	1
2	28S02P	SCREW	י ד
3	10578A0101	SPRING, centring	2
4	10578A0102	WASHER, tension	6
6	9S02	NUT	1
7	10578A0104	CAM	1
8	230S01	NUT, locking	1
9	10578A0105	WASHER	1
10	66S01H	SCREW, set	1
11	227S02	NUT, castle	1
12	44S01C	PIN, cotter	1
13	1072A4	PAD c/w rivets	1
		LAD CIM INALS	2



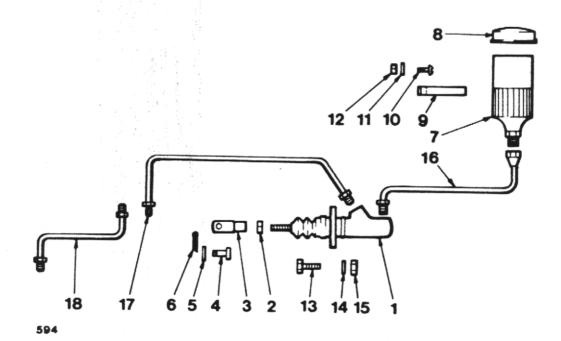


	1883	•••••	BRAKE LINKAGE - MECHANICAL	1883
	Item No.	Part No.	Description	Qty.
	1	10888.A04	Rod - Brake	
	2	105.03	Rod - Brake	1
	3	445.03C	Washer 3/8"	2
	3	445.050	Pin - Split 1/8" x 1"	1
	4	40S.A13	Rod	1
	5	95.01	Nut z" UNF	2
	6	C174C	Clevis	1
	7	10650.A14	Pin - Clevis	1
	8	105.02	Washer 5/16"	1
	9	44S.02B	Pin - Split 3/32" x 3/4"	1
	10	40S.A04	Rod	1
	11	95.01	Nut Ł" UNF	1 2
	12	C174C	Clevis	_
	13	10650.A14	Pin - Clevis	1
	14	105.02	Washer 5/16"	1
	15	44S.02B	Pin - Split 3/32" x 3/4"	1
	16	C.272	Componenter	
	17	10908.A01	Compensator Pin - Pivot	1
	18	105.04	We have $\frac{1}{2}$ T/D	1
	19	445.03C	Washer 🖫 I/D Pin - Split 1/8" x 1"	2 2
				-
	20	10596.A01	Lever - Handbrake	1
	21	11S.04D	Bolt M10 x 30	2
	22	175.05	Washer - Spring M10	2
	23	75.04	Nut M10	2
	24	125.19	Washer 10 I/D	2
	25	10888.A01	Rod	1
	26	10S.03	Washer 3/8"	1 2
	27	44S.02C	Pin - Split 3/32" x 1"	2
	28	10888.A07	Ded	
	29	105.03	Rod	1
	30	44S.02C	Washer 3/8"	1
	20	443.020	Pin - Split 3/32" x 1"	1
	31	10889.A01	Quadrant	1
	32	C180B	Washer 3/8" I/D x 1½" O/D	1
	33	44S.02C		1
	34	105.04	Washer ½" I/D	î
	35	44S.03C	Split Pin 1/8" x 1"	1
	36	C.174J	Clevis 3/8" UNF	1
	37	955.03	Nut 3/8" UNF	1
	38	10650.A18	Clouis Pi-	1
	39	44S.02C	Pin - Split 3/32" x 1"	1
	40	1315.03	Nipple - Grease (Not illustrated)	1
	41	1765.01	Con - Change Ningle (New 111)	1
1 × 1	-		oup orease arppie (not iniustrated)	1

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BRAKE PIPES & FITTINGS

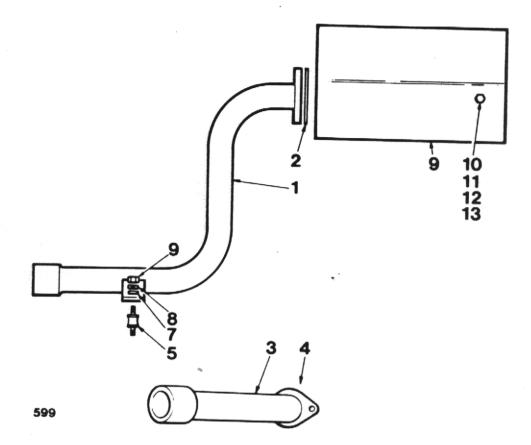
Item No.	Part No.	Description	Qty
1	20102.A02	Master Cylinder	1
2	955.03	Nut - Thin 3/8" UNF	1
3	C174J	Clevis	1
4	10650.A14	Pin - Clevis	1
5	105.02	Washer 5/16" I/D	1
6	44S.02C	Pin - Split 3/32" x 1"	1
7	10659.A02	Reservoir	1
8	10659.A0201	Cap - Reservoir	1
9	10659.A0102	Clip - Reservoir	1
10	82S.03C	Screw 2BA x ½"	2
11	10S.73	Washer .202 I/D	2
12	855.01	Nut 2BA Nyloc	2
13	8S.03B	Bolt M8 x 30	2
14	175.04	Washer 8 I/D	2
15	75.03	Nut M8	2
16	10967.A11	Pipe	1
17	10968.A05	Pipe	1
18	10968.A02	Pipe	1
19	1825.20	Screw - Brake Bleed (Not illustrated)	1
20	10848.A01	Label - "Mineral Oil Only" Warning (Not illustrated)	1



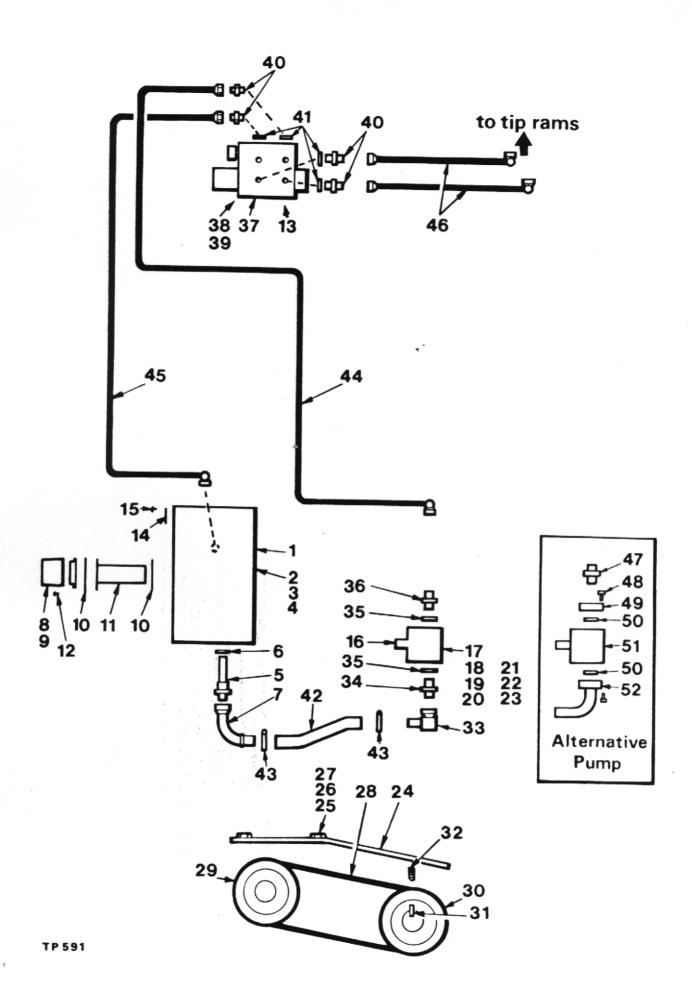
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Item No.	Part No.	Description	Qty.
1	20295.A01	Exhaust (Petter)	1
2	10293.A02	Gasket (Petter)	
3	20295.A06	Exhaust (Lister)	1
4	10293.A03	Gasket (Lister)	1
5	10371.A01	Mounting - Rubber (Petter)	1
6	75.03	Nut M8	2
7	125.03	Washer - Plain 8 I/D	2
8	175.04	Washer - Spring 8 I/D	2
9	10955.A01	Cover - Exhaust (Petter)	1
10	11S.02B	Screw - Hex Hd. M8 x 20	1
11	125.03	Washer - Plain 8 I/D	1
12	175.04	Washer - Spring 8 I/D	1
13	75.03	Nut - M8	1



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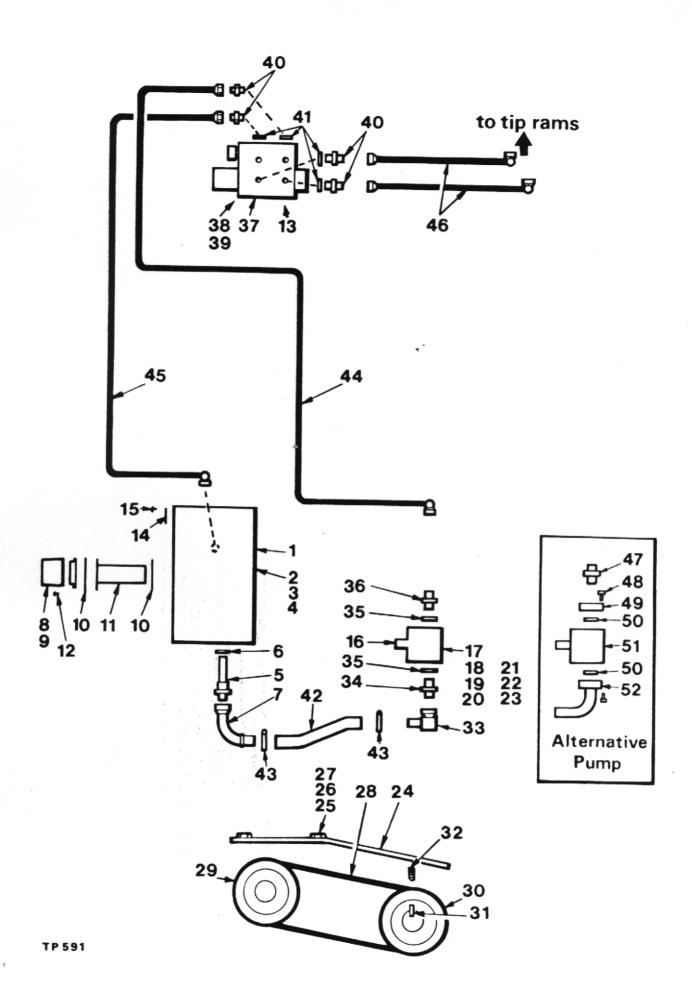
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1	tem No.	Part No.	Description	
	1	30286.A07	•	Qty.
	2	11S.04C	Tank Hydraulic	. 1
	3	175.05	Screw M10 x 25 Washer 10 I/D	. 4
	4	75.04	Nut M10	. 4
	-			
	5 6	901S.002	Unit - Filter	. 1
	7	1865.14 1295.05E	Washer - Sealing	. 1
		12/3.0/2	Elbow	. 1
	8	10565.A01	Cap - Filler	. 1
	9	10565.A0101	Gasket - Cork (Cap)	. 1
	10	10565.A0103	Gasket - Paper	. 2
	11 12	10565.A0104	Strainer	. 1
	12	101S.07E	Rivet	. 1
	13	10284.A01	Label - Dump/Return	
	14	10546.A04	Label - Hydraulic Oil	. 1 . 1
	15	101S.05D	Rivet - Pop	. 2
	16			
	16 16	10539.A02	Pump (Petter)	. 1
	10	10590.A03	Pump (Lister)	. 1
	17	30314.A01	Bracket (Pump Mounting)	1
	18	52S.02H	Screw M6 x 40 (Pump to Bracket)	. 1 . 4
	19	125.02	Washer M6 I/D (Pump to Bracket)	. 4
	20	595.14	Nut - Nyloc M6 (Pump to Bracket)	. 4
	21	11S.05E	Commer M12 at 25 (Pressbart of the 1)	
	22	125.22	Screw M12 x 35 (Bracket to Chassis) Washer M12 I/D (Bracket to Chassis)	. 2
	23	595.04	Nut - Nyloc M12 (Bracket to Chassis)	2 2
	24 24	10944.A03	Guard - Belt (Petter)	. 1
	25	10944.A04 11S.02B	Guard - Belt (Lister)	1
	26	125.02	Screw M6 x 20	2
	27	595.14	Washer M6 I/D Nut - Nyloc M6	2
				2
	28	1895.01A	Belt - Wedge	2
	29 30	20307.A06	Pulley - Pump	1
	30 30	20307.A04 20307.A05	Pulley - Engine (Petter)	1
	31	210S.02C	Pulley - Engine (Lister)	1
	31	210S.03C	Key - Engine Shaft (Petter) Key - Engine Shaft (Lister)	1
	32	57S.05E	Setscrew M8 Cp. Pt. Skt. Hd.	1 1
	2.2	1020 01		
	33 34	123S.01 119S.13	Elbow	1
	35	1005.04	Adaptor	1
	35	1005.06	Seal - Bonded (Petter) Seal - Bonded (Lister)	2
				2
	36	1195.08	Adaptor (Petter)	1
	36	1195.10	Adaptor (Lister)	1
	37	30322.A01	Valve - Control	1
	38	115.03A	Screw M8 x 16	1 2
	39	175.04	Washer M8 I/D	2
	10	1100 00		
	40 41	1195.08	Adaptor	4
	41	100S.04	Seal - Bonded	4



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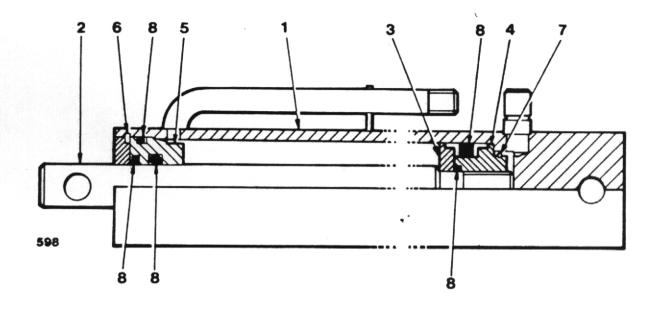
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HYDRAULICS Cont'd

Item No.	Part No.	Description	Qty.
42 42 43 44 45 46	37S.0II 37S.01R 97S.07 31S.02AA 31S.02V 31S.02D	Hose (Petter) Hose (Lister) Clip - Hose Hose Hose	1 1 2 1 1
		Hose	2
47 48 49 50 51 51 52	122S.03 103S.03C 4-35-261 49S.11 10539.A01 10589.A01 20065.A02	Adaptor Capscrew 5/16" UNC x 1" Plate - Adaptor 'O' Ring Pump (Petter) Pump (Lister) Pipe - Inlet	1 4 1 2 1 1 1
	CONTROL VALVE 30322.A0101 30322.A0102	Lever Assy Relie≨ Valve	1

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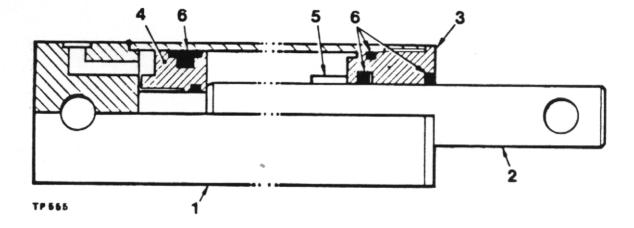


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Item No.	Part No.	Description	Qty.
1	30121.A0601	Cylinder	,
2	30121.A0602	Rod - Piston	1
3	30121.A0603	Washer - Backing	1
4	30121.A0604	Head - Piston	1
5	30121.A0605	Gland	1
6	30121.A0606	Circlip	1
7	30121.A0115	Ring - Spring	1
8	10558.A10	Seal Kit	A/R

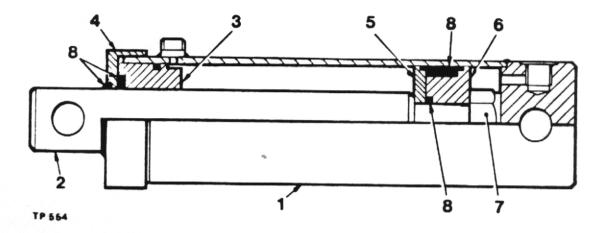
HYDRAULIC RAM - 30113.A04 (ROTATING SKIP)



	1
	1
	1
	1
A	R/R
	A

HYDRAULIC RAM - 30302.A01 (HIGH DISCHARGE)

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Item No.	Part No.	Description	Qty.
1 2 3 4 5	30302.A0101 30302.A0102 30302.A0103 30302.A0104 30302.A0105	Cylinder Piston Rod Gland Ring Nut Piston (Front)	1 · 1 1
6 7 8	30302.A0106 30302.A0107 30302.A0107	Piston (Pront) Piston (Rear) Locking Nut Service Seal Kit	1

CYCLOPAC AIRCLEANER (OPTIONAL)

Item	Part No.	Description	Qty
1	10532 A01	Air Cleaner	
2	10533 A01	Mounting Bend	2
3	10534 A01	Stack Cap	2
4	85.03A	Bolt	1
5	615.03	Nut	4
6	125.03	Washer	4
7	10840 A03	Hose Assy (Petter)	,
	10840 A0301	- Hose	1
	10320 A06	– Adaptor Sleeve	1
8	975.12	Clip Hose	2
9	10840. A07 10840 A0701	Hose Assy (Lister) – Hose	1
	10320 A04		1
10	975.11	- Adaptor Sleeve	1
	775.11	Clip Hose	2

DAYTIME ROAD EQUIPMENT - (OPTIONAL)

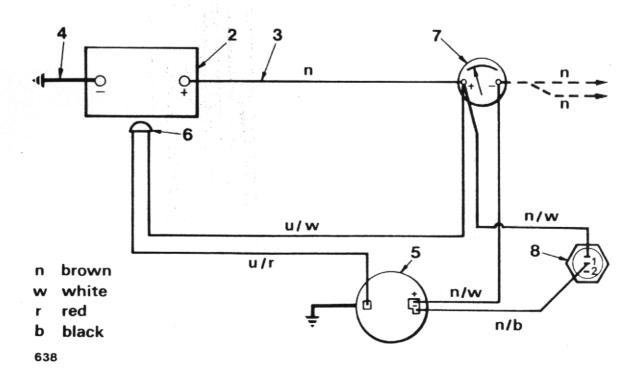
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Item No.	Part No.	Description	Qty.
1 2	10203.A04 20321.A02 20 2 31.A03	Mirror - Rear View Arm - Mirror - (Lister Engine) Arm - Mirror . (Petter Engine)	1
3	CSE.200	Horn	1
4	1015.07	Rivet	1
5	10607.A01	Licence Holder	
6	125.20	Washer	

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CHARGING CIRCUIT - HANDSTART ENGINE - PETTER

Item No.	Part No.	Description	Qty.
1	30231.A04	Wiring Harness - (Supplied with engine)	1
2	1095.08	Battery	1
	109S.05	Battery - (Alternative)	1
3	10227.A05	Cable - Positive	1
4	10990.A06	Cable - Negative	1
5		Alternator)	1
6		Sensor - Temperature)	1
7		Ammeter) Supplied	1
8		Switch - Pressure) with	1
9		Pulley) Engine	1
10		Drive Belt)	1
11	30178.A06	Guard - Drive Belt - (Hyd. M/C's)	1
	30178.A08	Guard - Drive Belt - (Non Hyd. M/C's)	1
12	11S.02A	Screw	2
13	595.14	Nut	2
14	125.02	Washer	2
15	30080.A0303	Locking Bar	1
16	11S.04C	Screw	2
17	595.03	Nut	2
18	10742.A05	Battery Cover	1
19	1775.03	Wing Nut	2
20	20325.A01	Battery Clamp	1
21	40S.A17	Tie Rod	2
22	95.01	Nut	8



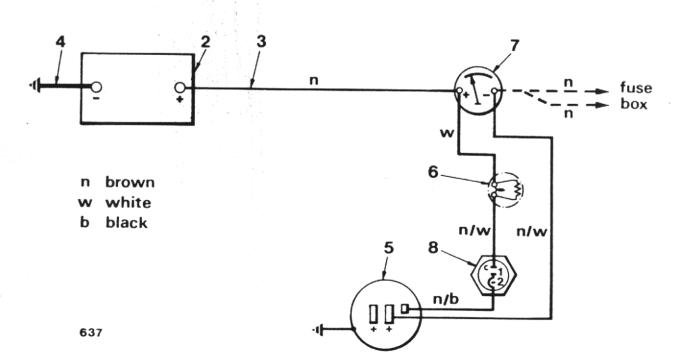
OPTION CHARGING CIRCUIT - HAND START ENGINE - LISTER 2B2000

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Item	No.	Part No.	Description	Qty.
1		30231.A06	Wiring Harness	1
2		1095.08	Battery	1
		1095.05	Battery - (Alternative)	1
3		10227.A05	Cable - Positive	1
4		10990.A06	Cable - Negative	1
5			Alternator)	1
6			Excitation Resistor & Warning Light) Supplied	1
7			Ammeter) with	1
8			Switch - Pressure) Engine	1
9			Pulley)	1
10			Drive Belt)	1
11		30178.A07	Guard - Drive Belt)	1
12		10986.A01	Distance Tube)	2
13		8S.02J	Bolt)	2
14		595.14	Nut) . Non-Hydraulic	2
15		125.02	Washer) Machines	2
16		11S.04D	Screw	2
17		595.03	Nut)	2
18		125.19	Washer))	2
19		30080.A0303	Locking Bar	1
20		11S.04C	Screw	2
21		598.03	Nut	2
22		10742.A05	Battery Cover	1
23		1775.03	Wing Nuts	2
24		20325.A01	Battery Clamp	1
25		40S.A17	Tie Rod	2
26		95.01	Nut	8



CHARGING & STARTING CIRCUIT - LISTER 2B2000

T			
Item No	. Part No.	Description	Qty.
1	30231.A05	Wiring Hernood	
2	1095.08	Wiring Harness	1
	1095.05	Battery - (Alternative)	1
3	10989.A07	Battery - (Alternative) Cable - Positive	1
4	10990.A06	Cable - Negative	1
			1
5		Switch - Key Start)	1
6		Starter c/w solenoid)	1
7		Warning Light c/w excitor) Supplied .	1
8		Alternator) with	1
9		Panel Box) Engine .	ĩ
10		Drive Pulley	1
11		Drive Belt)	1
12		Switch - Pressure - (Optional))	1
10	110 000		
13 14	11S.02B	Screw - (Panel Box fixing)	4
14	598.14	Nut	4
15	128.02	Washer	4
16	30178.A07		
17	10986.A01	Guard - Drive Belt - (Non Hyd. M/C's)	1
18	85.02J	Distance Tube	2
19	595.14	Bolt	2
20	125.02	Nut	2
21	115.04D	WasherScrew	2
22	595.03	Nut	2
23	125.19	Washer	2 2
			Z
24	30080.A0303	Locking Bar - Battery	1
25	115.04C	Screw	2
26	59S.03	Nut	2
27	10742.A05	Battery Cover	1
28	1775.03	Wing Nuts	2
29	20325.A01	Battery Clamp	1
30	40S.A17	Tie Rod	2
31	95.01	Nut	8
		n/w	
	fuse 🗲		
	box -	And 5	
		V ³ 4 ⁵ 0	
	n brown		
	w white	7	
	b black		
	r red		
		w let w n/w	
		w/r 12	
	2		
	└♀ ┘ \	ੑ੶ <u>)</u> ─ <u></u> 」 <u></u> ┎─┤ <u>ü</u> ┅ <u>)</u> ───	
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	이 방법은 물건을 가지 않는다.		

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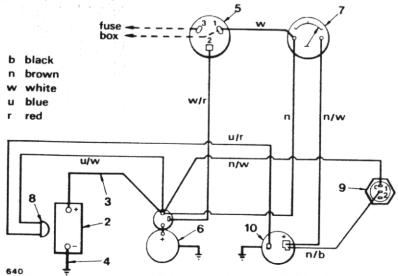
STARTING/CHARGING CIRCUIT - PETTER

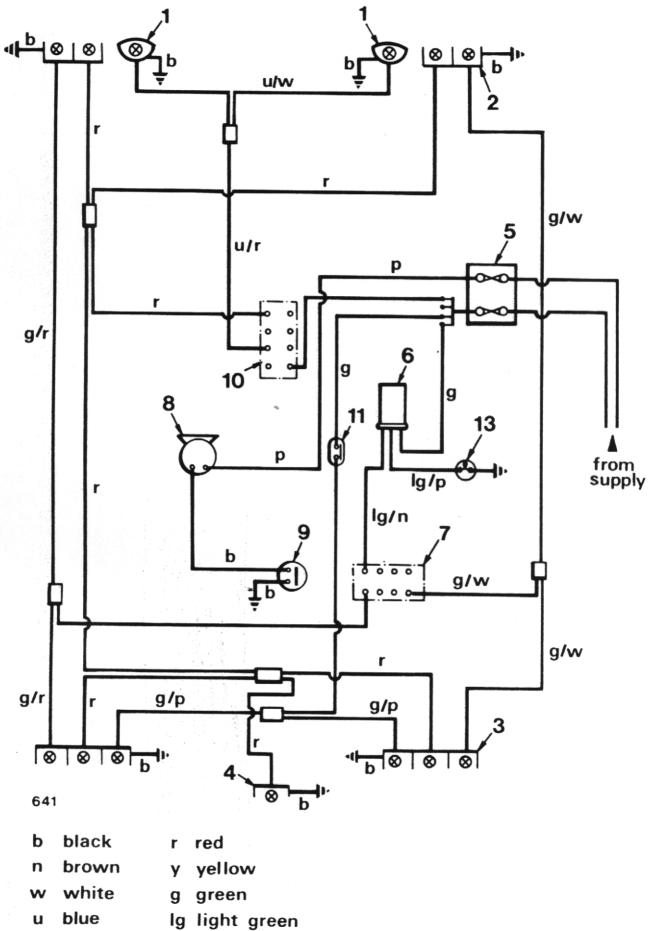
2B2000

1

Item No.	Part No.	Description	Qty.
1 2 3	30231.A03 1095.08 1095.05 10989.A06	Wiring Harness Battery Battery - (Alternative) Cable - Positive	1 1 1
4	10990.A06	Cable - Negative	1
5 6 7 8 9 10 11 12 13		Switch - Keystart) Starter c/w solenoid .) Ammeter	1 1 1 1 1 1 1
13	11S.02B	Instrument Panel Box .) Screw	1 2
15 16	595.14 125.02	Nut Washer	2 2 2
17 18	20307.A07 685.04D	Pulley - (Bolted to item 11) Capscrew	1 3
20 21 22	1067201 75.02 175.03	Guard - Starter Ring Nut Washer	1 2 2
23 24 25 26 27	30178.A06 30178.A08 115.02A 595.14 125.02	Guard - Drive Belt - (Hyd. M/C's) Guard - Drive Belt - (Non-Hyd M/C's) Screw Nut Washer	1 1 2 2 2
28 29 30 31 32	30080.A0303 11s.04C 59s.03 10742.A05 177s.03	Locking Bar - Battery Screw Nut Battery Cover Wingnuts	1 2 2 1 2
33 34 35	20325.A01 40S.A17 9S.01	Battery Clamp Tie Rods Nut	1 2 8

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FULL ROAD LIGHTING KIT

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[tem	No. Part No.	Description	Qty
1	10740.A01	Headlight	2
	10973.A02	Bracket - Headlight	2
2	10462.A02	Sidelight/Indicator	2
3	10512.A02	Rear/Stop/Indicator	
	825.03E		2
	858.01	Screw	16
		Nut	16
	125.01	Washer	16
4	10615.A01	No. Plate Light	1
	10982.A01	Bracket - No. plate light	1
	11S.02B	Screw	2
	595.14	Nut	2
5	10644.A01	Fuse her	
	82S.03E	Fuse box	1
		Screw	1
	855.01	Nut	1
6	10616.A01	Flasher Unit	1
7	10620.A02	Switch - Indicator	1
	82S.03C	Screw	_
	125.01		1
	855.01	Washer	1
	055.01	Nut	1
8	10618.A01	Horn	1
	11S.02B	Screw	2
	595.14	Nut	2
	125.02	Washer	2
9	10619.A01	Button - Horn	1
	82S.07E	Screw	2
	855.03	Nut	2
10	10620.A01	Lightswitch	
		and the second	1
11	10939.A02	Brake switch c/w spring	1
	10972.A01	Bracket	
	11S.03A	Screw	1
	595.02		1
	575.02	Nut	1
	115.04A	Screw) Used only on	1
	595.03	Nut) Machines with	
	125.05		1
		Washer) Newage Axles	1
12	20105.A08	Wiring Harness	1
	1805.01	Cable Ties	A/R
10	10500		,
13	10593.A01	Warning Light - Indicator	1
14	30267.A03	Console	1
15	20318.A01	Backplate	1
	82S.03C	Screw	
	835.03		2
	1535.07	Nut	2
	101.01	Clamp	2
16	10983.A01	Adaptor	1
17	10984.A01	Lockring	1
18	10985.A01	Conduit	1
19	A25328	Plug - Blanking	A/R
			71/1

Inches			Milli-	. Bee	Inches		Milli-	
	Fractions Decimals			metres		Fractions	Decimals	metres
1/64				0.397	33/64 -		0.515625	13.097
	1/32 —			0.794		17/32	0.53125	13.494
3/64				1.191	35/64		0.546875	13.891
		1/16 —	0.0625	1.588	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	9/1	6 - 0.5625	14.288
5/64			0.078125	1.984	37/64 -		0.578125	14.684
			0.09375	2.381		19/32	0.59375	15.081
7/64			0.109375	2.778	39/64 -		0.609375	15.478
		1/8 -	0.125	3.175		5/8	0.625	15.875
9/64			0.140625	3.572	41/64 -		- 0.640625	16.272
	5/32 -			3.969		21/32	0.65625	16.669
11/64	T BERLEY		0.171875	4.366	43/64 -		0.671875	17.066
		3/16 -	0.1875	4.763	Sec. Sec. 1	11/1	6-0.6875	17.463
13/64			0.203125	5.159	45/64 -		0.703125	17.859
	7/32			5.556	1.48.000	23/32	0.71875	18.256
15/64			0.234375	5.953	47/64 -		0.734375	18.653
		1/4 -	0.250	6.350		3/4	- 0 750	19.050
17/64			0.265625	6.747	49/64 -		0.765625	19.447
	9/32			7.144		25/32		19.844
9/64 -			0.296875	7.541	51/64 -		0.796875	20.241
		5/16 -	0.3125	7.938		13/1	6-0.8125	20.638
21/64 -			0.328125	8.334	53/64 -		0.828125	21.034
	11/32			8.731		27/32		21.431
23/64			0.359375	9,128	55/64 -			21.828
		3/8 -	0.375	9.525		7/8	0.875	22.225
25/64 -			0.390625	9.922	57/64 -		0.890625	22.622
	13/32 -			10.319		29/32		23.019
27/64 -				10.716	59/64 -		0.921875	23.416
		7/16 -	이 맛 알 것을 잘 못 못 봐요. 전 것을 많은 것 같아?	11.113				23.813
29/64 -				11.509	61/64 -	15/1	0.953125	24.209
	15/32 -			11.906		31/32		24.606
31/64 -				12.303	63/64 -			25.003
		1/2 -		12,700			1.000	25.400

DECIMAL, FRACTIONAL AND METRIC EQUIVALENTS

INCHES INTO MILLIMETRES

Inches	0	1	2	3	4	5	6	7	8	9
0	0	25.40	50.80	76.20	101.60	127.00	152.40	177.80	203.20	228.60
10	254.00	279.40	304.80	330.20	355.60	381.00	406.40	431.80	457.20	482.60
20	508.00	533.40	558.80	584.20	609.60	635.00	660.40	685.80	711.20	736.60
30	762.00	787.40	812.80	838.20	863.60	889.00	914.40	939.80	965.20	990.60
40	1016.00	1041.40	1066.80	1092.20	1117.60	1143.00	1168.40	1193.80	1219.20	1244.60
50	1270.00	1295.40	1320.80	1346.20	1371.60	1397.00	1422.40	1447.80	1473.20	1498.60
60	1524.00	1549.40	1574.80	1600.20	1625.60	1651.00	1678.40	1701.80	1727.20	1752.60
70	1778.00	1803.40	1828.80	1854.20	1879.60	1905.00	1930.40	1955.80	1981.20	2006.60
80	2032.00	2057.40	2082.80	2108.20	2133.60	2159.00	2184.40	2209.80	2235.20	2260.00
90	2286.00	2311.40	2336.80	2362.20	2387.60	2413.00	-2438.40	2463.80	2489.20	2514.61

Use in conjunction with above table.

Example: Find equivalent mm. for 84 5/8". 84'' = 2133.60 mm.

5/8" = 15.875 mm.

84 5/8" = 2149.475 mm.

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