

WINGET

OPERATING INSTRUCTIONS & SPARE PARTS LIST

2B2200 DUMPER (SPECIAL SKIP)

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INTRODUCTION

This Parts & Operators Manual is a re-print of the manual last published in 1983 and contains some amended part numbers.

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 2B2200 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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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 O11 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.

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.

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:

- 1 The combined weight of the trailer and its load does not exceed the 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

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.
- 2 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.

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 accumulated 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.

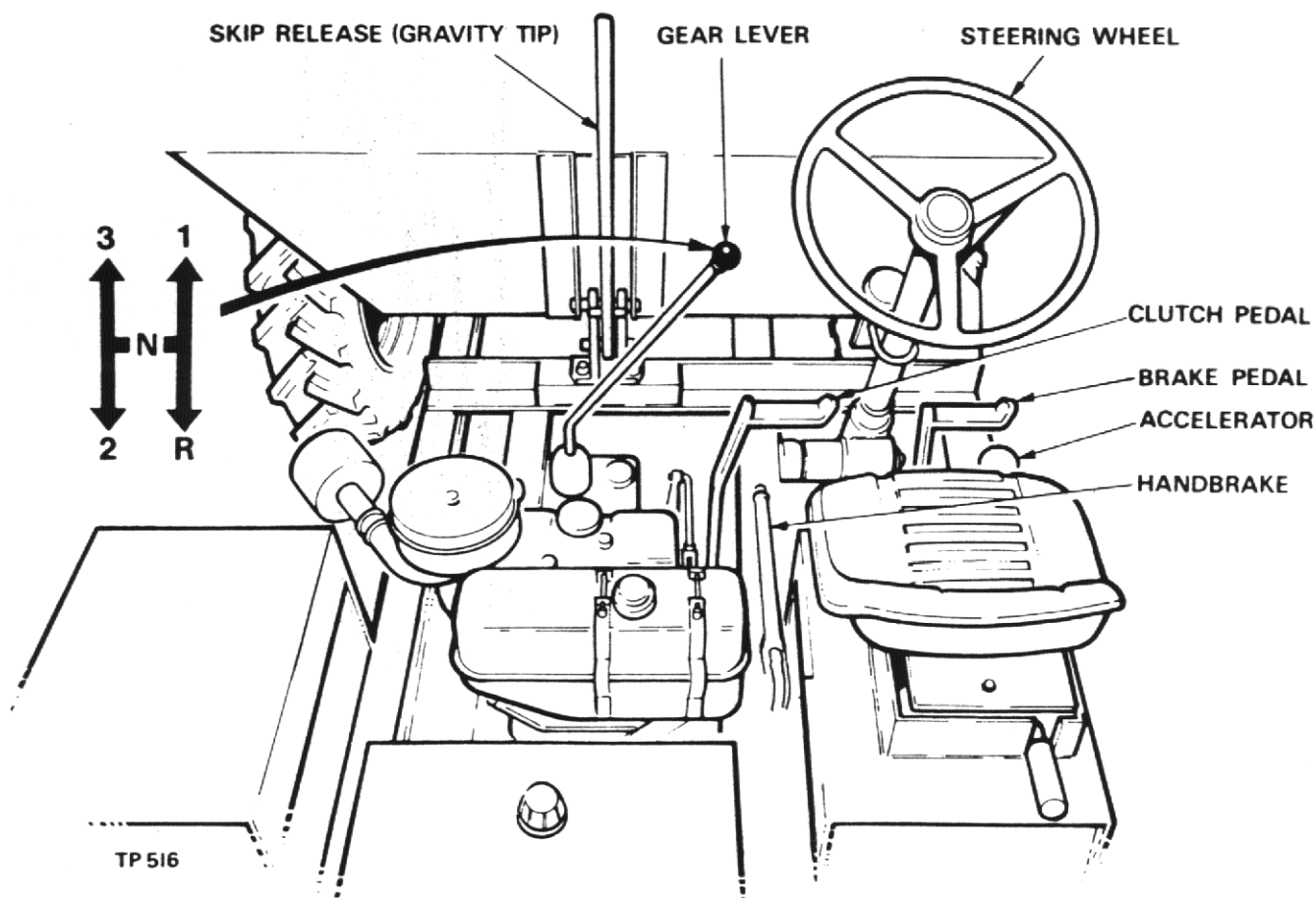
NOTE: Never allow fuel level to fall below 2" deep in the bottom of the tank.

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
FORWARD TIP SKIP (Gravity)

2B2200

A.	Overall Length	2850mm	(112")
B.	Overall Width	1640mm	(65")
C.	Overall Height	1675 mm	(66")
D.	Skip Ground Clearance (Tipped)	130mm	(5")
E.	Skip Loading Height	1173mm	(46")
F.	Ground Clearance (Salisbury Axle)	240mm	(9½")
G.	Track	1375mm	(54")
H.	Wheelbase	1638mm	(64")
K.	Discharge Forward of Tyre	350mm	(14")
L.	Prow Width	1422mm	(56")
Turning Circle between Kerbs		7350mm	(289")
Unladen Weight		880 kgs.	(1940 lbs.)

Engine Petter PH1 @ 1650 R.P.M.

Tyres 7.50 x 16 x 6 Ply (Drive Axle) 4.5 x 16 x 4 Ply (Steer Axle)

ROAD SPEEDS

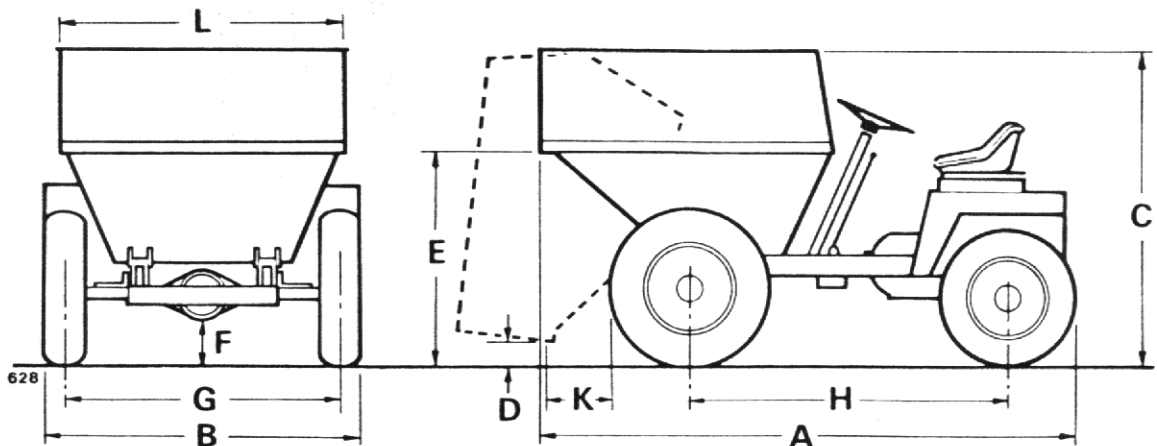
PETTER @ 1650 R.P.M.

GEAR	M.P.H.	K.P.H.
1st	2.20	3.60
2nd	5.20	8.40
3rd	9.70	15.80
Rev.	2.50	4.00

OIL CAPACITIES

Engine (Petter)	2.86 Litres (5 Pts.)	Gearbox	.86 Litres (1½ Pts.)
		Drive Axle	4.6 Litres (8 Pts.)

Tyre Pressures 32 p.s.i.



OPERATION (PETTER ENGINE)

Starting

1. Lift red-painted overload situated on fuel pump immediately above priming level and move fuel pump racks into fully-open position.
2. 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.

IMPORTANT

1. DO NOT stop engine by means of decompression levers, this will lead to damaged valve seats and cylinder head joints.
2. 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.

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)
Engine Bolts/Nuts M12.....	72	(10.7)
Axle Bolts 1/2" UNF.....	72	(10.7)
Wheel Nuts 5/8" BSF.....	180	(25)

GENERAL MAINTENANCE

PERIODIC MAINTENANCE

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 (refer to specification page).

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 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	Engine Oil	1
	Fuel Tank	Diesel Fuel	1
Weekly	Gearbox	Gearbox Oil	1
	Drive Axles	Axle Oil	2
	Footbrake Pedal	Grease Gun	1
	Accelerator Pedal	Grease Gun	1
	Clutch Pedal	Grease Gun	1
	Clutch Cross Shaft	Grease Gun	2
	Skip Pivot	Grease Gun	2
	Handbrake	Grease Gun	1
	Prop Shafts & Universal Joints	Grease Gun	10
	Steering Box	Axle Oil	1
Rear Axle Pivot	Grease Gun	1	

NOTE: For full details of the lubrication and maintenance of the engine refer to Manufacturers Manual.

RECOMMENDED LUBRICATING OILS SALISBURY AXLES

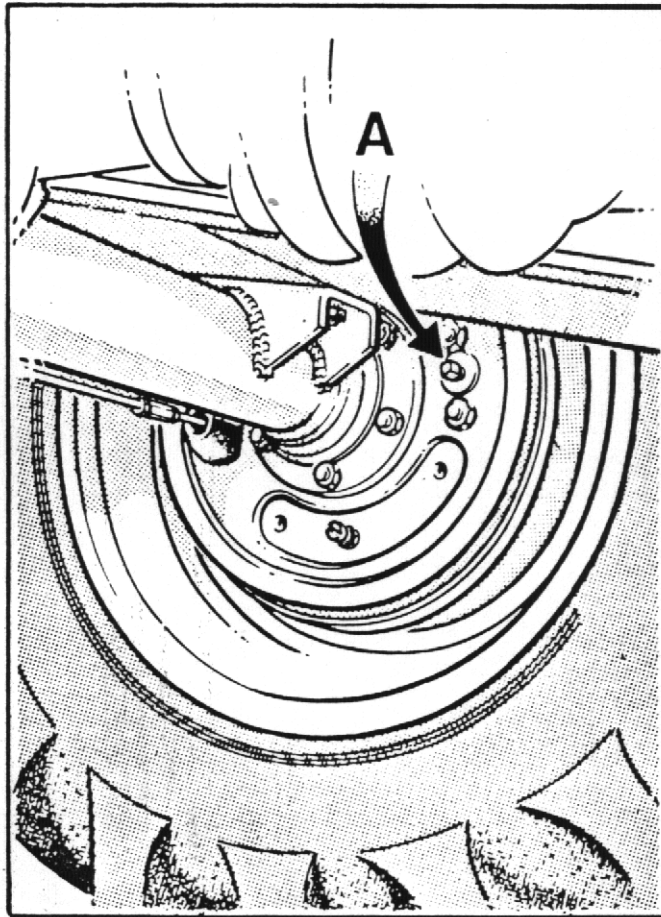
COMPANY	ENGINE	DRIVE AXLE TRANSFER BOX & STEERING BOX	GEARBOX	WHEEL BEARINGS & OTHER GREASE POINTS	HYDRAULIC SYSTEM
(U.K.) ESSO (Overseas)	ESSOLUBE HDX 20W ESSOLUBE HDX 30 ESSOLUBE HDX 20W ESSOLUBE HDX 10W	GEAR OIL GP 85W/140 GEAR OIL GP 85W/140 GEAR OIL GP 85W/140 GEAR OIL GP 80W	ESSOLUBE HDX 30 ESSOLUBE HDX 30	BEACON 2 BEACON 2	NUTO H32 NUTO H68 NUTO H32 NUTO H22
(U.K.) CASTROL	DEUSOL CRI 20 DEUSOL CRI 30 DEUSOL CRI 20 DEUSOL CRI 10	DEUSOL GEAR EP 90 DEUSOL GEAR EP 140 DEUSOL GEAR EP 90 DEUSOL GEAR EP 80	DEUSOL CRI 30 DEUSOL CRI 30	CASTROL SPEEROL APT 2 CASTROL SPEEROL APT 2	CASTROL HYSPIN AWS 32
(U.K.) SHELL (Overseas)	ROTELLA SX OIL 20/20W ROTELLA SX OIL 30 ROTELLA SX OIL 20/20W ROTELLA SX OIL 10W	SPIRAX 90 EP SPIRAX 140 EP SPIRAX 90 EP SPIRAX 80 EP	ROTELLA SX OIL 30 ROTELLA SX OIL 30	RETINAX A RETINAX A	TELLUS OIL 37
(U.K.) BP (Overseas)	VANELLUS M20W VANELLUS M30 VANELLUS M20W VANELLUS M10W	GEAR OIL SAE 90 EP GEAR OIL SAE 140 EP GEAR OIL SAE 90 EP GEAR OIL SAE 80 EP	VANELLUS M30 VANELLUS M30	ENERGREASE L2 ENERGREASE L2	ENERGOL HLP 65
(U.K.) MOBIL	DELVAC 1220 DELVAC 1230 DELVAC 1220 DELVAC 1210 DELVAC SPECIAL 10W-30	MOBILUBE HD 90 MOBILUBE GX 90 MOBILUBE HD 140 MOBILUBE GX 140 MOBILUBE HD 90 MOBILUBE GX 90 MOBILUBE HD 80 MOBILUBE GX 80	DELVAC 1230 DELVAC 1230	MOBILGREASE MP MOBILGREASE SUPER	DTE 24
(U.K.) WALKERS CENTURY (Overseas)	CENTULUBE SUPREME 20W-20 CENTULUBE SUPREME 30 CENTULUBE SUPREME 20W-20 CENTULUBE SUPREME 10W	EP 90 UNIVERSAL 80W-140 GEAR OIL	CENTULUBE SUPREME 30 CENTULUBE SUPREME 30	REGULUS A2 REGULUS A2	CENTURY PWLA HYD OIL PWLC PWLA P313

IN THE UNLIKELY EVENT OF THE ABOVE OILS NOT BEING AVAILABLE
EQUIVALENT OILS SUPPLIED BY A REPUTABLE MANUFACTURER MAY BE USED

BRAKE SYSTEM

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.

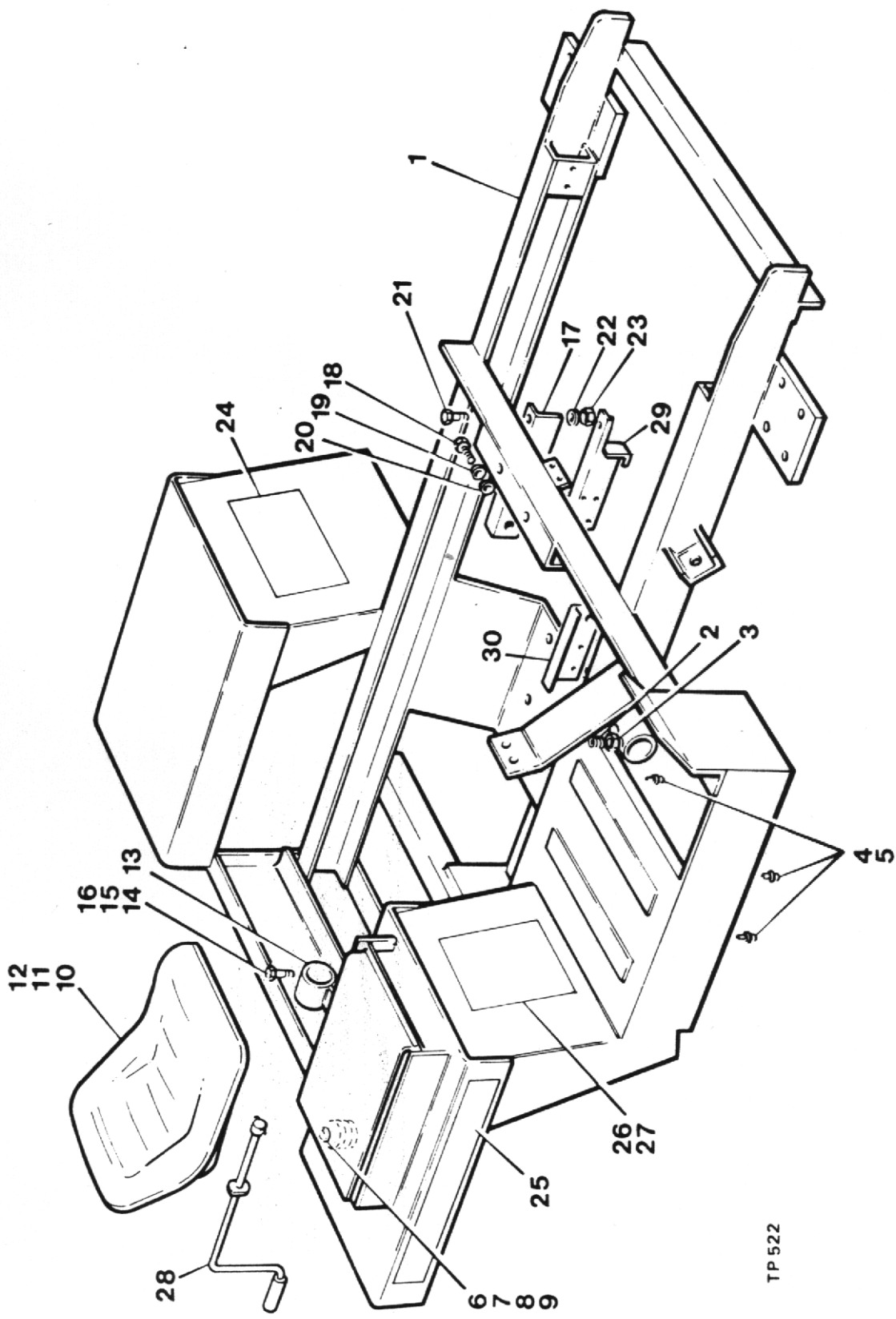


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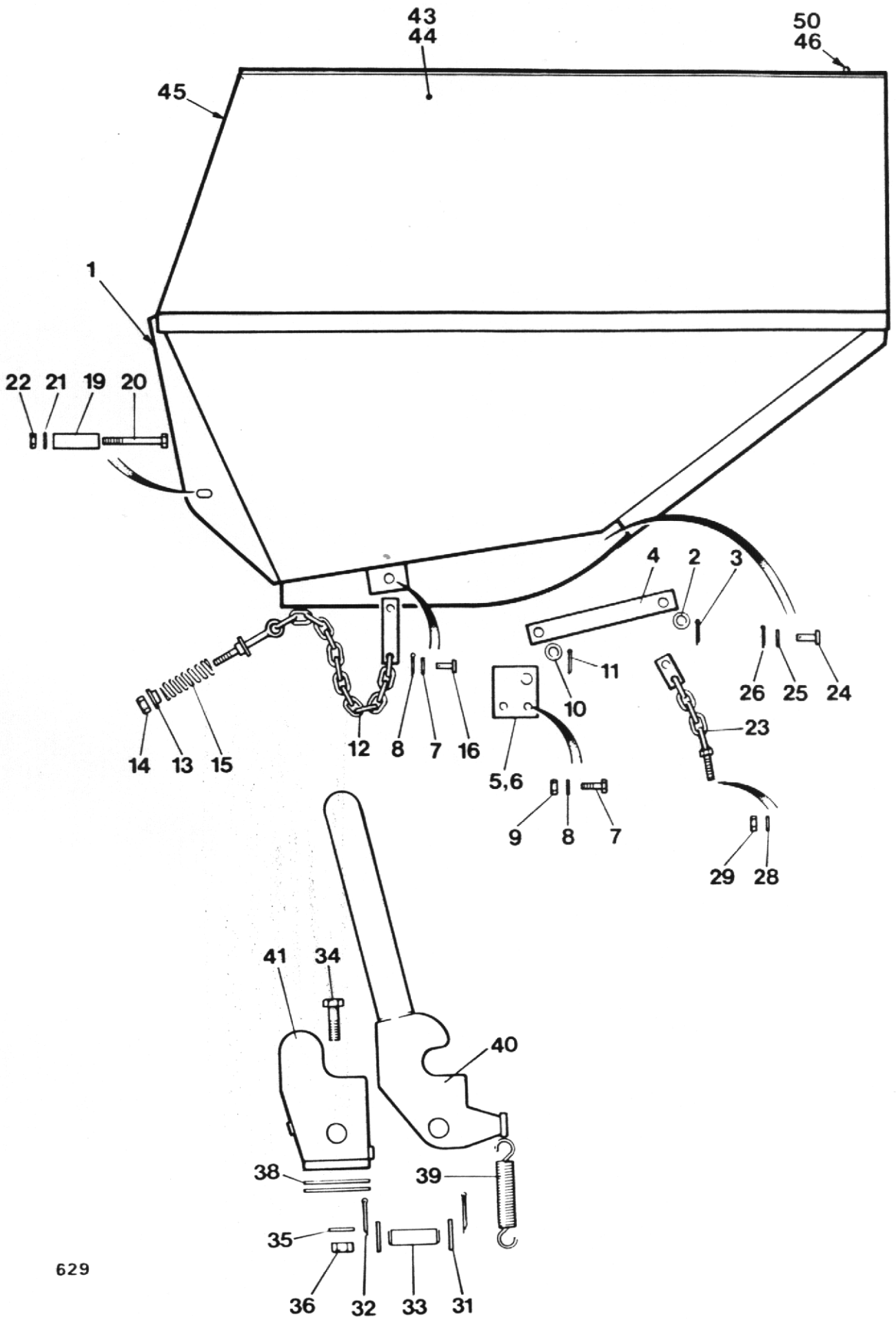
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TP522

CHASSIS

Item No.	Part No.	Description	Qty
1	40286.A01	Chassis	1
2	57S.07H1	Setscrew Hex Skt. Hd. M12 x 25	2
3	56S.05	Nut - Half M12	2
4	131S.03	Nipple - Grease	3
5	176S.01	Cap - Nipple	3
6	10519.A01	Spring - Seat	1
7	11S.04C	Screw M10 x 25	1
8	C180B	Washer 3/8" I/D	1
9	59S.03	Nut M10	1
10	20072.A01	Seat	1
11	69S.02C	Screw 5/16" UNC	4
12	41S.04	Washer 5/16" I/D	4
13	10870.A01	Tube - Guide	1
14	8S.04C	Bolt M10 x 35 (Petter)	2
15	17S.05	Washer - Spring 10 I/D	2
16	7S.04	Nut M10	2
17	20282.A03	Bracket - Gearbox (Salisbury)	1
18	28S.03D	Screw 3/8" UNF x 3/4"	2
19	41S.05	Washer - Spring 3/8" I/D	2
20	10S.03	Washer 3/8" I/D	2
21	6S.05C	Screw 1/2" UNF x 1 1/2"	1
22	10S.03	Washer 1/2" I/D	1
23	107S.16	Nut 1/2" UNF	1
24	DM197	Label - Recommended lubricants (Salisbury)..	1
25		Label - M/C Identification	2
26	20132.A02	Label - Dumper Safety	1
27	101S.05D	Rivet - Pop	4
28	20155.A03	Handle - Starting	1



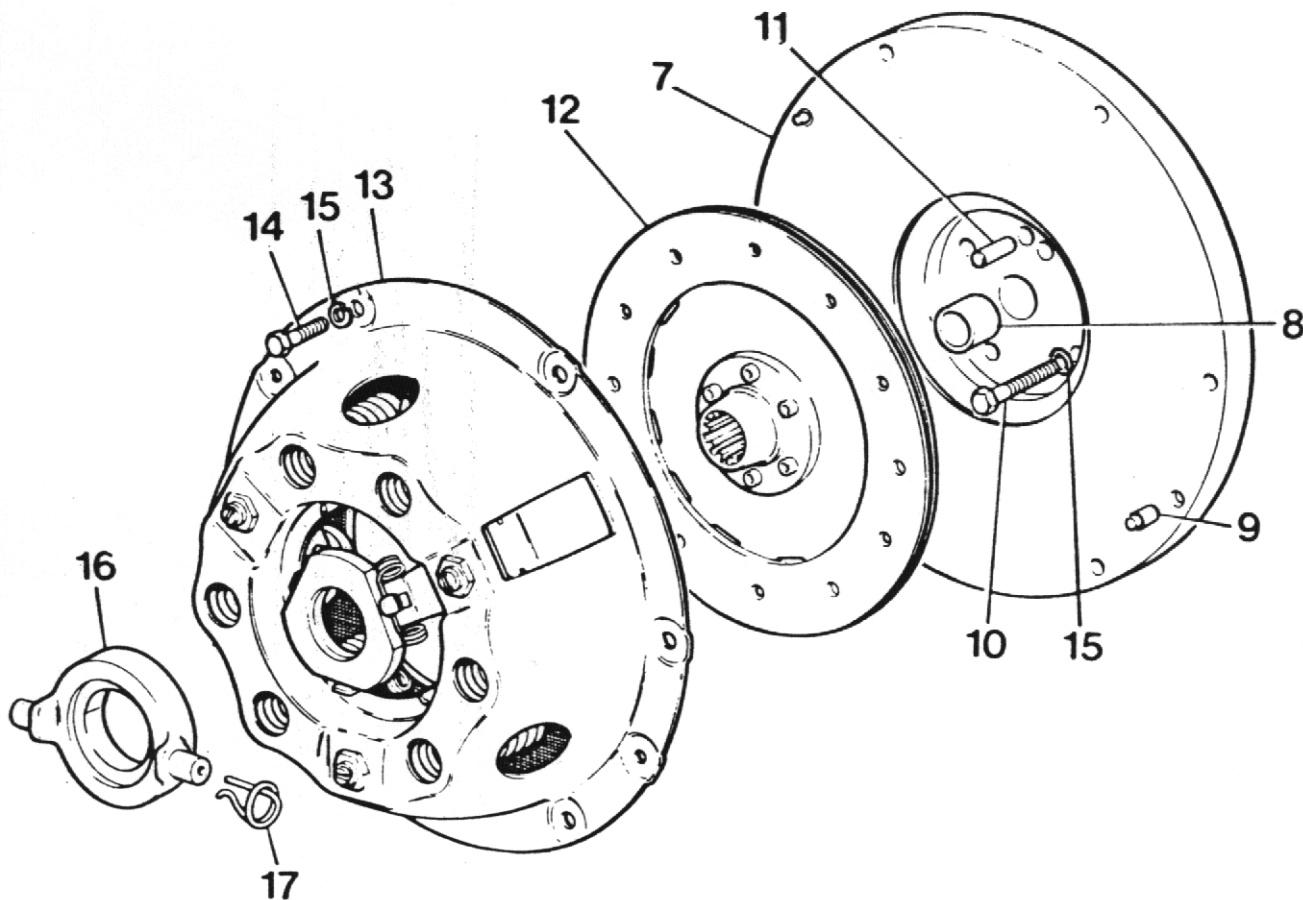
SKIP - GRAVITY TIP

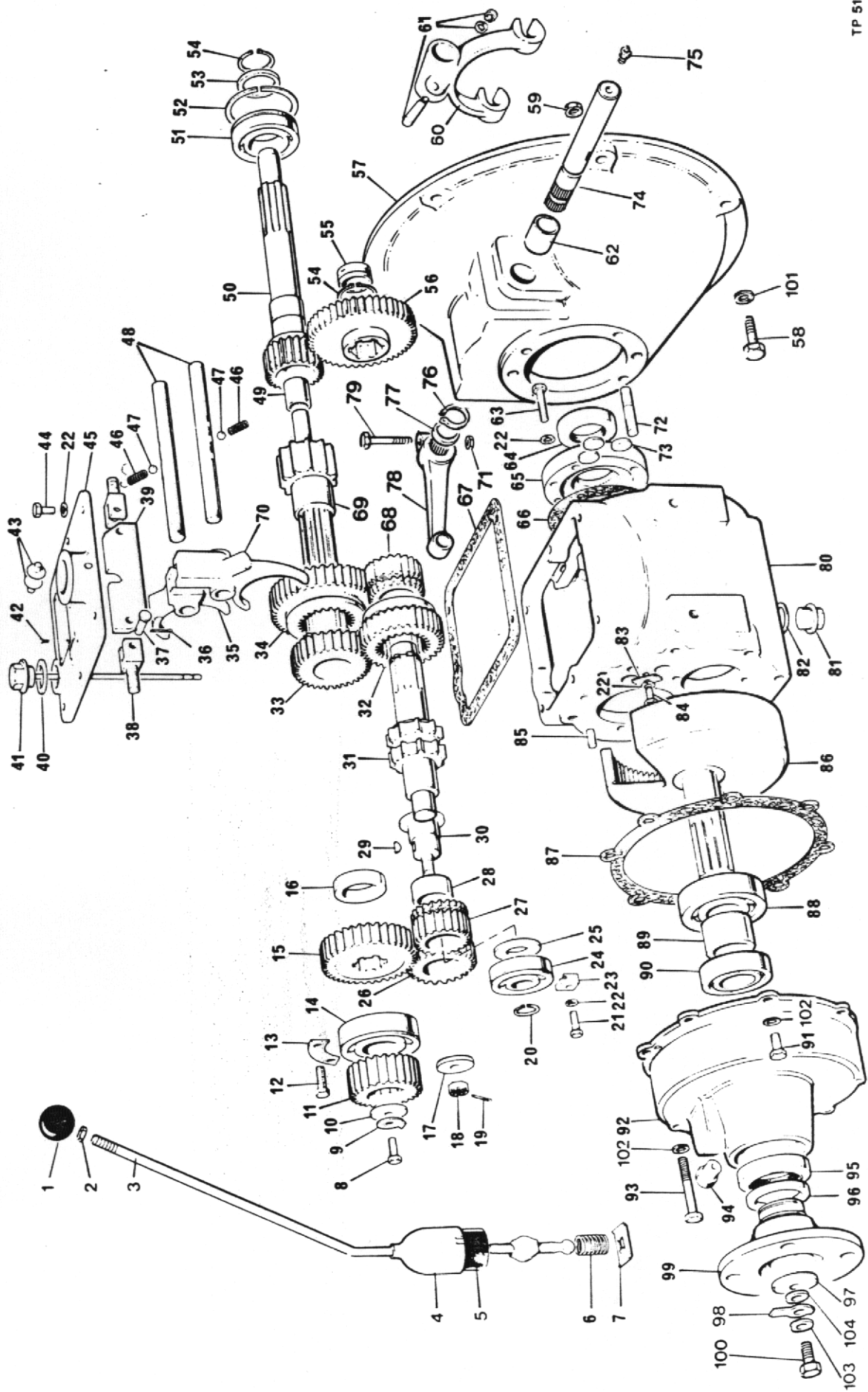
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Item No.	Part No.	Description	Qty.
1	40295.A07	Skip	1
2	10S.06	Washer $\frac{3}{8}$ " I/D	2
3	44S.056	Split Pin 3/16" x 2"	2
4	10892.A01	Radius Arm	2
5	10893.A01	Mounting Bracket (R.H.)	1
6	10893.A02	Mounting Bracket (L.H.)	1
7	11S.05E	Screw M12 x 35	4
8	17S.06	Washer M12	4
9	7S.05	Nut M12	4
10	10S.06	Washer $\frac{3}{8}$ " I/D	2
11	44S.056	Split Pin 3/16" x 2"	2
12	20286.A07	Skip check chain	2
13	10829.A01	Spring Alignment collar	4
14	59S.12	Nut M8 Nyloc	2
15	C173.A	Compression Spring	2
16	10650.A 04	Clevis pin	2
17	10S.04	Washer $\frac{1}{2}$ "	2
18	44S.03C	Split pin 1/8" x 1"	2
19	C140A	Skip catch tube	1
20	8S.06Q	Bolt M16 x 110	1
21	2S.07	Washer M16	2
22	59S.11	Nut - M16 - Nyloc	1
23	20286.A02	Front chain	1
24	10650.A18	Clevis Pin	1
25	10S.03	Washer 3/8" I/D	1
26	44S.02C	Split pin 3/32" x 1"	1
27			
28	17S.05	Washer	2
29	7S.04	Nut	2
30	40296.A01	Skip catch (comprising items 31,32,33,40,41.)	1
31	10S.06	Washer	2
32	44S.04E	Split pin 5/32" x 1 $\frac{1}{2}$ "	2
33	40296.A0105	Pivot Pin	1
34	11S.06G	Screw M16 x 45	2
35	12S.07	Washer M16	2
36	59S.11	Nut M16 Nyloc	2
37	10541.A19	Payload Label	1
38	10054.A04	Packing Shim	A/R
39	C173.B	Spring	2
40	10912.A03	Lever Assy.	1
41	10912.A04	Body Assy.	1
42	10976.A03	Label (White)	2
	40318.A01	Skip Extension Assy	1
43	40318.A0101	Side Plate (RH)	1
44	40318.A0102	Side Plate (LH)	1
45	40318.A0103	Rear Plate	1
46	40318.A0104	Tie Bar	1
47	11S.05C	Screw (Extn Fixing)	12
48	59S.04	Nut (Extn Fixing)	12
49	192S.04	Retaining Pin (Tie Bar)	2

ENGINE, G/BOX & CLUTCH
(Petter Engine)

Item No.	Part No.	Description	Qty.
1	PH1. HS.	Engine (Petter PH1 Hand start)	1
2	6S.05D	Bolt 1/2" UNF x 1 5/8" (Engine Fixing)	4
3	10S.04	Washer 1/2"	4
4	107S.16	Nut 1/2" UNF	4
5	L.259P	Starter Dog	1
6	185S.05D4	Setscrew Hex Sock. 7/16"	2
7	10580.A02	Flywheel	1
8	10580.A0101	Bush	1
9	10580.A0102	Dowel	2
10	1S.02C	Bolt 5/16" BSF x 1 1/4" (Wire Locked) Flywheel Fixing.	4
11	C321	Dowel 5/16" x .850"	1
12	10598.A01	Drive Plate 8" Dia	1
13	10597.A01	Cover Assy. 8" Dia.....	1
14	28S.02D	Screw 5/16" UNF x 3/4" (Cover Fixing).....	6
15	41S.04	Washer 5/16" (Cover Fi ing)	6
16	10579.A01	Release Bearing	1
17	10579.A0101	Retaining Spring - Release Bearing	2
18	30139.A02	Gearbox Assy.	1

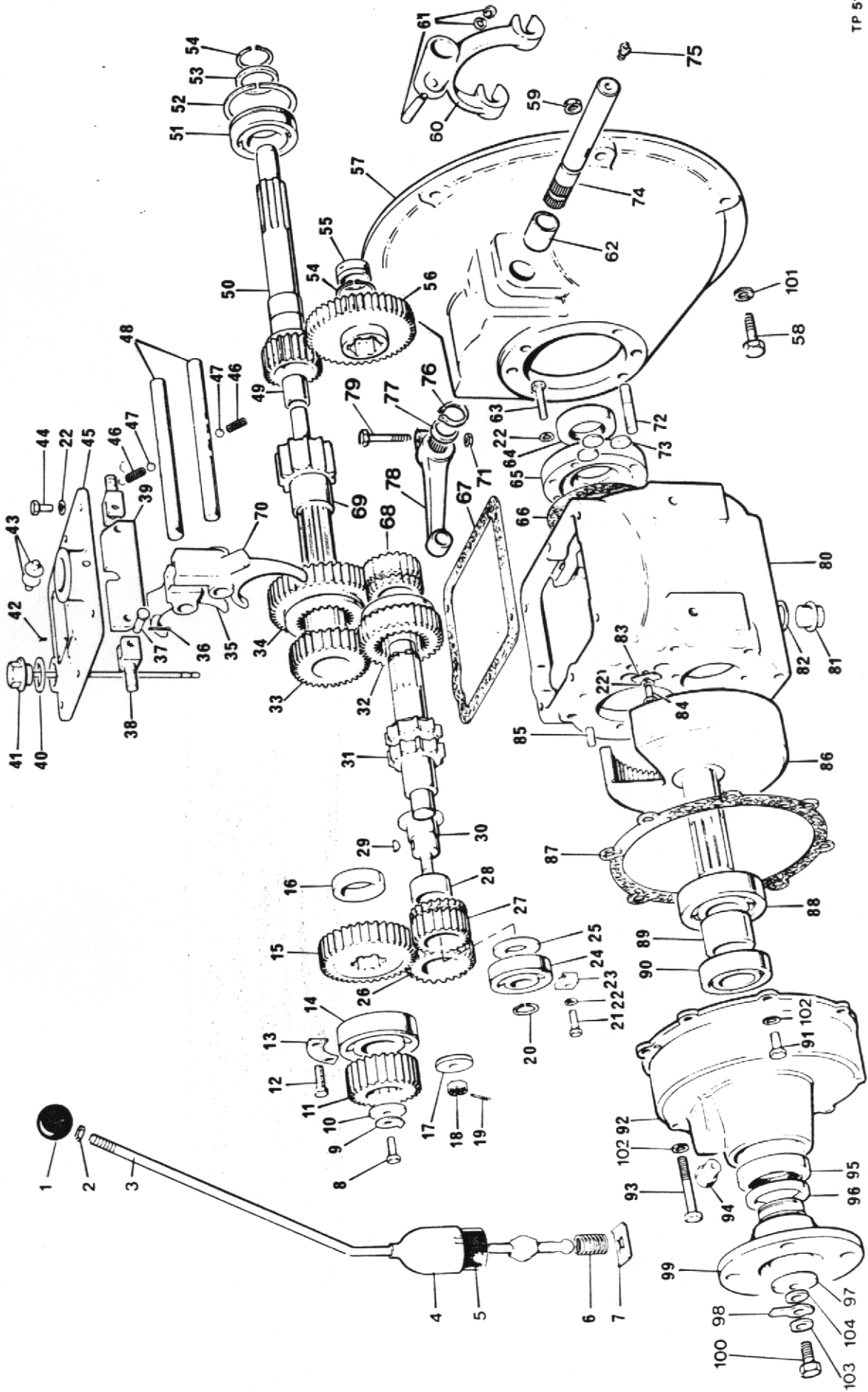




GEARBOX

2B2200

Item No.	Pt. No.	Description	Qty.
	30139.A02	Gearbox Complete	1
1	30101.A0201	Knob, Gear Lever	1
2	95S.3	Locknut, Gear Lever 3/8" UNF Half Nut ..	1
3	20097.A05	Gear Lever	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	Retaining Plate, Gear Lever	1
8	28S.3E	Screw, Mainshaft 3/8" UNF x 1" Long	1
9	30190.AC101	Lockwasher - Tab	1
10	30190.A0102	Washer, Reduction Pinion	1
11	30139.A0201	Reduction Pinion	1
12	28S.1B	Screw Bearing Retainer 1/4" UNF x 1/2" Lg.	2
13	30190.A0104	Bearing Retainer, Small	1
14	30101.A0210	Bearing, Mainshaft Rear	1
15	30101.A0211	Output Gear	1
16	30101.A0212	Spacer, Output Gear	1
17	30101.A0213	Washer, Reverse Pinion Shaft	1
18	102S.4	Nut, Reverse Spindle 7/16" UNF Castle ..	1
19	44S.2C	Split Pin 3/32" dia., x 1" Long	1
20	30101.A0215	Circlip	1
21	28S.1D	Screw 1/2" UNF x 3/4" Long	2
22	67S.1	Shakeproof Washer 1/2" Dia.	12
23	30190.A0105	Clip Layshaft Bearing	2
24	30101.A0216	Layshaft Bearing	2
25	30101.A0217	Bearing Spacer	1
26	30101.A0218	Reverse Pinion	1
27	30101.A0219	Reverse Speed Gear	2
28	30101.A0220	Bush, Reverse Pinion	1
29	30101.A0221	Key Reverse Pinion Shaft	1
30	30101.A0222	Shaft, Reverse Pinion	1
31	30101.A0223	Layshaft	1
32	30101.A0224	2nd Speed Sliding Gear	1
33	30101.A0225	Second Speed Gear	1
34	30101.A0226	1st Speed Gear	1
35	30101.A0227	Selector Fork, 2nd & 3rd.....	1
36	44S.1C	Split Pin Interlock 1/16" dia., x 1" Lg.	2
37	30101.A0228	Clevis Pin, Interlock	2
38	30101.A0229	Stud, Interlock	2
39	30101.A0230	Interlock Plate	1
40	42S.5	Seal, Dipstick	1
41	30101.A0232	Dipstick	1
42	30101.A0233	Drive Screw	4
43	30101.A0234	Pad, Gear Lever	2
44	28S.1C	Screw, Top Cover 1/2" UNF x 5/8" Long	6
45	30101.A0235	Top Cover	1
46	30097.A0185	Detent Spring	2
47	30101.A0236	Detent Ball	2
48	30101.A0237	Selector Shaft	2
49	30101.A0238	Bearing, Primary Shaft	1
50	30101.A0239	Primary Shaft	1
51	30101.A0240	Input Bearing	1
52	30101.A0241	Snap Ring	1
53	30101.A0242	Bearing Spacer	1
54	30101.A0243	Circlip	2



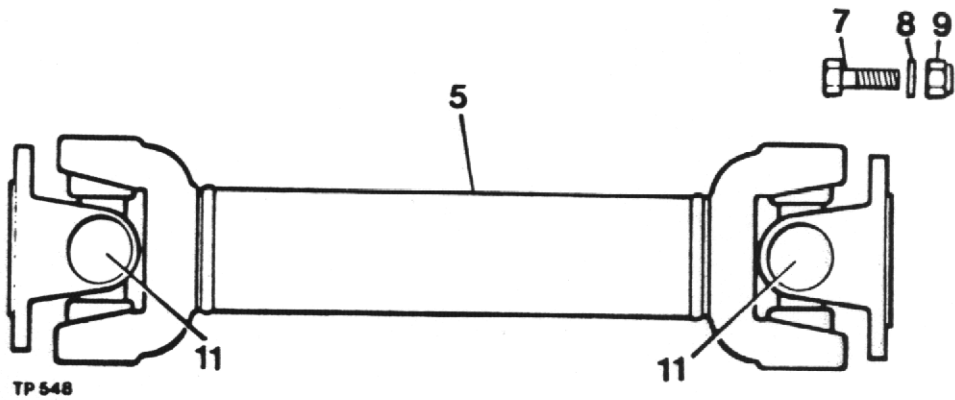
Item No.	Pt. No.	Description	Qty.
55	30101.A0244	Bush, Layshaft	1
56	30101.A0245	1st. Reduction Gear	1
57	30101.A0246	Clutch Housing	1
58	3S.3E	Setscrew-Clutch Housing 3/8" BSF x 1" Lg. (Petter)	8
58A	69S.3E	Setscrew-Clutch Housing 3/8" UNC x 1" Lg. (Lister)	8
59	30190.A0116	Nut Nyloc 3/8" UNF	6
60	30097.A0110	Clutch Release Fork	1
61	30097.A0111	Cotter, Nut and Washer S/A	1
62	30097.A0114	Bush, Cross Shaft	2
63	6S.1B	Bolt, Front Cover 1/2" UNF x 1 1/2" Lg.	4
64	30101.A0247	Oil Seal, Input	1
65	30101.A0248	Front Cover	1
66	30101.A0249	Joint, Front Cover	1
67	30101.A0250	Joint, Top Cover	1
68	30101.A0219	Reverse Speed Gear	2
69	30190.A0106	Mainshaft	1
70	30101.A0252	Selector Fork, 1st. and Reverse	1
71	9S.1	Nut Clutch Lever 1/2" UNF	1
72	30101.A0253	Stud, Clutch Housing	6
73	30101.A0254	Sealing Disc, Selector Shaft	3
74	30101.A0255	Clutch Cross Shaft	1
75	131S.6	Grease Nipple	2
76	30101.A0256	Circlip	1
77	30101.A0257	Washer, Cross Shaft	1
78	30097.A0109	Clutch Release Lever	1
79	6S.1C	Bolt, Clutch Lever 1/2" UNF x 1 1/2" Long	1
80	30190.A0107	Casing	1
81	30190.A0108	Drain Plug	1
82	42S.5	Seal, Drain Plug	1
83	30101.A0259	Selector Locking Strip	1
84	28S.1C	Setscrew 1/2" UNF x 5/8" Long	2
85	30097.A0155	Dowel	2
86	30190.A0110	Internal Gear.....	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	28S.2D	Hex. Head Screw 5/16" UNF x 3/4" Long	4
92	30190.A0114	Reduction Housing	1
93	6S.2J	Hex. Head Bolt 5/16" UNF x 2 1/2" Long	4
94	30097.A0171	Breather	1
95	30097.A0132	Oil Seal, Rear	1
96	30101.A0265	Dust Shield	1
97	30101.A0208	Washer, Coupling	1
98	30101.A0207	Lock Washer	1
99	30101.A0264	Coupling	1
100	28S.5E	Screw, Coupling 1/2" UNF x 1" Long	1
101		
102	41S.4	Spring washer 5/16"	8
103	30143.A0111	Fibre Washer	1
104	30143.A0101	Fibre Washer	1
105	176S.01	Grease Nipple Cap (Not Illustrated)	2

IMPORTANT: With effect from G/Box Batch No.B 1238 the following changes will take place:-

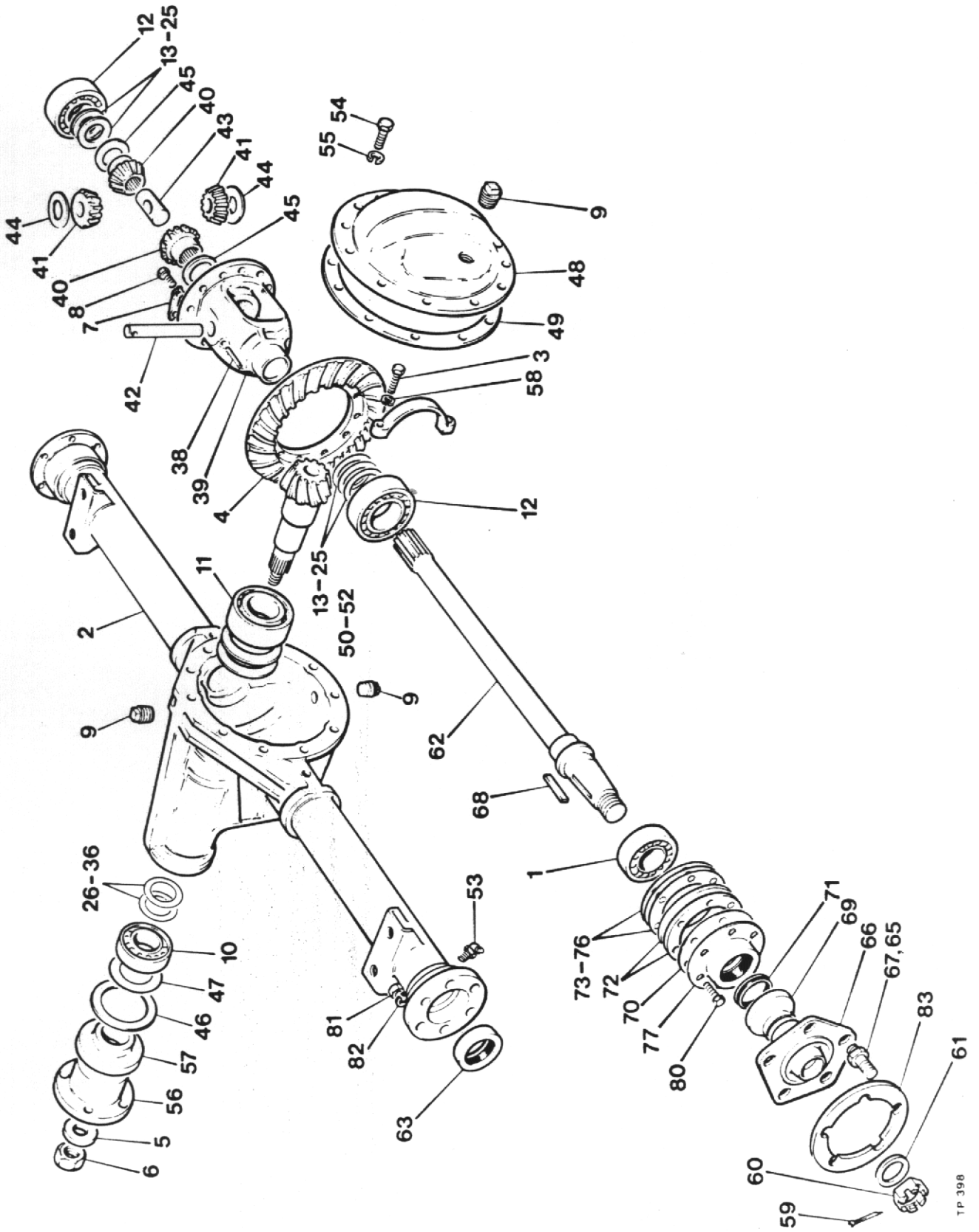
Item	Old Part No.	Description	New Part No.
41	30101.A0232	Dipstick	30218.A0223
31	30101.A0223	Layshaft	30101.A0266
55	30101.A0244	Bearing - Layshaft	30101.A0267

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

PROPSHAFT & AXLE (SALISBURY)



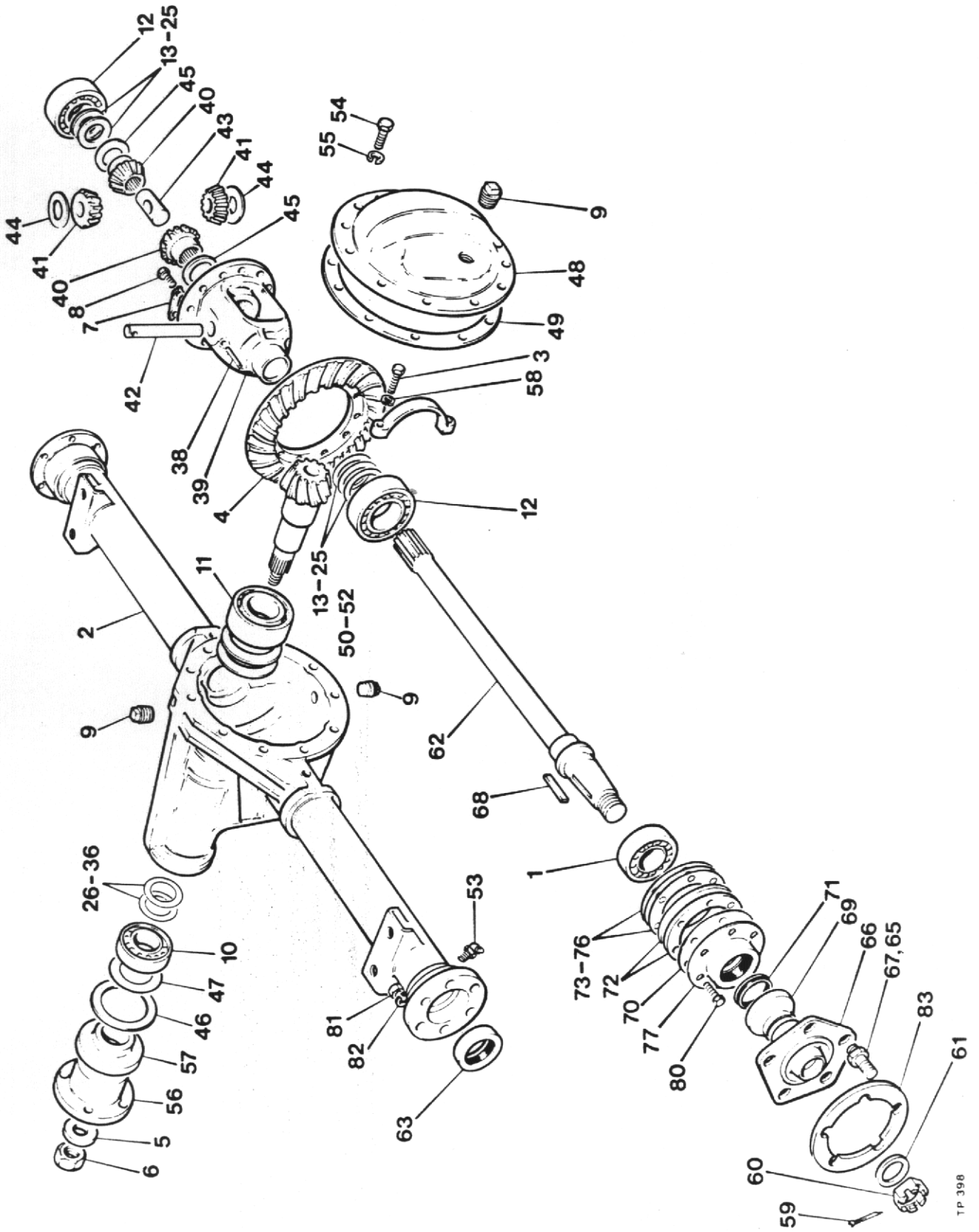
Item No.	Part No.	Description	Qty.
1	30088.A02	Drive Axle (See Sep. Illus)	1
2	6S.05F	Bolt 1/2" U.N.F. x 2" Long (Axle Fixing)	4
3	10S.04	Washer 1/2" I/D	4
4	107S.16	Nut 1/2" U.N.F.	4
5	20297.A02	Propshaft	1
6			
7	10365.A02	Bolts 3/8" U.N.F. x 1 1/8"	8
8	10S.14	Washer 3/8"	8
9	107S.03	Nut 3/8"	8
10	176S.01	Grease Nipple Cap	2
11	10568.A01	Repair Kit	A/R



DRIVE AXLE

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Item No.	Pt. No.	Description	Qty. per axle
	30088.A02	Drive Axle complete	1
1	30166.A0101	Bearing Assembly	2
2	30088.A0123	Carrier & Tube Assy.(Incl. item 3)...	1
3	30166.A0103	Bolt-Diff. Bearing Cap	4
4	30166.A0104	Gear Assembly (including items 5-8)..	1
5	30166.A0105	Washer	1
6	30166.A0106	Locknut - Pinion	1
7	30166.A0107	Drive Gear L Strap	6
8	30166.A0108	Drive Gear Bolt	12
9	30166.A0109	Level Filler Plug	3
10	30166.A0110	Bearing	1
11	30166.A0111	Bearing	1
12	30166.A0112	Bearing	2
13	30166.A0113	Differential Bearing Shim .028"	A/R
14	30166.A0114	Differential Bearing Shim .030"	A/R
15	30166.A0115	Differential Bearing Shim .031"	A/R
16	30166.A0116	Differential Bearing Shim .032"	A/R
17	30166.A0117	Differential Bearing Shim .033"	A/R
18	30166.A0118	Differential Bearing Shim .034"	A/R
19	30166.A0119	Differential Bearing Shim .035"	A/R
20	30166.A0120	Differential Bearing Shim .036"	A/R
21	30166.A0121	Differential Bearing Shim .037"	A/R
22	30166.A0122	Differential Bearing Shim .038"	A/R
23	30166.A0123	Differential Bearing Shim .039"	A/R
24	30166.A0124	Differential Bearing Shim .040"	A/R
25	30166.A0125	Differential Bearing Shim .045"	A/R
26	30166.A0126	Outer Pinion Bearing Shim .030"	A/R
27	30166.A0127	Outer Pinion Bearing Shim .031"	A/R
28	30166.A0128	Outer Pinion Bearing Shim .032"	A/R
29	30166.A0129	Outer Pinion Bearing Shim .033"	A/R
30	30166.A0130	Outer Pinion Bearing Shim .034"	A/R
31	30166.A0131	Outer Pinion Bearing Shim .035"	A/R
32	30166.A0132	Outer Pinion Bearing Shim .036"	A/R
33	30166.A0133	Outer Pinion Bearing Shim .037"	A/R
34	30166.A0134	Outer Pinion Bearing Shim .038"	A/R
35	30166.A0135	Outer Pinion Bearing Shim .039"	A/R
36	30166.A0136	Outer Pinion Bearing Shim .040"	A/R
37	30166.A0137	Diff. Case Assy.2P Spacer (Incl.Items 38 - 45)..	1
38	30166.A0138	Roll Pin	1
39	30166.A0139	Diff. Case 2 Pin	1
40	30166.A0140	Diff. Side Gear	2
41	30166.A0141	Diff. Pinion Mate	2
42	30166.A0142	Diff. Pinion Mate Shaft	1
43	30166.A0143	Axle Shaft Spacer	1
44	30166.A0144	Diff. Pinion Mate T Washer	2
45	30166.A0145	Diff. Side Gear T Washer	2
46			
47	30166.A0147	Pinion Oil Slinger	1
48	30166.A0148	Gear Carrier Cover	1
49	30166.A0149	Carrier Cover Gasket	1
50	30166.A0150	Inner Pinion Bearing Shim .003".....	A/R
51	30166.A0151	Inner Pinion Bearing Shim .005".....	A/R
52	30166.A0152	Inner Pinion Bearing Shim .010".....	A/R
53	30166.A0176	Grease Nipple	2
54	30166.A0153	Carrier Cover Bolt	10
55	30166.A0154	Lockwasher	10

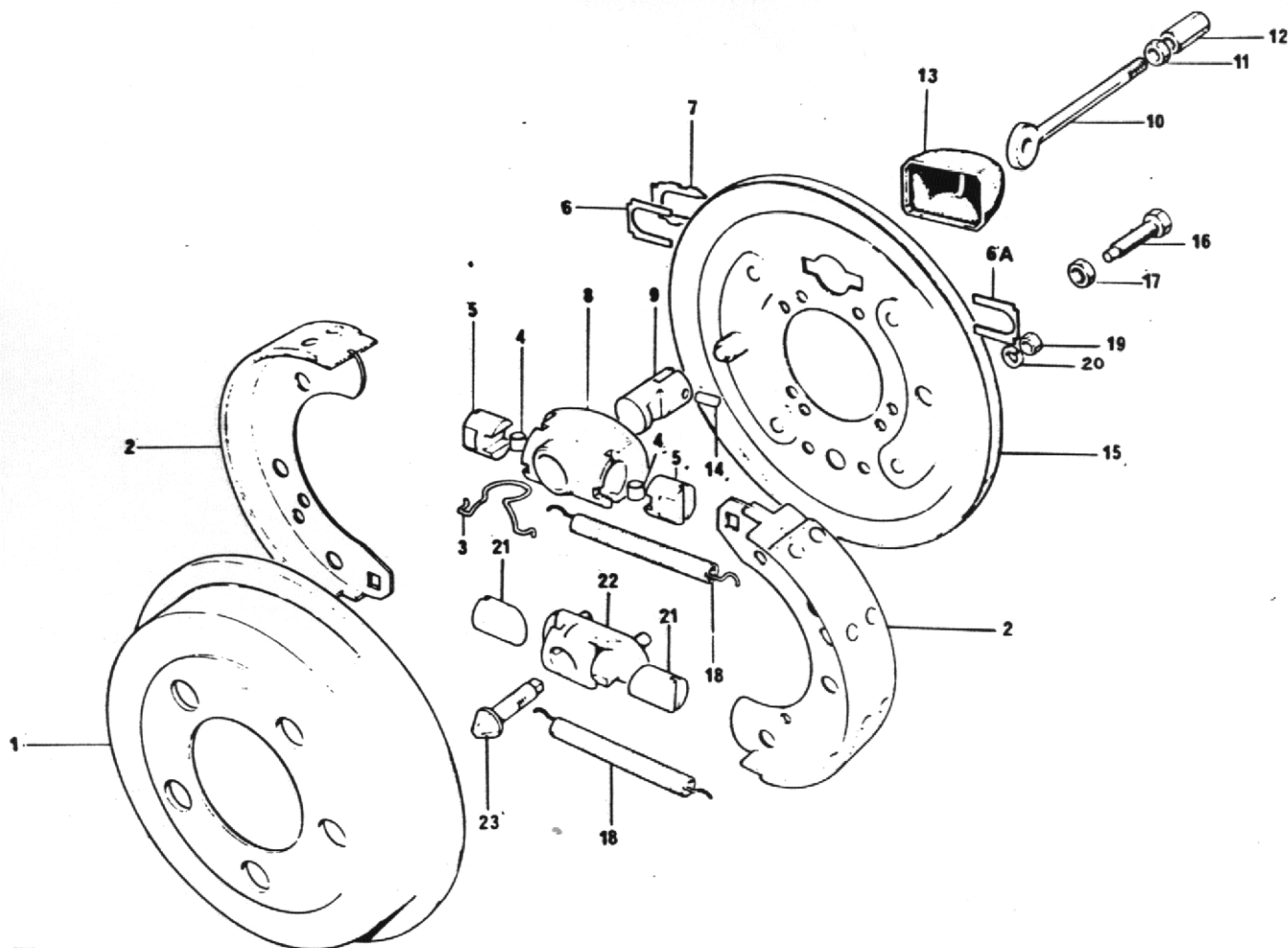


DRIVE AXLE (Cont'd)

Item No.	Pt. No.	Description	Qty. per axle
56	30088.A0124	Companion Flange	1
57	30088.A0125	Pinion Oil Seal	1
58	30088.A0126	Lockwasher - Diff. Bearing Cap	4
59	30166.A0158	Cotter - Shaft	2
60	30166.A0159	Shaft Nut	2
61	30166.A0160	Washer - Shaft	2
62	30166.A0180	Axle Shaft	2
63	30166.A0161	Axle Shaft Oil Seal	2
64	30171.A0102	Wheel Hub Assy.(Incl. items 65-67)....	2
65	30171.A0103	Stud Locking Dowel	10
66	30171.A0104	Wheel Hub	2
67	30171.A0105	Wheel Stud	10
68	30166.A0169	Axle Shaft Key	2
69	30171.A0106	V-Ring Housing	2
70	30166.A0170	Hub Oil Seal Gasket	2
71	30171.A0107	V-Ring	2
72	30166.A0171	Retainer Plate	4
73	30166.A0172	Wheel Bearing Shim .003"	A/R
74	30166.A0173	Wheel Bearing Shim .005"	A/R
75	30166.A0174	Wheel Bearing Shim .010"	A/R
76	30166.A0175	Wheel Bearing Shim .030"	A/R
77	30166.A0177	Hub Oil Seal Assy.	2
78			
79			
80	30166.A0167	Brake Disc Bolt	12
81	30171.A0109	Brake Backplate Locknut	12
82	30171.A0110	Brake Backplate Washer	12

DRUM BRAKE ASSEMBLY

2B2200



Item	Part No.	Description	Qty.
1	30088.A0128	Brake Drum	1
2	20298.A0101	Lined Shoe	2
3	20298.A0102	Spring	1
4	20298.A0103	Roller	2
5	20298.A0104	Tappet Expander	2
6	20298.A0105	Plate	1
6A	20298.A0106	Plate	1
7	20298.A0107	Locking Plate	1
8	20298.A0108	Expander Housing	1
9	20298.A0109	Plunger	1
10	20298.A0110	Drawlink	1
11	20298.A0111	Locknut	1
12	20298.A0112	Barrel Nut	1
13	20298.A0113	Dust Cover	1
14	20298.A0114	Pin	1
15	20298.A0115	Brake Back Plate	1
16	1S.02C	Setscrew 5/16" BSF	2
17	1S.03	Nut 5/16" BSF	2
18	20298.A0116	Spring	2
19	20298.A0117	Nut	2
20	20298.A0118	Washer	2
21	20298.A0119	Tappet Adjuster	2
22	20298.A0120	Adjuster Housing	1
23	20298.A0121	Wedge	2
24	20298.A0122	Service Kit (Adjuster) (N.I.)	A/R
25	20298.A0123	Adjuster Assy. (Compr: 19-25)	A/R
26	20298.A0124	Expr. Assy. (Compr: items 3,4,5,8,9,10,11,12,& 14)	A/R

WHEEL AND TYRES

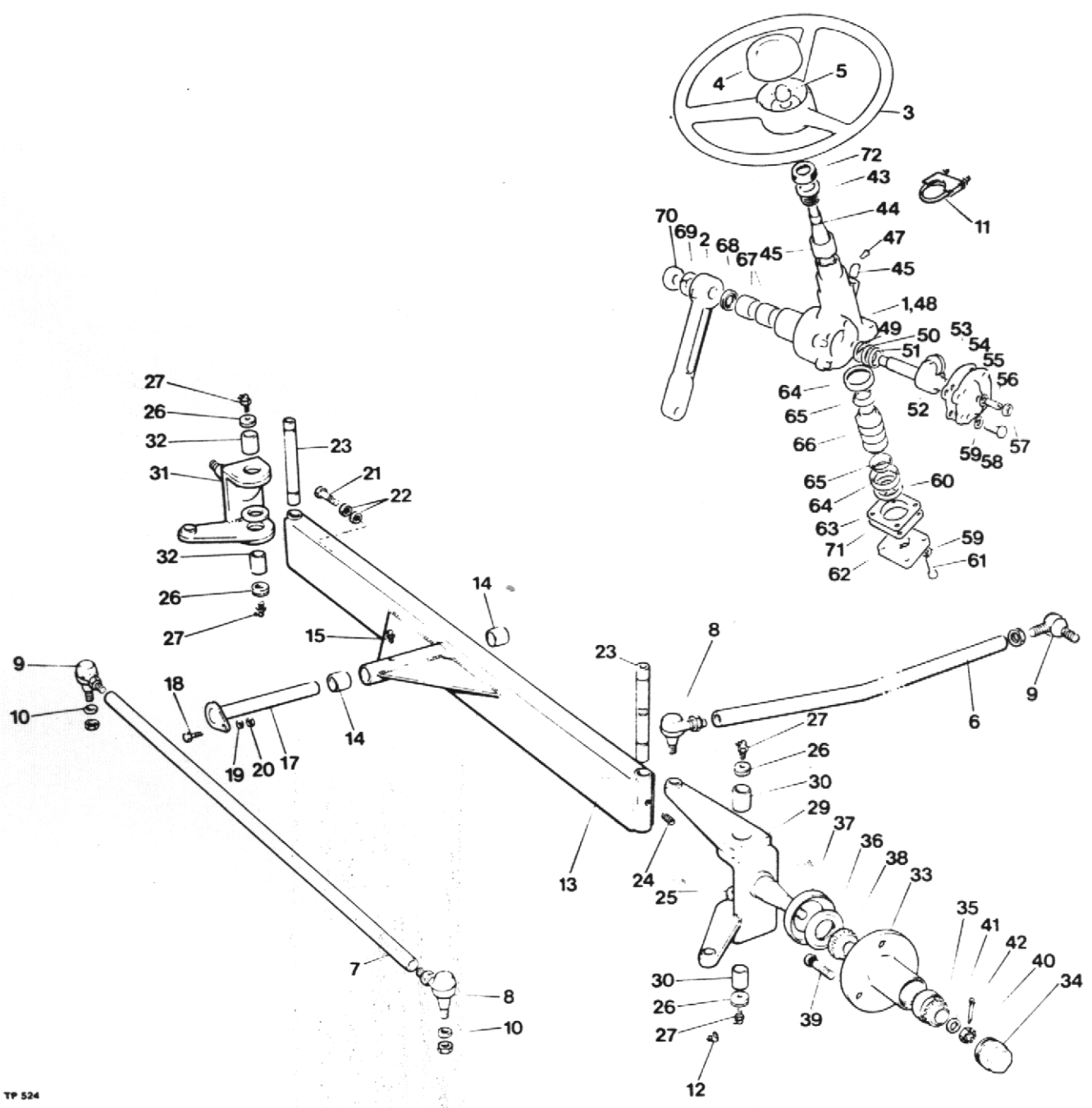
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Item No.	Part No.	Description	Qty.
1	24S.03	Wheel Assy. - Front Axle L.H.	1
2	24S.04	Wheel Assy. - Front Axle R.H.	1
3	30192.A01	Wheel Rim	2
4	20S.08	Tyre (7.50 x 16) 6 Ply	2
5	23S.03	Tube (7.50 x 16)	2
6	24S.35	Wheel Assy. - Steering Axle	2
7	20129.A03	Wheel Rim	2
8	21S.01	Tyre (5.50 x 16) 4 Ply	2
9	23S.01	Tube (5.50 x 16)	2
10	C.177	Wheel Nuts	16

CHECK RIM AND TYRE SIZE BEFORE ORDERING PARTS

EXHAUST SYSTEM - (PETTER)

Item No.	Part No.	Description	Qty.
1	20295.A07	Exhaust	1
2	10293.A04	Gasket	1
3	10371.A01	Rubber Mounting	1
4	59S.12	Nut M8	2
5	12S.17	Washer M8	2
6	20247.A02	Heat shield	1
7	17S.05	Washer - Spring M10	1
8	7S.04	Nut M10	1



STEERING

Item No.	Part No.	Description	Qty.
1	40294.A02	Steering Box	1
2	40294.A0101	Drop Arm	1
3	40064.A01	Steering Wheel	1
4	10314.A01	Steering Wheel Cap	1
5	C318	Dome Nut 5/8" UNF	1
6	10868.A01	Drag Link 34"	1
7	L308T	Track Rod 49"	1
8	C159R.H.	Steering Ball End R/H (c/w Nuts)	2
9	C159L.H.	Steering Ball End L/H (c/w Nuts)	2
10	10S.04	Washer 1/2" I/D	4
11	153S.07	Steering Box Clamp	1
12	176S.01	Grease Nipple Caps (Ball Ends)	4

STEERING AXLE

Item No.	Part No.	Description	Qty.
13	30298.A01	Steering Axle	1
14	4SHL91	Axle Pivot Bush	2
15	131S.02	Grease Nipple 90°	1
16	176S.01	Grease Nipple Cap	1
17	20161.A05	Axle Pivot Pin Assy.	1
18	8S.04C	Bolt M10 x35	1
19	12S.19	Washer M10	1
20	7S.04	Nut M10 Nyloc	1
21	11S.06K	Screw M16 x 60 Long (Steering Stop)	2
22	56S.06	Nut (Half) M16	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	131S.02	Grease Nipple 90°	4
28	176S.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	C186-B	Bearing-Hub-Outer	1
36	C186-C	Oil Seal - Hub Bearing	1
37	C186-D	Dust Cover	1
38	C186-E	Bearing-Hub-Inner	1
39	C186-F	Wheel Stud	3
40	97S.07	Nut 5/8" BSF	1
41	10S.05	Washer	1
42	44S.02C	Split Pin	1

STEERING BOX

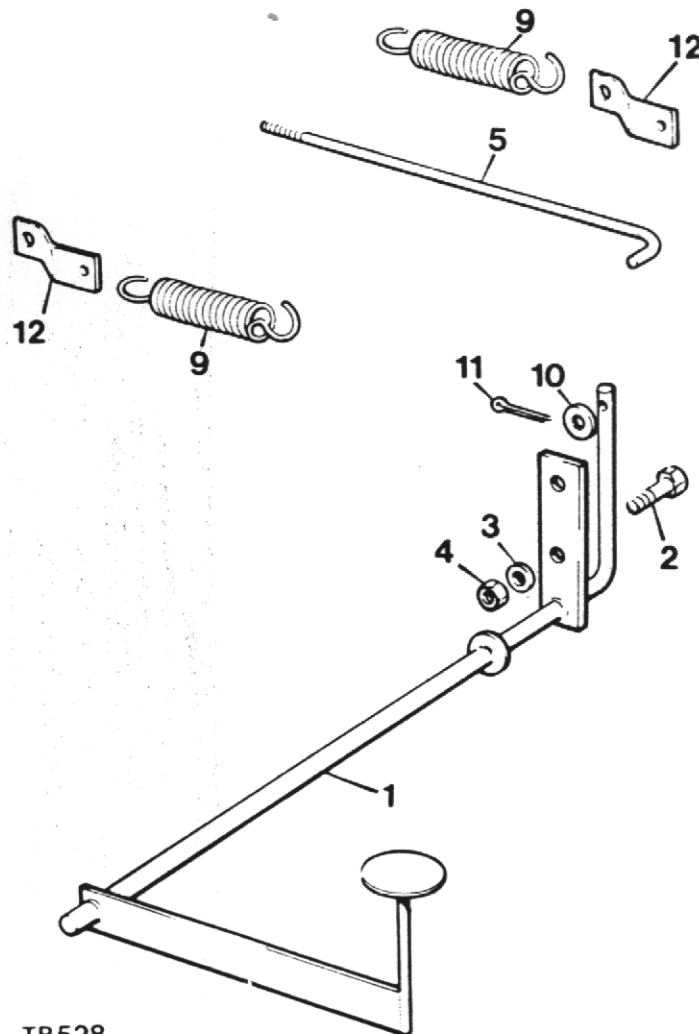
Item No.	Part No.	Description	Qty.
43	40294.A0102	Bush - Column Top	1
44	40294.A0103	Inner Shaft	1
45	40294.A0104	Outer Tube	1
46	40294.A0105	Oil Plug	1
47	40294.A0106	Pin	1
48	40294.A0107	Steering Box (case and cover plate) ..	1
49	40294.A0108	Thrust Washer	2
50	40294.A0109	Shim	A/R
51	40294.A0110	Thrust 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 Cap	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	1
71	40294.A0130	Bottom Cap Liner	2
72	40294.A0131	Inner Column Shroud	1

ACCELERATOR PEDAL

Item No.	Part No.	Description	Qty.
1	20231.A03	Pedal Accelerator	1
2	8S.04C	Bolt M10 x 35	2
3	17S.05	Washer 10 I/D	2
4	7S.04	Nut M10	2

ACCELERATOR ROD - (PETTER)

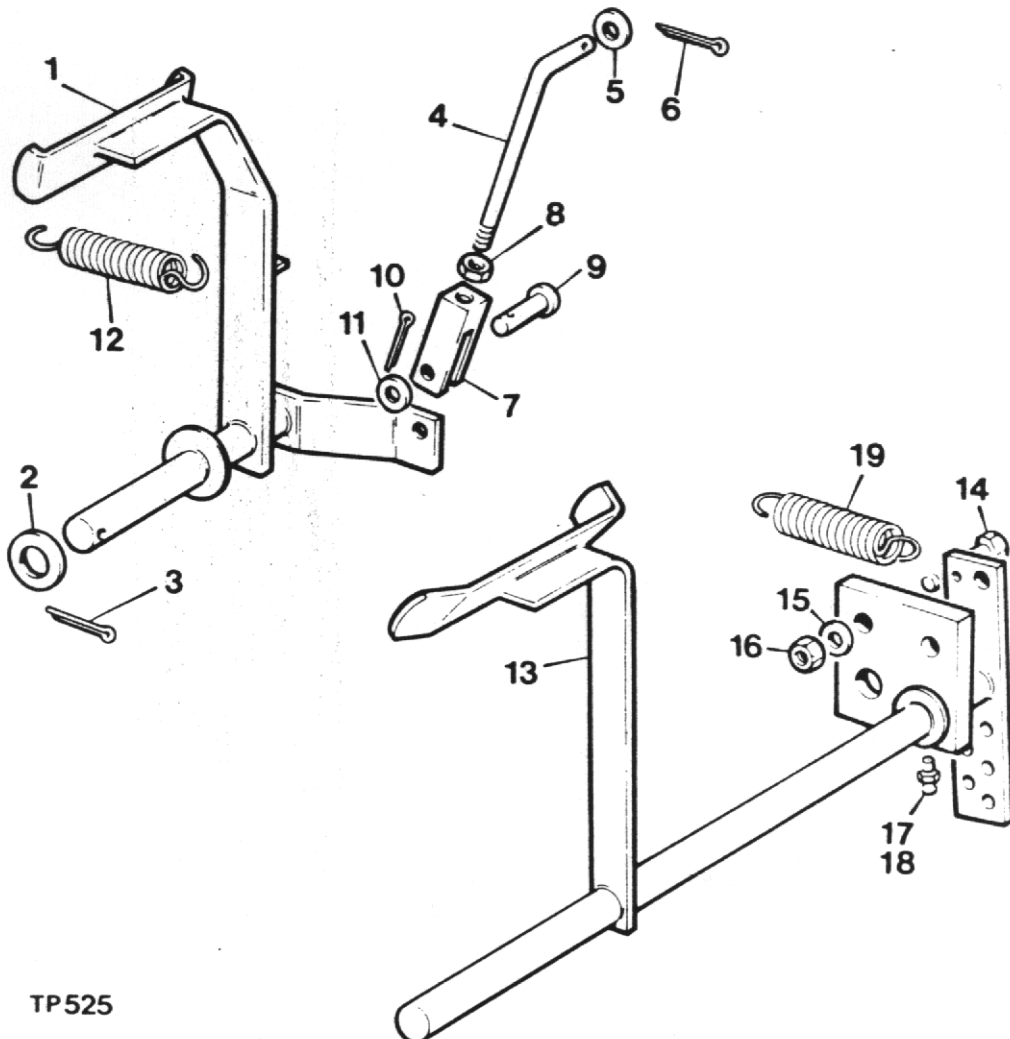
5	10362.A06	Accelerator Rod	1
6	C.160B	Ball End	1
7	2S.02	Nut $\frac{1}{2}$ " B.S.F.	2
8	10S.01	Washer $\frac{1}{2}$ "	1
9	C.173D	Return Spring	1
10	12S.02	Washer M6	1
11	44S.02B	Split Pin $\frac{3}{32}$ " x $\frac{1}{2}$ "	1
12	C163	Spring Retainer (Under engine casing bolt)	1



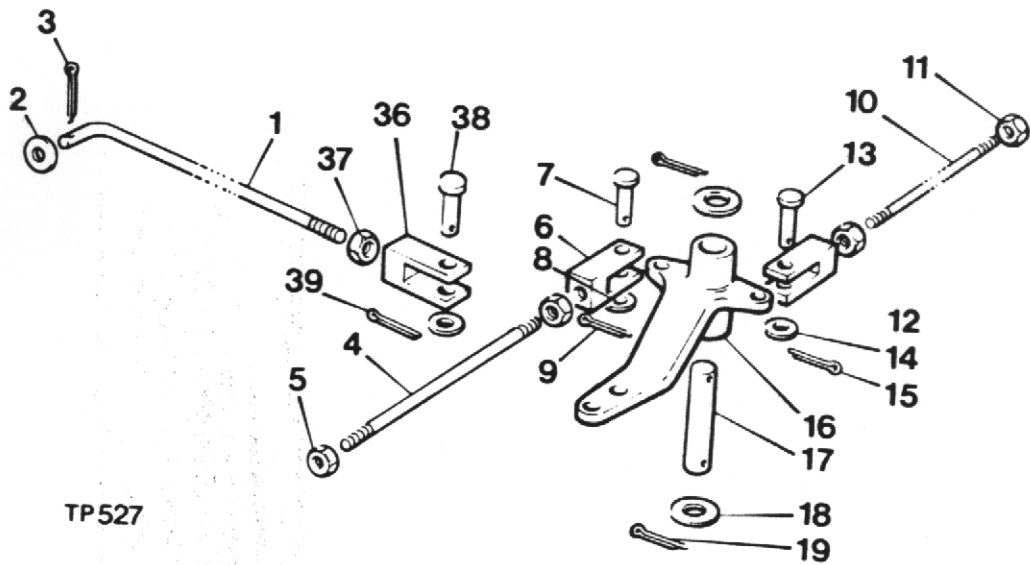
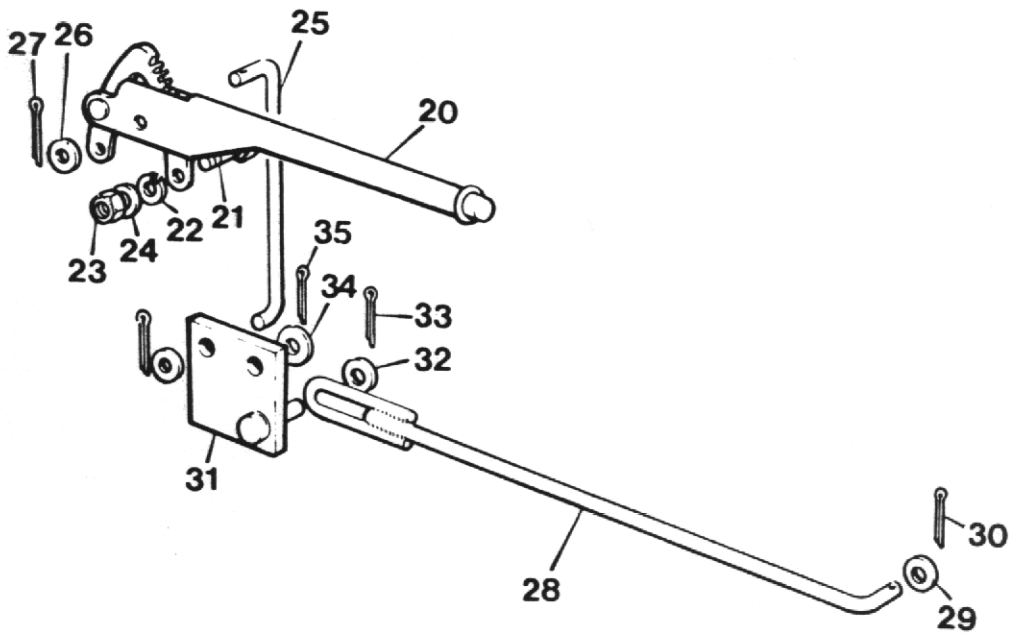
CLUTCH PEDAL & BRAKE PEDAL

2B2200

Item No.	Part No.	Description	Qty.
1	20096.A07	Pedal - Clutch	1
2	150S.10	Washer	1
3	44S.05E	Pin - Split 3/16" x 1 1/2"	1
4	10481.A03	Rod - Clutch	1
5	10S.03	Washer 3/8"	1
6	44S.03C	Pin - Split 1/8" x 1"	1
7	C174J	Clevis	1
8	95S.03	Nut 3/8" UNF	1
9	10650.A18	Pin - Clevis	1
10	44S.02C	Pin - Split 3/32" x 1"	1
11	10S.03	Washer 3/8"	1
12	C173B	Spring - Return	1
13	20232.A02	Pedal - Brake	1
14	8S.04C	Bolt M10 x 40	2
15	12S.19	Washer 10 I/D	2
16	7S.04	Nut M10	2
17	131S.03	Nipple - Grease	2
18	176S.01	Cap - Nipple	2
19	C173B	Spring	1



TP525



TP527

BRAKE LINKAGE - MECHANICAL

Item No.	Part No.	Description	Qty.
1	10888.A03	Rod-Brake	1
2	10S.03	Washer 3/8"	2
3	44S.03C	Pin - Split 1/8" x 1"	1
4	40S.A14	Rod	1
5	9S.01	Nut 1/4" UNF	2
6	C174C	Clevis	1
7	10650.A14	Pin - Clevis	1
8	10S.02	Washer 5/16"	1
9	44S.02B	Pin - Split 3/32" x 3/4"	1
10	40S.A08	Rod	1
11	9S.01	Nut 1/4" UNF	2
12	C174C	Clevis	1
13	10650.A14	Pin - Clevis	1
14	10S.02	Washer 5/16"	1
15	44S.02B	Pin - Split 3/32" x 3/4"	1
16	C272	Compensator	1
17	10908.A01	Pin - Pivot	1
18	10S.04	Washer 1/2" I/D	2
19	44S.03C	Pin - Split 1/8" x 1"	2
19a	131S.03	Grease Nipple C/W Cap (176S.01) (Not illus.)..	1
20	10596.A01	Lever - Handbrake	1
21	11S.04D	Bolt M10 x 30	2
22	17S.05	Washer - Spring M10	2
23	7S.04	Nut M10	2
24	12S.19	Washer 10 I/D	2
25	10888.A01	Rod	1
26	10S.03	Washer 3/8"	2
27	44S.02C	Pin - Split 3/32" x 1"	2
28	10888.A02	Rod	1
29	10S.03	Washer 3/8"	1
30	44S.02C	Pin - Split 3/32" x 1"	1
31	10889.A01	Quadrant	1
32	C180B	Washer 3/8" I/D x 1 1/2" O/D	1
33	44S.02C	Split pin 3/32" x 1"	1
34	12S.22	Washer 1/2" I/D	1
35	44S.03C	Split Pin 1/8" x 1"	1
36	C.174J	Clevis 3/8" U.N.F.	1
37	95S.03	Nut 3/8" U.N.F.	1
38	10650.A18	Clevis Pin	1
39	44S.02C	Pin - Split 3/32" x 1"	1

DECIMAL, FRACTIONAL AND METRIC EQUIVALENTS

Inches		Milli- metres	Inches		Milli- metres
Fractions	Decimals		Fractions	Decimals	
1/64	0.015625	0.397	33/64	0.515625	13.097
1/32	0.03125	0.794	17/32	0.53125	13.494
3/64	0.046875	1.191	35/64	0.546875	13.891
1/16	0.0625	1.588	9/16	0.5625	14.288
5/64	0.078125	1.984	37/64	0.578125	14.684
3/32	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	0.15625	3.969	21/32	0.65625	16.669
11/64	0.171875	4.366	43/64	0.671875	17.066
3/16	0.1875	4.763	11/16	0.6875	17.463
13/64	0.203125	5.159	45/64	0.703125	17.859
7/32	0.21875	5.556	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	0.28125	7.144	25/32	0.78125	19.844
19/64	0.296875	7.541	51/64	0.796875	20.241
5/16	0.3125	7.938	13/16	0.8125	20.638
21/64	0.328125	8.334	53/64	0.828125	21.034
11/32	0.34375	8.731	27/32	0.84375	21.431
23/64	0.359375	9.128	55/64	0.859375	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	0.40625	10.319	29/32	0.90625	23.019
27/64	0.421875	10.716	59/64	0.921875	23.416
7/16	0.4375	11.113	15/16	0.9375	23.813
29/64	0.453125	11.509	61/64	0.953125	24.209
15/32	0.46875	11.906	31/32	0.96875	24.606
31/64	0.484375	12.303	63/64	0.984375	25.003
1/2	0.500	12.700	1	1.000	25.400

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".

$$84'' = 2133.60 \text{ mm.}$$

$$5/8'' = 15.875 \text{ mm.}$$

$$84 \text{ } 5/8'' = 2149.475 \text{ mm.}$$

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