

WINGET

**OPERATING
INSTRUCTIONS
&
SPARE PARTS
LIST
4FL2500
FORKLIFT
C/W NEWAGE
AXLES
(CAPACITY 1270Kg)**

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INTRODUCTION

This Parts & Operators Manual is a re-print of the manual last published in 1980 and contains some amended part numbers.

Note: This manual is applicable to machines with Serial Numbers from and including 4FL2500-904 with Newage Axles.

Health & Safety legislation and working practices applicable to Forklift Trucks, both 2 and 4 wheel Drive, Rigid Chassis and Articulated Chassis have changed considerably in the years since this manual was last published. We would recommend that only trained operators who are in possession of the relevant certification issued by a recognised Training Authority be allowed to operate this equipment.

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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PREPARATION FOR USE

Before the 4FL-2500 is put into service, always check the following points:

Engine

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

Gearbox

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

Drive Axles and Transfer case.

Remove filler/level plugs from drive axles and filler/level plug from transfer case 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

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

Brake System

Ensure that the fittings are tight on both hoses supplying the brake master cylinders from the main hydraulic 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.

NB. FOR FURTHER INFORMATION ABOUT LUBRICATION AND RECOMMENDED OILS SEE PAGES 8 & 9.

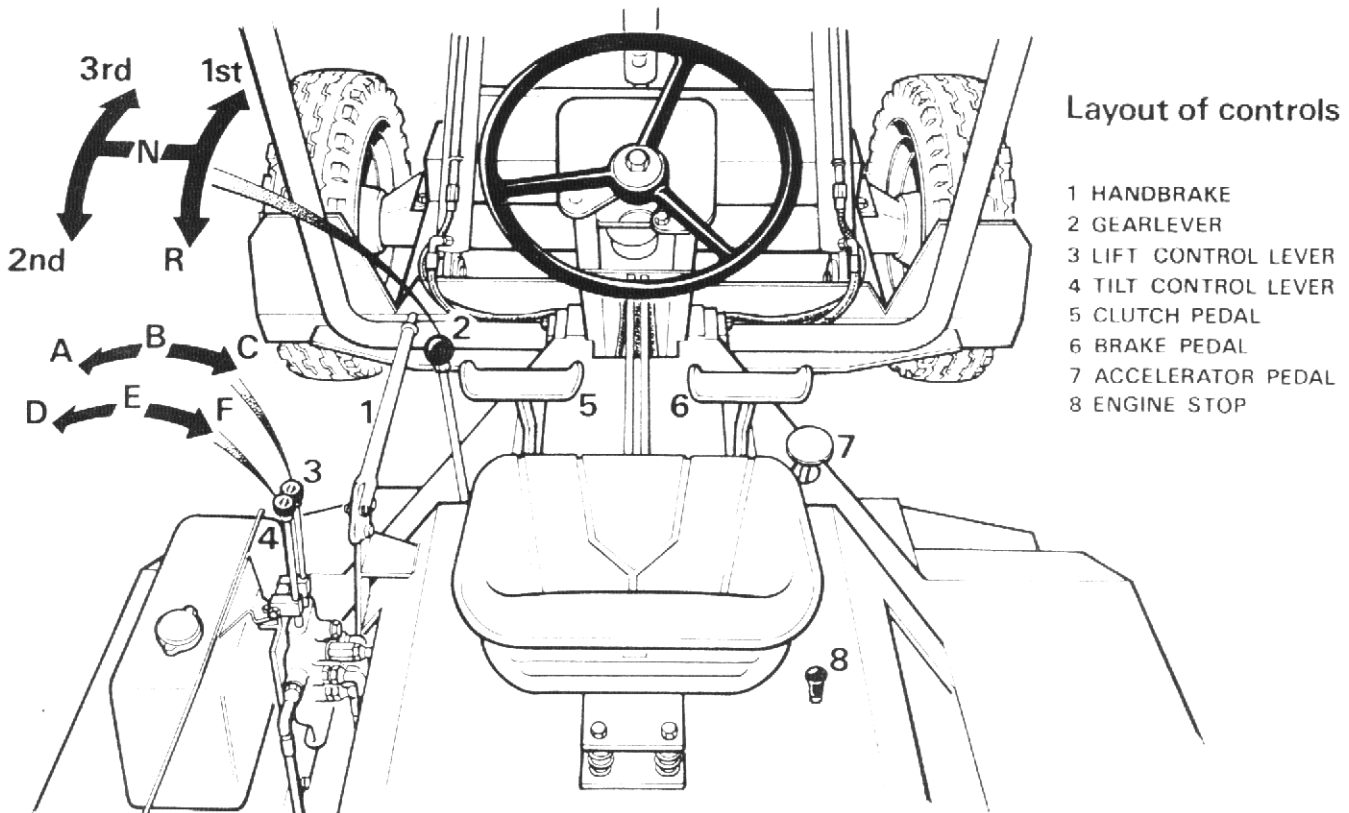


FIG.1

SPECIFICATION

A	Overall height (Transportation position)	10'-7½"	(324 cm)	
B	Overall length (minus forks)	10'-4½"	(316 cm)	
C	Wheelbase	5'-7½"	(171 cm)	
D	Length from front axle to front of carriage.	1'-7½"	(49 cm)	
E	Load centre	2'-0"	(61 cm)	
F	Fork length	4'-0"	(122 cm)	
G	Overall height (forks lowered)	11'-11"	(363cm)	
H	Fork centres	Max. 3'-4"	(102 cm)	
J	Wheeltrack	Min. 5"	(13 cm)	
K	Overall Width	5'-0"	(152 cm)	
L	Cab Height	5'-10¼"	(178 cm)	
		8'-9"	(266cm)	
	Maximum load at 2'-0" (61 cm) load centre	2800 lbs.	(1270 kg)	
	Total lift of forks	18'-0"	(549 cm)	
	Ground clearance	11½"	(29 cm)	
	Turning Circle	23'-8"	(721 cm)	
	Unladen weight	7616 lbs.	(3454 kg.)	
	Hydraulic relief valve pressure	2000 lb/ins ²	(141 Kg/cm ²)	
	Rear axle articulation	1'-2"	(36 cm)	
	Lifting time, loaded	30 sec. (36 ft/min)	(.182 m/sec.)	
	Road Speeds at 2200 R.P.M.	m. p. h.	k. p. h.	
	1st	2.73	4.39	
	2nd	6.34	10.19	
	3rd	11.59	18.66	
	Rev.	2.97	4.73	
	Capacities			
	Transfer Box	1 pt. (.57 litres)	Drive Axle	8 pts. (4.6 litres)
	Gear Box	1½ pts. (.85 litres)	Engine	12 pts. (6.82 litres)
	Hydraulic Tank	6 gals. (27.3 litres)	Fuel Tank	4 gals (18.2 litres)
	Load Moment	125,300 lb.in. (14158 Nm)		

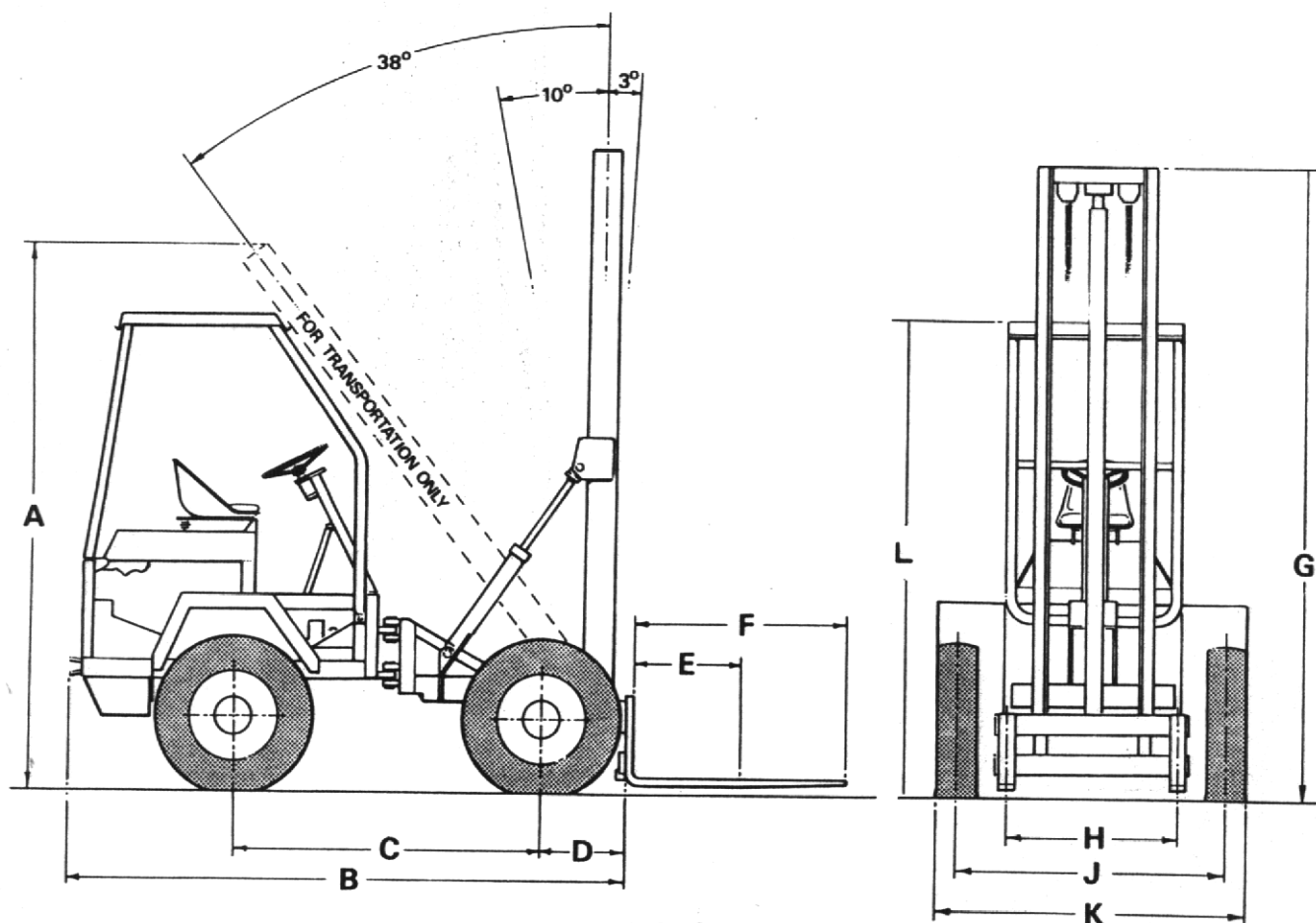


FIG. 2

OPERATION

Starting

- a) To start the engine, lift the red-painted overload stop (A) (See fig. 3) situated on the fuel pump rack above and to the rear of the priming levers (B) and move fuel pump rack (C) into fully-open position.
- b) Operate priming levers (B) six times.

NOTE:— This is unnecessary if engine is already warm.

- c) Lift decompression lever (D), 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.
- d) 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 start aid should be fitted.

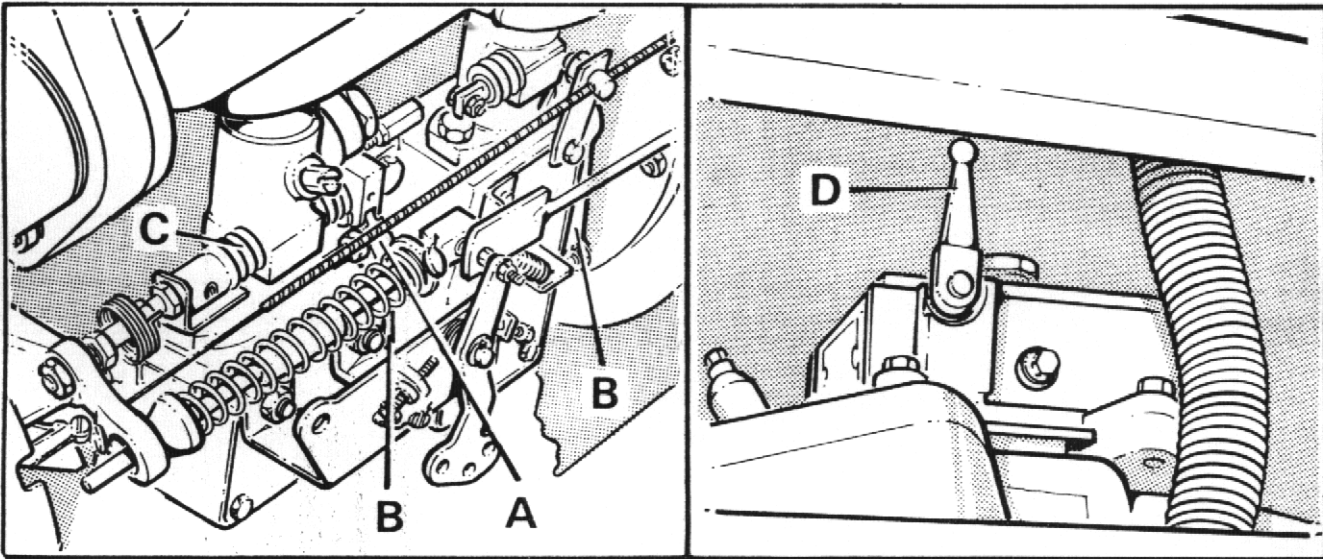
Stopping the Engine

Pull up stop control knob (See fig. 1) and hold in its fully raised position until engine stops. Release stop control when engine has ceased to turn.

IMPORTANT:

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.



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FIG. 3

Gear Changing

The 4FL-2500 is fitted with forward gears (1), (2), (3), and one reverse gear (R), (See fig. 1). When changing gear the clutch pedal is used in the normal manner.

Hydraulic Controls

There are two functions on the standard machine; to raise and lower the fork carriage and to tilt the mast backward and forward.

Each lever is spring biased to the centre (hold position) and can be moved either side of this position (See fig. 1) the lift control lever (3) positions are UP (A), HOLD (B) and DOWN (C). The tilt control lever (4) positions are FORWARD (D), HOLD (E) and BACKWARD (F), when either lever is released it will automatically return to the HOLD position.

Each control lever may be used to vary the speed of the function by operating to allow partial opening of the valve; further control is available by varying the engine speed.

Travelling with Load

The machine should NOT be driven with the load elevated, it should normally be carried with the forks at a height of approximately 400 mm (16") and with the mast tilted fully backwards. If site or load conditions make this operation impossible and the load must be carried higher, the machine should be moved only with extreme caution.

MAINTENANCE

Periodic Maintenance

DAILY (OR EVERY 10 HRS).

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

Fill fuel tank (more often if necessary), to approximately 1" from top. Never allow there to be a depth of less than 2" of fuel in the tank.

WEEKLY (OR EVERY 50 HRS)

Check oil level in the gearbox and fill to full mark on the dipstick if necessary.

Remove oil level plugs from drive axles and transfer case. Oil level should be to bottom of holes. Top up, if necessary through filler plugs on drive axles or through filler/level plug in transfer case.

Check oil level in hydraulic tank. Check level only when forks are lowered. Always clean the surrounding area before removing the cap to prevent the possible entry of foreign matter. Fill tank if necessary, to within 1" of the top.

Apply grease to all grease nipples.

Liberal apply grease between the outer and inner frames of the mast assembly. (For clarification see items A and B in Fig. 8) Use Mobilgrease Special or Shell Alvania 2 with MoS

Lubricate lift chains with aerosol lubricant-Acheson 'HI LOAD forklift chain lubricant' or equivalent.

Check tyre pressures – 60 lb./sq.in.

Check all wheel nuts and tighten, if necessary.

FREQUENTLY

Check all nuts and bolts and tighten if necessary.

NOTE: Rear Axle articulation points consist of bearings that require no lubrication.

FOR COMPLETE ENGINE MAINTENANCE INSTRUCTIONS REFER TO ENGINE MANUFACTURERS HANDBOOK.

Lubrication

(See Fig. 4)

Period	Key	Description	Lubrication	No. of Points
Daily	1	Engine	Engine Oil	1
	2	Fuel Tank	Diesel Fuel	1
Weekly	3	Gearbox	Gearbox Oil	1
	4	Drive Axles	Axle Oil	2
	5	Hydraulic Tank	Hydraulic Fluid	1
	7	Footbrake Pedal	Grease Gun	1
	8	Accelerator Pedal	Grease Gun	1
	9	Clutch Pedal	Grease Gun	1
	10	Clutch Cross Shaft	Grease Gun	2
	11	Mast Pivot	Grease Gun	2
	12	Handbrake Cable	Grease Gun	1
	13	Chassis Centre Pivot	Grease Gun	2
	14	Prop Shafts & Universal Joints	Grease Gun	10
	15	Transfer Case	Axle Oil	1
	16	Mast Frame	Grease	
	17	Fork Carriage Chains	Chain Oil	

N.B. FOR RECOMMENDED LUBRICATING OILS SEE CHART ON PAGE 13.

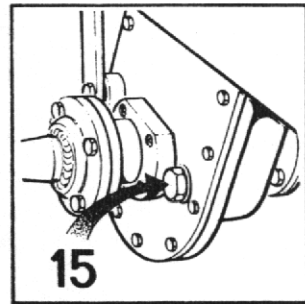
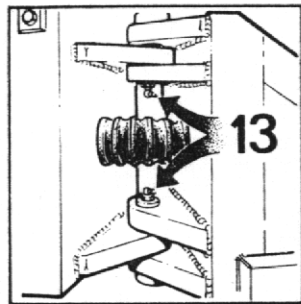
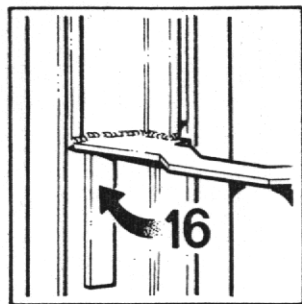
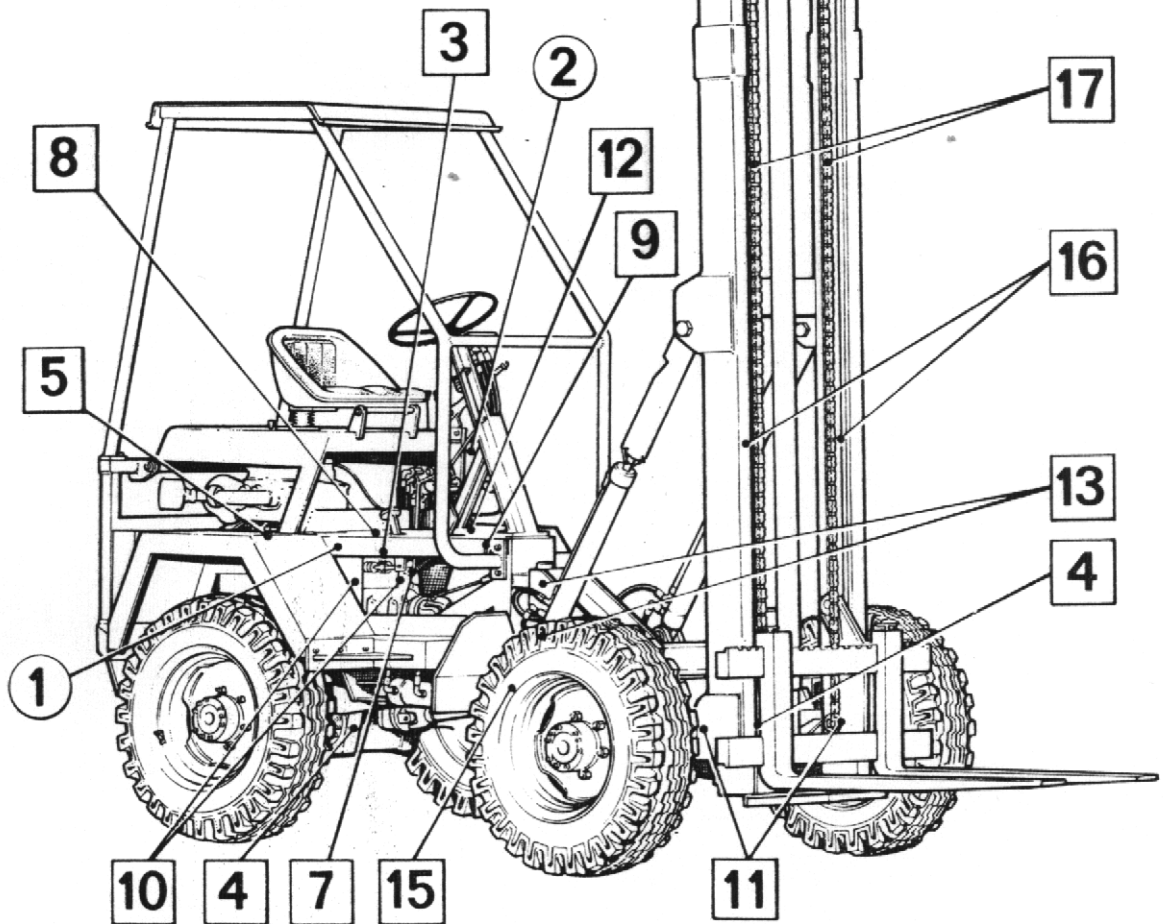
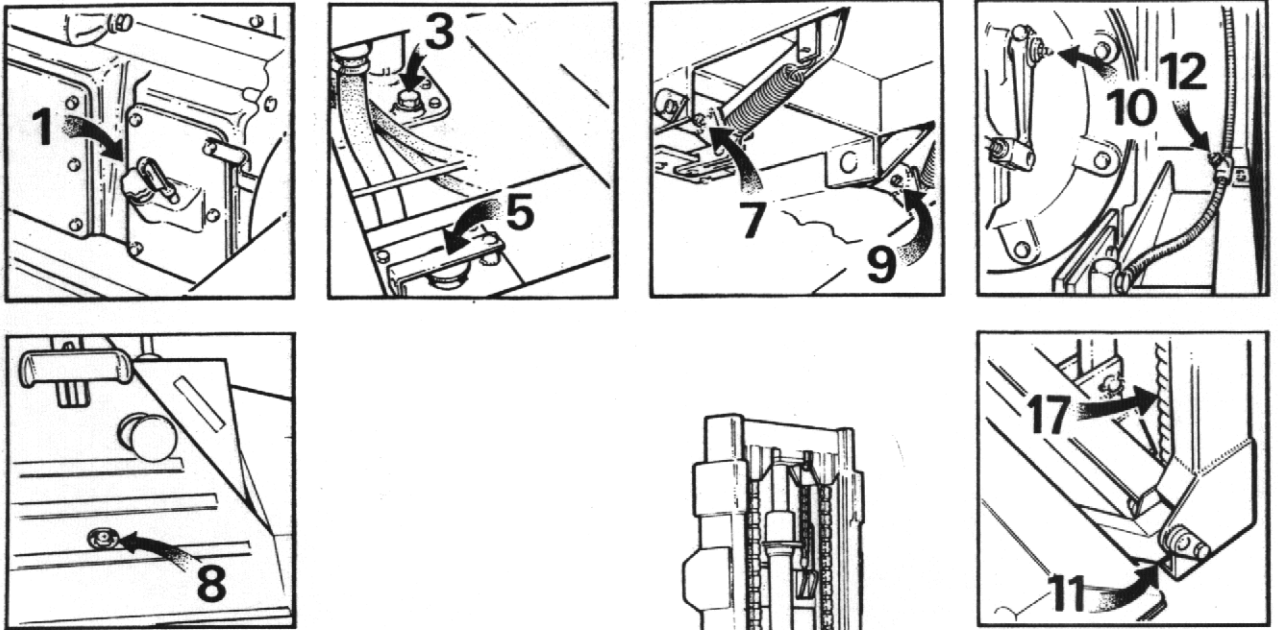


FIG. 4

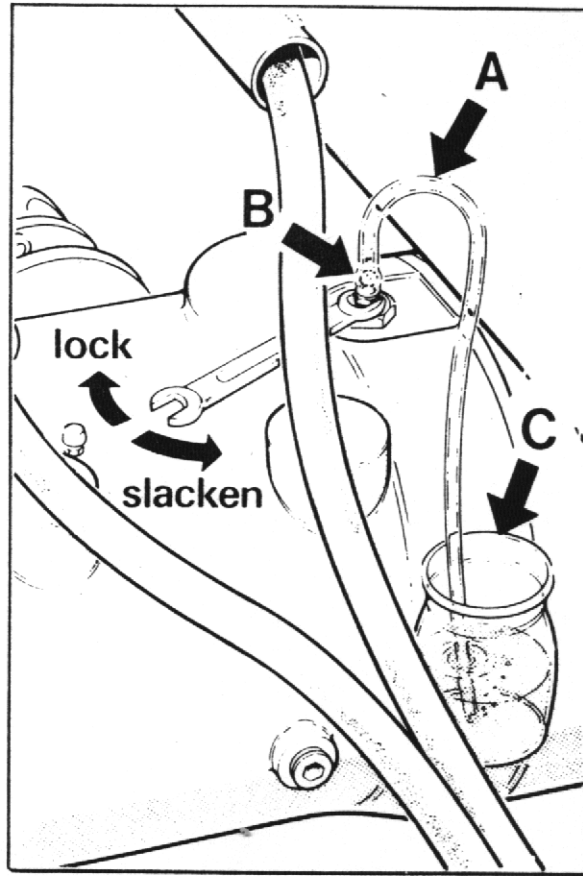


FIG.5

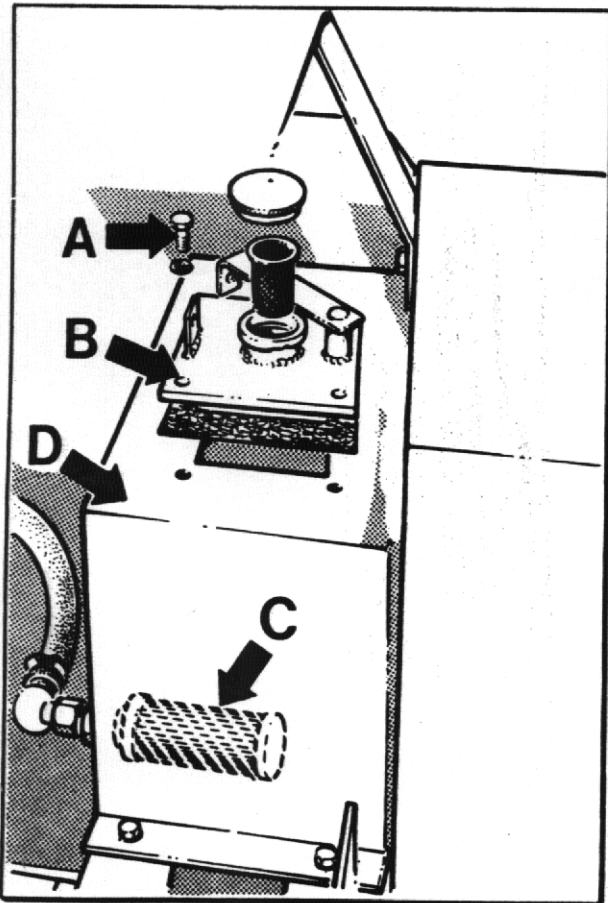


FIG.6

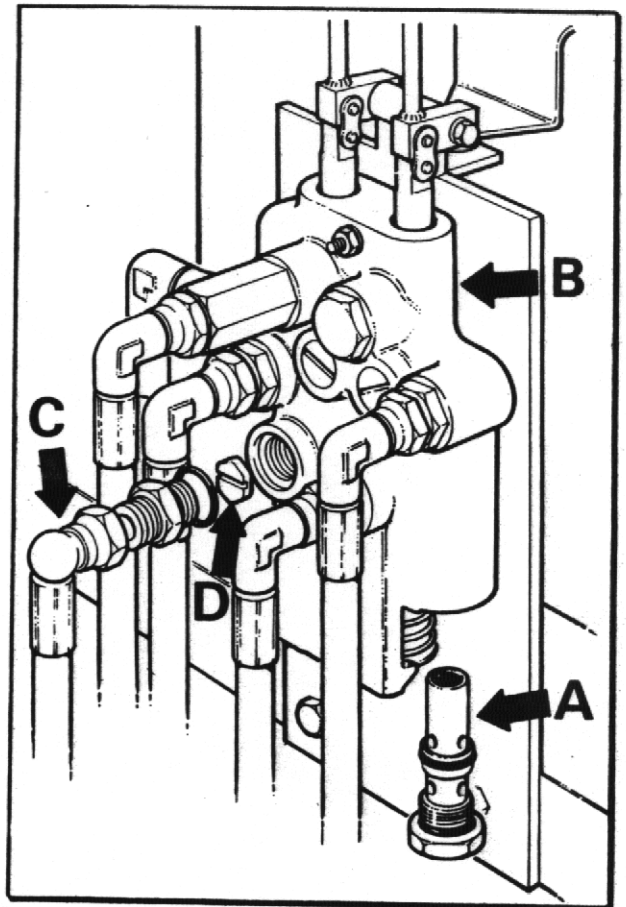


FIG.7

BRAKE SYSTEM

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 figs. 7 & 8) 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.

NOTE:- 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.

Main Hydraulic System

The main hydraulic system controls the tilt of the mast, the raise and lower of the fork carriage and also provides the power for the steering. If the system fails to operate or does so extremely slowly, carry out the following procedure until the fault is rectified.

1. Check that hydraulic tank is full of oil.
2. Check that hydraulic filter is not blocked (See Fig. 6).
 - a) Remove the four setscrews (A) that secure the filler cap assembly (B) and remove assembly.
 - b) Unscrew suction filter (C) from inside tank (D) and wash in white spirit. Dry with moisture-free compressed air.
 - c) Replace suction filter and filler cap assembly.

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

3. Check that hydraulic pressure is correct.
 - a) Fit a 2500 lb/sq. gauge into the hydraulic system at the base of the tilt ram.
 - b) Operate control lever to tilt mast forward, and check that pressure reading on gauge is 2000 lb/sq.in. when ram is fully extended and relief valve is 'blowing'.

NOTE: If correct pressure is not attained:-

4. Remove relief valve cartridge (A) (hexagon head) from the bottom of the control valve (B) (See Fig. 7) and replace with a new one.
5. Remove hose adaptor (C) from control valve (See Fig. 7), remove hexagonal orifice plate (D) and wash in white spirit. Dry using moisture-free compressed air. DO NOT poke wire etc., into the orifice. Re-fit plate and hose adaptor with slot of orifice plate facing outwards.

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

IMPORTANT:- ON NO ACCOUNT SHOULD THE STEERING VALVE BE DISMANTLED, SHOULD IT REQUIRE ATTENTION REMOVE IT COMPLETE AND RETURN TO THE FACTORY.

Mast Maintenance
(See Fig.8)

1. PERIODICALLY adjust fork lift chains to keep fork mounting frame level.
2. PERIODICALLY check shims between bottom wear strip (C) and inner frame assembly (B). When wear has occurred fit additional shims (D) as necessary to maintain about 1/16" clearance, at gap (E), when the mast is lowered – check the gap through the full extension of the mast.

NOTE:– With mast fully lowered the bottom wear strip is accessible beneath the machine frame.

3. PERIODICALLY fully raise the inner mast and check the wear strip and block on the channel. at the top of the outer frame (A). If wear has occurred, fit additional shims (F) as necessary behind the wearstrip mounting block assembly (G) to maintain 1/16" clearance at gap (H) when mast is lowered, check gap through full extension of mast.

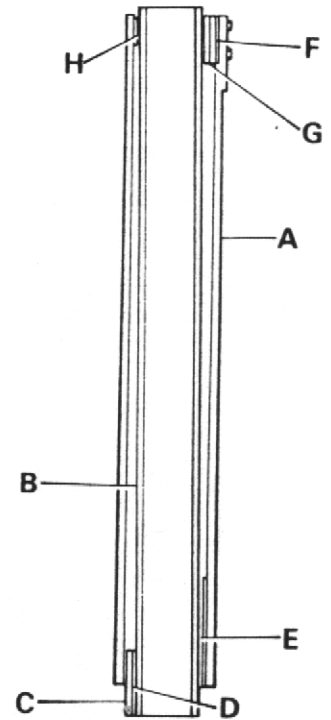


FIG.8

RECOMMENDED TORQUE FIGURES FOR FASTENERS

DESCRIPTION	TIGHTENING TORQUE	
	lb/ft.	Kg/m
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)
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)
Steer Ram Nuts/Bolts 1½" UNF/BSF	1080	(161.0)
Centre Pivot Nuts/Bolts 1½" UNF	1880	(279.7)

RECOMMENDED LUBRICATING OILS

COMPANY	ENGINE	NEWAGE DRIVE AXLE	HAMWORTHY DRIVE AXLE	TRANSFER 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	TORQUE FLUID 62	IL 2082 IL 2082 IL 2082	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 (Overseas)	DEUSOL CRI 20 DEUSOL CRI 30 DEUSOL CRI 20 DEUSOL CRI 10	AGRICASTROL AS AGRICASTROL AS SPECIAL	AGRICASTROL AS AGRICASTROL AS AGRICASTROL MD	DEUSOL EP 90 DEUSOL GEAR EP 140 DEUSOL GEAR EP 90 DEUSOL GEAR EP 80	DEUSOL CRI 30 DEUSOL CRI 30	CASTROL SPHEEROL APT 2 CASTROL SPHEEROL 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		DONAX T12 (INITIAL FILL) SPIRAX EP 80 (Top up only) DONAX T12 (INITIAL FILL) SPIRAX EP 80 (Top up only) S.7224 (INITIAL FILL) SPIRAX HD 75 (Top up only)	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		B.P. HYDRAULIC TF-8 B.P. HYDRAULIC TF-8 B.P. TRACTRAN (Top up only)	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 (Overseas)	DELVAC 1220 DELVAC 1230 DELVAC 1220 DELVAC 1210 DELVAC SPECIAL 10W-30	MOBILFLUID 422	MOBIL FLUID 422 MOBIL FLUID 422 MOBIL FLUID 427	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)	CENTURY ROIL 20W 20 CENTURY ROIL 30 CENTURY ROIL 20W 20 CENTURY ROIL 10W		CENTLUBE F.76 COMPOUND CENTLUBE F.76 COMPOUND CENTLUBE E.76 COMPOUND	CENTURY EP 90 CENTURY EP 140 CENTURY EP 90 CENTURY EP 80	CENTURY ROIL 30 CENTURY ROIL 30	REGULUS A2 REGULUS A2	CENTURY PWL A HYD. OIL CENTURY PWL A HYD. OIL

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

FORKLIFT SAFETY

1. Drivers should be aware of the load and stability limitations of the machine.
2. Drivers should be aware of the weight of the loads they are carrying and also of variations in those loads (e.g. wet or dry weight).
3. Drivers should take account of ground conditions which may affect stability.
4. Drivers must ensure that the intended load is in a safe condition to lift, e.g. loose bricks, banded pallets etc.
5. Do not allow anyone to stand or pass under the elevated part of any machine, whether loaded or empty.
6. Do not carry passengers.
7. Always set parking brake when loading or unloading.
8. Maintain specified tyre pressure at all times. Do not alter tyre pressures to suit ground conditions.
9. Be sure of sufficient headroom under overhead installations; lights, pipes, wiring etc.
10. Travel with load or load engaging forks low and where possible, tilted back. Do not Elevate the load except during stacking. If load and/or site conditions make this impossible (e.g. wide load and ground level obstructions) the machine should be moved only with extreme caution.
11. Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without the manufacturer's prior written approval.
12. Front end attachments other than those supplied as original equipment shall only be used with the manufacturer's prior written approval.
13. Never dismount while the machine is in motion.
14. Never start the engine from any position other than sitting in the driving seat. (Electric start only)
15. Never drive the machine too close to the edge of any excavation, especially if the ground is loose or wet.
16. Never make any adjustments to the machine while it is in motion.
17. Never run the engine in a closed building or allow the exhaust pipe near to inflammable material.
18. Never fill the fuel tank with the engine running. Exercise caution when the engine is hot.
19. Always keep the floor plates clean.

HEALTH & SAFETY

ASBESTOS BASED MATERIALS

Equipment which includes friction materials will invariably contain asbestos, when removing friction material dust from components e.g. when servicing brakes or clutches, do not blow out with an air line, it could be harmful to inhale the dust. Remove dust with a vacuum cleaner or wipe clean with a damp rag.

CLUTCH HOUSINGS

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.

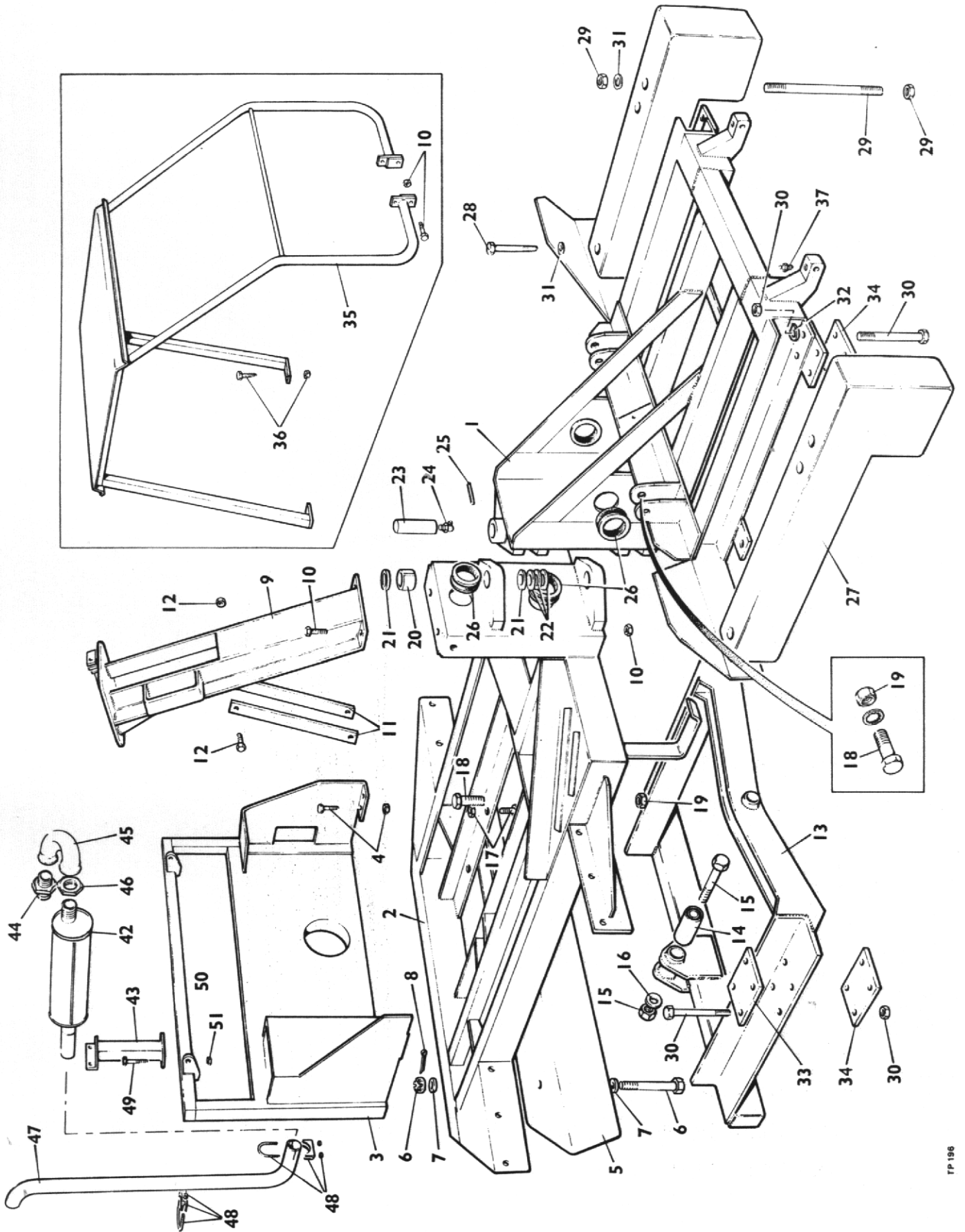
HYDRAULIC FLUID

These fluids contain substances which may cause skin irritation, where persons are subjected to prolonged exposure. Practical steps must be taken to minimise contact and further aid should be provided by way of skin protection measures and prevention of splashes to the eyes. These fluids are particularly harmful if swallowed and, if this does occur, medical aid should be sought immediately.

SPARE PARTS SECTION

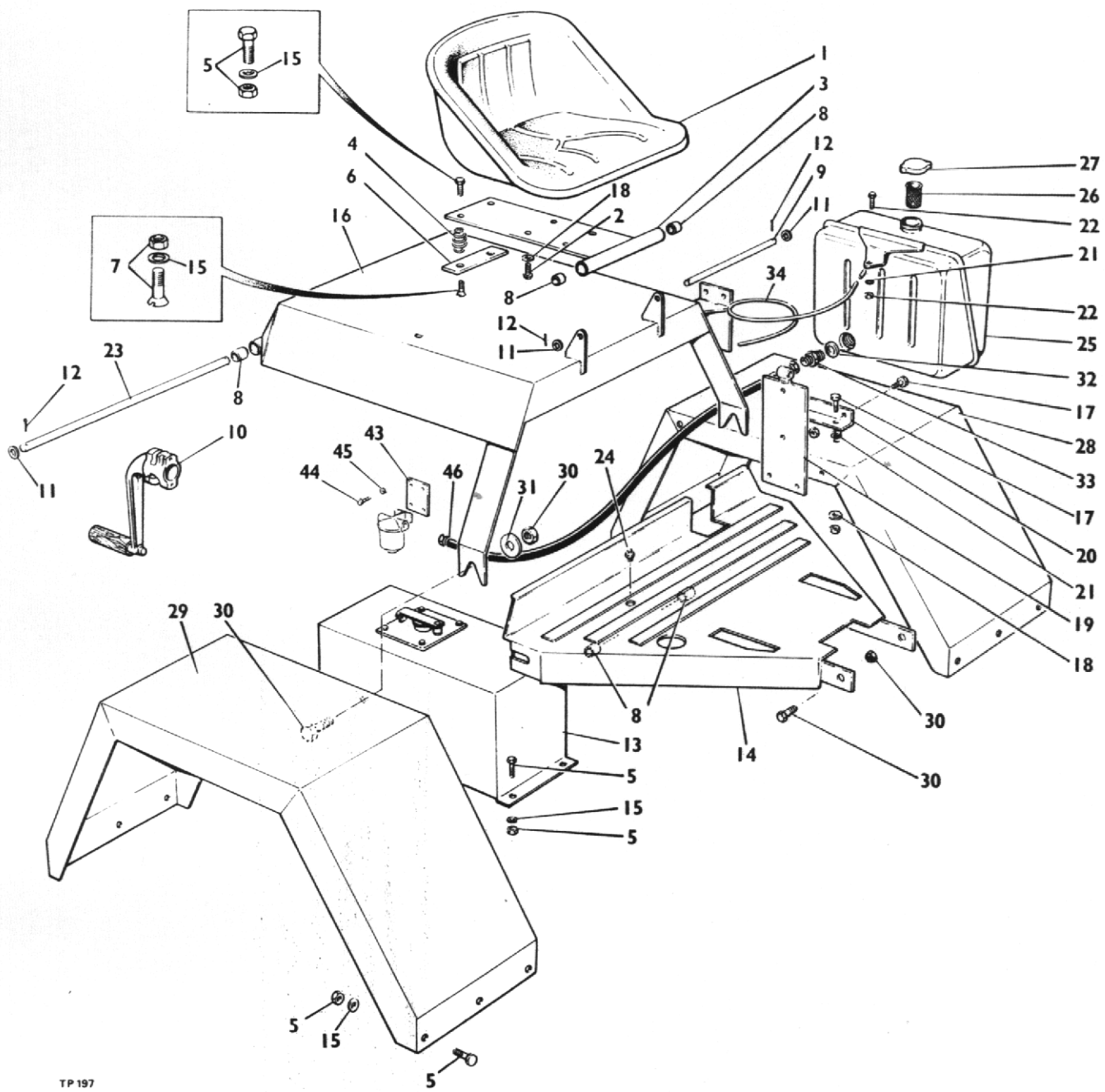
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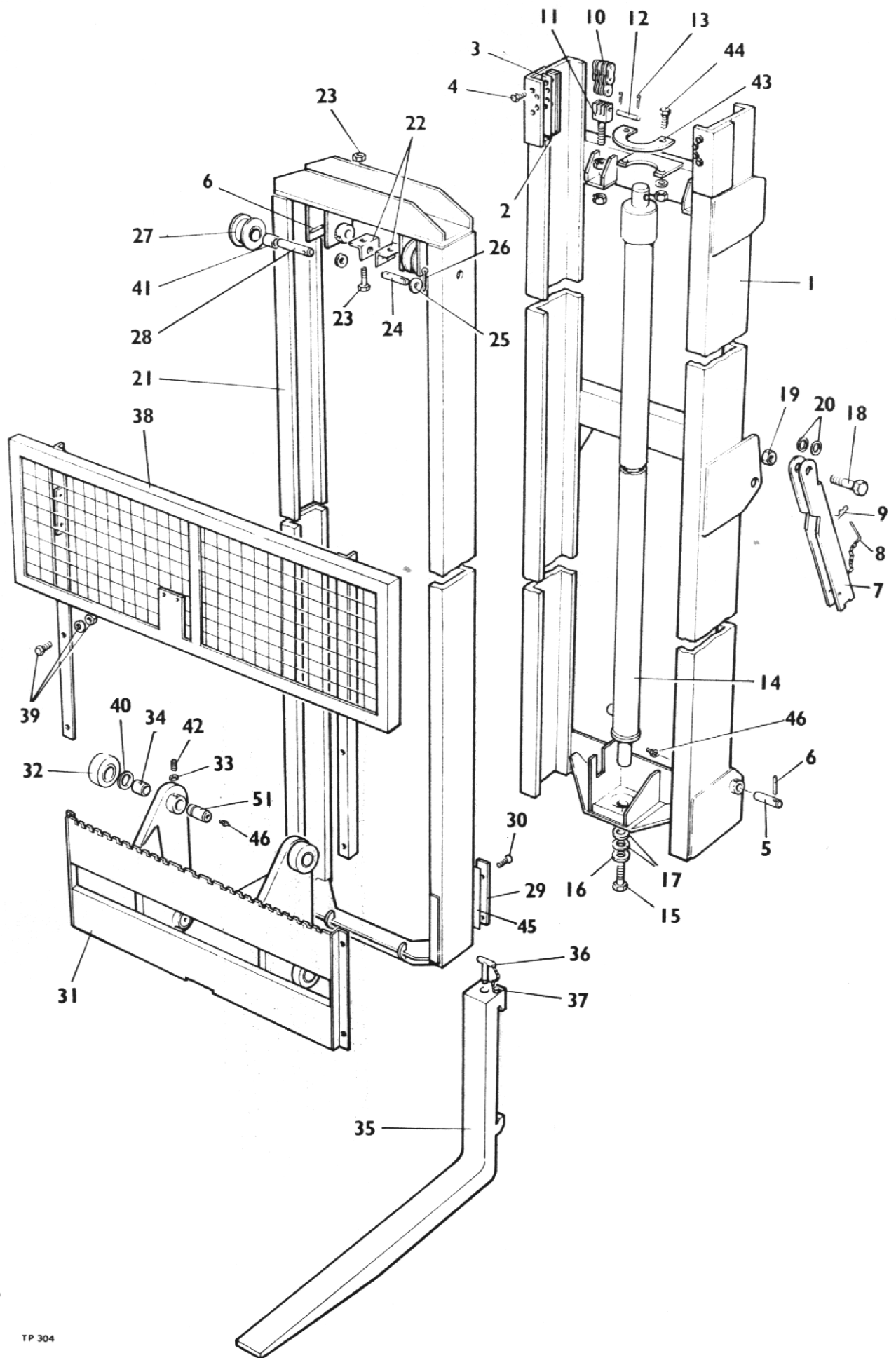
CHASSIS

Item No.	Part No.	Description	Qty.
1	F4-45-144	Front Chassis	1
2	F4-45-145	Rear Chassis	1
3	40251.A01	Rear Frame	1
4	8S.4B	Bolt M10 x 30 Long & Nut - 7S.4.....	8
5	F4-45-147	Rear Ballast Weight	1
6	F4-45-106	Bolt 1" BSF x 9,3/8" Long & Castellated Nut	2
7	10S.8	Washer 1" I.D.	4
8	44S.5G	Split Pin 3/16" Dia. x 2" Long.....	2
9	CSE 107	Steering Column	1
10	8S.5E	Bolt M12 x 45mm Long & Nut - 7S.5.....	4
11	4-35-333	Steering Column Brace	2
12	8S.4D	Bolt M10 x 40mm Long & Nut - 7S.4.....	2
13	CSE 194	Axle Articulating Frame	1
14	MH-5236	Pivot Bush	2
15	8S.8S	Bolt M24 x 130mm Long & Nut - 7S.8.....	2
16	12S.10	Washer 24mm I.D.	2
17	8S.5G	Bolt - Engine Mtg. M12 x 55mm Long & Nut - 7S.5.	4
18	4-35-110A	Ram Pivot Bolt	4
19	4-35-110B	Ram Pivot Nut	4
20	4-35-29B	Centre Pivot Pin Bush	2
21	4-35-29C	Centre Pivot Thrust Washer - Bronze	4
22	ASE 178	Centre Pivot Thrust Washer - Mild Steel - 14SWG.	A/R
	ASE 179	Centre Pivot Thrust Washer - Mild Steel - 20SWG.	A/R
	ASE 180	Centre Pivot Thrust Washer - Mild Steel - 10SWG.	A/R
23	4-35-29	Centre Pivot Pin	2
24	T90	Grease Nipple 90°	2
25	4-35-29A	Tension Pin 5/16" Dia. x 2½" Long	2
26	F4-45-182	Grommet	4
27	F4-45-211	Side Ballast Weight	2
28	8S.6S	Bolt M16 x 130mm Long & Nut - 7S.6.....	2
29	F4-45-232	Axle Stud & 2 Nuts	4
30	8S.6W	Bolt M16 x 200mm Long & Nut	12
31	L279-1	Washer	6
32	10S.8	Taper Washer M16	4
33	CSE 192	Articulating Frame Stop Plate	2
34	CSE 193	Axle Clamp Plate	4
35	F4-45-174	Safety Frame Assembly	1
36	8S.5M	Bolt M12 x 80mm Long & Nut - 7S.5.....	2
37	131S.1	Grease Nipple	2
38	40124.A01	Safety Guard (optional) (not illustrated)	1
39	153S.9	Pipe Clamp (optional) (not illustrated)	4
40	F4-45-146	Ballast Weight (if fitted) (not illustrated) ...	1
41	8S.6M	Bolt M16 x 60mm Long & Nut (if fitted)(not illust.)	2
42	10477.A01	Silencer	1
43	20153.A01	Support Bracket	1
44	40117.A0103	Hex. Nipple	1
45	40177.A0104	Return Bend	1
46	72S.5	Back Nut	1
47	20152.A01	Tail Pipe	1
48	153S.9	Pipe Clamp	2
49	8S.4L	Bolt Hex. Hd. M10 x 75mm Long	2
50	12S.5	Plain Washer 10mm Dia.	4
51	61S.4	Locknut M10	2



MUDWINGS AND COVERS

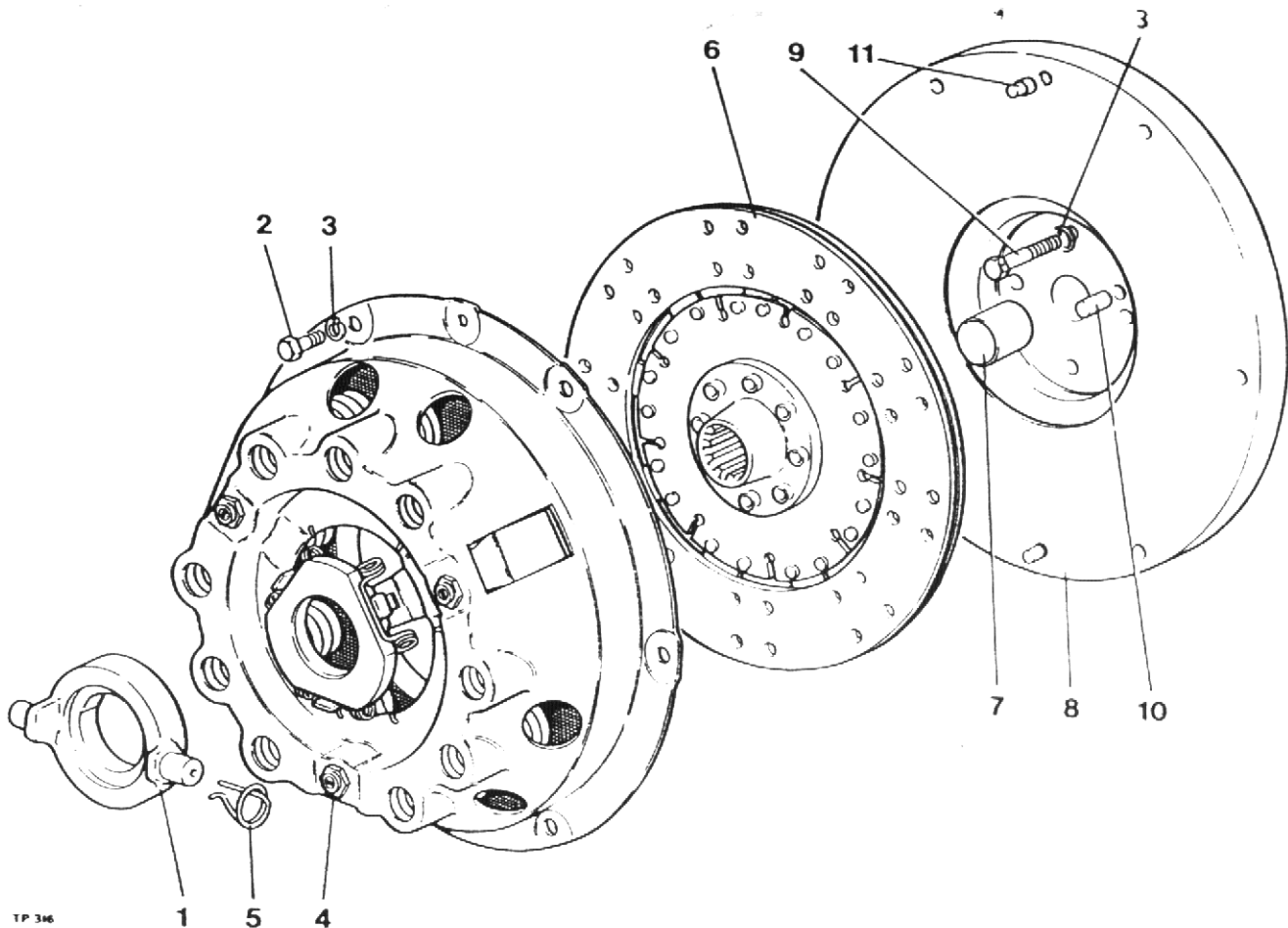
Item No.	Part No.	Description	Qty
1	4-35-301	Seat	1
2	16S.8C	Seat Bolts 8mm x 20mm long-mushroom head	4
3	CSE 116	Seat Frame	1
4	5ST 99	Seat Spring	2
5	8S.4A	Bolt M10 x 25mm long & locknut - 61S.4	22
6	4-35-331	Seat Spring Plate	1
7	14S.6E	Bolt csk. M10 x 25mm long & locknut - 61S.4	2
8	WB0808	Bush	6
9	4-35-307	Seat Pivot Rod	1
10	C188	Starting Handle	1
11	12S.6	Flat Washer 12mm dia.	4
12	44S.C	Split Pin 3/32" dia x 1" long	4
13	CSE 123	Hydraulic Tank (See Page 45)	1
14	40046.A02	Footplate.	1
15	12S.5	Flat Washer 10mm dia.	24
16	CSE 161	Engine Cover	1
17	8S.3A	Bolt M8 x 25mm long & locknut - 61S.3	4
18	12S.4	Flat Washer 8mm dia.	6
19	F4-45-173	Hydraulic valve mounting Bracket (See Page 41)	1
20	CSE 170	Angle	1
21	CSE 158	Rubber bush	3
22	8S.2B	Bolt M6 x 30mm long and locknut - 61S.2	1
23	CSE 168	Pivot Pin	1
24	T-ST	Grease Nipple	1
25	BAE 7E	Fuel Tank	1
26	JE 13	Strainer	1
27	CE 12	Cap	1
28	F4-45-181	Left Hand Mudwing Assembly	1
29	CSE 187	Right Hand Mudwing	1
30	8S.5D	Bolt M12 x 40mm long & locknut - 61S.5	8
31	CSE 167	Blanking Plate	2
32	4-35-364	Fibre Washer	1
33	4-60-189	Adaptor	1
34	258721	Leak back tube	1
35	DM 184	Label - M/C identification (Not Illustrated)	1
36	DM 154	Label - 'Winget' (Not Illustrated)	3
37	DM 181	Label - Forklift safety (Not Illustrated)	1
38	DM 106	Label - Handbrake (Not Illustrated)	1
39	DM 113	Label - Tyre pressure (Not Illustrated)	4
40	DM 111	Label - S.W.L. (Not Illustrated)	2
41	DM 108	Label - Transport warning (Not Illustrated)	1
42	DM 196	Label - Recommended lubricants (Not Illustrated)	1
43	10628.A01	Filter Mtg. Brkt.	1
44	11S.2B	Bolt M6 x 20mm Long	2
45	61S.2	Nut M6	2
46	10605.A03	Fuel Supply Pipe	1



MAST AND CARRIAGE ASSEMBLY

Item No.	Part No.	Description	Qty
1	40026.A01	Outer Mast	1
2	20023.A01	Rubbing Strip	2
3	10153.A01	Shim	A/R
4	11S.3B	Hex. Head Screw M8 x 20mm Long	4
	17S.4	Spring washer 8mm	4
5	F4-45-135	Pivot Pin	2
6	55S.2E	Tension Pin 5/16" dia x 2 1/4" Long	4
7	F4-45-210	Tilt Cylinder stop	2
8	F4-45-72	Tilt Cylinder stop Pin & Chain	2
9	F4-45-77	Cotter Pin	2
10	FSE 187-1	Chain	2
11	FSE 187-2	Tensioner & 2 nuts	4
12	FSE 187-3	Pin	4
13	44S.1C	Split Pin 1/16" x 1" Long	8
14	30115.A01	Lift Cylinder	1
15	11S.5C	Screw M12 x 25mm Long	1
16	10204.A01	Special Washer	1
17	C 180A	Felt Washer	2
18	F4-45-57	Bolt	2
19	4-35-110B	Nut	2
20	F4-45-50	Spacer	4
21	40025.A01	Inner Frame	1
22	10147.A0101	Brkt. Lift Cylinder (R.H.)	1
	10147.A0102	Brkt. Lift Cylinder (L.H.)	1
23	8S.5D	Bolt M12 x 40 mm Long	2
	7S.5A	Hex. Nut M12	2
	17S.6	Spring washer 12mm dia	2
24	10149.A01	Pin	1
25	10S.8	Plain Washer 1" I.D.	2
26	44S.5H	Split Pin 3/16"	2
27	10195.A01	Chain Pulley	2
28	F4-45-134	Pin Chain Pulley	2
29	10052.A01	Rubbing Strip	2
30	14S.5D	Screw M8 x 20 mm Long Csk. Hd.	4
31	F4-45-178	Carriage Assembly	1
32	10192.A01	Carriage Roller	4
33	56S.4	Half Nut M10	4
34	10150.A04	Bush	4
35	F4-45-199	Fork	2
36	E288-15	Peg and Chain Assembly	2
37	28S.3D	Setscrew 3/8" U.N.F. x 3/4" Long	2
38	F4-45-153	Brickguard	1
39	11S.5D	Screw M12 x 30	4
	7S.5	Nut M12	4
	12S.6	Washer	4
40	FSE.396	Shim 1.5 mm thick	A/R
41	43S.1	Bush (Chain Pulley)	2
42	57S.6G1	Setscrew socket cup point	4
43	10210.A01	Clamp	1
44	11S.4D	Screw M10 x 30 mm Long	2
	7S.4A	Nut	2
	12S.5A	Washer 10mm	4
45	10054.A01	Shim	A/R
46	131S.3	Grease Nipple	4
47	10731.A02	Label - Height (3.65M) - Not illustrated	1
48	10730.A02	Label - Mast rating plate - Not illustrated ...	1
49	15S.1	Hammer drive screw - Not illustrated	4
50	10731.A01	Label - Height (Red) - Not illustrated	3
51	10113.A02	Pin	4

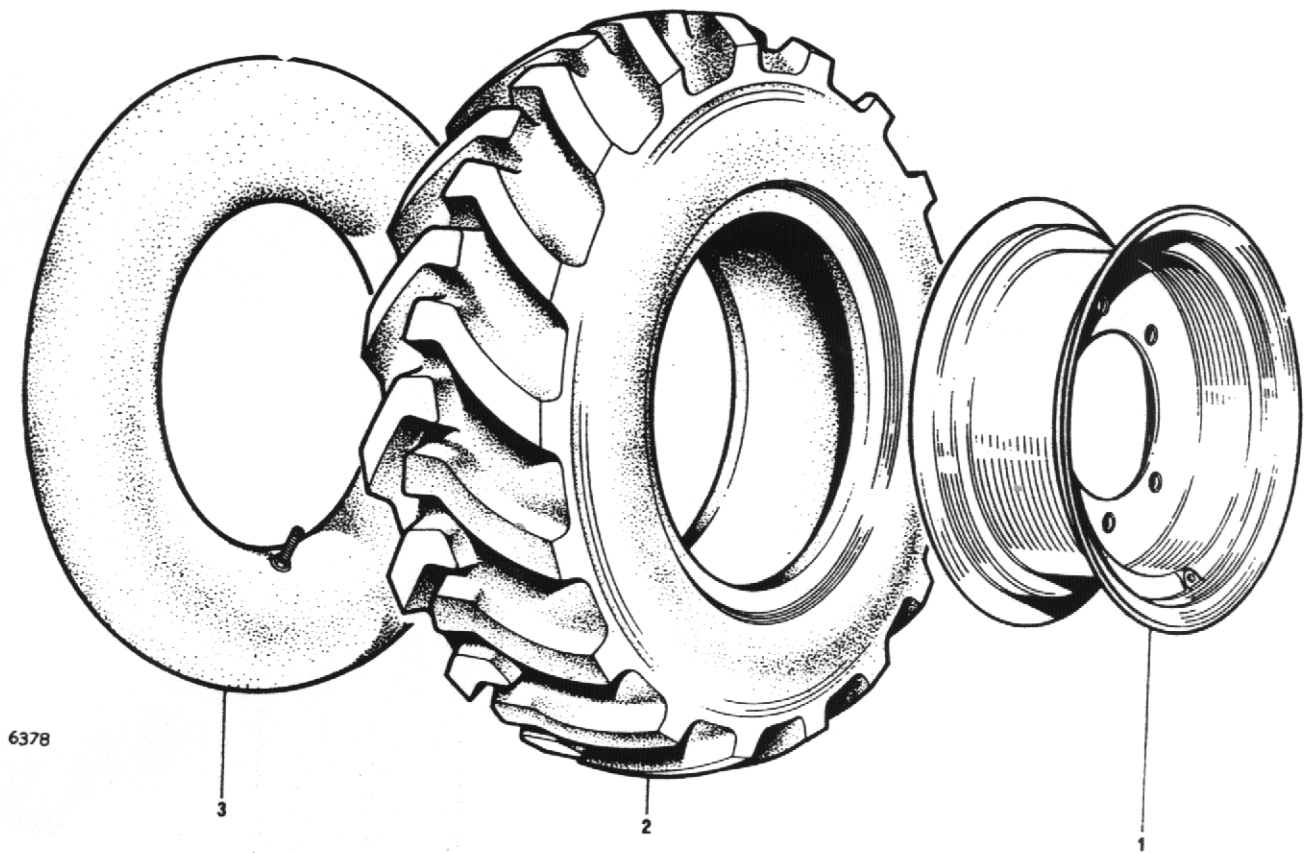
FLYWHEEL & CLUTCH



TP 346

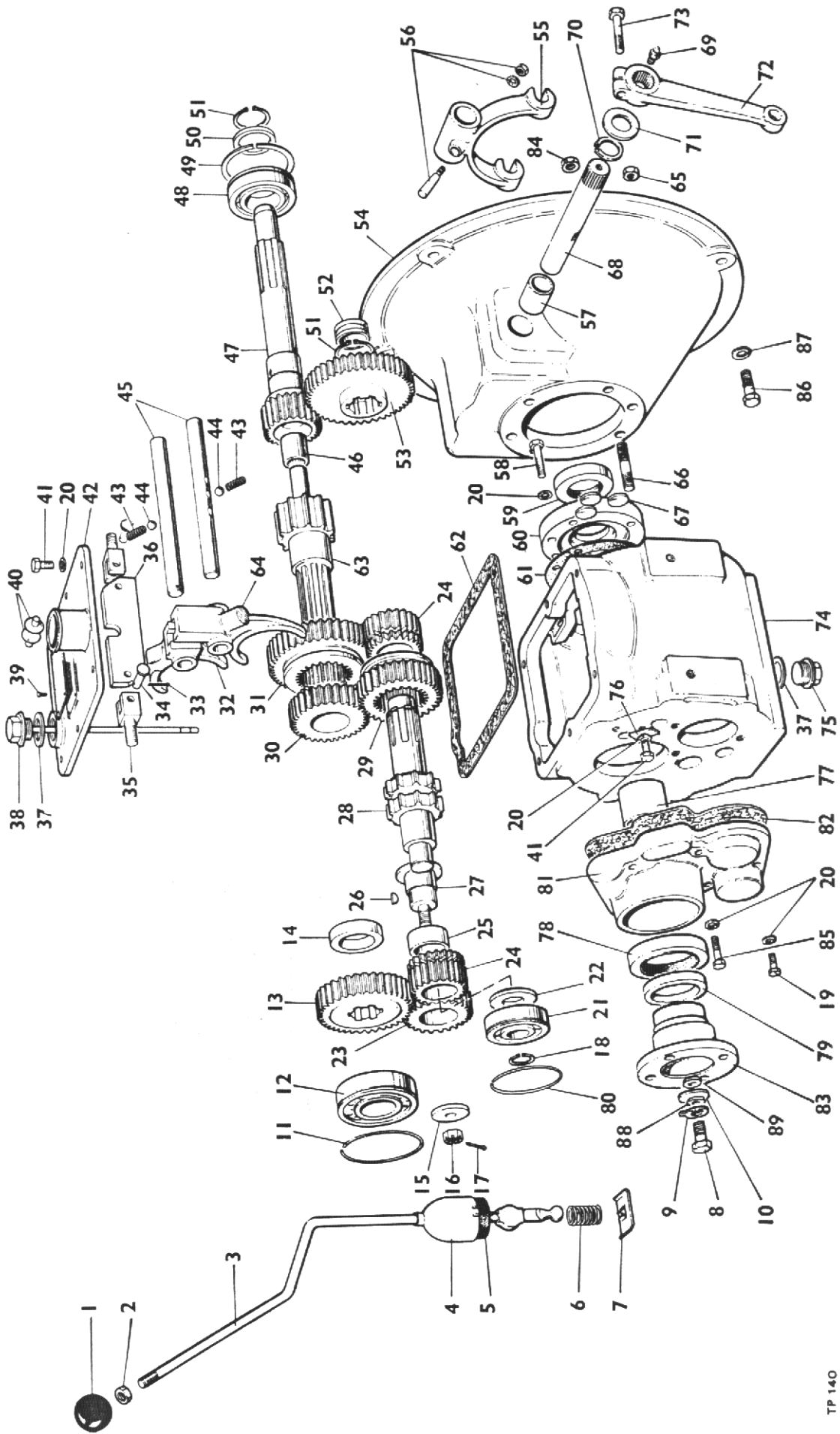
Item No.	Part No.	Description	Qty.
1	10579A01	Clutch Release Bearing	1
2	28S02D	Screw Set	6
3	41S04	Washer Spring	10
4	10597A02	Cover Assembly 9"	1
5	10579A0101	Retainer Spring	2
6	10598A03	Drive Plate 9"	1
7	10580A0101	Bush	1
8	10580A01	Flywheel Assembly 9" (comprises of items 7, 8, & 11)	1
9	1S02C	Bolt, Petter PH Engine (drill for locking wire)	4
9A	6S02B	Bolt, Lister Engine (drill for locking wire)	4
10	C321	Dowel	1
11	10580A0102	Dowel	2
	10948A03	Clutch Kit 9" (comprises of items 1, 4, 5 & 6)	1

It is recommended that instead of drilling the head of the bolts (item 9/9A) for locking wire that one of each of tabwashers part no's 10531A02 and 10531A03 are used to prevent the bolts working loose.



WHEELS AND TYRES

Item No.	Part No.	Description	Qty.
	24S08	R/H Wheel Assembly	2
	24S07	L/H Wheel Assembly	2
1	30183A02	Wheel rim 9 x 18	4
2	20S02	Tyre 10.5 x 18-8 ply	4
3	23S04	Tube 10.05 x 18	4
4	10668A02	Wheel Nut	24

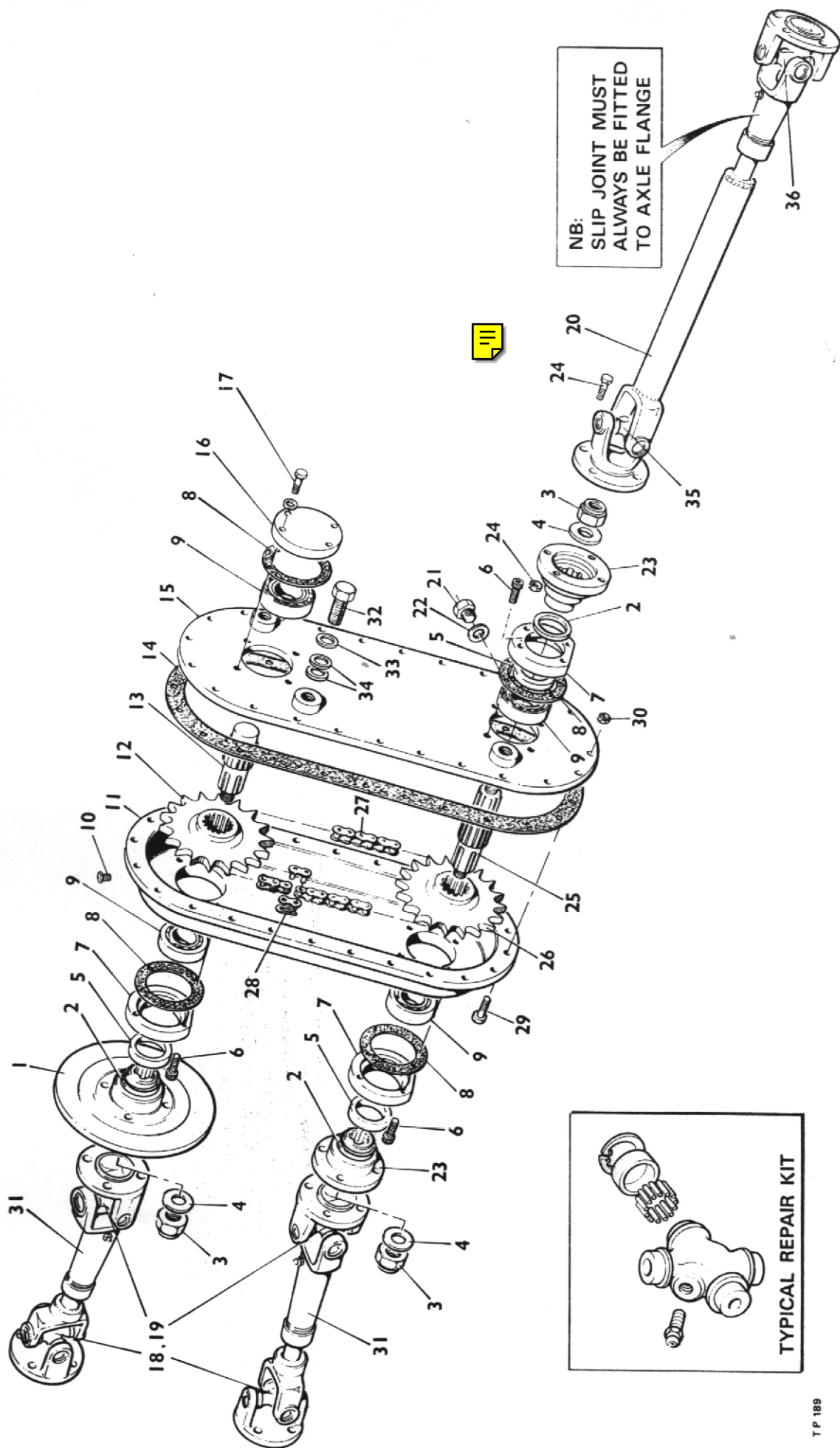


GEARBOX (30101.A01)

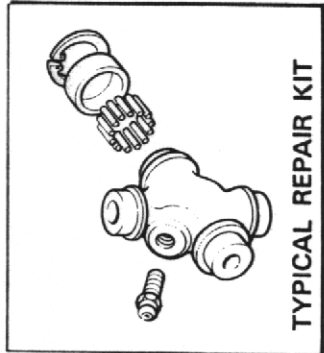
Item No.	Part No.	Description	Qty.
1	30101.A0201	Gear Lever Knob	1
2	95S.3	Gear Lever Locknut	1
3	40M 372	Gear Lever	1
4	30101.A0203	Gear Lever Cap	1
5	30101.A0204	Gear Lever Cover	1
6	30101.A0205	Gear Lever Spring	1
7	30101.A0206	Gear Lever Retaining Plate	1
8	28S.5E	Bolt	1
9	30101.A0207	Tab Washer	1
10	30101.A0208	Washer	1
11	30101.A0209	Snap Ring	1
12	30101.A0210	Bearing, Mainshaft Rear	1
13	30101.A0211	Output Gear	1
14	30101.A0212	Output Gear Spacer	1
15	30101.A0213	Reverse Pinion Shaft Washer	1
16	102S.4	Reverse Spindle Nut	1
17	44S.2C	Split Pin	1
18	30101.A0215	Circlip	1
19	28S.1D	Bolt	3
20	13S.2	Spring Washer	17
21	30101.A0216	Layshaft bearing	1
22	30101.A0217	Bearing spacer	1
23	30101.A0218	Reverse pinion	1
24	30101.A0219	Reverse speed gear	2
25	30101.A0220	Reverse pinion bush	1
26	30101.A0221	Reverse pinion shaft key	1
27	30101.A0222	Reverse pinion shaft	1
28	30101.A0223	Layshaft	1
29	30101.A0224	2nd. Speed sliding gear	1
30	30101.A0225	Second speed gear	1
31	30101.A0226	1st Speed gear	1
32	30101.A0227	2nd. and 3rd. Selector fork	1
33	44S.1C	Split pin, interlock	2
34	30101.A0228	Clevis pin, interlock	2
35	30101.A0229	Stud, interlock	2
36	30101.A0230	Interlock plate	1
37	42S.5	Sealing washer	2
38	30101.A0232	Dipstick	1
39	30101.A0233	Drive screw	4
40	30101.A0234	Gear lever pad	2
41	28S.1C	Bolt	7
42	30101.A0235	Top cover	1
43	30097.A0185	Detent spring	2
44	30101.A0236	Detent ball	2
45	30101.A0237	Selector shaft	2
46	30101.A0238	Bearing, Primary shaft	1
47	30101.A0239	Primary shaft	1

GEARBOX (CONT'D)

Item No.	Part No.	Description	Qty.
48	30101.A0240	Input bearing	1
49	30101.A0241	Snap ring	1
50	30101.A0242	Bearing spacer	1
51	30101.A0243	Circlip	2
52	30101.A0244	Layshaft bush	1
53	30101.A0245	1st. Reduction gear	1
54	30101.A0246	Clutch housing	1
55	30097.A0110	Clutch release fork	1
56	30097.A0111	Cotter, nut and washer S/A	1
57	30097.A0114	Cross shaft bush	2
58	6S.1A	Front cover bolt	4
59	30101.A0247	Oil seal, input	1
60	30101.A0248	Front cover	1
61	30101.A0249	Front cover gasket	1
62	30101.A0250	Top cover gasket	1
63	30101.A0251	Mainshaft	1
64	30101.A0252	1st. and reverse selector fork	1
65	9S.1	Clutch lever nut	1
66	30101.A0253	Clutch housing stud	6
67	30101.A0254	Welch plug	3
68	30101.A0255	Clutch cross shaft	1
69	131S.1	Grease nipple	2
70	30101.A0256	Circlip	1
71	30097.A0133	Cross shaft washer	1
72	30097.A0109	Clutch release lever	1
73	6S.1C	Clutch lever bolt	1
74	30101.A0258	Gearcase	1
75	30097.A0163	Drain plug	1
76	30101.A0259	Selector locking strip	1
77	30101.A0260	Spacer	1
78	30097.A0132	Rear oil seal	1
79	30101.A0265	Dust shield	1
80	30101.A0261	Snap ring	1
81	30101.A0262	Output cover	1
82	30101.A0263	Output cover gasket	1
83	40M-589	Coupling	1
84	107S.3	Nut (Clutch housing)	6
85	6S.1	Bolt	2
86	1S.3B	Bolt 3/8" BSF x 1" long	6
87	41S.5	Springwasher 3/8" dia.	6
88	30143.A0111	Fibre Washer	1
89	30143.A0101	Fibre Washer	1

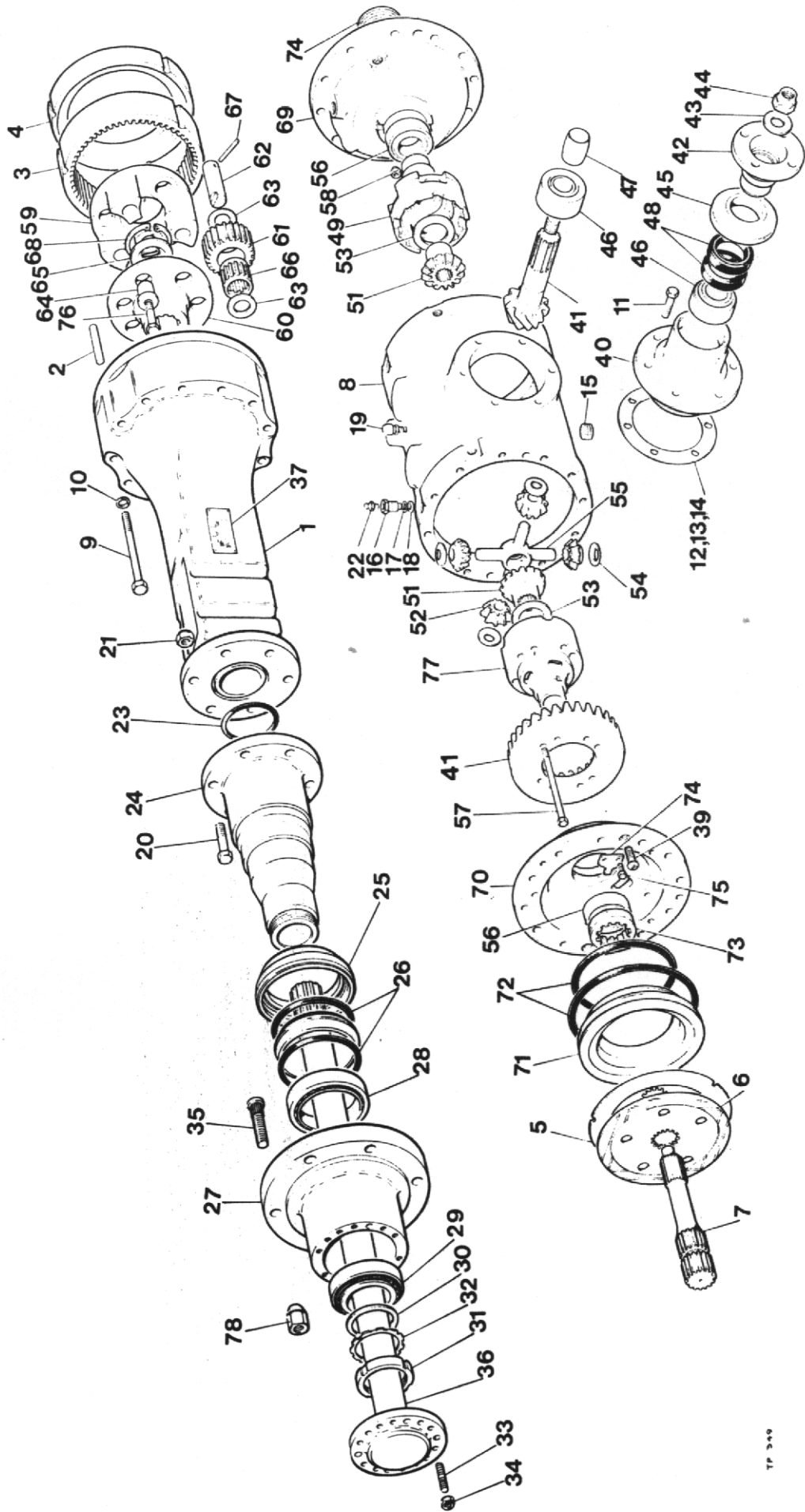


NB:
SLIP JOINT MUST
ALWAYS BE FITTED
TO AXLE FLANGE



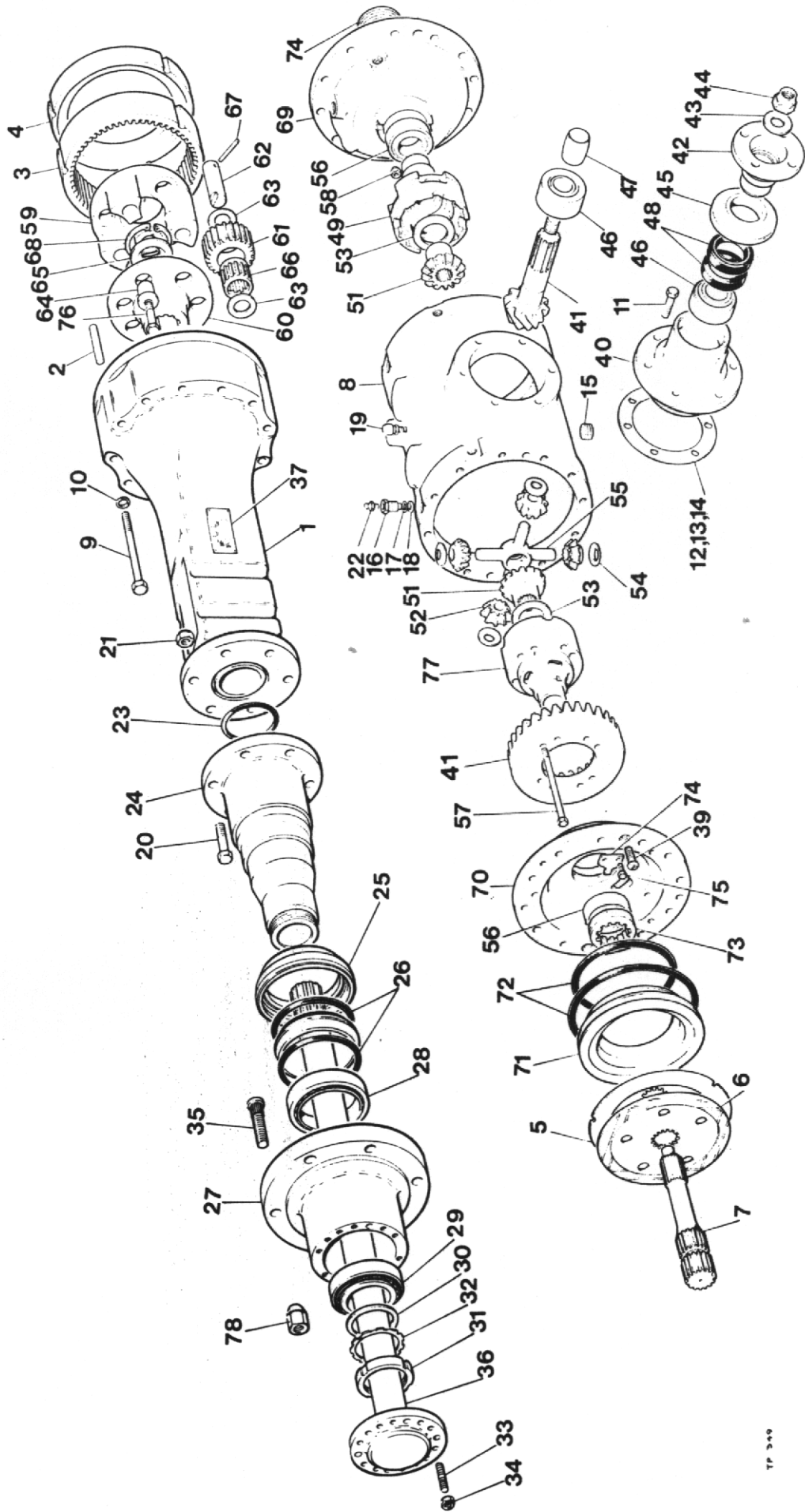
TRANSFER BOX AND PROP SHAFTS

Item No.	Part No.	Description	Qty.
	CSE 201	Transfer Box (13/19 Teeth) Complete with disc	1
1	CSE 164	Brake Disc (222mm dia)	1
2	30101.A0265	Dust Shield	3
3	87S.8	Self Locking Nut ¾" UNF	3
4	CP 1264	Thick Washer ¾" dia.	3
5	30097.A0132	Oil Seal	3
6	UFC 416	Cap Screw	12
7	4-35-102	Oil Seal Housing	3
8	CM 2073	Gasket	4
9	88S.6	Bearing	4
10	CM 2106	Breather	1
11	4-35-96	Main Case	1
12	ASE 175	Chain Wheel (13 Tooth)	1
13	4-60-252	Input Shaft	1
14	4-35-20	Gasket	1
15	4-35-381	Main Case Cover	1
16	10298.A01	End Cover	1
17	UBF 51	End Cover Screws	4
18	K-5-GB-18	Repair Kit	A/R
19	94-GB-2459	Grease Nipple	4
20	CSE 146	Prop Shaft	1
21	CP 1189	Level/Filler Plug	1
22	42S.5	Fibre Washer	1
23	40M 589	Companion Flange	2
24	ESE 214	Bolt, 7/16" BSF x 1¼" long & Nut	24
	87S.4	Locknut 7/16" UNF	24
25	4-60-253	Output Shaft	1
26	4-35-17	Chain Wheel (19 Tooth)	1
27	ASE 176	Drive Chain (13/19 Teeth)	1
28	4-35-18A	Chain Connecting Link	2
29	UBF 71	Housing Screw	24
30	UN 501	Nut	24
31	1350 YSA	Prop Shaft Assembly	2
32	1S.5C	Bolt ½" BSF x 1¼" long (drilled for Wire Locking)	3
33	10S.4	Flat Washer ½" dia.	3
34	10S.4	Flat Washer ½" dia.	A.R.
35	K5-195	Repair Kit	1
36	K5-179	Repair Kit	1



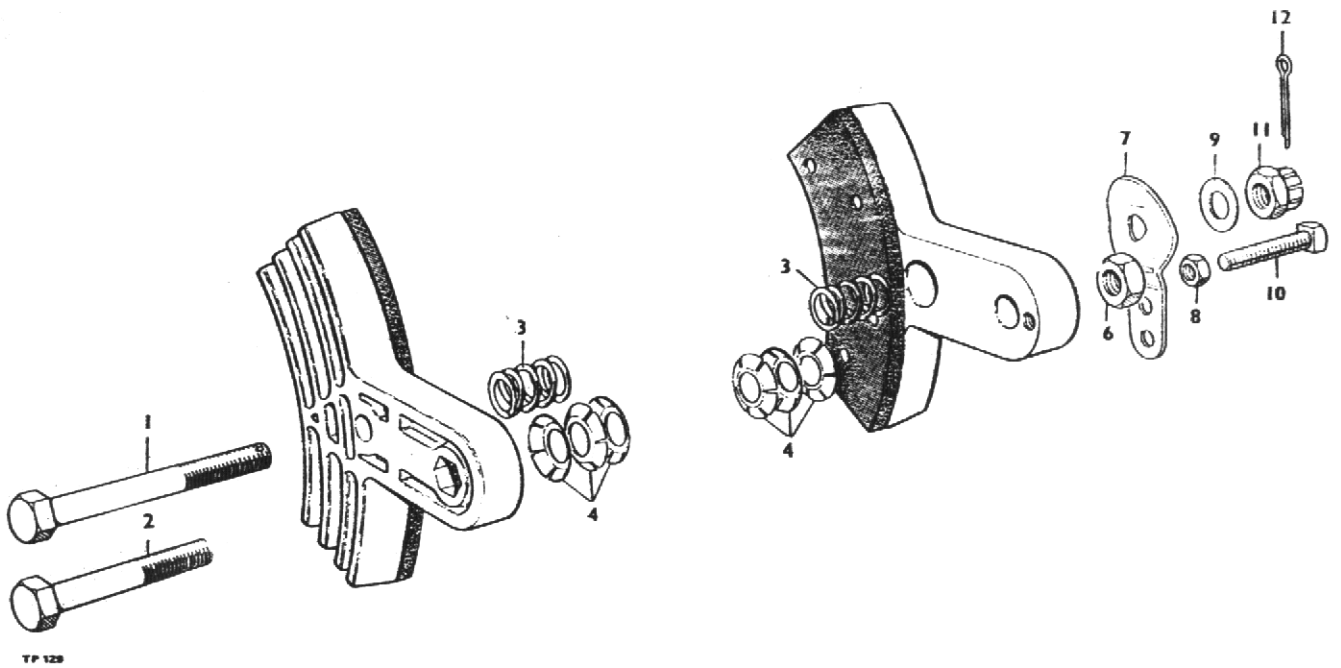
DRIVE AXLE

Item No.	Part No.	Description	Qty. Per Axle
	30082.A02	Axle complete	
1	30082.A0201	Axle Arm	2
2	30082.A0202	Pin	6
3	30082.A0203	Annulus	2
4	30082.A0204	Brake Spacer Plate	2
5	30082.A0205	Brake Fixed Plate	2
6	30082.A0206	Oil Immersed Brake Disc	2
7	30082.A0207	Sun Gear	2
8	30082.A0208	Main Axle Casing	1
9	4S.4Q	Bolt	24
10	17S.4	Spring Washer	24
11	11S.4	Hex.Hd. Screw	6
12	30082.A0209	Pinion Adjusting Shim	A/R
13	30082.A0210	Pinion Adjusting Shim	A/R
14	30082.A0211	Pinion Adjusting Shim	A/R
15	30082.A0212	Hex. Socket BSP TR Plug	2
16	30082.A0213	Brake Pipe Adaptor	2
17	49S.2	"O" Ring	2
18	30082.A0269	Dowty Washer	2
19	30082.A0214	Relief Valve	1
20	8S.5E	Bolt	12
21	59S.04	Nyloc Nut	12
22	30082.A0215	Brake Bleed Valve	2
23	30082.A0268	"O" Ring	2
24	30082.A0216	Stub Axle	2
25	30082.A0217	Oil Seal Housing	2
26	30082.A0218	Hub Oil Seal	2
27	30082.A0219	Hub	2
28	30082.A0220	Hub Inner Bearing	2
29	30082.A0221	Hub Outer Bearing	2
30	30082.A0222	Hub Bearing Spacer	2
31	30082.A0223	Bearing Lock Nut	2
32	30082.A0224	Tab Washer	2
33	30082.A0267	Stud	16
34	59S.04	Nyloc Nut	16
35	30082.A0225	Wheel Stud	12
36	30082.A0226	Axle Shaft	2
37	30082.A0227	Label	1
38	15S.1A	Hammer Drive Screw	4
39	30082.A0266	Hex. Socket Button Hd. Screw	4
40	30082.A0228	Input Pinion Cartridge	1
41	30082.A0270	Spiral Bevel Wheel & Pinion Assy.	1
42	30082.A0230	Drive Flange	1
43	30082.A0231	Drive Flange Washer	1
44	30082.A0232	Drive Flange Nut	1
45	30082.A0233	Oil Seal Cover	1
46	30082.A0234	Pinion Bearing	2
47	30082.A0235	Pinion Bearing Spacer	1
48	30082.A0236	Pinion Oil Seal	2
49	30082.A0237	Diff Case Process Assembly R.H.	1
51	30082.A0239	Diff Wheel	2
52	30082.A0240	Diff Pinion	4
53	30082.A0241	Diff Wheel Thrust Washer	2
54	30082.A0242	Diff Pinion Thrust Washer	4
55	30082.A0243	Diff Spider	1
56	30082.A0244	Diff Bearing	2
57	8S.4Q	Bolts	8
58	59S.03	Nyloc Nuts	8



DRIVE AXLE (cont'd)

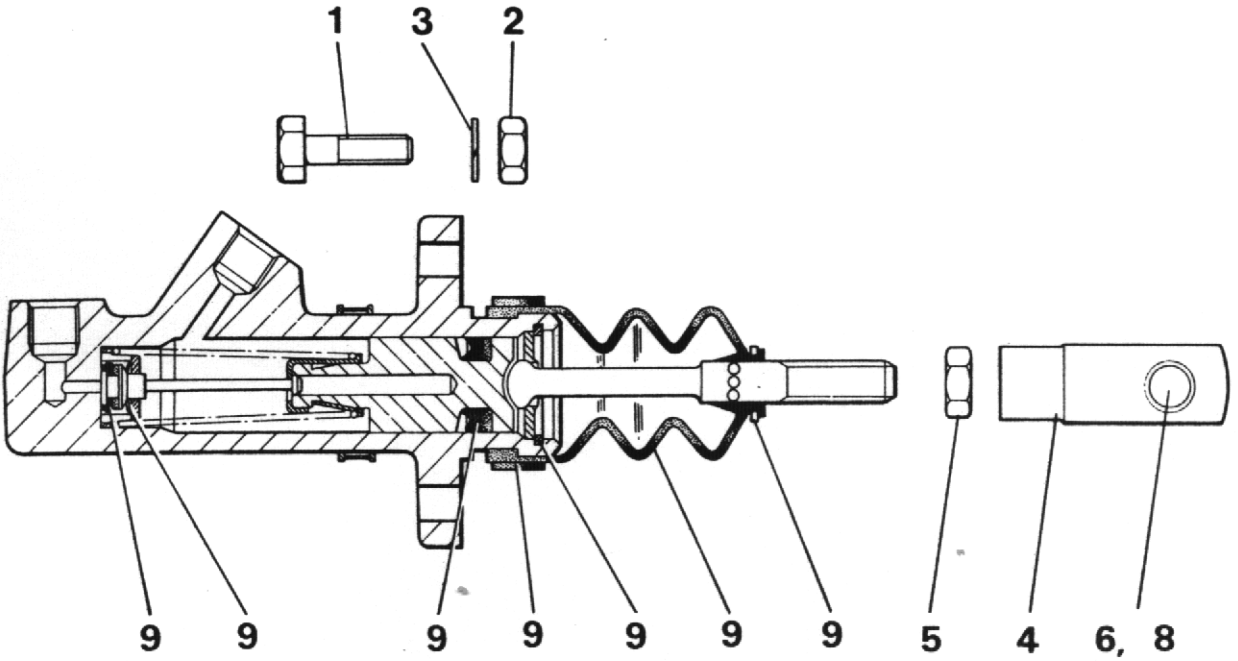
Item No.	Part No.	Description	Qty. Per Ax.
59	30082.A0245	Planet Carrier	2
60	30082.A0246	Carrier Drive	2
61	30082.A0247	Planet Gear	6
62	30082.A0248	Planet Pin	6
63	30082.A0249	Planet Thrust Washer	12
64	30082.A0250	Planet Carrier Bush	6
65	30082.A0251	Axle Shaft Thrust Spacer	2
66	30082.A0252	Planet Cage Roller	6
67	30082.A0253	Spring Dowel	6
68	30082.A0265	Circlip	2
69	30082.A0254	Brake Cylinder R.H.....	1
70	30082.A0255	Brake Cylinder L.H.....	1
71	30082.A0256	Brake Piston	2
72	30082.A0257	Piston Oil Seal - Set	2
73	30082.A0259	Bearing Adjusting Nut	2
74	30082.A0260	Adjusting Nut Lock Plate	2
75	30082.A0261	Screw Lock Plate	4
76	30082.A0262	Planet Carrier Bolt	6
77	30082.A0263	Diff. Case L.H.....	1
78	10668.A02	Wheel Nut	12



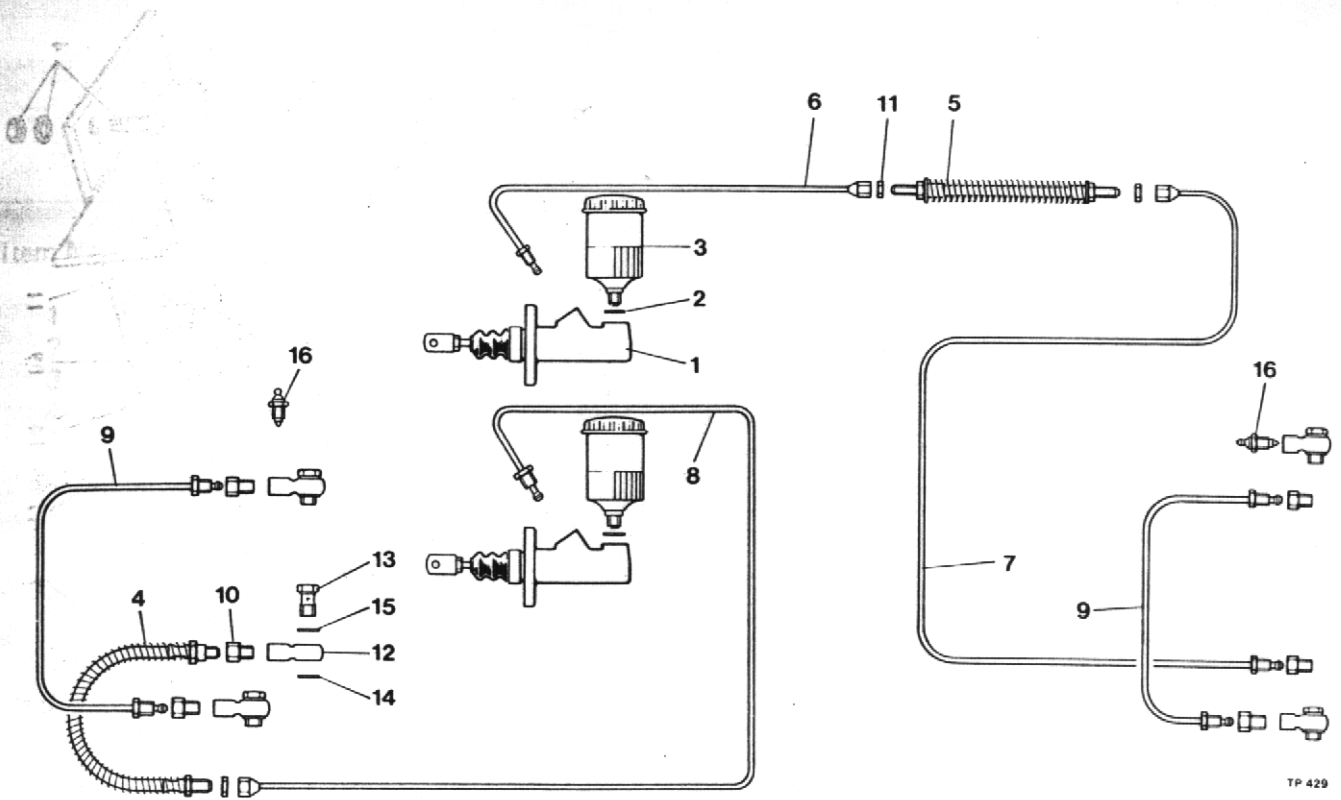
CALIPER, parking brake

Item	Part no	Description	Qty
1A	10578A01	CALIPER, one pair, assembly	1
1	28S02T	SCREW	1
2	28S02P	SCREW	1
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	2

BRAKE MASTER CYLINDER



Item No.	Part No.	Description	Qty.
	20102.A02	Master Cylinder	2
1	11S.3E	Bolts Hex. Hd. M8 x 35 Long	4
2	7S.3	Nuts M8	4
3	17S.4	Spring Washer	4
4	C174J	Clevis	2
5	95S.3	Nut 3/8" UNF Thin Nut	2
6	10650.A17	Clevis Pin	2
8	44S.2C	Split Pin 3/32" x 1" Long	2
9	10570.A01	Service Kit	A/R



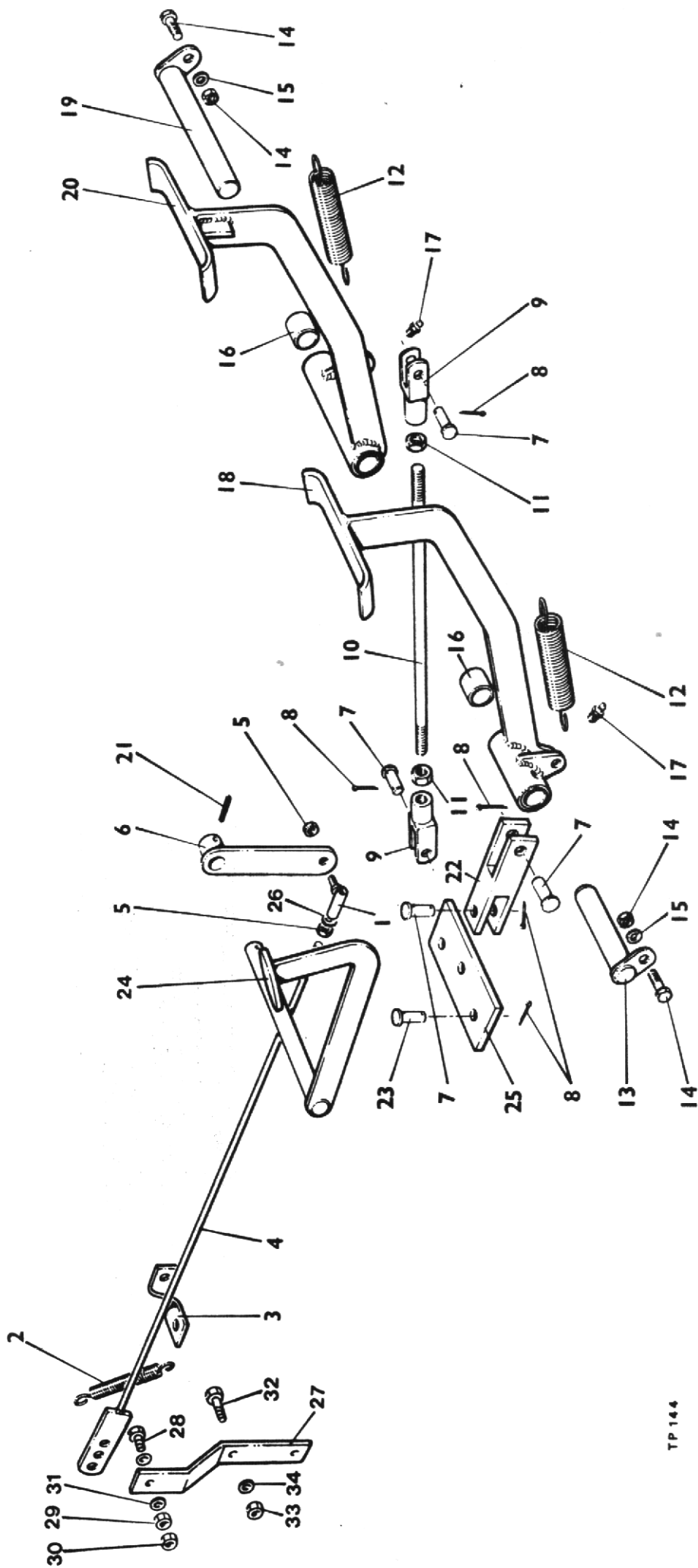
TP 429

BRAKE PIPES AND FITTINGS

Item No.	Part No.	Description	Qty.
1	20102.A02	Master Cylinder	2
2	116S.3	Washer - copper 17/32" I.D.	2
3	10659.A02	Reservoir c/w Cap	2
4	10516.A02	Flex. Hose	1
5	10517.A02	Flex. Hose	1
6	10577.A0108	Pipe M12 x 1265mm Long - M/F	1
7	10577.A0102	Pipe M12 x 965mm Long - M/F	1
8	10577.A0101	Pipe M12 x 770mm Long - M/F	1
9	10577.A0202	Pipe M12 x 425mm Long - M/M	2
10	10354.A02	Brake Pipe Adaptor 3/8" UNF (M) x M12 (F)	6
11	10582.A01	Halfnut M12	3
12	114S.1	Banjo Body	5
13	115S.1	Banjo Bolt	5
14	116S.1	Washer - copper 3/8" I.D.	5
15	116S.2	Washer - copper 7/16" I.D.	5
16	30082.A0215	Brake Bleed Valve (see also Axle section)	2

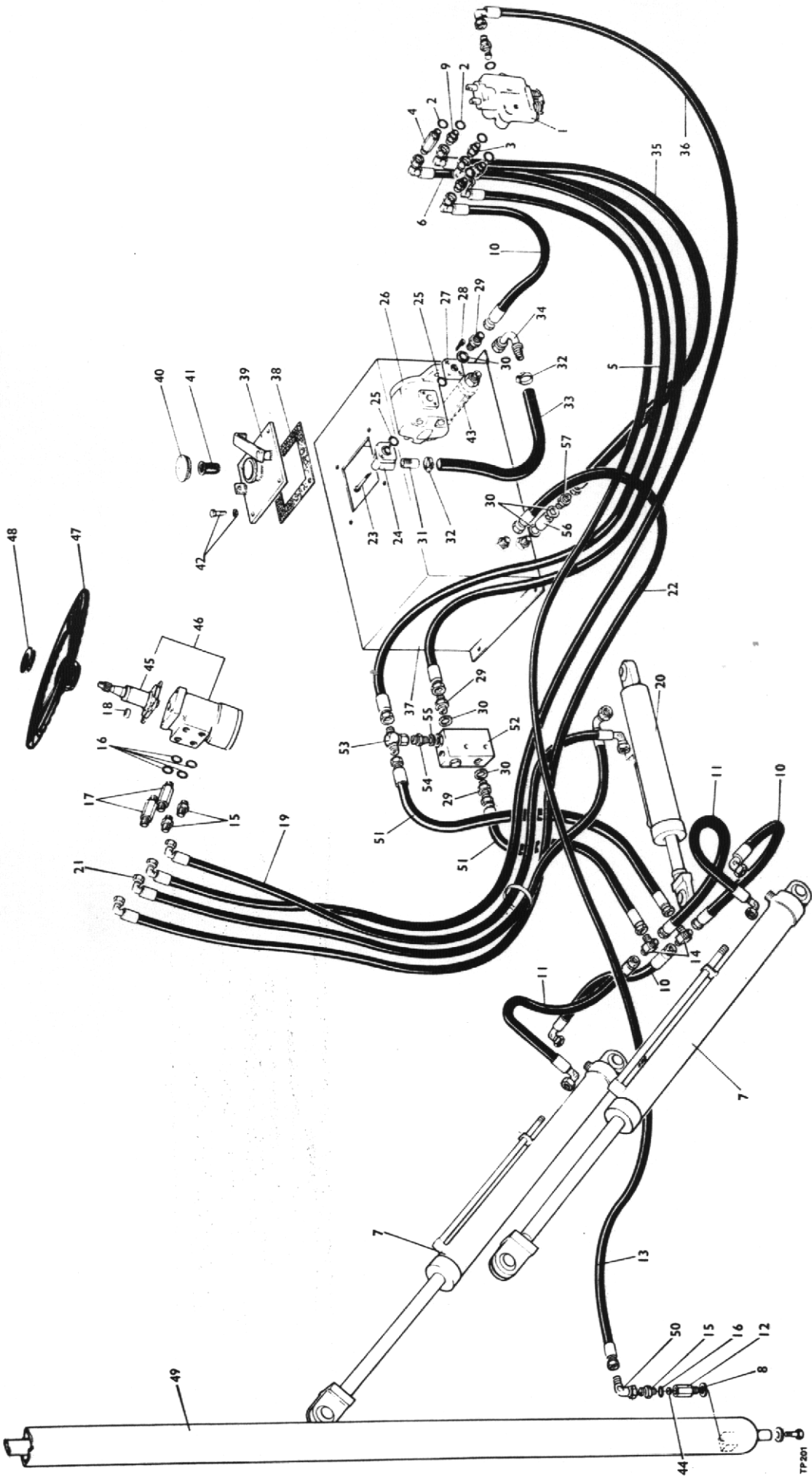
**HANDBRAKE, VALVE CONTROL LEVERS &
ENGINE STOP CONTROL**

Item No.	Part No.	Description	Qty
1	10596.A01	Handbrake lever	1
2	8S.4A	Bolt M10 x 25mm long & locknut - 61S.4	2
3	L309	Block	1
4	8S.4D	Bolt M10 x 40mm long & locknut - 61S.4	4
5	2S.4	Nut 3/8" BSF	1
6	4-35-111	Handbrake cable	1
7	8S.3C	Bolt M8 x 35mm long & locknut - 61S.3	1
8	8S.3A	Bolt M8 x 25mm long & locknut - 61S.3	1
9	8S.3E	Bolt M8 x 45mm long & locknut - 61S.3	1
10	4-35-349	Disc Brake adjusting Plate	1
11	CSE 166	Transmission Brake Mounting Bracket	1
12	4-35-256	Bell crank	1
13	10S.4	Flat washer 1/2" dia	1
14	4-35-253	Double clevis	1
15	C174X	Clevis Pin	1
16	C174Y	Clevis Pin	1
17	4-35-264	Clevis Pin	1
18	44S.1C	Split Pin 1/16" dia x 1" Long	1
19	44S.2C	Split Pin 3/32" dia x 1" Long	3
20	F4-45-173	Hydraulic Valve Mounting Bracket	1
21	8S.4B	Bolt M10 x 30mm long & locknut - 61S.4	2
22	F4-45-185	Hydraulic Valve Lever	2
23	10211.A01	Knob	2
24	10280.A01	Label - Lift	1
25	8S.4K	Bolt M10 x 70mm long & locknut - 61S.4	1
26	10S.3	Flat washer 3/8" dia	4
27	4-60-178	Connecting Link	1
28	CSE 165	Handbrake Disc Guard	1
29	4-60-239	Engine stop control cable assembly	1
30	4-60-242	Clamp Screw	1
31	10S.3	Springwasher 3/8" dia	1
32	9S.3	Nut 3/8" UNF	1
33	4-35-196	Solderless nipple	1
34	CSE 145	Stop Control cable bracket	1
35	11S.2B	Bolt M6 x 20mm long & locknut - 61S.2	2
36	10281.A01	Label - Tilt	1



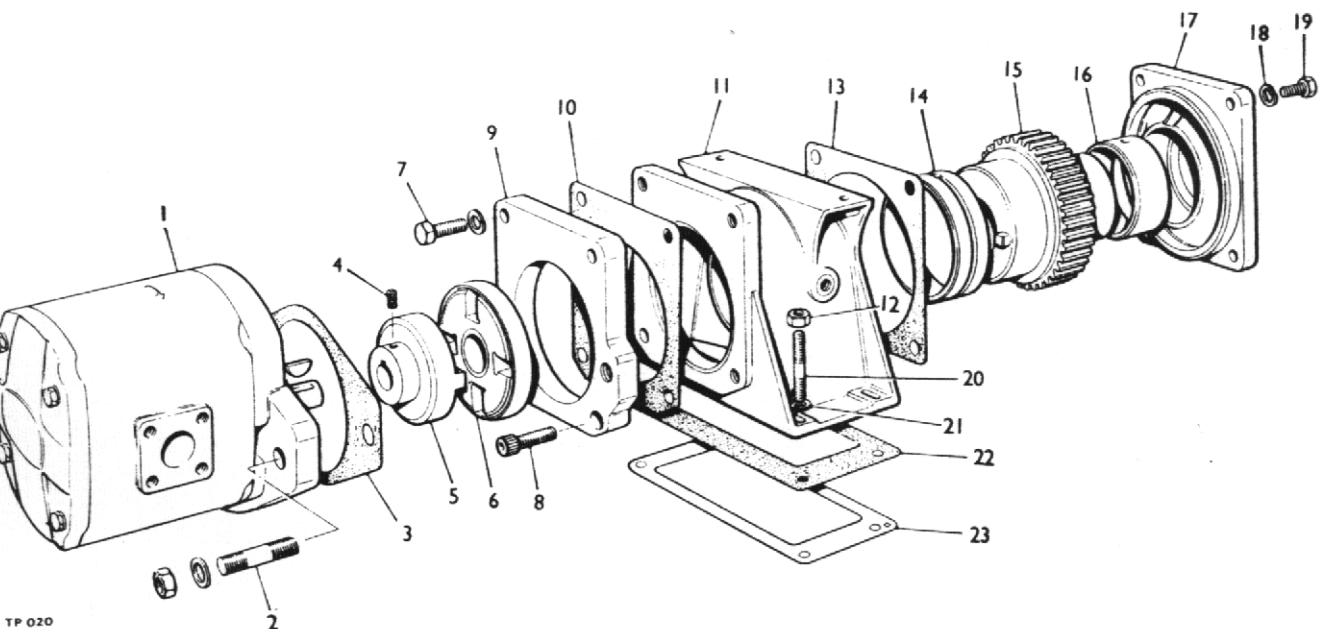
PEDALS AND CONTROLS

Item No.	Part No.	Description	Qty.
1	C160B	Accelerator Rod Ball End	1
2	C173D	Spring	1
3	C163	Spring Attachment Bracket	1
4	20166.A01	Accelerator Rod	1
5	2S.2	Nut 1/4" BSF	2
6	10312.A01	Accelerator Lever	1
7	C174X	Pin	4
8	44S.02C	Split Pin 3/32" x 1"	6
9	C174A	Clevis	2
10	T21A	Clutch Rod 3/8" BSF x 12 1/2" long	1
11	2S.4	Nut 3/8" BSF	2
12	C173B	Spring	2
13	CSE 114	Brake Pedal Pivot Pin	1
14	8S3A & 7S3	Bolts M8 x 25mm long & Nuts (Pedal pins)	2
15	12S.3	Plain Washer M8	2
16	WB1010	Bush	4
17	T-ST	Grease Nipple	2
18	CSE 120	Footbrake Pedal	1
19	CSE 113	Clutch Pedal Pivot Pin	1
20	CSE 108	Clutch Pedal	1
21	54S.01A	Tension Pin	1
22	CSE 148	Brake Compensator Clevis	1
23	C174Y	Clevis Pin	2
24	CSE 111	Accelerator Pedal	1
25	CSE 147	Brake Compensator	1
26	67S.1	Washer	1
27	10311.A01	Speed Control Arm	1
28	6S.1B	Bolt Hex.Hd. 1/4" x 1 1/4" UNF	1
29	9S.1	Nut 1/4" UNF	1
30	87S.1	Nut 1/4" UNF Binx	1
31	10S.1	Washer 1/4"	2
32	11S.2A	Setscrew M6 x 16 lg.	2
33	61S.2	Nut M6	2
34	12S.2	Washer M6	2



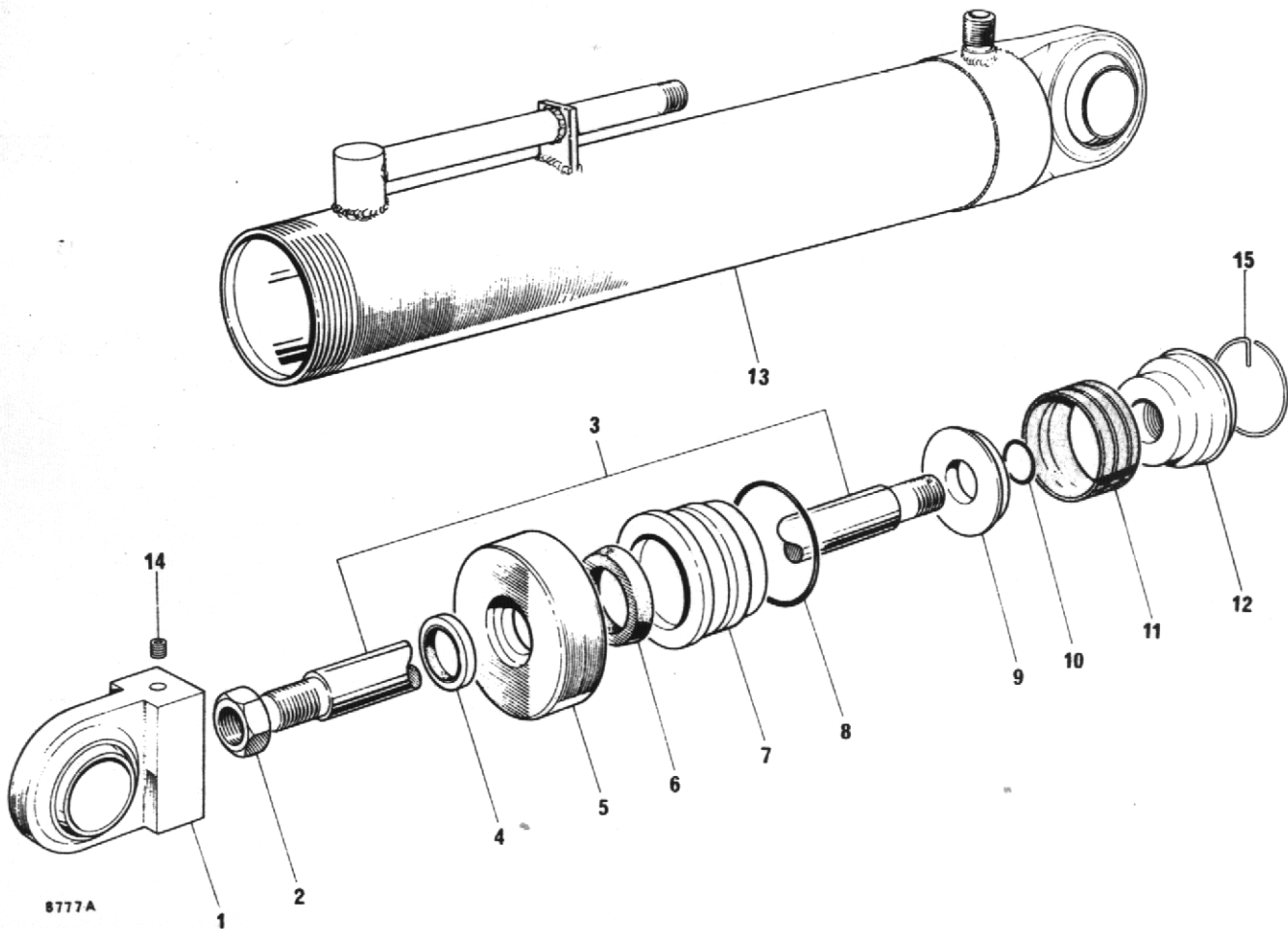
HYDRAULIC PIPES & FITTINGS

Item No.	Part No.	Description	Qty.
1	305-021-AAA	Control Valve	1
2	49S.1	'O' Ring	5
3	CSE 186	Adaptor 7/8" UNF x 3/8" BSP - Short	3
4	F4-45-196	Adaptor 7/8" UNF x 3/8" BSP - Long	1
5	31S.2 O	Hose 3/8" x 43" Long - ST-90°	1
6	31S.2 P	Hose 3/8" x 48" Long - ST-90°	1
7	4-35-295	Mast Tilt Cylinder	2
8	F4-45-68	Sealing Washer	1
9	DSE 115	Adaptor 7/8" S.A.E. x 1/2" BSP - Male-Male	1
10	31S.2EE	Hose 3/8" x 410mm Long - ST-90°	3
11	31S.2V	Hose 3/8" x 23 1/2" Long - ST-90°	2
12	F4-45-59	Restrictor Adaptor	1
13	31S.2DD	Hose 3/8" x 3050mm - ST-90°	1
14	2ST-72M	Tee	2
15	4-35-40K	Adaptor 3/4" UNF x 3/8" BSP	3
16	49S.2	'O' Ring	5
17	4-60-115	Adaptor 3/4" UNF x 3/8" BSP (Long)	2
18	CSE 182	Spacer	2
19	36S.2H	Hose 3/8" x 62" Long - 90°-90°	1
20	TD 3894	Steering Cylinder	1
21	36S.2G	Hose 3/8" x 68" Long - 90°-90°	1
22	31S.2K	Hose 3/8" x 67" Long - ST-90°	1
23	103S.3I	Capscrew 5/16" UNC x 2 1/4" Long	2
24	1PE 4	Elbow	1
25	DH 69 A5	'O' Ring	2
26	P 3072 CPSFB	Pump	1
27	4-35-261	Adaptor Plate	1
28	103S.3C	Capscrew 5/16" UNC x 1" Long	2
29	T 14 J	Adaptor 3/8" BSP x 3/8" BSP	3
30	T 14 I	Bonded Seal 3/8" BSP	5
31	T 48	Inlet Adaptor	1
32	T 63 M	Hose Clip	2
33	37S.1I	Hose 3/4" Cotton Braid 20" Long	1
34	BSE 109	Elbow 3/4" BSP - 90°	1
35	31S.3 O	Hose 1/2" x 48" Long - ST-90°	1
36	36S.2A	Hose 3/8" x 98" Long - 90°-90°	1
37	CSE 123	Hydraulic Tank	1
38	T 18 B	Gasket	1
39	4-35-187	Cover Plate	1
40	P 2578 2	Cap	1
41	P 1145	Strainer	1
42	11S.3B	Bolt M8 x 20mm Long & Shakeproof Washer - 13S.3.	4
43	UC 1457	Filter	1
44	16097-375	Orifice Plate	1
45	099-530063	Steering Column	1
46	OSP 160 SMMT	Steering Valve complete	1
47	40064.A01	Steering Wheel	1
48	10314.A01	Steering Wheel Cap	1
49	EH 571 109	Mast Cylinder	1
50	2ST 72N	90° Swivel Nut Elbow	1
51	35S.2I	Hose 3/8" x 25" Long - ST-ST	2
52	ESE 130-6	Tilt Control Valve	1
53	F4-45-99	Tee 3/8" BSP Male-Male-Female	1
54	4-60-189	Adaptor 3/8" BSP x 1/4" BSP	1
55	ESE 130-47	Sealing Washer 1/4"	1
56	F4-45-236	Straight Socket 3/8" BSP x 40mm Long	1
57	T 63 K	Adaptor 3/8" BSP x 1/2" BSP Male-Male	1



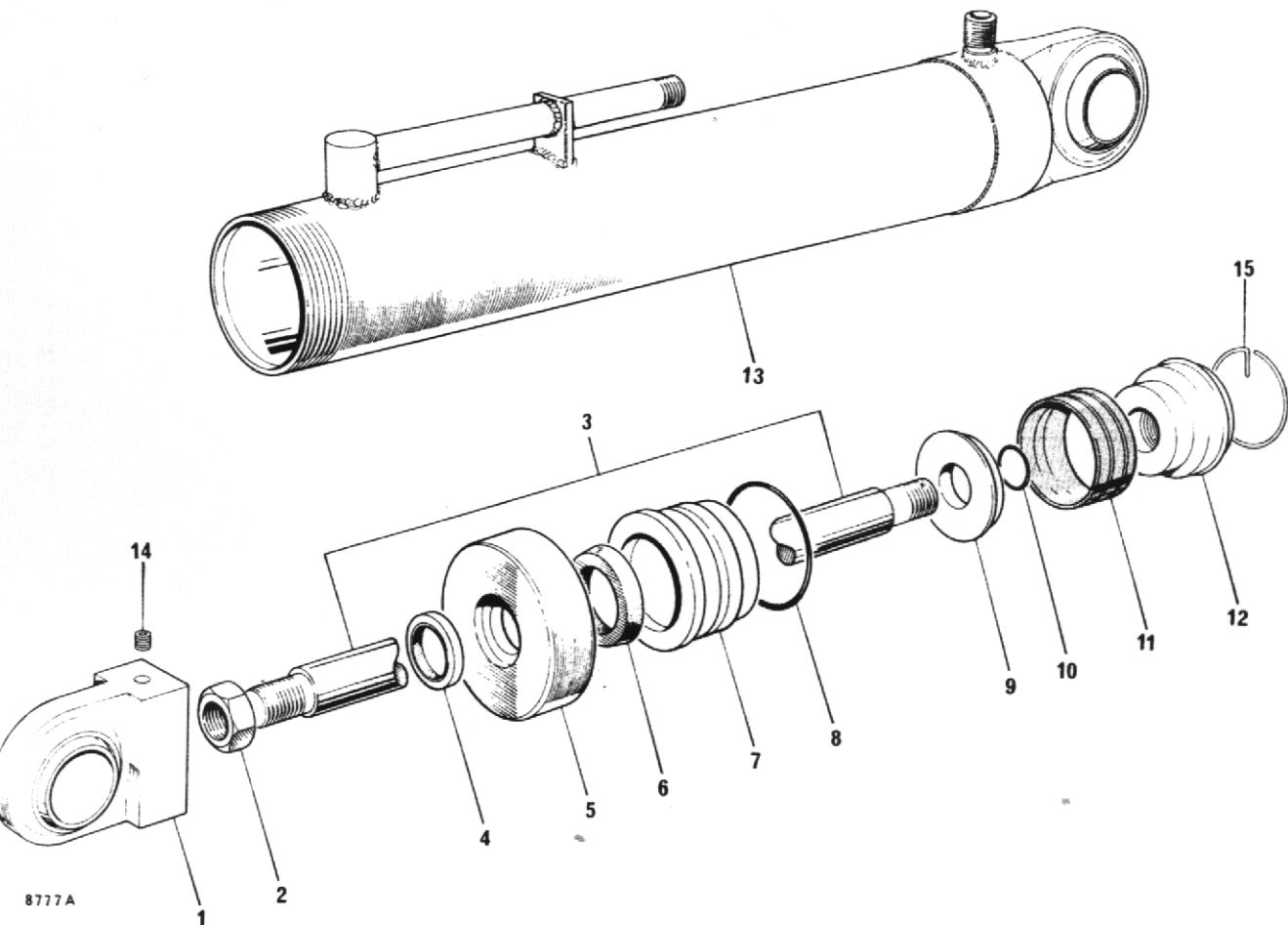
HYDRAULIC PUMP & DRIVE

Item No.	Part No.	Description	Qty.
1	1P3072CPSFB	Pump complete	1
2		Stud, washer & nut	2
3	334932	Joint	1
4	724202	Socket Screw 1/4" BSF x 5/16" long	1
5	334967	Coupling (Pump Half)	1
6	266185	Coupling Assy	1
7	725049	Bolt 3/8" BSF x 1" long	2
8	724056	Cap Screw 3/8" BSF x 3/4" long	2
9	292709	Spigot Plate	1
10	266159	Joint	1
11	2-197597	Pump Housing	1
12	726003	Nut 3/8" BSF	4
13	264702	Joint	1
14	2-264704	Bearing	1
15	334968	Gearwheel	1
16	2-202485	Bearing	1
17	264701	Cover -- Pump Housing	1
18	786029	Spring Washer - 5/16"	4
19	722024	Bolt 5/16" BSF x 5/8" long	4
20	760061	Stud 3/8" BSF x 1 3/8" long	4
21	786030	Spring Washer - 3/8"	4
22	264700	Joint	1
23	264706	Shim	A.R.



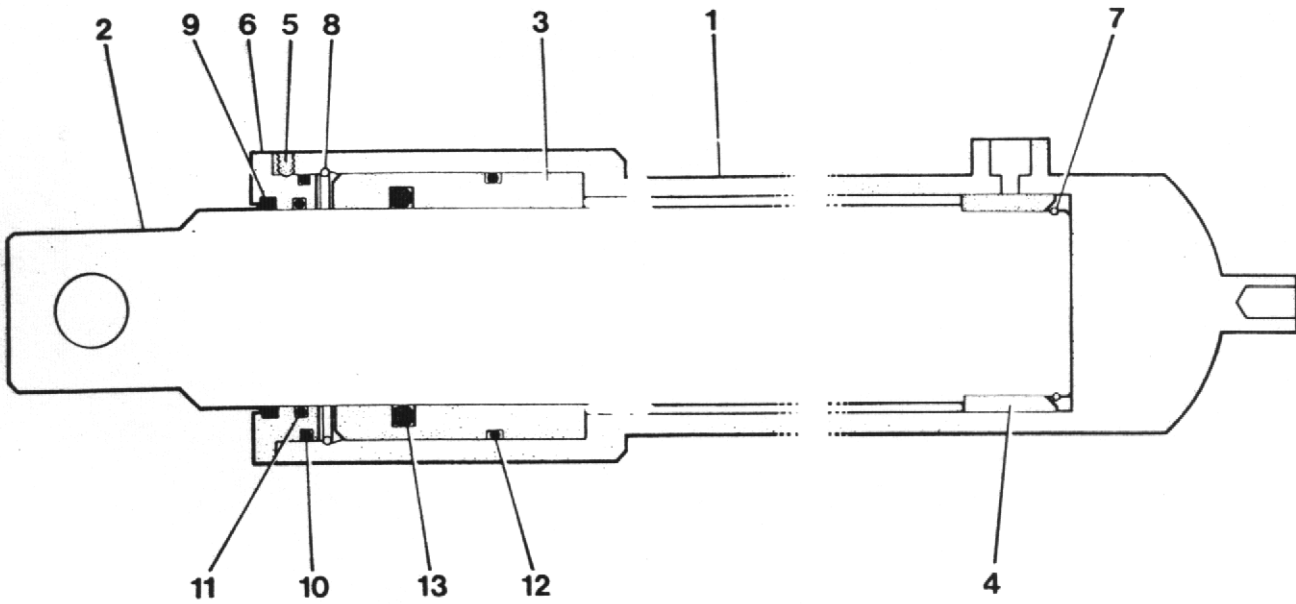
STEERING RAM

Item No.	Part No.	Description	Qty.
	30121.A01	Ram Complete (1 Per Machine)	
1	30121.A0101	Piston Rod Fitting	1
2	30121.A0102	Locknut	1
3	30121.A0103	Piston Rod	1
4	30121.A0104	Wiper	1
5	30121.A0105	Tube Cap	1
6	30121.A0106	Sleeve Seal	1
7	30121.A0107	Sleeve	1
8	30121.A0108	Sleeve 'O' Ring	1
9	30121.A0109	Backing Washer	1
10	30121.A0110	Piston 'O' Ring	1
11	30121.A0111	Piston Seal	1
12	30121.A0112	Piston Head	1
13	30121.A0113	Cylinder, Bosses & End Cap	1
14	30121.A0114	Grub Screw	1
15	30121.A0115	Spring Ring	1
	CSE 189	Seal Kit (comprising items 4,6,8,10 & 11) ..	A/R



MAST TILT RAM

Item No.	Part No.	Description	Qty
	30161.A01	Cylinder Complete (2 per M/c)	
1	30121.A0101	Piston Rod Fitting	1
2	30121.A0102	Locknut	1
3	30161.A0101	Piston Rod	1
4	30121.A0104	Wiper	1
5	30121.A0105	Tube Cap	1
6	30121.A0106	Sleeve Seal	1
7	30121.A0107	Sleeve	1
8	30121.A0108	Sleeve 'O' Ring	1
9	30121.A0109	Backing Washer	1
10	30121.A0110	Piston 'O' Ring	1
11	30121.A0111	Piston Seal	1
12	30121.A0112	Piston Head	1
13	30161.A0102	Cylinder, Bosses and End Cap	1
14	30121.A0114	Grub Screw	1
15	30121.A0115	Spring Ring	1
	CSE 189	Seal Kit (comprising items 4,6,8,10 & 11) ..	A/R

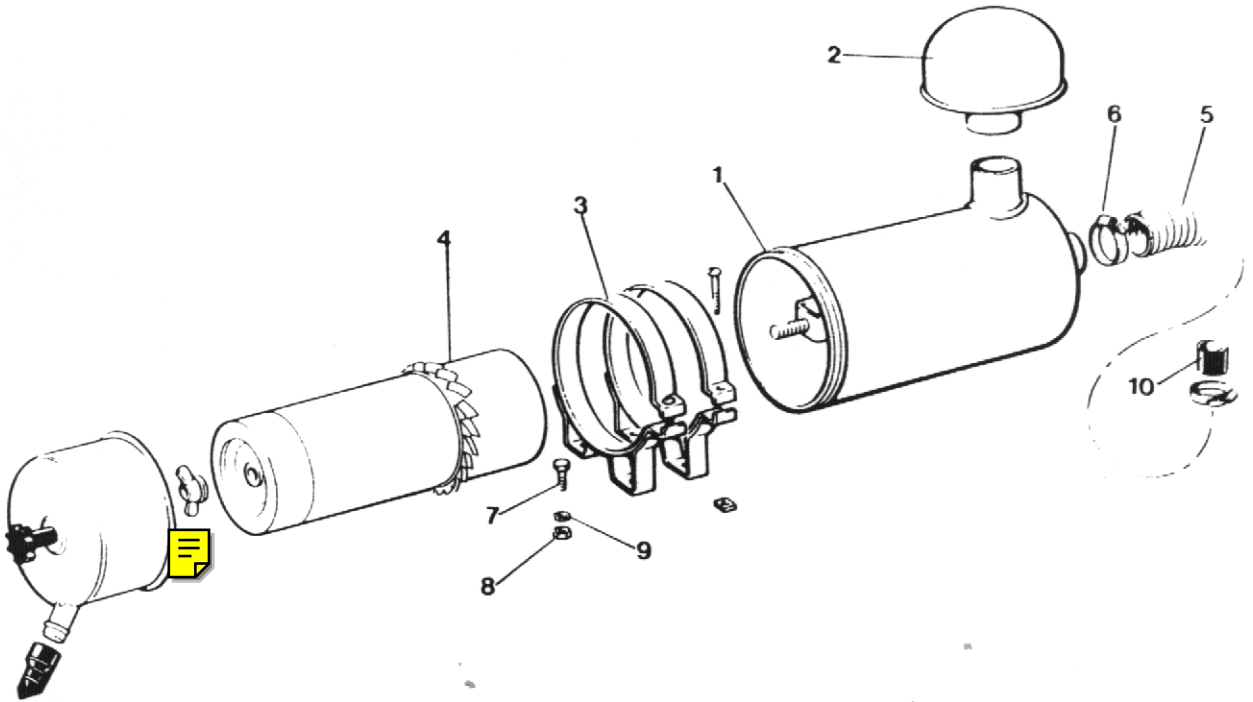


TP345

MAST LIFT CYLINDER

Item No.	Part No.	Description	Qty.
	30115.A01	Lift Cylinder (complete)	1
1	30115.A0101	Body Assembly	1
2	30115.A0102	Piston Assembly	1
3	30115.A0103	Gland	1
4	30115.A0104	Bearing Ring (Phosphor Bronze)	1
5	30115.A0105	Socket Screw $\frac{1}{4}$ " BSF x $\frac{1}{2}$ " Long	1
6	30115.A0106	Wiper Ring	1
7	30115.A0107	Retaining Ring	1
8	30115.A0108	Retaining Ring	1
9	30115.A0109	Wiper Seal	1
10	30115.A0110	'O' Ring	1
11	30115.A0111	'O' Ring	1
12	30115.A0112	'O' Ring	1
13	30115.A0113	Gland Seal	1
14	30115.A0114	Seal Kit (comprising items 9-13 incl.)	A/R

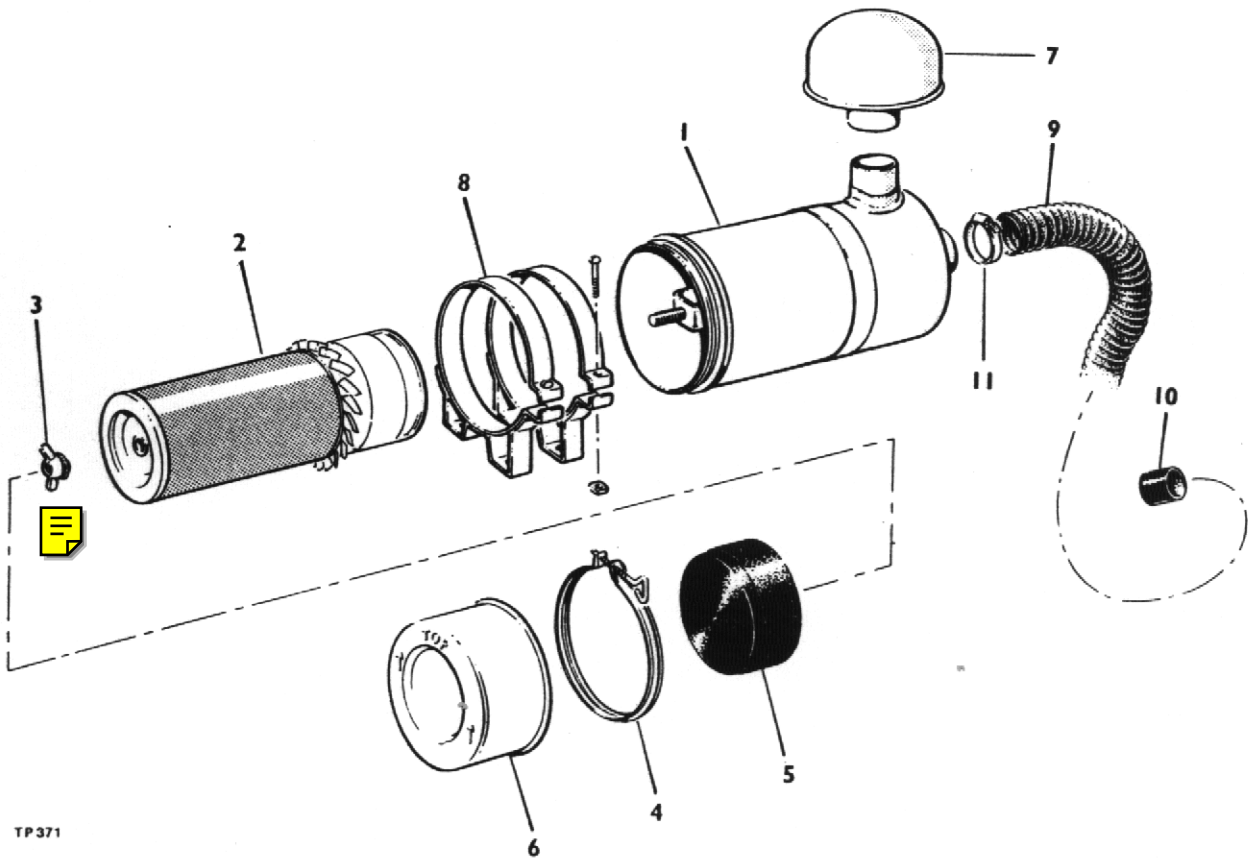
AIR CLEANER



TP372

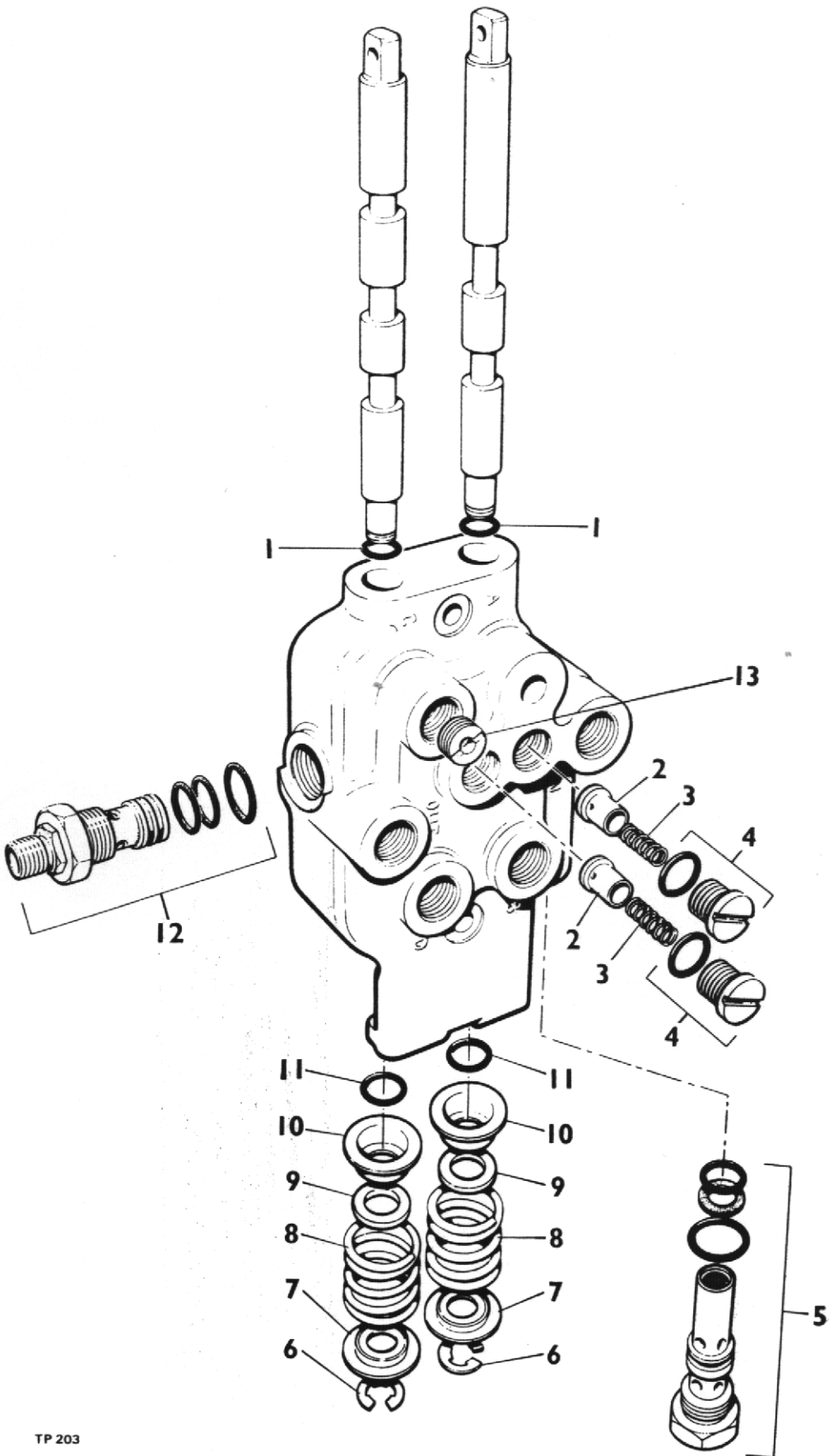
Item No.	Part No.	Description	Qty.
1	10532.A03	Air Cleaner	1
2	10534.A04	Stack Cap	1
3	10533.A04	Mounting Bands	2
4	10532.A0301	Element	1
5	10319.A02	Hose	1
6	97S.15	Hose Clip	2
7	8S.3A	Setscrew Hex. Hd. M8 x 25 Long	4
8	7S.3	Nuts M8 "Binx"	4
9	13S.3	Shakeproof Washer M8	4
10	10320.A01	Pipe Adaptor	1

AIR CLEANER



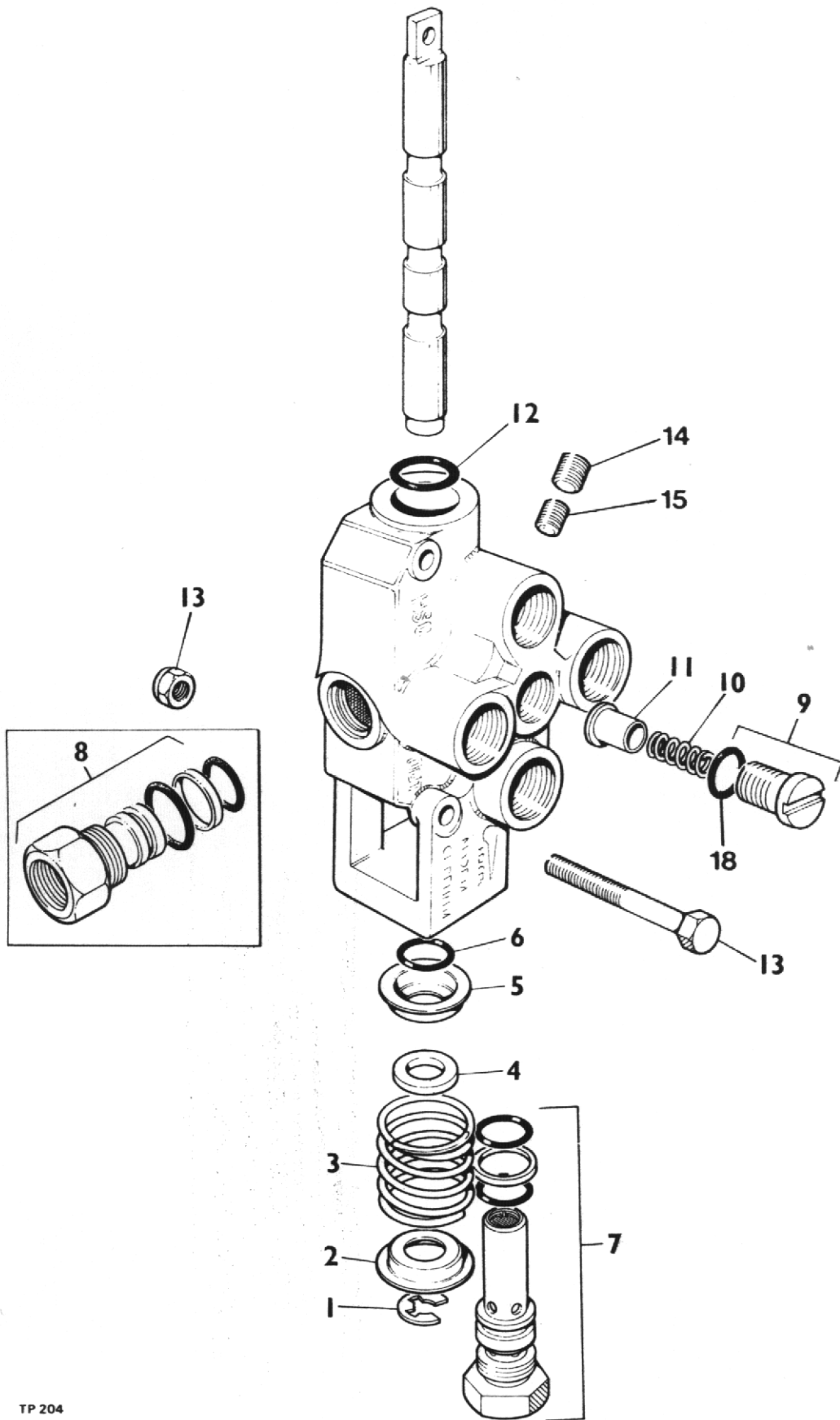
TP371

Item No.	Part No.	Description	Qty.
	10532.A04	Air Cleaner (Comprising Items 1-6)..	1
1	10532.A0401	Body	1
2	10532.A0402	Element	1
3	10532.A0403	Nut and Gasket	1
4	10532.A0404	Clamp	1
5	10532.A0405	Skirt, Baffle	1
6	10532.A0406	Cup	1
7	10534.A03	Stack Cap	1
8	10532.A03	Mounting Bracket	2
9	10319.A02	Hose	1
10	10320.A01	Pipe Adaptor	1
11	97S.15	Hose Clip	2



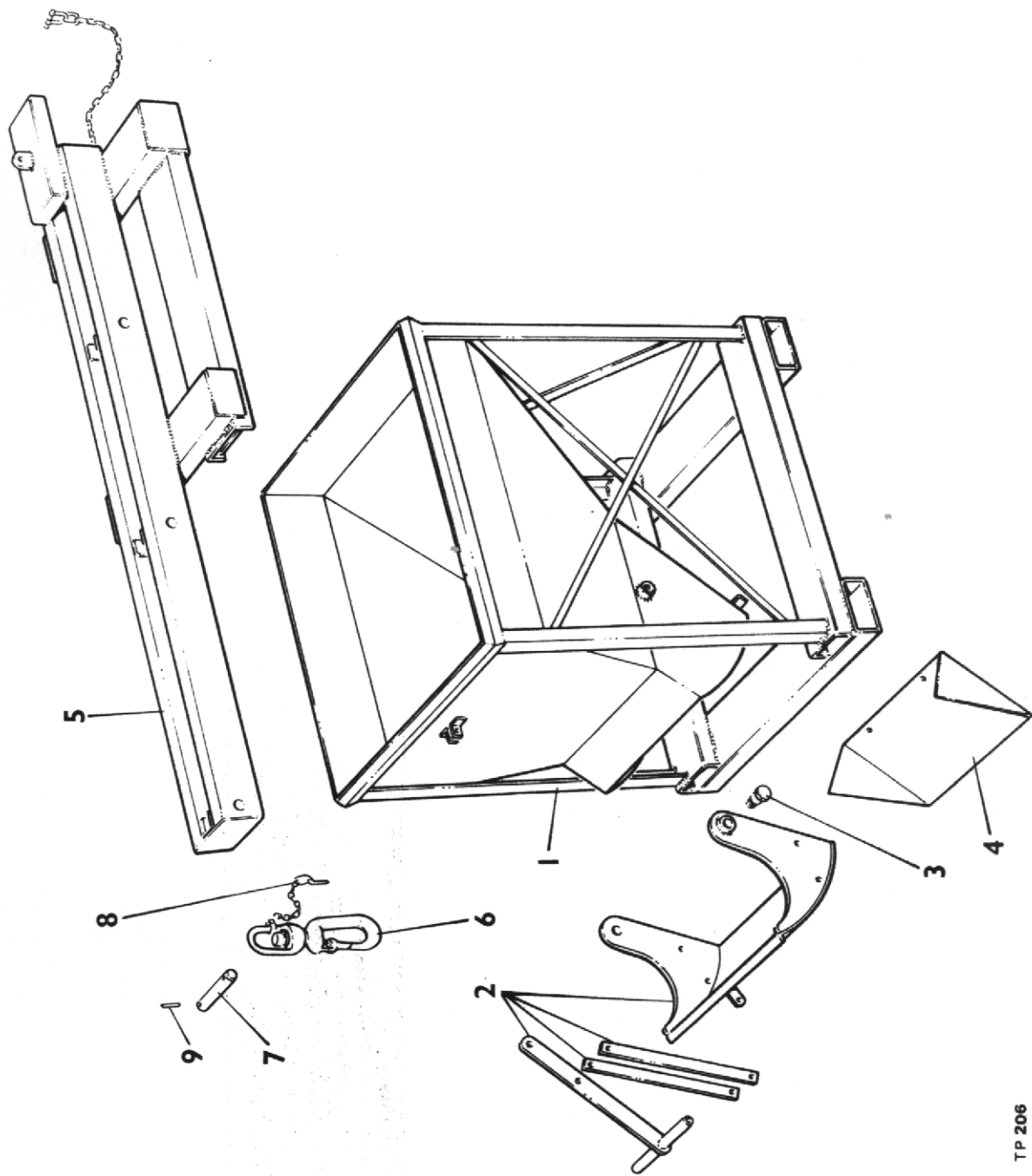
HYDRAULIC CONTROL VALVE

Item No.	Part No.	Description	Qty.
	305-021-AAA	Control Valve Assembly c/w Flow Control Valve (1 per m/c)	
1	30057.A0104	'O' Ring	2
2	30131.A0110	Lift Check Plunger	2
3	30131.A0109	Lift Check Spring	2
4	30057.A0103	Lift Check Plug Assembly	2
5	32018-J9	Relief Valve Assembly	1
6	30131.A0101	Clip Ring (1/2" Shaft)	2
7	30131.A0102	Shallow Washer	2
8	30131.A0103	Spool Spring	2
9	30131.A0104	Spacer Washer	2
10	30131.A0105	Deep Washer	2
11	30057.A0101	'O' Ring 3/32" x 5/8" I.D.	2
12	326-001-SAA	Flow Control Valve	1
13	16166-424	Orifice plate (Screw in type)	1



HYDRAULIC CONTROL VALVE
(only fitted on machines with hydraulic tip bucket)

Item No.	Part No.	Description	Qty
	30057.A01	Control Valve Assembly (1 Per M/c)	
1	30131.A0101	Clip Ring (½" Shaft)	1
2	30131.A0102	Shallow Washer	1
3	30131.A0103	Spool Spring	1
4	30131.A0104	Washer Spacer	1
5	30131.A0105	Deep Washer	1
6	30057.A0101	'O' Ring 3/32" x 5/8" I/D	1
7	30057.A0102	Relief Valve Assembly	1
8	30057.A0105	Pressure Beyond Plug Assembly	1
9	30057.A0103	Lift Check Plug Assembly	1
10	30131.A0109	Lift Check Spring	1
11	30131.A0110	Lift Check Plunger	1
12	30057.A0104	'O' Ring	1
13	6S.2H	Bolt 5/16" UNF x 2 ½" Long and Nut - 9S.2	2
14	30131.A0117	Plug 1/8"	1
15	30131.A0116	Plug 1/16"	1
16	30057.A0106	Seal Repair Kit (Relief Valve)	A/R
17	30057.A0107	Seal Repair Kit	A/R
18	30131.A0118	'O' Ring	1
19	30131.A0111	Orifice Plate (not illustrated)	1



JIB AND CONCRETE SKIP

Item No.	Part No.	Description	Qty
1	F4-45-78	Concrete Pouring Skip	1
2	F4-45-79	Concrete Pouring Skip Door & Handle Assembly	1
3	S104	Door Pivot Bolt	2
4	F4-45-80	Skip Chute	1
5	GSE 100	Crane Jib	1
6	775K	Swivel "Liverpool" Safety Hook	1
7	F4-45-76	Swivel Hook Pin	1
8	M9B	Pin and Chain	1
9	54S.3C	Tension Pin 3/8" dia x 2 1/4" Long.	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