

WINGET

OPERATING INSTRUCTIONS & SPARE PARTS LIST

FOREMASTER FORKLIFT WITH G.M.P.D. BRAKES (CAPACITY 25 CWT)

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INTRODUCTION

This Parts & Operators Manual is a re-print of the manual last published in 1973 and contains some amended part numbers.

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 FOREMASTER IS PUT INTO SERVICE ALWAYS CHECK THE FOLLOWING POINTS:—

(See Fig.1)

1. **Engine**
Check the oil level on the dipstick (A), topping up if necessary to the full mark. See also 'Recommended Lubricating Oils', page 16.
2. **Gearbox**
Check the oil level on the dipstick (B), topping up if necessary to the full mark. See also 'Recommended Lubricating Oils', page 16.
3. **Drive Axles and Transfer Case**
Remove level plugs (C) from drive axles or filler plug (D) from transfer case and check that oil is up to bottom of level holes. Top up if necessary through filler plug (E) or filler/level plug (D) if necessary. See also 'Recommended Lubricating Oils', page 16.
4. **Fuel Tank**
Fill tank in (F) with diesel oil until approximately 1" from the top.

NOTE:— Never allow fuel level to fall to below 2" deep in the bottom of the tank.
5. **Hydraulic Tank**
Fill the hydraulic tank (G). Before removing the cap, clean the surrounding area, to prevent the possible entry of foreign matter. DO NOT MIX OILS. See 'Recommended Lubricating Oils', page 16.
6. **Brake System**
Ensure the brake master cylinder reservoir (H) is full of brake fluid. Top up if necessary to within ¼" of the top of the reservoir. Use only brake fluid that conforms to S.A.E. J 1703
7. **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 the Foremaster Warranty.

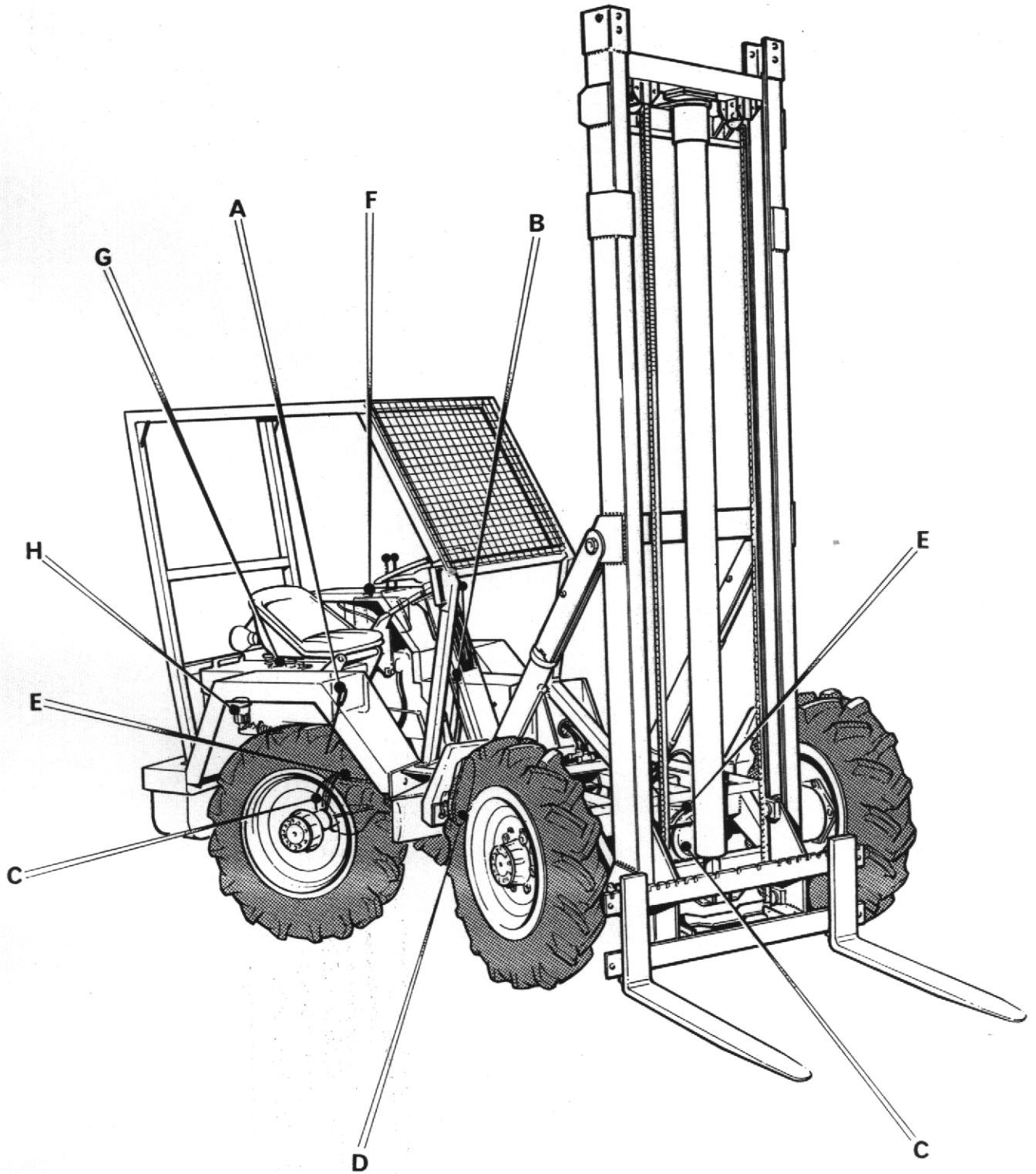


FIG. 1

OPERATION

Starting

(See Fig.2)

1. Lift red-painted overload stop (A) 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.
2. Operate priming levers (B) six times.

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

3. 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.
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 start aid should be fitted.

Stopping

(See Fig.3)

Pull out stop control knob and hold in its fully forward position until engine stops. Release stop control knob when engine has ceased to turn.

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 Shift Lever

(See Fig.4)

The Foremaster is fitted with three forward (1), (2), (3), and one reverse (R) gear. When changing gear, the clutch pedal is used in the normal manner.

Fork and Mast Tilt Control Levers

(See Fig.5)

1. The control levers each have three positions, two operating positions as shown in Fig.5 and a hold facility i.e.: when a lever is released it will automatically return to the central position.
2. The control lever travel (and therefore tilt speed) is preset at the factory by adjustment of the setting screws (C) and (D) shown in Fig.9. These settings must NOT be altered.

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GENERAL MAINTENANCE

Periodic Maintenance

1. DAILY check engine oil level and fill to full mark on dipstick, if necessary.
2. 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 in tank.
3. WEEKLY check oil level in gearbox and fill to full mark on dipstick, if necessary.
4. WEEKLY 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.
5. WEEKLY check oil level in hydraulic tank. Always clean the surrounding area before removing cap to prevent possible entry of foreign matter. Fill tank, if necessary, to within 1" of top.
6. WEEKLY check brake fluid level in master cylinder reservoir and top up if necessary, to within ½" of top.
7. WEEKLY apply grease to all grease nipples.
8. WEEKLY liberally apply grease between the outer and inner frames of the mast assembly. (For clarification see items A and B in Fig.10) Use Mobilgrease Special or Shell Alvania 2 with M.O.S.
9. WEEKLY apply a light grade oil to the fork lift chains.
10. WEEKLY check all wheel nuts and tighten if necessary.
11. WEEKLY check tyre pressures 60 lb/sq.in.
12. OCCASIONALLY check all nuts and bolts, and tighten if necessary.

Lubrication

(See Fig.6)

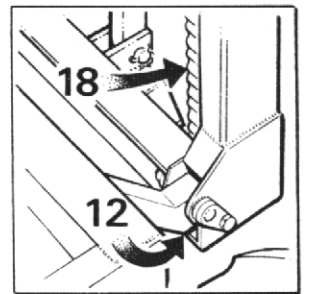
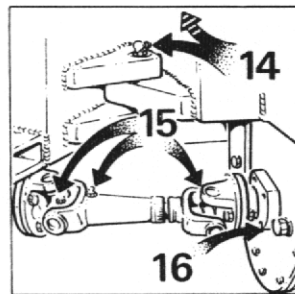
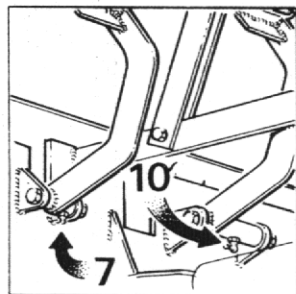
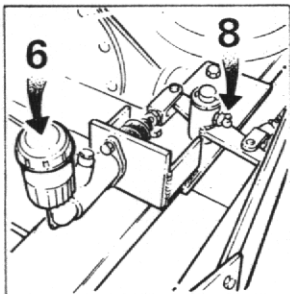
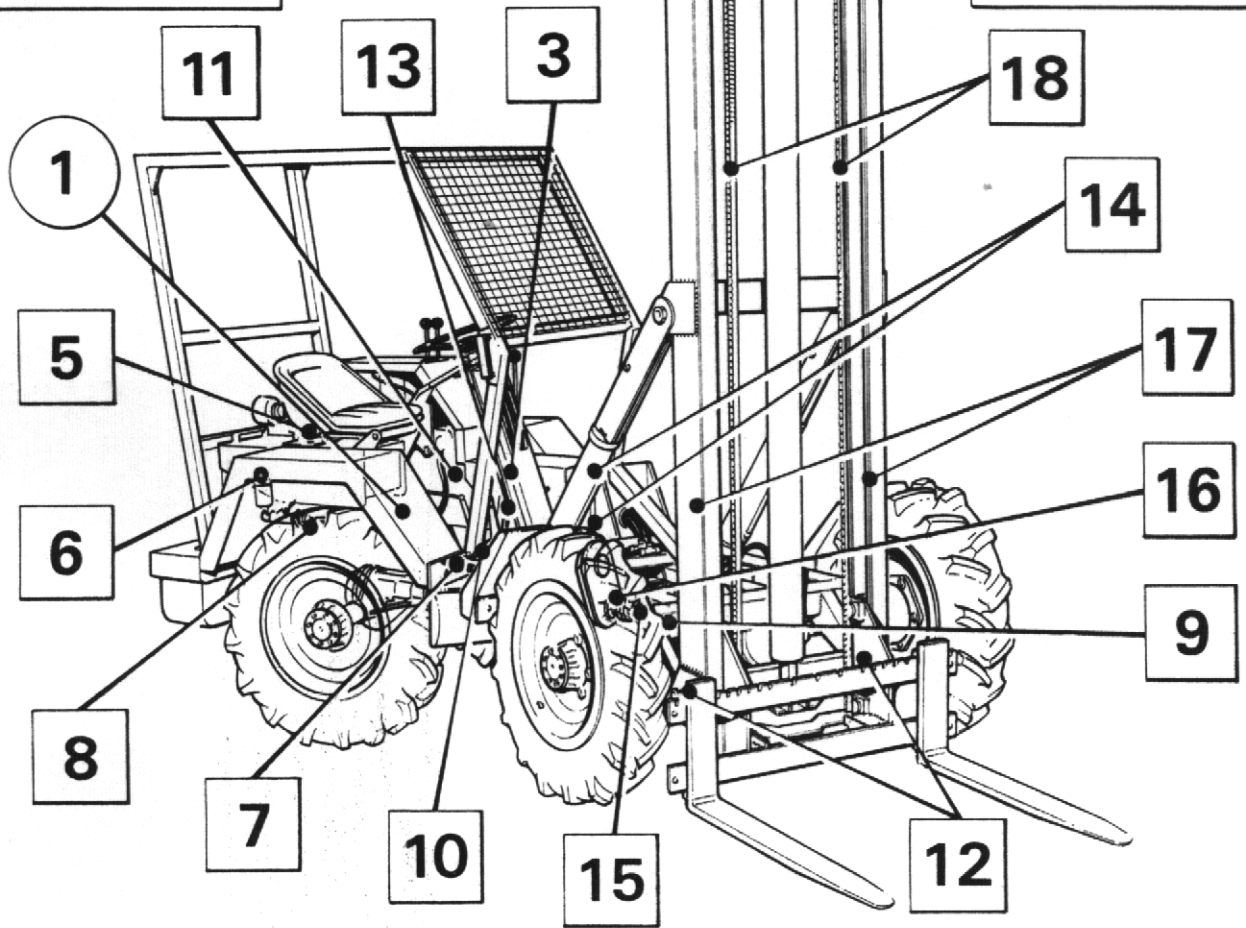
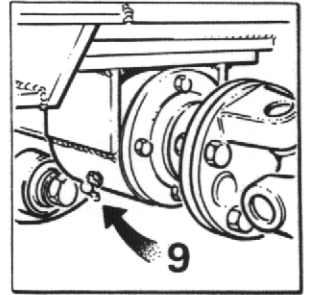
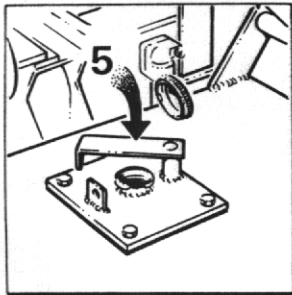
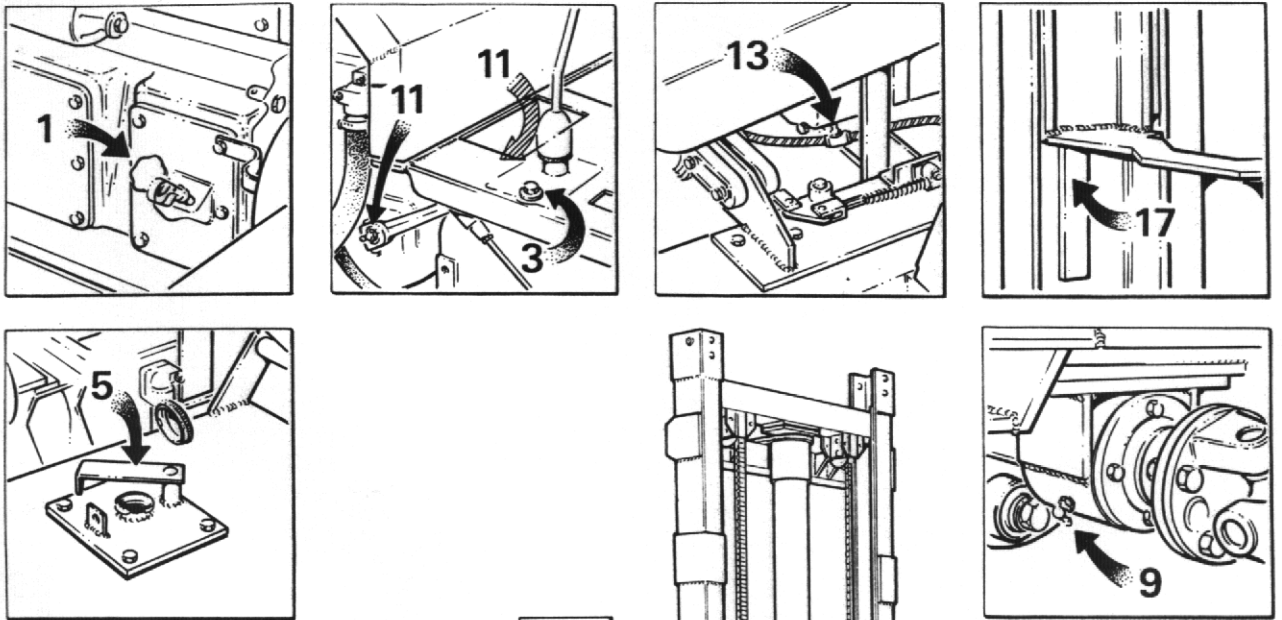
Period	Key	Description	Lubrication	No. of Points
Daily	1	Engine	Engine Oil	1
	2	Fuel Tank	Diesel Fuel	1
Weekly	3	Gearbox	Gearbox Oil	1
	4	Drive Axles	Axle Oil	2
	5	Hydraulic Tank	Hydraulic Oil	1
	6	Brake Master Cylinder Reservoir	Brake Fluid	1
	7	Footbrake Pedal	Grease Gun	1
	8	Footbrake Master Cylinder Actuating Lever	Grease Gun	1
	9	Trunnion Assembly	Grease Gun	1
	10	Clutch Pedal	Grease Gun	1
	11	Clutch Cross Shaft	Grease Gun	2
	12	Mast Pivot	Grease Gun	2
	13	Handbrake Cable	Grease Gun	1
	14	Chassis Centre Pivot	Grease Gun	2
	15	Front Prop Shaft and U.J.'s	Grease Gun	3
	16	Transfer Case	Axle Oil	1
	17	Mast Frame	Grease	
	18	Fork Carriage Chains	Oil	

N.B. FOR RECOMMENDED LUBRICATING OILS SEE CHART ON PAGE 16

Oil Capacities

Transfer Box	1 pt. (.6 litres)	Drive Axle	8 pts. (4.57 litres)
Gear Box	1½ pt. (.86 litres)	Engine	12 pts. (6.86 litres)

- NOTES:**
1. Rear Axle articulation points consist of bearings that require no lubrication.
 2. For full details of the lubrication and maintenance of the engine refer to



TP 066

FIG. 6

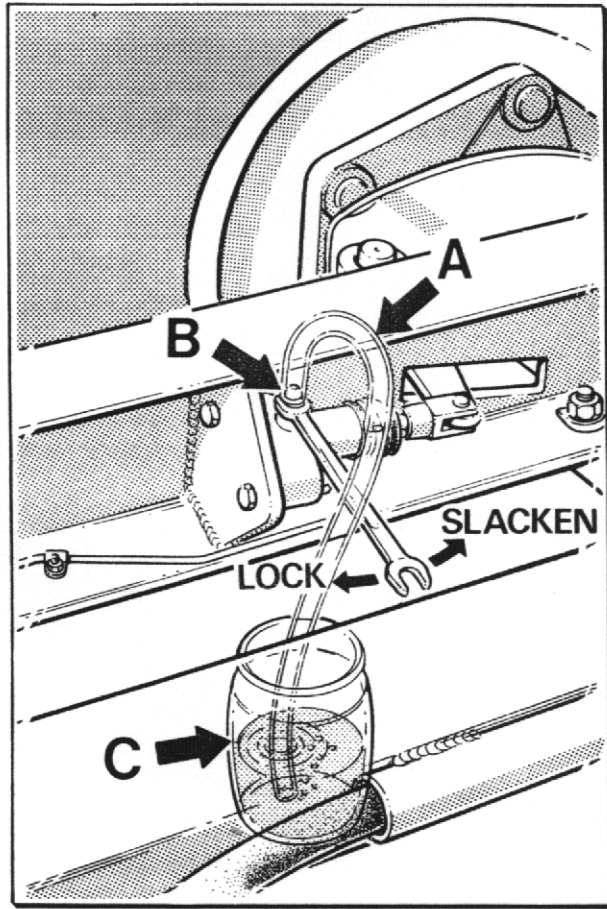
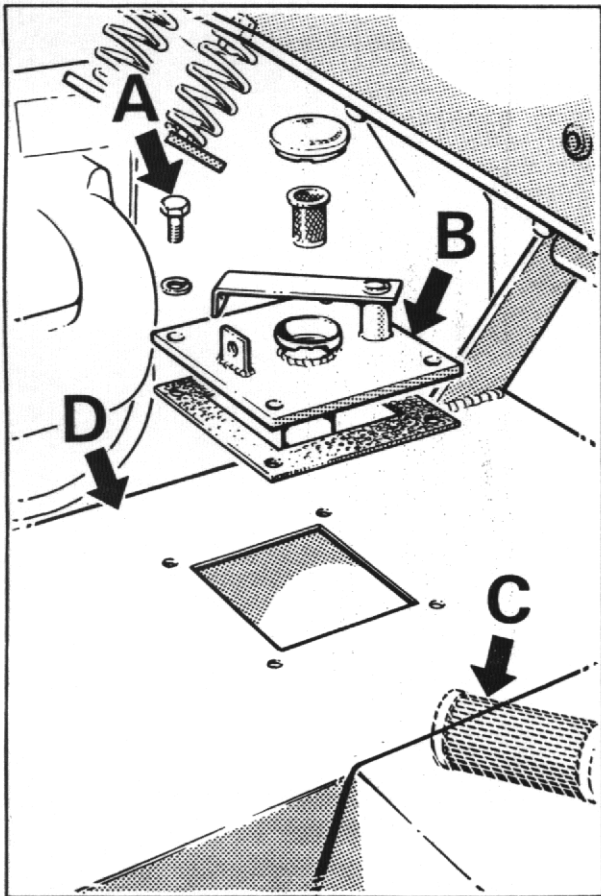


FIG. 7



TP 078

FIG. 8

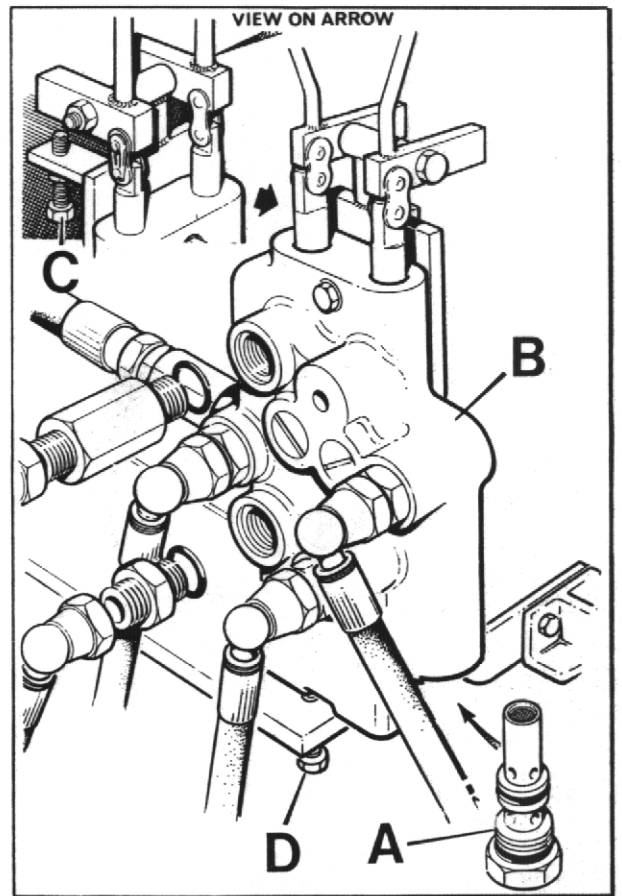


FIG. 9

Brake System

The brake system is designed to require the minimum of maintenance, and, providing the hydraulic fluid in the reservoir is not allowed to fall below the recommended level, no defects should normally occur. Fluid loss must be supplemented by topping up the reservoir with brake fluid that conforms to S.A.E. J 1703. No other fluid may be used. 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 or by the reservoir fluid level being allowed to fall very low. These 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. Fill reservoir with brake fluid.
3. Attach bleeder tube (A) (See Fig.7) to one of the bleed screws (B) and immerse other end in a small quantity of brake fluid contained in a glass jar (C). Slacken bleed screw and operate brake pedal up and down to its full stroke, until fluid pumped into the jar contains no air bubbles. Hold down pedal and close bleed screw. Remove bleeder tube and release pedal.
4. Repeat on the other slave cylinder and then on the transmission brake.
5. Continue until all air has been bled from the system.
6. Lock the 3 bleed screws and top up the reservoir to the correct level.
7. Apply normal working load on brake pedal for two or three minutes and examine the entire system for leaks.

NOTE: DURING THE OPERATION IT IS ESSENTIAL THAT THE RESERVOIR LEVEL IS KEPT TOPPED UP TO PREVENT FURTHER AIR BEING DRAWN INTO THE SYSTEM. ONLY USE NEW FLUID FOR TOPPING UP.

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.8)
 - 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.

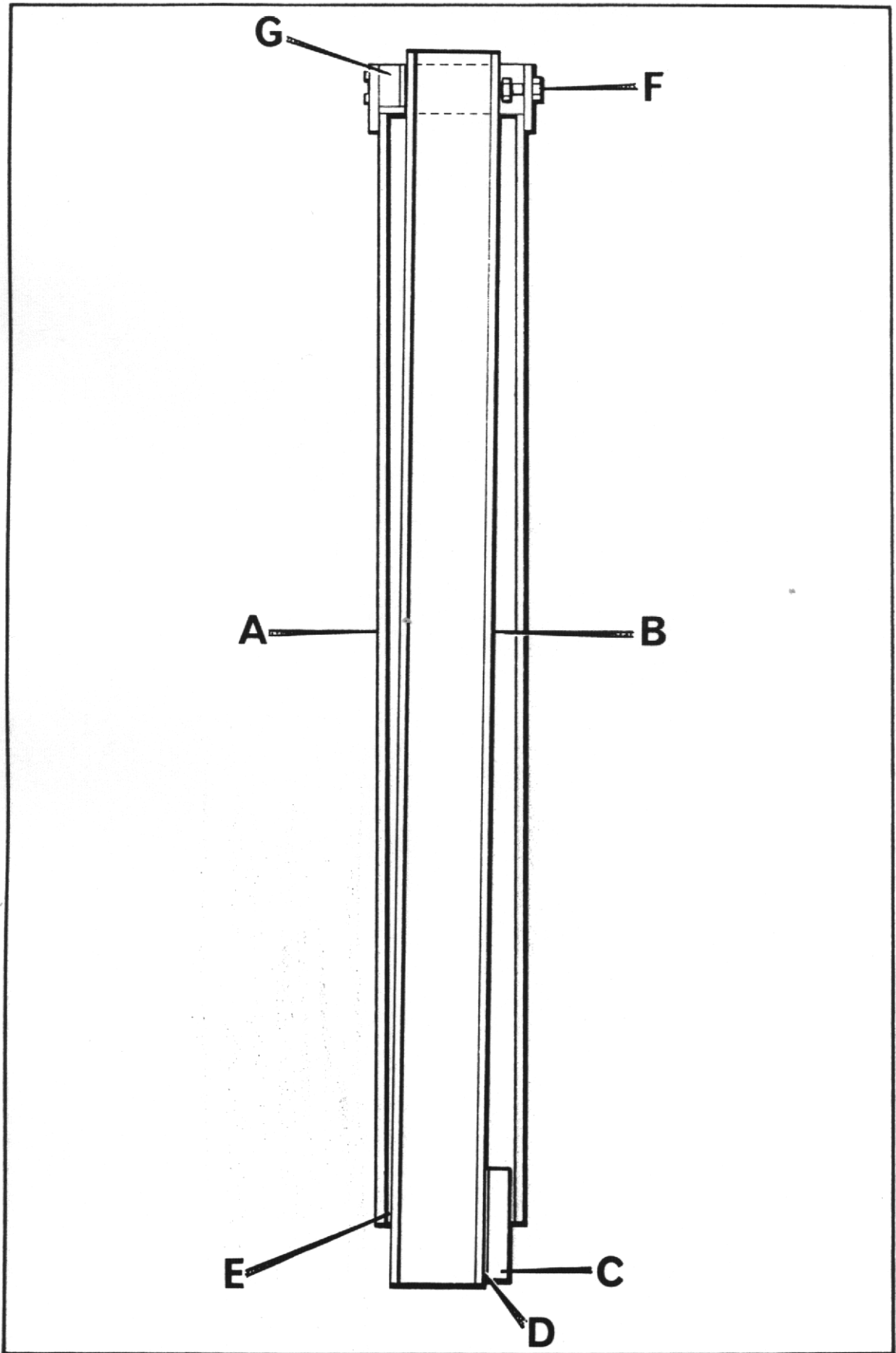
3. Check that hydraulic pressure is correct.
 - a) Fit a 2000 lb/sq.in gauge into the hydraulic system at the base of the tilt ram.
 - b) Operate control lever to tilt mast forward, and check that pressure reading on gauge is 1750 lb/sq.in. when ram is fully extended and relief valve is 'blowing'.

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.9) and replace with a new one.
5. Remove hose adaptor (C) from control valve (See Fig.9), 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.



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FIG 10

Mast Maintenance
(See Fig.10)

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). If wear is occurring add 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 fork lift and check the wear strip and block on the channel at the top of the outer frame (A). If wear has occurred, adjust the special bolt (F) accordingly. When the wear pads (G) have worn down and are exposing the metal, remove the wear pads and replace them.

SPECIFICATION

A	Overall height (Transportation position)	9'-6"	(290 cm)
B	Overall length (minus forks)	10'-1"	(307 cm)
C	Wheelbase	5'-7¼"	(171 cm)
D	Length from front axle to rear of forks	1'-9"	(53 cm)
E	Load centre	2'-0"	(61 cm)
F	Fork length	4'-0"	(121 cm)
G	Overall height (forks lowered)	12'-0"	(366 cm)
H	Fork centres	Max. 3'-4"	(102 cm)
		Min. 5"	(13 cm)
J	Wheeltrack	4'-10"	(147 cm)
K	Overall Width	5'-9½"	(177 cm)
	Maximum load at 2'-0" (61 cm) load centre	25 cwt.	(1270 kg)
	Total lift of forks	18'-0"	(549 cm)
	Ground clearance	11½"	(29 cm)
	Turning Circle	24'-6"	(747 cm)
	Unladen weight	3 ton 11 cwt	(3607 kg)
	Hydraulic relief valve pressure	1750 lb/ins ²	(123 kg/cm ²)
	Rear axle articulation	1'-2"	(36 cm)
	Lifting time, loaded	30 sec.	
	Lowering time, loaded	16 sec.	
	Road Speeds at 2000 RPM	m.p.h.	k.p.h.
	1st	2.7	4.3
	2nd	6.2	9.9
	3rd	11.4	18.3
	Rev.	2.9	4.6
	Hydraulic Tank Capacity	5 gals.	22.7 litres

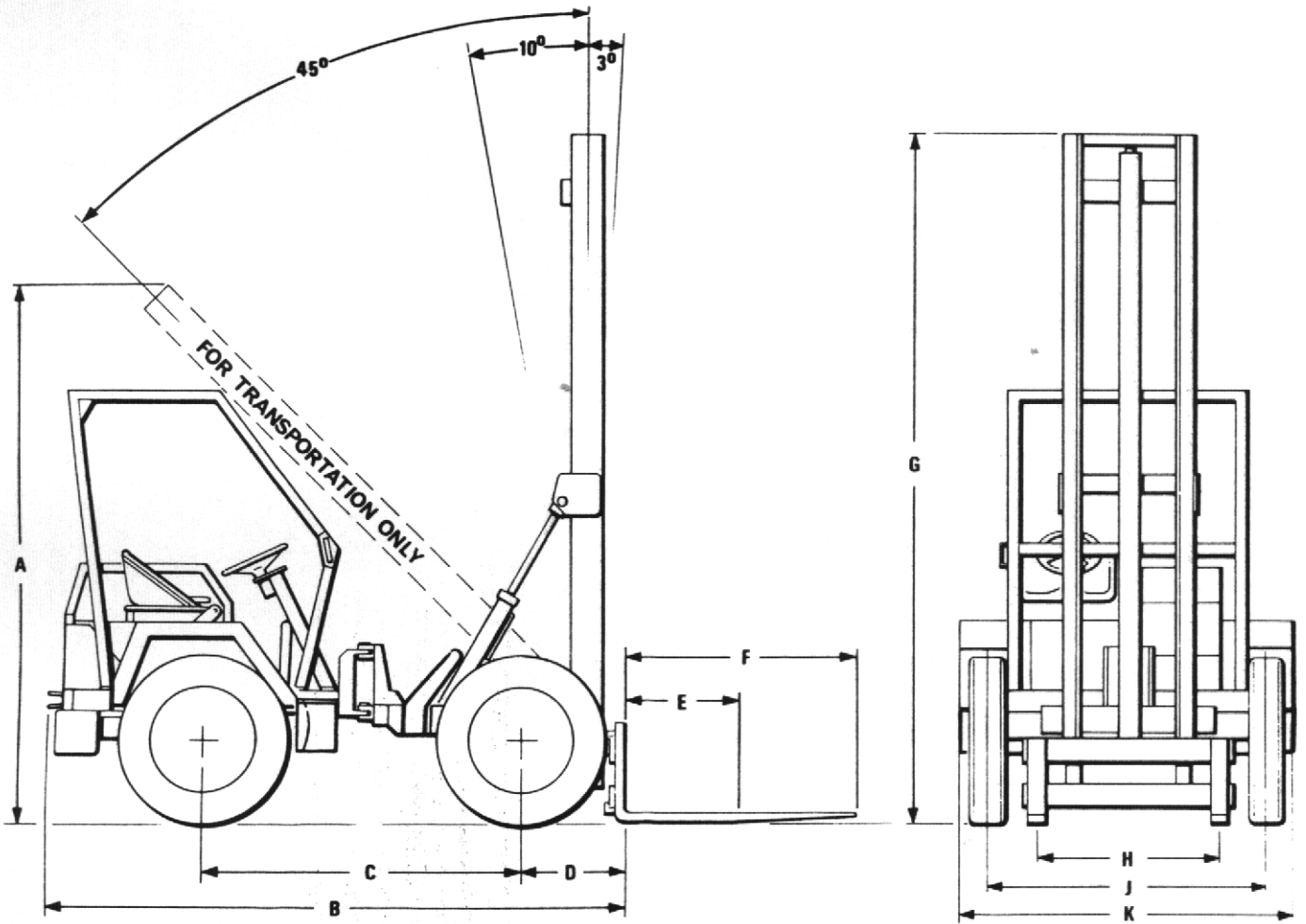


FIG. 11

RECOMMENDED LUBRICATING OILS

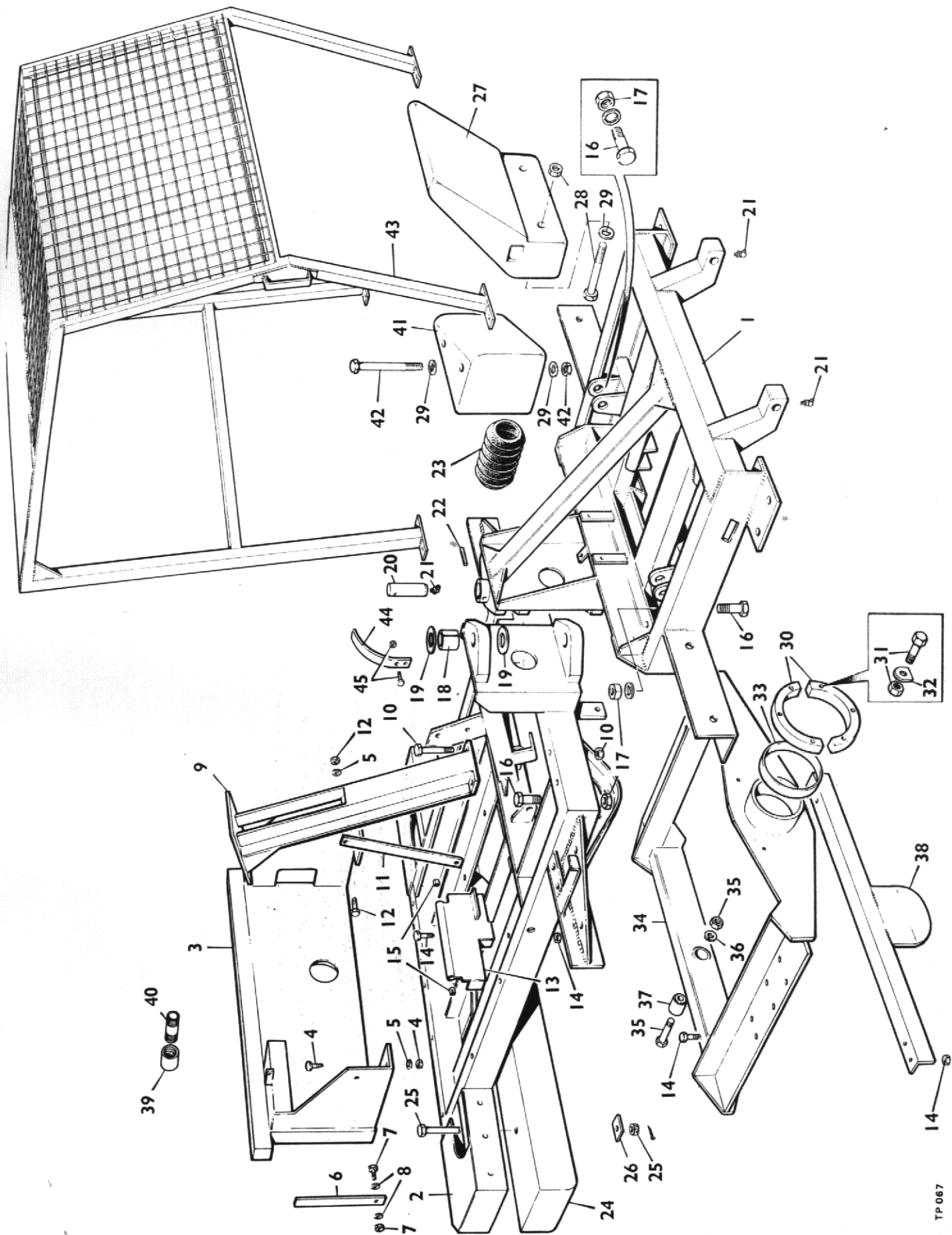
COMPANY	ENGINE PETTER LISTER PH OR PJ SR OR HR	ENGINE LISTER LR	TRANSFER BOX & DRIVE AXLE	GEARBOX	WHEEL BEARINGS & OTHER GREASE POINTS	HYDRAULIC SYSTEM
(U.K.) ESSO	SUMMER WINTER ABOVE 90°F 32-90°F BELOW 32°F (Overseas)	ESSOLUBE HDX 20W ESSOLUBE HDX 30 ESSOLUBE HDX 20W ESSOLUBE HDX 10W	GEAR OIL GP 90/140 GEAR OIL GP 140 GEAR OIL GP 90/140 GEAR OIL GP 80	ESSOLUBE HDX 30 ESSOLUBE HDX 30	BEACON 2 BEACON 2	NUTO H 44 NUTO H 54 NUTO H 44 NUTO H 40
(U.K.) CASTROL	SUMMER WINTER ABOVE 90°F 32-90°F BELOW 32°F	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	DEUSON CRI 30 DEUSOL CRI 30	CASTROL SPHEEROL APT 2 CASTROL SPHEEROL APT 2	CASTROL HYSPIN AWS 32
(U.K.) SHELL	SUMMER WINTER ABOVE 90°F 32-90°F BELOW 32°F (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 27
(U.K.) BP	SUMMER WINTER ABOVE 90°F 32-90°F BELOW 32°F (Overseas)	VANELLLUS 20 VANELLLUS 30 VANELLLUS 20 VANELLLUS 10W	GEAR OIL SAE 90 EP GEAR OIL SAE 140 EP GEAR OIL SAE 90 EP GEAR OIL SAE 80 EP	VANELLLUS 30 VANELLLUS 30	ENERGREASE L2 ENERGREASE L2	ENERGOL HLP 65
(U.K.) MOBIL	SUMMER WINTER ABOVE 90°F 32-90°F BELOW 32°F (Overseas)	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
ALL TEMPERATURES				DELVAC 1230		

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

SPARE PARTS SECTION

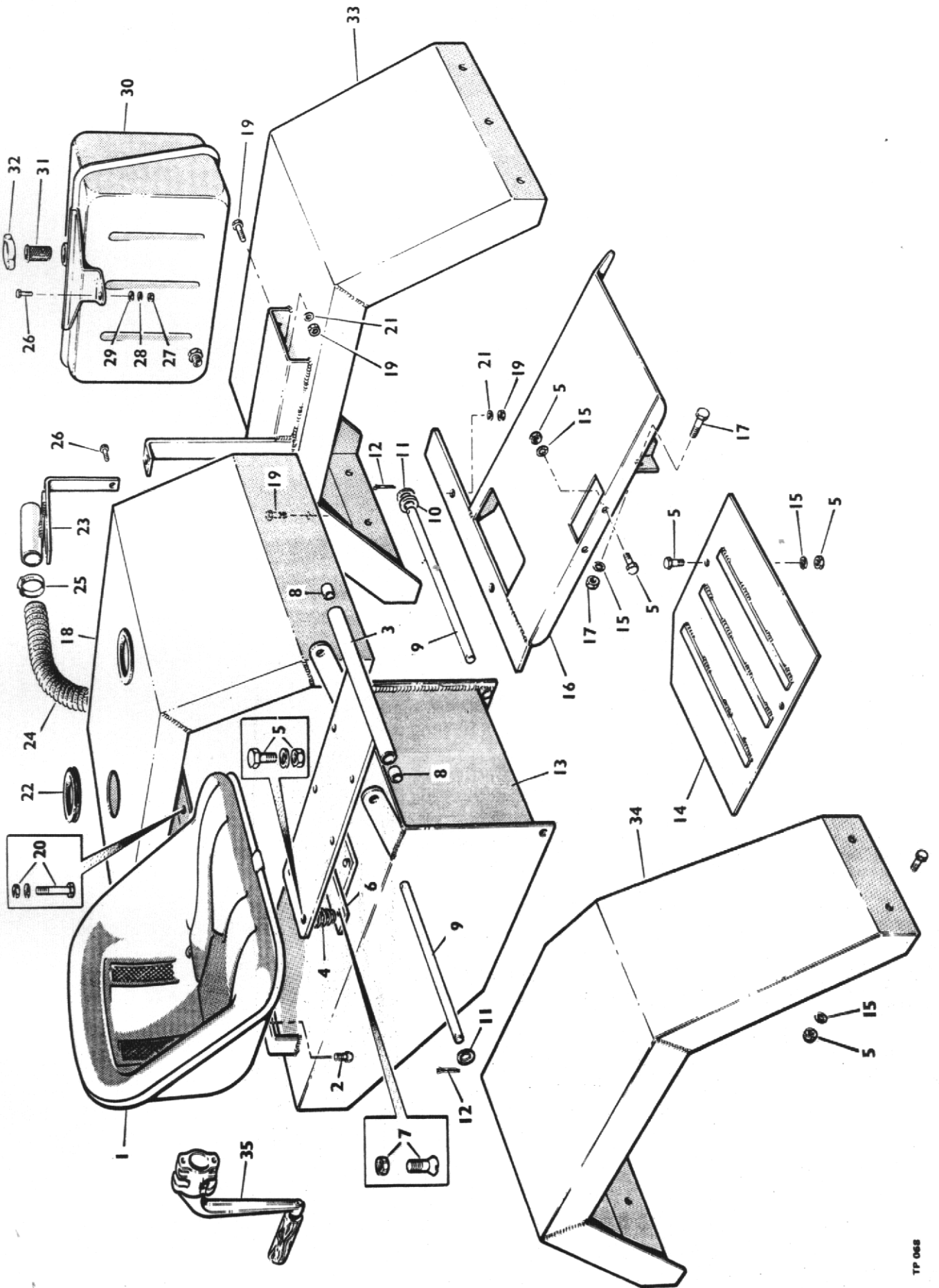
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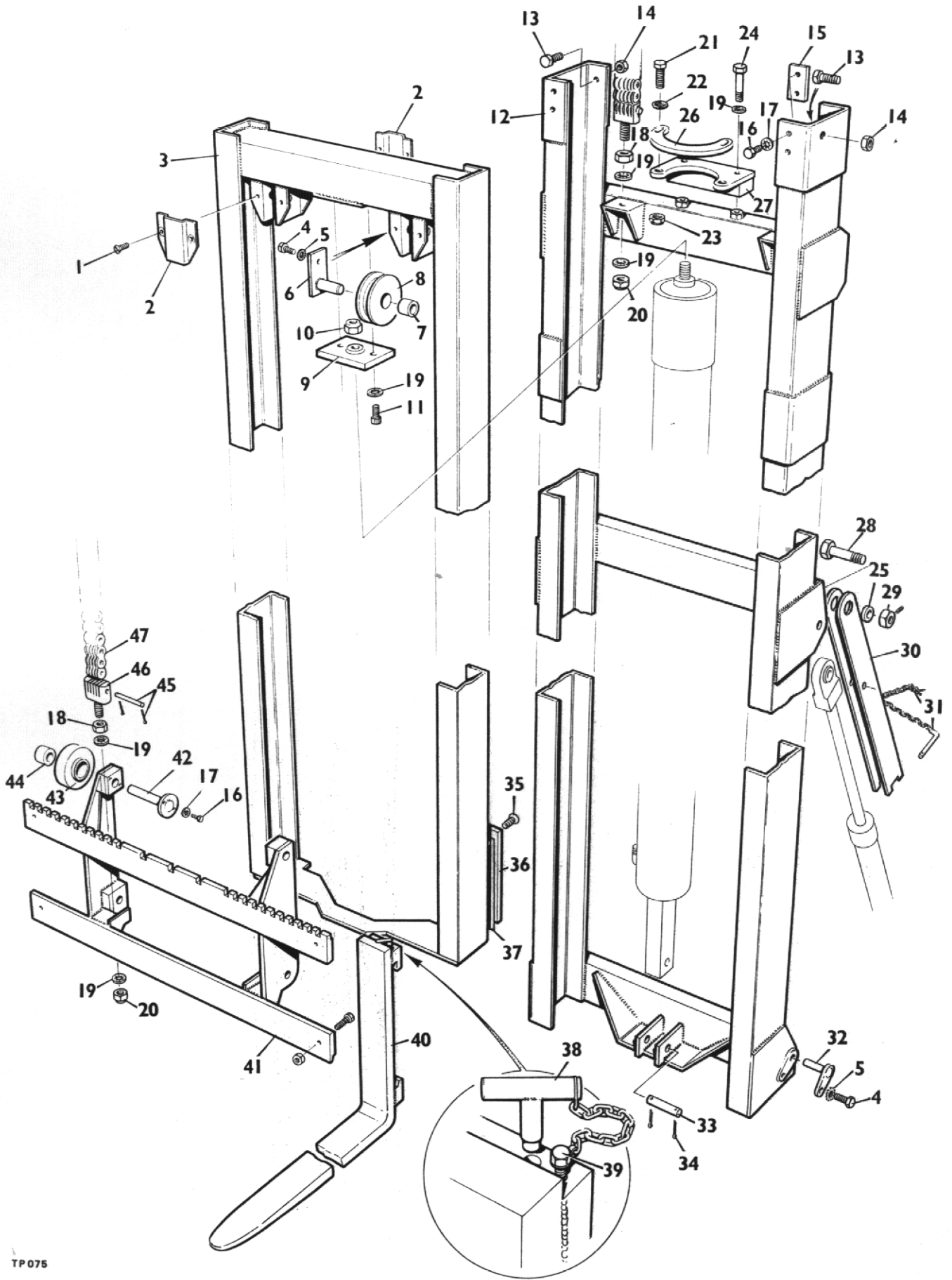
CHASSIS

Item No.	Part No.	Description	Qty.
1	F4-45-103	Front Chassis	1
2	F4-45-104	Rear Chassis	1
3	4-35-376	Rear Frame	1
4		Bolt 3/8" BSF x 1 1/4" long & Nut	8
5		Shakeproof Washer 3/8" dia.	10
6	4-35-290-13	Tank Prop	1
7		Bolt 3/8" BSF x 1" long & Nut	1
8		Flat Washer 3/8" dia.	2
9	4-35-248	Steering Column	1
10		Bolt 1/2" BSF x 5" long & Nut	2
11	4-35-333	Steering Column Brace	2
12		Bolt 3/8" BSF x 1 1/2" long & Nut	2
13	4-35-325	Hydraulic Tank Support & Pivot	1
14		Bolt 1/2" BSF x 1 1/2" long & Nut	6
15	WB0808	Bush	2
16	4-35-110A	Ram Pivot Bolt	4
17	4-35-110B	Nut	4
18	4-35-29B	Centre Pivot Pin Bush.	2
19	4-35-29C	Centre Pivot Thrush Washer	4
20	4-35-29	Centre Pivot Pin	2
21	T90	Grease Nipple	4
22	4-35-29A	Tension Pin 5/16" dia. x 2 1/4" long	2
23	4-35-10A	Convuluted Hose 7" long	1
24	F4-45-86	Rear End Ballast Weight	1
25	F4-45-106	Ballast Weight Bolt 1" BSF x 9 3/8" long & Nut	2
26	F4-45-62	Plate	2
27	F4-45-82-2	Front Chassis Ballast Weight	2
28		Bolt 5/8" BSF x 5" long & Nut	4
29		Flat Washer	12
30	4-35-344	Axle Bearing Carrier	1
31		Bolt 1/2" BSF x 2 1/4" long & Nut	6
32	4-35-145	Tab Washer	6
33	4-35-342	Axle Carrier Bearing	1
34	4-35-352	Articulating Frame	1
35		Bolt 7/8" BSF x 4" long & Nut	1
36		Spring Washer 7/8" dia.	1
37	E2245	Articulating Frame Pivot Bush	1
38	4-35-346	Rear Differential Guard	1
39	5S 111B	Exhaust Socket 1 1/2" BSP	1
40	4-35-28B	Exhaust Barrel Nipple 1 1/2" BSP	1
41	F4-45-82-1	Rear Chassis Ballast Weight	2
42		Bolt 5/8" BSF x 8 1/2" long & Nut	4
43	F4-45-64	Safety Frame	1
44	F4-45-107	Hydraulic Pipe Support	1
45		Bolt 1/4" BSF x 1" long & Nut	2



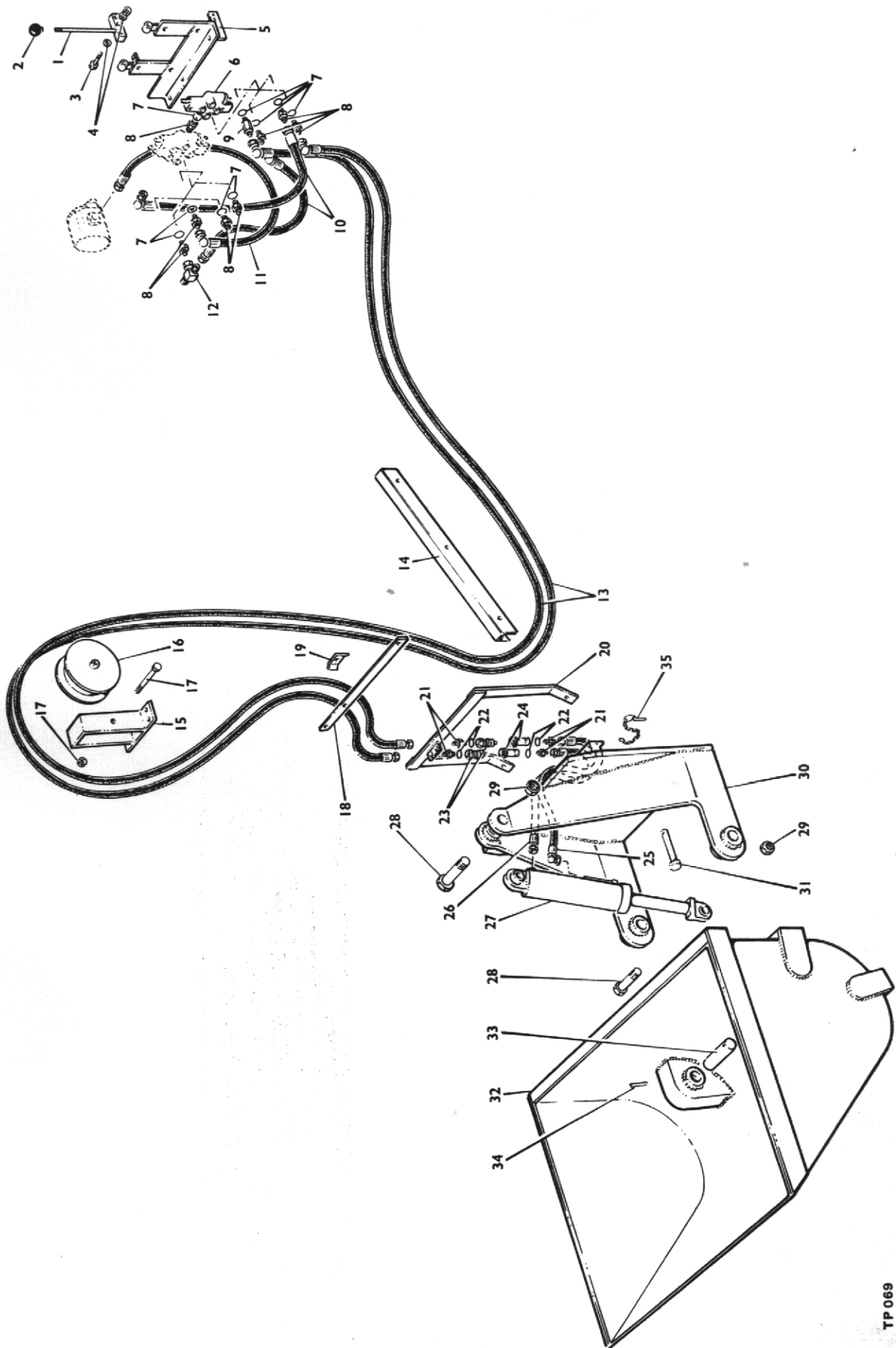
MUDWINGS & COVERS

Item No.	Part No.	Description	Qty.
1	4-35-301	Seat	1
2		Seat Bolts 8 MM x 20 MM long	4
3	4-35-296-12	Seat Frame	1
4	5ST 99	Seat Spring	2
5		Bolt 3/8" BSF x 1" long & Nut	19
6	4-35-331	Seat Spring Plate	1
7		Bolt CSK. 3/8" BSF x 1" long & Nut	2
8	WB0808	Bush	2
9	4-35-307	Seat & Tank Pivot Rod	2
10	C 120-6	Thick Washer 1/2" dia.	A.R.
11		Flat Washer 1/2" dia.	4
12		Split Pin 3/32" dia. x 1" long	4
13	4-35-296	Hydraulic Tank (See Page 51)	1
14	4-35-315	Footplate	1
15		Shakeproof Washer 3/8" dia.	21
16	F4-45-112	Gearbox Cover	1
17		Bolt 3/8" BSF x 1 1/2" long & Nut	2
18	4-35-298	Engine Cover	1
19		Bolt 5/16" BSF x 1" long & Nut	4
20		Bolt 5/16" BSF x 2 1/2" long & Nut	2
21		Shakeproof Washer 5/16" dia.	6
22	4-35-375	Grommet	2
23	4-35-241	Air Cleaner Mounting Bracket	1
24	4-35-242	Air Cleaner Hose 13" long	1
25	2A	Hose Clip	2
26		Bolt 1/4" BSF x 3/4" long	3
27		Nut 1/4" BSF	1
28		Shakeproof Washer 1/4" dia.	1
29		Flat Washer 1/4" dia.	1
30	BAE 7E	Fuel Tank	1
31	JE 13	Strainer	1
32	CE 12	Cap	1
33	4-35-387	Left Hand Mudwing Assembly	1
34	4-35-300	Right Hand Mudwing	1
35	C 188	Starting Handle	1



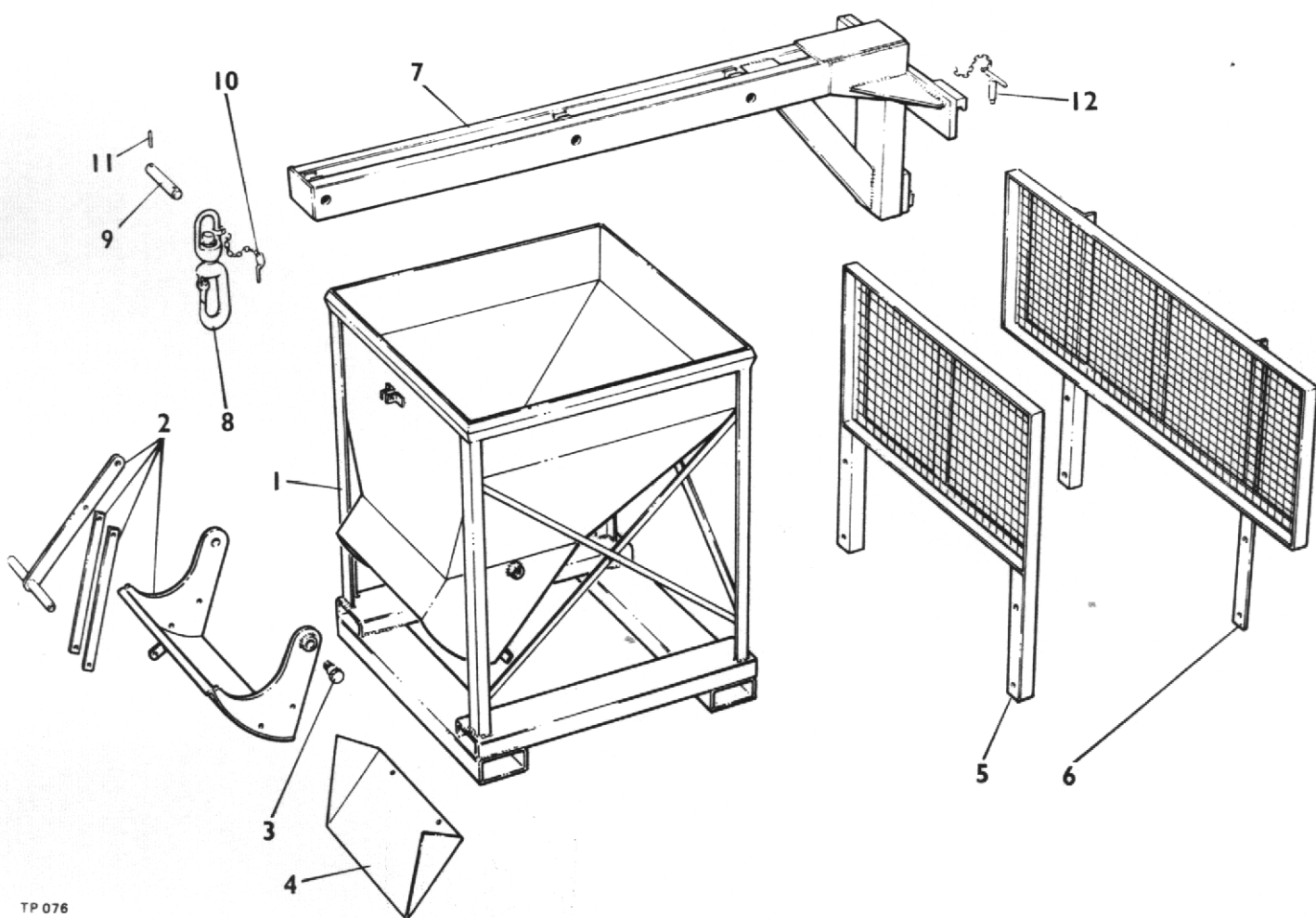
MAST AND FORK ASSEMBLY

Item No.	Part No.	Description	Qty.
1	25-CSSC-038	Setscrew 1/4" UNC x 3/8" long csk. head	8
2	D280-324-1	Chain Guard	4
3	B289-10-A	Inner Frame Assembly (18' Fork Lift only)	1
	286-10	Inner Frame Assembly (13' Fork Lift only)	1
	B285-20	Inner Frame Assembly (10'6" Fork Lift only)	1
4	38-FSH-062	Setscrew 3/8" UNF x 5/8" long	4
5	38-WSP	3/8" Shakeproof Washer	4
6	E280-334	Pulley Pin Assembly	2
	E280-444-1	Chain Pulley Assembly (comprising items 7 & 8)	1
7	E280-1074	Bush	2
8	E280-445	Chain Pulley	2
9	E280-355	Keyte Bearing Assembly	1
10	62-BFNH(P)	Self-locking Nut 5/8" BSF	1
11	50-FSCS-150	Setscrew 1/2" UNF x 1 1/2" long Socket Hd.	2
12	A289-2-A	Outer Frame Assembly (18' Fork Lift only)	1
	A297-2	Outer Frame Assembly (13' Fork Lift only)	1
	B296-2	Outer Frame Assembly (10'6" Fork Lift only)	1
13	E285-46	Special Bolt	4
14	50-FNH	Nut 1/2" UNF	4
15	E285-44	Wear Strip and Block	2
16	31-FSH-100	Setscrew 5/16" UNF x 1" long	12
17	31-WSP	Shakeproof Washer 5/16" dia.	12
18	50-BFNH(J)	Locknut 1/2" BSF	4
19	50-WSP	Shakeproof Washer 1/2" dia.	12
20	50-BFNH(P)	Self-locking Nut 1/2" BSF	4
21	38-FSH-150	Setscrew 3/8" UNF x 1 1/2" long	2
22	38-WF	Flat Washer 3/8" dia.	2
23	38-FNH(P)	Self-locking Nut 3/8" UNF	2
24	50-FBH-300	Bolt 1/2" UNF x 3" long	2
25	F4-45-50	Spacer	4
26	E289-14	Capping Piece	1
27	D289-13	Main Ram Support Lug	1
28	F4-45-57	Cylinder Bolt	2
29	4-35-110-B	Cylinder Bolt Nut	2
30	F4-45-56	Tilt Cylinder Stop	2
31	F4-45-72	Pin and Chain Assembly	2
32	E400-58	Pin	2
33	E20-70	Pin	1
34	19-PC-150	Split Pin 3/16" x 1 1/2" long	2
35	31-FSSCS-075	Screw 5/16" UNF x 3/4" long csk. hd. skt.	4
36	D285-19	Bottom Wear Strip	2
37	D285-37	Shim	A/R
38	E288-15	Peg and Chain Assembly	2
39	38-FSH-087	Setscrew 3/8" UNF x 7/8" long	2
40	B288-48	Fork Arms 48" long	2
41	B288-1-1	Mounting Frame Assembly	1
42	E280-351	Roller Pin Assembly	4
	E285-40	Roller Assembly (comprising items 43 & 44)	1
43	E285-41	Roller	4
44	E280-920	Bush	4
45	280-443	Pin End Link (with 2 Split Pins)	4
46	280-442	Tensioner	4
47	280-1078	Chain (18' Fork Lift only)	2
	280-1075	Chain (13' Fork Lift only)	2
	280-1052	Chain (10'6" Fork Lift only)	2
	E280-1077	Chain Assembly (18' Fork Lift only) comprising items 18, 19, 20, 45, 46 and 47	
	E280-1075	Chain Assembly (13' Fork Lift only) comprising items 18, 19, 20, 45, 46 and 47	
	E280-1051	Chain Assembly (10'6" Fork Lift only) comprising items 18, 19, 20, 45, 46 and 47	



HYDRAULIC TIP BUCKET, PIPES AND FITTINGS

Item No.	Part No.	Description	Qty.
1	F4-45-58	Hydraulic Valve Lever	1
2	2ST-88	Knob	1
3		Bolt 3/8" BSF x 2 1/4" long & Nut	1
4		Flat Washer 3/8" dia.	2
5	F4-45-91	Hydraulic Valve Lever Bracket	1
6	300-024-GAA	Hydraulic Valve (Bucket Control) (see page 63)	1
7	S9698	'O' Ring 7/8"	10
8	4-60-159	Adaptor 7/8" UNF x 3/8" BSP	8
9	4-60-115	Adaptor	1
10	2ST72C	Hose 1'-1 1/4" long ST-90 (Valve to Valve & Valve to Tee) ..	2
11	4-35-365	Hose 1'-8" long ST-90 (Pump to Valve)	1
12	F4-45-99	Swivel Nut Tee	1
13	F4-45-98	Hose 27'-8 1/2" long ST-90 (Valve to Snap Coupling) ..	2
14	F4-45-92	Hydraulic Hose Shroud	1
15	F4-45-88	Hose Pulley Mounting Bracket	1
16	F4-45-89	Hose Pulley Wheel	1
17		Bolt 1/2" BSF x 4 3/4" long & Nut	1
18	F4-45-95	Hose Support Bracket	1
19	F4-45-114	Hose Clamp	1
20	F4-45-94	Hose Support Bracket	1
21	T14J	Adaptor 3/8" BSP x 3/8" BSP	4
22	T14I	Seal 3/8" BSP	4
23	C23544	Snap Coupling Probe 3/8" BSP	2
24	C23543	Snap Coupling Carrier 3/8" BSP	2
25	4-35-108H	Hose 2'-9 1/2" ST-90 (Snap Coupling to Ram Stack) ...	1
26	3SHD-65	Hose 2'-7 1/2" long ST-ST (Snap Coupling to Ram Base)	1
27	TD3894	Bucket Ram (As standard steering ram - see page 60) ..	1
28	4-60-104	Ram Bolt	2
29	4-60-172	Ram Bolt Nut	2
30	F4-45-84	Bucket Frame	1
31	F4-45-93	Bucket Frame Retaining Pin	1
32	F4-45-83	Bucket	1
33	F4-45-96	Bucket Pivot Pin	2
34		Tension Pin 5/16" dia x 2 1/4" long	2
35	M9B	Lynch Pin and Chain	1

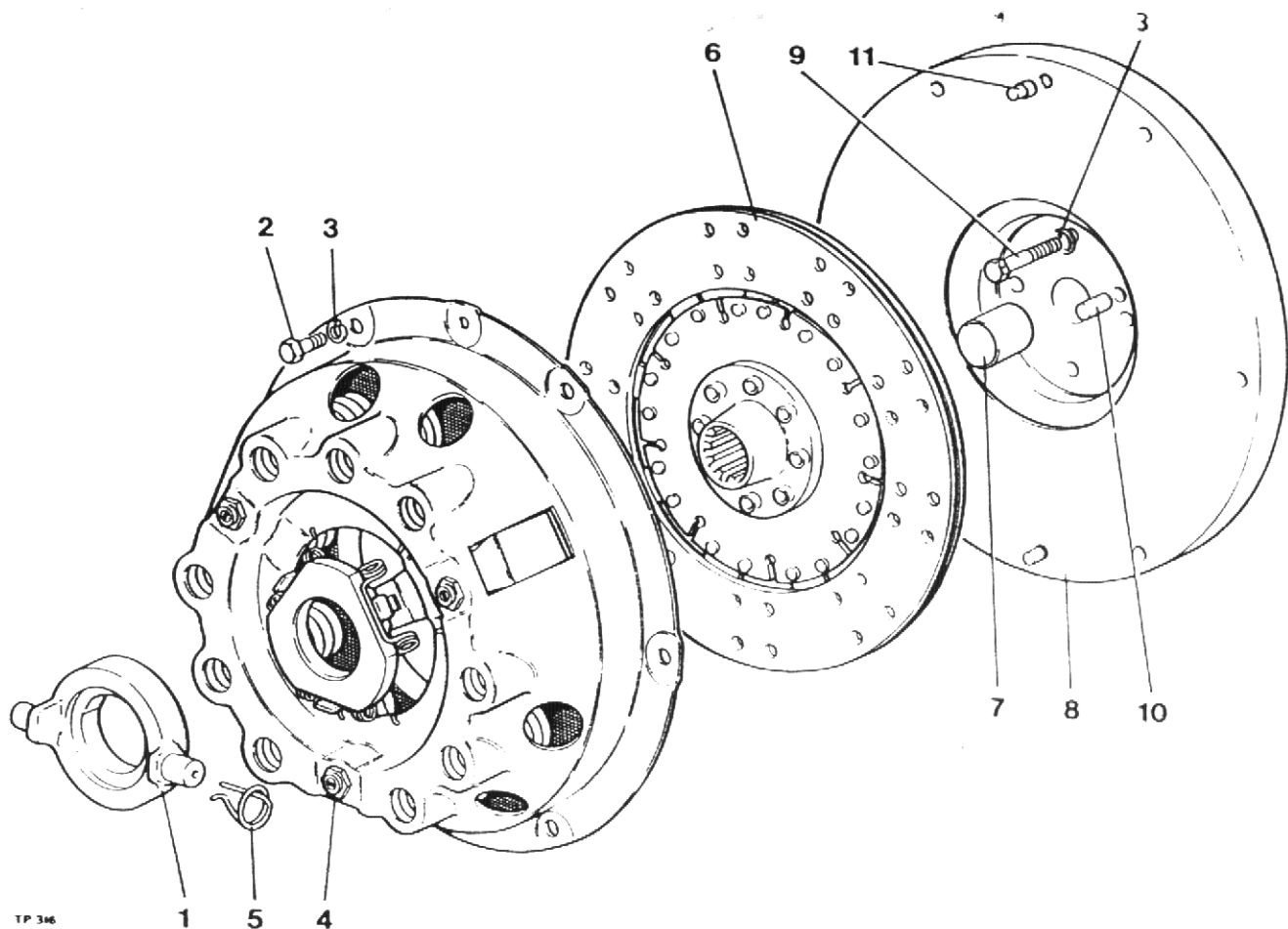


TP 076

BRICKGUARDS 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	F4-45-81	Brick Guard 3'-6"	1
6	F4-45-85	Brick Guard 5'-6"	1
7	F4-45-75	Crane Jib	1
8	775K	Swivel "Liverpool" Safety Hook	1
9	F4-45-76	Swivel Hook Pin	1
10	M9B	Pin and Chain	1
11		Tension Pin 3/8" dia.	1
12	E288-15	Peg and Chain Assembly	1

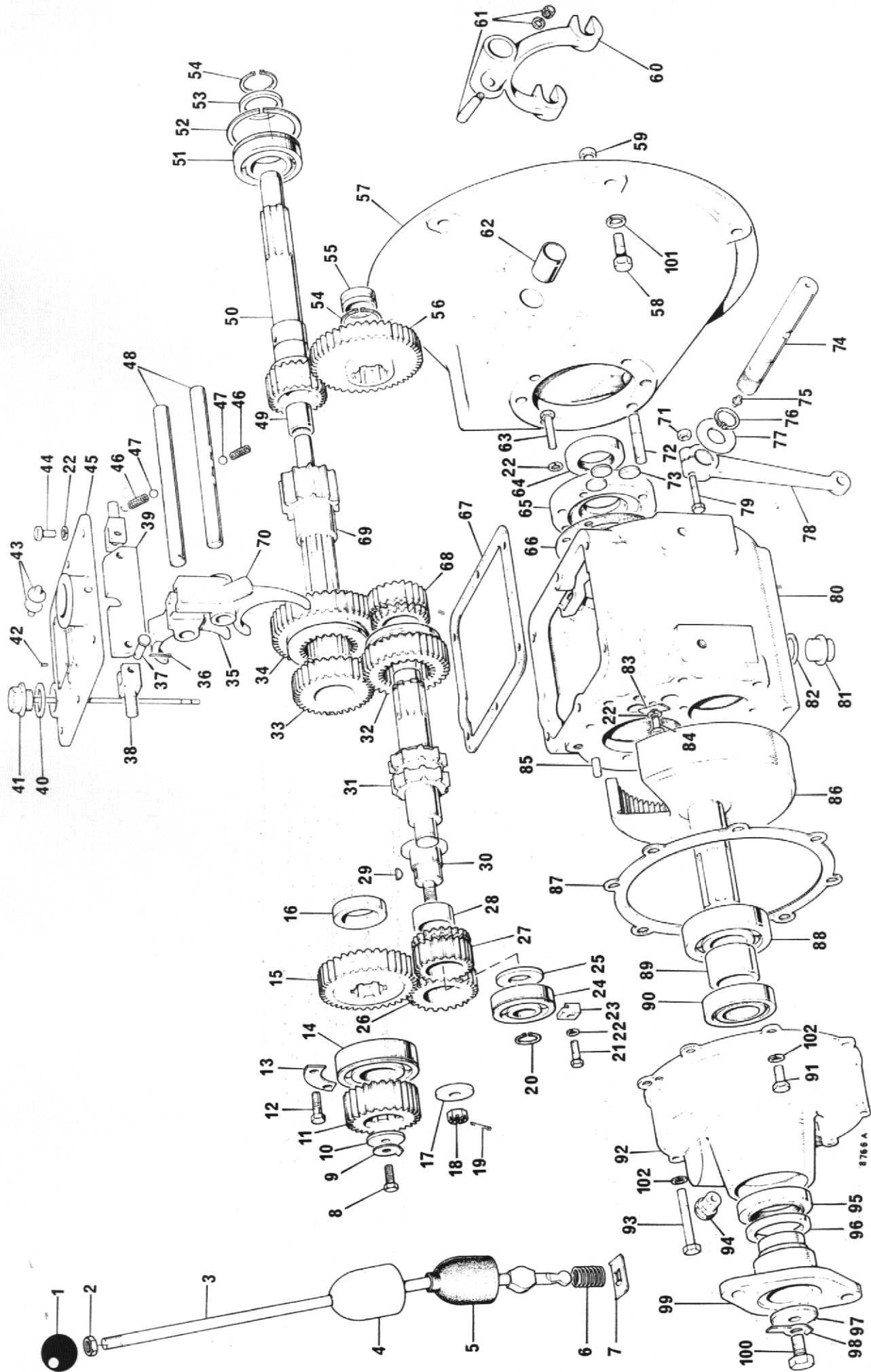
FLYWHEEL & CLUTCH



TP 346

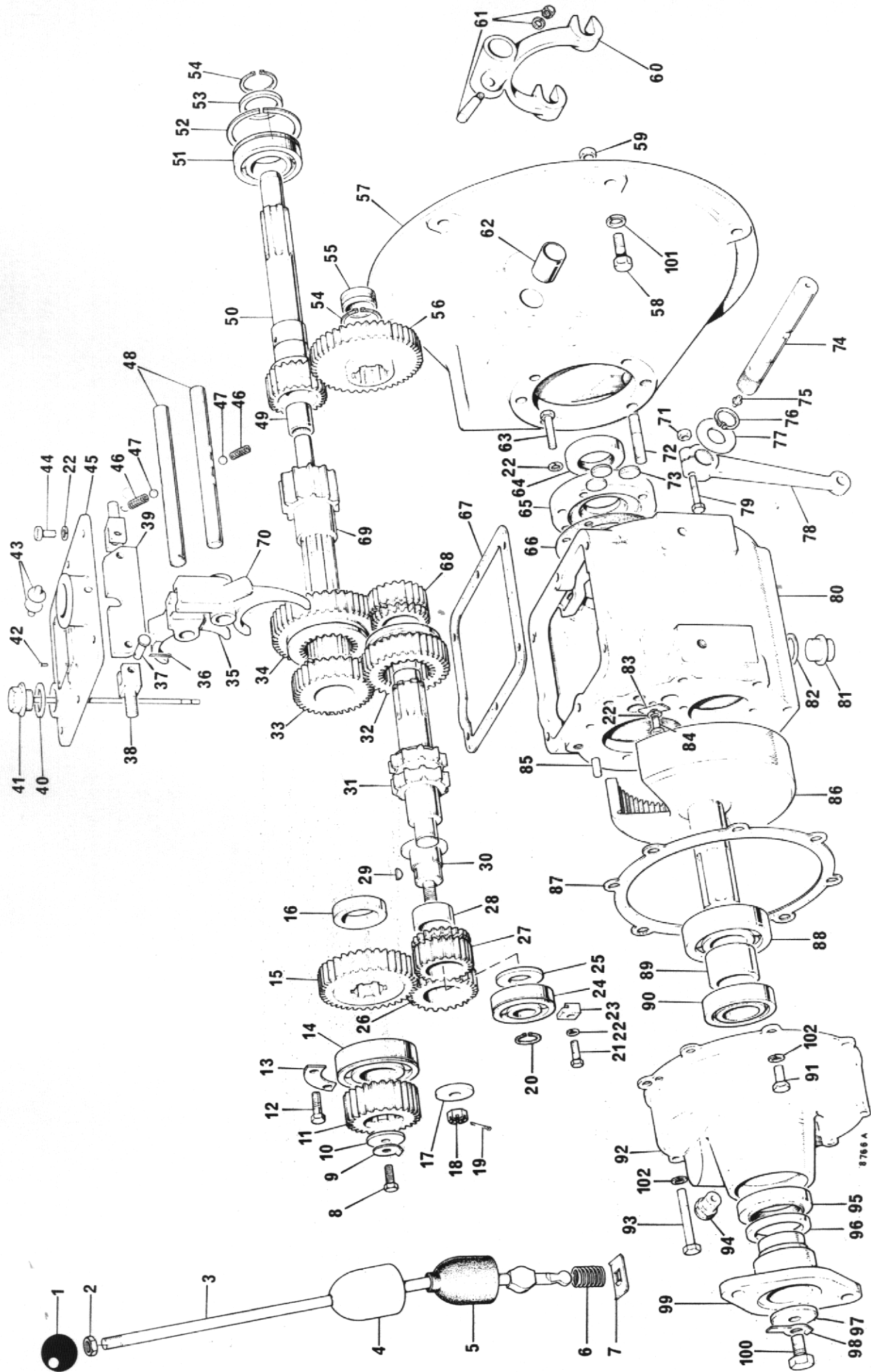
Item No.	Part No.	Description	Qty.
1	10579A01	Clutch Release Bearing	1
2	28S02D	Screw Set	6
3	41S04	Washer Spring	10
4	10597A02	Cover Assembly 9"	1
5	10579A0101	Retainer Spring	2
6	10598A03	Drive Plate 9"	1
7	10580A0101	Bush	1
8	10580A01	Flywheel Assembly 9" (comprises of items 7, 8, & 11)	1
9	1S02C	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.



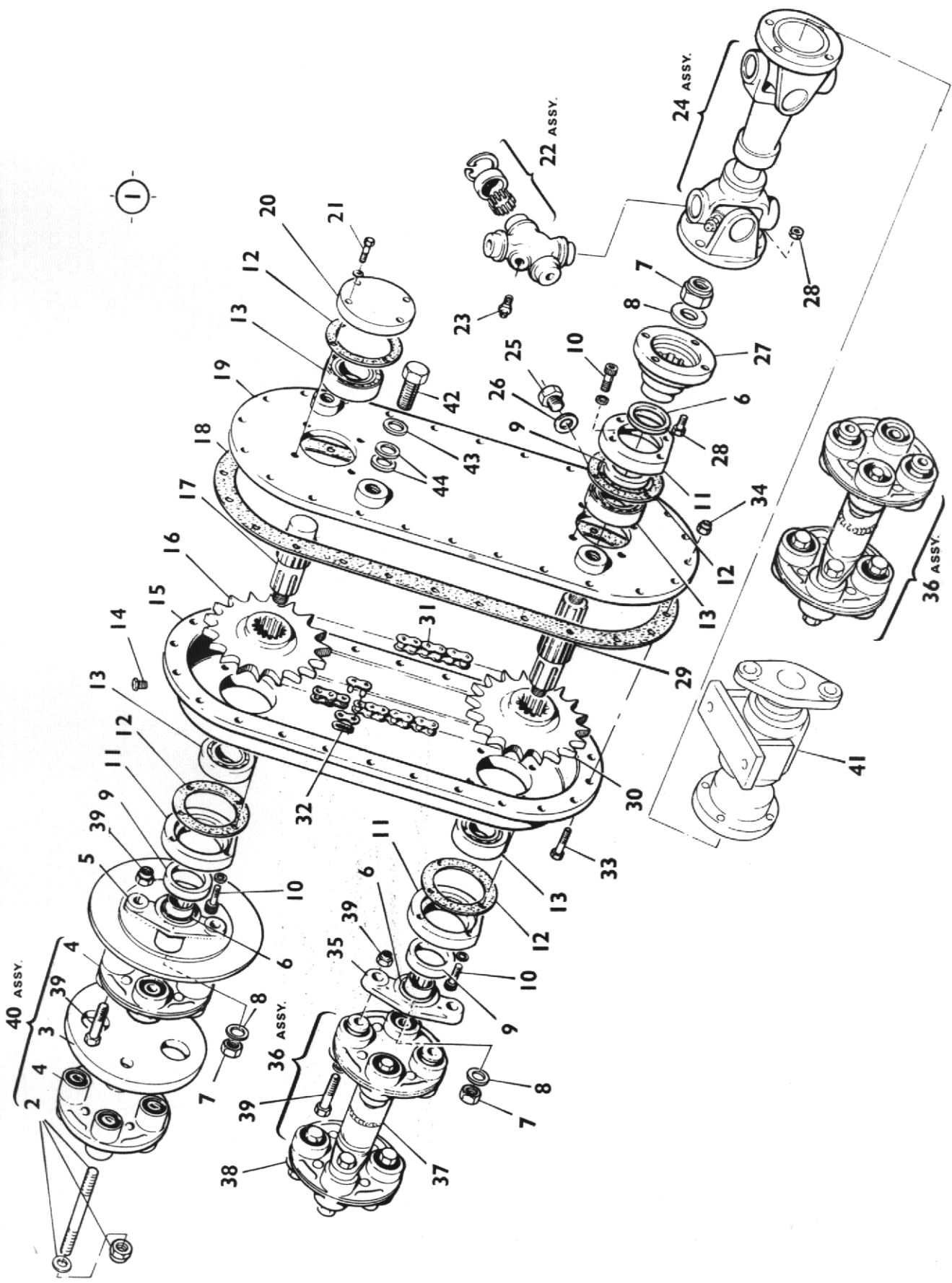
GEARBOX 40M-42-583 INV. 676

Item No.	Part No.	Description	Qty.
1	40M/133	Knob, Gear Lever	1
2	UN 512	Locknut, Gear Lever	1
3	40M/676	Gear Lever	1
4	40M/377	Cap, Gear Lever	1
5	40M/129	Cover, Gear Lever	1
6	40M/367	Spring, Gear Lever	1
7	40M/245	Retaining Plate, Gear Lever	1
8	USF 53	Screw, Mainshaft	1
9	40M/179	Lockwasher - Tab	1
10	40M/178	Washer, Reduction Pinion	1
11	40M/125	Reduction Pinion	1
12	USF 11	Screw, Bearing Retainer	2
13	40M/378	Bearing Retainer, Small	1
14	CM/2052	Bearing, Mainshaft Rear	1
15	40M/110	Output Gear	1
16	40M/128	Spacer, Output Gear	1
17	40M/155	Washer, Reverse Pinion Shaft	1
18	UN 507	Nut, Reverse Spindle	1
19	CP/1004	Split Pin	1
20	40M/148	Circlip	1
21	USF/31	Screw	2
22	W104	Spring Washer	16
23	40M/299	Clip, Layshaft Bearing	2
24	40M/146	Layshaft Bearing	1
25	40M/130	Bearing Spacer	1
26	40M/111	Reverse Pinion	1
27	40M/114	Reverse Speed Gear	2
28	40M/161	Bush, Reverse Pinion	1
29	40M/222	Key, Reverse Pinion Shaft	1
30	40M/119	Shaft, Reverse Pinion	1
31	40M/118	Layshaft	1
32	40M/116	2nd Speed Sliding Gear	1
33	40M/113	Second Speed Gear	1
34	40M/115	1st Speed Gear	1
35	40M/502	Selector Fork, 2nd & 3rd	1
36	40M/244	Split Pin, Interlock	2
37	40M/232	Clevis Pin, Interlock	2
38	40M/231	Stud, Interlock	2
39	40M/505	Interlock Plate	1
40	CP/1068	Seal, Dipstick	1
41	40M/153	Dipstick	1
42	CP/1003	Drive Screw	4
43	40M/254	Pad, Gear Lever	2
44	USF 21	Screw, Top Cover	6
45	40M/220	Top Cover	1
46	CM/2103	Detent Spring	2
47	CM/1077	Detent Ball	2
48	40M/135	Selector Shaft	2
49	40M/513	Bearing, Primary Shaft	1
50	40M/117	Primary Shaft	1
51	40M/143	Input Bearing	1
52	40M/252	Snap Ring	1
53	40M/174	Bearing Spacer	1
54	CM/2053	Circlip	2
55	40M/162	Bush, Layshaft	1



GEARBOX 40M-42-583 INV. 676

Item No.	Part No.	Description	Qty.
56	40M/360	1st Reduction Gear	1
57	40M/392	Clutch Housing	1
58		Bolt, Clutch Housing 3/8" BSF x 1" Long - Petter	6
59	UNL 106	Nut	6
60	CM/2083	Clutch Release Fork	1
61	CM/2084 S/A	Cotter, Nut & Washer S/A	1
62	CM/2179	Bush, Cross Shaft	2
63	UBF 71	Bolt, Front Cover	4
64	40M/150	Oil Seal, Input	1
65	40M/126	Front Cover	1
66	40M/172	Joint, Front Cover	1
67	40M/169	Joint, Top Cover	1
68	40M/114	Reverse Speed Gear	2
69	40M/515	Mainshaft	1
70	40M/501	Selector Fork, 1st & Reverse	1
71	UN 501	Nut, Clutch Lever	1
72	40M/177	Stud, Clutch Housing	6
73	CM/2113	Sealing Disc, Selector Shaft	3
74	40M/394	Clutch Cross Shaft	1
75	CP/1069	Grease Nipple	2
76	CP/1006	Circlip	1
77	40M/398	Washer, Cross Shaft	1
78	CM/2090	Clutch Release Lever	1
79	UBF 91	Bolt, Clutch Lever	1
80	40M/101/M	Casing	1
81	CP/1002	Drain Plug	1
82	CP/1068	Seal, Drain Plug	1
83	40M/136	Selector Locking Strip	1
84	USF 21	Setscrew	2
85	40M/656	Dowel	2
86	40M/120	Internal Gear	1
87	40M/654	Joint, Reduction Housing	1
88	CM/2068	Bearing, Internal Gear Front	1
89	40M/138	Spacer	1
90	40M/149	Bearing, Internal Gear Rear	1
91	USF 32	Hex. Head Screw	4
92	40M/655	Reduction Housing	1
93	UBF/142	Hex. Head Bolt	4
94	CM/2106	Breather	1
95	40M/167	Oil Seal, Rear	1
96	CM/2537	Dust Shield	1
97	CM/2123	Washer, Coupling	1
98	CM/2050	Lock Washer	1
99	40M/583	Coupling	1
100	USF 55	Screw, Coupling	1
101		Spring Washer 3/8"	6
102		Spring Washer 5/16"	8



40 ASSY.

22 ASSY.

24 ASSY.

36 ASSY.

36 ASSY.

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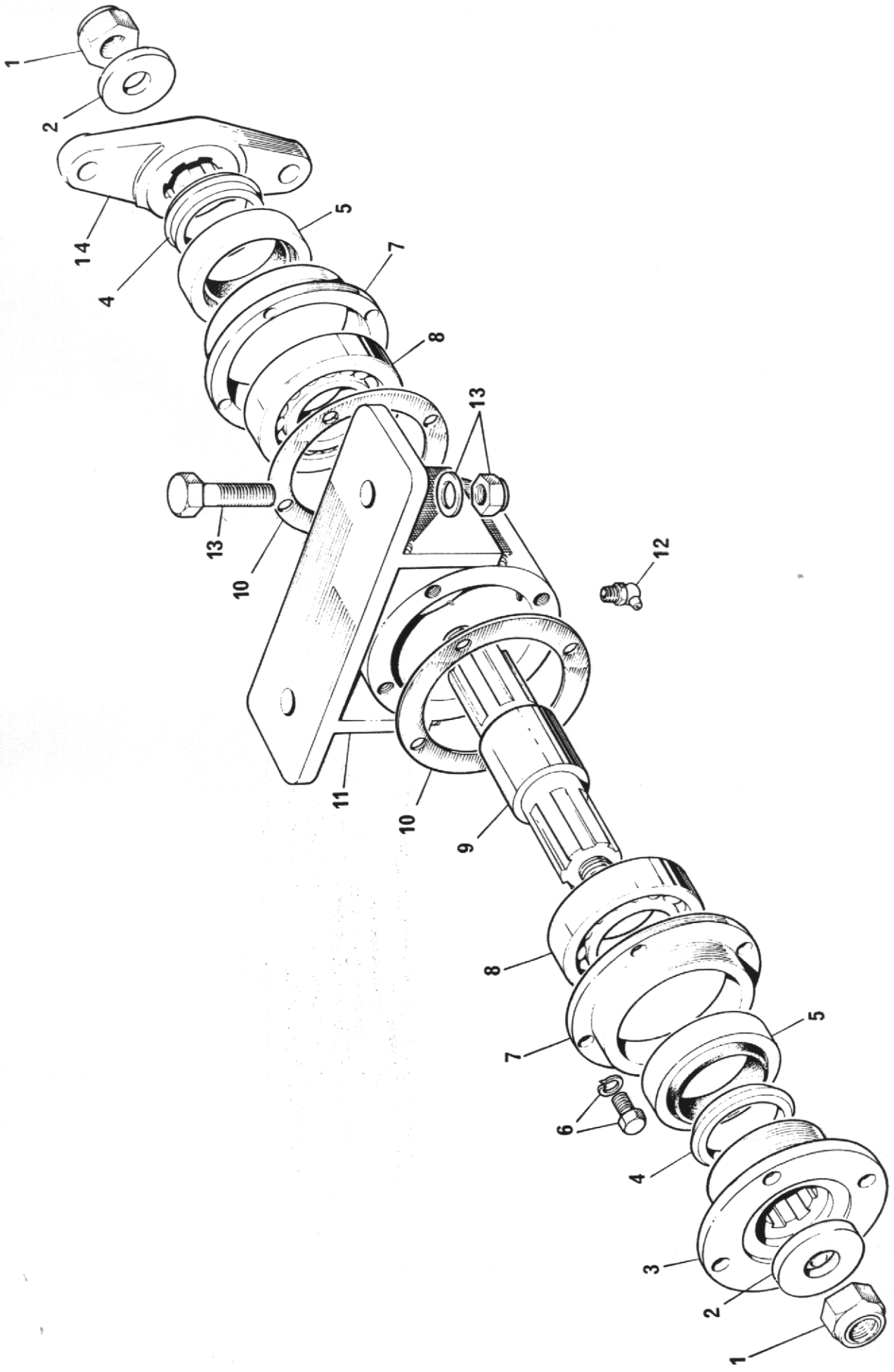
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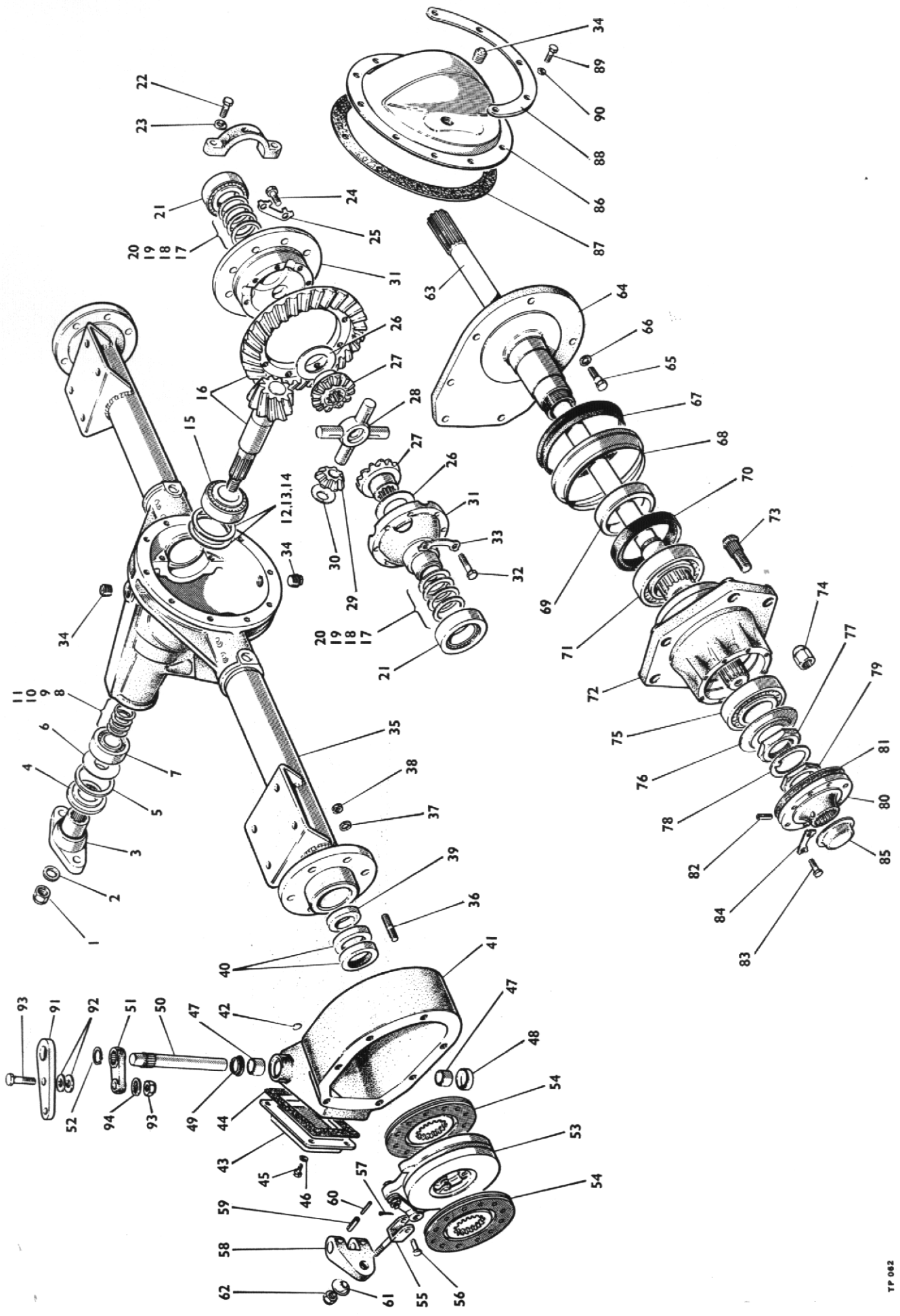
TRANSFER BOX AND PROP SHAFTS

Item No.	Part No.	Description	Qty.
1	4-35-379	Transfer Box Complete (15/19 Teeth)	1
2	4-35-371	Coupling Stud c/w Nuts & Washers	2
3	4-35-368	Coupling Disc	1
4	48408	Basic Coupling	2
5	F4-45-105	Brake Disc 12 5/8" dia.	1
6	CM 2537	Dust Shield	3
7	UN 580	Self Locking Nut 3/4" UNF	3
8	CP 1264	Thick Washer 3/4" dia.	3
9	40M-167	Oil Seal	3
10	UFC 416	Cap Screw	12
11	4-35-102	Oil Seal Housing	3
12	CM 2073	Gasket	4
13	CM 2068	Bearing	4
14	CM 2106	Breather	1
15	4-35-96	Main Case	1
16	4-35-380	Chain Wheel (15 Tooth)	1
17	4-60-252	Input Shaft	1
18	4-35-20	Gasket	1
19	4-35-381	Main Case Cover	1
20	CM 2528	End Cover	1
21	UBF 51	End Cover Screws	4
22	K-5-GB-18	Repair Kit	A/R
23	94-GB-2459	Grease Nipple	2
24	1350 YSA	Prop Shaft Assembly	1
25	CP 1189	Level/Filler Plug	1
26	CP 1068	Fibre Washer	1
27	40M 589	Companion Flange	1
28		Bolt 7/16" BSF x 1 1/4" long & Nut	8
29	4-60-253	Output Shaft	1
30	4-35-17	Chain Wheel (19 Tooth)	1
31	4-35-353	Drive Chain (15/19 Teeth)	1
32	4-35-18A	Chain Connecting Link	2
33	UBF 71	Housing Screw	24
34	UN 501	Nut	24
35	40M 583	Companion Flange	1
36	81141	Prop Shaft Assembly (Complete)	2
37	81142	Prop Shaft	2
38	10203	Coupling c/w Bolts & Nuts	4
39	10203A	Coupling Bolt, Washer & Nut	20
40	4-35-374	Close Coupled Coupling Assembly	1
		(Comprising Items 2,3,4 & 39)	
41	4-35-316	Trunnion Assembly (See Page 35)	1
42		Bolt 1/2" BSF x 1 1/4" long (drilled for Wire Locking)	3
43		Flat Washer 1/2" dia.	3
44		Flat Washer 1/2" dia.	A/R



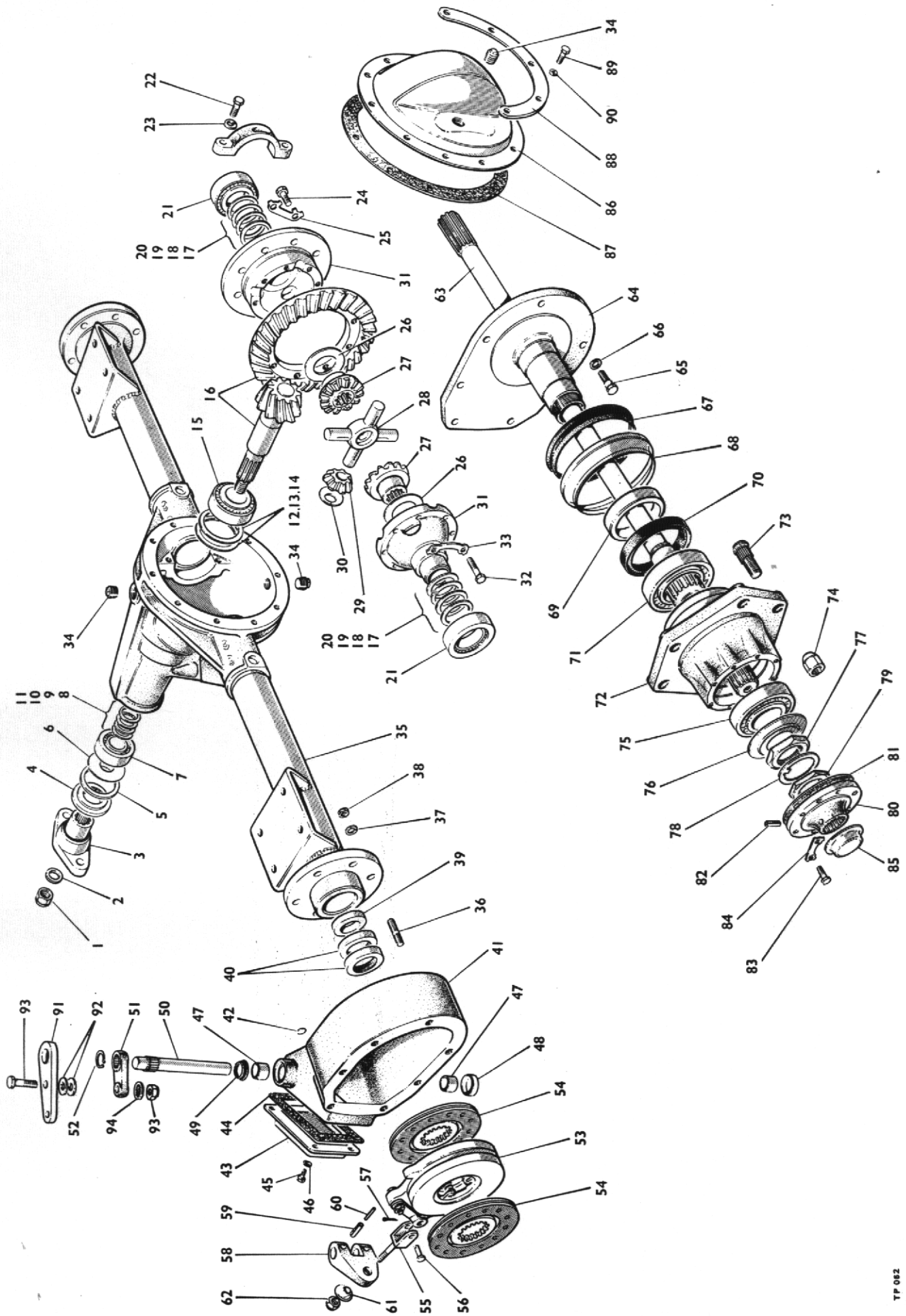
TRUNNION ASSEMBLY

Item No.	Part No.	Description	Qty.
	4-35-316	Trunnion Assembly Complete	1
1	UN580	Self Locking Nut 3/4" UNF	2
2	CP 1264	Thick Washer 3/4" UNF	2
3	40M 589	Companion Flange	1
4	CM 2537	Dust Shield	2
5	40M 167	Oil Seal	2
6		Housing Bolt 1/4" UNF x 3/4" long	8
7	40M 622	Oil Seal Housing	2
8	CM 2068	Bearing	2
9	4-60-251	Shaft	1
10	4-35-20A	Gasket	2
11	4-35-143	Housing	1
12	T 90	Grease Nipple	1
13		Mounting Bolt 5/8" BSF x 2" long & Nut	2
14	40M 583	Companion Flange	1



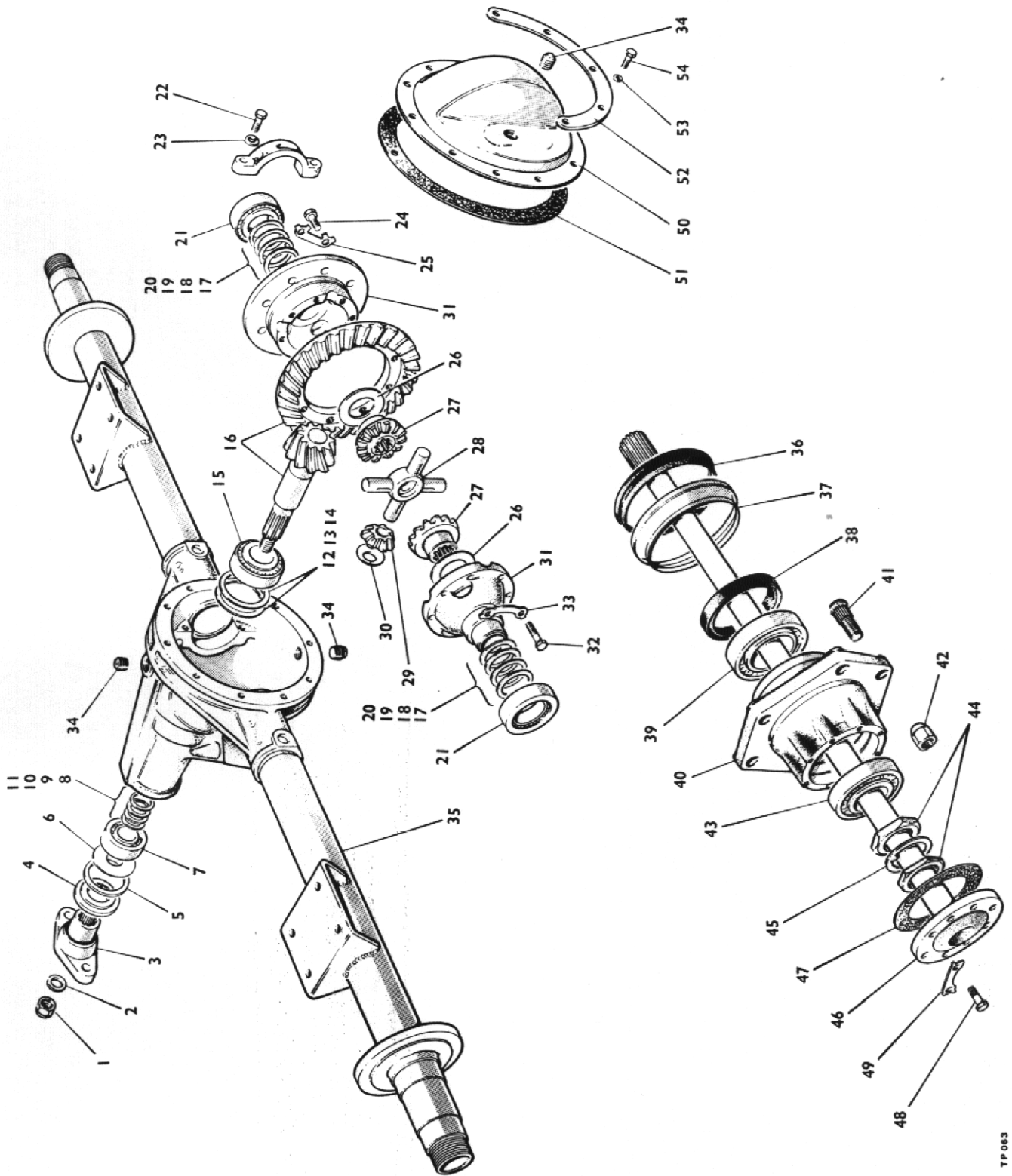
DRIVE AXLE
(with Totally Enclosed Brakes)

Item No.	Part No.	Description	Qty.
	5HA-001-264F	Drive Axle (1 per M/c) 6.38/1	
1	12-LN-NF9B	Pinion Nut	1
2	12-W-24	Pinion Nut Washer	1
3	5HA-102-13	Companion Flange (with integral dust shield)	1
4	2HA-019	Pinion Oil Seal	1
5	2HA-020	Pinion Oil Seal Gasket	1
6	2HA-036	Pinion Oil Seal Slinger	1
7	5HA-022	Pinion Bearing Outer	1
8	5HA-039	Pinion Bearing Adjusting Shim outer .003"	2
9	5HA-040	Pinion Bearing Adjusting Shim outer .005"	2
10	5HA-041	Pinion Bearing Adjusting Shim outer .010"	2
11	5HA-042	Pinion Bearing Adjusting Shim outer .030"	2
12	5HA-043	Pinion Adjusting Shim inner .003"	2
13	5HA-044	Pinion Adjusting Shim inner .005"	2
14	5HA-045	Pinion Adjusting Shim inner .010"	2
15	5HA-023	Pinion Bearing Inner	1
16	5HA-105-15	Drive Gear & Pinion Assy. 6.38/1	1
17	5HA-046	Differential Bearing Shim .003"	2
18	5HA-047	Differential Bearing Shim .005"	2
19	5HA-048	Differential Bearing Shim .010"	2
20	5HA-049	Differential Bearing Shim .030"	2
21	5HA-024-1	Differential Bearing	2
22	8B NC 36	Differential Bearing Cap Bolt	4
23	8LW-115	Bearing Cap Lockwasher	4
24	5HA-075-2	Drive Gear Bolt	12
25	5HA-074-1	Drive Gear Lockstrap	6
26	5HA-038-1	Differential Side Gear Thrust Washer	2
27	5HA-007-3	Differential Side Gear	2
28	5HA-012-2	Differential Pinion Mate Cross Shaft	1
29	5HA-008-3	Differential Pinion Mate	4
30	5HA-037-1	Differential Pinion Mate Cross Washer	4
31	5HA-006-1	Differential Case Assy	1
32	5B-NC28A	Differential Case Screw	8
33	5HA-097	Differential Lock Strap	4
34	HA-059	Filler & Drain Plug	3
35	5HA-101-123	Service Carrier and Tube Assembly	1
36	M10S-C40	Stud	12
37	M10LW-15.9	Spring Washer	12
38	M10N-C8	Nut	12
39	5HA-144	Axle Shaft Guide	2
40	5HA-027-9	Axle Shaft Oil Seal	4
41	5HA-132-3	Brake Housing	2
42	5HA-142	Spring Plug	2
43	5HA-133-2	Brake Housing Cover	2
44	5HA-095	Brake Housing Cover Gasket	2
45	M6B-C-10/10	Cover Screw	8
46	M6LW-9.6	Spring Washer	8
47	5HA-103-1	Bearing Bush	4
48	5HA-142-1	Pivot Spindle Plug	2



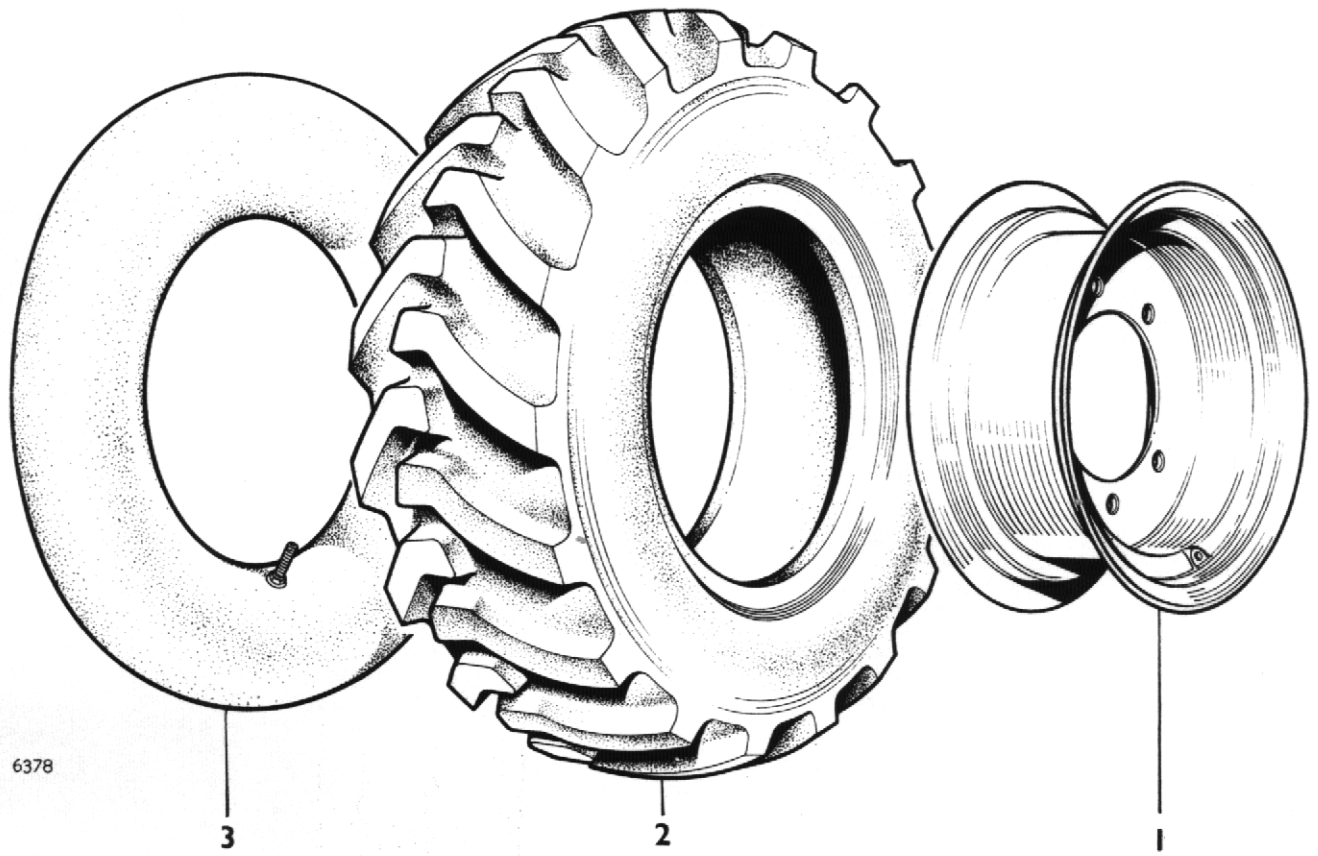
DRIVE AXLE
(with Totally Enclosed Brakes)

Item No.	Part No.	Description	Qty.
49	5HA-079-1	Spindle 'V' Ring Seal	2
50	5HA-135-25	Pivot Spindle	2
51	5HA-135-26	Lever Arm	2
52	M25-C.EX	Circlip	2
53	5HA-135-17	Actuating Disc Assembly	2
54	5HA-136-1	Friction Disc	4
55	5HA-135-31	Pull Rod	2
56	5HA-135-29	Clevis Pin	2
57	5HA-135-30	Split Pin	2
58	5HA-135-24	Lever Fork	2
59	12RP-24	Roll Pin	4
60	7RP-24	Roll Pin	4
61	5HA-154-7	Bush	2
62		Locknut 12 mm	2
63	5HA-005-96	Axle Shaft	2
64	5HA-125-1	Wheel Spindle	2
65	M12B-C-45/30	Wheel Spindle Bolt	14
66	M12LW-17.9	Lockwasher	14
67	5HA-032-12	Hub Oil Seal (outer)	2
68	5HA-030-3	Hub Flinger	2
69	5HA-018-2	Wear Ring	2
70	5HA-032-13	Hub Oil Seal (inner)	2
71	8HA-025-5	Wheel Bearing (inner)	2
72	5HA-028-78	Wheel Hub Assembly	2
73	10HA-055-5	Wheel Stud	12
74	T-23	Wheel Nut	12
75	8HA-025-6	Wheel Bearing (outer)	2
76	5HA-032-10	Oil Seal	2
77	M50SN-F8	Hub Bearing Locknut	2
78	5HA-091-3	Hub Bearing Lockwasher	2
79	M50N-F7	Hub Bearing Locknut	2
80	5HA-077-2	Axle Shaft Flange	2
81	10HA-031	Axle Shaft Flange Gasket	2
82	5RP-20	Roll Pin	4
83	M10B-C-35/20	Bolt	16
84	5HA-074-3	Axle Shaft Flange Bolt Lockstrap	8
85	5HA-058-2	Axle Shaft Flange Cover	2
86	5HA-064-1	Gear Carrier Cover Assembly	1
87	5HA-026	Gear Carrier Cover Gasket	1
88	4-35-235	Gear Carrier Cover Support	1
89	6B-NC-10	Gear Carrier Cover Bolt	10
90	6LW-105	Lockwasher	10
91	4-35-396	Brake Arm	2
92		Flat Washer ½" (thick)	4
93		Bolt ½" BSF x 2¼" Long & Nut	2
94		Shakeproof Washer ½"	2



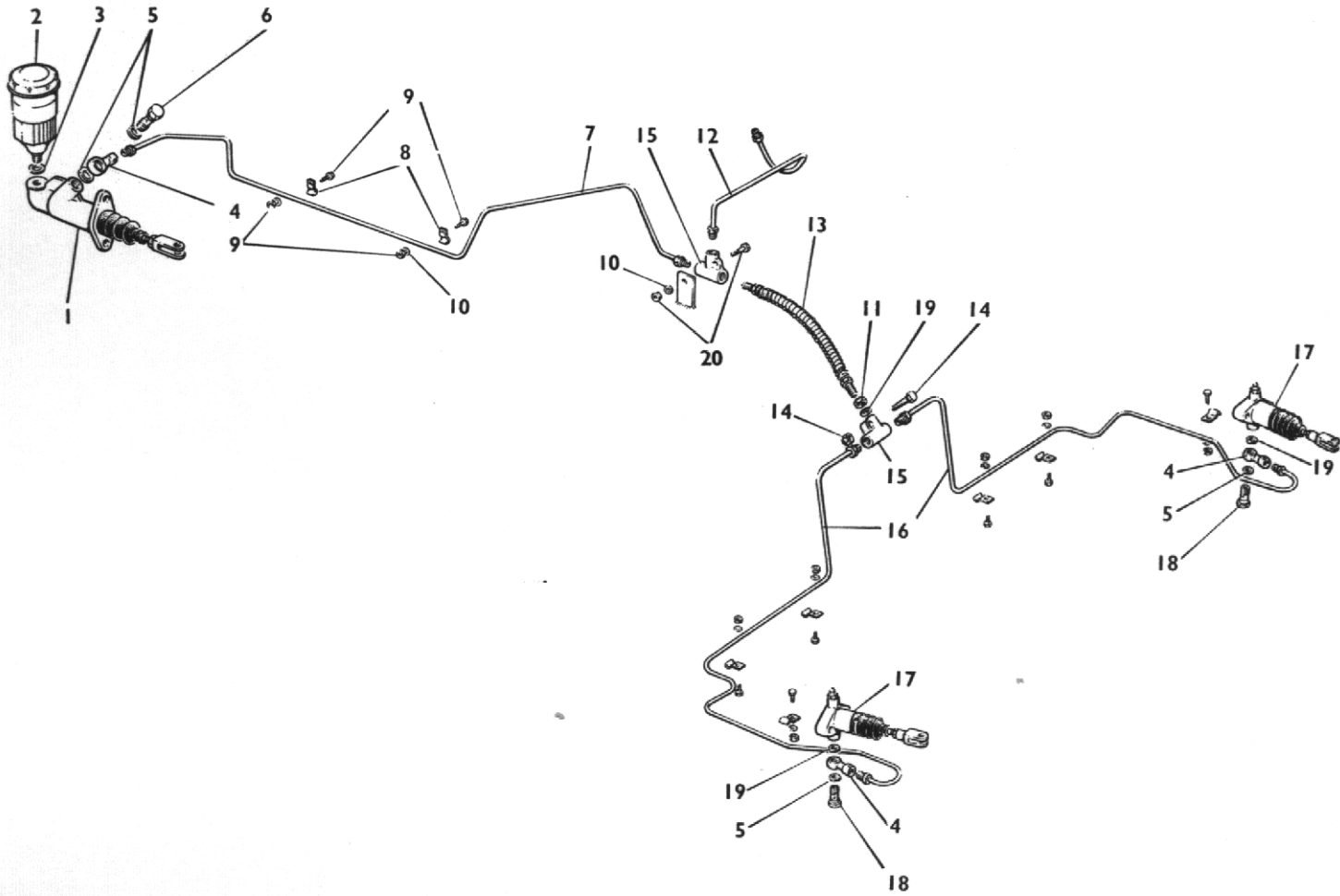
**DRIVE AXLE
(without Brakes)**

Item No.	Part No.	Description	Qty.
	5HA-001-292F	Drive Axle (1 per M/c) 6.38/1	
1	12-LN-NF9B	Pinion Nut	1
2	12-W-24	Pinion Nut Washer	1
3	5HA-102-13	Companion Flange (with integral dust shield)	1
4	2HA-019	Pinion Oil Seal	1
5	2HA-020	Pinion Oil Seal Gasket	1
6	2HA-036	Pinion Oil Seal Slinger	1
7	5HA-022	Pinion Bearing Outer	1
8	5HA-039	Pinion Bearing Adjusting Shim Outer .003"	2
9	5HA-040	Pinion Bearing Adjusting Shim Outer .005"	2
10	5HA-041	Pinion Bearing Adjusting Shim Outer .010"	2
11	5HA-042	Pinion Bearing Adjusting Shim Outer .030"	2
12	5HA-043	Pinion Adjusting Shim Inner .003"	2
13	5HA-044	Pinion Adjusting Shim Inner .005"	2
14	5HA-045	Pinion Adjusting Shim Inner .010"	2
15	5HA-023	Pinion Bearing Inner	1
16	5HA-105-15	Drive Gear & Pinion Assy. 6.38/1	1
17	5HA-046	Differential Bearing Shim .003"	2
18	5HA-047	Differential Bearing Shim .005"	2
19	5HA-048	Differential Bearing Shim .010"	2
20	5HA-049	Differential Bearing Shim .030"	2
21	5HA-024-1	Differential Bearing	2
22	8B NC 36	Differential Bearing Cap Bolt	4
23	8LW-115	Bearing Cap Lockwasher	4
24	5HA-075-2	Drive Gear Bolt	12
25	5HA-074-1	Drive Gear Lockstrap	6
26	5HA-038-1	Differential Side Gear Thrust Washer	2
27	5HA-007-3	Differential Side Gear	2
28	5HA-012-2	Differential Pinion Mate Cross Shaft	1
29	5HA-008-3	Differential Pinion Mate	4
30	5HA-037-1	Differential Pinion Mate Cross Washer	4
31	5HA-006-1	Differential Case Assy.	1
32	5B-NC28A	Differential Case Screw	8
33	5HA-097	Differential Lock Strap	4
34	HA-059	Filler & Drain Plug	3
35	5HA-101-128	Service Carrier and Tube Assembly	1
36	5HA-032-12	Hub Oil Seal (outer)	2
37	5HA-030-3	Hub Flinger	2
38	5HA-032-6	Hub Oil Seal (inner)	2
39	8HA-025-5	Wheel Bearing (inner)	2
40	5HA-028-78	Wheel Hub Assembly	2
41	10HA-055-5	Wheel Stud	12
42	T-23	Wheel Nut	12
43	8HA-025-6	Wheel Bearing (outer)	2
44	32N-NF4	Hub Bearing Locknut	4
45	8HA-091-2	Hub Bearing Lockwasher	2
46	5HA-005-98	Axle Shaft	2
47	10HA-031	Gasket	2
48	M10B-C-35/20	Bolt	16
49	5HA-074-3	Lockstrap	8
50	5HA-064-1	Gear Carrier Cover Assembly	1
51	5HA-026	Gear Carrier Cover Gasket	1
52	4-35-235	Gear Carrier Cover Support	1
53	6LW-105	Lockwasher	10
54	6B-NC-10	Bolt	10



DRIVE WHEEL

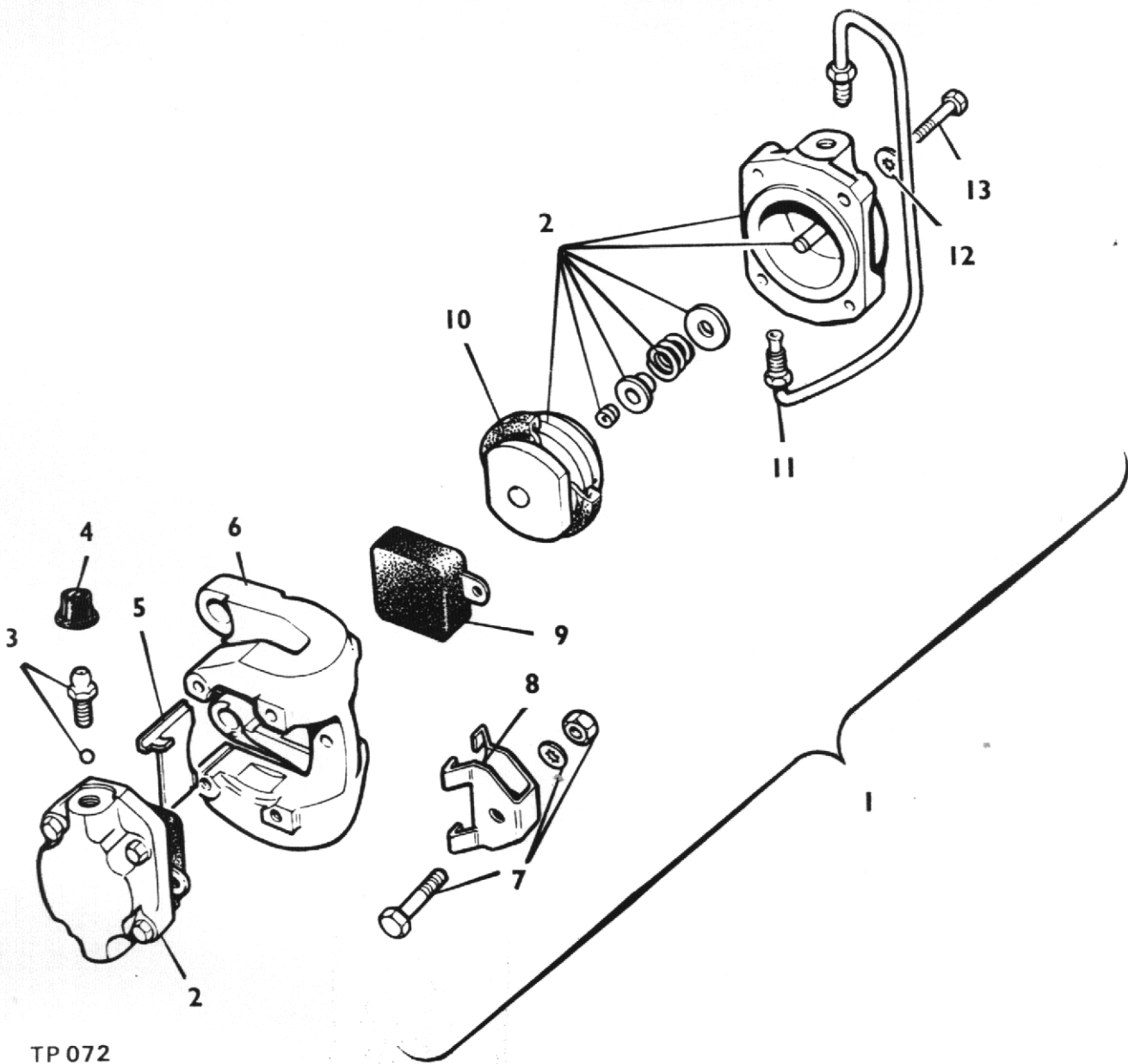
Item No.	Part No.	Description	Qty.
	F4-45-116	L.H. Wheel Assembly complete	2
	F4-45-117	R.H. Wheel Assembly complete	2
1	F4-45-115	Wheel	4
2		Tyre 10.5 x 18 (10 ply)	4
3		Tube 10.5 x 18	4



TP 071

BRAKE PIPES AND CONNECTIONS

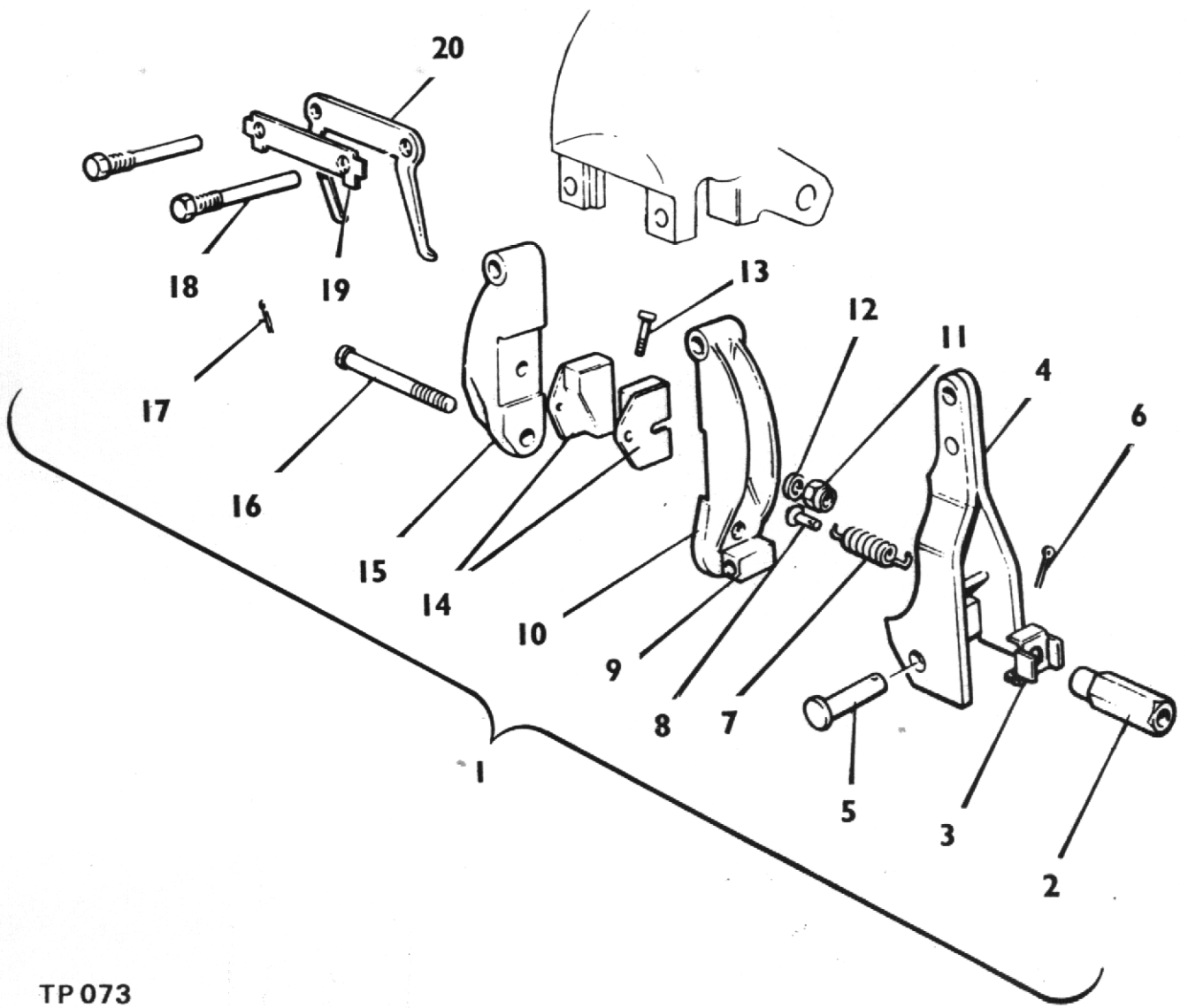
Item No.	Part No.	Description	Qty.
1	64066004	Master Cylinder (see page 46)	1
2	64046158	Header Tank	1
3	4-35-378	Copper Washer 3/4" OD. x 7/16" ID. x 1/8" thick	1
4	64474287	Banjo	3
5	378700	Copper Washer 7/16"	4
6	64473063	Banjo Bolt	1
7	DM 78-12	Pipe 62" Master Cylinder to Tee	1
8	4S 133	"P" Clip	8
9		Bolt 1/4" BSF x 3/4" long & Nut	8
10		Shakeproof Washer 1/4"	9
11	64100050	Thin Nut 3/8" UNF	1
12	DM 78-5	Pipe 18 1/2" Tee to Caliper	1
13	64046115	Flexible Hose 9 1/2" long	1
14		Bolt 1/4" BSF x 1 1/2" long & Nut	1
15	64474341	Tee Piece	2
16	DM 78-3	Pipe 43" Tee to Slave Cylinder	2
17	4-35-401	Slave Cylinder (see page 47)	2
18	376102W	Banjo Bolt	2
19	378703	Copper Washer 3/8"	3
20		Bolt 1/4" BSF x 1" long & Nut	1



TP 072

CALIPER ASSEMBLY

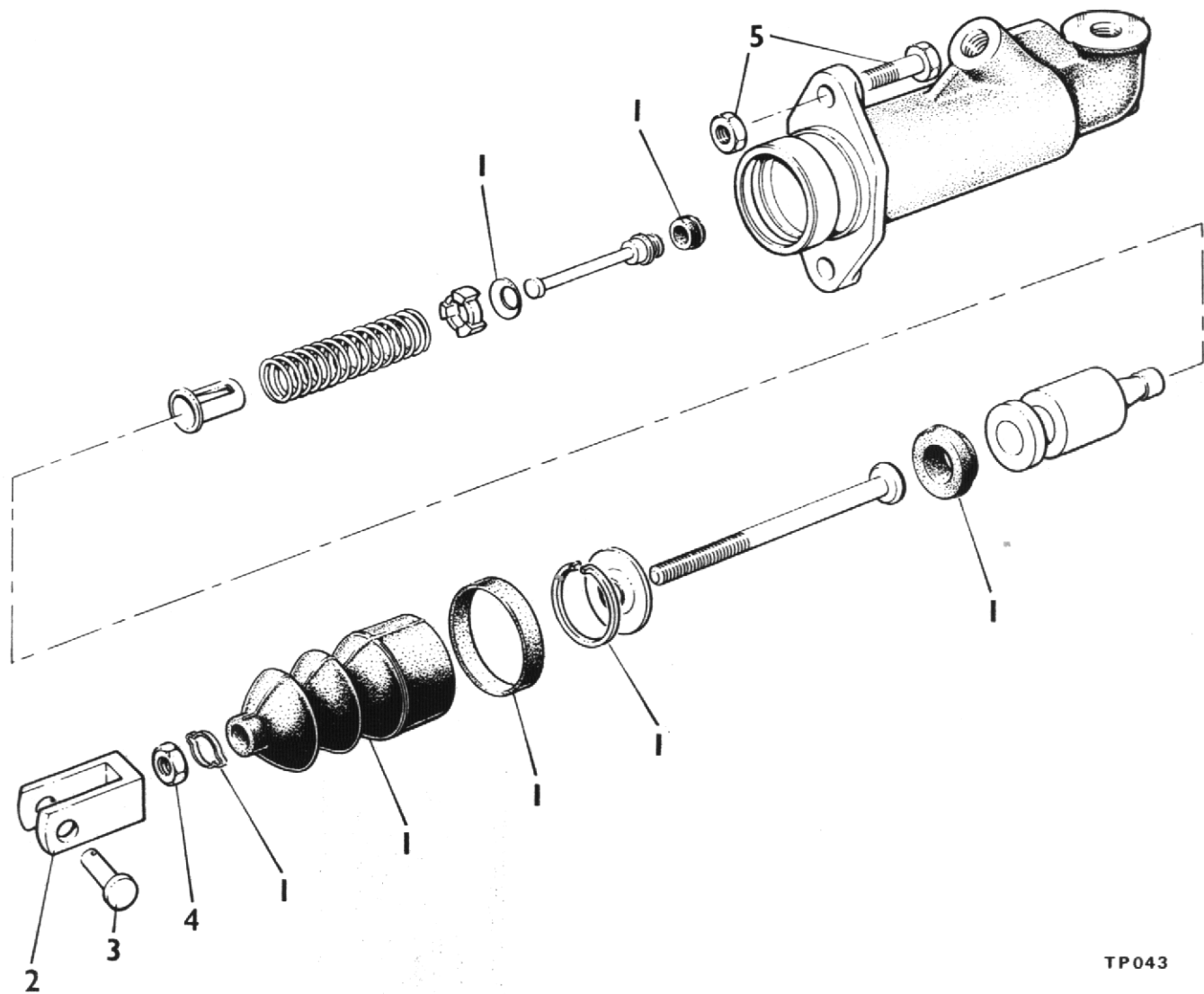
Item No.	Part No.	Description	Qty.
1	F4-45-125	Caliper Assembly complete	1
2	VBO 5505	Piston and Cylinder Assembly	2
3	VBO 8378	Bleed Screw and Ball Assembly	1
4	CBO 849	Bleedscrew Dust Cover	1
5	VBO 5133	Support Plate	2
6	CB 60253	Caliper Body	1
7	VBO 8491	Keep Plate Bolt, Washer and Nut	1
8	VBO 5123	Keep Plate	1
9	VBO 8360Y	Friction Pad complete	2
10	VBO 8210A	Seal Kit	2
11	VBO 3926	Bridge Pipe Assembly	1
12	VBO 6101L	Shakeproof Washer	8
13	VBO 5100	Cylinder Retaining Bolt	8



TP073

HANDBRAKE ASSEMBLY

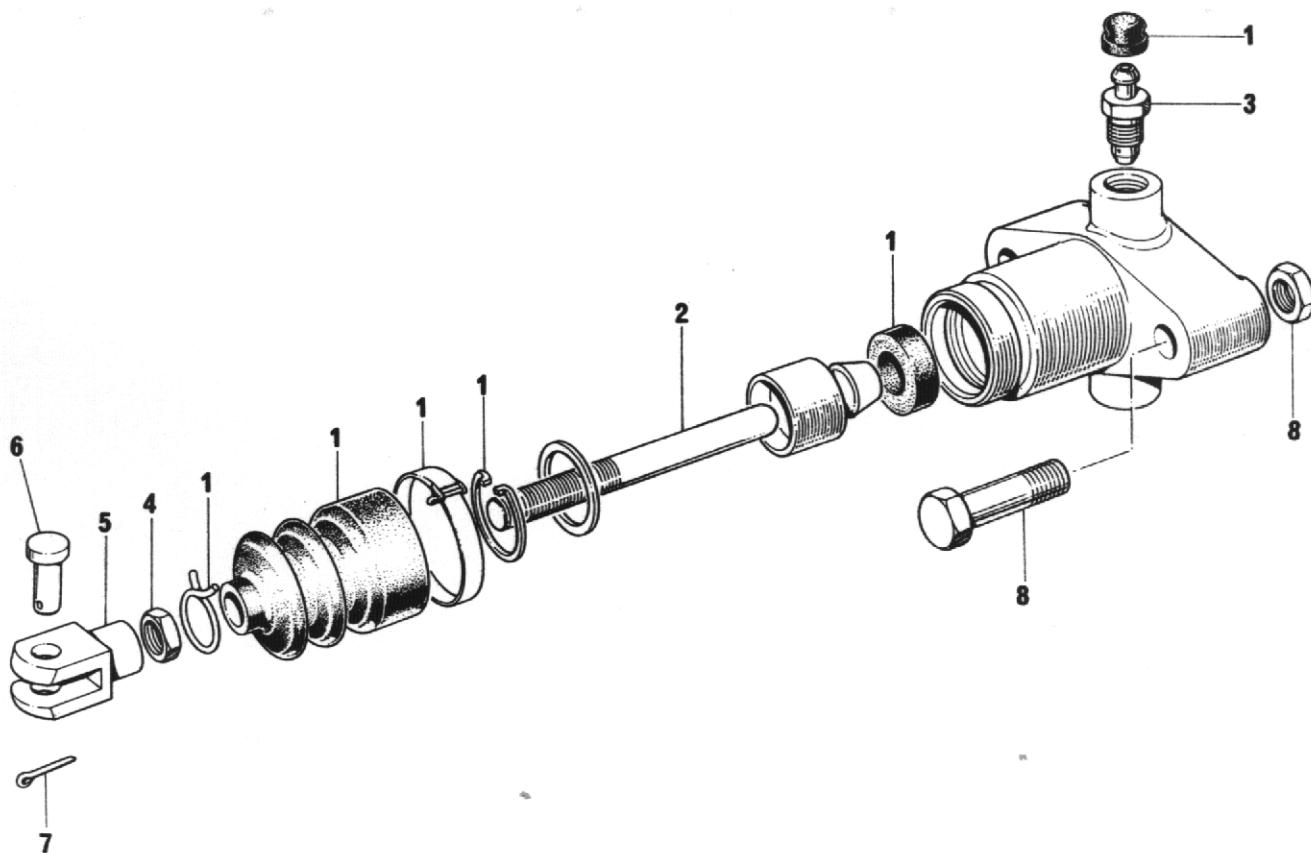
Item No.	Part No.	Description	Qty.
1	CB 90256	Handbrake Assembly complete	1
2	CB 20258	Adjustment Nut	1
3	VBO 8307	Friction Spring	1
4	F4-45-113	Lever Assembly	1
5	VBO 8315	Hinge Pin	1
6	VBO 6135 D	Split Pin	1
7	VBO 7329	Return Spring	1
8	VBO 7330	Spring Anchor	1
9	VBO 8308	Pivot Seat	1
10	CB 60249 8308	Pad Carrier Assembly Inner Complete with Pivot Seat	1
11	VBO 6050	Nut 2 B.A.	2
12	VBO 6101F	Washer	2
13	VBO 4124	Bolt	2
14	CB 20311Y	Friction Pad	2
15	VBM 4573	Pad Carrier Outer	1
16	CB 20289	Bolt	1
17	VBO 6158G	Split Pin	1
18	VBO 4190	Bolt	2
19	VBO 4226	Tab Washer	1
20	VBM 4635/1	Retraction Plate	1



TP043

BRAKE MASTER CYLINDER

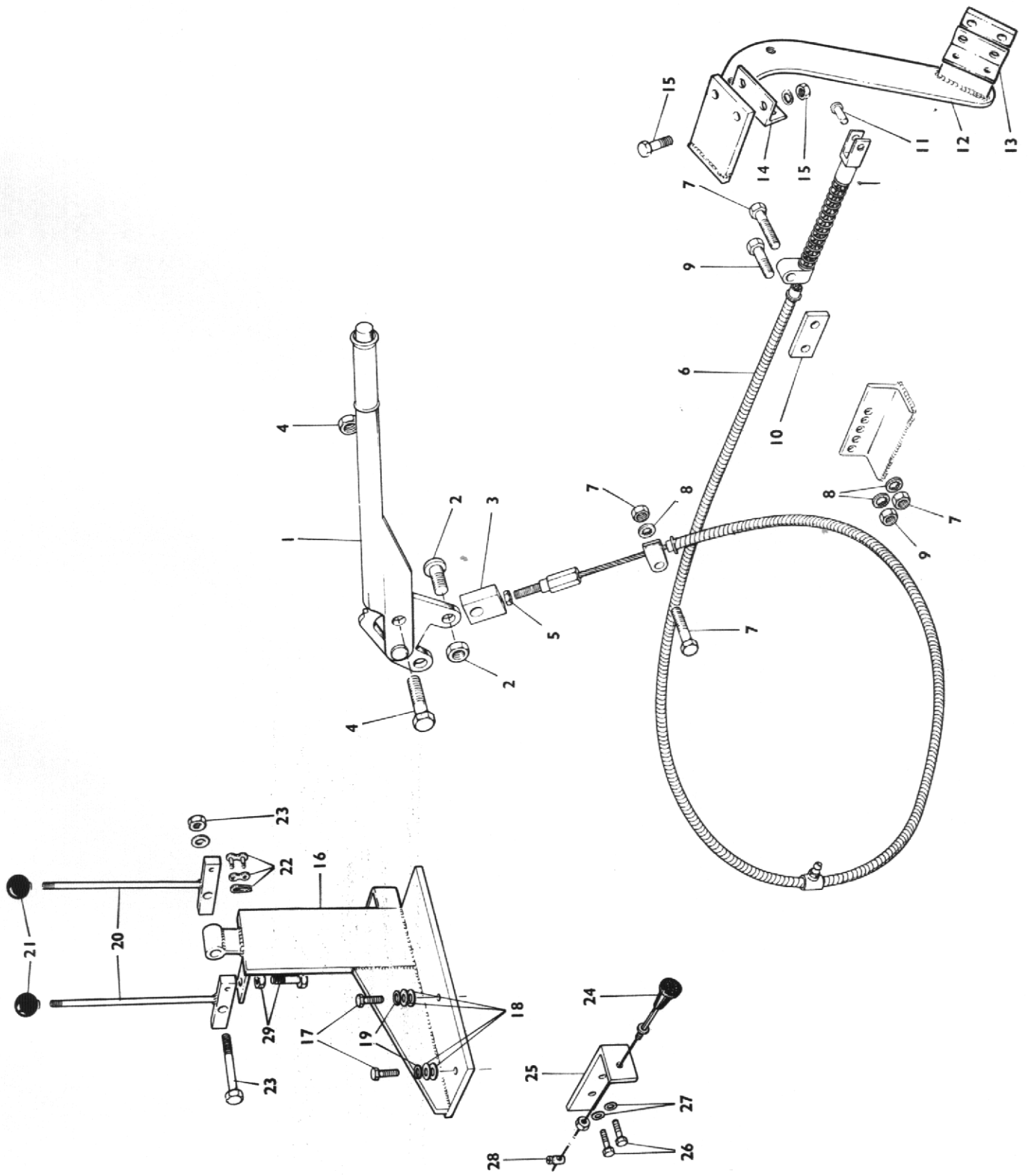
<i>Item No.</i>	<i>Part No.</i>	<i>Description</i>	<i>Qty</i>
	64066004	Master Cylinder Complete	1
1	SP.2636	Service Kit	A/R
2	64671286	Clevis	1
3	C174Y	Clevis Pin	1
4	64100052	Locknut	1
5		Bolt 3/8" BSF x 1 1/2" Long & Nut	2



10043

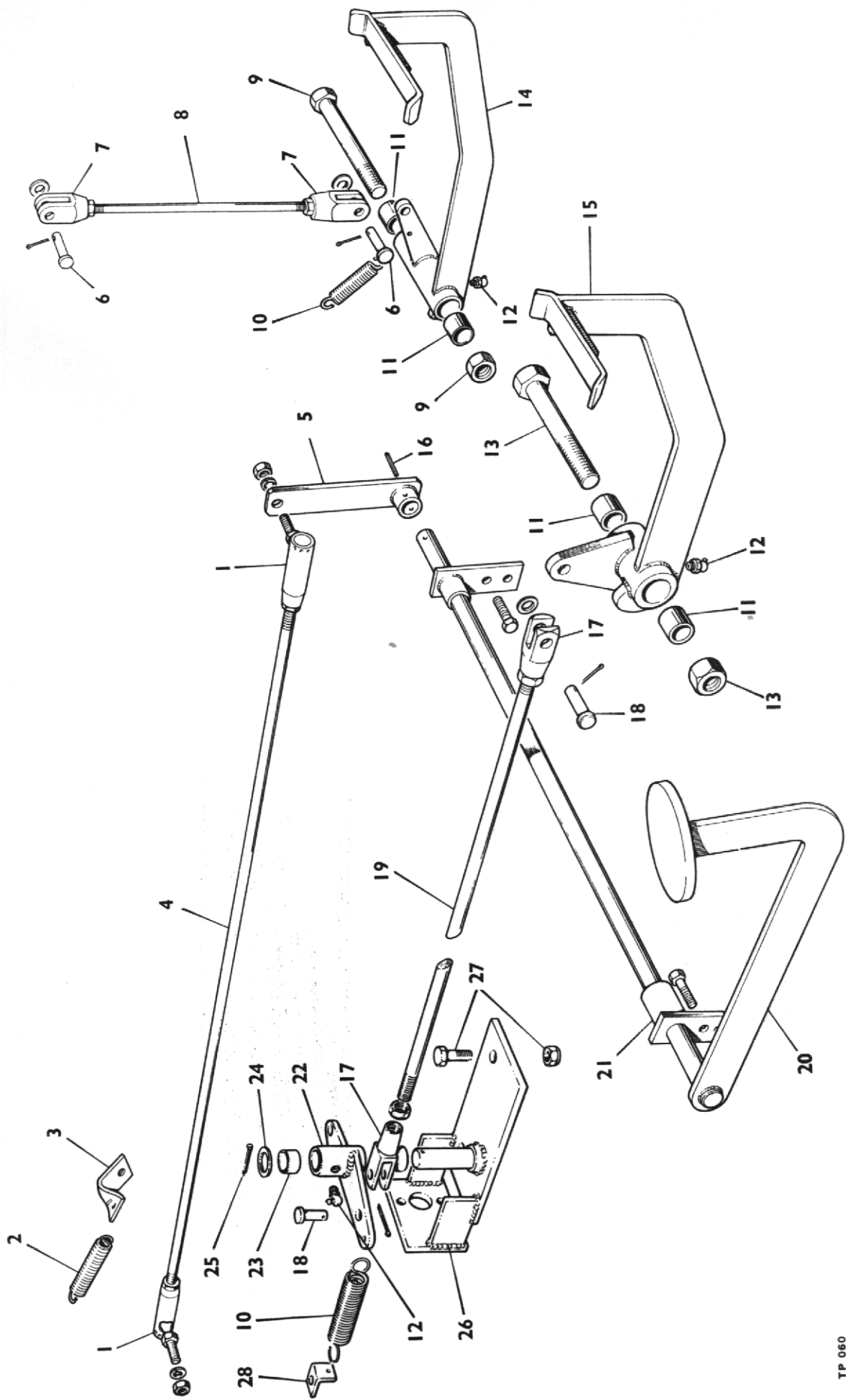
BRAKE SLAVE CYLINDER ASSEMBLY

Item No.	Part No.	Description	Qty.
	4-35-401	Slave Cylinder Complete	1
1	SP 2694	Repair Kit	1
2	4-35-395	Push Rod	1
3	64470444	Bleed Nipple	1
4		Nut 3/8" BSF	1
5	C 174A	Clevis	1
6	C 174X	Clevis Pin	1
7		Split Pin 3/32" Dia.	1
8		Bolt 5/16" BSF x 1 3/4" Long and Nut	2



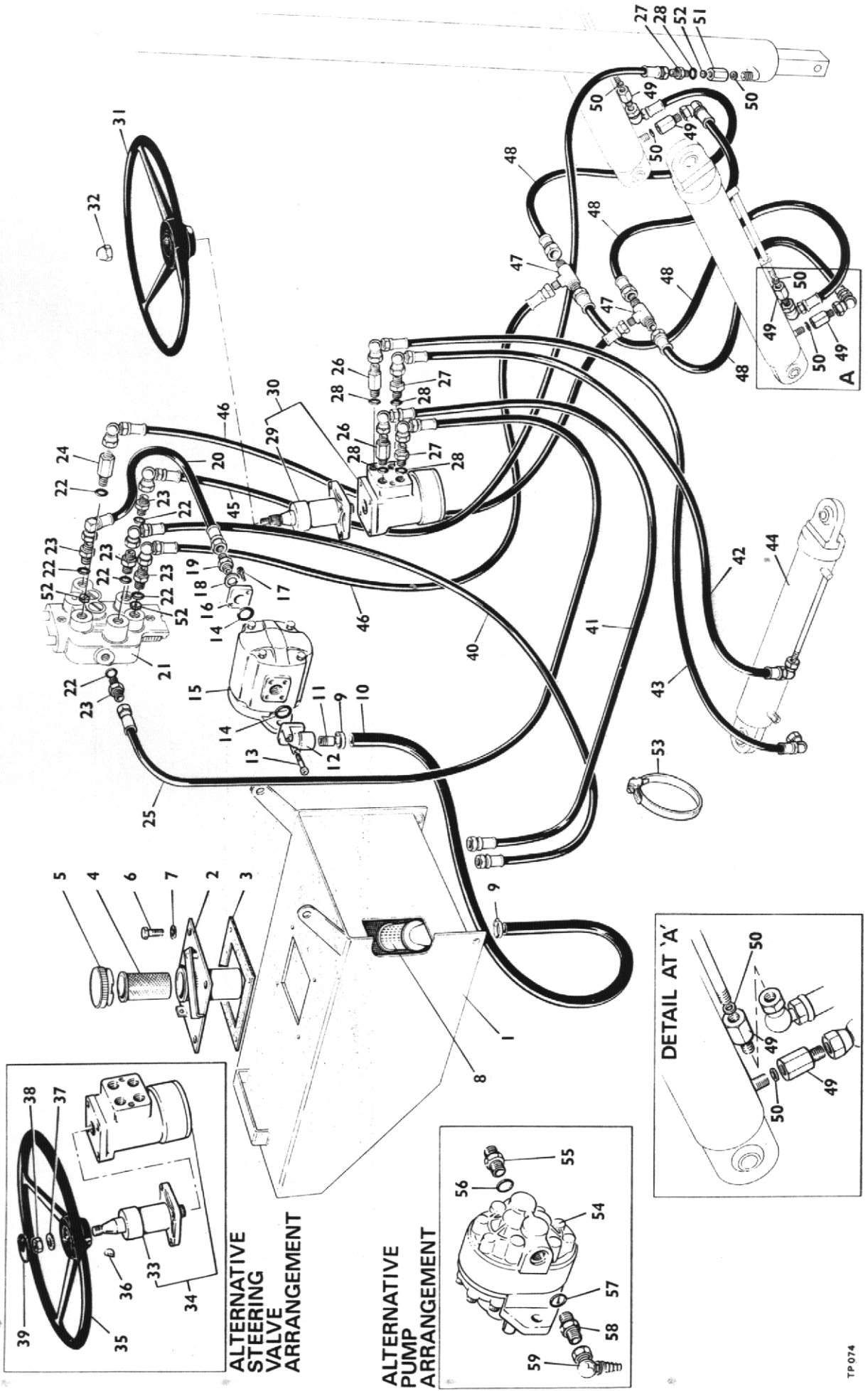
HANDBRAKE, VALVE CONTROL LEVERS AND ENGINE STOP CONTROL

Item No.	Part No.	Description	Qty.
1	303	Handbrake Lever	1
2		Mushroom Head Bolt 3/8" BSF x 1" long & Nut	2
3	L309	Block	1
4		Bolt 3/8" BSF x 1 1/2" long & Nut	1
5		Nut 3/8" BSF	1
6	4-35-111	Handbrake Cable	1
7		Bolt 5/16" BSF x 1 3/4" long & Nut	2
8		Shakeproof Washer 5/16" dia.	3
9		Bolt 5/16" BSF x 1" long & Nut	1
10	4-35-349	Disc Brake Adjusting Plate	1
11	C174X	Clevis Pin	1
12	F4-45-109	Brake Mounting Bracket	1
13	F4-45-111	Lower Support Bracket	1
14	F4-45-110	Top Support Bracket	1
15		Bolt 3/8" BSF x 1 1/2" long & Nut	4
16	F4-45-118	Hydraulic Valve Mounting Bracket	1
17		Bolt 5/16" BSF x 1" long	2
18		Flat Washer 5/16" dia.	4
19		Shakeproof Washer	2
20	F4-45-58	Hydraulic Valve Handle	2
21	2ST-88	Knob	2
22	4-60-178	Connecting Link	2
23		Bolt 3/8" BSF x 3" long, Washers & Nut	1
24	4-35-82	Engine Stop Control Cable Assembly	1
25	4-35-373	Engine Stop Control Mounting Bracket	1
26		Bolt 1/4" BSF x 5/8" long	2
27		Shakeproof washer 1/4" dia.	2
28	4-35-196	Solderless Nipple	1
29		Bolt 3/8" BSF x 2" long & Nut	1



PEDALS & CONTROLS

Item No.	Part No.	Description	Qty.
1	C160B	Accelerator Rod Ball End	2
2	C173D	Spring	1
3	C163	Spring Attachment Brkt.	1
4	4-35-370	Accelerator Rod	1
5	F522	Accelerator Lever	1
6	C174X	Pin	2
7	C174A	Clevis	2
8	L306	Clutch Rod 3/8" BSF x 11 3/8" Long	1
9		Bolt 5/8" BSF x 8 1/2" Long & Nut	1
10	C173B	Spring	2
11	WB1010	Bush	4
12	T90	Grease Nipple	3
13		Bolt 5/8" BSF x 3 1/2" Long & Nut	1
14	F4-45-108	Clutch Pedal	1
15	4-35-125	Footbrake Pedal	1
16	C129A	Tension Pin	1
17	C174E	Clevis	2
18	C174Y	Clevis Pin	2
19	4-35-394	Footbrake Rod 5/16" UNF x 19 1/2" Long	1
20	4-35-322	Accelerator Pedal	1
21	4-35-151	Accelerator Mounting Brkt.	2
22	4-35-399	Transfer Lever	1
23	WB1212	Bush	2
24		Washer 3/4"	1
25		Split Pin 1/8"	1
26	4-35-398	Master Cylinder Bracket	1
27		Bolt 1/2" BSF x " Long & Nut	2
28	4-35-403	Return Spring Bracket	1
29	F4-45-122	Clutch Pedal Return Spring Bracket (not illustrated) ...	1



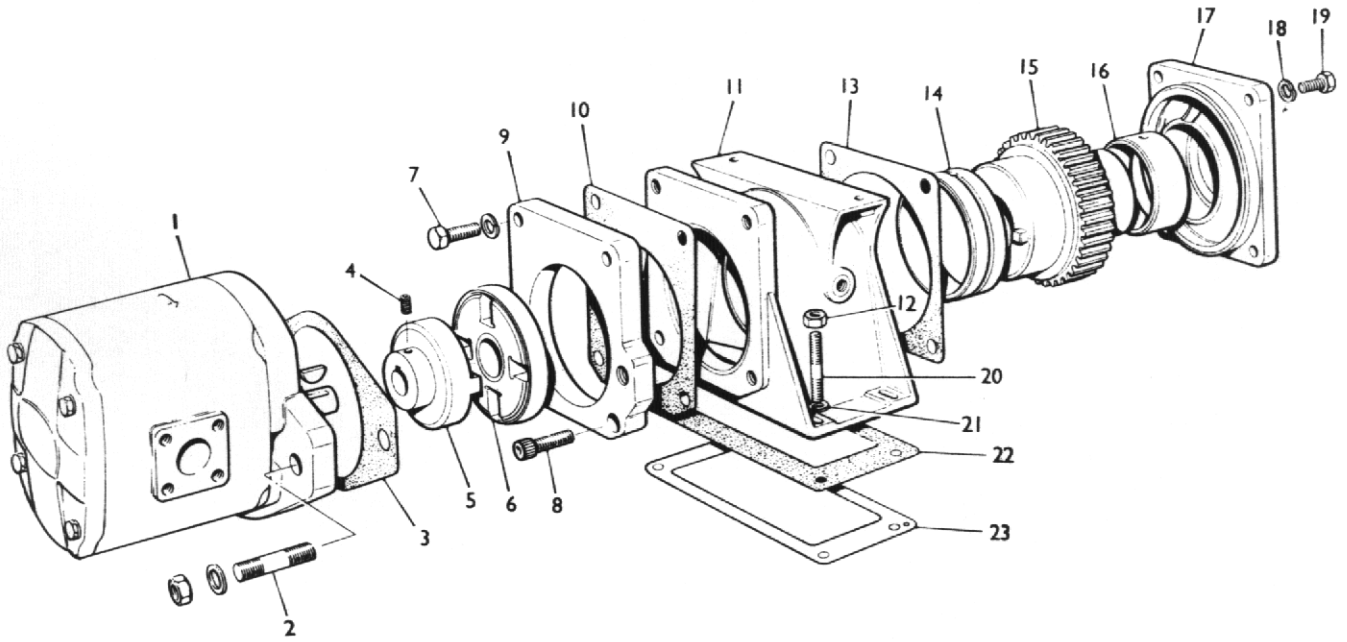
ALTERNATIVE STEERING VALVE ARRANGEMENT

ALTERNATIVE PUMP ARRANGEMENT

DETAIL AT 'A'

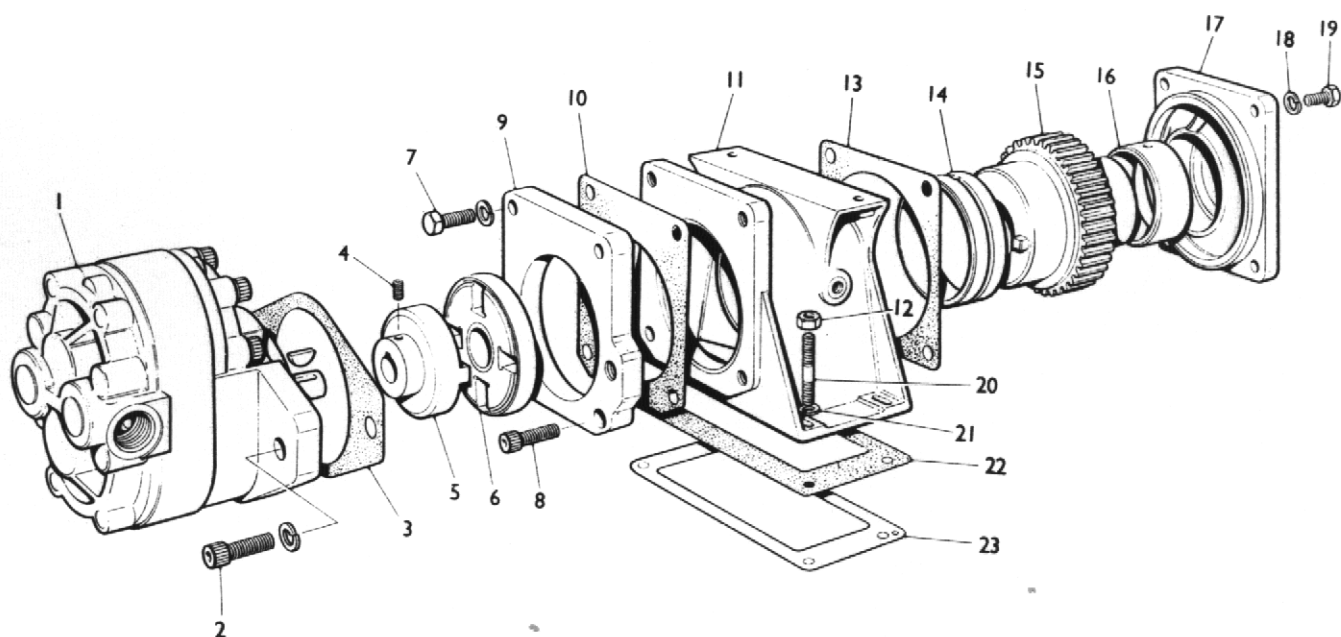
HYDRAULIC PIPES & FITTINGS

Item No.	Part No.	Description	Qty.
1	4-35-296	Hydraulic Tank	1
2	4-35-187	Cover Plate Assembly	1
3	T18B	Gasket	1
4	P1145	Strainer	1
5	P2578-2	Cap	1
6		Bolt 5/16" UNF x 3/4" long	4
7		Shakeproof Washer 5/16"	4
8	UC 1457	Filter	1
9	T63M	Hose Clip	2
10	4-35-312	Hose 3/4" x 36" Cotton Braid	1
11	T48	Pump Inlet Adaptor	1
12	IPE4	Pump Elbow	1
13		Cap Screw 5/16" UNC x 2 1/4" long	2
14	DH69A5	'O' Ring	2
15	IP3072-CPSFB	Pump (see page 54)	1
16	4-35-261	Adaptor	1
17		Capscrew 5/16" UNC x 1" long	2
18	T14I	Seal 3/8" BSP	1
19	T14J	Adaptor 3/8" BSP x 3/8" BSP	1
20	2ST72C	Hose 3/8" x 13 1/4" ST-90	1
21	F4-45-74	Hydraulic Control Valve (see page 57)	1
22	S9698	'O' Ring	6
23	4-60-159	Adaptor 3/8" BSP x 7/8" JIC (Short)	5
24	4-60-158	Adaptor 3/8" BSP x 7/8" JIC (Long)	1
25	4-60-135	Hose 3/8" x 77" ST-90	1
26	4-60-115	Adaptor 3/8" BSP x 3/4" UNF (Long)	2
27	4-35-40K	Adaptor 3/8" BSP x 3/4" UNF (Short)	3
28	2ST72J	'O' Ring	5
29	D-15-2099	Steering Column (Taper/Serration Type)	1
30	OSP160SMMT	Steering Valve Complete (Taper/Serration Type)	1
31	347K	Steering Wheel	1
32	C304	Domed Nut 5/8" UNF	1
33	SCA 315	Steering Column (Taper/Key Type)	1
34	UE 160	Steering Valve Complete (Taper/Key Type)	1
35	153	Steering Wheel	1
36		Woodruff Key No.11	1
37		Washer 3/4" dia.	1
38	4-60-247	Nut	1
39	153A	Steering Wheel Cap	1
40	4-60-133	Hose 3/8" x 48" ST-90	1
41	4-35-246	Hose 3/8" x 67" ST-90	1
42	4-35-244	Hose 3/8" x 36" 90-90	1
43	4-35-245	Hose 3/8" x 43" 90-90	1
44	TD 3894	Steering Ram (see page 60)	1
45	4-35-294	Hose 3/8" x 112" ST-90	1
46	4-35-179	Hose 3/8" x 56" ST-90	2
47	2ST 72M	Tee	2
48	3SH-63	Hose 3/8" x 23 1/2" ST-90	4
49	F4-45-67	Restrictor Adaptor	4
50	F4-45-68	Copper Washer	5
51	F4-45-59	Adaptor	1
52	16097-351	Orifice Plate	3
53	237 S	Hose Clip	1
54	200-100-RAD	Pump (see page 55)	1
55	4-60-159	Adaptor 3/8" BSP x 7/8" SAE	1
56	59698	'O' Ring 7/8" dia.	1
57	ASE 138	'O' Ring 1-1/16" dia.	1
58	DSE 113	Adaptor 3/4" BSP x 1-1/16" SAE	1
59	BSE 109	90° Hose Fitting 3/4" BSP	1



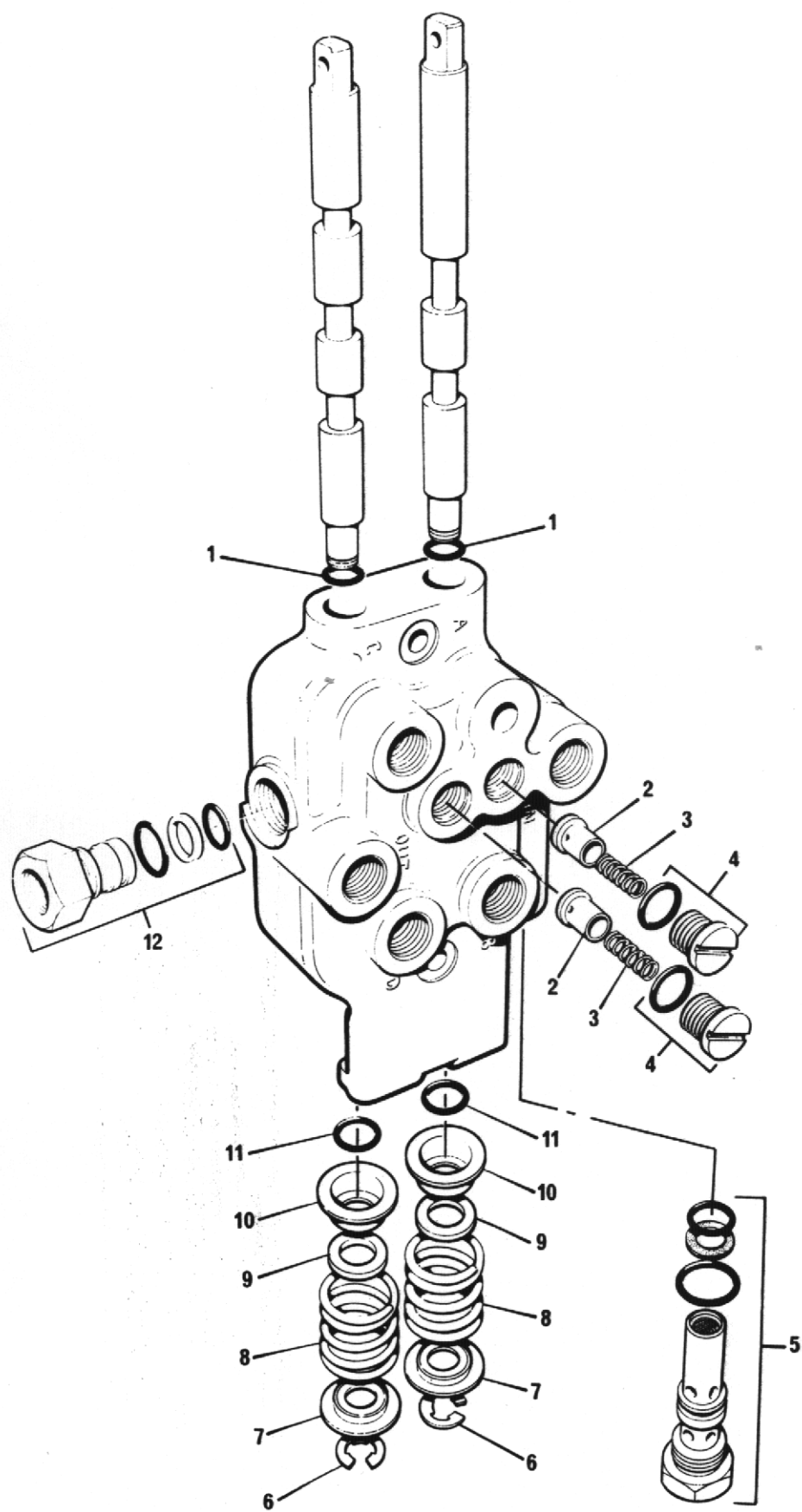
HYDRAULIC PUMP & DRIVE

Item No.	Part No.	Description	Qty.
1	IP3072CPSFB	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	334931	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.



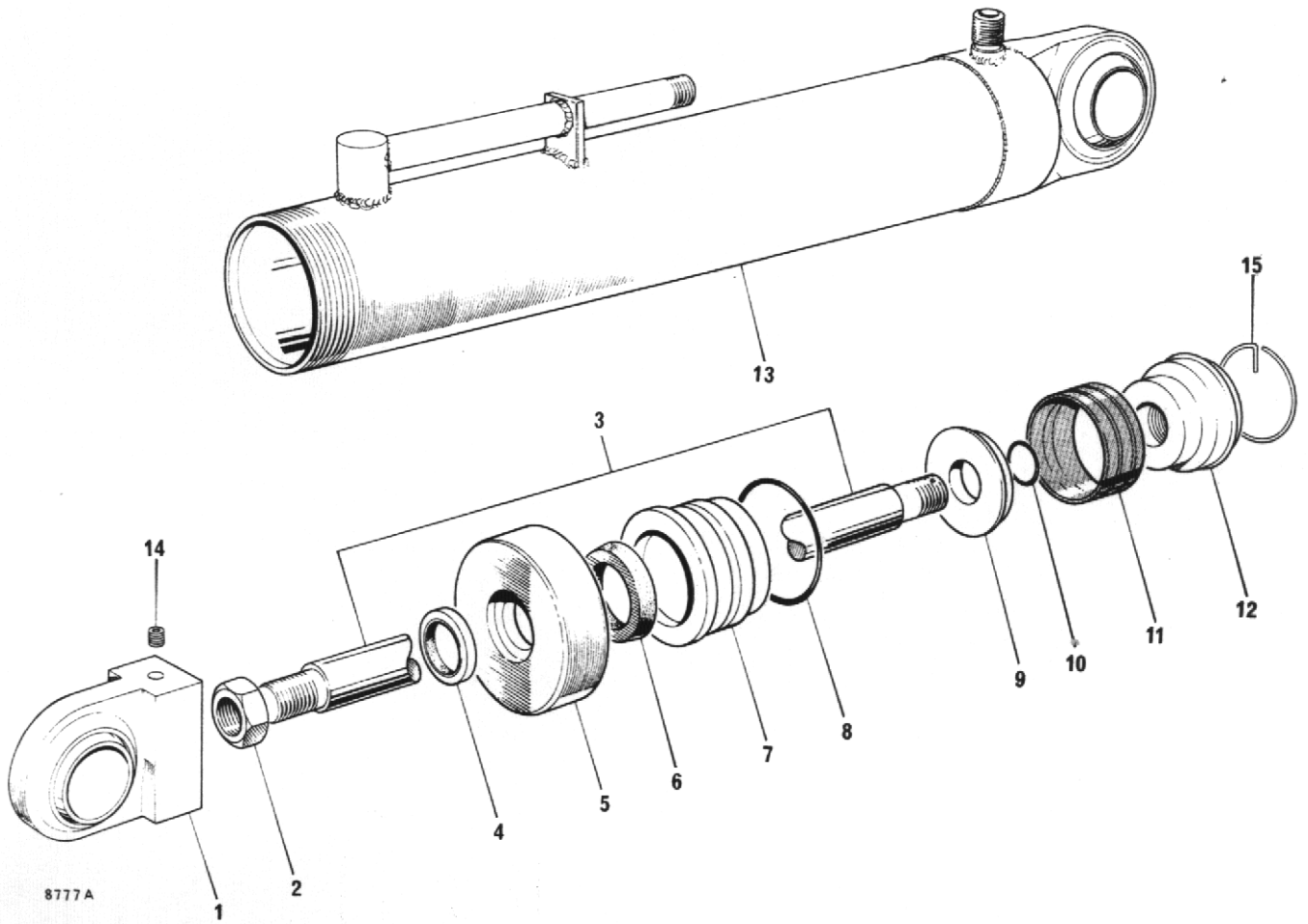
HYDRAULIC PUMP & DRIVE

Item No.	Part No.	Description	Qty
1	200-100-RAD	Pump Complete	1
2		Cap Screw	2
3	334932	Joint	1
4	724202	Socket Screw 1/4" BSF x 5/16" long	1
5	334931	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



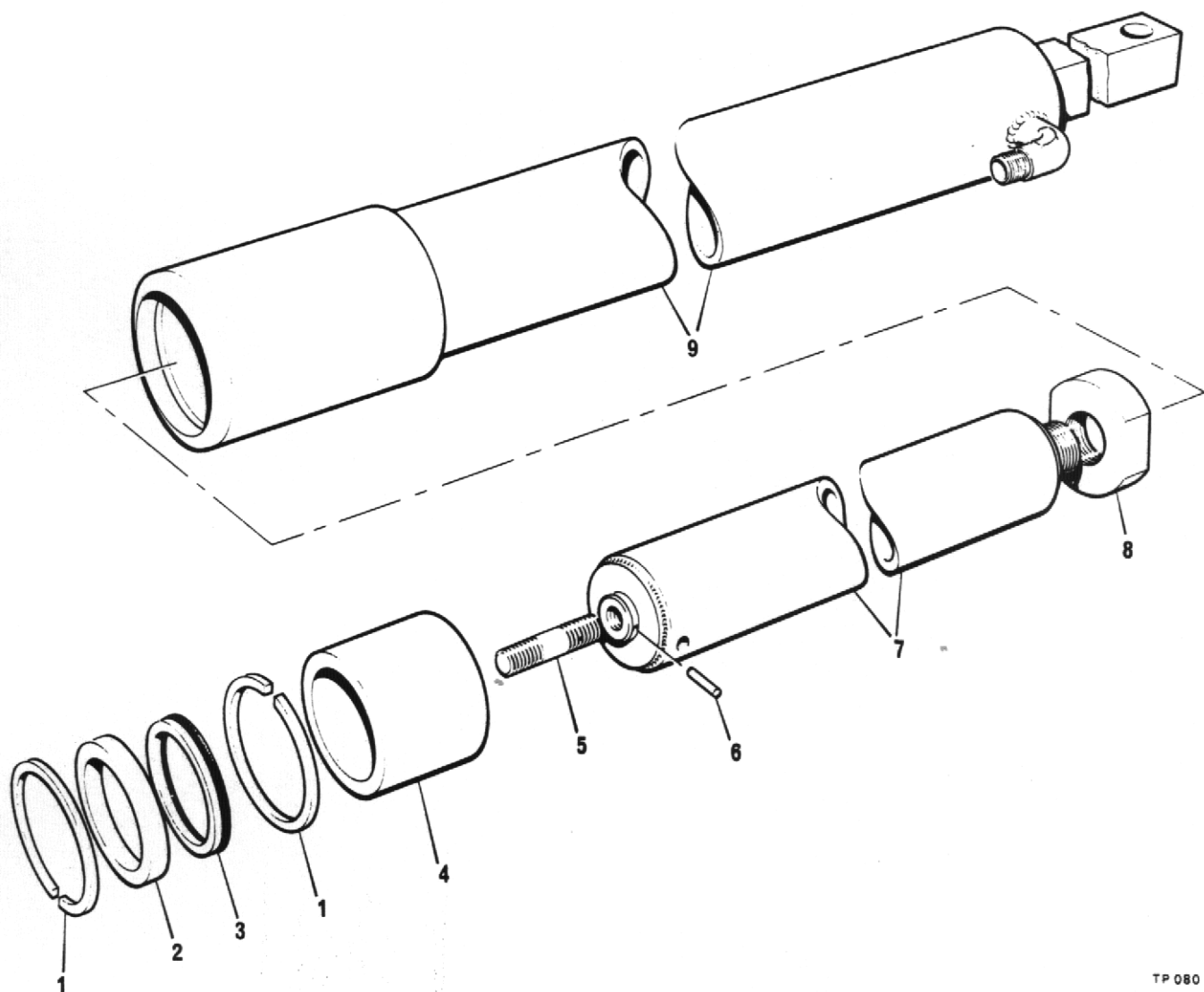
HYDRAULIC CONTROL VALVE

Item No.	Part No.	Description	Qty.
	<i>300006AAD</i>		
—	F-45-74	Control Valve Assembly (1 per M/c)	
1	16004-63	'O' Ring	2
2	30501-12	Lift Check Plunger	2
3	30501-13	Lift Check Spring	2
4	30501-17	Lift Check Plug Assembly	2
5	32018-J9	Relief Valve Assembly	1
6	16124-50	Clip Ring (½" Shaft)	2
7	15546-6	Shallow Washer	2
8	30501-39	Spool Spring	2
9	16048-31	Spacer Washer	2
10	30501-10	Deep Washer	2
11	16003-12	'O' Ring 3/32" x 5/8" I.D.	2
12	30501-15	Pressure Beyond Plug Assembly	1



MAST TILT RAM

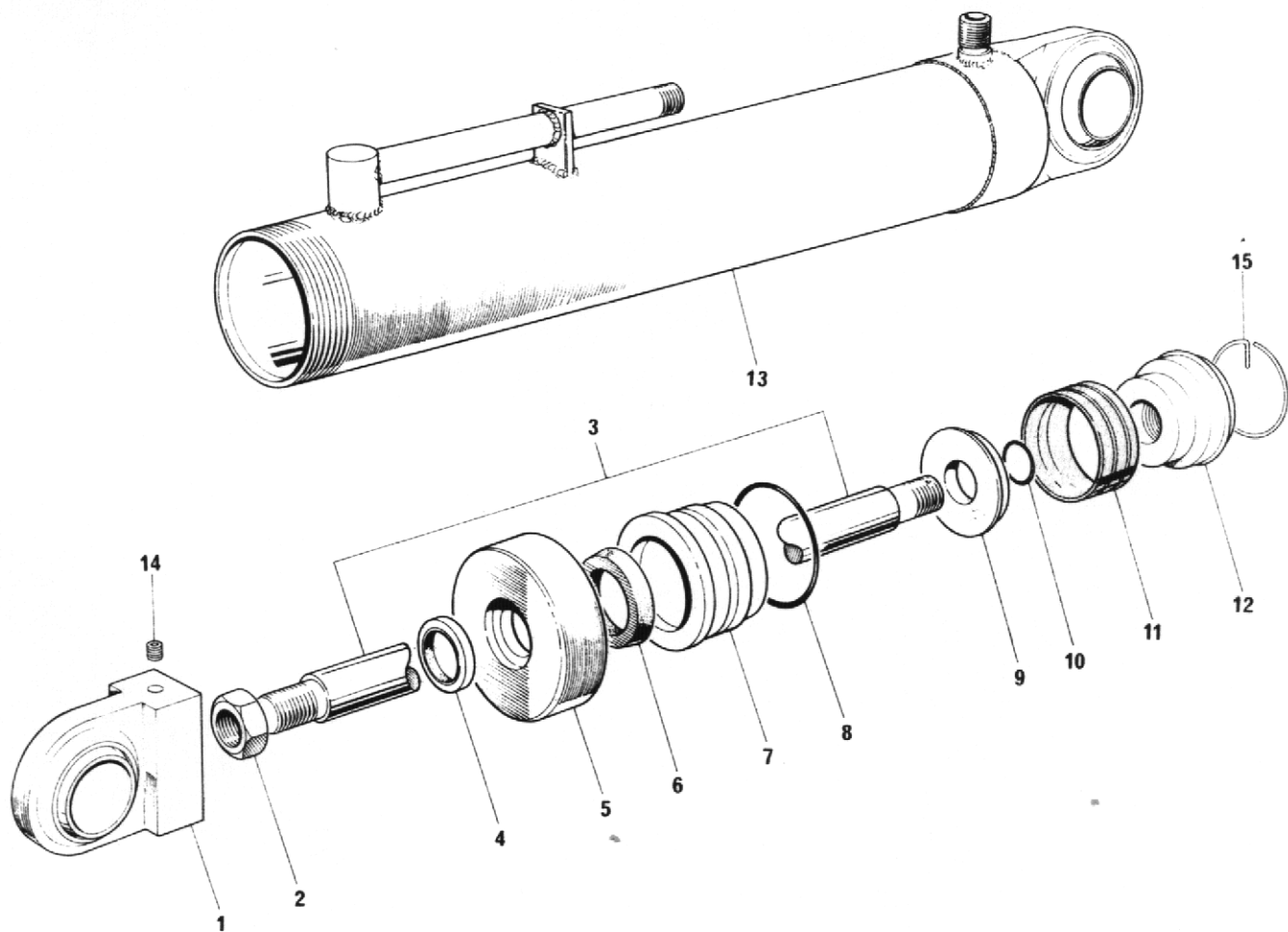
Item No.	Part No.	Description	Qty
	4-35-295	Cylinder Complete (2 per M/c)	
1	K1/11	Piston Rod Fitting	1
2	K1/19	Locknut	1
3	TD3890	Piston Rod	1
4	K1/18	Wiper	1
5	K1/4	Tube Cap	1
6	K1/17	Sleeve Seal	1
7	K1/5	Sleeve	1
8	K1/16	Sleeve 'O' Ring	1
9	K1/15	Backing Washer	1
10	K1/13	Piston 'O' Ring	1
11	K1/12	Piston Seal	1
12	K1/14	Piston Head	1
13	TD 6531	Cylinder, Bosses and End Cap	1
14	K1/21	Grub Screw	1
15	K1/22	Spring Ring	1



TP 080

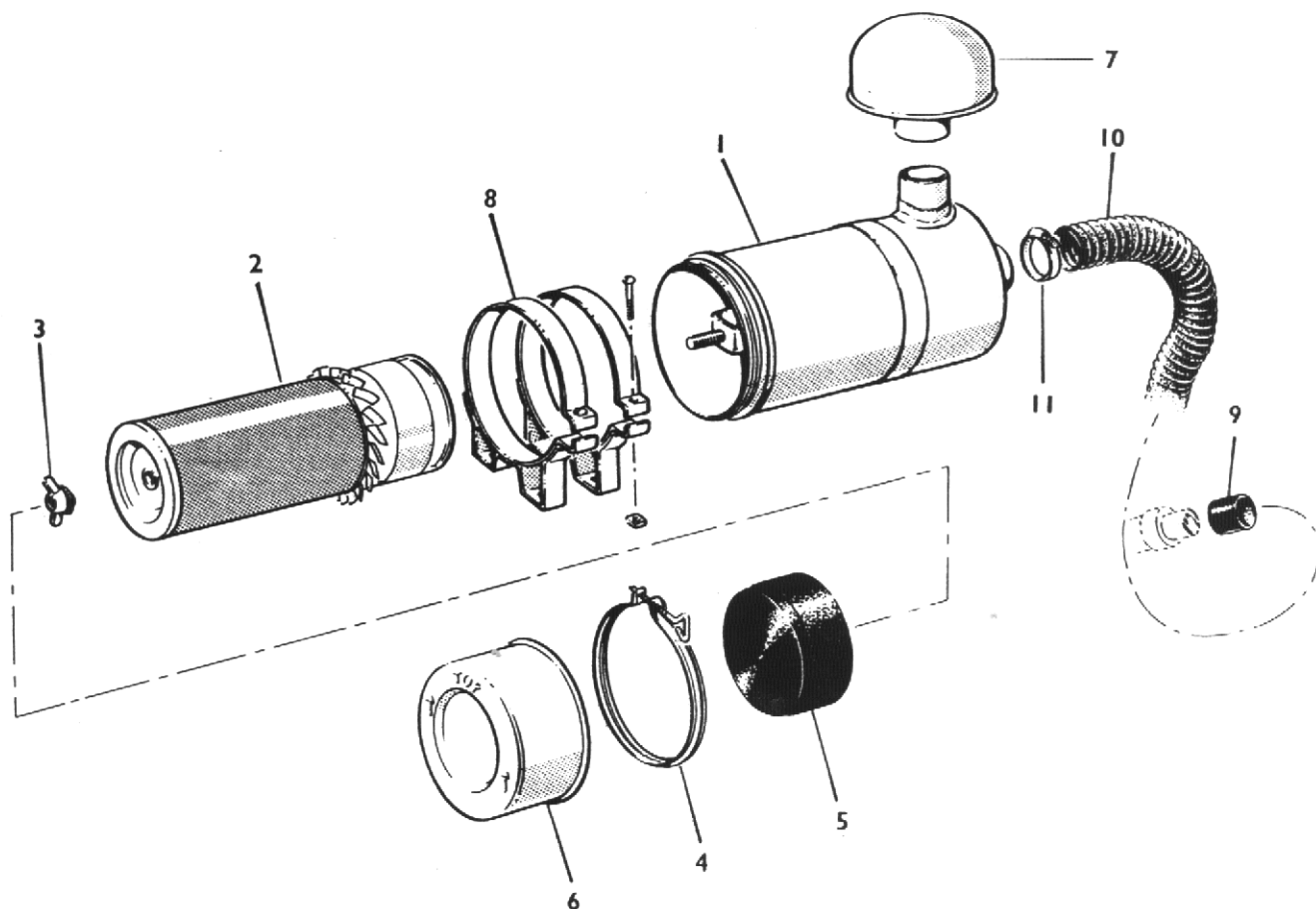
MAST RAM

Item No.	Part No.	Description	Qty.
	B549-14-A	Cylinder Complete (18' Fork Lift only)	1
	B546-14	Cylinder Complete (13' Fork Lift only)	1
	B543-14	Cylinder Complete (10'-6" Fork Lift only)	1
1	506-6	Circlip (Type 1300-3½" dia.)	2
2	E506-3	Junk Plate	1
3	506-4	Seal	1
4	E506-2	Cylinder Rod Guide	1
5	E500-29	Stud	1
6	12PG100	Groverlock Pin 1/8" dia. x 1" long	1
7	D549-5	Cylinder Rod Assembly (18' Fork Lift only)	1
	D546-5	Cylinder Rod Assembly (13' Fork Lift only)	1
	D543-5	Cylinder Rod Assembly (10'-6" Fork Lift only)	1
8	E509-16	Cylinder End Nut	1
9	C549-8	Barrel Assembly (18' Fork Lift only)	1
	C546-8	Barrel Assembly (13' Fork Lift only)	1
	C543-8	Barrel Assembly (10'-6" Fork Lift only)	1



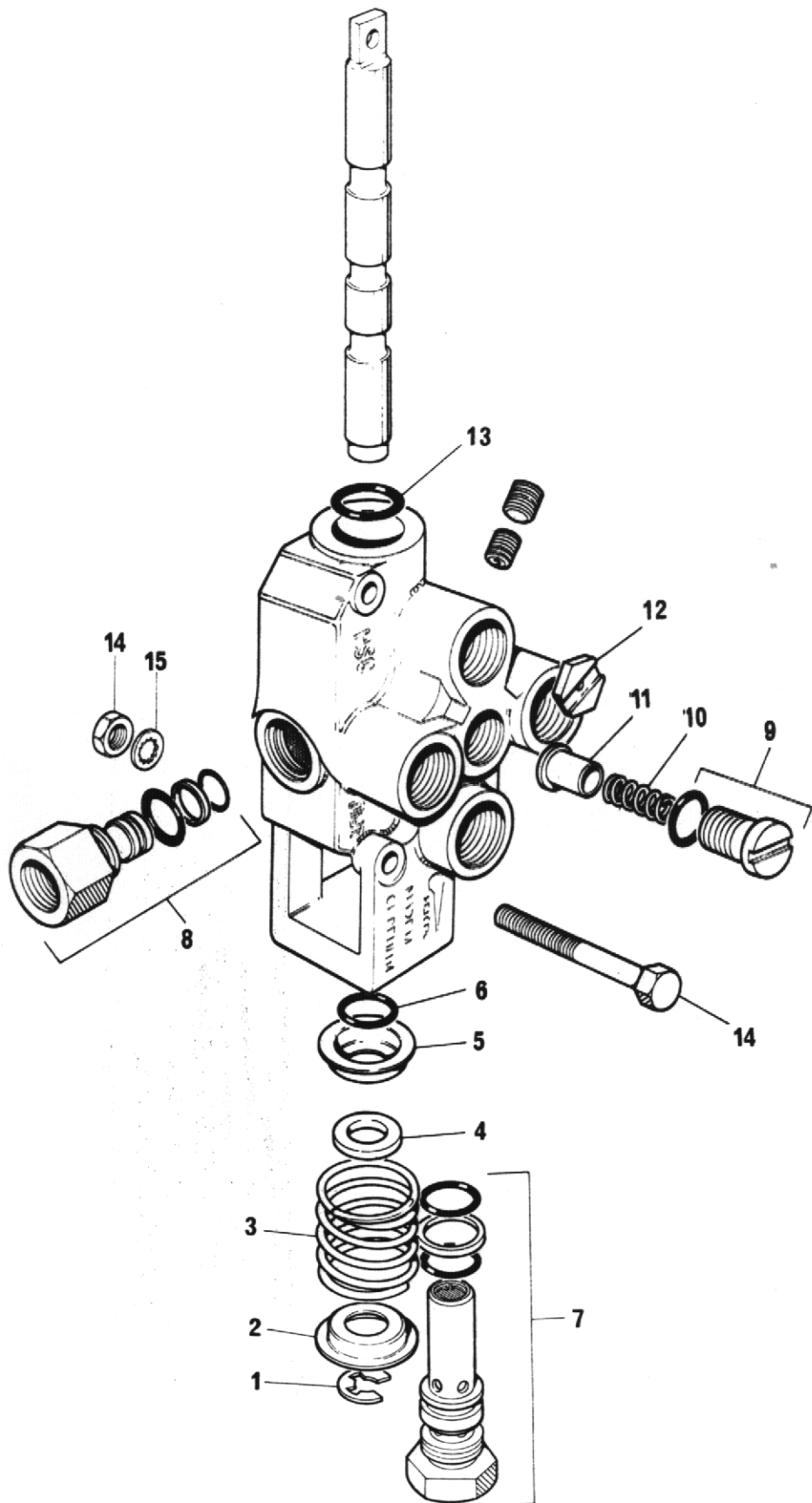
STEERING RAM

Item No.	Part No.	Description	Qty.
	TD3894	Ram Complete (1 Per Machine)	
1	K1/11	Piston Rod Fitting	1
2	K1/19	Locknut	1
3	K1/2	Piston Rod	1
4	K1/18	Wiper	1
5	K1/4	Tube Cap	1
6	K1/17	Sleeve Seal	1
7	K1/5	Sleeve	1
8	K1/16	Sleeve 'O' Ring	1
9	K1/15	Backing Washer	1
10	K1/13	Piston 'O' Ring	1
11	K1/12	Piston Seal	1
12	K1/14	Piston Head	1
13	K1/20	Cylinder, Bosses & End Cap	1
14	K1/21	Grub Screw	1
15	K1/22	Spring Ring	1



AIR CLEANER

Item No.	Part No.	Description	Qty.
1	10532A02	Air Cleaner Assembly	1
2	10532A0101	Element	1
3	V600487	Nut & Gasket Kit	1
4	220229002	Clamp Body	1
5	220229003	Skirt, baffle	1
6	220229004	Cup	1
7	10534A02	Stack Cap	1
8	10533A02	Bracket	2
9	10320A06	Adapter sleeve	1
10	166S02	Hose Flexible 2" Bore x 20" Long (Order by metre)	1
10	97S12	Hose Clip	2



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

Item No.	Part No.	Description	Qty.
	300-024-GAA	Control Valve Assembly (1 Per M/c)	
1	16124-50	Clip Ring (1/2" Shaft)	1
2	15546-6	Shallow Washer	1
3	30501-39	Spool Spring	1
4	16048-31	Washer Spacer	1
5	30501-10	Deep Washer	1
6	16003-12	'O' Ring 3/32" x 5/8" I/D	1
7	300-055-J9A	Relief Valve Assembly	1
8	30501-15	Pressure Beyond Plug Assembly	1
9	30501-17	Lift Check Plug Assembly	1
10	30501-13	Lift Check Spring	1
11	30501-12	Lift Check Plunger	1
12	16097-451	Orifice Plate	1
13	16004-63	'O' Ring	1
14		Bolt 5/16" UNF x 2 1/2" Long and Nut	2
15		Shakeproof Washer	2

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