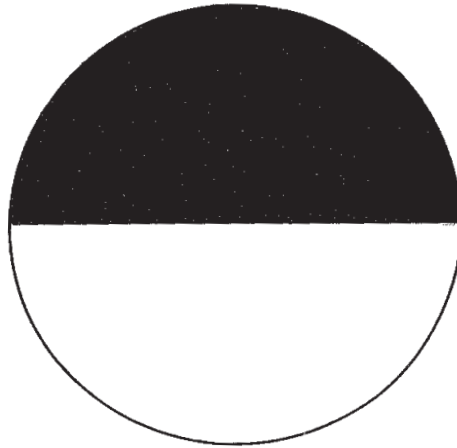


INSTRUCTION SUPPLEMENT 186

ALAMO INDUSTRIAL

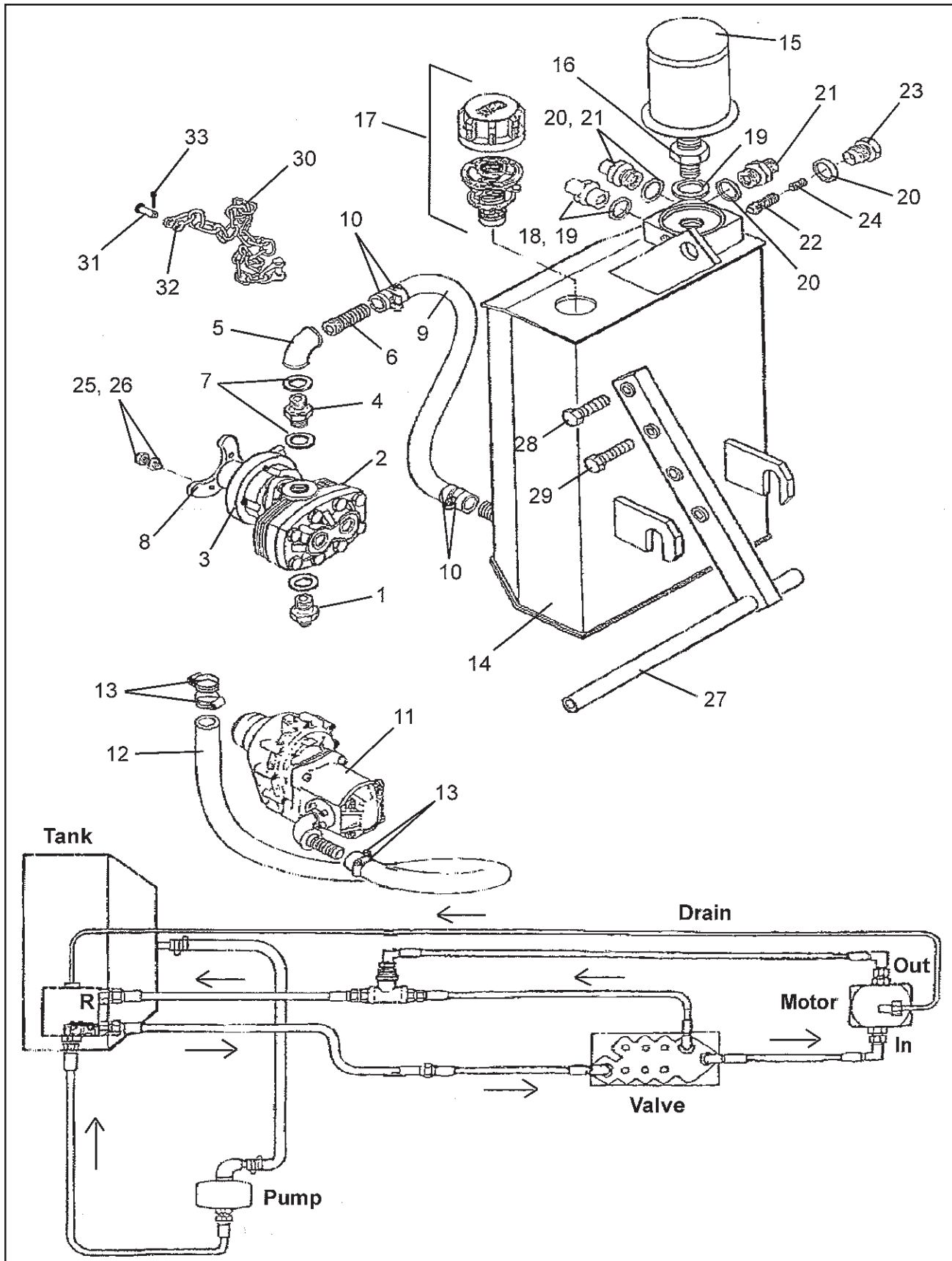
McCONNEL



SWING TRIM & PUMP KIT

This instruction supplement is to be used to identify replacement parts on the Swing Trim Pump Kit and is a supplement to the standard parts manual only.

Pump and Tank Kit (Instructional Supplement 186)



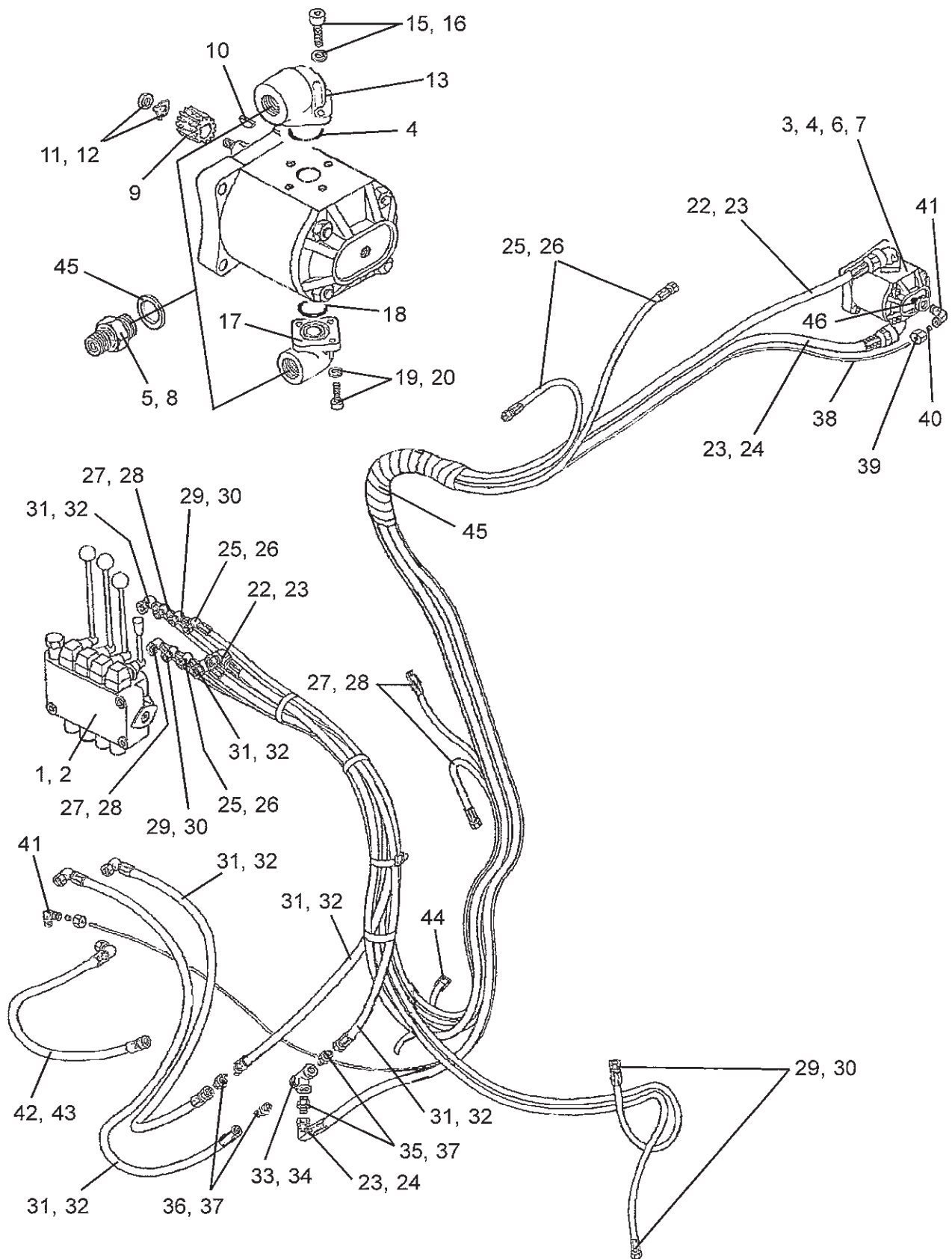
Swing Trim & Pump Kit Supplement 186 (09/88)

Pump and Tank Kit (Instructional Supplement 186)

ITEM	PART NO.	QTY	DESCRIPTION
	10 90 258	--	Pump and Tank Kit, BSP (600 RPM PTO SPEED)
	80 13 388	1	Pump and Drive Asy
1	85 81 131	1	Adapter, 3/4" BSP - 3/4" BSP M-M
	10 90 257	--	Pump and Tank Kit, JIC (600 RPM PTO SPEED)
	80 13 391	1	Pump and Drive Asy
1	85 81 244	1	Adapter, 3/4" BSP - 3/4" JIC M-M
The following parts are common to both builds			
	80 13 386	1	Pump and Drive
2	82 01 670	1	Pump
3	80 13 387	1	Drive Coupling
4	85 81 136	1	Union, 3/4" BSP M-M
5	85 81 055	1	90 Deg. Elbow, 3/4" BSP M-M
6	80 05 037	1	Low Pressure Connection
7	86 50 106	3	Bonded Seal
8	80 13 389	1	Torque Arm
9	85 00 865	1	Suction Hose, 65" Lg
10	09 04 106	4	Hose Clip
	86 99 200	--	Seal Kit, (For 600 RPM Pump)
The following parts are Pump and Tank Kits			
11	10 90 346	--	Pump and Tank Kit, BSP (540 RPM PTO SPEED)
	80 13 335	1	Pump and Drive Asy, (See Pages 5 & 6)
11	10 90 347	--	Pump and Tank Kit, JIC (540 RPM PTO SPEED)
	80 13 390	1	Pump and Drive Asy, (See Pages 5 & 6)
The following parts are common to both builds			
12	85 00 936	1	Suction Hose, 36" Lg
13	09 04 106	4	Hose Clip
	86 99 215	--	Seal Kit, (For 540 RPM Pump)
The following parts are common to all builds			
14	10 90 339	1	Hydraulic Oil Tank
15	84 01 045	1	Filter Element
16	85 81 174	1	1" UNF - 1/2" BSP Union M-M
17	84 01 050	1	Filter & Breather Asy
18	60 00 112	1	3/8" BSP - 1/2" BSP Union
	81 20 003	1	1/2" BSP - 3/4" JIC Union
19	86 50 104	2	1/2" BSP Bonded Seal
20	86 50 103	3	3/8" Bonded Seal
21	85 81 170	2	Adapter, 3/8" BSP - 3/4" JIC M-M
	60 00 113	2	Adapter, 3/8" BSP M-M
22	81 30 029	1	Relief Valve Cont 11"
24	81 16 011	1	Spring
25	93 13 055	4	Setscrew, M10 - 25
26	91 00 205	4	Spring Washer
27	10 90 345	1	Valve Mounting Bracket
28	92 13 137	1	Bolt, M16 - 65
29	92 13 147	1	Bolt, M16 - 70
30	09 02 330	1	Torque Chain
	60 00 087	2	Shackle Asy
31	60 00 089	1	Shackle Pin
32	60 00 088	1	Shackle
33	04 81 105	1	Spring Cotter

Swing Trim & Pump Kit Supplement 186 (09/88)

Hydraulic Installation (Instructional Supplement 186)



Swing Trim & Pump Kit Supplement 186 (09/88)

Hydraulic Installation (Instructional Supplement 186)

BSP and JIC Hydraulic Installation

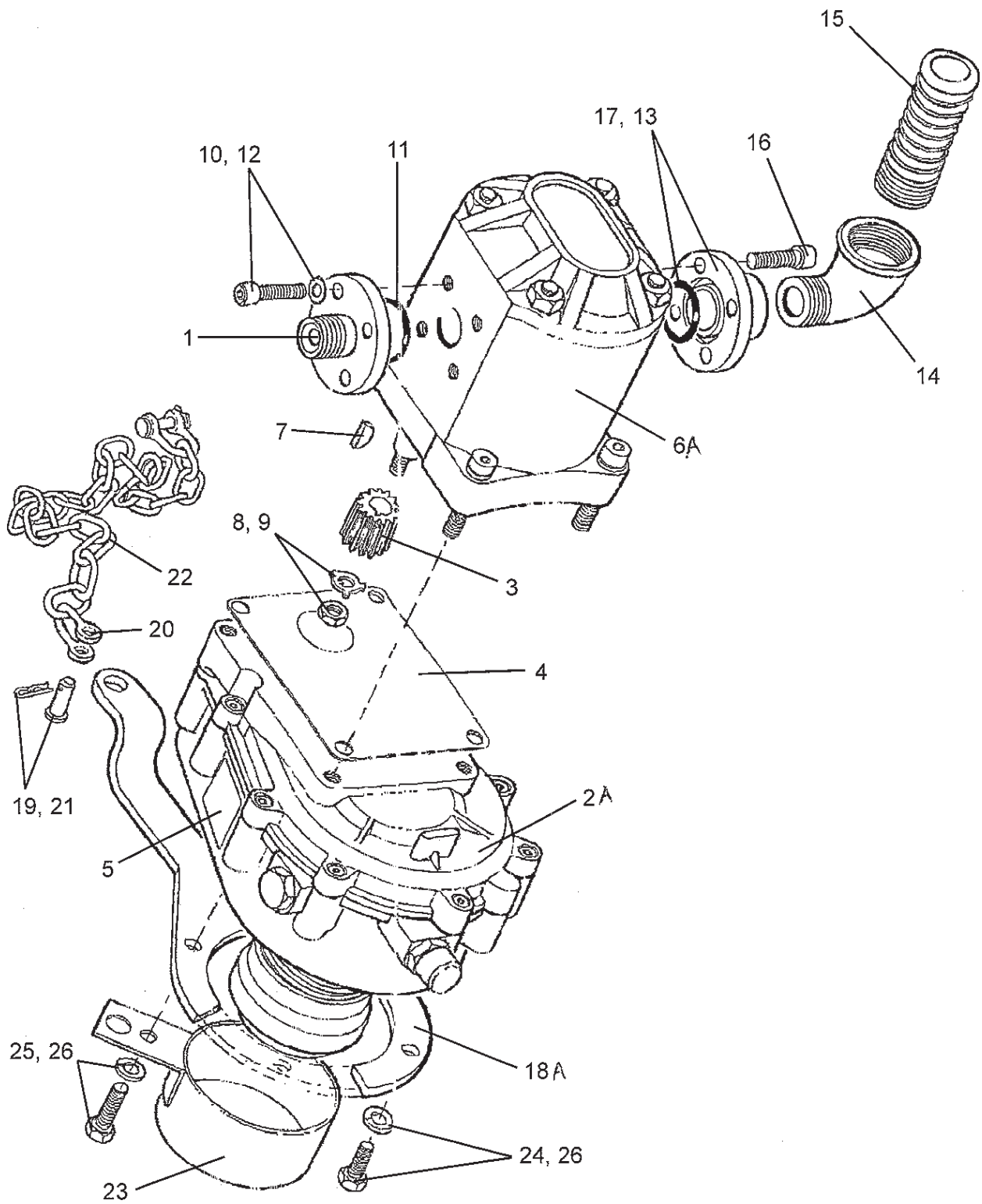
ITEM	PART NO.	QTY	DESCRIPTION
1	85 81 131	1	Adapter, 3/4" BSP - 3/4" BSP M-M
1	81 30 356	1	Valve Asy, c/w BSP Connections
2	81 30 357	1	Valve Asy, c/w JIC Connections
3	83 01 265	1	Motor Asy, CPL 13R 201/min for low oil flow tractors c/w BSP Connections
4	83 01 269	1	Motor Asy, CPL 20R 301/min for high oil flow tractors c/w BSP Connections
5	60 00 112	2	Union, 1/2" BSP X 3/8" BSP M-M
6	82 01 267	1	Motor Asy, CPL 13R 201/min for low oil flow tractors c/w JIC Connections
7	82 01 270	1	Motor Asy, CPL 20R 301/min for high oil flow tractors c/w JIC Connections
8	81 20 003	2	Union, 1/2" BSP X 3/4" JIC M-M

All motor assemblies include items 7 thru 20 inclusive

9	10 90 035	1	Pump Coupling (BSP & JIC)
10	82 01 133	1	Woodruff Key (BSP & JIC)
11	82 01 134	1	Tab Washer (BSP & JIC)
12	82 01 135	1	Special Thin Nut M12 X 1.5 Pitch (BSP & JIC)
13	83 01 027	1	Elbow Connector, c/w "O" Ring-Inlet BSP & JIC)
14	85 00 403	1	"O" Ring (BSP & JIC)
15	93 43 054	3	Capscrew, M8 (BSP & JIC)
16	91 00 204	3	Spring Washer, M8 (BSP & JIC)
17	83 01 028	1	Elbow Connector, c/w "O" Ring-Outlet (BSP & JIC)
18	86 00 112	1	'O" Ring (BSP & JIC)
19	93 43 043	3	Capscrew, M6 (BSP & JIC)
20	91 00 203	3	Spring Washer, M6 (BSP & JIC)
21	85 31 363	1	Hose, 3/8" BSP st-90 Deg. - 160" Lg - Motor
22	85 01 038	1	Hose, 3/4" JIC st-90 Deg. - 160" Lg - Supply
23	85 31 373	1	Hose, 3/8" BSP st-90 Deg. - 130" Lg - Motor
24	85 31 048	1	Hose, 3/4" JIC st-90 Deg. - 130" Lg - Return
25	85 35 122	2	Hose, 1/4" BSP st-90 Deg. - 142" Lg - Angling
26	85 35 017	2	Hose, 1/2" JIC st-90 Deg. - 142" Lg - Ram
27	85 35 132	2	Hose, 1/4" BSP st-90 Deg. - 100" Lg - Reach
28	85 35 027	2	Hose, 1/2" JIC st-90 Deg. - 100" Lg - Ram
29	85 35 052	2	Hose, 1/4" BSP st-90 Deg. - 70" Lg - Lift
30	85 35 047	2	Hose, 1/2" JIC st-90 Deg. - 70" Lg - Ram
31	85 31 343	4	Hose, 3/8" BSP st-90 Deg. - 36" Lg
32	85 31 058	4	Hose, 3/4" JIC st-90 Deg. - 36" Lg
33	85 81 073	1	"TEE" Piece 3/8" BSP F
34	85 81 237	1	"TEE" Piece JIC MMF
35	80 05 007	2	Union, 3/8" BSP - 3/8" BSPT MM
36	60 00 112	2	Union, 3/8" BSP - 1/2" BSP MM
37	81 20 003	4	Union, 3/4" JIC - 1/2" BSP MM
38	85 01 148	1	Nylon Hose, 4570mm Lg (BSP & JIC)
39	85 81 200	2	Union Nut (BSP & JIC)
40	85 81 199	2	Olive (BSP & JIC)
41	85 81 198	2	Elbow, 90 Deg. (BSP & JIC)
42	85 31 353	1	Hose, 3/8" BSP st-90 Deg. - 22" Lg
43	85 31 078	1	Hose, 3/4" JIC st-90 Deg. - 22" Lg
44	71 06 187	5	Hose Strap (BSP & JIC)
45	10 90 053	1	Spiral Armor Hose Wrapping (BSP & JIC)
46	01 39 001	1	Back Nut 1/4" BSP (BSP & JIC)

Swing Trim & Pump Kit Supplement 186 (09/88)

Pump and Gearbox (Instructional Supplement 186)



Swing Trim & Pump Kit Supplement 186 (09/88)

Pump and Gearbox (Instructional Supplement 186)

ITEM	PART NO.	QTY	DESCRIPTION
	80 13 390	1	Brevini Gearbox/Casappa Pump Asy, w/ JIC Fittings
1	80 05 031	1	Pressure Connection, c/w screws "O" Ring & Washer - 3/4" JIC
	8013335	1	Brevini Gearbox/Casappa Pump Asy, w/ BSP Fittings
1	80 05 043	1	Pressure Connection, c/w screws "O" Ring & Washer - 3/8" BSP

All following parts are common to both builds

	80 13 323	1	Basic Gearbox/Pump Asy
2	80 13 324	1	Gearbox, c/w coupling - w/items 2A,3,4,& 5
2A	80 13 325	1	Gearbox
3	82 01 131	1	Pump Drive Coupling
4	82 01 132	1	Gasket Pump Face
5	80 13 052	1	Instruction Label
6	82 01 656	1	Pump Asy, w/items 6A,7,8,9,10,11,& 12
6A	82 01 456	1	Pump c/w Key, Washer & Nut (items 8 & 9)
7	82 01 133	1	Woodruff Key
8	82 01 134	1	Tab Washer
9	82 01 135	1	Special Hexagon Thin Nut M12 - 1.25 Pitch
10	93 43 044	4	Capscrew, M8 - 20
11	86 00 405	1	"O" Ring
12	01 00 405	4	Shakeproof Washer
13	80 05 044	1	Suction Connection Asy, w/items 13A,14,15,16,& 17
13A	80 05 036	1	Connection Base
14	85 81 168	1	Elbow, 3/4" BSP Female - 1/2" BSP Male
15	80 05 037	1	Low Pressure Connection
16	93 43 044	4	Capscrew, M8 - 20
17	86 00 405	1	"O" Ring
18	80 05 034	1	Torque Arm c/w Chain & Shackle, w/items 18A,& 18B
18A	80 05 033	1	Torque Arm
18B	60 00 087	2	Shackle Asy, w/items 19,20,21,& 22
19	60 00 089	1	Shackle Pin
20	60 00 088	1	Shackle
21	04 31 105	1	Spring Cotter
22	09 02 230	1	Chain
23	80 13 268	1	P.T.O. Guard
24	93 13 055	3	Setscrew, M10 - 25
25	93 13 065	1	Setscrew, M10 - 30
26	90 00 205	4	Spring Washer, M10

Swing Trim & Pump Kit Supplement 186 (09/88)

Removal of Swingtrim (Instructional Supplement 186)

Remove swingtrim from tractor. Refer to swingtrim manual.

Unbolt valve mounting bracket from valve mounting bar, place latter and valve controls in a safe place.

Extract mounting bar to remove bracket, replace with one provided in kit.
Re-fit bar with new bracket in position.

Unbolt the upper halves of the yoke and fit them either side of the tractors top hitch bracket with the 3/4" UNF nut and bolt provided. If the tractor has only one top hitch position the bolt will replace the existing top hitch pin. If more than one location is available mount the yokes through an alternative position as it will make it easier to put the machine on and take it off the tractor.

Do not tighten the nut at this stage.

Attach the machine to the three point linkage and raise to give 200 - 250 mm (8" - 10") clearance under the lowest part of the frame.

Re-bolt the yoke halves together. It may be necessary to raise are lower the machine on the linkage to achieve hole alignment.
osition tank so the bottom brackets hook over valve mounting bracket.

Connect pump and drive assembly to P.T.O. shaft on tractor.

Secure the torque chain so that the angle is approximately 90 deg. to the torque arm and is in lateral alignment.

Fit top link, spindle to pass through top bracket of tank and flange on main frame.
Adjust the top link until the main frame is vertical.

Tighten the nut and the bolt securing the upper yoke just enough to eliminate any sideways movement. Do not over tighten and squeeze the top hitch brackets.

Tighten the check chains/stabilizer bars.

Re-assemble valve mounting bar to bracket.

Connect up hydraulics (see pages 1)

Fill reservoir with required oil (see pages 8 & 9)

Turn the parking leg upside down and pin in position.

Start tractor, engage P.T.O. drive and allow the pump to work under a no load condition ie., with operating controls in neutral for several minutes with tractor engine at high idle.

Operate the swing trim through it's complete range of movements including the operation of the cutterbar drive, check the reservoir and top up if necessary.

Hydraulic System (Pump & Tank Kit) (Instructional Supplement 186)

Oil requirements

Tank

The machine is delivered from the factory without oil. Fill the reservoir with a light hydraulic oil as recommended in the chart until the oil level is approximately 2" below the top of the tank. The total capacity is approximately 23 liters (5 gal.) **DO NOT OVERFILL.**

For ease of filling when large quantities are involved the strainer basket can be raised from it's housing. If filling in this manner make sure that the new oil is used and that the area around filler and any filling utensils are clean.

Supplier	Cold or temperature climate	Hot climate
Castrol	Agricastrol hydraulic oil Hy-spin AWS 32	Hy-spin AWS 69
Shell	Tellus 27	Tellus 33
Mobile	D.T.E. 25	D.T.E. 26
Esso	Nuto "H" or "A" 32	Nuto "H" or "A" 68
Texaco	Rando HD 32	Rando HD 68
Gulf	Hydrasil 32	Hydrasil 38
B.P.	Energal H L P 32	Energal H L P 68
Dalton	Silkolene Dove 32 or Derwent 32	Silkolene Dove 68 or Derwent 68
Elf	Hydreif 32	Hydreif 68

Oil supply

Check daily the oil level in the reservoir.

No fixed time period can be quoted for oil changes as operating conditions and maintenance standards vary so widely. Although the oil does not wear out, it does eventually break down through contamination, oxidation and condensation. Continual operation of the machine beyond it's rated capacity to almost the stall point of the rotor can cause overheating which produces insoluble gums, sludge, varnish and acids. Overheated oil thins to give a sluggish performance and causes earlier failure of seals and "O" rings. Burnt and scorched oil odors and the oil darkening and thickening are all signs of oxidation and indicate the oil should be changed.

Moisture which results from condensation can become entrapped in the oil and cannot be removed by filtration so that contamination is a progressive factor.

Contamination can be reduced by :

- (1) Carrying all hydraulic servicing in clean, dust-free surroundings
- (2) Cleaning off around the reservoir cap before removal, and keeping that area clean.
- (3) Using clean containers when replenishing the system.
- (4) Regular servicing of the filtration system.

Hydraulic Pumps (Instructional Supplement 186)

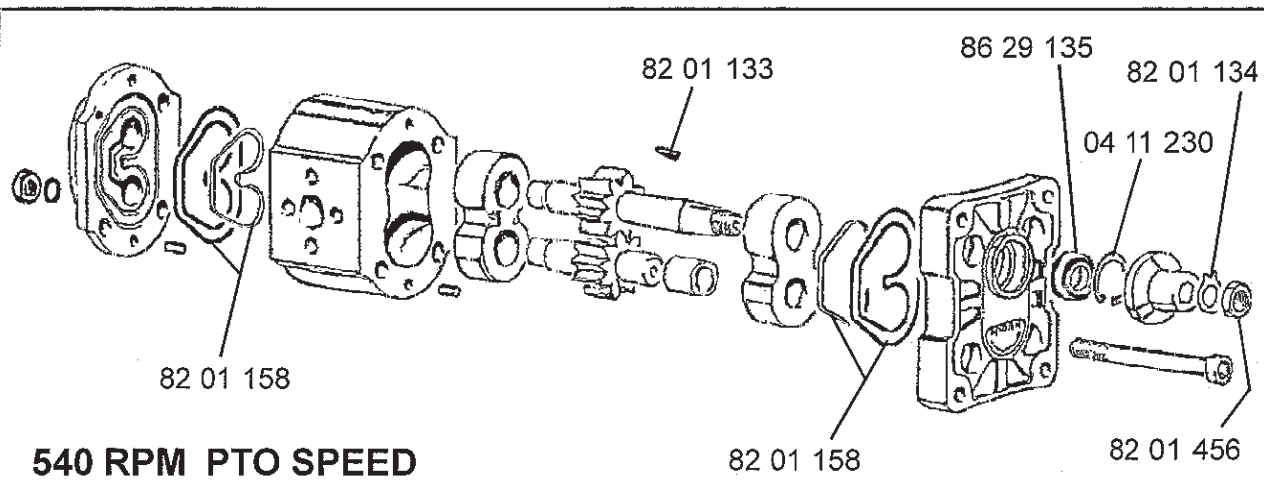
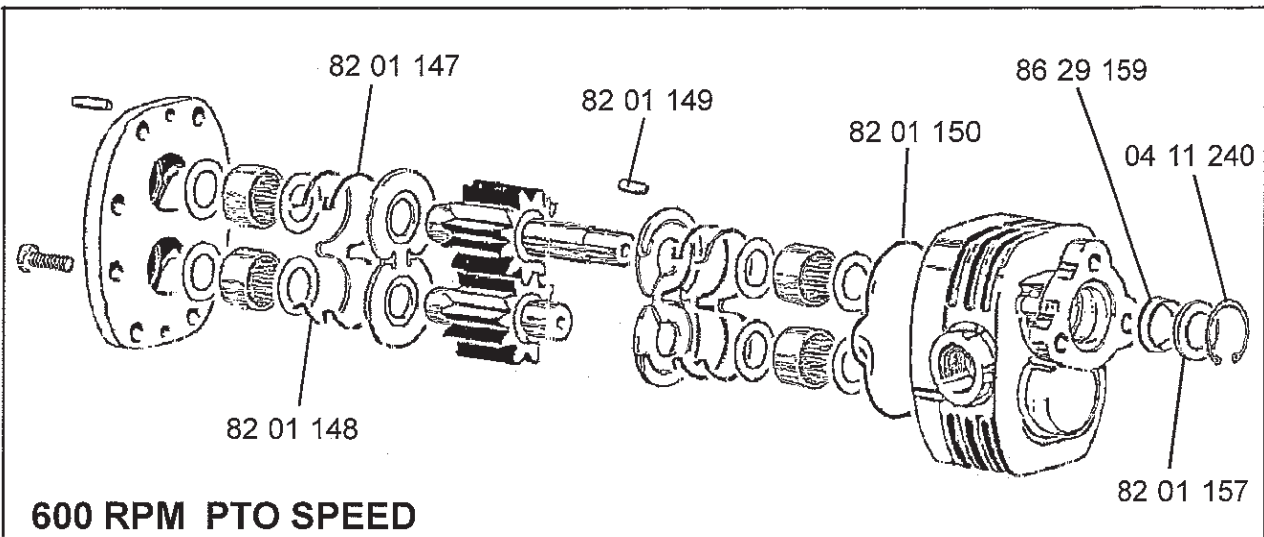
Filtration Maintenance :

The machine is protected by a low pressure 10 micron full flow return line filter.

(5) Return Line Filter.

The element should be changed after the first 50 hours and thereafter at 500 hour intervals. It is important to note hours worked as if the element becomes blocked an internal by-pass within the canister will operate and no symptoms of filter malfunction will occur to jog your memory.

Hydraulic Pumps



No routine maintenance is necessary other than a periodical check for tightness of the mounting bolts and a visual check for oil leakage especially around the pump supply hose and pressure unions. Where two hose clips are used on the pump supply hose, their worm-drive barrels should be placed opposite of each other at 180 deg. These clips should be checked frequently during the first few hours of work to avoid possibility of drawing in air.

