



# JOHN SHEARER LIMITED

ESTABLISHED 1877  
INCORPORATED IN SOUTH AUSTRALIA

## HEAD OFFICE & FACTORY

BOX 42 KILKENNY  
SOUTH AUSTRALIA 5009

TELEPHONE — 45 4651

TELEGRAMS & CABLES — SHEARER ADELAIDE

TELEX — AA88109

STREET LOCATION — SHARE STREET & KILKENNY ROAD

### WHEN ORDERING SPARE PARTS PLEASE STATE:

1. MODEL, SERIAL NUMBER & SIZE (OF THE MACH./IMP.).
2. PART NUMBER & DESCRIPTION (OF THE SPARE PART).
3. NUMBER OF PARTS REQUIRED.
4. FORWARDING INSTRUCTIONS.
5. CORRECT NAME & ADDRESS OF DESTINATION.



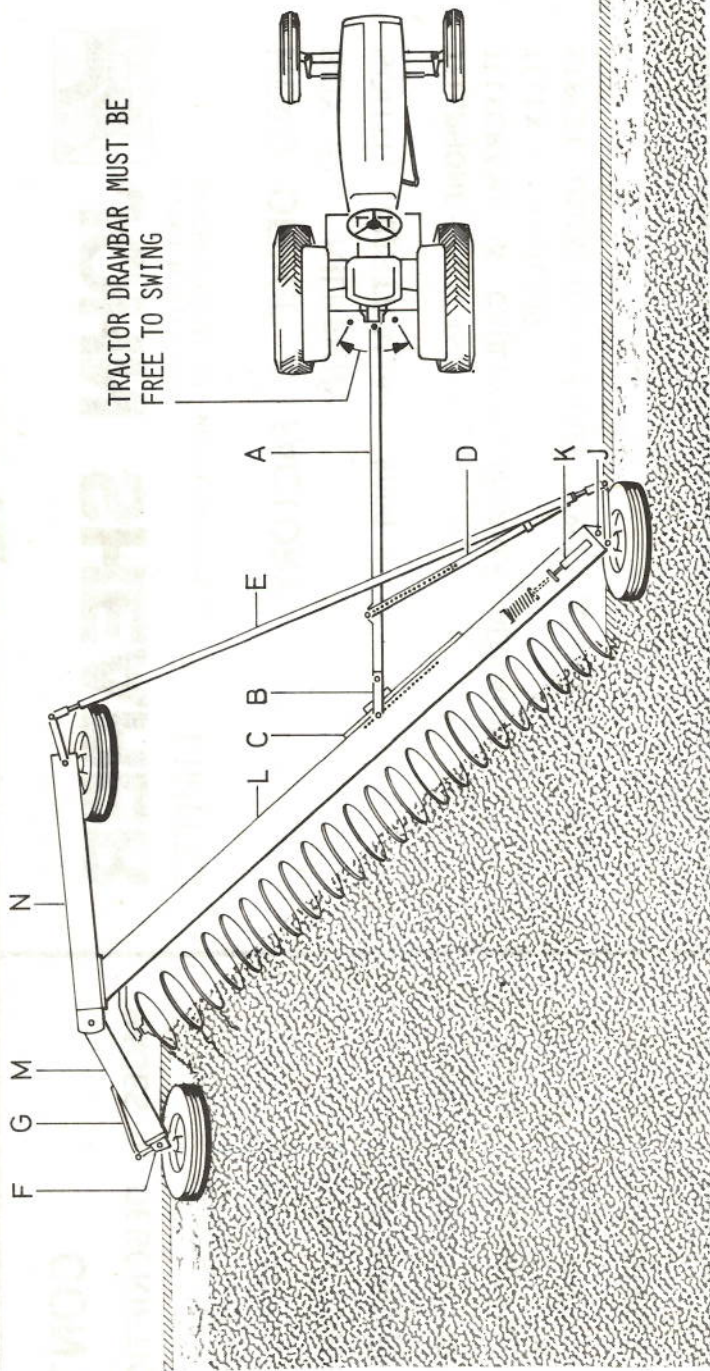
MODEL & SERIAL NUMBER PLATE  
IS PLACED ON THE LEFT HAND FRONT  
OF THE MAIN FRAME.

MADE & PRINTED IN AUSTRALIA BY JOHN SHEARER LIMITED.

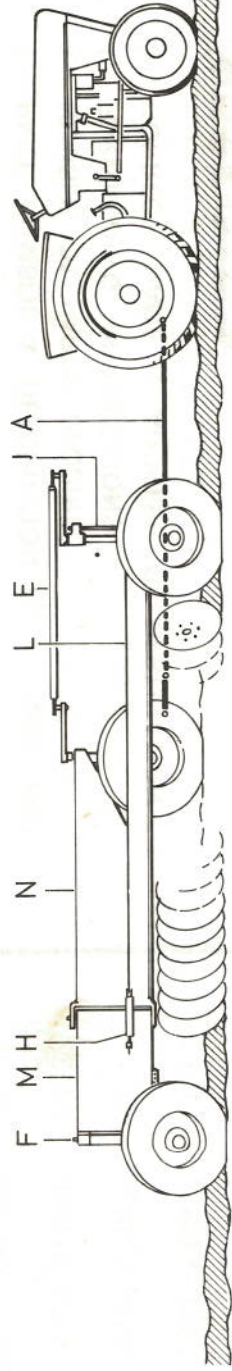
72 AUGUST 1973, 72J1 NOVEMBER 1974, 72J2 FEBRUARY 1977

## CONTENTS

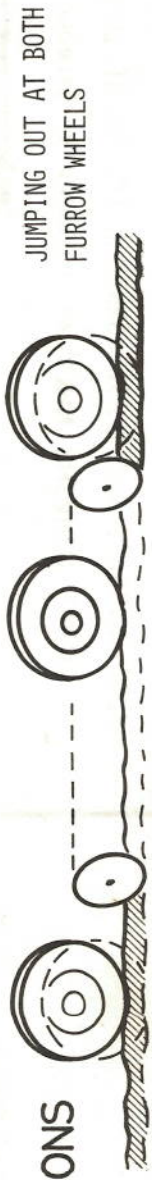
PAGES	DESCRIPTION
2-4	SETTING UP INSTRUCTIONS
5	MAIN BEAM
6-7	HITCH/STEERING BARS/HOSE CARRIER/ L/H STANDARD
8-9	LAND/TAIL BEAM & RELATED PARTS
10-11	STANDARD ASSY.-FRONT R.H. HYDRAULIC
12-13	TAIL WHEEL - SINGLE
14-15	TAIL WHEELS - DUAL
16-17	WHEEL, AXLE, HUB, TYRES & PRESSURES
18-21	HYDRAULIC HOSE/PIPE/FITTINGS
22-23	ACCUMULATOR AND MANIFOLD
24-25	JUMPER-HYDRAULIC & SPRING LOADING
26-27	JUMPER, DISC & BEARINGS
28	STRAIGHTENING JUMPER ARMS
29	KIT, CAP FLANGE PULLER JUMPER BEARINGS
30-31	TRANSFERS
32	HOSE COUPLING IMPLEMENT TO TRACTOR



- A - POLE HITCH
- B - LINK, DRAWBAR
- C - DRAWBAR
- D - STEERING BAR
- E - TRACKBAR
- F - LIFT CYLINDER
- G - ROD, STEERING
- H - RAM OR SCREW  
TAIL STEERING
- J - STANDARD, FRONT HYDRAULIC
- K - ACCUMULATOR, JUMPER
- L - BEAM, MAIN
- M - BEAM, TAIL
- N - BEAM, LAND



NORMAL PLOUGHING



JUMPING OUT AT BOTH  
FURROW WHEELS

**SETTING UP INSTRUCTIONS**  
SEE PAGES 3 AND 4



Tractor drawbar must be free to swing.

1. Adjust level of plough frame as on "Setting Up" transfer on the land beam.
2. Set maximum permissible pressure on jump hydraulics as shown on indicator at K.
3. Set width of cut to maximum that gives acceptable ploughing, by extending cylinder (or screw) H.
4. With pole hitch connected to drawbar somewhere near central, adjust the steering bar and trackbar so that front wheels run truly in the direction of ploughing.
5. Set tail wheel steering so that wheel normally runs in the furrow just clear of the furrow wall.
6. Plough a first round at slow speed, adjusting the tail wheel height to achieve the required depth of ploughing. Setting of maximum width of cut, and a slow speed, will minimize soil throw and consequent build-up against fences.
7. On the second round, when the plough has two wheels in a furrow of required depth, and with the plough in the toughest area of the paddock, set:
  - jumper pressure at maximum allowable as in (2)
  - main beam level and adjusted to give required working depth
  - tractor at desired operating speed
  - tractor position relative to the furrow as desired. (See note below).

#### NOTE RE TRACTOR POSITIONING

Some farmers prefer to drive with a tractor wheel in the furrow, while others prefer to drive with all wheels on unploughed ground. Driving in the furrow may provide easier maintenance of accurate plough positioning and thus a better join of work.

Driving on the land provides uniform traction conditions on both drive wheels and a straighter pull on the tractor drawbar. This improves tractor performance by providing a true pull on the drive wheels as well as avoiding waste draft used in counteracting front wheel drift and heavy steering loads.

Your 5GP, because of the inbuilt weight and the distribution of it will generally work satisfactorily with a straight pull on a tractor out of the furrow and we recommend you take advantage of this.

8. Increase width of cut until the plough "jumps out of the furrow".
    - If it jumps out at both furrow wheels, the line of draught is correct.
    - If it jumps out at the front only, the line of draught should be moved to the left (towards tail wheel) on the drawbar. Readjust steering bar to suit.
    - If it jumps out at the rear only the hitch is moved towards the right (front furrow wheel).
- If the plough cannot be made to "jump out", the conditions are relatively easy and the line of draught will be unimportant.  
Repeat step 8 until the line of draught is correct.



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SETTING UP INSTRUCTIONS - ILLUSTRATION PAGE 2

- 9. Go ahead ploughing, setting the width of cut to provide the best compromise between:
  - adequate "cut out" between discs
  - maximum acres/hour
  - required soil mixing and inversion desired.
- 10. Having set all other variables, reduce the hydraulic jumper pressure to that which just maintains the required depth of working. This will:
  - minimize loadings on discs/bearing etc.
  - enable discs to follow upwards ground irregularities at an even ploughing depth
  - minimize any tendency to bulldoze (should this occur due to encountering a heap of straw, fallen tree branch etc. a brief pressure drop will allow the plough to clear).
- 11. Depth of ploughing is best maintained in varying conditions by adjustment of jumper hydraulic pressure as required.
- 12. The above instructions suit a hydraulically loaded plough but they also apply to a spring loaded plough except that it is necessary to manually adjust the spring settings to that required to just achieve the ploughing depth required. Also it is necessary to use the tail wheel lift cylinder to maintain the working depth required as soil conditions vary.

Unless otherwise noted, parts listed apply to all implements.

- 14 18 22 26(hydraulic & spring) & 30(hydraulic)
- 14H = (14 furrow - hydraulic loaded jumpers)
- 14S = (14 furrow - spring loaded jumpers)
- 14HS = (14 furrow - hydraulic or spring loaded jumpers)

NOTE ! This manual to be read in conjunction with manual 83J1 (tandem hitch, for single or dual wheel implement) and Product Bulletin No. 107J1 (kit, convert single tail wheel to dual tail wheels).

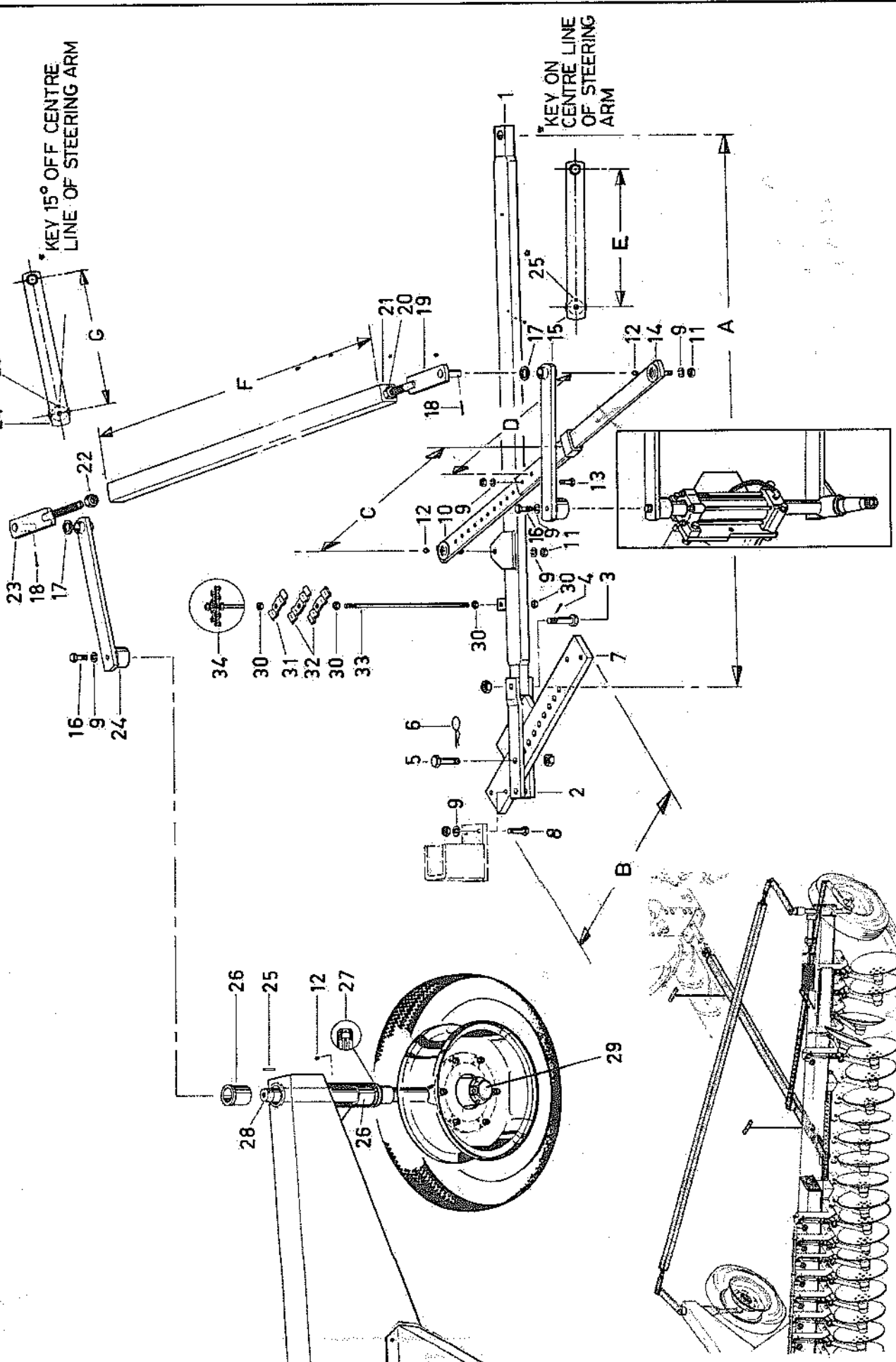
NOTE ! Your 5GP is despatched from our factory primed with MOBILFLUID 423 transmission oil, or an equivalent from an alternative reputable supplier. This oil is compatible with that specified by, and meets the requirements of, all tractor manufacturers, including those with power shift transmissions, common hydraulic systems, wet clutches and wet brakes.

LUBRICATION

- Steering joints - daily
- Disc hubs - monthly
- Wheel hubs - seasonally



# HITCH/STEERING BARS/HOSE CARRIER/L.H. STANDARD



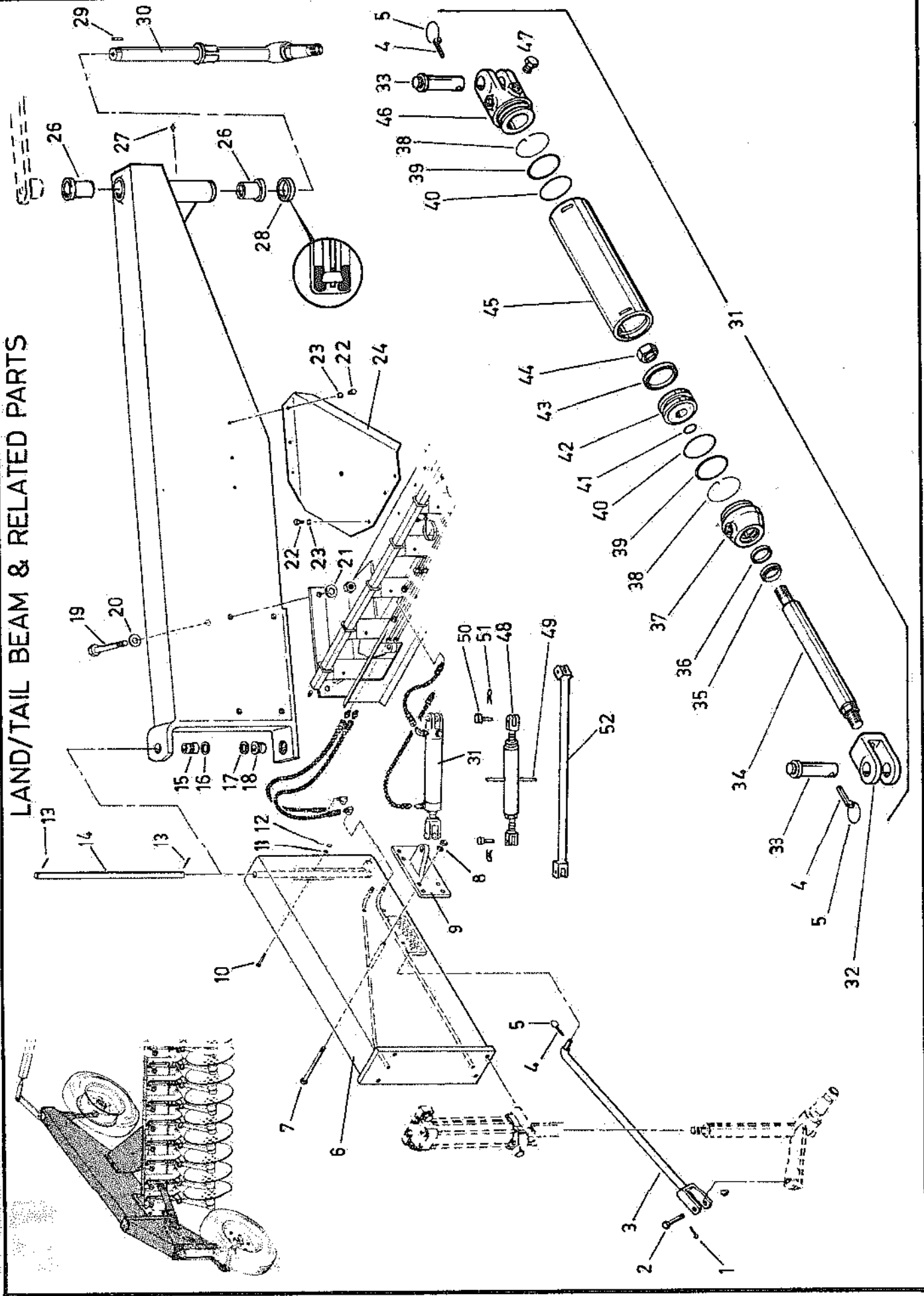
HITCH/STEERING BARS/HOSE CARRIER/L.H. STANDARD

29.1176M72J2



ITEM	PART NO	DESCRIPTION	DISC	ITEM	PART NO	DESCRIPTION
1	15260J91	POLE ASSY.	14HS	19	17331J91	ADJ. ASSY.
	15261J91	POLE ASSY.	18HS	20	17267J1	NUT
	15263J91	POLE ASSY.	22HS	21	17148J91	TUBE ASSY.
	15264J91	POLE ASSY.	26HS		17149J91	TUBE ASSY.
	17081J91	POLE ASSY.	30HS		17151J91	TUBE ASSY.
2	17317J91	LINK ASSY.			17152J91	TUBE ASSY.
3	OS185	BOLT/NUT		22	17153J91	TUBE ASSY.
4	17878J1	PIN		23	17266J1	NUT
5	KD104	BOLT/NUT		24	17330J91	ADJ. ASSY.
6	H160-106	HAIR-PIN			17336J91	ARM ASSY.
7	15278J1	DRAWBAR	14HS		17337J91	ARM ASSY.
	15279J1	DRAWBAR	18HS		17338J91	ARM ASSY.
	17281J1	DRAWBAR	22/26HS	25	15377J1	KEY
	17083J1	DRAWBAR	30HS	26	15372J1	BEARING
8	HRH145	BOLT/NUT		27	12939	BEARING
9	SPW8	WASHER		28	15375J92	STANDARD ASSY. L/H
10	15282J91	STEERING BAR ASSY.	14HS	29	15374J91	STANDARD HUB ASSY. L/H incl. items 28 & page 16 items 3,7-15
	15283J91	STEERING BAR ASSY.	18HS	30	17323J1	NUT
	15285J91	STEERING BAR ASSY.	22HS	31	17322J1	PLATE
	15286J91	STEERING BAR ASSY.	26HS	32	17321J1	PLATE
	17084J91	STEERING BAR ASSY.	30HS	33	17320J1	ROD
11	WHN9	NUT		34	17319J91	HOSE CARRIER ASSY. items 30-33
12	D999	NIPPLE			17343J91	TRACK BAR ASSY. 14HS
13	HRH114	BOLT/NUT			17344J91	TRACK BAR ASSY. 18HS
14	15287J91	STEERING BAR ASSY.	14HS		17346J91	TRACK BAR ASSY. 22HS
	15288J91	STEERING BAR ASSY.	18HS		17347J91	TRACK BAR ASSY. 26HS
	15290J91	STEERING BAR ASSY.	22HS		17348J91	TRACK BAR ASSY. 30HS
	15291J91	STEERING BAR ASSY.	26HS			
	17085J91	STEERING BAR ASSY.	30HS			
15	17339J91	ARM ASSY.				
16	HR143	BOLT				
17	15176J1	WASHER				
18	17879J1	PIN				

# LAND/TAIL BEAM & RELATED PARTS

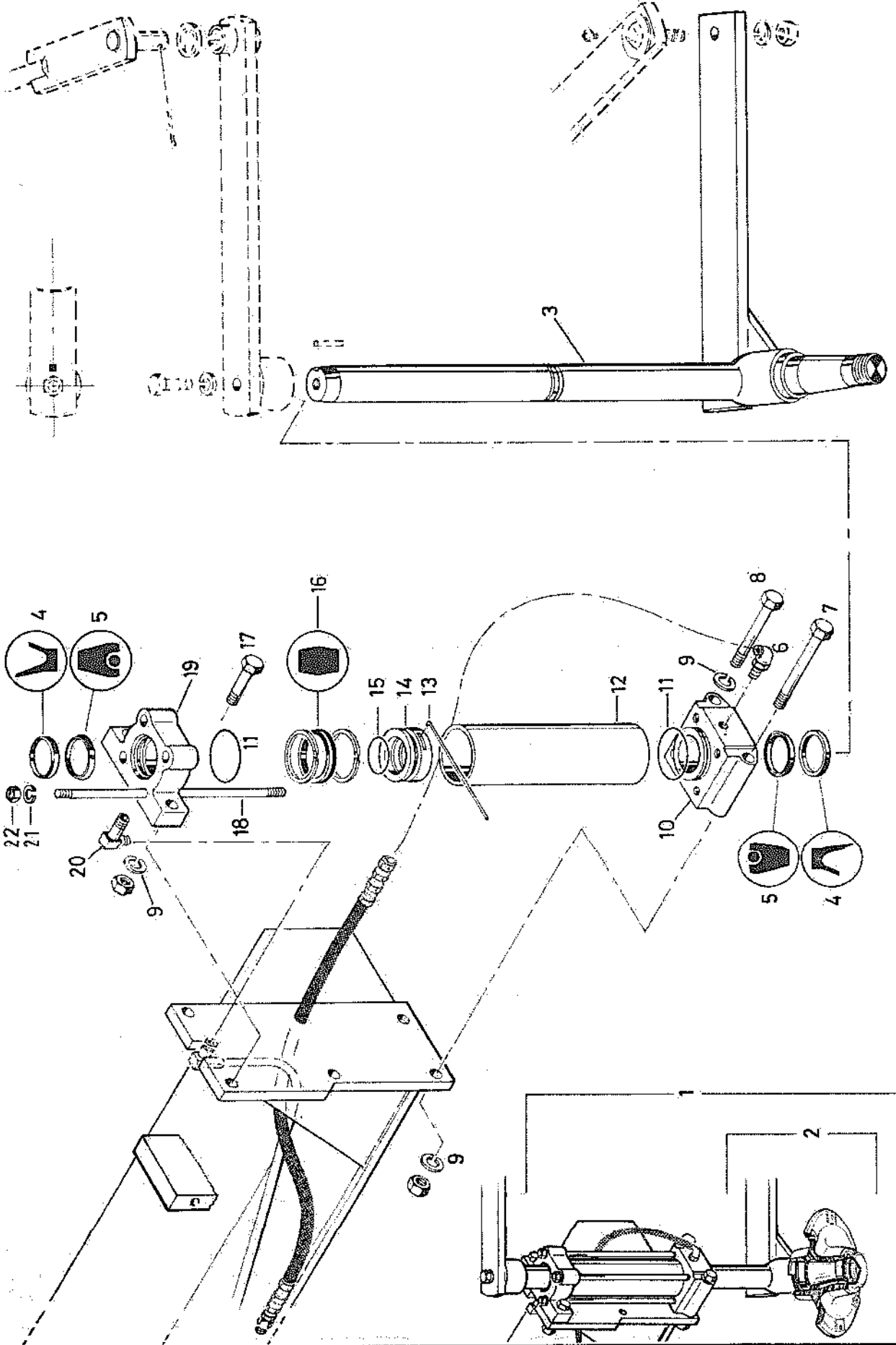


LAND/TAIL BEAM & RELATED PARTS

10.1276M72J2



ITEM NO	PART NO	DESCRIPTION	ITEM NO	PART NO	DESCRIPTION
1	17586J1	PIN	35	14562J1	WIPER
2	13131	BOLT/NUT	36	14563J1	SEAL
3	15448J92	ROD ASSY.	37	15705J1	CAP
4	CR160-99	PIN	38	15706J1	WIRE
5	CR160-100	CLIP	39	15707J1	RING
6	15175J91	BEAM ASSY. TAIL complete inc. items 7,8,10,11,& 12	40	15708J1	'0' RING
7	HRH130	BOLT/NUT	41	10959	'0' RING
8	SPW6	WASHER	42	15710J1	PISTON
9	15190J92	RAM LUG ASSY	43	15711J1	SEAL
10	15191J92	" "	44	15712J1	NUT
11	15532J1	BOLT	45	15716J1	BARREL
12	SPW3	WASHER	46	15714J1	CAP
13	15336J1	NUT	47	16893J1	PLUG
14	17881J1	PIN		14577J91	CLEVIS PIN SET items 4,5,32 ref. M3000P
15	15504J2	SHAFT		15947J91	KIT
16	15140J2	BUSH			Vickers seals (items 35,36,40,41,43)
17	15176J1	WASHER	48	15466J91	SCREW ASSY.
18	15316J1	WASHER	49	15476J1	HANDLE
19	15368J1	BUSH	50	SR617	PIN
20	HRH212	BOLT	51	H160-106	PIN
21	FBW11	WASHER	52	15511J93	STRAP ASSY
22	SPW11	WASHER			
23	HR81	BOLT			
24	SPW4	WASHER			
25	15505J2	BEAM			
26	15351J91	BEAM ASSY.			
27	15372J1	BEARING			
28	D999	NIPPLE			
29	12939	BEARING			
30	15377J1	KEY			
	15375J92	STANDARD ASSY. left hand (complete see 15374J91)			
31	12343	RAM COMPLETE hydraulics (items 4,5,32-47)			
32	15704J1	CLEVIS			
33	14576J1	CLEVIS-PIN			
34	15715J1	ROD			
		piston ref. 599659 Vickers			



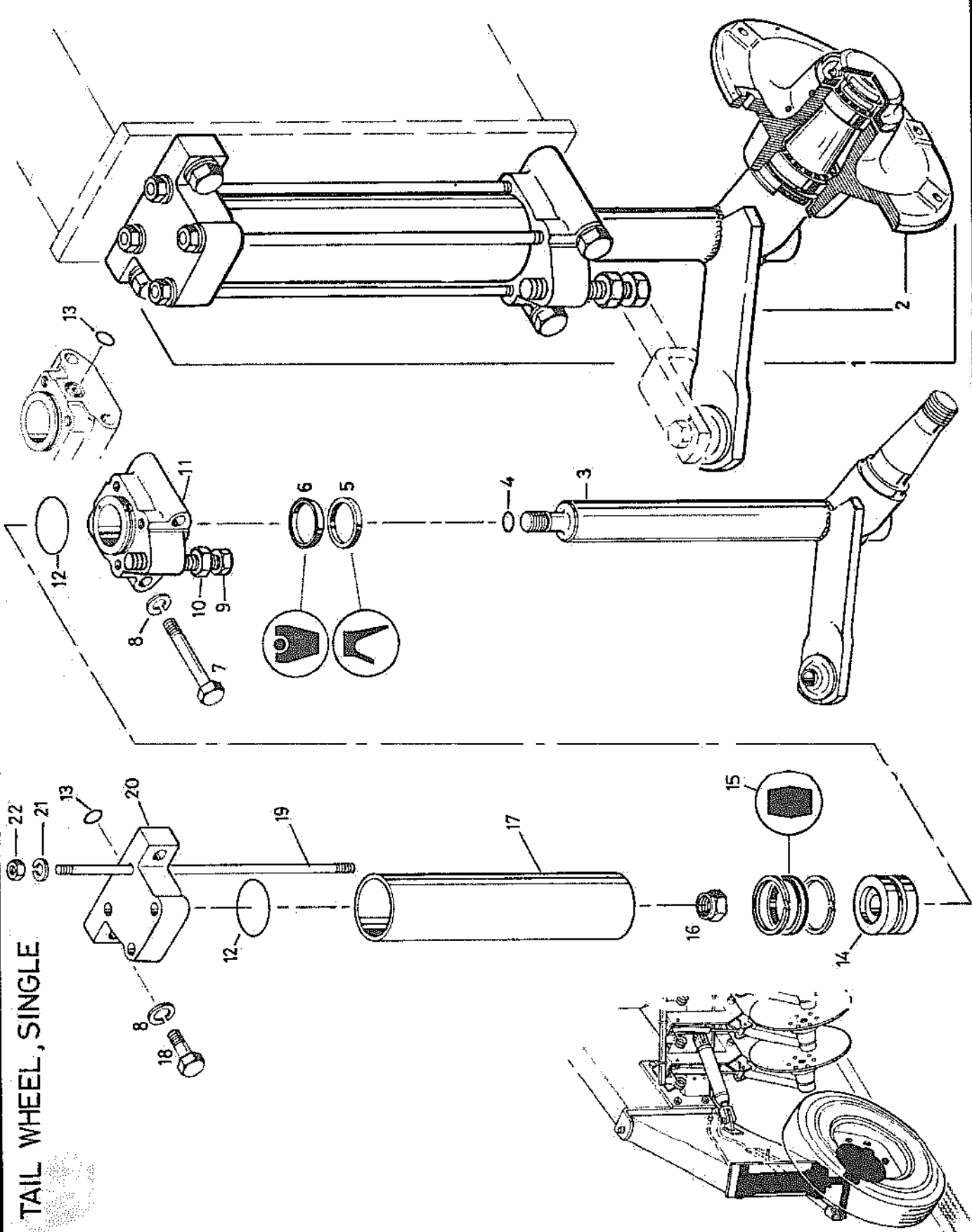
STANDARD ASSEMBLY -- FRONT R/H HYDRAULIC

STANDARD ASSY. - FRONT R/H HYDRAULIC

26.1176M72J2



ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	17091J91 STANDARD ASSY. complete front R/H hyd. 11ft (items 2-22)		
2	17095J1 STANDARD/HUB ASSY. incl. item 3 (see page 16 items 3,7-15)		
3	17096J91 STANDARD ASSY. front R/H hydraulic		
4	16489J1 WIPER 2-1/2" ID x 3" OD ref. 62-250		
5	15436J1 SEAL-GLAND rear standard ref. L359		
6	17068J1 ELBOW 90° 1/4" BSPT x 9/16" JIC ref. DB17/49		
7	HRH155 BOLT/NUT hex. 6-1/2" x 3/4" HRH		
8	15447J1 BOLT/NUT hex. 6" x 3/4" h.t.		
9	SPW8 WASHER spring 3/4" bottom		
10	17898J1 CAP cap-rear standard		
11	15441J1 O' RING front standard		
12	17098J1 BARREL retaining, thrust		
13	15315J1 WIRE front standard		
14	17099J2 PISTON		
15	16496J1 O' RING ref. AN6230-8 Lud.		
16	16495J1 O' SEAL ref. LS350 Lud.		
17	HRH146 BOLT/NUT 3" x 3/4" HRH		
18	17100J1 ROD tie front 5/8" UNF		
19	16486J1 CAP top		
20	16498J1 ELBOW extended 90° M & M 3/8" NPT x 3/4" JIC DE17-612		
21	SPW6 WASHER spring 5/8"		
22	11220 NUT hex. 5/8" UNF.		



TAIL WHEEL, SINGLE

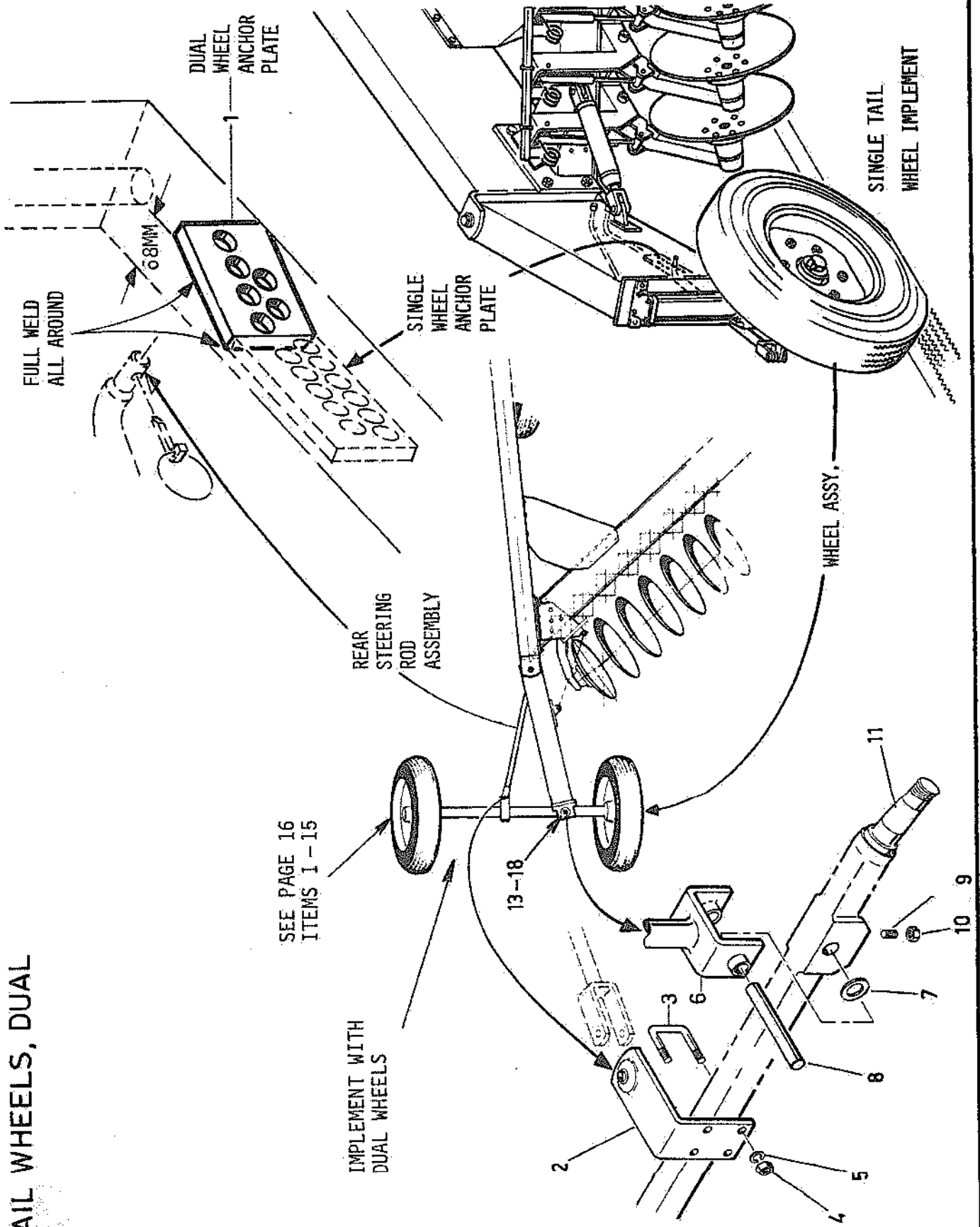
TAIL WHEEL - SINGLE

30.1176M72J2



ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	15430J93	STANDARD ASSY. rear single wheel	19	15446J2	ROD tie, 5/8" UNF
2	15431J93	STANDARD HUB ASSY. rear single wheel (see page 16)	20	17865J1	CAP top rear standard
3	15432J93	STANDARD AXLE ASSY. rear	21	SPW6	WASHER spring 5/8"
4	15445J1	'O' RING 1-1/4" OD x 1" ID x 1/8" dia.	22	11220	NUT hex. 5/8" UNF
5	16489J1	WIPER standard ref. 62-250 Lud.			
6	15436J1	SEAL gland L359 Ludowici			
7	15447J1	BOLT hex. 6" x 3/4" BSW			
8	SPW8	WASHER spring 3/4"			
9	17470J1	SCREW adjustment			
10	17261J1	NUT lock 30mm			
11	17864J1	CAP bottom rear standard			
12	15441J1	'O' RING 3 -1/4" ID x 1/8" ref. AN6230-14			
13	10959	'O' RING 7/8" ID ref. AN6227-17 Lud.			
14	15439J2	PISTON hydraulic			
15	16495J1	'J' SEAL piston ref. LS350 Lud.			
16	15444J1	NUT nylon 1-1/4"			
17	15438J1	BARREL hydraulic			
18	HR143	BOLT hex. 2-1/4" x 3/4" BSW			

# TAIL WHEELS, DUAL



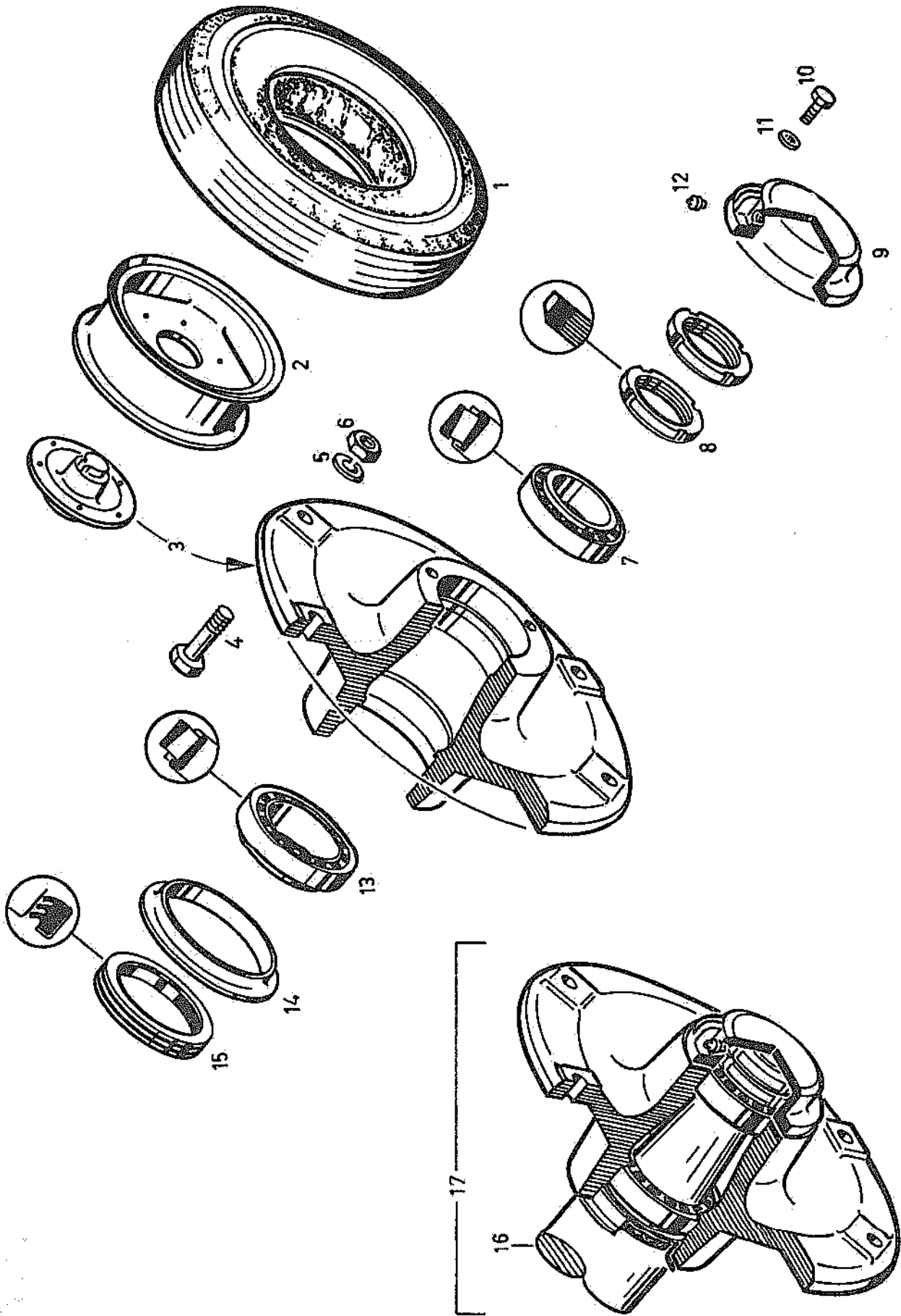
SEE PAGE 16  
ITEMS 1-15

TAIL WHEELS, DUAL

10.177M72J2



ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	15543J1	PLATE			
2	17308J91	ANCHOR ASSY.			
3	17551J1	CLAMP			
4	17550J1	NUT			
5	18023	WASHER			
6	15453J92	SADDLE ASSY.			
7	15176J1	WASHER			
8	15512J1	SHAFT			
9	SD1540	SCREW			
10	WHN8	NUT			
11	15462J91	AXLE ASSY.			
12	15461J91	AXLE HUB ASSY			
13	10959	'O' RING			
14	16489J1	WIPER			
15	15436J1	SEAL-GLAND			
16	16495J1	'J' SEAL			
17	15441J1	'O' RING			
18	15445J1	'O' RING			
				15516J91	KIT
					to convert single tail wheel to dual wheels (items 1-10, 12-18 & page 16 items 1-6)



WHEEL, AXLE, HUB, TYRES

WHEEL, AXLE, HUB, TYRES

29.1176M72J2



ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	11280	TYRE 8.25 x 20 x 10 ply Highway or Hi-miler	16	17096J91	STANDARD ASSY. front R/H hydraulic (see page 10)
	11281	TUBE 8.25 x 20		15375J92	STANDARD ASSY. L/H (see page 6)
	14682J1	FLAP 8.25 x 20 (included with tyre & tube)		15432J93	STANDARD ASSY. rear (see page 12)
2	15318J91	RIM ASSY. 20"		17095J91	STANDARD/HUB ASSY. front R/H items 3,7-16
3	15307J1	HUB wheel		15374J91	STANDARD/HUB ASSY. L/H items 3,7-16
4	152249J1	BOLT hex. 2" x 1/2" UNF h.t.		15431J93	STANDARD/HUB ASSY. rear, items 3,7-16
5	SPW4	WASHER spring 1/2"			
6	NFN6	NUT hex. wheel, 1/2" UNF			
7	15203J1	BEARING wheel, cup JLM104910, cone JLM104948, 50mm			
8	15205J1	NUT spindle, 50mm			
9	15305J1	CAP hub			
10	SD2097	SCREW hex. set, 7/8" x 5/16" UNC h.t.			
11	STW3	WASHER star 5/16"			
12	D999	NIPPLE grease 1/8"			
13	15306J1	BEARING wheel, cup JLM508710, cone JLM508748, 60mm			
14	TC462	RING wear, triple tipped seal ref. 16994 Flavel's			
15	TC461	SEAL triple tipped ref. 16946 Flavel's			

TYRE PRESSURE

MAXIMUM PRESSURE 85PSI/586kPa

Maximum pressures quoted are from Tyre and Rim Association Publications. They do not apply to water loaded tyres. In that case lower pressures should be used, especially in rough conditions, for safety reasons and to avoid tyre damage.

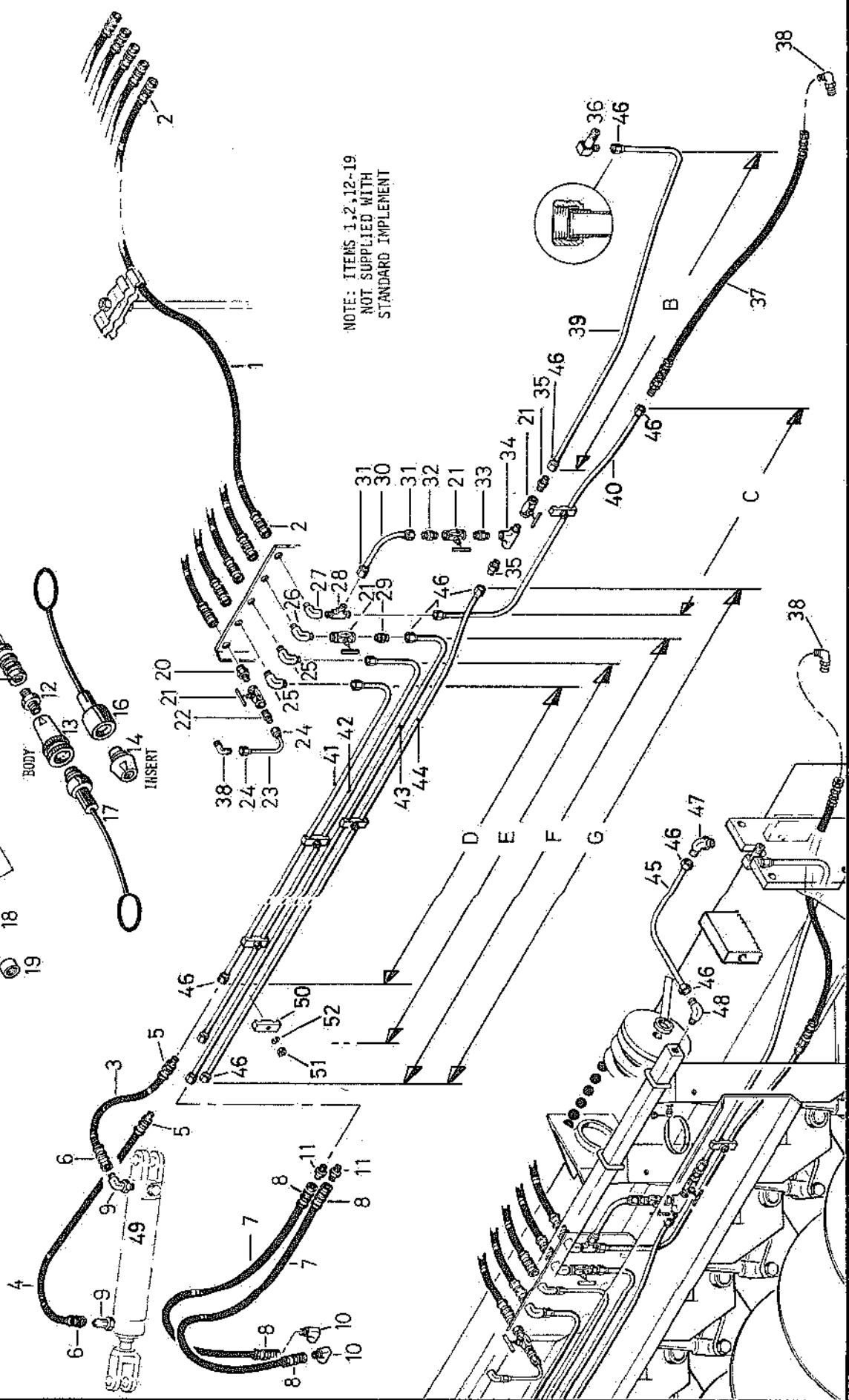
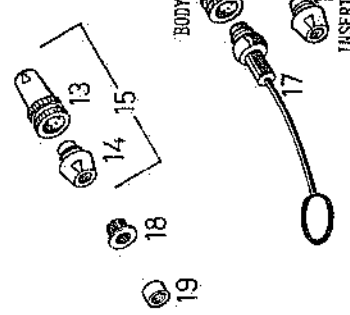
MINIMUM PRESSURE 14 DISC 50PSI/345kPa

18,22,26 & 30 DISC 55PSI/380kPa

Minimum (transport) pressures are required to maintain side wall deflections at acceptable levels. In some conditions it may be desirable to use lower pressures during working, to improve tracking or flotation. Be sure to reinflate tyres before transporting.

# HYDRAULIC HOSE/PIPE/FITTINGS

TYPICAL HOSE ASSY.  
WITH SNAP COUPLING,  
DUST PLUG & DUST CAP.



NOTE: ITEMS 1, 2, 12-19  
NOT SUPPLIED WITH  
STANDARD IMPLEMENT

HYDRAULIC HOSE/PIPE/FITTINGS

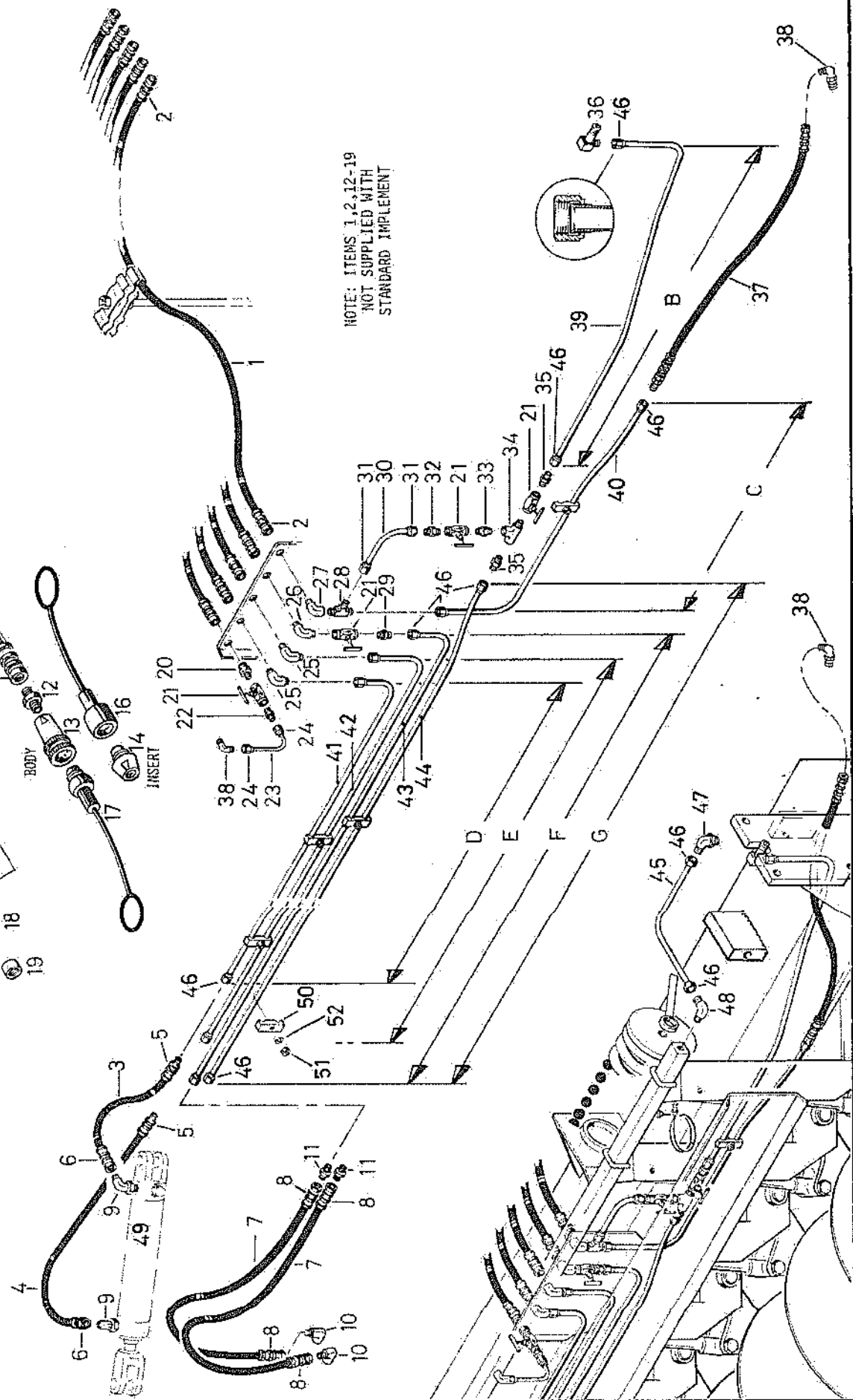
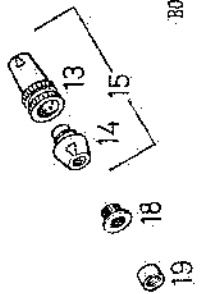
29.1176M72J2



ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	16455J91	HOSE ASSY. A=3962mm/13'0"(optional)14HS	18	16494J1	DUST CAP for 3/8" male pipe D81610 (optional)
	15528J91	HOSE ASSY. A=4420mm/14'6"(optional)18HS			
	15529J91	HOSE ASSY. A=4877mm/16'0"(optional)22HS		17867J1	DUST CAP for 1/2" male pipe D81800 (optional)
	16456J91	HOSE ASSY. A=5486mm/18'0"(optional)26HS	19	15534J1	CAP 1/2" BSP T male (optional)
	17185J91	HOSE ASSY. A=6096mm/20'0"(optional)30HS	20	15525J1	NIPPLE 1/2" x 3/8" BSP M/M D04-86
2	16359J1	END hose 1/2" BSP female ref. D801-86 (optional)	21	15503J1	VALVE needle 3/8" BSP F/F
3	15333J91	HOSE ASSY. A=565mm/22 3/4"	22	16647J1	NIPPLE 3/8" BSP x 9/16" JIC M/M D815/69
	15495J92	HOSE ASSY. A=438mm/17 3/4"	23	17187J91	PIPE ASSY. manifold charge incl. item 24
4	15496J93	HOSE ASSY. A=800mm/2'7-1/2"	24	15620J1	SLEEVE/NUT 9/16" JIC Duff. D14-9
5	16450J1	END hose 3/4" JIC male D809-126	25	15494J1	ELBOW 90° 1/2" BSPTx3/4" JIC M/M D817-812
6	15451J1	END hose 3/4" JIC female D805-126	26	17252J1	ELBOW 90° 3/8"x1/2" BSP M/M S49-6
7	15500J92	HOSE ASSY. A=864mm/2'10"	27	17254J1	ELBOW 90° 3/8"x1/2" BSP M/F D30-86
8	16342J1	END hose 3/8" BSP female D801-66	28	17256J1	TEE 3/8" NPT x 3/4" x 3/4" JIC M/M/M D74-61212
9	14541J1	ELBOW 90° MM 7/8" UN x 3/4" JIC	29	17253J1	NIPPLE 3/8" NPTx3/4" JIC M/M D15-612
10	15501J1	ELBOW 90° M/F 3/8" BSP D30-66	30	17250J91	PIPE ASSY. by-pass incl. item 31
11	17257J1	NIPPLE 3/8" BSP x 3/4" JIC D815-612	31	14359J1	NUT/SLEEVE 3/4" JIC D14-12
12	15531J1	NIPPLE 1/2" BSP T M/M D04-88 (optional)	32	17253J1	NIPPLE 3/8" NPT x 3/4" JIC M/MD15-612
13	16349J1	BODY snap coupling DG2503-0008 (optional)	33	16346J1	NIPPLE 3/8" BSP M/M D04-66
14	16350J1	INSERT snap coupling DG2503-0800 (optional)	34	17255J1	TEE 3/8" NPT M/F/F D72-666
15	16348J91	SNAP COUPLING 1/2" BSP F/F DG2503-0808 (optional)	35	17253J1	NIPPLE 3/8" NPTx3/4" JIC M/M D15-612
16	17259J1	DUST CAP 1/2" DG2508-08 (optional)	36	16498J1	ELBOW 90° extended 3/8" NPT x 3/4" JIC M/M
17	16351J1	DUST PLUG 1/2" DG2509-08 (optional)	37	17410J91	HOSE ASSY. A=835mm/2'8-7/8"

# HYDRAULIC HOSE/PIPE/FITTINGS

TYPICAL HOSE ASSY.  
WITH SNAP COUPLING,  
DUST PLUG & DUST CAP.



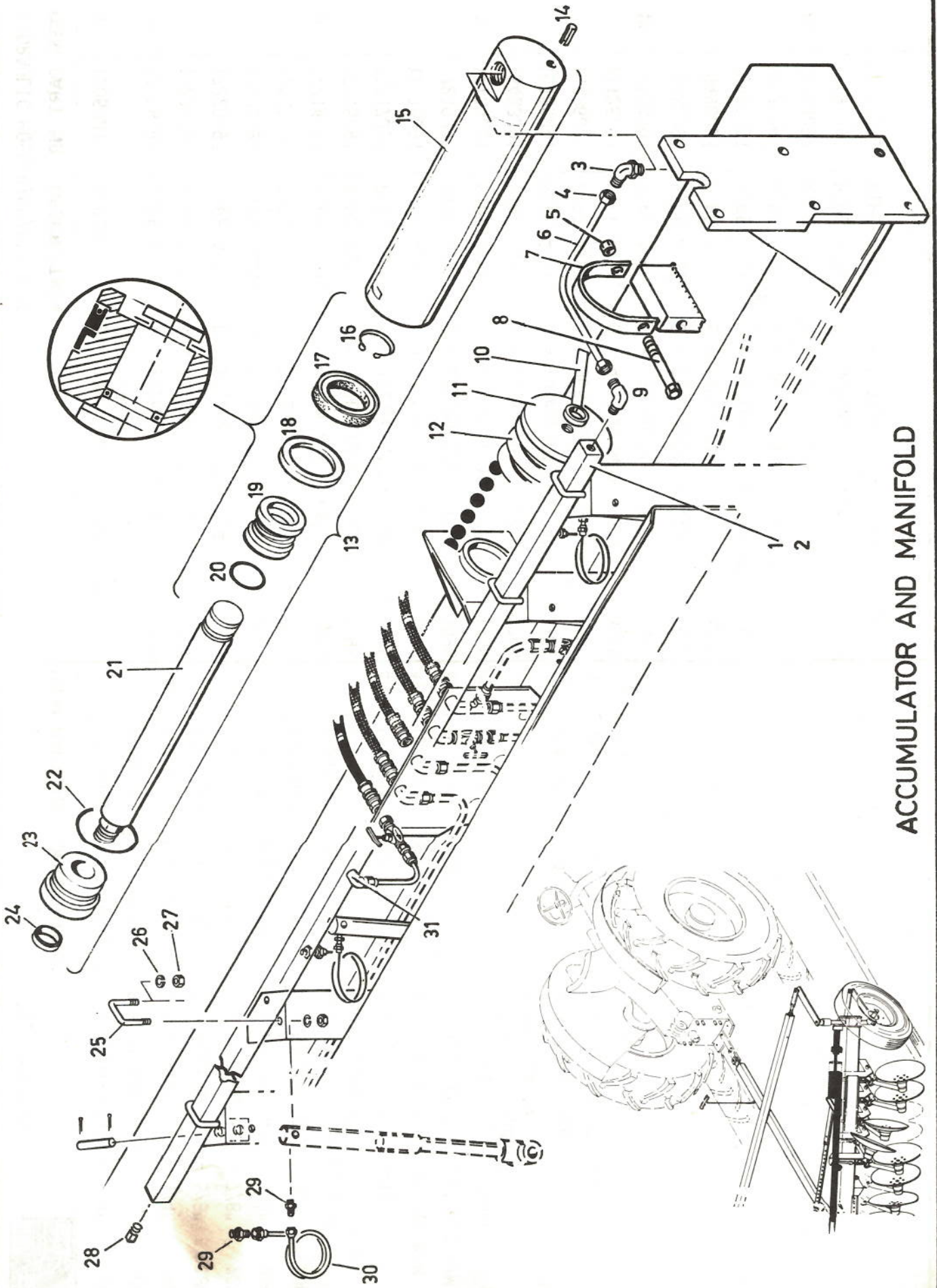
NOTE: ITEMS 1,2,12-19  
NOT SUPPLIED WITH  
STANDARD IMPLEMENT

HYDRAULIC HOSE/PIPE/FITTINGS

29.1176M72J2



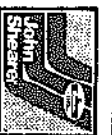
ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
38	17068J1	ELBOW 90° 1/4" BSP T x 9/16" JIC DB/17-49			
39	17226J91	PIPE ASSY. B = 972mm/3'2 - 1/4"	44	17194J91	PIPE ASSY. F = 4108mm/13'5 - 3/4"
	17227J91	PIPE ASSY. B = 1486mm/4'10 - 1/2"		17195J91	PIPE ASSY. F = 487mm/16'0"
	17229J91	PIPE ASSY. B = 2000mm/6'6 - 3/4"		17238J91	PIPE ASSY. G = 2724mm/8'11 - 1/4"
	17230J91	PIPE ASSY. B = 2515mm/8'3"		17239J91	PIPE ASSY. G = 3242mm/10'7 - 5/8"
	17231J91	PIPE ASSY. B = 2772mm/9'1 - 1/8"		17241J91	PIPE ASSY. G = 3756mm/12'3 - 7/8"
40	17214J91	PIPE ASSY. C = 683mm/2'2 - 7/8"	45	17242J91	PIPE ASSY. G = 4270mm/14'0 - 1/8"
	17215J91	PIPE ASSY. C = 1216mm/3'11 - 7/8"		17243J91	PIPE ASSY. G = 5039mm/16'6 - 3/8"
	17217J91	PIPE ASSY. C = 1721mm/5'7 - 3/4"	46	14359J1	SLEEVE/NUT 3/4" JIC Duff. 14-12
	17218J91	PIPE ASSY. C = 2245mm/7'4 - 3/8"	47	15248J1	ELBOW 90° 3/4" UNF x 3/4" JIC M/M
41	17219J91	PIPE ASSY. C = 2502mm/8'2 - 1/2"	48	15244J1	ELBOW 90° 3/8" BSP T x 3/4" JIC M/M
	17124J91	PIPE ASSY. D = 2092mm/6'10 - 3/8"	49	12343	RAM 2-1/2" bore x 8" stroke A.S.A.E. standard (see page 8)
	15483J91	PIPE ASSY. D = 2610mm/8'6 - 3/4"	50	15493J1	CLAMP hydraulic pipes
	15485J91	PIPE ASSY. D = 3131mm/10'3 - 1/4"	51	HRH19	BOLT/NUT hex. 1" x 5/16" BSW
	15486J91	PIPE ASSY. D = 3651mm/11'11 - 3/4"	52	SPW2	WASHER spring 5/16"
42	17125J91	PIPE ASSY. E = 4413mm/14'5 - 3/4"			
	17126J91	PIPE ASSY. E = 2365mm/7'9 - 1/8"			
	15488J91	PIPE ASSY. E = 2883mm/9'5 - 1/2"			
	15490J91	PIPE ASSY. E = 3404mm/11'2"			
	15491J91	PIPE ASSY. E = 3975mm/12'10 - 1/2"			
43	17127J91	PIPE ASSY. E = 4686mm/15'4 - 1/2"			
	17190J91	PIPE ASSY. F = 2565mm/8'5"			
	17191J91	PIPE ASSY. F = 3080mm/10-1-1/4"			
	17193J91	PIPE ASSY. F = 3594mm/11'9 - 1/2"			



ACCUMULATOR AND MANIFOLD

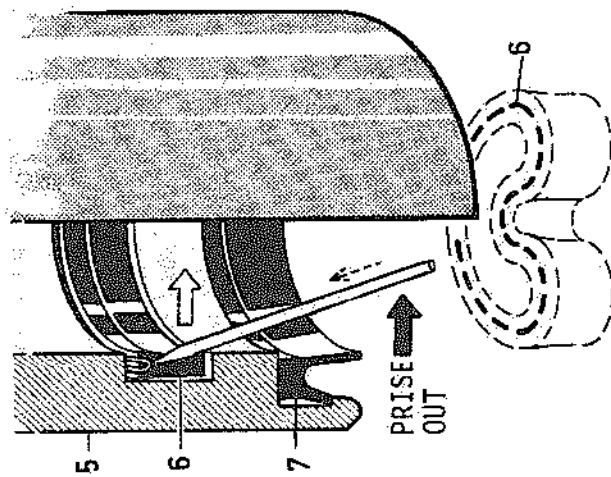
ACCUMULATOR AND MANIFOLD

8.1276M7202

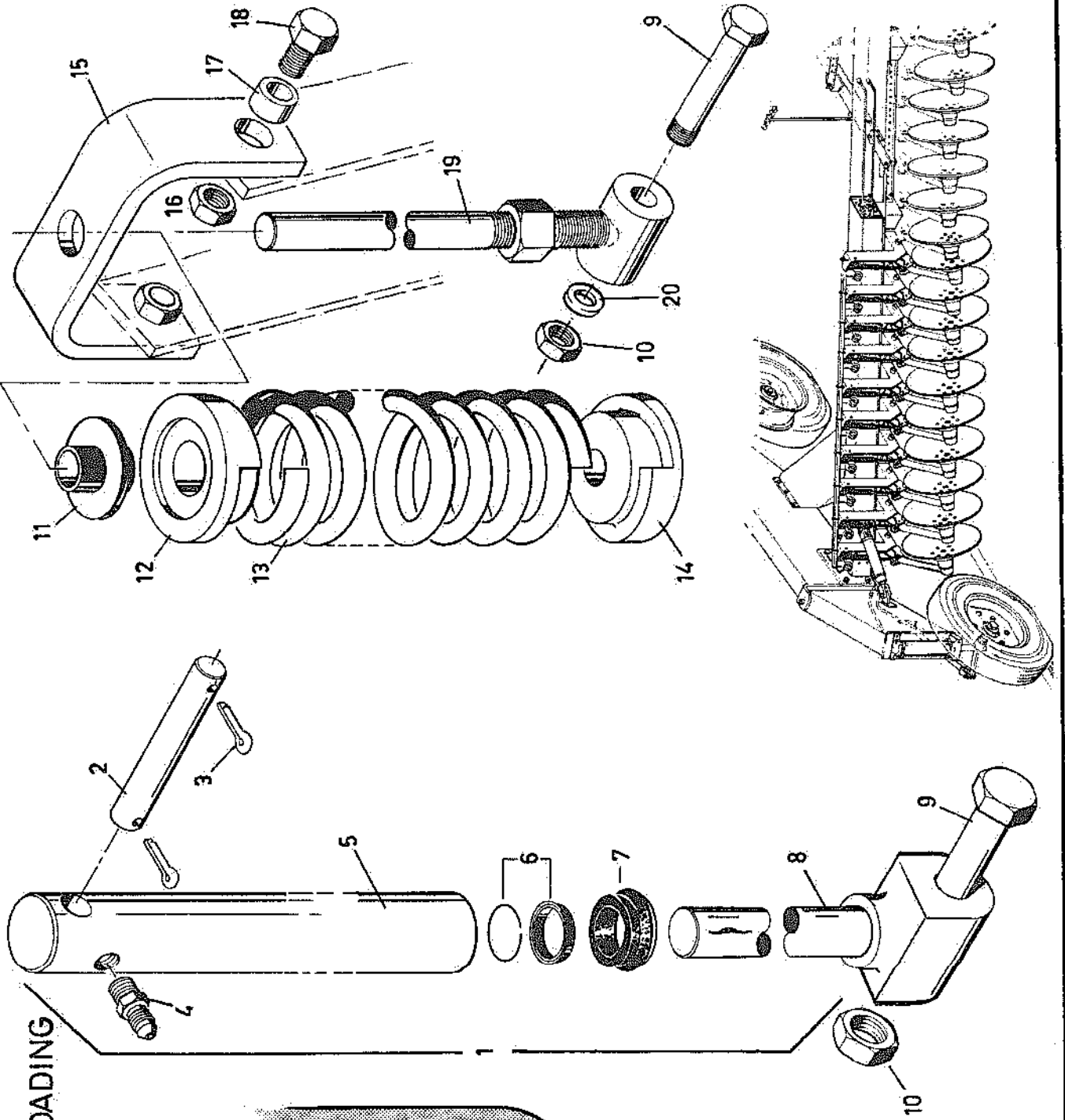


ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	17050J91 MANIFOLD COMPLETE 14H(inc. items 2,9,28,31)	14	SKP200 PIN sel-1lock 1-1/4" x 1/2"
	17051J91 MANIFOLD COMPLETE 18H(inc. items 2,9,28,31)	15	BARREL ASSY. ref. 12562 (Plessey)
	17053J91 MANIFOLD COMPLETE 22H(inc. items 2,9,28,31)	16	CIRCLIP 1-1/8" external
	17054J91 MANIFOLD COMPLETE 26H(inc. items 2,9,28,31)	17	PACKING piston } ref. L25-SAWR(Lud)
	17055J91 MANIFOLD COMPLETE 30H(inc. items 2,9,28,31)	18	RING wear } order both items
2	17056J91 MANIFOLD ASSY. 14H(inc. items 29 & 30)	19	PISTON ref. 13195 (Plessey)
	17057J91 MANIFOLD ASSY. 18H(inc. items 29 & 30)	20	'O' RING 7/8" ID ref. AN6227-17 (Lud.)
	17059J91 MANIFOLD ASSY. 22H(inc. items 29 & 30)	21	ROD piston ref. 13196 (Plessey)
	17060J91 MANIFOLD ASSY. 26H(inc. items 29 & 30)	22	RING lock, ref. 10763 (Plessey)
	17061J91 MANIFOLD ASSY. 30H(inc. items 29 & 30)	23	BEARING gland, ref. 10810 (Plessey)
		24	WIPER rod, ref. Lud, W26
		25	CLAMP 12mm manifold
3	15248J1 ELBOW accum. 90°M+F3/4" JICX3/4" UM D53/1212	26	WASHER star, 12mm
4	14359J1 SLEEVE/NUT tube 3/4" JIC ref. Duff. D14-12	27	NUT 12mm
5	18414 NUT M12 h. t. plated	28	PLUG 3/8" BSPT. D59/6 (remove for tandem hitch)
6	15246J91 PIPE ASSY. manifold to accum. (inc. item 4)	29	NIPPLE brass 1/4" BSPT x 7/16" SAE
7	17970J1 YOKE cylinder accumulator	30	TUBE coiled ram
8	18413 BOLT 12 x 100 h. t. plated	31	ELBOW 90° 1/4" BSPT x 9/16" JIC DB17/49
9	15244J1 ELBOW 90° 3/8" BSPT x 3/4" JIC DB17/612		
10	15519J1 INDICATOR ASSY.		
11	15252J92 RETAINER ASSY. accumulator spring		
12	15253J1 SPRING accum. 4-1/2" ID x 21-1/2" x 26mm		
13	17270J92 ACCUMULATOR ASSY. 2-1/2" ID x 8" stroke (items 15-24)		

JUMPER  
HYDRAULIC & SPRING LOADING



TO REMOVE OLD SEAL USE  
SCRIBER OR SHARPENED WIRE.  
TAKE CARE NOT TO DAMAGE  
SEAL RECESS.



JUMPER - HYDRAULIC & SPRING LOADING

13. 1276M72J2

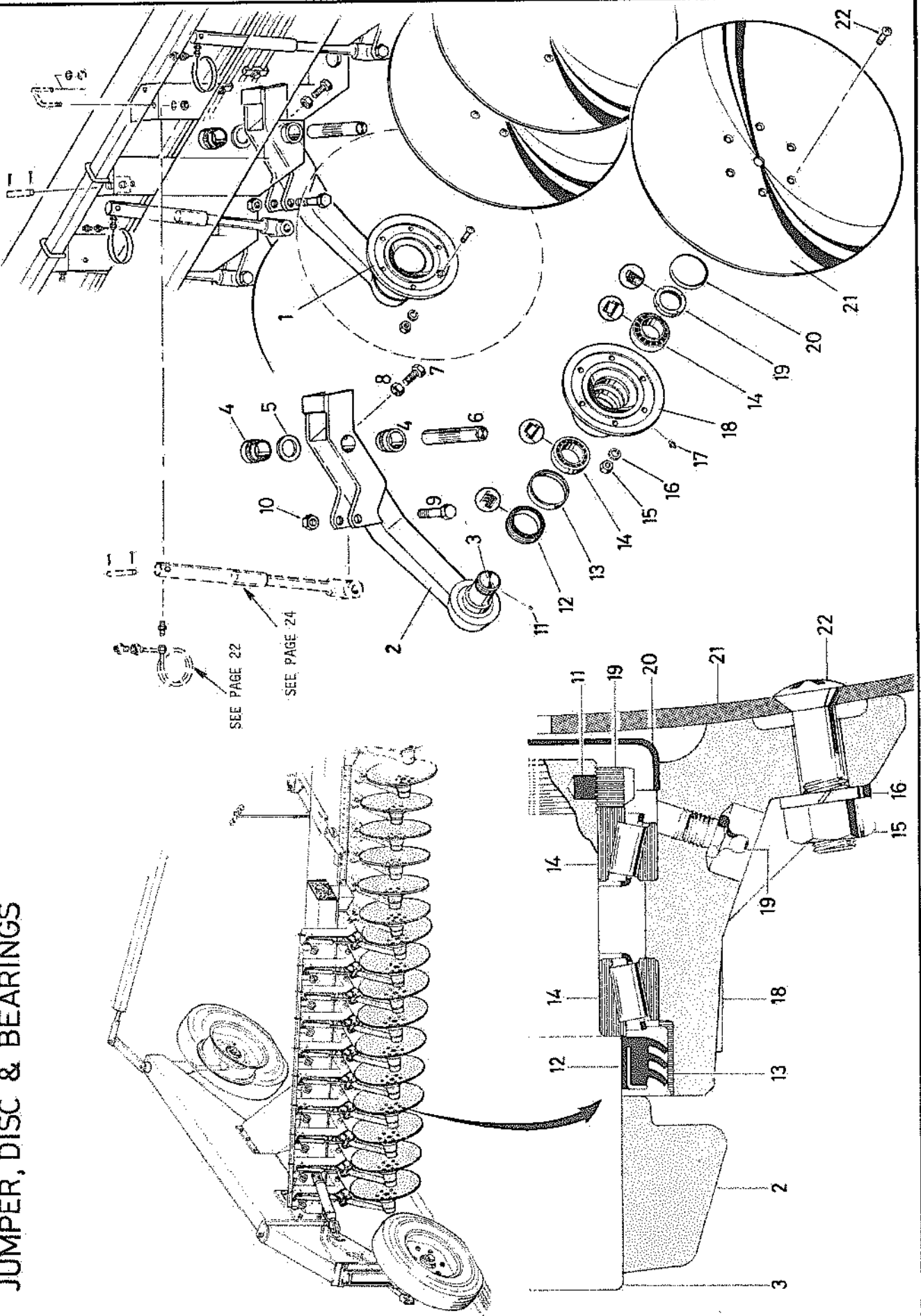


ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	152130J1	RAM ASSY. complete items 4,5,6,7,8	11	SR518	BUSH nylon
2	152240J1	PIN ram yoke	12	15259J1	SEAT top spring
3	17579J1	PIN cotter M5 x 32	13	15257J1	SPRING Jumper 16 mm 18" long
4	15280J2	NIPPLE brass 1/4" BSPT x 7/16" SAE	14	15258J1	SEAT bottom spring
5	16467J91	KIT barrel & seals	15	SD1784A	YOKE spring
6	152180J1	SEAL ram 1" x 1-1/4" x .270 (Lud. L313)	16	16369J1	NUT lock 3/4" BSW 8 mm thick
7	15219J1	SCRAPER seal (62100 Myclip)	17	SD1792	FERRULE yoke
8	15220J91	ROD ASSY. Jumper	18	HR140	BOLT HR 1-1/2" x 3/4" BSW
9	HR150	BOLT HR 4" x 3/4" BSW	19	16254J91	ROD ASSY. spring
10	MHL9	NUT lock. 3/4" BSW	20	FBW9	WASHER flat 3/4"

FITTING INSTRUCTIONS

- A - REMOVE EXISTING SEAL AS ILLUSTRATED.
- B - CLEAN BARREL & ROD, CHECK FOR SCORING & REPLACE IF NECESSARY.
- C - COAT SEAL WITH GREASE WHEN ASSEMBLING.
- D - COLLAPSE SEAL AS ILLUSTRATED & SLIDE INTO BARREL.

# JUMPER, DISC & BEARINGS



JUMPER, DISC & BEARINGS

3.1276M72J2

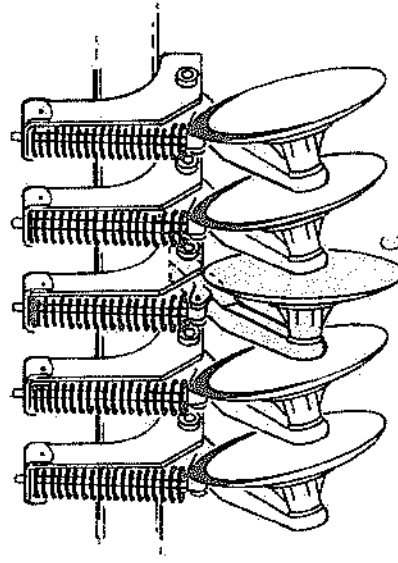
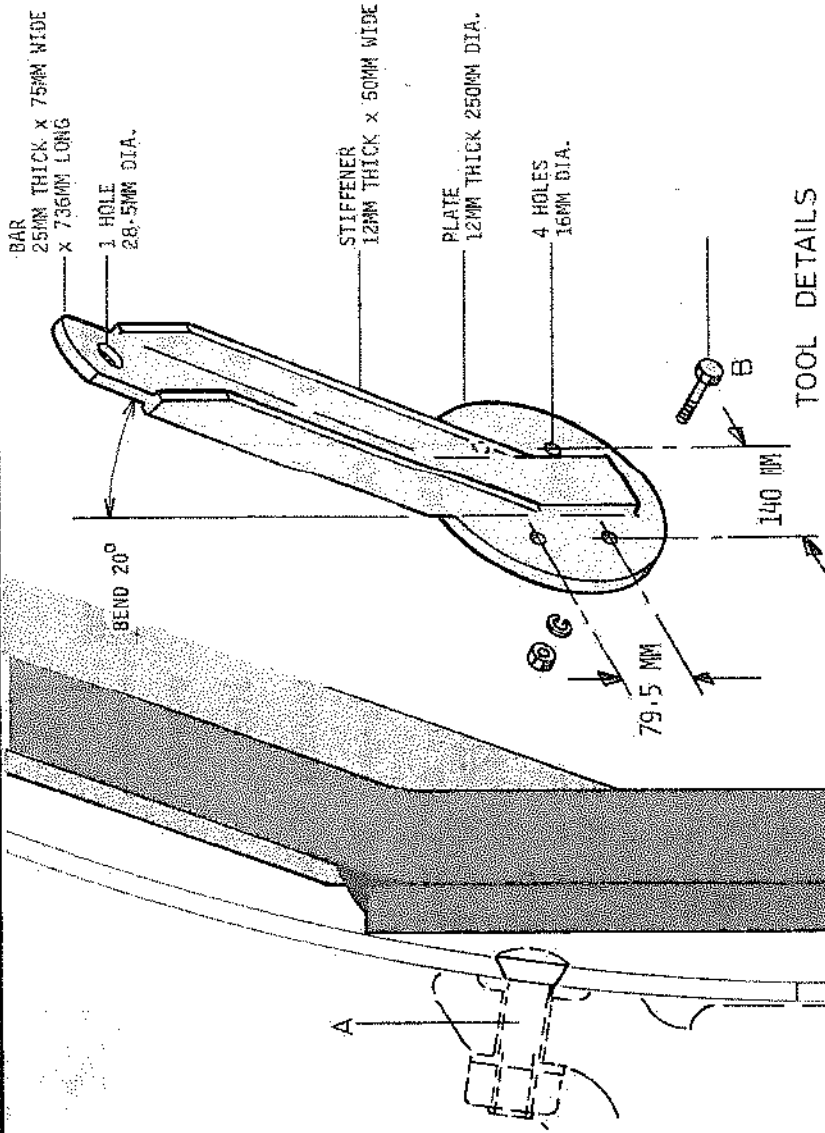


ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	15194J91	JUMPER ASSY. items 2,3, 11-14, 16-19	17	D999	NIPPLE grease 1/8"
2	15195J91	JUMPER ARM SUB ASSY. includes item 3	18	15204J1	FLANGE disc
3	15196J1	SPINDLE disc-jumper arm	19	15205J1	NUT spindle 50 mm
4	15140J1	BUSH jumper spindle	20	15207J1	CAP flange
5	15176J1	WASHER 3.2 mm )	21	15208J1	DISC plain 24" x 3/16" x 1" rd. hole 6 radial holes 3-1/4" dish (supplied)
	15332J1	WASHER 4.8 mm ) as required			
	15316J1	WASHER 6.4 mm )		15524J1	DISC plain 24" x 8G. x 1" rd. hole 6 radial holes 3-1/4" dish (alternative)
6	15212J5	SHAFT jumper arm			
7	SD1540	SET SCREW hex. 1-1/2" x 5/8" case hard.	22	15209J1	BOLT counter sunk soc-hd. 1-3/4" x 1/2" UNC
8	WHN8	NUT hex. 5/8"			
9	HR150	BOLT hex. 4" x 3/4" HR jumper pivot			
10	WHL9	NUT lock 3/4"			
11	15206J1	INSERT nylon, nut			
12	12395	SEAL triple tipped ref. 16913 Flavels			
13	12396	RING wear ref. 17254 Flavels			
14	15203J1	BEARING 50 mm ref. cup JLM104910 cone JLM104948			
15	15210J1	NUT plated 1/2" UNC			
16	SPW4	WASHER spring 1/2"			

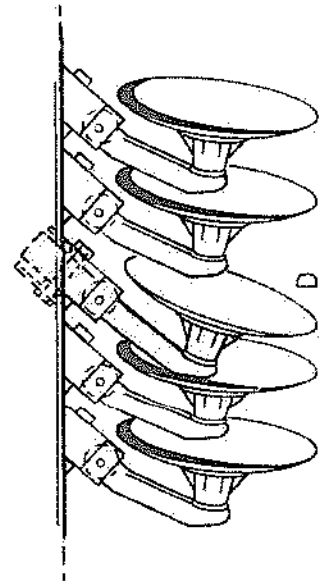
# STRAIGHTENING JUMPER ARMS

## METHOD OF STRAIGHTENING

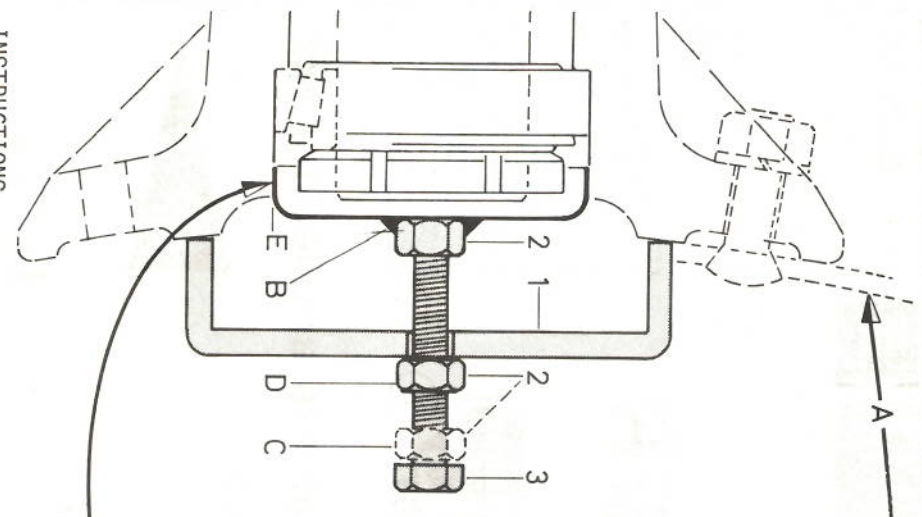
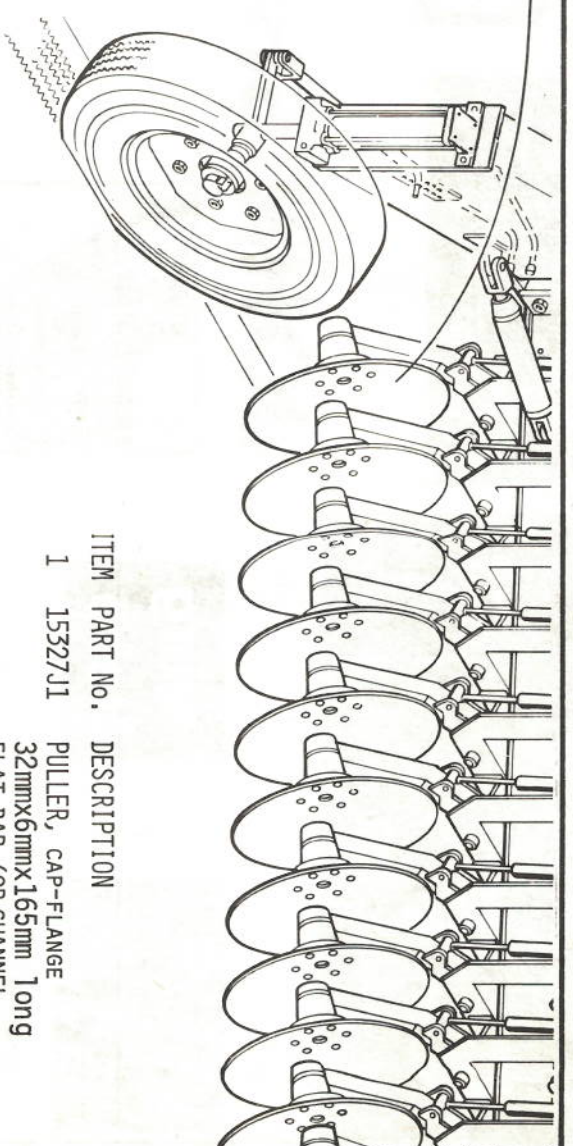
- A - Remove 4 bolts, to suit spacing on "jumper straightening tool".
- B - Bolt on tool, with 2-1/2" x 1/2" bolts.
- C - Rotate tool to a vertical position (90° to jumper arm) to straighten a twist. Measure spacings at top and bottom to correct undercut.
- D - Rotate tool to a horizontal position (parallel to jumper arm) to straighten a bend. Measure spacing at front and rear to correct breast cut.
- E - Heat area to be straightened to a cherry red. (CAUTION - IF HEAT IS APPLIED TOO CLOSE TO BEARINGS AND SEALS, A WET RAG WRAPPED AROUND HUB WOULD BE ADVISABLE). Apply force in appropriate direction (C and/or D) with block and tackle. Correct disc attitude is established by comparison with adjacent discs.



REAR VIEW WITH TWISTED JUMPER ARM ILLUSTR. USE METHOD 'C' TO CORRECT TWIST.

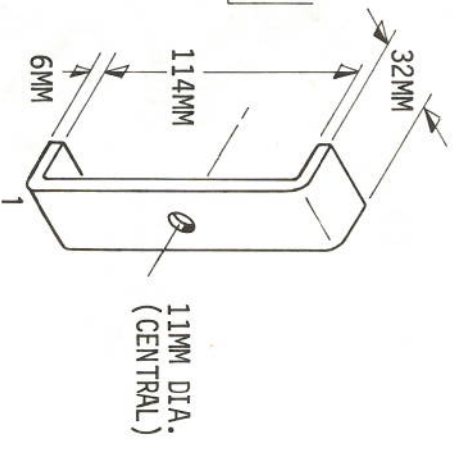
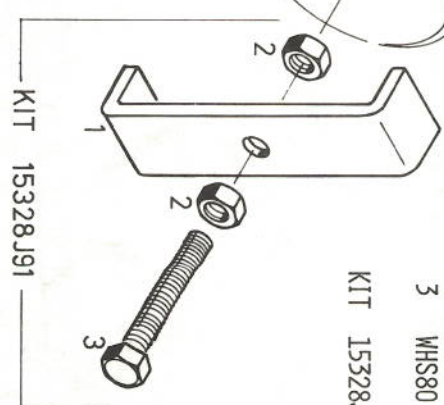
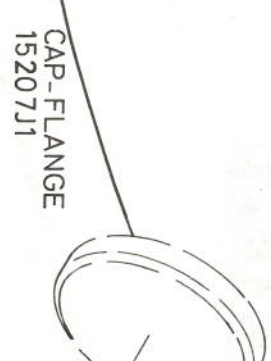


PLAN VIEW WITH BENT JUMPER ARM ILLUSTR. USE METHOD 'D' TO CORRECT BEND.



**INSTRUCTIONS -**

- A - REMOVE DISC
- B - TACK WELD NUT TO CENTRE OF CAP-FLANGE
- C - WITH NUT UNDER HEAD INSERT SCREW THROUGH 11MM HOLE IN CHANNEL AND TIGHTEN SCREW TO WELDED NUT.
- D - TURN NUT AGAINST CHANNEL WHICH WILL LIFT SCREW AND CAP-FLANGE.
- E - WHEN RE-ASSEMBLING APPLY PLIABOND (OR EQUIVALENT) TO MATING SURFACES.



ITEM	PART No.	DESCRIPTION
1	15327J1	PULLER, CAP-FLANGE 32mmx6mmx165mm 10mg FLAT BAR (OR CHANNEL MATERIAL MAY BE USED)
2	WHN4	NUT, HEX-HD 3/8" B.S.W.
3	WHS80	SCREW, HEX-HD SET, 2 1/2" x 3/8" B.S.W.
KIT 15328J91		CAP-FLANGE PULLER, ITEMS 1, 2 & 3

**KIT, CAP-FLANGE PULLER,  
JUMPER BEARINGS**

**PLOUGH W-I-D-E**  
YOUR 50P IS CAPABLE OF WORKING 6 INCHES (120mm) OF WIDTH PER DISC IN MOST CONDITIONS.

DISCS	ft. ins.	m
14	9-4	2-8
18	12-0	3-6
22	14-8	4-4
26	17-4	5-2
30	20-0	6-0

USE THIS ABILITY

IT WILL SAVE YOU...**FUEL**...**TIME**...**DAMAGE**...**DISC WEAR**

**SETTING UP WITH PLOUGH STATIONARY AND ON LEVEL GROUND:**

1. LEVEL PLOUGH FRAME SO THAT ALL DISCS TOUCH GROUND TOGETHER.
2. ADJUST DEPTH STOP (AT REAR LIFT CYLINDER) SO THAT IT OPERATES 2" (50mm) AFTER ALL DISCS TOUCH GROUND.

**BEGIN PLOUGHING, THEN:**

3. ADJUST TAIL STEER TO GIVE ABOVE WIDTH OF CUT.
4. INCREASE LOADING ON JUMPER BEAM UNTIL REQUIRED PLOUGHING DEPTH IS ACHIEVED.

- ONLY CLOSE FRONT WHEELS WHEN PLOUGHING.
- "HANDLING PERMISSIBLE" JUMPER LOADING WILL NOT PROVIDE REQUIRED DEPTH.
- OPEN UP W-I-D-E-R WHEN POSSIBLE.
- CONTROL PLOUGHING DEPTH BY VARIATION OF JUMPER LOADING PRESSURE.

**John Shearer** patents applied for

**EXPORT AWARDS**

Approved by  
The Director of the Ministry of Agriculture, Fisheries and Forestry  
and the Department of Agriculture, Trade and Consumer Affairs

**LOCATE EXACTLY AS SHOWN ON DWG. B5757**

**TRANSFERS**

**John Shearer** model 500 Made in Australia

**Accumulator**

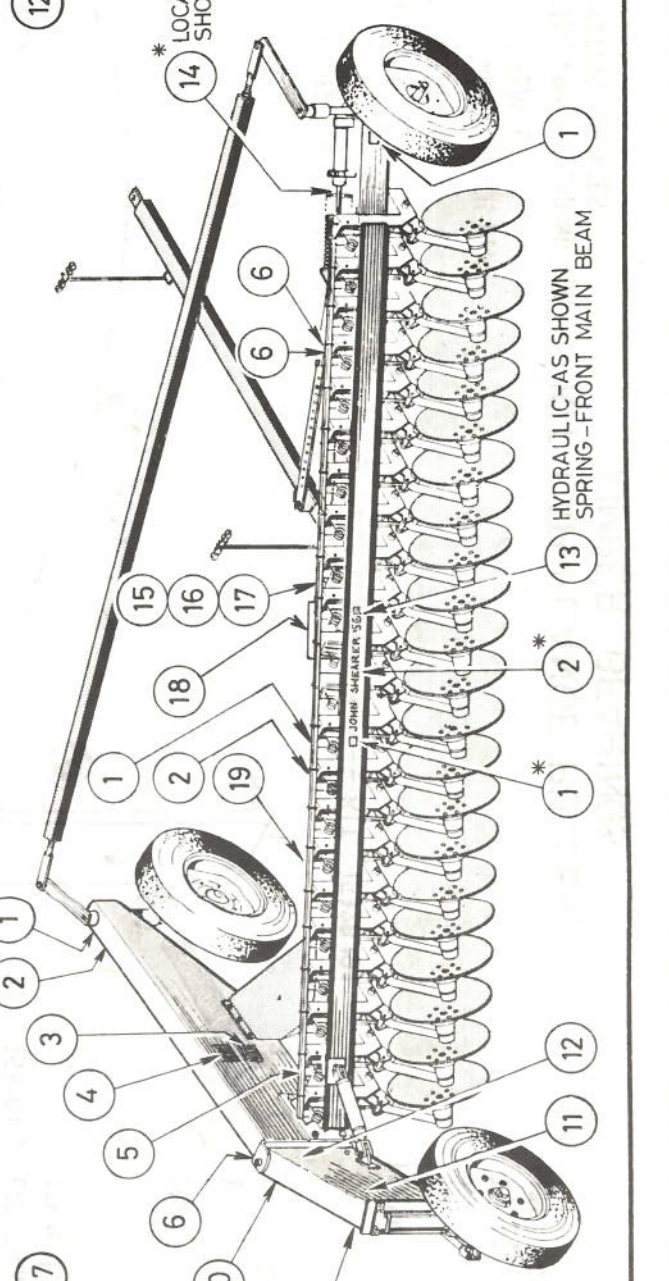
**Tail Sheer**

**Front & Rear Lift**

# JOHN SHEARER



**JOHN SHEARER** patents applied for



**Good Design** FOR AUSTRALIAN DESIGN INDEX INDUSTRIAL DESIGN COUNCIL OF AUSTRALIA

**Gutes Design** FÜR DEN AUSTRALISCHEN DESIGN INDEX INDUSTRIAL DESIGN COUNCIL OF AUSTRALIA

**Buen Diseño** DEL INDICE AUSTRALIANO INDUSTRIAL DESIGN COUNCIL OF AUSTRALIA

**良いデザイン** 工業設計評議会 オーストラリア

**EJEMPLAR DE BUEN DISEÑO** DEL INDICE AUSTRALIANO INDUSTRIAL DESIGN COUNCIL OF AUSTRALIA

**sling here**

**HYDRAULIC FLUID** WE RECOMMEND **Mobilfluid 423** TRANSLATION: **Mobilfluid 423** IS COMPATIBLE WITH FLUIDS SPECIFIED BY TRACTOR MANUFACTURERS AND IS SUITABLE FOR USE AS A "POWER-STEERING" FLUID IN TRACTORS. THIS INCLUDES TRACTORS FITTED WITH POWER-SHIFT TRANSMISSIONS, WHEEL DRIVES, AND "HYDRAULIC" BRAKES.

**WARNING** AVOID DAMAGE TO THE LIFT MECHANISM BY OVERLOADING. THE MAXIMUM PERmissible HYDRAULIC RAMP UP TIME IS 15 SECONDS. SPEEDS ABOVE 1.5 - 2.0 SECONDS FOR 3" STROKE AND 3.0 - 4.0 SECONDS FOR 16" STROKE "FASTER SPEEDS MAY CAUSE DAMAGE".

**WARNING** HYDRAULIC SYSTEMS THRIVE ON CLEAN OIL. ENSURE THAT YOUR TRACTOR HAS: • CLEAN OIL AND • AN EFFECTIVE OIL FILTER. PRIOR TO COUPLING THIS IMPLEMENT.

**JOHN SHEARER**

\* THESE TRANSFERS DELETED ON SPRING LOADED PLOUGH.

\* LOCATE EXACTLY AS SHOWN ON DWG. B5757

**HYDRAULIC-AS SHOWN SPRING-FRONT MAIN BEAM**

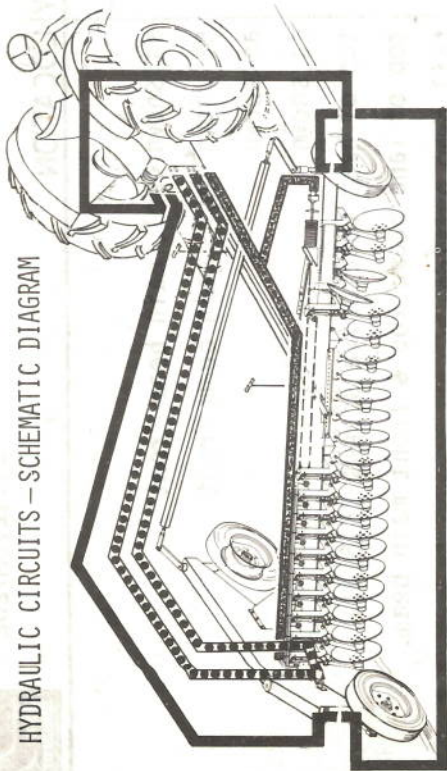
TRANSFERS

21.1276M72J2



ITEM	PART No.	DESCRIPTION	QUANTITY		LOCATION
			H	S	
1	15874J3	TRANSFER J.S. TRADE MARK	5	4	as shown incl. main beam front
2	15875J2	TRANSFER J.S. LARGE	3	2	as shown incl. main beam front
3	15981J1	TRANSFER SETTING UP	1	1	as shown
4	15980J1	TRANSFER PLOUGH WIDE	1	1	as shown
5	15968J1	TRANSFER PLATE MODEL & SERIAL No.	1	1	top of beam (use drive screws 16161J1)
6	15854J1	TRANSFER SLING HERE	3	3	top of land beam; top & front main beam
7	15956J1	TRANSFER GOOD DESIGN, ENGLISH	1	1	tail beam outside
8	15957J1	TRANSFER GOOD DESIGN, GERMAN	1	1	tail beam outside
9	15958J1	TRANSFER GOOD DESIGN, JAPANESE	1	1	tail beam outside
10	15959J1	TRANSFER GOOD DESIGN, SPANISH	1	1	tail beam outside
11	15873J3	TRANSFER J.S. NAME & TRADE MARK	1	1	tail beam inside
12	15966J1	TRANSFER EXPORT AWARD	1	1	tail beam inside
13	15965J1	TRANSFER '5GP'	1	1	hydraulic as shown - spring front main beam
14	15540J1	TRANSFER ACCUMULATOR	1	-	front main beam (see drawing B5757)
15	15971J1	TRANSFER HYDRAULIC FLUID	1	1	top of beam next to hydraulic support plate
16	15876J1	TRANSFER RAM WARNING	1	1	top of beam next to hydraulic support plate
17	15982J2	TRANSFER CLEAN OIL WARNING	1	1	top of beam next to hydraulic support plate
18	15969J1	TRANSFER HYDRAULIC CONNECTION	1	1	on hydraulic support plate
19	15870J3	TRANSFER PATENTS	1	1	front main beam
	16161J1	SCREW DRIVE 5/16" x 4U	4	4	secures serial plate (item 5)

HYDRAULIC CIRCUITS - SCHEMATIC DIAGRAM



■ FRAME LIFT ■■■ TAIL BEAM CYLINDER ■■■■ ACCUMULATOR CYLINDER & JUMPER CYLINDERS

All hydraulic circuits terminate with plugged ends.

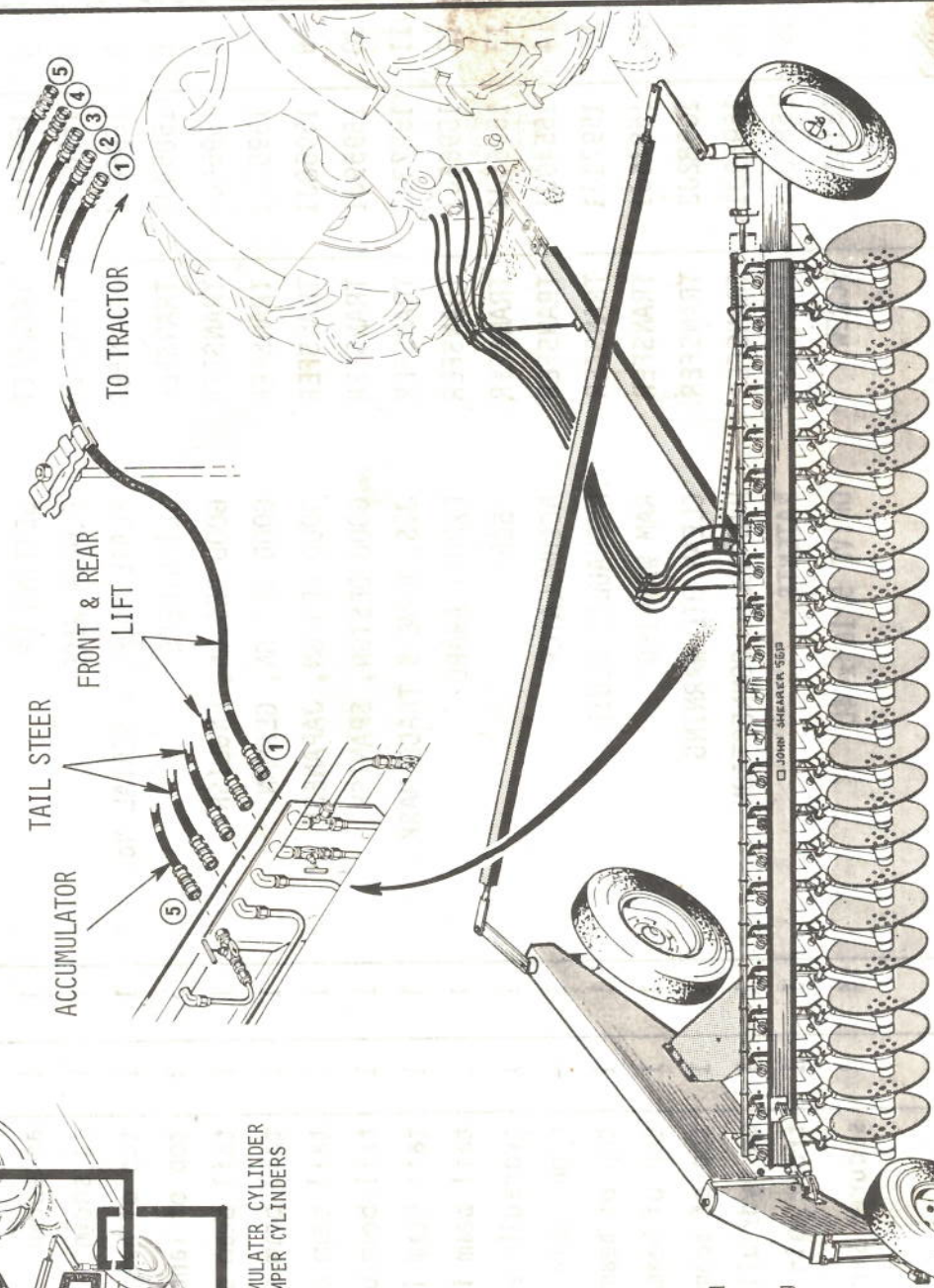
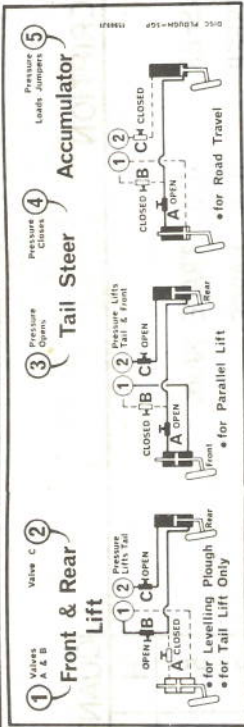
Tractors having less remote outlets than plough has hydraulic functions, logically suggests snap couplings on plough outlets.

On tractors with more remote outlets than plough requires, it may be more convenient to leave hoses, with tractor snap couplings, permanently on plough.

NOTE!

1. The accumulator ram is a single acting circuit only and requires one operating hose. Tail steer and rear lift circuits are double acting and require two hoses.
  2. Rear lift and accumulator circuits have inbuilt needle valves. This permits the plough to be operated with these circuits "pre-set" and the hoses then disconnected and used on another circuit. e.g. if the tractor has only one remote service and tail steering is the most valuable function to operate "on the go" in the particular conditions e.g. say on hillsides.
- On the other hand the tail steer cylinder has no needle valve. If it is decided to operate without hoses on this circuit, it is necessary to either...

- (a) Fit the screw tail steer turnbuckle;
- (b) Have snap couplings on the plough which will hold circuit pressures in the plough while working.



HOSE COUPLING IMPLEMENT TO TRACTOR