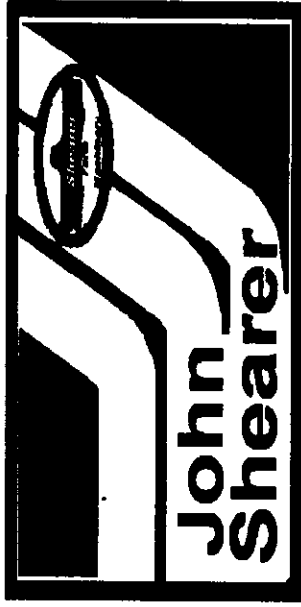


T/A

**KROVIC & LEERS**



**John Shearer**  
(S.A) (PTY) LTD.

**Parts and Instruction  
Manual**

**5 GP. Hydraulic 190/230  
Deep Digger**

**no. 107 J1**



# JOHN SHEARER

ESTABLISHED 1877  
INCORPORATED IN SOUTH AUSTRALIA

LIMITED

**HEAD OFFICE & FACTORY**

**BOX 32 WELLAND**

**SOUTH AUSTRALIA 5007**

TELEPHONE — 268 9555

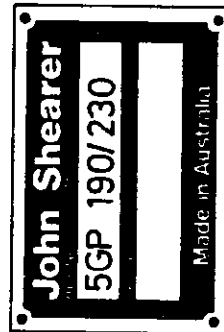
TELEGRAMS & CABLES — SHEARER ADELAIDE

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.  
107J1 AUGUST 1981

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5	MAIN BEAM
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A - LIFT CYLINDER

B - ROD, STEERING

C - BEAM, TAIL

D - BEAM, LAND

E - BEAM, CROSS

F - BEAM, MAIN

G - DRAWBAR

H - LINK, DRAWBAR

I - TRACKBAR

J - POLE, HITCH

K - STEERING BAR

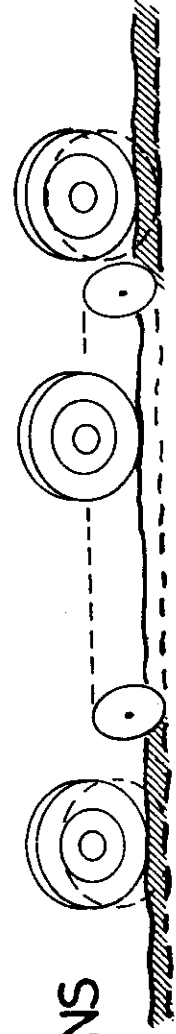
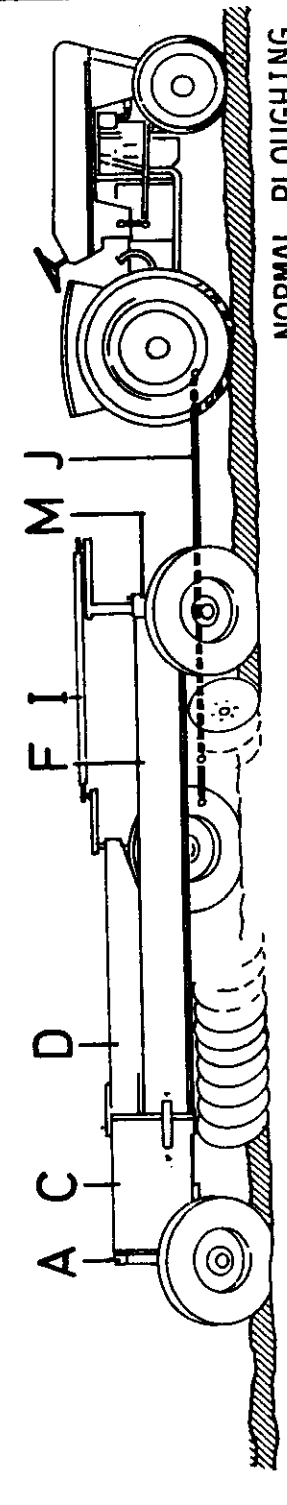
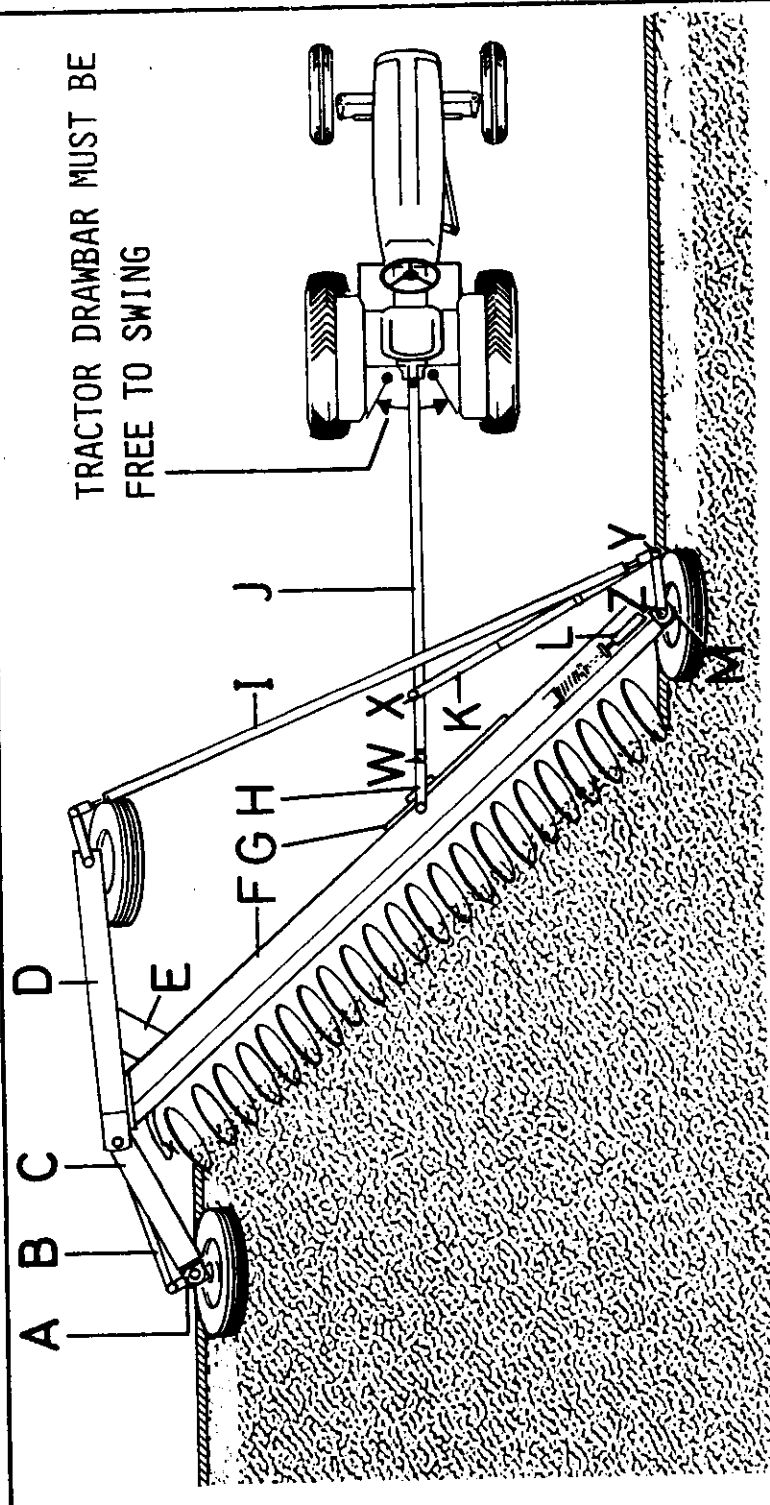
L - ACCUMULATOR, JUMPER

M - STANDARD, FRONT HYDRAULIC

### SETTING UP INSTRUCTIONS

SEE PAGES 3 AND 4

TRACTOR DRAWBAR MUST BE FREE TO SWING



## SETTING UP INSTRUCTIONS

### HYDRAULIC OPERATION

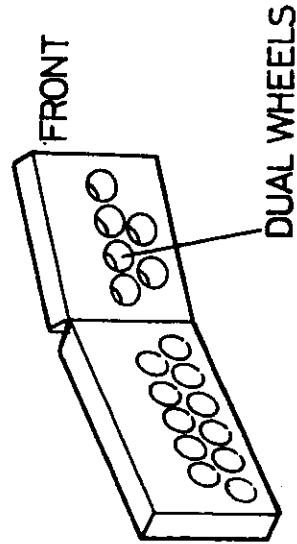
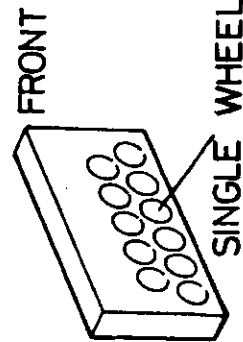
The hydraulic circuit on the 5GP DISC PLOUGH (190 and 230 models) combines the operation of the "frame lift", and "jumper loading" functions.

This is achieved with a diverter valve (item 12 page 20) which is fitted to the main beam, and which is actuated by the accumulator cylinder.

This design ensures that ploughing depth can ONLY BE CONTROLLED BY VARIATION OF THE JUMPER LOADING CIRCUIT PRESSURE.

The operation of the plough involves lowering of the implement frame (onto the depth stops which are provided at the front and the rear) and continued actuation of this hydraulic circuit will then increase pressure on the jumper loading circuit until the desired ploughing depth is obtained.

Where the plough is required to be raised for transport, the hydraulic circuit is operated to "drop all the pressure out of the jumper loading accumulator", at which time the diverter valve is automatically actuated - which then opens the hydraulics to the frame lift circuit and causes the plough frame to raise.



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### SETTING UP FOR PLOUGHING

Tractor drawbar must be free to swing (except, where preferred on large 4 w.d. tractors).

- a) Connect drawbar link (item H) near the middle hole of the adjustment range provided.
- b) Locate rod, steering (item B) in the hole shown (refer ill. below) for single or dual tail wheel ploughs.
- c) Adjust steering bar (item K) such that dimension W-Z is equal to X-Y.
- d) Adjust the length of trackbar (item I) so that the land wheel is running parallel to the front furrow wheel.
- e) Without pressure on the jumper discs, lower the plough frame and travel forward, adjusting plough width of cut with the tail steering cylinder until the total cutting width is as specified in the "plough wide" transfer (located on the land beam of the plough).
- f) Adjust the depth stops at the two furrow wheels such that there is 40mm clearance at the point where the adjacent disc "just touches the ground" when the plough frame is lowered on level (unploughed) ground. This ensures discs have ability to alter ploughing depth in response to changes in jumper loading pressure.
- g) Proceed ploughing, increasing the pressure on the jumper loading accumulator (item L) until the desired ploughing depth is achieved. The rear furrow wheel should run approximately 50mm from the wall of the furrow. If not, readjust steering rod (item B) as required.



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The above setting up will provide excellent ploughing results in almost all conditions. However, if conditions are very tough and the desired ploughing depth cannot be obtained, proceed as follows;

- If the FRONT furrow wheel of the plough wants to "run out" the position of attachment of the drawbar (item H) needs to be moved further to the left, with equal readjustment to the length of steering bar (item K).
- If the REAR furrow wheel of the plough wants to "run out", the drawbar, similarly, needs to be moved further to the right.

The plough should operate with:

- pole hitch running parallel to the furrow
- all wheels running parallel to the furrows
- plough main frame parallel with the ground
- all jumper arms normally 3 to 5mm clear of their "stops" (view from the front of the plough as it comes towards you)
- as wide a width of cut as possible in the conditions (to maximize area ploughed, minimize power consumed and the risk of damage to discs).

- If the plough is wanting to "run out" at both the front and the rear, it will be necessary to "close up" the width of cut of the plough (by extension of the tail steering cylinder). Closing up the plough increases the angle of "breast cut" on the discs and improves penetration ability. However, it also increases the draught load for a given width of cut. That is, this adjustment should be only made when essential, and then only in small steps (with readjustment of the jumper loading pressure at each new setting) to ensure that the plough is ultimately operated at the "widest" width of cut that it can maintain in the given conditions.

#### TRANSPORT

The 5GP is designed to allow for narrow transport. For normal on farm transport it will generally be sufficient to simply extend the tail steering cylinder fully to "close up" the plough. Some readjustment of the trackrod (item I) may be necessary to eliminate scrubbing of the land wheel tyre in the straight ahead travel position.

All disc ploughs have a limitation on their ability to make right hand turns, particularly while "closed up" for transport. Operators will find that right hand turns can be significantly facilitated by using the tail steer cylinder to "open out the plough" while making such turns. That is, fully retract the tail steering cylinder just prior to entering a right hand turn.

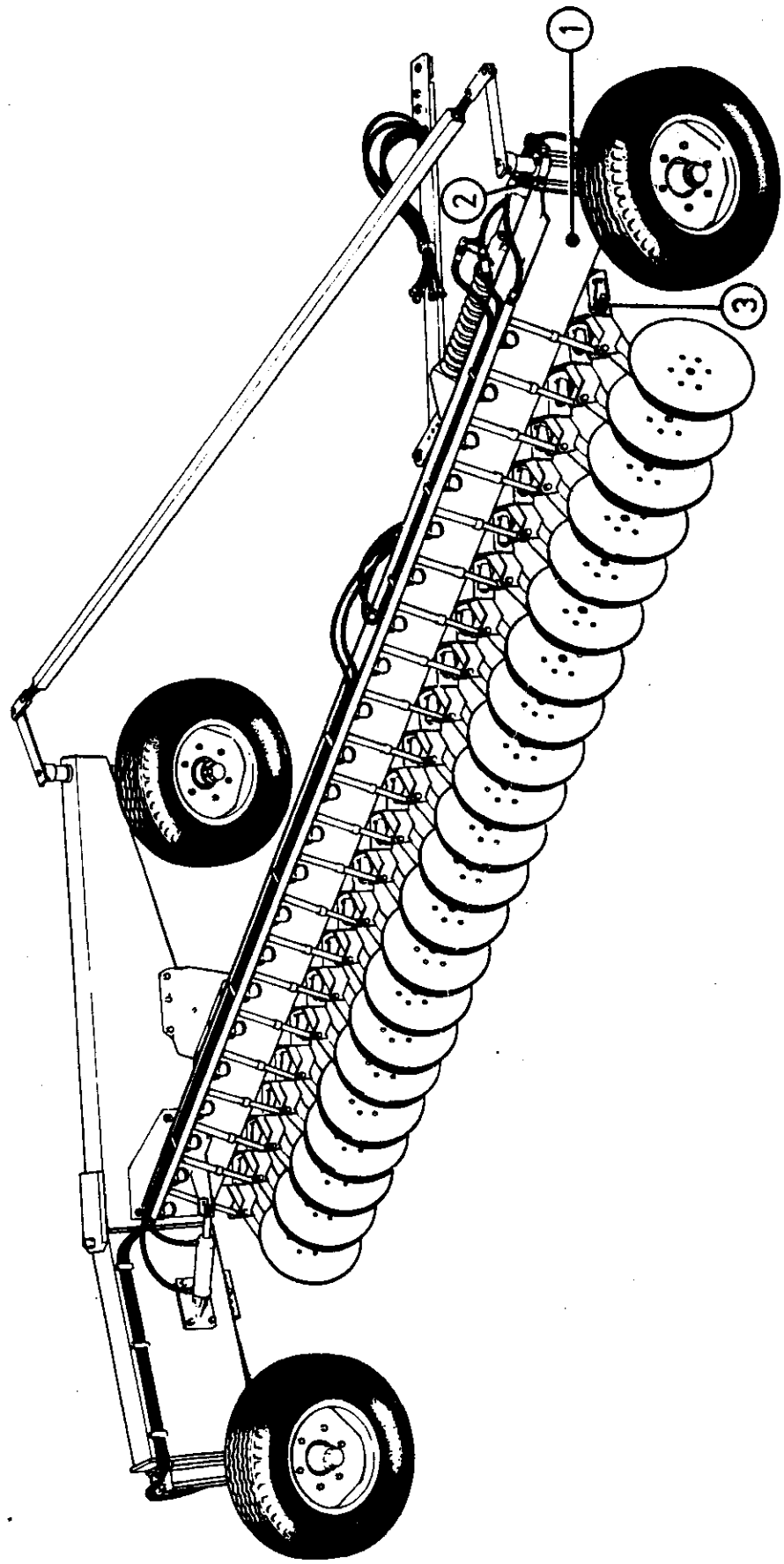
Where long distance transport is required, steering ability may be improved by relocating the drawpole (items J and H) towards the forward end of the adjustment provided, and then readjusting the steering link and trackrod accordingly.

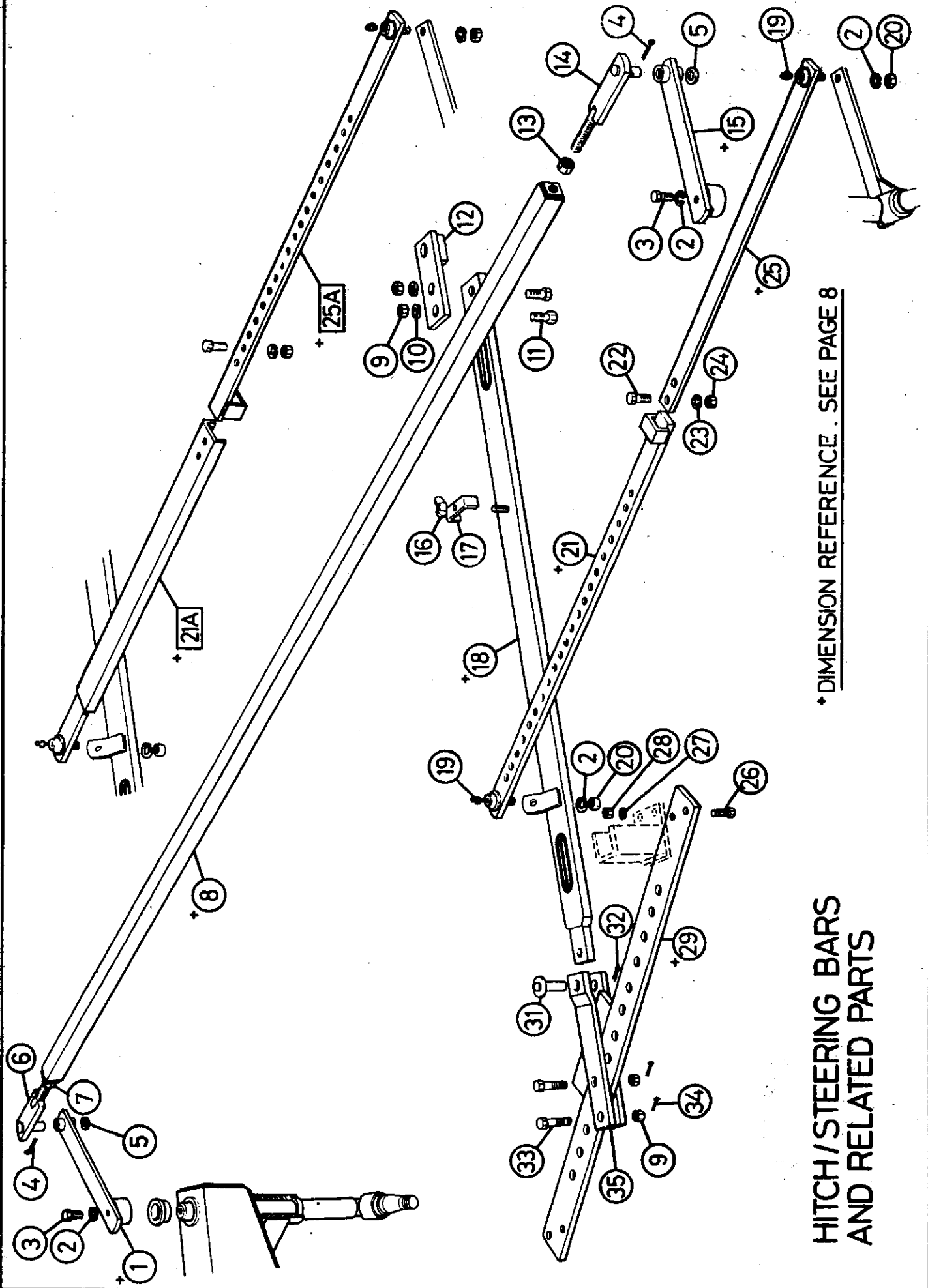


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**MAIN BEAM**

ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	BEAM ASSY. COMPLETE 5GP 190 14fw 18fw 22fw 26fw 30fw	1	BEAM ASSY. COMPLETE 5GP 230 9fw 12fw 15fw 18fw 21fw
2	PIN sellock 1-1/4" x 1/2" hanger	2	PIN sellock 1-1/4" x 1/2" hanger
3	BUSH	3	BUSH





\* DIMENSION REFERENCE . SEE PAGE 8

HITCH/STEERING BARS  
AND RELATED PARTS

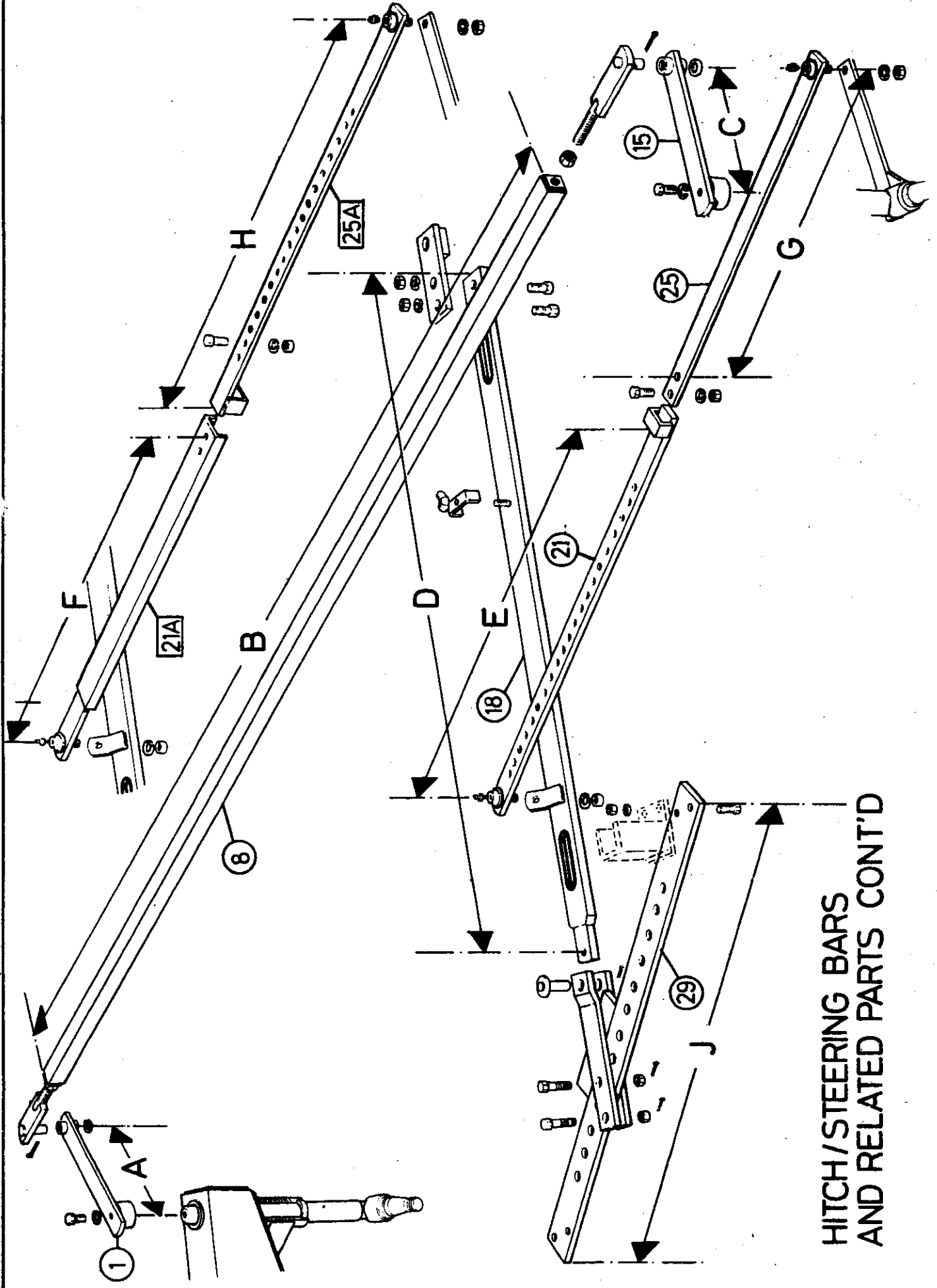
# HITCH/STEERING BARS AND RELATED PARTS

8.81M107J1



ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	17336J91 ARM ASSY. steering L/H 14fw 190 9fw 230 'A' = 565mm	18	TUBE ASSY. hitch-pole 26fw 190 & 18fw 230 'D' = 4140mm
	17337J91 ARM ASSY. steering L/H 18fw 190 12fw 230 'A' = 508mm	Cont.	TUBE ASSY. hitch-pole 30fw 190 & 21fw 230 'D' = 4640mm
2	17338J91 ARM ASSY. steering L/H 22/26/30fw 190 15/18/21fw 230 'A' = 470mm	19	NIPPLE grease 1/8" gas straight
3	SPW8 WASHER spring $\phi$ 3/4"	20	NUT hex 3/4" BSW
4	HR143 BOLT hex 2-1/4" x 3/4"	21	STEERING BAR ASSY. pole 14fw 190 & 9fw 230 'E' 1016mm
5	17879J1 PIN split cotter M63 x 45	15283J91	STEERING BAR ASSY. pole 18fw 190 & 12fw 230 'E' 1257mm
6	15176J1 THRUST 2-1/4"OD x 1-7/16"ID x 1/8"	15285J91	STEERING BAR ASSY. pole 22fw 190 & 15fw 230 'E' 1562mm
7	17330J91 ADJUSTMENT ASSY. trackbar L/H	21A	STEERING BAR ASSY. pole 26fw 190 & 18fw 230 'F' = 2000mm
8	17266J1 NUT hex M36 L/H	23230	STEERING BAR ASSY. pole 26fw 190 & 18fw 230 'F' = 2000mm
	17148J91 TUBE ASSY. 14fw 190 'B' = 3022mm	23231	STEERING BAR ASSY. pole 30fw 190 & 21fw 230 'F' = 2510mm
	17149J91 TUBE ASSY. 18fw 190 'B' = 3917mm	17887J1	BOLT M16 x 60 Gr. 8-8
	17151J91 TUBE ASSY. 22fw 190 'B' = 4851mm	17606J1	WASHER spring $\phi$ 16mm
	17152J91 TUBE ASSY. 26fw 190 'B' = 5842mm	18021	NUT hex M16
	17153J91 TUBE ASSY. 30fw 190 'B' = 6819mm	25	STEERING BAR ASSY. std. 14fw 190 & 9fw 230 'G' = 952mm
	23184 TUBE ASSY. 9fw 230 'B' = 2800mm	15288J91	STEERING BAR ASSY. std. 18fw 190 & 12fw 230 'G' = 1206mm
	23185 TUBE ASSY. 12fw 230 'B' = 3760mm	15290J91	STEERING BAR ASSY. std. 22fw 190 & 15fw 230 'G' = 1511mm
	23186 TUBE ASSY. 15fw 230 'B' = 4760mm	23236	STEERING BAR ASSY. std. 26/30fw 190 18/21fw 230 'H' = 1565mm
	23187 TUBE ASSY. 18fw 230 'B' = 5780mm	18948	BOLT hex M20 x 75 Gr. 8-8
9	17153J91 TUBE ASSY. 21fw 230 'B' = 6820mm	18023	WASHER spring $\phi$ 20mm
10	18042 NUT hex M24 Gr. 8	18022	NUT hex M20
11	18935 WASHER spring $\phi$ 24mm	23198	DRAWBAR 14fw 190 'J' = 904mm
12	20807 BOLT hex M24 x 100 Gr. 8-8	23199	DRAWBAR 18fw 190 'J' = 1160mm
13	20365 TONGUE ASSY. front	23200	DRAWBAR 22/26fw 190 'J' = 1678mm
14	17267J1 NUT hex R/H M36	23201	DRAWBAR 30fw 190 'J' = 1936mm
15	17331J91 ADJUSTMENT ASSY. trackbar R/H	23195	DRAWBAR 9fw 230 'J' = 1214mm
16	17339J91 ARM ASSY. steering R/H 'C' = 565mm	23196	DRAWBAR 12/15fw 230 'J' = 1576mm
17	22000 NUT wing M8	23197	DRAWBAR 18/21fw 230 'J' = 1936mm
18	23139 KEEPER hose quadruple		
	23210 TUBE ASSY. hitch-pole 14fw 190 & 9fw 230 'D' = 2640mm		
	23211 TUBE ASSY. hitch-pole 18fw 190 & 12fw 230 'D' = 3140mm		
	23212 TUBE ASSY. hitch-pole 22fw 190 & 15fw 230 'D' = 3640mm		





HITCH/STEERING BARS  
AND RELATED PARTS CONT'D



8.81M107J1

HITCH/STEERING BARS AND RELATED PARTS (CONT'D.)

ITEM PART NO DESCRIPTION

30	23220	GROMMET	nylon hose
31	20380	PIN ASSY.	pole-hitch
32	17882J1	PIN	cotter $\phi$ 10 x 56
33	23128	BOLT	hex M24 x 110 drilled
34	17878J1	PIN	cotter $\phi$ 6.3 x 40
35	23202	LINK ASSY.	drawbar

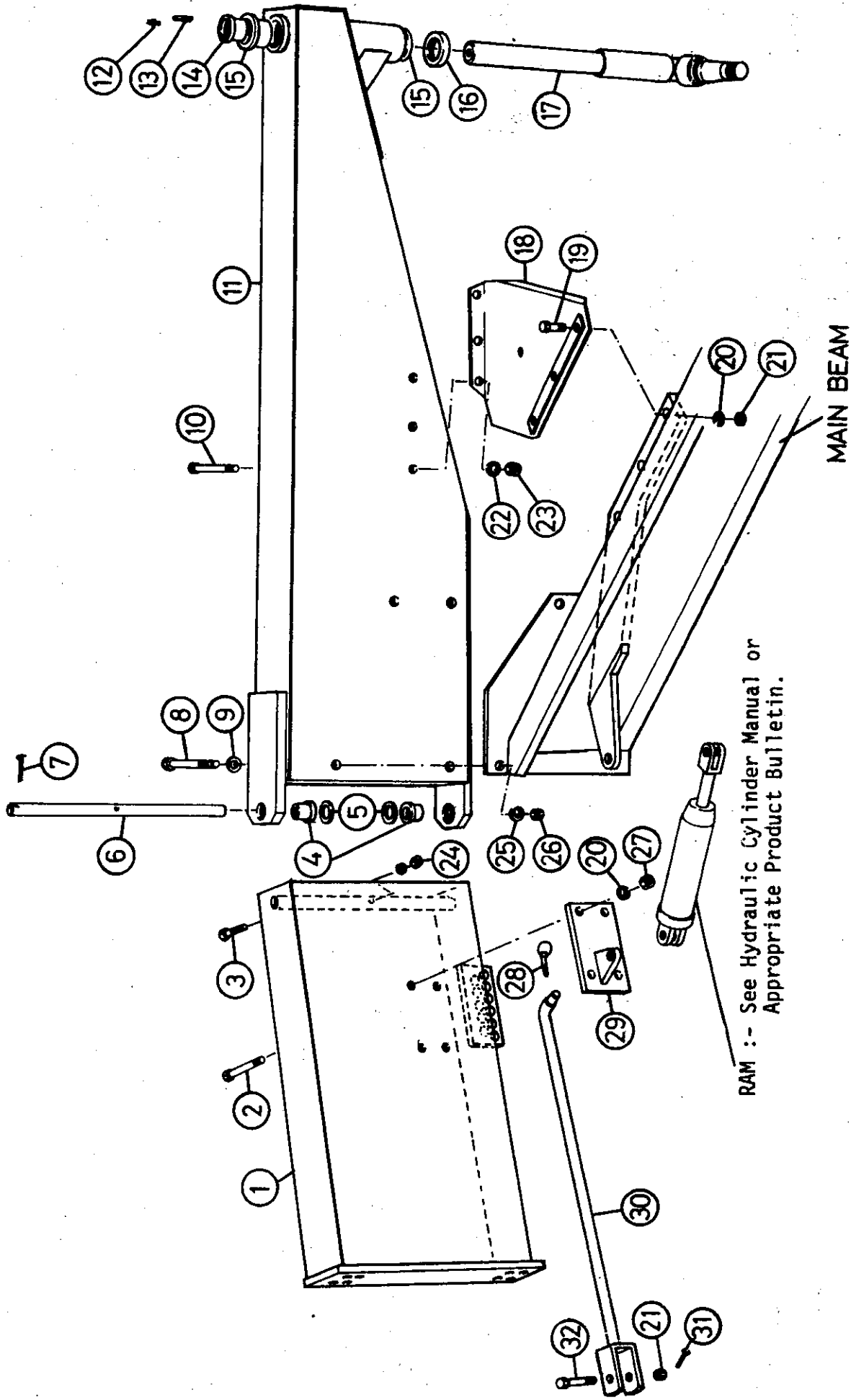
ASSEMBLIES

TRACKBAR ASSY. items 4-8, 13 & 14

	17343J91	14fw 190
	17344J91	18fw 190
	17346J91	22fw 190
	17347J91	26fw 190
*	17348J91	30fw 190
	23180	9fw 230
	23181	12fw 230
	23182	15fw 230
	23183	18fw 230
*	17348J91	21fw 230

POLE ASSEMBLY hitch items 9-12, 16-18

	23205	14fw 190 9fw 230
	23206	18fw 190 12fw 230
	23207	22fw 190 15fw 230
	23208	26fw 190 18fw 230
	23209	30fw 190 21fw 230



RAM :- See Hydraulic Cylinder Manual or  
Appropriate Product Bulletin.

**LAND/TAI L BEAM  
L/H STANDARD, AND RELATED PARTS**

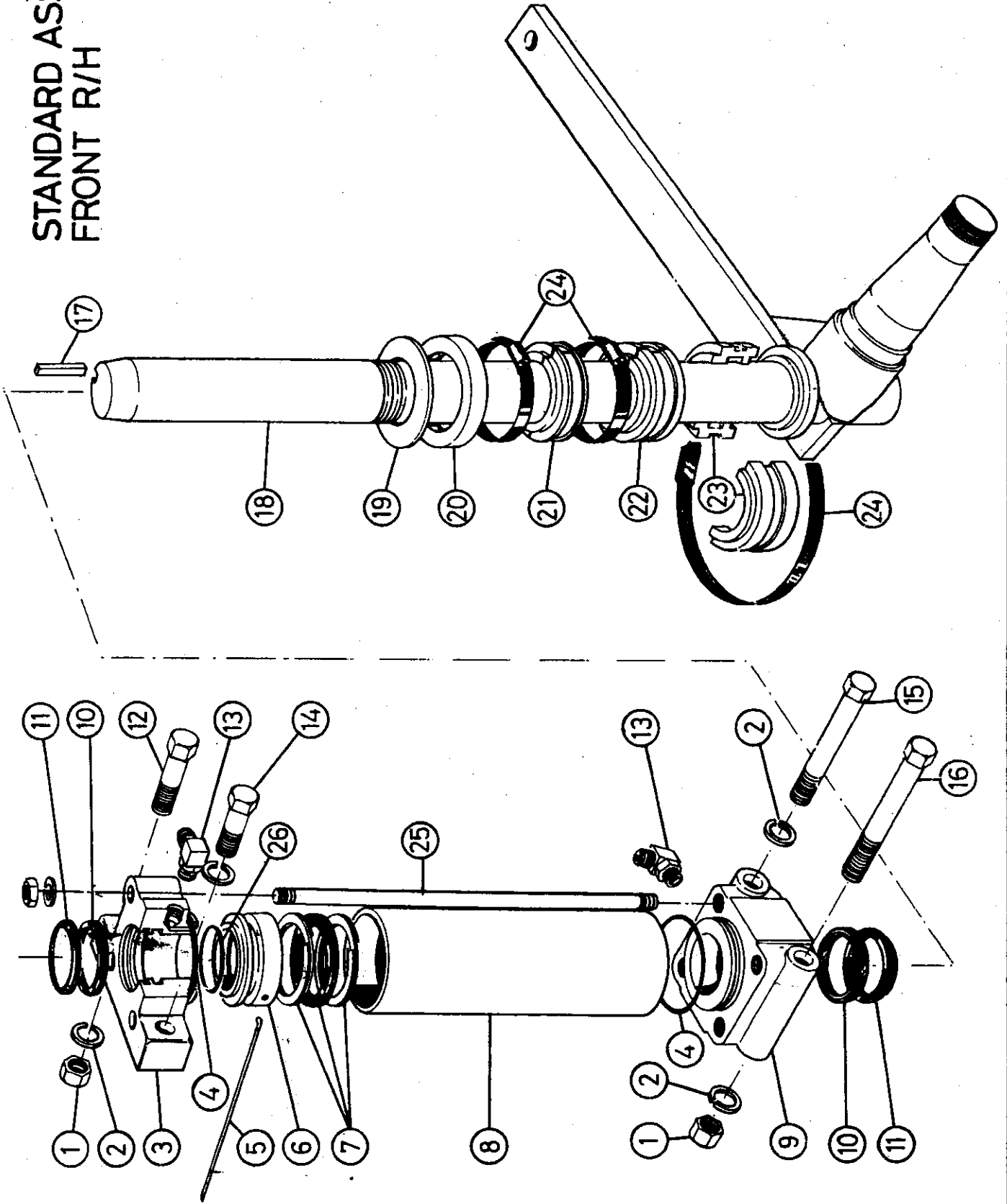
LAND/TAIL BEAM - LEFT HAND STANDARD & RELATED PARTS

8.81M107J1



ITEM PART NQ	DESCRIPTION	ITEM PART NQ	DESCRIPTION
1	23110 BEAM ASSY. tail	22	17616J1 WASHER
2	22039 BOLT hex M16 x 240 Gr. 8-8	23	18414 NUT hex M12
3	19046 BOLT hex M10 x 65 Gr. 8-8 plated	24	21424 NUT cone lok M10
4	15368J1 BUSH hinge		17776J1 WASHER spring M10
5	15316J1 WASHER thrust 2-1/4" OD x 1-7/16" ID x 1/4"	25	18935 WASHER spring ø 24mm
	15332J1 WASHER thrust 2-1/4" OD x 1-7/16" ID x 1/8"	26	18042 NUT hex M24 Gr. 8
	15176J1 WASHER thrust 2-1/4" OD x 1-7/16" ID x 3/16"	27	17323J1 NUT hex M16
6	15504J1 SHAFT pivot tail	28	22889 PIN lynch & ring
7	17882J1 PIN cotter ø 10 x 56	29	15191J92 LUG ASSY. ram tail
8	23108 BOLT hex M24 x 225 h.t.	30	15448J92 ROD ASSY. steering
9	FBW11 WASHER service ø 1"	31	17586J1 PIN cotter ø 5mm x 132
10	22268 BOLT hex M12 x 180	32	23127 BOLT hex M16 x 100 drilled
11	23080 BEAM ASSY. land		COMPLETE ASSEMBLIES
12	0999 NIPPLE grease 1/8" gas straight		STANDARD & HUB ASSY. COMPLETE
13	15377J1 KEY rectangular - standard		items 14 this page
14	15427J2 COLLAR thrust standard		1-3, 7-13 Page 17
15	15372J1 BEARING flange		
16	12939 BEARING thrust ref. T309.		
17	15375J92 STANDARD ASSY. L/H		
18	23100 CROSS BEAM		
19	17887J1 BOLT hex M16 x 60 Gr. 8-8		
20	17606J1 WASHER spring ø 16mm		
21	18021 NUT hex M16		

STANDARD ASSY  
FRONT R/H



17643

340

STANDARD ASSEMBLY, FRONT R/H

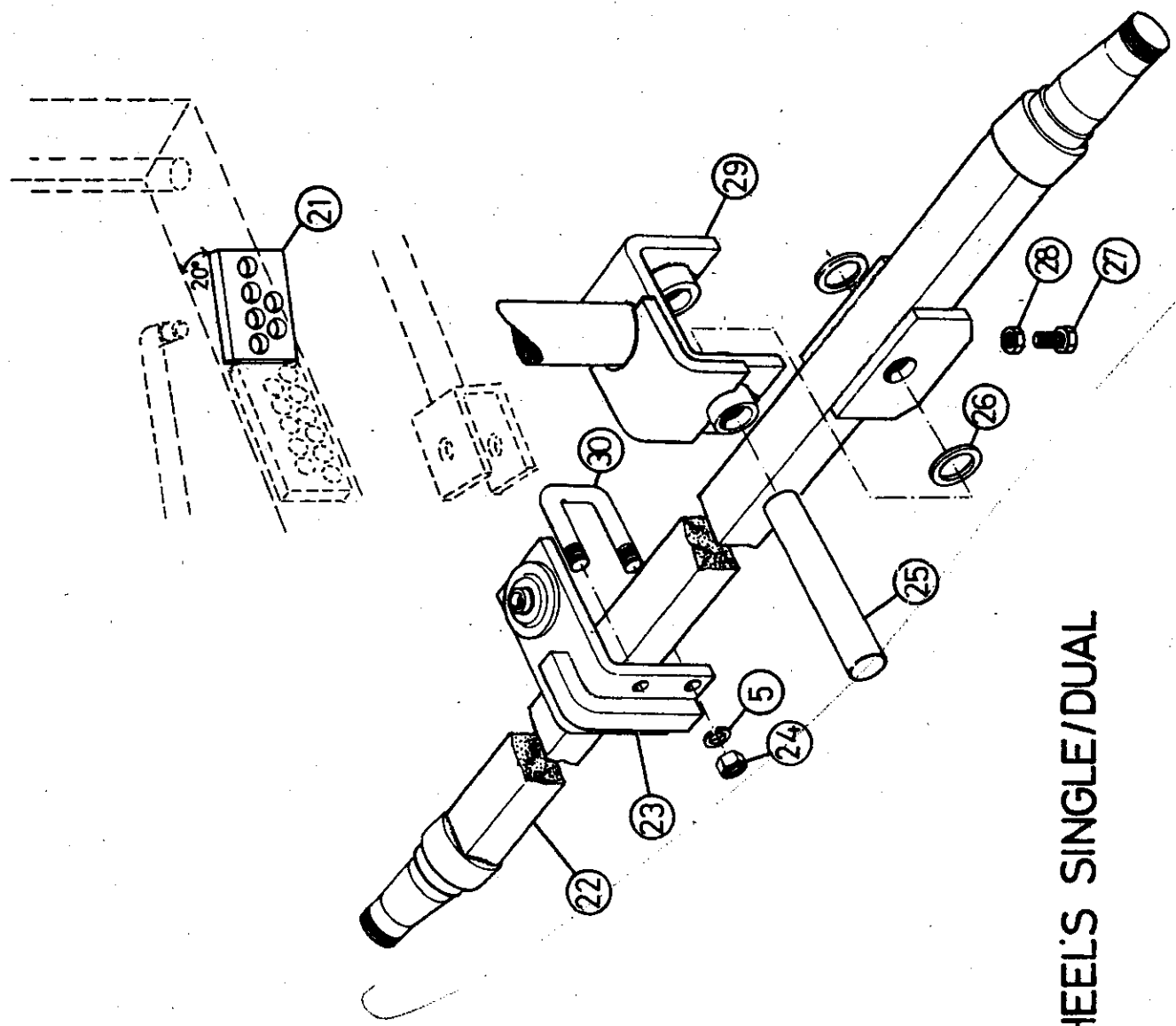
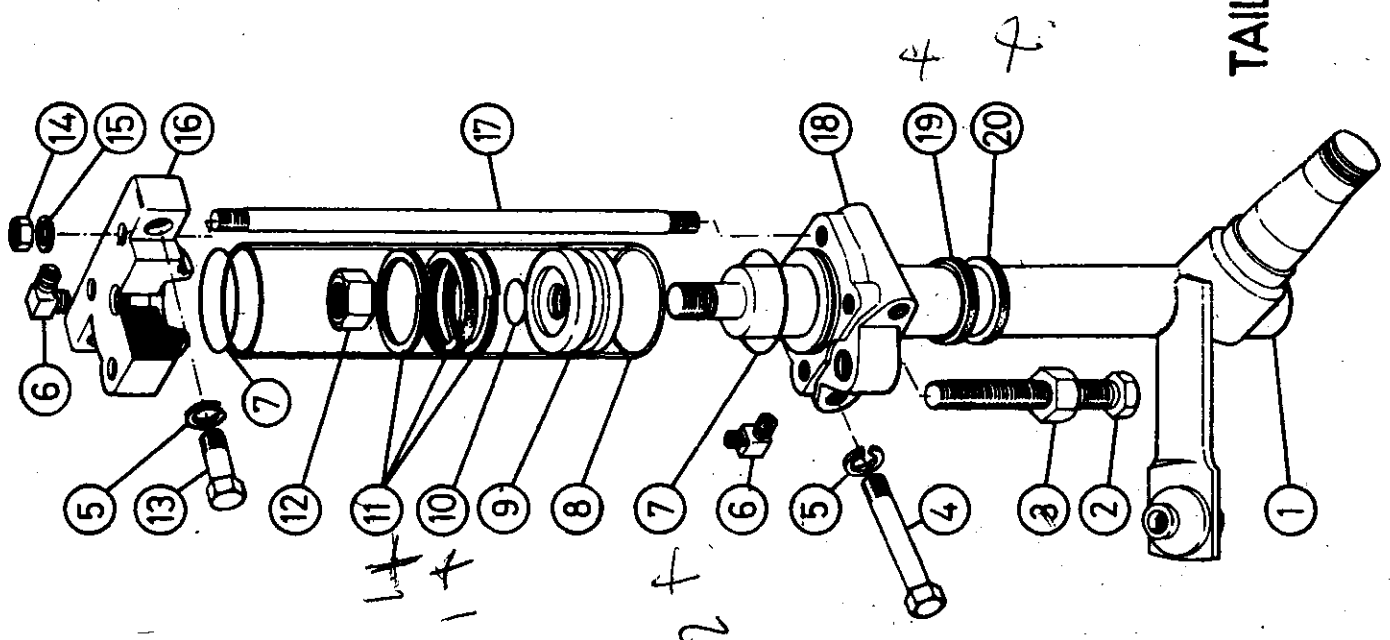
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ITEM PART NO DESCRIPTION

ITEM PART NO DESCRIPTION

1	18022	NUT	hex M20 plated	20	12939	BEARING	thrust ref. T309
2	18023	WASHER	spring $\phi$ 20mm plated	21	23124	COLLAR	adjusting 16mm
3	22246	CAP	top R/H standard (16486)	22	23123	COLLAR	adjusting 25mm
4	15441J1	'O' RING	ref. AN6230-14	23	23122	COLLAR	adjusting 38mm
5	15315J1	WIRE	retaining thrust	24	23121	CLAMP	collar ref.No. 5
6	17099J2	PISTON	front standard	25	17100J1	ROD	tie front 5/8" UNF
7	16495J1	'J' SEAL	piston ref. LS350		11220	NUT	hex 5/8" UNF
8	17098J1	BARREL	front standard 430		SPW6	WASHER	spring $\phi$ 5/8"
9	22247	CAP	bottom front standard (17898)	26	16496J1	'O' RING	ref. AN6230-8
10	15436J1	SEAL	gland ref. L359				COMPLETE ASSEMBLIES
11	16489J1	WIPER	3" OD x 2-1/2" ID Ref.62-250		23120		STANDARD & HUB ASSY. R/H front
12	18948	BOLT	hex M20 x 75 Gr. 8-8 plated				items 3-11, 13, & 18-26
13	15248J1	ELBOW	3/4" JIC x 3/4" UN				items 1-3, 7-13 Page 17
14	18140	BOLT	hex M20 x 60 Gr. 8-8 plated				STD w/o HUB
15	19047	BOLT	hex M20 x 150 Gr. 8-8 plated				
16	22294	BOLT	hex M20 x 170 Gr. 4-6				
17	15377J1	KEY	rectangular standard				
18	21593		STANDARD ASSY. R/H				
19	21594	RING COVER	bearing				



TAIL WHEEL'S SINGLE/DUAL



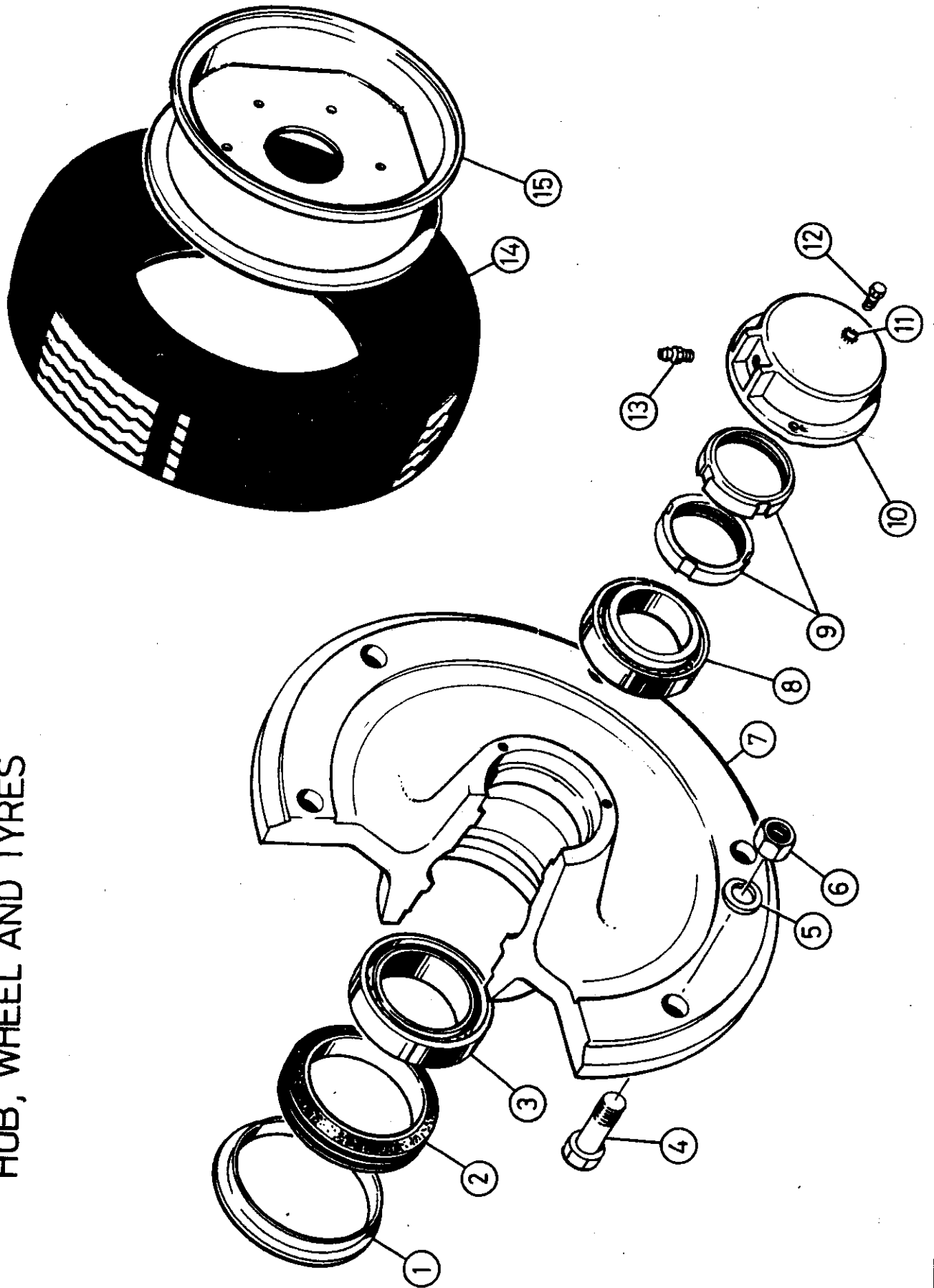
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TAIL WHEELS/SINGLE. DUAL

ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	15432J93 STANDARD ASSY. rear	26	15176J1 WASHER
2	17470J1 SCREW adjusting M30	27	SD1540 SCREW hex 1-1/2" x 5/8" BSW
3	17261J1 NUT lock M30	28	WHN8 NUT hex 5/8" BSW
4	19047 BOLT hex M20 x 150 Gr. 8-8	29	15453J94 SADDLE ASSY. dual
5	18023 WASHER spring $\phi$ 20mm	30	17551J1 CLAMP axle M20
6	15248J1 ELBOW 3/4" JIC x 3/4" UN		COMPLETE ASSEMBLIES
7	15441J1 'O' RING AN6230.14		REAR AXLE STANDARD ASSY. single
8	15438J1 BARREL hyd. cylinder		items 1-3, 6-12 & 14-20
9	15439J3 PISTON hyd. cylinder		items 1-3, 7-13 page 17
10	15445J1 'O' RING 1-1/4" OD x 1" ID x 1/8"	23125	
11	16495J1 'J' SEAL piston (ref. L350)		
12	15444J1 NUT nyloc 1-1/4" UNF		
13	18140 BOLT hex M20 x 60 Gr. 8-8	23126	
14	11220 NUT hex 5/8" UNF		
15	SPW6 WASHER spring 5/8"		
16	22248 CAP (17865) top rear std.		
17	15446J2 ROD tie rear		
18	22249 CAP (17865) bottom rear std. 38205		
19	15436J1 SEAL gland (ref. L359) 1.40		
20	16489J1 WIPER 3" OD x 2-1/2" ID ref. 62-250		
21	15543J1 PLATE wheel anchor dual		
22	15462J91 AXLE REAR ASSY. dual		
23	17308J92 ANCHOR ASSY. dual axle		
24	17550J1 NUT hex M20		
25	20489 SHAFT pivot dual		



# HUB, WHEEL AND TYRES





8.81M107J1

HUB, WHEEL AND TYRES		ITEM PART NO DESCRIPTION		ITEM PART NO	DESCRIPTION
1	TC462	WEAR-RING	ref. 16994		<p>TYRE PRESSURE</p> <p>MAXIMUM PRESSURE 85PSI/586kPa</p> <p>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.</p> <p>MINIMUM PRESSURE 14 DISC 50PSI/345kPa 5GP 190 9 DISC 50PSI/345kPa 5GP 230</p> <p>18,22,26 &amp; 30 DISC 55PSI/380kPa 5GP 190 12,15,18 &amp; 21 DISC 55PSI/380kPa 5GP 230</p> <p>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.</p>
2	TC461	SEAL	triple lipped ref. 16946		
3	15306J1	BEARING	cup & cone 60mm ref. JLM508710 JLM508748		
4	15249J1	BOLT	2" x 1/2" UNF		
5	SPW4	WASHER	spring $\phi$ 1/2"		
6	NFN6	NUT	1/2" UNF		
7	15307J1	HUB	wheel		
8	15203J1	BEARING	cup & cone 50mm ref. JLM104910 JLM104948		
9	15205J1	NUT	spindle 50mm ref. KM10x $\phi$		
10	15305J1	CAP	hub		
11	STW3	WASHER	star (5/16")		
12	SD2097	SET SCREW	5/16" x 7/8" UNC		
13	D999	NIPPLE	grease (1/8")		
14	11280	TYRE	8.25 x 20 x 10 ply Highway or Hi-Miler		
	11281	TUBE	8.25 x 20		
15	15318J91	RIM ASSY.	20"		

KIT, CAP-FLANGE PULLER,  
JUMPER BEARINGS

INSTRUCTIONS

11mm DIA.  
(central)

REMOVE DISC

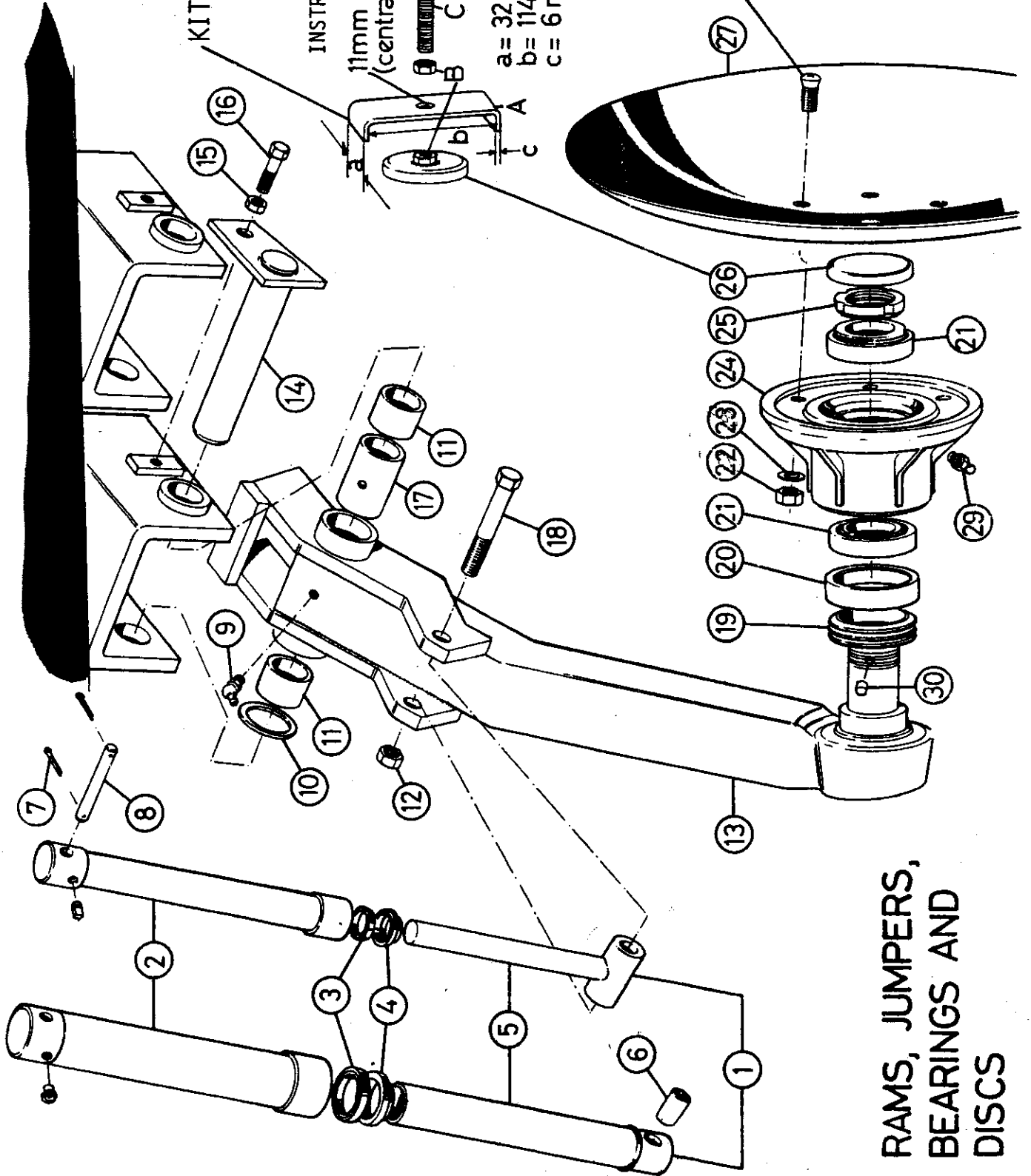
TACK WELD NUT TO  
CENTRE OF  
CAP-FLANGE

WITH NUT UNDER  
HEAD INSERT SCREW  
THROUGH 11MM HOLE  
IN CHANNEL AND  
TIGHTEN SCREW TO  
WELDED NUT

TURN NUT AGAINST  
CHANNEL WHICH  
WILL LIFT SCREW  
AND CAP-FLANGE

WHEN RE-ASSEMBLING  
APPLY PLIABOND (OR  
EQUIVALENT) TO  
MATING SURFACES

a = 32mm  
b = 114mm  
c = 6mm



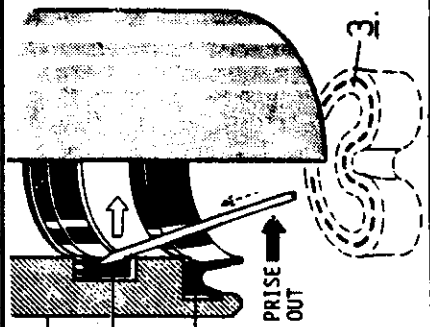
RAMS, JUMPERS,  
BEARINGS AND  
DISCS



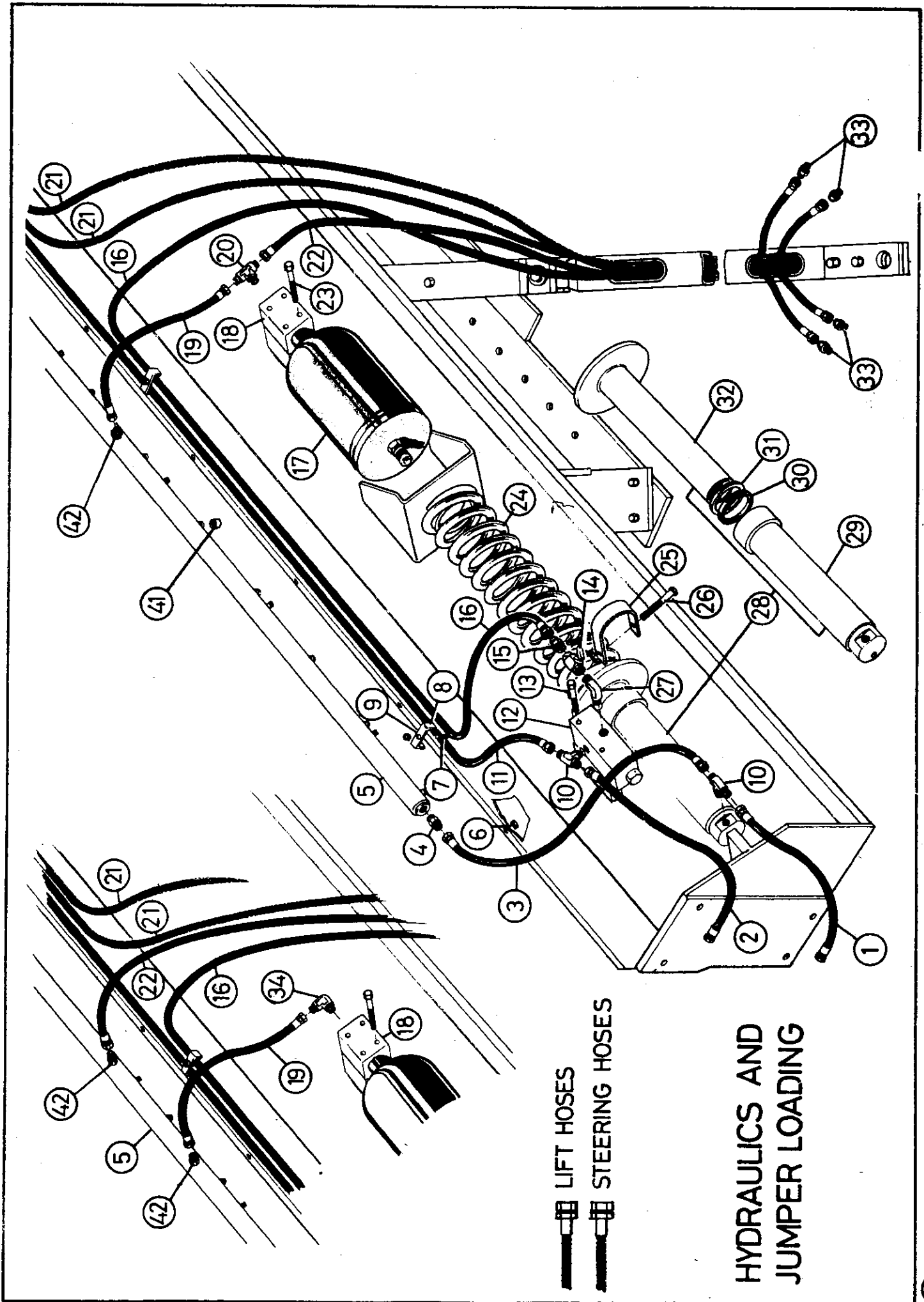
8.81M107J1

RAMS, JUMPERS, BEARINGS AND DISCS

ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	16468J91 RAM ASSY.	24	15204J1 FLANGE
2	19620 RAM ASSY.	25	15205J1 NUT
3	15214J91 BARREL ASSY.	26	15207J1 CAP
4	16469J1 PLUG	27	15208J1 DISC
5	19646 BARREL ASSY.	23177	DISC
6	19642 CAP	23178	DISC
7	15218J1 SEAL	15209J1	BOLT
8	19639 SEAL	18596	NIPPLE
9	15219J1 SCRAPER	15206J1	INSERT
10	19638 SCRAPER		
11	15220J91 ROD ASSY.		
12	19645 ROD ASSY.		
13	17643J1 BUSH		
14	17586J1 PIN		
15	15224J1 PIN		
16	23176 PIN		
17	D1000 NIPPLE		
18	15316J1 WASHER		
19	15176J1 WASHER		
20	15332J1 WASHER		
21	20269 BUSH		
22	18022 NUT		
23	23447 JUMPER ASSY.		
24	23130 JUMPER ASSY.		
25	17075J91 SHAFT ASSY.		
26	19614 NUT		
27	20439 BOLT		
28	20270 SPACER		
29	17666J1 BOLT		
30	12395 SEAL		
31	12396 RING		
32	15203J1 BEARING		
33	15210J1 NUT		
34	SPW4 WASHER		
1	1" 5GP 190 15213 ✓		
2	1-3/4" 5GP 230		
3	5GP 190 30019		
4	3/8" BSP - male		
5	5GP 230		
6	dust (Kelvindale 4CP)		
7	5GP 190 ref. L313		
8	5GP 230		
9	seal 5GP 190		
10	seal 5GP 230		
11	5GP 190 JS 30020		
12	5GP 230 S&D		
13	cotter $\phi$ 5 x 32		
14	ram yoke $\phi$ 16 5GP 190		
15	ram yoke $\phi$ 20 5GP 230		
16	grease 1/8" gas 67 $\frac{1}{2}$ $^\circ$ angle		
17	thrust 2-1/4" OD x 1-7/16" ID x 1/4"		
18	thrust 2-1/4" OD x 1-7/16" ID x 1/8"		
19	thrust 2-1/4" OD x 1-7/16" ID x 3/16"		
20	jumper arm		
21	hex M20		
22	5GP 190		
23	5GP 230		
24	jumper arm use 17110 5GP		
25	1/2" UNF nylon		
26	hex 2-1/2" x 1/2" UNF h.t.		
27	arm jumper		
28	hex M20 x 100 Gr. 8-8		
29	triple lipped ref. 16913		
30	wear ref. 17254		
31	50mm ref. cup JLM104910		
32	cone JLM104948		
33	hex 1/2" UNC zinc plated spring 1/2"		
24	disc		
25	spindle 50mm ref. KM10		
26	flange		
27	24" x 3/16" x 3-1/4" dish 5GP 190		
28	scaalloped 28" x 3/16" x 4" dish 5GP 230		
29	plain 28" x 3/16" x 4" dish 5GP 230		
30	disc CSK socket head 1-3/4" x 1/2" UNC self tapping grease ref. H163 nylon nut		
<u>COMPLETE ASSEMBLIES</u>			
23446	JUMPER COMPLETE 5GP 190 (comprising of items 9,11,13,17,19-21,24-26)		
23129	JUMPER COMPLETE 5GP 230 (comprising of items 9,11,13,17,19-21,24-26)		
15328J91	KIT		
15327J1	PULLER		
A	cap-flange 32mm x 6mm x 165mm long flat bar (or channel material may be used) hex-hd. 3/8" BSW hex-hd. set 2-1/2" x 3/8" BSW		
B	WHN4 NUT		
C	WHS80 SCREW		



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

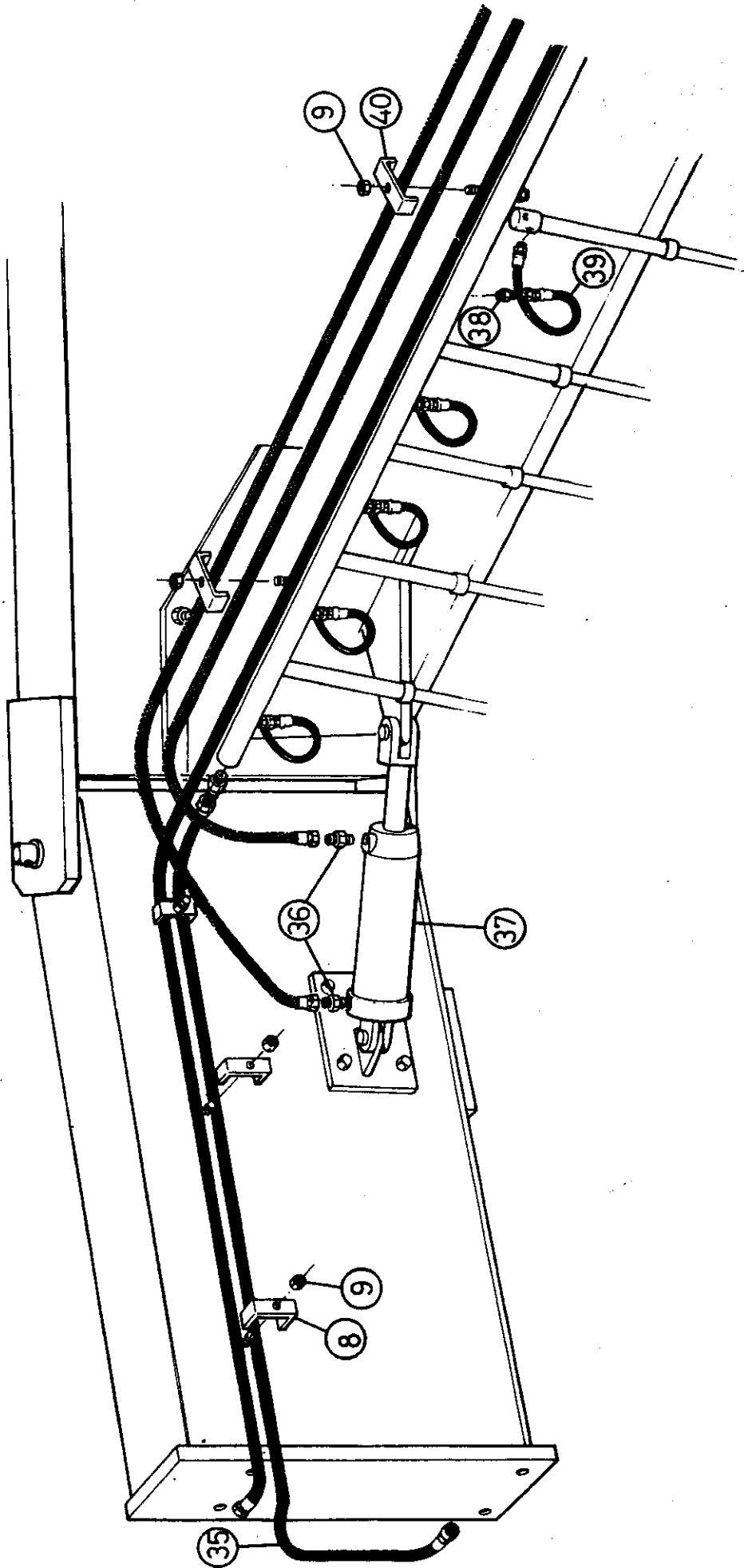


HYDRAULICS AND JUMPER LOADING

8.81M107J1



ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
1	20389 HOSE ASSY.	11	(cont'd.)
2	21000 HOSE ASSY.	21003	HOSE ASSY. HYD.ENDS 3/4" JIC FF st. 550mm
3	20232 HOSE ASSY.	23263	7500mm 22fw
4	19843 HOSE ASSY.	23264	8500mm 26fw
5	17257J1 NIPPLE	23264	9500mm 30fw
	MANIFOLD ASSY. 5GP 190	21271	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 230
	14fw	21003	5200mm 9fw
	18fw	23263	7500mm 12fw
	22fw	23264	8500mm 15fw
	26fw	23265	9500mm 18fw
	30fw	23109	10.300mm 21fw
	MANIFOLD COMPLETE 5GP 190 items 4,6,38,41,42	21597	VALVE ACCUMULATOR (ref. Moore 873815)
	14fw	15503J1	BOLT hex M8 x 70 Gr. 4-6 plated
	18fw	21362	VALVE needle 3/8" NPT
	22fw	20370	NIPPLE 3/4" UN 'O' ring x 3/8" BSPT
	26fw	23239	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 190
	30fw	23263	6700mm 14fw
	MANIFOLD ASSY. 5GP 230	23302	7700mm 18fw
	9fw	23265	8500mm 22fw
	12fw	23194	9200mm 26fw
	15fw	23269	10.300mm 30fw
	18fw	21003	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 230
	21fw	23263	6300mm 9fw
	MANIFOLD COMPLETE 5GP 230 items 4,6,38,41,42	23264	7000mm 12fw
	9fw	19830	7500mm 15fw
	12fw	19831	8500mm 18fw
	15fw	23268	9500mm 21fw
	18fw	23240	ACCUMULATOR gas 4 litre 5GP 230
	21fw	23262	BLOCK ACCUMULATOR 5GP 230
6	17604J1 NUT	23302	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 450mm 5GP 230
	WASHER	23365	TEE 1/2" BSPT x 3/4" JIC x 3/4" JIC 230
	BOLT	23266	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 190
	KEEPER	23267	8100mm 14fw
	NUT	23239	9200mm 18fw
7	17776J1		10.300mm 22fw
8	19151		11.300mm 26fw
9	23137		12.300mm 30fw
10	18464		HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 230
11	22269		7700mm 9fw
	HOSE ASSY. HYD. ENDS 3/4" JIC x 3/4" JIC		
	5500mm 14fw		
	6400mm 18fw		



HYDRAULICS CONT'D



8.81M107J1

HYDRAULICS AND JUMPER LOADING (CONT'D.)

ITEM PART NO	DESCRIPTION	ITEM PART NO	DESCRIPTION
21	(cont'd.) 23302 HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 230 23265 9200mm 12fw 23266 10.300mm 15fw 23267 11.300mm 18fw 12.300mm 21fw	39	HOSE ASSY.
22	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 190 23192 5300mm 14fw 23193 5800mm 18fw 23194 6300mm 22fw 23228 6800mm 26fw 23229 7300mm 30fw	40 41 42	HOSE ASSY. KEEPER CAP NIPPLE
23	HOSE ASSY. HYD.ENDS 3/4" JIC FF st 5GP 230 20686 5000mm 9fw 20368 5500mm 12fw 23194 6300mm 15fw 23228 6800mm 18fw 23229 7300mm 21fw		
24	BOLT 18897 hex M10 x 75 Gr. 8-8 plated 230		
25	SPRING 15253J1 accumulator		
26	YOKE 17970J1 cylinder accumulator BOLT 18413 hex M12 x 100 Gr. 8-8 WASHER 17616J1 spring $\phi$ 12mm plated NUT 18414 hex M12		
27	ELBOW 15244J1 90° 3/8" BSPT x 3/4" JIC		
28	ACCUMULATOR COMPLETE items 29 - 32		
29	BARREL ASSY.		
30	WIPER 16489J1 2-1/2" ID x 3" OD		
31	SEAL 15436J1 gland ref. L359		
32	ROD ASSY. 19885 piston		
33	NIPPLE 14598J1 1/2" BSPT x 3/4" JIC MM		
34	ELBOW 15494J1 90° 1/2" BSPT x 3/4" JIC MM 230		
35	HOSE ASSY. 21272 hyd. ends 3/4" JIC F 3/4" JIC M st. 2400mm (21272 includes nipple 18851) 3/4" UN ('O' ring) x 3/4" JIC 8" x 3" non-phasing 1/4" BSPT x 9/16" JIC		
36	NIPPLE 18850		
37	RAM ASSY. 20384		
38	NIPPLE 17685J1		



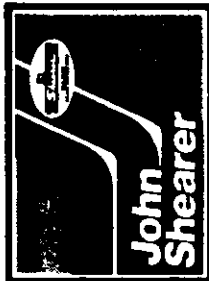
# JOHN SHEARER 5

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



**WARNING**  
MAXIMUM TOWING  
SPEED  
25 km/h

**HYDRAULIC FLUID**  
WE USE AND RECOMMEND SHELL DOWAX TO  
TRANSMISSION FLUID, A PRODUCT OF  
SHELL CO. OF AUSTRALIA.  
SHELL DOWAX IS COMPATIBLE WITH  
FLUIDS SPECIFIED BY TRACTOR MANUFACTURERS  
AND IS SUITABLE FOR USE AS A  
MULTI-PURPOSE TRANSMISSION/HYDRAULIC  
FLUID IN TRACTORS. THIS INCLUDES  
LONG-DRAWN WITH POWER-SHIFT  
TRANSMISSIONS, METELUCHES AND MET BRANES.



**IMPORTANT**  
This tube contains a:  
**PARTS & INSTRUCTION MANUAL**  
-- Read it prior to using implement.

patents applied for

**JOHN SHEARER**

**Hydraulic Disc Plough**

**Deep Digger  
Hydraulic Disc Plough**

**PLOUGH W-I-D-E**  
THIS SLP IS CAPABLE OF TOWING 6 DISCS  
(200 mm) IN WIDTH PER DISC IN MOST CONDITIONS.

DISCS	11	12	13	14	15	16	17
WIDE	1.5	2.0	2.5	3.0	3.5	4.0	4.5
DEPTH	10	12	14	16	18	20	22
FUEL CONSUMPTION (litres per hour)	10	12	14	16	18	20	22
DISC WEAR (mm per hour)	10	12	14	16	18	20	22

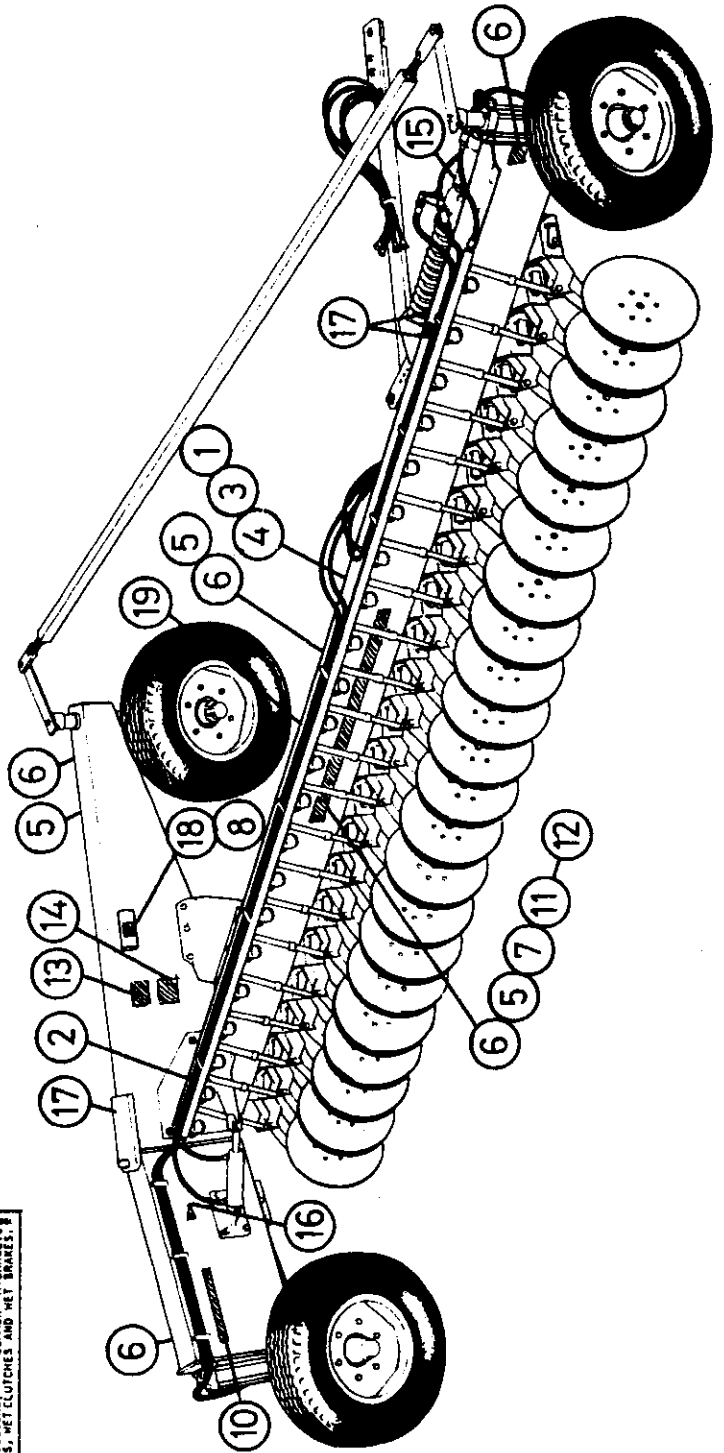
IT WILL SAVE YOU FUEL, TIME, DAMAGE, DISC WEAR

**SETTING UP**  
WITH PLUGH EXHAUSTION AND ON LINE COMING:  
1. LEVEL PLUGH FRAME SO THAT ALL DISCS  
TOUCH GROUND TOGETHER.  
2. SET DISCS TO PROPER DEPTH. LEAN LEFT OR RIGHT  
AS THE DISCS ARE ADJUSTED.  
3. CHECK DISC SPACING.  
4. CHECK DISC TOOTH.  
5. CHECK DISC TOOTH.  
6. CHECK DISC TOOTH.  
7. CHECK DISC TOOTH.  
8. CHECK DISC TOOTH.  
9. CHECK DISC TOOTH.  
10. CHECK DISC TOOTH.  
11. CHECK DISC TOOTH.  
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17. CHECK DISC TOOTH.  
18. CHECK DISC TOOTH.  
19. CHECK DISC TOOTH.



**sling here**

**TRANSFERS**





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**TRANSFERS**

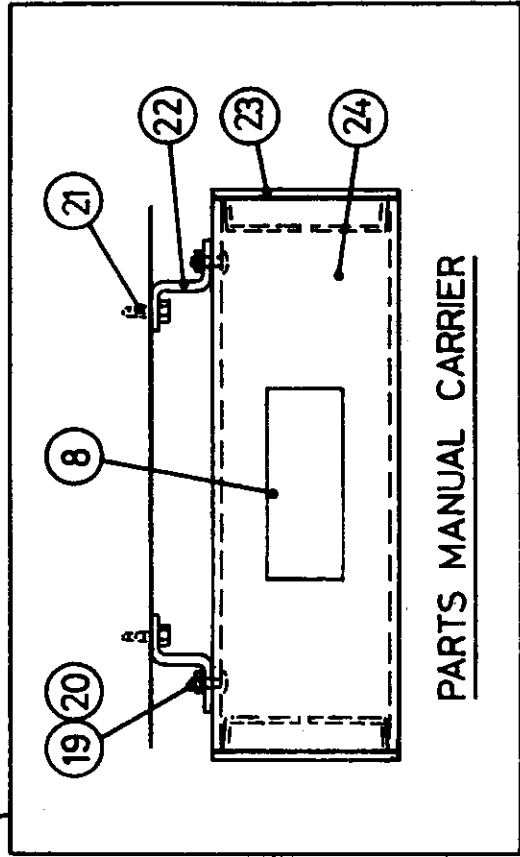
**ITEM PART N<sup>o</sup> DESCRIPTION**

1	15982J2	TRANSFER	warning
2	15968J1	PLATE	model & serial No.
	16161J1	SCREW	drive 5/16" x 4U
3	18949	TRANSFER	maximum towing speed
4	19618	TRANSFER	hydraulic fluid
5	15875J2	TRANSFER	John Shearer Limited (large)
6	15874J3	TRANSFER	John Shearer Limited trade mark
7	15965J1	TRANSFER	'5GP'
8	20809	TRANSFER	parts & instruction manual
9	15870J3	TRANSFER	patents
10	15873J3	TRANSFER	John Shearer Limited name and trade mark
11	22600	TRANSFER	Hydraulic Disc Plough
12	22601	TRANSFER	Deep Digger Hydraulic Disc Plough
13	15980J1	TRANSFER	plough wide
14	15981J1	TRANSFER	setting up instructions
15	15540J2	TRANSFER	accumulator
16	15966J1	TRANSFER	export award
17	15854J1	TRANSFER	sling here

**ITEM PART N<sup>o</sup> DESCRIPTION**

18	21531	KIT	carrier parts manual includes item 8 & items 19-25
19	GB4	BOLT-NUT	gutter 1/4" dia. x 1/2"
20	FBW2	WASHER	flat $\phi$ 1/4"
21	18658	SCREW	1/4" x 20 x 3/4" self tapping
22	20810	SUPPORT	tube carrier parts manual
23	20813	PLUG	tube carrier parts manual
24	20814	TUBE	carrier parts manual

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**PARTS MANUAL CARRIER**

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