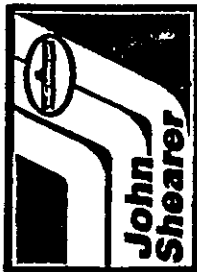


**JOHN
SHEARER**

**5 GP VEERBELADING SKOTTEPLOEG
5 GP SPRING ACTION DISC PLOUGH**

**INSTRUKSIE EN ONDERDELE HANDLEIDING
INSTRUCTION AND PARTS MANUAL**

**EFFEKTIEF MEI '95
EFFECTIVE MAY '95**



JOHN SHEARER

(S.A.) (PTY) LTD.

HEAD OFFICE & FACTORY
SAXENBURG ROAD/WEG, BLACKHEATH
P.O. BOX/POSBUS 281, KUILSRIVIER 7580
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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

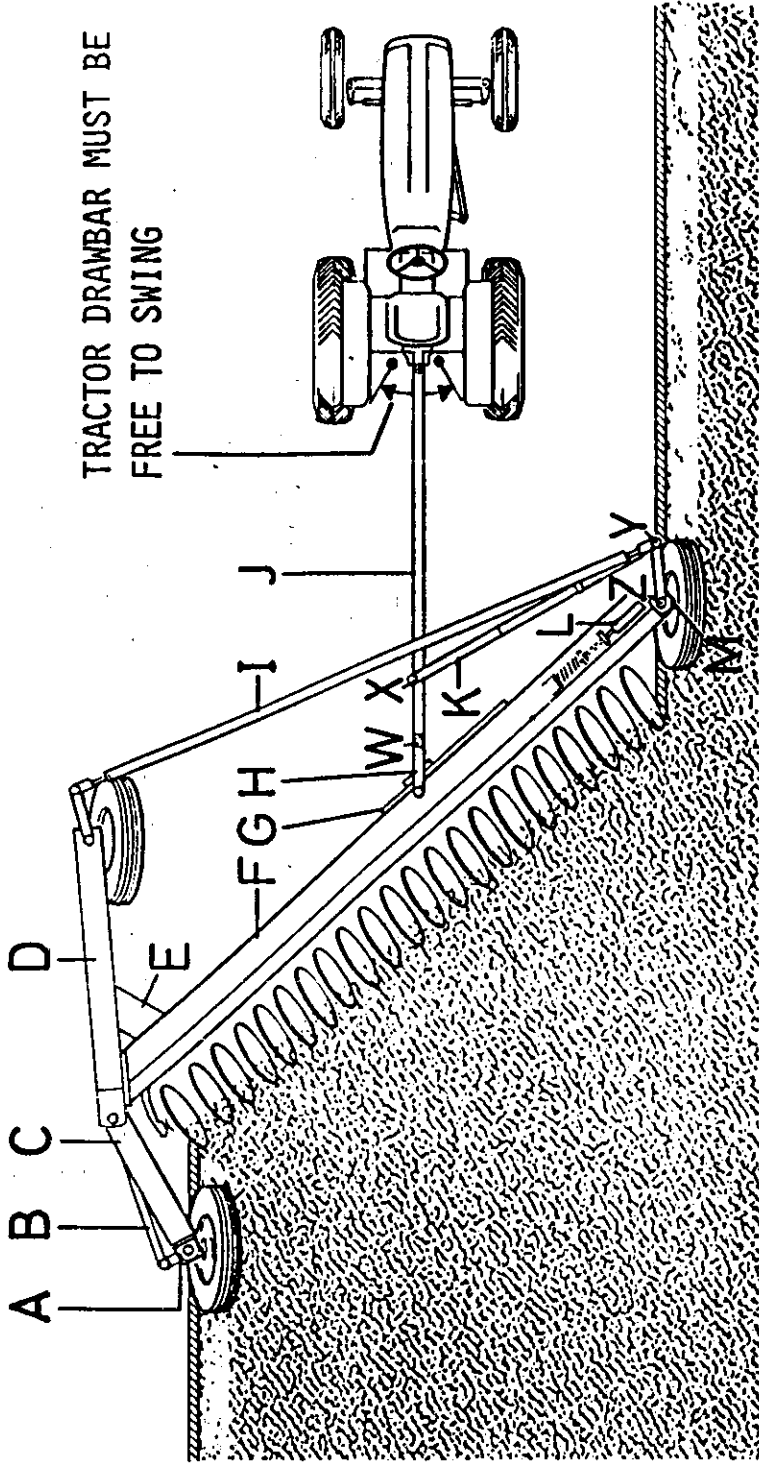
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5	Main beam
6-9	Hitch, steering bars, hose carriers, L/H standard
10-11	Land beam & tail beam
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14-15	Tail wheel
16-17	Hub, wheel and tyres
18-19	Jumpers, bearing, and discs
20-21	Spring loading jumper
22-23	Hydraulic layout & setting up for ploughing

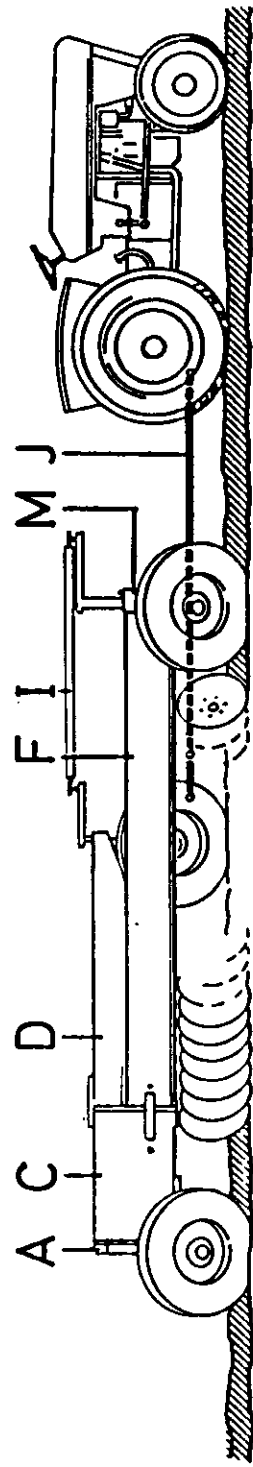
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SER. NO. <input type="text"/>	MODEL NO. <input type="text"/>

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

- A - LIFT CYLINDER
- B - ROD, STEERING
- C - BEAM, TAIL
- D - BEAM, LAND
- E - BEAM, CROSS
- F - BEAM, MAIN
- G - DRAWBAR
- H - LINK, DRAWBAR

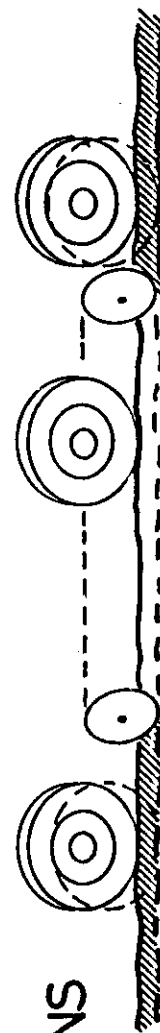


- I - TRACKBAR
- J - POLE, HITCH
- K - STEERING BAR
- L - ACCUMULATOR, JUMPER
- M - STANDARD, FRONT HYDRAULIC



NORMAL PLOUGHING

SETTING UP INSTRUCTIONS
SEE PAGES 3 AND 4



JUMPING OUT AT BOTH
FURROW WHEELS

Setting up for ploughing

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

- Connect drawbar link (item H) near the middle hole of the adjustment range provided.
- Locate rod, steering (item B) in hole shown (refer fig. 1).
- Adjust steering bar (item K) such that dimension W - Z is equal X - Y.
- Adjust the length of trackbar (item I) so that the land wheel is running parallel to the front furrow wheel.
- 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 table 1.
- Proceed ploughing, the rear furrow wheel should run approximately 50mm from the wall of the furrow. If not, readjust steering rod (item B) as required.

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 follow :

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.

- If the plough wants 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 increase the draught load for a given width of cut. This adjustment should be only made when essential, and then only in small steps to ensure that the plough is ultimately operated at the "widest" width of cut so that it can maintain in the given conditions.

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.
- As wide a width of cut as possible in the condition (this is to maximize area ploughed, minimize power consumed and the risk of damage to discs).

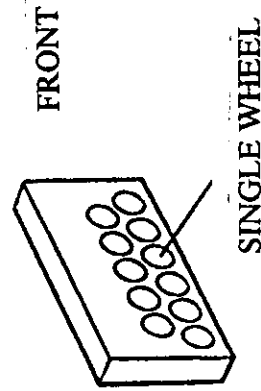
Transport

The 5 GP is designed to allow for narrow transport. Form 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 steering cylinder to "open out the plough" while making such turns.

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.

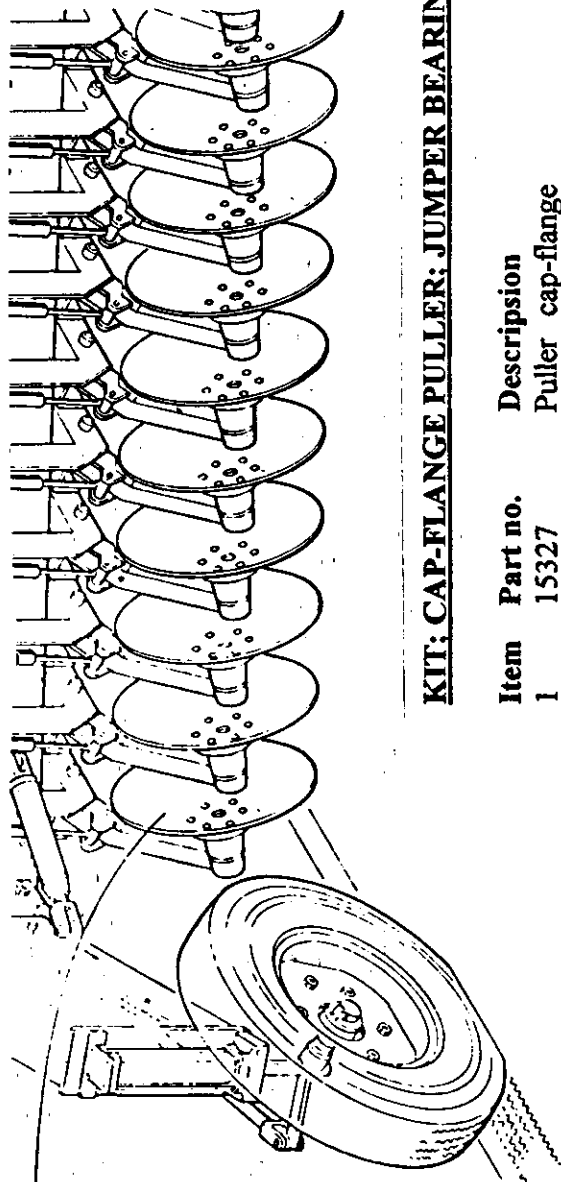
Fig. 1



Disc	Cut width in.m.
14	2.8
18	3.6
22	4.4
26	5.2
30	6.0

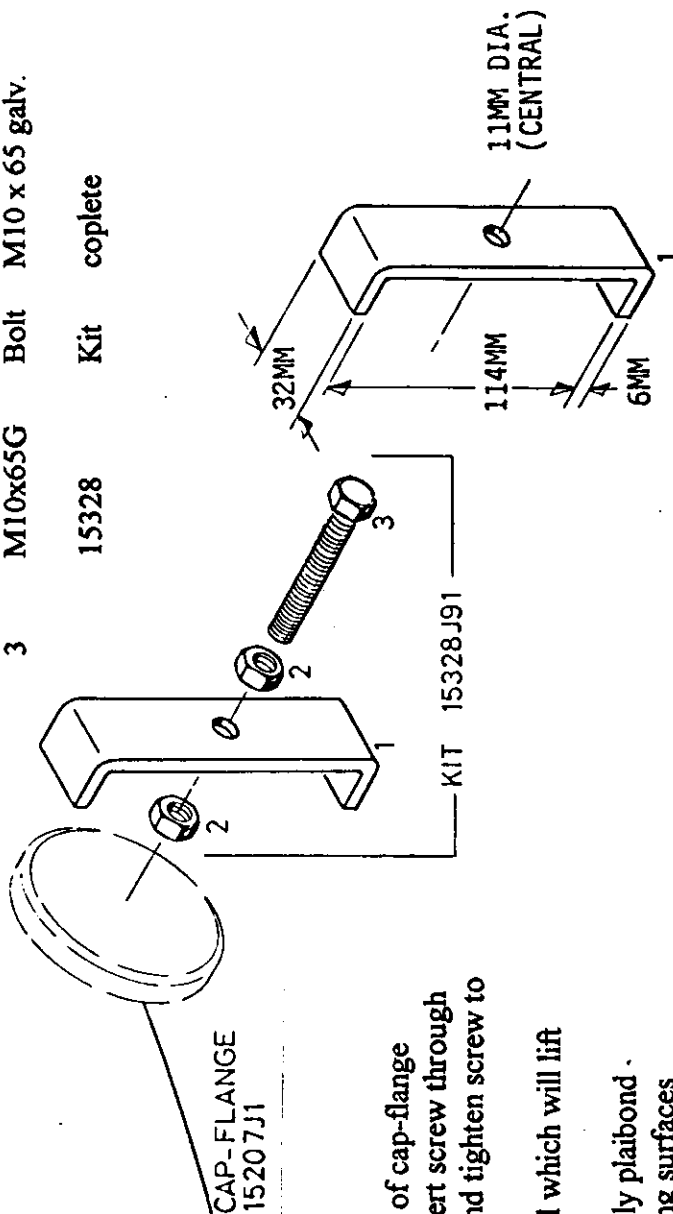
Table 1

NOTE: See hydraulic layout for more setting up instructions



KIT: CAP-FLANGE PULLER; JUMPER BEARINGS

Item	Part no.	Description	Kit
1	15327	Puller cap-flange	15328
2	M10GN	Nut M10 galv.	
3	M10x65G	Bolt M10 x 65 galv.	
			complete

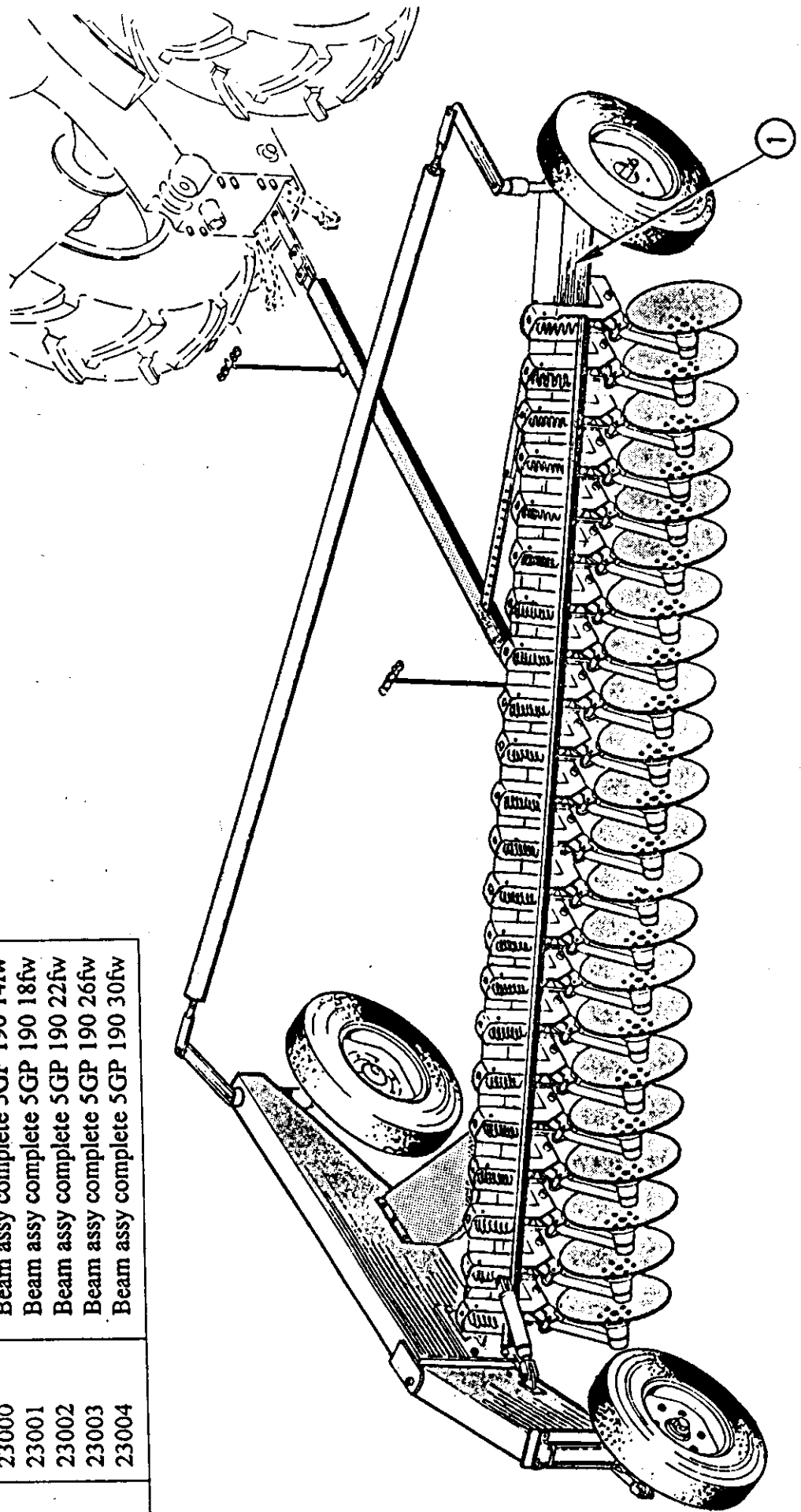


INSTRUCTIONS:

- 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 plaibond (or equivalent) to mating surfaces

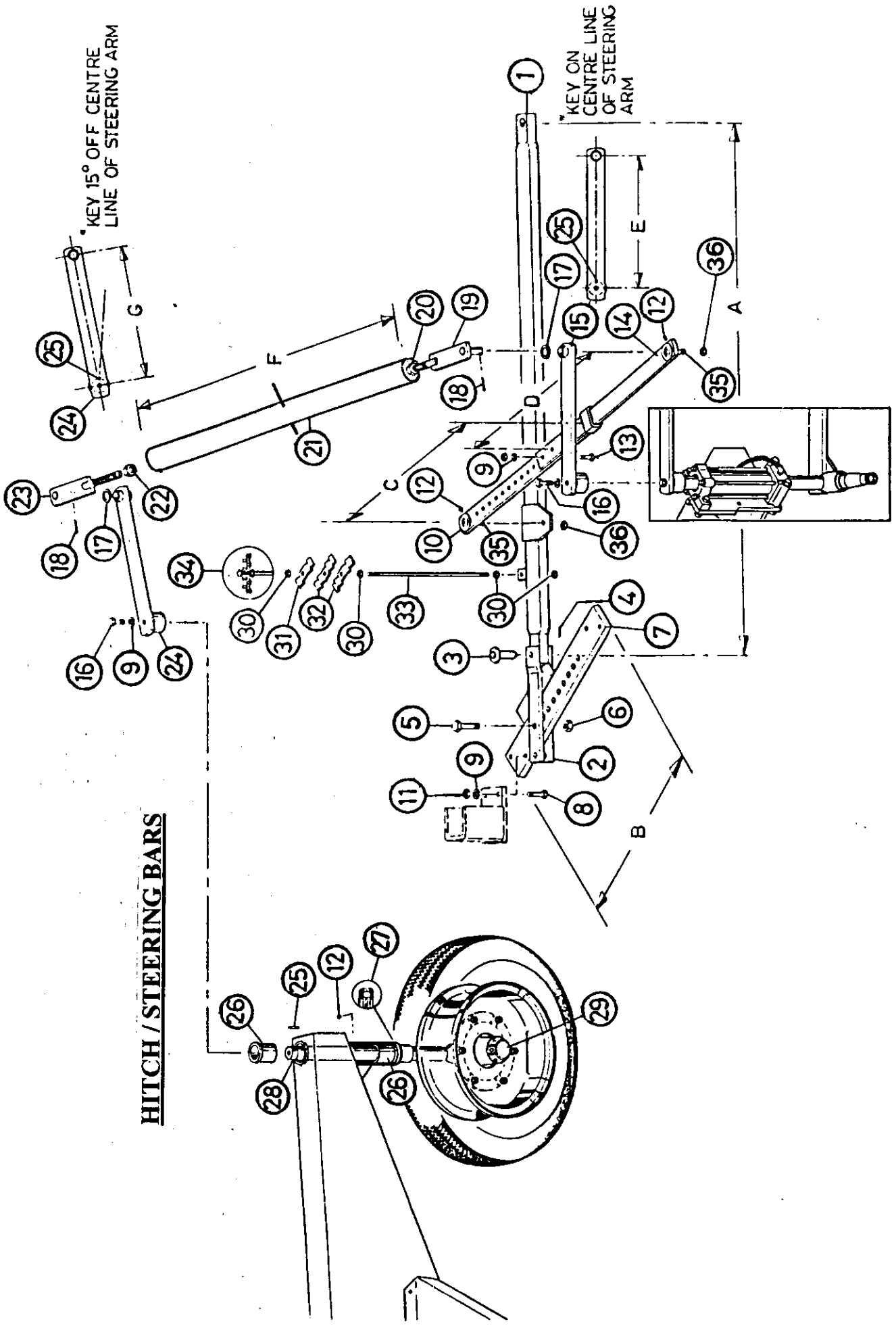
MAIN BEAM

Item	Part no.	Description
1	23000	Beam assy complete 5GP 190 14fw
	23001	Beam assy complete 5GP 190 18fw
	23002	Beam assy complete 5GP 190 22fw
	23003	Beam assy complete 5GP 190 26fw
	23004	Beam assy complete 5GP 190 30fw



HITCH / STEERING BARS

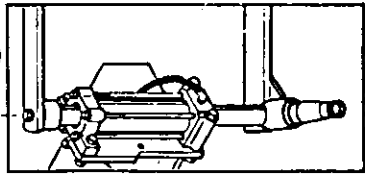
Item	Part no.	Description	Item	Part no.	Description
1	15260	Pole assy hitch A = 2289 14fw	12	1/8BSPSTR	Nipple grease
	15261	Pole assy hitch A = 2746 18fw			
	15263	Pole assy hitch A = 3254 22fw	13	M20x60G	Bolt M20 x 60 galv.
	15264	Pole assy hitch A = 3737 26fw			
	17081	Pole assy hitch A = 4245 30fw	14	15287	Steering bar assy D = 953 14fw
2	23202	Link assy drawbar		15288	Steering bar assy D = 1207 18fw
3	20308	Pin assy pole hitch		15290	Steering bar assy D = 1511 22fw
4	M5x40SP	Pin split M5 x 40		23236	Steering bar assy H = 1565 26 / 30fw
5	M24x100G	Bolt M24 x 100 galv.	15	17339	Arm assy steering R/H E = 565
6	M24NY	Nut M24 nyloc	16	M20x65G	Bolt M20 x 65 galv.
7	23198	Drawbar B = 902 14fw	17	15176	Washer thrust
	23199	Drawbar B = 1159 18fw			
	23200	Drawbar B = 1677 22 / 26fw	18	M5x40SP	Pin M5 x 40 split
	23201	Drawbar B = 1934 30fw	19	17331	Adj assy M36 R/H thread
8	M20x75G	Bolt M20 x 75 galv.			
9	M20GSW	Washer M20 spring galv.			
10	50035	Steering bar assy C = 1016 14fw			
	50036	Steering bar assy C = 1257 18fw			
	50037	Steering bar assy C = 1562 22fw			
	23230	Steering bar assy J = 1990 26fw			
	23231	Steering bar assy J = 2500 30fw			
11	M20GN	Nut M20 galv.			



KEY 15° OFF CENTRE LINE OF STEERING ARM

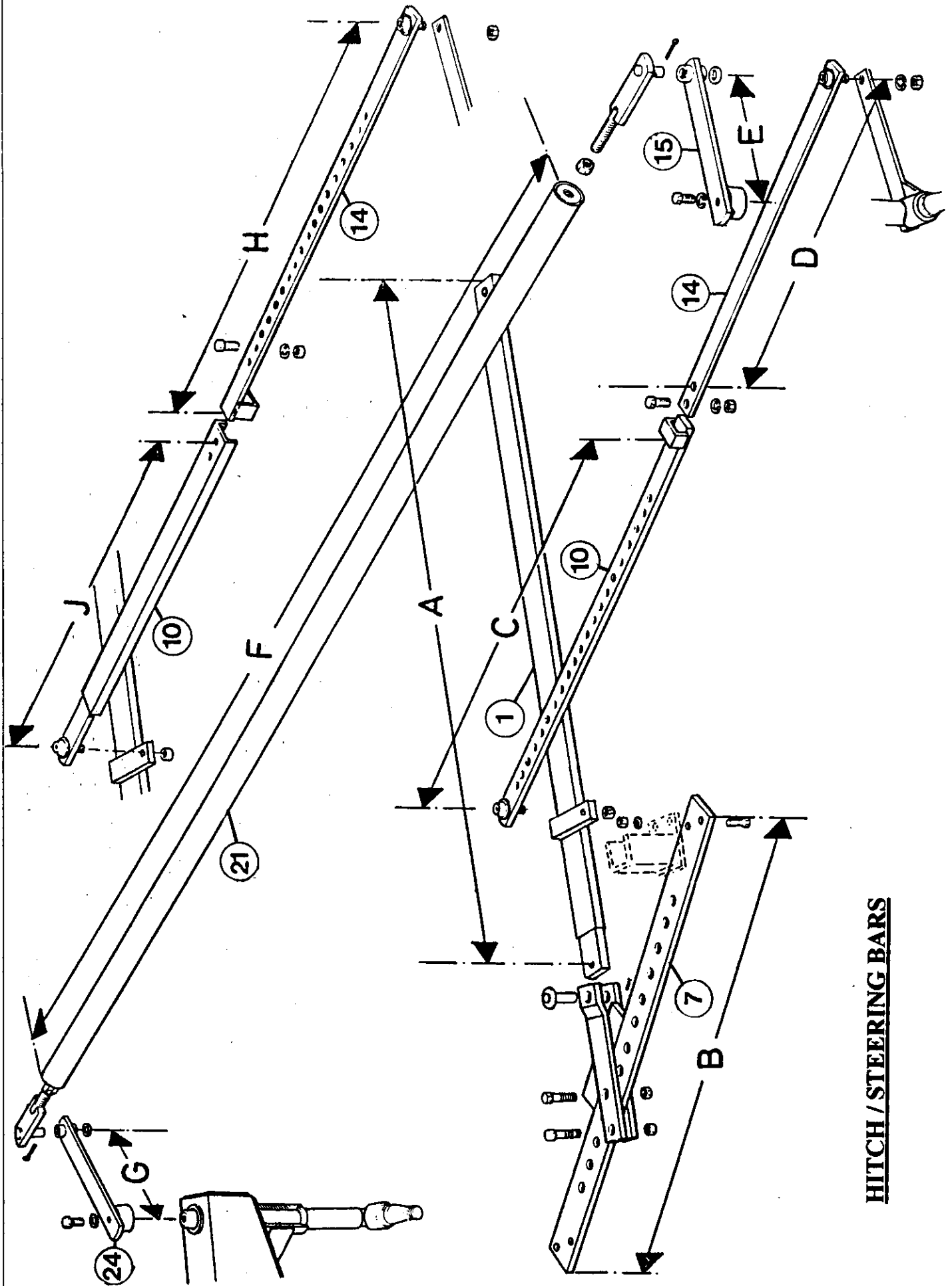
KEY ON CENTRE LINE OF STEERING ARM

HITCH / STEERING BARS



HITCH / STEERING BARS

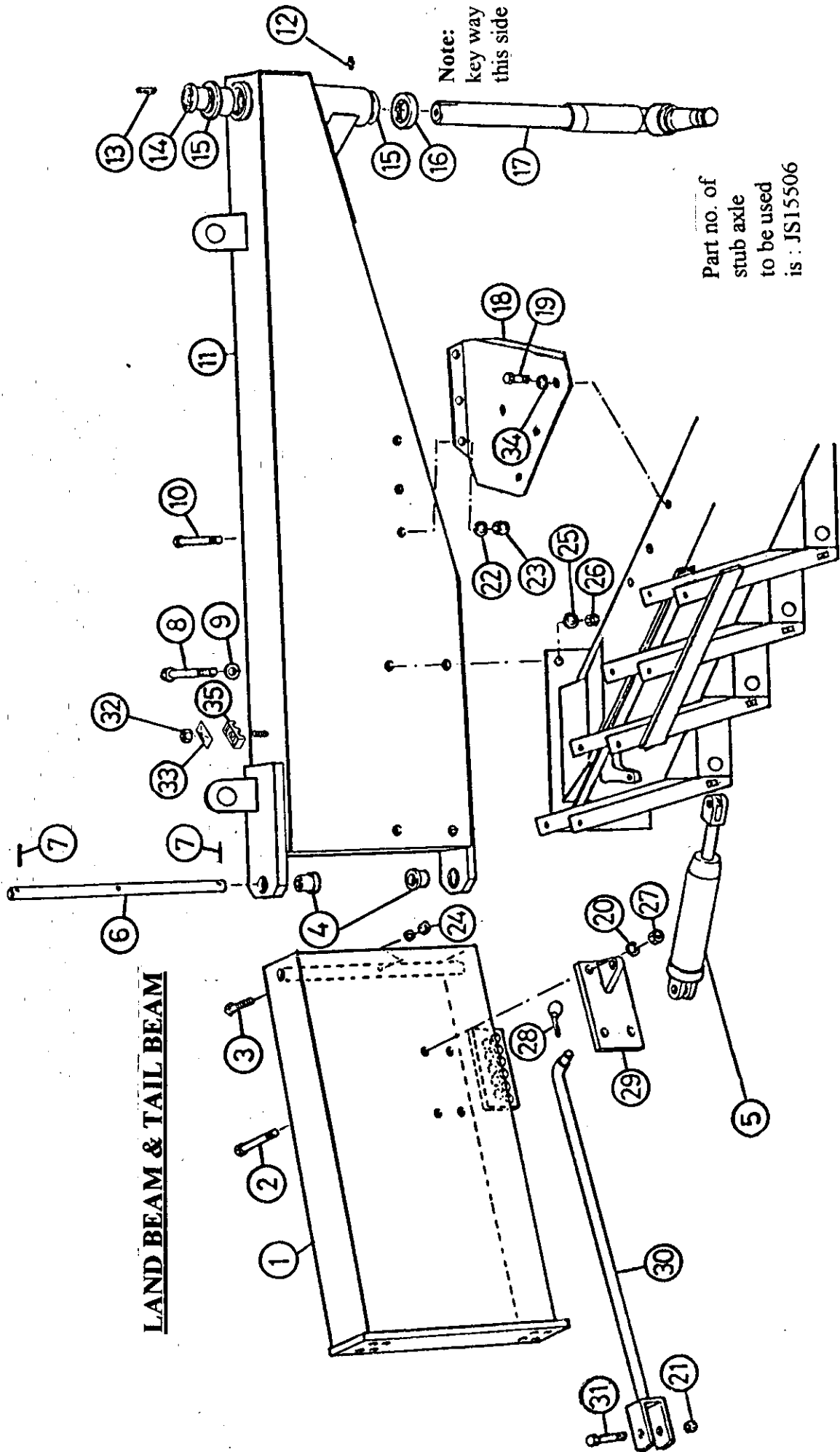
Item	Part no.	Description	Item	Part no.	Description
20	17267	Nut M36 R/H thread	34	17319	Hose carrier assy (Include items 30 - 33)
21	17148	Tube assy F = 3022 14fw	35	15302	Pen
	17149	Tube assy F = 3917 18fw			
	17151	Tube assy F = 4851 22fw	36	M20NY	Nut M20 nyloc
	17152	Tube assy F = 5842 26fw			
	17153	Tube assy F = 6819 30fw			
22	17266	Nut M36 L/H thread			
23	17330	Adj assy M36 L/H thread			
24	17336	Arm steering L/H G = 565 14fw		17343	Track bar assy (Include items 17 - 23)
	17337	Arm steering L/H G = 508 18fw		17344	Track bar assy (Include items 17 - 23)
	17338	Arm steering L/H G = 470 22 / 26 / 30fw		17346	Track bar assy (Include items 17 - 23)
25	15377	Key 12 x 10 x 55		17347	Track bar assy (Include items 17 - 23)
26	15372	Bearing		17348	Track bar assy (Include items 17 - 23)
27	12939	Bearing			
28	15375	Standard assy L/H			
29	15374	Standard / Hub assy L/H			
30	M16GN	Nut M16 galv.			
31	17322	Plate short			
32	17321	Plate long			
33	17320	Rod			



HITCH / STEERING BARS

LAND BEAM & TAIL BEAM

Item	Part no.	Description	Item	Part no.	Description
1	23110	Beam assy tail	33	54927	Hydraulic clamp cover
2	M16x250G	Bolt M16 x 250 galv.	34	M12GSW	Washer M12 spring galv.
3	M10x65G	Bolt M16 x 65 galv.	35	54928	Hydraulic clamp
4	15368	Bush hinge			
5	20739	Ram main beam to tail beam			
6	15504	Shaft pivot tail			
7	M10x60GP	Pin groove M10 x 60			
8	M24x225G	Bolt M24 x 225 galv.			
9	M24GFW	Washer M24 galv.			
10	M12x180G	Bolt M12 x 180 galv.			
11	23080	Beam assy land			
12	1/8BSPSTR	Nipple grease			
13	15377	Key 12 x 10 x 55			
14	15427	Collar thrust standard			
15	15372	Bearing flange			
16	12939	Bearing thrust			
17	15375	Standard			
18	15505	Cross beam			
19	M12x35G	Bolt M12 x 35 galv.			
20	M16GSW	Washer M16 spring galv.			
21	M16NY	Nut M16 nyloc			
22	M12GSW	Washer M12 spring galv.			
23	M12GN	Nut M12 galv.			
24	M10NY	Nut M10 nyloc			
25	M24GSW	Washer M24 spring galv.			
26	M24GN	Nut M24 galv.			
27	M16GN	Nut M16 galv.			
28	S40LP	Pin lynch			
29	15191	Lug assy ram tail			
30	15448	Rod assy steering			
31	M16x100G	Bolt M16 x 100 galv.			
32	M8NY	Nut M8 nyloc			



Part no. of
stub axle
to be used
is : JS15506

LAND BEAM & TAIL BEAM

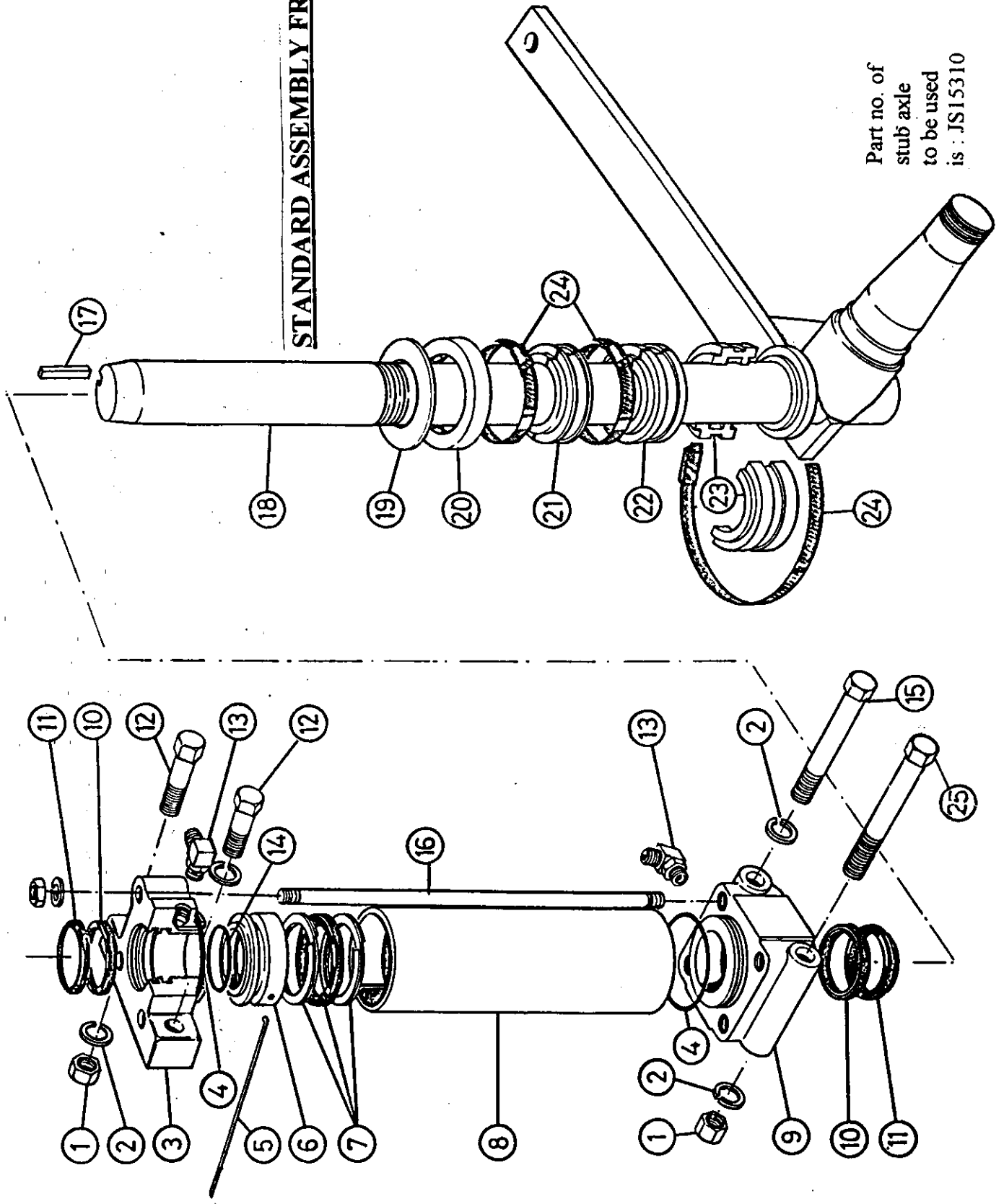
Note:
key way
this side

STANDARD ASSEMBLY FRONT R/H

Item	Part no.	Description	Item	Part no.	Description
1	M20GN	Nut M20 galv.	17	15377	Key 12 x 10 x 55
2	M20GSW	Washer M20 spring galv.	18	21593	Standard assy
3	22246	Cap top R/H standard	19	21594	Ring cover
4	15441	'O' ring	20	12939	Bearing thrust
5	15315	Wire retaining thrust	21	23124	Collar adjusting 16 mm
6	17099	Piston front standard	22	23123	Collar adjusting 25 mm
7	16495	'J' seal	23	23122	Collar adjusting 38 mm
8	17098	Barrel front standard	24	23121	Clamp
9	22247	Cap bottom front standard	25	M20x180G	Bolt M20 x 180 galv.
10	15436	Seal			
11	16489	Wiper			
12	M20x75G	Bolt M20 x 75 galv.			
13	8C50XS	Elbow			
14	16496	'O' ring			
5	3/4x6UNC	Bolt M20 x 150			
16	17100	Rod tie			
	M16GN	Nut M16 galv.			
	M16GSW	Washer M16 spring galv.			

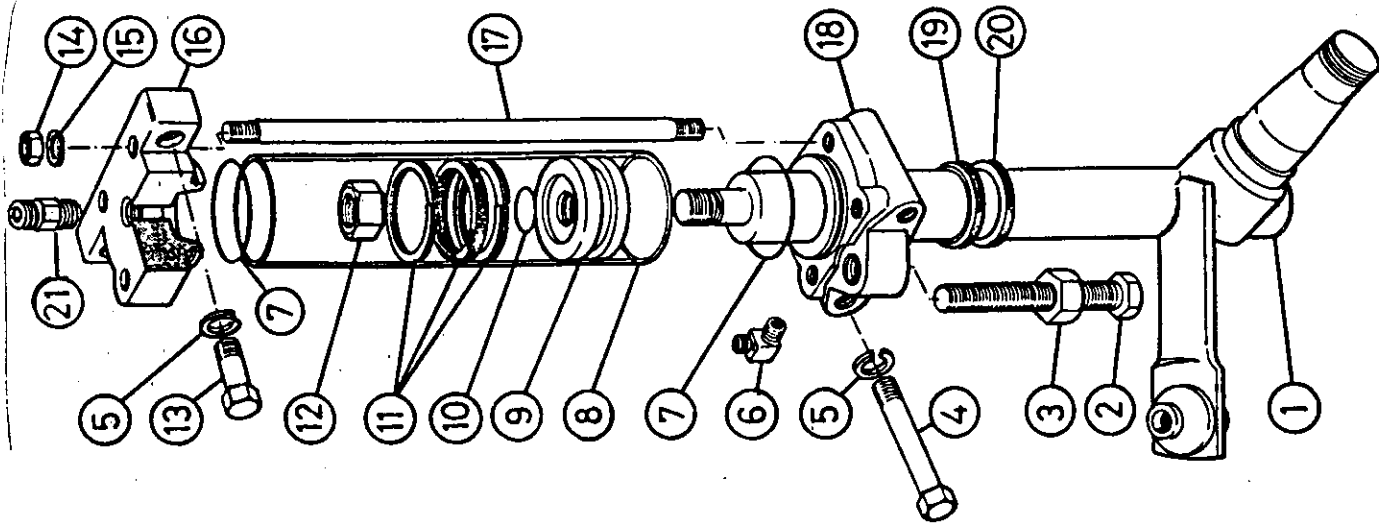
STANDARD ASSEMBLY FRONT R/H

Part no. of
stub axle
to be used
is : JS15310



TAIL WHEEL

Item	Part no.	Description	Item	Part no.	Description
1	15432	Standard assy rear	18	22249	Cap bottom rear
2	17470	Set screw M30	19	15436	Seal
3	17261	Nut M30	20	16489	Wiper
4	M20x150G	Bolt M20 x 150	21	8F50XS	Straight hydraulic connection
5	M20GSW	Washer M20 spring			
6	8C50XS	Elbow			
7	15441	'O' ring			
8	15438	Barrel hyd. cylinder			
9	15439	Piston hyd. cylinder			
10	15445	'O' ring			
11	16495	'J' seal			
12	15444	Nut nyloc 1,25" UNF			
13	M20x75G	Bolt M20 x75 galv.			
14	M16GN	Nut M16 galv.			
15	M16GSW	Washer M16 spring washer galv.			
16	22248	Cap			
17	15446	Rod tie rear			



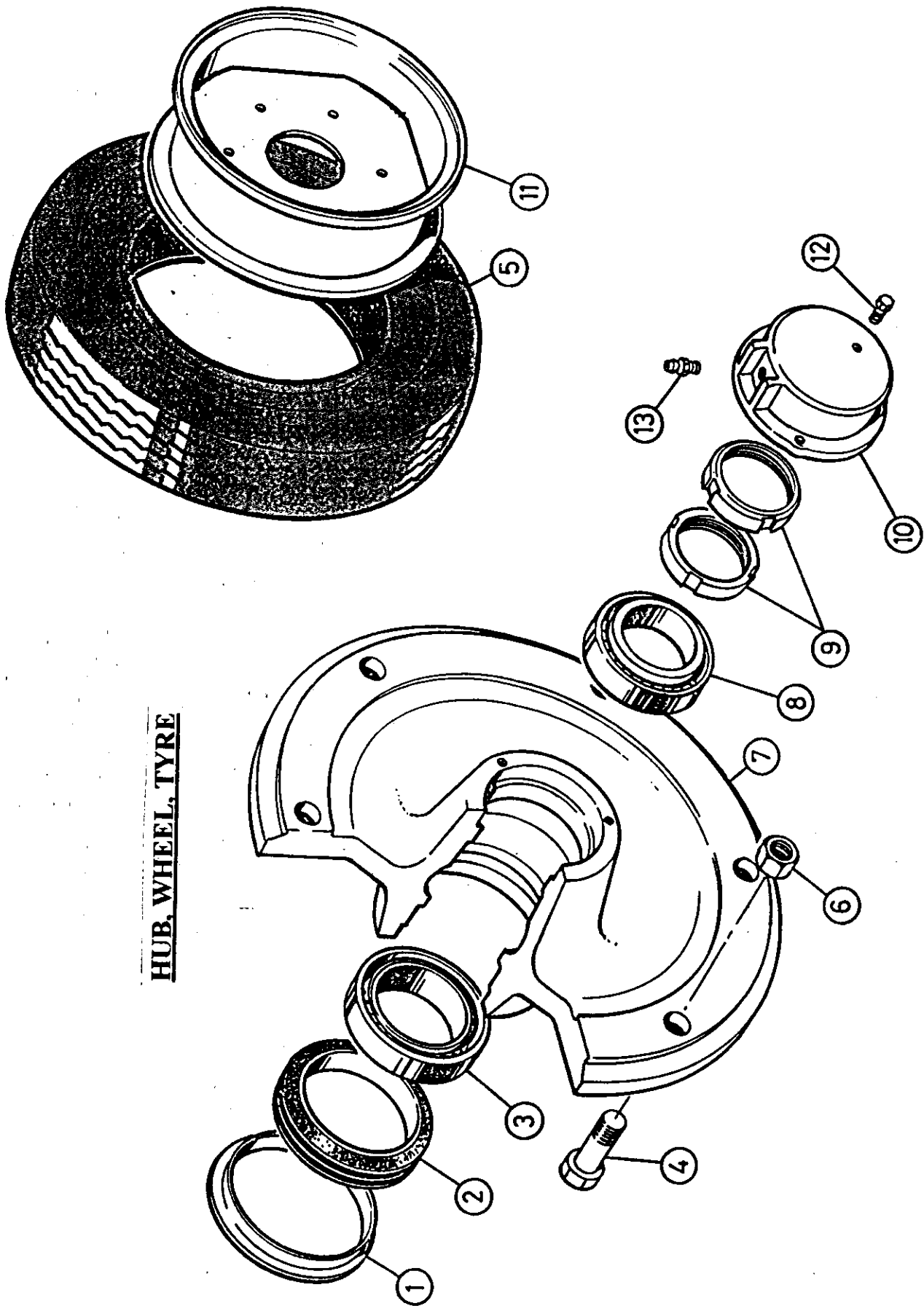
TAIL WHEEL

Part no. of
stub axle
to be used
is : JS15310

HUB, WHEEL, TYRE

Item	Part no.	Description
1	TC462	Wear - ring
2	TC461	Seal triple lipped
3	15306	Bearing cup & cone
4	M16x50G	Bolt M16 x 50 galv.
5	11280	Tyre 8.25 x 20 x 10 ply
6	M16NY	Nut M16 nyloc
7	15307	Hub wheel
8	15203	Bearing cup & cone
9	15205	Nut spindle
10	15305	Cap hub
11	15318	Rim assy 20"
12	M8x20GSS	Set screw M8 x 20 galv.
13	1/8BSPSTR	Nipple straight

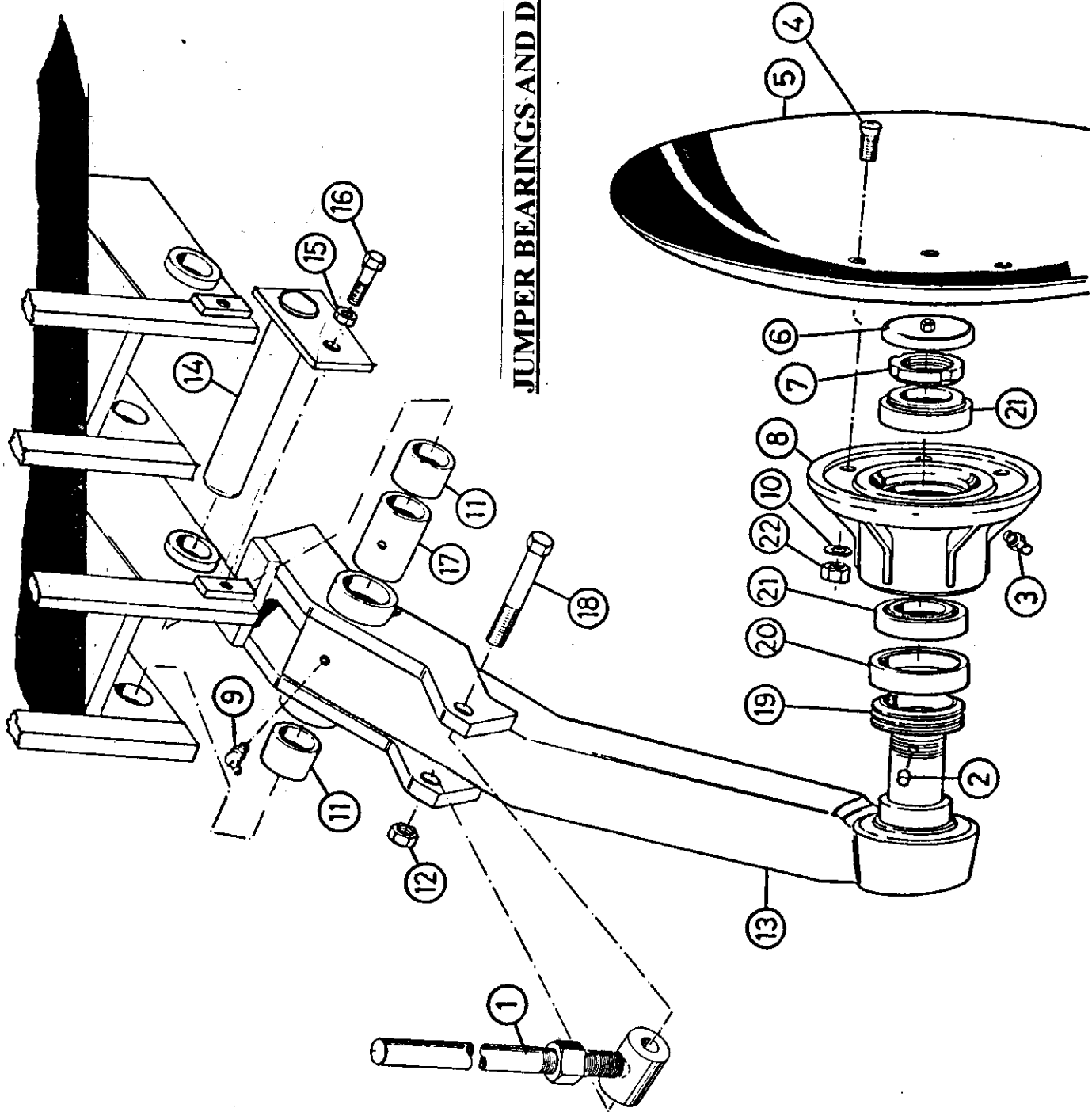
HUB, WHEEL, TYRE



JUMPER BEARINGS AND DISCS

Item	Part no.	Description	Item	Part no.	Description
1	15254	Rod assy spring	18	M20x100G	Bolt M20 x 100 galv.
2	15206	Insert	19	12395	Seal tripple lipped
3	1/8BSPSTR	Nipple grease	20	12396	Ring
4	15209	Bolt	21	15203	Bearing cup & cone
5	15208	Disc 26"	22	15210	Nut hex 1/2" UNC zinc plated
6	15207	Cap flange			
7	15205	Nut spindle 50mm			
8	15204	Flange disc			
9	1/8BSP45	Nipple			
10	SPW4	Washer spring 1/2"			
11	20269	Bush jumper arm			
2	M20NY	Nut M20 nyloc.			
3	23447	Jumper assy			
14	17075	Shaft assy jumper arm			
15	M12NY	Nut M12 nyloc			
16	M12x65G	Bolt M12 x 65 galv.			
17	20270	Spacer arm jumper			

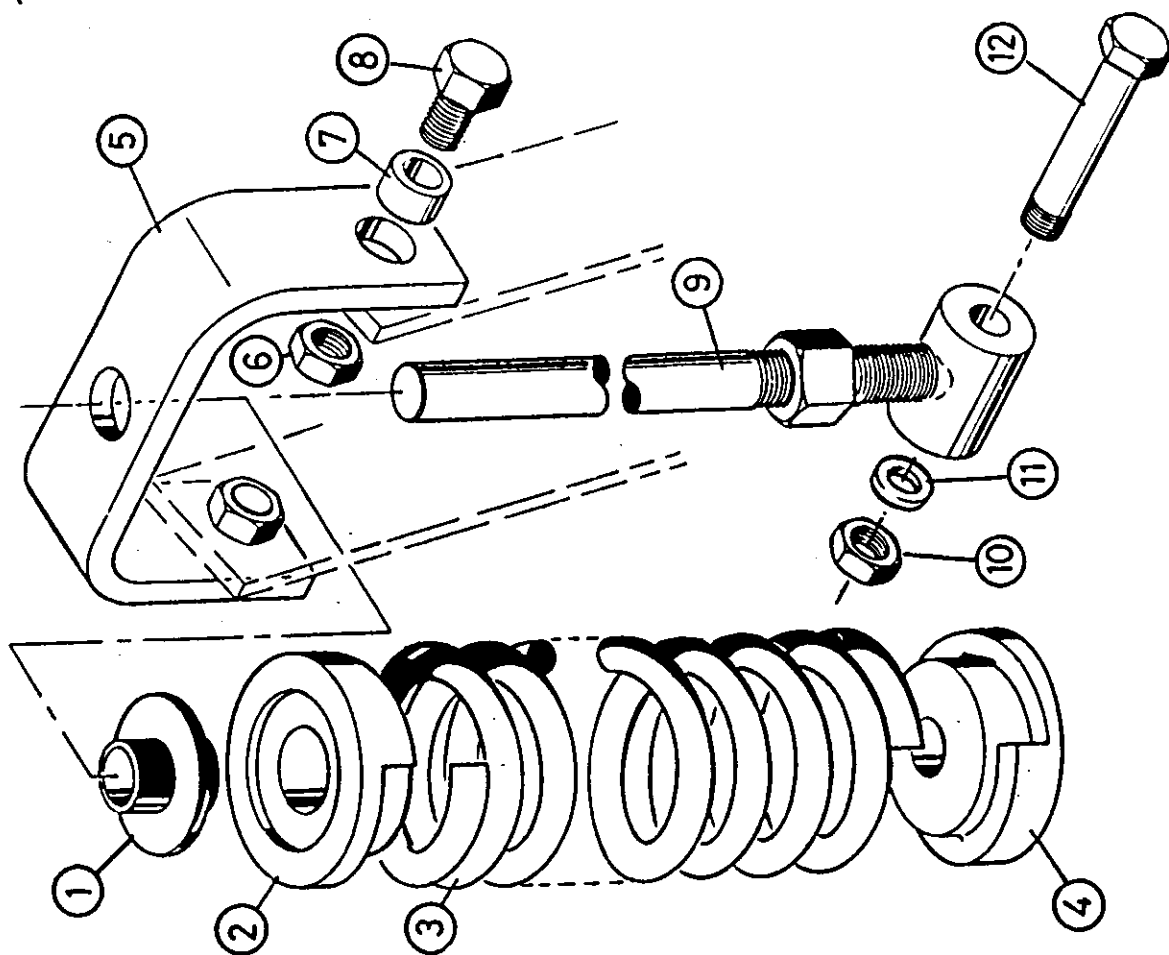
JUMPER BEARINGS AND DISCS



SPRING LOADING JUMPER

Item	Part no.	Description
1	SR518	Bush nylon
2	15259	Seat top spring
3	15257	Spring jumper 16mm dia.
4	15258	Seat bottom spring
5	SD1784A	Yoke spring
6	16369	Nut lock 3/4"BSW 8mm thick
7	SD1792	Ferrule yoke
8	3/4x11/2UNC	Bolt 3/4" x 1 1/2" UNC
9	15254	Rod assy spring
10	M20NY	Nut M20 nyloc
11	M20x110G	Bolt M20x110 galv.
12	M20GFW	Washer M20 galv.

SPRING LOADING JUMPER



HYDRAULIC LAYOUT

Item	Part no	Description	Item	Part no	Description
1	20739	Cylinder		54934	4,6m x 3/8" Hydraulic hose and fittings
2	2107-8-6	Male female adaptor		54913	5,2m x 3/8" Hydraulic hose and fittings
3	06U-106	Crimp on fitting		54935	5,8m x 3/8" Hydraulic hose and fittings
4	06U-108	Crimp on fitting		54912	6,3m x 3/8" Hydraulic hose and fittings
5	8010-4	Nose piece		54936	6,5m x 3/8" Hydraulic hose and fittings
6	52094M	Dust plug		54728	6,7m x 3/8" Hydraulic hose and fittings
7	06U-608	Crimp on fitting		54727	6,9m x 3/8" Hydraulic hose and fittings
8	N600S	Float controle valve		54937	8,5m x 3/8" Hydraulic hose and fittings
9	8C50XS	Elbow		54938	8,8m x 3/8" Hydraulic hose and fittings
10	23152	Tail wheel		54939	9,1m x 3/8" Hydraulic hose and fittings
11	17091	Standard ass R/H front		54940	9,3m x 3/8" Hydraulic hose and fittings
12	8F50XS	Straight hydraulic connection		54737	9,4m x 3/8" Hydraulic hose and fittings
13	3/8MROS	Male T-piece		54941	9,7m x 3/8" Hydraulic hose and fittings
14	3/8MMOS	Female T-piece		54888	10m x 3/8" Hydraulic hose and fittings
15	3/8FFS	Barrel nipple		54942	10,4m x 3/8" Hydraulic hose and fittings
16	1/2x3/8FFS	Barrel nipple		54943	10,5m x 3/8" Hydraulic hose and fittings
Implement				54944	10,6m x 3/8" Hydraulic hose and fittings
17		14	18	22	26
18		4	4,6	5,2	5,8
19		1,9	2,7	3,5	4,3
20		1,7	2,3	2,9	3,5
21		8,5	9,1	9,7	10,5
22		8,8	9,4	10	10,6
23		9,3	10,4	11,5	12,6
		6,3	6,5	6,7	6,9
54918		1,7m x 3/8" Hydraulic hose and fittings			
54881		1,9m x 3/8" Hydraulic hose and fittings			
54929		2,3m x 3/8" Hydraulic hose and fittings			
54917		2,7m x 3/8" Hydraulic hose and fittings			
54930		2,9m x 3/8" Hydraulic hose and fittings			
54931		3,5m x 3/8" Hydraulic hose and fittings			
54932		4m x 3/8" Hydraulic hose and fittings			
54933		4,3m x 3/8" Hydraulic hose and fittings			

Hydraulic setting up for ploughing

Hydraulic hose (A) form tractor is for lifting of plough.

Hydraulic hose (B) from tractor is for lowering of plough.

Setting hight of furrow disc

- 1) Place plough on level surface.
- 2) Lower plough so that the disc nearest to R/H standard (item 11) just touch the ground.
- 3) Close control valve (at C) and open controle valve (at D).
- 4) Lower plough so that tail cylinder (item 10) press down on to set screw (at F). This is the depth setting for discs.
- 5) Close control valve (at D) and open control valve (at C).
- 6) Close control valve (at E) only for transport and to disconnect plough. Lift plough , close control valve (at E) switch of tractor.

HYDRAULIC LAYOUT

