

**Parts
Manual
110 Series
MA**

Important Information

Serial Number

It is important to make a note of the serial number and year of manufacture of your machine in the spaces provided below. This information should always be quoted in any correspondence with Dowdeswell Engineering.

When ordering spares for your machine, you should always quote the serial number and year of manufacture either to Dowdeswell's or to your dealer.

Machine Serial Number: _____

Year of manufacture: _____

Warranty

Should defective material or workmanship used in the manufacture give rise to failure, the products, components or sub-assemblies affected, will be replaced free of charge during the period of warranty offered with the machine at the time of purchase. The fitting of non Dowdeswell parts, or repairs, or modifications carried out by unauthorised persons will invalidate the warranty. No work will be carried out without prior consultation with Dowdeswell Engineering Co. Ltd.

Save to the extent covered by the warranty, the company shall not be liable in any circumstances for any loss, injury or expense, whether direct or indirect, which may arise for any reason whatsoever from any defect in or otherwise in connection with any goods supplied or work done by the company.

Replacement Parts

Use only genuine Dowdeswell spares as these replacement parts are designed for your machine to give the best possible performance and also have the full backing of the warranty cover. When ordering spares always quote the machine serial number.

Definitions

Throughout this manual the terms "Front", "Rear", "Left-hand (LH)" and "Right-hand (RH)" will be used and are derived from the tractor drivers normal position facing forward with the plough in its transport position.

The left-hand components are those which move the soil to the left, and the right-hand components are those which move the soil to the right.

Index

This manual covers the 110 Series Shearbolt range of fully mounted reversible plough. This plough is designed to be fitted to a tractor's 3-point linkage and the reversing of the plough is achieved by hydraulic power being provided by the tractor. The plough is solely to be used for the cultivation of soil and **must not** be used for any other purpose.

A wheel is provided on the plough, and is used for both depth control whilst working and used as a transport wheel when travelling between areas or work.

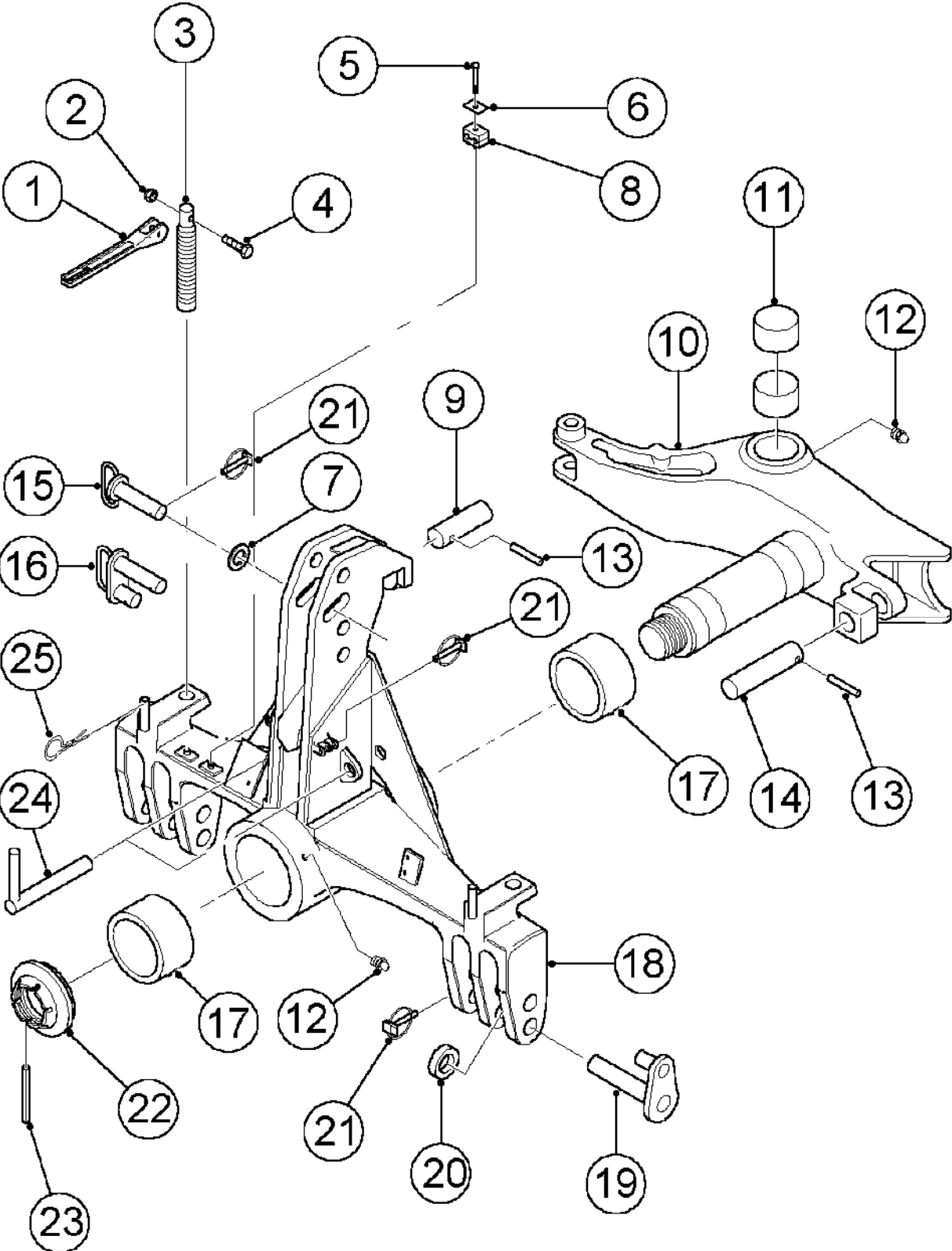
It is essential that the machine is operated in line with the procedures and practices as outlined in the Instruction Manual.

<u>Contents</u>	<u>Page number</u>
Important information	2
Index	3
Headstock assembly	4/5
Parallel link assembly	6/7
Turnover hydraulics assembly	8/9
Offset hydraulics assembly	10/11
Main beam assembly	12/13
Leg bracket assembly	14/15
Wheel bracket assembly	16/17
Wheel arm assembly	18/19
Skim assembly	20/21
Disc assembly	22/23
Leg assembly	24/25
Leg shearbolt	26
Angling Hydraulics Option	28/29

All the information given throughout this manual is correct at the time of publication. However, in the course of constant development of Dowdeswell machines, changes in specification are inevitable. Should you find the information given in this book to be of variance with the machine in your possession, please advise the Dowdeswell Service Department where up to date information can be supplied.

The manual can contain standard and optional features and is not be used as a machine specification.

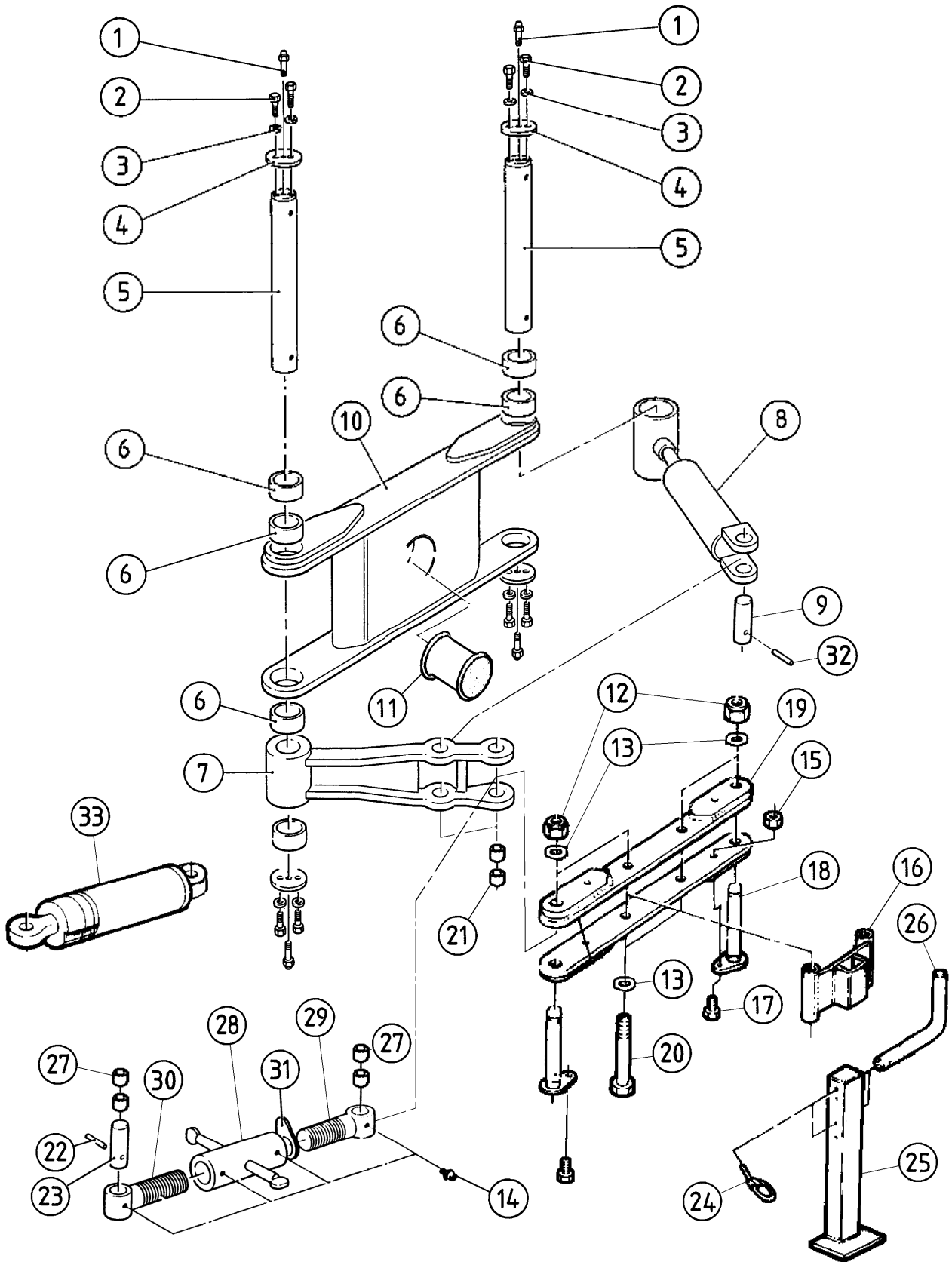
HEADSTOCK ASSEMBLY



HEADSTOCK ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	1156300	Handle	2
2	900115	Self Locking Nut 3/8" UNF	2
3	1320500	Verticality Screw	2
4	900027	Bolt 3/8" UNF x 2 1/2"	2
5	901022	Bolt M8 x 35	1
6	901826	Cover Plate	2
7	900185	Plain Washer 1 1/4"	1
8	901802	Hose Clamp (As Half)	2
9	1515400	Top Ram Pin	1
10	1546900	Turnover Arm	1
11	903153	Plain Metal Bearing (50mm Long)	2
12	900431	Grease Nipple 1/4" UNF	4
13	900542	Spring Pin 10 x 60	2
14	1073000	Bottom Ram Pin	1
15	1362100	Top Link Pin For Slot	1
16	1464600	Top Link Pin	1
17	903367	Plain Bush	2
18	1544300	Headstock	1
19	1362000	Lower Link Pin (Cat 3)	2
19a	1544700	Bottom Link Pin (Cat 2/3)	As req
19b	1544800	Bottom Link Pin Spacer (Cat 2/3)	As req
20	1275100	Spacer Collar	2
21	900527	Lynch Pin	5
22	1547800	Pulling Nut	1
23	900290	Spring Pin (1/2" x 3 1/2")	1
24	161600	Headstock Transport Latch	2

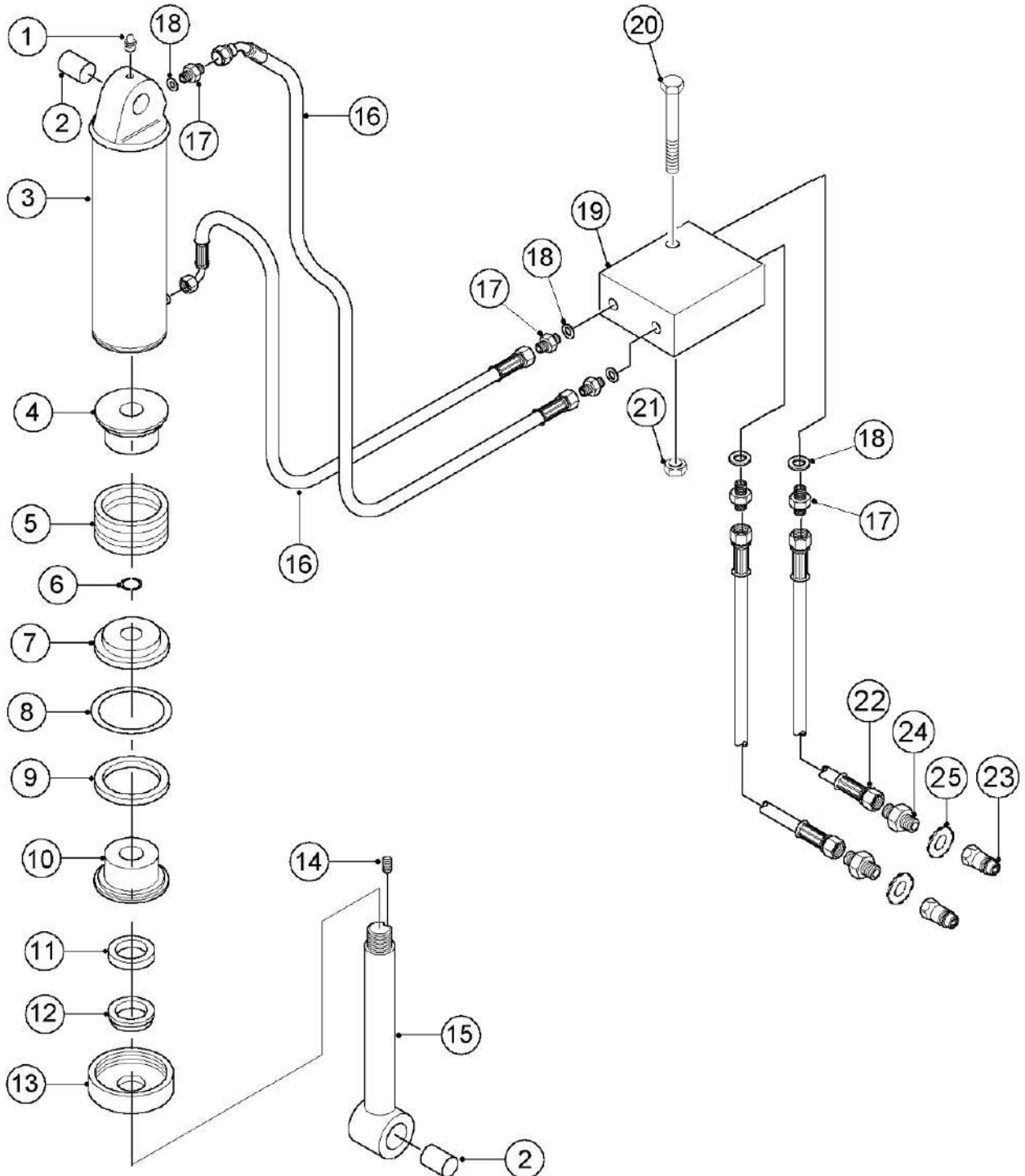
PARALLEL LINK ASSEMBLY



PARALLEL LINK ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	900439	Grease Nipple 1/4" UNF	4
2	901308	Setscrew M12 x 30	8
3	901189	Spring Washer M12	8
4	1547100	Retaining Plate	4
5	1545300	Main Link Pin (Rear)	2
6	903154	Internal Tension Bush (40mm Long)	6
7	1547000	Cross Link	1
8	-	Offset Ram Assembly (See Separate Page)	-
9	297800	Pin – Cross Link	1
10	1544900	Main Link Arm	1
11	1163700	Rubber Bung	1
12	900786	Self Locking Nut M24	4
13	901610	Plain Washer M24	6
14	900431	Grease Nipple 1/4" UNF Straight	8
15	900783	Self Locking Nut M12	2
16	1545100	Stand Bracket	1
17	901068	Bolt M12 x 50	2
18	1545200	Parallel Link Pin	2
19	1545000	Parallel Link Plate	2
20	900161	Bolt M24 x 190	2
21	903156	Internal Tension Bush (19mm)	4
22	900286	Roll Pin 3/8" x 2"	1
23	1581700	38 x 140 Pin	1
24	900521	'R' Type Grip Clip	2
25	1362500	Parking Stand	1
26	1365700	Retaining Peg	2
27	903156	Internal Tension Bush	4
28	1548500	Turn Buckle	1
29	1548698	Screw RH	1
30	1548699	Screw LH	1
31	1125000	Locking Nut	1
32	900559	Roll Pin 8 x 50	1
33	1550900	Alignment Ram Option (See Separate Page)	-

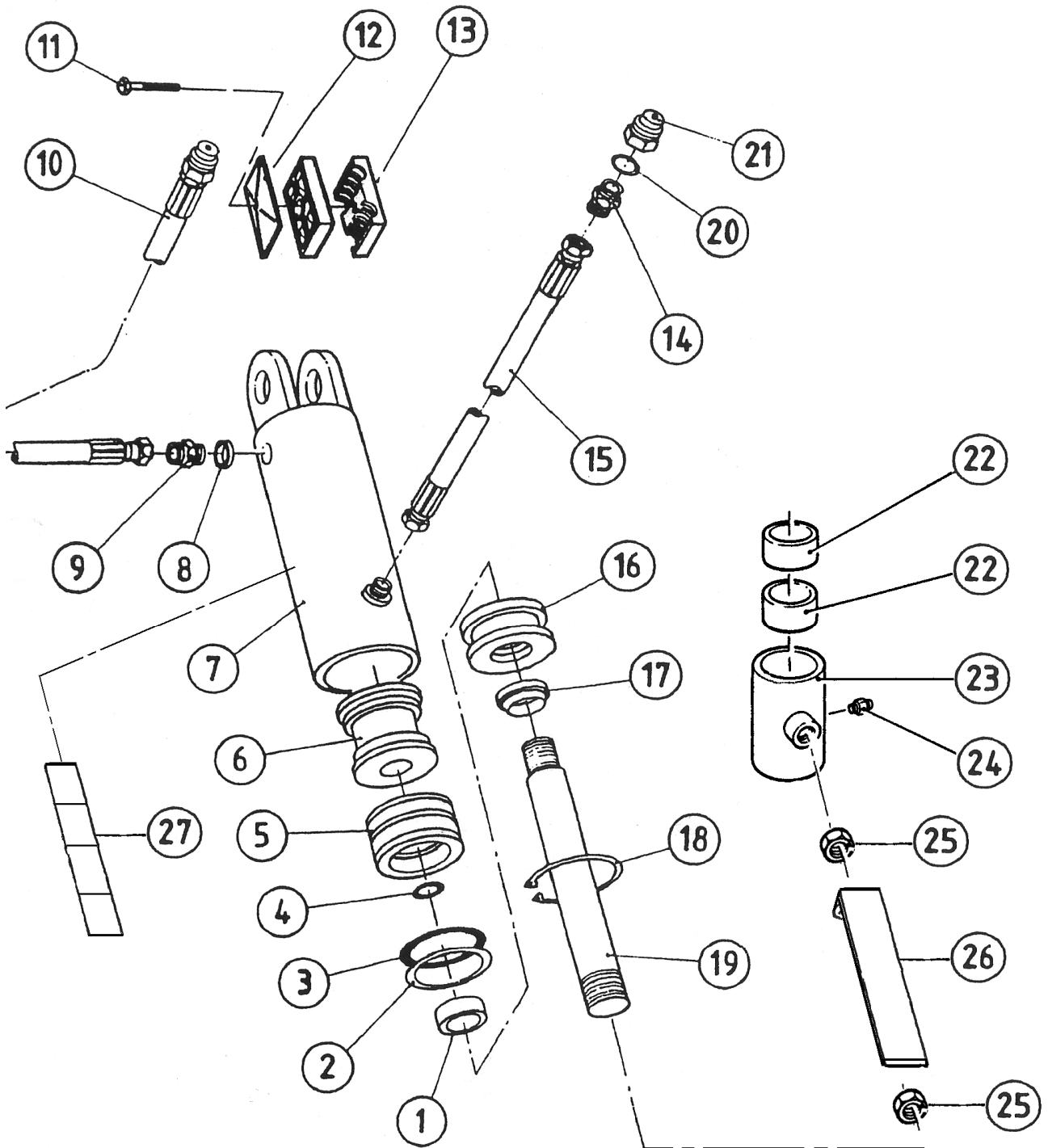
TURNOVER HYDRAULICS ASSEMBLY



TURNOVER HYDRAULICS ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	900431	Grease Nipple ¼” UNF Straight	2
2	900373	Plain Metal Bearing	2
3	161800	Cylinder Assembly	1
4	006300	Piston	1
5	900241	Seal Assembly	1
6	900201	‘O’ Ring	1
7	006400	Annulus	1
8	900203	‘O’ Ring	1
9	900801	Back Up Ring	1
10	006500	End Plug	1
11	900221	Single Acting Seal	1
12	900261	Wiper Seal	1
13	006600	End Cap	1
14	900151	Socket Set Screw 1/4” UNF	1
15	018700	Piston Rod	1
16	043000	Hydraulic Hose Assembly	2
17	900391	Adapter 3/8” BSP	5
18	900301	Dowty Washer 3/8” BSP	5
19	1534200	Turnover Valve	1
20	901044	M10 x 75mm Bolt	1
21	900782	M10 Nyloc	1
22	008400	Hose	2
23	900611	Tractor Coupling	2
24	900392	Adapter 3/8” – 1/2” BSP	2
25	900302	Dowty Washer 3/8” BSP	2
-	161700	Ram Assembly	-
-	052500	Seal Kit (items 13,14,16,17,19 & 22)	-

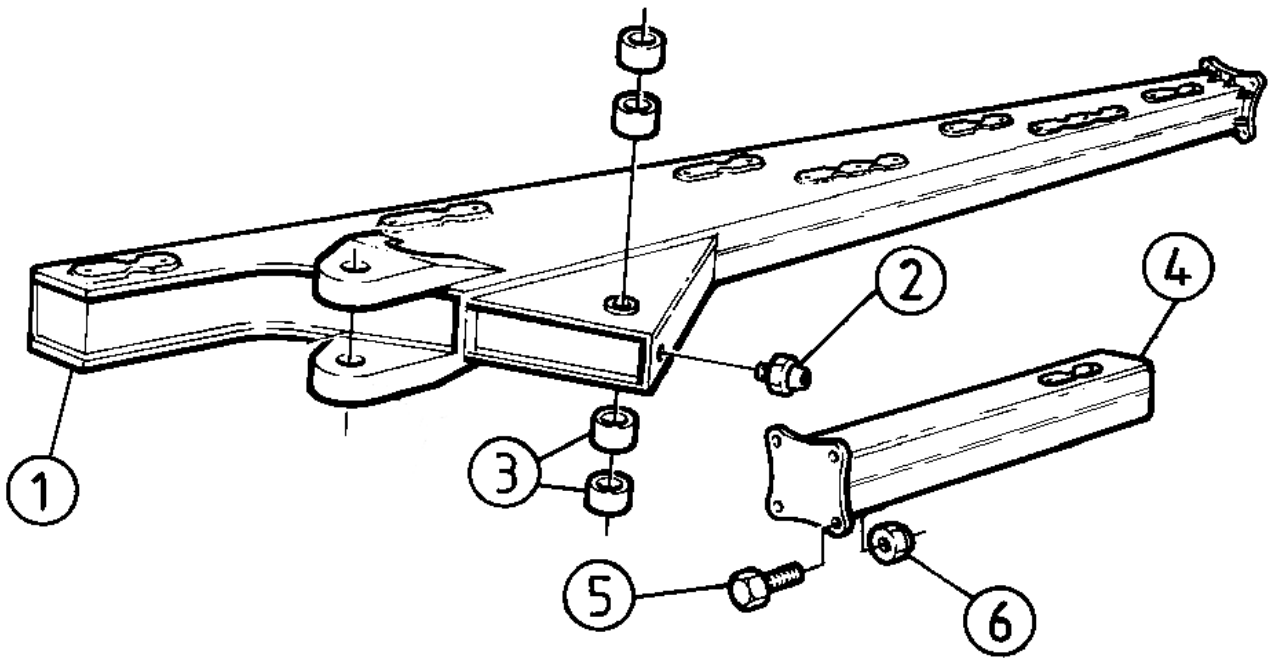
OFFSET HYDRAULICS ASSEMBLY



OFFET HYDRAULICS ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	900225	Single Acting Seal	1
2	900805	Back Up Ring	1
3	900210	'O' Ring	1
4	900209	'O' Ring	1
5	900246	Double Acting Seal	1
6	148300	Piston	1
7	1091900	Tube	1
8	900301	Dowty Washer	1
9	900391	Adapter 3/8" BSP	1
10	1105000	Hose Assembly (132")	1
11	901022	Bolt M8 x 35	2
12	901826	Cover	2
13	901802	Hose Clamp	4
14	900392	Adapter	2
15	1105000	Hose Assembly (132")	1
16	148200	Bung	1
17	900263	Ram Wiper	1
18	900722	Internal Circlip	1
19	1092100	Piston Rod	1
20	900302	Dowty Washer	2
21	900611	Coupling	2
22	903154	Internal Tension Bush (40mm Long)	2
23	1546000	Eye Extension	1
24	900431	Grease Nipple 1/4" UNF	1
25	901982	Lock-Nut M20	2
26	1380600	Ram Marker	1
27	1082600	Offset Marker Decal	1
-	1092000	Ram Assembly (Not Including Items 22, 23, 24, 25, 26)	-
-	151600	Ram Seal Kit (Items 1, 2, 3, 4, 5, 17)	-

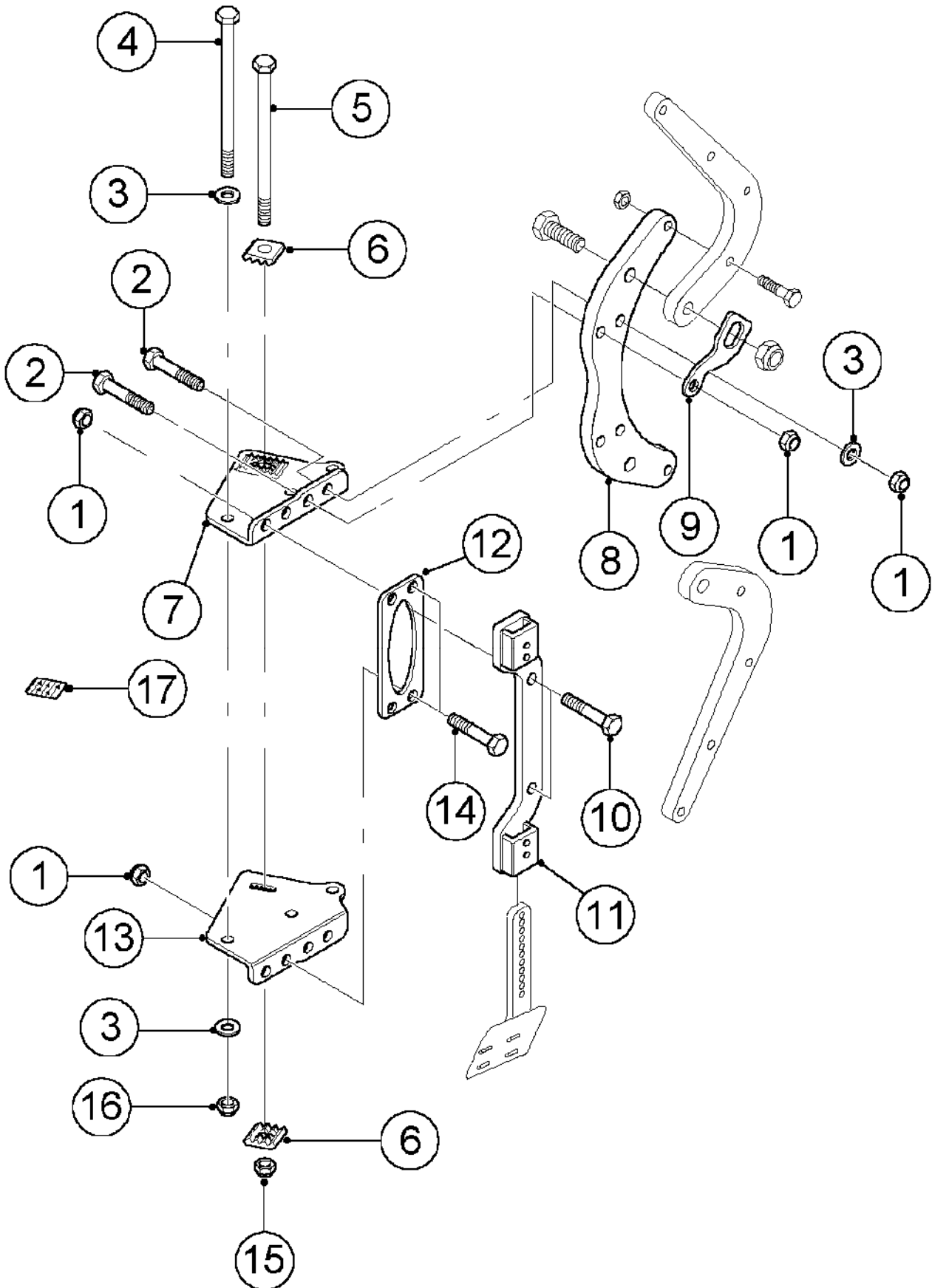
MAIN BEAM ASSEMBLY



MAIN BEAM ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	1550200	Main Beam 4F 36"	-
-	1545700	Main Beam 5F 36"	-
2	900431	Grease Nipple 1/4" UNF	1
3	900348	Plain Metal Bearing	4
4	1545800	Extension Beam	-
5	902255	Bolt M20 x 75	4
6	900785	Self Locking Nut M20	4

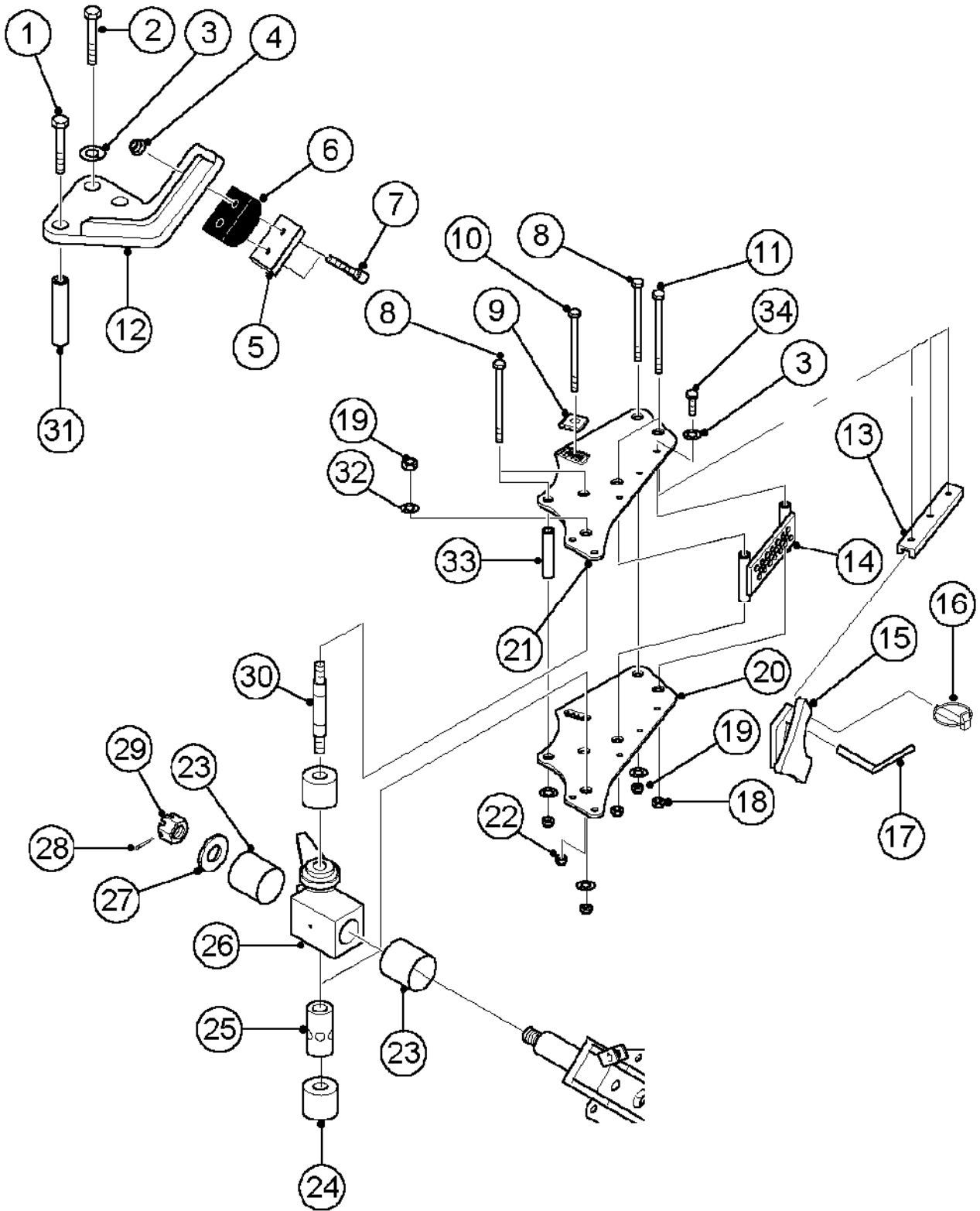
LEG BRACKET ASSEMBLY



LEG BRACKET ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	903276	Self Locking Nut M24	8
2	903254	Bolt M24 x 80	4
3	901610	Plain Washer M24	4
4	903264	Bolt M24 x 230	1
5	901123	Bolt M20 x 260	1
6	1022700	Serrated Width Adjuster	2
7	1551598	MA Leg Mounting (RH)	1
8	1466400	Leg Carrier	1
9	1466600	Bolt Retainer	2
10	903255	Bolt M24 x 70	2
11	1467800	Skim Mounting Bracket	1
12	1466500	Tie Plate	1
13	1551599	MA Leg Mounting (LH)	1
14	903256	Bolt M24 x 50	2
15	900785	Self Locking Nut M20	1
16	900786	Self Locking Nut M24	1
17	1492100	Furrow Width Decal	1

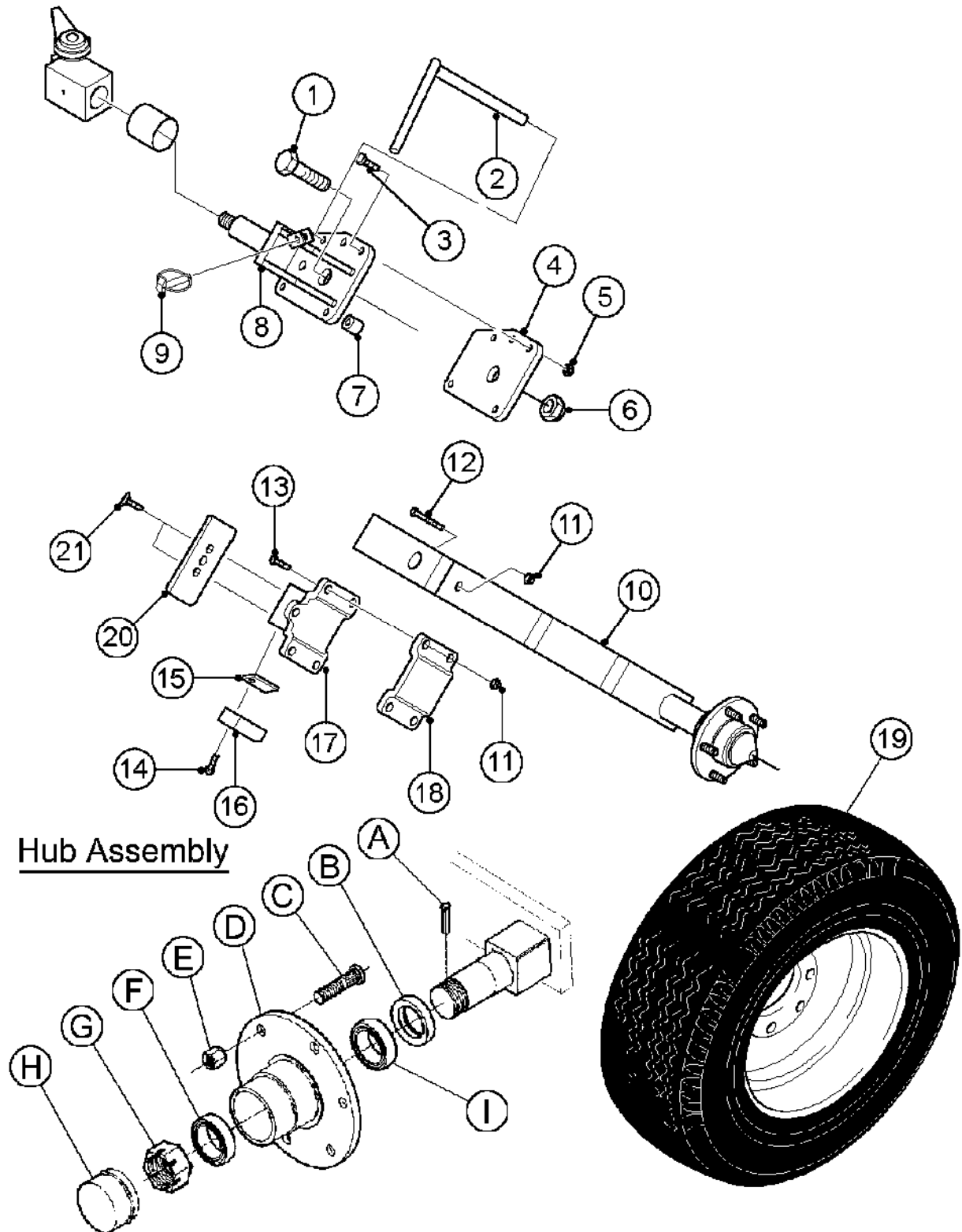
WHEEL BRACKET ASSEMBLY



WHEEL BRACKET ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	901104	Bolt M16 x 280	1
2	901330	Set Screw M16 x 35	4
3	901191	Spring Washer M16	10
4	900119	Self Locking Nut 7/16" UNF	4
5	1496600	Bump Stop Plate	2
6	1496700	Rubber Stop	2
7	901685	C'Sunk Nibbed Bolt 7/16" x 2 3/8"	4
8	903264	Bolt M24 x 230	3
9	1022700	Serrated Width Adjuster	2
10	901123	Bolt M20 x 260	1
11	903138	Bolt M16 x 250	2
12	1489499	Wheel Bump Stop (LH)	1
-	1489498	Wheel Bump Stop (RH)	1
13	1483500	Adjuster Slide Rail	2
14	1483600	Adjuster Locator	1
15	1483300	Depth Adjuster	1
16	900527	Lynch Pin	1
17	1484300	Depth Locator Pin	1
18	900784	Self Locking Nut M16	3
19	900786	Self Locking Nut M24	5
20	1546698	Wheel Mounting (RH)	1
21	1546699	Wheel Mounting (LH)	1
22	900785	Self Locking Nut M20	2
23	903151	Plain Metal Bearing	2
24	900389	Plain Metal Bearing	2
25	1484000	Wheel Swivel Spacer	1
26	1476900	Wheel Swivel	1
27	1498300	Special Washer	1
28	901917	Split Cotter Pin	1
29	901556	Hexagonal Slotted Nut M24	1
30	1483400	Wheel Swivel Pin	1
31	1489600	Bump Stop Support	1
32	901610	Plain Washer M24	8
33	1484100	Swivel Limit	2
34	901329	Set Screw M16 x 30	6

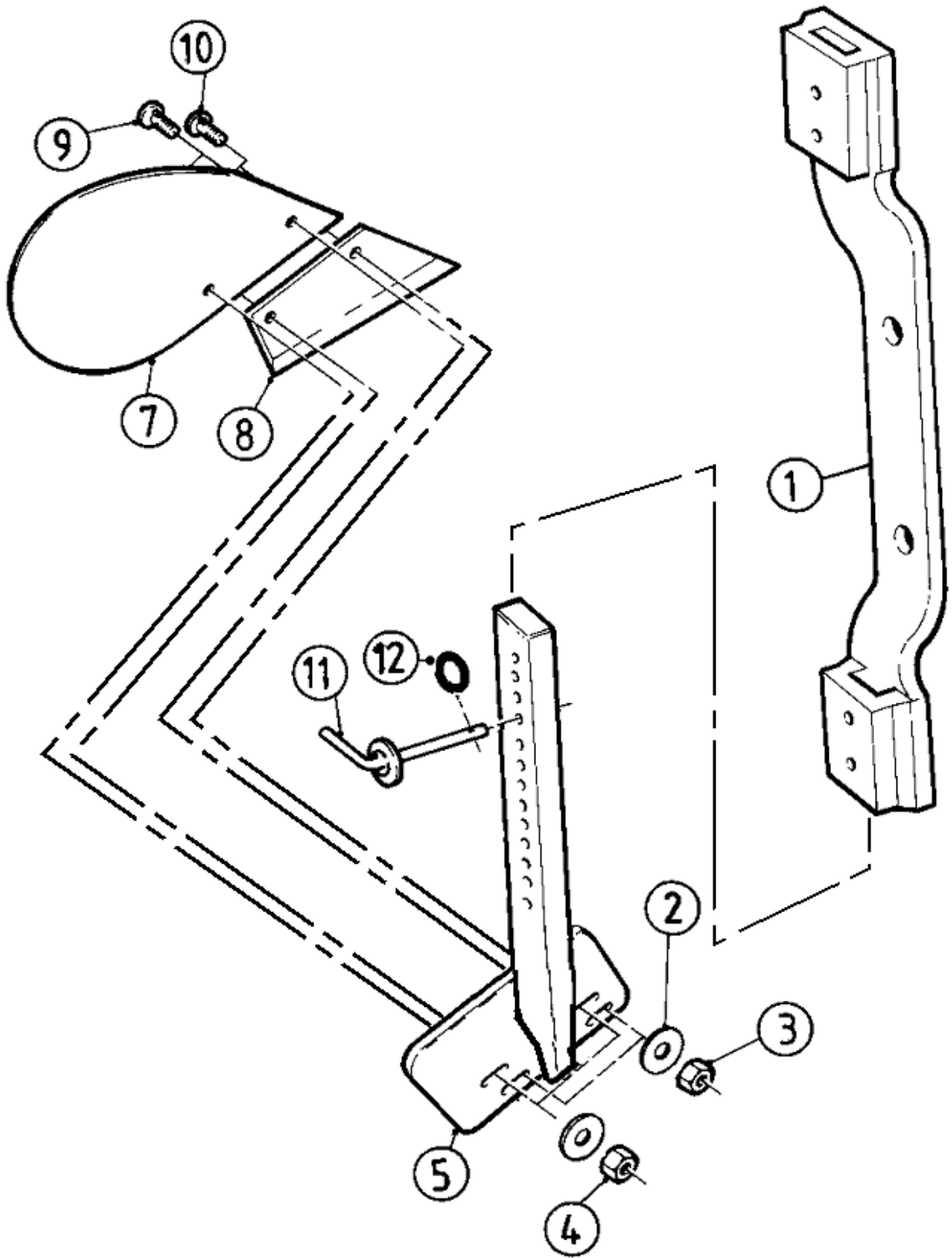
WHEEL ARM ASSEMBLY



WHEEL ARM ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	901141	Bolt M24 x 90	1
2	1484200	Wheel Transport Pin	1
3	901089	Bolt M16 x 90	3
4	1484800	Wheel Arm Clevis Plate	1
5	900784	Self Locking Nut M16	3
6	900786	Self Locking Nut M24	1
7	1484900	Clevis Spacer Boss	3
8	1483200	Wheel Pivot	1
9	900527	Lynch Pin	1
10	1483000	Wheel Arm	1
11	900783	Self Locking Nut M12	5
12	901070	Bolt M12 x 60	1
13	901067	Bolt M12 x 45	4
14	903452	Socket Cap Screw M 10 x 35	2
15	1485600	Depth Equalizing Strip	2
16	1483700	Depth Striker	2
17	1483800	Depth Striker Mounting	1
18	1483900	Depth Striker Clamp	1
19	1319000	Wheel Assembly 10/75-15.3	1
20	1517900	Keep Plate	1
21	901199	Countersunk Socket Screw M12 x 35	2
A	901214	Split Pin	1
B	1497200	Dirt Seal	1
C	1497400	Wheel Stud M16 x 1.5	5
D	1497300	Wheel Hub	1
E	1497500	Wheel Nut M16 x 1.5	5
F	1497600	Tapered Roller Bearing (Small)	1
G	1497700	Slotted Nut	1
H	1497800	Hub Cap	1
I	1497900	Tapered Roller Bearing (Large)	1

SKIM ASSEMBLY

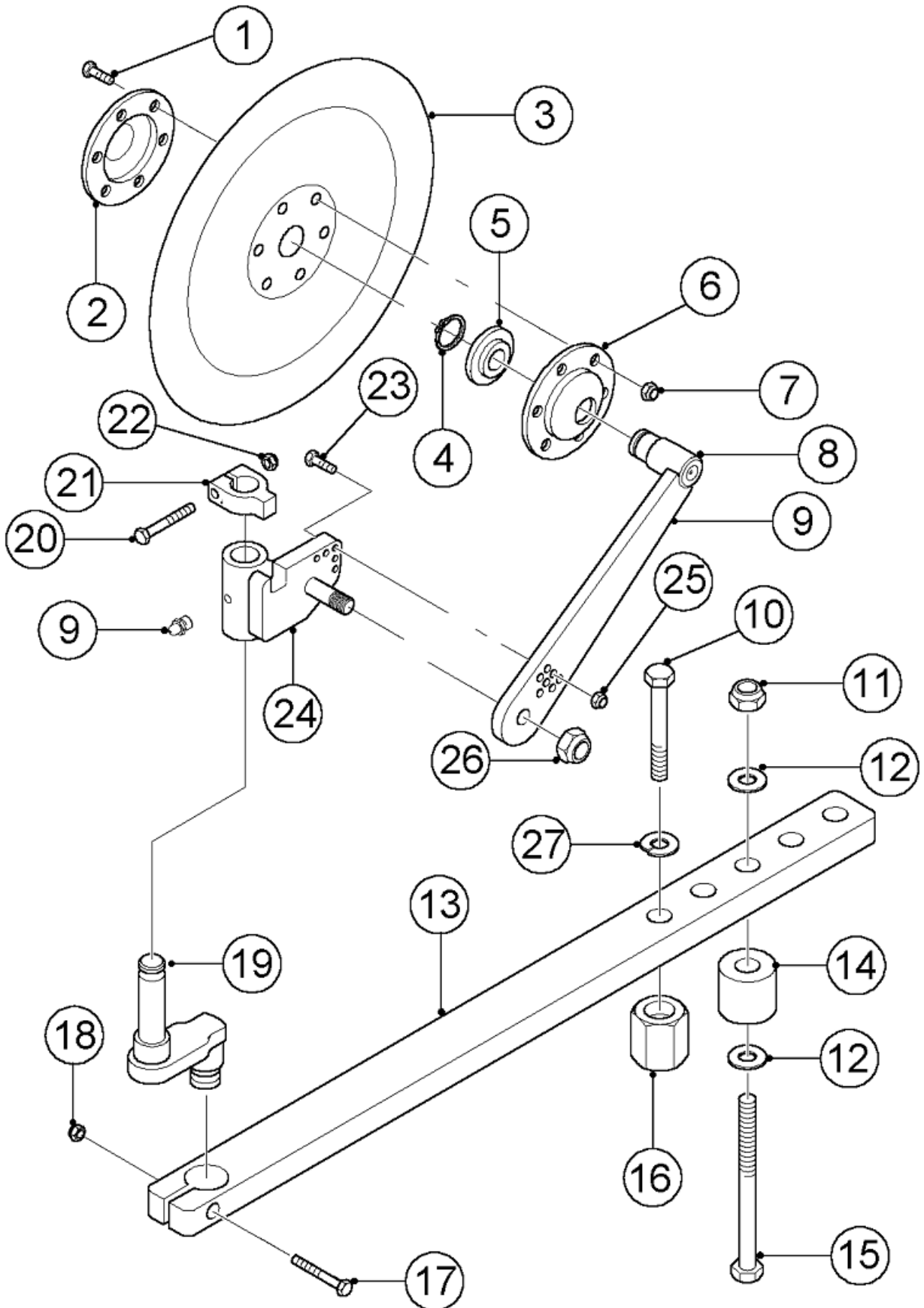


SKIM ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	1467800	Skim Bracket	1
2	902955	Plain Washer M10 (Special)	4
3	900498	Nut 3/8" UNC	4
4	900103	Nut 3/8" UNF	4
5	1467998	Skim Shank RH	1
-	1467999	Skim Shank LH	1
7	1099898	Skim Wing (XL) RH	1
-	1099899	Skim Wing (XL) LH	1
8	048098	Skim Point RH	1
-	048099	Skim Point LH	1
9	900141	Countersunk Square Bolt	4
10	900810	Taper Head Bolt	4
11	1344100	Locating Pin	2
12	903200	Spring Coil	2

All quantities are per reversible furrow.

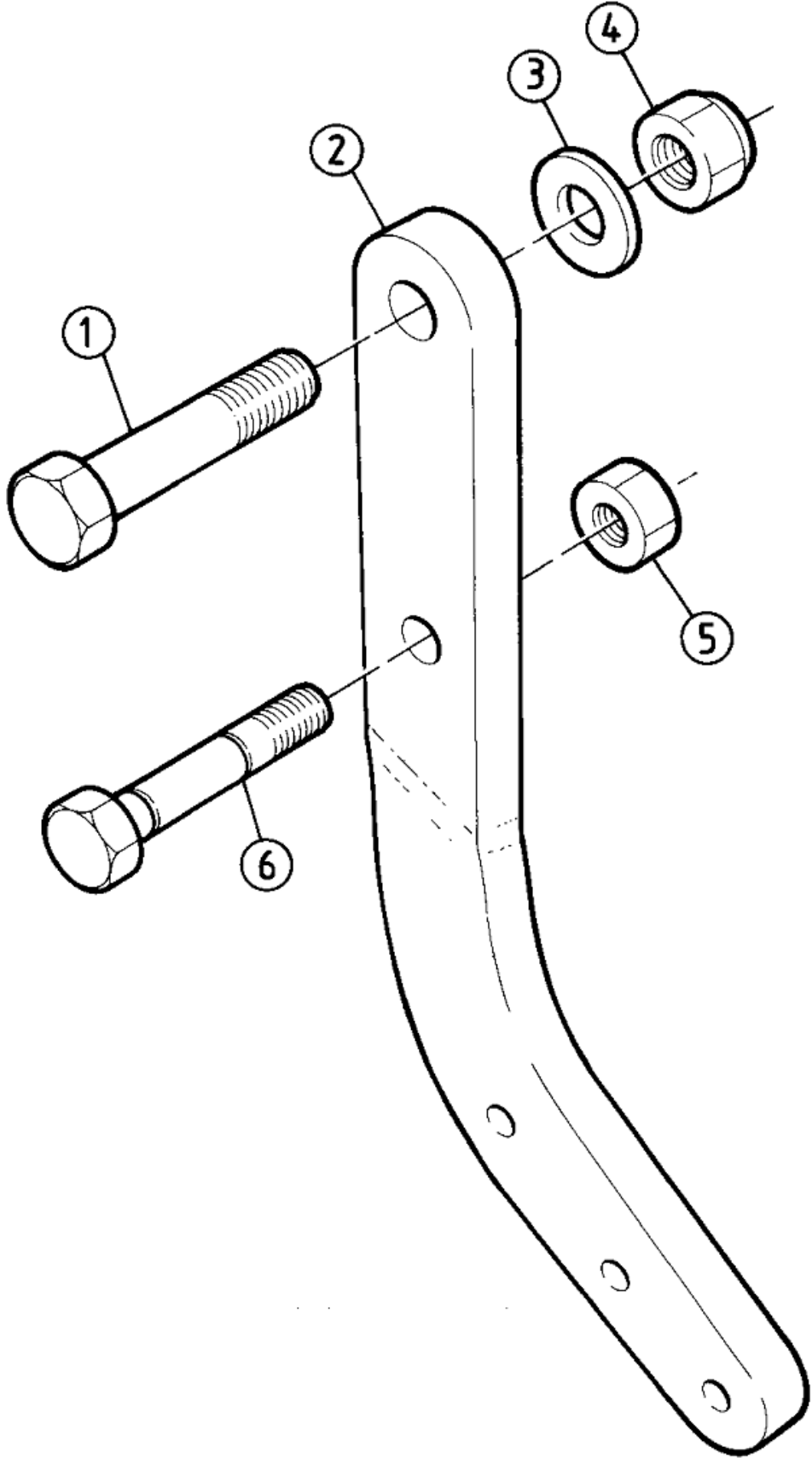
DISC ASSEMBLY



DISC ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	901263	Setscrew M8 x 30	6
2	054900	Bearing Outer Housing	1
3	052800	Disc 18" Plain	-
-	063800	Disc 18" Cutaway	-
4	900601	External Circlip	1
5	900324	Bearing	1
6	055000	Bearing Inner Housing	1
7	900781	Self Locking Nut M8	6
8	1099500	Disc Arm	1
9	900431	Grease Nipple 1/4" UNF	2
10	901381	Set Screw M 24 x 55	1
11	903276	Self Locking Nut M24	2
12	901610	Plain Washer M24	2
13	1467700	Disc Support Arm	1
14	1425500	Spacer Boss	2
15	903258	Bolt M24 x 110	2
16	1467500	Disc Spacer Nut	1
17	901088	Bolt M16 x 80	1
18	900784	Self Locking Nut M16	1
19	1467600	Disc Offset Knuckle	1
20	901073	Bolt M12 x 75	1
21	1100400	Disc Clamp	1
22	900783	Self Locking Nut M12	1
23	900488	Shearbolt	1
24	1138198	Disc Swivel (RH)	1*
-	1138199	Disc Swivel (LH)	1*
25	900105	Plain Nut 1/2" UNF	1
26	900107	Plain Nut 3/4" UNF	1
27	901195	Spring Washer M24	1

110 LEG ASSEMBLY



110 LEG ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	902260	Bolt M30 x 100	1
2	-	See Table Below	As Req
3	901608	Plain Washer M30	1
4	903227	Self Locking Nut M30	1
5	900775	Plain Nut M20	1
6	-	Shearbolt (See Separate Page)	-

All quantities are per furrow.

LEG LIST

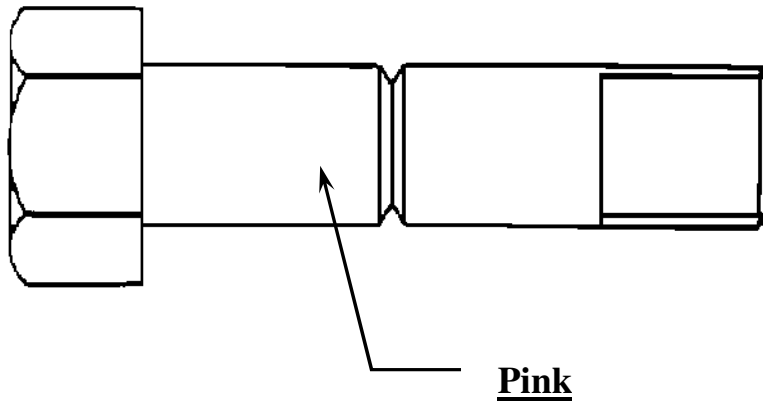
Underbeam Clearance (Inches)	Body Type	Part N°
28.50	DD	1466700
27.50	UCN/SCN	1466700
30.00	DD	1466800
29.00	UCN/SCN	1466800
29.00	M-Slatt	1466900

110 LEG SHEARBOLT

To avoid SERIOUS DAMAGE it is essential that the correct shear bolts are fitted.

THE USE OF INCORRECT SHEARBOLTS WILL NULLIFY YOUR WARRANTY!

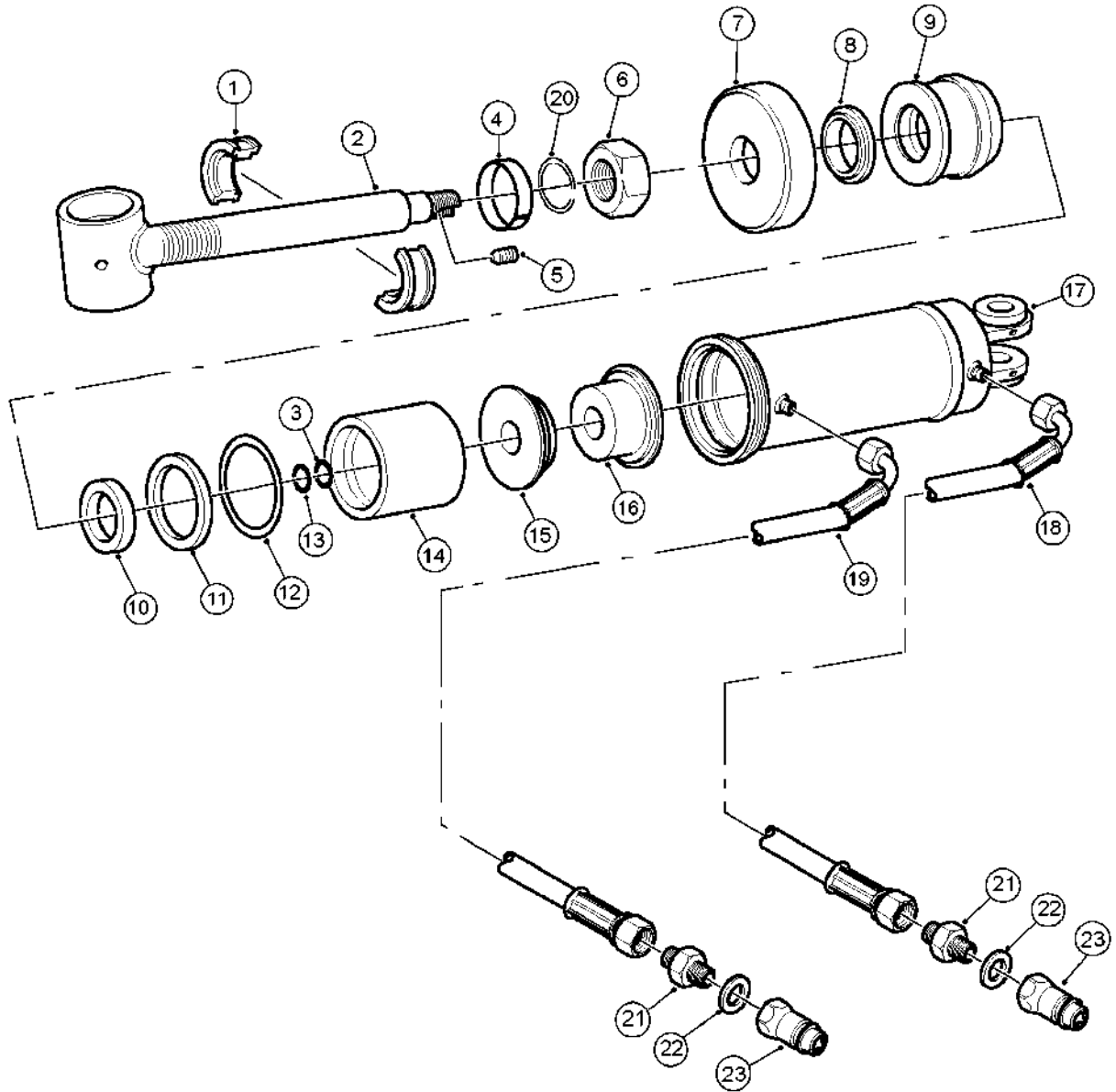
To ease identification all leg shearbolts are colour coded.



Part Number - 902347

OPERATORS NOTES

ANGLING HYDRAULICS ASSEMBLY



ANGLING HYDRAULICS ASSEMBLY

ITEM	PART N°	DESCRIPTION	QTY
1	1364200	Ram Locking Ring	6
2	1551600	Piston Rod	1
3	900806	Back Up Ring	1
4	1377300	Retaining Strap	3
5	900151	Socket Set Screw 1/4" UNF	1
6	1371300	Adjuster Nut	1
7	1464300	End Cap	1
8	900267	Wiper Seal	1
9	1464200	Seal Housing	1
10	900224	Single Acting Seal	1
11	900800	Back up Ring	1
12	900204	'O' Ring	1
13	900202	'O' Ring	1
14	900242	Double Acting Seal	1
15	1519200	Annulus	1
16	1519100	Piston	1
17	1551000	Cylinder Assembly	1
18	-	Hydraulic Hose Assembly	1
19	-	Hydraulic Hose Assembly	1
20	900606	Crescent Ring	1
21	900392	Adapter 3/8" – 1/2" BSP	2
22	900302	Dowty Washer 1/2" BSP	2
23	900611	Tractor Coupling	2
-	1550900	Ram Assembly	-
-	1551700	Seal Kit (Items 3, 8, 10, 11, 12, 13, 14)	-