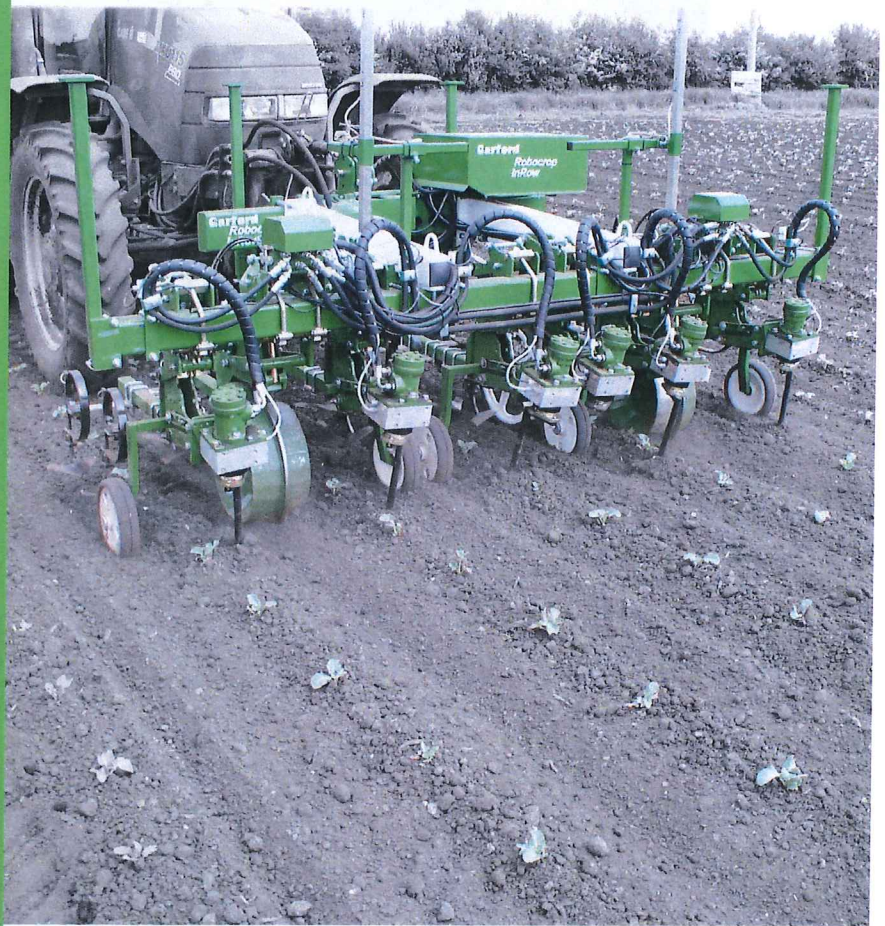


Garford

www.garford.com



PARTS BOOK

Robocrop Inrow Cultivator

APRIL 2011

Garford Farm Machinery Ltd
Frognall
Deeping St James
Peterborough
PE6 8RR
England

Tel. 01778 342642
Fax. 01778 348949

Email. info@garford.com





THANK YOU FOR PURCHASING A **Garford** PRODUCT.

THIS BOOK CONTAINS THE FULL WORKING DRAWINGS OF THE MACHINE WITH EVERY PART AND ASSOCIATED NUMBER LISTED. THIS QUICKLY AND EASILY ALLOWS ANY PART OF THE MACHINE TO BE PIN POINTED IF IT REQUIRES MAINTENANCE OR REPAIR.

FOR ANY OTHER ENQUIRIES OR QUESTIONS PLEASE D NOT HESITATE TO CONTACT US.

TEL :- +44 (0)1778 342642

FAX :- +44 (0)1778 348949

EMAIL :- info@garford.com

WEB :- www.garford.com

POSTAL ADDRESS :-

Garford Farm Machinery Ltd
Frognall
Deeping St James
Peterborough
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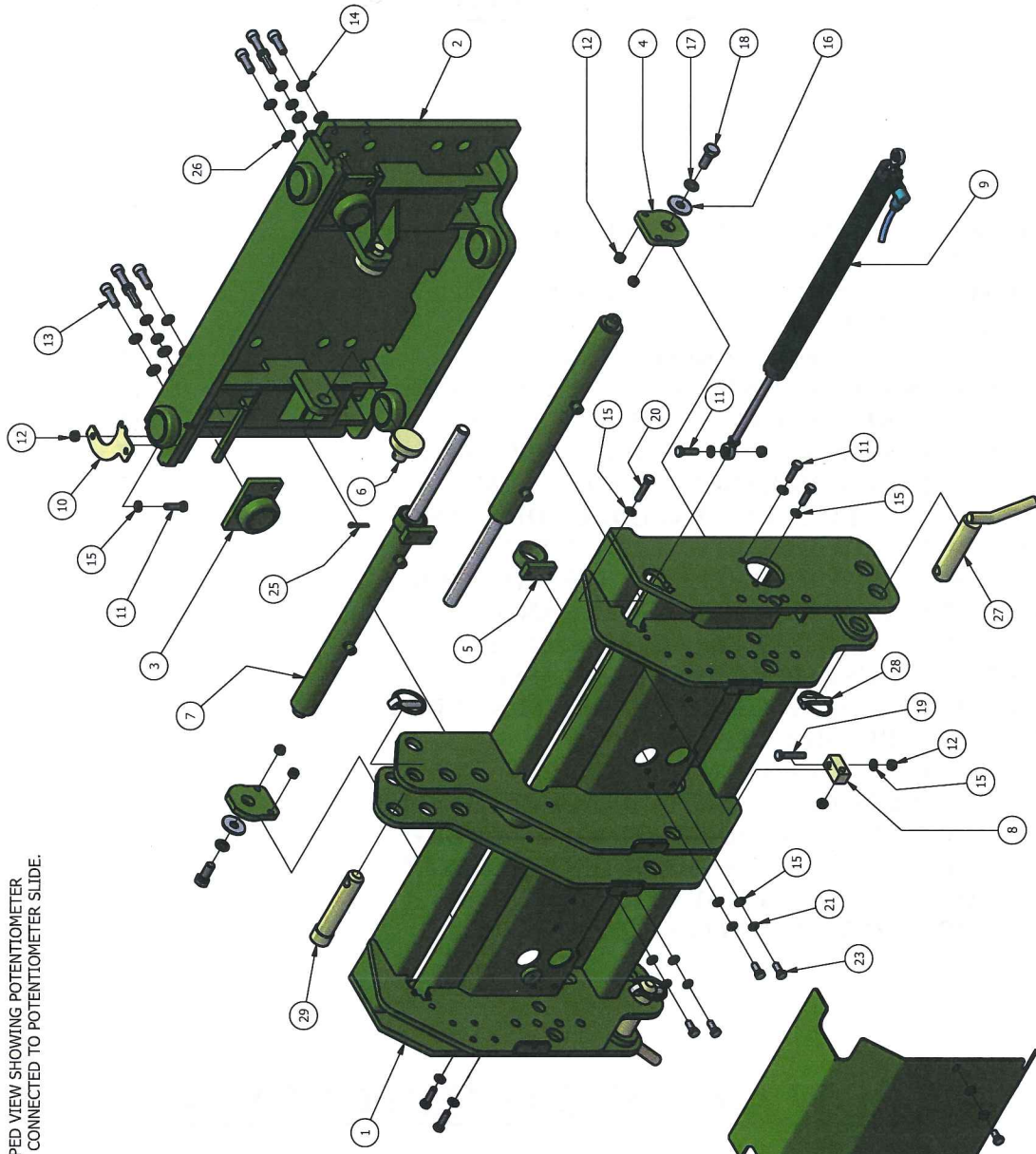
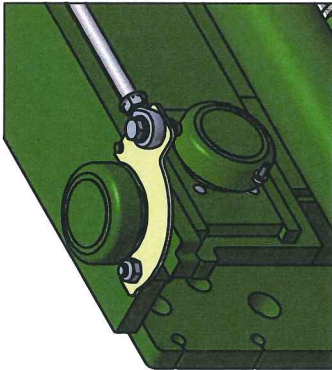
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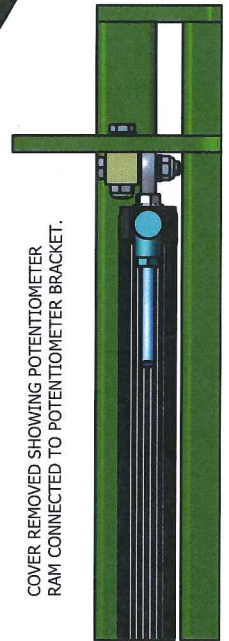
IN-ROW ARCHIVED COMPONENTS

REFUR TO THIS SECTION FOR MODIFIED PARTS REMOVED FROM
MANUFACTURE THAT WOULD HAVE BEEN ISSUED ON MACHINES PRIOR
TO JANUARY 2011.

CROPPED VIEW SHOWING POTENTIOMETER
RAM CONNECTED TO POTENTIOMETER SLIDE.



COVER REMOVED SHOWING POTENTIOMETER
RAM CONNECTED TO POTENTIOMETER BRACKET.

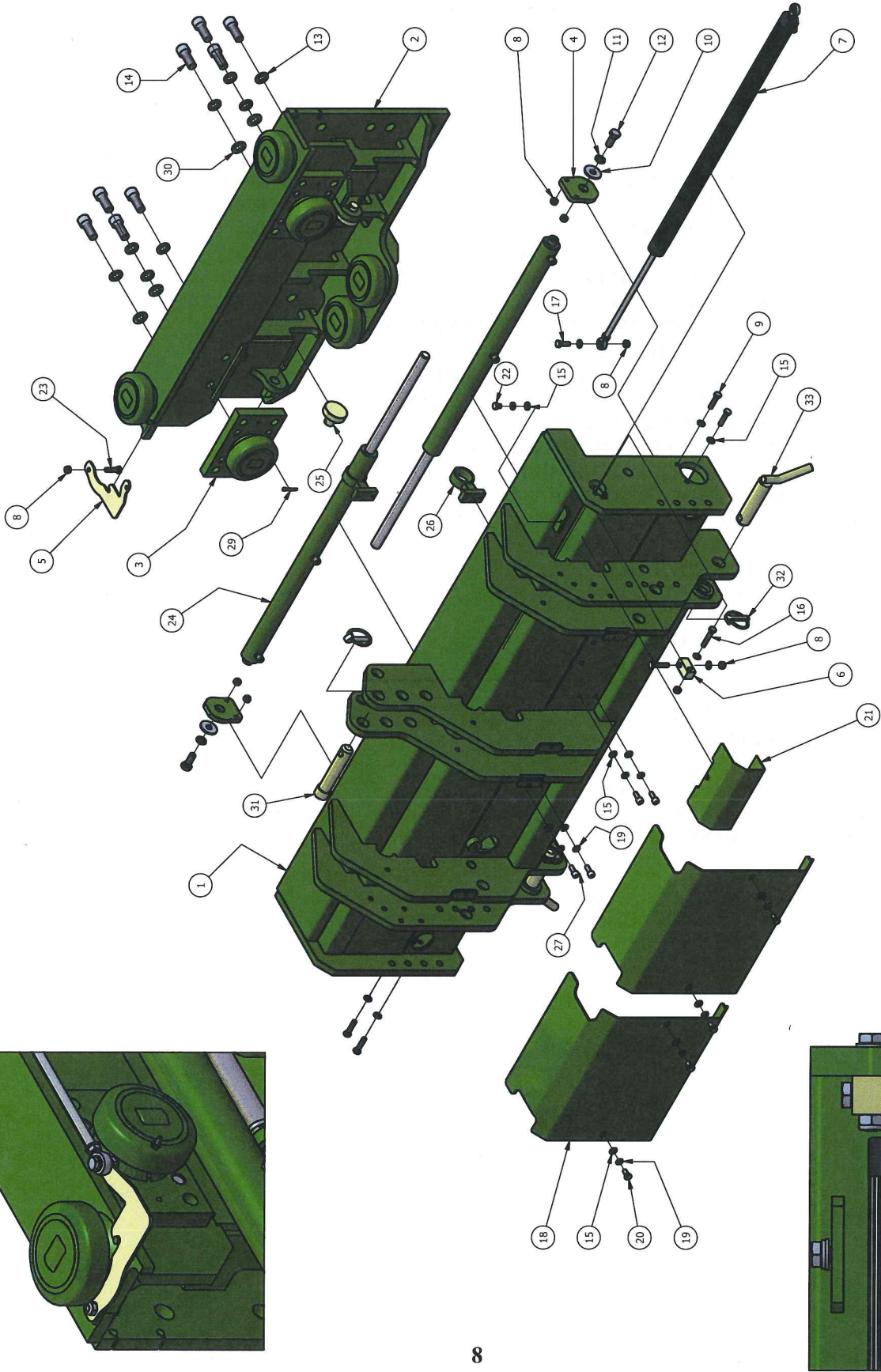
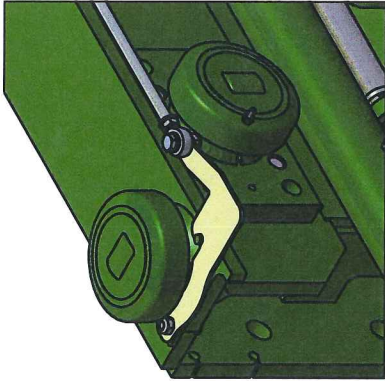


WITH EXCEPTION TO HYDRAULIC RAMS, RAM SUPPORTS &
BUFFERS, PARTS ARE INTERCHANGEABLE WITH THE
ROBO SIDESHIFT ASSEMBLY.

ROBOCROP STANDARD DUTY SIDESHIFT ASSEMBLY
"FREESHIFTING"

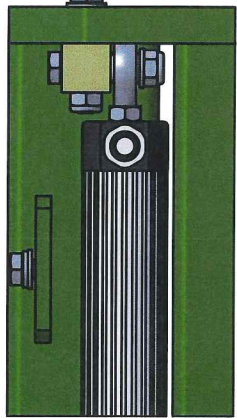
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	SIDE SHIFT FRAME	8605.00	1
2	SIDE SHIFT ROLLING FRAME	8606.00	1
3	ROLLER & PLATE	7430.00	2
4	RAM END PLATE	8464.04	2
5	RAM CENTERING SUPPORT	8816.00	2
6	SIDE SHIFT CENTERING RAM BUFFER	8734.00	2
7	HYDRAULIC RAM	8733.00	2
8	POTENTIOMETER CYLINDER END BRACKET	8461.00	1
9	POTENTIOMETER RAM	7732.00	1
10	POTENTIOMETER ARM BRACKET	8608.00	1
11	M8x25 BOLT BZP		6
12	M8 NYLOC NUT BZP		8
13	SOCKET CAP SCREW M10x30 BZP		8
14	M10 SPRING WASHER BZP		8
15	M8 FLAT WASHER BZP		16
16	LARGE OD FLAT WASHER 12x37x3 BZP		2
17	M12 SPRING WASHER BZP		4
18	M12x30 BOLT BZP		2
19	M8x40 BOLT BZP		1
20	M8x40 BOLT BZP		1
21	M8 SPRING WASHER BZP		8
22	M8x16 BOLT BZP		4
23	M8x20 BOLT BZP		4
24	SIDE SHIFT GUARD	8460.00	2
25	SPLIT PIN		2
26	M10 FLAT WASHER BZP		8
27	LOWER LINK PIN	6409.00	2
28	LINCH PIN	5604.00	3
29	TOP LINK PIN	5442.00	1

CROPPED VIEW SHOWING POTENTIOMETER
RAM CONNECTED TO POTENTIOMETER SLIDE.



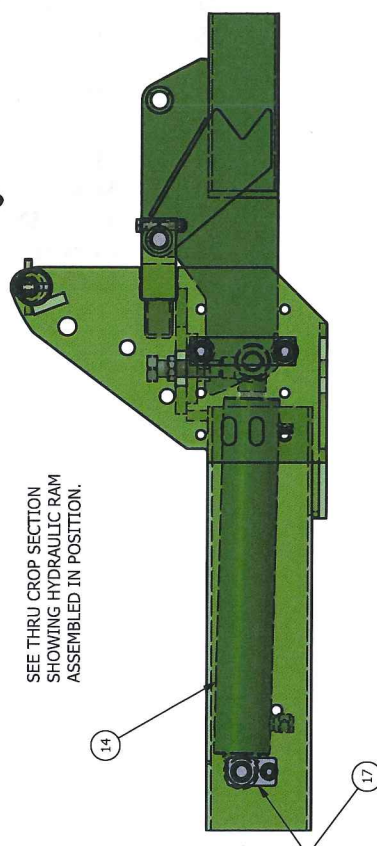
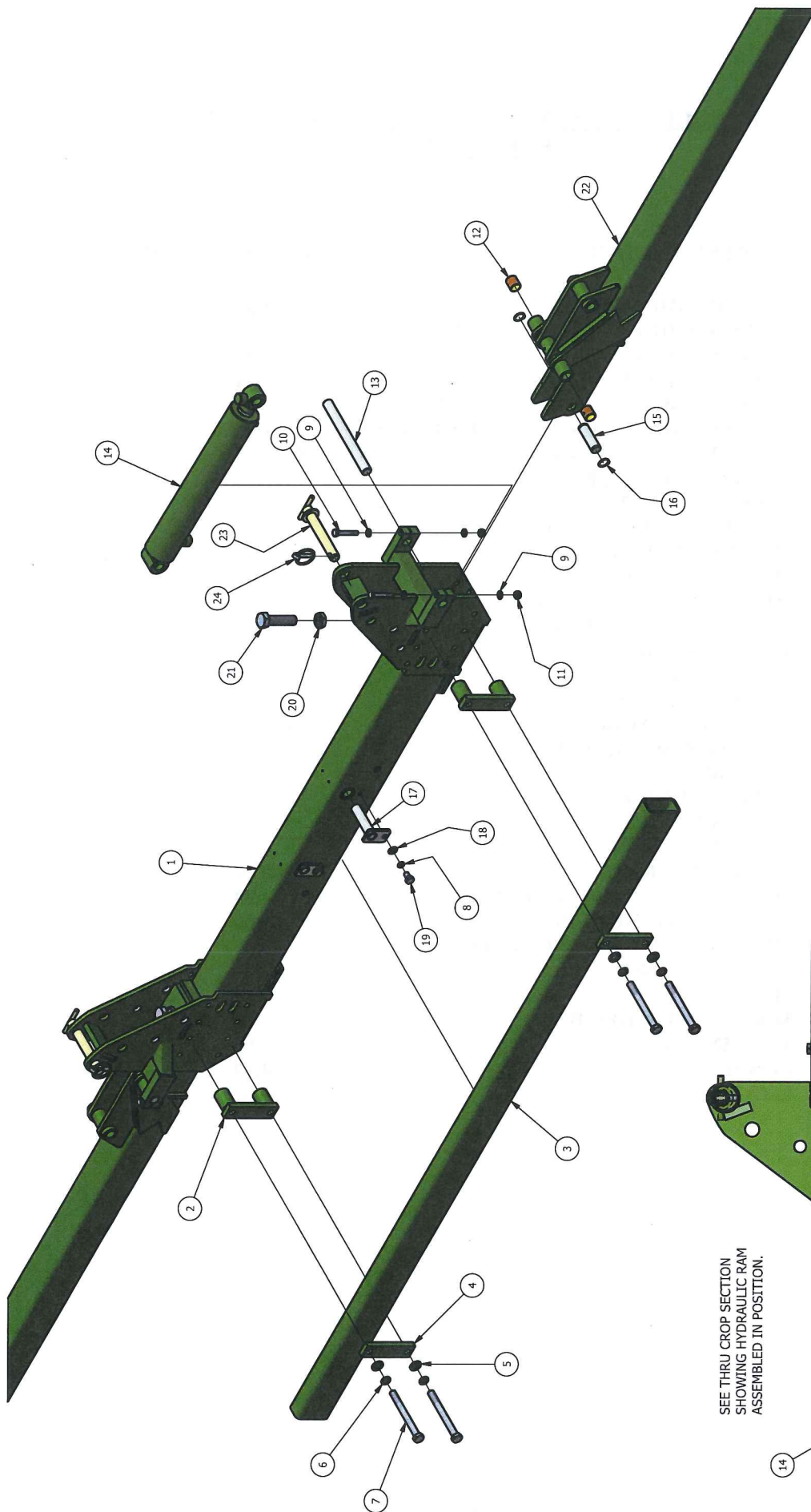
WITH EXCEPTION TO HYDRAULIC RAMS, RAM SUPPORTS &
BUFFERS, PARTS ARE INTERCHANGEABLE WITH THE
ROBO HEAVY DUTY SIDESHIFT.

COVER REMOVED SHOWING POTENTIOMETER
RAM CONNECTED TO POTENTIOMETER BRACKET.



ROBOCROP HEAVY DUTY SIDESHIFT ASSEMBLY
"FREESHIFTING"

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	H/D SIDE SHIFT FRAME	9001.00	1
2	H/D SIDE SHIFT ROLLING FRAME	9002.00	1
3	ROLLER & PLATE	9003.00	2
4	RAM END PLATE	8464.04	2
5	POTENTIOMETER ARM BRACKET	9006.00	1
6	POTENTIOMETER CYLINDER END BRACKET	8461.00	1
7	POTENTIOMETER RAM	8227.00	1
8	M8 NYLOC NUT BZP		8
9	M8x35 BOLT BZP		4
10	LARGE OD WASHER 12x37x3 BZP		2
11	M12 SPRING WASHER BZP		2
12	M12x30 BOLT BZP		2
13	M16 SPRING WASHER BZP		8
14	SOCKET CAP SCREW M16x40 BZP		8
15	M8 FLAT WASHER BZP		16
16	M8x45 BOLT BZP		1
17	M8x25 BOLT BZP		1
18	SIDE SHIFT GAURD	9005.00	2
19	M8 SPRING WASHER BZP		9
20	M8x16 BOLT BZP		4
21	POTENTIOMETER COVER	9007.00	1
22	M8x10 BOLT BZP		1
23	M8x30 BOLT BZP		1
24	HYDRAULIC RAM	9200.00	2
25	SIDE SHIFT CENTERING RAM BUFFER	8734.00	2
26	RAM CENTERING SUPPORT	9201.00	2
27	SOCKET CAP SCREW M8x20 BZP		4
28	M8x40 BOLT BZP		1
29	SPLIT PIN		2
30	M16 FLAT WASHER BZP		8
31	TOP LINK PIN	5442.00	1
32	LINCH PIN	5604.00	3
33	LOWER LINK PIN	6409.00	2



SEE THRU CROP SECTION
SHOWING HYDRAULIC RAM
ASSEMBLED IN POSITION.

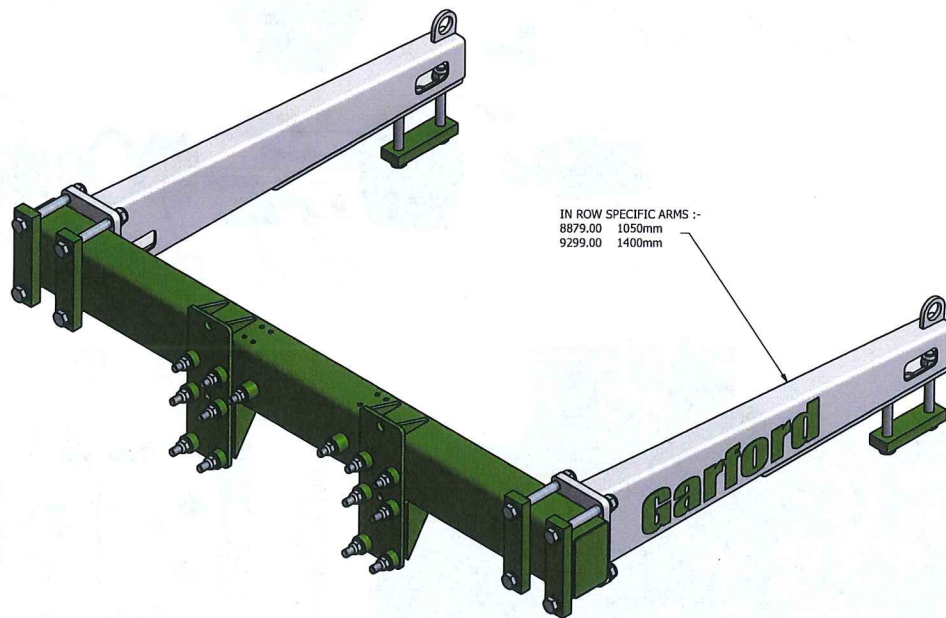
ROBOCROP IN ROW 6M FOLDING FRAME

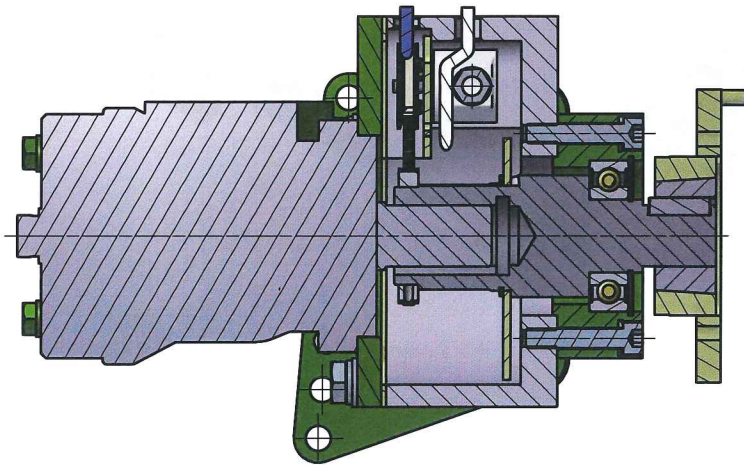
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	6M CENTRE SECTION	8577.00	1
2	SPACER	8611.00	2
3	FRAME BEAM 2300	7456.00	1
4	SPACER	7405.00	2
5	M16 FLAT WASHER BZP		4
6	M16 SPRING WASHER BZP		4
7	M16x160 BOLT BZP		4
8	M12 SPRING WASHER		2
9	M10 THIN WASHER		8
10	M10x65 BOLT BZP		4
11	M10 NYLOC NUT BZP		4
12	BUSH	7446.00	4
13	FOLDING PIVOT PIN	7395.00	2
14	HYDRAULIC RAM	8579.00	2
15	RAM PIN	8582.00	2
16	25MM EXTERNAL CIRCLIP		4
17	RAM RETAINING PIN	7417.00	2
18	M12 THIN WASHER BZP		2
19	M12x25 BOLT BZP		2
20	M24 NUT BZP		2
21	M24x90 SET SCREW BZP		2
22	6M FOLDING FRAME WING	8578.00	2
23	TRANSPORT SAFETY PIN	8526.00	2
24	LINCH PIN	5604.00	2

ROBOCROP IN ROW FRONT TOOL BAR ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	SIDE SHIFT MOUNTING FRAME	8635.02	1
2	FRONT PICK UP ARM (SEE DRAWING FOR VARIATIONS ON PART No.'S)		2
3	CLAMP PLATE	8078.00	4
4	M20x170 BOLT BZP		12
5	M20 NYLOC NUT BZP		12
6	M16 FLAT WASHER BZP		28
7	M16x75 BOLT BZP		14
8	M16 NYLOC NUT BZP		14
9	CLAMP PLATE	7404.00	2
10	END CAP	5734.00	2
11	M20 FLAT WASHER		24

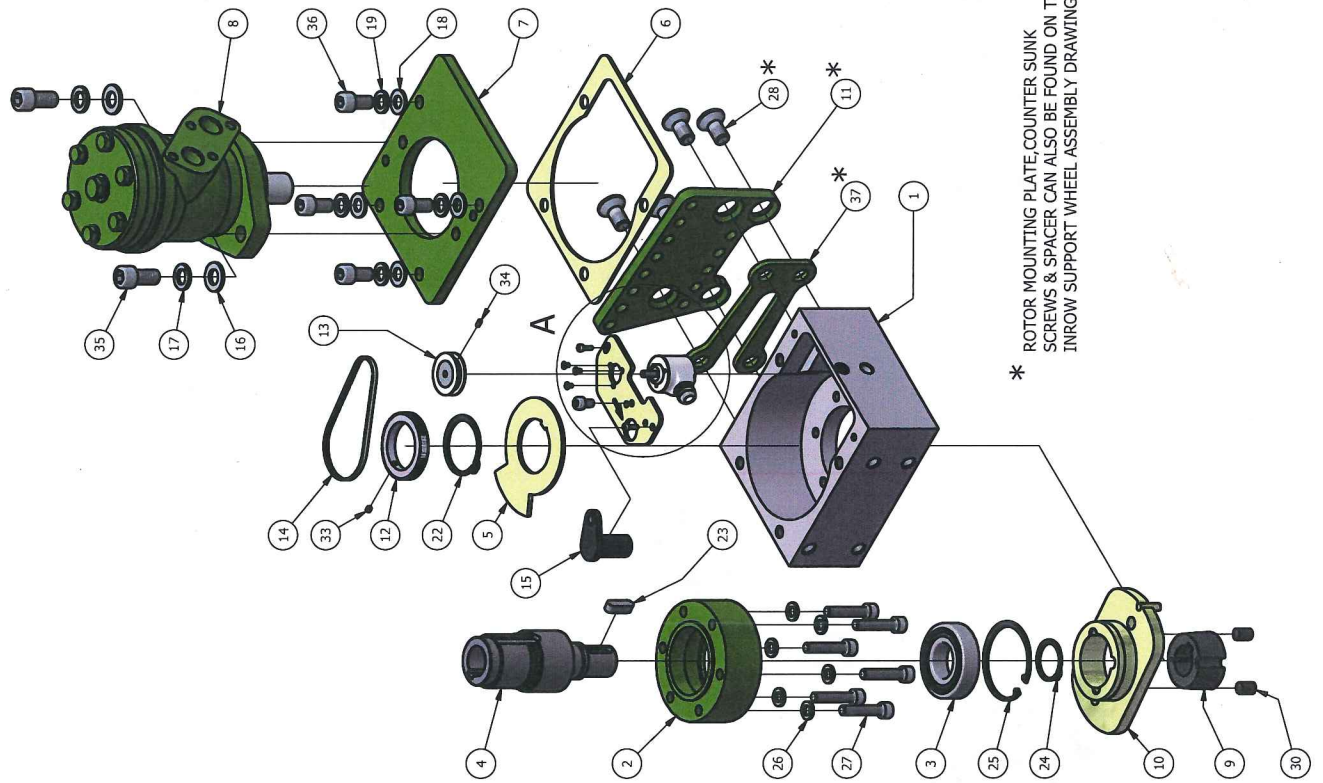
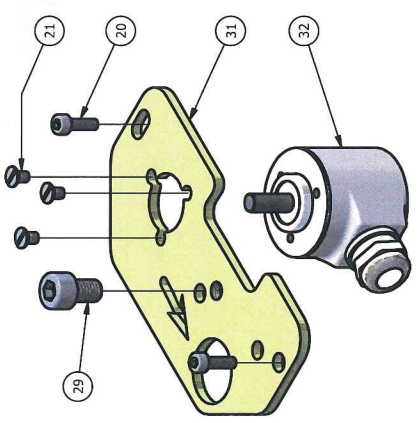
IN ROW SPECIFIC ARMS SHOWN BELOW :-



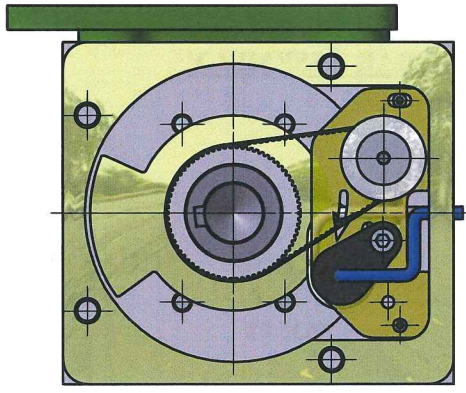


SECTION VIEW SHOWING ASSEMBLY OF ROTOR SHAFT.

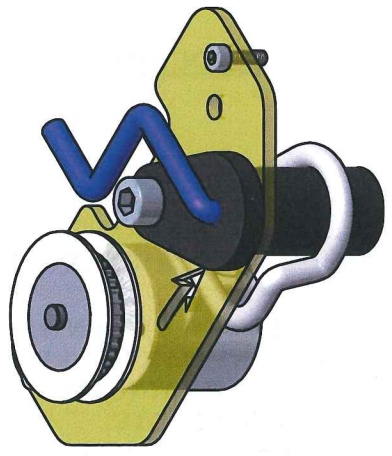
ENLARGED VIEW AT 'A' TO HIGHLIGHT ENCODER PLATE. ARROW DICTATES CLOCKWISE OR ANTI-CLOCKWISE DIRECTION.



* ROTOR MOUNTING PLATE, COUNTER SUNK SCREWS & SPACER CAN ALSO BE FOUND ON THE INROW SUPPORT WHEEL ASSEMBLY DRAWING.



VIEWS ABOVE & BELOW TO SHOW POSITION OF WIRING FOR ENCODER & GEAR TOOTH SENSOR.



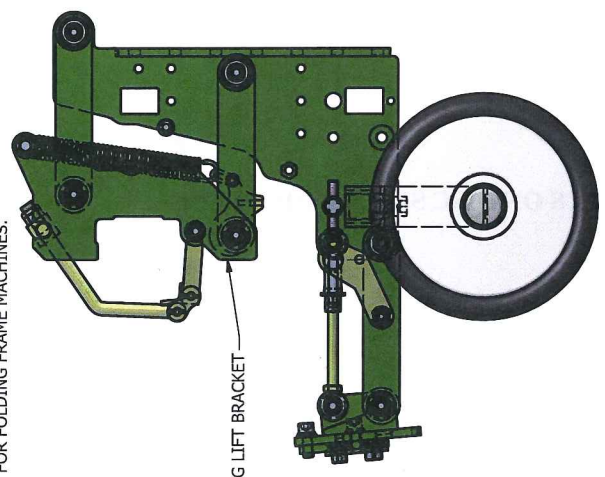
ROBOCROP IN ROW ROTOR DRIVE ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	ROTOR BODY	8300.00	1
2	ROTOR BEARING HOUSING	8302.00	1
3	SEALED BEARING 6202-2RS		1
4	ROTOR SHAFT	8303.00	1
5	ROTOR TIMING DISC	8305.00	1
6	MOTOR HOUSING SEAL	8304.01	1
7	ROTOR MOTOR MOUNTING PLATE	8301.02	1
8	HYDRAULIC MOTOR	8418.00	1
9	TAPER LOCK BUSH	8497.00	1
10	ROTOR DRIVE COUPLING	8494.00	1
11	ROTOR MOUNTING PLATE	8621.02	1
12	ROTOR HOUSING TIMING PULLEY	8307.00	1
13	ROTOR HOUSING TIMING PULLEY	8308.00	1
14	TIMING BELT	8309.00	1
15	GEAR TOOTH SENSOR	8311.00	1
16	M12 FLAT WASHER BZP		2
17	M12 SPRING WASHER BZP		2
18	M10 FLAT WASHER BZP		4
19	M10 SPRING WASHER BZP		4
20	SOCKET CAP SCREW M3x10 BZP		2
21	C' SUNK ALLEN HEAD SCREW M3x5 BZP	8681	3
22	45MM EXTERNAL CIRCLIP		1
23	KEY (8x7x20 LONG)	8821.00	1
24	30MM EXTERNAL CIRCLIP		1
25	62MM INTERNAL CIRCLIP		1
26	M8 SPRING WASHER BZP		6
27	SOCKET CAP SCREW M8x40 BZP		6
28	C'SUNK ALLEN HEAD SCREW M12x25 BZP		4
29	SOCKET CAP SCREW M6x10 BZP		1
30	SOCKET SET SCREW, OVAL POINT 3/8"-16 x 5/8" (SUPPLIED WITH TAPER LOCK BUSH)		2
31	ENCODER PLATE	9348.00	1
32	ENCODER	9347.00	1
33	SOCKET SET SCREW M4x4 BZP		1
34	SOCKET SET SCREW M3x6 BZP		1
35	SOCKET CAP SCREW M12x25 BZP		2
36	SOCKET CAP SCREW M10x20 BZP		4
37	SPACER	9371.00	1

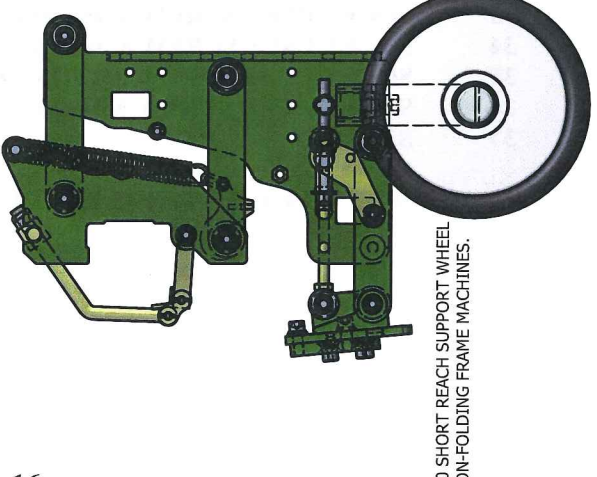
REFUR TO PAGES 44 & 45 FOR DETAILS ON DISC SIZES & DISC LEGS

Sensor 6078

8614.00 LONG REACH SUPPORT WHEEL FOR FOLDING FRAME MACHINES.



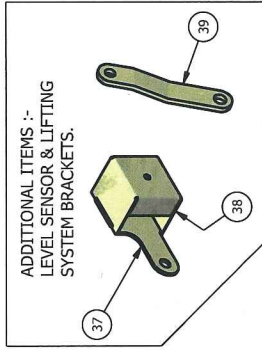
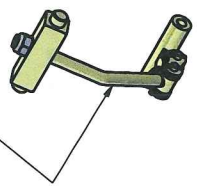
SPRING LIFT BRACKET



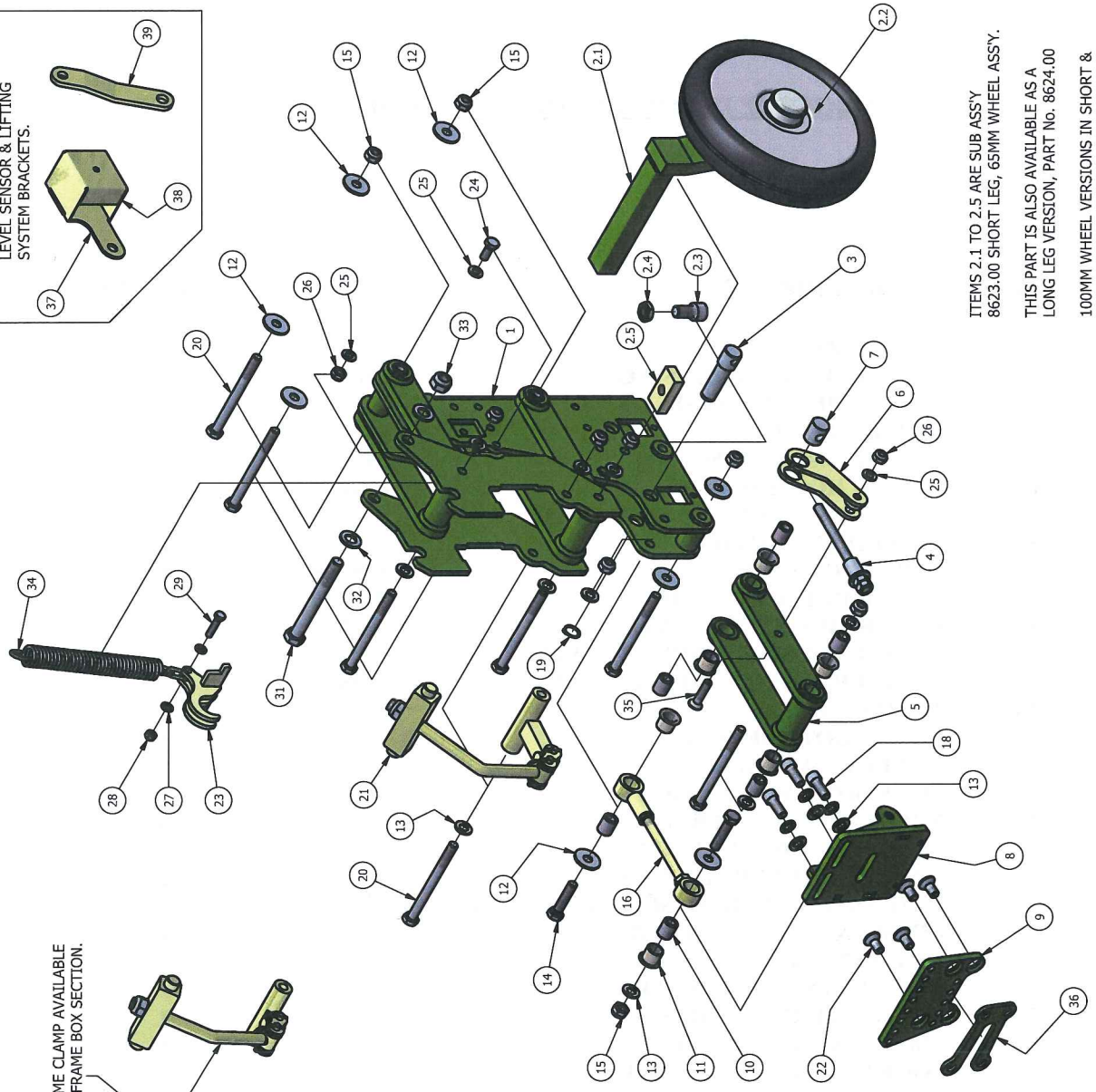
8614.00 SHORT REACH SUPPORT WHEEL FOR NON-FOLDING FRAME MACHINES.

ABOVE VIEWS SHOW HIDDEN DETAIL TO HIGHLIGHT THE POSITIONING OF THE LONG AND SHORT REACH UNITS. ALSO POSITION OF SPRING LIFT BRACKET 8544.00 CAN BE SEEN.

7539.00 FRAME CLAMP AVAILABLE FOR 100x50 FRAME BOX SECTION.



ADDITIONAL ITEMS :- LEVEL SENSOR & LIFTING SYSTEM BRACKETS.



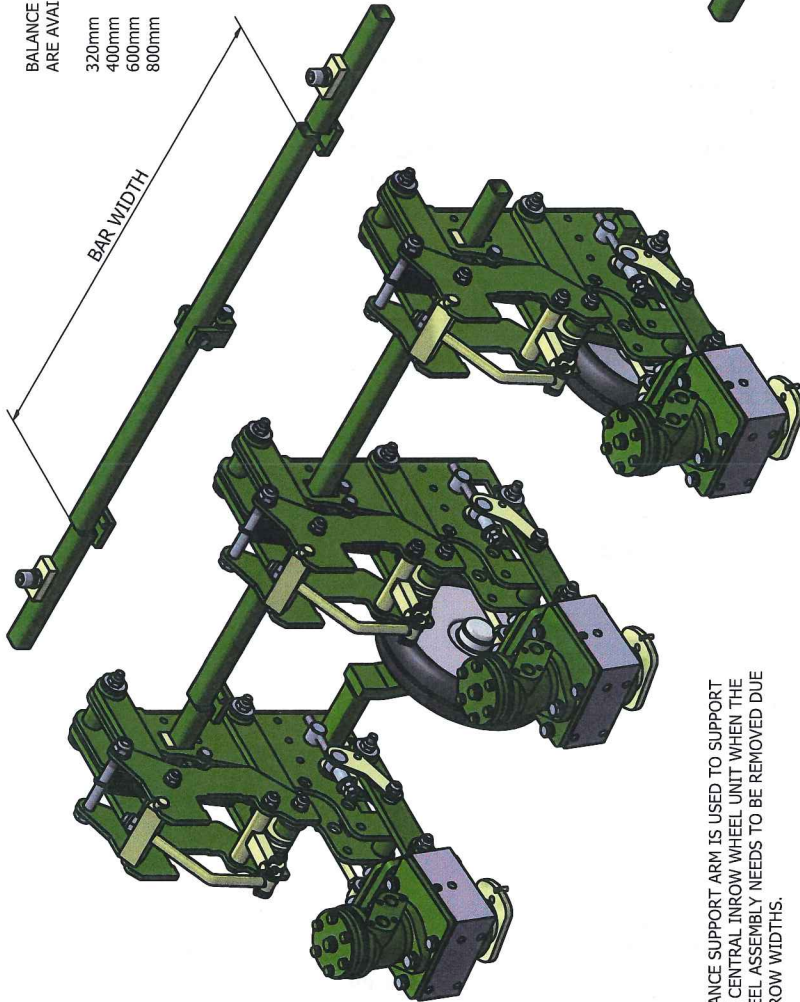
ITEMS 2.1 TO 2.5 ARE SUB ASSY
8623.00 SHORT LEG, 65MM WHEEL ASSY.
THIS PART IS ALSO AVAILABLE AS A
LONG LEG VERSION, PART No. 8624.00
100MM WHEEL VERSIONS IN SHORT &
LONG LEG ARE ALSO AVAILABLE,
PART No.'s 8699.00 & 8625.00 RESPECTIVELY.

ROBOCROP IN ROW SUPPORT WHEEL ASSEMBLY

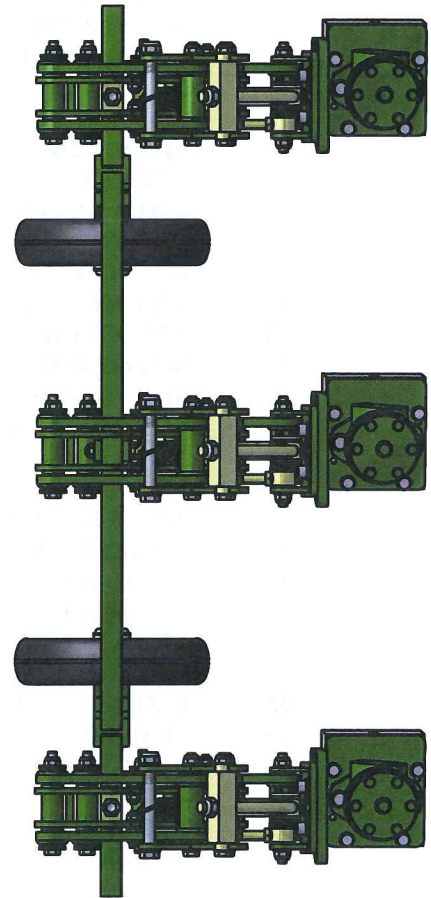
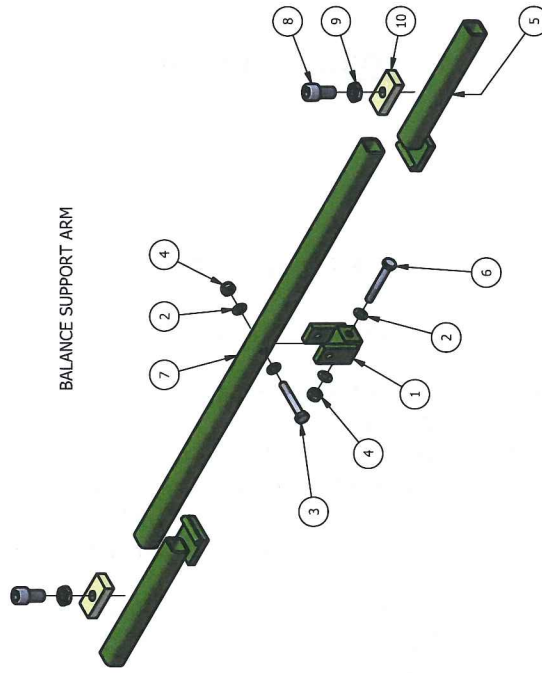
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	SUPPORT WHEEL UNIT	8614.01	1
ITEMS 2.1 TO 2.5 AS FOLLOWS:-			
2.1	WHEEL LEG	8623.00	1
2.2	65MM WHEEL	7599.00	1
2.3	SOCKET CAP SCREW M16x30 BZP		1
2.4	M16 HEX. HALF NUT BZP		1
2.5	SUPPORT WHEEL CLAMP PLATE	8622.00	1
3	ADJUSTMENT RETAINING PIN	8616.00	1
4	DEPTH ADJUSTMENT BOLT	8618.00	1
5	PARALLEL LINK	9147.00	1
6	DEPTH CONTROL LINK	8615.00	1
7	DEPTH ADJUSTMENT BUSH	8617.00	1
8	LINKAGE MOUNTING PLATE	8619.00	1
9	ROTOR MOUNTING PLATE	8621.02	1
10	PARALLEL LINK BUSH	8184.00	2
11	BUSH	8185.02	2
12	LARGE OD WASHER 12x37x3 BZP		8
13	M12 FLAT WASHER BZP		13
14	M12x55 BOLT BZP		2
15	M12 NYLOC NUT BZP		9
16	ADJUSTABLE PARALLEL LINK	8725.00	1
17	M12 SPRING WASHER BZP		3
18	SOCKET CAP SCREW M12x30 BZP		3
19	20MM EXTERNAL CIRCLIP		1
20	M12x40 BOLT BZP		7
21	FRAME CLAMP	7537.00	1
22	C'SUNK ALLEN HEAD SCREW M12x25 BZP		4
23	SPRING LIFT BRACKET	8544.00	1
24	M10x25 BOLT BZP		2
25	M10 FLAT WASHER BZP		5
26	M10 NYLOC NUT BZP		3
27	M8 FLAT WASHER BZP		2
28	M8 NYLOC NUT BZP		1
29	M8x35 BOLT BZP		1
30	CHAIN LINK		1
31	M16x140 BOLT BZP		1
32	M16 FLAT WASHER BZP		2
33	M16 NYLOC NUT BZP		1
34	TENSION SPRING	5536.00	1
35	C'SUNK ALLEN HEAD SCREW M10x45 BZP		1
36	SPACER	9371.00	1
QUANTITY BELOW DICTATED BY No. OF CAMERAS			
37	LEVEL SENSOR BRACKET	8988.00	
38	LEVEL SENSOR GUARD	8989.00	
39	LEVELLING SYSTEM BRACKET	8196.02	

BALANCE SUPPORT ARM BAR WIDTHS
ARE AVAILABLE IN THE FOLLOWING LENGTHS :-

- 320mm
- 400mm
- 600mm
- 800mm

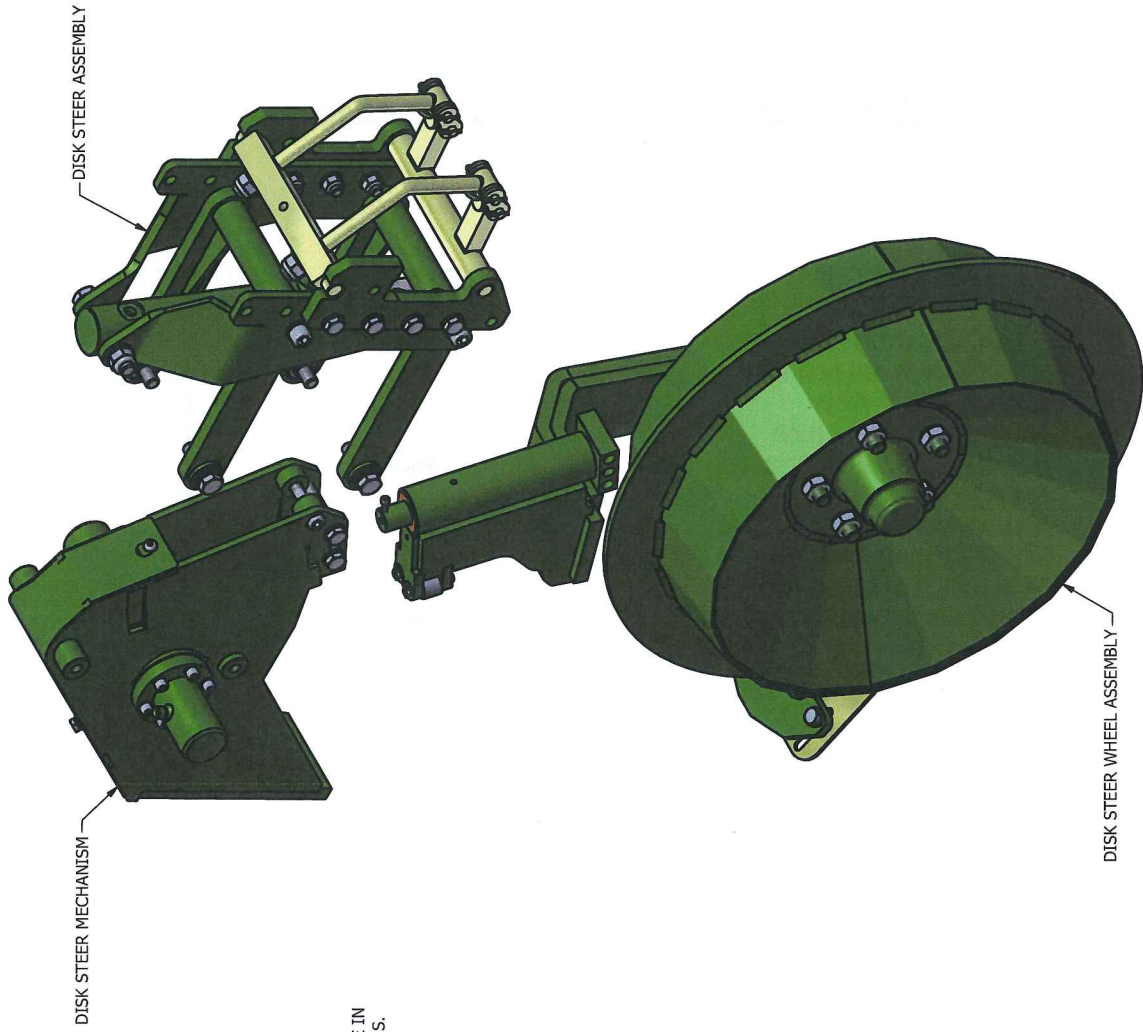


BALANCE SUPPORT ARM IS USED TO SUPPORT
THE CENTRAL INROW WHEEL UNIT WHEN THE
WHEEL ASSEMBLY NEEDS TO BE REMOVED DUE
TO ROW WIDTHS.



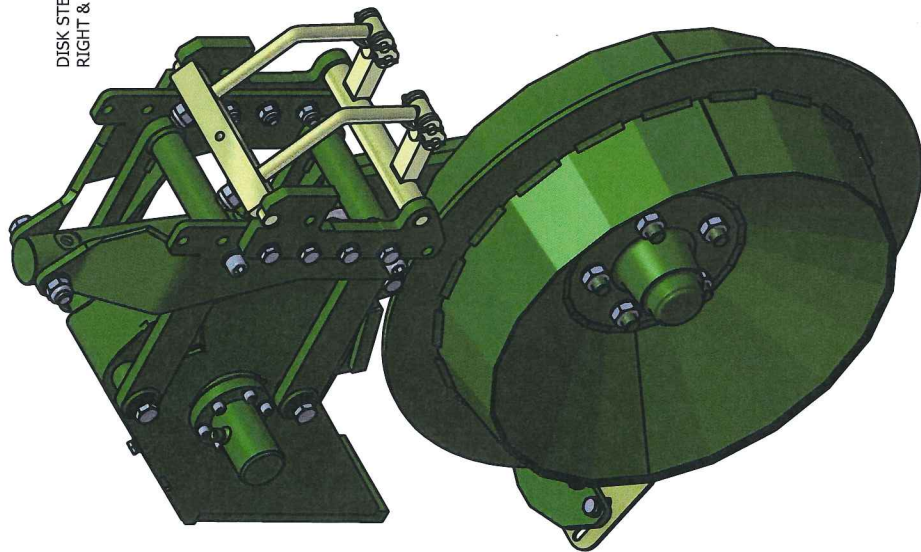
ROBOCROP IN ROW BALANCE SUPPORT ARM

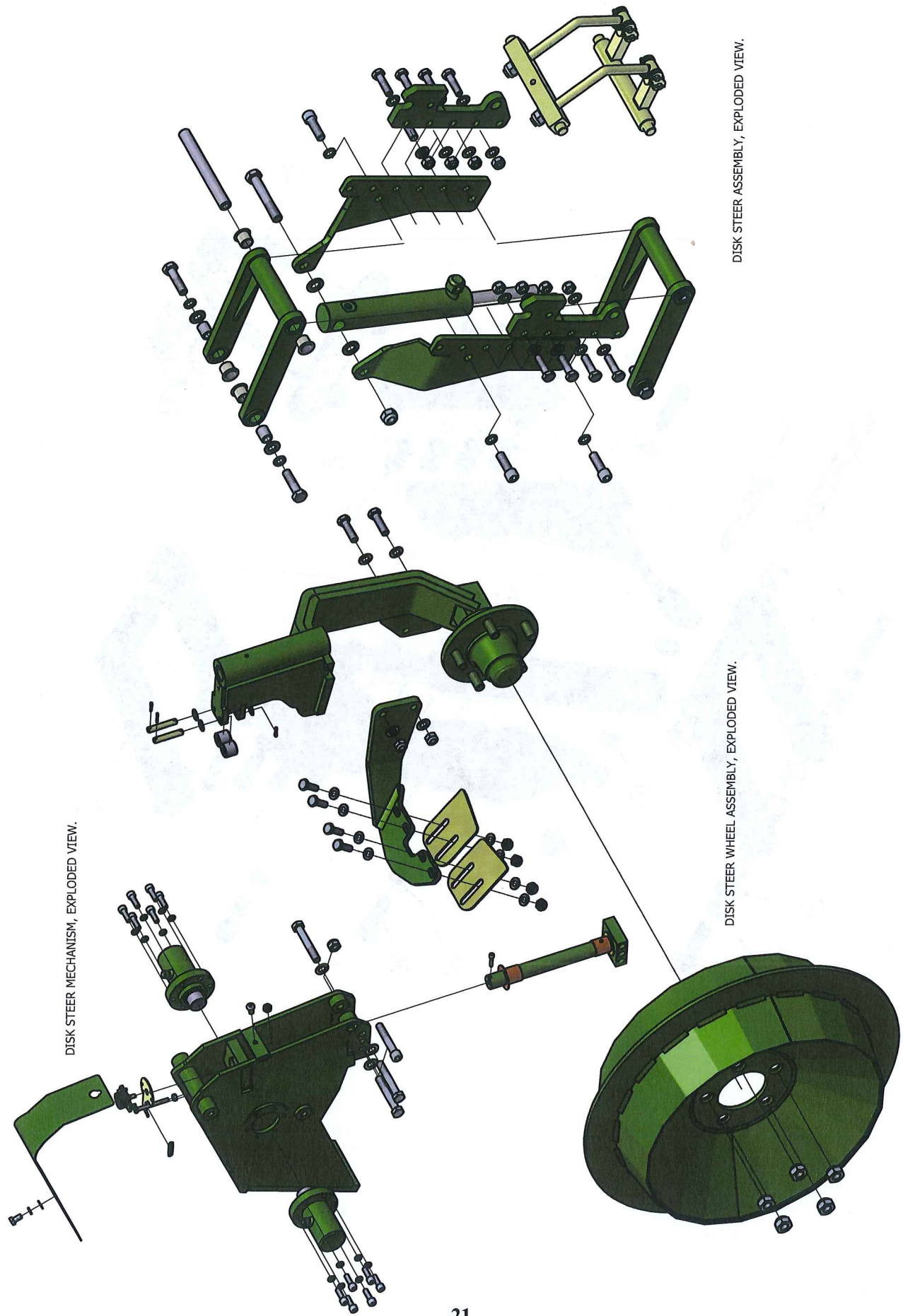
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	BALANCE SUPPORT PIVOT	8666.00	1
2	M10 THIN WASHER BZP		4
3	M10x65 BOLT BZP		1
4	M10 NYLOC NUT BZP		2
5	BALANCE BAR SUPPORT	8665.00	2
6	M10x70 BOLT BZP		1
7	BALANCE SUPPORT ARM	8664.00	1
8	SOCKET CAP SCREW M16x30 BZP		2
9	M16 HEX. HALF NUT BZP		2
10	SUPPORT WHEEL CLAMP PLATE	8622.00	2



INROW DISK STEER UNIT :-
THE 3 MAIN SUB-ASSEMBLIES ARE
SHOWN PARTIALLY EXPLODED FOR
IDENTIFICATION PURPOSES.

DISK STEER UNITS, AVAILABLE IN
RIGHT & LEFT HAND VERSIONS.

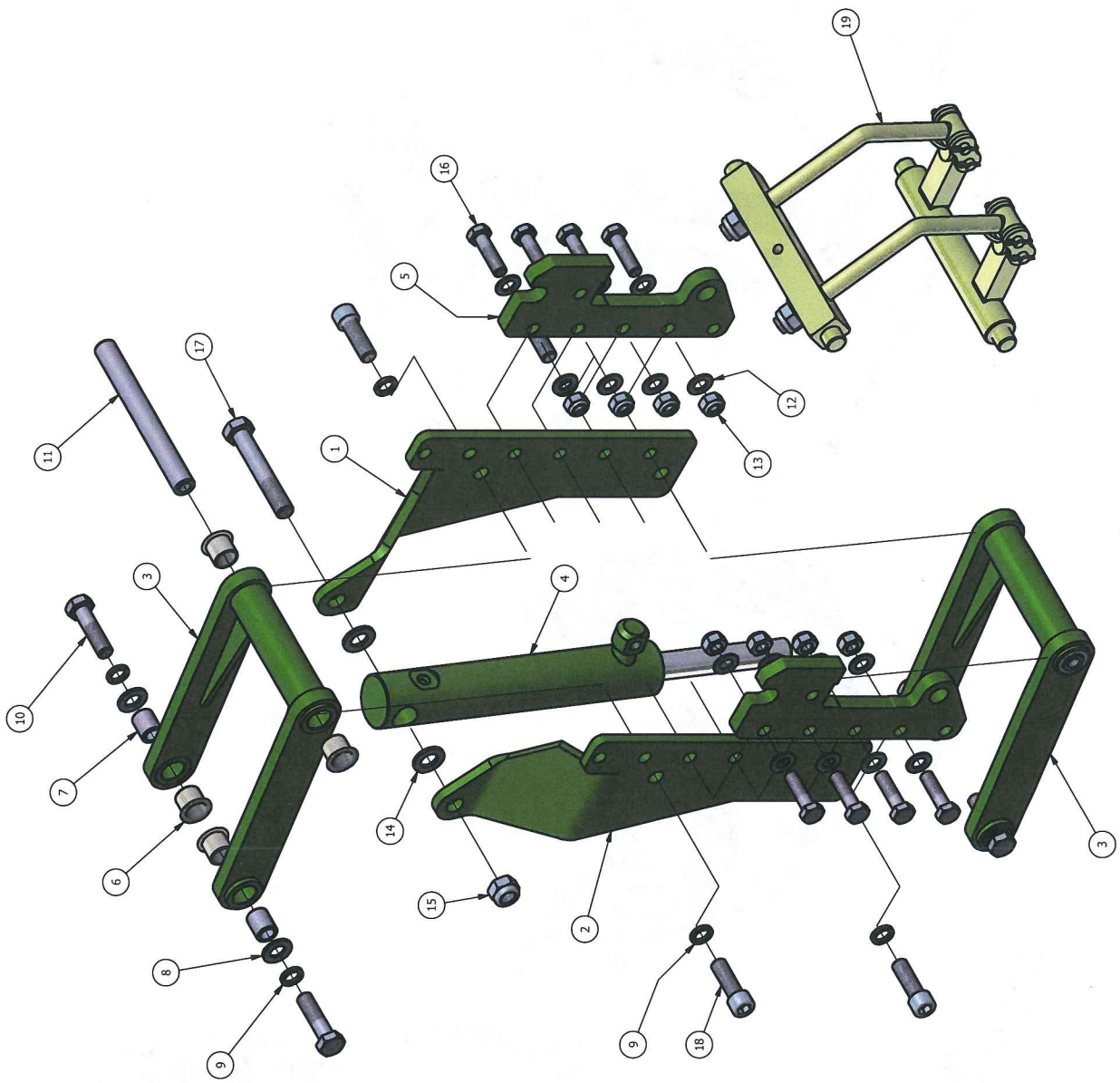




DISK STEER MECHANISM, EXPLODED VIEW.

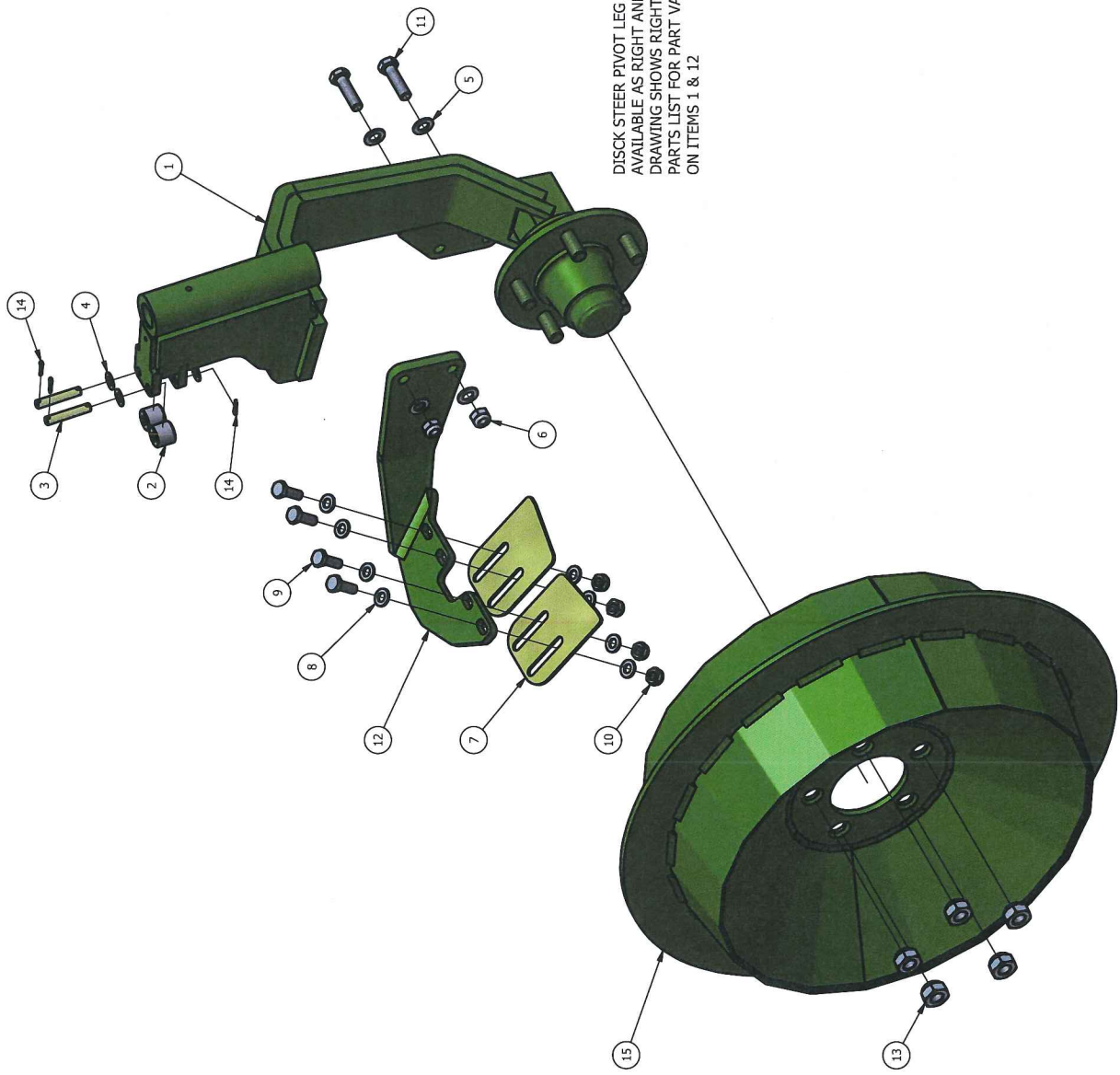
DISK STEER WHEEL ASSEMBLY, EXPLODED VIEW.

DISK STEER ASSEMBLY, EXPLODED VIEW.



ROBOCROP IN ROW DISK STEER ASSEMBLY

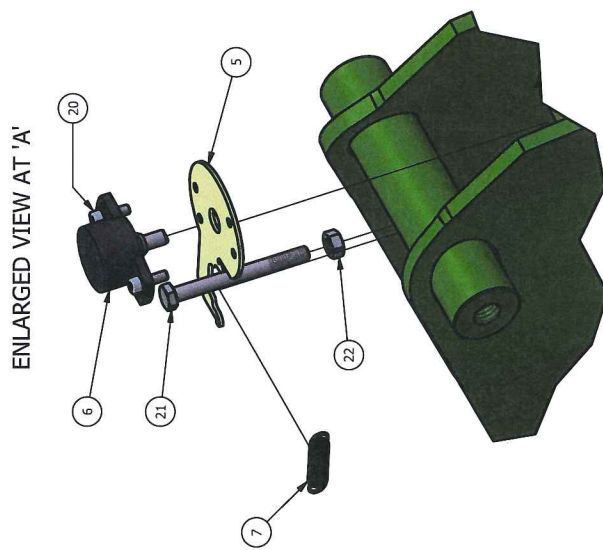
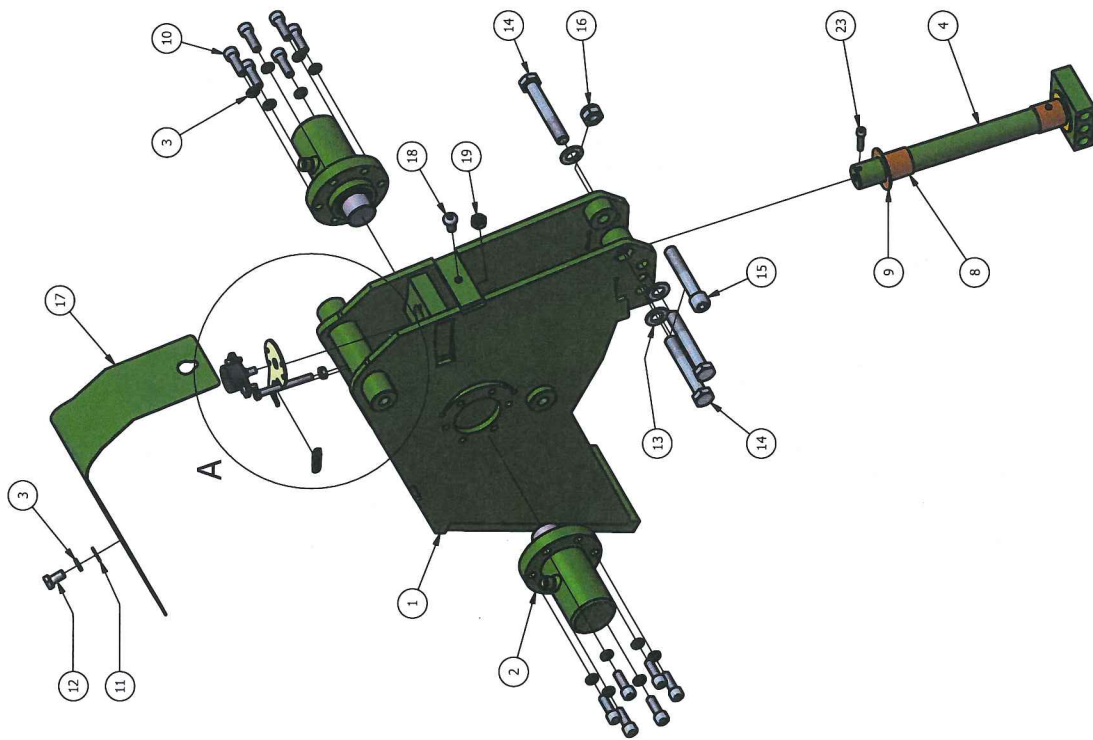
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	LH STEER BRACKET	8589.00	1
2	RH STEER BRACKET	8590.00	1
3	PARALLEL STEER LINK	8591.00	2
4	HYDRAULIC ACTUATOR	8596.00	1
5	STEER MOUNT BRACKET	8588.00	2
6	BUSH	8185.02	8
7	STEER BUSH	8598.00	4
8	M14 FLAT WASHER BZP		4
9	M14 SPRING WASHER BZP		8
10	M14x55 BOLT BZP		4
11	STEER BUSH SHAFT	8597.00	2
12	M12 THIN WASHER BZP		16
13	M12 NYLOC NUT BZP		8
14	M16 FLAT WASHER BZP		2
15	M16 NYLOC NUT BZP		1
16	M12x45 BOLT BZP		8
17	M16x100 BOLT BZP		1
18	SOCKET CAP SCREW M14x45 BZP		4
19	FRAME MOUNT BRACKET	8601.01	1



DISCK STEER PIVOT LEG ASSEMBLY
AVAILABLE AS RIGHT AND LEFT HAND.
DRAWING SHOWS RIGHT HAND. SEE
PARTS LIST FOR PART VARIATIONS
ON ITEMS 1 & 12

ROBOCROP IN ROW DISK STEER WHEEL ASSEMBLY

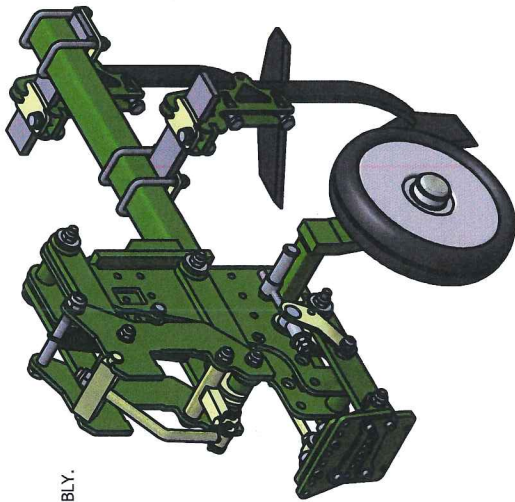
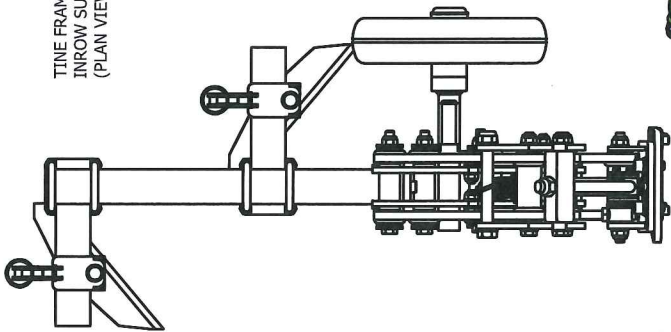
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	PIVOT LEG ASSEMBLY RIGHT HAND	9417.00	1
	PIVOT LEG ASSEMBLY LEFT HAND	9416.00	1
2	RAM ROLLER	8688.00	2
3	RAM ROLLER PINS	7726.00	2
4	M10 THIN WASHER BZP		4
5	M12 THIN WASHER BZP		4
6	M12 NYLOC NUT BZP		2
7	WHEEL SCRAPER	9377.00	2
8	M10 FLAT WASHER BZP		8
9	M10x30 BOLT BZP		4
10	M10 NYLOC NUT BZP		4
11	M12x45 BOLT BZP		2
12	SCRAPER ARM RIGHT HAND	9420.00	1
	SCRAPER ARM LEFT HAND	9421.00	1
13	M16 CAPTIVE WHEEL NUT	9422.00	5
14	SPILT PIN	7727.00	4
15	DISK STEER WHEEL	9415.00	1



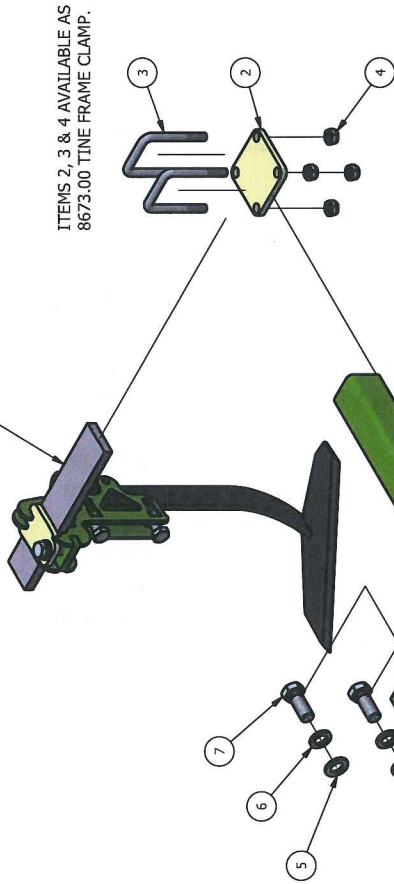
ROBOCROP IN ROW DISK STEER MECHANISM

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	DISK STEER WHEEL BRACKET	8592.00	1
2	HYDRAULIC STEERING ACTUATOR	8668.00	2
3	M8 SPRING WASHER BZP		13
4	PIVOT PIN	8594.00	1
5	POTENTIOMETER MOUNTING PLATE	8675.00	1
6	ROTARY POTENTIOMETER	8674.00	1
7	TENSION SPRING	8676.00	1
8	BUSH	7446.00	2
9	THRUST WASER	8626.00	2
10	SOCKET CAP SCREW M8x25 BZP		12
11	M8 THIN WASHER BZP		1
12	M8x15 BOLT BZP		1
13	M12 THIN WASHER		3
14	M12x80 BOLT BZP		3
15	SOCKET CAP SCREW M12x70 BZP		1
16	M12 NYLOC NUT BZP		1
17	STEERING GUARD	8609.03	1
18	M8x16 BUTTON HEAD SCREW		1
19	M8 NUT BZP		1
20	SOCKET CAP SCREW M4x12 BZP		2
21	M6x60 BOLT BZP		1
22	M6 NUT BZP		1
23	SOCKET CAP SCREW M5x25 BZP		1

TINE FRAME SHOWN FITTED TO INROW SUPPORT WHEEL ASSEMBLY. (PLAN VIEW ALSO SHOWN).



TINE WINGS ARE MANUFACTURED FOR SPECIFIC ROW WIDTHS. REFER TO GARFORD FARM MACHINERY LTD WITH MACHINE SERIAL NUMBER.

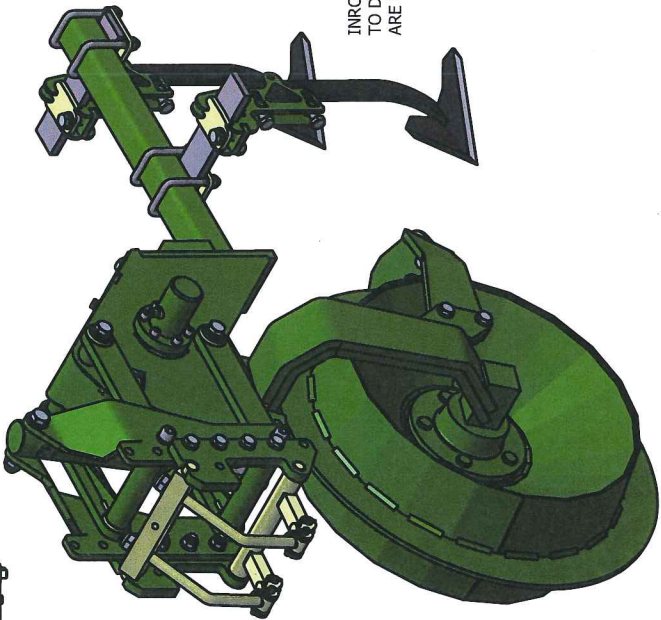


ITEMS 2, 3 & 4 AVAILABLE AS 8673.00 TINE FRAME CLAMP.

TINE FRAME IS AVAILABLE IN FOLLOWING LENGTHS :-

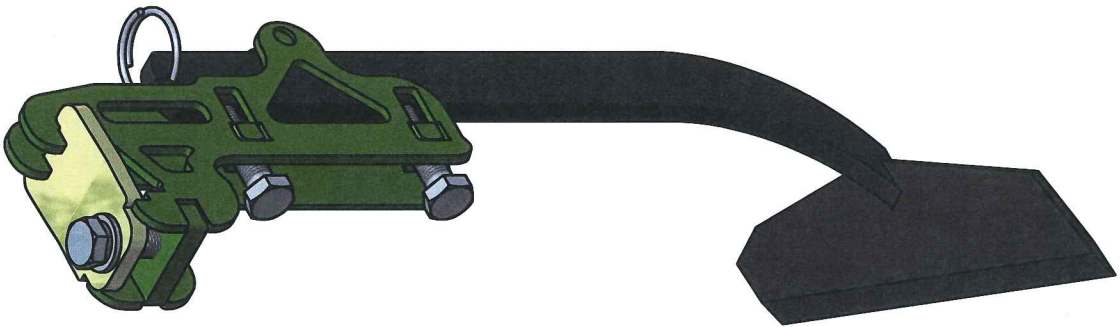
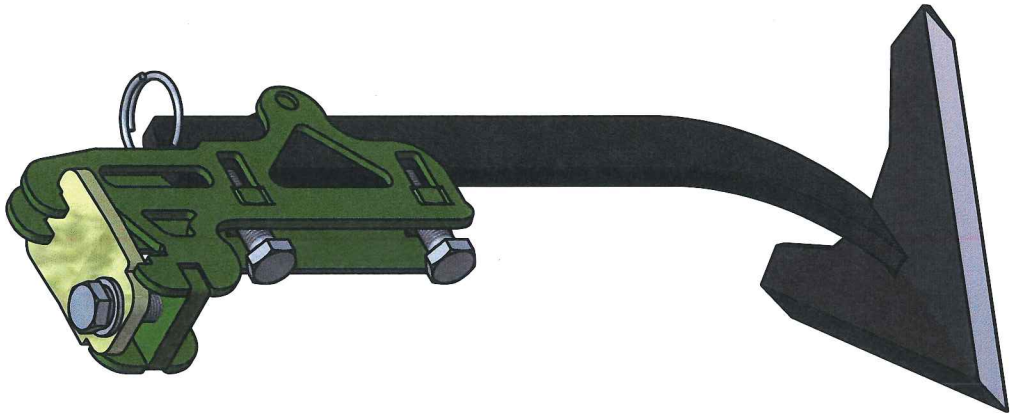
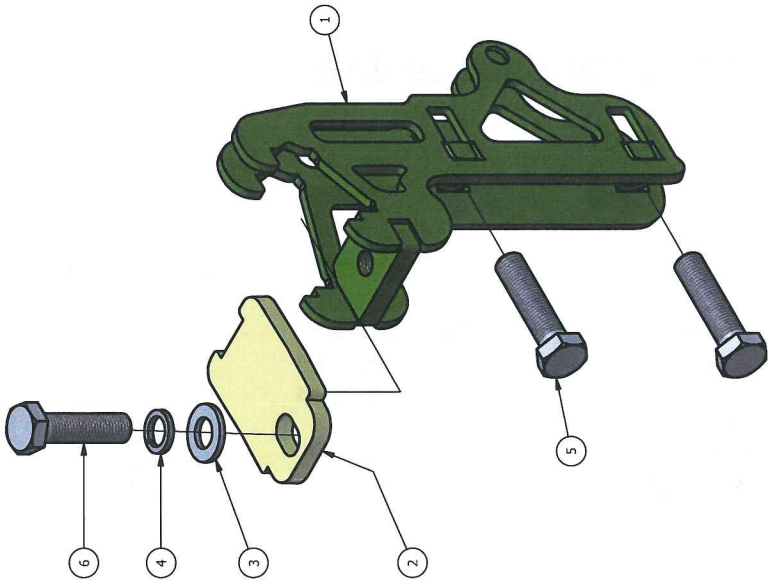
- 8677.00 500mm
- 8719.00 700mm
- 8730.00 800mm

INROW TINE FRAME IS ALSO FITTED TO DISK STEER UNIT. SLASH BLADES ARE REPLACED BY A-SHARES.



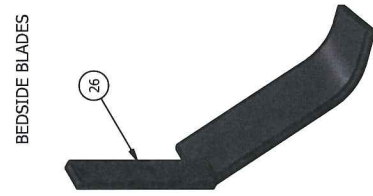
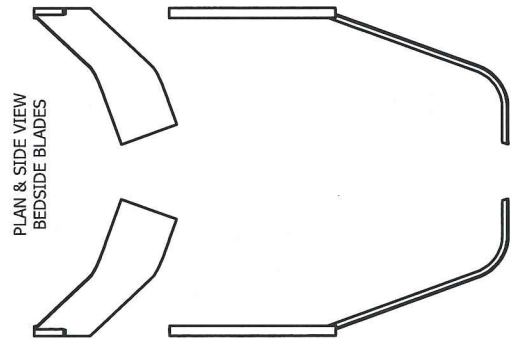
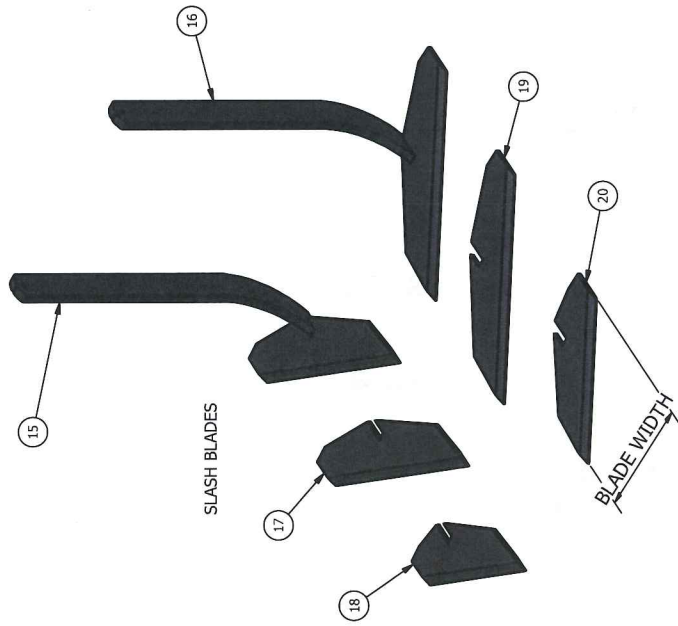
ROBOCROP IN ROW TINE FRAME ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	TINE FRAME (SEE DRAWING FOR PART NUMBERS)		1
2	FRAME CLAMP PLATE	8673.00	2
3	U-BOLT 50x50xM10	8672.00	4
4	M10 NYLOC NUT BZP		8
5	M16 FLAT WASHER BZP		2
6	M16 SPRING WASHER BZP		2
7	M16x40 BOLT BZP		2

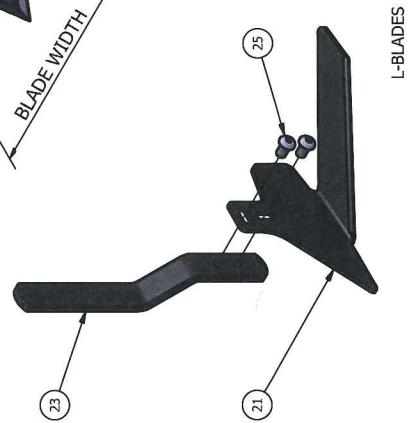
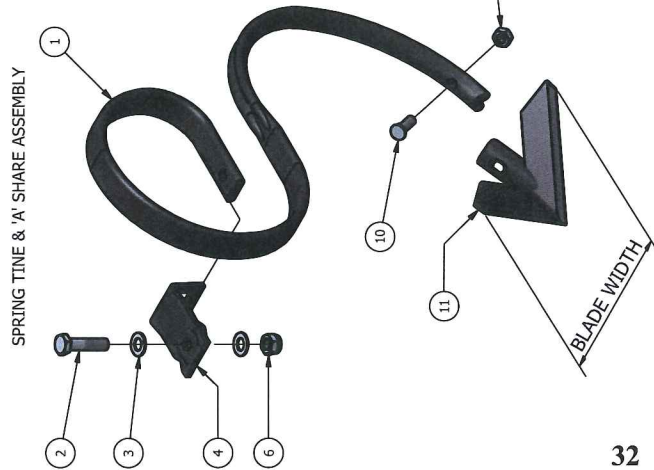
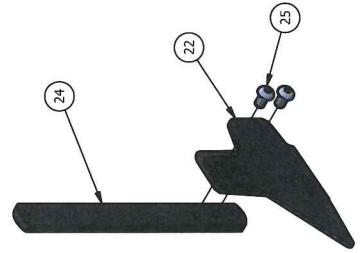
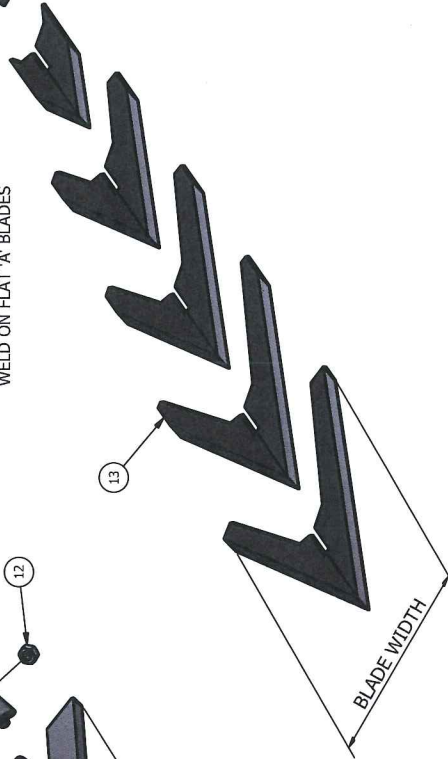


ROBOCROP ADJUSTABLE TINE CLAMP ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	TINE CLAMP BODY	9367.00	1
2	CLAMP	9368.00	1
3	M12 FLAT WASHER BZP		1
4	M12 SPRING WASHER BZP		1
5	M12x50 FINE THREAD SET SCREW BZP		2
6	M12x40 FINE THREAD SET SCREW BZP		1



WELD ON FLAT 'A' BLADES

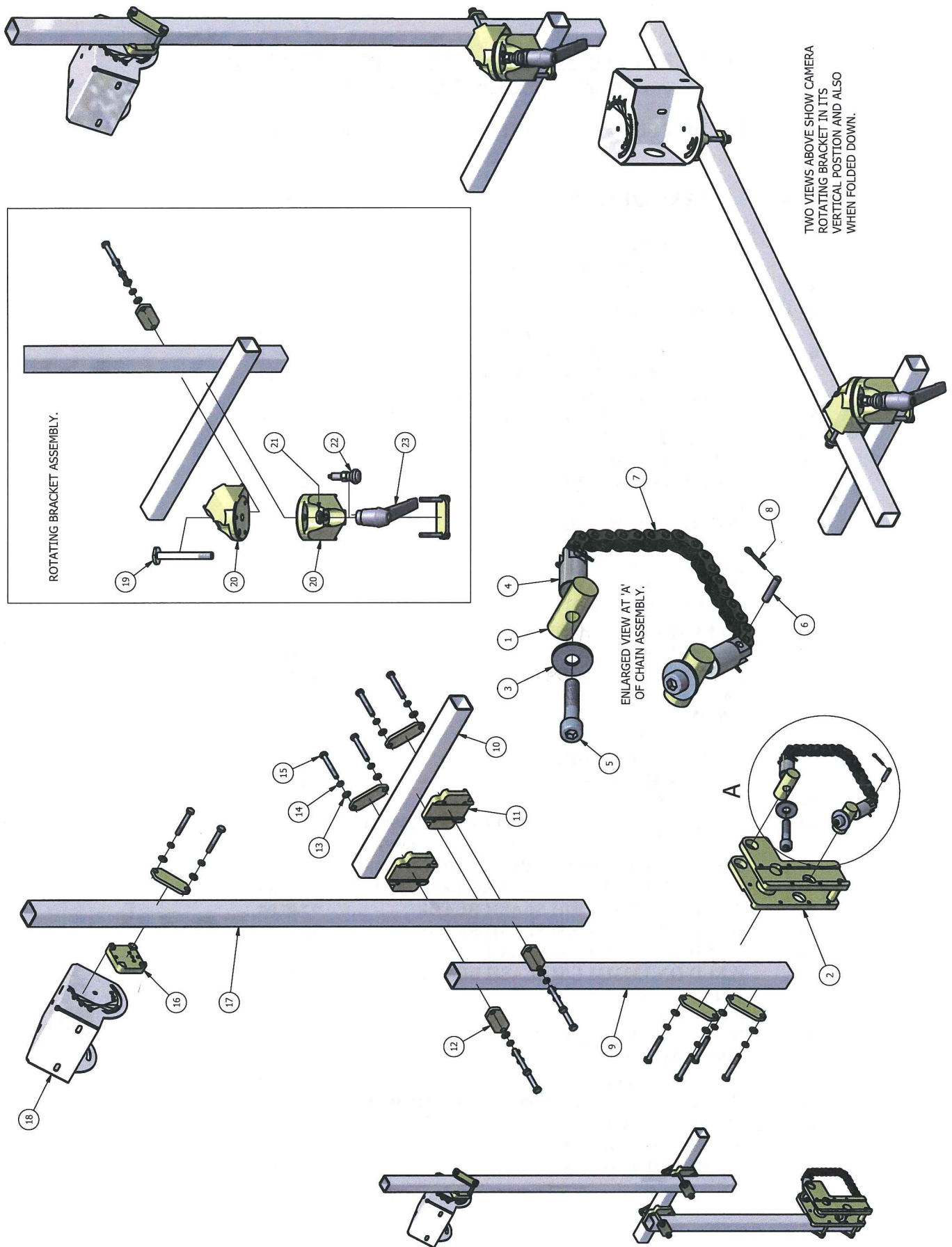


L-BLADES

ROBOCROP SPRING TINES, 'A' BLADES, SLASH BLADES
'L' BLADES & BEDSIDE BLADES

QUANTITY NOT SHOWN AS LIST IS FOR REFERENCE PURPOSES ONLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	SPRING TINE	5989.00	
2	M12x50 FINE THREAD BOLT BZP		
3	M12 THIN WASHER BZP		
4	SPRING TINE CLAMP	5992.00	
5	ADJUSTABLE SPRING TINE CLAMP	7515.00	
6	M12 THIN THREAD NYLOC NUT BZP		
7	ADJUSTABLE SPRING TINE	7412.00	
8	M12x40 FINE THREAD BOLT BZP		
9	ADJUSTABLE SPRING TINE NUT BLOCK	8365.00	
10	M10 SHARE BOLT		
11	BOLT ON 'A' SHARES		
	100MM WIDE BLADE	6094.00	
	125MM WIDE BLADE	6871.00	
	150MM WIDE BLADE	7831.00	
	180MM WIDE BLADE	5990.00	
	200MM WIDE BLADE	7814.00	
	250MM WIDE BLADE	7815.00	
12	M10 HEX. NUT BZP		
13	WELD ON FLAT 'A' SHARES		
	100MM WIDE BLADE	7648.00	
	120MM WIDE BLADE	7905.00	
	160MM WIDE BLADE	7619.00	
	180MM WIDE BLADE	7768.00	
	200MM WIDE BLADE	7741.00	
	220MM WIDE BLADE	7767.00	
	250MM WIDE BLADE	7551.00	
14	BLADE LEG	7552.00	
15	COMPLETE R/H SLASH BLADE LEG 180MM	7750.00	
	COMPLETE R/H SLASH BLADE LEG 130MM	8093.00	
16	COMPLETE L/H SLASH BLADE LEG 180MM	7749.00	
	COMPLETE L/H SLASH BLADE LEG 130MM	8094.00	
17	WELD ON 180MM R/H SLASH BLADE	7745.00	
18	WELD ON 130MM R/H SLASH BLADE	8091.00	
19	WELD ON 180MM L/H SLASH BLADE	7744.00	
20	WELD ON 130MM L/H SLASH BLADE	8092.00	
21	L/H 'L' BLADE	5994.00	
22	R/H 'L' BLADE	5995.00	
23	OFFSET 'L' BLADE LEG		
	55MM (7414.00) 85MM (7691.00)		
24	'L' BLADE LEG	7621.00	
25	M10x16 SOCKET BUTTON HEAD SCREW BZP		
26	BEDSIDE BLADES		
	R/H BEDSIDE BLADE	7747.00	
	L/H BEDSIDE BLADE	7746.00	



ROBOCROP CAMERA BRACKET ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	CHAIN BOLT PIVOT	9351.00	1
2	CLAMP BRACKET	9400.00	1
3	LARGE DIA WASHER, 10x30x2.5 BZP		2
4	CHAIN ANCHOR	9435.01	2
5	SOCKET CAP SCREW, M10x50 BZP		2
6	CHAIN PIN	9437.00	2
7	CHAIN (AVAILABLE IN VARIOUS LENGTHS)	9436.00	1
8	SPLIT PIN		2
9	CAMERA HIGHT STEM 600mm	9404.00	1
10	CAMERA CROSS STEM 350mm	9403.00	1
11	CAMERA FRAME BRACKET	9401.00	2
12	CAMERA FRAME CLAMP	9402.00	7
13	M6 FLAT THIN WASHER BZP		14
14	M6 SPRING WASHER BZP		14
15	M6x45 BOLT BZP		14
16	CAMERA FRAME BRACKET	9418.00	1
17	CAMERA HIGHT STEM 1000mm	9434.00	1
18	CAMERA BOX	8570.03	1
19	ROTATING BRACKET PIN	9419.00	1
20	ROTATING CAMERA BRACKET	9355.04	2
21	M10 HALF NUT BZP		1
22	LOCKING PIN		1
23	HANDLE		1

ADDITIONAL CAMERA STEMS :-

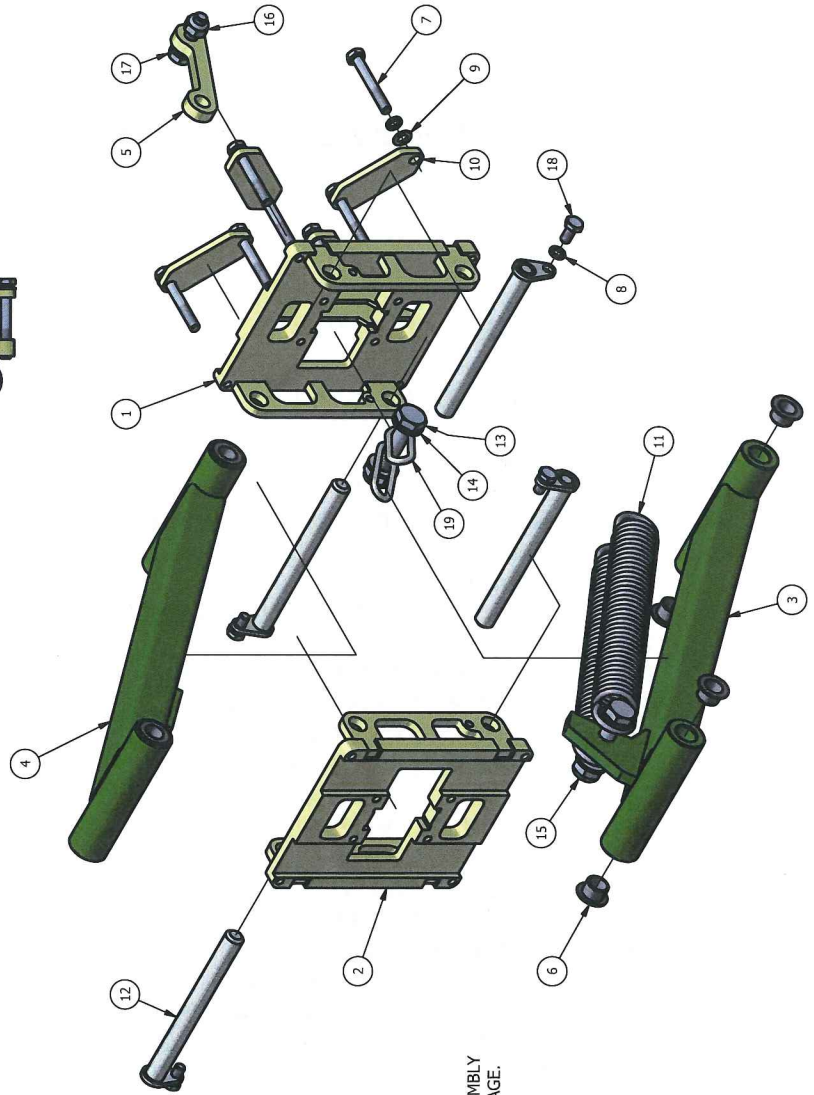
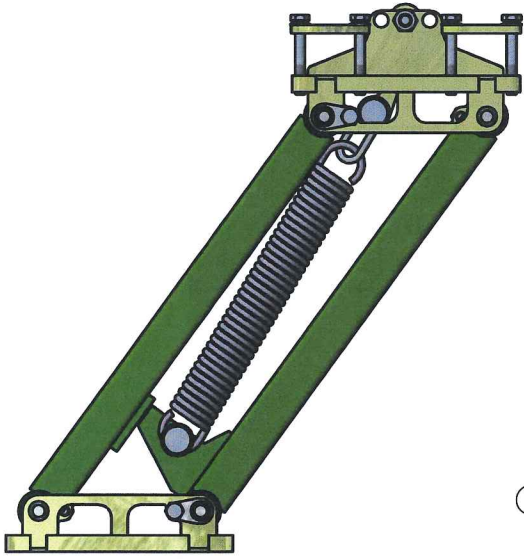
9505.00 (450mm)

9433.00 (800mm)

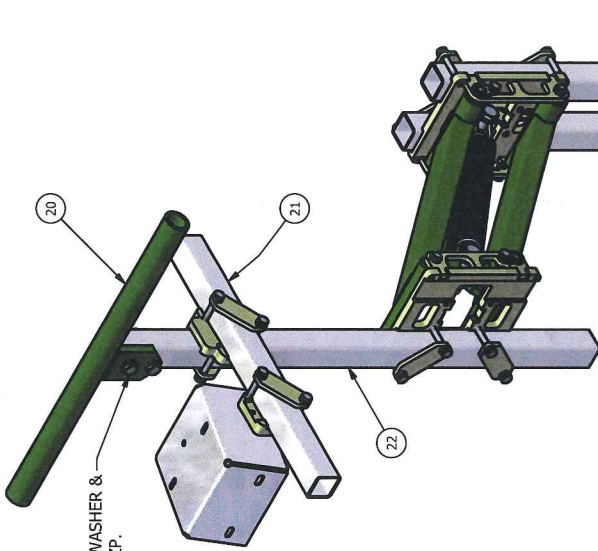
QUANTITY SHOWN IS PER CAMERA BRACKET ASSEMBLY.

TOTAL QUANTITY IS DEPENDENT ON MACHINE

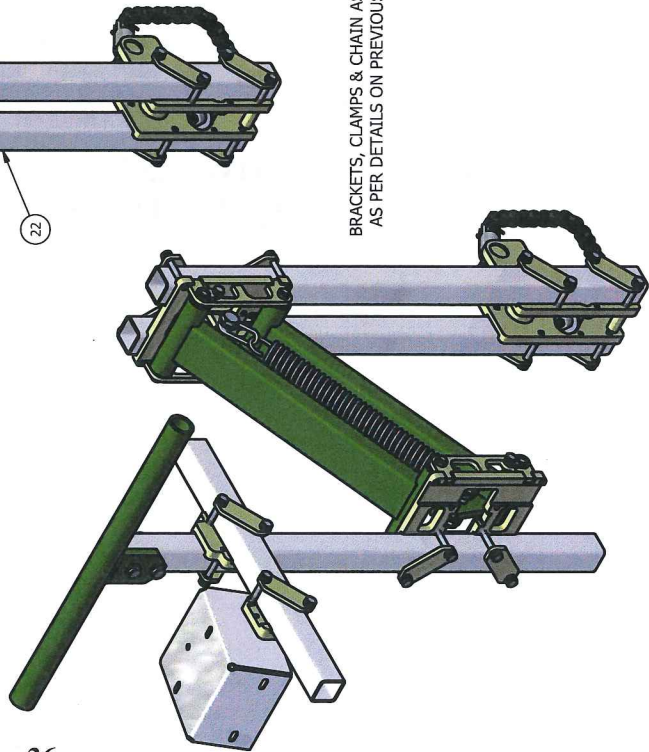
SPECIFICATION.



BRACKETS, CLAMPS & CHAIN ASSEMBLY
AS PER DETAILS ON PREVIOUS PAGE.



M8x50 BOLT, WASHER &
NYLOC NUT BZP.

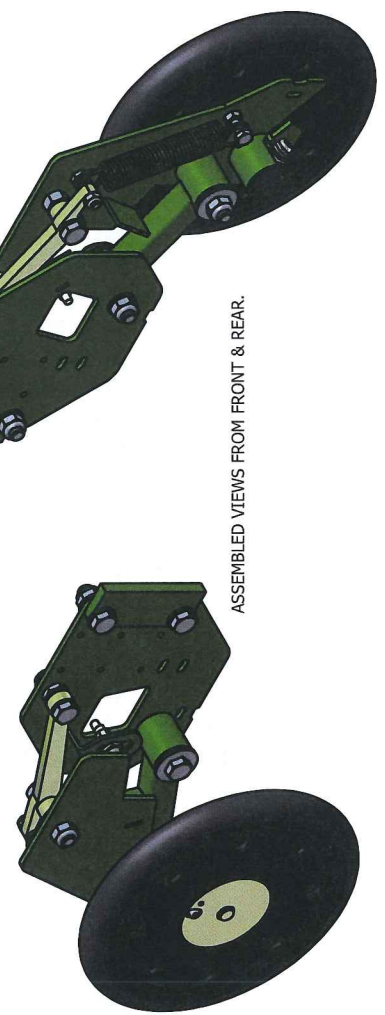
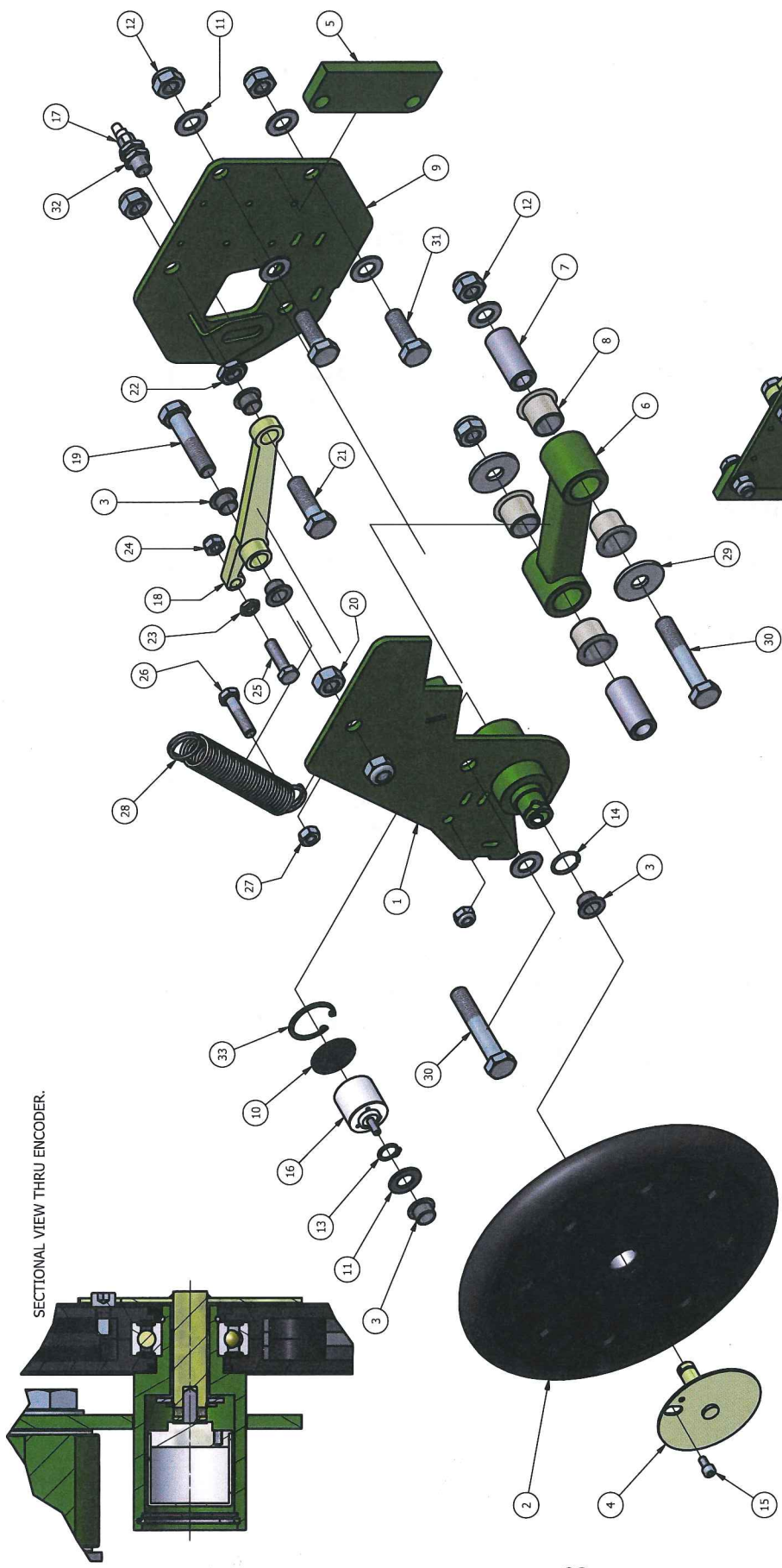


ROBOCROP 'DUCKING' CAMERA BRACKET ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	MOUNTING BRACKET	9426.00	1
2	MOUNTING BRACKET	9427.00	1
3	PARALLEL ARM	9428.00	1
4	PARALLEL ARM	9429.00	1
5	SPRING LINK	9430.00	1
6	BUSH	9036.00	8
7	M6x45 BOLT BZP		8
8	M6 SPRING WASHER		12
9	M6 FLAT THIN WASHER BZP		8
10	CAMERA FRAME CLAMP	9402.00	4
11	TENSION SPRING	5536.00	2
12	PIVOT PIN	9431.00	4
13	M10x50 BOLT BZP		2
14	M10 FLAT WASHER BZP		2
15	M10 NYLOC NUT		2
16	M8 NYLOC NUT		1
17	M8x30 BOLT BZP		1
18	M8x12 BOLT BZP		4
19	CHAIN LINK		2
20	HANDLE	9432.00	1
21	CAMERA CROSS STEM 350mm	9403.00	1
22	CAMERA HIGHT STEM 600mm	9404.00	3

**QUANTITY SHOWN IS PER CAMERA BRACKET ASSEMBLY.
TOTAL QUANTITY IS DEPENDENT ON MACHINE
SPECIFICATION.**

SECTIONAL VIEW THRU ENCODER.

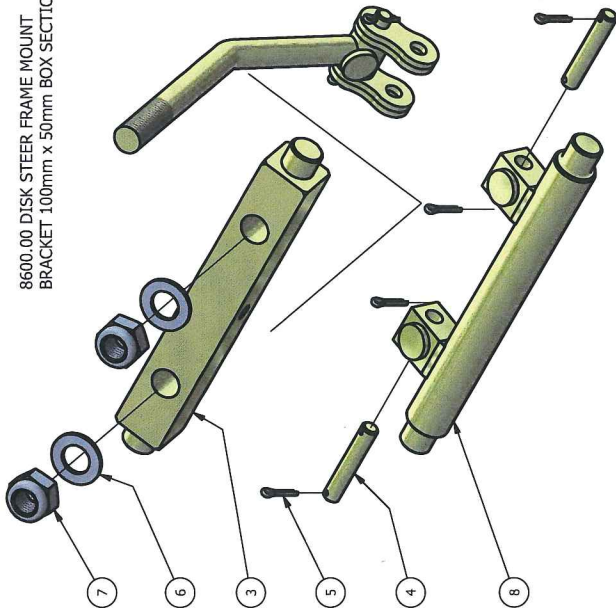


ROBOCROP IN ROW ENCODER WHEEL ASSEMBLY

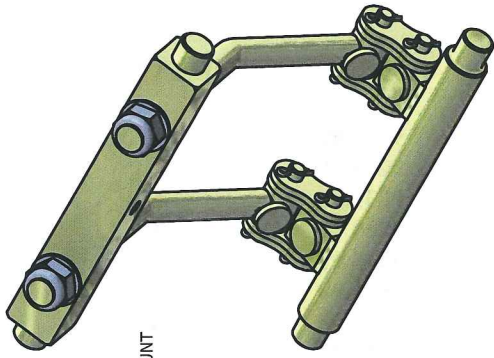
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	ENCODER WHEEL AXEL BRACKET	9385.00	1
2	ENCODER WHEEL WITH BEARING	9034.00	1
3	BUSH	9036.00	5
4	ENCODER WHEEL CAP	9039.00	1
5	WHEEL BRACKET	8644.00	1
6	PARALLEL LINK	8645.00	1
7	PARALLEL LINK AXEL BUSH	8646.00	2
8	BUSH	8185.02	4
9	PARALLEL LINK PLATE	9386.00	1
10	ENCODER CAP	9043.00	1
11	M12 THIN WASHER BZP		11
12	M12 NYLOC NUT BZP		6
13	13MM EXTERNAL CIRCLIP		1
14	SNAP RING		1
15	M5x10 SOCKET CAP SCREW BZP		1
16	ENCODER	9347.00	1
17	PROXIMITY SENSOR	6078.00	1
18	PARALLEL LINK	9397.00	1
19	M12x55 BOLT BZP		1
20	M12 NUT BZP		1
21	M12x40 BOLT BZP		1
22	M12 NUT BZP		1
23	M8 HALF NUT BZP		1
24	M8 NYLOC NUT BZP		2
25	M8x30 BOLT BZP		1
26	M8x35 BOLT BZP		1
27	M8 NUT BZP		1
28	DOUBLE LOOP TENSION SPRING	6595.00	1
29	LARGE OD FLAT WASHER 12x37x3 BZP		2
30	M12x70 BOLT BZP		2
31	M12x35 BOLT BZP		2
32	M10 HALF NUT (SUPPLIED WITH PROXIMITY SENSOR)		2
33	34MM INTERNAL CIRCLIP		1

EC1 Encoder wheel Assy

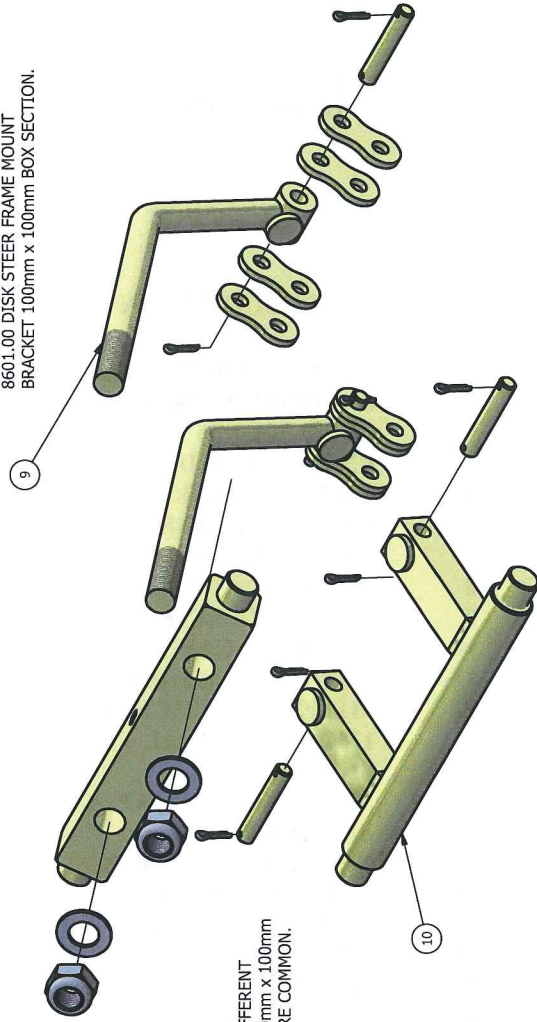
8600.00 DISK STEER FRAME MOUNT
BRACKET 100mm x 50mm BOX SECTION.



8600.00 DISK STEER FRAME MOUNT
BRACKET, ASSEMBLED VIEW.

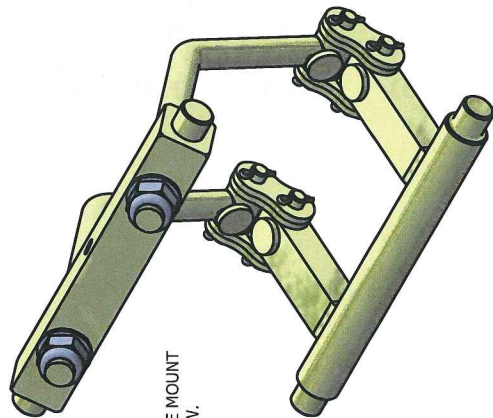


8601.00 DISK STEER FRAME MOUNT
BRACKET 100mm x 100mm BOX SECTION.



ITEMS 9 & 10 ARE THE DIFFERENT
PARTS REQUIRED FOR 100mm x 100mm
BOX. ALL OTHER PARTS ARE COMMON.

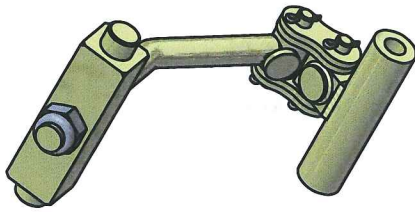
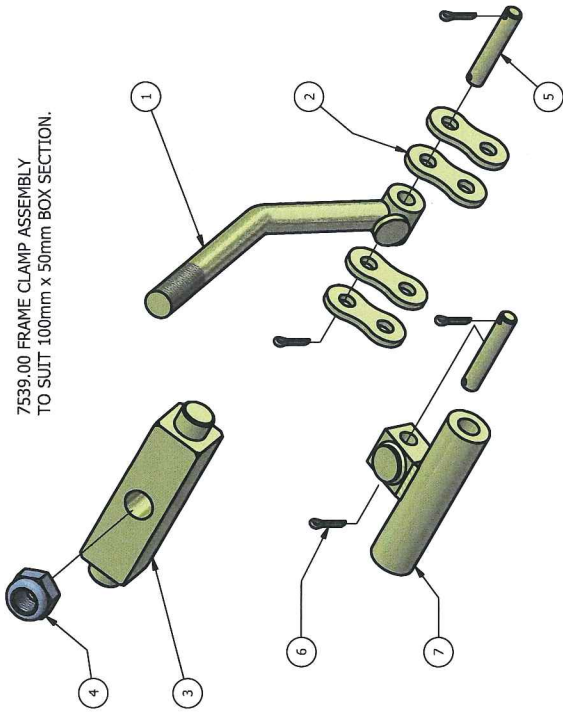
8601.00 DISK STEER FRAME MOUNT
BRACKET, ASSEMBLED VIEW.



ROBOCROP DISK STEER FRAME MOUNT BRACKET

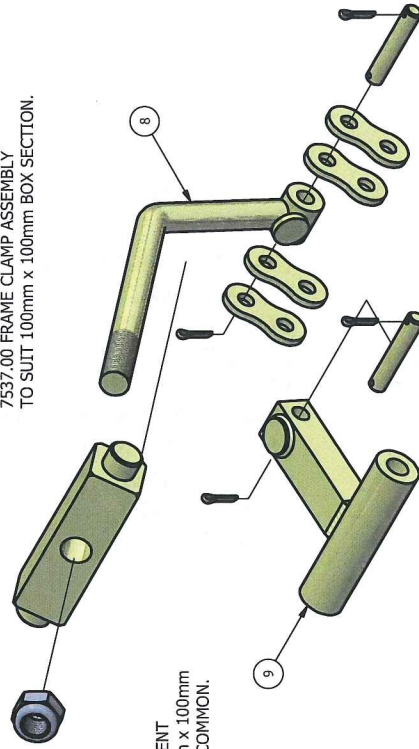
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	CHAIN LINK PLATE	7725.00	8
2	CLAMP BOLT	7538.00	2
3	BOLT SWIVEL	8599.00	1
4	LINK PIN	7726.00	4
5	LINK SPLIT PIN	7727.00	8
6	M16 THIN WASHER BZP		2
7	M16 NYLOC NUT BZP		2
8	CLAMP LINK	8600.01	1
9	CLAMP BOLT	7536.00	2
10	CLAMP LINK	8601.01	1

7539.00 FRAME CLAMP ASSEMBLY
TO SUIT 100mm x 50mm BOX SECTION.

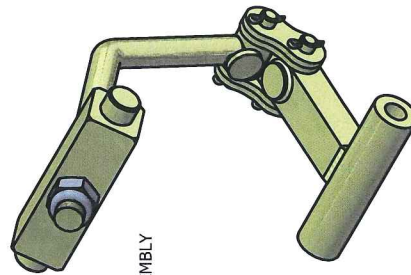


7539.00 FRAME CLAMP ASSEMBLY
ASSEMBLED VIEW.

7537.00 FRAME CLAMP ASSEMBLY
TO SUIT 100mm x 100mm BOX SECTION.



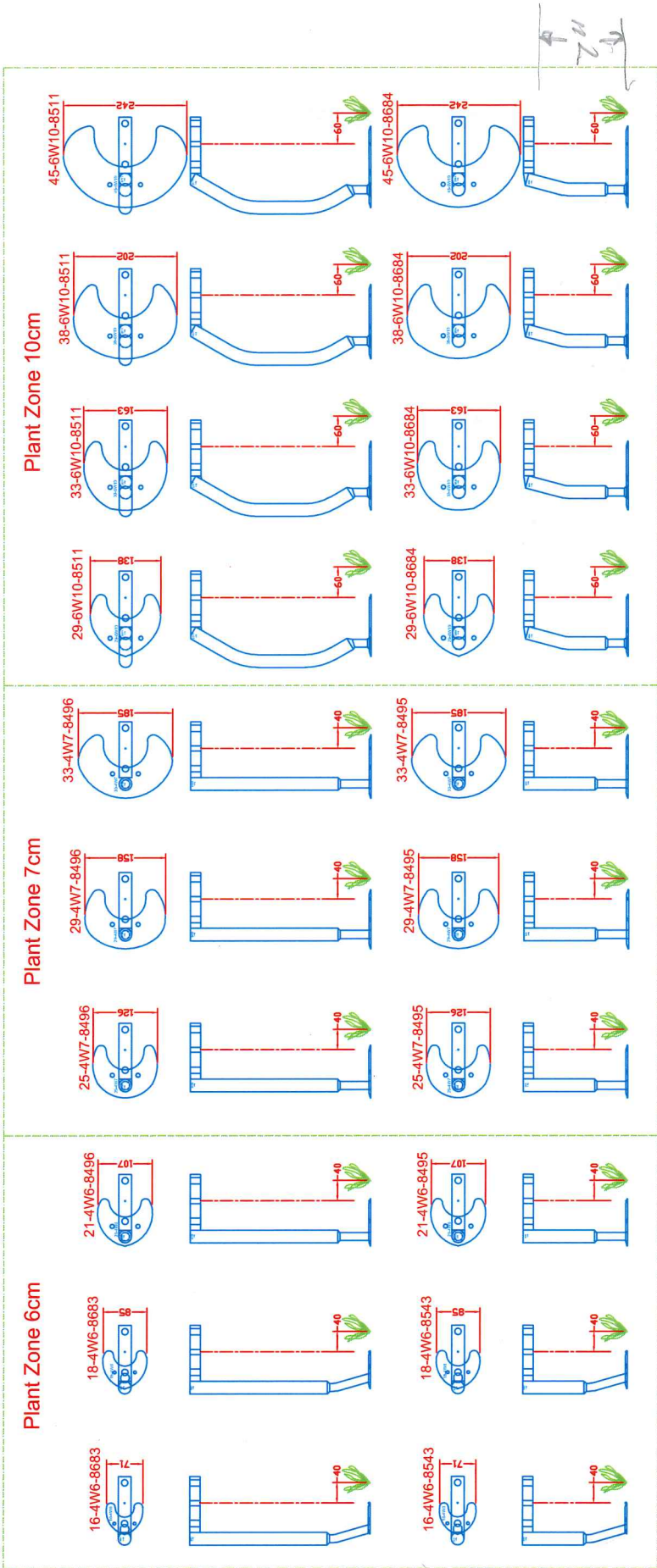
ITEMS 8 & 9 ARE THE DIFFERENT
PARTS REQUIRED FOR 100mm x 100mm
BOX. ALL OTHER PARTS ARE COMMON.



7537.00 FRAME CLAMP ASSEMBLY
ASSEMBLED VIEW.

ROBOCROP WHEEL ASSEMBLY FRAME CLAMPS

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	CLAMP BOLT	7538.00	1
2	CHAIN LINK PLATE	7725.00	4
3	BOLT SWIVEL	7540.00	1
4	M16 NYLOC NUT BZP		1
5	LINK PIN	7726.00	2
6	LINK SPLIT PIN	7727.00	4
7	CLAMP LINK	7539.00	1
8	CLAMP BOLT	7536.00	1
9	CLAMP LINK	7537.00	1



ROBOCROP IN ROW DISC SIZES & DISC LEGS

THE CHART ON OPPOSITE PAGE SHOWS AVAILABLE RANGE
FOR GIVEN PLANT ZONES.



Example
45-6W10-8684
 $\frac{45}{2.54} = 17.72$
Rotor disc size

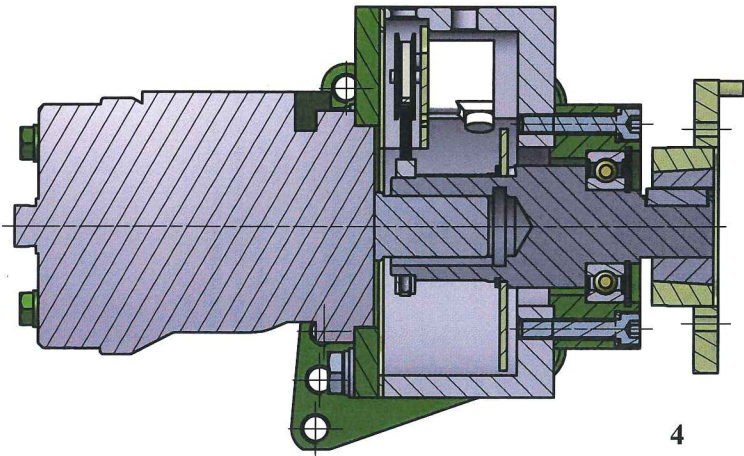
IN-ROW ARCHIVED COMPONENTS

ARCHIVE CONTENTS

	PAGE
ROBOCROP IN ROW ROTOR DRIVE ASSEMBLY	5
IN ROW DISK STEER UNIT & EXPLODED DRAWINGS	6-7
ROBOCROP IN ROW DISK STEER ASSEMBLY	9
ROBOCROP IN ROW DISK STEER MECHANISM	11
ROBOCROP CAMERA BRACKET ASSEMBLY	13
ROBOCROP IN ROW LARGE ENCODER WHEEL ASSEMBLY	15
ROBOCROP IN ROW SMALL ENCODER WHEEL ASSEMBLY	17

**THESE ITEMS HAVE BEEN MODIFIED DURING 2010 AND WILL EXIST
ON MACHINES MANUFACTURED PRIOR TO 2011.**

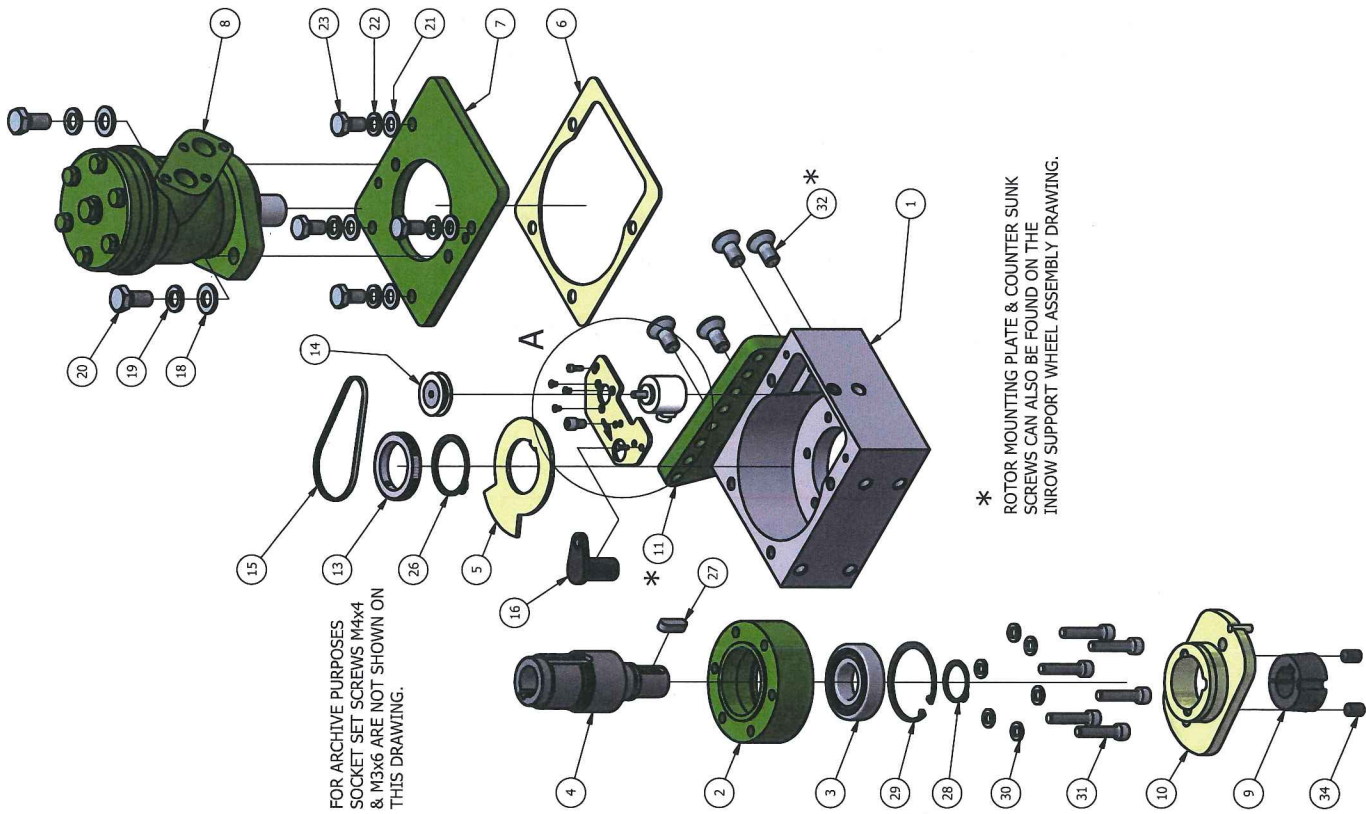
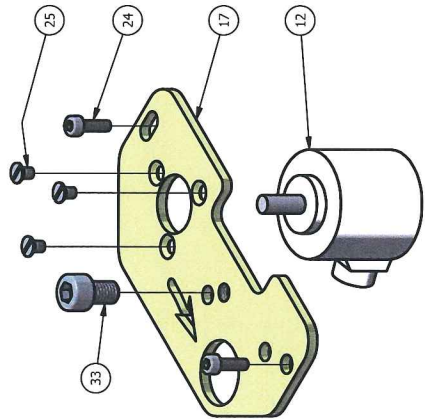
THEY ARE ARCHIVED FOR REFERENCE PURPOSES ONLY.



4

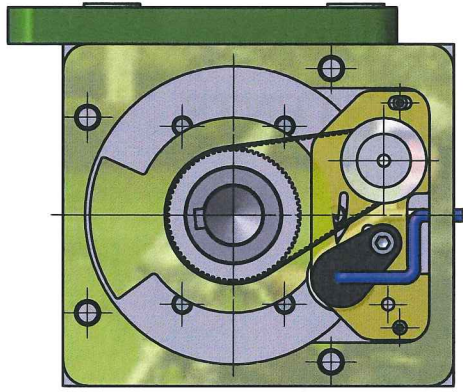
SECTION VIEW SHOWING ASSEMBLY OF ROTOR SHAFT.

ENLARGED VIEW AT 'A' TO HIGHLIGHT ENCODER PLATE. ARROW DICTATES CLOCKWISE OR ANTI-CLOCKWISE DIRECTION.

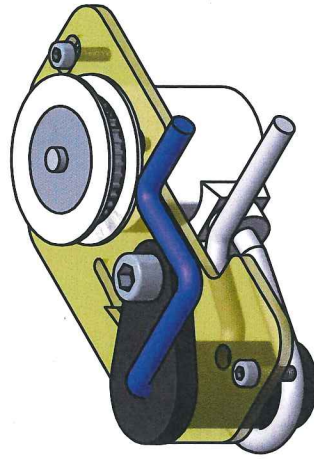


FOR ARCHIVE PURPOSES SOCKET SET SCREWS M4x4 & M3x6 ARE NOT SHOWN ON THIS DRAWING.

* ROTOR MOUNTING PLATE & COUNTER SUNK SCREWS CAN ALSO BE FOUND ON THE INROW SUPPORT WHEEL ASSEMBLY DRAWING.

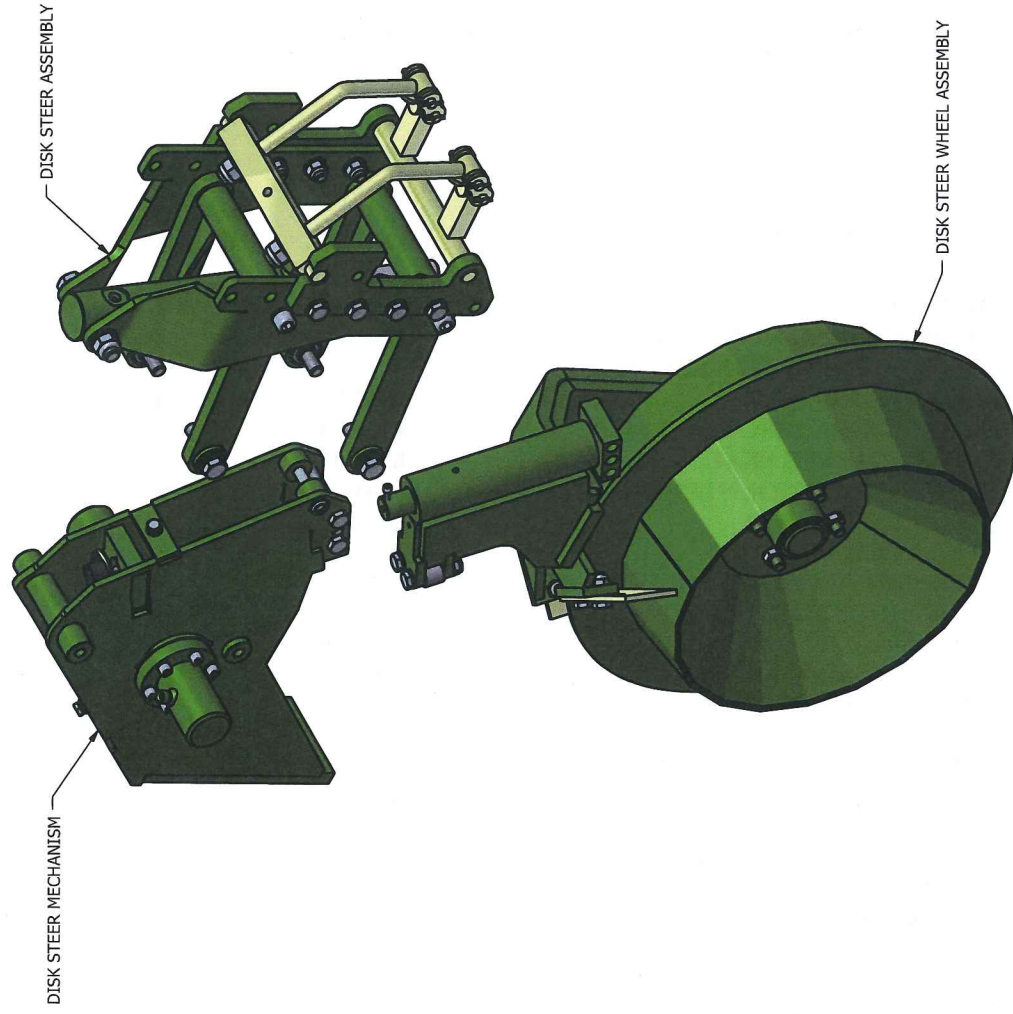


VIEWS ABOVE & BELOW TO SHOW POSITION OF WIRING FOR ENCODER & GEAR TOOTH SENSOR.

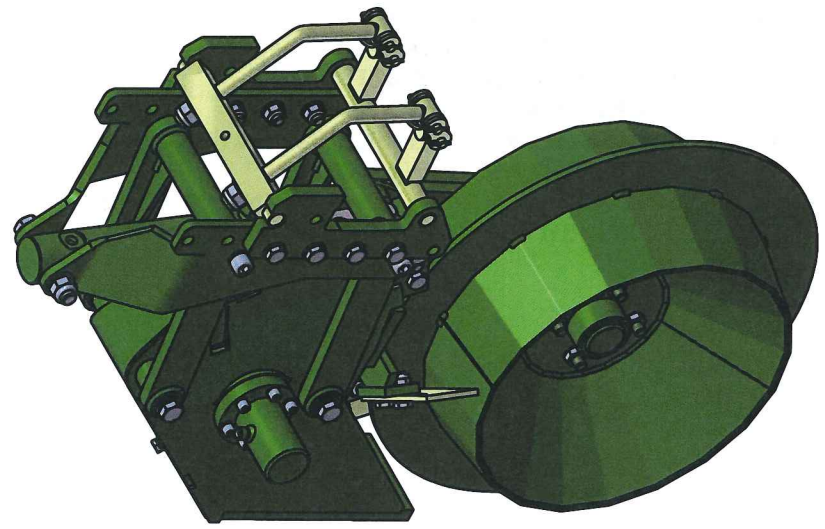


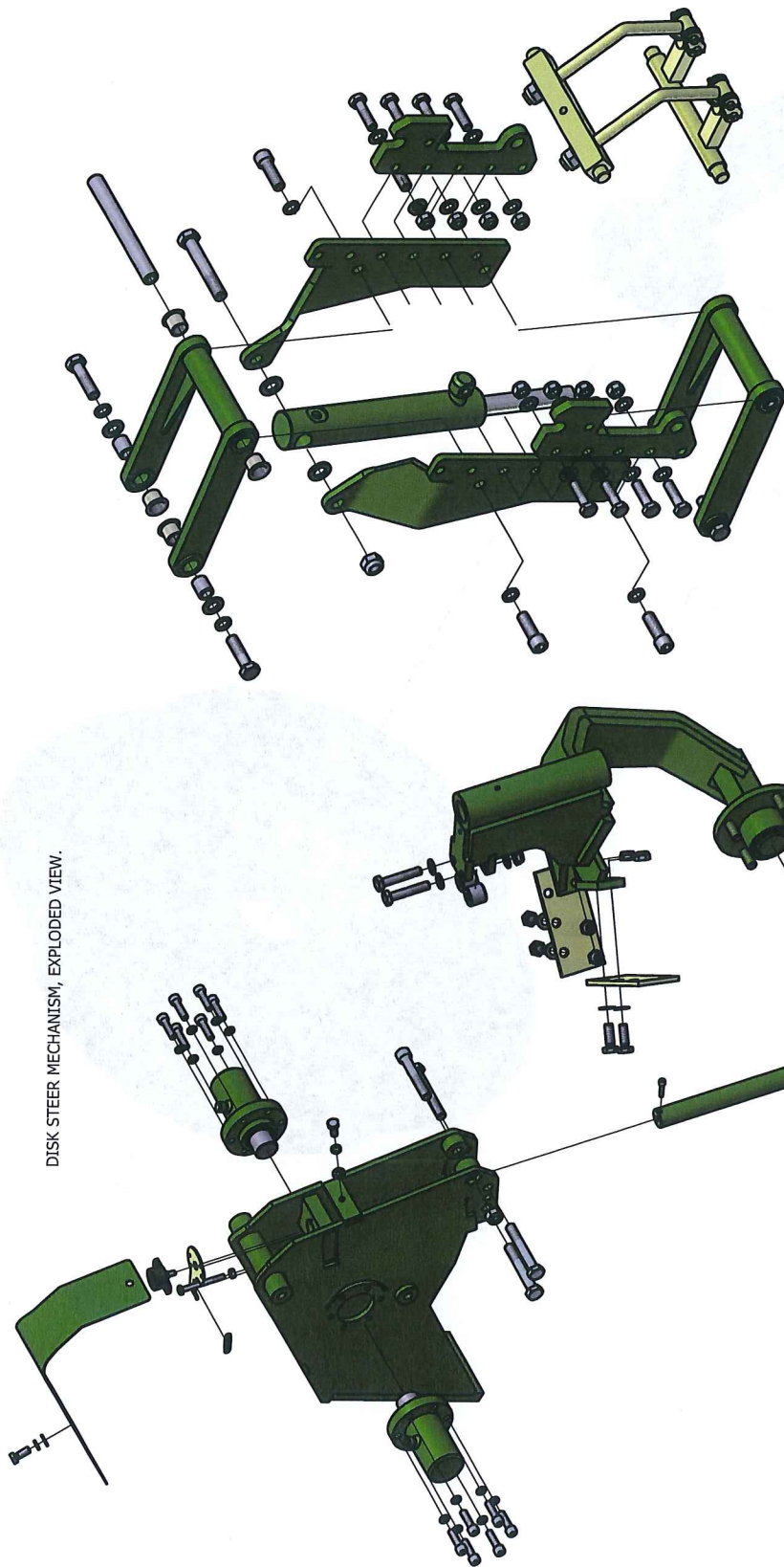
ROBOCROP IN ROW ROTOR DRIVE ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	ROTOR BODY	8300.00	1
2	ROTOR BEARING HOUSING	8302.00	1
3	SEALED BEARING 6202-2RS		1
4	ROTOR SHAFT	8303.00	1
5	ROTOR TIMING DISC	8305.00	1
6	MOTOR HOUSING SEAL	8304.01	1
7	ROTOR MOTOR MOUNTING PLATE	8301.02	1
8	HYDRAULIC MOTOR	8418.00	1
9	TAPER LOCK BUSH	8497.00	1
10	ROTOR DRIVE COUPLING	8494.00	1
11	ROTOR MOUNTING PLATE	8621.00	1
12	ENCODER	8310.00	1
13	ROTOR HOUSING TIMING PULLEY	8307.00	1
14	ROTOR HOUSING TIMING PULLEY	8308.00	1
15	TIMING BELT	8309.00	1
16	GEAR TOOTH SENSOR	8311.00	1
17	ENCODER PLATE	8306.02	1
18	M12 FLAT WASHER BZP		2
19	M12 SPRING WASHER BZP		2
20	M12x25 BOLT BZP		2
21	M10 FLAT WASHER BZP		4
22	M10 SPRING WASHER BZP		4
23	M10x20 BOLT		4
24	SOCKET CAP SCREW M3x10 BZP		2
25	C' SUNK ALLEN HEAD SCREW M3x5 BZP		3
26	45MM EXTERNAL CIRCLIP		1
27	KEY (8x7x20 LONG)	8821.00	1
28	30MM EXTERNAL CIRCLIP		1
29	62MM INTERNAL CIRCLIP		1
30	M8 SPRING WASHER BZP		6
31	SOCKET CAP SCREW M8x40 BZP		6
32	C'SUNK ALLEN HEAD SCREW M12x25 BZP		4
33	SOCKET CAP SCREW M6x10 BZP		1
34	SOCKET SET SCREW, OVAL POINT 3/8"-16 x 5/8" (SUPPLIED WITH TAPER LOCK BUSH)		2



INROW DISK STEER UNIT :-
THE 3 MAIN SUB-ASSEMBLIES ARE
SHOWN PARTIALLY EXPLODED FOR
IDENTIFICATION PURPOSES.

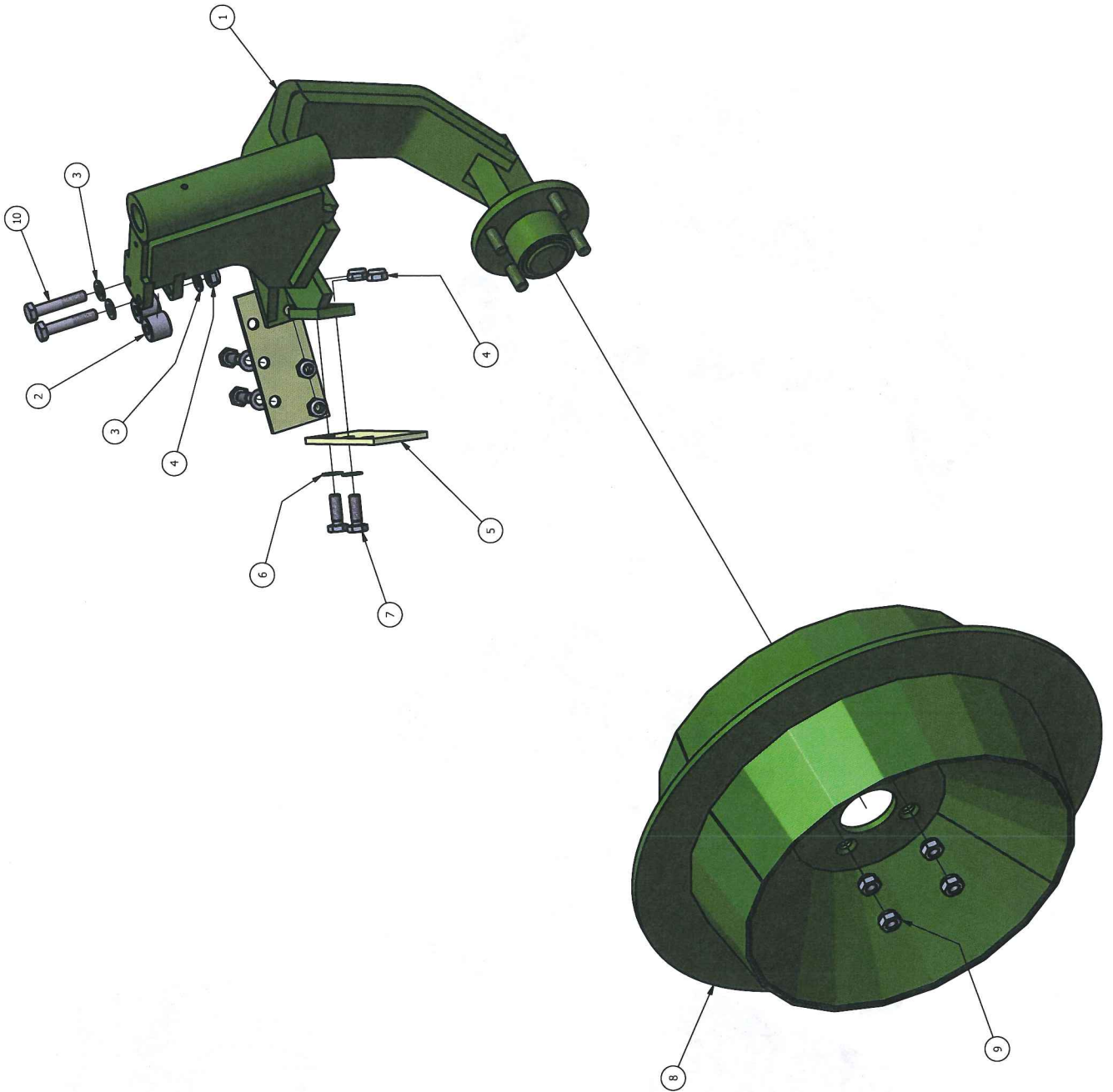




DISK STEER MECHANISM, EXPLODED VIEW.

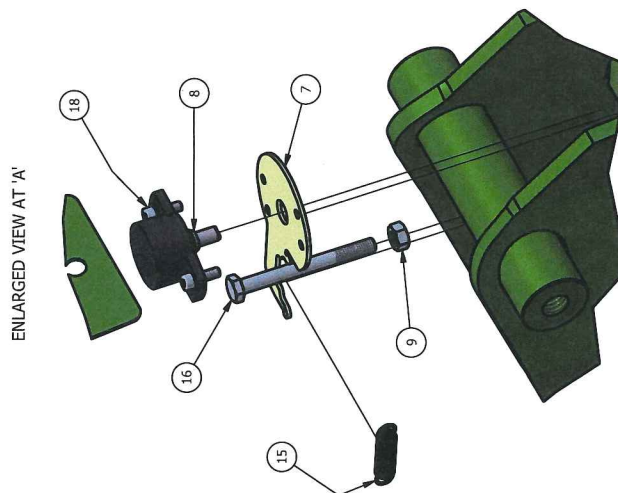
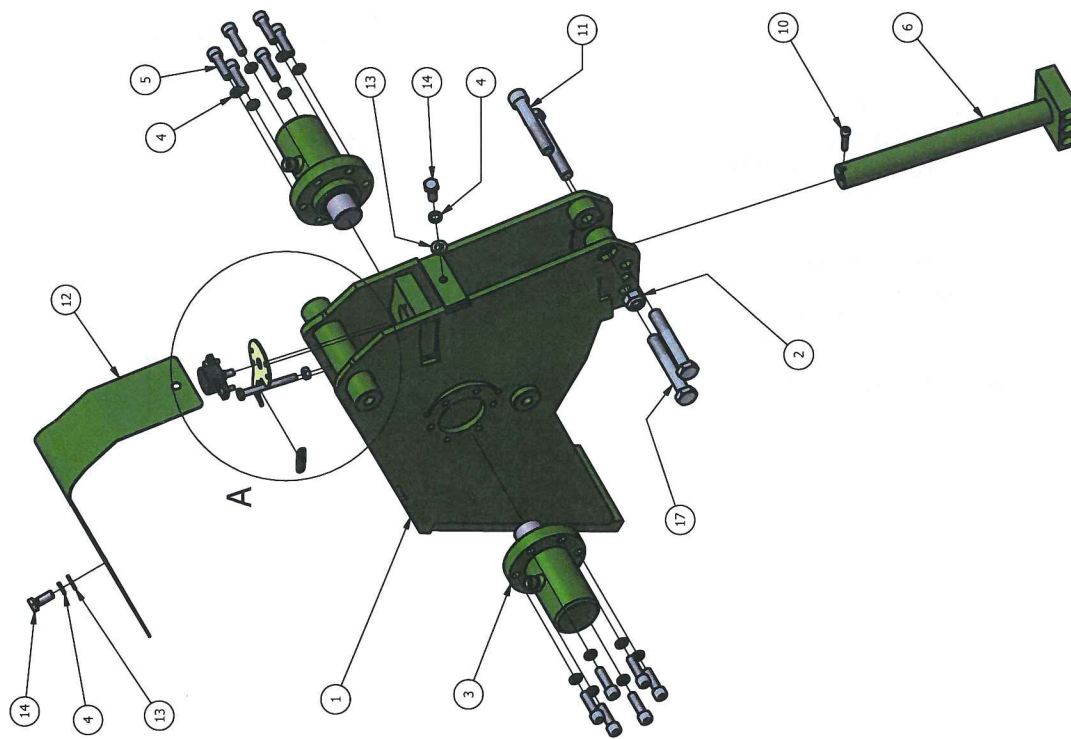
DISK STEER ASSEMBLY, EXPLODED VIEW.

DISK STEER WHEEL ASSEMBLY, EXPLODED VIEW.



ROBOCROP IN ROW DISK STEER WHEEL ASSEMBLY

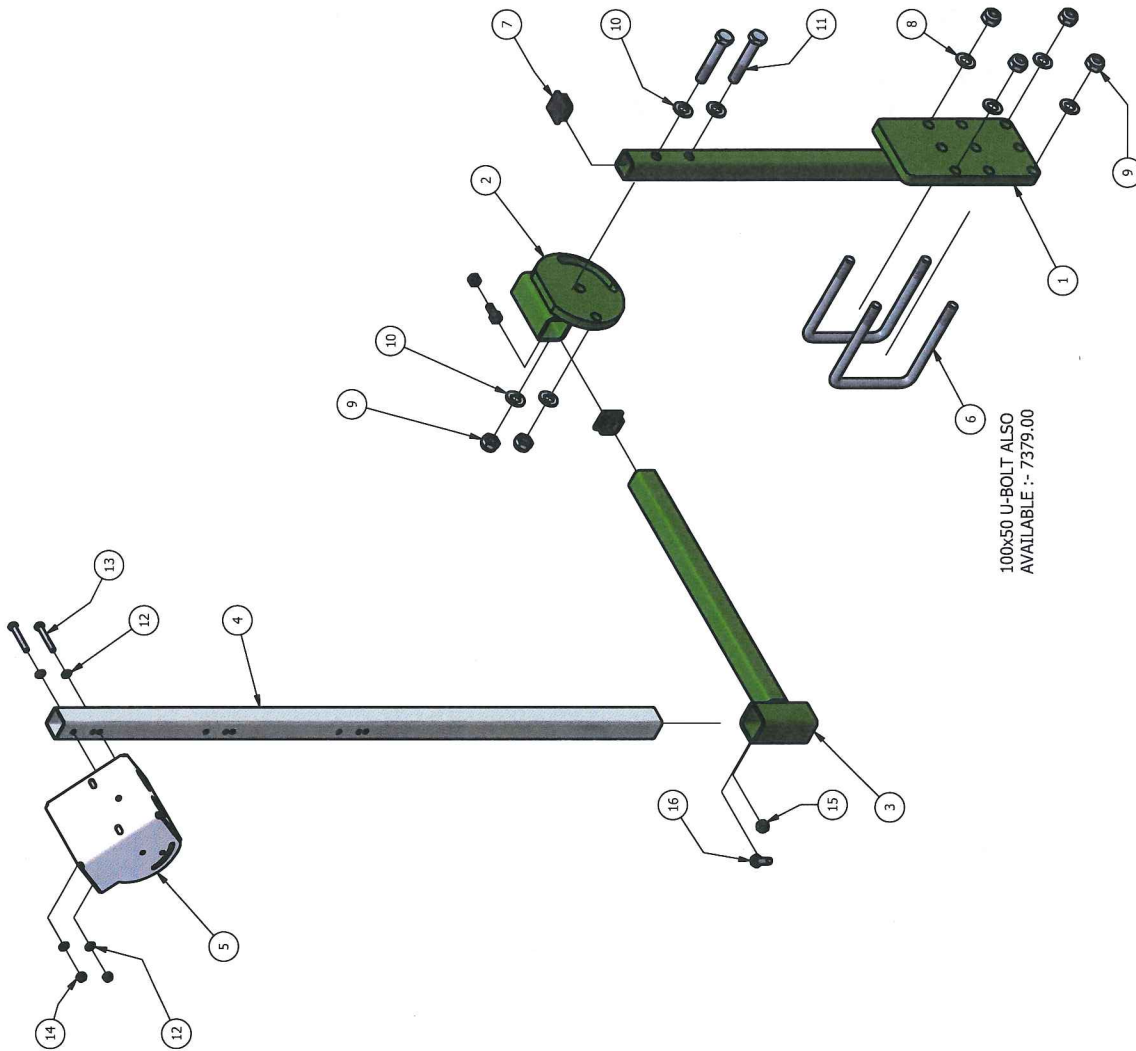
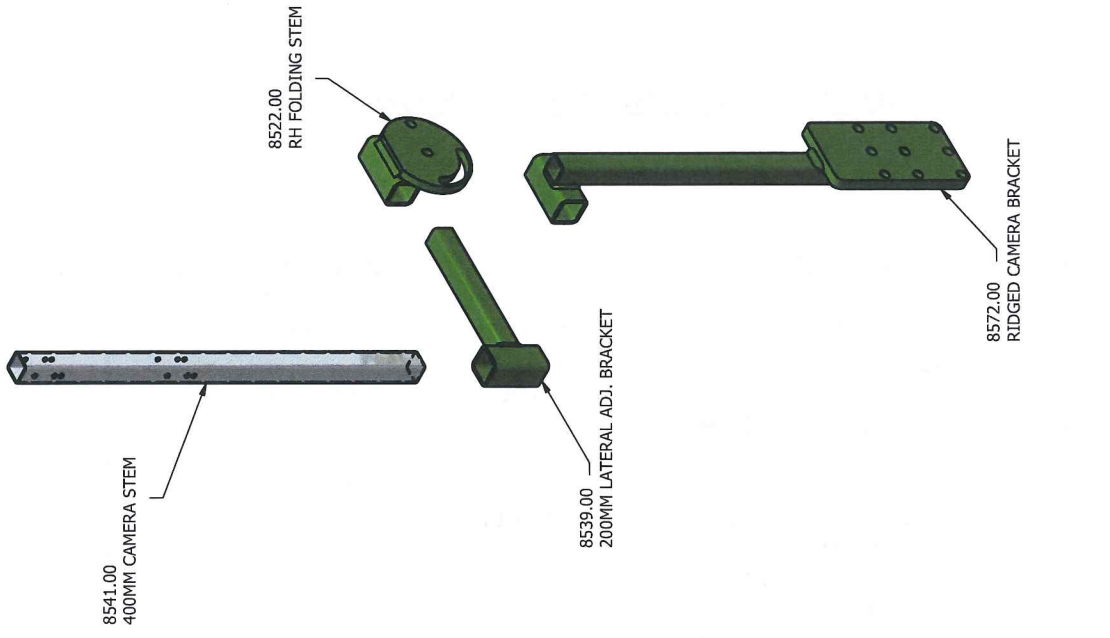
ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	WHEEL LEG	8593.00	1
2	RAM ROLLER	8688.00	2
3	M10 FLAT WASHER BZP		4
4	M10 NYLOC NUT BZP		6
5	WHEEL SCRAPER		2
6	M10 THIN WASHER BZP		4
7	M10x30 BOLT BZP		4
8	DISK STEER WHEEL	8722.00	1
9	M12 CAPTIVE WHEEL NUT		4
10	M10x55 BOLT BZP		2



ROBOCROP IN ROW DISK STEER MECHANISM

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	DISK STEER WHEEL BRACKET	8592.00	1
2	M12 NYLOC NUT BZP		1
3	HYDRAULIC STEERING ACTUATOR	8668.00	2
4	M8 SPRING WASHER BZP		14
5	M8x30 BOLT BZP		12
6	PIVOT PIN	8594.00	1
7	POTENTIOMETER MOUNTING PLATE	8675.00	1
8	ROTARY POTENTIOMETER	8674.00	1
9	M6 HEX. NUT BZP		1
10	M5x25 BOLT BZP		1
11	SOCKET CAP SCREW M12x70 BZP		1
12	STEERING GUARD	8609.00	1
13	M8 FLAT WASHER BZP		2
14	M8x20 BOLT BZP		2
15	TENSION SPRING	8676.00	1
16	M6x60 BOLT BZP		1
17	M12x80 BOLT BZP		3
18	SOCKET CAP SCREW M4x12 BZP		2

ADDITIONAL CAMERA BRACKET ITEMS THAT
CAN BE USED DEPENDANT ON MACHINE APPLICATION.

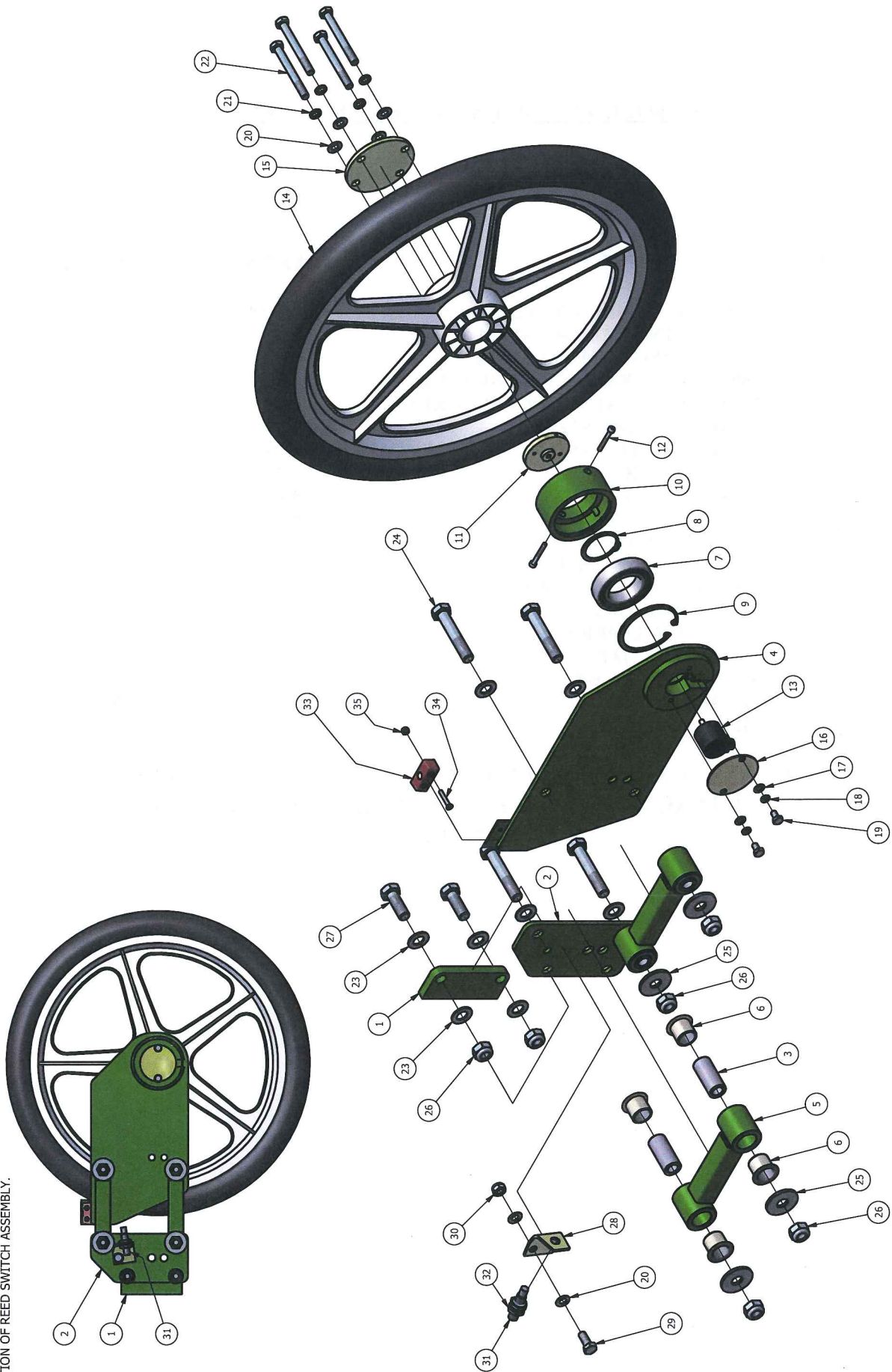


ROBOCROP CAMERA BRACKET ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	FOLDING CAMERA BRACKET	8680.00	1
2	LH FOLDING CAMERA STEM	8521.00	1
	RH FOLDING CAMERA STEM	8522.00	
3	400MM LATERAL ADJUST BRACKET	8542.00	1
	200MM LATERAL ADJUST BRACKET	8539.00	
4	900MM CAMERA STEM	8540.00	1
	400MM CAMERA STEM	8539.00	
5	CAMERA BOX	8570.02	1
6	U-BOLT 100x100xM12	5019.00	1
7	END CAP	8839.00	1
8	M12 THIN WASHER BZP		4
9	M12 NYLOC NUT BZP		6
10	M12 FLAT WASHER BZP		4
11	M12x70 BOLT BZP		2
12	M6 FLAT WASHER BZP		4
13	M6x40 BOLT BZP		2
14	M6 NYLOC NUT BZP		2
15	M8 HEX. NUT BZP		2
16	M8x25 BOLT BZP		2

**QUANTITY SHOWN IS PER CAMERA BRACKET ASSEMBLY.
TOTAL QUANTITY IS DEPENDENT ON MACHINE
SPECIFICATION.**

SIDE VIEW OF ENCODER WHEEL SHOWING POSITION OF REED SWITCH ASSEMBLY.



ROBOCROP IN ROW SMALL ENCODER WHEEL ASSEMBLY

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	ENCODER WHEEL WITH BEARING	9034.00	1
2	BUSH	9036.00	2
3	ENCODER	8310.00	1
4	WHEEL BRACKET	8644.00	1
5	PARALLEL LINK AXLE BUSH	8646.00	4
6	BUSH	8185.02	8
7	PARALLEL LINK PLATE	9040.00	1
8	MAGNET BLOCK	7724.00	1
9	REED SWITCH BODY	7673.00	1
10	ENCODER CAP	9043.00	1
11	M12 THIN WASHER BZP		9
12	M12x35 BOLT BZP		2
13	M12 NYLOC NUT BZP		6
14	LARGE OD FLAT WASHER 12x37x3 BZP		4
15	M12x70 BOLT BZP		4
16	13MM EXTERNAL CIRCLIP		1
17	SNAP RING		1
18	M5x10 BOLT BZP		1
19	PARALLEL LINK	8645.00	2
20	ENCODER & WHEEL BEARING CARRIER	9035.00	1
21	ENCODER WHEEL CAP	9039.00	1
22	M10 HEX. HALF NUT BZP		2
23	C'SUNK ALLEN HEAD SCREW M4x25 BZP		2
24	M4 NYLOC NUT BZP		2
25	35MM INTERNAL CIRCLIP		1

ROBOCROP IN ROW LARGE ENCODER WHEEL ASSEMBLY

NOTE : - DESIGN IS REFERENCED TO PRE : 2010

ITEM No.	DESCRIPTION	PART No.	QUANTITY
1	WHEEL BRACKET	8644.00	1
2	PARALLEL LINK PLATE	8643.00	1
3	PARALLEL LINK AXLE BUSH	8646.00	4
4	ENCODER & WHEEL BEARING CARRIER	8638.00	1
5	PARALLEL LINK	8645.00	2
6	BUSH	8185.02	8
7	SEALED BEARING 6008-2RSL		1
8	40MM EXTERNAL CIRCLIP		1
9	68MM INTERNAL CIRCLIP		1
10	BEARING HOUSING	8639.00	1
11	ENCODER DRIVE	8641.00	1
12	SOCKET CAP SCREW M4x30 BZP		2
13	ENCODER	8310.00	1
14	ENCODER WHEEL	8647.00	1
15	ENCODER WHEEL CAP	8640.00	1
16	ENCODER COVER	8642.00	1
17	M6 THIN WASHER BZP		2
18	M6 SPRING WASHER BZP		2
19	M6x10 BOLT BZP		2
20	M8 THIN WASHER BZP		6
21	M8 SPRING WASHER BZP		4
22	M8x75 BOLT BZP		4
23	M12 THIN WASHER BZP		8
24	M12x70 BOLT BZP		4
25	LARGE OD FLAT WASHER 12x37x3 BZP		4
26	M12 NYLOC NUT BZP		6
27	M12x35 BOLT BZP		2
28	LIFT SENSOR BRACKET	8651.00	1
29	M8x20 BOLT BZP		1
30	M8 NYLOC NUT BZP		1
31	REED SWITCH	7673.00	1
32	M10 HEX. HALF NUT BZP		2
33	MAGNET BLOCK	7724.00	1
34	C'SUNK ALLEN HEAD SCREW M4x25 BZP		1
35	M4 NYLOC NUT BZP		1

