

# Diamond Chain Harrow

## Parts Manual

### Hydraulic Cylinder Update Supplement

Revision A (25/02/2015)

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## Thank you for choosing a Kelly Engineering product

We trust the following manual should be clear and easy to follow, however feel free to contact our company for customer support.  
(details below)

Should you have any problems or wish to suggest any improvements or modifications that would help to improve our products please contact us.  
We welcome feedback.

Parts can be purchased when required through your local dealer, or by contacting either Kelly Engineering in Australia or in the US, Hood & Company Inc.

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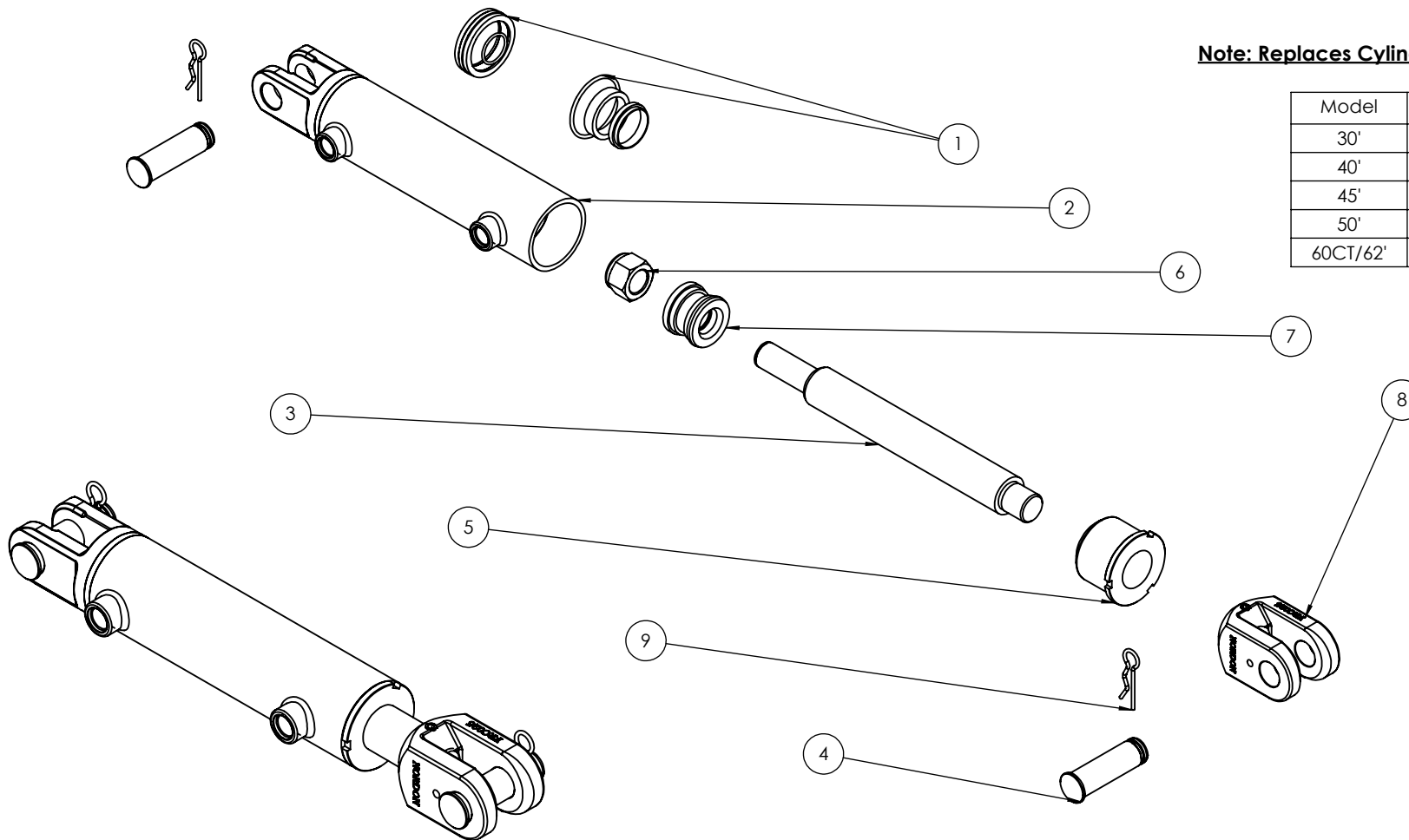
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## Hydraulic Cylinder Supplement Parts Manual index

Page	Part Number	Replaces Part Number	Description	Where Used
4	0311-256SP	0311-5041	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	All Models x3 (Module lift cylinder)
5	0311-312EXT	0311-6002	3" Bore x 12" Stroke 1.5" Rod Extended Cylinder	30-45' Australian Machines x 1 (Front lift cylinder) 65' x 2 (Front lift cylinder)
6	0311-324	0311-2957	3" Bore x 24" Stroke 1.5" Rod Hydraulic Cylinder	40' x 2 (LH outer wing cylinder) 45' x 4 (LH & RH outer wing cylinder)
7	0311-3524SP	0311-2958	3.5" Bore x 24" Stroke 1.75" Rod Hydraulic Cylinder	All Models x 2 (Rear tail lift cylinder)
8	0311-3532ST	0311-6896	3.5" Bore x 32" Stroke 4" Stop Tube 1.75" Rod Cylinder	60CT/62' x 4 (LH & RH outer wing cylinder)
9	0311-412EXT	0311-6357	4" Bore x 12" Stroke 1.75" Rod Extended Hydraulic Cylinder	30-45' Export Machines x 1 (Front lift cylinder) 50' x 1 (Front lift cylinder) 60CT/62' x1 (Front lift cylinder)
10	0311-424	0311-3786	4" Bore x 24" Stroke 1.75" Rod Hydraulic Cylinder	40' x 1 (RH outer wing cylinder)
11	0311-430ST	0311-4781	4" Bore x 30" Stroke 3" Stop Tube 1.75" Rod Hydraulic Cylinder	30' x 2 (Wing lift cylinder)
12	0311-530ST	0311-5040	5" Bore x 30" Stroke 3 1/8" Stop Tube 2" Rod Hydraulic Cylinder	40-45' x 2 (Main wing lift cylinder)
13	0311-536ST	0311-2956	5" Bore x 36" Stroke 3 1/8" Stop Tube 2" Rod Hydraulic Cylinder	60CT/62' x 4 (Main wing lift cylinder)

ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0312-N25	A-0	Nordon 2.5" Cylinder Seal Kit	1
2	0313-256SP-B	A-0	2.5" x 6" Hydraulic Cylinder Barrel	1
3	0313-256SP-R	A-0	Rod For 2.5" x 6" Hydraulic Cylinder	1
4	0313-NCP1X75	A-0	Hydraulic Cylinder Pin 1" x 75mm	2
5	0313-NG15X25		Hydraulic Cylinder Gland 1.5" Rod x 2.5" Barrel	1
6	0313-NN1		Nordon 1" Cylinder Rod Nut	1
7	0313-NP25	A-0	Hydraulic Cylinder Piston 2 1/2"	1
8	0313-NRC1X1 1-8	A-0	Hydraulic Cylinder Rod Clevis 1" Pin 1 1/8" Thread	1
9	0511-RCLIP3		R Clip 3mm	2



**Note: Replaces Cylinder 0311-5041**

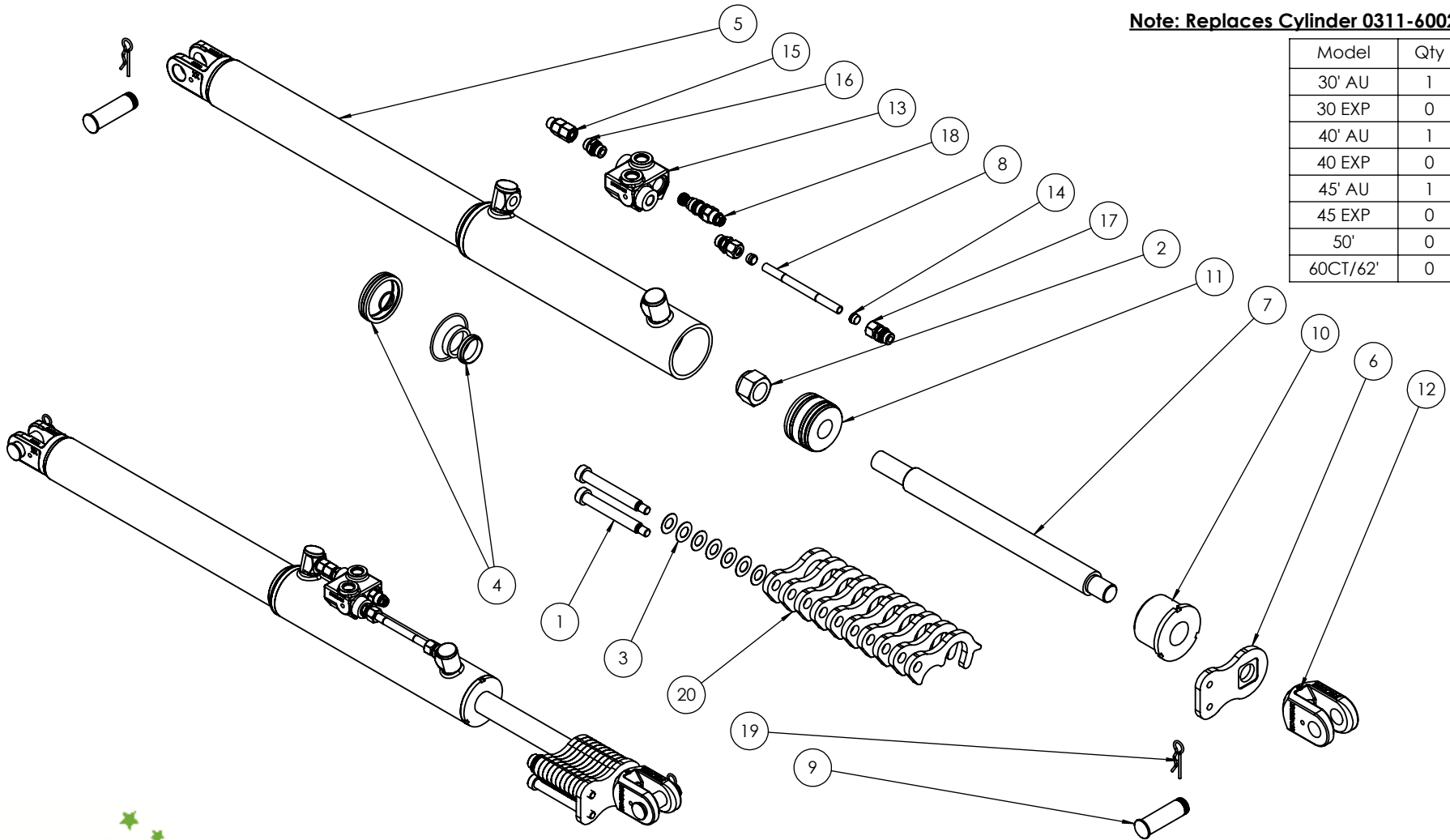
Model	Qty
30'	3
40'	3
45'	3
50'	3
60CT/62'	3



Part Number <b>0311-256SP</b>	Description 2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder 4	For Machines Built:	Revision A-0
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ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0211-12110SHSCREW	A	Shoulder Screw M12 x 16 x 110	2
2	0223-NYL11-8		Nyloc Nut 1 1/8" UNF	1
3	0231-SPRINGCUP	A	Compression Cup Washer	7
4	0312-N3	A-0	Nordon 3.5" Cylinder Seal Kit	1
5	0313-312EXT-B	A-0	3" Bore x 12" Stroke Extended Cylinder Barrel	1
6	0313-312EXT-HAMP	A-0	0313-312EXT Height Adjustor Mount Plate	1
7	0313-312EXT-R	A-0	Rod for 3" Bore x 12" Stroke Extended Hydraulic Cylinder	1
8	0313-312EXT-TUBE	A-0	0311-312EXT Retract Port Tube	1
9	0313-NCP1X75	A-0	Hydraulic Cylinder Pin 1" x 75mm	2
10	0313-NG15X3	A-0	Cylinder Gland 1.5" Rod x 3" Barrel	1

ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
11	0313-NP3	A-0	Hydraulic Cylinder Piston 3"	1
12	0313-NRC1X1 1-8 M	A-0	Rod Clevis 1" Pin 1 1/8" Thread (Machined for mount plate)	1
13	0313-SCVB	A-0	Single Counterbalance Valve Body	1
14	0323-D12LLX		Tube Sealing Ring	2
15	0323-EGE12SRED		Flareless Swivel BSPP Male Adaptor	1
16	0323-GE12SRED		24 Flareless BSPP Male Adaptor	1
17	0323-GE12SRED		24 Flareless BSPP Male Adaptor	2
18	0341-CBCA-LHN		60 L/min Counterbalance valve	1
19	0511-RCLIP3		R Clip 3mm	2
20	0800-278	A	Cylinder Depth Stop Plate	10



**Note: Replaces Cylinder 0311-6002**

Model	Qty
30' AU	1
30 EXP	0
40' AU	1
40 EXP	0
45' AU	1
45 EXP	0
50'	0
60CT/62'	0

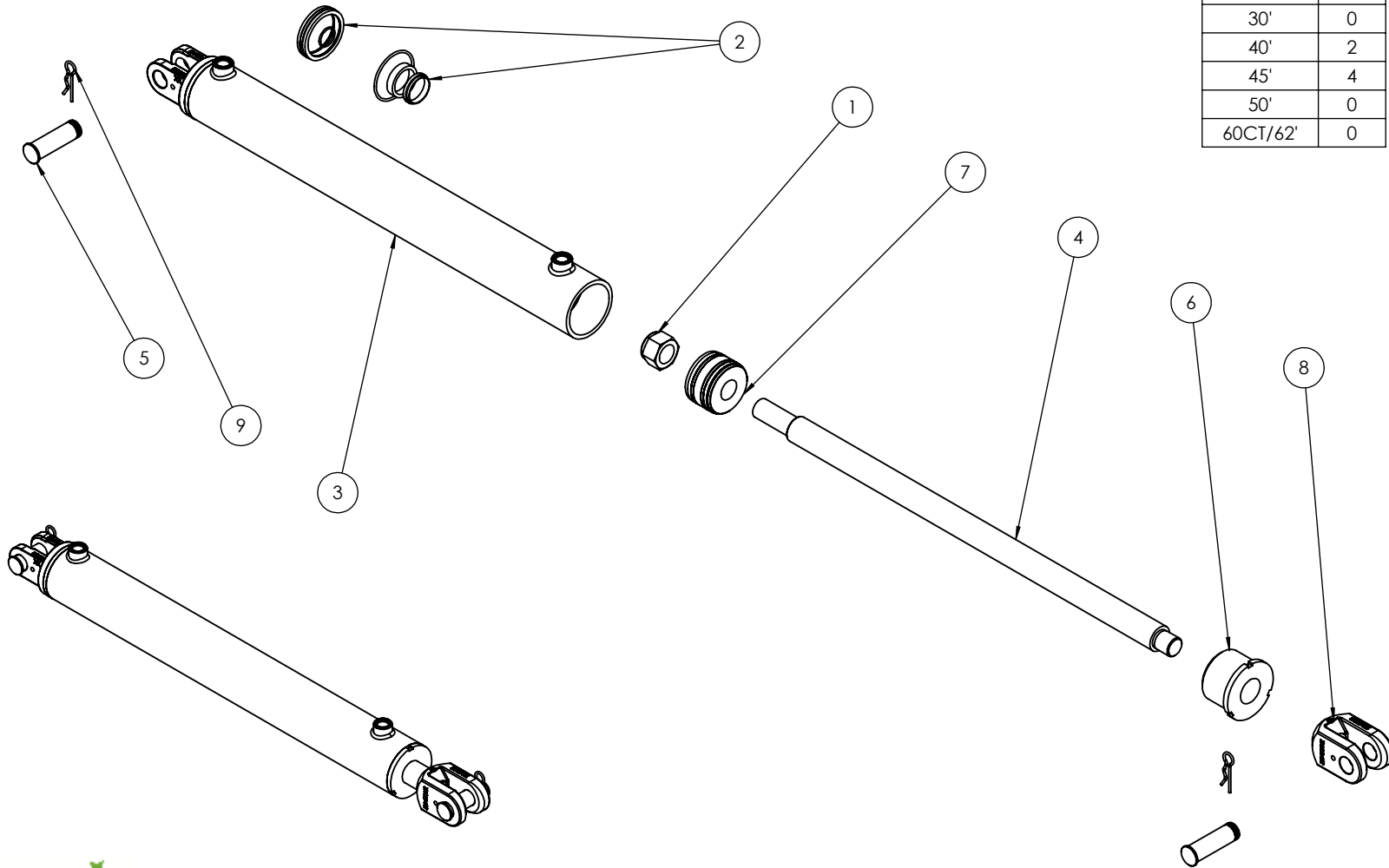


Part Number	Description	For Machines Built:	Revision
<b>0311-312EXT</b>	3" Bore x 12" Stroke 1.5" Rod Extended Hydraulic Cylinder 5		A-0

ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0223-NYL11-8		Nyloc Nut 1 1/8" UNF	1
2	0312-N3	A-0	Nordon 3.5" Cylinder Seal Kit	1
3	0313-324-B	A-0	3" x 24" Hydraulic Cylinder Barrel	1
4	0313-324-R	A-0	Rod for 3" x 24" Hydraulic Cylinder	1
5	0313-NCP1X75	A-0	Hydraulic Cylinder Pin 1" x 75mm	2
6	0313-NG15X3	A-0	Cylinder Gland 1.5" Rod x 3" Barrel	1
7	0313-NP3	A-0	Hydraulic Cylinder Piston 3"	1
8	0313-NRC1X1 1-8	A-0	Hydraulic Cylinder Rod Clevis 1" Pin 1 1/8" Thread	1
9	0511-RCLIP3		R Clip 3mm	2

**Note: Replaces Cylinder 0311-2957**

Model	Qty
30'	0
40'	2
45'	4
50'	0
60CT/62'	0

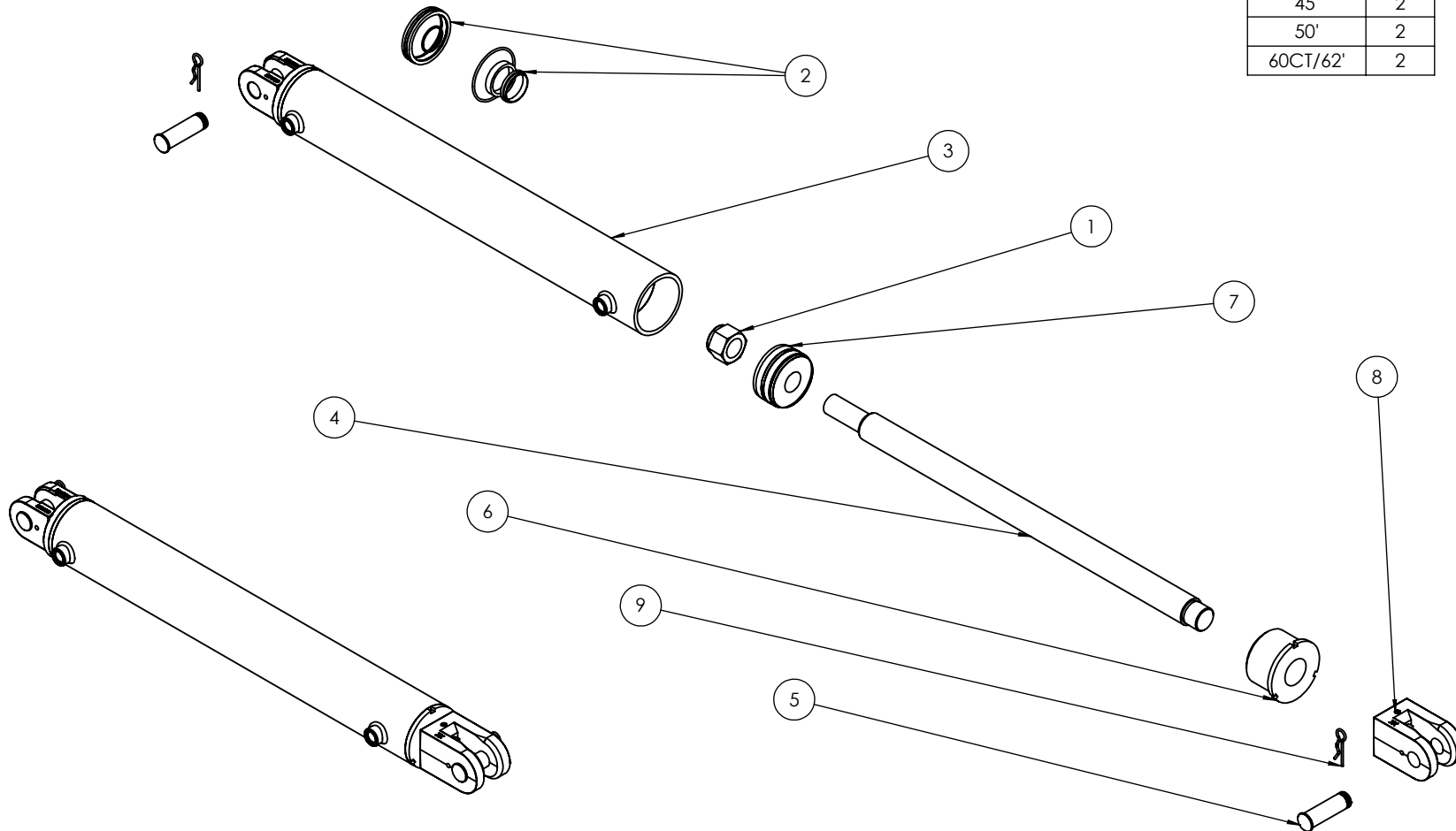


Part Number <b>0311-324</b>	Description 3" Bore x 24" Stroke 1.5" Rod Hydraulic Cylinder 6	For Machines Built:	Revision A-0
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ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0223-NYL11-4		Nyloc Nut 1 1/4" UNF	1
2	0312-N35	A-0	Nordon 3.5" Cylinder Seal Kit	1
3	0313-3524SP-B	A-0	3.5" x 24" Side Port Hydraulic Cylinder Barrel	1
4	0313-3524SP-R	A-0	Rod For 3.5" x 24" Hydraulic Cylinder Barrel	1
5	0313-NCP1X75	A-0	Hydraulic Cylinder Pin 1" x 75mm	2
6	0313-NG175x35	A-0	Cylinder Gland 1.75" Rod x 3.5" Barrel	1
7	0313-NP35	A-0	Hydraulic Cylinder Piston 3 1/2"	1
8	0313-NRC1X1 1-2	A-0	Hydraulic Cylinder Rod Clevis 1" Pin 1 1/2" Thread	1
9	0511-RCLIP3		R Clip 3mm	2

**Note: Replaces Cylinder 0311-2958**

Model	Qty
30'	2
40'	2
45'	2
50'	2
60CT/62'	2

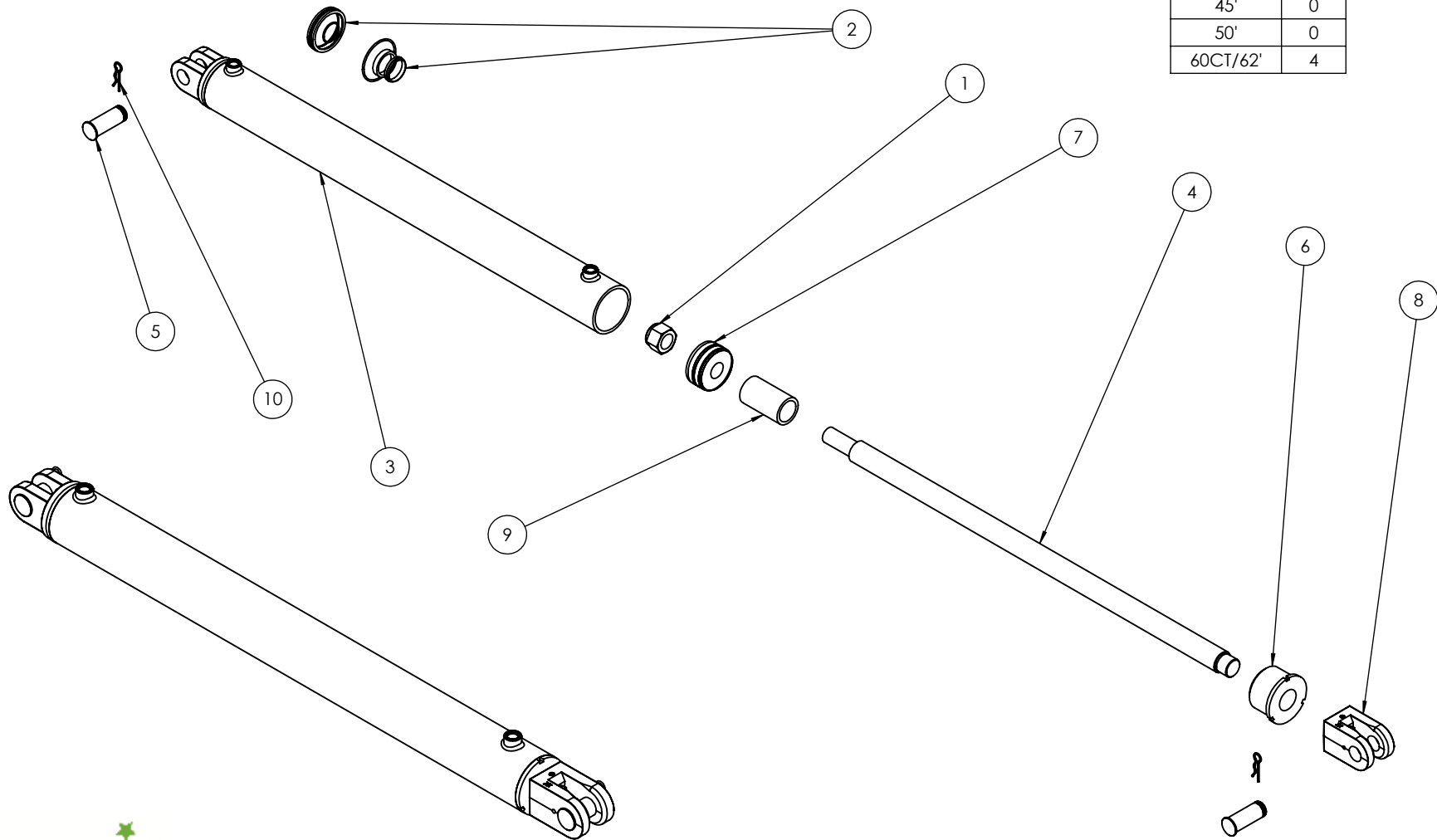


Part Number <b>0311-3524SP</b>	Description 3.5" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder	For Machines Built:	Revision A-0
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ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0223-NYL11-4		Nyloc Nut 1 1/4" UNF	1
2	0312-N35	A-0	Nordon 3.5" Cylinder Seal Kit	1
3	0313-3532ST-B	A-0	3.5" Bore 32" Stroke 4" Stop Tube Cylinder Barrel	1
4	0313-3532ST-R	A-0	Rod for 3.5" Bore 32" Stroke 4" S/Tube Cylinder	1
5	0313-NCP1 1-2X75	A-0	Hydraulic Cylinder Pin 1 1/2" x 75mm	2
6	0313-NG175x35	A-0	Cylinder Gland 1.75" Rod x 3.5" Barrel	1
7	0313-NP35	A-0	Hydraulic Cylinder Piston 3 1/2"	1
8	0313-NRC1 1-2X1 1-2	A-0	Hydraulic Cylinder Rod Clevis 1 1/2" Pin x 1 1/2" Thread	1
9	0313-STUBE1 3-4X4	A-0	Hydraulic Cylinder Stop Tube 1 3/4" ID x 4" Long	1
10	0511-RCLIP3		R Clip 3mm	2

**Note: Replaces Cylinder 0311-6896**

Model	Qty
30'	0
40'	0
45'	0
50'	0
60CT/62'	4

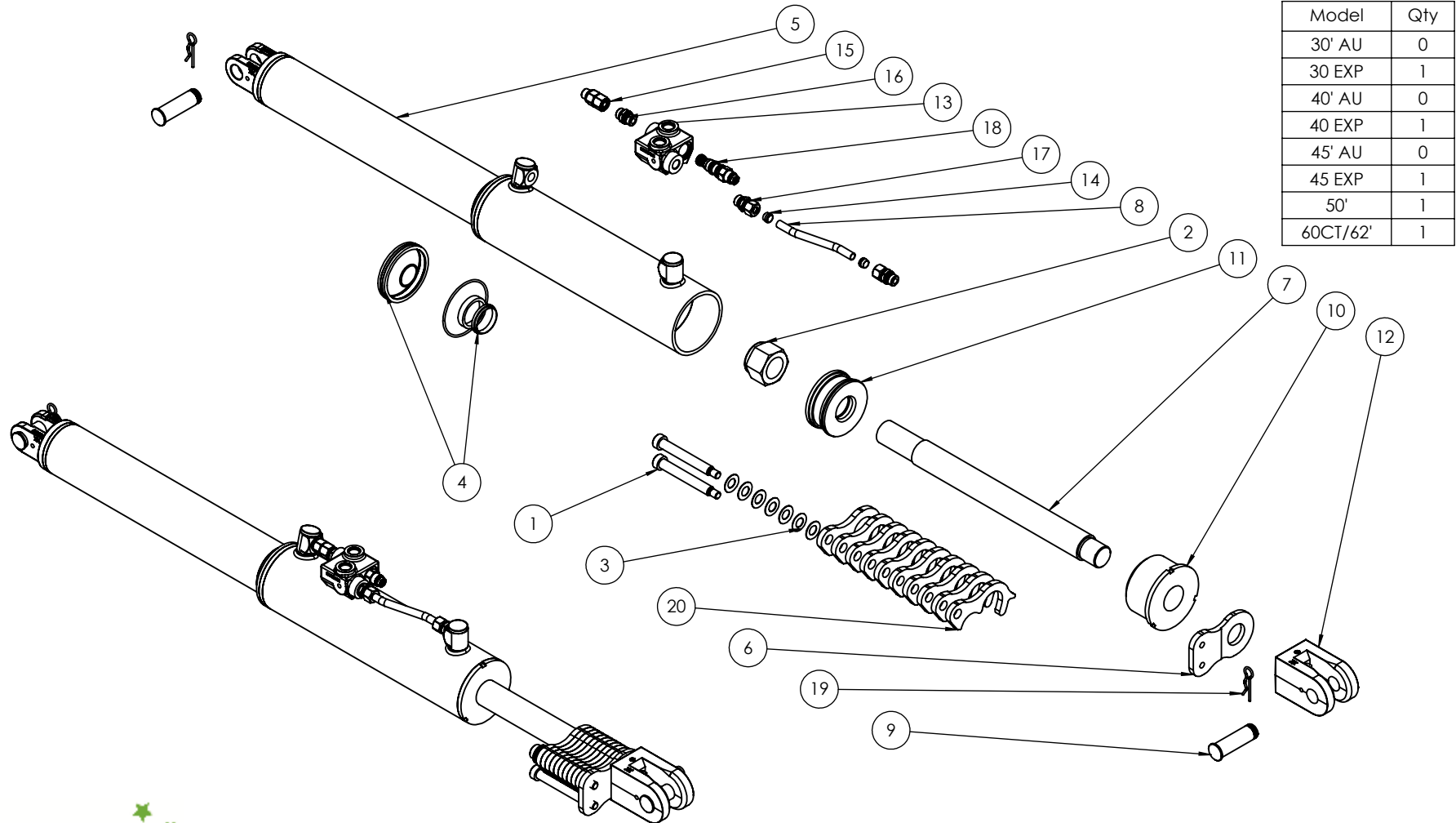


Part Number	Description	For Machines Built:	Revision
<b>0311-3532ST</b>	3.5" Bore 32" Stroke 4" S/Tube 1.75" Rod Hydraulic Cylinder 8		A-0



ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0211-12110SHSCREW	A	Shoulder Screw M12 x 16 x 110	2	11	0313-NP4	A-0	Hydraulic Cylinder Piston 4"	1
2	0223-NYL11-2		Nyloc Nut 1 1/2" UNF	1	12	0313-NRC1X1 1-2	A-0	Hydraulic Cylinder Rod Clevis 1" Pin 1 1/2" Thread	1
3	0231-SPRINGCUP	A	Compression Cup Washer	7	13	0313-SCVB	A-0	Single Counterbalance Valve Body	1
4	0312-N4	A-0	Nordon 4" Cylinder Seal Kit	1	14	0323-D12LLX		Tube Sealing Ring	2
5	0313-412EXT-B	A-0	4" Bore x 12" Stroke Extended Cylinder Barrel	1	15	0323-EGE12SRED		Flareless Swivel BSPP Male Adaptor	1
6	0313-412EXT-HAMP	A-0	0313-412EXT Height Adjustor Mount Plate	1	16	0323-GE12SRED		24 Flareless BSPP Male Adaptor	1
7	0313-412EXT-R	A-0	Rod For 4" x 12" Extended Hydraulic Cylinder	1	17	0323-GE12SRED		24 Flareless BSPP Male Adaptor	2
8	0313-412EXT-TUBE	A-0	0311-412EXT Retract Port Tube	1	18	0341-CBCA-LHN		60 L/min Counterbalance valve	1
9	0313-NCP1X75	A-0	Hydraulic Cylinder Pin 1" x 75mm	2	19	0511-RCLIP3		R Clip 3mm	2
10	0313-NG175X4	A-0	Cylinder Gland 1.75" Rod x 4" Barrel	1	20	0800-278	A	Cylinder Depth Stop Plate	10

**Note: Replaces Cylinder 0311-6357**

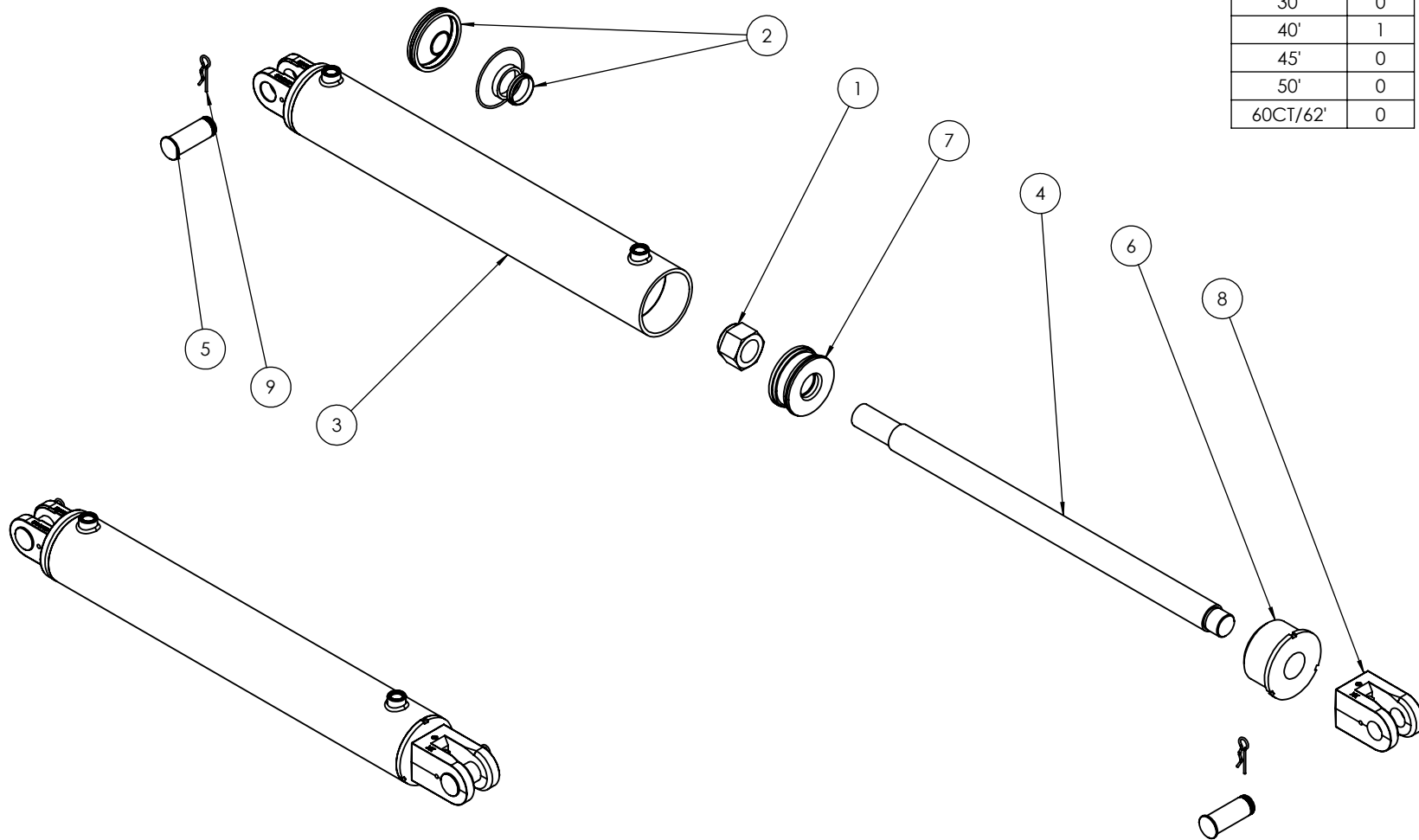


Part Number <b>0311-412EXT</b>	Description 4" Bore 12" Stroke 1.75" Rod Extended Hydraulic Cylinder	For Machines Built:	Revision A-0
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ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0223-NYL11-2		Nyloc Nut 1 1/2" UNF	1
2	0312-N4	A-0	Nordon 4" Cylinder Seal Kit	1
3	0313-424-B	A-0	4" Bore x 24" Stroke Hydraulic Cylinder Barrel	1
4	0313-424-R	A-0	Rod for 4" Bore x 24" Stroke Hydraulic Cylinder	1
5	0313-NCP1 1-2X75	A-0	Hydraulic Cylinder Pin 1 1/2" x 75mm	2
6	0313-NG175X4	A-0	Cylinder Gland 1.75" Rod x 4" Barrel	1
7	0313-NP4	A-0	Hydraulic Cylinder Piston 4"	1
8	0313-NRC1 1-2X1 1-2	A-0	Hydraulic Cylinder Rod Clevis 1 1/2" Pin x 1 1/2" Thread	1
9	0511-RCLIP3		R Clip 3mm	2

**Note: Replaces Cylinder 0311-3786**

Model	Qty
30'	0
40'	1
45'	0
50'	0
60CT/62'	0



Part Number  
**0311-424**

Description  
4" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder

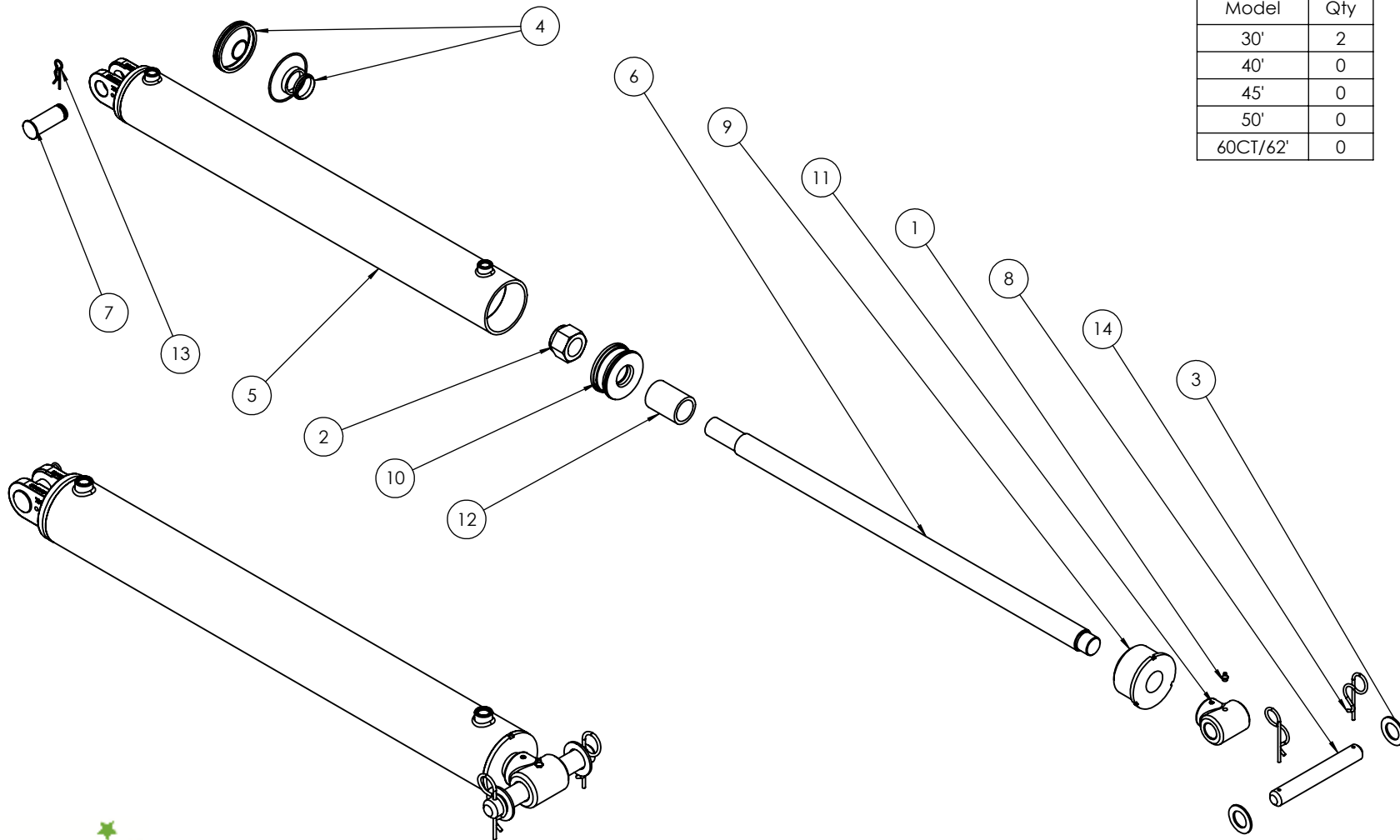
For Machines Built:

Revision  
A-0

ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0181-GN1-8	A	Grease Nipple 1/8" BSP	1	8	0313-NCP1 1-4X230	A-0	Cylinder Pin 1 1/4" x 230mm 4140	1
2	0223-NYL11-2		Nyloc Nut 1 1/2" UNF	1	9	0313-NG175X4	A-0	Cylinder Gland 1.75" Rod x 4" Barrel	1
3	0232-F11-4		Washer Flat 1 1/4"	2	10	0313-NP4	A-0	Hydraulic Cylinder Piston 4"	1
4	0312-N4	A-0	Nordon 4" Cylinder Seal Kit	1	11	0313-NRK1 1-4X1 1-2	A-0	Hydraulic Cylinder Rod Knuckle 1 1/4" Pin x 1 1/2" Thread	1
5	0313-430ST-B	A-0	4" Bore 30" Stroke 4" Stop Tube Cylinder Barrel	1	12	0313-STUBE1 3-4X3	A-0	Hydraulic Cylinder Stop Tube 1 3/4" ID x 3" (78mm) Long	1
6	0313-430ST-R	A-0	Rod for 4" Bore x 30" Stroke 78mm S/Tube Hydraulic Cylinder	1	13	0511-RCLIP3		R Clip 3mm	1
7	0313-NCP1 1-2X75	A-0	Hydraulic Cylinder Pin 1 1/2" x 75mm	1	14	0801-KE012	A	S Locking Pin Clip 5mm	2

**Note: Replaces Cylinder 0311-4781**

Model	Qty
30'	2
40'	0
45'	0
50'	0
60CT/62'	0

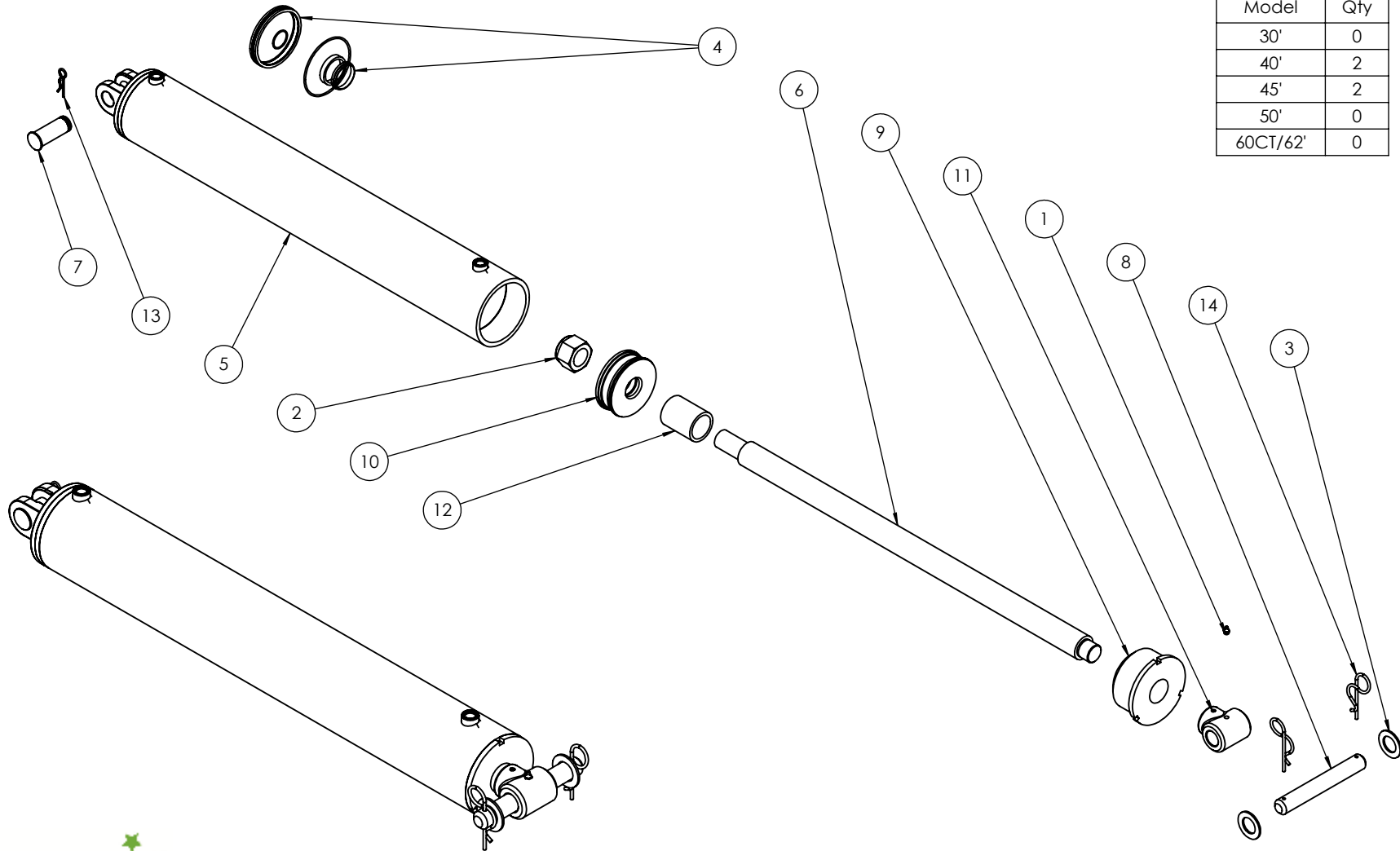


Part Number <b>0311-430ST</b>	Description 4" Bore 30" Stroke 3" S/Tube 1.75" Rod Hydraulic Cylinder 11	For Machines Built:	Revision A-0
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ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0181-GN1-8	A	Grease Nipple 1/8" BSP	1	8	0313-NCP1 1-4X230	A-0	Cylinder Pin 1 1/4" x 230mm 4140	1
2	0223-NYL11-2		Nyloc Nut 1 1/2" UNF	1	9	0313-NG2X5	A-0	Cylinder Gland 2" Rod x 5" Barrel	1
3	0232-F11-4		Washer Flat 1 1/4"	2	10	0313-NP5	A-0	Hydraulic Cylinder Piston 5"	1
4	0312-N5	A-0	Nordon 4" Cylinder Seal Kit	1	11	0313-NRK1 1-4X1 1-2	A-0	Hydraulic Cylinder Rod Knuckle 1 1/4" Pin x 1 1/2" Thread	1
5	0313-530ST-B	A-0	5" Bore 30" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	12	0313-STUBE2X3 1-8	A-0	Hydraulic Cylinder Stop Tube 2" ID x 3 1/8" (80mm) Long	1
6	0313-530ST-R	A-0	Rod for 5" Bore 30" Stroke 3 1/8" S/Tube Cylinder	1	13	0511-RCLIP3		R Clip 3mm	1
7	0313-NCP1 1-2X75	A-0	Hydraulic Cylinder Pin 1 1/2" x 75mm	1	14	0801-KE012	A	S Locking Pin Clip 5mm	2

**Note: Replaces Cylinder 0311-5040**

Model	Qty
30'	0
40'	2
45'	2
50'	0
60CT/62'	0

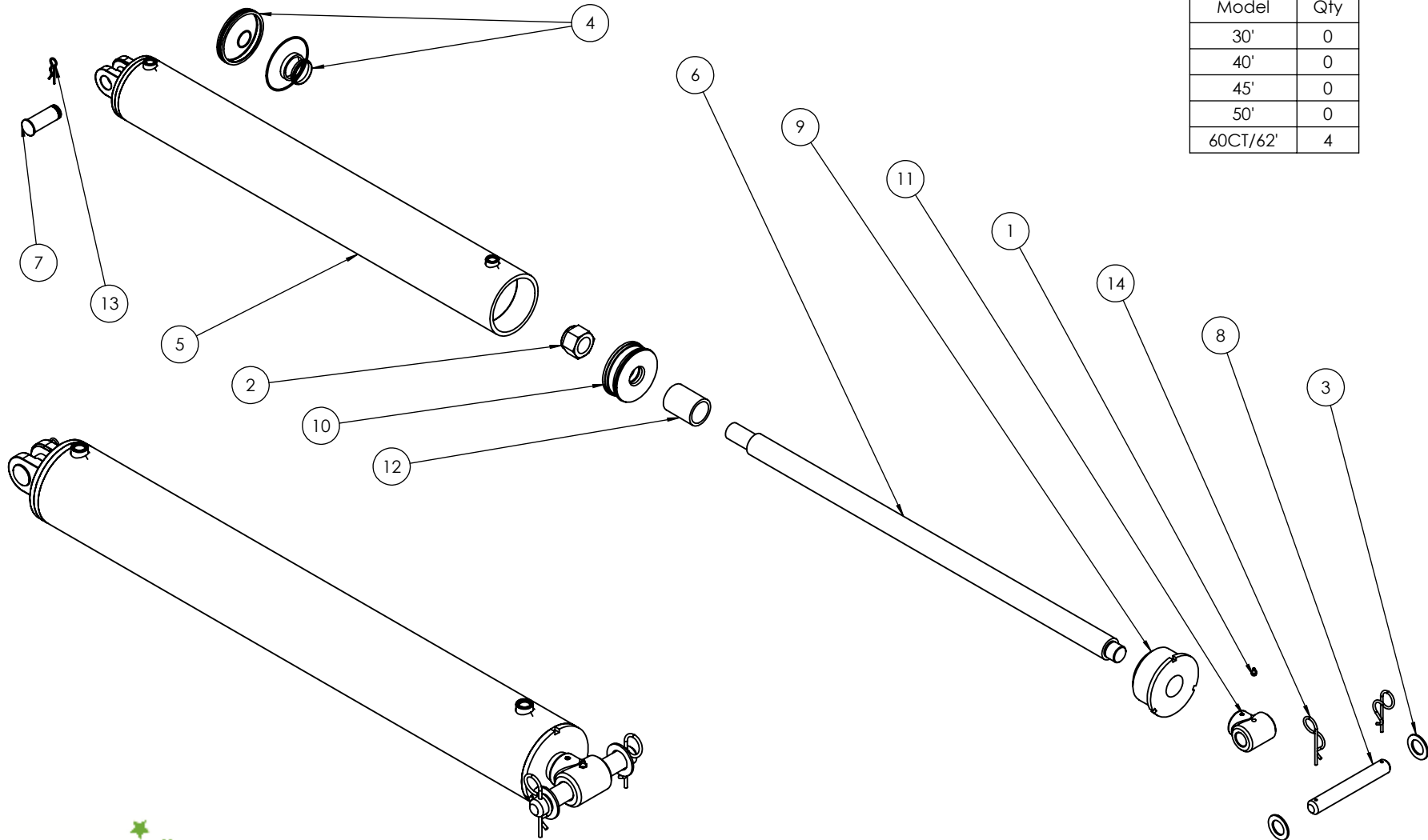


Part Number <b>0311-530ST</b>	Description 5" Bore 30" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder 12	For Machines Built:	Revision A-0
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ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	Revision	DESCRIPTION	QTY.
1	0181-GN1-8	A	Grease Nipple 1/8" BSP	1	8	0313-NCP1 1-4X230	A-0	Cylinder Pin 1 1/4" x 230mm 4140	1
2	0223-NYL11-2		Nyloc Nut 1 1/2" UNF	1	9	0313-NG2X5	A-0	Cylinder Gland 2" Rod x 5" Barrel	1
3	0232-F11-4		Washer Flat 1 1/4"	2	10	0313-NP5	A-0	Hydraulic Cylinder Piston 5"	1
4	0312-N5	A-0	Nordon 4" Cylinder Seal Kit	1	11	0313-NRK1 1-4X1 1-2	A-0	Hydraulic Cylinder Rod Knuckle 1 1/4" Pin x 1 1/2" Thread	1
5	0313-536ST-B	A-0	5" Bore 36" Stroke 3 1/8" S/Tube 2" Rod Cylinder Barrel	1	12	0313-STUBE2X3 1-8	A-0	Hydraulic Cylinder Stop Tube 2" ID x 3 1/8" (80mm) Long	1
6	0313-536ST-R	A-0	Rod for 5" Bore 36" Stroke 3 1/8" S/Tube Cylinder	1	13	0511-RCLIP3		R Clip 3mm	1
7	0313-NCP1 1-2X75	A-0	Hydraulic Cylinder Pin 1 1/2" x 75mm	1	14	0801-KE012	A	S Locking Pin Clip 5mm	2

**Note: Replaces Cylinder 0311-2956**

Model	Qty
30'	0
40'	0
45'	0
50'	0
60CT/62'	4



Part Number <b>0311-536ST</b>	Description 5" Bore 36" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder 13	For Machines Built:	Revision A-0
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