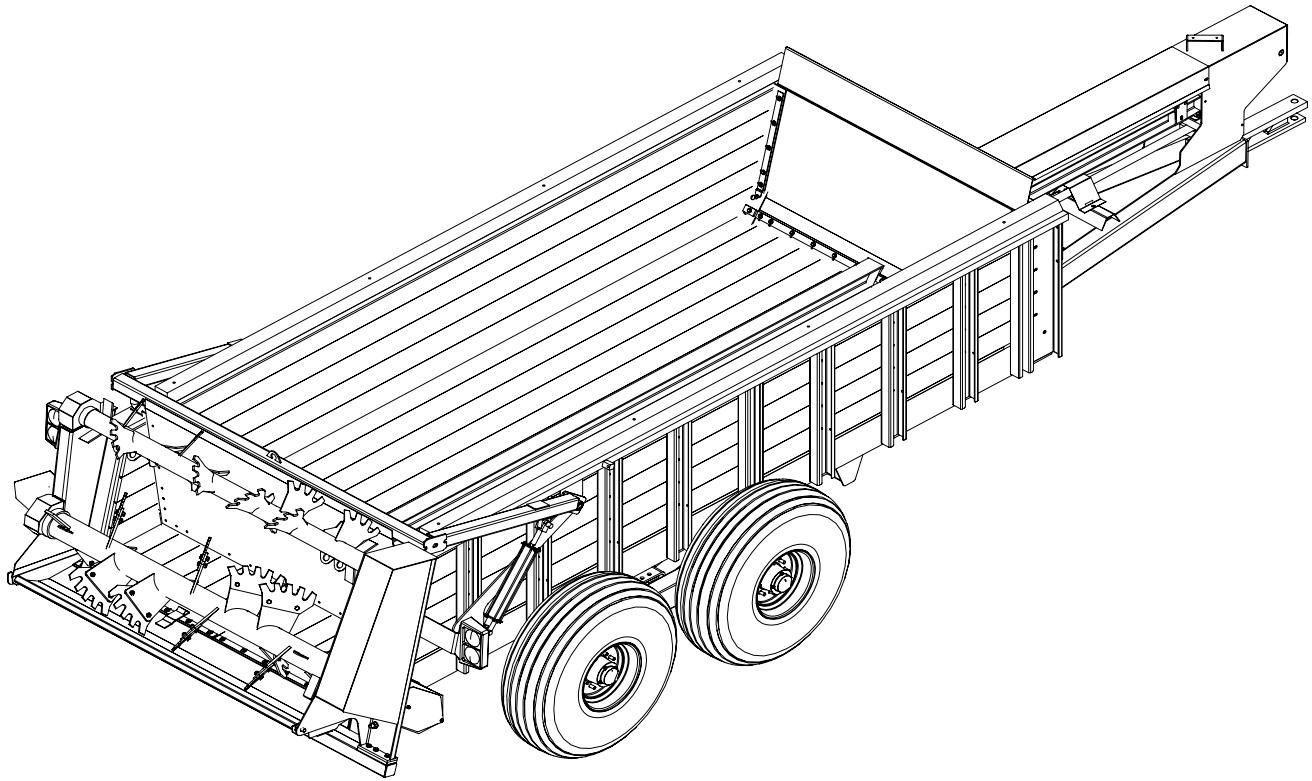
Hagedorn Parts Manual

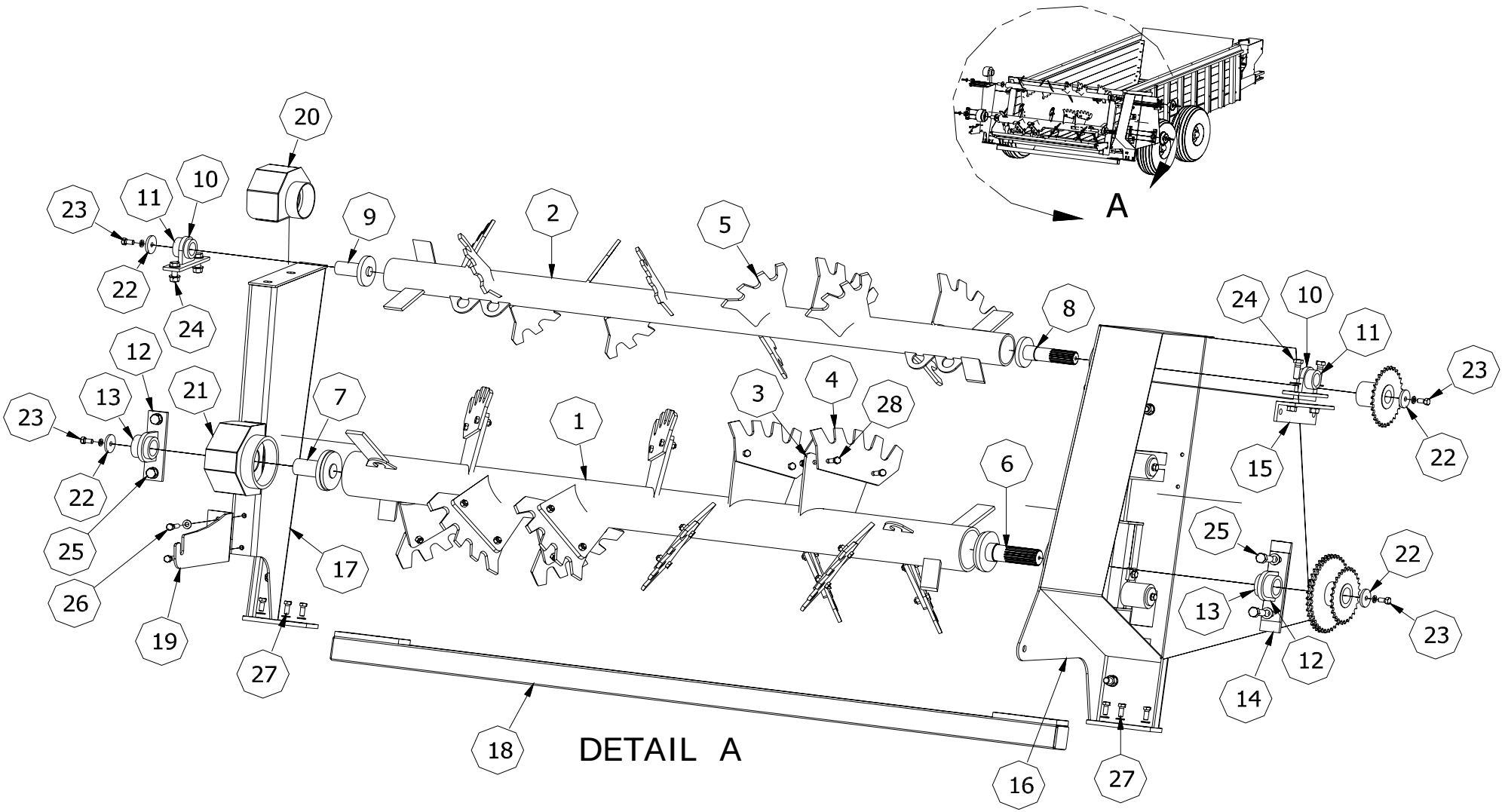
Model 2277



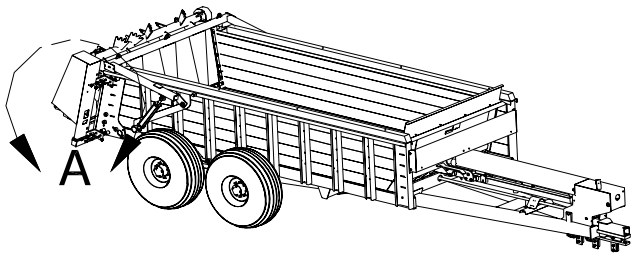
Beaters.....Section 1
Beater Assembly.....1.1
Beater Attaching.....1.3
Drivetrain.....Section 2
Input Shaft, Gearbox, and Bearings.....2.1
Gearbox Breakdown.....2.3
Beater Pan and Endgate.....Section 3
Beater Pan.....3.1
Endgate, SN 4470-5289.....3.3
Endgate, SN 5317-On.....3.5
Endgate Hydraulics.....Section 4
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Special Endgate Cylinders.....4.3
Push-off Hydraulics.....Section 5
Push-off Cylinder Assembly, SN 4470-5392.....5.1
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Wheels, Axles, Hubs.....Section 11
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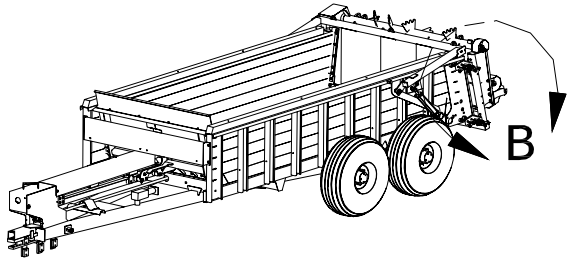
Beaters and Beater Frames	1.1
Beater Frame Attaching	1.3

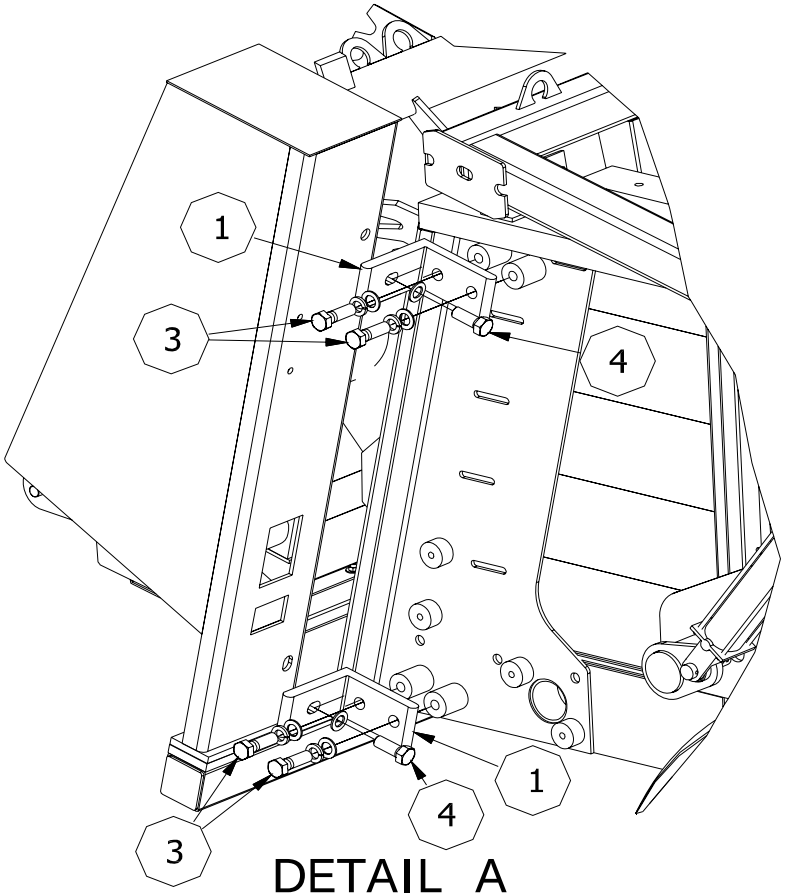
key	Qty	Description	Part Number
1	1	Complete main beater	20265
2	1	Complete upper beater	20100
3	12	Weld-on paddle, main beater	73001-S
4	12	Replacable paddle section, main beater	73007
5	12	Weld-on paddle, upper beater	73008
6	1	Drive side stub shaft and disc, main beater	86002
7	1	Idler side stub shaft and disc, main beater	86001
8	1	Drive side stub shaft and disc, upper beater	86220
9	1	Idler side stub shaft and disc, upper beater	20101
10	2	Bearing housing, Pillow block, upper beater	76391
11	2	Bearing insert, upper beater	76392
	2	Bearing Assembly, idle side & upper beater drive, pillow block, Includes keys 10 & 11	76390
12	2	Bearing housing, Pillow block, Main beater	76046
13	2	Bearing insert, Main beater	76047
	2	Bearing assembly, main beater drive, pillow block, Includes keys 12 & 13	76063
14	1	Main beater bearing bracket	70361
15	1	Upper beater bearing bracket	70566
16	1	Beater frame, drive side	20103
17	1	Beater frame, idle side	20104
18	1	Beater frame cross-member	N/A
19	1	Beater pan mounting bracket	74526
20	1	Upper beater, Idle side bearing cover	20007
21	1	Main Beater, Idle side bearing cover	20014
22	4	Beater retainer (Special Heavy Washer)	79029
23	AR	Bolts	1/2 x 1 (4), lockwasher (4)
24	AR	Bolts	5/8 x 2 1/4 (4), SAE flat washer (8), locknut (4)
25	AR	Bolts	3/4 x 2 1/2 (4), SAE flat washer (8), locknut (4)
26	AR	Bolts	1/2 x 1 1/2 (2), USS flat washer (4), locknut (2)
27	AR	Bolts	1/2 x 1 1/4 (6), lockwasher (6)
28	AR	Bolts	1/2 x 1 1/2 (24), locknut (24)


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DETAIL A
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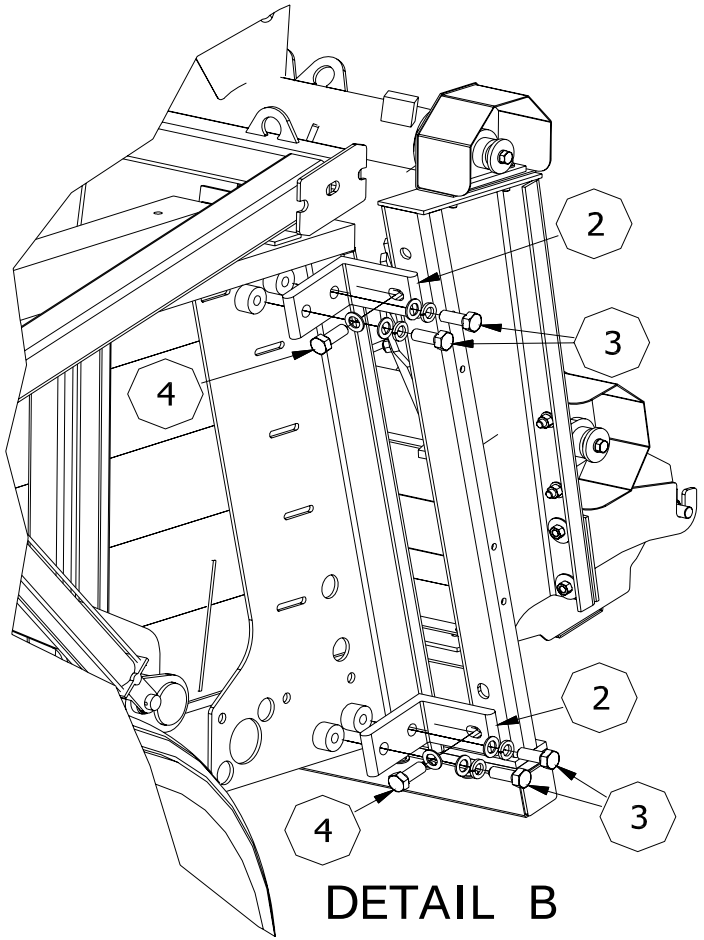
key	Qty	Description	Part Number
1	2	Beater frame mounting bracket, drive side	70416
2	2	Beater frame mounting bracket, idler side	70415
3	AR	Bolts	3/4 x 2 (8), SAE flat washer (8), lockwasher (8)
4	AR	Bolts	3/4 x 2 (4), SAE flat washer (8), locknut (4)







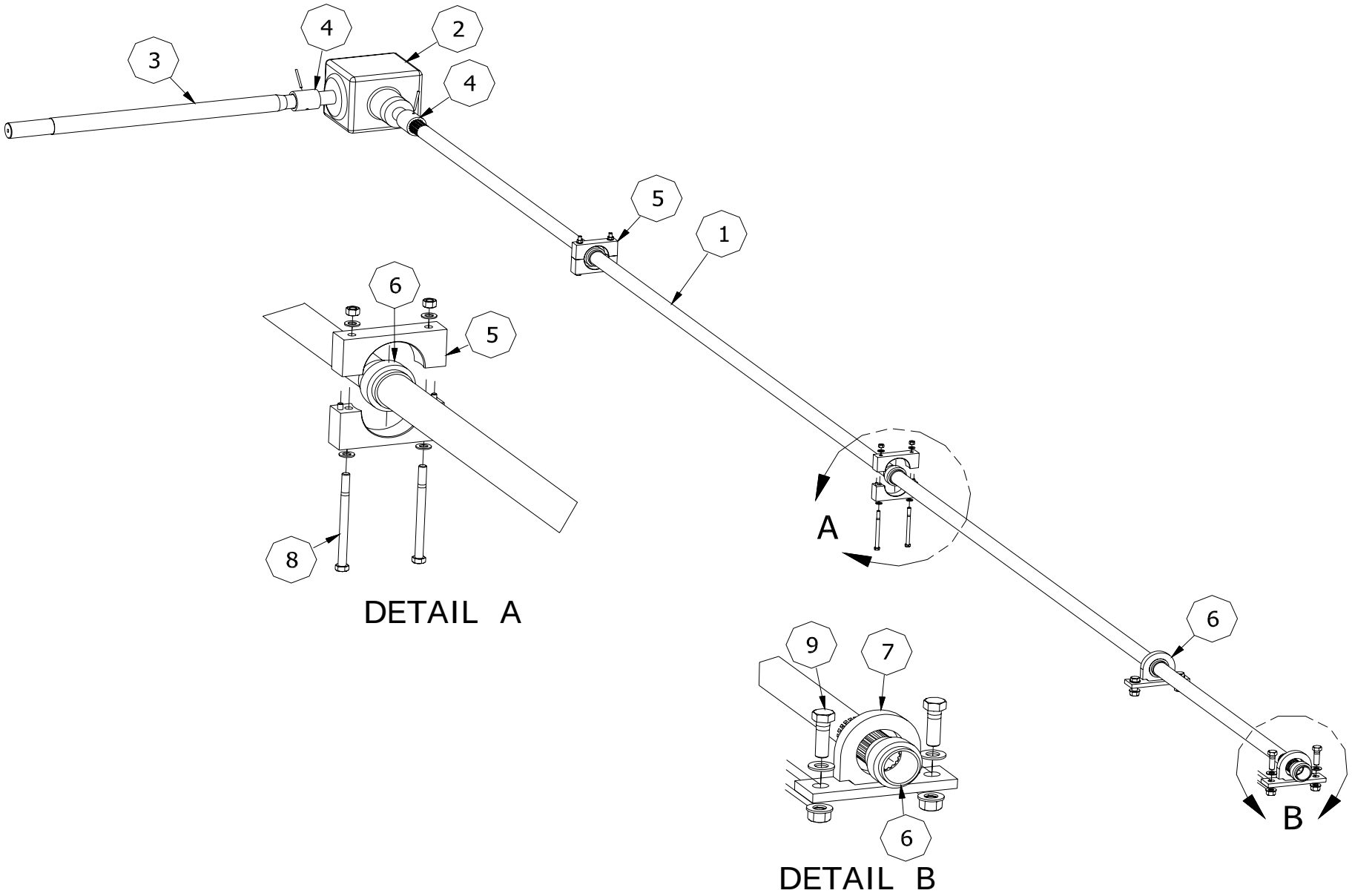
DETAIL A



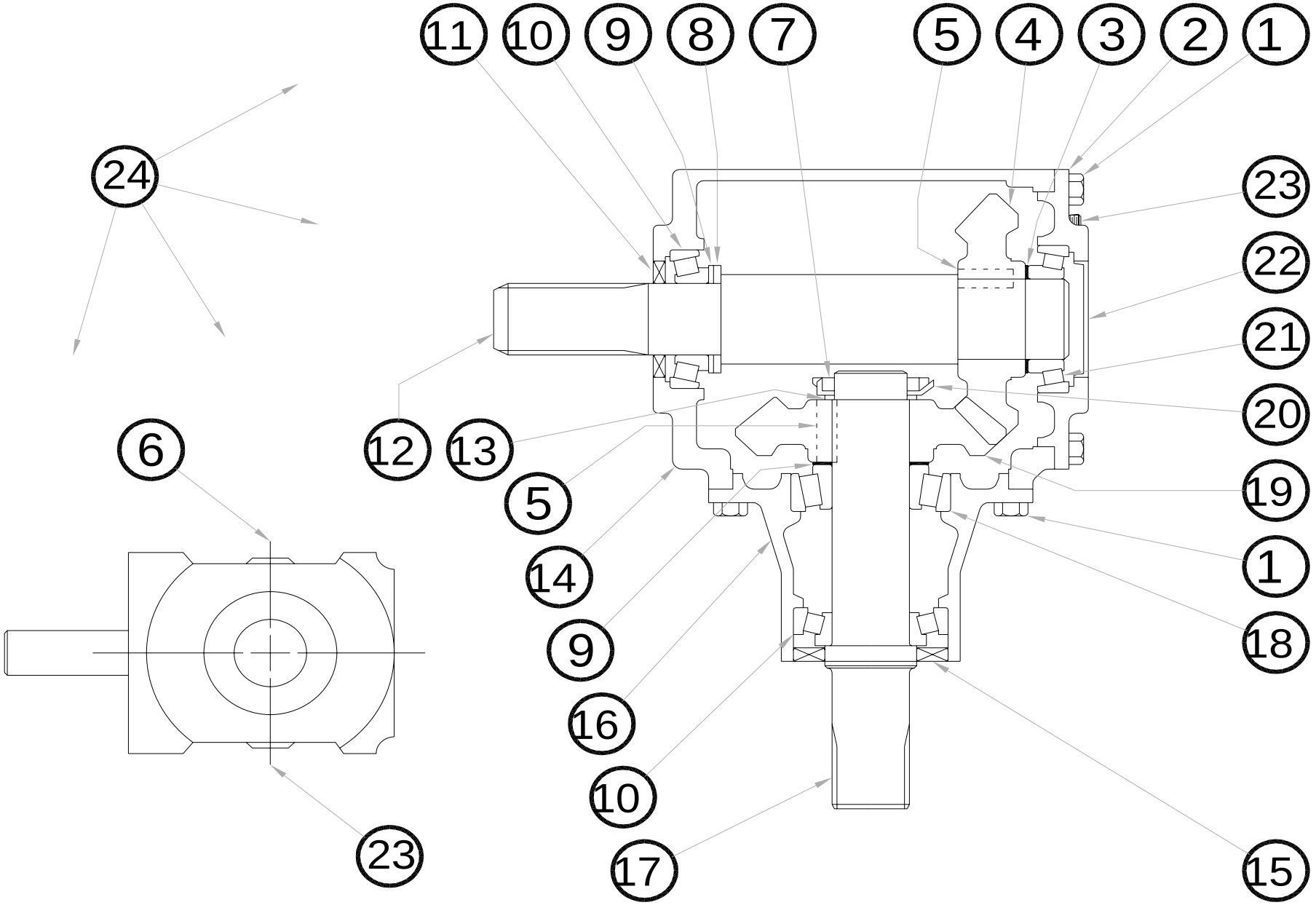
DETAIL B

Input shaft, Gearbox, and Bearings	2.1
Gearbox Breakdown	2.3

key	Qty	Description	Part Number
1	1	Input Shaft	76018
2	1	Gearbox	76043
3	1	Cross-shaft	76084
4	2	Splined Coupler	76019
5	2	2 piece bearing housing, machined steel	76009
6	4	Bearing Insert	76049
	2	2 Piece bearing assembly, machined steel, Includes keys 5 & 6	76088
7	2	Pillow block bearing housing, ductile iron	76391
	2	Pillow block bearing assembly, Includes keys 6 & 7	76048
8	AR	Bolts	3/8 x 5 (6), SAE Flat Washers (12), Locknut (6)
9	AR	Bolts	5/8 x 2 (4), SAE Flat Washers (8), Locknut (4)

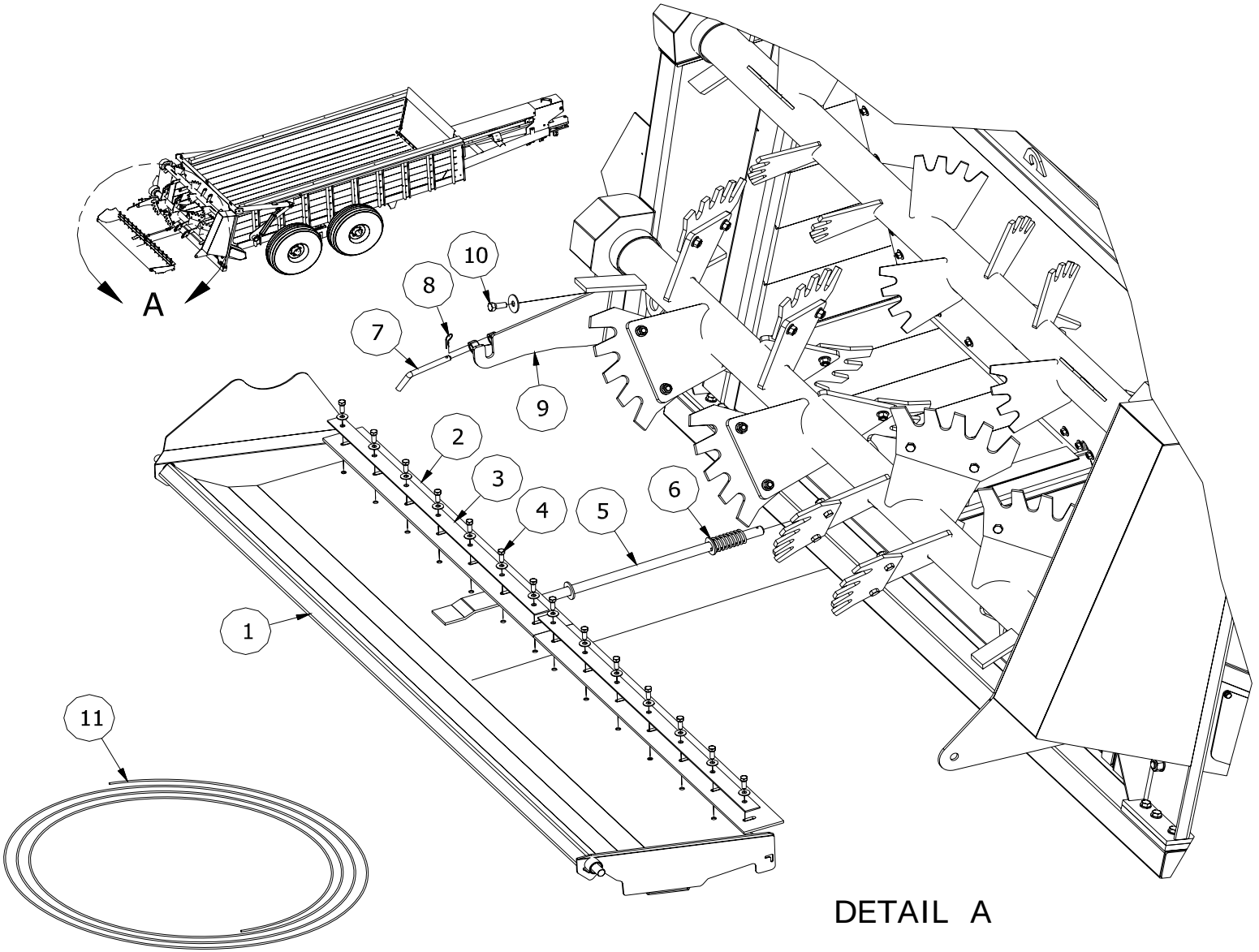

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DETAIL A
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B
DETAIL B

key	Qty	Description	Part Number
1		Bolt	M10 x 22 Grade 8.8
2		Bearing Cover	76043.02
3		Shim	76043.03
4		Gear, Output shaft	76043.04
5		Key	76043.05
6		Vented Plug, top of gearbox	76043.06
7		Locknut	76043.07
8		Shim	76043.08
9		Shim	76043.09
10		Bearing (Includes cup and cone) - 32210	76043.21
11		Double Lip Seal - 72mm x 45mm x 10mm	76043.11
12		Output shaft	76043.12
13		Shim	76043.13
14		Housing	76043.14
15		Double Lip Seal - 85mm x 52mm x 10mm	76043.15
16		Extension	76043.16
17		Input shaft	76043.17
18		Bearing (Includes cup and cone) -32209	76043.18
19		Gear, Input shaft	76043.19
20		Spring washer	76043.20
21		Bearing (Includes cup and cone) - 32209	76043.18
22		Cap 72 x 10 mm	76043.22
23		Solid Plug, sides of gearbox	76043.23
24		Complete Gearbox	76043

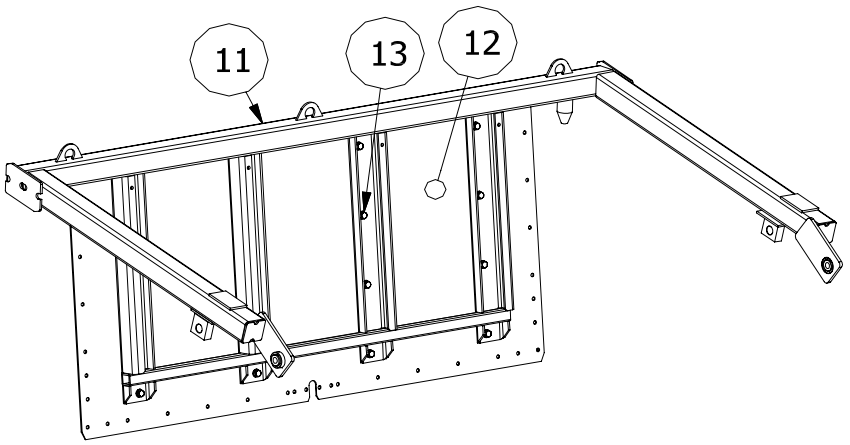

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Beater pan	3.1
Endgate SN 4470 - 5289	3.3
Endgate SN 5317 - On	3.5

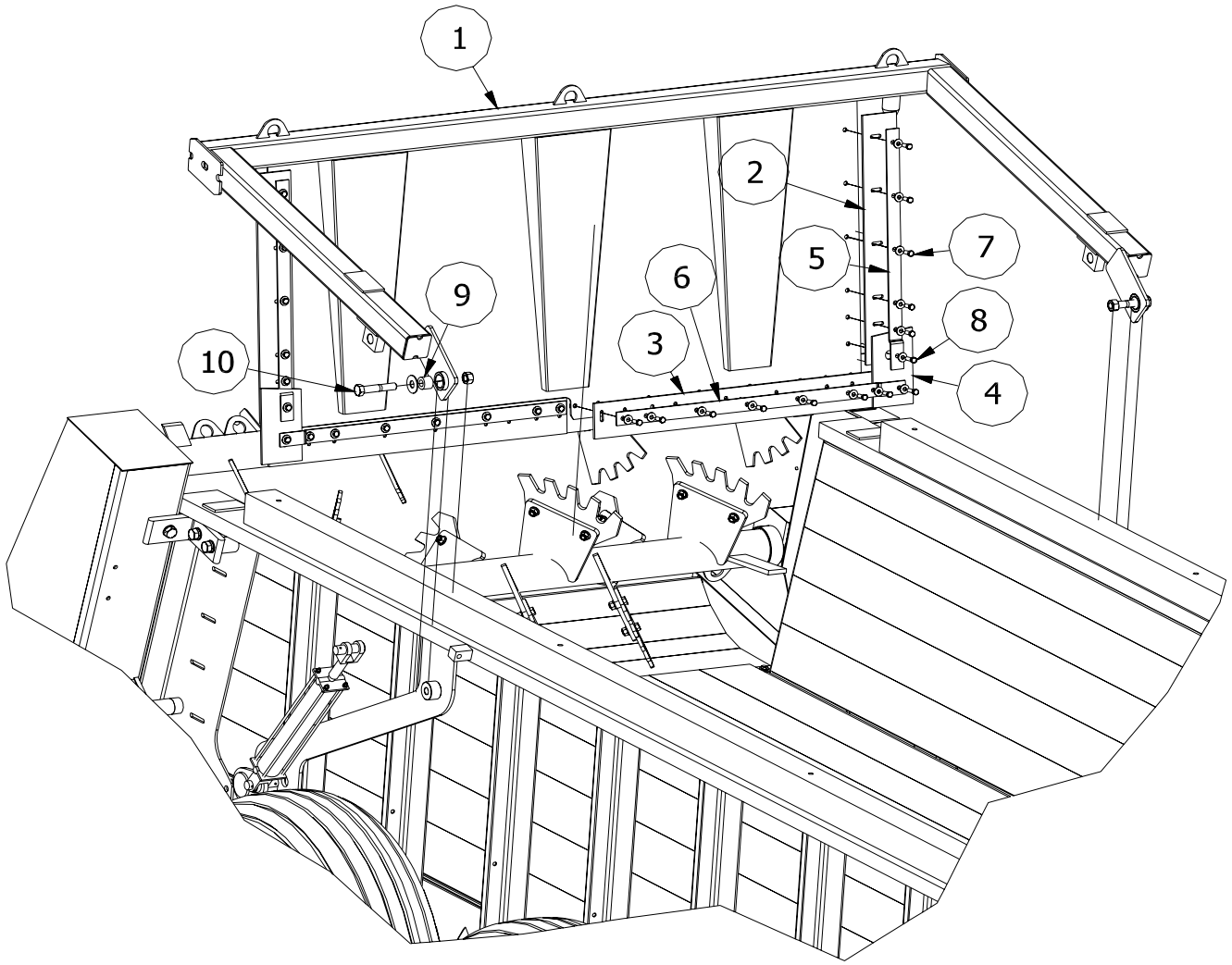
key	Qty	Description	Part Number
1	1	Beater pan weldment	20088
2	2	Rubber seal for beater pan	78027
3	14	SPECIAL WASHER for beater pan seal	1399-1030
4	AR	Bolts 3/8 x 1 (14), SAE flat washer (28), locknut (14)	
5	1	Beater pan latch pin	74056
6	1	Spring for beater pan latch pin	74570
7	1	Lock pin	74502
8	1	Hair pin, Included with key 7	5/32"
9	1	Beater pan mounting bracket	74526
10	AR	Bolts 1/2 x 1 1/2 (2), USS flat washer (4), locknut (2)	
11	1	Beater pan trip cable	74580
	2	Cable clamp 1/8"	79830
		Beater pan seal kit, Includes keys 2, 3, 4	20097


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DETAIL A

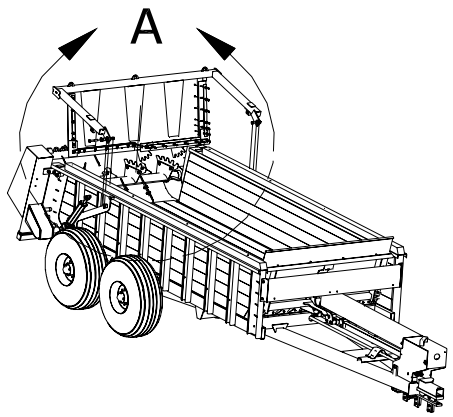
key	Qty	Description	Part Number
1	1	Endgate Weldment	Replace with, 20162, 20145R, 20145L and 74083 from page 3.5
2	2	Rubber Strip, Endgate Side	78220
3	2	Rubber Strip, Endgate Bottom	78200
4	2	Rubber for Corners of Endgate	78250
5	12	SPECIAL WASHER, Endgate Side	79027
6	18	SPECIAL WASHER, Endgate Bottom	79027
7	AR	Bolts, Endgate Seal Kit	1/2 x 1 (24), 1/2 SAE flat washer (48), Locknut (24)
8	AR	Bolts, Endgate Seal Kit	1/2 x 1.25 (4), 1/2 SAE flat washer (8), Locknut (2)
9	2	Endgate Pivot Bushing	74240
10	AR	Bolts, Endgate Pivot	3/4 x 4 (2), USS flat washer (2), Locknut (2)
		Endgate seal kit, Includes keys 2-8	84080
11		Welded arm endgate frame	Replace with, 20162, 20145R and 20145L from page 3.5
12		Endgate panel, bolt-on	74083
13		Bolts, Endgat Panel	1/2 x 1 1/4 (16), SAE washer (32), Locknut (16)



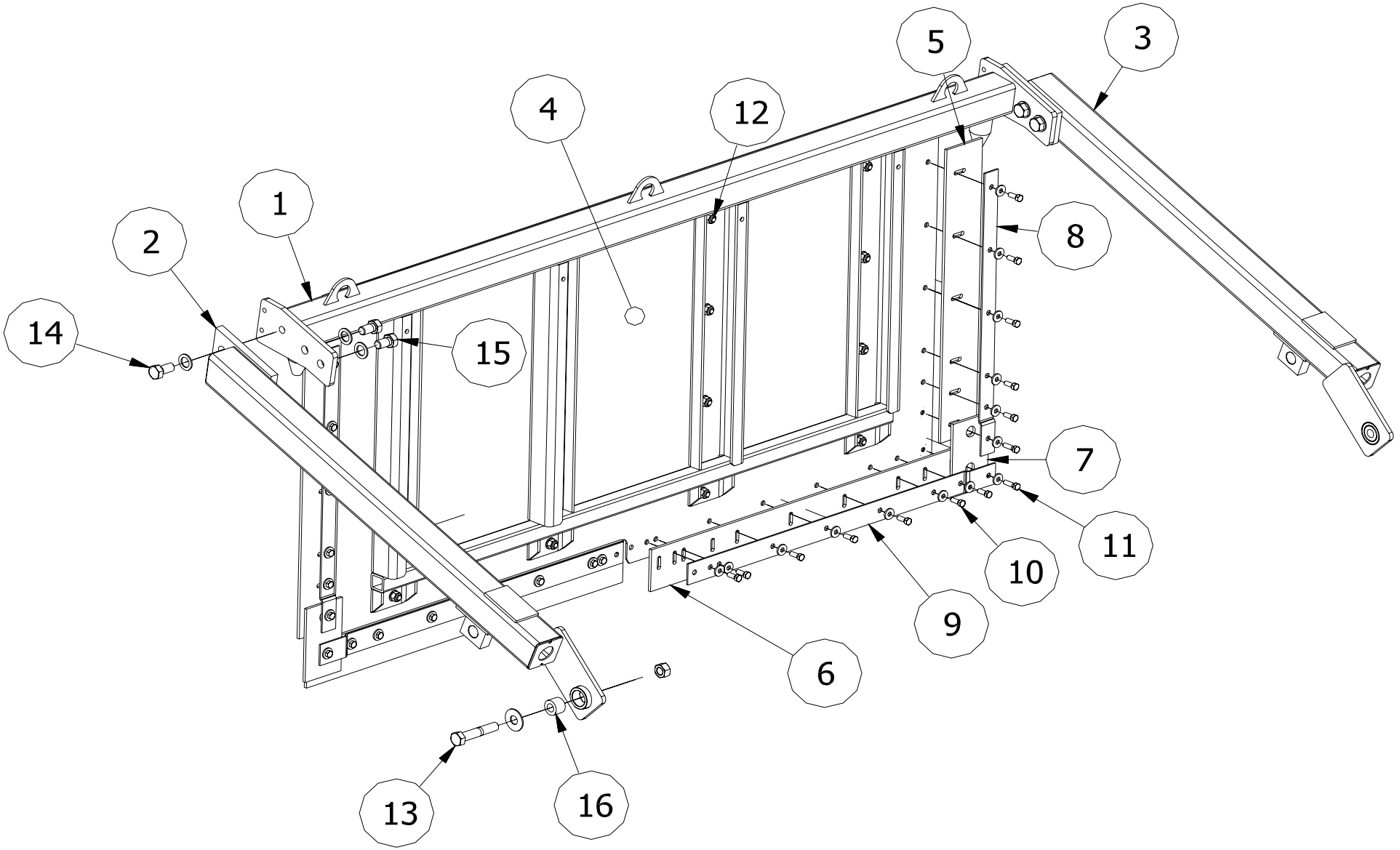
Late 2277's in this serial range were built using a welded frame with a bolt-on replaceable panel as shown left.
All endgates are replaced with the 3pc bolted style on page 3.5



DETAIL A



key	Qty	Description		Part Number
1	1	Endgate frame		20162
2	1	Endgate Arm, Right		20145R
3	1	Endgate Arm, Left		20145L
4	2	Endgate panel		74083
5	2	Rubber Strip, Endgate Side		78220
6	2	Rubber Strip, Endgate Bottom		78200
7	2	Rubber for Corners of Endgate		78250
8	12	SPECIAL WASHER, Endgate Side		79027
9	18	SPECIAL WASHER, Endgate Bottom		79027
10	AR	Bolts, Endgate Seal Kit	3/8 x 1 (24), 3/8 SAE flat washer (48), Locknut (24)	
11	AR	Bolts, Endgate Seal Kit	3/8 x 1 1/4 (4), 3/8 SAE flat washer (8), Locknut (4)	
		Endgate seal kit, Includes keys 5-11		84080
12	AR	Bolts, Endgate panel	1/2 x 1 1/4 (16), 1/2 SAE flat washer (32), 1/2 lockut (16)	
13	AR	Bolts, Endgate pivot	3/4 x 4 (2), USS flat washer (2), Locknut (2)	
14	AR	Bolts, Endgate lift arm	3/4 x 1 1/2 (2), Grade 8 washer (2)	
15	AR	Bolts, Endgate lift arm	3/4 x 1 1/4 (4), Grade 8 washer (4)	
16	2	Endgate Pivot Bushing		74240

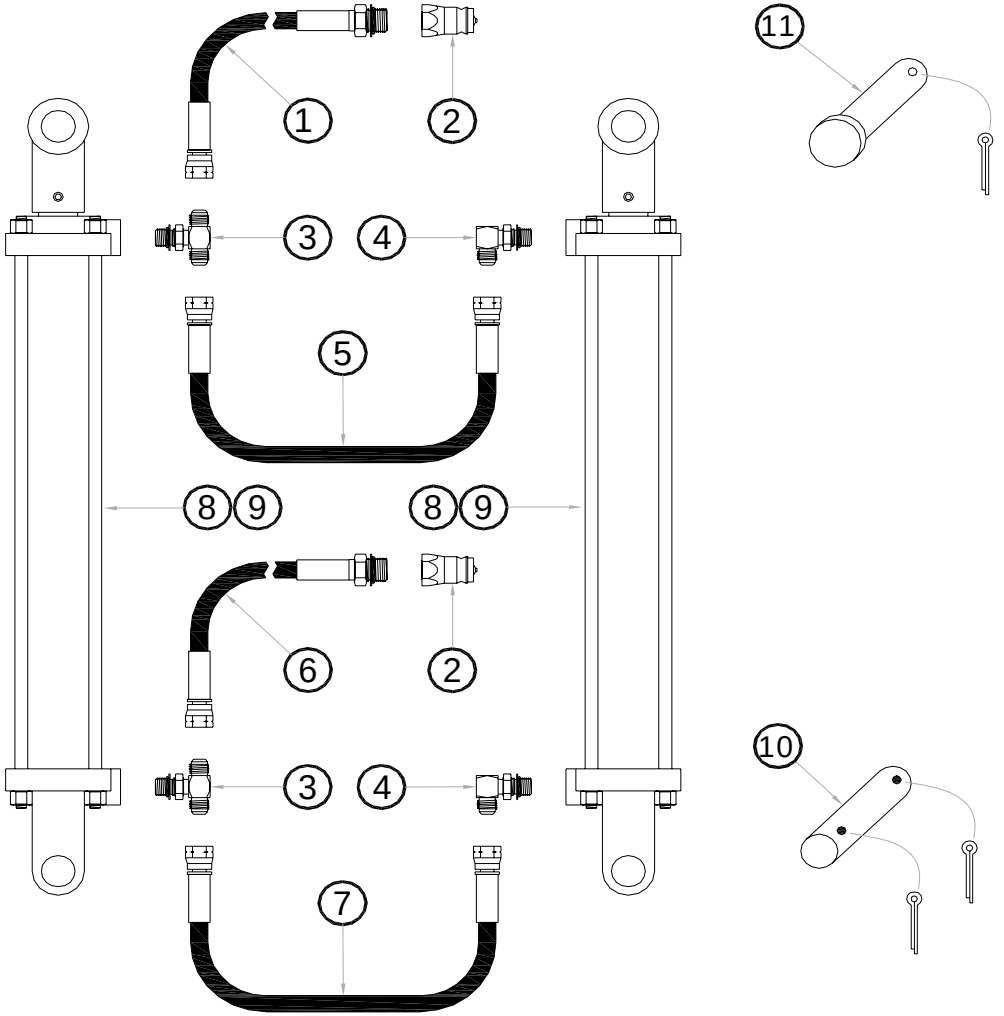

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Endgate hydraulics, Standard Non-sequence Valve Only	4.1
Special Endgate Cylinder Information, SN 5289-5317	4.3

Applies to machines with standard flow control only
For machines equipped with optional sequencing valves see section 5 - Push-off hydraulics

key	Qty	Description	Part Number
1	1	Hose, connecting upper port of cylinders to tractor	77262
2	2	ISO Male tip (poppet style)	471945
3	2	T-Fitting	77530
4	2	L-Fitting	77520
5	1	Hose, connecting upper port of cylinders	77171
6	1	Hose, connecting lower port of cylinders to tractor	77272
7	1	Hose, connecting lower port of cylinders	77170
8	2	Endgate cylinder SN 4470-5285	77154
		Endgate cylinder SN 5289-On[1]	77154
9	2	Seal Kit	N/A
10	2	Endgate cylinder pin with two cotter pins	77640
11	2	Headed endgate cylinder pin with one cotter pin	77070

(1) Serial 5289 - 5317 may have had special endgate cylinders. See page 4.3 for information


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Key	Qty	Description	Part Number
1	-	T-Fitting, 3/8 NPT male branch x #6 JIC male run	77168
2	-	L-Fitting, 3/8 NPT male x # 6 JIC	77169
3	-	T-Fitting, #8 SAE male branch x #6 JIC male run	77216
4	-	L-Fitting, #8 SAE male x #6 JIC male	77680
5	-	Straight Fitting, #8 SAE male x #6 SAE female	77185
6	-	T-Fitting, #6 SAE male branch x #6 JIC male run	77530
7	-	L-Fitting, #6 SAE male x #6 JIC male	77520

Supply problems forced the use of non-standard cylinders. This page and the following show what those cylinder arrangements should look like. Hoses and valves remain the same as shown on page 4.1 for standard valves, or 5.5, and 5.7 for sequencing valves. changes apply only to the endgate cylinders and fittings.

2 1/2 x 16 Cylinders with 3/8 NPT Ports

Replace with 77154 and new fittings from page 4.1

If replacing fittings be sure to seal with loctite 592 pipe sealant or equivalent high pressure (3000psi min.) pipe sealant

2 1/2 x 16 Cylinders with #8 SAE Ports

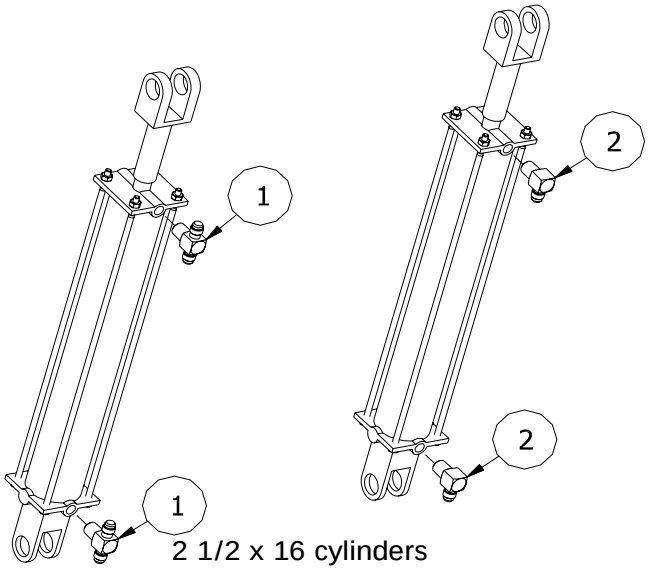
Replace with 77154 and new fittings from page 4.1

2 1/2 x 16 Cylinders with #8 SAE Ports

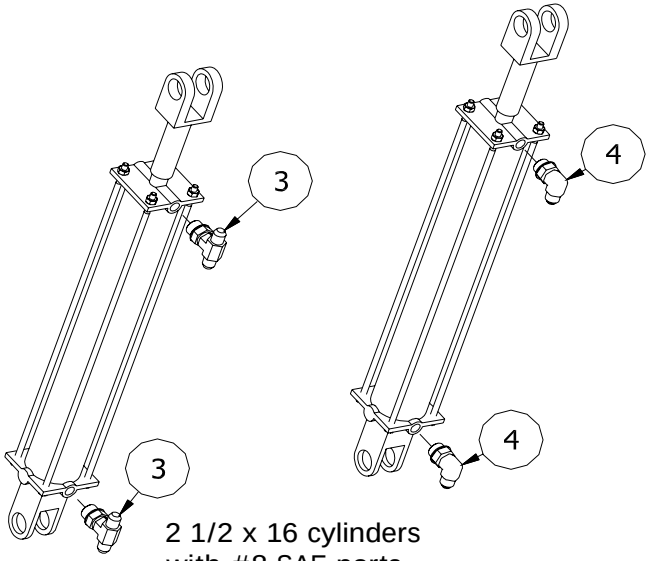
Replace with 77154, Discard fitting key 7 and re-use fittings 5 and 6.

2 1/2 x 16 Cylinders with #6 SAE Ports

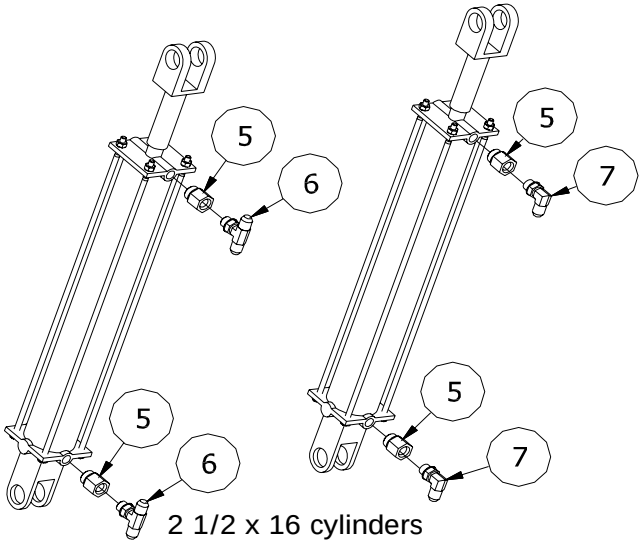
This is the standard arrangement. Replace with 77154 as showin on page 4.1



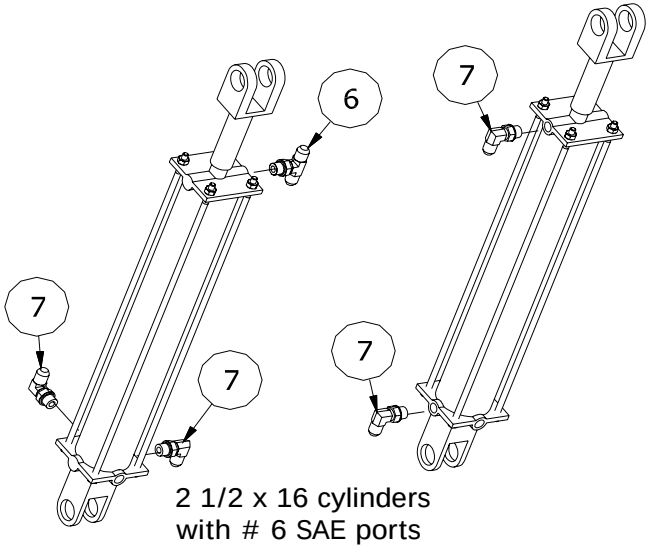
2 1/2 x 16 cylinders
with 3/8 NPT ports



2 1/2 x 16 cylinders
with #8 SAE ports



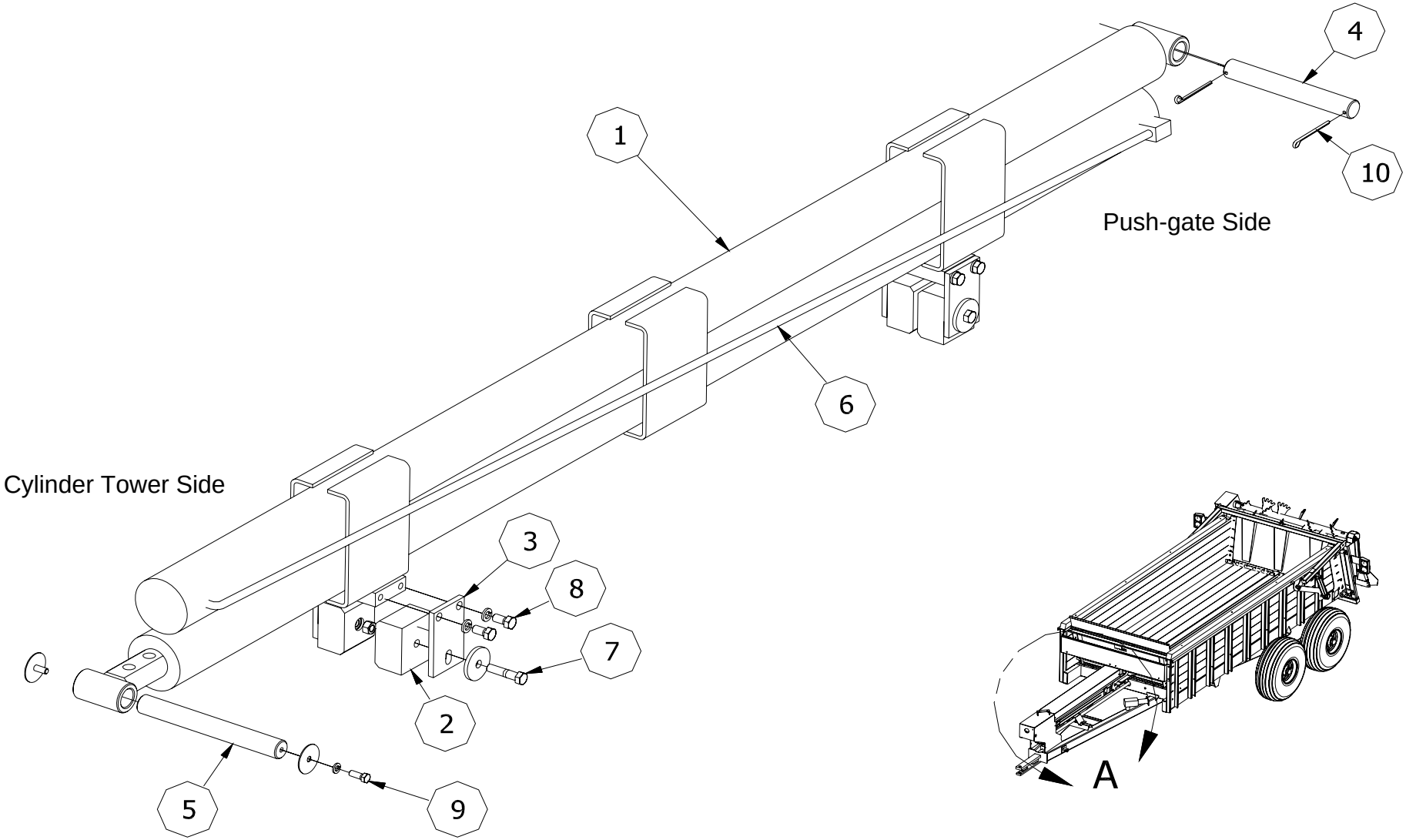
2 1/2 x 16 cylinders
with #8 SAE ports



2 1/2 x 16 cylinders
with # 6 SAE ports
(Standard)

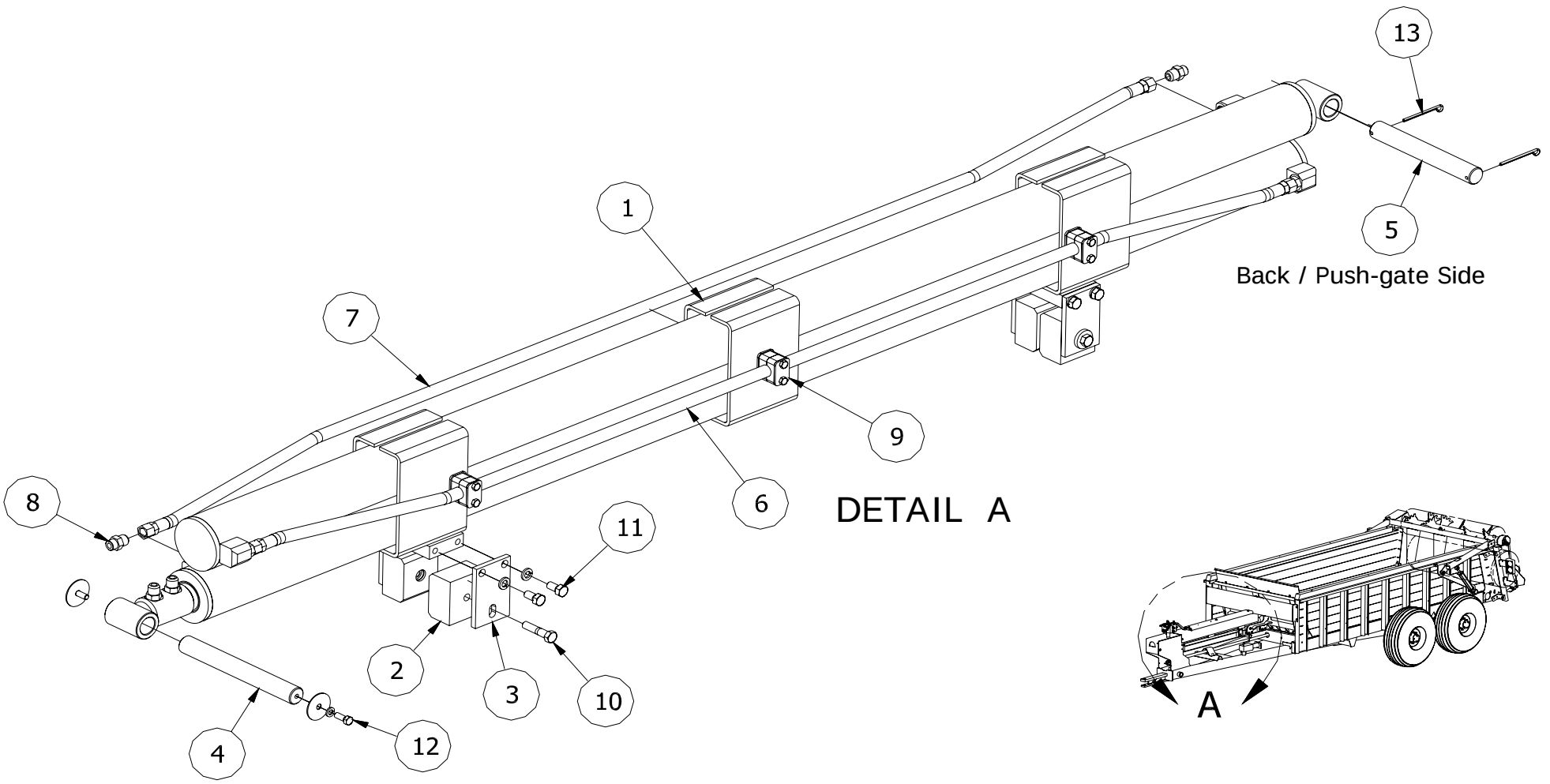
Push-off cylinder assembly, SN 4470 - 5392	5.1
Push-off cylinder assembly, SN 5393 - On	5.3
Hydraulic hoses and control valve, SN 4470 - 5392	5.5
Hydraulic hoses and control valve, SN 5393 - On	5.7
Opt. Sequencing valve and hoses, SN 5000 - 5386	5.9
Opt. Sequencing valve and hoses, SN 5387 - On	5.11
Push-off cylinder breakdown, SN 4470 - 5392	5.13
Push-off cylinder breakdown, SN 5393 - On	5.15

key	Qty	Description		Part Number
1	1	Push-off Cylinder (including keys 2 and 3)		20038
2	4	Cylinder Slide		75082
3	4	Standoff for cylinder slide		77854
4	1	Cylinder Pin at Push-Gate		77068
5	1	Cylinder Pin at Tower		77701
6	1	External conductor tube		DISCONTINUED
7	AR	Bolts	1/2 x 2 1/2 (4), Special Washer-79010 (4), Locknut (4)	
8	AR	Bolts	1/2 x 1 1/4 (8), Lockwasher (8)	
9	AR	Bolts	3/8 x 1 (2), Lockwasher (2), Special Washer-79030 (2)	
10	2	Cotter pins		3/16 x 2

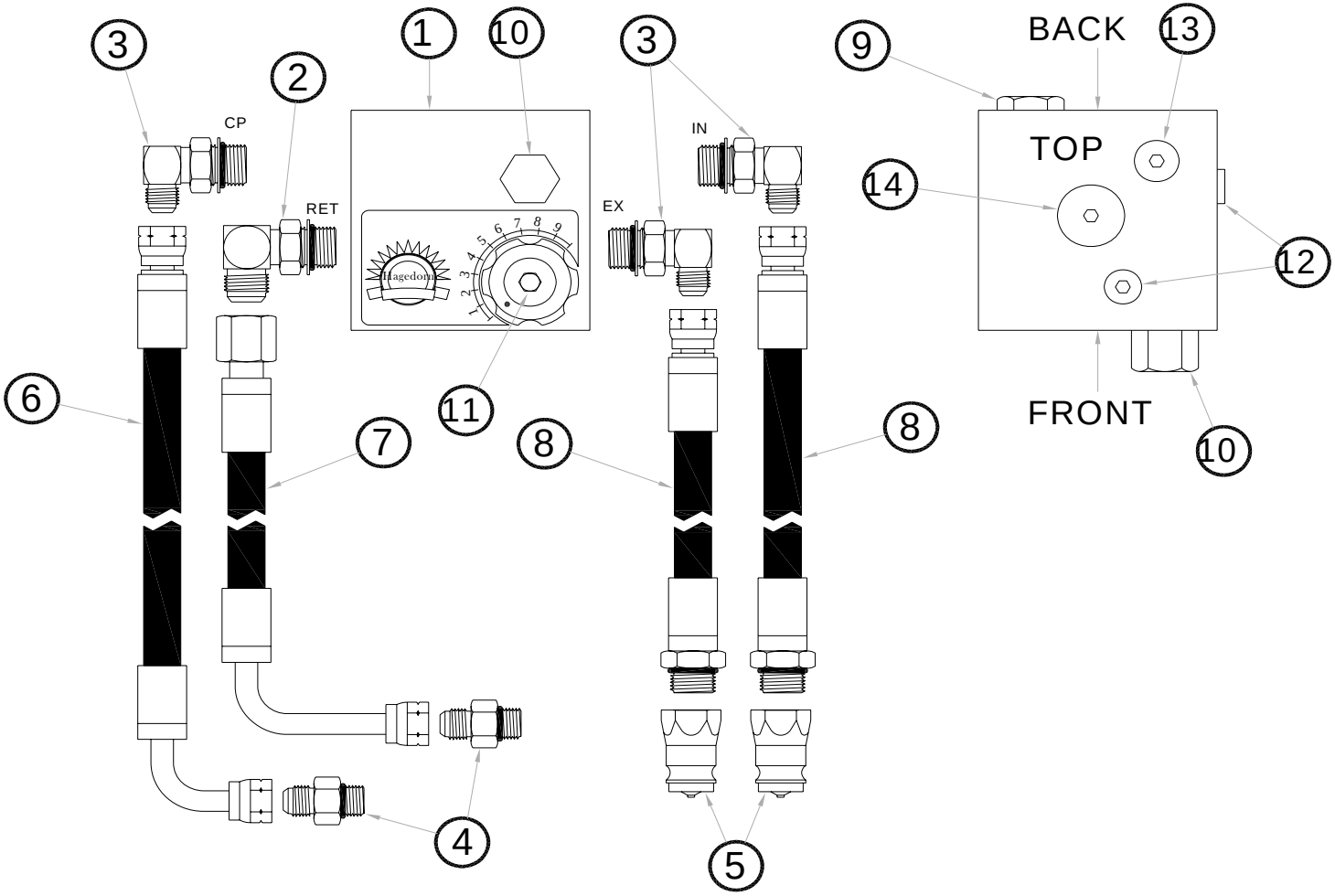

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Push-gate Side
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Cylinder Tower Side
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DETAIL
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key	Qty	Description	Part Number
1	1	Push-off Cylinder (includes keys 1, 2, 3, 6, 7, 8, 9 and hardware)	20183
2	4	Cylinder Slide	75082
3	4	Standoff for cylinder slide	77854
4	1	Cylinder Pin at Tower	77068
5	1	Cylinder Pin at Push-Gate	77701
6	1	External Conductor Tube, Left	N/A
7	1	External Conductor Tube, Right	N/A
8	4	Straight Fitting	471313
9	6	Hose Clip (1)	77610
10	AR	Bolts	1/2 x 2 1/2 (4), Special Washer-79010 (4), Locknut (4)
11	AR	Bolts	1/2 x 1 1/4 (8), Lockwasher (8)
12	AR	Bolts	3/8 x 1 (2), Lockwasher (2), Washer 1399-1030 (2)
13	2	Cotter pins	3/16 x 2

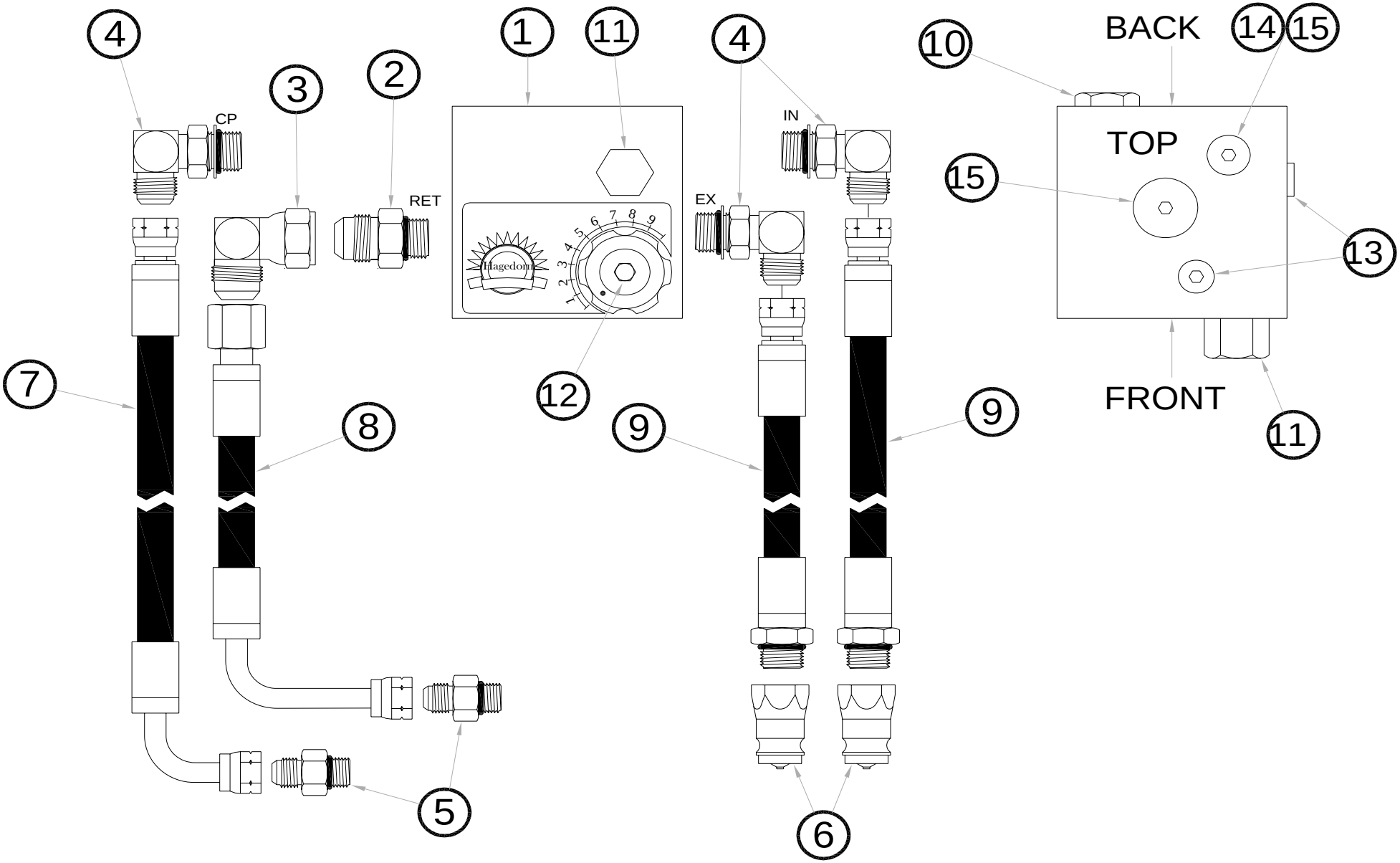
(1) Very early cylinders had a tube clamp assembly as in drawing. Later Cylinders use P-Clips. Parts for the tube clamp assemblies are not available. Drill and use P-clips.


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Back / Push-gate Side
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DETAIL A
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Front / Cylinder Tower Side
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key	Qty	Description	Part Number
1	1	Flow Control Valve	77003
2	1	L-Fitting	471466
3	3	L-Fitting	77680
4	2	Male Connector	77400
5	2	ISO Male Tip (poppet style)	471945
6	1	Hose, CP to Cylinder	77232
7	1	Hose, RET to Cylinder	77222
8	2	Hose, IN/EX to Tractor	77212
9	1	Check Valve for Flow Control Valve	77058
10	1	Differential Sensing Valve for Flow Control Valve	77059
11	1	Metering Cartridge for Flow Control Valve	77060
12	2	#4 ORB Hex Socket Plug	77061
13	1	#6 ORB Hex Socket Plug	77062
14	1	#8 ORB Hex Socket Plug	77063


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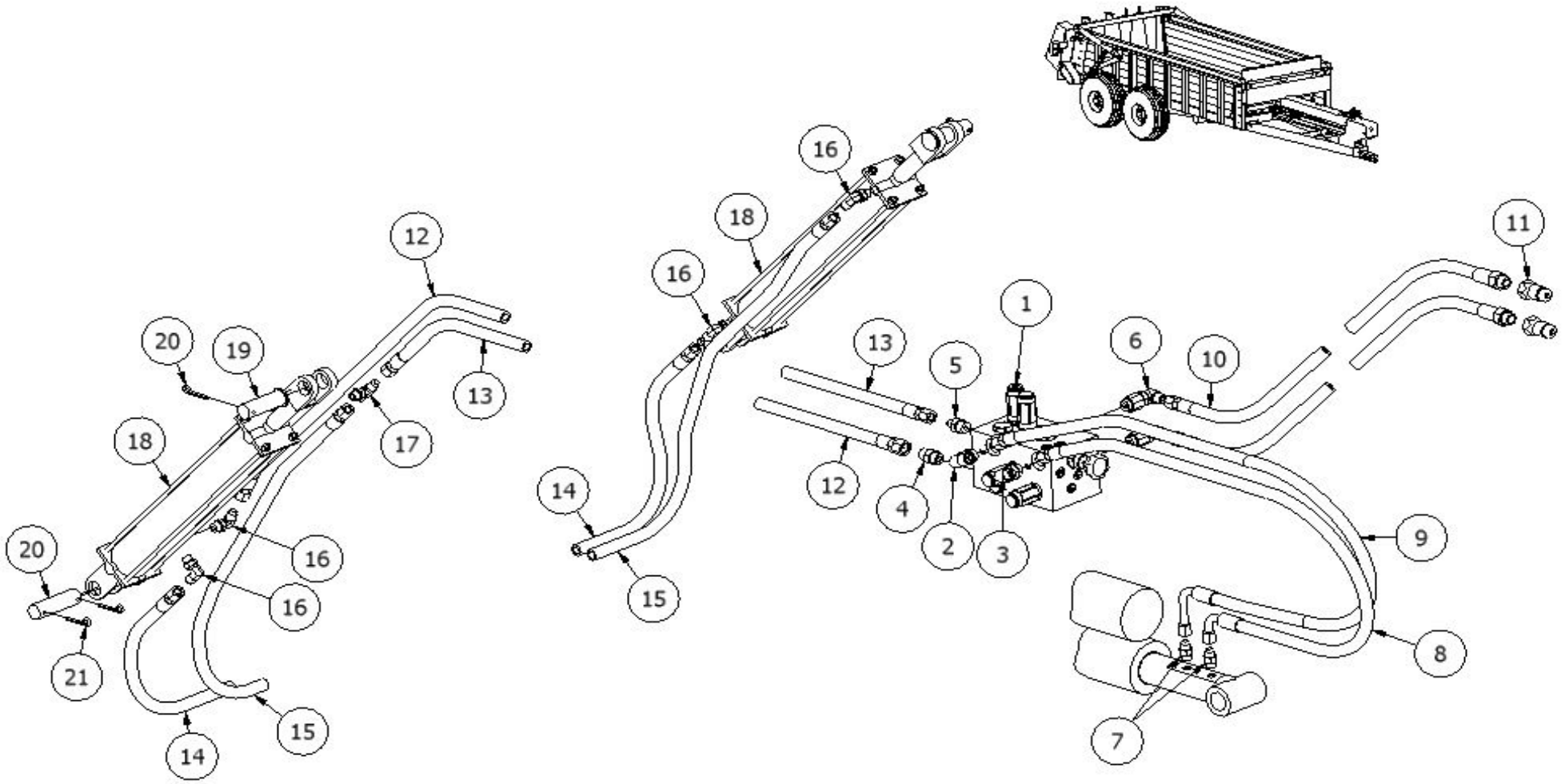
key	Qty	Description	Part Number
1	1	Flow Control Valve	77003
2	1	Straight Fitting	77219
3	1	L-Fitting	77221
4	3	L-Fitting	471466
5	2	Male Connector	471313
6	2	ISO Male Tip (poppet style)	471945
7	1	Hose, CP to Cylinder	77199
8	1	Hose, RET to Cylinder	77198
9	2	Hose, IN/EX to Tractor	77201
10	1	Check Valve for Flow Control Valve	77058
11	1	Differential Sensing Valve for Flow Control Valve	77059
12	1	Metering Cartridge for Flow Control Valve	77060
13	2	#4 ORB Hex Socket Plug	77061
14	1	#6 ORB Hex Socket Plug	77062
15	1	#8 ORB Hex Socket Plug	77063


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key	Qty	Description		Part Number
1	1	Sequencing Flow Control[1]		20142
2	1	L-Fitting		471466
3	1	L-Fitting		77680
4	1	Straight Fitting		471313
5	1	Straight Fitting		77108
6	2	Flow restrictor valve assembly		Call
7	2	Straight Fitting		77400
8	1	Hose, CP to Cylinder		77232
9	1	Hose, RET to Cylinder		77222
10	2	Hose, to Tractor		77212
11	2	ISO Male Tip (poppet style)		471945
12	1	Hose, Raise to endgate cylinder		77146
13	1	Hose, Lower to endgate cylinder		77145
14	1	Hose, Cross-over, Cap		77170
15	1	Hose, Cross-over, Rod		77171
16	4	L-Fitting		77520
17	1	T-Fitting		77530
18	2	Endgate Cylinder	SN 4470 - 5285	77154
			SN 5289 - On[2]	77154
19	2	Cylinder Pin, Headed		77070
20	2	Cylinder Pin		77640
21	6	Cotter Pin		3/16 x 1 1/2

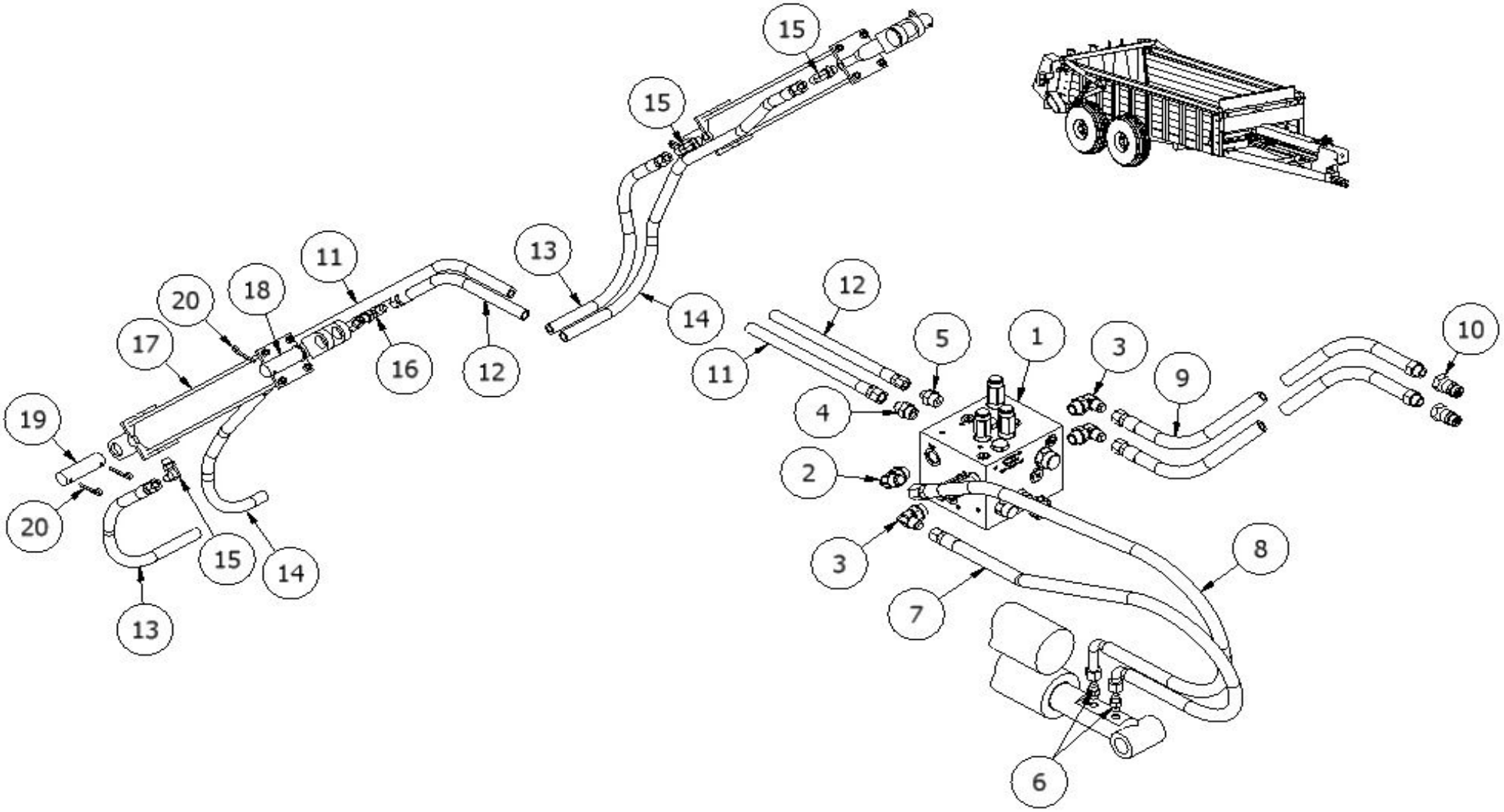
(1)This section applies to original equipment sequence valves only. For retrofit use serial range 5387-5403 on page 5.7 & 5.8

(2) Serial 5288 - 5355 may have had special endgate cylinders. See page 4.3 in endgate hydraulics for replacement information.

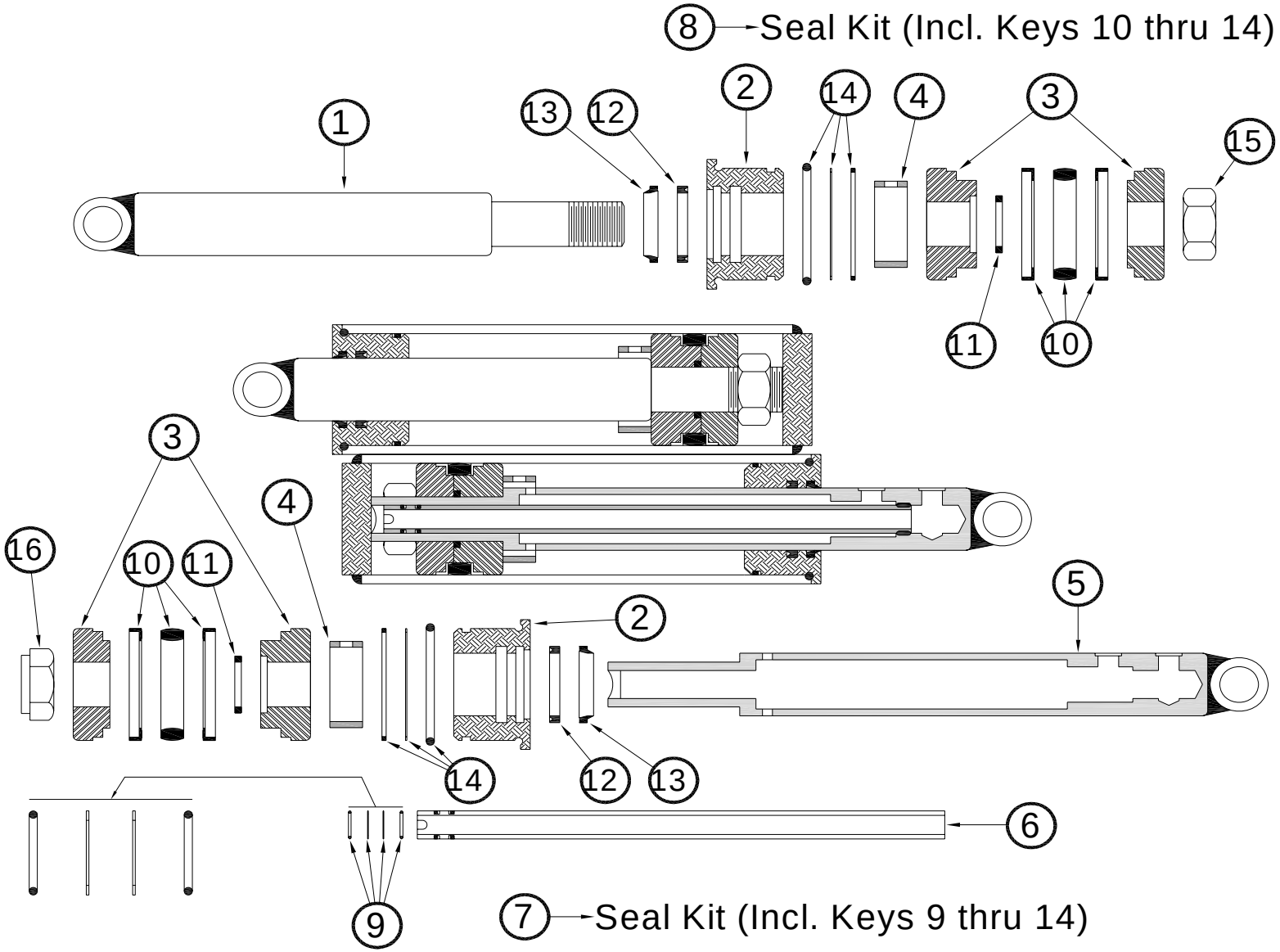

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		Serial Range -	5387-5392	5393-On
key	**Qty**	**Description**	**Part Number**	
1	1	Sequencing Flow Control[1]	20186	20187
2	1	L-Fitting	471958	471959
3	3	L-Fitting	77196	471958
4	1	Straight Fitting	77192	
5	1	Straight Fitting	77191	
6	2	Straight Fitting	77400	491313
7	1	Hose, CP to Cylinder	77232	77199
8	1	Hose, RET to Cylinder	77222	77198
9	2	Hose, to tractor	77212	77201
10	2	ISO Male Tip (poppet style)	471945	
11	1	Hose, Raise to cap end of endgate cylinder	77146	
12	1	Hose, Lower to rod end of endgate cylinder	77145	
13		Hose, Cross-over, Cap	77170	
14		Hose, Cross-over, Rod	77171	
15		L-Fitting	471450	
16		T-Fitting	77530	
17		Endgate Cylinder	77154	
18		Headed endgate cylinder pin with one cotter pin	77070	
19		Endgate cylinder pin with two cotter pins	77640	
20		Cotter Pin	3/16 x 1 1/2	

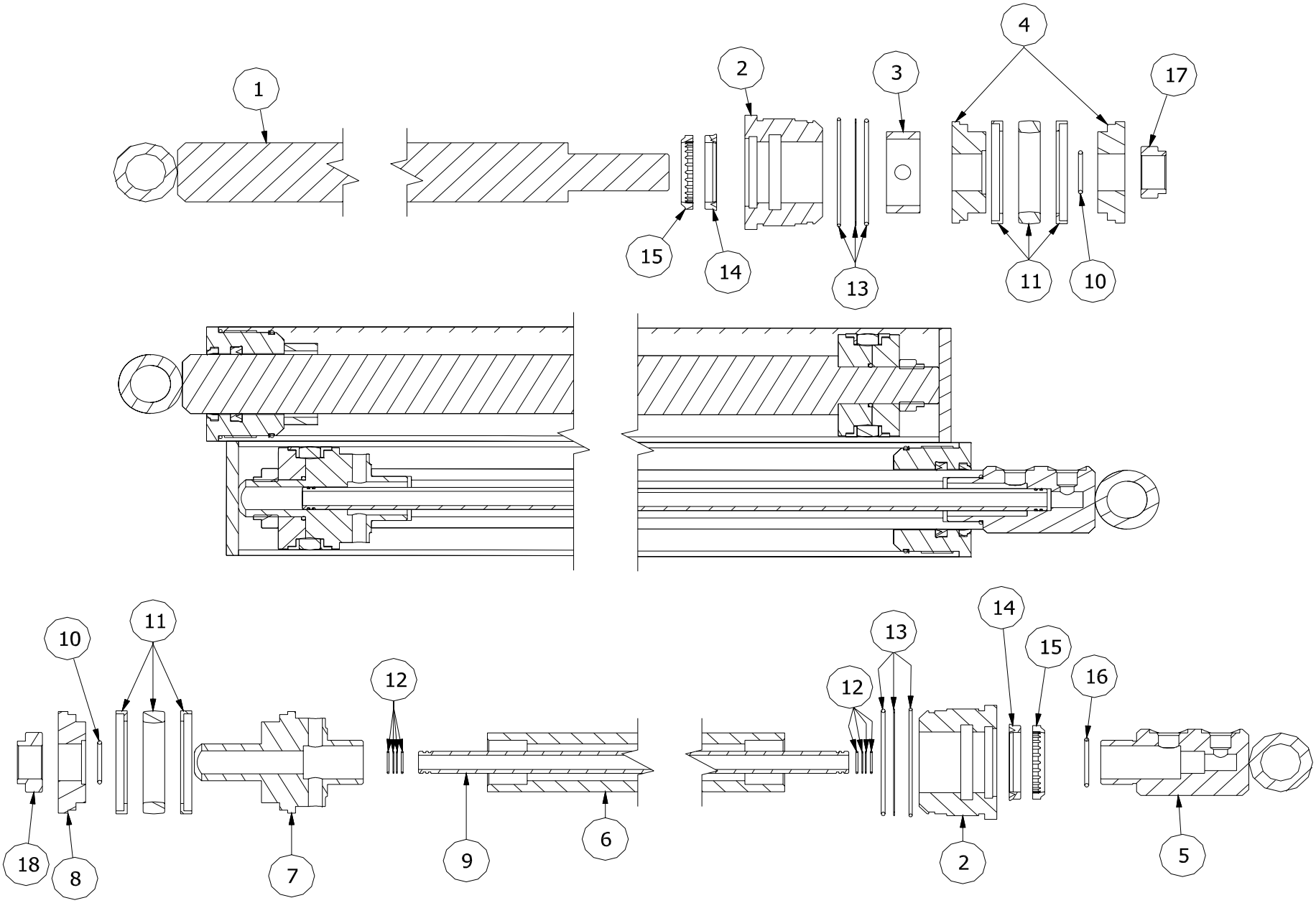
[1] Sequencing valves are not user servicable.


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key	Qty	Description	Part Number
1		Solid Rod	N/A
2		Gland	77079
3		Piston	77029
4		Spacer	77032
5		Hollow Rod	N/A
6		Internal Conductor Tube	N/A
7		Seal Kit, Hollow Rod	1399-1047
8		Seal Kit, Solid Rod	77044
9		O-Rings & Backups for internal conduc	- Included in key 7. Not available seperately
10		Piston Seals	
11		O-Ring	
12		Rod Seal	
13		Rod Wiper	
14		O-Ring & Backup for Gland Seal	
15		Nut for solid rod	77034
16		Nut for hollow rod	77035


8 Seal Kit (Incl. Keys 10 thru 14)
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7 Seal Kit (Incl. Keys 9 thru 14)

Key	Qty	Description	Part Number
1	1	Solid Rod	N/A
2	2	Gland	77079
3	1	Spacer	77032
4	1	Piston	77029
		Hollow Rod (includes keys 5, 6, 7, 8, 9)	N/A
		Hollow Rod Assembly, Complete (includes keys 2, 5, 6, 7, 8, 9, and seal kit)	N/A
5	1	Manifold	N/A
6	1	Chrome Rod	N/A
7	1	Piston Half, Rod Side	N/A
8	1	Piston Half, Cap Side	N/A
9	1	Internal Conductor Tube	N/A
	2	Cylinder Seal Kit (1 Per Cylinder, 2 Required Total)	77044
10		O-Ring	Included in Seal Kit, Not available seperately
11		Piston Seals	
12		O-Rings & Backups for Internal Condu	
13		O-Ring & Backup for Gland	
14		Rod Seal	
15		Rod Wiper	
16		O-Ring	
17	1	Nut for Solid Rod	77034
18	1	Nut for Hollow Rod	77035

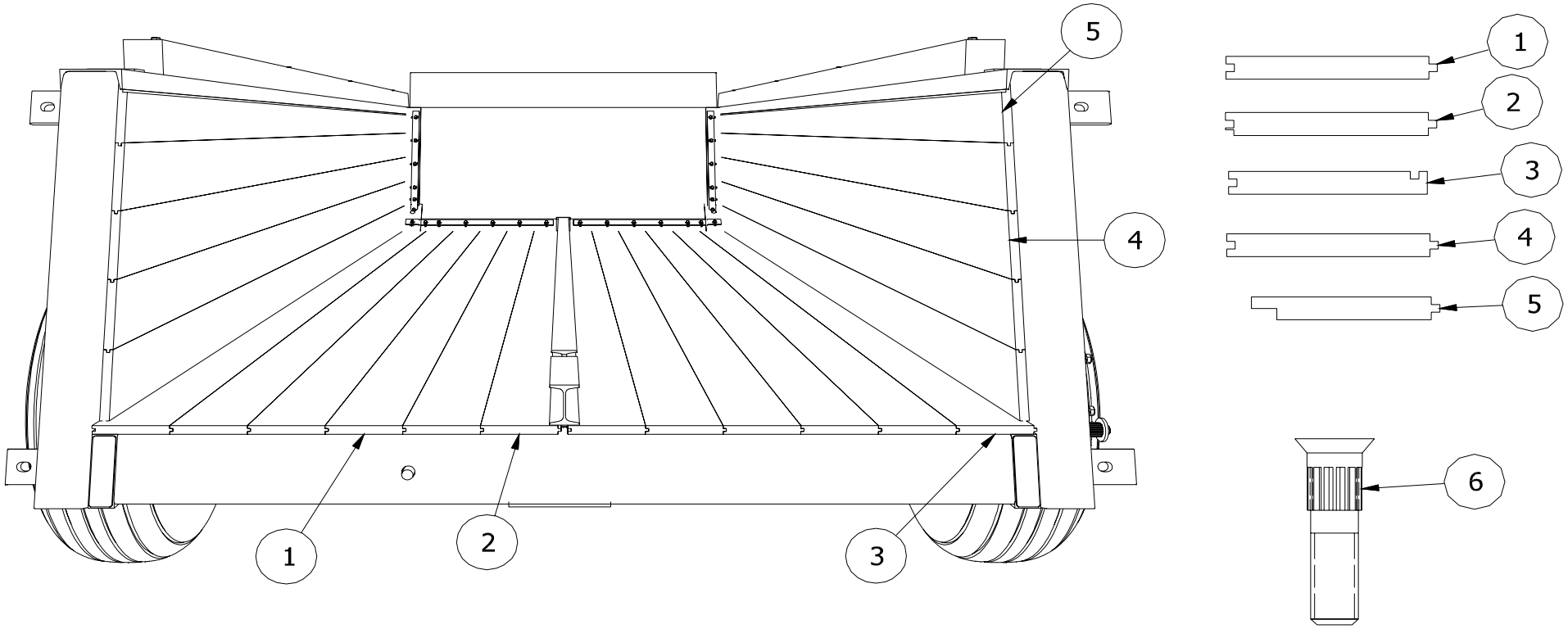

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Plastic boards 6.1

key	Qty	Description	Part Number
1	8	Floor Board	1315-1014
2	2	Centre Floor Board	1315-1014
3	2	Outside Floor Board	1315-1014
4	8	Side Board	1315-1014
5	2	Top Side Board	1315-1014
6	292	Special Bolt for Plastic boards	79005
	292	Special washer for plastic boards	1399-1029
	292	Locknut	3/8" Plated

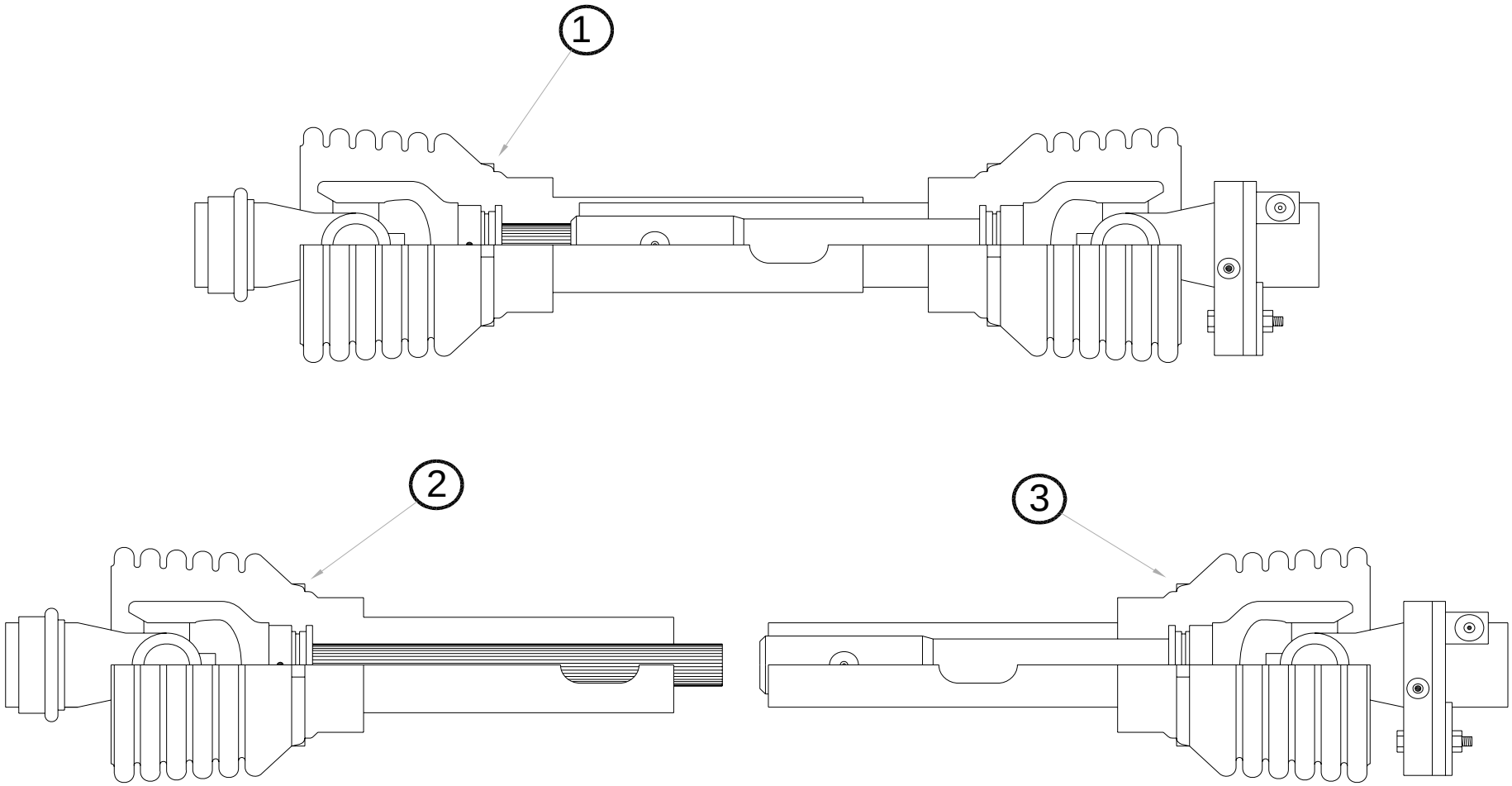
ALL BOARDS COME AT STOCK LENGTHS IN SELECTED PROFILE AND REQUIRE BEING CUT TO LENGTH

Side boards may also be used as floor boards.
Floor boards may not be used as side boards.

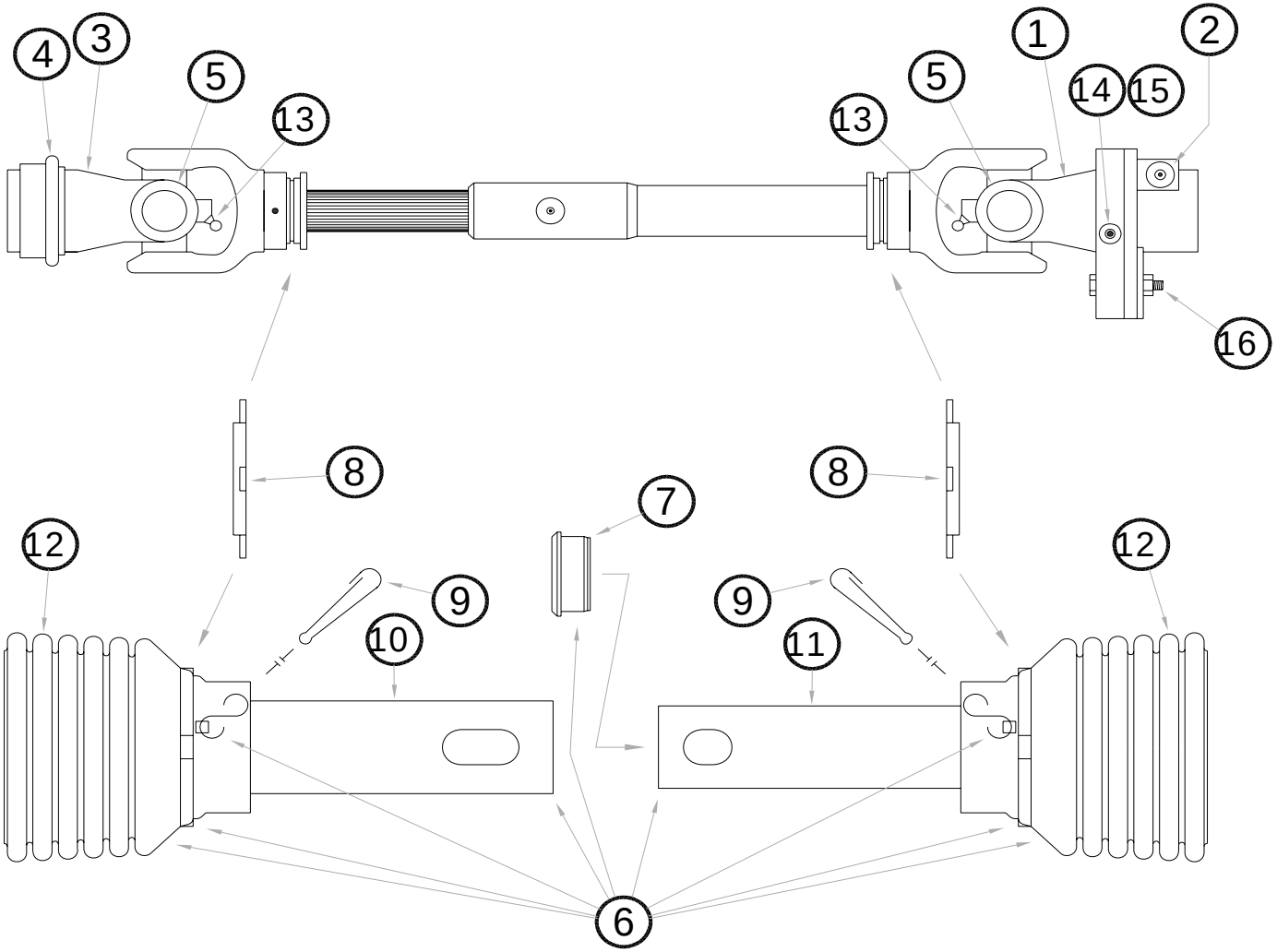

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PTO shaft assemblies	7.1
PTO shaft breakdown	7.3

key	Qty	Description	1000 RPM	
			1 3/8-21	1 3/4-20
1	1	Complete Shaft	76044	76045
2	1	Tractor half shaft	76058	76059
3	1	Implement half shaft	76061	

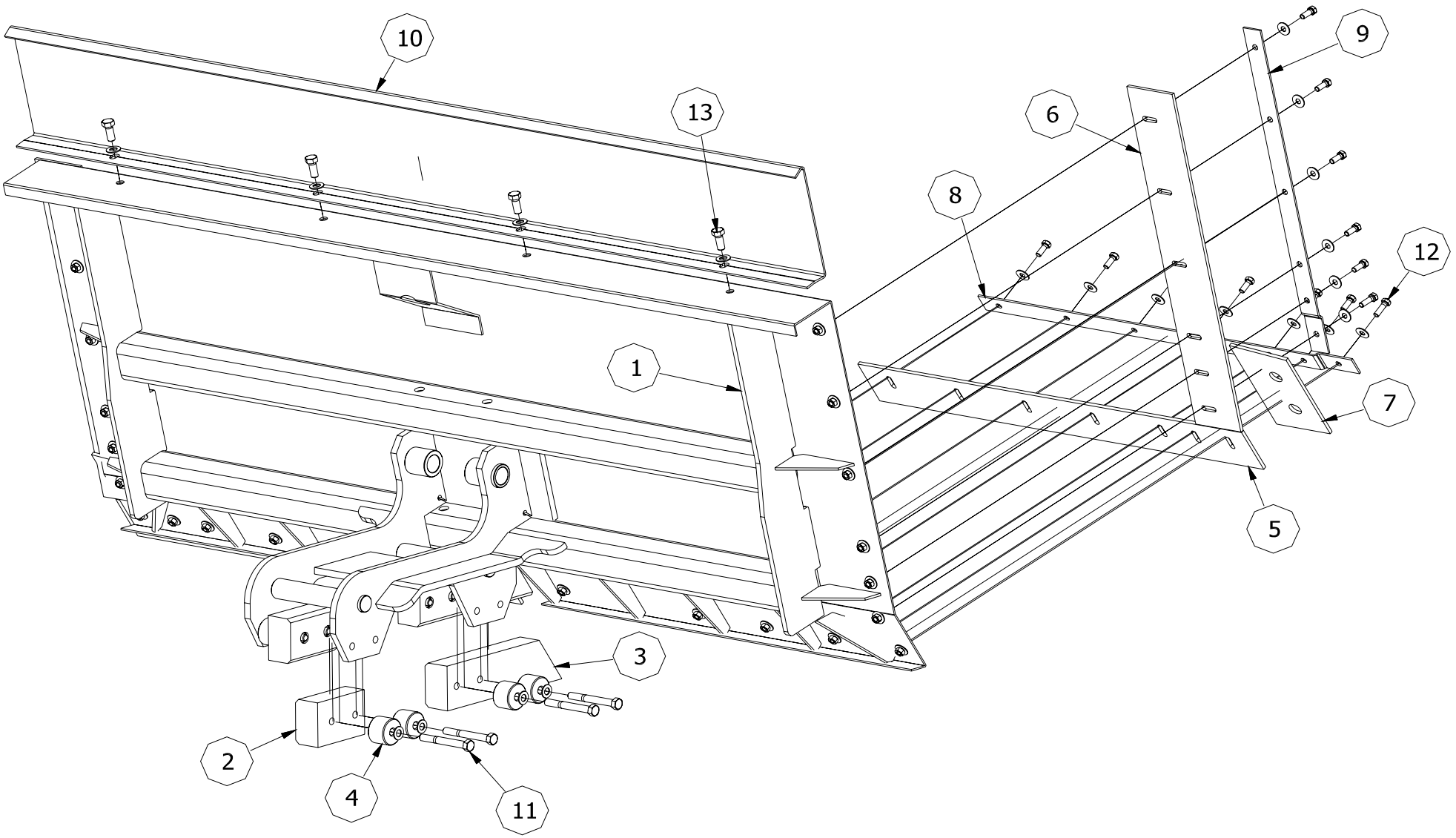

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key	Qty	Description	1000 RPM	
			1 3/8-21	1 3/4-20
1	1	Implement End Yoke	76044.3	
2	AR	Repair Kit, Implement End Yoke	16 x 80mm bolt Grade 8.8 (2), locknut (2)	
3	1	Tractor End Yoke	76450.1	76580.1
4	AR	Repair kit, slide collar, tractor end yoke	76440.2	76580.2
5	AR	Cross kit for all Waltershied Shafts	76440.5	
6	AR	Replacement shield with bearings and safety chains	76044.6	
7	AR	Support bearing for inner shield	76440.04	
8	AR	Shield bearing	76440.05	
9	AR	Safety Chain, for all PTO shafts	76440.06	
10	AR	Outer Shield Tube	76044.02	
11	AR	Inner Shield Tube	76044.03	
12	AR	Shield Cone	76440.01	
13	AR	Grease Zerk, for cross and bearing kit	76440.11	
14	AR	Grease Zerk, for shear bolt yoke	76440.9	
15	AR	Bearing ball, for shear bolt yoke	76440.07	
16	AR	Shear bolt	SAE 3/8 x 2 1/4 Grade 5	

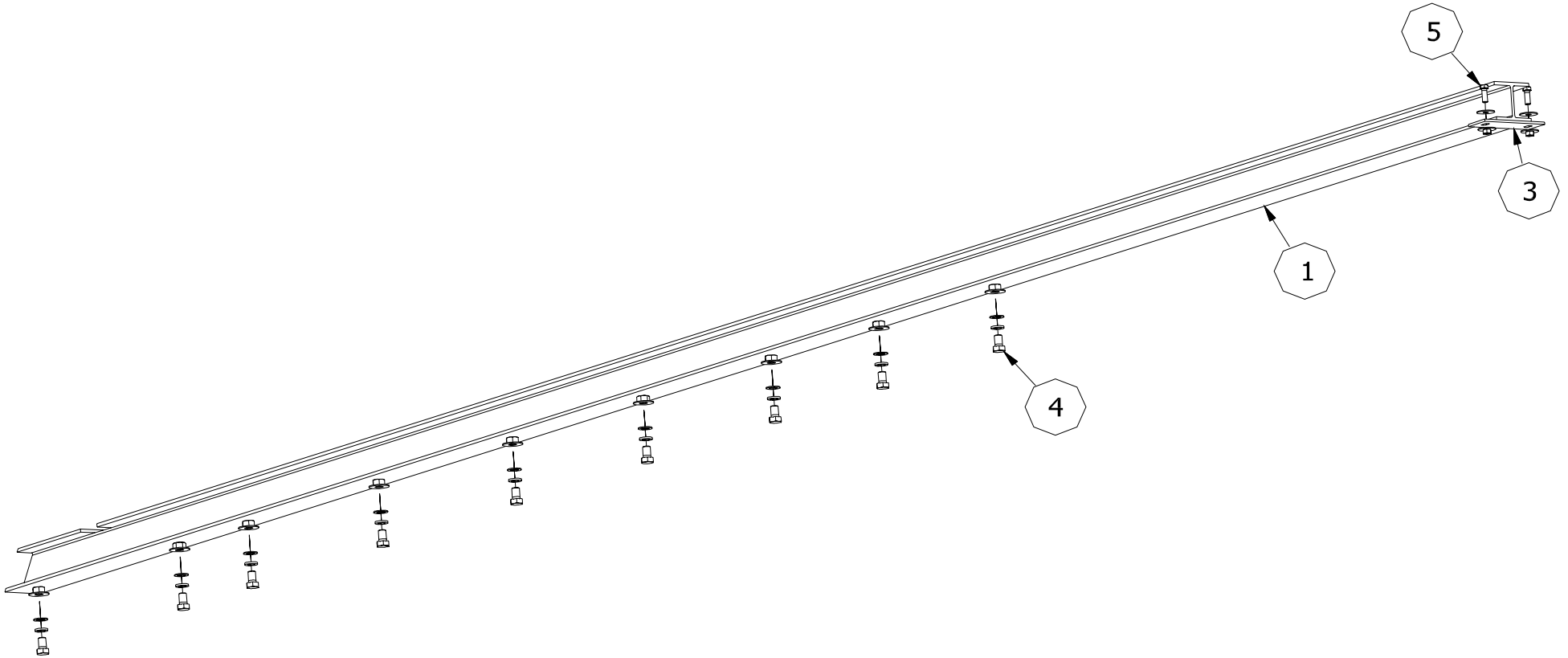

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Push-gate assembly	8.1
Slide rail	8.3

key	Qty	Description		Part Number
1	1	Push-gate weldment		20098
2	2	Sled bearing, front		75081
3	1	Sled bearing, rear right		75200
3	1	Sled bearing, rear left (not shown)		75043
4	4	Sled bearing spacer		75112
5	2	Rubber seal		78085
6	2	Rubber seal		78220
7	2	Rubber seal		78250
8	14	SPECIAL WASHER		1399-1030
9	12	SPECIAL WASHER		1399-1030
10	1	Push-gate extension		75311
11	AR	Bolts	1/2 x 4 (8), SAE flat washer (8), locknut (8)	
12	AR	Bolts	3/8 x 1 (22), 3/8 x 1 1/4 (4), SAE flat washer (52), locknut (26)	
13	AR	Bolts	1/2 x 1 (4), USS flat washer (8), locknut (4)	
		Complete Push-gate Assembly (Keys 1 to 13)		20107
		Slide Bearing Kit, 2277, Includes keys 2, 3 and 11		20108
		Push-gate Seal Kit, Includes keys 5 to 9, & 12		20189

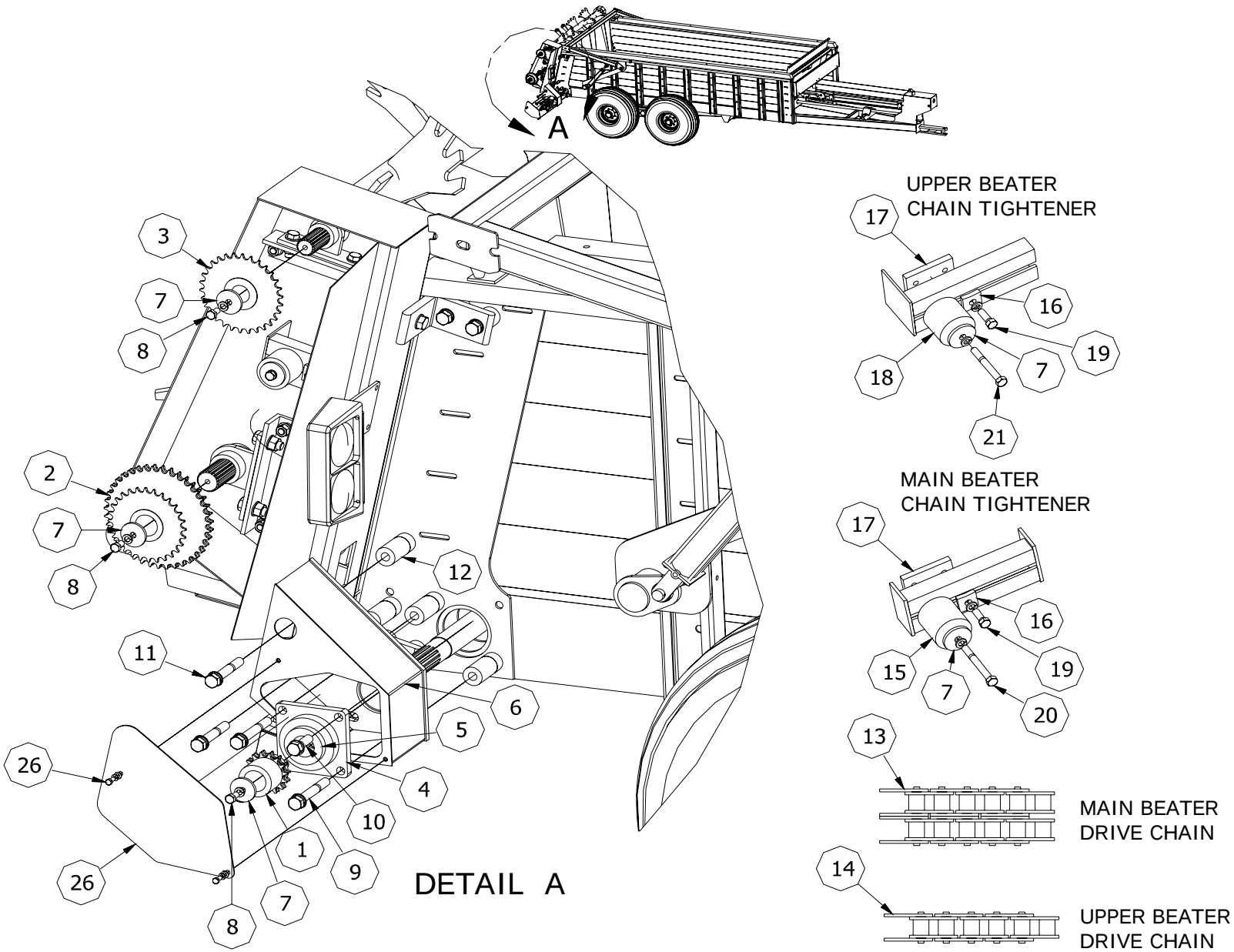

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key	Qty	Description		Part Number
1	1	Beam for slide rail		70567
2	1	Mounting plate for slide rail		70590
3	AR	Bolts	3/4 x 1 1/4 (9), SAE Washer (9), Lockwasher (9), USS Washer (9)	
4	AR	Bolts	1/2 x 1 1/2 (2), USS Washer (4), Locknut (2)	


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Sprockets, Chains and Cross-shaft Bearing	9.1

key	Qty	Description	Part Number
1	1	Cross-shaft sprocket	76126
2	1	Main beater sprocket	76125
3	1	Upper beater sprocket	76127
4	1	4 bolt flange bearing housing, Cross-shaft	76085
5	1	Bearing insert	76047
	1	Bearing Assembly, Keys 4 & 5	76078
6	1	Cross-shaft housing	20109
7	5	Special Heavy washer	79029
8	AR	Bolts	1/2 x 1 (3), lockwasher (3)
9	AR	Bolts	3/4 x 5 1/2 (2), SAE flat washer (2), lockwasher (2)
10	AR	Bolts	3/4 x 2 1/2 (2), SAE flat washer (4), locknut (2)
11	AR	Bolts	3/4 x 5 (3), SAE flat washer (3), lockwasher (3)
12	4	Spacer	70414
13	1	Main beater drive chain, double 60 roller chain 60-2 x 92	76303
14	1	Upper beater drive chain, single 60 roller chain, 60-1 x 98	76242
15	1	Main beater chain tightner block	76350
16	2	Clamp for chain tightener	79028
17	2	Threaded block for chain tightener	76330
18	1	Upper beater chain tightener block	76340
19	AR	Bolts	1/2 x 1 1/2 (2), lockwasher (2)
20	AR	Bolts	1/2 x 4 1/2 (1), lockwasher (1)
21	AR	Bolts	1/2 x 4 (1), lockwasher (1)
22	1	Door for cross-shaft housing	70408
23	AR	Bolts	5/16 x 3/4 (2), SAE flatwasher (2), lockwasher (2)
		Chain Tightener Assembly, Main Beater, Includes keys 7, 15, 16, 17, 19, 20	86180
		Chain Tightener Assembly, Upper Beater, Includes keys 7, 16, 17, 18, 19, 20	86190


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UPPER BEATER
CHAIN TIGHTENER
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CHAIN TIGHTENER
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MAIN BEATER
DRIVE CHAIN
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UPPER BEATER
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DETAIL A

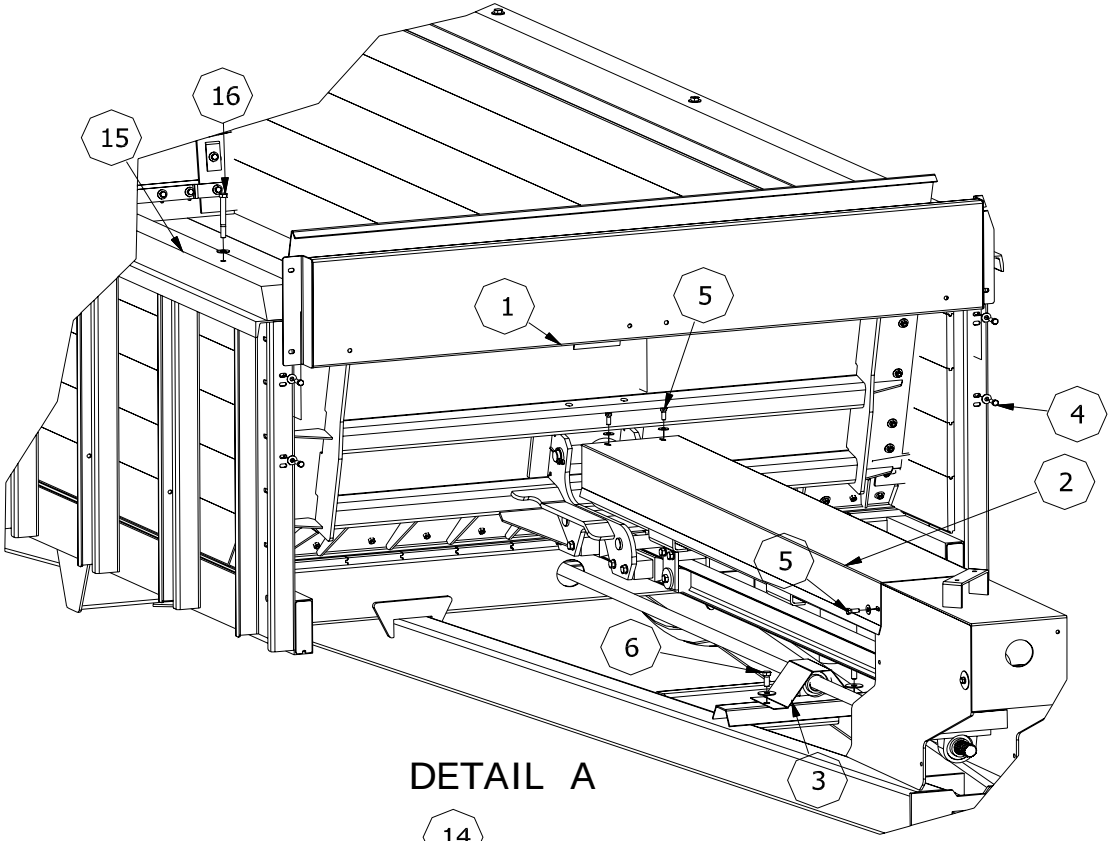
9.3 - Conversion kit to 540 RPM

Kit part # 1315-1001

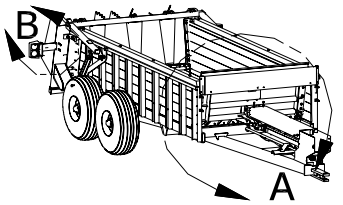
Part #	Description	
1399-1003	Sprocket, cross-shaft, 20 teeth	1
1399-1004	Sprocket, lower beater, 28 teeth	1
76105	PTO Shaft, 1 3/8-6 / 1 3/4-20 w/cutout clutch,620	1

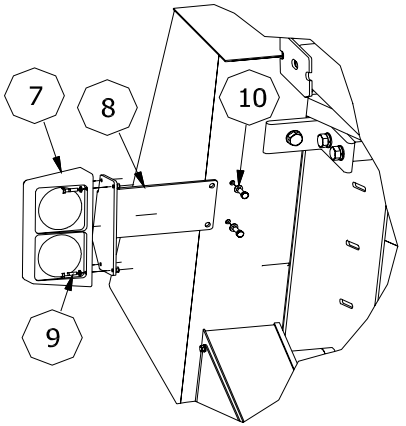
Shields, SMV sign, jack, and lights, SN 4470-5317	10.1
Shields, SMV sign, jack, and lights, SN 5357-On	10.3

key	Qty	Description	Part Number
1	1	Front Panel	20168
2	1	Cylinder Cover	70289
3	1	Bearing Cover at A-Frame	70306
4	AR	Bolts	3/8 x 1 (4), USS Washer (8), Locknut (4)
5	AR	Bolts	3/8 x 1 (4), USS Washer (8), Locknut (4)
6	AR	Bolts	1/2 x 1 1/2 (2), USS Washer (4), Locknut (2)
7	opt	Light Kit (left side light not shown), Includes keys 8, 9, 10	20090
8	opt	Mounting brackets for lights (Right)	70445
	opt	Mounting brackets for lights (Left) * Not Shown	70433
9	AR	Bolts	1/4 x 1 1/4 (8), SAE Washer (16), Locknut (8)
10	AR	Bolts	3/8 x 1 1/4 (4), SAE Washer (8), Locknut (4)
11	1	Slow moving vehicle sign assembly, Includes keys 12, 13 and all hardware	88002
12	1	Mounting bracket for slow moving vehicle sign	70278
13	AR	Bolts	3/8 x 1 1/4 (2), SAE Washer (4), Locknut (2)
14	1	Jack	445046
15	2	Wood rail	78066
16	AR	Bolts	1/2 x 4 1/2 (8), USS flat washer (16), locknut (8)
17	1	Cover for cross-shaft under machine	76032
	AR	Bolts for cross-shaft cover	3/8 X 1 (2), Heavy washer-79344 (4), locknut (2)

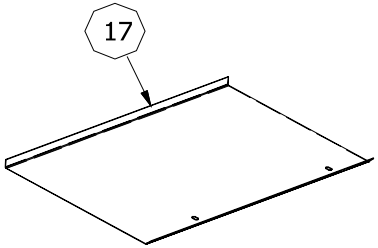


DETAIL A

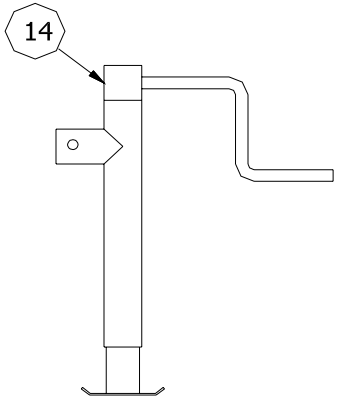


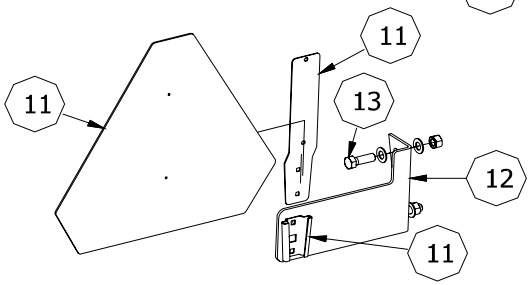


DETAIL B



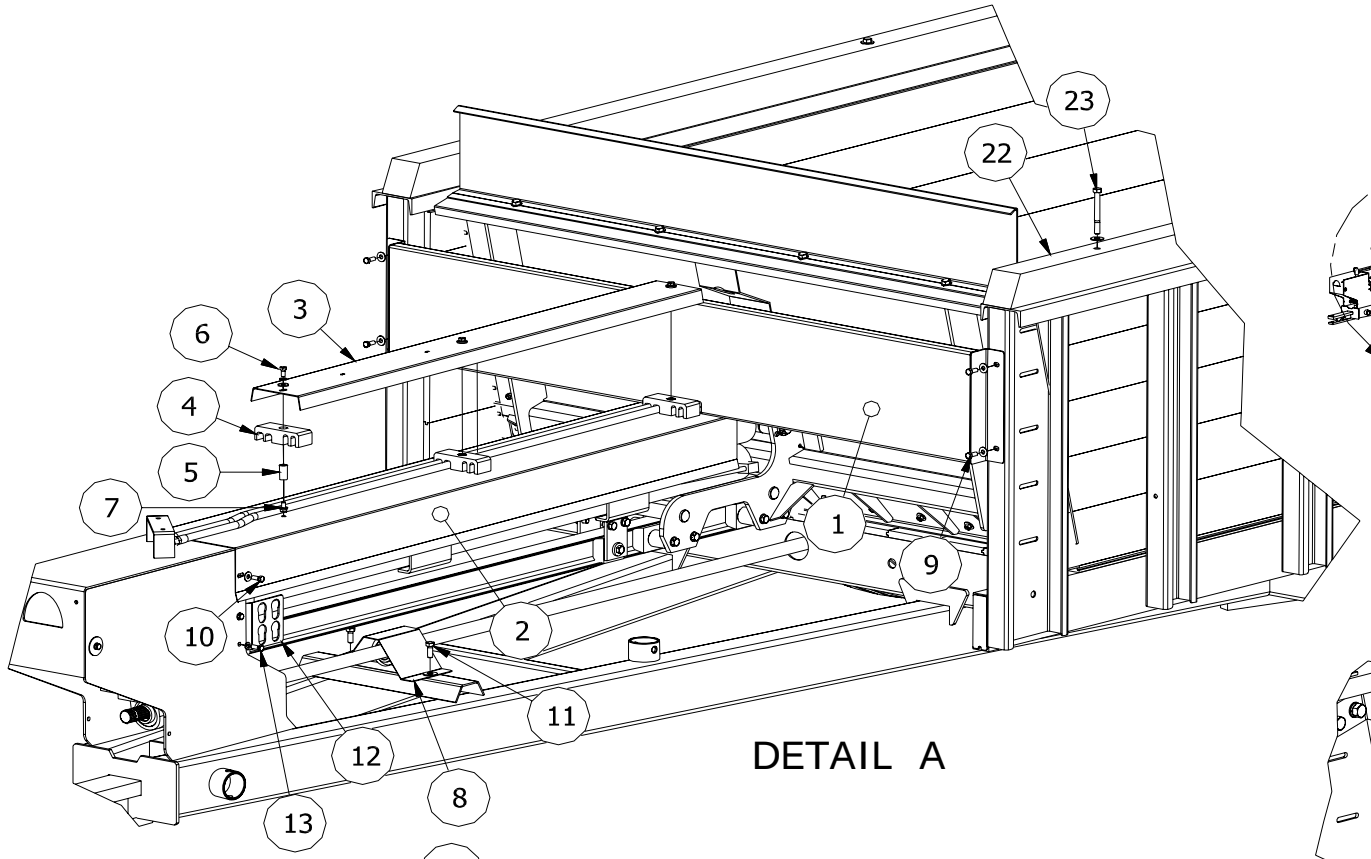
COVER FOR CROSS-SHAFT
UNDER MACHINE



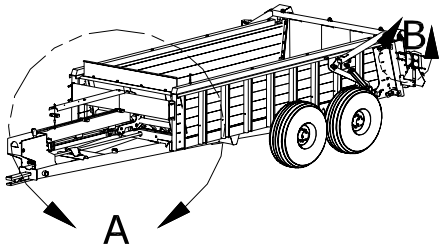


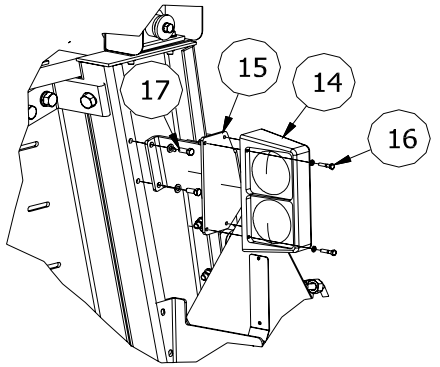
SMV SIGN AND MOUNTING

key	Qty	Description	Part Number
1	1	Front Panel	20168
2	1	Cylinder Cover	70586
3	1	Hose cover	70587
4	3	Hose Guide	78087-1
5	3	Stand-off for hose cover	70575
6	AR	Bolts, stand-off to hose cover	3/8 x 3/4 (3), Special washer-79344 (3), Lockwasher (3)
7	AR	Bolts, stand-off to cylinder cover	3/8 x 3/4 (3), SAE washer (3), Lockwasher (3)
8	1	Bearing Cover at A-Frame	70578
9	AR	Bolts	3/8 x 1 (4), SAE Washer (8), Locknut (4)
10	AR	Bolts	3/8 x 1 (4), SAE Washer (8), Locknut (4)
11	AR	Bolts	1/2 x 1 1/2 (2), SAE Washer (4), Locknut (2)
12	1	Hose Storage Bracket	70594
13	AR	Bolts	3/8 x 1 (2), SAE Washer (4), Locknut (2)
14	opt	Light Kit (left side light not shown), Includes keys 13, 14, and 15	20090
15	opt	Mounting brackets for lights (Right)	70445
	opt	Mounting brackets for lights (Left) * Not Shown	70433
16	AR	Bolts	1/4 x 1 1/4 (8), SAE Washer (16), Locknut (8)
17	AR	Bolts	3/8 x 1 1/4 (4), SAE Washer (8), Locknut (4)
18	1	Slow moving vehicle sign assembly, Includes keys 19, 20 and all hardware	88002
19	1	Mounting bracket for slow moving vehicle sign	70278
20	AR	Bolts	3/8 x 1 1/4 (2), SAE Washer (4), Locknut (2)
21	1	Jack	445046
22	2	Wood rail	78066
23	AR	Bolts	1/2 x 4 1/2 (8), USS flat washer (16), locknut (8)
24	1	Cover for cross-shaft under machine	76033
	AR	Bolts for cross-shaft cover	3/8 X 1 (2), Heavy washer-79344 (4), locknut (2)

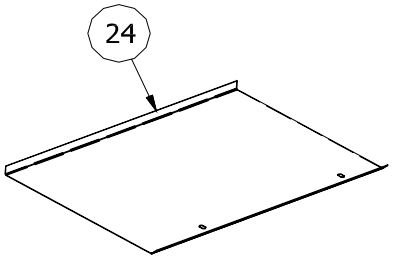


DETAIL A

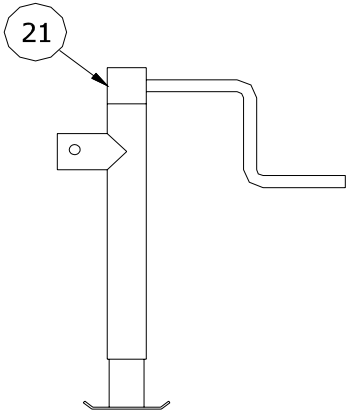


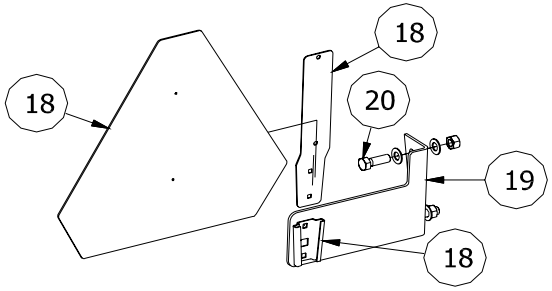


DETAIL B



COVER FOR CROSS-SHAFT
UNDER MACHINE

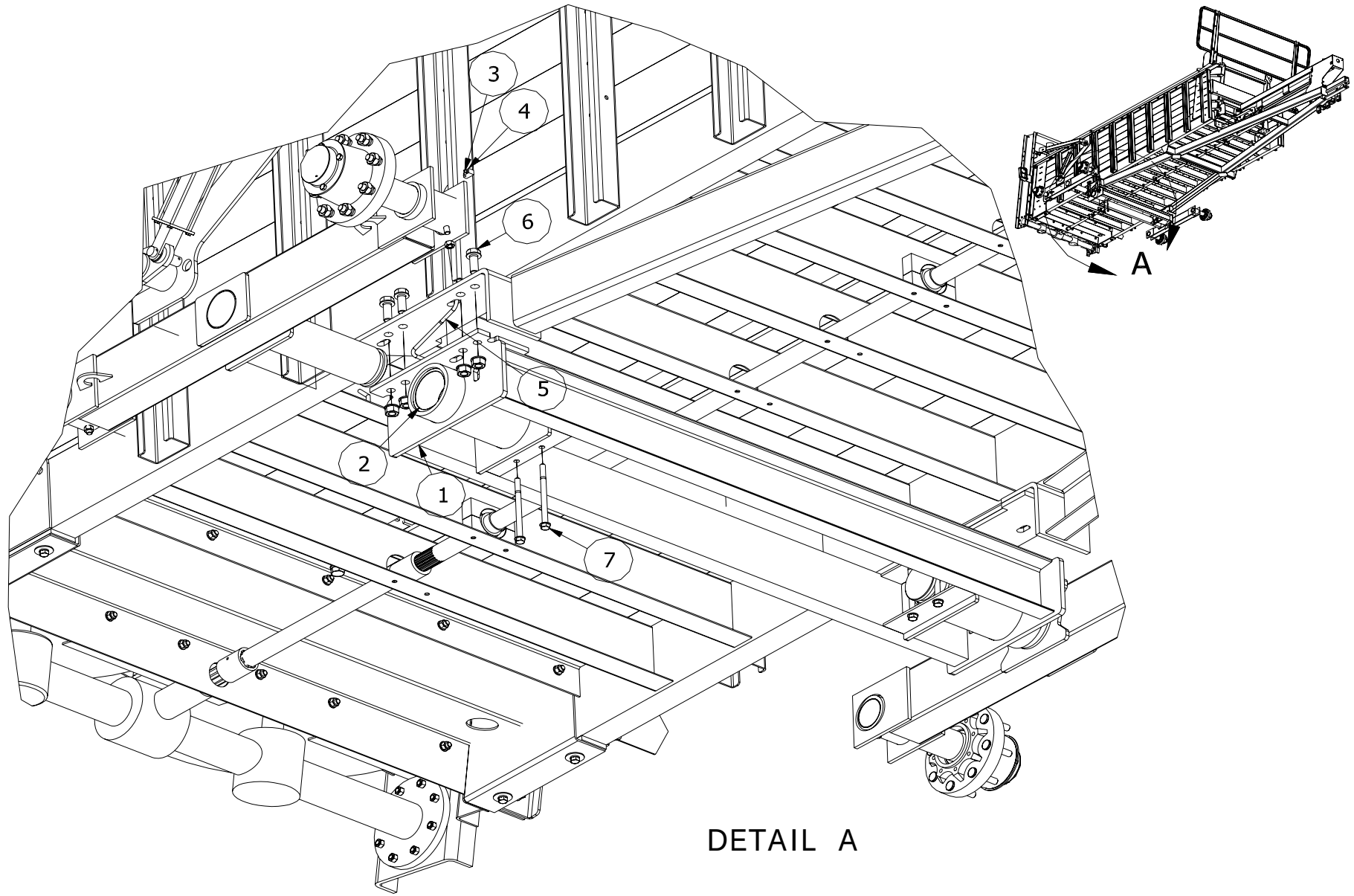




SMV SIGN AND MOUNTING

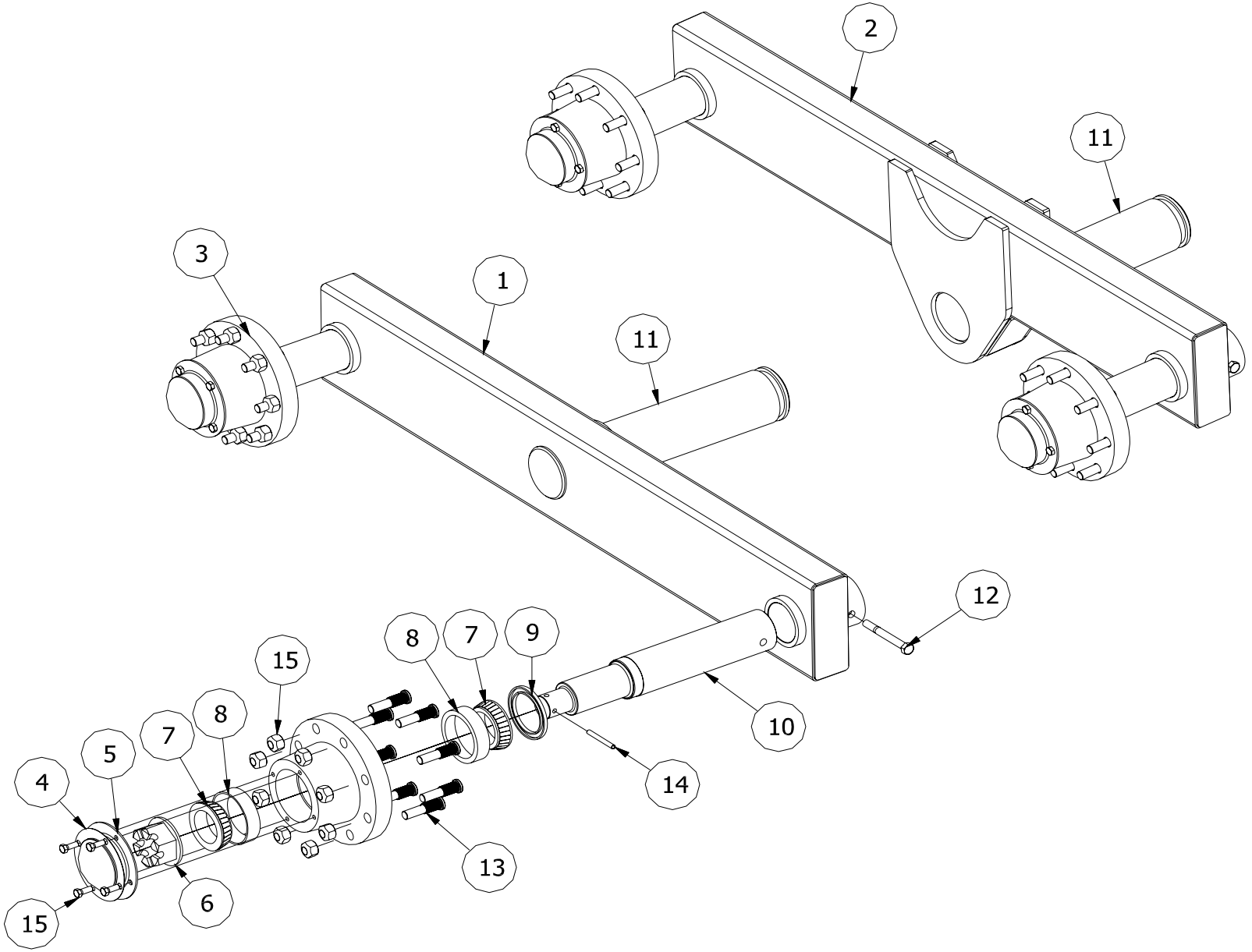
Axles	11.1
Spindles and Hubs	11.3
Wheels	11.5

key	Qty	Description		Part Number
1	1	Axle Frame		20149
2	4	Tandem Bushing		1399-1017
3	2	L-Fitting for grease hose		77510
4	2	Grease Fitting		79810
5	2	Grease Hose		9913-1086-036
6	AR	Bolts	3/4 x 2 1/2 (8), SAE Washer (16), Locknut (8)	
7	AR	Bolts	1/2 x 7 (4), SAE Washer (8), Locknut (4)	



DETAIL A

key	Qty	Description	Part Number
1	2	Tandem Axle (Standard)	20065
2	Opt	Tandem Axle, 6" Drop, (Right)	20066R
		Tandem Axle, 6" Drop, (Left)	20066L
		Tandem Axle, 6" Drop, Long Spindle, (Right)	20067R
		Tandem Axle, 6" Drop, Long Spindle, (Left)	20067L
3	4	Complete Hub (Bearings, Seals, Bolts, Cap)	1014-1115
4	4	Dust cap	422132
5	4	Gasket	422133
6	4	Spindle nut	500130
7	8	Inner and Outer Bearing Cone	428001
8	8	Inner and Outer Bearing Cup	428002
9	4	Seal	422168
10	4	12k Spindle	72033
	opt	12k Spindle, Long	72034
11	2	Tandem Spindle	72086
12	AR	Bolts	1/2 x 4 1/2 (4), Locknut (4)
13	AR	Press-in Wheel bolts	72040.8
14	4	Spring Pin	5/16 x 2 3/4
		Bearing Kit, 12k Hub, Includes keys 7 to 9	20077
15		Wheel Nut	422118


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Please Contact Hydra-Spread About Wheel and Tire Packages and for Replacments.