

**BUSH HOG®**

**MS500P**  
**Manure Spreader**  
**PTO Driven**

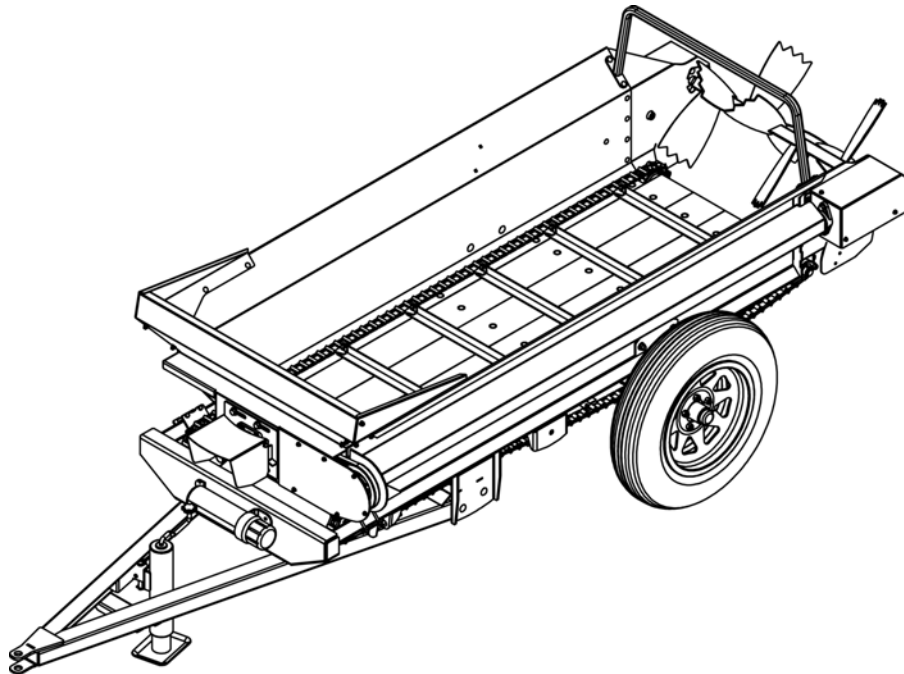
PUBLISHED 06/16

MATERIAL HANDLING PARTS MANUAL

**PARTS MANUAL**  
**SECTION 48**



An Operator's Manual was shipped with the equipment . The Operator's Manual is an integral part of the safe operation of this machine and must be maintained with the unit at all times. **READ, UNDERSTAND, and FOLLOW** the Safety and Operation Instructions contained in this manual before operating the equipment. If the Operator's Manual is not with the equipment, contact your dealer or Bush Hog to obtain a Free copy before operating the equipment.



**BUSH HOG®**

2501 Griffin Ave.  
Selma, AL 36703  
334-874-2700  
[www.bushhog.com](http://www.bushhog.com)



# TO THE OWNER/OPERATOR/DEALER

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

**BEFORE YOU START!!** Read the safety messages on the implement and shown in your manual.  
Observe the rules of safety and common sense!

## **WARNING**

### TO AVOID SERIOUS INJURY OR DEATH:

1. READ AND UNDERSTAND OPERATORS MANUAL.
2. TRACTOR MUST BE EQUIPPED WITH ROLL-OVER PROTECTION (ROPS) AND SWAY CHAINS.
3. ALWAYS WEAR SAFETY GLASSES, SAFETY SHOES, AND SEAT BELT FASTENED TIGHTLY.
4. STOP TRACTOR, LOCK BRAKES, AND BLOCK UP OR SUPPORT IMPLEMENT SECURELY BEFORE WORKING UNDER RAISED COMPONENT.
5. ALLOW NO RIDERS AT ANY TIME ON TRACTOR OR IMPLEMENT: FALLING OFF CAN KILL.
6. KEEP BYSTANDERS CLEAR OF MOVING PARTS AND WORKING AREA. KEEP CHILDREN AWAY!
7. DO NOT LIFT, LOWER, OR OPERATE UNLESS EVERYONE IS CLEAR OF IMPLEMENT.
8. USE INCREASED CAUTION ON SLOPES & NEAR BANKS AND DITCHES TO PREVENT OVERTURN.
9. LOCK LIFT LEVER UP FOR TRANSPORT. HAVE SMV SIGN VISIBLE. FOLLOW LOCAL LAWS.
10. USE PARKING STAND OR BLOCK UP WHEN UNHITCHING FROM TRACTOR.

### WARRANTY INFORMATION:

It is the Dealers responsibility to fill out and record all Warranty information of this product with BUSH HOG at the time of purchase. Read and understand the complete Warranty Statement found in this Manual. Make certain the Serial Number of the Machine is recorded.

The use of "will-fit" parts will void your warranty and cause catastrophic failure with possible serious injury or death.

For threaded parts installation, refer to the torque charts in this manual.

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## MS500P Manure Spreader

### Section 48

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## PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this section.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.
2. The Purchase Order must include the name and address of the person or organization ordering the parts, who should be charged, and if possible, the serial number of the machine for which the parts are ordered.
3. The Purchase Order must clearly list the quantity of each part, the complete and correct part number (be sure to include all periods), and the basic name of the part.
4. The Manufacturer reserves the right to substitute parts where applicable.
5. Some parts are unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending a Purchase Order.
6. The Manufacturer reserves the right to change prices without prior notice.



For maximum safety and to guarantee optimum product reliability, always use genuine BUSH HOG Parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death. Direct any questions regarding parts to:

**BUSH HOG**  
2501 Griffin Ave.  
Selma, AL 36703  
[www.bushhog.com](http://www.bushhog.com)  
Contact Us  
800-304-2836



**BUSH HOG®**

**Bolt Torque**

**CHECKING BOLT TORQUE**

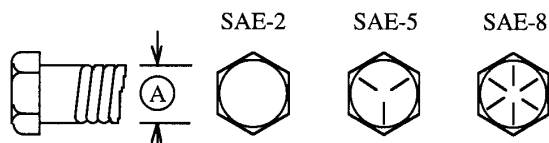
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

\* Torque value for bolts and capscrews are identified by their head markings.

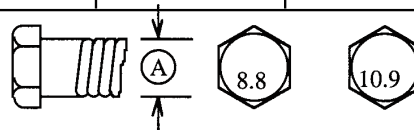
**ENGLISH TORQUE SPECIFICATIONS**

Bolt Diameter "A"	Bolt Torque*					
	SAE 2 (N.m) (lb-ft)		SAE 5 (N.m) (lb-ft)		SAE 8 (N.m) (lb-ft)	
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970



**METRIC TORQUE SPECIFICATIONS**

Bolt Diameter "A"	Bolt Torque*			
	8.8 (N.m) (lb-ft)		10.9 (N.m) (lb-ft)	
M3	.5	.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710



**Hydraulic Fitting Torque**

**Tightening Flare Type Tube Fittings \***

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
<b>3/8</b>	<b>11/16</b>	<b>24</b>	<b>18</b>	<b>1</b>	<b>1/6</b>
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

The torque values shown are based on lubricated connections as in reassembly.

**Wheel Lug Torque**

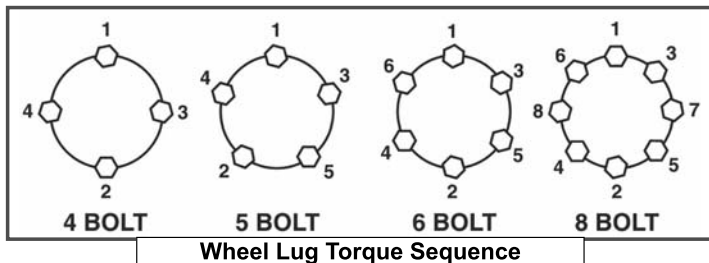
It is extremely important safety procedure to apply and maintain proper wheel mounting torque on your trailer axle. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

Wheel lugs should be torqued before first road use and after each wheel removal. Check and re torque after the first 16Km (10 miles), 40Km (25 miles), and again at 80Km (50 miles). Check periodically thereafter.

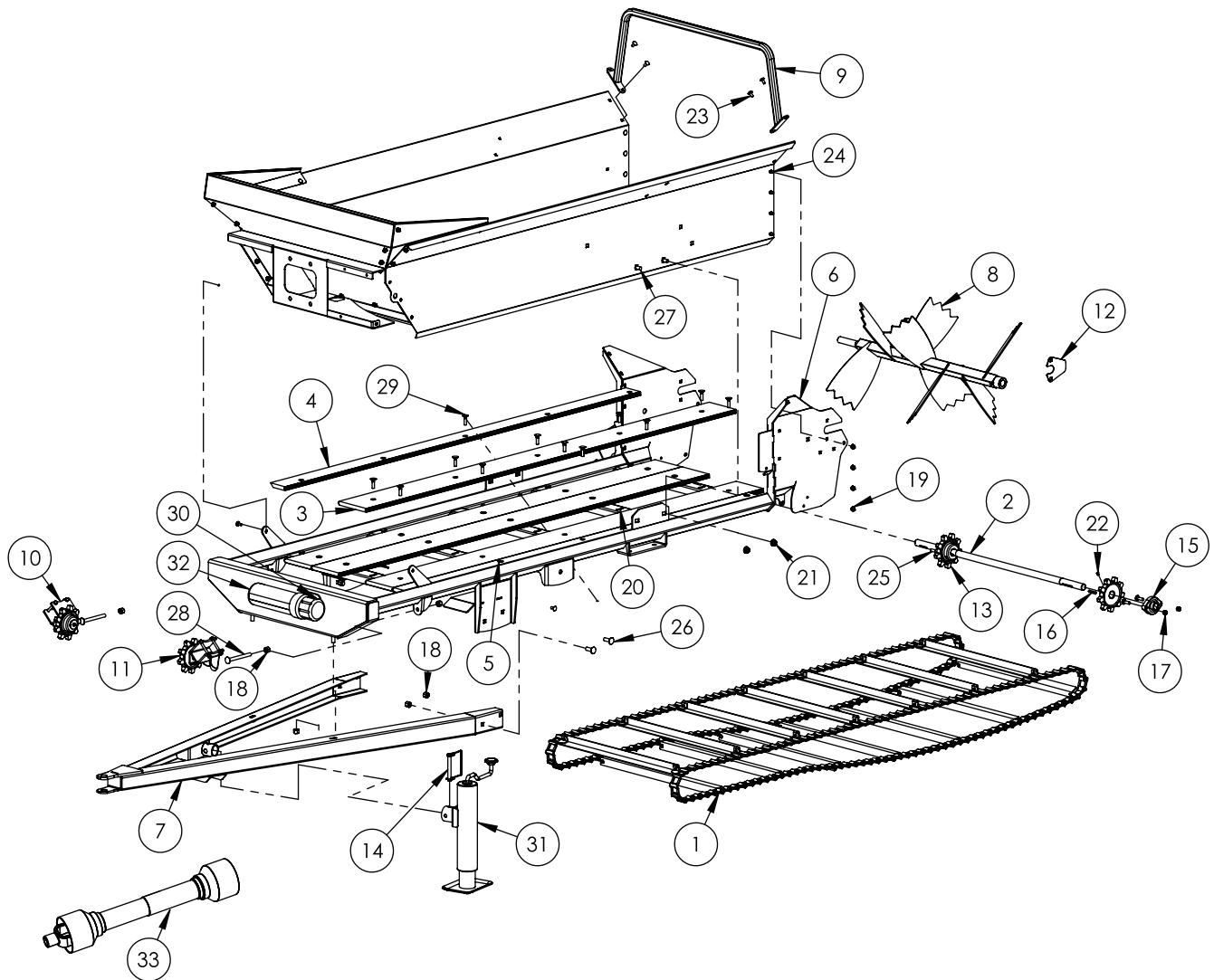
Note: Wheel lugs must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible dangerous separation of wheels from your axle.

- Start all lugs by hand to prevent cross threading.
- Tighten lugs in sequence, per wheel lug torque sequence chart.
- The tightening of the fasteners should be done in stages. Following the recommended sequence, tighten fasteners per wheel torque requirements chart.

Wheel Size	Torque Unit	1st Stage	2nd Stage	3rd Stage
8"	ft-lbs	12 - 20	30 - 35	45 - 55
	Nm	16 - 26	39 - 45.5	58.5 - 71.5
12"	ft-lbs	20 - 25	35 - 40	50 - 60
	Nm	26 - 32.5	45.5 - 52	65 - 78
13"	ft-lbs	20 - 25	35 - 40	50 - 60
	Nm	26 - 32.5	45.5 - 52	65 - 78
14"	ft-lbs	20 - 25	50 - 60	90 - 120
	Nm	26 - 32.5	65 - 78	117 - 156
15"	ft-lbs	20 - 25	50 - 60	90 - 120
	Nm	26 - 32.5	65 - 78	117 - 156
16"	ft-lbs	20 - 25	50 - 60	90 - 120
	Nm	26 - 32.5	65 - 78	117 - 156

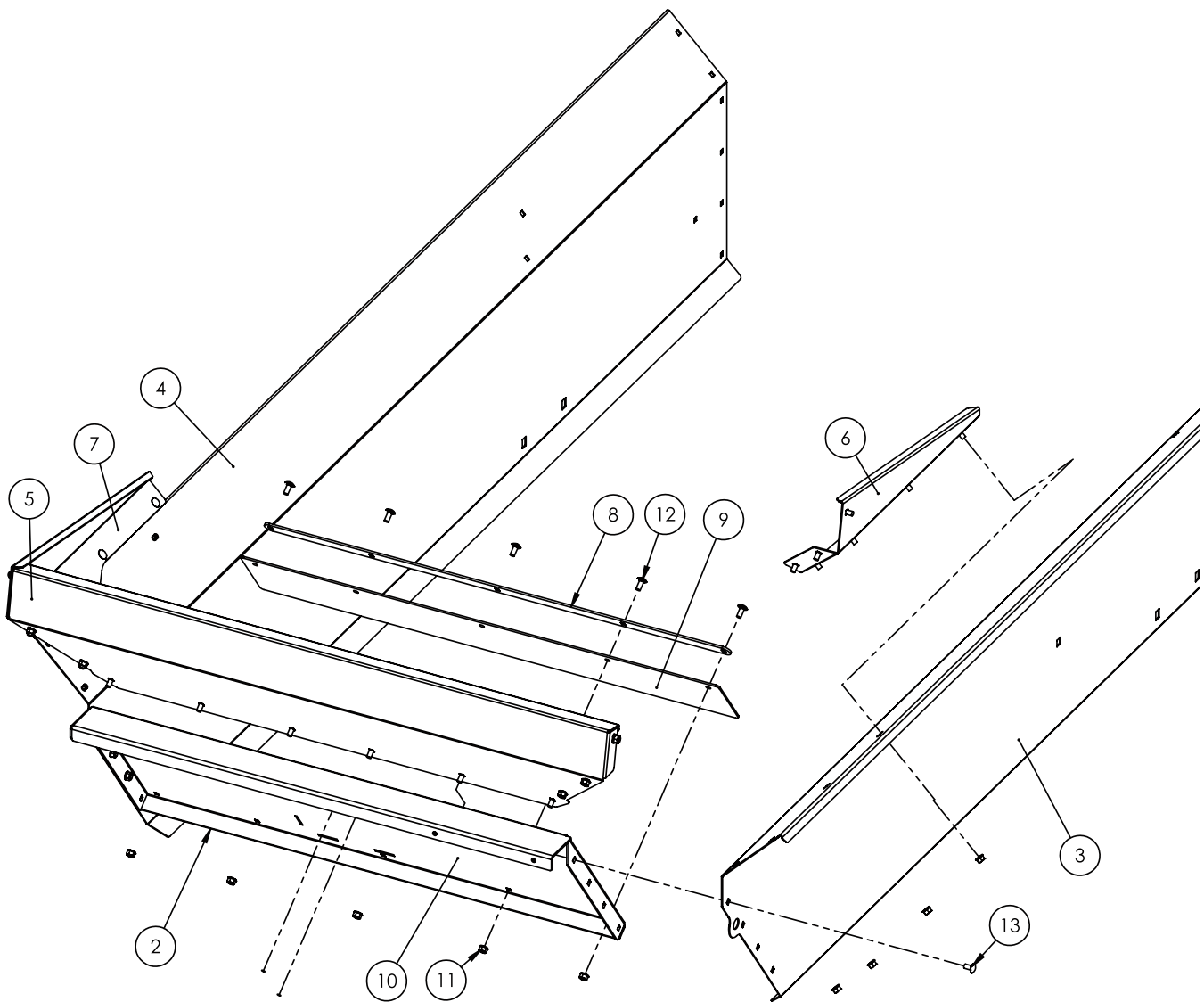


# Main Parts



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	-----	Assembly, Apron Chain	1	18	-----	Hex Lock Nut 1/2NC	10
2	7013M303	Shaft, Rear Apron Drive	1	19	44623BH	Flange Nut 5/16NC	14
3	7013S305	Floor Board, Full	4	20	Z72531	Flange Nut 3/8NC	30
4	7013S306	Floor Board, Right End	1	21	Z72551	Flange Nut 1/2NC	4
5	7013S307	Floor Board, Left End	1	22	-----	Set Screw 5/16NC	4
6	7013W301	MS500 Main Frame	1	23	5161006	Carriage Bolt 5/16NC x 3/4	6
7	7013W302	MS500 Hitch Frame	1	24	Z76222	Carriage Bolt 5/16NC x 5/8	8
8	7013W316	Beater Bar, PTO Drive	1	25	-----	Carriage Bolt 3/8NC x 1-1/4 Extra Short Neck	4
9	7013W317	Crossbar	1	26	5161614	Carriage Bolt 1/2NC x 1-1/2	6
10	7015A505	Assy, Front Apron Sprocket RH	1	27	5161610	Carriage Bolt 1/2NC x 1	4
11	7015A506	Assy, Front Apron Sprocket LH	1	28	Z76253	Carriage Bolt 1/2NC x 5	2
12	7015L560	Plate, Beater Bar Capture	2	29	44928BH	Plow Bolt 3/8NC x 1-1/2	30
13	7015M501	Sprocket, Apron Chain Rear	2	30	-----	Self-tapping Screw #10	4
14	Z12441	Snapper Pin 1/2 x 4-1/2	1	31	Z91513	Top-Wind 10" Swivel Jack	1
15	Z25102	FD 2-Bolt Flange Bearing 1"	2	32	-----	Manual Tube 3-1/2	1
16	Z46532	Key 1/4 x 1/4 x 1-1/2	2	33	Z44203	PTO Shaft	1
17	-----	Hex Lock Nut 3/8NC	4				

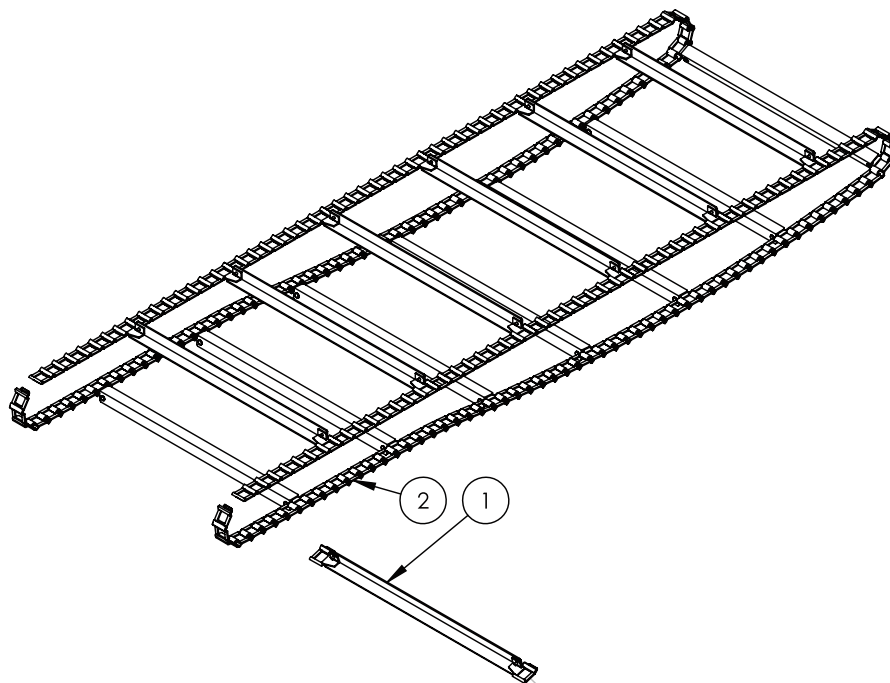
# Box



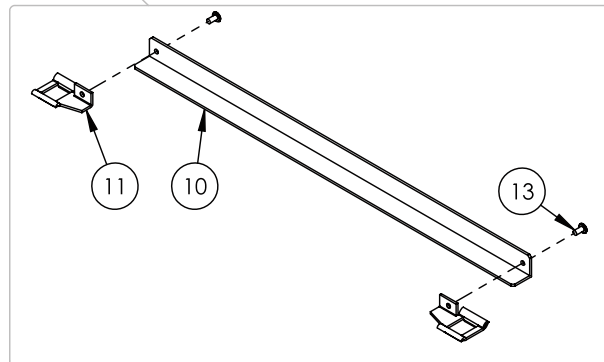
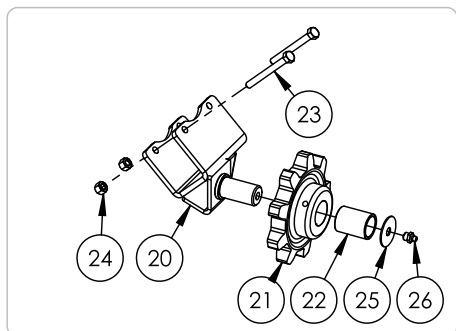
Ref. No.	Part No.	Description	Qty.
1	-----	Engaging Arm Mounting Bracket	1
2	7013L307	Front Panel, Ground Drive	1
3	7013L305	Side Panel LH	1
4	7013L306	Side Panel RH	1
5	7013L340	Splash Guard, Top	1
6	7015L542	Splash Guard, LH	1
7	7015L543	Splash Guard, RH	1
8	7013L361	Clamp, Floor Seal	1
9	7013S308	Floor Seal	1
10	7013W303	Box Front, PTO	1
11	44623BH	Flange Nut 5/16NC	31
12	5161006	Carriage Bolt 5/16NC x 3/4	7
13	Z76222	Carriage Bolt 5/16NC x 5/8	24



# Apron Chain & Sprocket

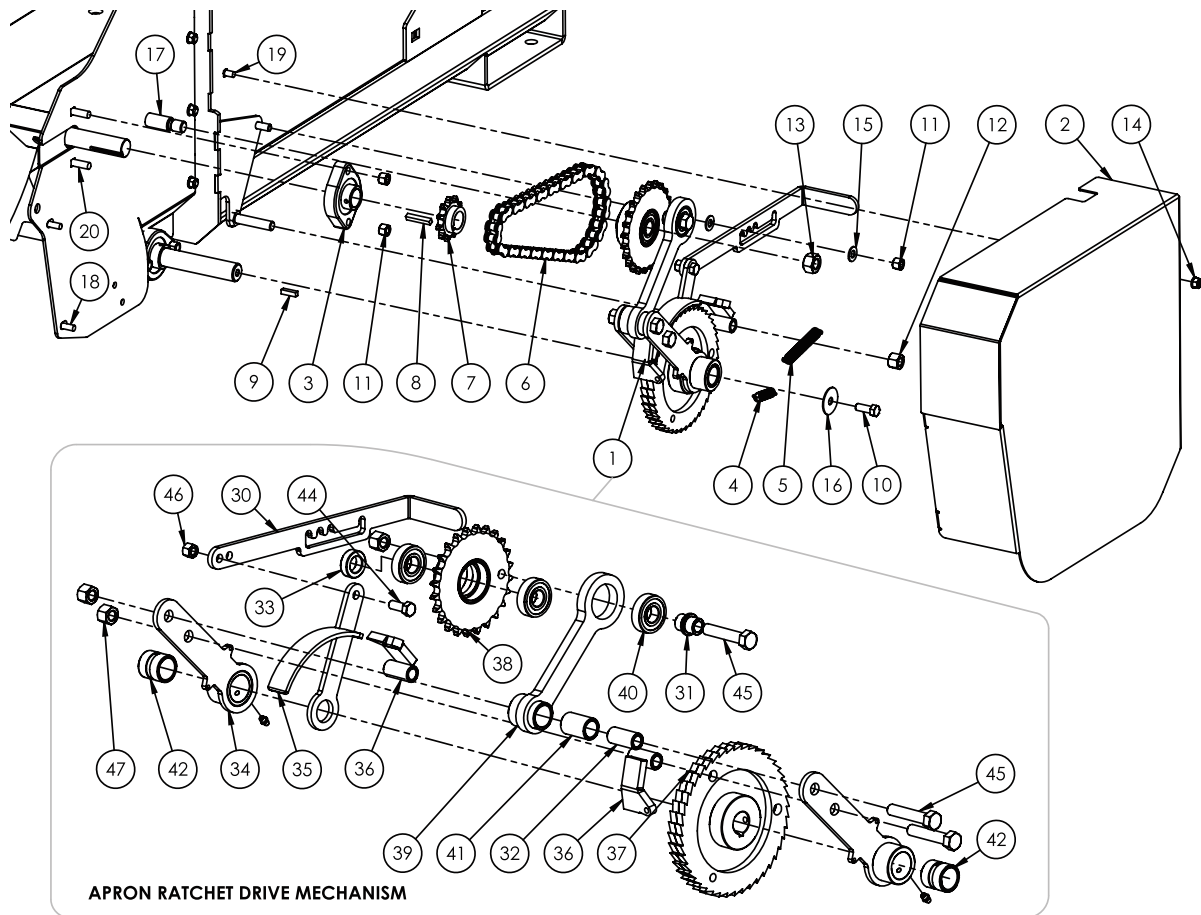


APRON SPROCKET ASSEMBLY (RH)



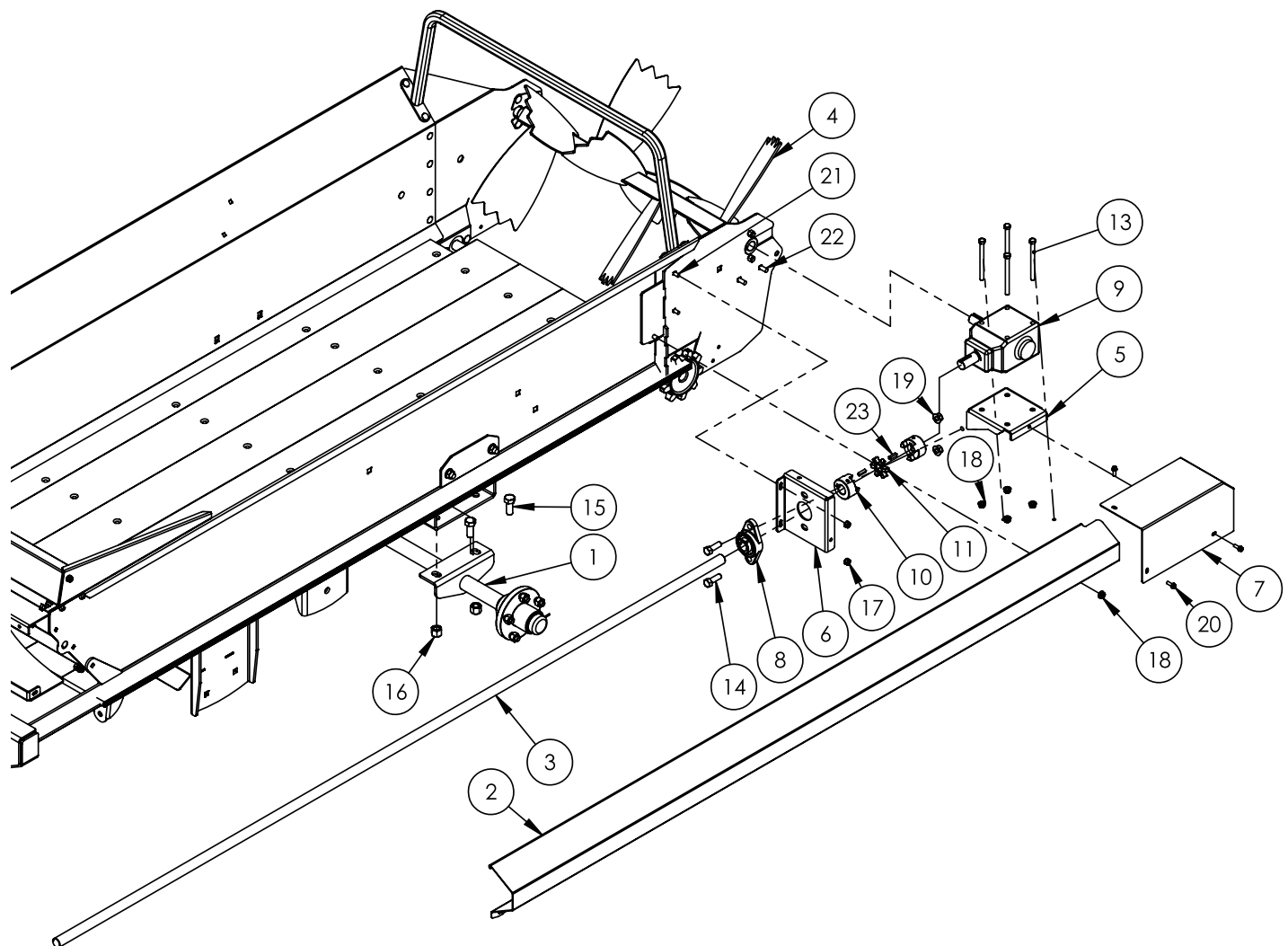
Ref. No.	Part No.	Description	Qty.
1	-----	Apron Flight Assembly	14
2	-----	Apron Chain #62 x 113 links	2
10	-----	Apron Flight	1
11	-----	Apron Chain #62 End RH	1
12	-----	Apron Chain #62 End LH	1
13	-----	Rivet 1/4 x 1/2 Flat Head	2
20	7015W507	Bracket, Front Sprocket RH	1
21	-----	Sprocket, Apron Chain Front	1
22	Z26301	Bushing, 1 ID x 1-1/4 OD x 1-5/8	1
23	-----	Hex Bolt 5/16NC x 3	2
24	-----	Hex Lock Nut 5/16NC	2
25	Z73232	Wide Washer 3/8 Thin	1
26	Z29201	Grease Fitting, 1/8NPT	1

# Apron Ratchet



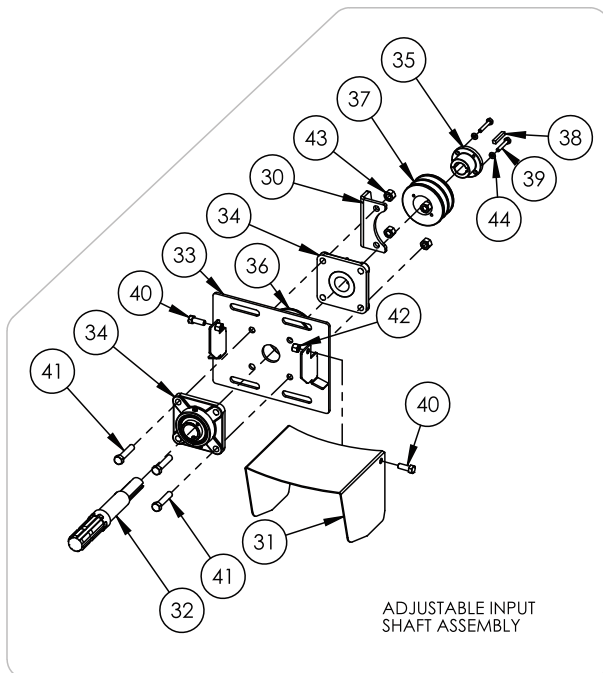
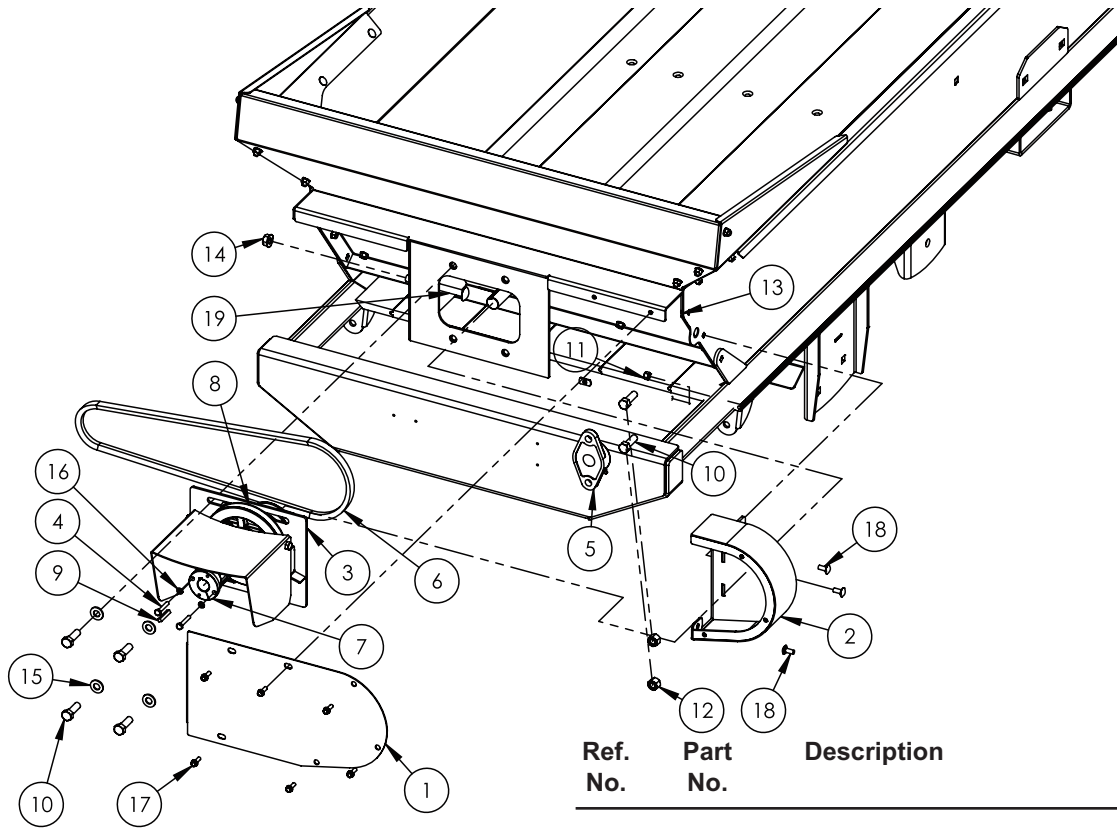
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	7015A507	Apron Ratchet Drive Mechanism	1	30	7015L524	Handle, Ratchet Speed Set	1
2	7015W518	Shield, Apron Drive	1	31	7015M512	Flange Bushing	1
3	Z25102	FD 2-Bolt Flange Bearing 1"	1	32	7015M514	Bushing, Link Arm Bolt	1
4	Z31201	Spring 1/2 x 1-1/2 x .048	1	33	-----	Bolt Spacer	1
5	Z31304	Spring 1/2 x 2-1/2 x .063	1	34	7015W510	Arm, Apron Ratchet Drive	2
6	Z42141	#50 Roller Chain 44P (22 Links)	1	35	7015W511	Slide, Speed Adjuster	1
7	Z42803	Sprocket, #50 11Tooth 1" Bore	1	36	7015W512	Dog, Ratchet	2
8	Z46532	Key 1/4 x 1/4 x 1-1/2	1	37	7015W513	Ratchet, Apron Drive	1
9	-----	Key, 1/4 x 1/4 x .913	1	38	7015W514	#50 24Tooth Sprocket Hub	1
10	-----	Hex Bolt 3/8NC x 1	2	39	7015W515	Arm, Ratchet Drive Link	1
11	-----	Hex Lock Nut 3/8NC	3	40	Z21204	Ball Bearing 1635 RS	3
12	-----	Hex Lock Nut 1/2NC	1	41	Z26201	Bushing, 3/4 ID x 1-1/2	1
13	Z72461	Low Profile Lock Nut 5/8NC	1	42	Z26303	Bushing, 1 ID x 1-1/4 Long Grooved	2
14	44623BH	Flange Nut 5/16NC	1	43	449BH	Grease Zerk 1/4NF	2
15	15915BH	Flat Washer 3/8	2	44	-----	Hex Bolt 3/8NC x 1	1
16	Z73232	Wide Washer 3/8 Thin	1	45	-----	Hex Bolt 1/2NC x 2-1/2	3
17	Z75571	Shoulder Bolt 3/4 x 1-1/2	1	46	-----	Hex Lock Nut 3/8NC	1
18	Z76121	Flange Bolt 5/16NC x 3/4	4	47	-----	Hex Lock Nut 1/2NC	3
19	Z76222	Carriage Bolt 5/16NC x 5/8	1				
20	5161212	Carriage Bolt 3/8NC x 1-1/4	2				

# PTO Driveline



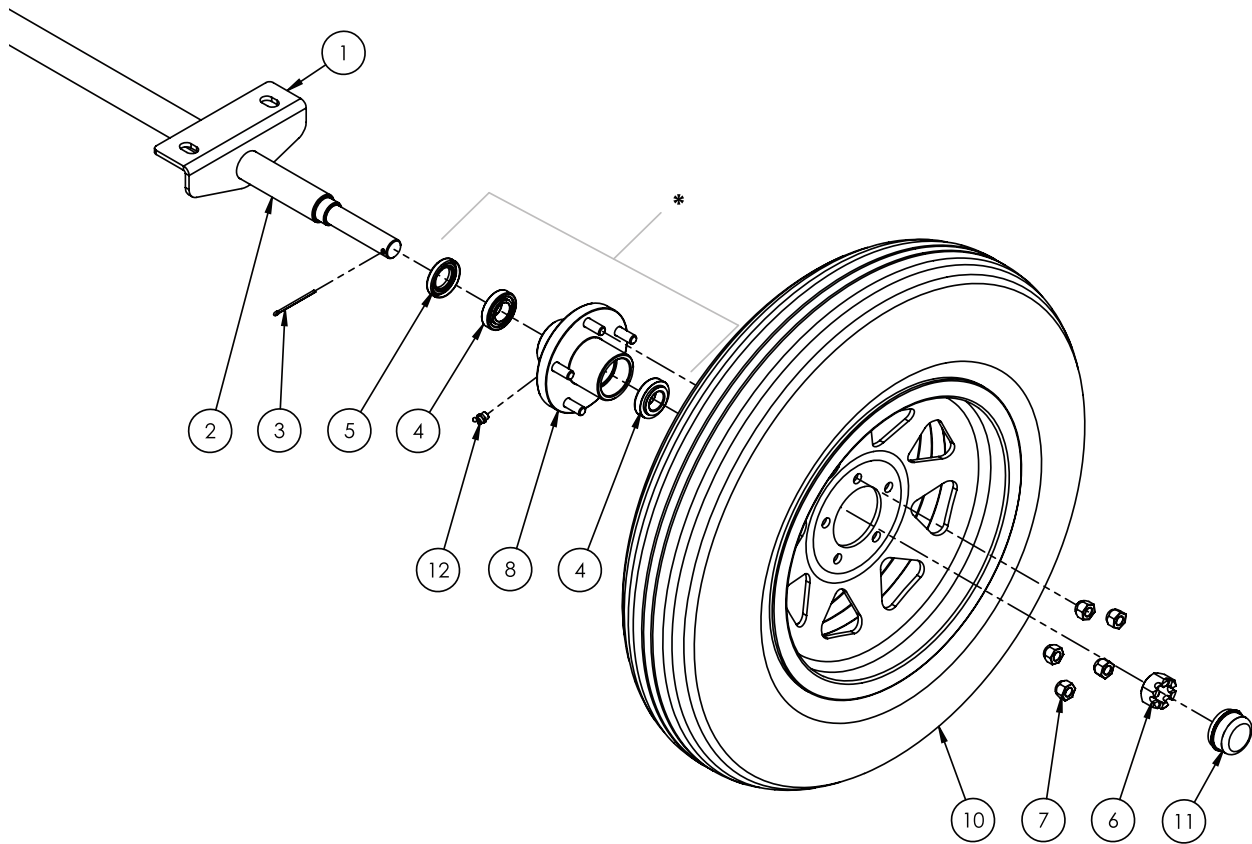
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	7013A304	Assembly, PTO Axle	1	13	-----	Hex Bolt 3/8NC x 4-1/2	4
2	7013L333	Shield, PTO Drive Shaft	1	14	-----	Hex Bolt 1/2NC x 1-1/2	2
3	7013M315	Shaft, PTO Drive	1	15	-----	Hex Bolt 5/8NC x 1-1/2	4
4	7013W316	Beater Bar, PTO Drive	1	16	-----	Hex Lock Nut 5/8NC	4
5	7015L525	Bracket, Gear Box	1	17	44623BH	Flange Nut 5/16NC	2
6	7015L536	Bracket, PTO Drive Shaft	1	18	Z72531	Flange Nut 3/8NC	8
7	7015W506	Guard, Gearbox	1	19	Z72551	Flange Nut 1/2NC	2
8	Z25101	FL 2-Bolt Flange Bearing 1"	1	20	Z76111	Flange Bolt 1/4NC x 3/4	4
9	Z43101	Gearbox 540RPM 15HP	1	21	5161006	Carriage Bolt 5/16NC x 3/4	2
10	Z46404	Shaft Coupler L095 x 1	2	22	44109BH	Carriage Bolt 3/8NC x 1	2
11	Z46405	Coupler Spider L095	1	23	-----	Key, 1/4 x 1/4 x .913	2
12	-----	Hex Bolt 3/8NC x 3/4	2				

# PTO Drive



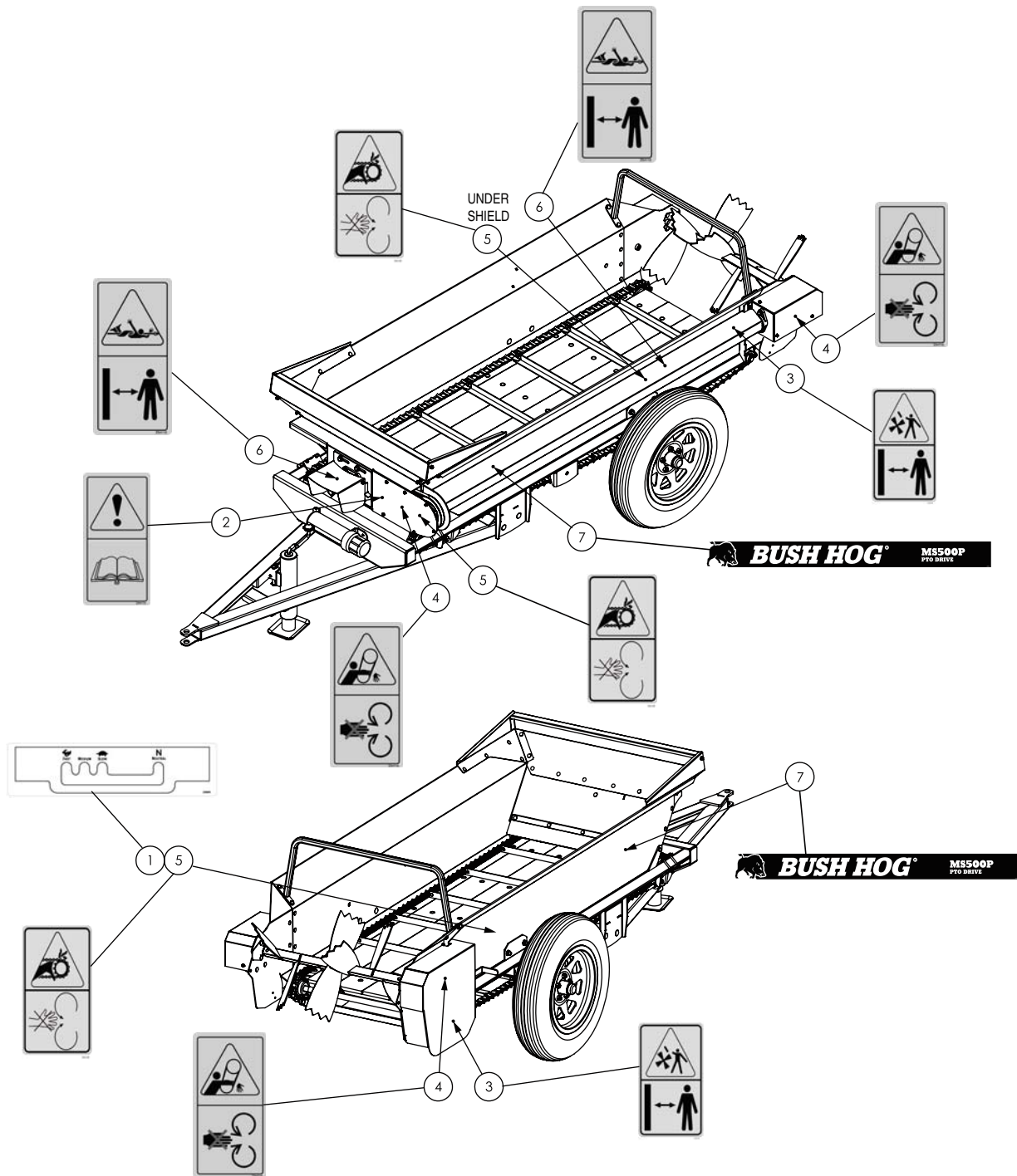
Ref. No.	Part No.	Description	Qty.
1	7013L332	Shield, PTO Belt	1
2	-----	Front Pulley Shield	1
3	7015A508	Assy, Adjustable Input Shaft	1
5	Z25101	FL 2-Bolt Flange Bearing 1"	1
6	Z41154	Single Belt, B51	1
7	Z41510	"L" Bushing 1" Bore	1
8	Z41610	"B" Sheave, 6.75" Pitch	1
9	Z46532	Key 1/4 x 1/4 x 1-1/2	1
10	-----	Hex Bolt 1/2NC x 1-1/2	6
11	-----	Hex Lock Nut 5/16NC	1
12	-----	Hex Lock Nut 1/2NC	6
13	44623BH	Flange Nut 5/16NC	2
14	Z72551	Flange Nut 1/2NC	1
15	15829	Flat Washer 1/2	4
16	-----	Lock Washer 1/4	2
17	Z76111	Flange Bolt 1/4NC x 3/4	6
18	5161006	Carriage Bolt 5/16NC x 3/4	3
19	Z76253	Carriage Bolt 1/2NC x 5	1
30	7015L539	Bracket, Belt Tightener	1
31	7015L541	PTO Cover	1
32	7015M516	PTO Spline	1
33	7015W504	PTO Spline Plate	1
34	Z25202	4-Bolt Flange Bearing, 1-1/4	2
35	Z41510	"L" Bushing 1" Bore	1
36	Z41601	Sheave, 3.95 Pitch "L" Bore	1
37	Z41704	Double "B" Sheave, 3.55" Pitch	1
38	Z46532	Key 1/4 x 1/4 x 1-1/2	1
39	-----	Hex Bolt 1/4NC x 1-1/2	2
40	-----	Hex Bolt 3/8NC x 1	2
41	-----	Hex Bolt 7/16NC x 2	4
42	-----	Hex Lock Nut 3/8NC	2
43	-----	Hex Lock Nut, 7/16NC	4
44	-----	Lock Washer 1/4	2

# PTO Drive Axle



Ref. No.	Part No.	Description	Qty.
1	7015L509	Bracket, PTO Axle Mount	2
2	7013W309	Axle Shaft	1
3	Z12312	Cotter Pin 1/8 X 2-1/2	2
4	Z23201	L44643 Cone, L44610 Cup	4
5	Z28301	Double Lip Seal 1-1/4 Shaft	2
6	Z72691	Slotted Hex Nut 1NF	2
7	Z72931	Lug Nut 1/2NF	10
8	Z91203	1100# 5 on 4-1/2 Hub	2
*	Z91204	Complete 1100 Hub w/ Parts	2
10	Z91304	6.70-15 SL Farm Spec Spoked	2
11	Z91801	Dust Cap 1.98 Bore	2
12	Z29204	Grease Fitting, 1/8NPT x 45	2

# Decal Locations



Ref. No.	Part No.	Description	Qty.
1	Z94044	Apron Speed	1
2	Z94119	Read Manual	1
3	Z94168	Rotating Blade	2
4	Z94116	Rotating Part	3
5	Z94169	Shield Hazard	3
6	Z94118	Rotating Driveline	2
7	Z946618	Model Decal, MS500P	2





**BUSH HOG®**

2501 GRIFFIN AVE. • SELMA, AL 36703

(334) 872-6261 • (334) 874-2700

PARTS ORDERING 1-800-304-2836

FAX 1-800-572-1784

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