



1tRIPr XD PULL-TYPE STRIP-TILLAGE TOOL

1tRIPr XD PULL-TYPE STRIP-TILLAGE TOOL MAINTENANCE MANUAL

STRIP-TILLAGE

A TOUGH ACT TO FOLLOW

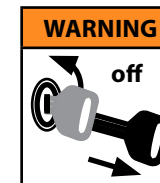
Unverferth
Manufacturing Company, Inc.

NOTES

MAINTENANCE

⚠ PRACTICE SAFE MAINTENANCE

Proper maintenance is your responsibility. Maintenance neglect and/or poor maintenance practices can result in injury or death. Always use the proper tools to maintain implement.



AVOID CRUSHING.

Make sure all personnel are clear of the implement.
Lower implement to the ground, place tractor in park, turn off engine, and remove key.



USE BAR STANDS AND CYLINDER STOPS TO SUPPORT THE IMPLEMENT. Park implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Remove buildup of grease, oil, or debris prior to maintaining implement.



AVOID ENTANGLEMENT. Never lubricate or service implement in motion. Keep away from power driven parts when in motion. Disengage power sources prior to maintaining implement. Injury or death can result from contact with power driven parts when in motion.



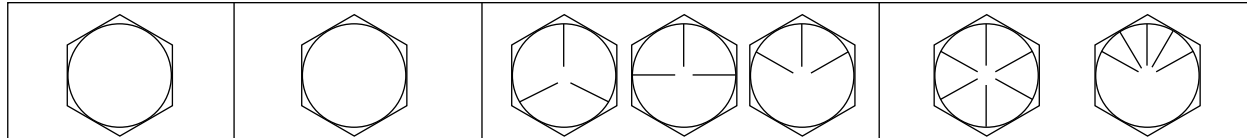
AVOID CRUSHING. Do not stand between the tractor and implement when connecting or disconnecting implement. Injury or death can result from being trapped between the tractor and implement.



Escaping pressurized hydraulic fluid can penetrate skin, resulting in injury or death. Relieve hydraulic system pressure before connecting or disconnecting tractor. Use cardboard or wood, NOT BODY PARTS, to check for suspected hydraulic leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. If an accident occurs, see a doctor immediately for proper treatment.

TORQUE SPECIFICATIONS

Unified Inch Bolt and Screw Torque Values



Bolt or Screw Size	SAE Grade 1				SAE Grade 2 ^a				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c	
	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N•m	lb-ft	N•m	lb-ft
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N•m	lb-ft	N•m	lb-ft				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N•m	lb-ft	N•m	lb-ft	N•m	lb-ft								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N•m	lb-ft														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	308	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

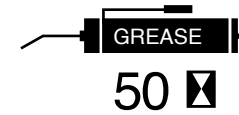
^aGrade 2 applies for hex cap screws (not hex bolts) up to 6 in. (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

^b"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

^c"Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

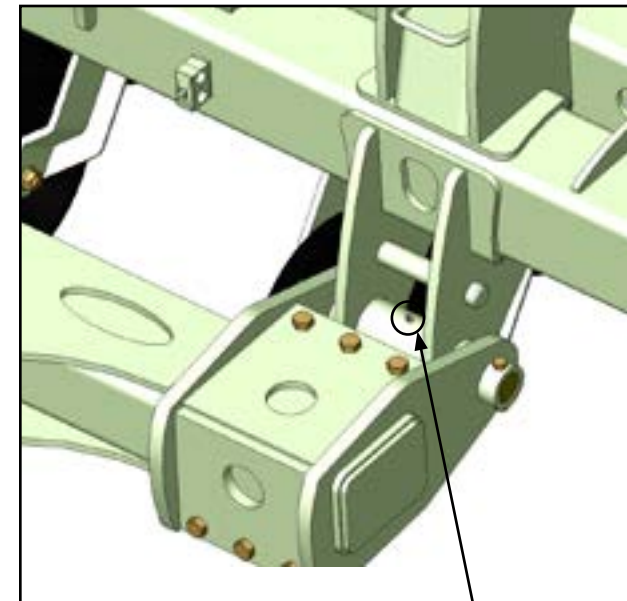
D1682

LUBRICATION

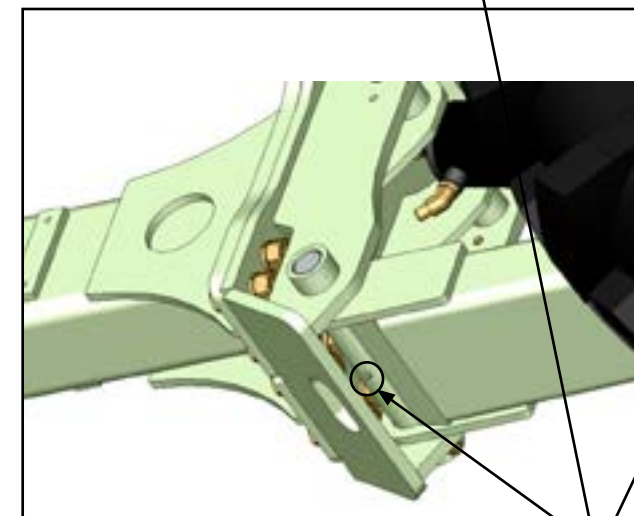
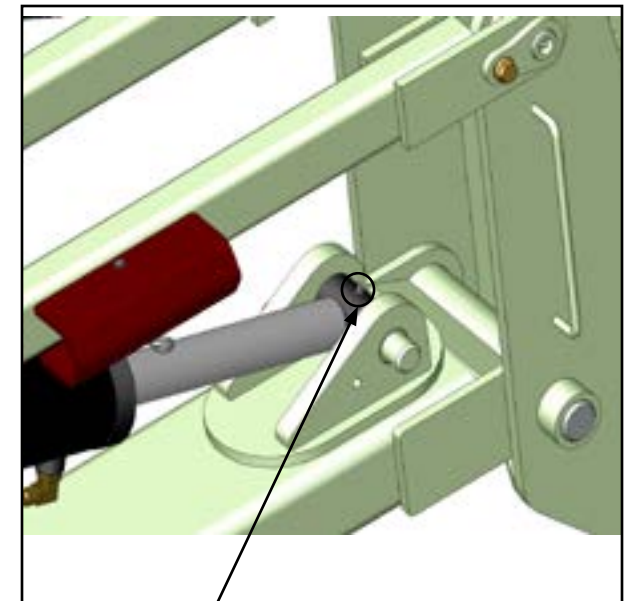


- Grease - use high quality multi-purpose grease.
- Follow recommended 50 hour service interval illustrated below.

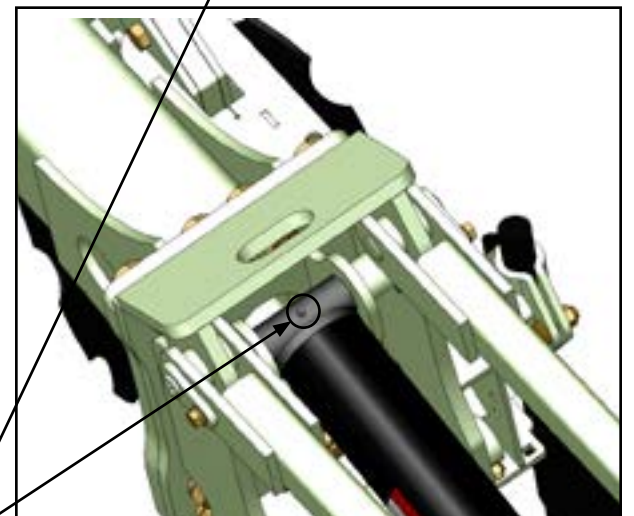
TONGUE HITCH MODULE



REAR OF CARRIER ARM



FRONT BOTTOM OF CARRIER ARM



FRONT TOP OF CARRIER ARM

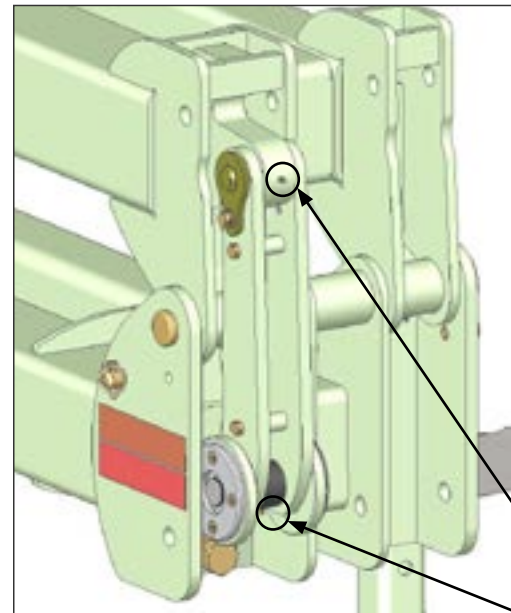


LUBRICATION

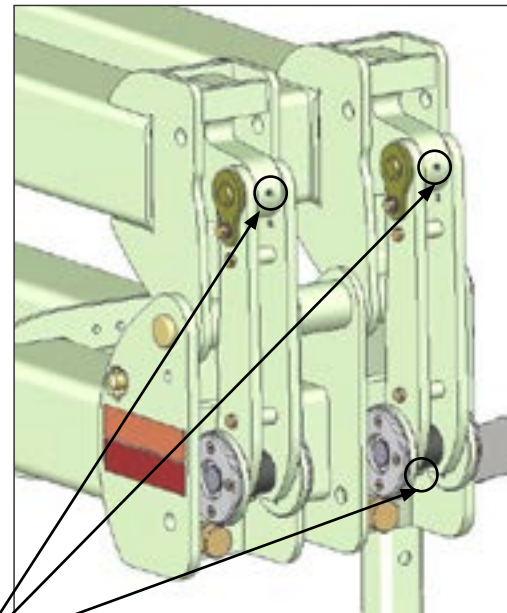


- Grease - use high quality multi-purpose grease.
- Follow recommended hourly service interval illustrated below.

SINGLE CYLINDER TOOLBARS



DUAL CYLINDER TOOLBAR



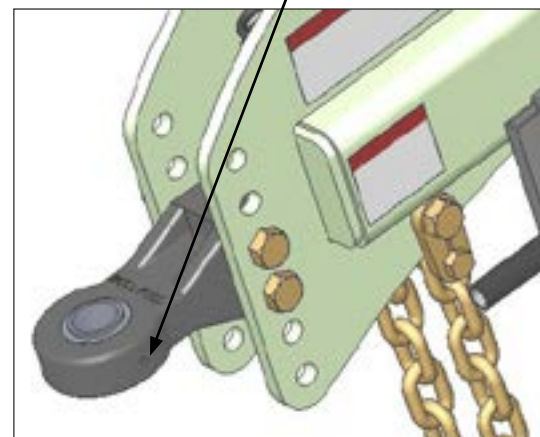
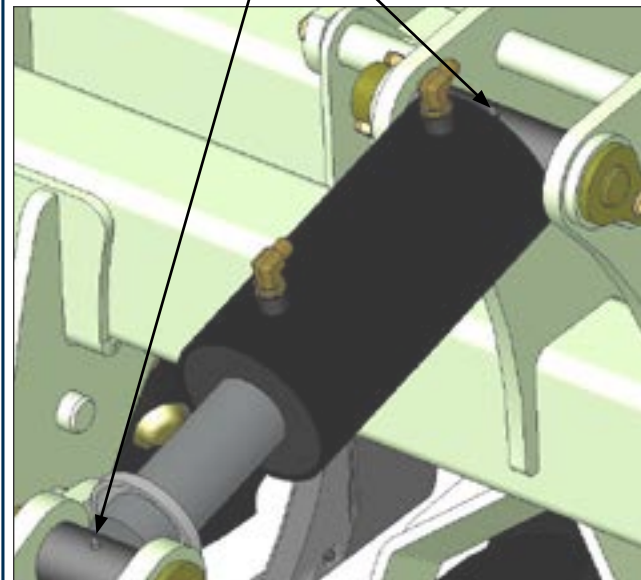
Tongue Lift Cylinder pins

30

50
Internal fold

Tongue Hitch Tab

10

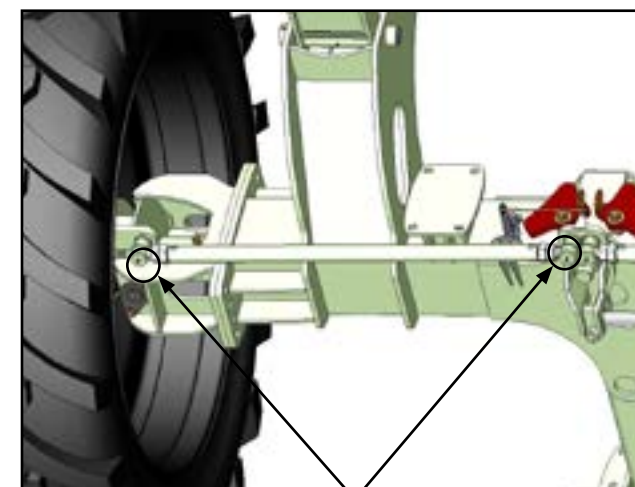


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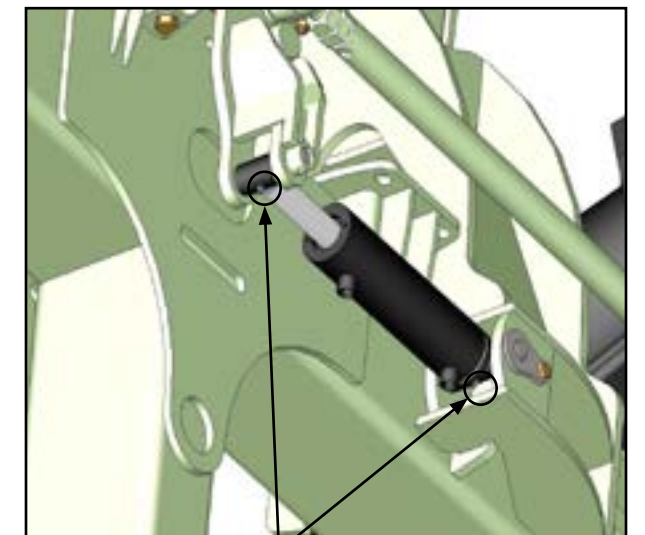


- Grease - use high quality multi-purpose grease.
- Follow recommended hourly service interval illustrated below.

50
Wheel bearing



50
Steering strut

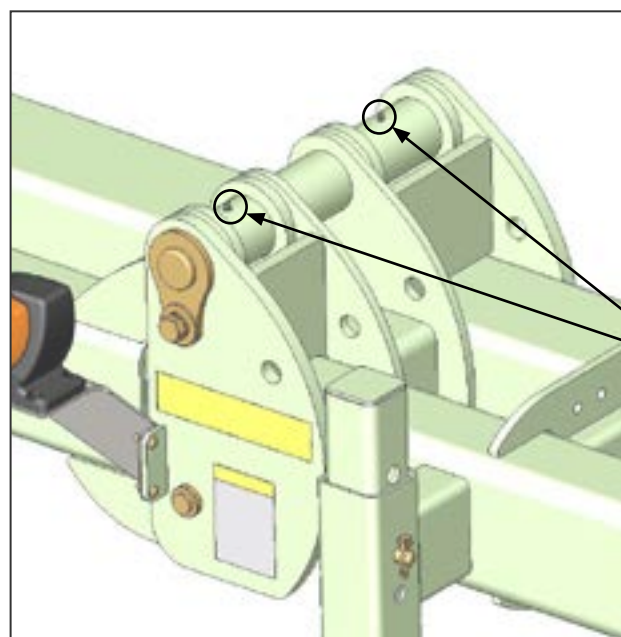


10
Steering hydraulic cylinder



LUBRICATION

- Grease - use high quality multi-purpose grease.
- Follow recommended 50 hour service interval illustrated below.



50 
Wing Hinge bushings
2 zerks on each wing



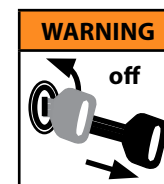
IMPLEMENT INSPECTION

- When replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore implement to original specifications. Replace broken or worn parts immediately. Contact your Orthman dealer for replacement parts.
- During break-in (40 hours), check hardware for proper torque every 10 to 20 hours.
- Before each use, check hardware for wear and proper torque. Replace damaged or missing hardware with hardware of an identical grade to restore implement to original specifications.
- Do not allow debris to buildup on any surface of the implement.
- Replace all shields and guards. Be sure all tools, parts, and service equipment are removed prior to transporting equipment.



IMPLEMENT STORAGE

- Clean and touch up paint seasonally to avoid corrosion and rust. Contact your Orthman dealer for touch up paint.
- Inspect all safety and Orthman decals and replace if missing or damaged. Contact your Orthman dealer for replacement decals.
- Grease all zerks regardless of hourly interval prior to storage.
- Check all hardware according to torque specifications prior to storage.
- Replace all worn or damaged parts prior to storage.
- Store inside if possible. Storing implement inside will prolong the life of the components.



- ⚠ **AVOID CRUSHING.** Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.

Storing implement on the ground will relieve the tractor three point hitch of hydraulic pressure. Hydraulic systems tend to settle, endangering anything underneath the implement.



USE BAR STANDS TO SUPPORT THE IMPLEMENT. Store implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Store implement away from human activity.

- ⚠ **AVOID CRUSHING.** Never use the tongue bar stand to support the weight of the machine. Tongue bar stand may fail if machine weight rests on the tongue bar stand. Only use the tongue bar stand to keep the tongue from resting on the ground.