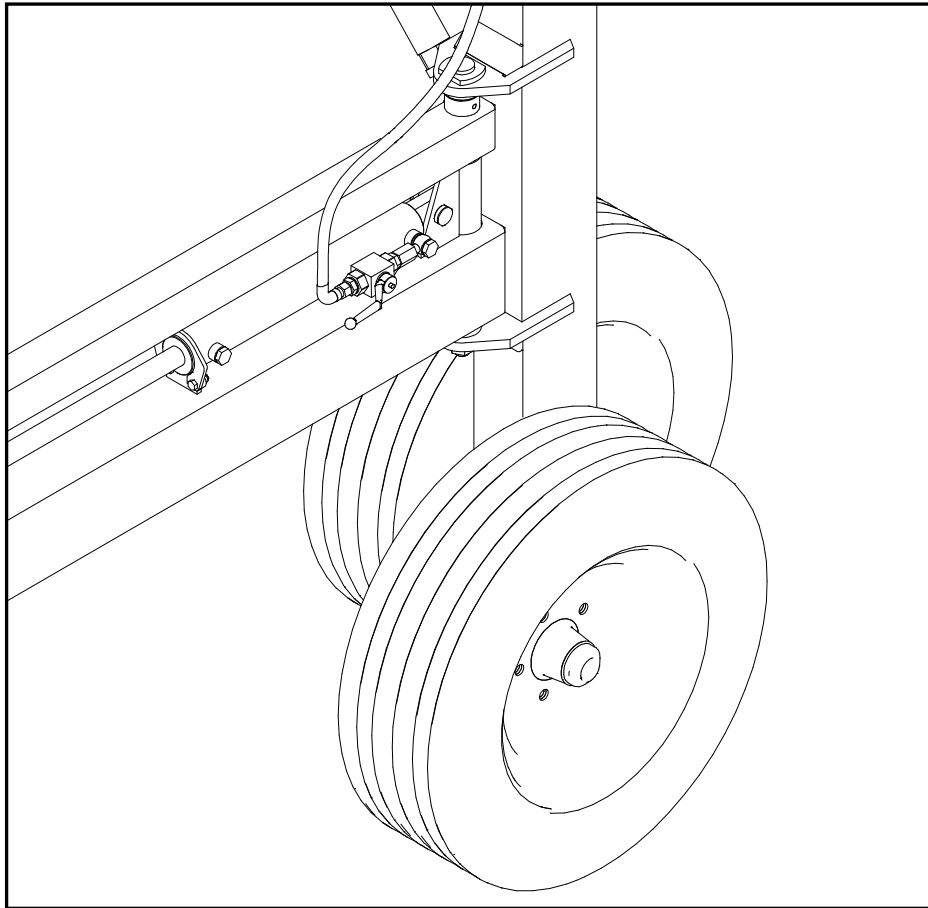


AGRICULTURAL MACHINERY

sitrex®
Spa

**INSTALLATION INSTRUCTIONS AND
SPARE PARTS FOR TANDEM WHEELS KIT
PART NO 250.441**



FOR MKE

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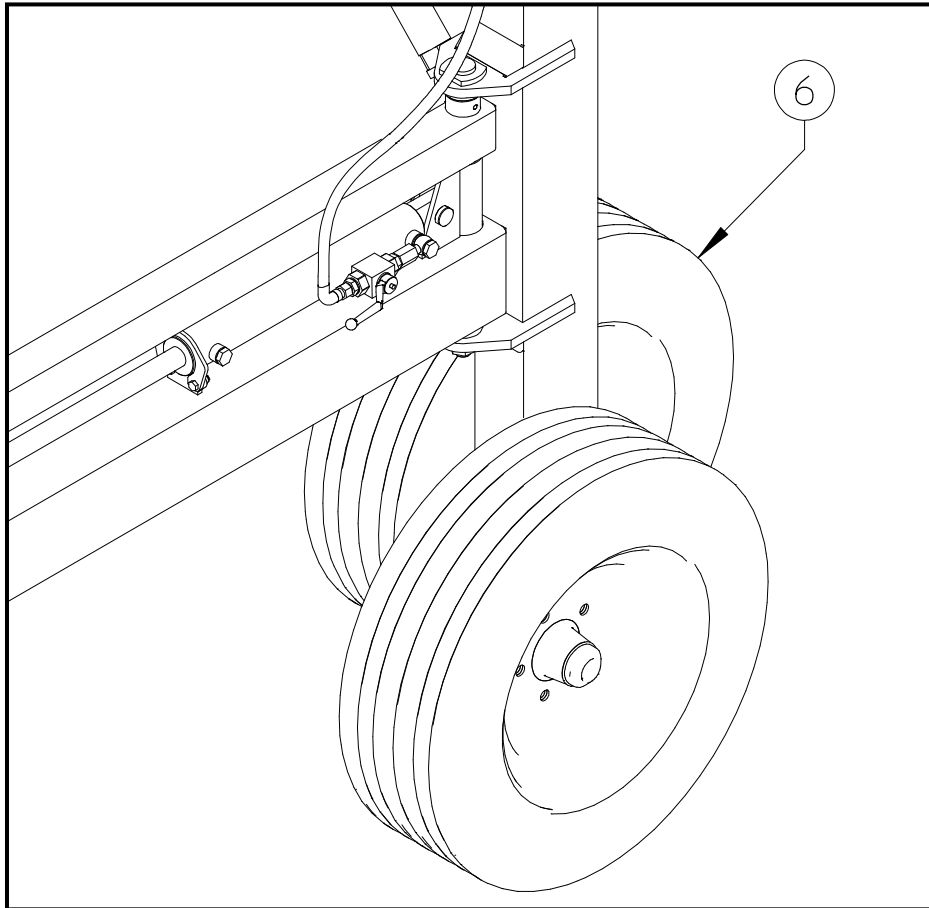
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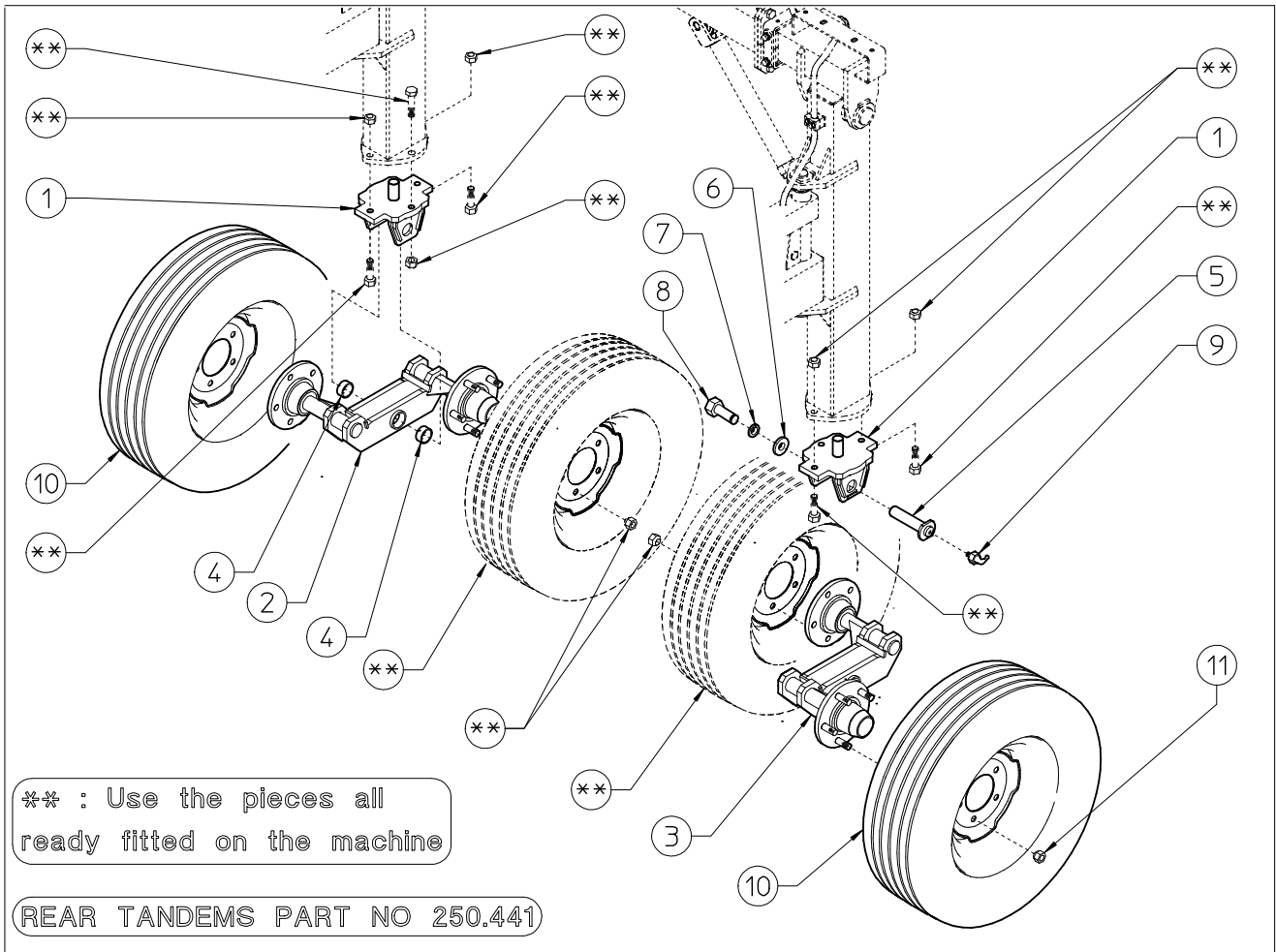
1 – KIT CONTENT

Kit overview



The tandem wheel kit adds two additional rear wheels (6) that improves the rake's ability to track over uneven terrain

Kit contents – SPARE LIST

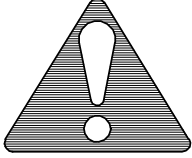


REAR TANDEMS PART NO 250.441				
ITEM	Q.ty	PART NO	DESCRIPTION	NOTE
1	2	250.353	SUPPORT	
2	1	250.354	RH SUPPORT	
3	1	250.355	LH SUPPORT	
4	4	610.806	BUSHING $\varnothing 40-44 \times 30$	
5	2	220.198	PIN $\varnothing 40$	
6	2	220.469	WASHER $\varnothing 21-56 \times 6$	
7	2	600.259	SPRING WASHER $\varnothing 21$ DIN 127B	
8	2	610.931	SCREW M20x1,5x35 DIN 961	
9	2	610.808	GREASE NIPPLE M8x90°	
10	2	600.281	WHEEL ASSY (GRAY RIM)	
11	10	600.289	NUT M16x1,5	

2 – SAFETY INFORMATION

Safety rules

Personal safety



This is safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.



DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage

Throughout this manual you will find the signal words Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the signal words Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Torque – Minimum tightening torques for normal assembly

NOTE: In the metric tables, nominal size M4 through M8 hardware torque specifications are shown as a Newton-meters (pound-inches) numerical value.

Nominal size M10 through M24 hardware torque specifications are shown as a Newton meters (pound-foot) numerical value.

Metric non-flanged hardware

Nominal size	Class (CL) 8.8 bolt and Class (CL) 8 nut		Class (CL) 10.9 bolt and Class (CL) 10 nut		Locknut CL 8 w/CL 8.8 bolt	Locknut CL 10 w/CL 10.9 bolt
	Unplated	Plated w/ZnCr*	Unplated	Plated w/ZnCr*		
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
M4	2.2 (19)	2.9 (26)	3.2 (28)	4.2 (37)	2 (18)	2.9 (26)
M5	4.5 (40)	5.9 (52)	6.4 (57)	8.5 (75)	4 (36)	5.8 (51)
M6	7.5 (66)	10 (89)	11 (96)	15 (128)	6.8 (60)	10 (89)
M8	18 (163)	25 (217)	26 (230)	35 (311)	17 (151)	24 (212)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
M10	37 (27)	49 (36)	52 (38)	70 (51)	33 (25)	48 (35)
M12	64 (47)	85 (63)	91 (67)	121 (90)	58 (43)	83 (61)
M14	101 (75)	135 (100)	145 (107)	193 (142)	92 (68)	132 (97)
M16	158 (116)	210 (155)	225 (166)	301 (222)	143 (106)	205 (151)
M18	224 (165)	299 (221)	310 (229)	414 (305)	203 (150)	281 (207)
M20	319 (235)	425 (313)	440 (325)	587 (433)	290 (214)	400 (295)
M24	551 (406)	735 (542)	762 (562)	1016 (750)	501 (370)	693 (510)

Metric flanged hardware

Nominal size	Class (CL) 8.8 bolt and Class (CL) 8 nut		Class (CL) 10.9 bolt and Class (CL) 10 nut		Locknut CL 8 w/CL 8.8 bolt	Locknut CL 10 w/CL 10.9 bolt
	Unplated	Plated w/ZnCr*	Unplated	Plated w/ZnCr*		
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
M4	2.4 (21)	3.2 (28)	3.5 (31)	4.6 (41)	2.2 (19)	3.1 (27)
M5	4.9 (43)	6.5 (58)	7.0 (62)	9.4 (83)	4.4 (39)	6.4 (57)
M6	8.3 (73)	11 (98)	12 (105)	16 (141)	7.5 (66)	11 (96)
M8	20 (179)	27 (240)	29 (257)	39 (343)	18 (163)	27 (240)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
M10	40 (30)	54 (40)	57 (42)	77 (56)	37 (27)	53 (39)
M12	70 (52)	93 (69)	100 (74)	134 (98)	63 (47)	91 (67)
M14	111 (82)	148 (109)	159 (118)	213 (157)	101 (75)	145 (107)
M16	174 (128)	231 (171)	248 (183)	331 (244)	158 (116)	226 (167)
M18	247 (182)	329 (243)	341 (252)	455 (336)	223 (165)	309 (228)
M20	350 (259)	467 (345)	484 (357)	645 (476)	318 (235)	440 (325)
M24	607 (447)	809 (597)	838 (618)	1118 (824)	552 (407)	

* ZnCr = Zinc Chromate

NOTE: In the Imperial units tables, the nominal size, 1/4 (0.25) in (inch) and 5/16 (0.3125) in (inch) hardware torque specifications are shown as a Newton meters (pound-inches) numerical value.

Nominal sizes 3/8 (0.375) in (inch) through 1 (1.0) in (inch) hardware torque specifications are shown as a Newton meters (pound-feet) numerical value.

Inch non-flanged hardware

Nominal size	SAE Grade (GR) 5 bolt and nut		SAE Grade (GR) 8 bolt and nut		Locknut GR F w/ GR 5 bolt	Locknut GR G w/ GR 8 bolt
	Unplated or plated silver	Plated w/ZnCr* gold	Unplated or plated silver	Plated w/ZnCr* gold		
	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 (0.25) in	8 (71)	11 (97)	12 (106)	16 (142)	8.5 (75)	12.2 (109)
5/16 (0.3125) in	17 (150)	23 (204)	24 (212)	32 (283)	17.5 (155)	25 (220)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
3/8 (0.375) in	30 (22)	40 (30)	43 (31)	57 (42)	31 (23)	44 (33)
7/16 (0.4375) in	48 (36)	65 (48)	68 (50)	91 (67)	50 (37)	71 (53)
1/2 (0.50) in	74 (54)	98 (73)	104 (77)	139 (103)	76 (56)	108 (80)
9/16 (0.5625) in	107 (79)	142 (105)	150 (111)	201 (148)	111 (82)	156 (115)
5/8 (0.625) in	147 (108)	196 (145)	208 (153)	277 (204)	153 (113)	215 (159)
3/4 (0.75) in	261 (193)	348 (257)	369 (272)	491 (362)	271 (200)	383 (282)
7/8 (0.875) in	420 (310)	561 (413)	594 (438)	791 (584)	437 (323)	617 (455)
1 (1.0) in	630 (465)	841 (620)	890 (656)	1187 (875)	654 (483)	924 (681)

Inch flanged hardware

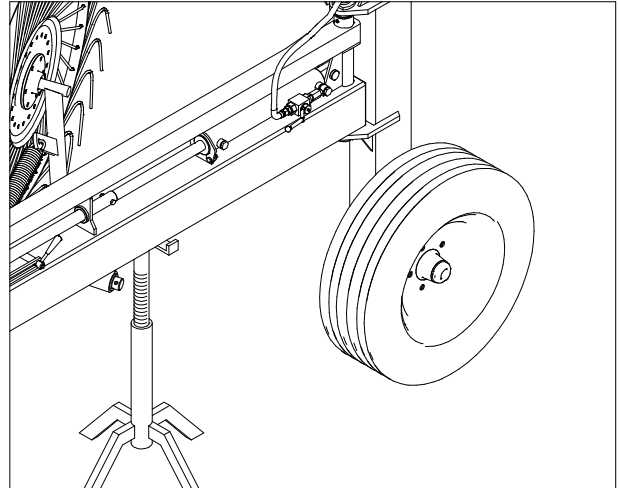
Nominal size	SAE Grade (GR) 5 bolt and nut		SAE Grade (GR) 8 bolt and nut		Locknut GR F w/ GR 5 bolt	Locknut GR G w/ GR 8 bolt
	Unplated or plated silver	Plated w/ZnCr* gold	Unplated or plated silver	Plated w/ZnCr* gold		
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
1/4 (0.25) in	9 (80)	12 (106)	13 (115)	17 (150)	8 (71)	12 (106)
5/16 (0.3125) in	19 (168)	25 (221)	26 (230)	35 (310)	17 (150)	24 (212)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
3/8 (0.375) in	33 (25)	44 (33)	47 (35)	63 (46)	30 (22)	43 (32)
7/16 (0.4375) in	53 (39)	71 (52)	75 (55)	100 (74)	48 (35)	68 (50)
1/2 (0.50) in	81 (60)	108 (80)	115 (85)	153 (113)	74 (55)	104 (77)
9/16 (0.5625) in	117 (86)	156 (115)	165 (122)	221 (163)	106 (78)	157 (116)
5/8 (0.625) in	162 (119)	216 (159)	228 (168)	304 (225)	147 (108)	207 (153)
3/4 (0.75) in	287 (212)	383 (282)	405 (299)	541 (399)	261 (193)	369 (272)
7/8 (0.875) in	462 (341)	617 (455)	653 (482)	871 (642)	421 (311)	594 (438)
1 (1.0) in	693 (512)	925 (682)	979 (722)	1305 (963)	631 (465)	890 (656)

* ZnCr = Zinc Chromate

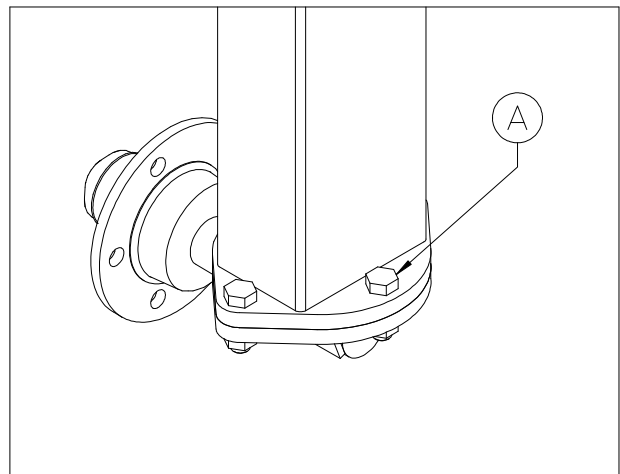
4 – ASSEMBLY

Tandem wheels - Install

1. Install wheel chocks in front of and behind the opposite wheel to prevent unintentional machine movement when you support the machine off the ground
2. Raise the rake arm to lift the tire off the ground a minimum of 152mm (6 in).
3. Place a jack stand a distance of 457mm (18 in) from the rear wheel to support the machine at location (A).
4. Remove the five M16 wheel nuts and the wheels.



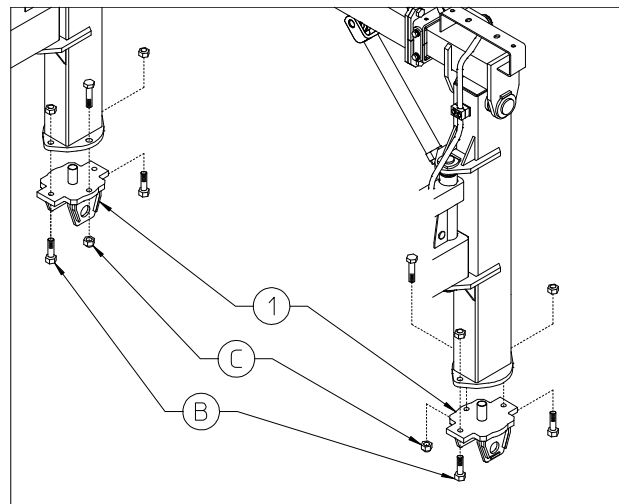
5. Remove the hardware (A) that holds the hub assembly in place.



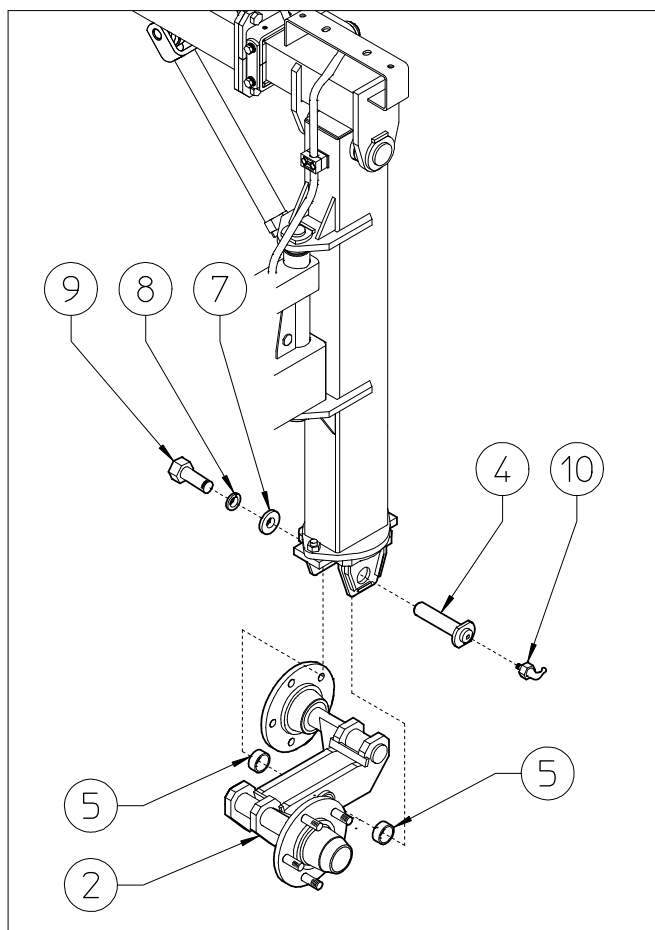
6. Install the axle support (1) onto the rear frame leg with the M16x50 bolts (B) and M16 nuts (C) that were taken off old axle support.

NOTICE: The bolts must be installed with the nuts on top with the bolts coming up through the bottom so they don't interfere with the tandem axle assembly.

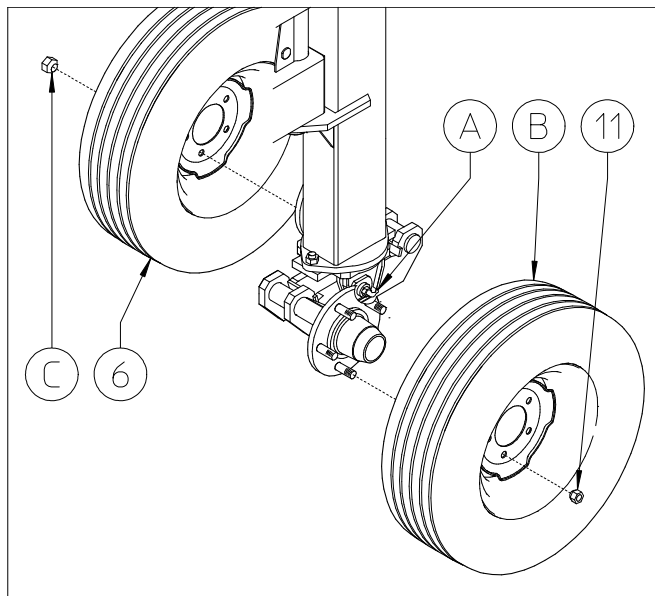
7. Securely tighten the hardware.



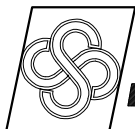
8. Install the bushings (5) into the hub pivot assembly (2).
9. Install the hub pivot assembly into the support (1), and then slide the pin (4) through the hole in the axle support and pivot assembly.
10. Install one M20x35 bolt (9) with one lock washer (8) and one 21mm x 56mm x 6 mm washer (7) into the end of the pin (4).
11. Securely tighten the hardware.
12. Install the grease fitting (10) into the pin (4).



13. Reinstall the front wheel (B) and lug nuts (11).
14. Install the rear wheel (6) and lug nuts (C)
15. Torque the wheel hardware in a circular pattern to 245 N*m (180 lb ft).
16. Lubricate the pivot assembly (A)



17. Repeat the installation process for the opposite side.



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Zona Industriale-Viale Grecia, 8
06018 TRESTINA-(Perugia)-ITALY
Tel. +39.075.8540021-Telefax +39.075.8540523
e-mail: sitrex@sitrex.it www.sitrex.com

