SERVICE MANUAL

PS2030

Seeder

Part number 47918064

English

January 2015

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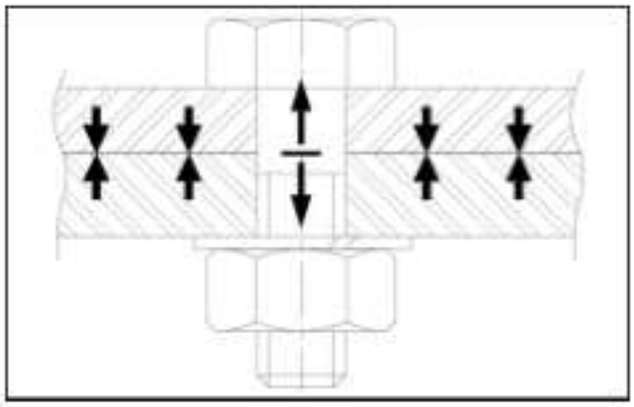
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Torque

NOTE: *The machines are designed with SI standard metric measurements.*



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NOTE: *In case a special torque is specified for a given bolt or nut, do not use the values in the tables below.*

NOTE: *When applying the recommended torque, make sure the threads are clean.*

NOTE: *When replacing bolts and/or nuts, use new items with a class equal or superior to the original ones. However, when using a new bolt or nut of a higher class, apply the original torque only.*

Recommended torques for class 8.8 bolts, nuts and studs

Size (or gauge)	Torque - in N.m
4 mm	3 - 4
5 mm	7 - 8
6 mm	11 - 12
8 mm	26 - 31
10 mm	52 - 61
12 mm	90 - 107
14 mm	144 - 172
16 mm	217 - 271
20 mm	434 - 515
24 mm	675 - 815
30 mm	1250 - 1500
36 mm	2175 - 2600

Recommended torques for class 10.9 bolts, nuts and studs

Size (or gauge)	Torque - in N.m
4 mm	4 - 5
5 mm	9 - 11
6 mm	15 - 18
8 mm	37 - 43
10 mm	73 - 87
12 mm	125 - 150
14 mm	200 - 245
16 mm	310 - 380
20 mm	610 - 730
24 mm	1050 - 1275
30 mm	2000 - 2400
36 mm	3500 - 3200

Recommended torques for class 12.9 bolts, nuts and studs

Generally, the torque values specified for class 10.9 hardware can be used in class 12.9 hardware.

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Seeding and planting hydraulic circuits - Bleed

The need to bleed the hydraulic circuit of the machine may occur in the following situations:

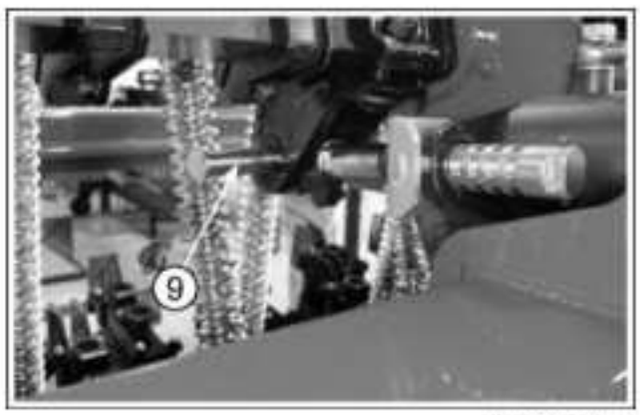
1. Repairs to the machine's hydraulic system.
2. Need to change the circuit oil after idling the machine for a long period of time or due to suspected contamination with water or impurities.
3. Need to change the circuit oil due to incompatibility of the existing oil in it with the oil of the tractor's hydraulics.

NOTICE: *Normally, it's not admitted to mix oils different to the ones used in the hydraulic system (or hydraulic and transmission) of the tractor. Failure to observe this warning may lead to problems not covered by warranty! See recommendations in the tractor's manual that is used in the Seeder.*

To bleed the circuit following a repair

The goal is to eliminate the air from the circuit.

4. Make sure that the oil contained in the machine circuit complies with the oil in the tractor and in good condition (not damaged!).
5. Connect the terminals: pressure and return **(1)** to the tractor's remote control.
6. Lower the row units, laying them on the ground.
7. Remove pin **(9)** from the rod of both cylinders.
8. Operate the remote control in both directions several times, to see that the triggering of the cylinders occurs homogeneously and effectively, without trepidation, until the end of the stroke.
9. Check the oil level in the transmission and hydraulics of the tractor, correcting it if necessary.
10. Reinstall pin **(9)** of the cylinders.



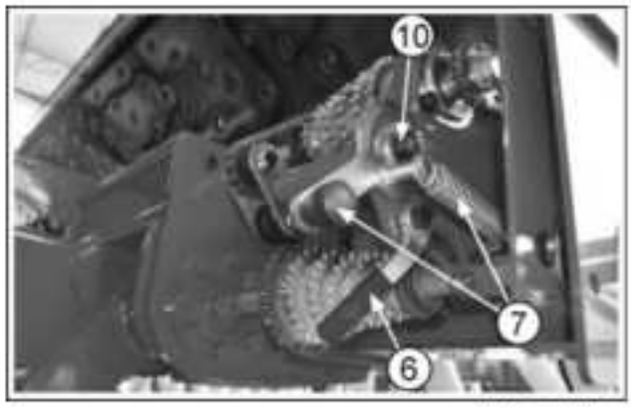
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Gearbox - Disassemble

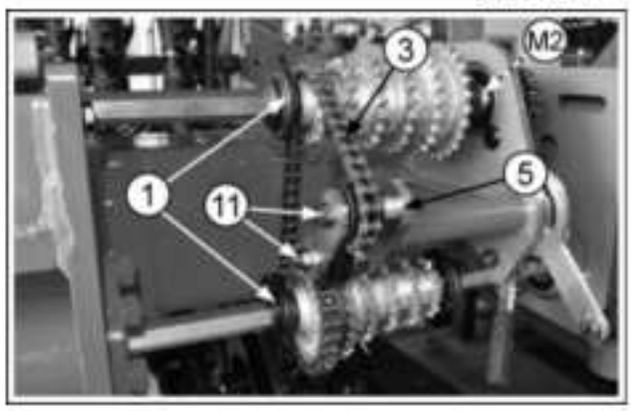
Follow it with the components identification figure.

NOTE: *The sequence of removal and disassembly of the sub-assemblies is indifferent*

1. Furthermore, the sub-assemblies can be removed independently.
2. With the machine on flat, level and firm ground, lower planting rows completely.
3. Lower and lock the support stands.



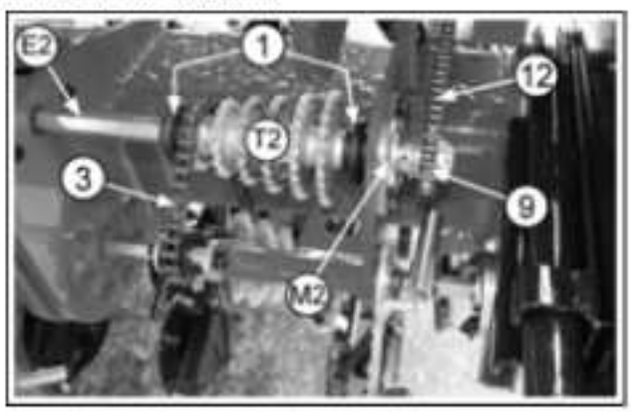
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NOTE: *To remove the shafts, it is not necessary to remove the tensioner mechanism.*

4. Remove the lock **(6)**
5. Remove the clutch spring **(7)** after that, remove the nut **(10)** and the clutch
6. Remove the nuts **(11)** and rollers **(4)** along with the metallic bushings.
   Then, pull the tensioning mechanism **(5)** out.
7. Release the tension and remove the chain **(12)**

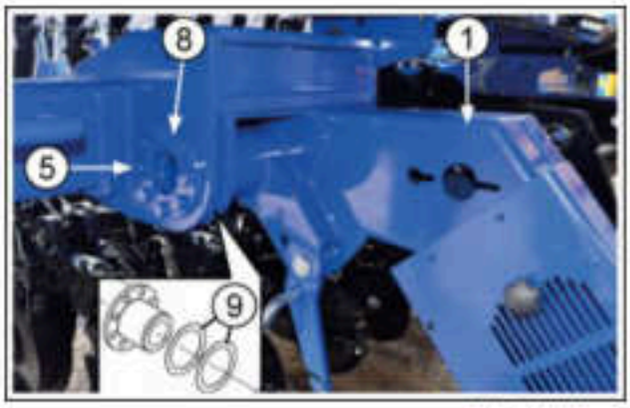


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Carrying and transport wheel supports - Assemble

1. With a suitable device, lift and align the arm assembly **(1/2)** with its respective frame housing.
2. Fit the spacers **(9)** on the sides of the arm **(1/2)** as indicated.



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3. Put the bearings **(8)** fixing the arm **(1/2)** to the frame housing.

NOTE: *Make sure the spacers **(9)** are properly aligned for this assembly.*

4. Install bolts **(5)** and tighten them alternately and in stages.

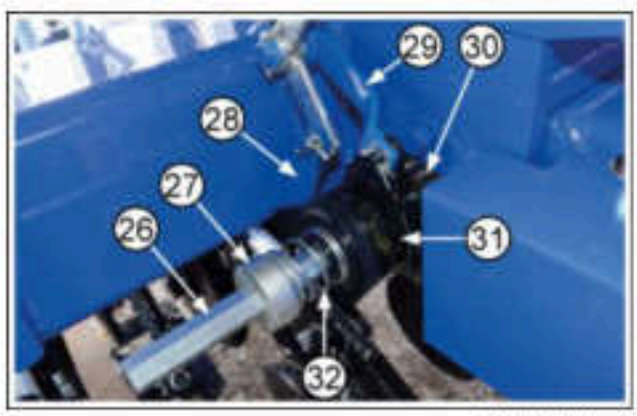


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5. In the case of the right arm **(2)**, install all the removed transmission components, in the reverse order of removal.

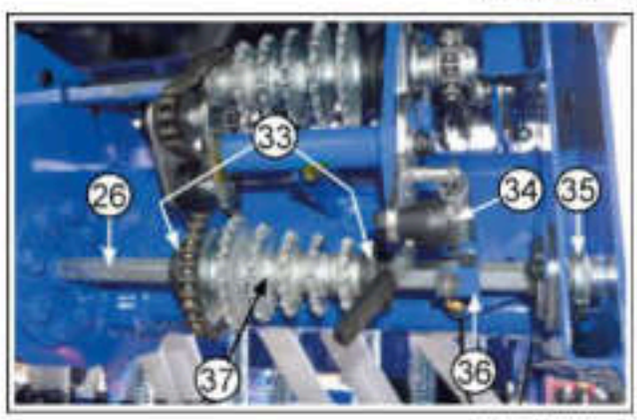
NOTE: *Make sure the components have been installed and fixed in the correct position on the shaft **(26)**, according to the markings made before removal. The stopper **(27)** regulates the compression of the spring **(32)**, which interferes with the functioning of the ratchet **(31)**. See Section 4 for information.*

NOTE: *The lower gear train **(37)** of the gearbox should stay aligned with the top one.*



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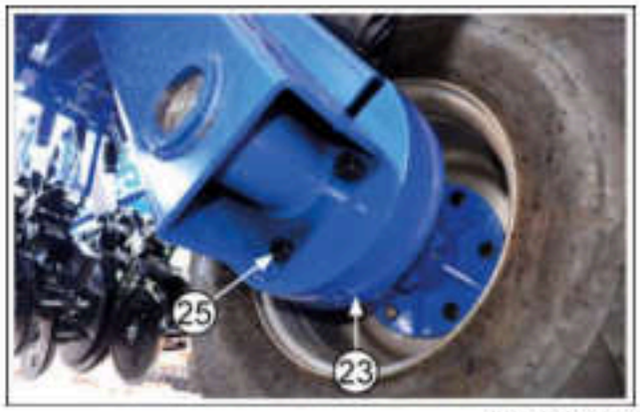
6. Grease the grease fittings of the arms **(1)** and **(2)**, greasing the bearings **(8)**.
7. Remove the supports under the frame and lower the machine.



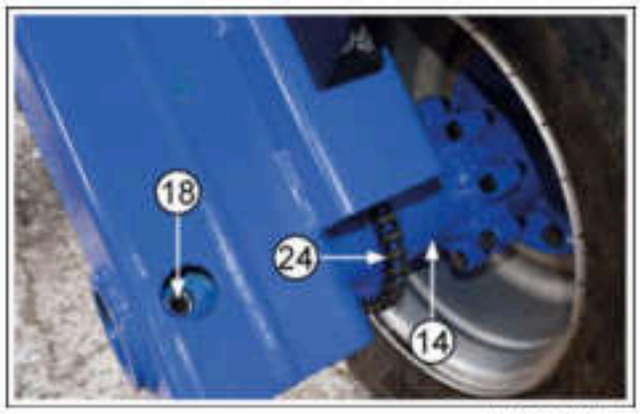
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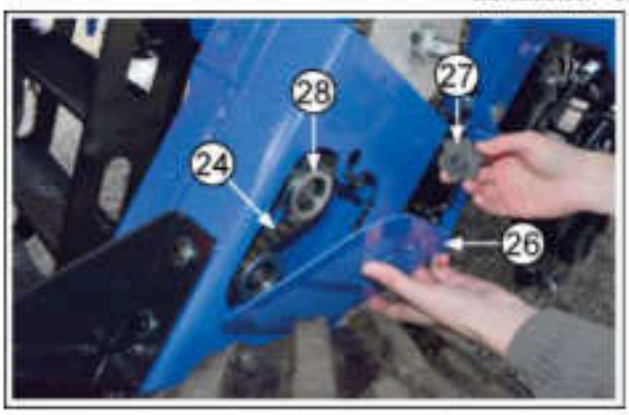
7. Eliminate the chain tension **(24)** by removing the cover **(26)** by releasing the handle **(27)**, and releasing the tensioner roller **(28)**.
8. With a suitable lifting device, keep the weight of the hub and axle assembly suspended.
9. Remove the nut, the lock washer and bolt **(18)** that locks axle **(16)**
10. Release the hub extension **(14)**gear chain **(24)** of the gear and then pull the axle assembly **(16)**) and hub **(11)** out of the arm **(20)** .If necessary, use a hammer.
11. Clean the axle assembly and hub and place it on the bench.
12. Remove the cap **(3)** from the hub and discard the gasket **(8)** .
13. Remove the cotter **(5)**, the castle nut **(6)** and washer **(7)**.
14. Remove the nuts **(9)** and bolts **(17)** that join the hub **(11)** with the extension **(14)**.
15. Remove the hub **(11)**. If necessary, use a hammer.
16. Remove the remaining components of the hub as needed.



4



5



6

17. Clean the housing of the bearing components.
18. Check the condition of the bearings (**(10)** and **(13)**): signs of overheating, scratches, wear, damage in the cage and others determine the replacement.

NOTE: *Remove the bearing cups from the inside of the hub* ***(11)*** *only in case of replacing the bearings.*

19. Felt protector **(15)** replace it.



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