SERVICE MANUAL

PS2045

Pneumatic-Seeder

Part number 47918068

English

January 2015

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General specification

Specification / Model	TDNG 450 AS
Number of rows x spacings	26 X 173 mm
Working width / (Planting)	4.5 m (14.76 ft)
Transportation Width	3.0 m (9.8 ft)
Approximate requirement output	130 hp (100 kW)
Seed box capacity	1,600 liters
Fertilizer box Capacity	1,600 liters
Metering System (Fertilizer and Seed)	Pneumatic - Air System
Transmission	Electrical motors
Tires - for operation	16.9-28 TM 95 (8 ply)
Tires - for transport	275/80 R 22.5
Standard weight (approximately)	7,430 kg (13,558 lb)
Loaded weight (approximately)	10,626 kg (13,558 lb)
Recommended operating speed	2.5 to 5.0 mph (4 to 8 km/h)
Transport brakes	Hydraulic or Pneumatic

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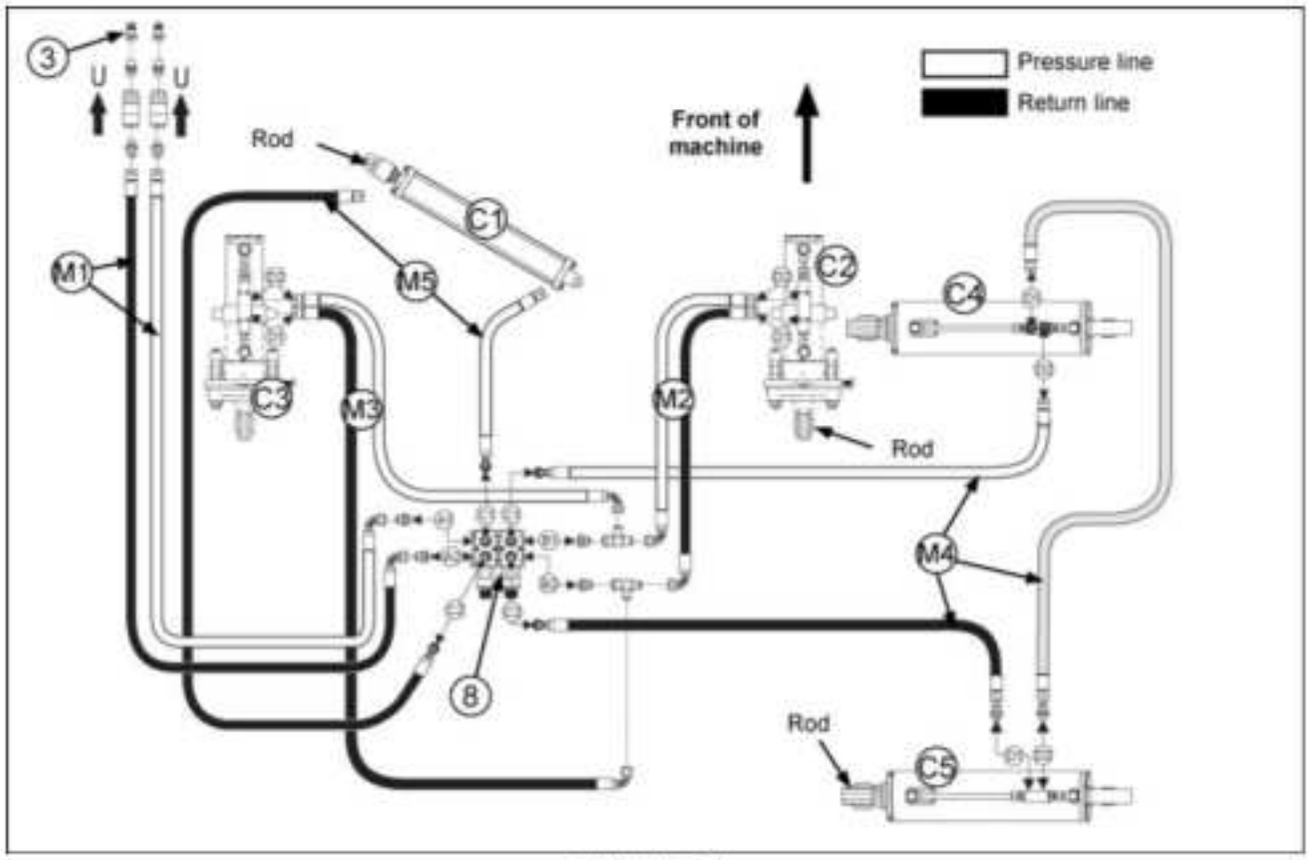
Seeding and planting hydraulic circuits - Bleed

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

- After making repairs on the hydraulic system.
- After changing the circuit oil.

On machines equipped with transport drive wheel system, we have three different circuits:

- Moving the drawbar: cylinder **(C1)**.
- Lift and lowering of the row units: cylinders **(C2)** and **(C3)**.
- Lift and lowering of the transport drive wheels: cylinders **(C4)** and **(C5)**(C4 and C5).



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To perform the bleeding

1. Make sure that the oil contained in the machine circuit complies with the oil in the tractor and in good condition (not damaged!).
2. Connect the terminals: pressure and return **(3)** of hoses **(M1)** to the tractor's remote control.
3. Disconnect the cylinder **(C1)** rod from drawbar by removing the pin **(7)**.
4. Direct the cylinder so that the rod does not interfere with the machine.



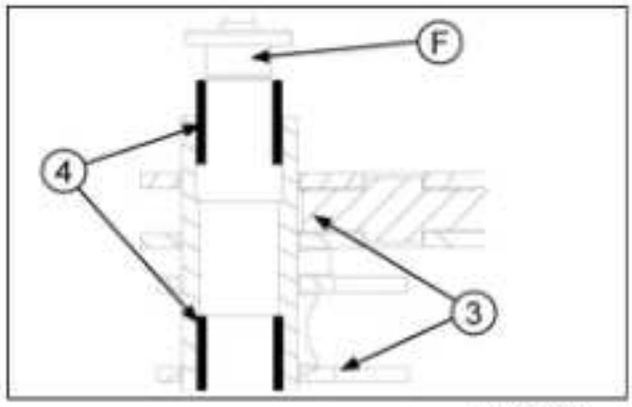
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Carrying and transport wheel supports - Install

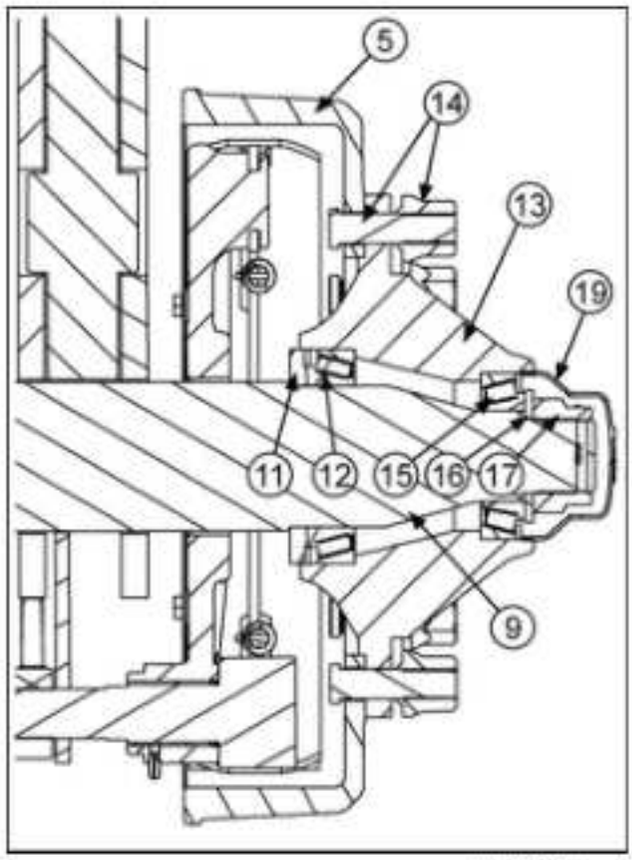
C) ASSEMBLY AND RE- INSTALLATION

1. Proceed in reverse order to removal and disassembly, noting:
2. The mounting position of the parts as shown in the illustrations.
3. Assemble and adjust the bearings in the hubs as follows:
4. Install bearing cups **(12)** and **(15)** inside the hub **(13)** .
5. Mount the ring **(11)** onto the shaft **(9)** , with the boss facing out (to meet the bearing inner race **(12)**) .
6. Insert the hub **(13)** in the shaft **(9)** .



1

7. Then assemble the smaller bearing cone **(15)** , washer **(16)** and nut **(17)** .
8. Tighten the nut **(17)** until fully seating the bearings and cups.
9. Return the nut **(17)** until allowing the hub **(13)** to rotate manually.
10. Rotate hub several turns and simultaneously, turn nut **(17)** as needed, until get a proper pre-load on the hub turn in relation to the shaft.
11. Having the right pre-load been obtained, lock nut **(17)** with the cotter pin. To align the cotter pin passages (if necessary), turn the nut counterclockwise.
12. Re-install the screwed cup **(19)** in the hub and grease the assembly.

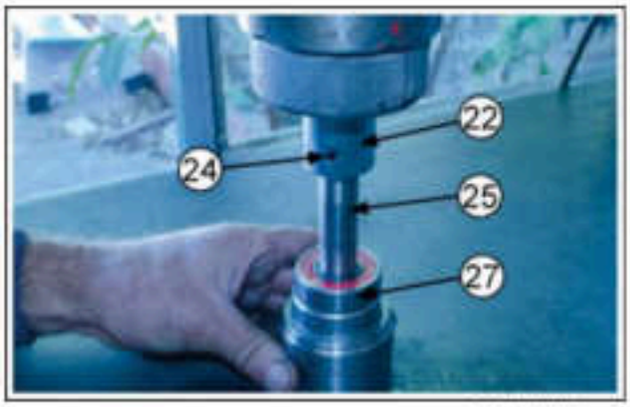


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Air distribution system - Assemble Turbine

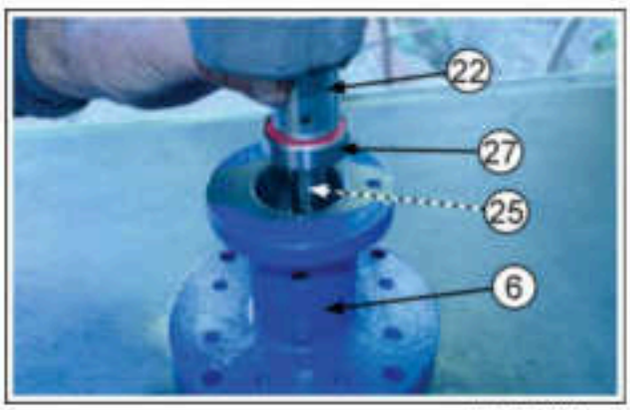
1. With the shaft **(25)** assembled on the sleeve **(22)** with the spring pin **(24)**, install a bearing **(27)** on the shaft.



1

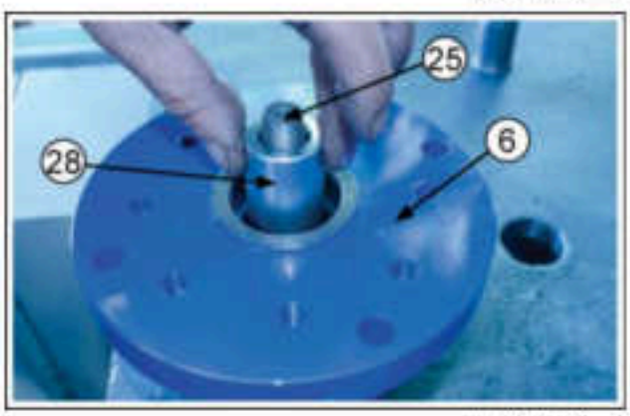
2. Assemble the shaft **(25)** with a bearing **(27)** in the bearing **(6)**.

NOTE: *Make all assemblies using a press and support the parts on an appropriate support*



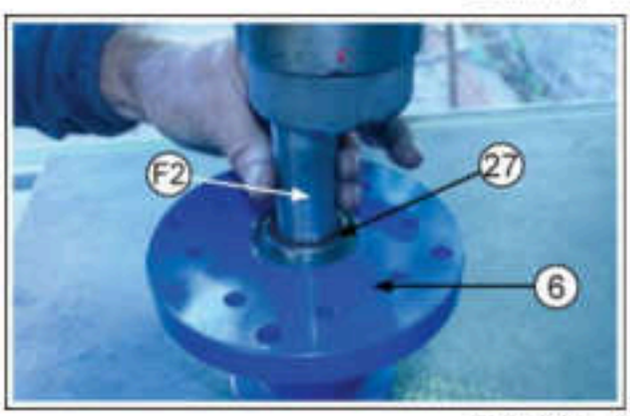
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3. Turn the bearing **(6)** and insert the spacer sleeve **(28)** onto the shaft **(25)**.



3

4. Assemble other bearing **(27)** onto the shaft **(17)** Use a tool **(F2)** which supports the bearing internal race, where the largest assembly interference occurs.
5. Secure the bearing assembly **(6)** in the turbine housing **(3)**. See previous images.
6. Make sure the smallest key **(21)** is properly seated on the shaft of the hydraulic motor **(8)**.
7. Attach the hydraulic motor in the bearing **(6)** and shaft **(25)**, with the lowest key **(21)** and assemble the 2 bolts **(20)**.



4

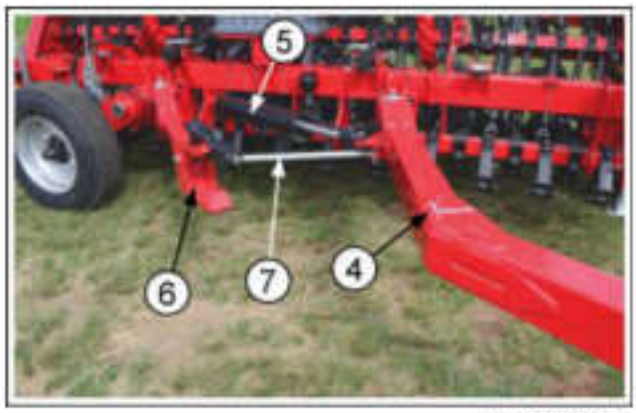
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7. Lift the lock **(3)** , turning it completely backwards: see the direction indicated by the arrow.
8. In Transport mode, this lock retains the drawbar **(4)** against the frame of the machine, on the front left corner.
9. Make sure there are no people, animals or obstacles near the turning radius of the machine.



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10. With the tractor's transmission in neutral and the brakes free, actuate the hydraulic cylinder **(5)** to retract the rod: the machine will start turning to working position.
11. For this movement of the machine, it is necessary that the drive wheels are on the ground, however, without finding obstacles for the movement.
12. Operate the remote control carefully until the drawbar beam **(4)** fits on the end fork of the articulated auxiliary arm **(6)** .



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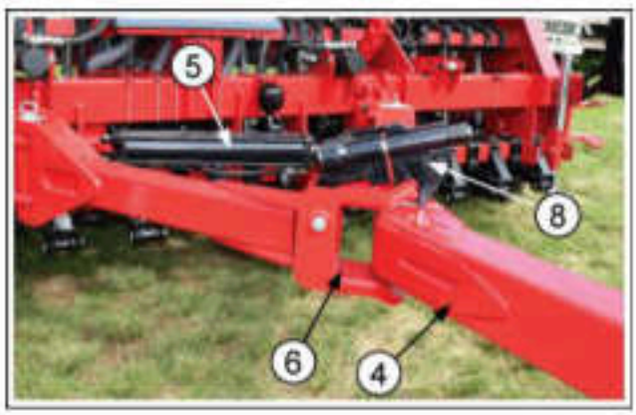
NOTE: *During the turning of the machine, the arm* ***(6)*** *is positioned for engagement by the rod* ***(7)*** *.*

13. During machine movement the locking hook **(8)** must remain in the position shown.



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14. After full seating of the beam **(4)** in the fork **(6)** of the auxiliary arm, by the action of the hydraulic cylinder **(5)** , the locking hook **(8)** descends by gravity, making the retention of the beam **(4)** .



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