Workshop Service Manual

RoGator 600C

RG635C
AGCC0635.FW001001-

RG645C
AGCC0645.FW001001-

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July 2015
644410-1
EAME
English

RoGator 600C

1. General

1.1 Foreword

1.1.1 Service manual

This service manual has been prepared with the latest service information available at publication time. Read this service manual carefully before performing any service on the machine.

Right-hand and left-hand, as used in manual, are determined by facing the direction machine travels when in use.

Photos, illustrations and data used in manual were current at time of printing, but due to possible engineering and/or production changes, each machine can vary. Manufacturer reserves the right to redesign and change machine as necessary without notification.

WARNING:
Some photographs in the manual show machine with shields removed for a better view of subject matter. Never operate the machine with any shields removed.

1.1.2 Division and page numbers

Service manual is separated into divisions. Refer to master table of contents.

Each division has an identifying part number with an revision level indicator. Each division has a table of contents and an index.

Each page is identified with division part number and revision level. Pages are in simple numeric order within each division.

1.1.3 Unit of measurement

Measurements are given in metric units followed by U.S. equivalent. Hardware sizes are given in millimetres for metric and inches for U.S. hardware.

1.1.4 Replacement parts

To receive prompt efficient service, always remember to have:

- Correct part description and part number.
- Model and serial number of machine.

1.1.5 Serial number identification plates

Write the Serial Numbers in the spaces below. Use these numbers when referring to the machine. The serial number identification plate is located on the left front side of the chassis.

Use these numbers when referring to the machine.

1.1.6 Serial number identification plates

Write serial numbers in spaces below. Use these numbers when referring to machine. AGCO Serial Number Identification Plate (1) is located on the right side of the chassis near the fuel tank.

Use these numbers when referring to machine:

Serial number _____

Product _____

Model number _____

Year of construction _____

Nominal power _____

Mass (standard) _____

Pressure spraying system _____

Max. draw bar pull _____

Max. vertical draw bar load _____

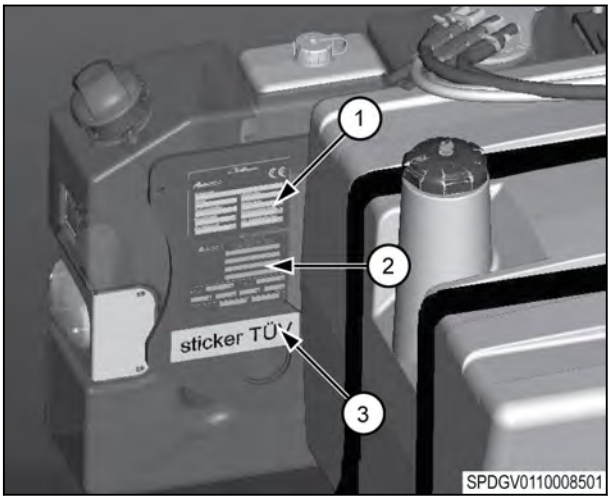

Fig. 1

1.1.7 Serial number engine

The engine serial number plate is located on the front side of the engine carter (1).

Engine serial number: _____

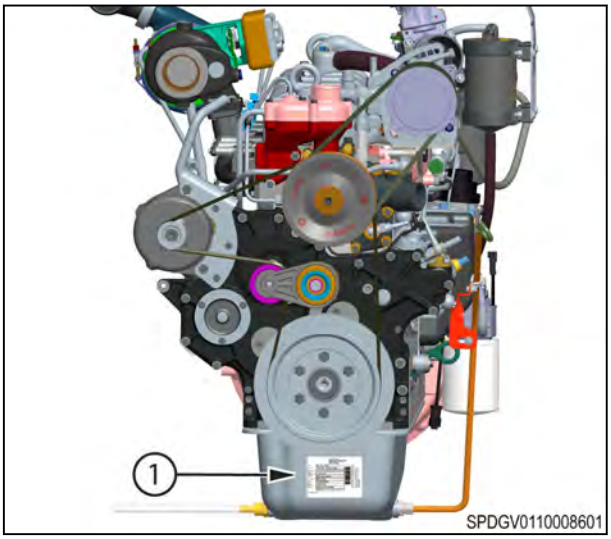

Fig. 2

1.1.8 Serial number operator seat

The serial number operator seat (1) is located at the rear of the operator's seat:

Seat serial number : _____

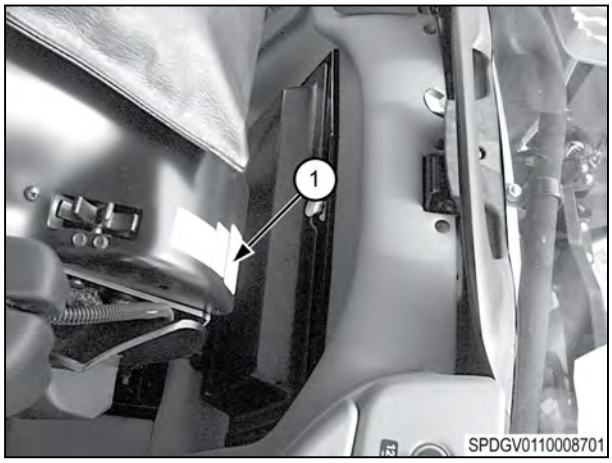

Fig. 3

1.1.9 Serial number cab

The cab serial number is located under the steering column. Under the floor carpet.

Cab serial number : _____

Fig. 4

1.1.10 Follow safety instructions

Carefully read, learn and understand all safety messages and information in this manual and on machine's safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Make sure new equipment components and repair parts include current safety signs. See your local dealer for replacement safety signs.

Never operate machine and/or equipment without correct instruction and a complete understanding of control operation.

Fig. 5

Learn to operate machine and how to use all controls correctly before operation. Do not let anyone operate machine, systems or perform service and maintenance procedures without correct instruction.

Keep machine, all components and systems in correct working condition. Modifications unauthorized by AGCO may impair function, affect machine life and void machine warranty.

IMPORTANT: *Any modifications to machine or systems not authorized by AGCO void the AGCO warranty.*

1.1.11 Safety alert symbol

The safety alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Look for safety alert symbols both in this manual and on safety signs on this machine. The safety alert symbol will direct your attention to information that involves your safety and the safety of others.

Fig. 6

Safety messages

The words DANGER, WARNING or CAUTION are used with the safety alert symbol. Learn to recognize these safety alerts and follow the recommended precautions and safety practices.

DANGER:
Indicates an imminently hazardous situation that, if not avoided, will result in DEATH OR VERY SERIOUS INJURY.

WARNING:
Indicates a potentially hazardous situation that, if not avoided, could result in DEATH OR SERIOUS INJURY.

CAUTION:
Indicates a potentially hazardous situation that, if not avoided, may result in MINOR INJURY.

Informational messages

The words IMPORTANT and NOTE are not related to personal safety, but are used to give additional information and tips for operating or servicing this equipment.

IMPORTANT: *Identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of the machine, process or its surroundings.*

NOTE: *Identifies points of particular interest for more efficient and convenient repair or operation.*

1.1.12 Protective equipment

Always wear approved protective equipment and clothing.

1. Goggles
2. Gloves
3. Safety boots
4. Clothing
5. Breathing protection
6. Hearing protection

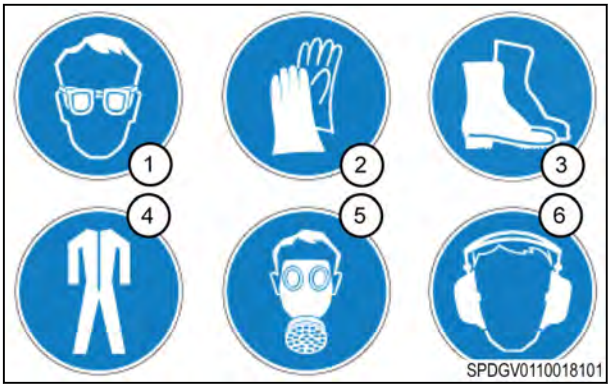

Fig. 7

WARNING:
Before leaving cab, wear personal protective equipment as required by pesticide use instructions and chemical manufacturer recommendations. Before re-entering cab, remove protective equipment and store; in the storage compartments for contaminant clothing outside the cab or another type of sealable container. Clean shoes or boots to remove soil or other contaminants prior to entering cab.

WARNING:
Wear suitable hearing protection such as earmuffs or earplugs to protect against loud noises. Prolonged exposure to high noise levels can cause hearing impairment. Never wear headphones while operating machine.

1.1.13 Prepare for emergencies

Keep a first aid kit and fire extinguisher at hand.

Dial 112 or your national emergency number in cases of emergency.

Keep emergency numbers for doctors, ambulance service, hospital and fire department readily available at all times.

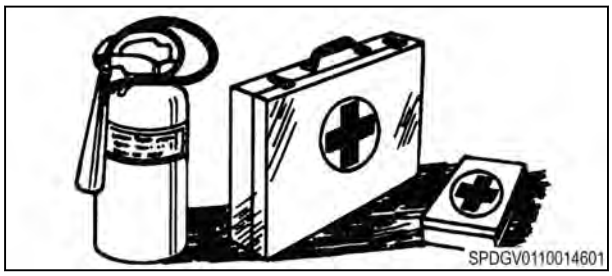

Fig. 8

1.1.14 Emergency exit from cab

Understand procedure to use emergency exit from right hand side of cab before operation. An emergency exit decal (1) is placed on the right rear cab post.

1. Remove the three pins (2) located two at the front post and one at the rear post of the right hand cab window;
2. Lift up and remove the window;
3. Exit cab.

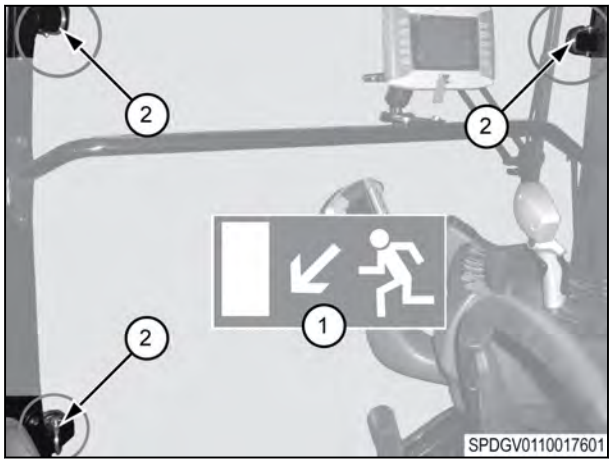

Fig. 9

1.1.15 Waste disposal

Incorrect disposal of potentially harmful waste can threaten environment and ecology. Potentially harmful waste used with AGCO machines include items as oil, fuel, fluids and batteries.

- Use leak-proof containers when draining fluids;
- Never use food or beverage containers that may mislead someone to drink from them;
- Never pour harmful waste on ground, down a drain or into any water source;

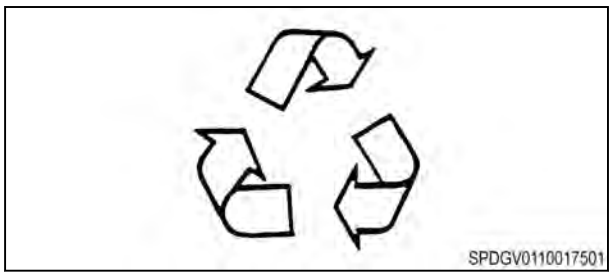

Fig. 10

- Escaping air conditioning refrigerants damage the atmosphere. Government regulations require a certified air conditioning service center to recover and recycle used air conditioning refrigerants

Also refer to the Dismantling section.

1.2 Operating machine

Wear the seat belt at all times.

Fig. 11

- Make sure that the operator- and ladder areas are clean and dry to prevent personal injuries.
- Make sure that all wheel bolts are tightened to correct specifications before operation.
- Never permit any people on or in machine when in operation.
- Stop the machine, turn off the engine, set the parking brake, remove the key and take it with you before inspecting any damage if an accident occurs.
- Stop the machine immediately in a practical way if there is any failure. Do not turn off the key until the machine is stopped and shutdown correctly.
- The operator must not exceed speeds, loads or tire inflation listed on tire chart located on tires.
- Never jump off a moving machine.

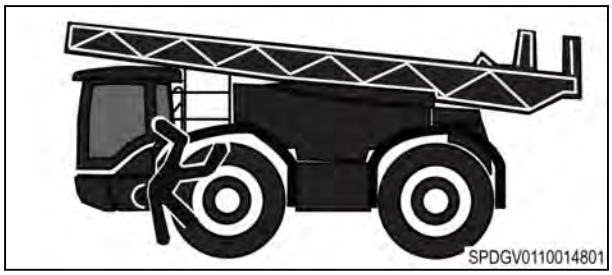

Fig. 12

When leaving the machine unattended, set the parking brake, turn off the engine, remove the key and take it with you.

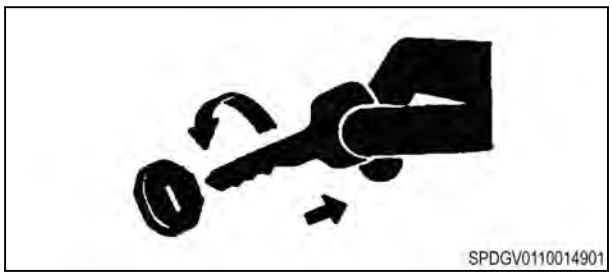

Fig. 13

1.2.1 Operating on slopes

Reduce vehicle speed when going down slopes. Avoid holes, ditches and obstructions, causing roll-over, especially on hillsides. Avoid sharp turns on hills.

Never drive near edge of a gully or steep embankment.

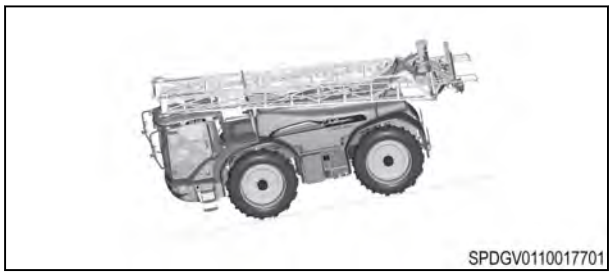

Fig. 14

1.2.2 Travelling on public roads

IMPORTANT: *Always walk around and visually inspect entire machine. Check for damage and failure to anything that may create a hazard or be unsafe and repair or replace it. Make sure all machine systems operate, including but not limited to: front road lights, rear tail and brake lights, hazard warning lights , safety lights, parking brake, horn, windshield wiper and washer, and rear view mirrors. Follow all traffic rules. Have hazard warning lights and / or rotating beacons on unless prohibited. It is operator's responsibility to determine of field lights are needed on public roads.*

WARNING:
Do not exceed tire speed rating. Do not use over public roads for transporting material. Tires may overheat and fail causing injury or death.

IMPORTANT: *See the chassis maintenance chapter for the tire load and tire inflation table.*

IMPORTANT: *Some chemicals can damage rubber. Wash the tires every day after the application of chemicals.*

WARNING:
Wear eye protection and stand away from the tire while adding air to prevent possible personal injury from blow-outs, etc.

IMPORTANT: *Air temperature can have a large effect on tire pressure.*

1.2.3 Prevent machine runaway

Never by-pass start the engine by making a connection across starter terminals. Engine will start and machine will move if normal circuitry is bypassed.

WARNING:
Possible injury or death can result from machine runaway. Never start engine while standing on ground. Start engine only from operator's seat with seat belt on, drive lever in neutral and parking brake engaged.

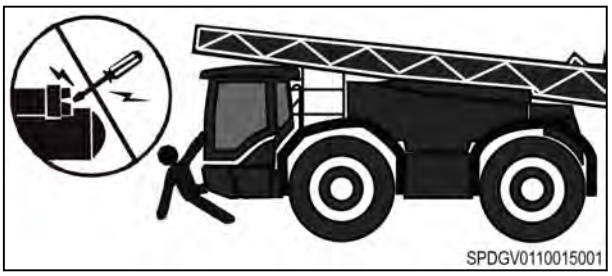

Fig. 15

1.2.4 Stopping and parking

Machine overturns, collisions, runaways and crushing accidents can occur when an operator ignores safety procedures.

Signal before stopping, turning or slowing down on public roads, or anywhere it will cause a potential hazard.

Pull over to side of road before stopping.

Be extremely careful when stopping on slippery surfaces and with heavy loads.

Always engage parking brake when machine is stopped. Parking brake is automatically applied after 5 seconds when the machine has stopped.

Remove key to prevent any unauthorized personnel from operating machine.

1.2.5 System boom operation

Make sure no personnel or objects are in path of booms before retracting or extending.

Be aware of boom location at all times.

Retract and lock booms before driving on public roads.

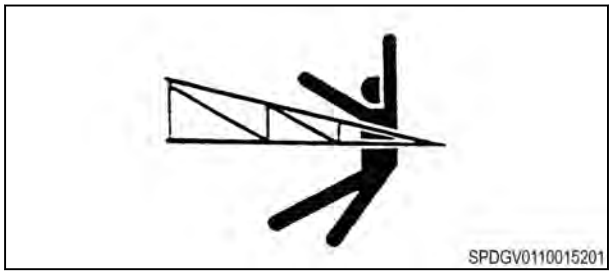

Fig. 16

1.2.6 Overhead Electrical Power Lines

Never let the machine come into contact with overhead power lines. The radio antenna must be bent over and secured in place any time overhead electrical power lines are near the machine. This can decrease the possibility that the machine may come into contact with an overhead power line when in operation or when the machine is transported.

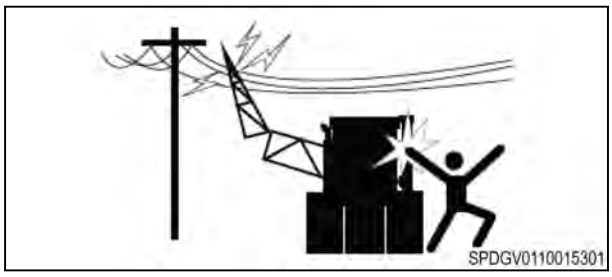

Fig. 17

1.2.7 Noise

Wear appropriate hearing protective devices such as earmuffs or earplugs to prevent loss of hearing due to high noise levels.

The noise level in the cab and seated on the operator's seat of this machine is lower than 70 dB(A).

Fig. 18

1.2.8 Vibrations

The typical hand-arm vibrations exposure is 0,6 m/s^2 (so does not exceed 2,5 m/s^2) - Measuring method following NF EN ISO 5349-1 (2002)

The typical whole body vibration exposure is 0,26 m/s^2 (so does not exceed 0,5m/s^2) - Measuring method following ISO 2631-1 (1997).

These values are established on the basis of measurements taken for technically comparable machinery and are considering as the minimum values transmitted by the machinery. Three main factors will increase them:

- Quality of the working/travelling ground surface;
- Working/travelling speed;
- Weights and balance of weights.

Hand-Arm Vibration (HAV) & Whole Body Vibration (WBV) are caused by machinery vibration passing through the buttocks of seated people or the feet standing people. HAV and WBV are considered to be a key factor in the occurrence of back pain. However it is not that simple as there are many factors that can influence short term or long term problems at the back and often a combination of factors can even more detrimental.

Some of these factors are:

- Awkward positions;
- Handling of heavy goods;
- Life style as overweight or smoking;
- Vibrations;
- Shocks from jumping, hitting obstacles.

Therefore not only the machine but also the driving behaviour / handling / other tasks, prehistory of the operator and the environment will play a role. In order to evaluate real exposure to vibrations, we recommend that you perform vibrations measurements in your working conditions.

For more information and possible actions to reduce HAV and WBV, we recommend that you refer to CEMA - **Whole body vibrations in agriculture** - Practical User's guide.

1.2.9 Handle fuel correctly - Avoid fire

- Fuel is highly flammable: Handle with care;
- Always stop engine before refuelling;
- Never refuel while smoking;
- Add fuel in a safe place, away from open flame or sparks;
- Fill fuel tank outdoors;
- Never completely fill fuel tank;
- Clean up any spilled fuel immediately;
- Never use diesel fuel, kerosene, gasoline or any flammable solvents for cleaning;
- Prevent fire hazards by keeping machine free of any accumulated trash, grease and debris;
- Always have, and be prepared to use, a multipurpose dry chemical fire extinguisher during operation and while refuelling;

Fig. 19

1.2.10 Rotating and moving parts

Entanglement in rotating drive lines or moving components cause serious injury or death.

Fig. 20

Keep all guards and shields in place at all times during operation.

Turn key off. Remove key from switch to prevent unauthorized operation before removing any guards or shields.

Wear close fitting clothing. Stop engine and make sure drive lines are stopped before making any adjustments or performing any type of service on engine or machine.

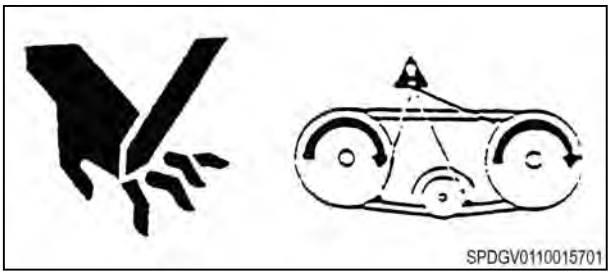

Fig. 21

1.2.11 Towing

Towing a trailer under the following circumstances is approved by AGCO.

- The tow hook and trailer brake installation on the machine must have a homologation for your country;
- The tow hook and trailer brake installation on the machine must be approved by AGCO.

CAUTION:
Using machine for towing creates a hazard and can void machine or system warranty.

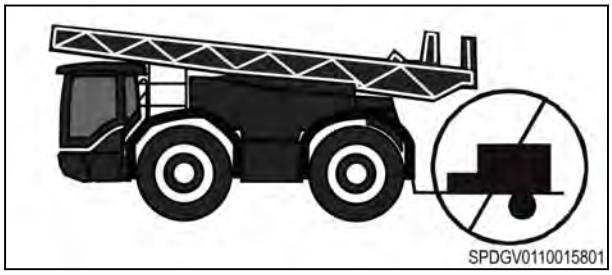

Fig. 22

1.2.12 Exhaust fumes

Always work in a well ventilated area.

Engine exhaust fumes can cause sickness or death. If it is necessary to run engine in an enclosed area, use correct equipment to safely remove exhaust fumes from area.

Always open doors and get outside air into area.

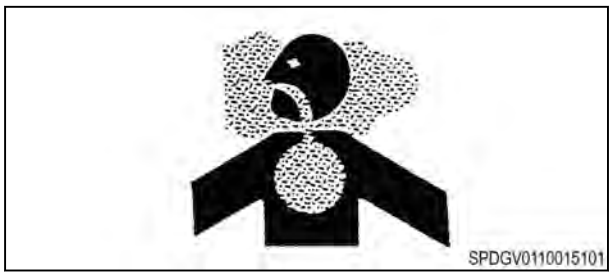

Fig. 23

1.3 Maintenance and service

Read and understand maintenance and safety instructions before performing any maintenance procedures.

Only trained and qualified personnel should perform any maintenance procedures or repairs.

Never modify any equipment or add attachments not approved by AGCO.

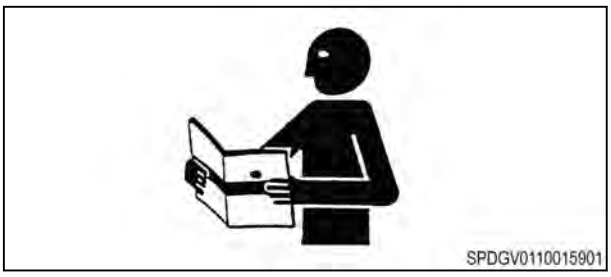

Fig. 24

1.3.1 Automatic ground switch

Turning off the ignition key activates the automatic ground switch. After 3 hours the automatic ground switch will be deactivated.

NOTE: *Always deactivate the ground switch during servicing: Refer to Operations chassis: Miscellaneous screen.*

1.3.2 Modifications

Welding or altering chassis in any way (such as adding implement towing hitches) can cause damage or failure of components. Modifications not approved by AGCO void machine or system warranty.

CAUTION:
Before any modification are being done on the machine always clean the machine from any sprayer liquid, spilled or dropped on the machine. To avoid potentially toxic fumes.

CAUTION:
To prevent damage to the wiring and hoses, never drill into the cab - especially any vertical tube.

NOTE: *Do not tamper with or modify the engine in any way. This practice is against the law and can result in severe fines and void warranty.*

NOTE: *Avoid possible interference of the electronics by keeping the antenna cables close to the cab roof. The antenna base should be grounded.*

1.3.3 Practice correct maintenance

- Never lubricate, service or adjust any systems or components while machine is moving;
- Never wear a necktie, necklace, scarf or loose clothing when working near machine tools or moving parts;
- Tie long hair behind head and wear a hair net;
- Remove all jewellery to prevent electrical shorts or other personal injury when working with machine tools or moving parts.
- Stop engine and remove key;
- Allow machine to cool;
- Keep all parts in good condition and correctly installed;
- Fix any damaged machine systems or components immediately;
- Replace worn, damaged or broken parts immediately;
- Remove any build-up of grease, oil or debris;

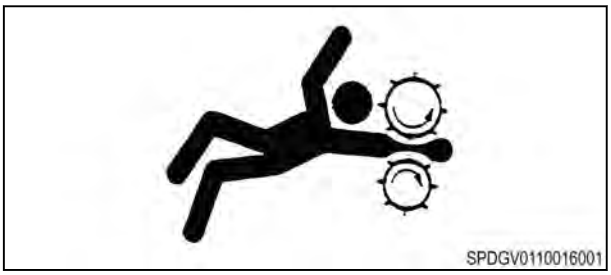

Fig. 25

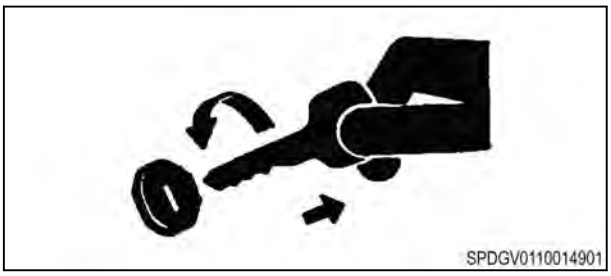

Fig. 26

- Disconnect electrical system before making adjustments or welding on machine.

1.3.4 Chemical safety

This cab complies the EN 15695-1: 2009 Cat 4 with a filter element complying to EN 15695-2: 2009 Cat 4 which provides protection against dust, aerosols and vapour. Follow chemical manufacturer's instructions.

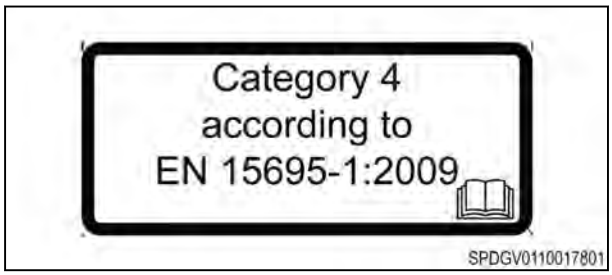

Fig. 27

Protection against hazardous substances (agricultural chemicals, etc.) is not provided. Personal protective equipment must be used according to the chemical manufacturer's recommendations. A protection against dust, aerosols and vapour (EN 15695-1: 2009 Cat 4) is provided under the following conditions:

- The cab door is closed;
- Cab ventilation is running on maximum;
- Air filter is clean and is serviced under maintenance interval (See Lubrication & Maintenance Section of this manual);
- Check the Cab pressure indicator.

Operators must also avoid entering or exiting cab in treated areas.

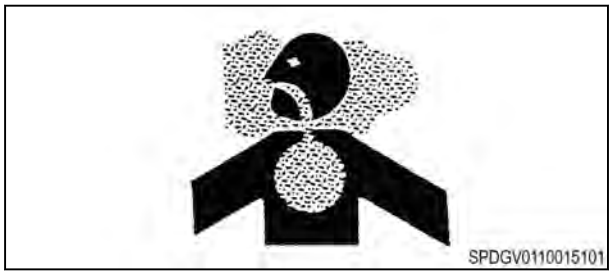

Fig. 28

Never spray hazardous chemicals when wind is in excess of chemical manufacturer's recommendation. Never allow chemicals to contact skin or eyes.

Fig. 29

WARNING:
Never put used or contaminated personal protective equipment with new or clean personal protective equipment in one storage compartment.

Fig. 30

If hazardous chemicals come in contact with body, wash immediately according to chemical manufacturer's recommendations.

Select a appropriate area to fill, flush, calibrate and decontaminate machine. Select an area where

hazardous chemicals will not drift or run off to contaminate people, animals, vegetation, water supply etc.

Never place nozzles, tips or other parts to lips to blow out trash or debris. Have spare tips available for replacement.

Clean machine of hazardous chemicals after use. Hazardous chemical residue can build up on inside and outside of machine.

WARNING:
Direct exposure to hazardous chemicals can cause serious injury or death. Potentially hazardous chemicals used with AGCO equipment include such items as fuel, lubricants, coolants, hydraulic fluid, paints and adhesives.

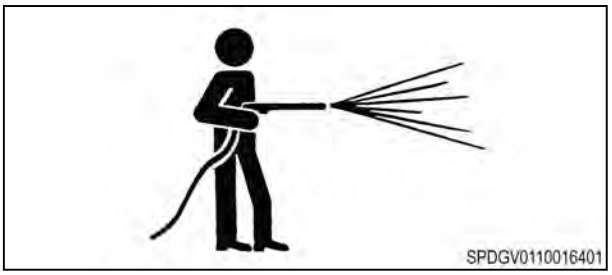

Fig. 31

The Safety Data Sheet (SDS) provides specific details on hazardous chemical products, physical and health hazards, safety procedures and emergency response techniques.

Check MSDS before using any hazardous chemical. Know risks and how to perform project safely. Follow procedures and equipment recommendations.

(See chemical manufacturer for SDS's on chemical products used with your AGCO equipment).

Fig. 32

1.3.5 Activated carbon filter information

WARNING:
When the door is open to enter or exit the cab, there is a risk of contaminants entering the cab. Therefore the use of a carbon filter is intended to supplement but not replace the use of personal protective equipment when operating in an environment containing aerosols and/or vapours, such as pesticides. The specific chemical manufacturer's instructions regarding personal protective equipment (PPE) must be followed. If the cab being fitted with this filter does not already have a safety sign like the one included with this filter, install the safety sign in a prominent place inside the cab in view of the operator.

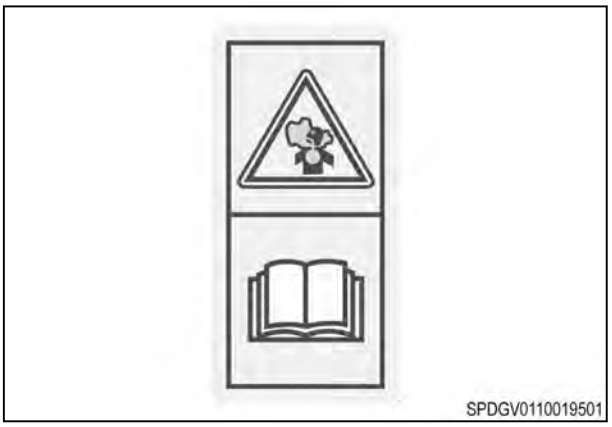

Fig. 33

1.3.6 Clean area

Thoroughly clean work area, machine, systems and components before starting work. Dirty and greasy areas can create work hazards.

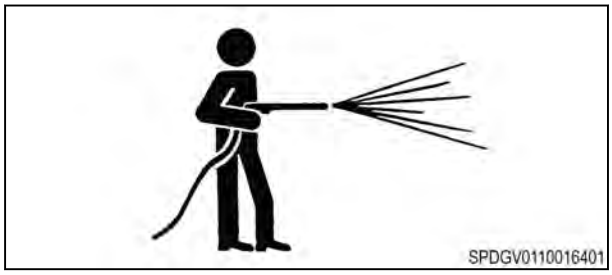

Fig. 34

1.3.7 Understanding correct service

- Light working area correctly and adequately;
- Use correct safety lights with wire safety cages;
- Exposed bulbs can ignite fluids;
- Catch draining fluids in appropriate containers;
- Never use beverage containers to store chemicals that could mislead personnel to drink from them.

Fig. 35

1.3.8 Use correct tools

- Use the correct equipment and procedures;
- Make-shift tools and procedures create safety hazards;
- Use power tools only to loosen threaded parts and fasteners;
- Use only SAE tools with SAE fasteners and metric tools with metric fasteners.

Fig. 36

1.3.9 Support machine correctly

- Never support machine on cylinder blocks, hollow tiles or supports that may crumble;
- Never work under a machine only supported by a jack;
- Use wheel chocks to prevent machine from moving.

Fig. 37

1.3.10 Correct lifting equipment

Follow the recommended procedures in the manual for removal and installation of components or systems.

WARNING:
Lifting incorrectly can cause severe injury or machine damage.

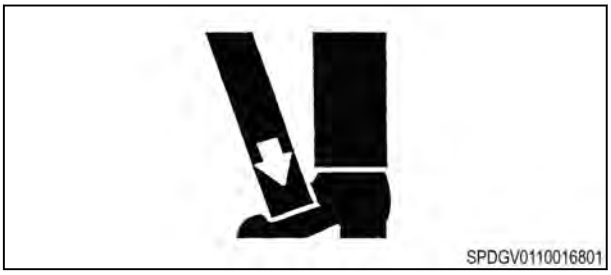

Fig. 38

1.3.11 Service cooling system correctly

Explosive release of fluids from pressurized cooling systems can cause serious burns. Service cooling system as follows:

1. Shut engine off;
2. Let filler cap cool down until it is cool enough to touch with bare hands;
3. Slowly loosen filler cap to first stop to relieve pressure;
4. Remove cap completely.

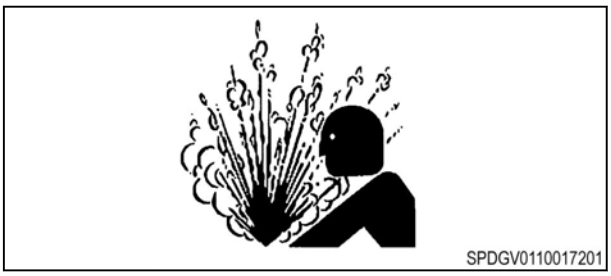

Fig. 39

1.3.12 High pressure fluids

WARNING:
Avoid contact with high-pressure fluids. Escaping fluid under pressure can penetrate skin causing serious injury

WARNING:
Machine must be stopped and cooled before checking fluids. Use caution when removing radiator caps, plugs, grease fittings or pressure taps

WARNING:
Never open pressure lines under pressure. Release all pressure before doing maintenance or repairs on any pressurized system

WARNING:
Tighten all connections before applying pressure.

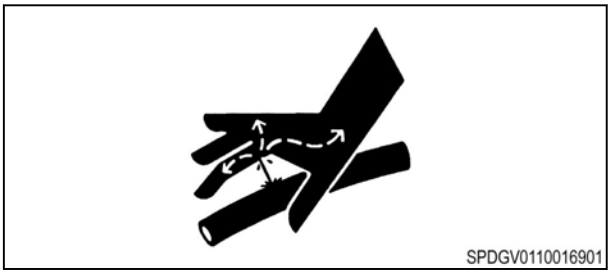

Fig. 40

- Search for leaks with a piece of wood or cardboard. Protect hands and body from high pressure fluids. Do not use hands;
- Never open hydraulic or fuel lines when under pressure. Hydraulic fluid or diesel fuel under pressure can cut skin, cause bad burns, eye injury or skin irritation;
- If an accident does occur, get medical help immediately if any personnel are injured by hydraulic fluid or fuel;

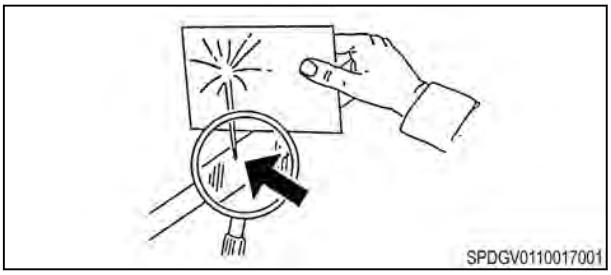

Fig. 41

- Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result;
- Doctors unfamiliar with this type of injury must reference a knowledgeable medical source.

Hydraulic hoses

Check hydraulic hoses regularly. Immediately replace damaged and leaking hydraulic hoses. Normally hydraulic hoses have a long working life. The working life will be reduced by:

- Normal aging;
- Weather influences;
- Use under heavy conditions.

1.3.13 Avoid heating near pressurized fluid lines

- Never heat by welding, soldering or using a torch near pressurized fluid lines or other flammable materials;
- Pressurized lines can be accidentally cut when heat goes beyond immediate flame area;
- Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to personnel and bystanders.

Fig. 42

1.3.14 Welding or heating

Welding and heating can generate potentially hazardous, toxic and/or flammable fumes or dust. Take following precautions before welding or heating:

- Clean booms and spray system;
- Remove paint;
- Wear an approved respirator to sand or grind paint, avoid breathing dust.
- Remove solvent or paint stripper with soap and water;
- Remove solvent or paint stripper containers and other flammable material from area;
- Dispose of paint and solvent correctly;
- Allow fumes to disperse;
- Always work outside or in a well-ventilated area.

NOTE: *Before any modification are being done on the machine always clean the machine from any sprayer liquid, spilled or dropped on the machine. To avoid potentially toxic fumes.*

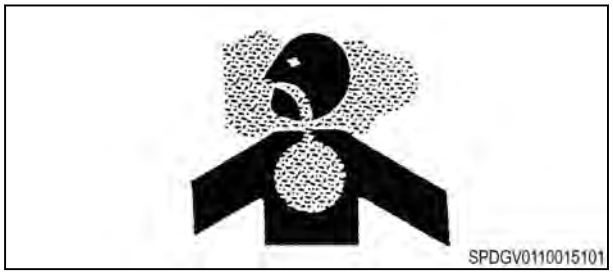

Fig. 43

1.3.15 Batteries

A lead acid battery generates flammable and explosive gases. Keep sparks and flames away from battery.

WARNING:
Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing and cause blindness if splashed into eyes.

If acid contacts eyes, skin or clothing, flush with water immediately. If acid contacts eyes get immediate medical help.

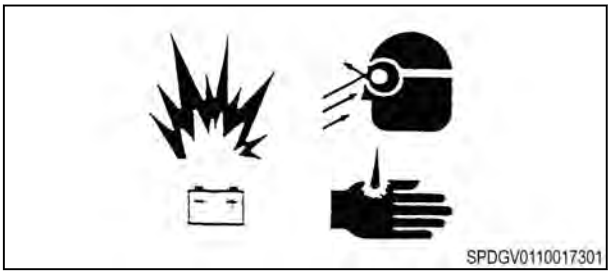

Fig. 44

1.3.16 Tires and wheels

Failure to follow correct procedures when working on a tire, wheel or rim can cause an explosion and serious injury or death;

- Never weld on a wheel or rim with a tire on it;
- Never attempt to mount or remove a tire unless using correct equipment, tire safety cage and instructions;
- Tire repair procedures must be performed by trained and qualified personnel.

Fig. 45

1.3.17 Mobile radio installation

Under no circumstances should a mobile antenna be mounted to the rear of the cab or the antenna cable be routed near the harness or the electrical system controllers or near the operator controls. Failure to follow these precautions could expose the operator to radio frequency energy levels higher than recommended by the EU-Directives and standards and/or could cause undesirable performance of the electrically controlled systems.

1.4 Lubrication and maintenance chassis

1.4.1 Maintenance introduction

IMPORTANT:
Perform Maintenance procedures at regularly scheduled intervals. Failure to perform regularly scheduled maintenance will result in damage to the machine's components or engine. The maintenance schedule is a recommended guide for correct maintenance of the machine.
DO NOT change the schedule unless you increase the frequency of service when operating the machine in very hot, cold, dusty or corrosive conditions.

Decals are located near the eductor and operator control station.

NOTE: *All service items shown in the table below can be done by the operator of the machine. All other service and maintenance should be done by a dealer and/or an AGCO educated mechanic.*
Use the hourmeter as a guide for maintenance intervals.
The maintenance intervals can be shown in both operating hours and time.
Example: 10 Hours or Every Day. Use the interval (operating hours or time) that comes first.

1.4.2 Maintenance schedule

Service Item	Hours					
	Initial 100	Daily	100	250	500	1000/ annual
Daily [1]						
1. Check air pressure-tires		X				
2. Check all decals		X				
3. Remove water from air-reservoirs		X				
4. Check coolant level		X				
5. Check fuel water separator		X				
6. Check engine oil level		X				
7. Check for leakages		X				
8. Clean air filter valve vacuator		X				
9. Check hydraulic oil level		X				
10. Check hand rinse tank		X				
11. Check wheel nuts		X				
12. Clean heat exchanger		X				
13. Check cab pressure indicator		X				
100 Hours [1]						
14. Check cab mounts			X			
15. Check hydraulic hoses and lines			X			
16. Check engine belts and tensioner			X			
17. Check battery fluid and battery cables			X			
18. Clean or replace air cleaner elements			X			
250 Hours [1]						
19. Check oil level gearbox wheel motors				X		

Service Item	Hours					
	Initial 100	Daily	100	250	500	1000/ annual
20. Replace cab air filter (CAT 4)				X		
21. Clean cab air recirculation filter and drain filter box				X		
22. Check service brake system	X			X		
23. Tighten wheel nuts [2]	X			X		
500 Hours [3]						
24. Change engine oil and filters	X				X	
25. Change air dryer filter					X	
26. Grease seat adjusters, armrest mechanism					X	
27. Check wheel gearbox mounting bolts	X				X	
28. Check axle mounting bolts					X	
29. Change gearbox oil wheel motors	X				X	
1000 Hours / Annual [3]						
30. Remove sediment of fuel tank						X
31. Change fuel filters engine (pre + sec)	X					X
32. Change inline fuel filter	X					X
33. Change air cleaner elements						X
34. Change cab air recirculation filter						X
35. Change hydraulic oil and filters	X					X
36. Check hoses and clamps of CAC						X
37. Check ground connections						X
38. Change SCR supply module main filter						X
39. Check engine coolant freeze point						X
45. Check kingpin bolts and bearings						X
2000 Hours / 2 years [3]						
40. Change engine coolant	every 2000 hours or 2 years					
41. Adjust engine valves	see table below					
3000 Hours [3]						
42. Change engine belt(s)	every 3000 hours					
43. Change belt tensioner						
4000 Hours [3]						
44. Inspection turbocharger and intercooler [4]	X	every 4000 hours				

[1] Responsibility of the operator.
[2] Check the wheel bolts every 10 hours for the first 50 hours of operation.
[3] To be done by your dealer.
[4] Only in an authorised workshop.

Valve adjustments intervals

Valve adjustment intervals (hours)				
1st	2nd	3rd	4th	5th
500	2000	4000	6000	8000

Maintenance component overview

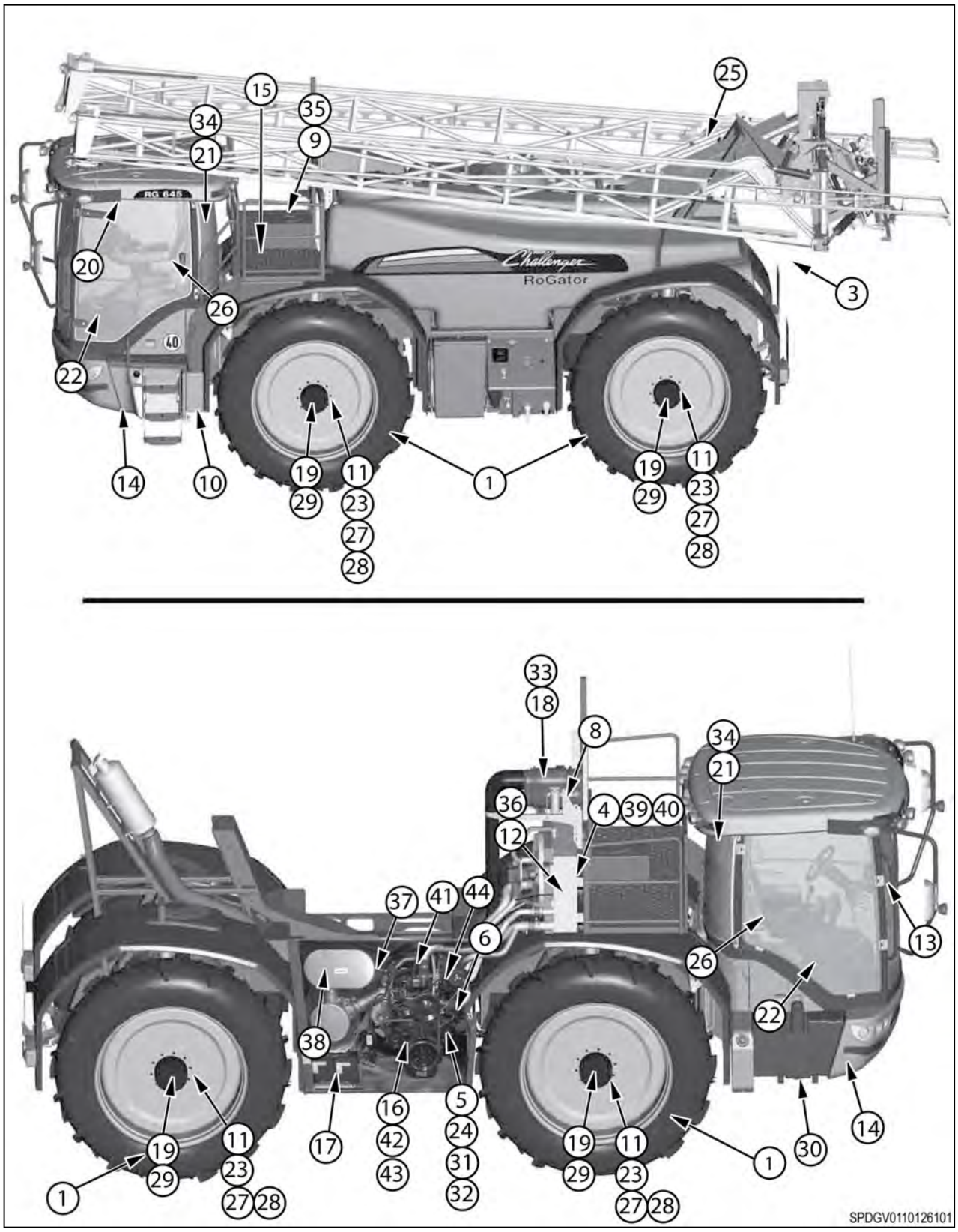

Fig. 46

1.4.3 Lubricants and fluids

IMPORTANT: *Capacities listed are approximate. Check fluid levels after filling.*