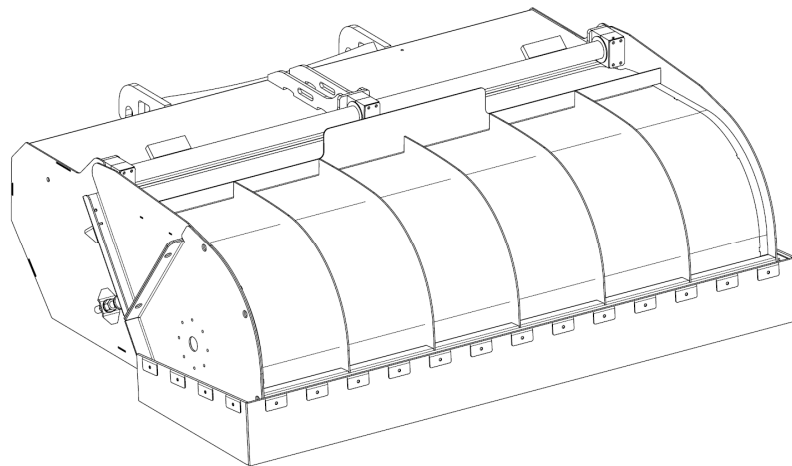


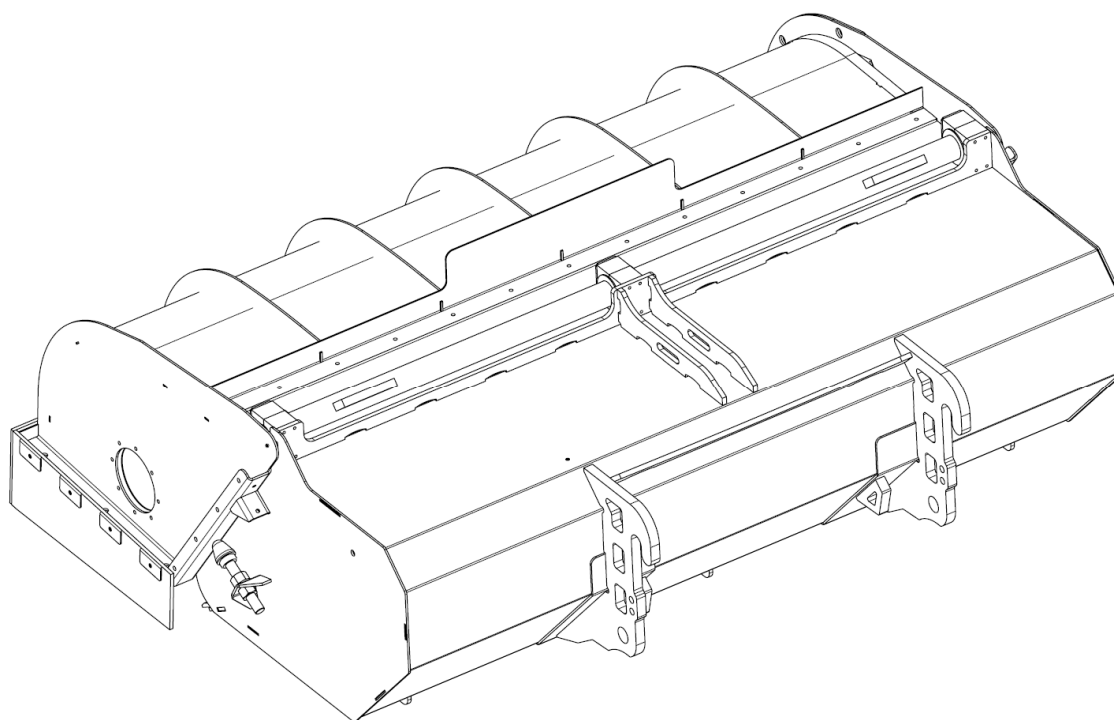


## OPERATOR'S MANUAL

### PICKUP BROOM







# **EQUIPMENT SERIES PICKUP BROOM**

Edition **05/2015**

Approbation  
CAT192/EN  
13.10.2015 Rev.00

## **Safety information**

Operation personnel are responsible for the regular operation and observation of the CNHi products.  
No repair and maintenance should be done by operation personnel.

# List of contents



Chapter 1-7

**OPERATOR'S MANUAL**

## Introduction

1.0 Note concerning copyright protection .....	1-1
1.1 Foreword .....	1-3
1.2 Conditions and limitations .....	1-4
1.3 About this manual .....	1-5
1.3.1 Layout of Operating manual .....	1-5
1.3.2 All rights reserved .....	1-5

## Safety

2.0 Note concerning copyright protection .....	2-1
2.1 General .....	2-3
2.2 General warnings .....	2-4
2.3 Notes on signs and symbols pointed out in the manual .....	2-6
2.4 Safety symbols and labels affixed on the Pickup Broom .....	2-6
2.5 Intended use .....	2-7
2.6 Improper use .....	2-7
2.7 Obligations and notes to the company responsible for the Pickup Broom .....	2-8

## Work before operation

3.0 Note concerning copyright protection .....	3-1
3.1 Connecting the Angle Broom at the wheel loader with fast connect .....	3-4
3.2 Disconnecting the Angle Broom at the wheel loader with fast connect .....	3-6
3.3 Equipment hydraulic connection .....	3-7
3.4 Equipment electric connection .....	3-7

## Utilization

4.0 Note concerning copyright protection .....	4-1
4.1 Preliminary check .....	4-3
4.2 Work operation .....	4-4
4.3 Emptying garbage container .....	4-5
4.4 Function of wheel loader Joystick .....	4-6

## Technical data

5.0 Note concerning copyright protection .....	5-1
5.1 Identification of principal components .....	5-3
5.2 Disposal .....	5-3
5.3 Climatic information .....	5-3
5.4 Firefighting measures .....	5-3
5.5 Dimensions et weights .....	5-4
5.6 Hydraulic motor data .....	5-5
5.7 Hydraulic diagram .....	5-6

## Description and functions

6.0 Note concerning copyright protection .....	6-1
6.1 General description .....	6-3
6.2 Field of application .....	6-3
6.3 Safety devices .....	6-4

## Maintenance

7.0 Note concerning copyright protection .....	7-1
7.1 Safety .....	7-3
7.2 Lubricant table .....	7-4
7.3 Maintenance point .....	7-5
7.4 Replacement roller brusher .....	7-6
7.5 Painting control .....	7-7
7.6 Oleodinamic system .....	7-7
7.7 Cleaning Pickup Broom .....	7-8
7.8 Emptying tanks .....	7-8

# 1

## Introduction

### **1.0 Note concerning copyright protection**

The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

# List of contents

1.0 Note concerning copyright protection .....	1-1
1.1 Foreword .....	1-3
1.2 Conditions and limitations .....	1-4
1.3 About this manual .....	1-5
1.3.1 Layout of Operating manual .....	1-5
1.3.2 All rights reserved .....	1-5

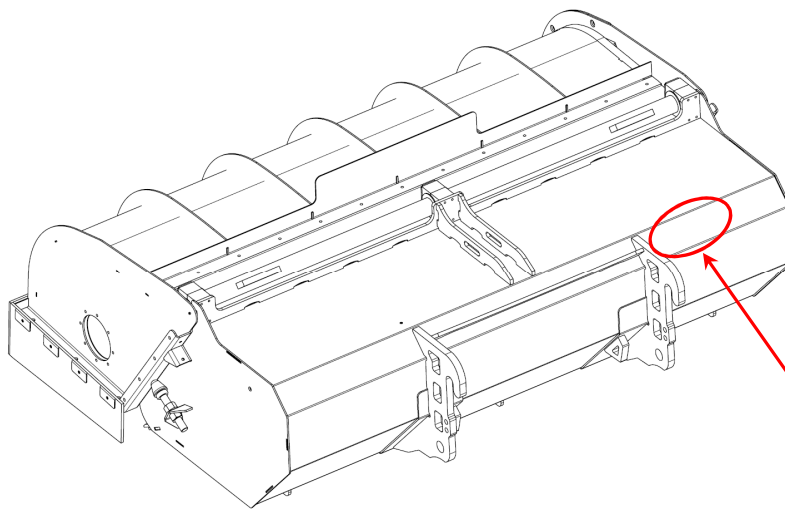
## Foreword

- ✓ This handbook gives you the information you need for the use and maintenance of your machine. The right working and the machine endurance will depend on the good maintenance and the attention to its utilisation.
- ✓ The manufacturer and your dealer are at your disposal for any information concerning the Pickup Broom machine running; moreover, they supply the original spare parts in order to assure that they perfectly fit in case of replacement.
- ✓ Before leaving the factory, this particular model has gone through a strict test in order to guarantee the best reliability.
- ✓ The manufacturer reserves itself the right to introduce changes to the described models for technical or commercial reasons at any moment.
- ✓ The subjects dealt in this manual are those expressly required by the "2006/42 CE MACHINE DIRECTIVE" and its further changes.
- ✓ For any information from manufacturer or dealer always quote the data written on the machine identification plate (Pic.1-1).

### Note:

*The manual with all enclosures must be supplied together with the Pickup Broom if sold.*

Pic. 1-1



- 1) Equipment model
- 2) Equipment weight
- 3) n° serial number
- 4) Oil flow olio
- 5) n° part
- 6) Working pression
- 7) Year of manufacture

TYPE / MODEL		WEIGHT	
<b>1</b>		<b>2</b>	kg
SERIAL NUMBER		OIL FLOW ( min-max )	
<b>3</b>		<b>4</b>	l/min
PART No		WORKING PRESSURE	
<b>5</b>		<b>6</b>	BAR/MPa
YEAR OF MANUFACTURE		MANUFACTURED FOR	
<b>7</b>		CNH INDUSTRIAL Italia Via Plava 80, 10135 Torino, Italia	

MANUFACTURED BY BUCHER / Giletta, Via A. De Gasperi, 1 - I-12036 Revello (CN), Italia

## 1.2 Conditions and limitations

- ✓ All equipment Pickup Broom have been accurately tested and are covered by a 12 months, or following our agreements, guarantee for manufacturing faults. The guarantee begins from the date of the purchase pointed out on the fiscal document when the Pickup Broom is delivered by the dealer or the manufacturer.
- ✓ The guarantee is invalidated when the Pickup Broom has been repaired by not authorised third parties or when equipment or accessories not supplied by the manufacturer or not recommended or approved by the same are utilised, or if there is the removal or the alteration of the serial number during the guarantee period.
- ✓ The manufacturer pledges itself to repair or to replace gratuitously the parts having manufacturing faults by the guarantee period. The repair is performed exclusively with carriage paid (the user has to pay any carriage expenses, different agreement excepted) at our seat or at the technical service centre we point you out.
- ✓ The guarantee does not include the possible cleaning of the working machine members.
- ✓ Faults that cannot be clearly imputed to the matter or to the manufacture will be checked by the technical service centre we point you out. If the claim turns out not be justified, any repair and/or parts replacement charges will be debited to the purchaser.
- ✓ The purchase fiscal document has to be shown to the technical staff carrying out the repair, or has to be sent together with the Pickup Broom which has to be mended.
- ✓ Fortuitous damages for transport, neglect, inadequate treatment and improper use, that does not comply with the information written on this handbook, and for events independent from the ordinary working or utilisation of the Pickup Broom are in any case excluded from the guarantee. From warranty materials and consumable parts and work for their replacement are also excluded.
- ✓ The manufacturer declines any responsibility for possible damages to people or things caused by a wrong utilisation or an imperfect use of the Pickup Broom.

### **1.3 About this manual**

This manual contains safety precautions, instructions on installation, operation and maintenance. Do not use or move the machine before having read and understood all the instructions, procedures and cautions described in this handbook. Some illustrations in this manual show parts or accessories that may be different from the parts in your Pickup Broom. Protections and covers may have been removed to make the illustrations clear ongoing improvements and developments in the product may have led to slight modifications to the machine which are not included in this manual. Please read, study and keep this manual on hand at all times. Should any problems arise with the Pickup Broom, or if further clarification of the contents of this manual is needed, consult the manufacturer or the dealer nearest you to obtain the most current information.

#### **1.3.1 Layout of Operating manual**

This operating manual is divided into chapters as shown in the list of contents. Each chapter has the appropriate page number. The headings show the chapter in question. The footnotes show the operating manual edition, the article number and page number.

#### **1.3.2 All rights reserved**

The company reserves all rights concerning the present technical documentation. This operating manual is for our customers information. It may neither be partially nor fully copied nor passed on to a third party without our explicit written consent.



# 2

## Safety

### **2.0 Note concerning copyright protection**

The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

# List of contents

2.0 Note concerning copyright protection .....	2-1
2.1 General .....	2-3
2.2 General warnings .....	2-4
2.3 Note on signs and symbols pointed out in the manual .....	2-6
2.4 Safety symbols and labels affixed on the Pickup Broom .....	2-6
2.5 Intended use .....	2-7
2.6 Improper use .....	2-7
2.7 Obligations and notes to the company responsible for the equipment Pickup Broom .....	2-8

### 2.1 General

Failure to comply with regulations or basic safety precautions could lead to accidents during operation, maintenance and repair of the Pickup Broom. Being aware of potentially dangerous situations can often prevent an accident before it happens. The operator must pay attention to potential hazards and possess the training, competence and tools required for performing his duties correctly.

Improper use of the equipment during operation or maintenance may result in damage and cause serious accidents.

Never operate the equipment or carry out maintenance until these instructions have been read and fully understood.

Safety precautions and warnings are indicated in this manual and on the product. If these danger warnings are not observed, the operator may run the risk of accident with grave consequences for himself and others.

The manufacturer cannot foresee every circumstance representing a potential hazard. The warnings in this publication and on the product are therefore not exhaustive. Should tools, procedures, working methods or operating techniques be used that are not explicitly recommended by the manufacturer, make sure that they do not present hazards for the operator or others.

The information, specifications and illustrations in this manual are based on information available at the time of publication.

#### **It goes without saying that the following aspects must also be observed:**

- ✓ the relevant regulations for the prevention of accidents
- ✓ general safety rules
- ✓ country-specific conditions
- ✓ the chassis manufacturer's operating manual
- ✓ the operating manual by the manufacturers of other components

## 2.2 General warnings

The warnings below cannot prevent all hazards that may be encountered while using the equipment; they should be added with good judgement and the experience of the operator, both essential measures for preventing accidents.

- ✓ Read this manual carefully before operating the equipment. If there are doubts about any of the instructions, contact the dealer or manufacturer immediately.
- ✓ If the manual is damaged or lost, request another from the dealer. Remember to give the serial number and type of equipment.
- ✓ Structural damage, modifications, or incorrect repairs can affect the machine's safety, therefore voiding the certificate. All modifications should be carried out exclusively by the manufacturer authorised technicians.
- ✓ Do not wear loose clothing or protruding elements that can become caught. Where required, (working at heights, exposure to noise, contact with toxic substances, etc.), obtain the appropriate PPE (Personal Protective Equipment).
- ✓ Keep the equipment free of foreign materials such as debris, oil, tools and other objects that could affect operation and cause damage to the operator.
- ✓ Before activating the equipment, make sure that no people or animals are within range.
- ✓ Always engage the hydraulic system with the equipment in "FLOATING" position.
- ✓ Before using the equipment, make sure that the safety protections are operating.
- ✓ Do not stay within range of the equipment Pickup Broom.
- ✓ Oil, and anti-freeze are harmful. In case of contact, wash with soap and water. In case of swallowing, consult a doctor. If fuels are to be stored outside, make sure that children do not have access to them.
- ✓ Make sure all safety devices and security are present, intact and working before operating the machine.
- ✓ Never incinerate or dispose of mineral oils, fuels, filters, seals into the environment. Deliver them to special collection centres.
- ✓ In the event of loss of hydraulic oil or other pollutants, depose the basins and if possible, dispose of any waste collected according to the law or the laws in force in respect of the environment.
- ✓ Perform all regulations with the hydraulic system disconnected and the electrical power off.
- ✓ Fix the equipment to the wheel-loader as indicated.
- ✓ Never climb onto the equipment when it is resting on its feet, when it is in operation or when the vehicle is moving.
- ✓ If foreign matter jams the movement of the plough, make sure the vehicle's hydraulic system is disconnected and the electrical power off before freeing it.
- ✓ If the safety protections are to be removed to make repairs, make sure that the vehicle's hydraulic system is disconnected and the electrical power is off. After performing the procedure, reposition the safety protections.

Pic. 1-2



Pic. 2-2



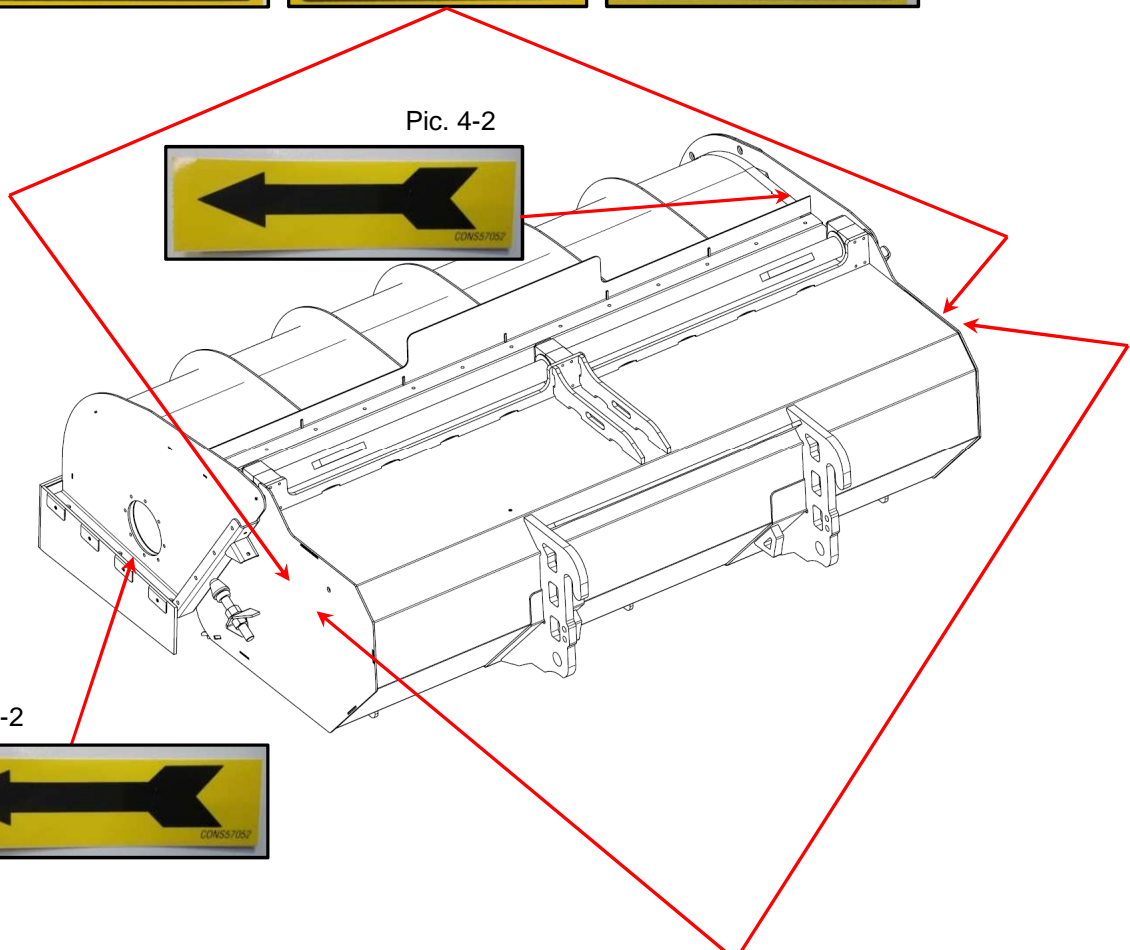
Pic. 3-2



Pic. 4-2



Pic. 4-2



	VIETATO SOSTARE NEL RAGGIO DI AZIONE DELLA MACCHINA DO NOT STAY WITHIN THE MACHINE WORKING RANGE DÉFENSE DE STATIONNER DANS LE RAYON D'ACTION DE LA MACHINE AUFENTHALT INNERHALB DES ARBEITSBEREICHES VERBOTEN PROHIBIDO ESTACIONAR EN EL RADIO DE ACCIÓN DE LA MÁQUINA
	LEGGERE IL MANUALE PRIMA DI UTILIZZARE LA MACCHINA READ THE MANUAL BEFORE USING THE MACHINE LIRE LE MANUEL AVANT D'UTILISER LE MACHINE VOR DEM GEBRAUCH DER MASCHINE DAS HANDBUCH LESEN LEER EL MANUAL ANTES DE USAR LA MAQUINÁ
	PERICOLO - spegnere il motore e togliere la chiave prima di fare interventi di manutenzione DANGER - stop the engine and remove the key before servicing the machine DANGER - arrêter le moteur et enlever la clé avant d'entretenir la machine
	GEFAHR - Vor der Wartung Motor abschalten und Schlüssel abziehen PELIGRO - apague el motor y sacar la llave antes de prestar servicio de mantenimiento

Pic. 5-2

### 2.3 Notes on signs and symbols pointed in the manual

Throughout this operating manual potential dangers are pointed out by means of bold text. These dangers may put life and limb at risk or could damage the equipment and company property.

The safety notes are accompanied by symbols which indicate at a glance that there is an element of danger involved. The symbols and their respective meanings are listed below:



**Danger!**

*danger of personal injuries!*



**Attention!**

*Risk of destruction or damage of the Pickup Broom !*



**Warning!**

*Risk of injury through electric shock!*

- © Enumeration of equipment's functions.
- The operator must carry out operating tasks.
- ✓ Listing.

**Note:**

*Gives additional important information.*

### 2.4 Safety symbols and labels affixed on the Equipment

The equipment is affixed with adhesive labels bearing symbols and/or safety warnings. Their exact placement and nature of the risk are described on the left page.

- ✓ Danger schiacciamento: not to introduce upper limbs (Pic. 1-2);
- ✓ Danger! (Pic.2-2);
- ✓ Danger crushing: not to introduce lower limbs (Pic.3-2);
- ✓ Brush rotation Direction (Pic.4-2);
- ✓ Summary table of safety signs (Pic.5-2).

### 2.5 Intended use

The Pickup Broom has been designed, built, and protected exclusively to clean all kind of surfaces (motorways, car-parks, airport runways, public and industrial areas) to permit the normal traffic and to prevent accidents. Any other application and the use of any other equipment are defined as improper use. The owner bears sole liability for damages resulting from any such improper use. It is the responsibility and obligation of the user to obtain, to know and to store the safety specs of the products used

Proper use also involves adhering to the use to the rules for:

- ✓ safety
- ✓ operation
- ✓ maintenance

which are described in this operating manual

he manufacturer is not liable for any damage resulting from un authorized changes made to equipments and components supplied by manufacturer, which would render the manufacturer's warranty invalid.

**Attention!**

*Only use genuine spare parts.*

### 2.6 Improper use

Use of the Pickup Broom entails a risk factor when:

- ✓ the Pickup Broom is incorrectly operated or used for the wrong purpose by personnel who have not been trained or instructed as to its proper use;
- ✓ the Pickup Broom is used for a purpose other than that specified by the manufacturer;

the safety instructions in this operating manual are not followed

### **2.7 Obligations and notes to the company responsible for the Pickup Broom**

This operating manual forms an integral part of the Pickup Broom. As responsible for the Pickup Broom you must make sure that your operating personnel are informed about these instructions. Disregard of the operating manual relieves the manufacturer from all liability.

As responsible for the Pickup Broom you are obliged to instruct your staff as to the safe and proper operation, repair, maintenance and use of the Pickup Broom. This is essential to avoid any risk to the operator's personnel's health or any other safety hazard.

Before commissioning the Pickup Broom the company responsible for it must check that the Pickup Broom is in proper working order, paying particular attention to the safety devices.

# 3

## Work before Operation

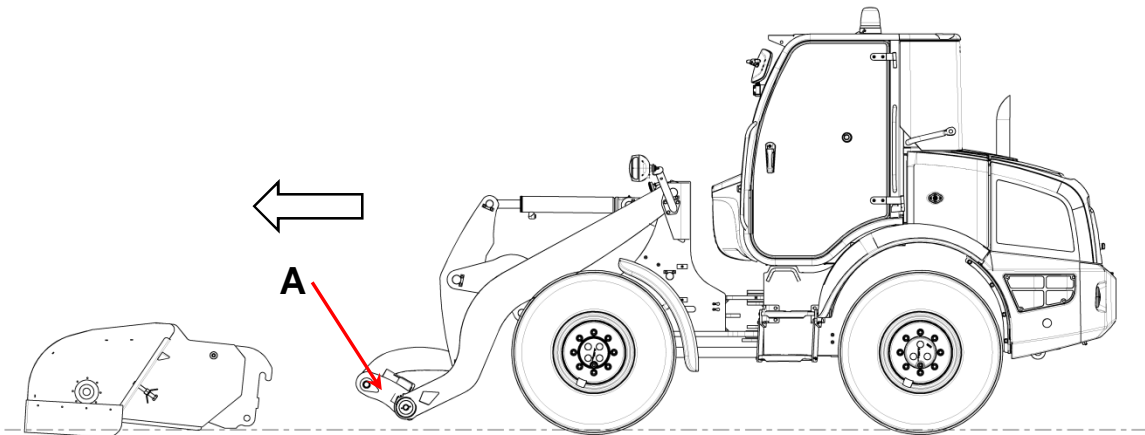
### **3.0 Note concerning copyright protection**

The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

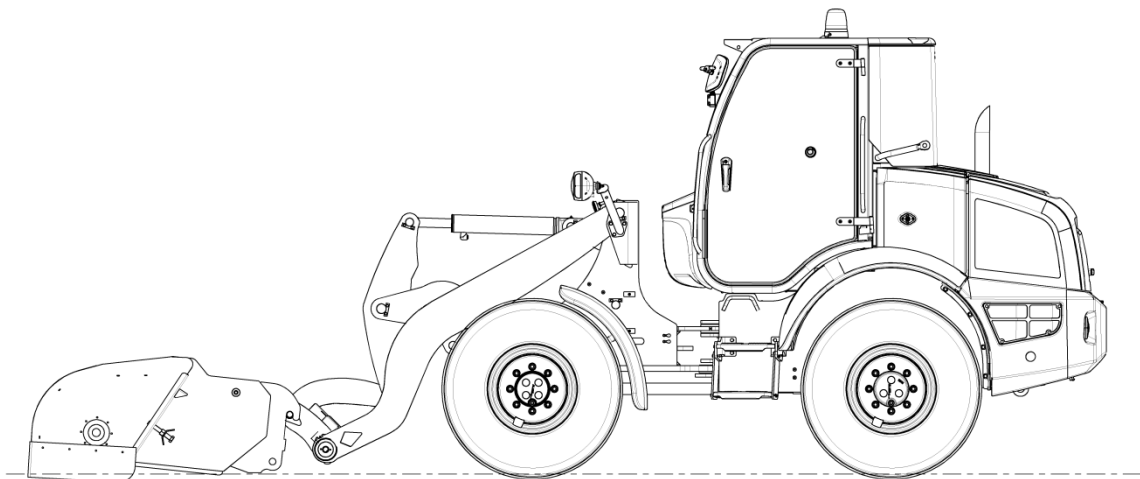
# List of contents

3.0 Note concerning copyright protection .....	3-1
3.1 Connecting the Pickup Broom at the wheel loader with fast connect .....	3-4
3.2 Disconnecting the Pickup Broom at the wheel loader with fast connect .....	3-6
3.3 Hydraulic connection Pickup Broom .....	3-7
3.4 Electrical connection Pickup Broom .....	3-7

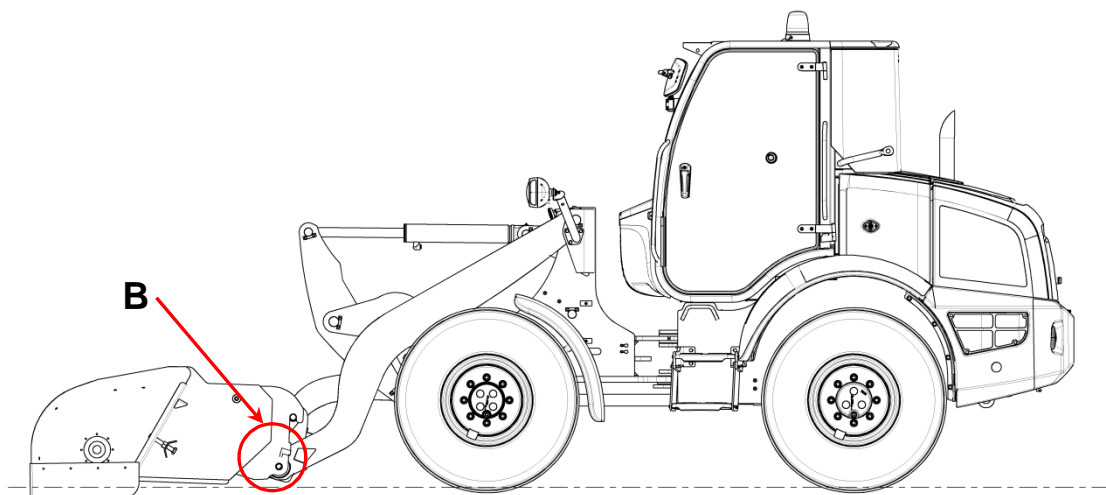
Pic. 1-3



Pic. 2-3



Pic. 3-3



### 3.1 Connecting the Pickup Broom to the wheel loader with fast connect

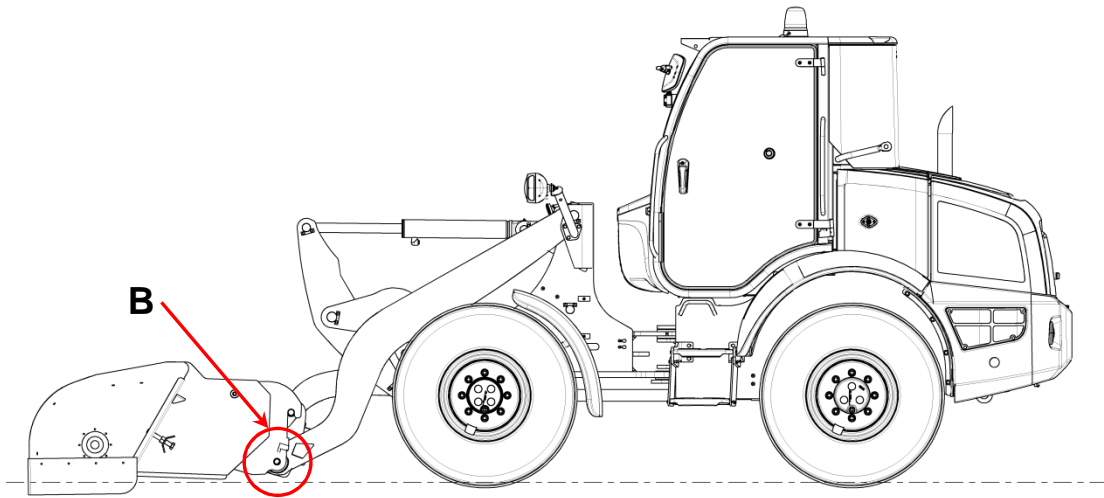


#### **Danger!**

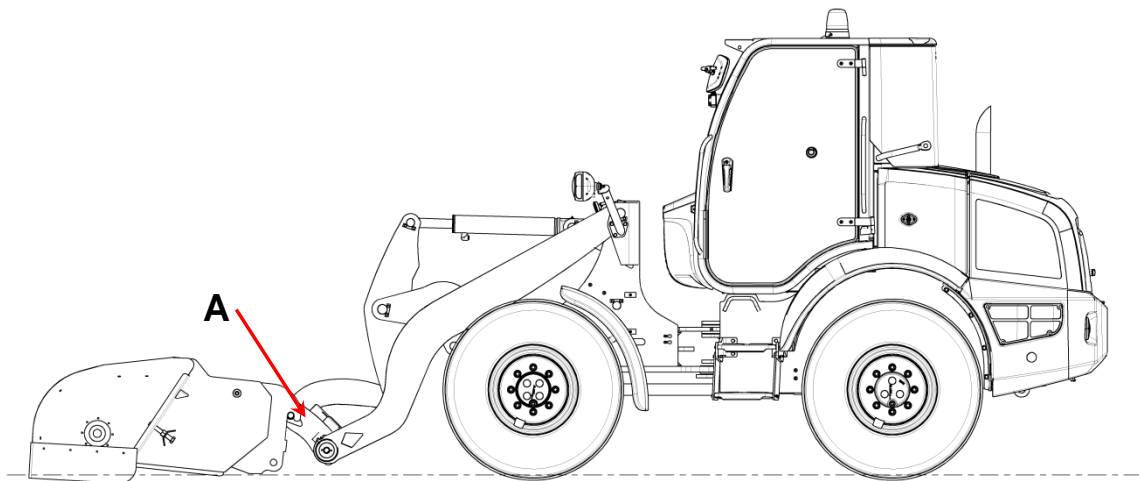
*During the operation of connection and disconnection check nobody stay in the wheel loader and Pickup Broom range.*

- Check that all the hydraulic pipes, coupling and electrical connection are free of defects or damage. If some parts present an unconformity or is damage replace before mounting.
- Lower the mounting plate(Pic.1-3 A) present on the wheel loader;
- Move slowly the wheel loader close to the Pickup Broom in line with the plate (Pic.1-3);
- To go ahead with the vehicle with a very slow speed, until the wheel loader front plate and the snow-plough plate are in contact (Pic.1-3);
- Check that the hydraulic system of the Pickup Broom and the hydraulic system of the wheel loader are not in pressure, in the opposite case drain the hydraulic system pressure and after proceed with connection.
- Lift the wheel loader front plate, to allows at the two plate of come into contact (Pic.2-3)
- Operating on the wheel loader command extract the blocking pins (Pic. 3-3 B) present on the vehicle plate.
- Check that all the function are operative and there aren't leak of oil. If there are disconnect the Pickup Broom after having put down and repair it.
- In presence of humidification system check also the electric and hydric connection that present no damage or imperfection.

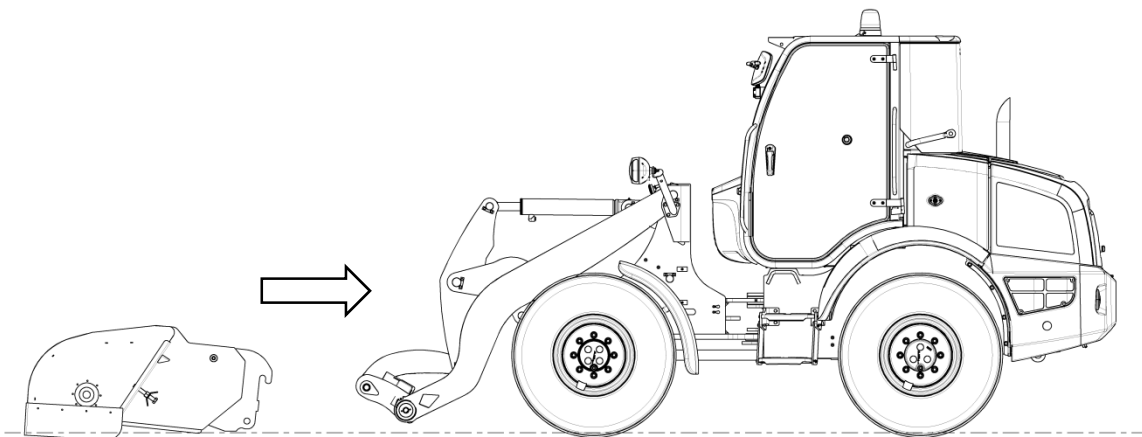
Pic. 4-3



Pic. 5-3



Pic. 6-3



### 3.2 Disconnecting the Pickup Broom to the wheel loader with fast connect



**Danger!**

*During the operation of connection and disconnection check nobody stay in the wheel loader and Pickup Broom range.*

- Choose a flat place for park the equipment;
- Operating on the appropriated command retract the blocking (Pic.4-3 B) present on the wheel loader front plate;
- Lower slowly the Pickup Broom operating on the appropriated command means FLOATING function.
- When the Pickup Broom resting on the ground, in safety, lower completely the front wheel loader plate (Pic. 5-3 A) for make free both the plates.
- After have drained the pressure of the hydraulic oil of the system, disconnect the coupling and protect them with the appropriated caps.
- To go in revers slowly with the wheel loader (Pic.6-3).

### 3.3 Hydraulic connection Pickup Broom

To actuate the Pickup Broom, the wheel loader must be prepared with 4 coupling.

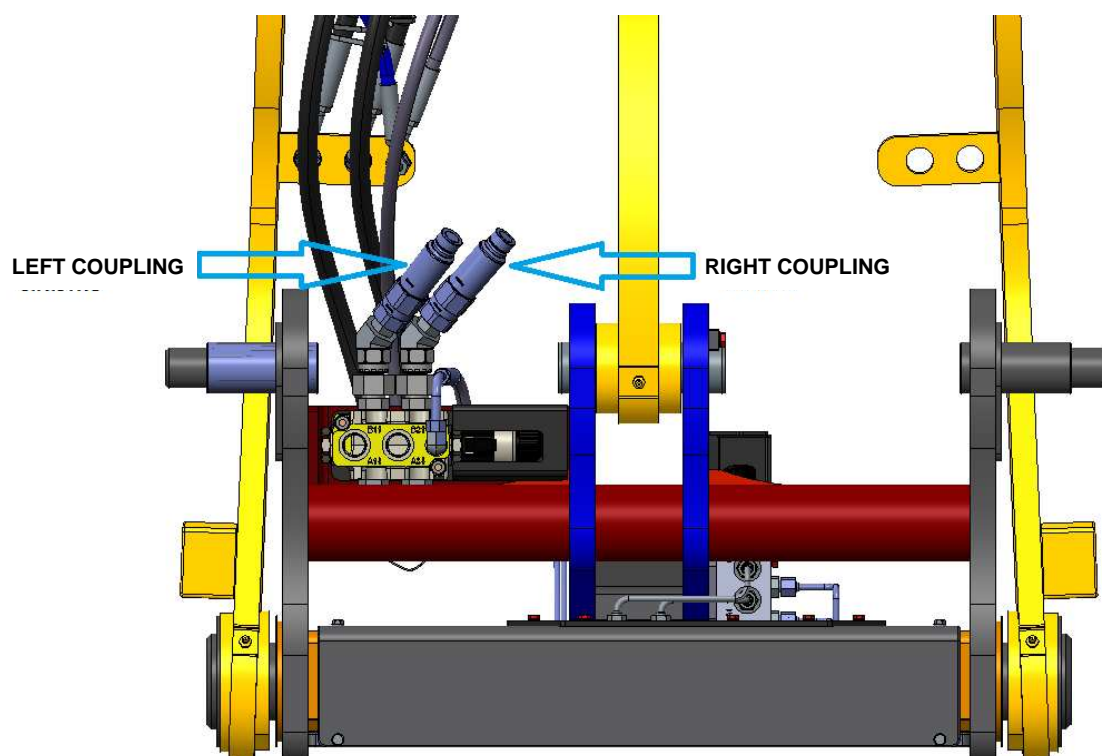
All the coupling of the Pickup Broom have section 3/8".

To make an easier hydraulic coupling the pipes on the Pickup Broom have been marked with colored clamp.

To make an correct hydraulic coupling see the table and the picture 7-3 below:

COLOR	FUNCTION	COUPLING
BROWN	DRAIN OF HYDRAULIC MOTOR	RIGHT COUPLING
VIOLET	DELIVERY OF HYDRAULIC MOTOR	LEFT COUPLING

Pic. 7-3



### 3. Work before operation

---

Before the connection phase verify this conditions:

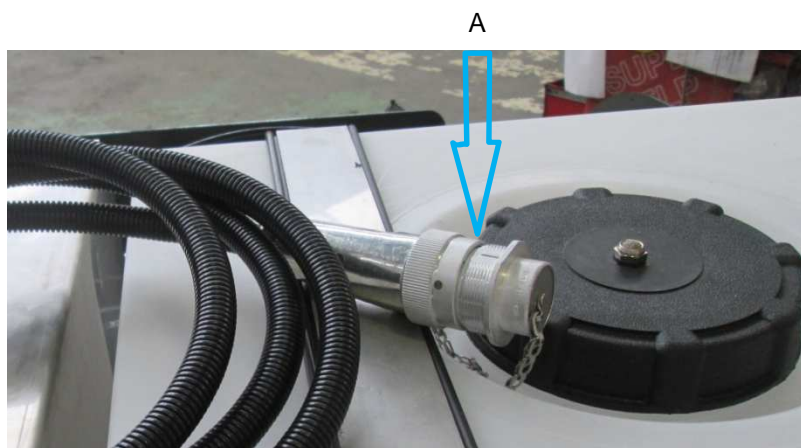
- ✓ Before do the connection drain the pression of hydraulic system moving the wheel loader command with engine shut off.
- ✓ The function of the Pickup Broom must to be coherent with function activated from the command present in the vehicle cab.

**Note:**

*In the return line of the hydraulic motor has been added a unidirectional valve to avoid wrong connection.*

### 3.4 ELECTRICAL CONNECTION

The electrical connection mast to be carried out on the PB version that are comply of humidification system means the socket (Pic. 8-3 A).



# 4

## Utilization

### **4.0 Note concerning copyright protection**

The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

# List of contents

4.0 Note concerning copyright protection .....	4-1
4.1 Preliminary checks .....	4-3
4.2 Work operations .....	4-4
4.3 Emptying of garbage container .....	4-5
4.4 Function of wheel loader Joystick .....	4-6

### **Preliminary check**

Once joint the Pickup Broom at the wheel loader, before start the work, make sure that the following conditions are satisfied:

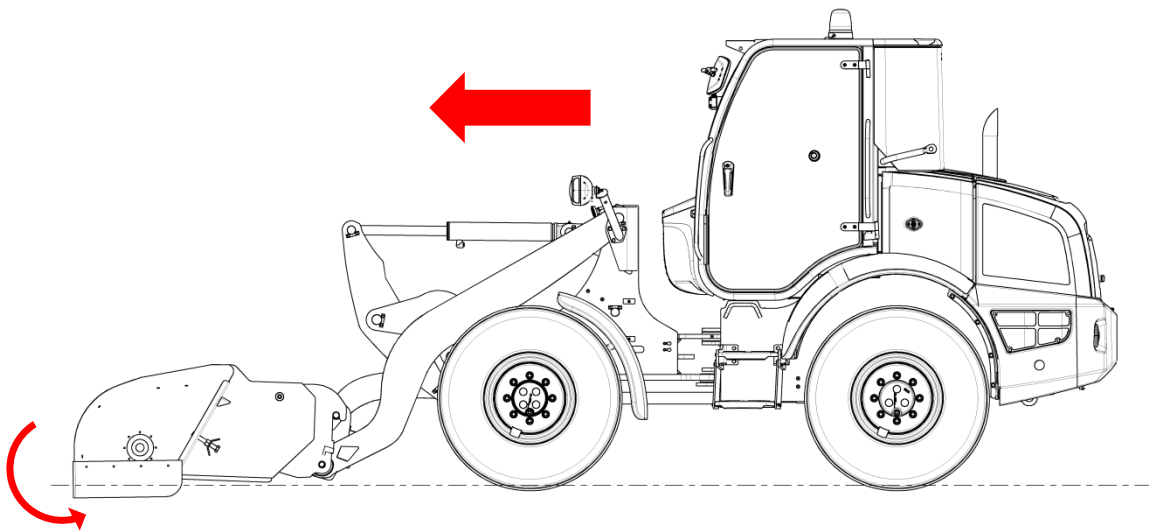
- The block pin must be completely extended.
- All functions must to be operative and if are a leak disconnect, following the procedure, the Pickup Broom and undertake the repair.
- No person, animal, object must be within range of the wheel loader or the Pickup Broom.
- All functions of Pickup Broom must to be operative:
  - ✓ Brush rotation CLOCKWISE;
  - ✓ Brush rotation ANTICLOCKWISE;
- The direction of rotation of the brush must be opposite to the driving direction.
- During the transport phase maintain the Pickup Broom lift.
- During the work operation to pay attention to the flow of material in the output from the Pickup Broom for avoid damage or accidents to person, animal or thing.
- In close proximity to population centers, vehicles, people or animals reduce speed.

## 4.2 Work operation

To use correctly the Pickup Broom work as below described:

- Lower the brusher;
- Start the rotation of the brush in the same rotation direction to the driving movement. (Pic.1-4);
- advance with the wheel loader;
- When the container is full proceed to the emptying .

Pic. 1-4



- Always empty the tank or should a long period of inactivity be envisaged for avoid, depending on the environmental conditions, that the solution contained into the tank make damage to the equipment. To empty the Pickup Broom operate on the tap (pic. 2-4 A).

Pic.2-4



## 4.Utilization

### 4.3 Emptying the container

To empty the material container proceed as below described :

- Bring the equipment close to the deposit of the material (Pic. 3-4 A);
- Stop the wheel loader and insert the parking brake;

**Danger!**

*Before start the emptying operation make sure that nobody is in the within range of the Pickup Broom.*

- Lift the equipment with the wheel loader lift arm (Pic. 3-4 B);
- Tilt the Pickup Broom and automatically the material comes out from the container. (Pic. 3-4 C);

**Danger!**

*During the emptying operation it can create a slight cloud of fine dust, therefore equip themselves with PPEI. (Personal Protective Equipment).*

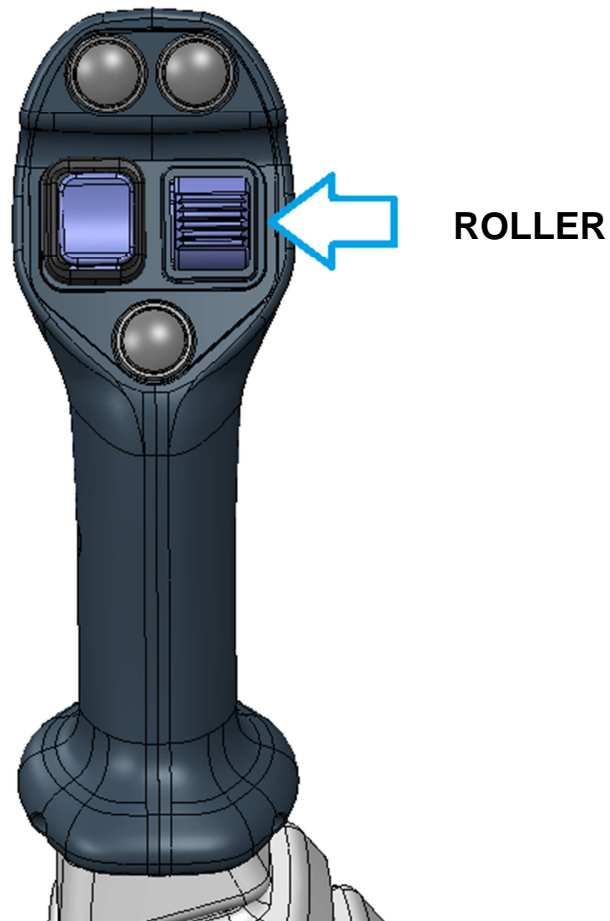
- Disengage the parking brake and effecting the reverse a very low speed.

Pic. 3-4



#### 4.4 Function of Joystick of wheel loader

Pic. 4-4



Joystick:

- ✓ ROLLER UP: Brush rotation ANTICLOCKWISE;
- ✓ ROLLER DOWN: Brush rotation CLOCKWISE.

**Note:**

*For more information see the CWL wheel loader user manual.*

# 5

## Technical data

### **5.0 Note concerning copyright protection**

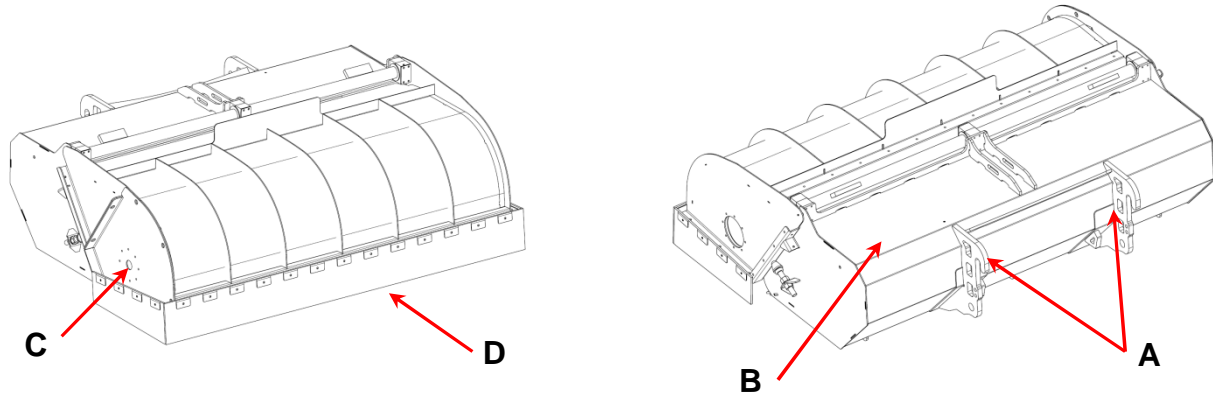
The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

# List of content

5.0 Note concerning copyright protection .....	5-1
5.1 Identification of principal components .....	5-3
5.2 Disposal .....	5-3
5.3 Climatic information .....	5-3
5.4 Firefighting measures .....	5-3
5.5 Dimensions and weights of Pickup Broom .....	5-4
5.6 Hydraulic motor data .....	5-5
5.7 Hydraulic diagram .....	5-6

### 5.1 Identification of principal components

Pic. 1-5



- ✓ Anchorages hook Pickup Broom (Fig.1-5 A);
- ✓ Material container (Fig.1-5 B);
- ✓ Brush (Fig.1-5 C);
- ✓ Hydraulic motor of brush rotation (Fig.1-5 D).

### 5.2 Disposal

In case of demolition, the Pickup Broom should be taken to a suitable dump for disposal in accordance with current regulations.  
Collect used oil and take it to special collection centres for disposal.

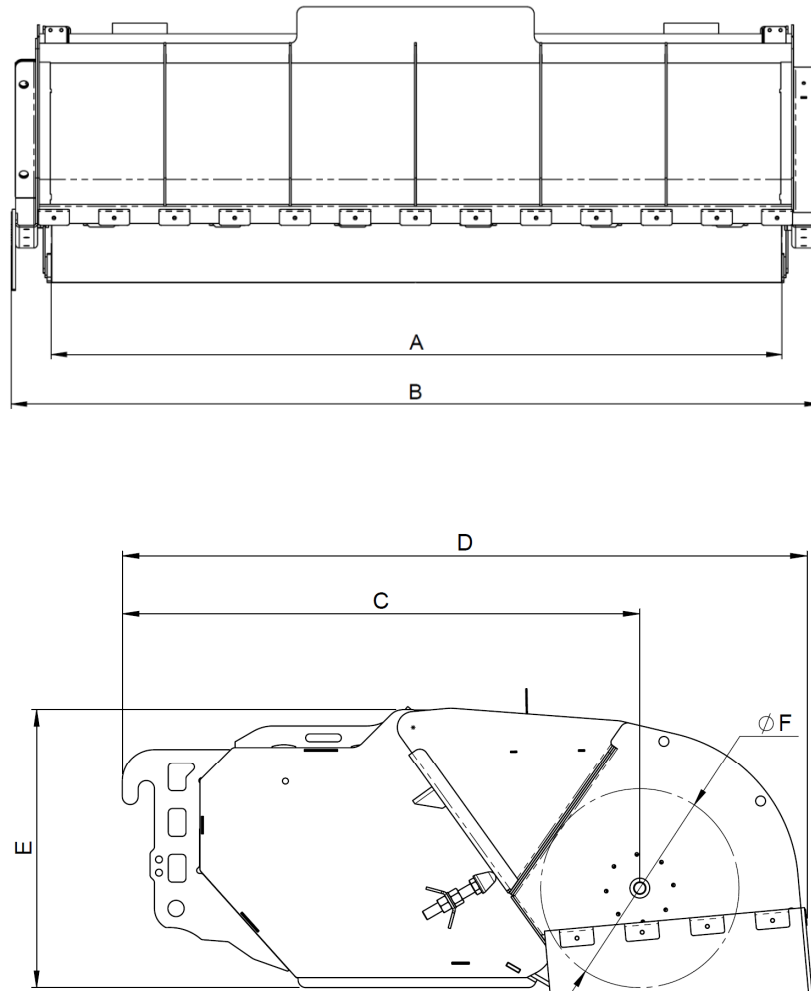
### 5.3 Climatic information

The equipments series Pickup Broom has been designed and built to removal snow and ice with ambient temperature ranging from -30°C and +50°C. As concerns the control unit, we suggest its use in a temperature range environment of -20°C/ + 45°C, whereas the store has to be guaranteed in a range of temperature among -30°C and +50°C.

### 5.4 Firefighting measures

The equipments series Pickup Broom has totally been realized with material not easily inflammable.

## 5.5 Dimensions



MODEL	DIMENSIONS						
	A	B	C	D	E	F	W
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
<b>PB</b>	2000	2215	1305	1720	701	500	420

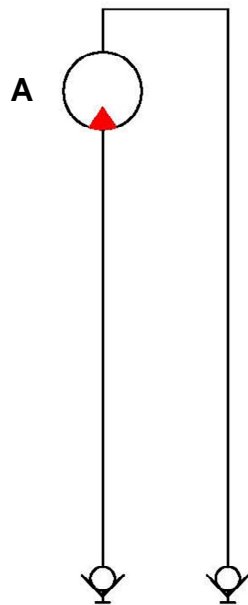
## 5. Technical data

---

### 5.6 Hydraulic motor data

- ✓ Oil flow: 40 – 60 l/min  
peak: 80 l/min
- ✓ Rotation speed: 250 – 350 rpm
- ✓ Work pressure: 130/13 bar/MPa  
peak: 230/23 bar/MPa

## 5.7 Hydraulic diagram



	DESCRIPTION	Q.ty
A	HYDRAULIC MOTOR	1

# 6

## Descriptions and functions

### **6.0 Note concerning copyright protection**

The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

# List of contents

6.0 Note concerning copyright protection .....	6-1
6.1 General description .....	6-3
6.2 Field of application .....	6-3
6.3 Safety devices .....	6-4

### 6.1 General description

The equipment series Pickup Broom are composed of a front roller brusher, hydraulically controlled by means at the hydraulic system of the wheel loader and a container for temporary storage of material just remove on the clean surface.

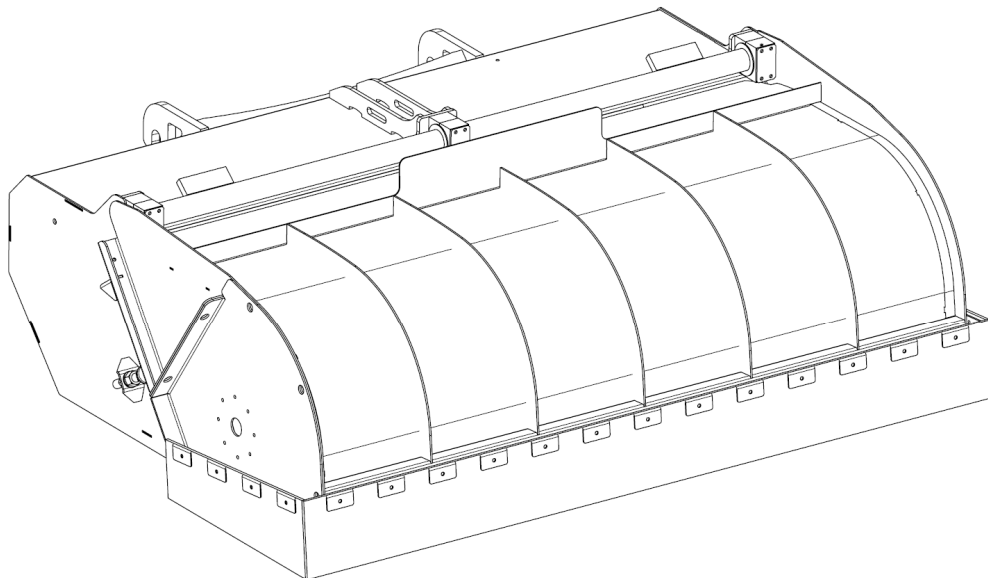
### 6.2 Field of application

The equipment Pickup Broom are designed exclusively for normal intervention of cleaning of road, square and pedestrian crossings.



**Danger!**

*The Pickup Broom should never be used to gather toxic material, flammable material or explosive material.*

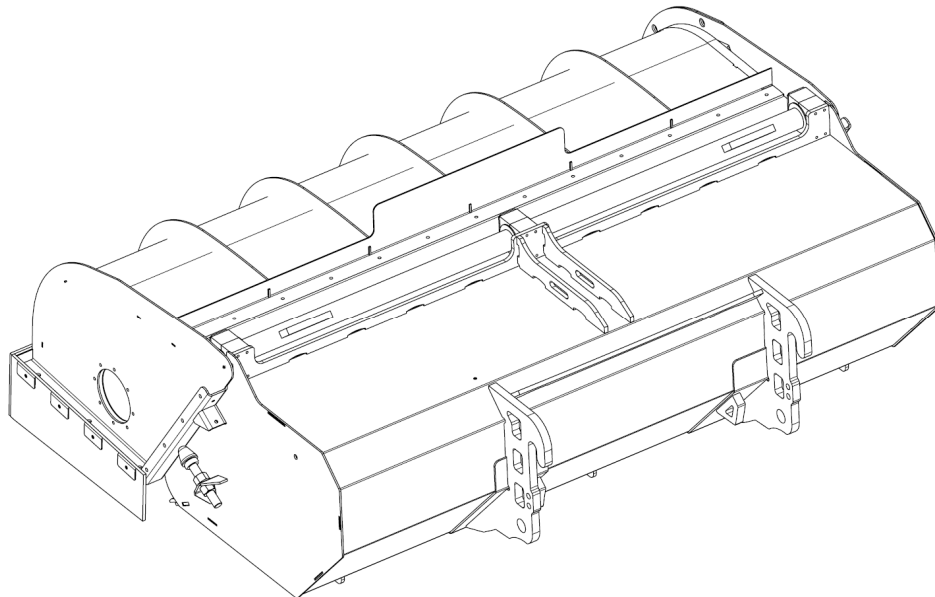


### 6.3 Safety devices

The Pickup Broom is fitted with safety devices that allows to operate in safety conditions.

#### Safety signs

The equipment is fitted with safety signs and warning applied to the affected area so as to alert the driver and the people who may be approaching the danger zone.



# 7

## Maintenance

### **7.0 Note concerning copyright protection**

The technical information of this handbook belong to the manufacturer and have to be considered confidential: the divulgation and the reproduction of this handbook, even if partial, are thus forbidden. The technical data here written are those supplied by the manufacturer at the moment of the drawing up. Any reproduction of the reading methodology, sections arrangement, paging up, symbology, text and pictures included in the manual, even if partial, is forbidden according to law.

# List of contents

7.0 Note concerning copyright protection .....	7-2
7.1 Safety .....	7-3
7.2 Lubricant table.....	7-4
7.3 Maintenance point .....	7-5
7.4 Brush replacement .....	7-6
7.5 Painting .....	7-7
7.6 Oleodinamic system .....	7-7
7.7 Cleaning Pickup Broom .....	7-8
7.8 emptying the tank .....	7-8

## 7.1 Safety

Before operate any work of maintenance it's necessary read and learn all the safety rules described in this manual!

Carry out the work according to the following plan of greasing and planned maintenance: the operation, performance and durability of the Pickup Broom depend in large measure from these interventions!

The control intervals and maintenance are related always at hour or lapse of time according's to the plan!

E 'strictly forbidden to modify or add parts to the Pickup Broom without the consent of the manufacturer!

Always use original spare parts supplied by the manufacturer or from an authorized dealer!

Before adding oil or grease, clean the area of filling and / or the grease nipples!

Do not mix different types of oil and / or grease (even with oil or with other thinner oils to reduce the viscosity)!

Always use oil and / or grease lubrication same or equivalent (see lubricant chart)!

Children and animals must be kept at a safe distance from the Pickup Broom in motion, to avoid danger resulting from its operation.

In case of loss of hydraulic oil or other pollutants substances may be collected according to the rules or the laws applicable in the respect of the environment.

Do not loose clothing or protruding elements that can become caught. Where required, (working at heights, exposure to noise, contact with toxic substances, etc.), obtain the appropriate PPE (Personal Protective Equipment).

**7.2 Lubricant table**

<b>LUBRICANT TABLE</b>	
<b>DESCRIPTION</b>	<b>PHYSICAL PROPERTIES OF PRODUCT</b>
LUBRICANT GREASE	Water-repellent and anti-hardening grease
ANTI-SEIZURE PRODUCT	synthetic anti-seizure, nickel based compound for high temperatures and extreme conditions

**7.3 Maintenance point**

<b>MAINTENANCE POINT</b>		
<b>FREQUENCY</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
	BRUSHER REPLACEMENT	7-6
End of season	PAINTING	7-7
Beginning of each season	OLEODINAMIC SYSTEM	7-7
Before any use	CLEANING PICKUP BROOM	7-8
Before any use	EMPTYING THE TANKS	7-8

### 7.4 Brush replacement

In case of wear of the brush, proceed as below described:

- Lift the Pickup Broom;
- Shut off the engine of the wheel loader and deactivate the hydraulic system;
- Remove the 5 screws (Pic.1-7 A). and put them in a secure place for a subsequent mounting:  
This operation must to be executed with free shaft.
- Remove the carter (Pic.1-7 B);
- Remove the brush pulling it out;
- Catch the new brush and insert in its place, making sure to place it correctly into the engine housing (Pic.1-7 C);
- Reposition the carter and (Pic.1-7B) fasten with its 5 screws previously removed (Pic.1-7 A).
- Power the wheel loader and activate the hydraulic system, therefore test the rotation of the brush.

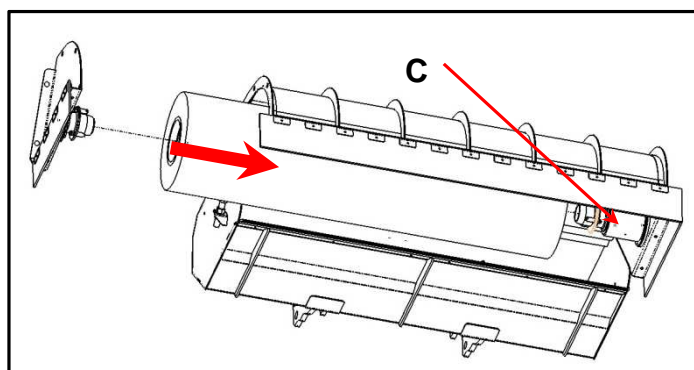
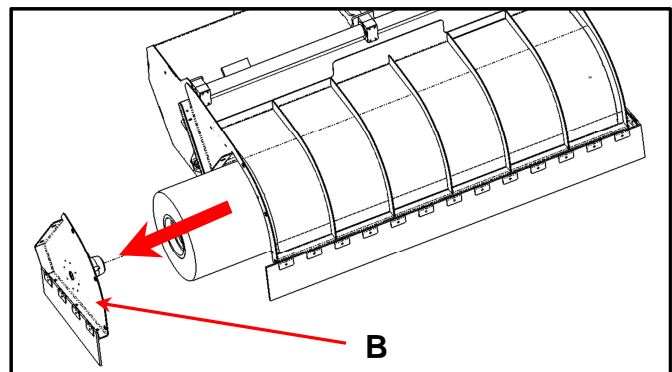
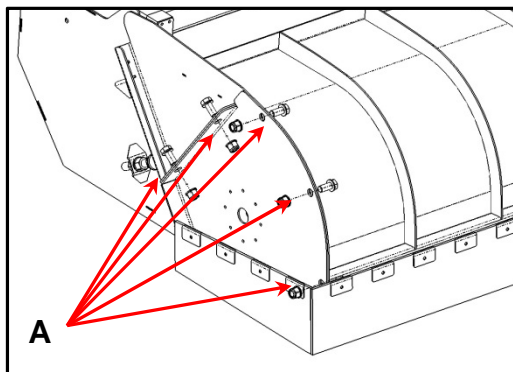
**Danger!**

*Operate exclusively with hydraulic system disconnect.*

**Danger!**

*Operation of maintenance to do exclusively with hydraulic system deactivate.*

Pic.1-7



### 7.5 Painting control

Control at the end of the season the state of the painting of the Pickup Broom; the paint must be present on any metallic part and must to be in good conditions. If there are point without paint or with paint damaged proceed like below described:

- Sand oxidized spots and all the points where the paint is missing;
- Clean thoroughly with degreasing agents so as to eliminate any impurities;
- Paint a coat of epoxy primer;
- When the primer is completely dry, apply a coat of polyurethane enamel;
- Even when the enamel is completely dry check the points painted and if there are still nakedness pass a second coat so as to fully cover the metal.



#### **Danger!**

*Do not disperse , enamels or liquid used for cleaning in the environment, but collect them in an appropriate container for disposal then start them, as prescribed by the laws in force in the country of employment of the Pickup Broom.*

### 7.6 Hydraulic system

At the beginning of each season control all the hydraulic pipes, the related coupling and fittings. In the case that are damaged parts proceed to replace like described below:

- Unscrew the fittings and remove the pipes;
- Fit new original spare and tighten all fittings and couplings.



#### **Danger!**

*During the operation above described be careful to not disperse hydraulic oil into the environment, but store it in an appropriate container and, as prescribed by the laws in force in the country of employment of the Pickup Broom, organize the disposal.*



#### **Danger!**

*Operation that must be made with hydraulic system disabled.*

### 7.7 Cleaning Pickup Broom



**Danger!**

*Operate only when all hydraulic connections are disconnected.*

Carry out after each use, the cleaning of the Pickup Broom, like below described:



**Danger!**

*Carry out the cleaning of the Pickup Broom strictly with hydraulic system of the vehicle off.*

- Using an abundant jet of water not under pressure, clean the shear removing all the residual solid material on the walls.
- Using an abundant jet of water not under pressure, clean the main frame removing all the residual solid material and check that every movement are free and there aren't material to sliding parts.
- Insist with the jet of water on the surface is particularly suggested to wear.



**Danger!**

*Do not disperse, the water used for cleaning in the environment, but collect them in an appropriate container for disposal then start them, as prescribed by the laws in force in the country of employment of the Pickup Broom.*



**Attention!**

Do not use any device (such as pressure washer) able to deliver a jet of pressurized water to wash.

Perform the wash cycle just described also in anticipation of a prolonged period of inactivity of the Pickup Broom.

### 7.8 EMPTYING THE TANK

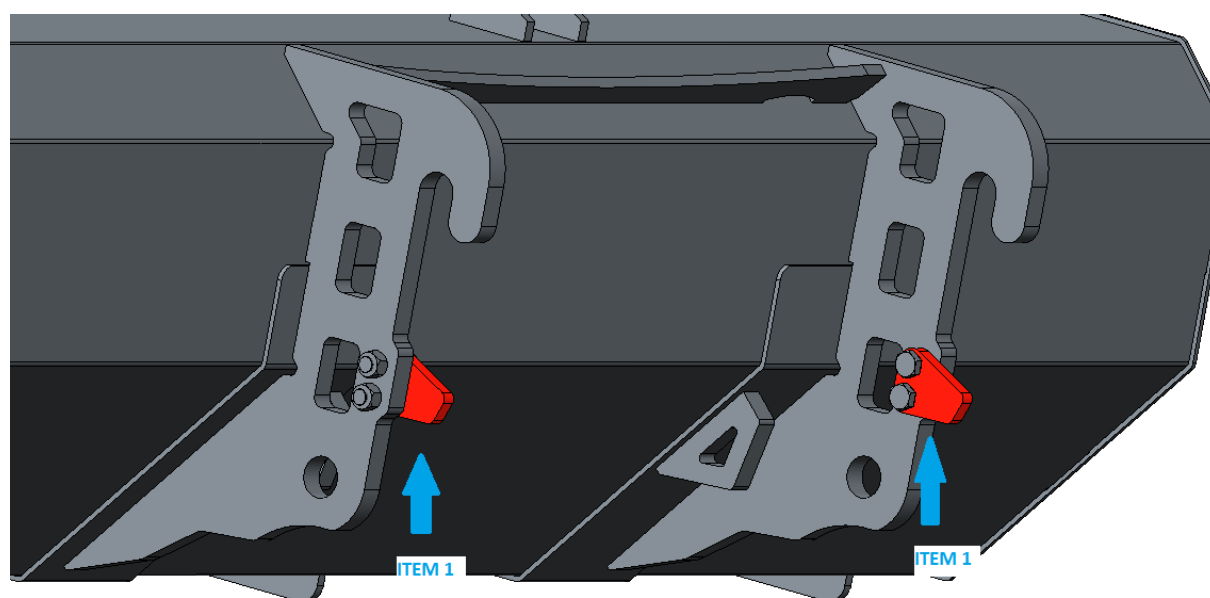
After any use, in function of the environmental conditions, emptying the solution tank to avoid damage by the stagnation freezing / evaporation of the liquid contained.

## Regulation for road use.

For the Italian law the wheel loader must be prepared as follows:

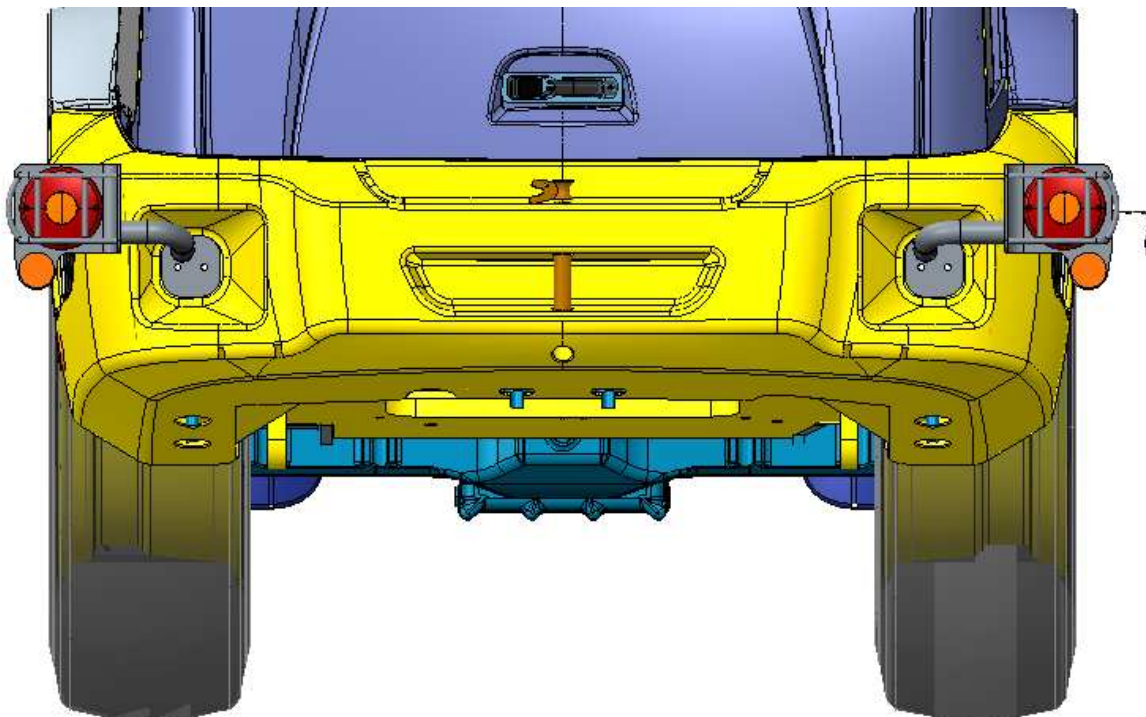
- ✓ Prepare the wheel loader with 4 lateral retro-reflectors provided.
- ✓ Prepare the wheel loader with n°2 additional stop item 1, screw and nuts supplied (Pic. 1)  
(Only for 43kw wheel loader)

Pic. 1



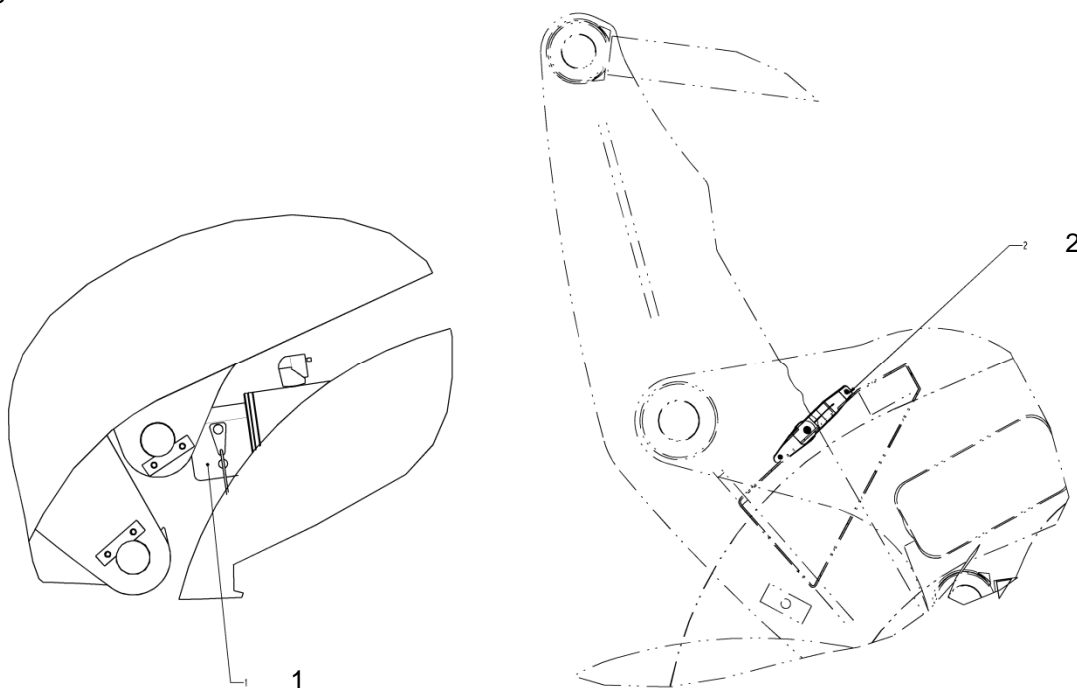
- ✓ Prepare the wheel loader with the rear headlights support 47808094/47808098 (pic. 2) supplied

Pic. 2



- ✓ Prepare the wheel loader with rotating light supplied.
- ✓ Move the tool in rollback position and the loader arm in carry position. Block the loader arm with the lifting cylinder block item 1 and the tool with Belt block item 2 (Pic. 3).

Pic. 3



Only for homologation Italy:

The wheel loader with tool in object must circulate with the obligation to escort to the ground





PRINTED IN ITALY

CNH Industrial Italia S.p.A reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at the time of publication, but are subject to change without notice.

Availability of some models and equipment builds varies according to the country in which the equipment is being used. For exact information about any particular product, please consult your CNH Industrial dealer.

CNH Industrial is a trademark registered in the United States and many other countries, owned or licensed to CNH Industrial N.V., its subsidiaries or affiliates.

Any trademarks referred to herein, in association with goods and/or services of companies, other than owned by or licensed to CNH Industrial N.V., its subsidiaries or affiliates, are the property of those respective companies.