

# 7345 S from serial number 55500238 7345 S MCS from serial no. 555000238 7347 S from serial number 565000450 7347 S MCS from serial no. 565000450



**ORIGINAL OPERATOR'S MANUAL MASSEY FERGUSON** 

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# **1. GENERAL INFORMATION**

## **1.1 CUSTOMER INFORMATION**

#### INTRODUCTION

Your new self-propelled combine is manufactured for harvesting seed and cereal crops, for threshing, separating, cleaning and conveying the grain into the tank and depositing the straw on the ground.

This Operator's Manual should be used as a practical reference guide: It contains all the necessary practical information for the operation, adjustment and maintenance of your new machine.

Your combine was designed and built to ensure optimum performance, comfort and ease-of-operation in a wide variety of crops and conditions.

The combine has been thoroughly inspected prior to delivery both at the factory and by your Dealer, to ensure you receive it in perfect condition.

To keep the combine in perfect condition and to ensure trouble-free performance, the periodical maintenance operations listed in this manual should be carried out at the recommended intervals.

Before operating and/or driving the combine, read this Operator's Manual carefully, paying particular attention to the section on safety rules.

Always keep this manual on hand for further reference.

The terms "left" and "right" are always used with reference to the machine travelling direction.

Should you require further information about the machine, please do not hesitate to contact your authorised Dealer.

Your Dealer provides specially trained personnel, genuine spare parts and the required tools to solve any problems that may arise.

#### NOTE:

- This combine has been designed and built in compliance with the Machine Directive 2006/42/EC.
   An EC Declaration of Conformity is supplied with the machine (see facsimile on page 1-8).
- This manual is published for worldwide distribution, and the availability of equipment shown as standard or optional varies according to the territory in which the combine is to be used.
   Specifications may differ from those contained in this Operator's Manual according to the customer's requirements.
- In order to provide a better view of features or adjustments, certain illustrations in this manual may show an assembly with standard guards, or the guards required by law in different countries, open or removed. However, a machine should never be operated in this condition. For your own safety, always ensure all safety guards are fitted and closed correctly before operating the machine.
- This Operator's Manual, along with the Operator's Manuals for the table and PTO shaft, must always be kept in the compartment under the operator's seat for storage and convenient reference.

#### **Company policy**

In accordance with the Company's policy of continuous improvements to its products, the Company reserves the right to modify and improve its products whenever necessary and to the required extent, without any obligation to apply such modifications to previously sold products. The information contained in this Manual refers to the current situation at the time it was written. All the data given may vary.

#### **OPTIONAL EQUIPMENT**

Your machine is designed to harvest a wide variety of crops in a range of conditions; however, in some cases, it may be necessary to fit additional accessories to improve machine performance and adapt the machine to special crops or harvesting conditions. A list of available accessories is provided in the section "Optional Equipment".

#### SPARE PARTS AND ACCESSORIES

The genuine spare parts and accessories have been specifically designed for this type of machine.

Only genuine parts supplied by your authorised Dealer can guarantee correct operation and optimum performance.

Never use non-genuine spare parts or accessories: Some accessories (e.g. PTO shafts, straw choppers, tables) require an EC certification, which can be provided only by the manufacturer or his qualified and recognised sub-suppliers.

Non-genuine spare parts have not been tested and are not authorised by the manufacturer. The use of such equipment may have a damaging effect on the design features of the machine and may even jeopardise operational safety.

# The manufacturer disclaims all liability in the event of loss or damage arising as a result of non-genuine parts or accessories being fitted.

It is expressly prohibited to make any modification to the combine without the prior written authorisation by the manufacturer.

When ordering spare parts and/or optional equipment, always quote combine model and serial number (see section "Combine Identification").

#### WARRANTY

Your combine is warranted in compliance with the regulations in force in your country and the agreements made with your Dealer.

However, the warranty becomes void in the following situations:

- a.) If the machine has been used inappropriately.
- b.) If adjustments and maintenance have not been carried out according to the instructions in this manual.
- c.) If the failures are caused by the use of non-genuine spare parts or accessories.
- d.) If damage is the result of carelessness, negligence, inappropriate use of the machine or operational errors.
   If the safety devices are removed and/or non-genuine spare parts are used, the warranty becomes void automatically and the manufacturer disclaims any liability.

The warranty applies only to repair or free replacement of parts proving defective after a careful inspection by the manufacturer (excluding wear parts and tyres), as described in the Combine Service Record Book. In the event that warranted parts are replaced or repaired, warranty terms are not extended. The customer can assert his warranty rights only insofar as the warranty conditions contained in the Service Record Book have been observed.

#### **LUBRICANTS**

Your Dealer can provide a wide range of special lubricants, produced according to the specific technical specifications of the combine.

For these combines we recommend the use of the lubricants listed on page 5-37.

Always use original parts, the only parts that bear this trademark.



## **1.2 APPROPRIATE USE**

These combines are designed as self-propelled units with a diesel engine.

The machines are manufactured exclusively for usual agricultural purposes, i.e. for harvesting cereal, seed, rice, maize, soya, etc. by cutting or picking-up the crop, threshing and separating the grains from the ears, delivering the grains in the grain tank and unloading them into the grain wagon.

When operating the machine, make sure the cab doors are shut. The operator and instructor, if present, must remain seated in their respective seats with their seatbelts fastened (the operator should not drive the machine when standing).

The machines may be operated only by skilled personnel, who are thoroughly familiar with all the machine's functions and harvesting techniques.

Machine stability is ensured on the following inclinations, on condition that the ground is firm and the tyres offer sufficient grip:

30% (18 °) longitudinally (uphill and downhill).

30% (18°) crosswise.

These machines are designed for working on level ground to ensure even distribution of the crop inside the machine. These models HAVE NOT been developed for working on sloping ground.

#### Forbidden uses

Do not use the machine for tasks or purposes other than those specified in this Manual, on the safety decals or on other safety information provided with the machine.

The following pages contain recommendations on correct and incorrect use of the machine when travelling on public roads, during field operations and during maintenance.

#### TABLE TYPES

The 7345 S - 7347 S combines can be equipped with a 480, 540, 600, 700 or 760 cm cutting table.

**NOTE:** In this manual, the term "table/s" signifies both the cutting table and the maize header when used generically. The term "cutting table" refers to the assembly consisting of reel, cutting bar, table auger, etc. used to harvest cereal, rice, soya, etc. The term "maize header" refers to the equipment formed by stalk grippers, stripping blades, conveyor chains, etc. used for maize harvesting.

## **1.3 COMBINE IDENTIFICATION**

The combine and its main components are identified by serial numbers and/or production codes. The position of the different identification data is described below.

**NOTE:** Always quote the combine serial number when contacting your Dealer for spare parts or assistance.

# **Combine approval and safety plates -** Fig. 1 and Fig. 2

The manufacturer's type plate (1), statutory for all countries (or (2), for France only), is positioned on the outer right-hand side of the operator platform and shows the following information:

- Combine type.
- Approval number.
- Combine serial number.
- Weight (on both axles).
- Towing weight.

For further details, please refer to the type approval certificate.

The safety plate (3) is located next to the approval plate, and guarantees that the combine was built in compliance with Machinery Directive Directive 2006/42/EC as well as Directive 2004/108/EC.

This plate shows the following information:

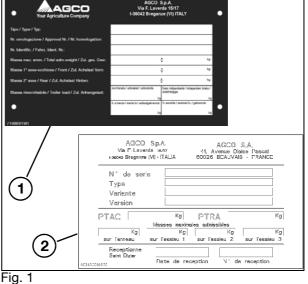
- Year of manufacture and year of use.
- Model and type of product.
- Combine serial number.
- Total weight (normal configuration).
- Nominal engine power.
- Maximum towing weight.
- Maximum vertical load on the trailer hitch.

In certain countries (e.g. Russia) the manufacturer's type plate is positioned next to another plate corresponding to the type approval.

#### **Combine identification**

Fig. 3

Combine type and serial number appear on the plate and are also punched into the rear right-hand side of the frame (1).



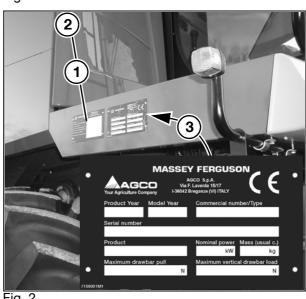
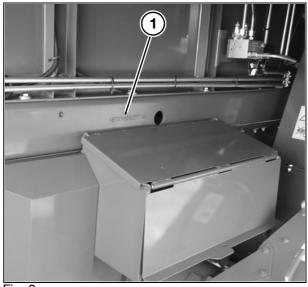


Fig. 2





#### **Engine identification**

Fig. 4

- The engine is identified by the plate (1) stating:
- Engine manufacturer
- Engine type
- Engine power and rated speed
- Engine serial number
- Valve clearance
- Customer reference code
- Idling speed
- Compliance with Directive 97/68/EC
- Name of the engine assembler.

The engine serial number is always also stamped on the cylinder block.

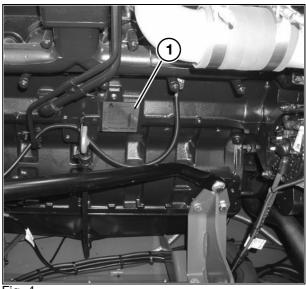


Fig. 4

#### Straw chopper identification (if fitted)

Fig. 5

The type plate is located on the right-hand side next to the straw chopper rotor support.

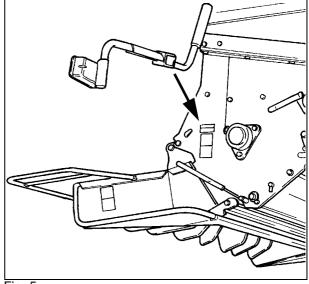


Fig. 5

#### **Cutting table identification**

Fig. 6

The cutting table can be identified by a metal plate affixed on the left-hand side.

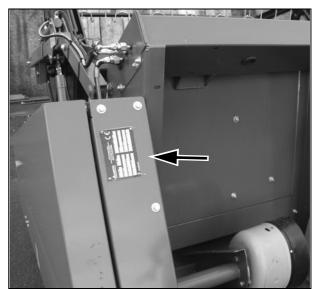


Fig. 6

#### GENERAL INFORMATION

#### Cab identification

Fig. 7

The cab identification plate is located on the lower left-hand corner of the driver's seat.

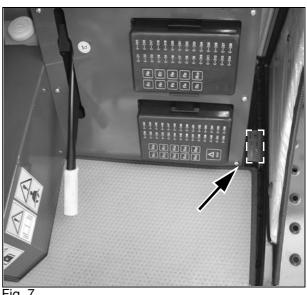


Fig. 7

#### Hydrostatic pump identification

Fig. 8 The tvi

The type plate is located on the front part of the pump.

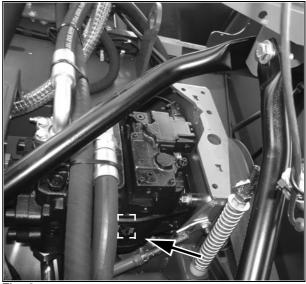
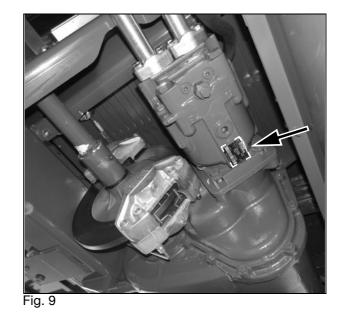


Fig. 8



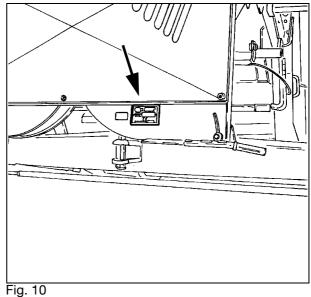
## Hydrostatic motor identification

Fig. 9

The type plate is located on the lower part of the motor.

#### Chaff spreader identification (if fitted) - Fig. 10

The type plate is located on the right-hand side next to the chaff spreader adjustment lever.



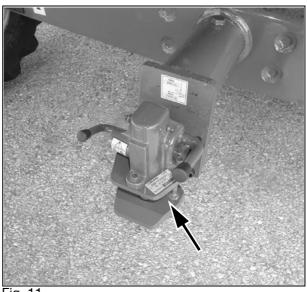


Fig. 11

## Trailer hitch identification (if fitted) - Fig. 11

The plate is positioned on the right-hand side of the trailer hitch.

#### Please enter the identification details of your combine for convenient reference:

Combine model
Combine serial number
Engine type and serial number
Cab serial number
Straw chopper serial number
Cutting table serial number
Date of initial start-up
Dealer's telephone number

#### **EC Declaration of Conformity**

The EC Declaration of Conformity, the front and reverse sides of which are shown below, certifies that **the combine** was designed and built in compliance with the regulations currently applicable within the European Community.

The cutting table has its own Declaration of Conformity.

	IT	FR	DA
AGCO	DICHIARAZIONE DI CONFORMITÀ EC IN CONFORMITÀ ALLE DIRETTIVE 2006/42/EC E 2004/108/EC	DECLARATION DE CONFORMITE CE SELON LES DIRECTIVES 2006/42/CE & 2004/100/CE	EF-OVERENSSTEMMELSESERKL&RING I OVERENSSIEMMELSE MED DIREKTIV 2006/42/EF 0G 2004/108/EF
Your Agriculture Company	('AZIENDA,	NOUS1	И1
	E IL SUO RAPPRESENTANTE AUTORIZZATO	ET NOTRE MANDATAIRE	OG VORES AUTORISEREDE REPRASENTANT
	DICHIARA SOTTO LA PROPRIA RESPONSABILITÀ CHE IL MEZZO Agricolo con la funzione di : Mietitrebbatrice	DECLARONS SOUS NOTRE SEULE RESPONSABILITE QUE LA MACHINE AGRICOLE AVIANT POUR FONCTION : MOISSONNEUSE-BATTEUSE	ERKLÆRER UNDER EGET ANSVAR, AT LANDBRUGSMASKIMEN Med funktion af : Mejetarsker
	MODELLO : 3	MODELE :	MODEL :
AGCO S.p.A. 1	NOME COMMERCIALE	NOM CONMERCIAL4	FIRMANAIN4
Via F. Laverda 15/17	NUMERO DI SERIE :	N° DE SERIE :	SERIENJAWAER :
36042 Breganze (VI)	L'OGGETTO DELLA PRESENTE DICHIARAZIONE È CONFORME Alle disposizioni della drettina 2006/42/42, modificata II:6	FAISANT L'OBJET DE LA DECLARATION EST CONFORME AUX DISPOSITIONS DE LA DIRECTIVE 2006/42/CE, Amendee Par :6	DER ER OMFAITTET AF ERKLARINGEN, ER ERKLARET I Overensstemmelse med bestemmelserne i direktiv 2006/42/EF Andret Ved
Italy	E DELLA DIRETTINA 2004/108/EC, Modificata II	AINSI QU'AUXE PRESCRIPTIONS DE LA DIRECTIVE 2004/103/CE Amendee Par 7	SAMT BESTEINNEISERNE I DIREKTIV 2004/108/EF, ANDREI VED
	SEDE E DATA	NOM, FORCTION ET SIGNATURE DE LA. Personne autorisee :	UNDERSKRIFTSBEIKYNDIGEDES NAVN, TITEL OG UNDERSKRIFT :
2		LIEU ET DATE 9	STED OG DATO
	DE	EN	ES
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	WR	WE,1	NOSOTROS
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	MODELL :	MODEL:3	MODELO :
0	HANDELSNAME :	CONIMERCIAL NAME	NOMBRE COMERCIMI
	SERIENNUMMER :	SERIAL NUMBER :5	NÚMERO DE SERIE :
	DAS GEGENSTAND DIESER ERKLÄRUNG IST, DEN BESTIMMUNGEN Folgender Richtlinien genügt: Richtlinie 2006/42/42, Ergänzt durch :	FORMING THE SUBJECT OF THE DECLARATION IS IN Comporning with the provisions of directive 2006/42/eC, Amended by :	A LA QUE SE REFIERE ESTA DECLARACIÓN Con las disposiciones de la directiva 2006/42/CE, Modificada PCR :6
	SOWNE RICHTLINIE 2004/108/EG, ERGÄNZT OURCH :	AS WELL AS WITH THE PROVISIONS OF DIRECTIVE 2004/108/EC, AMENDED BY	ASÍ COMO LAS DISPOSICIONES DE LA DIRECTIVA 2004/108/CE,
	NAME, FUNKTION UND UNTERSCHRIFT DES BEVOLLMÄCHTIGTEN : 8	NAME, ROLE AND SIGNATURE OF THE AUTHORISED PERSON : 8	MODIFICADA POR7 NOMBRE, CARGO Y FIRMA DE LA PERSONA AUTORIZADA : 8
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	KINNITAME OMAL TÄJEL VASTUTUSEL, ET JÄRGMINE Põluutöömasin : Kombajn	VAKUUTAAMME TÄYSIN OMALLA VASTUULLAMME, ETTÄ Maatalouskoine, joka toimii Leikouupummirina	DAT DE LANDOOUWMACHINE MET DE FUNCTIE VAN: Maaidorser Model :3
	MUDEL :3	MALLI :	HANDELSNAAM
	KAUBANIMI :	KAUPPANINI	SERIENUMMER :
	SEERIANUMBER : S	SARJANUMERO :	WAAROP DE VERKLARING BETREKKING HEEFT. IN
	MIS ON KÄESOLEVA DEKLARATSIDONI OBJEKTIKS, ON VASTAUSES DIREKTIIVIGA 2006/42/EÜ, MIDA ON MUU- DETUD DIREKTIIVIGA6	JA JOKA MUDOOSSIA TÄMÄN VAKUUTUKSEN KOHTEEN, ON DIREKTIIVIN 2006/42/EY JA SEN MUUTOSTEN :6 Sekä direktiivin 2004/108/EY JA SEN MUUTOSTEN : 7	OVEREENSTEMMING IS MET DE BEPAUNGEN VAN DE RICHTLINN 2006/42/EG, 2004/5 Gewijzigd door :
		EHTOJEN MUKAINEN VULTUUTETUN HENKILÖN NIMI, TEHTÄVÄ JA ALLEKIRJOITUS : 8	ALSMEDE HET DE BEPALINGEN VAN DE RICHTLUW 2004/108/EG, ZDALS GEWUZIGD DOOR
	VOLITATUD ISIKU NIMI, AMET JA ALLKIRI :8	PAIKKA JA PĀIVĀYS	NAAM, FUNCTIE EN HANDTEKENING VAN DE BEVOEGDE Persoom :
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## 1.4 ECOLOGY: INFORMATION FOR THE PREVENTION OF ENVIRONMENTAL POLLUTION

Soil, air and water are essential to agriculture and to all life on earth. **PROTECT THEM**. In areas where no local regulations impose standards for the use and disposal of chemicals and petrochemical products required by modern technology, all necessary precautions must be adopted to avoid any risk of pollution.

The following guidelines may be helpful:

- Find out about the legal requirements in your country and comply strictly with them.
- If no regulations are in force, ask your Dealer about the effects of lubricants, fuels, antifreeze mixtures, cleaning agents etc. on people and the environment; also ask how to store, use and dispose of such products correctly. In most cases, agricultural advisers will be able to answer your questions satisfactorily.

#### Instructions:

- When refuelling the machine, take all necessary precautions to avoid fuel spillage. In particular, avoid using pressurised containers or fuel supply systems, as these are unsuitable.
- As a rule, avoid any skin contact with liquid fuels, lubricants, acids, solvents, etc. Many of these products contain substances which are potentially injurious to health.

## Do not dispose of lubricants by burning: They contain substances which may be noxious when burned.

- 4.) Whenever possible, use biodegradable oil for lubricating the chains, as this oil cannot be collected.
  In many countries, biodegradable rape oil and other vegetable lubricants are available on the market.
- 5.) Avoid spillage while draining oil, brake fluid, coolant etc. from the engine, gearbox and hydraulic system. Collect the fluids in suitable containers and dispose of them properly, according to regulations in force and the availability of suitable systems.
- 6.) Modern coolants and mixtures, e.g. antifreeze and other additives, must be replaced every two years. Never let them drain into the ground; collect and dispose of them safely.
- 7.) Never open or modify the air-conditioning system. It contains gases which must not be released in the atmosphere. Contact your Dealer or a specialist who has the correct equipment for emptying and recharging the system and for carrying out any required maintenance or repair.
- 8.) Immediately repair any leaks or defects in the engine cooling or hydraulic system to prevent any risk of pollution.
- 9.) Never increase the pressure in a pressurised system. This may cause the components to burst.
- 10.) When welding, protect the hoses properly against welding spatters that could damage or weaken hoses and sleeves, resulting in oil and coolant leaks.

## 1.5 SAFETY

#### Accidents can be prevented with your help.

All accident prevention depends on the full cooperation of the persons using or involved with service or maintenance of the machine.

Most accidents can be avoided by observing simple safety rules.

The best safety system is one in which the operator observes all applicable regulations for safety or servicing the machine.

Some of the illustrations contained in this manual pertain to combine models of the same series, which may be differently equipped. This means that apparent discrepancies may result between any particular combine and those depicted in this manual.



This symbol is used in this manual whenever your safety is involved.

TAKE THE TIME TO READ AND FOLLOW THE INSTRUCTIONS. MOST IMPORTANTLY, BE CAREFUL!

YOU CAN NEVER BE TOO PRUDENT.

IN ORDER TO PROVIDE A BETTER VIEW, CERTAIN PHOTOGRAPHS OR ILLUSTRATIONS IN THIS MANUAL MAY SHOW AN ASSEMBLY WITH THE SAFETY GUARDS OPEN OR REMOVED.

ENSURE THAT ALL GUARDS ARE FITTED AND CLOSED PRIOR TO MACHINE OPERATION.

# WARNING SYMBOLS AND SAFETY INSTRUCTIONS

#### **Personal Safety**

Three types of warning signs appear in this manual and on the decals applied to the machine ("*CAUTION", "WARNING" and "DANGER"*) followed by specific instructions or decals with symbols clearly illustrating the type of hazard. These instructions involve your safety and the safety of people working nearby.

Pay particular attention to these warnings.

**CAUTION:** Indicates a potentially dangerous situation which, if not avoided, may result in minor injuries.

WARNING: Indicates a potentially dangerous situation which, if not avoided, may result in serious injuries.

**DANGER:** Indicates a potentially dangerous situation which, if not avoided, may result in very serious injuries or even death.

FAILURE TO FOLLOW THE INSTRUCTIONS RELATED TO THE TERMS "*CAUTION*", "*WARNING*" AND "*DANGER*" MAY RESULT IN SERIOUS INJURIES OR EVEN DEATH.

#### Machine safety

Other types of warning ("NOTE", "IMPORTANT" and "ATTENTION") are followed by special instructions referring to the safeguarding of the machine.

**NOTE:** Highlights and describes correct techniques or procedures to be adopted by the operator.

*IMPORTANT:* Informs the operator of procedures that may prevent damage to the machine.

**ATTENTION:** Informs the operator that unless a special procedure is followed, severe damage could be caused to the machine.

#### SAFETY PRECAUTIONS

Most agricultural accidents can be avoided by observing simple safety rules.

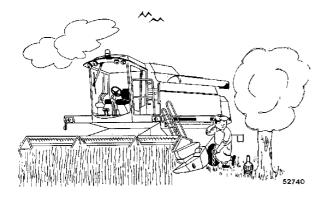
Before starting the machine, sound the horn several times and make sure that there are no people, domestic pets or obstacles nearby. During manoeuvres remember that the reversing buzzer might not be understood by some people (for example children) as a danger signal.

#### **ROAD TRANSPORT**

#### **Combine road transport**

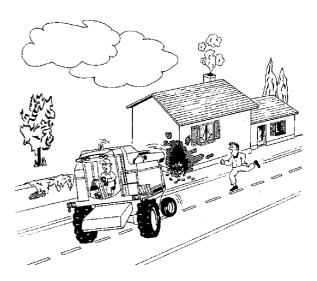
 The combine may be operated only by responsible personnel, trained and authorised to work with the machine. Avoid operating the combine when physically unfit; it is better to interrupt work than to risk an accident.

```
WARNING: Operators should not use
alcohol or drugs which can effect their
alertness or coordination when operating
the combine. Operators on prescription or
over-the-counter drugs need a doctor's
note to certify that they can operate the
combine properly.
```



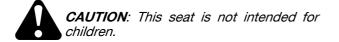
 In many countries (e.g. Italy and France) a driving licence is required if the combine is to be driven on public roads.

- 3.) Operators should familiarise themselves with the provisions of the Road Traffic Acts and of the regulations thereunder in order to ensure that, when taking the combine on public roads, they comply with the relevant statutory requirements. They should keep a suitable speed for road and traffic conditions and ensure that all the machine safety devices (if required) are fitted and working properly. The grain tank must be empty and the unloading auger must be turned in.
- 4.) For safety reasons, the two brake pedals must be latched in order to be pressed simultaneously when travelling on roads. To hold the machine on inclined ground, the handbrake must be used (the braking effect of the hydrostatic drive alone is not sufficient).

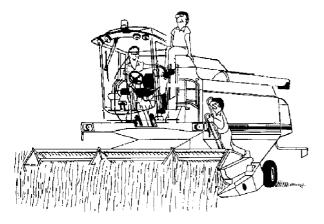


- 5.) When travelling on roads, make sure that the rotating beacons and the other additional signals required to warn that the vehicle is abnormally large and slow-moving, are working properly.
- 6.) When driving on roads, turn the cab access ladder forward. When entering and leaving the combine always use the ladders, handrails and the handles provided. It is strictly forbidden to ride on the access ladders to the cab, engine compartment and grain tank when the machine is moving.

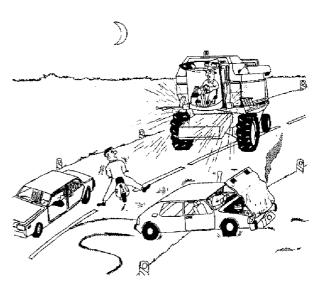
7.) On the left-hand side of the operator seat there is an additional seat that can be used by a trainee during harvest. No other persons are allowed on the machine.



In road transport, one person employed for agricultural jobs is allowed in the passenger seat, provided this is permitted by local regulations and provided that a seat for transport of a passenger on public roads is in accordance with the combine documentation. Always use the seatbelts provided on the operator seat and on the other seat, if an instructor is present.



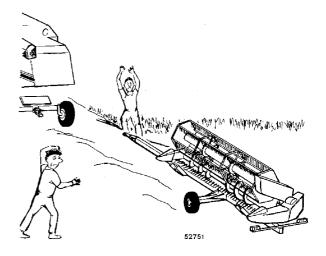
- 8.) It is advisable to keep a first-aid kit on hand.
- 9.) Do not brake abruptly as this could cause the machine to swerve.
- 10.) When driving downhill, never exceed 20 km/h and always stay in gear; never change into neutral.
  On steep slopes, change into a lower gear.
  Gradually engage the multifunction lever.
  Avoid abrupt driving manoeuvres that might cause the machine to overturn.
- 11.) In countries where travelling on roads with the table attached is allowed when circumstances permit, the table must be secured against lowering by engaging the safety stops on the hydraulic cylinders and locking the main crop elevator adapter.
- 12.) When driving on the road at night, the front headlights must be dipped so that the low beam line hits the ground no further than 10 m in front of the vehicle.The rotating beacons must always be operating, even when there is no need for visual signalling and lighting devices. Switch off the work lights.



13.) Before driving on public roads, ensure the machine is equipped for road transport (see page 3-43).

## WARNING: The combine may be transported on public roads only with an empty grain tank.

- 14.) If it is necessary to tow the combine due to a mechanical breakdown, strictly follow the procedure indicated on page 1-45.
- 15.) When driving on public roads towing the cutting table, ensure that the local traffic regulations (lights, correctly fitted trailer hitch etc.) are complied with. Ensure the cutter bar protection shield is fitted.



#### **FIELD OPERATIONS**

**DANGER**: To provide a better view, certain illustrations in this manual show the machine with the safety guards removed. However, the machine should never operate in this condition. Keep all guards in place. Use drive shafts with adequate protection devices.

 Before starting work the operator should familiarise himself thoroughly with all machine controls.
 Ensure that the table has been properly attached. The combine manufacturer shall

attached. The combine manufacturer shall not be held liable if non-genuine tables are used.

- During harvesting operations do NOT allow anyone to come near the machine.
   People nearby could be knocked, struck or squashed by the machine or be trapped in the harvesting parts.
- 3.) Always drive the combine at a speed which, depending on ground conditions, provides the necessary safety.

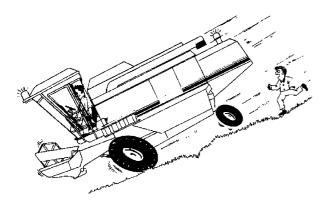
When working **on rough ground**, proceed with great care to ensure machine stability.

Always use the seatbelts provided on the operator seat and on the other seat, if an instructor is present.

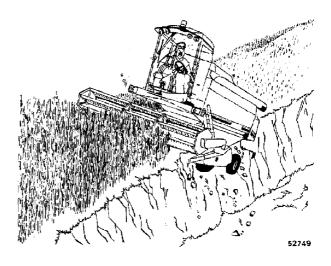
4.) If you have to work with the combine on sloping ground, drive at slow speed, in particular while turning and when the grain tank is full.

The combine must not be used in the following situations (this list is not exhaustive):

- When maximum allowable inclination is exceeded (see page 1-3)
- If correct securing of the cutting table to the main crop elevator with the safety stops has not been checked
- If adequate ballast has not been applied to balance the machine on the rear axle
- If correct tyre pressures have not been checked
- If the ground is not sufficiently firm or features sudden surface changes, or the tyres do not have enough grip on the ground
- If working close to the edge of ditches or steep drops.

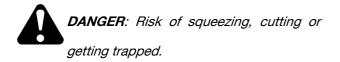






5.) If the machine tends to tilt forward when working on slopes, lower the cutting table completely.

6.) Take turns at moderate speeds (3 - 4 Km/h).



7.) If any moving part becomes blocked or jammed, release it only when the engine is switched off and all drives have come to a complete stop. Never push the crop into the main crop elevator by hand or feet. This could result in danger to life or severe injury.

- 8.) Threshing dust may cause allergic lung diseases. The dust may also contain residues of pesticides injurious to health. Keep the cab door shut when threshing. Wear a protection mask when carrying out service work involving exposure to dust (cab filters, rotary screen etc.) and when working with compressed air.
- 9.) Keep a fire extinguisher within easy reach. Check the extinguisher at the intervals prescribed by national law.

Replace or recharge it whenever it has been used, even if only partially.

The type of extinguisher approved for Europe contains 6 kg of extinguishing agent and belongs to fire class ABC.

We recommend checking the dimensions of a new extinguisher to ensure that it can be stored underneath the operator's seat.

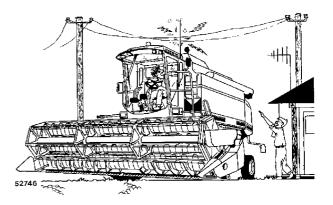


DANGER: Risk of electrocution.

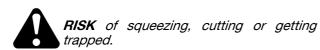
- 10.) Beware of overhead lines and check that the combine can easily pass under without touching the lines, particularly if:
  - Equipped with an antenna
  - The unloading auger is turned out
  - The grain tank cover is open.

A height of 4 metres is exceeded in these cases Make sure the machine is able to pass through easily. In case of contact between the machine and the power supply line, the following procedure must be adopted:

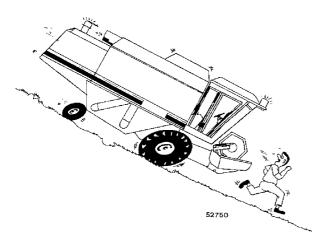
- a) Disengage all drives.
- b) Switch off the engine.
- c) Apply the parking brake.
- d) Ensure that you can leave the operator seat safely without touching the electrical cables.
- e) Jump from the last step, making sure there is no contact of body parts, ground and machine.
- f) Do not touch the machine until the power has been cut off. Anyone approaching the machine must be informed not to touch it.
- g) Ask the power station to cut off the power.



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- 11.) Never leave the cutting table in raised position when the combine is stationary.
- 13.) Check the torque of the wheel fixing elements after any maintenance work that involves removal. It is good practice to check the wheels daily to ensure that nothing has loosened or become defective in any way.



- 12.) Always park the combine on level ground. In the event of an emergency, when parking on level ground is not possible, park the combine across the slope, engage 1<sup>st</sup> gear and apply the handbrake before stopping the engine. If it is not possible to park as described above, proceed as follows:
  - Downhill parking: engage 1<sup>st</sup> gear. On machines with hydrostatic drive, pull the multifunction lever slightly backward until the drive engages, switch off the engine and lock the parking brake. Get off the machine and place sprags (if available) or a solid object of a suitable size in front of the traction wheels.
  - Uphill parking: engage 1<sup>st</sup> gear. On machines with hydrostatic drive, push the multifunction lever forward until the drive engages, switch off the engine and lock the parking brake. Get off the machine and place sprags (if available) or a solid object of a suitable size behind the traction wheels.

In any case, before leaving the combine unattended, switch off the engine, remove the ignition key and lower the cutting table.

#### MAINTENANCE WORK

#### Work on the Machine

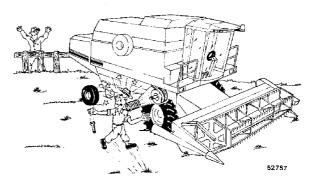
- **DANGER:** The operator may only perform adjustments/maintenance that he is totally familiar with and for which he has the necessary tools; otherwise, he must consult the local Dealer.
- Before inspecting, cleaning, adjusting or servicing the combine and table (grain or maize), always ensure that the engine is stopped, the brakes are applied and all moving parts have come to a complete stop.

3.) Pay special attention while removing preloaded parts.



#### DANGER: Risk of shocks.

It is strictly forbidden to loosen the nut fastening the cylinder variator pulley without using proper tools. This operation may be carried out only by your Dealer's skilled staff. The operator may only perform adjustments/maintenance that he is totally familiar with and for which he has the necessary tools; otherwise, he must consult the local Dealer.



- Work on tyres requires correct tools and expert knowledge. An incorrect assembly can seriously compromise your safety. When in doubt, refer to specialised staff.
- 5.) Before refitting the wheels, ensure that the contact surfaces of wheel rim and final drive hub are perfectly clean (remove paint); check that the threads are in perfect condition.

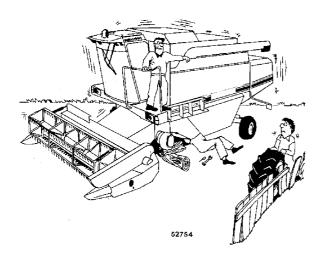
The front wheel fixing elements must be torque tightened to 700 Nm (71 kgm) crosswise and the rear wheel fixing elements to 304 Nm (31 kgm).

Check the aforementioned tightening torques again after the first and second hours of work or road travel and then every ten hours at least five times.



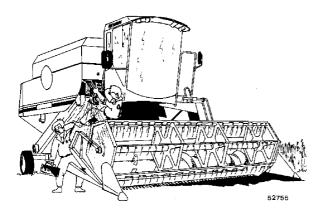
- WARNING: Wear protective clothing (overalls, gloves, shoes, goggles, mask, etc.) suited to the maintenance operation that you intend to carry out.
- To lift one side of the machine (for example to remove a wheel), use lifting equipment with suitable capacity, e.g. a column hydraulic jack or a lift with a minimum capacity of 10,000 kg.

6.) Do not carry out any work (inspection or maintenance) on the machine when the wheels have been removed, unless the machine is properly supported.



**DANGER:** Risk of high pressure fluid splashes.

7.) The air-conditioning, hydraulic, hydrostatic and diesel oil injection systems may be pressurised. Maintenance work on the systems may be carried out only by specially trained staff.



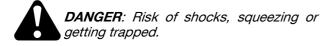
 Before working on any part of the electrical system, remove the battery ground cable or switch off the main battery switch. 9.) When carrying out emergency **welding on the machine**, heat and welding splatters may cause serious damage. If possible, have this work carried out by skilled staff.

To prevent damage to the engine electronic components, remove the specific component from the combine and weld it separately.

If the component cannot be removed, proceed as follows:

- a) Stop the engine.
- b) Disconnect the negative cable from the battery.
- c) Disconnect the harnesses from the engine ECU.
- d) Tie up the harnesses to the machine so that they cannot touch the engine ECU.
- e) Connect the welder ground cable as close as possible to the area where the welding is to be carried out.
- f) Protect hydraulic and electric components exposed to welding spatters.
- 10.) After any maintenance or repair work, collect all tools used and store them in the toolbox on the combine (right-hand side). Always check the combine for loose parts, and ensure all guards have been correctly reinstalled.
- 11.) Before starting the combine, make sure all guards are fitted and that safety guards with locks are properly secured. These guards can be opened with a tool or with the suitable key supplied with the ignition key. Also check table, grain tank and sieves for loose/disassembled parts.
  - **DANGER:** Risk of shocks, squeezing or getting trapped. Always sound the horn three times to warn persons nearby of your intention to start the engine.
- 12.) Before starting the engine, make sure no one is carrying out service or inspection on the machine or standing in the combine operating range.

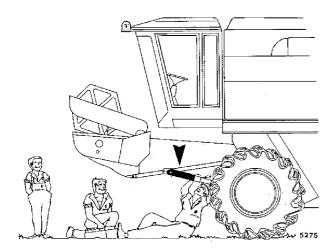
13.) Always keep children away from the combine.



14.) It is strictly forbidden to enter the grain tank without stopping the engine and removing the ignition key from the switch. Before inspecting, cleaning, adjusting or servicing combines and tables (grain, maize, etc.), always ensure that the engine is stopped, the parking brake is applied and all moving parts have come to a complete stop.



15.) Never work under the cutting table without securing it firmly and/or engaging the safety stops on the crop elevator lifting rams.





DANGER: Risk of getting trapped.

16.) Never work on the machine wearing loose clothing that could get caught in a moving part. Check that all rotating parts are protected with safety guards.



17.) Keep clear of all moving parts on the machine and particularly on the table.

 After any lubrication, adjustment or repair work, always refit all safety guards. Replace or repair missing or damaged safety guards immediately.



- 19.) Do not step onto the grain tank cover or cab roof. To reach high areas (for example the inspection covers on the unloading auger) use suitable means of access.
- 20.) While operating the combine, pay special attention to correct function and the efficiency of the braking system, checking the oil level in the tank and replacing friction pads before they wear out completely.

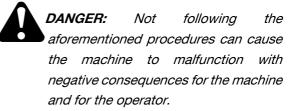


21.) It is strictly forbidden to modify a hydraulic accumulator by mechanical machining, welding, etc.

For the accumulator inspection or replacement, refer to your local Dealer.

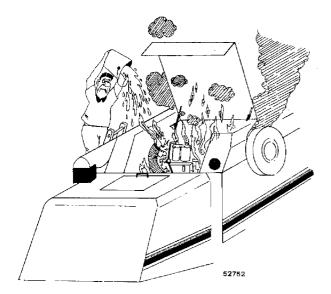
22.) If you use a high pressure water jet, avoid directing the jet over electronic components (for example, the engine control unit) and electrical components, seals, bleed plugs, tank plugs etc.

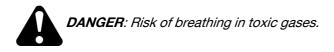
Even though these components have been manufactured in such a way as not to be damaged by water, some high pressure water jets could cause water to get in and/or mechanical damage.



#### ENGINE

- 1.) Never start the engine if battery recharging equipment is connected to the machine.
- Always keep the engine and the engine compartment clean. Dust, diesel oil, oil and accumulated straw are highly flammable.
   For the same reason, also keep the transmission housing and the brake system clean.





3.) Never operate the engine in an enclosed area without ensuring proper ventilation, since highly toxic exhaust gases are generated.

4.) Wear hearing protectors (ear muffs or plugs) if exposed to irritating noise.

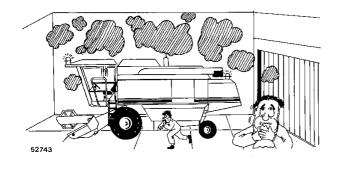


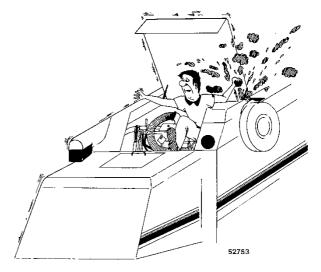
5.) The cooling system is pressurised and the pressure is checked at the plug of the radiator expansion tank.

Removing the cap when the engine is hot is extremely dangerous. Switch off the engine and wait until it has cooled down sufficiently. Even when the engine is cold, remove the cap with extreme caution covering it with a cloth and turning it slowly to the first stop to release pressure before removing it completely.

Coolant may be added only when the engine is switched off and cold.

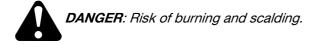
Failure to comply with these instructions may cause severe burns by sprays of liquid or steam, and damage to the engine cooling system.





## GENERAL INFORMATION

- 6.) The coolant (antifreeze) contains monoethylene glycol and other chemicals which are toxic if ingested; prolonged contact with the skin should also be avoided. When working with antifreeze, take the following precautions:
- Use rubber gloves and goggles to prevent injury from splashes.
- Do not ingest the solution. If swallowed, see a doctor immediately.
- If any part of the body should come into contact with the solution, wash immediately under running water.
- Keep the antifreeze in sealed containers, out of reach of children, livestock and pets.



- 7.) The diesel oil in the injection system is pressurised and sprays may penetrate your skin. The injectors or other parts of the injection system must not be modified, opened or repaired by unauthorised personnel. Non-compliance with this precaution may result in serious injuries.
- 8.) In any event, avoid contact with hot engine oil. If the oil is very hot, let it cool off to a moderate temperature before draining it.
- 9.) Replace the oil filter only when the engine is cold and under no circumstances with bare hands, to avoid contact with the oil.
- 10.) Continuous contact with used engine oil may cause skin cancer. Protect your skin with rubber gloves, specifically suited for mineral oils. If the oil should come into contact with your skin, wash immediately in running water and soap; never use solvents.

#### **Diesel oil**



 Petrol, alcohol or mixtures of combustible oils or fuels should under no circumstances be added to the diesel oil. Mixtures of this type can generate unpredictable hazards and increase the risk of fire or explosion.
 When shut up in the fuel tank, these mixtures can be more explosive than pure petrol. Never use these mixtures for any reason whatsoever.

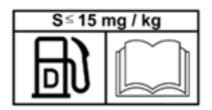
Special additives may be added only if expressly approved by your local Dealer.

- 2.) Never open the tank cap when the engine is running or still hot. Under no circumstances refuel when the engine is running or still hot. Smoking and naked flames should be avoided when refuelling.
- 3.) When refuelling, keep an eye on the fuel filler pipe nozzle at all times.
- 4.) Do not top up the tank completely, leave room for the fuel to expand.
- 5.) Immediately wipe up any traces of spilled fuel.
- 6.) Always tighten the tank cap securely.
- 7.) If the original fuel tank cap is lost, replace it only by a cap approved by the manufacturer. Another type of cap may not provide adequate safety.
- 8.) Refuelling systems must always be kept clean and operational.
- 9.) Never operate refuelling systems next to naked flames.
- 10.) Never use diesel oil for cleaning purposes.

# Instructions for the correct use of environmentally-friendly engines

The quality of diesel oil used is the most important factor in allowing the engine to offer the performance specified as regards fume suppression.

It is, as a result, very important to comply with the specifications for "allowable fuels" set out in page 7-4.



If a fuel with a high sulphur content is used, the effectiveness of the exhaust fume suppression system is progressively lowered.

This is a result of sulphur accumulating in the catalysers, especially if exhaust temperatures are low.

Because these sulphur deposits cannot be removed from the catalysers, the only way to make the system run efficiently is to replace them.

The system measures the quantity of nitrogen oxide in the exhaust gas and if it exceeds normal levels, it limits engine power and indicates the problem to the operator.

**NOTE:** After the engine has been switched off, the system remains on (to drain the circuits) for more than a minute. The operator must not intervene in any way.



This decal reminds the operator to use only DEF (Diesel Exhaust Fluid) as catalytic fluid.

#### BATTERY

**WARNING:** The battery contains an electrolytic solution with sulphuric acid, which may cause burns and produce serious explosions. Avoid contact with skin, eyes and clothing. Do not ingest. During recharging, hydrogen may be released (the gas is explosive in certain concentrations and when kept in enclosed areas).

Respect the basic precautions listed below:

- Do not approach sparks, flames and cigarettes or other incandescent material to the battery.
- Avoid producing sparks with the cable terminals when charging the battery or starting the engine with an auxiliary battery.
- Wear safety goggles and rubber gloves suited for use with acids when working near the battery.
- When charging the battery in an enclosed area, make sure it is properly ventilated.
- Before recharging, remove the plugs and check the liquid level; top up, if required.
- Make sure the plugs are fitted correctly and properly tightened to the battery before putting the machine into operation.

If electrolyte gets in contact with your skin, eyes or is ingested, proceed as follows:

- Skin = wash in abundant cold running water.
- Eyes = wash immediately in abundant cold running water for at least 15 minutes and call a doctor immediately.
- If swallowed = call a doctor immediately.

**IMPORTANT:** Before working on any part of the electrical system switch off the main battery switch.

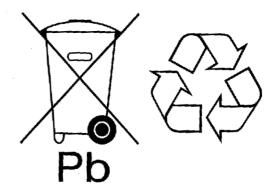
NOTE: To replace the battery, see page 6-30.

#### **Battery disposal**

Batteries contain substances that may be harmful to human health or the environment when not handled correctly.

Batteries feature a waterproof, sealed pocket that contains user instructions.

In addition to the instructions, there is a decal showing a wheeled container.



This image indicates that used batteries must be collected separately and must not be discarded with domestic waste.

Deposit batteries for disposal in the appropriate containers, in order to re-use them without polluting the environment.

Used batteries may be given to specialised laboratories, recycling centres or collection points designated by battery manufacturers.

#### SAFETY DECALS

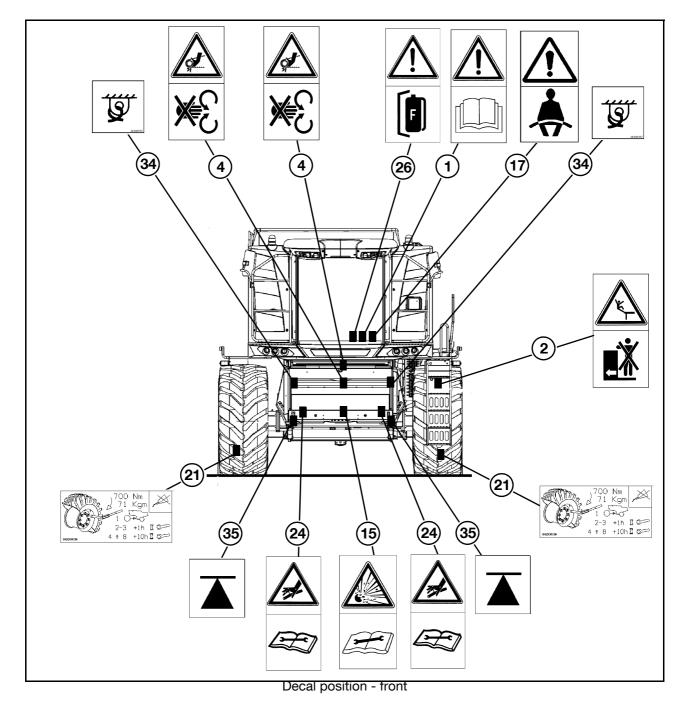
Safety decals are positioned on the machine as illustrated below.

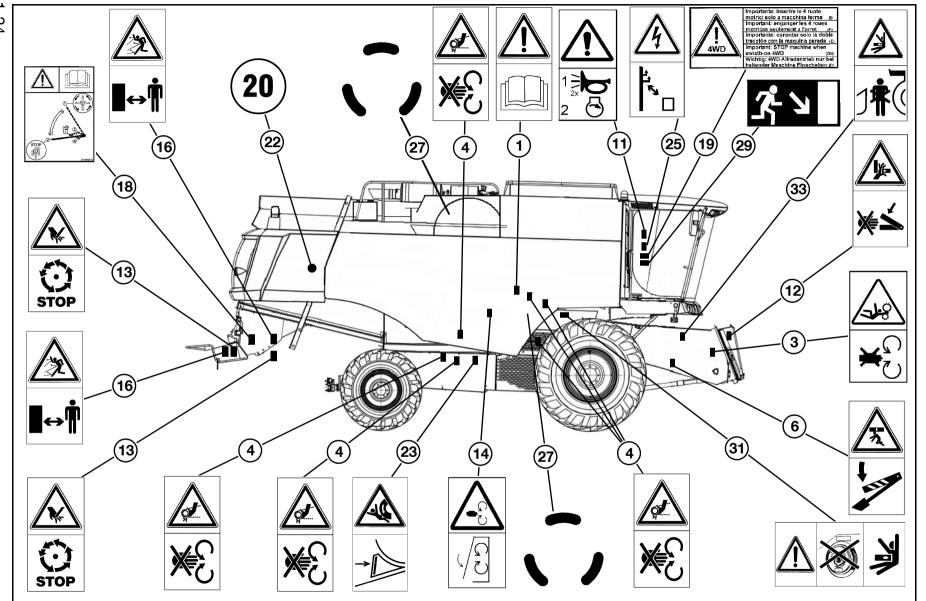
The decals provide immediate, easy and clear warning for operator and personnel about the unavoidable hazard areas, under the guards or in special sections of the machine, involving personal safety. Using this manual as a guide, look over the machine and note the position and the meaning of each safety decal.

Review the safety decals with the machine operators, along with the operating instructions of this manual.



**WARNING**: Make sure the decals are always legible; otherwise, ask for replacements from your local Dealer.

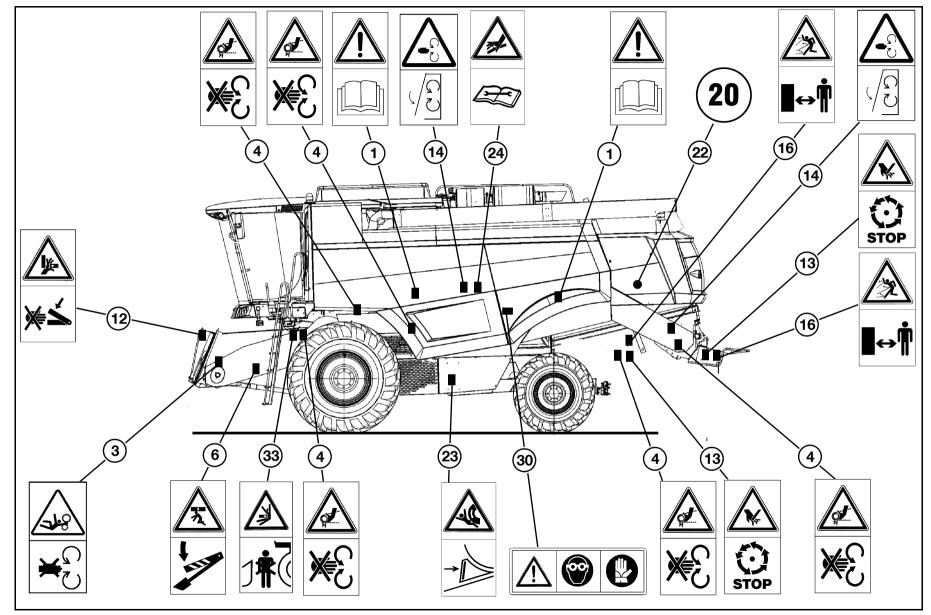




Decal position - right-hand side

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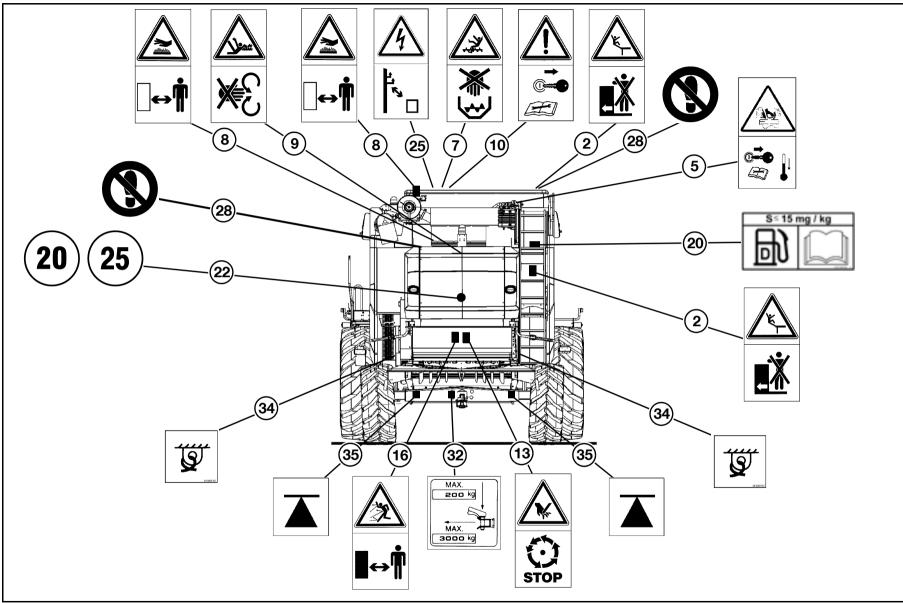
1-24



Decal position - left-hand side

1-25

GENERAL INFORMATION



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1-26

Decal position - rear

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