Farmall 80
Farmall 90
Farmall 100
Tractor

OPERATOR'S MANUAL



October 2018

Contents

1 GENERAL INFORMATION	
Note to the owner	
Identification from the engine	
Nameplate	
Noise levels	
Universal symbols	1-6
2 SAFETY INFORMATION	0.4
Safety precautions	
Roll Over Protection Structure (ROPS)	
Safety Decals - Cab models	
Safety decals – Models without cab	
Before operating the machine	
Driving the vehicle	2-15
Machine operation	2-16
Power take off (PTO) operation	2-17
Maintenance	2-17
Diesel fuel	
Fire or Explosion Prevention	
Air conditioner	
Intended use statement	2-22
3 CONTROLS AND INSTRUMENTS ACCESS TO OPERATOR'S PLATFORM General check	3_1
ACCESS TO OPERATOR'S PLATFORM General check	3-1 3-2
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab	3-2 3-4
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models	3-2 3-4 3-5
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview	3-2 3-4 3-5 3-6
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models	3-2 3-4 3-5 3-6
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header	3-2 3-4 3-5 3-6
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT	3-2 3-4 3-5 3-6 3-7
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat	3-2 3-4 3-5 3-6 3-7
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT	3-2 3-4 3-5 3-6 3-7
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat	3-2 3-4 3-5 3-6 3-7
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front	3-2 3-5 3-6 3-7 3-8 3-10
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch	3-2 3-5 3-6 3-7 3-10
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch Four-wheel drive with electro-hydraulic control.	3-2 3-5 3-6 3-7 3-8 3-10
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch Four-wheel drive with electro-hydraulic control. Differential eletro-hydraulic lock	3-2 3-5 3-6 3-7 3-8 3-10 3-11 3-13 3-14
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch Four-wheel drive with electro-hydraulic control. Differential eletro-hydraulic lock Cold starting aids (when fitted)	3-2 3-5 3-6 3-7 3-10 3-11 3-14 3-14
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch Four-wheel drive with electro-hydraulic control. Differential eletro-hydraulic lock	3-2 3-5 3-6 3-7 3-10 3-11 3-14 3-14
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch Four-wheel drive with electro-hydraulic control. Differential eletro-hydraulic lock Cold starting aids (when fitted)	3-2 3-5 3-6 3-7 3-8 3-10 3-14 3-14 3-14
ACCESS TO OPERATOR'S PLATFORM General check Introduction Rearview mirrors – Models without cab Rearview mirrors - Cab models Cab - Overview Platform header OPERATOR'S SEAT Operator's seat Seat belt FORWARD CONTROLS Controls front Ignition switch Four-wheel drive with electro-hydraulic control Differential eletro-hydraulic lock Cold starting aids (when fitted) Warning lights	3-2 3-5 3-6 3-7 3-10 3-11 3-12 3-13 3-14 3-15 3-16

Adjustments the steering column	
LEFT-HAND SIDE CONTROLS Left-hand side controls	3-19
RIGHT-HAND SIDE CONTROLS Controls valve Hydraulic controls	3-20
Differential lock system – Mechanical	
REARWARD CONTROLS Switch - Rear work light	3-23
OVERHEAD CONTROLS Radio (when fitted) Interior lights	
Climate controls	
EXTERIOR CONTROLS Power Take-Off (PTO) – Speed selection lever	3-27
Instrument panel	
OPERATING INSTRUCTIONS	
COMMISSIONING THE UNIT General instructions	
STARTING THE UNIT Starting the engine Cold starting aids (when fitted) Booster battery procedure	4-4
STOPPING THE UNIT Stopping the engine	. 4-7
TRANSPORT OPERATIONS PREPARING FOR ROAD TRANSPORT	
Machine loading in a transporter	5-1

RECOVERY TRANSPORT Towing the machine	5-1
6 WORKING OPERATIONS	
GENERAL INFORMATION	
Traction Front Wheel Drive (FWD)	
TRANSMISSION	
Operation - 12x4 Mechanical transmission	6-3
Travel speeds – 12x4 Mechanical transmission	6-4
Operation - 12x12 Mechanical transmission	
Travel speeds - 12x12 Mechanical transmission	
Operation - 20x12 Mechanical transmission	
Informational decals - Transmission	
Inching pedal and throttle	
Throttle by hand	. 6-12
REAR POWER TAKE-OFF	
Operating precautions	
Power Take-Off (PTO) operation – With mechanical drive – Models without cab	
Power Take-Off (PTO) operation – With mechanical drive – models with cab	
Power Take-Off (PTO) operation with electrical hydraulic activation Operating speeds of the Power Take-Off (PTO)	
Operating speeds of the Power Take-On (PTO)	. 0-22
HYDRAULIC REMOTE CONTROL VALVES	
Operation – Remote control valves – Models without cab	. 6-24
Operation – Remote control valves – Models with cab	
Installing attachments	. 6-28
THREE POINT HITCH	
Attach the implement on the hydraulic lift	
Adjustments - Three-point hydraulic lift	
Hydraulics Operation of the hydraulic system	
Maximum Work Height of the hydraulic lift	
Quick guide - Use of hydraulic system levers	
DRAWBARS AND TOWING ATTACHMENTS	
Attaching a trailer	. 6-39
Tractor drawbar	
Tractor ballasting	
Tire care – Wheels	
Tires – Calibration and assembly safety	. 6-43

Tire types – For the application	. 6-44 . 6-45
Wheels - General information – General features	
Assembly – Tires	
Tires – Recommendations for calibration	
Tires - Calibration	
Tire pressures and permissible loads Tires – Compatibility of front x rear tires	
Tires	
Liquid ballast	
Liquid ballast – Capacity table	6-68
Wheels rims - Adjustments	. 6-72
Front axle	
Steering stops	
Wheels – Mounting depth	
Front wheel track adjustment – Version without Auxiliary Front-Wheel Drive (A	
Front wheel track adjustment	
Adjustement of the dynamic front mudguards	. 6-81
Powered front axle - Alignment	. 6-84
Rear axle	
Rear wheel track adjustment	. 6-85
7 MAINTENANCE	
GENERAL INFORMATION	
Introduction	
Fuel handling precautions	7-3
Fuel handling precautions	7-3 7-5
Fuel handling precautions	7-3 7-5 7-6
Fuel handling precautions	7-3 7-5 7-6 7-8
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant.	7-3 7-5 7-6 7-8 7-9
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART	7-3 7-5 7-6 7-8 7-9 . 7-10
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart	7-3 7-5 7-6 7-8 7-9 . 7-10
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart. WHEN THE WARNING LAMP LIGHTS	7-3 7-5 7-6 7-8 7-9 . 7-10
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart WHEN THE WARNING LAMP LIGHTS Engine air filter, primary – Cleaning	7-3 7-5 7-6 7-8 7-9 . 7-10
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart. WHEN THE WARNING LAMP LIGHTS	7-3 7-5 7-6 7-8 7-9 . 7-10
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart WHEN THE WARNING LAMP LIGHTS Engine air filter, primary – Cleaning	7-3 7-5 7-6 7-8 7-9 . 7-10
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart. WHEN THE WARNING LAMP LIGHTS Engine air filter, primary – Cleaning Brake fluid – Check EVERY 10 HOURS OR EACH DAY Fuel system water separator – Drain	7-3 7-5 7-6 7-8 7-9 . 7-10 . 7-12 . 7-14 . 7-16
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart. WHEN THE WARNING LAMP LIGHTS Engine air filter, primary – Cleaning Brake fluid – Check EVERY 10 HOURS OR EACH DAY Fuel system water separator – Drain Engine coolant concentration level	7-3 7-5 7-8 7-9 . 7-10 . 7-12 . 7-14 . 7-16
Fuel handling precautions Diesel fuel Specifications - Biodiesel fuel Organic Acid Technology (OAT) coolant. General instructions from the machine Protective devices MAINTENANCE CHART Maintenance chart. WHEN THE WARNING LAMP LIGHTS Engine air filter, primary – Cleaning Brake fluid – Check EVERY 10 HOURS OR EACH DAY Fuel system water separator – Drain	. 7-3 . 7-5 . 7-6 . 7-8 . 7-9 . 7-10 . 7-12 . 7-14 . 7-16

Cleaning the radiators	
FIRST 50 HOURS First 50 Hour Service	7-21
EVERY 50 HOURS	
Air-conditioning system	7-22
Transmission housing - Check	
Cab air filter	
Lubrication points – Version with Auxiliary Front Wheel Drive (AFWD)	
Clutch and components - Adjust	
Clutch and components - Adjust	7-27
EVERY 300 HOURS	
Change engine oil and filter	
Fuel transfer nume	
Fuel transfer pump	
Fuel injection system - Cleaning	
Engine crankcase breather filter – Cleaning	
Hydrualic oil filter – Replace	
Hydraulic oil level	
Front axle differential – Check the oil level	
Park brake - Adjust	
Activated charcoal filter	
Engine fan belt – Adjust	
Air conditioning filter drier – Check	7-36
EVERY 600 HOURS	7.07
Cab air filters - Replace	
Front axle hub oil - Change fluid	
wheel hats agriceling torque	1-30
EVERY 1200 HOURS OR ANNUALLY	
Engine valves clearance – Check	7-39
Engine air filters - Replace	
Fuel tank - Cleaning	
Front axle drive shaft - Check	
Front axle oil – Change	
Transmission oil – Change	/-43
EVERY 1200 HOURS OR EVERY 2 YEARS	
Fuel injectors – Check	7-44

	EVERY 4000 HOURS OR 4 YEARS Engine coolant replace	7-45
	GENERAL MAINTENANCE	
	Fuel system – Bleed	
	PTO clutch adjustment – Models without cab	
	PTO clutch adjustment - Cab models	
	Clutch pedal free play – Models without cab	
	Clutch pedal free play - Cab models	
	Fuel tank screen filter - Cleaning	
	A/C compressor belt – Adjust	
	Washer fluid reservoir – Check	
	Brakes - Air bleeding	
	Battery – Check	
	Fuses and relays - Cab models	
	Fuses and relays – Models without cab	
	Work lights and lights - Adjustment	
	Lamps - Replace	
	Cab – Check	
	Transmission housing - Check	
	G .	
	STORAGE Storing the machine	7.66
	Storing the machine	
	Preparation for use after storage	. 7-07
_	TROUBLEOUGOTING	
8	TROUBLESHOOTING	
	SYMPTOM(S)	
	Motor	. 8-1
	Hydraulic System	
	Three-point hitch	. 8-2
	Brakes	. 8-4
	<u>C</u> ab	
	Electrical	8-5
^	CDECIFICATIONS	
9	SPECIFICATIONS Overall Dimensions – Models with a cab	0.1
	Overall Dimensions – Models with a cab	9-1 9-2
	Fluids and lubricants	. 9-3
	Motor	. 9-5
	Drive	. 9-5
	Brakes	. 9-6
	Power Take-Off (PTO)	
	Hydraulic system	
	Electrical	. 9-/

1 - GENERAL INFORMATION

Note to the owner

General Information

This manual has been prepared to assist you in the correct procedure for running in, driving and operating your new machine, and for its maintenance. Read this manual carefully. Your machine is designed to be used in normal and customary agricultural applications.

If you require advice concerning your machine at any time, do not hesitate to contact your CASE IH dealer. He has factory trained personnel, genuine manufacturers' parts and the necessary equipment to carry out all your service requirements.

The specification are provided for your information and guidance. For further information concerning your machine and equipment, consult your CASE IH dealer.

All data given in this book is subject to production variations. Dimensions and weight are approximate only. The illustrations do not necessarily show machines in standard condition or imply that these features are available in all countries. For exact information about a particular machine, see your CASE IH dealer.

Your machine has been designed and built to give maximum performance, economy and ease of operation under a wide variety of operating conditions. Prior to delivery, the machine was carefully inspected, both at the factory and by your dealer, to ensure that it reaches you in optimum condition. To keep it in this condition and ensure problem-free operation, it is important that you perform routine checks at the recommended intervals, as specified in the maintenance table on the page **7-12**.

Operator's manual storage

The operator's manual supplied with your machine is an important source of information and should be stored safely.

The manual has been written specifically for your tractor so it is important that you make a note of the print number and issue date, which can be found on the cover. In the event the manual is lost or damaged it can be replaced with the correct version.

About this manual

This manual gives information for use of your machine, as intended and under the conditions foreseen by the manufacturer during normal operation and routine service and maintenance.

Read and understand it; keep it in good condition and always keep it in a safe place.

This manual does not contain all the information related to periodical service, converting and repairs to be carried out by CASE IHprofessional service personnel.

The Table of Contents page(s) are provided to have an overview of main manual's topics. A detailed alphabetic index is available at the end of this manual for locating specific items.

Normal operation

- Normal operation means the use of the machine for the purpose intended by the manufacturer by an operator familiar with the machine and the mounted or towed equipment and complying with the information for operation and safe practices, as specified by the manufacturer in this manual and by the decals on the machine and the equipment.
- Normal operation includes preparing and storing the machine, swinging components into and out of work position, adding and removing ballast, and connecting and removing accessories.
- Normal operation includes adjusting and setting up the machine and equipment, for the specific conditions of the field and/or the crop.

Routine service

Routine servicing and maintenance means activities
that must be performed daily by an operator familiar
with the machine's characteristics and in compliance
with the routine servicing information and with safe
practice, as specified by the manufacturer in this
manual and by decals on the machine, in order to
keep it working properly. The routine service includes
activities such as filling up, cleaning, washing, topping
up fluid, applying grease, and replacing consumable
items such as bulbs.

Converting, periodical service and repair

- Periodic servicing means activities that must be performed at given intervals by trained personnel familiar with the machine's characteristics and in compliance with the periodic servicing information and with safe practice, as specified by the manufacturer in this manual and in other company literature, in order for the machine to keep to its expected working lifespan.
- Conversion means activities that must be performed by professional service personnel familiar with the machine's characteristics and in compliance with the conversion information, as specified by the manufacturer in this manual, as well as with other company instructions or literature, in order to prepare the machine for a specific configuration.

Repair means activities that must be performed by professional service personnel familiar with the machine's characteristics and in compliance with the repair information, as specified by the manufacturer in the dealer's manual, in order to restore the machine to correct working order following a fault or reduced performance.

Machine cleaning

When using a high pressure washer, do not stand too close to the machine and avoid directing the jet at electronic components, electrical connections, breathers, seals, filler necks, etc. Never direct a cold water jet at a hot engine or exhaust.

Failure to comply with these rules will render the warranty null and void.

Security

The pages in Section 2 list the precautions to be observed to ensure your safety and the safety of others. Read the safety precautions and follow the advice offered before operating the machine.

Servicing after the first 50 hours

On page **7-21** you will find the operations that need to be performed after the first 50 hours of service.

This service should be performed by your CASE IH dealer.

NOTICE: It is important that the **50 h** service is carried out in line with the recommendation to guarantee that the machine is providing optimal performance and efficiency.

Replacement Parts

It should be pointed out that genuine parts have been examined and approved by the Company. Fitting and/or

using non-genuine products could have negative effects on the design characteristics of your machine, thereby affecting its safety. The Company is not liable for any damage caused by the use of 'non-genuine' parts and accessories. Only genuine replacement parts should be used. The use of non-genuine parts may invalidate legal approvals associated with this product.

Making any modifications to the machine is prohibited, without specific written authorization from the manufacturer's After Sales Service department.

Warranty

Your machine is warranted according to legal rights in your country and the contractual agreement with the selling dealer. No warranty shall, however, apply if the machine has not been used, adjusted and maintained as per the instructions given in the operator's manual.

Using Biodiesel

Before using biodiesel in your machine, refer to the information on page **7-5** as regards storing and using biodiesel.

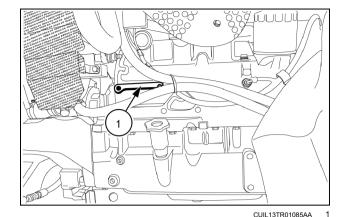
Tampering with the engine or fuel system

ATTENTION: Your machine's engine and the fuel system were designed and configured to meet the emissions standards required by the laws in your country or region. Dealers, customers, operators, and users are strictly prohibited from tampering with the machine's factory settings. Failure to comply with this rule invalidates the machine's warranty and could result in government fines, legal action, and possible confiscation of the machine until rework to original condition is completed. Engine maintenance and repairs must be done by an authorized technician only.

Identification from the engine

The engine identification is engraved on a plate (1) on the left-hand side of the engine block. Note down the number here:

Engine Serial No.:



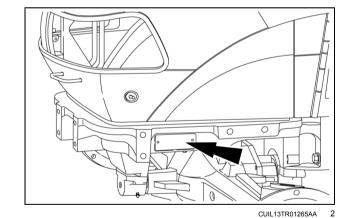
Nameplate

The Product Identification Number (PIN) can be found on the plate located on the front left-hand axle support.

Product Identification Number (PIN):

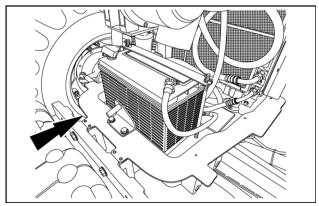


Product identification plate (1).



The Product Identification Number (PIN) is engraved on the support cradle of the front axle, in front of the battery. Note down that identification here.

PIN: _____



CUIL13TRO0194AA

CUIL15TR00483AA

3

A plate in the rear of the cab or platform provides information about the Rollover Protective Structure (ROPS) and the maximum permissible weight of the machine.

	ESTRUTURA DE PROTEÇÃO NO CAPOTAMENTO ROLL-OVER PROTECTIVE STRUCTURE MARCO DE SEGURIDAD	
MODELOS ATENDIDOS: COVERED MODELS: MODELOS ATENDIDOS:	MASSA MAX.: MAX.MASS: PESO MAX.: P/N:	
N° SERIE: SERIAL:		
	NORMA: STANDARD: NORMA:	

CUIL16TR01408AA 4

Noise levels

A CAUTION

Avoid possible hearing loss!

The machine operator must wear hearing protection.

Failure to comply could result in minor or moderate injury.

C0070A

A WARNING

Personal Protective Equipment (PPE) required.

When assembling, operating, or servicing the machine, wear protective clothing and PPE necessary for the particular procedure. Some PPE that may be necessary includes protective shoes, eye and/or face protection, hard hat, heavy gloves, filter mask, and hearing protection.

Failure to comply could result in death or serious injury.

W0353A

Noise is considered the most common of the pollutants that cause physical problems. Brazilian legislation establishes maximum limits for intensity and continuous or intermittent noise exposure durations. The tolerance limits for continuous and intermittent noise are detailed in the Regulatory Standard (NR15). See the legislation in force in your country.

It is important to stress that the use of ear protectors is recommended for the Operator and people who work close to the machines, regardless of the noise intensity and time of exposure.

During operation, the machines may be driving or powering other equipment, and this in turn also produces noise. As a result, the real noise levels perceived by the Operator and people who work close to the machines can vary considerably. Always consider wearing ear protectors that are good quality, intact, and that offer maximum protection.

Universal symbols

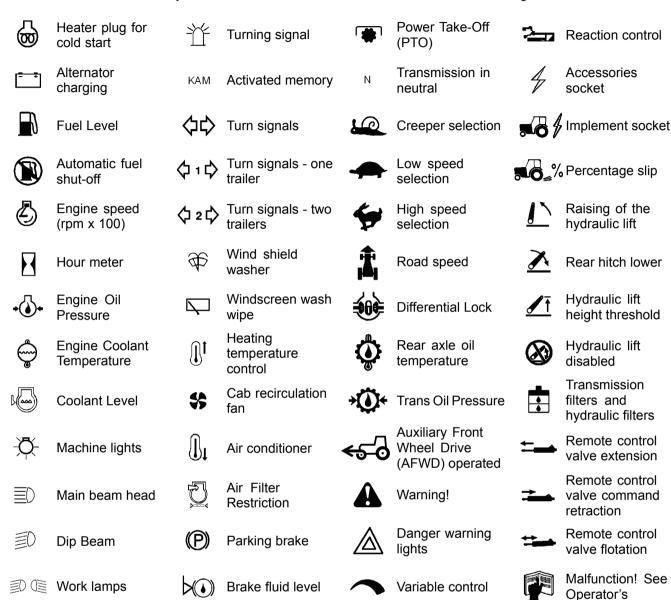
Stop Lamp

Trans Oil Pressure

Horn

0

As a guide to the operation of the machine, various universal symbols have been utilized on the instruments, controls, switches, and fuse box. The symbols are shown below with an indication of their meaning.



Trailer brake

Warning!

Corrosive

substance

Pressurized!

Open carefully

Position control

Malfunction!

(alternative

Brake fluid level

symbol)



Our support email: ebooklibonline@outlook.com