

Magnum 180, 190, 210 Tractors

Operator's Manual

87750194 Issued March 2009 1st Printing





OPERATOR'S MANUAL



Magnum 180 Magnum 190 Magnum 210

Contents

1	GENERAL INFORMATION	4 4
	Personal safety Proposition 65	
	Product identification	
	Note to the Owner	
	Tractor intended use	
	Manual storage	
	Product identification	
_	•	1 0
2	SAFETY INFORMATION	0.4
	Safety rules	
	Safety decals	
2	CONTROLS/INSTRUMENTS	
J		
	ACCESS TO OPERATOR'S PLATFORM Tractor access	3-1
		J- 1
	OPERATOR'S SEAT Overview	3 2
	Control identification	
	INSTRUCTOR'S SEAT	
	Overview	3-6
	FORWARD CONTROLS	
	Steering column	3-7
	Front console	
	Pedal controls	
	LH SIDE CONTROLS	
	Hand brake	3-13
	RH SIDE CONTROLS	
	Armrest console	3-14
	Multi-function handle	
	Control panel	
	Joystick	
	Armrest compartment	
	Adjusting the armrest console	
	REARWARD CONTROLS	
	Fender console	3-31
	Automatic temperature controls	3-34
	Automatic temperature control system	
	Ventilation	3-38
	OVERHEAD CONTROLS	
	Interior lamps	3-40
	EXTERIOR CONTROLS	

	Rear fender	3-41
	INSTRUMENT CLUSTER	
	Overview	
	Gauges	
	Status and warning icons	
	Dedicated display.	
	Programmable display	
	KeypadStandard instrumentation	
	Performance instrumentation	
4	OPERATING INSTRUCTIONS	
	COMMISSIONING THE UNIT	
	Before starting the engine	4-1
	STARTING THE UNIT	
	Normal engine starting	4-4
	Cold starting aids	
	Cold temperature operation	4-7
	STOPPING THE UNIT	
	Stopping the engine	4-9
	MOVING THE UNIT	
	Powershift transmission	4-10
	Inching pedal and throttle	
	Transmission controls	
	Dedicated display.	
	Driving the vehicle	
	Go To feature	
	Speed matching	
	Setting reverse gear ratios	
	Transmission errors and calibration	
	Creeper gears	
	Mechanical front drive (MFD) Differential lock system	
	Suspended axle	
	Engine power management	
	Ride control	
	Constant engine speed	4-36
	Electronic end of row system	4-39
	PARKING THE UNIT	
	Park brake and electronic park lock (EPL)	4-50
5	TRANSPORT OPERATIONS	
	ROAD TRANSPORT	
	Tractor warning lamps and SMV symbol	5-1
	Wide transport marker light	
	Tractor warning lamps	
	Safe transport speed	5-5

Implement warning lamps and SMV symbol	
Safety chain	5-7
SHIPPING TRANSPORT Securing the tractor for shipping	5-8
RECOVERY TRANSPORT Safety rules	5-9
6 WORKING OPERATIONS	
GENERAL INFORMATION	0.4
Before operating the vehicle	
	0-2
REAR PTO Safety rules	63
Connecting the PTO	
PTO operation	
Two speed PTO systems	
Auto PTO operation	
PTO fender switch operation	. 6-13
THREE POINT HITCH	
Connecting three-point hitch implements	
Three-point hitch adjustments	
Hitch controls and settings	
Position and ride control	. 6-30
DRAWBARS AND TOWING ATTACHMENTS	
Safety rules	. 6-32
Adjusting the drawbar	. 6-33
HYDRAULIC TRAILER BRAKES	
Trailer brake connections	. 6-35
AUXILIARY POWER CONNECTIONS	
Auxiliary power and lighting	
Cab power connections	. 6-38
HYDRAULIC REMOTE CONTROL VALVES	
Valve couplers and connections	
Transport lock	
Operating the controls	
Rear fender controls	
Joystick operation	
BALLASTING THE TRACTOR	
Guidelines	
Tire load and inflation charts	
Weights, cast metal and liquid Wheel slip and power hop performance	
	. 0 1 4
MECHANICAL FRONT DRIVE (MFD) AXLES	

	Tire combinations and tread positions Steering and oscillation stops	
	REAR AXLE Rear wheel installation Rear wheel tread settings	
7	MAINTENANCE	
	GENERAL INFORMATION Safety rules Opening the hood Closing the hood Battery access and service Tire and rim service. Tractor jacking points Capacities	. 7-2 . 7-3 . 7-4 . 7-6 . 7-8
	Consumables	7-12
	Electrical component location	7-16
	MAINTENANCE CHART Maintenance Chart	7-20
	At warning message display Air filter service icon/message Fuel filter water separator	
	Every 10 hours or daily Engine coolant level Engine oil level Windshield washer fluid level	7-26
	First 50 hours Dealer performed service	7-28
	Every 50 hours Coolers and condenser Cab air filter. Grease fittings Wheel bolt torque. Tire pressure	7-31 7-34 7-40
	Every 300 hours Battery water level	7-44 7-45 7-46
	Every 600 hours Engine oil and filter Hydraulic filter(s) Engine primary air filter Engine air intake hoses Fuel filters	7-48 7-50 7-51 7-54
	. 40	

Differential and planetary oil	/-58
Every 1200 hours or annually	
Cab air filter	7-61
Transmission oil	
Mechanical front drive (MFD) gearbox	
Every 1200 hours or two years	1 10
Engine coolant	7-75
Engine secondary air filter	
Engine valve adjustment	
Blowby filter	7-82
Every 36 months	7.00
Air conditioning system	/-82
As required Pre-filter and water trap	7_83
Fuel tank vent filter	
Fan belt	7-86
Spark arresting muffler	
Remote valve collection bottle	
Tractor exterior	
Seat belt	
STORAGE	
Preparing for storage	
Removing from storage	7-95
ELECTRICAL SYSTEM Radio or audio system	7.07
Battery removal and installation	
Battery - Charging	
Head light - Replace	
Front work light - Replace	
Fender tail light and warning light	
Roof front warning and work light	
High intensity work light	
Wide transport marker light	
Rotating beacon light	
Interior light - Replace	. 7-120
8 TROUBLESHOOTING	
ALARM(S)	
Display warnings	8-1
Automatic engine shut down	8-8
Fault reporting	8-9

SYMPTOM(S)	
Engine symptoms	8-11
Transmission symptoms	
Hydraulic symptoms	
Hitch symptoms	
Brake symptoms	
Cab environment symptoms	8-16
Electrical power system symptoms	
9 SPECIFICATIONS	
Engine specifications	9-1
Power train specifications	
Operating speeds	
Vehicle dimensions and shipping weight	
Maximum operating weight	
10 ACCESSORIES	
Front wheel fenders	10-1
Farming system displays	
Chemical tank mounting	
Loader connection and operation	
General accessories	10-9
11 FORMS AND DECLARATIONS	
First service dealer copy	11-1
First service customer copy	11-3

1 - GENERAL INFORMATION

Personal safety



THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF DEATH OR SERIOUS INJURY.

Throughout this manual and on the machine's safety decals, you will find precautionary statements: DANGER< WARNING or CAUTION followed by special instructions or ISO two panel safety pictorial symbols. These precautions are intended for your personal safety.

Failure to follow the DANGER, WARNING or CAUTION instructions may result in death or serious bodily injury.

DANGER, WARNING or CAUTION are defined as follows:

- DANGER: Indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.
- CAUTION: Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

ISO two panel pictorial symbol decals are defined as follows:

- The first panel indicates the nature of the hazard.
- · The second panel indicates the appropriate avoidance of the hazard
- · Background color is YELLOW.
- · Prohibition symbols such as $\bigotimes X$ and \bigoplus if used are RED.



IMPROPER OPERATION OF THIS MACHINE CAN CAUSE DEATH OR SERIOUS INJURY. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow CNH America LLC instructions on machine operation and maintenance.

CNH America LLC technical manuals

Manuals are available from your Dealer for the operation, service and repair of your machine. For prompt convenient service, contact your Dealer for assistance in obtaining the manuals for your machine.

Your Dealer can expedite your order for Operators Manuals, Parts Catalogs, Repair Manuals and maintenance records.

Always give the Machine Name, Model and P.I.N. (product identification number) of your machine so your Dealer can provide the correct manuals for your machine.

The company is continually striving to improve its products and therefore reserves the right to make improvements and changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

All data given in this manual is subject to production variations. IMPORTANT: OPERATING AND SERVICE MESSAGES DISPLAYED ON THE ELECTRONIC OPERATING PANEL MAY VARY FROM WHAT IS SHOWN IN THE OPERATOR'S MANUAL. SHOULD THIS OCCUR ADHERE TO THE LATEST INSTRUCTION ON THE ELECTRONIC OPERATING PANEL.

Dimensions and weights are approximate only and the illustrations do not necessarily show the machine in standard condition. For exact information about any particular machine, please consult your dealer.

Proposition 65

CALIFORNIA

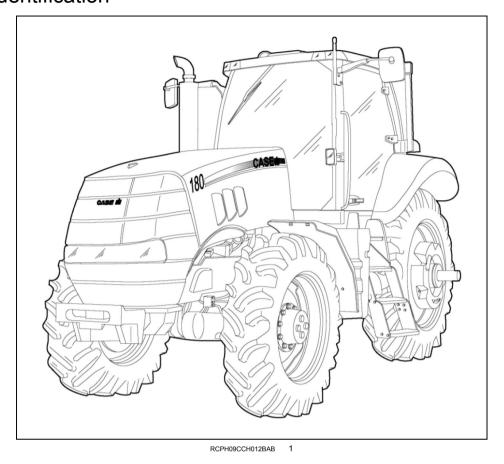
Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

RCIL08CCH001EAA

Product identification



The right hand and left hand side of the tractor used in this manual are the same as your right hand and left hand when sitting in the tractor seat looking forward.

Note to the Owner

This manual contains important information about the safe operation, adjustment and routine maintenance of your Magnum series tractor. The manual is divided into eleven chapters as outlined in the table of contents. Refer to the index at the end of this manual for locating specific items about your tractor.

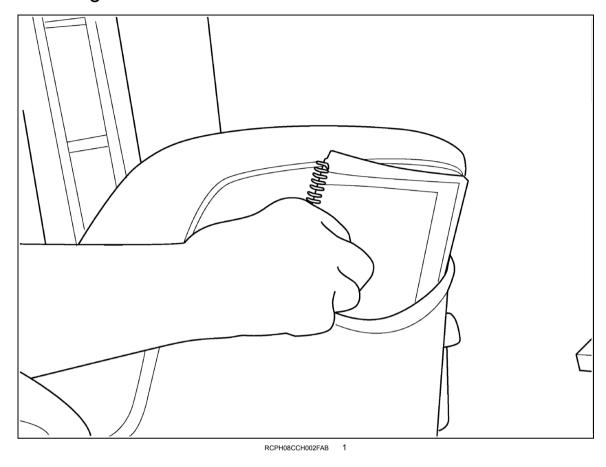
Do NOT operate or permit anyone to operate or service this machine until you or the other persons have read this manual. Use only trained operators who have demonstrated the ability to operate and service this machine correctly and safely. This Operator's Manual is to be stored in the manual compartment behind the operator's seat in the vehicle. Make sure this manual is in good condition. Contact your dealer to obtain additional manuals. Contact your dealer for any further information or assistance about your machine. Your dealer has approved service parts. Your dealer has technicians with special training that know the best methods of repair and maintenance for your tractor.

Tractor intended use

Magnum series tractors with standard equipment and authorized attachments, are intended to be used for customary farming and related agriculture operations. Farming implements and attachments for loading and moving materials can be used on the tractor where recommended and approved by CASEIH. Installation of utility (dozer) blades, tile plows, or push bars on the tractor is not recommended. Any tractor damage resulting from the installation and/or use of such equipment is not covered by the tractor warranty.

Consult an authorized dealer or CNH America LLC on changes, additions or modifications that can be required for this machine to comply with various regulations and safety requirements. Unauthorized modifications will cause serious injury or death. Anyone making such unauthorized modifications is responsible for the consequences.

Manual storage



Keep the Operator's Manual in the storage compartment provided on your tractor. The Operator's Manual must be available for use by all operators.



Our support email: ebooklibonline@outlook.com