ORIGINAL INSTRUCTIONS

Magnum[™] 250
Magnum[™] 280
Magnum[™] 310
Magnum[™] 340
Magnum[™] 380
Magnum[™] 310 Rowtrac[™]
Magnum[™] 340 Rowtrac[™]
Magnum[™] 380 Rowtrac[™]
Tractor

PIN ZGRF05001 and above

OPERATOR'S MANUAL



September 2016

Contents

NOTE: The Operator's Manual consists of two volumes. The first volume contains operating information, the second volume the maintenance and diagnostic information.

1 GENERAL INFORMATION	
Note to the owner	
Engine tampering	1-2
Tractor intended use	
Electro-magnetic compatibility (EMC)	
ISOBUS certification	
Product identification	
Machine orientation	
Component identification	
Component Identinodien	
2 SAFETY INFORMATION	
Safety rules and signal word definitions	2.1
Safety rules - General	
·	
Safety rules - General maintenance safety	
Safety rules - Wheels and tires	
Safety rules - Driving on public roads and general transportation	-
Safety rules - Fire and explosion prevention	
Safety rules - General battery safety	
Safety rules - Hydraulic system safety	
Safety rules - Instructional seat safety	
Safety rules - Operator presence system	
Safety rules - Power Take-Off (PTO)	
Safety rules - Reflectors and warning lights	
Safety rules - Seat belts	
Safety rules - Roll Over Protective Structure (ROPS)	
Safety rules - Cab protection	
Safety rules - Air conditioning system	
Safety rules - Personal Protective Equipment (PPE)	
Safety rules - Do Not Operate tag	
Safety rules - Hazardous chemicals	
Safety rules - Utility safety	
Safety rules - Electrical storm safety	
Safety rules - Mounting and dismounting	
Safety rules - Working at heights	
Safety rules - Lifting and overhead loads	
Safety rules - Implements, tools and trailers	
Safety rules - Roll over and tip over	
Ecology and the environment	
Safety signs	
Global warming potential	2-24

3 CONTROLS AND INSTRUMENTS	
ACCESS TO OPERATOR'S PLATFORM	
Tractor accessLower step	3-1
Lower step	3-3
OPERATOR'S SEAT Control identification	3-4
INSTRUCTOR'S SEAT Overview	3-8
FORWARD CONTROLS	
Steering column	
Front console	
LEET LIAND CIDE CONTROL C	
LEFT-HAND SIDE CONTROLS Pneumatic trailer brake	3-16
RIGHT-HAND SIDE CONTROLS	
Armrest console	3-17
Multi function handle	3-18
Minimum/maximum RPM throttles	
Remote valve controls	
Joystick	
Armrest compartment	
Adjusting the armrest console	3-41
REARWARD CONTROLS	
Fender console	3-42 3-45
Automatic temperature control system	
Ventilation	
OVERHEAD CONTROLS	
Interior lamps	3-51
EXTERIOR CONTROLS	
Rear fenderFront hitch	
INSTRUMENT CLUSTER	
Overview	
Status and warning icons	
Upper display	

	Lower display	3-64
	Keypad	3-66
	Setup menu	
	Rear tire radius and track radius charts	
	Adjust menu	
	Performance features	3-84
1	ODEDATING INCTRUCTIONS	
4	OPERATING INSTRUCTIONS	
	COMMISSIONING THE UNIT	
	Engine - Safety rules	4-1
	STARTING THE UNIT	
	Normal engine starting	4-4
	Cold starting aids	4-8
	Cold temperature operation	
	STOPPING THE UNIT	
	Stopping the engine	4-12
	MOVING THE UNIT	
	FULL POWERSHIFT TRANSMISSION	1_11
	Powershift transmission	
	Best practices for prolonged transmission life	4-15
	Inching pedal and throttle	
	Powershift transmission controls	
	Upper display - Powershift transmission	
	Driving the Powershift vehicle	4-22
	Setting default gears	4-27
	Automatic Productivity Management (APM)	4-29
	CONTINUOUSLY VARIABLE TRANSMISSION (CVT)	4-37
	Introduction	4-38
	Continuously Variable Transmission (CVT) controls	
	Upper display	4-49
	Continuously Variable Transmission (CVT) operation	4-51
	Eco-Draft or Shuttle mode	4-54
	Driving the Continuously Variable Transmission (CVT)	
	Transmission messages	
	POWERSHIFT AND CVT TRANSMISSIONS	
	Selective Catalytic Reduction (SCR) system	
	Engine idling or full catalyst messages	
	Mechanical Front Drive (MFD)	
	Differential lock system	
	Suspended axle	
	Ride control	
	Engine power boost	
	Constant engine speed	
	Suspended cab	4-91

	Electronic end of row system	4-92
	PARKING THE UNIT	
	Automatic park lock	4-98
5	TRANSPORT OPERATIONS	
	ROAD TRANSPORT	
	Tractor warning lamps and Slow Moving Vehicle (SMV) symbol	5-1
	Wide transport marker light	
	Tractor warning lamps	
	Safe transport speed	
	Implement warning lamps and Slow Moving Vehicle (SMV) symbol	
	Safety chain	5-7
	SHIPPING TRANSPORT	
	Securing the tractor for shipping	5-8
	RECOVERY TRANSPORT Safety rules	5.0
	Towing the tractor	
6	WORKING OPERATIONS	
	GENERAL INFORMATION	
	Overview	6-1
	REAR POWER TAKE-OFF (PTO)	
	Safety rules	6-2
	Connecting the Power Take-Off (PTO)	
	Interchangeable Power Take-Off (PTO) shaft	
	Rear Power Take-Off (PTO) operation	
	Power Take-Off (PTO) fender switch operation	
	Auto Power Take-Off (PTO) operation	6-17
	FRONT POWER TAKE-OFF (PTO)	
	Overview	6-20
	Front Power Take-Off (PTO) operation	6-21
	REAR HITCH Identification	6-24
	Link adjustment	
	Hitch high clearance adjustment	6-29
	Hydraulic links	
	Sway limiter adjustment	
	Lower link block adjustment	
	wechanical lioat aujustillent	U-3/

Hitch quick coupler - Category III/IIIN Hitch quick coupler - Category IVN Hitch operation Hitch remote switch operation Position control operation Load control operation Slip control operation Hitch set point	6-43 6-48 6-53 6-54 6-56
FRONT HITCH Overview	
Front hitch operation	6-63
DRAWBARS AND TOWING ATTACHMENTS	
Safety rules	6-70
Drawbar capacity/position	6-71
Adjusting the drawbar	6-75
TRAILER BRAKING SYSTEMS	
Safety rules	6-77
Trailer brake connections	
Air pressure monitoring	
AUXILIARY CONNECTIONS	
Auxiliary power and lighting	6-80
Cab power connections	
Radar connection	
Implement ISOBUS connector	
HYDRAULIC REMOTE CONTROL VALVES	
Valve couplers and connections	6-85
Motor return circuit	
Power beyond circuit	
Flow capacity	
Hydraulic transport lock	
Operating the controls	
Remote valve display screens	
Remote hydraulic auto mode	
Auto depth control	
Joystick operation	
BALLASTING THE TRACTOR	
Guidelines	6_111
Tire load and inflation charts	
Weights, cast metal	
Wheel slip and power hop performance	

MECHANICAL FRONT DRIVE (MFD) AXLES	
Front axle identification	. 6-150
Steering and oscillation stops	
Tread and fender settings - Class 4.75 and 5.0 fixed front axles	
Tread and fender settings - Class 4.75 and 5.0 saddle suspended front axles .	
Tread and fender settings - Class 5.0 wide front axles	
Front wheel fenders Front wheel fenders - Class 4.75 and 5.0 fixed and suspended axles	. 6-182 6-183
Front wheel fenders - Class 5.0 wide fixed and suspended axles	
REAR AXLE	
Rear wheel installation	
Rear wheel tread settings	
Dual/triple wheel setup for 508 mm (20 in)/559 mm (22 in) row spacing	
Adjustable rear wheel	. 6-212
REAR TRACKS	
Tire load and inflation charts Tractors with rear tracks	. 6-214
Maximum front ballast recommendations	
Front wheel tread settings	
Track preconditioning	
Factory and field track settings	. 0-224
7 MAINTENANCE	
GENERAL INFORMATION	
Safety rules	
Maintenance guidelines	
Opening the hood	
Closing the hood	
Filling the fuel tank	
Battery disconnect switch	
Battery access and service	
Tire and rim service Tractor jacking points	
Capacities	
Consumables - Engine oil	
Consumables - Transmission/hydraulic system fluid	
Consumables - Diesel fuel	
Consumables - Organic Acid Technology (OAT) coolant	
Maintenance chart notes	
Maintenance summary decal	7-20
Maintenance planning	
Maintenance planning Maintenance chart	7 04
IVIAIITETIATICE CHAIL	1-21

At warning message display	
Air filter service icon/message*	7-23
Water in fuel message	
Transmission oil filter switch	
Hydraulic oil filter switch	7-31
First 10 to 50 hours	
Wheel bolt torque	7-34
Weight bolt torque	
Differential and planetary oil	
Every 10 hours or daily	
Every 10 hours or daily	7.07
Engine oil level	
Transmission oil level	
Air reservoir	
Rear hitch and front axle	
Every 50 hours or weekly	
Engine auxiliary fuel filter	7-40
First 100 hours	
First 100 hours Powershift transmission clutch calibration	7-42
Every 100 hours	
Front hitch	7-48
Front Power Take-Off (PTO) drive shaft	
Input shaft for the front Power Take-Off (PTO) dropbox	7-51
Every 200 hours	
Track alignment	7 52
Track alignment	1-53
Every 300 hours	
Battery water level (Note B)	7-54
Engine air intake and exhaust hoses	
Engine coolant level - deaeration tank	
Weight bolt torque	
Front axle (Note A)	
Rear hitch (Note A)	
Fuel tank	7-64
Differential and planetary oil level (Note B)	7-65
Transmission oil pressure	
Front Power Take-Off (PTO) oil level	7-67

Every 400 hours	7.00
Cab air filter*	
Every 600 hours	
Engine oil and filter*	7-71
Engine coolant antifreeze protection	7-74
Engine coolant hoses and clamps	
Engine fuel filter*	
Engine auxiliary fuel filter*	
Fuel system bleeding	
Changeable Power Take-Off (PTO) internal splines Engine air precleaner*	
Every 1000 hours or annually	
Pneumatic brake system dryer	
Powershift transmission clutch calibration	7-85
Front Power Take-Off (PTO) oil and filter* Front Power Take-Off (PTO) dropbox oil	
Tront Tower rand on (1 10) droppox on	
Every 1200 hours or annually	
Differential and planetary oil	7-94
Engine air filters*	7-98
Every 1500 hours	
Transmission oil	7_101
Regulated system oil filter*	
Main transmission oil filter*	
Idler/roller wheel oil	7-106
Engine crankcase filter*	7-107
Every 3000 hours	
Engine valve adjustment (Note C)	7-111
3	
Every 4000 hours or every four years	
Engine coolant	7-112
As required	
As required Vehicle fire prevention	7 115
Track inspection and bolt torque	
Track inspection and boil torque	
Track drive wheel and idler bolt torque	
Track tension release	7-117
Track alignment	
Cab air filter*Grille screen and radiator area	

Fuel tank vent filter Transmission clutch and accumulator Tire pressure	7-125
Fan belt	
Remote valve collection bottle	
Cab fabric and carpet	
Seat belt	
	7 100
Fuse and relay locations	- 400
Electrical component location	
Lamps and bulbs	7-141
STORAGE	
Preparing for storage	7-142
Removal from storage	
-	7 110
ELECTRICAL SYSTEM	7 111
Radio or audio systemBattery removal and installation	
Auxiliary battery connections	
Headlight	
LED work lights	
Fender tail light and warning light	
Roof front warning and work light	
Roof rear warning light	
High intensity work light	7-152
Wide transport marker light	7-153
Rotating beacon light	7-154
Interior light	7-155
8 TROUBLESHOOTING	
ALARM(S)	
Display warnings overview	8-1
Display warnings - Level 1	
Display warnings - Level 2	
Display warnings - Level 3	
Display warnings - Level 4	8-8
CVMDTOM(C)	
SYMPTOM(S)	0.40
Engine symptoms	
Transmission symptoms	
Hitch symptoms	
Brake symptoms	
Cab environment symptoms	
Electrical power system symptoms	

9 SPECIFICATIONS	
Engine specifications	9-1
Power train specifications	9-2
Operating speeds - Wheeled tractors	9-6
Operating speeds - Rowtrac™ tractors	
Vehicle dimensions and shipping weight - Wheeled tractors	
Vehicle dimensions and shipping weight - Rowtrac™ tractors	
Maximum operating weight	9-21
10 ACCESSORIES Farming system displays	10.1
Rear view mirrors	
Chemical tank mounting	10-2
Loader connection and operation	
General accessories	10-7

1 - GENERAL INFORMATION

Note to the owner

This manual contains important information about the safe operation, adjustment and routine maintenance of your **Magnum™** or **Magnum™** Rowtrac™ series tractor. The manual is divided into 10 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.

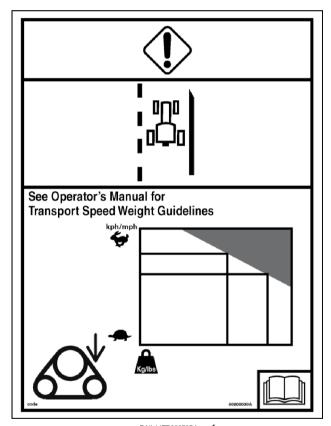
Do NOT operate or permit anyone to operate or service this machine until you or the other persons have read this manual. Use only trained operators who have demonstrated the ability to operate and service this machine correctly and safely.

Tractors equipped with rear tracks

On **Rowtrac™** models, refer to the information starting on page **Operating speeds - Rowtrac™ tractors** for transport speed weight limitations.

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.

Your CASE IH dealer will instruct you in the general operation of your new equipment. Your dealer's staff of factory-trained service technicians will be glad to answer any questions that may arise regarding the operation of your machine. They will also provide any after-sales service you may need, and genuine CASE IH parts, your guarantee of quality and match.



RAIL14TR03870BA

Engine tampering

The fuel system and engine on your machine are designed and built to government emissions standards. Tampering by dealers, customers, operators, and users is strictly prohibited by law.

Failure to comply could result in government fines, rework charges, invalid warranty, legal action, and possible confiscation of the machine until rework to original condition is completed. Engine service and/or repairs must be done by a certified technician only!

Tractor intended use

Magnum™ or Magnum™ Rowtrac™ series tractors, with standard equipment and authorized attachments, are intended to be used for customary farming, land leveling and related agriculture operations (intended use). 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 Industrial 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.

The tractor is not designed for light/heavy forestry applications; usage is prohibited for forestry applications.

Do not use this machine for any purpose or in any manner other than as described in the manual, decals, or other product safety information provided with the machine. These materials define the machine's intended use.

Use in any other way is considered as contrary to the intended use. The manufacture accepts no liability for any damage or injury resulting from this misuse and these risks must be born solely by the user.



Our support email: ebooklibonline@outlook.com