
MXU VALUE AND LIMITED SERIES 100, 110, 115, 125, 130, 135, AND MAXXUM VALUE AND PRO SERIES 110, 115, 120, 125, 130, AND 140

SECTION 00 - GENERAL	3
SECTION 01 - SEPARATING THE TRACTOR	3
SECTION 10 - ENGINE	7
SECTION 18 - CLUTCH	19
SECTION 21 - TRANSMISSION SYSTEMS	20
SECTION 23 - DRIVE LINES	28
SECTION 25 - MECHANICAL FRONT AXLE	29
SECTION 27 - MECHANICAL REAR WHEEL DRIVE	33
SECTION 31 - POWER TAKE-OFF	35
SECTION 33 - BRAKING SYSTEM	37
SECTION 35 - HYDRAULIC SYSTEMS	41
SECTION 41 - STEERING	65
SECTION 44 - FRONT AXLE AND WHEELS	68
SECTION 50 - AUXILIARY UNITS	69
SECTION 55 - ELECTRICAL SYSTEM	72

The following pages are the collation of the contents pages from each section and chapter of the MXU Series and Maxxum Series Repair manual. Complete Repair part # 87659930.

The sections used through out all Case IH product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the MXU Series and Maxxum Series Tractors.

Some sections of this Repair Manual have been revised to include the New Maxxum Value and Pro Series Models 110, 115, 120, 125, 130, and 140.

Please note the following to locate new Maxxum Tractor Model Repair information:

For complete engine repair information for the new Maxxum Series Tractors use Engine Repair Manual # 87661796.

Most all repairs can be carried out by following the Tractor's systems and specific product configurations in the repair manual. Example; 16 x16 Transmission, Air Conditioning and MXU Value Series Closed Center Hydraulic System.

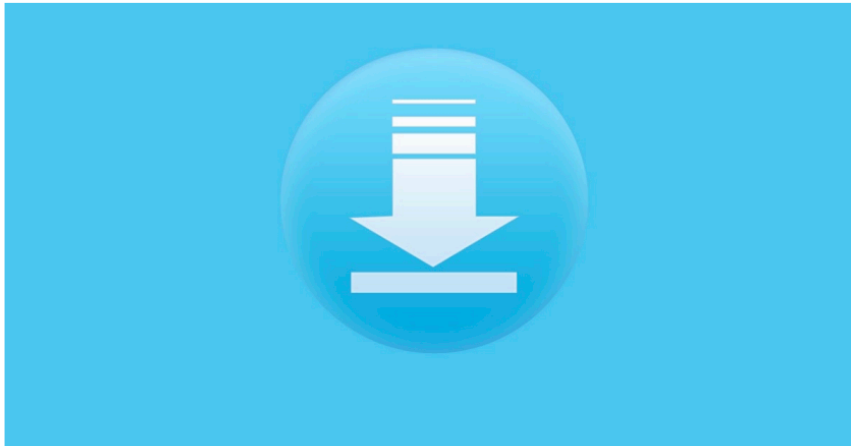
"MXU Value Series" Repair Information also applies to the New Maxxum Value Series Models.

Where Specific Maxxum Tractor Models are not identified use the following MXU to Maxxum cross reference:

Maxxum Tractor Models	Use MXU tractor Model
Maxxum 110	MXU 110
Maxxum 115	MXU 115
Maxxum 120	MXU 110
Maxxum 125	MXU 125
Maxxum 130	MXU 130
Maxxum 140	MXU 135

Thank you for choosing
CasetractorManuals

Please click the following link to
download and purchase



SECTION 00 - GENERAL

BOOK 1 - 87520738

Chapter 1 - General Information

CONTENT

Section	Description	Page
00 000	General Instructions	2
	Precautionary Statements	3
	Health and Safety	7
	Ecology and the Environment	15
	Product Identification	16
	International Symbols	19
	Specifications - Limited Models	20
	General Dimensions	20
	Specifications - Value Tractors	27
	General Dimensions	27
	Minimum Hardware Tightening Torques	34

SECTION 01 - SEPARATING THE TRACTOR

BOOK 1 - 87520738

Chapter 1 - Separating Front Axle and Front Support from the Engine

CONTENT

Tightening Torques	2
Special Tools	2
Overhaul	3
Front Axle and Front Support	3
Removal	3
Installation	8
Front Axle to Support Shim Thickness Calculation	13

SECTION 01 - SEPARATING THE TRACTOR

BOOK 1 - 87520738

Chapter 2 - Separating Engine and Front Support from the Transmission
--

CONTENT

Section	Description	Page
	Tightening Torques	2
	Special Tools	2
	Overhaul	3
	Engine and Front Support from the Transmission	3
	Removal	3
	Installation	10

SECTION 01 - SEPARATING THE TRACTOR

BOOK 1 - 87520738

Chapter 3 - Separating Transmission, Engine and Front Support from the Rear Axle

CONTENT

Section	Description	Page
	Tightening Torques	2
	Special Tools	2
	Overhaul	3
	Transmission, Engine and Front Support from the Rear Axle	3
	Removal	3
	Installation	7

SECTION 01 - SEPARATING THE TRACTOR

BOOK 1 - 87520738

Chapter 4 - Engine Removal

CONTENT

Section	Description	Page
	Tightening Torques	2
	Special Tools	2
	Overhaul	3
	Engine	3
	Removal	3
	Installation	12

SECTION 01 - SEPARATING THE TRACTOR

BOOK 1 - 87520738

Chapter 5 - Transmission Removal

CONTENT

Section	Description	Page
	Tightening Torques	2
	Special Tools	2
	Overhaul	3
	Transmission	3
	Removal	3
	Installation	6

SECTION 01 - SEPARATING THE TRACTOR

BOOK 1 - 87520738

Chapter 6 - Cab Removal

CONTENT

Section	Description	Page
	Tightening Torques	2
	Tractors with Cab Suspension	2
	Tractors with Standard Cab	3
	Special Tools	3
	Overhaul	4
	Cab	4
	Removal	4
	Installation	13

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 1 - CNH Engine - F4DE0484A (4 Cylinder Common Rail Electronic)

CONTENTS

Section	Description	Page
10 000	Specifications	4
	Tightening Torques	9
	Special Tools	14
	Description of Operation	15
	Cooling	15
	Lubrication	16
	Lubrication System Components	17
	Engine Overhaul	18
	Introduction	18
	Removal	18
	Disassembly	18
	Fuel System/Preparing Engine to Mount on Rotating Stand	18
	Fuel Rail	21
	Cylinder Head	21
	Crankcase – External Components	24
	Crank Shaft Seals	25
	Sump	28
	Rotating Counter Weights	28
	Crankshaft	29
	Camshaft	31
	Bushings	32
	Assembly	33
	Installing the Tappets – Camshaft	33
	Main Bearing Assembly	34
	Crankshaft Assembly	34
	Main Bearing Cap Assembly	35
	Connecting Rod and Piston Assembly	36
	Timing	37
	Crankshaft Seals and Covers	39
	Rotating Counter Weights	41
	Sump	43
	Flywheel	43

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 1 - CNH Engine - F4DE0484A (4 Cylinder Common Rail Electronic) (Continued)

CONTENTS

Section	Description	Page
	Oil Filter/Cooler	44
	Crankcase - External Components	45
	Cylinder Head/Fuel System	46
	Completing the Engine	55
	Checks, Dimensions and Repairs	57
	Cylinder Block	57
	Cylinder Head Mating Surface Check	58
	Tappets	58
	Crankshaft, Bearings	59
	Main Journal Assembly Clearance	61
	Crankshaft Thrust ring Clearance Check	63
	Timing System	64
	Camshaft	64
	Checking Cam Lift and Pin Alignment	64
	Bushings	65
	Pistons/Connecting Rods	66
	Measuring the Piston Diameter	67
	Piston Pins	68
	Conditions for Correct Pin-Piston Coupling	68
	Piston Rings	68
	Connecting Rods	70
	Bushings	71
	Checking Connecting Rods	71
	Checking Twisting	72
	Checking Bending	72
	Connecting Rod - Piston Assembly	73
	Fitting Piston Rings	74
	Connecting Rod Pin Assembly Clearance	74
	Checking Piston Protrusion	76
	Cylinder Head	77

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 1 - CNH Engine - F4DE0484A (4 Cylinder Common Rail Electronic) (Continued)

CONTENTS

Section	Description	Page
	Valve Disassembly	77
	Cylinder Head Hydraulic Seal Check	78
	Cylinder Head Mating Surface Check	78
	Valve Dimensions	79
	Decarbonizing, Checking and Grinding Valves	79
	Checking the Clearance between the Valve Stem and Guide and Valve Centring	80
	Valve Guides	80
	Regrinding – Replacing Valve Seats	80
	Valve Springs	82
	Valve Installation	83
	Installing the Cylinder Head	83
	Checking and Adjusting Tappet Clearance	85
	Fuel Supply Gear Pump	86
	Normal Operating Condition	86
	Condition of Overpressure at Outlet	86
	Bleed Conditions	86
	High-Pressure Pump CP3	87
	High-Pressure Pump Internal Structure	88
	Operating Principle	89
	Operation	91
	Rail (Pressure Accumulator)	92
	Pressure Relief Valve	93
	Electro-Injector	94
	InjectionStart	94
	Injection End	94
	Fuel Return Pressure Limiter	95

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 2 - CNH Engine - F4DE0684A/F4DE0684B (6 Cylinder Common Rail Electronic)

CONTENTS

Section	Description	Page
10 000	Specifications	2
	Tightening Torques	7
	Special Tools	12
	Description of Operation	13
	Cooling	13
	Lubrication	14
	Overhaul	15
	Engine	15
	Checks, Repairs, Dimensions and Adjustments	15
	Camshaft Timing Operations	15
	Fitting the Cylinder Head	16
	Repairs - Cylinder Block	18
	Checks and Measurements	18
	Cylinder Head Mating Surface Check	19
	Tappets	19
	Crankshaft	20
	Main and Connecting Rod Journal Dimensions	20
	Timing System	23
	Camshaft	23
	Checking Cam Lift and Pin Alignment	23
	Bushings	24
	Connecting Rod-Piston Assembly	25
	Connecting Rods	26
	Bushings	26
	Cylinder Head	27
	Cylinder Head Mating Surface Check	27
	Valves	27
	Valve Guides	27
	Valve Seats	28
	Rocker Arm-Spindle	30
	Adjusting Tappet Clearance	30
	High-Pressure Pump CP3	31

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 3 - CNH Engine - F4CE0484B/F4CE0454*D/F4CE0484*D/ (4 Cylinder Mechanical Engine)

CONTENTS

Section	Description	Page
10 000	Specifications	4
	Tightening Torques	9
	Special Tools	13
	Description of Operation	14
	Mechanical Grid Heater Operation	14
	Cooling	15
	Lubrication	16
	Lubrication System Components	17
	Overhaul	18
	Introduction	18
	Removal	18
	Disassembly	18
	Preparing Engine for Installation on Rotary Stand	18
	Thermostat Housing	20
	Turbocharger	20
	Fuel System	20
	Cylinder Head	24
	Crankshaft Seals	28
	Sump	31
	Rotating Counter Weights	31
	Crankshaft	32
	Bushings	33
	Camshaft	34
	Assembly	35
	Installing the Tappets – Camshaft	35
	Fitting the Oil Nozzles	36
	Main Bearing Assembly	37
	Crankshaft Assembly	37
	Main Bearing Cap Assembly	37
	Fitting the Connecting Rod Half Bearings	39
	Fitting the Piston – Connecting Rod Assemblies in the Cylinder Liners	39
	Fitting the Connecting Rod Caps	40

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 3 - CNH Engine - F4CE0484B/F4CE0454*D/F4CE0484*D/ (4 Cylinder Mechanical Engine) (Continued)

CONTENTS

Section	Description	Page
	Camshaft Timing Operations	40
	Fitting the Timing Gear Casing	41
	Fitting the Coolant Pump	42
	Fitting the Oil Pump	43
	Fitting the Oil Sump Seal	45
	Fitting the Counterweights	45
	Counterweight Timing Operations	46
	Fitting the Oil Sump	47
	Fitting the Flywheel	47
	Fitting the Oil Filter Mounting	48
	Fitting the Alternator	49
	Fitting the Cylinder Heads	50
	Fitting the Rocker Arm Assembly	51
	Fitting the Injectors	52
	Fitting the Tappet Covers	53
	Fitting the Exhaust Manifold	53
	Fitting the Thermostat	54
	Fitting the Fan Pulley Mounting	54
	Fitting the Alternator Belt	55
	Fitting the Intake Manifold	55
	Fitting the Priming Pump	56
	Fitting the Fuel Pipes	57
	Fitting the Fuel Filter	58
	Fitting the Turbo-Blower	59
	Completing the Engine	59
	Checks, Dimensions and Repairs	60
	Cylinder Block	60
	Cylinders	60
	Cylinder Head Mating Surface Check	61
	Tappets	62

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 3 - CNH Engine - F4CE0484B/F4CE0454*D/F4CE0484*D/ (4 Cylinder Mechanical Engine) (Continued)

CONTENTS

Section	Description	Page
	Crankshaft, Bearings	62
	Main and Connecting Rod Journal Dimensions	62
	Main Bearing Assembly	65
	Main Journal Assembly Clearance	65
	Crankshaft Thrust Ring Clearance Check	67
	Timing System	67
	Camshaft	67
	Checking Cam Lift and Pin Alignment	67
	Bushings	68
	Piston/Connecting Rods	69
	Measuring the Piston Diameter	70
	Piston Pins	71
	Conditions for Correct Pin-Piston Coupling	71
	Piston Rings	71
	Connecting Rod Data	73
	Bushings	74
	Checking Connecting Rods	74
	Connecting Rod – Piston Assembly	76
	Fitting Piston Rings	77
	Fitting the Piston – Connecting Rod Assemblies in the Cylinder Liners	77
	Connecting Rod Pin Assembly Clearance	78
	Checking Piston Protrusion	80
	Cylinder Head	80
	Valve Disassembly	80
	Cylinder Head Hydraulic Seal Check	81
	Cylinder Head Mating Surface Check	81
	Valve Data	82
	Decarbonizing, Checking and Grinding Valves	82
	Checking the Clearance Between the Valve Stem and Guide and Valve Centring	83
	Valve Guides	83

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 3 - CNH Engine - F4CE0484B/F4CE0454*D/F4CE0484*D/ (4 Cylinder Mechanical Engine) (Continued)

CONTENTS

Section	Description	Page
	Valve Seats	83
	Valve Springs	85
	Assembling the Cylinder Head	85
	Installing the Cylinder Head	86
	Rocker Arm–Spindle	86
	Bosch Rotary Fuel Injection Pump	88
	Manifold Pressure Compensator (LDA)	88
	Electrical Cold-start Accelerator (KKSB)	90
	Injection Pump Removal	92
	Injection Pump Installation	94
	Checking Injection Pump Timing	94
	Final Checks	96

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 4 - CNH Engine - F4CE0684C/F4CE0684F*D (6 Cylinder Mechanical Engine)
--

CONTENTS

Section	Description	Page
10 000	Specifications	3
	Tightening Torques	8
	Special Tools	12
	Description of Operation	13
	Mechanical Grid Heater Operation	13
	Cooling	14
	Lubrication	15
	Overhaul	16
	Engine	16

SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 4 - CNH Engine - F4CE0684C/F4CE0684F*D (6 Cylinder Mechanical Engine) (Continued)
--

CONTENTS

Section	Description	Page
	Checks, Repairs, Dimensions and Adjustments	16
	Camshaft Timing Operations	16
	Fitting the Cylinder Head	17
	Repairs - Cylinder Block	18
	Checks and Measurements	18
	Cylinder Head Mating Surface Check	19
	Tappets	19
	Crankshaft	20
	Main and Connecting Rod Journal Dimensions	20
	Timing System	23
	Camshaft	23
	Checking Cam Lift and Pin Alignment	23
	Bushings	23
	Connecting Rod-Piston Assembly	24
	Connecting Rods	25
	Bushings	26
	Cylinder Head	26
	Cylinder Head Mating Surface Check	26
	Valves	27
	Valve Guides	27
	Valve Seats	27
	Rocker Arm-Spindle	28
	Bosch Rotary Fuel Injection Pump	30
	Manifold Pressure Compensator (LDA)	30
	Electrical Cold-start Accelerator (KKSB)	32
	Injection Pump Removal	34
	Injection Pump Installation	36
	Checking Injection Pump Timing	36
	Final Checks	38