

OPERATOR'S MANUAL

T9.450

T9.505

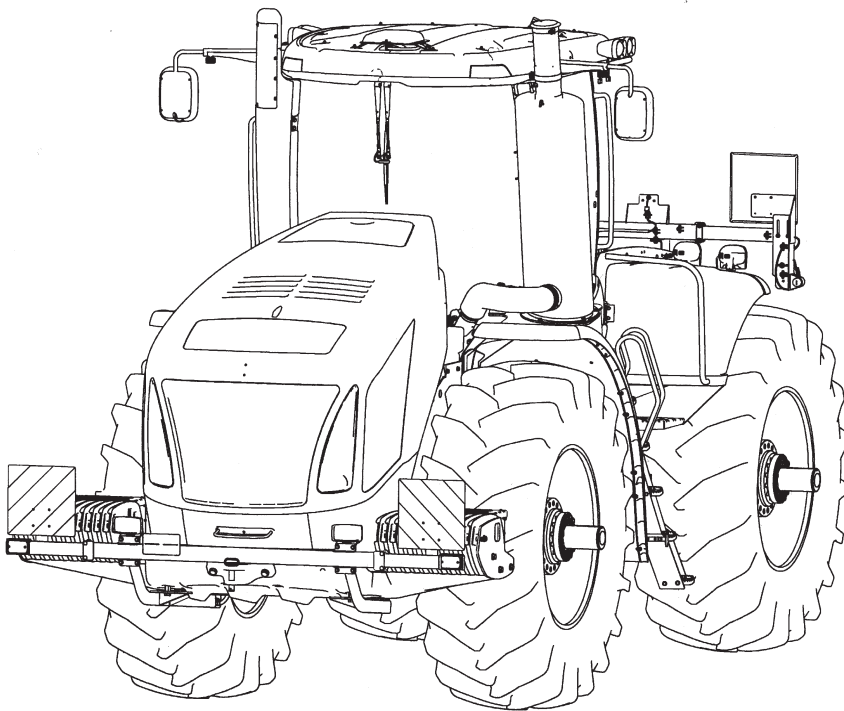
T9.560

T9.615

T9.670

Tier 2

Tractor



Part number 84384656

1st edition English

March 2011



Contents

1 GENERAL INFORMATION

Read the Operators Manual	1-1
Engine tampering	1-1
CNH America LLC technical manuals	1-2
Your tractor	1-3
Noise level	1-4
Vehicle vibration levels	1-5
Note to the Owner	1-6
Tractor intended use	1-6
Manual storage	1-7
Product identification	1-8
Component location	1-12

2 SAFETY INFORMATION

Safety rules and signal word definitions	2-1
Safety rules - General	2-2
Safety rules - Mounting and dismounting	2-3
Safety rules - Implements, tools and trailers	2-3
Safety rules - Instructional seat	2-4
Safety rules - Wheels and tires	2-4
Safety rules - Fire prevention	2-5
Safety rules - Fire extinguisher	2-5
Safety rules - PTO operation	2-6
Safety rules - General maintenance	2-7
Safety rules - Battery	2-8
Safety rules - Basic operating	2-9
Safety rules - Hazardous chemicals	2-10
Safety rules - Air conditioning system	2-10
Safety rules - Operator presence system	2-10
Safety rules - Roll over and tip over	2-11
Safety rules - Electrical storm safety	2-11
Safety rules - Driving on public roads	2-12
Safety rules - Utility power lines	2-12
Safety rules - Hydraulic system safety	2-13
ROPS and FOPS	2-14
Hazardous substances	2-15
Emergency exit	2-15
Safety decals	2-16
Articulation cylinder locking blocks	2-25

3 CONTROLS/INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Tractor access	3-1
----------------------	-----

OPERATOR'S SEAT

Overview	3-3
Control identification	3-4

INSTRUCTOR'S SEAT

Overview	3-7
----------------	-----

FORWARD CONTROLS

Steering column	3-9
Front console	3-12
Pedal controls	3-13
Ventilation	3-14
Front sun shade	3-15

RIGHT-HAND SIDE CONTROLS

Armrest console	3-16
Multi-function handle	3-17
Throttle control	3-21
Control panel	3-22
Remote valve controls	3-28
Joystick	3-29
Armrest compartment	3-30
Hitch controls	3-32
Adjusting the armrest console	3-33

REARWARD CONTROLS

Rear sun shade	3-34
----------------------	------

OVERHEAD CONTROLS

Overview	3-35
Automatic temperature controls	3-37
Automatic temperature control system	3-41
Center panel controls	3-43
Radio (if equipped)	3-47
Interior and access lights	3-47

EXTERIOR CONTROLS

Exterior hitch control	3-50
------------------------------	------

INSTRUMENT CLUSTER

Overview	3-51
Gauges	3-51
Status and warning icons	3-52
Upper display	3-55
Lower display	3-56
Keypad	3-58
Instrumentation - setup menu	3-60
Instrumentation - adjust menu	3-67
Performance instrumentation	3-74

4 OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

Before starting the engine 4-1

STARTING THE UNIT

Normal engine starting 4-5

Cold temperature operation 4-7

STOPPING THE UNIT

Stopping the engine 4-9

MOVING THE UNIT

Powershift transmission 4-10

Ground speed management (GSM) 4-18

Differential lock system 4-27

Constant engine speed 4-28

Headland management system 4-31

Engine compression brake (if equipped) 4-41

5 TRANSPORT OPERATIONS

ROAD TRANSPORT

Tractor warning lamps 5-1

Operating the tractor warning lamps 5-3

Safe transport speed 5-4

Implement warning lamps 5-5

Safety chain 5-6

SHIPPING TRANSPORT

Securing the tractor for shipping 5-7

RECOVERY TRANSPORT

Safety rules 5-8

Towing the tractor 5-9

6 WORKING OPERATIONS

GENERAL INFORMATION

Product overview 6-1

REAR PTO

Safety rules 6-2

Connecting the PTO 6-4

PTO operation	6-5
---------------------	-----

THREE POINT HITCH

Identification	6-8
Link adjustment	6-9
Sway block adjustment	6-11
Mechanical float adjustment	6-12
Hitch quick coupler - Category IVN	6-13
Transport lock	6-17
Hitch operation	6-18
Rear remote hitch switch	6-23
Position control operation	6-24
Slip control operation	6-26

DRAWBARS AND TOWING ATTACHMENTS

Safety rules	6-28
Rear towing - Capacities	6-28
Scraper operation	6-33

TRAILER BRAKE COUPLER

Safety rules	6-34
Trailer brake connections	6-34

AUXILIARY POWER CONNECTIONS

External power and lighting connections	6-35
Cab power connections	6-37

HYDRAULIC REMOTE CONTROL VALVES

Valve couplers and connections	6-40
Optional circuits	6-46
Hydraulic remote valve transport lock	6-47
Operating the controls	6-48
Remote valve display screens	6-52
Joystick operation	6-55
Auto auxiliary mode operation	6-59
Auto depth control operation	6-62

BALLASTING THE TRACTOR

Guidelines	6-65
Weights, cast metal and liquid Front Ballast	6-69
Wheel slip and power hop	6-75

FRONT AND REAR AXLE

Tire safety	6-76
Pressure and load ratings	6-77
Wheel installation	6-83
Wheel tread settings	6-89

7 MAINTENANCE

GENERAL INFORMATION

Safety rules	7-1
Engine hood	7-2
Removing the engine side shields.....	7-3
Opening the right hand service door	7-4
Power cut-off switch (if equipped)	7-4
Filling the fuel tank	7-6
Fuel tank capacity	7-7
Tire and rim service.....	7-8
Tractor jacking points.....	7-10
Capacities	7-12
Consumables - Engine oil	7-13
Consumables - Fuel	7-15
Consumables - Coolant solutions	7-17
Electrical specifications and service	7-18
Fuse and relay locations	7-20
Maintenance chart notes	7-28

MAINTENANCE CHART

Maintenance Chart	7-29
-------------------------	------

AT WARNING MESSAGE DISPLAY

Air cleaner	7-31
Fuel filter.....	7-32

EVERY 10 HOURS OR EACH DAY

Engine oil level	7-33
Wheel bolt torque.....	7-33
Wheel weight bolt torque	7-33
Transmission oil level.....	7-34
Hydraulic/axle oil level.....	7-35
Engine coolant level	7-36
Fuel level	7-36
General tractor inspection (see Note 1)	7-37

EVERY 50 HOURS

Fuel tank and fuel filter	7-38
Articulation hinge - upper front	7-40
Oscillation hinge - rear	7-40
Articulation hinge - lower	7-40
Articulation cylinder - front, left hand, right hand	7-41
Articulation cylinder - rear, left hand and right hand.....	7-41
Hitch cylinder pin - upper, left hand and right hand.....	7-42
Hitch cylinder pin - lower, left hand and right hand	7-42
Hitch rockshaft - left hand and right hand	7-43

Hitch lift links and top link.....	7-43
------------------------------------	------

EVERY 250 HOURS

Cab air filter, outside (see Note 2).....	7-44
Cab recirculation filter	7-45
Windshield washer fluid level.....	7-46
Driveshaft carrier bearing.....	7-46

EVERY 500 HOURS

Air tubing - engine	7-47
Alternator - water pump belt.....	7-47
Battery electrolyte level.....	7-48
PTO carrier bearing	7-49
PTO slip joint	7-49
Radiator and coolers	7-50

EVERY 600 HOURS

Engine oil and filter (see note 5).....	7-52
Engine fuel filter (see note 6).....	7-55
Engine fuel pre-filter	7-59
Fuel tank vent (see note 8)	7-64

EVERY 1200 HOURS

Engine crankcase breather filter.....	7-65
---------------------------------------	------

EVERY 1500 HOURS

Engine air tubing	7-67
Engine air filters (see Note 3)	7-68
Hydraulic oil and filters (see note 6).....	7-74
Hydraulic reservoir breather	7-76
Transmission oil and filter (see note 6)	7-77
Transmission vent	7-78
Cab air filter, outside (see Note 2).....	7-79
Door lock and hinges (see Note 4)	7-80

EVERY 2000 HOURS OR 2 YEARS

Engine coolant drain and flush	7-81
--------------------------------------	------

AS REQUIRED

Vehicle fire prevention	7-84
Pressure cooling system hoses	7-85
Hydraulic system hoses	7-85
Tire pressure	7-85
Engine fan belt	7-85
Viscous fan drive	7-86
Cab fabric and carpet.....	7-87
Seat belt	7-87

STORAGE

Placing in storage	7-88
Removing from storage.....	7-89

ELECTRICAL SYSTEM

Battery removal and installation	7-90
Auxiliary battery connections	7-91
Hood lamp replacement	7-93
Flood and work lamp replacement	7-98
Rotating beacon lamp replacement	7-103
Interior lights lamp replacement	7-104

8 TROUBLESHOOTING

FAULT CODE RESOLUTION

Fault code retrieval	8-1
----------------------------	-----

ALARM(S)

Display warnings	8-2
------------------------	-----

9 SPECIFICATIONS

Engine	9-1
Power train and hydraulics	9-3
Speed charts	9-6
Vehicle dimensions and shipping weight	9-8
Maximum tractor operating weights	9-11

10 ACCESSORIES

Farming system Monitor - Install	10-1
Chemical tank mounting.....	10-2
General accessories.....	10-5

1 - GENERAL INFORMATION

Read the Operators Manual



Improper operation of this vehicle can cause death or serious injury. Before using the vehicle, 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.

Engine tampering

The engine on your machine is designed and built to government emissions standards. Tampering by dealer, 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 repairs must be done by a certified technician only.

CNH America LLC technical manuals

Manuals are available from your dealer for your machine. Your dealer can expedite your order for operator manuals and parts catalogs.

Always give the machine name, model and S.N. (serial 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.

Manual scope and required training level

This manual provides information on the intended use of your tractor under the conditions foreseen by the manufacturer during normal operation, routine service and maintenance and periodic service and maintenance.

Normal operation is use of the tractor for the purpose intended by the manufacturer by an owner/operator who is familiar with the tractor and the mounted or towed equipment, and who is complying with the information on operation and safe practices, provided in this manual and by the decals on the tractor and the equipment.

Normal operation includes such actions as preparing the tractor for storage and removing the tractor from storage, adding or removing ballast, connecting and disconnecting mounted or towed equipment, raising and lowering components into or out of work position, adjusting tractor settings for specific field or crop settings, etc.

Routine service and maintenance are those actions which must be performed daily to maintain proper tractor function by an owner/operator who is familiar with tractor characteristics, and who is complying with the information on routine service and safe practices in this manual and in the decals on the tractor.

Routine service and maintenance includes such actions as fueling, cleaning, washing, topping off fluid levels, greasing, and replacing consumable articles such as lamp bulbs.

Periodic service and maintenance are those actions which must be performed at regularly defined intervals

All data given in this manual is subject to production variations.

NOTICE: *Operating and service messages displayed on the electronic operating panel may vary from what is shown in the manual. If this occurs, heed the latest instructions 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.

to maintain proper tractor function by an owner/operator who is familiar with tractor characteristics, and who is complying with the information on periodic service and safe practices in this manual and in the decals on the tractor.

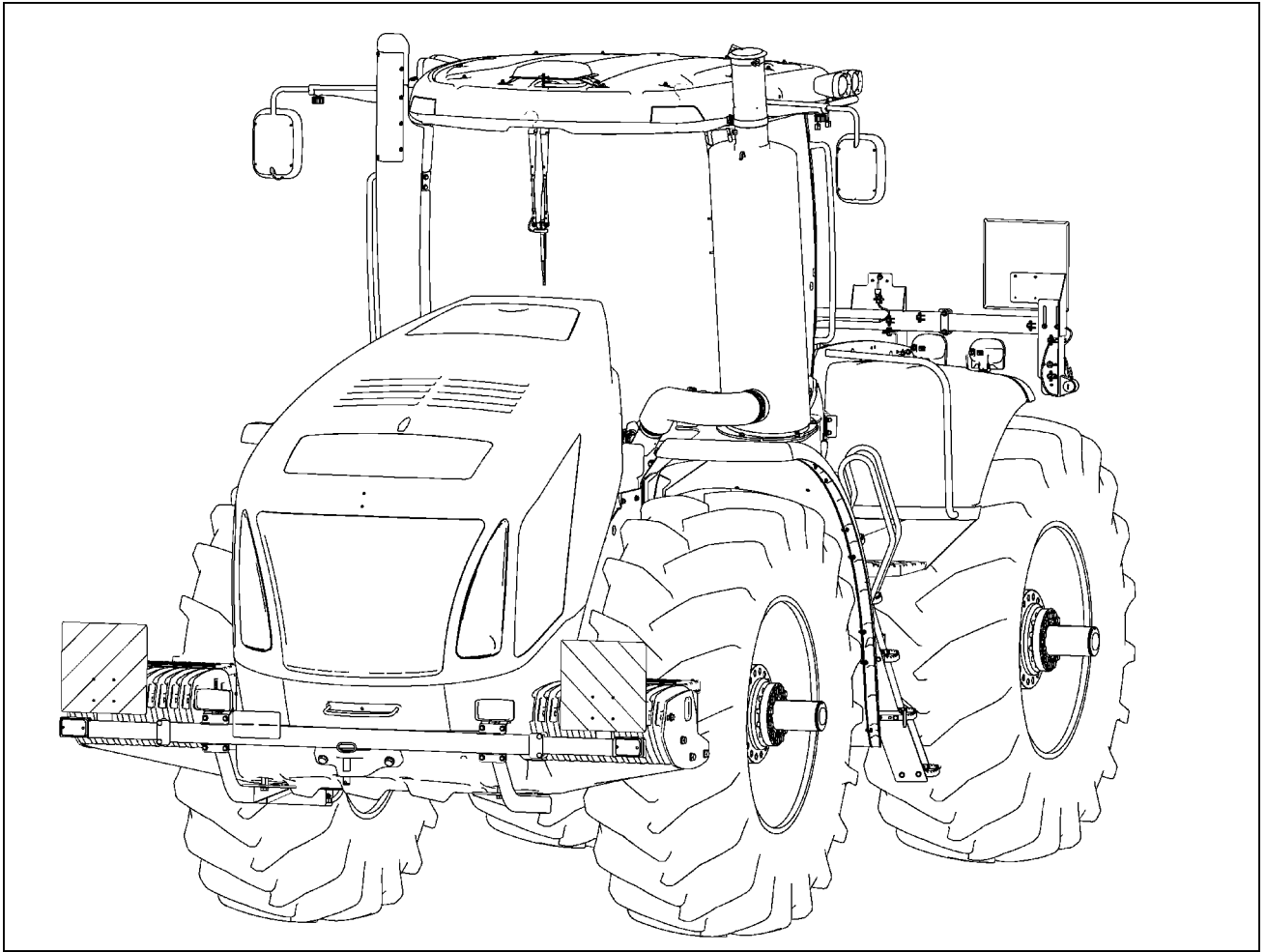
Periodic service and maintenance includes such actions as checking, cleaning and changing air filters, changing engine oil and filters, changing transmission oil and filters, changing front axle and wheel hub fluids, changing coolant, etc.

Some actions in the periodic service and maintenance chart are beyond the knowledge and skills of the owner/operator: for example, engine valve adjustment, fuel injector nozzles. For these actions, the manual instructs the owner/operator to have the action performed by their authorized dealer.

This manual does not contain all the information related to periodical service and maintenance, converting and repairs to be carried out by professional service personnel. These actions require special facilities, technical skills, and/or tools which are not supplied with the machine.

Converting is changing the tractor configuration for a specific crop or soil condition and requires rebuilding or adding components to the vehicle: for example, installation of dual wheels. Repairing is the disassembly and assembly of the tractor to restore proper operation after a component failure or degradation of performance.

Your tractor



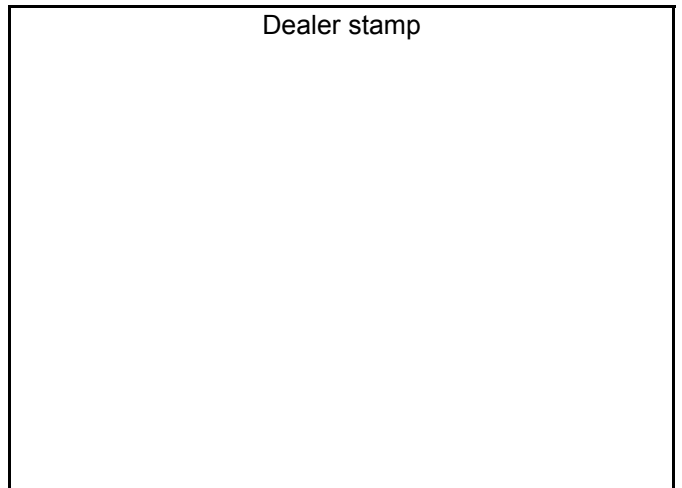
RCPH11FWD053GAM 1

The customer is required to ensure suitable jobsite organization in respect of acceptable visibility and operation of this tractor.



CNH America LLC
Racine, WI
U.S.A.

Dealer stamp



Noise level

In compliance with EU standards 77/311/EEC, the operator's noise level for tractors described in this manual are as specified below.

Tractor model	dB (A) at operators ear	Reference speed (km/h)
T9.390	76	7.8
T9.450, T9.505 and T9.560	80	7.8
T9.615 and T9.670	76	7.8

In compliance with EU standards 74/151/EWG, the drive by noise level for tractors described in this manual are as specified below.

Tractor model	Maximum speed (km/h)	Drive by noise (dB {A})	At test speed (km/h)	Stationary noise (dB {A})	At engine speed (RPM)
T9.390	39	87	29	81	2160
T9.450, T9.505, T9.560	39	86	29	84	2170
T9.615, T9.670	39	87	29	80	2180

Vehicle vibration levels

In compliance with EU standards 78/764/EEC, the operator's vibration level for tractors described in this manual are as specified below.

Tractors with standard air suspension seat

Vibration damping

	Maximum amplitude ration	Frequency
40 kg load	1.18	1.36 Hz
80 kg load	1.10	1.18 Hz

Vibration transmission

Ambient temperature: 21 °C

input vibration: Category A Class II

Driver	Corrected vibration level on seat
Heavy (98.4 kg)	0.94 m/s ²
Light (58.5 kg)	1.16 m/s ²

input vibration: Category A Class III

Ambient temperature: 21 °C

Driver	Corrected vibration level on seat
Heavy (98.4 kg)	0.95 m/s ²
Light (58.5 kg)	1.18 m/s ²

Tractors with semi active air suspension seat

Vibration damping

	Maximum amplitude ration	Frequency
40 kg load	0.668	1.17 Hz
80 kg load	0.820	1.17 Hz

Vibration transmission

Ambient temperature: 21 °C

input vibration: Category A Class II

Driver	Corrected vibration level on seat
Heavy (95 kg)	0.484 m/s ²
Light (59 kg)	0.722 m/s ²

input vibration: Category A Class III

Ambient temperature: 21 °C

Driver	Corrected vibration level on seat
Heavy (95 kg)	0.481 m/s ²
Light (59 kg)	0.750 m/s ²

Note to the Owner

This manual contains important information about the safe operation, adjustment and routine maintenance of your tractor. The manual is divided into ten 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.

Tractor intended use

T9.000 series tractors with standard equipment and authorized attachments, are intended to be used for customary farming, land leveling and related agriculture operations (intended use). This tractor is not intended for forestry use or for use with loaders. The cab on this tractor does not offer sufficient protection for forestry work.

The cab on this tractor is a Category 2 cab (EN 15695-1) and the application of plant protection products is not part of the intended use of this tractor, unless the manufacturer of the chemical product recommends the use of personal protective equipment as appropriate and sufficient protection with respect to their product.

Installation of utility (dozer) blades, tile plows, front loaders or push bars on the tractor is not approved. 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.

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

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.

any damage or injury resulting from this misuse and these risks must be born solely by the user.

Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacturer also constitute essential elements for the intended use.

All persons who will be operating this machine shall possess a valid local vehicle operating permit and/or other applicable local age work permits.

This tractor must be operated, serviced and repaired only by persons familiar with all its particular characteristics and acquainted with the relevant safety rules (accident prevention).

The accident prevention regulations, all other generally recognized regulations on safety and occupational medicine and the road traffic regulations must be observed at all times.

Any arbitrary modifications carried out on the tractor will relieve the manufacturer of all liability for any resulting damage or injury.

ATTENTION: *The engine and fuel system on your machine is 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 complete. Engine service and/or repairs must be done by a certified technician only!*

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com