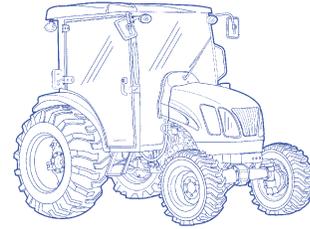


Product: New Holland 3040/3045/3050 Boomer Compact Tractor Service Repair Manual

Full Download: <https://www.aresairmanual.com/downloads/new-holland-3040-3045-3050-boomer-compact-tractor-service-repair-manual/>

5-3050-boomer-compact-tractor-service-repair-manual/



NEW HOLLAND

Boomer

3040

3045

3050

With Cab and (EasyDrive™) CVT Transmission

Section 00 - General Information

Section 10 - Engine

Section 21 - Transmission

SERVICE MANUAL



SERVICE

Sample of manual. Download All 251 pages at:

<https://www.aresairmanual.com/downloads/new-holland-3040-3045-3050-boomer-compact-tractor-service-repair-manual/>

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BOOMER 3040, 3045, 3050 CVT SERVICE MANUAL CONTENTS



SECTION 00 - GENERAL INFORMATION

SECTION 10 - ENGINE

SECTION 21 - TRANSMISSION

SECTION 25 - FWD FRONT AXLE

SECTION 27 - DIFFERENTIAL AND REAR AXLE

SECTION 31 - POWER TAKE-OFF (PTO) SYSTEMS

SECTION 33 - BRAKES

SECTION 35 - HYDRAULIC SYSTEM

SECTION 41 - STEERING

SECTION 50 - CLIMATE CONTROL

SECTION 55 - ELECTRICAL

SECTION 90 - PLATFORM

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

The sections listed above are the sections utilized for the Boomer 3040, 3045, 3050 CVT Tractors.

SECTION 00 - GENERAL INFORMATION

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Introduction	3
	Precautionary Statements	4
	Personal Safety	4
	Machine Safety	4
	Information	4
	Technical Information	5
	Hardware	5
	General	5
	Plating	5
	Nut Tightening	5
	Locknuts	5
	Jam Nuts	5
	Thread Lubrication	5
	Safety	6
	Precautionary Statements	6
	The Tractor	6
	Servicing the Tractor	6
	Operating the Tractor	7
	Driving the Tractor	7
	Operating the PTO	8
	Diesel Fuel	8
	Safety Decals	9
	Instruction Decals	11
	General Information	14
	Universal Symbols	16
	Specifications	17
	Engine	17
	Capacities	17
	Air Conditioning System	17
	Cooling System	18
	Electrical System	18

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

Section	Description	Page
	Fuel System	18
	Brakes	19
	Steering	19
	Power Take-off	19
	Hydraulic Lift System	19
	Transmission	20
	Transmission Speeds - kph (mph)	20
	Cast Iron Weights	21
	Drawbars	21
	3 Point Hitch	21
	Tires	22
	Wheel Bolt Torques	22
	General Dimensions	23
	Special Tools	30
	Tire Ballast and Pressures	32
	Liquid Ballast (Optional)	32
	Tire Pressure	32
	Rear Tire Liquid	32

INTRODUCTION

This service manual provides the technical information needed to properly service the New Holland Boomer 3040, 3045, and 3050 CVT transmission. Use this manual in conjunction with the operator's manual for complete operation, adjustment, and maintenance information.

On New Holland equipment, left and right are determined by standing behind the unit, looking in the direction of travel.

PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements (“**DANGER**”, “**WARNING**”, and “**CAUTION**”) followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.

 **DANGER** 

This word “**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** 

This word “**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** 

This word “**CAUTION**” indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

FAILURE TO FOLLOW THE “DANGER”, “WARNING”, AND “CAUTION” INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS BODILY INJURY.

MACHINE SAFETY

The precautionary statement (“**IMPORTANT**”) is followed by specific instructions. This statement is intended for machine safety.

IMPORTANT: *The word “IMPORTANT” is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.*

INFORMATION

NOTE: *Instructions used to identify and present supplementary information.*

TECHNICAL INFORMATION

HARDWARE

GENERAL

The Boomer 3040, 3045, and 3050 series tractors have been built using metric hardware.

NOTE: *Be sure to use the hardware specified when using tapped holes, as trying to install a metric bolt in an inch thread, or an inch bolt in a metric thread, will damage the thread.*

Certain hardware must be tightened to specific torque specifications. If specific torque specifications are not noted, tighten the hardware to the standard torque chart specification listed in this manual.

PLATING

Hardware used on New Holland tractors is plated with zinc chromate (gold color). Gold colored hardware has different torquing requirements from unplated or zinc plated (silver color) hardware because of the difference in the coefficient of friction of the plating material. The torque charts in this manual list the correct specifications for gold, silver, and unplated bolts.

NUT TIGHTENING

Whenever possible, the nut should be tightened, not the head of the bolt. When tightening using the bolt head, the clamp load can be lost because some of the torque applied twists the bolt instead of tensioning (stretching) it. The tension on the bolt is what holds the joint together.

Approximately 90% of the torque applied during assembly goes to overcoming friction between the parts. The other 10% is used to tension (stretch) the bolt. After assembly, the frictional forces disappear, which is the basis for the saying "If it does not fail during assembly, it will not fail in service." The bolt may later fail due to other factors, but not from being over tightened.

LOCKNUTS

Most locknuts are coated with a special lubricant that is dry to the touch. Anytime a locknut is used, a lower than normal torque is required. Refer to the torque charts in this manual for specific values.

JAM NUTS

When using a jam nut to lock a regular nut, the jam nut should be installed first and tightened to one half the recommended torque, then held in place while installing a regular nut to the recommended torque.

THREAD LUBRICATION

The addition of antiseize compound, Molykote, oil, graphite, or any other lubricant to a bolt decreases the friction between it and a nut. This makes it necessary to reduce the recommended torque to prevent over tensioning of the bolt. When using the torque charts in this manual, decrease the value by 20% whenever a lubricant is used.

SAFETY

PRECAUTIONARY STATEMENTS

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read and take the following precautions before operating this tractor. Equipment should be operated only by those who are responsible and instructed to do so.

THE TRACTOR

1. Read the Operator's Manual carefully before using the tractor. Lack of operating knowledge can lead to accidents.
2. Use an approved roll bar and seat belt for safe operation. Overturning a tractor without a roll bar can result in death or injury. If your tractor is not equipped with a roll bar and seat belt, see your New Holland Dealer.
3. Always use the seat belt. The only instance when the seat belt should not be used is if the roll bar has been removed from the tractor or folding ROPS is in down position.
4. If a front end loader is to be installed, always use a FOPS (Falling Object Protective Structure) canopy to avoid injury from falling objects.
5. Use the handholds and step plates when getting on and off the tractor to prevent falls. Keep steps and platform cleared of mud and debris.
6. Do not permit anyone but the operator to ride on the tractor. There is no safe place for extra riders.
7. Keep all safety decals clean of dirt and grime, and replace all missing, illegible, or damaged safety decals. See the list of decals in the Decal section of this manual.
3. Keep the tractor and equipment, particularly brakes and steering, maintained in a reliable and satisfactory condition to ensure your safety and comply with legal requirements.
4. Keep open flame or cold weather starting aids away from the battery to prevent fires or explosions. Use jumper cables according to instructions to prevent sparks which could cause explosion.
5. Stop the engine before performing any service on the tractor.
6. Escaping hydraulic/diesel fluid under pressure can penetrate the skin causing serious injury. If fluid is injected into the skin, obtain medical attention immediately or gangrene may result.
 - DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks.
 - Stop the engine and relieve pressure before connecting or disconnecting lines.
 - Tighten all connections before starting the engine or pressurizing lines.
7. Do not modify or permit anyone else to modify or alter this tractor or any of its components or functions without first consulting a New Holland Dealer.
8. The fuel oil in the injection system is under high pressure and can penetrate the skin. Unqualified persons should not remove or attempt to adjust a pump, injector, nozzle, or any other part of the fuel injection system. Failure to follow these instructions can result in serious injury.
9. Continuous long-term contact with used engine oil may cause skin cancer. Avoid prolonged contact with used engine oil. Wash skin promptly with soap and water.

SERVICING THE TRACTOR

1. The cooling system operates under pressure which is controlled by the radiator cap. It is dangerous to remove the cap while the system is hot. Always turn the cap slowly to the first stop and allow pressure to escape before removing the cap entirely.
2. Keep any type of open flame away from the tractor and do not smoke while refueling. Wait for the engine to cool before refueling.

10. Some components of your tractor, such as gaskets and friction surfaces (brake linings, clutch linings, etc.) may contain asbestos. Breathing asbestos dust is dangerous to your health. You are advised to have any maintenance or repair on such components carried out by an authorized New Holland Dealer. However, if service operations are to be undertaken on parts that contain asbestos, the essential precautions listed below must be observed:
 - Work out of doors or in a well ventilated area.
 - Dust found on the tractor or produced during work on the tractor should be removed by extraction, not by blowing.
 - Dust waste should be dampened, placed in a sealed container, and marked to ensure safe disposal.
 - If any cutting, drilling, etc. is attempted on materials containing asbestos, the item should be dampened and only hand tools or low speed power tools used.
8. If the power steering or engine ceases operating, stop the tractor immediately.
9. Pull only from the drawbar or the lower link drawbar in the down position. Use only a drawbar pin that locks in place. Pulling from the tractor rear axle or any point above the axle may cause the tractor to upset.
10. If the front end of the tractor tends to rise when heavy implements are attached to the three-point hitch, install front end or front wheel weights. Do not operate the tractor with a light front end.
11. Always set the hydraulic selector lever in position control when attaching or transporting equipment. Ensure hydraulic couplers are properly mounted and will disconnect safely in case of accidental detachment of implement.
12. Do not leave equipment in the raised position.
13. Use the flasher/turn signal lights and SMV signs when traveling on public roads both day and night (unless prohibited by law).

OPERATING THE TRACTOR

1. Before starting the tractor, apply the parking brake, place the PTO lever in the "OFF" position, the lift control lever in the down position, the remote control valve levers in the neutral position, and the transmission in neutral.
2. Always sit in the tractor seat when starting the engine or operating controls. Do not start the engine or operate controls while standing beside the tractor.
3. Do not bypass the neutral start switches. Consult your New Holland Dealer if your neutral start controls malfunction. Use jumper cables only in the recommended manner. Improper use can result in tractor runaway.
4. Avoid accidental contact with the gear shift lever while the engine is running, as this can cause unexpected tractor movement.
5. Before getting off the tractor, disengage the PTO, turn the engine off, and apply the parking brake. Never get off the tractor while it is in motion.
6. Do not park the tractor on a steep incline.
7. Do not operate the tractor engine in an enclosed building without adequate ventilation. Exhaust fumes can cause death or illness.

DRIVING THE TRACTOR

1. Watch where you are going, especially at row ends, on roads, around trees and low hanging obstacles.
2. To avoid upsets, drive the tractor with care and at a safe speed. Use extra caution when operating over rough ground, when crossing ditches or slopes, and when turning corners.
3. To provide two-wheel braking, lock tractor brake pedals together when transporting on roads.
4. Do not coast or free wheel down hills. Use the same gear when going downhill as is used when going uphill.
5. Any towed vehicle with a total weight exceeding that of the towing tractor should be equipped with brakes for safe operation.
6. If the tractor becomes stuck or the tires become frozen to the ground, back up the tractor to prevent upset.
7. Always check overhead clearance, especially when transporting the tractor.
8. When operating at night, adjust lights to prevent blinding oncoming drivers.

OPERATING THE PTO

1. When operating PTO driven equipment, shut off the engine and wait until the PTO stops before getting off the tractor and disconnecting the equipment.
2. Do not wear loose clothing when operating the power take-off or when near rotating equipment.
3. When operating stationary PTO driven equipment, always place all gear shift levers in neutral position.
4. Apply the tractor parking brake, and block the rear wheels front and back.
5. To avoid injury, do not clean, adjust, unclog, or service PTO driven equipment when the tractor engine is running.
6. Ensure the PTO master shield is installed at all times. Always replace the PTO shield cap when the PTO is not in use.

2. Never remove the fuel cap or refuel with the engine running or hot.
3. Do not smoke while refueling or when standing near fuel.
4. Maintain control of the fuel filler pipe nozzle when filling the tank.
5. Do not fill the fuel tank to capacity. Allow room for expansion.
6. Wipe up spilled fuel immediately.
7. Always tighten the fuel tank cap securely.
8. If the original fuel tank cap is lost, replace it with a New Holland approved cap. A non-approved, proprietary cap may not be safe.
9. Keep equipment clean and properly maintained.
10. Do not drive equipment near open fires.
11. Never use fuel for cleaning purposes.
12. Arrange fuel purchases so that winter grade fuels are not held over and used in the spring.

DIESEL FUEL

1. UNDER NO CIRCUMSTANCES should gasoline, alcohol, or blended fuels be added to diesel fuel. These combinations can create an increased fire or explosive hazard. Such blends are more explosive than pure gasoline in a closed container such as a fuel tank. **DO NOT USE THESE BLENDS.**



WHEN YOU SEE THIS SYMBOL

IT MEANS:

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!

SAFETY DECALS

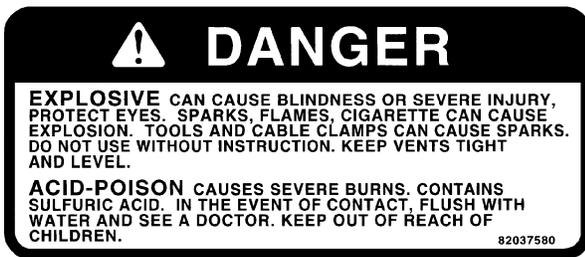
The following safety decals have been placed on your machine in the areas indicated. They are intended for your personal safety and for those working with you. Please take this manual and walk around your machine to note the content and location of these warning signs. Review these warning signs

and the operating instructions detailed in this manual with your machine operators.

Keep the decals legible. If they are not, obtain replacements from your authorized dealer. The decal replacement part numbers are listed with each decal.



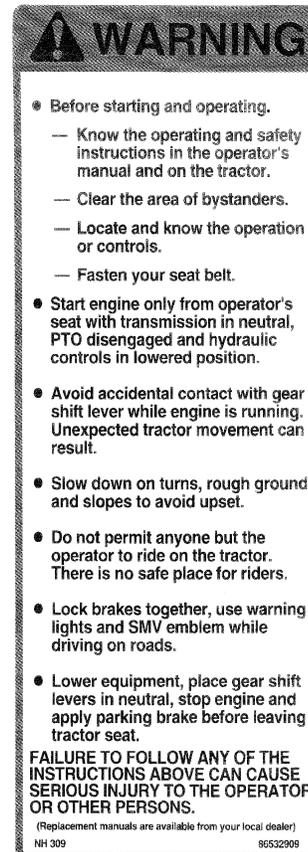
WARNING: Pull Only From Drawbar
 PART NO: 86532904
 LOCATION: PTO Shield



DANGER: Battery Safety
 PART NO: 82037580
 LOCATION: L.H. Side of Battery



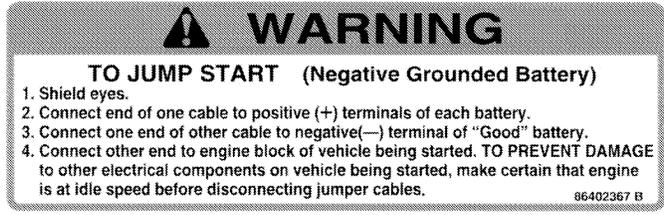
WARNING: Rotating Fan and Belts
 PART NO: 86532907
 LOCATION: Both sides of Radiator Shroud



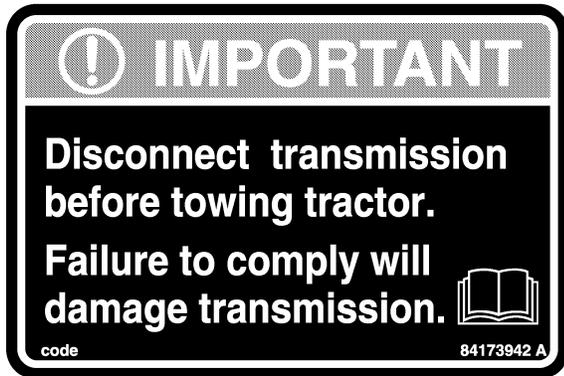
WARNING: Before Starting and Operating
 PART NO: 86532909
 LOCATION: L.H. Rear Cab Pillar



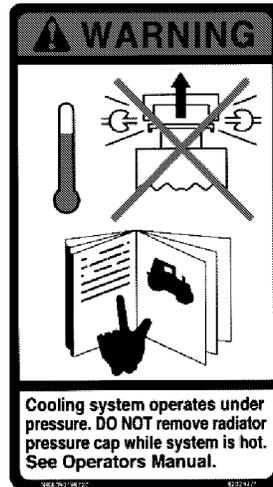
DANGER: Front-Wheel Drive Usage
(SuperSteer™ only)
PART NO: 86532902
LOCATION: Left Pod Top



WARNING: To Jump Start
PART NO: 86402367
LOCATION: In front of battery



IMPORTANT: Disconnect Transmission
PART NO: 84173942
LOCATION: Below Steering Wheel
on Steering Column



WARNING: Cooling System
Under Pressure
PART NO: 82029421
LOCATION: Air Filter Intake Tube



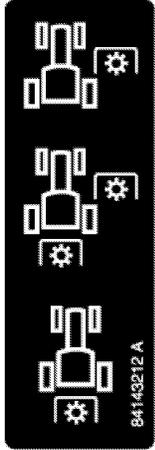
DANGER: Start Engine Only From
Operator's Seat
PART NO: 82985062
LOCATION: On Top of Starter



WARNING: Operate Controls only from
Tractor seat
PART NO: 87300025
LOCATION: Rear of Right Fender

INSTRUCTION DECALS

PTO Engagement
 PART NO: 84143212
 LOCATION: Left-Hand
 POD near Floor



Position Control
 Lever
 PART NO: 86567896
 LOCATION:
 Right-Hand POD Top



Front-Wheel
 Drive Control
 Lever
 PART NO: 84127432
 LOCATION:
 Left-Hand POD Side
 SuperSteer™ Only)



Operating Remote
 Control
 Valve-Single
 Spool (Optional)
 PART NO: 86567895
 LOCATION:
 Right-Hand POD Top



SECTION 00 - GENERAL INFORMATION - CHAPTER 1



Differential Lock
 PART NO: 86532901
 LOCATION: Above
 Pedal Left Side of
 Operator's Platform



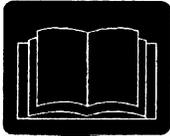
Starter Switch
 PART NO: 87656846
 LOCATION: Starter
 Switch, Right Side of
 Instrument Panel



Flow Control Valve
 PART NO: 86400295
 LOCATION: Top of Flow
 Control Knob



Engine Oil
 PART NO: 86532916
 LOCATION: Engine Oil
 Filler Cap



Hyd. Manifold Operation
 (See Operator's Manual)
 PART NO: 86532914
 LOCATION: Diverter Valve

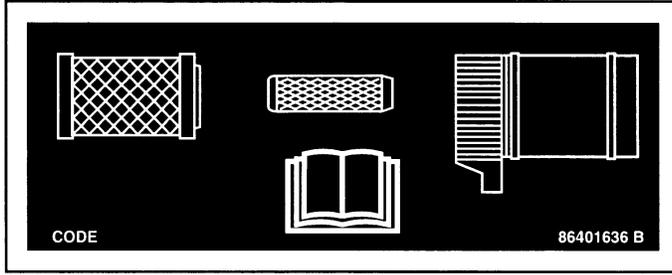
Lubrication and
 Maintenance Intervals
 PART NO: 84181050
 LOCATION: Inside of Hood

WATCH YOUR PROOF METER HOURS Lubrication and maintenance service intervals						
LUBRICATION AND MAINTENANCE ITEM	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVAL
Radiator Coolant	•					Every 10 Hours or Daily
Engine Oil Level	•					
Air Cleaner	•					
Transmission Oil Level	•					Every 50 Hours
Front Diff Oil Level	•					
Front Axle Oil Level	•					
Tires	•					
Clutch Pedal			•		•	
Battery	•					
Lubrication Fittings						
Steering Linkage			•			
2-Wheel Drive King Pins			•			
3-point Linkage			•			
Pivot Shaft			•			
Brake Pedal			•			
Drive Shaft Cover			•			
H.S.T. Foot Pedal Shaft			•			
Power Steering			•			
Super Steer Gearbox	•					
Fuel Filter		•				Every 100 Hours
Air Cleaner		•				
Engine Oil				•		Every 200 Hours
Engine Oil Filter				•	•	
Fan Belt	•					
Brakes					•	
Fuel Filter				•		Every 300 Hours
Front Axle Oil				•		
Front Diff Oil				•		
Hydraulic Filters				•		
Transmission Oil				•		
Fuel Injectors	•				•	Every 600 Hours
Valve Clearance	•				•	
Front Wheel Bearings			•			
G-Rotor Inner Filter				•		
Super Steer Gearbox				•		
Radiator Coolant					•	Seasonal
Air Cleaner Element					•	

Refer to your Operator's Manual
for additional information.

Code 84181050 A

SECTION 00 - GENERAL INFORMATION - CHAPTER 1



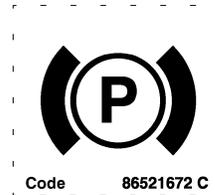
Air Cleaner Maintenance
 PART NO: 86401636
 LOCATION: Air Cleaner Canister



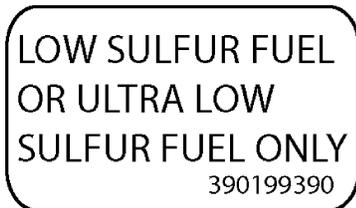
Red Reflective Tape
 PART NO: 86547781
 LOCATION: Back Rear Fender
 (Both Sides)



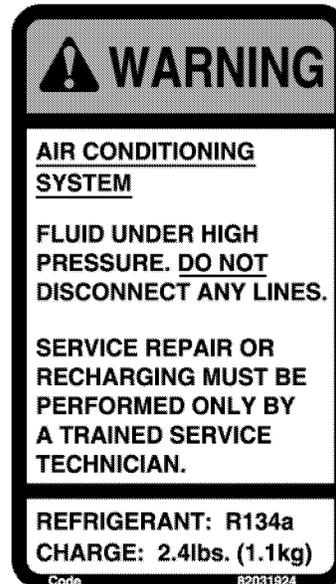
Throttle
 PART NO: 81863547
 LOCATION: Top Right Dash



Parking Brake
 PART NO: 86521672
 LOCATION: Left side of operator's platform



Low Sulfur Fuel
 PART NO: SBA390199390
 LOCATION: Left Rear Fender, near fuel tank



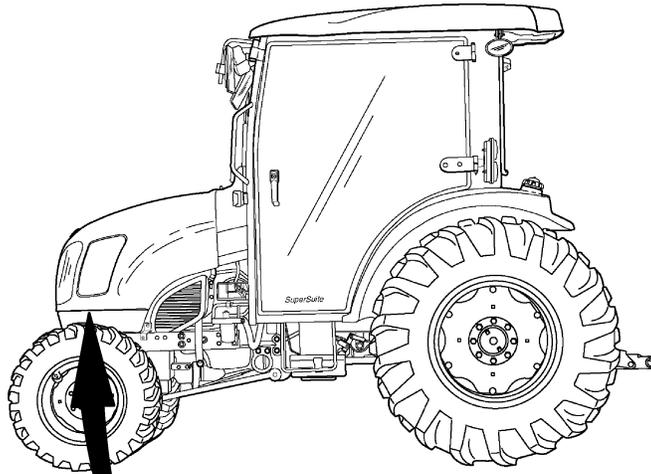
WARNING: Air Conditioning Under High Pressure
 PART NO: 82031924
 LOCATION: Right Side of Radiator

GENERAL INFORMATION

PLEASE READ CAREFULLY:

For a complete list of the pre-delivery service checks performed by your dealer, refer to the DELIVERY REPORT checklist found at the back of this manual. Keep one copy as your record of the service performed. The other copy should be removed from the manual and kept by your dealer. MAKE SURE THAT BOTH COPIES ARE COMPLETED AND THAT YOU AND THE DEALER SIGN BOTH COPIES.

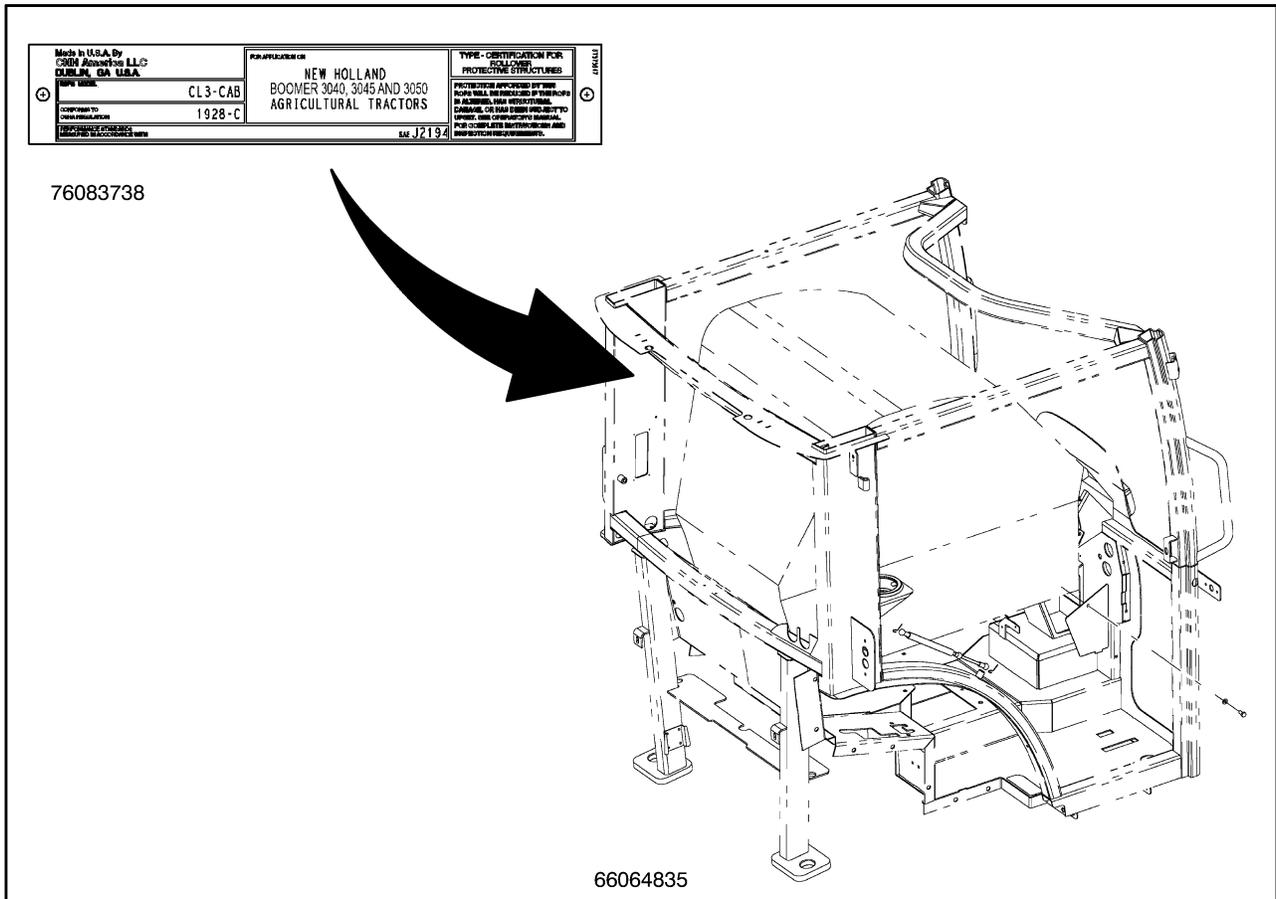
A PRODUCT IDENTIFICATION PLATE is located on the left-hand side of the front frame.



76076252

	CNH America LLC Racine, WI 53404 U.S.A.
NEW HOLLAND.	Made In Japan
Product Identification Number	
<input type="text"/>	
Engine	Unit
<input type="text"/>	<input type="text"/>
Transmission	Model
<input type="text"/>	<input type="text"/>

SECTION 00 - GENERAL INFORMATION - CHAPTER 1



1

A CAB IDENTIFICATION PLATE is located inside on the left rear pillar of the cab. The identification numbers on these plates are important in the event your tractor should require future service. For your convenience, have your dealer record these numbers in the appropriate spaces below.

CNH America LLC is continually striving to improve its products. We reserve the right to change prices,

specifications, or equipment at any time without notice.

All data given in this book is subject to production variations. Dimensions and weights are approximate only, and the illustrations do not necessarily depict tractors in standard condition. For exact information about any particular tractor, please consult your New Holland dealer.

UNIVERSAL SYMBOLS

As a guide to the operation of your tractor, 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.

	Thermostat starting aid		Radio		P.T.O.		Position Control
	Alternator charge	KAM	Keep alive memory	N	Transmission in neutral		Draft Control
	Fuel level		Turn signals		Creeper gears		Accessory socket
	Automatic Fuel shut-off		Turn signals -one trailer		Slow or low setting		Implement socket
	Engine speed (rev/min x 100)		Turn signals -two trailers		Fast or high setting		%age slip
	Hours recorded		Front wind-screen wash/wipe		Ground speed		Hitch raise (rear)
	Engine oil pressure		Rear wind-screen wash/wipe		Differential lock		Hitch lower (rear)
	Engine coolant temperature		Heater temperature control		Rear axle oil temperature		Hitch height limit (rear)
	Coolant level		Heater fan		Transmission oil pressure		Hitch height limit (front)
	Tractor lights		Air conditioner		FWD engaged		Hitch disabled
	Headlamp main beam		Air filter blocked		FWD disengaged		Hydraulic and transmission filters
	Headlamp dipped beam		Parking brake		Warning!		Remote valve extend
	Work lamps		Brake fluid level		Hazard warning lights		Remote valve retract
	Stop lamps		Trailer brake		Variable control		Remote valve float
	Horn		Roof beacon		Warning! Corrosive substance		Malfunction! See Operator's Manual
			Warning! Pressurized! Open carefully				Malfunction! (alternative symbol) See Operator's Manual

SPECIFICATIONS

	Boomer 3040	Boomer 3045	Boomer 3050
ENGINE			
Type/Model	Diesel/N844	Diesel/N844L	Diesel/N844L
Engine Gross Horsepower	29.8 kw (40.0)	33.6 kw (45)	33.6 kw (45)
Cylinders	4	4	4
Bore	84 mm (3.31 in)	84 mm (3.31 in)	84 mm (3.31 in)
Stroke	90 mm (3.54 in)	100 mm (3.94 in)	100 mm (3.94 in)
Displacement	2.0 L (121.7 cu-in)	2.2 L (135.2 cu-in)	2.2 L (135.2 cu-in)
Compression Ratio	22.5:1	22.5:1	22.5:1
Firing Order	1-3-4-2	1-3-4-2	1-3-4-2
Low Idle Speed	1025 RPM	1025 RPM	1050 RPM
Maximum Speed:			
High Idle	2850 RPM	2850 RPM	3050 RPM
Rated	2600 RPM	2600 RPM	2800 RPM
CAPACITIES			
Fuel Tank	49.2 liters/ 13 U.S. gals	49.2 liters/ 13 U.S. gals	49.2 liters/ 13 U.S. gals
Cooling System	9.0 liters/ 9.6 U.S. qts	9.0 liters/ 9.6 U.S. qts	9.0 liters/ 9.6 U.S. qts
Engine Crankcase:			
With Filter	6.0 liters/ 6.3 U.S. qts	6.0 liters/ 6.3 U.S. qts	6.0 liters/ 6.3 U.S. qts
Rear Axle & Transmission (Includes Hydraulics)	35.2 liters/ 9.3 U.S. gals	35.2 liters/ 9.3 U.S. gals	35.2 liters/ 9.3 U.S. gals
Front Axle Differential/ Final Reduction Gear Case	5.3 liters/ 5.6 U.S. qts	5.3 liters/ 5.6 U.S. qts	5.3 liters/ 5.6 U.S. qts
AIR CONDITIONING SYSTEM			
Compressor make/model	SANDEN/SD5H11	SANDEN/SD5H11	SANDEN/SD5H11
Bore	35 mm	35 mm	35 mm
Stroke	22.6 mm	22.6 mm	22.6 mm
Number of Cylinders	5	5	5
Refrigerant	R-134a	R-134a	R-134a
Capacity	1.1 kg (2.4 lbs)	1.1 kg (2.4 lbs)	1.1 kg (2.4 lbs)
Oil	SP-20 (or equivalent)	SP-20 (or equivalent)	SP-20 (or equivalent)
Capacity	135 ml (4.56 fl-oz)	135 ml (4.56 fl-oz)	135 ml (4.56 fl-oz)
Rotation	Clockwise	Clockwise	Clockwise
Blower Motor	3 Speed-Electric	3 Speed-Electric	3 Speed-Electric
Number of Interior Vents	Switch 8	Switch 8	Switch 8

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
COOLING SYSTEM			
Type	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass
Water Pump:			
Type	Centrifugal	Centrifugal	Centrifugal
Drive	V-Belt	V-Belt	V-Belt
Belt			
Deflection	10 - 15 mm (7/16 - 9/16 in) when 9 - 11 kg (20 - 25 lb) pressure is applied midway between belt pulleys	10 - 15 mm (7/16 - 9/16 in) when 9 - 11 kg (20 - 25 lb) pressure is applied midway between belt pulleys	10 - 15 mm (7/16 - 9/16 in) when 9 - 11 kg (20 - 25 lb) pressure is applied midway between belt pulleys
Fan Diameter	410 mm (16.1 in)	410 mm (16.1 in)	410 mm (16.1 in)
Number of Fan Blades	6	6	6
Thermostat:			
Start to Open	80°C (176°F)	80°C (176°F)	80°C (176°F)
Fully Open	95°C (203°F)	95°C (203°F)	95°C (203°F)
Radiator Cap	0.9 bar (13 PSI)	0.9 bar (13 PSI)	0.9 bar (13 PSI)
Antifreeze	Ethylene Glycol	Ethylene Glycol	Ethylene Glycol
ELECTRICAL SYSTEM			
Main System Protection	80 amp Maxifuse	80 amp Maxifuse	80 amp Maxifuse
Number Fuses for Circuit Protection	23	23	23
Alternator	12-volt, Heavy Duty, 55 amps	12-volt, Heavy Duty, 55 amps	12-volt, Heavy Duty, 55 amps
Battery Type	12-volt, w/ negative ground, 600 cca, BCI Group 47	12-volt, w/ negative ground, 600 cca, BCI Group 47	12-volt, w/ negative ground, 600 cca, BCI Group 47
Starter HP (KW) Rating	2.7 (2.0)	2.7 (2.0)	2.7 (2.0)
Battery Rating Amp Hrs.	64 - 69	64 - 69	64 - 69
Starting Motor	Solenoid Pre-Engaged Reduction	Solenoid Pre-Engaged Reduction	Solenoid Pre-Engaged Reduction
FUEL SYSTEM			
Fuel Type	Diesel	Diesel	Diesel
Type of Fuel to Use if Above 40°F	No. 2-Diesel, Cetane Rating: Minimum 40	No. 2-Diesel, Cetane Rating: Minimum 40	No. 2-Diesel, Cetane Rating: Minimum 40
Type of Fuel to Use if Below 40°F	No. 1-Diesel, Cetane Rating: Minimum 40	No. 1-Diesel, Cetane Rating: Minimum 40	No. 1-Diesel, Cetane Rating: Minimum 40
Injection Pump:			
Type	In-Line	In-Line	In-Line
Timing	21° BTDC	19.5° BTDC	19.5° BTDC

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
BRAKES			
Type	Wet Disc	Wet Disc	Wet Disc
3 Disc Diameter	175 mm x 143 mm (6.9 in x 5.6 in)	175 mm x 143 mm (6.9 in x 5.6 in)	175 mm x 143 mm (6.9 in x 5.6 in)
STEERING			
Type	Power	Power	Power
Pump Flow @ Rated RPM	19.34Lpm (5.11 gpm)	19.34Lpm (5.11 gpm)	21.0Lpm (5.54 gpm)
Turns Lock-to-Lock:			
FWD	4.3 R to L and 3 L to R	4.3 R to L and 3 L to R	4.3 R to L and 3 L to R
SuperSteer™	4.3	4.3	4.3
Front Wheel Toe-In	0 - 5 mm (0 - 13/64 in)	0 - 5 mm (0 - 13/64 in)	0 - 5 mm (0 - 13/64 in)
Turning Radius w/o Brakes:			
FWD	3238.5 mm (127.5 in)	3238.5 mm (127.5 in)	3238.5 mm (127.5 in)
SuperSteer™	2870.2 (113 in)	2870.2 (113 in)	2870.2 (113 in)
Max. Turn Angle:			
4WD	54°	54°	54°
4WDSS	75°	75°	75°
Front to rear axle ratio	1.67 to 1	1.67 to 1	1.67 to 1
POWER TAKE-OFF			
Type	Independent	Independent	Independent
Shaft:			
Rear PTO	35 mm (1-3/8 in)	35 mm (1-3/8 in)	35 mm (1-3/8 in)
Mid PTO	25.4 mm (1 in)	25.4 mm (1 in)	25.4 mm (1 in)
Engine Speed for 540 RPM Rear PTO Operation	2409 RPM	2409 RPM	2409 RPM
Horsepower Rear PTO Observed ..	23 kw (30.8 HP)	25.8 kw (34.6 HP)	28.7 kw (38.5 HP)
Horsepower Mid PTO Observed ...	19.3 kw (26 HP)	22.3 kw (30 HP)	24.6 kw (36 HP)
Engine Speed for 2000 RPM Mid PTO Operation	2407 RPM	2407 RPM	2407 RPM
Direction of Rotation (As viewed from rear of tractor)			
Rear PTO	Clockwise	Clockwise	Clockwise
Mid PTO	Counter-clockwise	Counter-clockwise	Counter-clockwise
HYDRAULIC LIFT SYSTEM			
Type	Open Center	Open Center	Open Center
Pump Type	Gear	Gear	Gear
Pump Capacity	36.9 lpm (9.7 U.S. gpm)	36.9 lpm (9.7 U.S. gpm)	39.8 lpm (10.5 U.S. gpm)
System Relief Valve Setting	171.6 bar (2489 PSI)	171.6 bar (2489 PSI)	171.6 bar (2489 PSI)
Number of Rear Remotes Available	3 (optional)	3 (optional)	3 (optional)
Number of Mid Remotes Available .	2 (optional)	2 (optional)	2 (optional)

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
TRANSMISSION			
Transmission Type	CVT	CVT	CVT
TRANSMISSION SPEEDS - KPH (MPH)			
Forward Min @ rated speed (AG)	0.43 (0.27)	0.43 (0.27)	0.46 (0.28)
Forward Max @ rated speed (AG)	30.16 (18.70)	30.16 (18.70)	32.48 (20.18)
Reverse Min @ rated speed (AG)	0.42 (0.26)	0.42 (0.26)	0.45 (0.27)
Reverse Max @ rated speed (AG)	29.94 (18.60)	29.94 (18.60)	32.24 (20.03)
Forward Min @ rated speed (R4)	0.42 (0.26)	0.42 (0.26)	0.46 (0.28)
Forward Max @ rated speed (R4)	29.85 (18.54)	29.85 (18.54)	32.15 (19.98)
Reverse Min @ rated speed (R4)	0.42 (0.26)	0.42 (0.26)	0.45 (0.27)
Reverse Max @ rated speed (R4)	29.63 (18.41)	29.63 (18.41)	31.91 (19.83)
Forward Min @ rated speed (Turf)	0.39 (0.24)	0.39 (0.24)	0.42 (0.26)
Forward Max @ rated speed (Turf)	27.81 (17.28)	27.81 (17.28)	29.95 (18.61)
Reverse Min @ rated speed (Turf)	0.39 (0.24)	0.39 (0.24)	0.42 (0.26)
Reverse Max @ rated speed (Turf)	27.6 (17.15)	27.6 (17.15)	29.72 (18.47)
Forward Min @ rated speed (Galaxy Turf Special)	0.38 (0.23)	0.38 (0.23)	0.41 (0.25)
Forward Max @ rated speed (Galaxy Turf Special)	27.04 (16.80)	27.04 (16.80)	29.12 (18.09)
Reverse Min @ rated speed (Galaxy Turf Special)	0.38 (0.23)	0.38 (0.23)	0.41 (0.25)
Reverse Max @ rated speed (Galaxy Turf Special)	26.84 (16.68)	26.84 (16.68)	28.9 (17.96)

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
CAST IRON WEIGHTS			
Front End:			
Ag, R-4 & Turf Tires with FWD, & SuperSteer™	(2) weights @ 29.7 kg (66 lb) each	(2) weights @ 29.7 kg (66 lb) each	(2) weights @ 29.7 kg (66 lb) each
	Optional (2) weights @ 45 kg (100 lb) each	Optional (2) weights @ 45 kg (100 lb) each	Optional (2) weights @ 45 kg (100 lb) each
Standard FWD Axle:			
(with extension bracket)	(5) weights @ 26 kg (60 lb) each Total 26 kg (300 lb)	(5) weights @ 26 kg (60 lb) each Total 26 kg (300 lb)	(5) weights @ 26 kg (60 lb) each Total 26 kg (300 lb)
	Or	Or	Or
	(5) weights @ 45 kg (100 lb) each Total 225 kg (500 lb)	(5) weights @ 45 kg (100 lbs.) each Total 225 kg (500 lb)	(5) weights @ 45 kg (100 lbs.) each Total 225 kg (500 lb)
SuperSteer Axle:			
(with extension bracket and adapter bracket) . . .	(2) weights @ 26 kg (60 lb)	(2) weights @ 26 kg (60 lb)	(2) weights @ 26 kg (60 lb)
	(3) weights @ 45 kg (100 lb) Total 420 lb	(3) weights @ 45 kg (100 lb) Total 420 lb	(3) weights @ 45 kg (100 lb) Total 420 lb
Rear Wheel:			
R-4 Tires	(4) weights (2) per wheel @ 34 kg (75 lb) each	(4) weights (2) per wheel @ 34 kg (75 lb) each	(4) weights (2) per wheel @ 34 kg (75 lb) each
Turf Tires	---	---	---
Ag. Tires	(4) weights (2) per wheel @ 48 kg (105 lb) each	(4) weights (2) per wheel @ 48 kg (105 lb) each	(4) weights (2) per wheel @ 48 kg (105 lb) each
DRAWBARS			
Swinging/ Extendible			
	Standard	Standard	Standard
3 POINT HITCH			
Category Type	I	I	I
Position Control Type . .	Hydraulic	Hydraulic	Hydraulic
Drop Rate Control	Standard	Standard	Standard
Maximum Lift Capacity @ ball ends Kg (lb)	1606 (3541)	1606 (3541)	1606 (3541)
Lift Capacity @ 24 in Behind Kg (lb)	1059 (2330)	1059 (2330)	1059 (2330)

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
TIRES			
FRONT:			
Agricultural:			
FWD	8x16, 6PR, R1	8x16, 6PR, R11	8x16, 6PR, R11
Turf:			
FWD	27x10.50-15, 4PR, R3 27/12LL x 15	27x10.50-15, 4PR, R3 27/12LL x 15	27x10.50-15, 4PR, R3 27/12LL x 15
Industrial:			
FWD	10x16.5, 6PR, R4	10x16.5, 6PR, R4	10x16.5, 6PR, R4
REAR:			
Agricultural	14.9x24, 4PR, R1	14.9x24, 4PR, R1	14.9x24, 4PR, R1
Turf	44x18-20, 4 PR, R3	44x18-20, 4 PR, R3	44x18-20, 4 PR, R3
Industrial	17.5x24, 8PR, R4	17.5x24, 8PR, R4	17.5x24, 8PR, R4
Galaxy Turf Special	22.5 LL x 16	22.5 LL x 16	22.5 LL x 16

WHEEL BOLT TORQUES

Front Wheel—			
Disc-to-Hub:			
FWD	129 N·m (95 ft-lb)	129 N·m (95 ft-lb)	129 N·m (95 ft-lb)
Rear Wheel—			
Rear Wheel & Disc-to Axle	129 N·m (95 ft-lb)	129 N·m (95 ft-lb)	129 N·m (95 ft-lb)
Disc-to Rim	244 N·m (180 ft-lb)	244 N·m (180 ft-lb)	244 N·m (180 ft-lb)

GENERAL DIMENSIONS

	Boomer 3040	Boomer 3045	Boomer 3050
(1)—LENGTH Overall (w/Vertical 3 pt. Hitch) - mm (in.)			
STD FWD			
AG Tires	3098 (122)	3098 (122)	3098 (122)
R4 Tires	3098 (122)	3098 (122)	3098 (122)
Turf Tires	3098 (122)	3098 (122)	3098 (122)
Galaxy Turf Special	3098 (122)	3098 (122)	3098 (122)
SUPERSTEER			
AG Tires	3288 (129.4)	3288 (129.4)	3288 (129.4)
R4 Tires	3288 (129.4)	3288 (129.4)	3288 (129.4)
Turf Tires	3288 (129.4)	3288 (129.4)	3288 (129.4)
Galaxy Turf Special	N/A	N/A	N/A

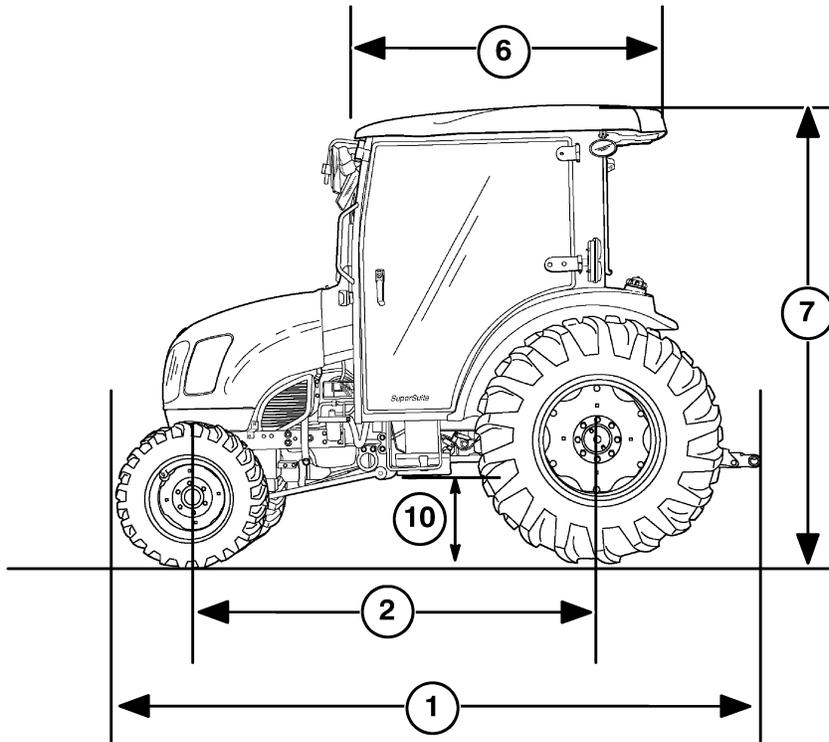
SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
(2) - WHEEL BASE:			
FWD	1867 mm (73.5 in)	1867 mm (73.5 in)	1867 mm (73.5 in)
SuperSteer	2057 mm (81.0 in)	2057 mm (81.0 in)	2057 mm (81.0 in)
(3) - WIDTH:			
Rear Axle—Outside			
AG Tires - 14.9 x 24			
Dished In	1687 mm (66.4 in)	1687 mm (66.4 in)	1687 mm (66.4 in)
Dished Out	2090 mm (82.3 in)	2090 mm (82.3 in)	2090 mm (82.3 in)
R4 Tires - 17.5 x 24			
Dished In	1876 mm (73.9 in)	1876 mm (73.9 in)	1876 mm (73.9 in)
Dished Out	2184 mm (86 in)	2184 mm (86 in)	2184 mm (86 in)
Turf Tires - 44-18 x 20			
Dished In	1819 mm (71.6 in)	1819 mm (71.6 in)	1819 mm (71.6 in)
Dished Out	1841 mm (72.5 in)	1841 mm (72.5 in)	1841 mm (72.5 in)
Galaxy Turf Special - 22.5LL x 16			
Dished In	NA	NA	NA
Dished Out	2131 mm (83.9 in)	2131 mm (83.9 in)	2131 mm (83.9 in)
(4)—GROUND CLEARANCE - mm (in.) (at * CL)			
AG TIRES			
Std. FWD Minimum	318 (12.5)	318 (12.5)	318 (12.5)
Location (SUPERSTEER Clutch)	274 (10.8)	274 (10.8)	274 (10.8)
Front Axle Crop Clearance	403 (15.9)	403 (15.9)	403 (15.9)
Rear Axle Crop Clearance	433 (17.0)	433 (17.0)	433 (17.0)
R4 TIRES			
Std. FWD Minimum	302 (11.9)	302 (11.9)	302 (11.9)
Location (SUPERSTEER Clutch)	266 (10.5)	266 (10.5)	266 (10.5)
Front Axle Crop Clearance	395 (15.6)	395 (15.6)	395 (15.6)
Rear Axle Crop Clearance	417 (16.4)	417 (16.4)	417 (16.4)
TURF TIRES			
Std. FWD Minimum	280 (11.0)	280 (11.0)	280 (11.0)
Location (SUPERSTEER Clutch)	223 (8.8)	223 (8.8)	223 (8.8)
Front Axle Crop Clearance	352 (13.9)	352 (13.9)	352 (13.9)
Rear Axle Crop Clearance	395 (15.6)	395 (15.6)	395 (15.6)
GALAXY TURF SPECIAL			
Std. FWD Minimum	262 (10.3)	262 (10.3)	262 (10.3)
Location (SUPERSTEER Clutch)	228 (9.0)	228 (9.0)	228 (9.0)
Front Axle Crop Clearance	357 (14.1)	357 (14.1)	357 (14.1)
Rear Axle Crop Clearance	377 (14.8)	377 (14.8)	377 (14.8)

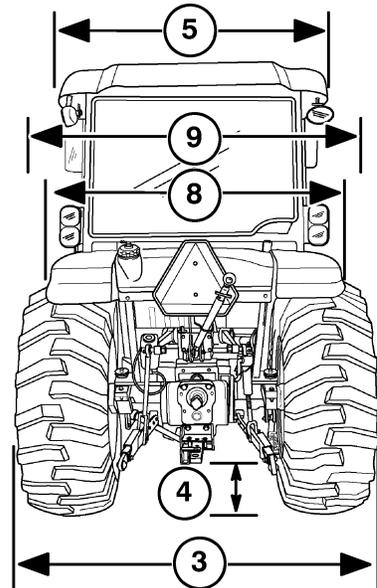
* CL - Center Line of Tractor

SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
CAB DIMENSIONS: mm (in.)			
(5) - Width - Cab	1486 (58.5)	1486 (58.5)	1486 (58.5)
(6) - Length - Cab	1676 (66)	1676 (66)	1676 (66)
(7) - Height - Cab			
AG Tires FWD	2303 (90.65)	2303 (90.65)	2303 (90.65)
R4 Tires FWD	2292 (90.25)	2292 (90.25)	2292 (90.25)
Turf Tires FWD	2226 (87.65)	2226 (87.65)	2226 (87.65)
Galaxy Tires FWD	2242 (88.25)	2242 (88.25)	2242 (88.25)
(8) - Width - Standard Fenders	1486 (58.5)	1486 (58.5)	1486 (58.5)
(9) - Width - with Mirrors Extended	1727 (68)	1727 (68)	1727 (68)
Roof Overhang Length (rear)	330 (13)	330 (13)	330 (13)
Number of Steps (per tractor)	2	2	2
(10) - Step Height			
AG Tires FWD	490 (19.3)	490 (19.3)	490 (19.3)
R4 Tires FWD	480 (18.9)	480 (18.9)	480 (18.9)
Turf Tires FWD	414 (16.3)	414 (16.3)	414 (16.3)
Galaxy Tires FWD	429 (16.9)	429 (16.9)	429 (16.9)
Cab Head Height			
Center of Seat to Inner Roof	972 (38.25)	972 (38.25)	972 (38.25)



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SECTION 00 - GENERAL INFORMATION - CHAPTER 1

	Boomer 3040	Boomer 3045	Boomer 3050
WHEEL TREAD SETTINGS:			
<i>FRONT AXLE:</i>			
<i>Agricultural:</i>			
FWD 8 x 16	1204 mm (47.4 in)	1204 mm (47.4 in)	1204 mm (47.4 in)
<i>Turf:</i>			
FWD 27 x 10.5 x 15	1328 mm (52.3 in)	1328 mm (52.3 in)	1328 mm (52.3 in)
27/12LL x 15	1367 mm (53.86 in)	1367 mm (53.86 in)	1367 mm (53.86 in)
<i>Industrial:</i>			
4WD 10 x 16.5	1278 mm (50.3 in)	1278 mm (50.3 in)	1278 mm (50.3 in)
<i>REAR AXLE:</i>			
- AG Tires 14.9 x 24			
- Disc (Dished In) and Rim (Dished Out)	1309 mm (51.5 in.)	1309 mm (51.5 in.)	1309 mm (51.5 in.)
- MIN (Dished Out)	1404 mm (55.3 in.) or 1509 mm (59.4 in.)	1404 mm (55.3 in.) or 1509 mm (59.4 in.)	1404 mm (55.3 in.) or 1509 mm (59.4 in.)
- MAX (Dished Out)	1607 mm (63.3 in.) or 1712 mm (67.4 in.)	1607 mm (63.3 in.) or 1712 mm (67.4 in.)	1607 mm (63.3 in.) or 1712 mm (67.4 in.)
- No. of available positions	5	5	5
- R4 Tires 17.5 x 24			
- MIN (Dished In)	1404 mm (55.3 in.) or 1509 mm (59.4 in.)	1404 mm (55.3 in.) or 1509 mm (59.4 in.)	1404 mm (55.3 in.) or 1509 mm (59.4 in.)
- MAX (Dished Out)	1607 mm (63.3 in.) or 1712 mm (67.4 in.)	1607 mm (63.3 in.) or 1712 mm (67.4 in.)	1607 mm (63.3 in.) or 1712 mm (67.4 in.)
- No. of available positions	4	4	4
- TURF Tires 44 x 18 - 20			
- MIN (Dished In)	1347 (53)	1347 (53)	1347 (53)
- MAX (Dished Out)	1368 (53.9)	1368 (53.9)	1368 (53.9)
- No. of available positions	2	2	2
- Galaxy Turf Special 22.5 LL x 24			
- MIN (Dished In)	NA	NA	NA
- MAX (Dished Out)	1550 (61)	1550 (61)	1550 (61)
- No. of available positions	1	1	1
WEIGHT:			
With CAB:			
FWD	1664 kg (3660 lb)	1704 kg (3749 lb)	1896 kg (4180 lb)
SuperSteer	1740 kg (3829 lb)	1780 kg (3918 lb)	1973 kg (4349 lb)

MINIMUM HARDWARE TIGHTENING TORQUES

IN FOOT POUNDS (NEWTON-METERS) FOR NORMAL ASSEMBLY APPLICATIONS

INCH HARDWARE AND LOCKNUTS

NOMINAL SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		LOCKNUTS		NOMINAL SIZE
	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	GR.B w/GR5 BOLT	GR.C w/GR8 BOLT	
1/4	55* (6.2)	72* (8.1)	86* (9.7)	112* (13)	121* (14)	157* (18)	61* (6.9)	86* (9.8)	1/4
5/16	115* (13)	149* (17)	178* (20)	229* (26)	250* (28)	324* (37)	125* (14)	176* (20)	5/16
3/8	17 (23)	22 (30)	26 (35)	34 (46)	37 (50)	48 (65)	19 (26)	26 (35)	3/8
7/16	27 (37)	35 (47)	42 (57)	54 (73)	59 (80)	77 (104)	30 (41)	42 (57)	7/16
1/2	42 (57)	54 (73)	64 (87)	83 (113)	91 (123)	117 (159)	45 (61)	64 (88)	1/2
9/16	60 (81)	77 (104)	92 (125)	120 (163)	130 (176)	169 (229)	65 (88)	92 (125)	9/16
5/8	83 (112)	107 (145)	128 (174)	165 (224)	180 (244)	233 (316)	90 (122)	127 (172)	5/8
3/4	146 (198)	189 (256)	226 (306)	293 (397)	319 (432)	413 (560)	160 (217)	226 (306)	3/4
7/8	142 (193)	183 (248)	365 (495)	473 (641)	515 (698)	667 (904)	258 (350)	364 (494)	7/8
1	213 (289)	275 (373)	547 (742)	708 (960)	773 (1048)	1000 (1356)	386 (523)	545 (739)	1

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION CAP SCREWS AND CARRIAGE BOLTS



LOCKNUTS

