



OPERATOR'S MANUAL

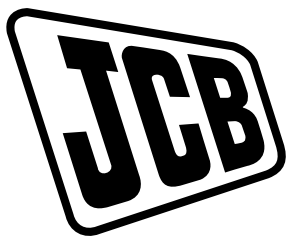


135, 150T, 155, 175, 190, 190T, 205, 205T

EN - 9811/9500

ISSUE 4 - 01/2016

THIS MANUAL SHOULD ALWAYS STAY WITH THE MACHINE



OPERATOR'S MANUAL

**135, 150T, 155, 175,
190, 190T, 205, 205T**

EN - 9811/9500 - ISSUE 4 - 01/2016

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual



You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

Machine Delivery and Installation

Even if you have operated this type of equipment before, it is very important that your new machines operations and functions are explained to you by a JCB Dealer Representative following delivery of your new machine.

Following the installation you will know how to gain maximum productivity and performance from your new product.

Please contact your local JCB dealer if the Installation Form (included in this manual) has not yet been completed with you.

Your local JCB Dealer is



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Acronyms Glossary

CESAR	Construction Equipment Security and Registration
DEF	Diesel Exhaust Fluid
ECU	Electronic Control Unit
ESOS	Engine Shut-Off Solenoid
FEAD	Front End Accessory Drive
FOPS	Falling Object Protective Structure
HVAC	Heating Ventilation Air Conditioning
ISO	International Organization for Standardization
LCD	Liquid Crystal Display
LED	Light Emitting Diode
PIN	Product Identification Number
PPE	Personal Protective Equipment
RMS	Root Mean Square
ROPS	Roll-Over Protective Structure
SRS	Smooth Ride System



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Introduction

About this Manual

Model and Serial Number

This manual provides information for the following model(s) in the JCB machine range:

Model	From:	To:
135	01755000	01764999
150T	01755000	01764999
155	01755000	01764999
175	01755000	01764999
190	01755000	01764999
190T	01755000	01764999
205	02201002	02206002
205T	01755000	01764999

Using the Manual

This operator's manual is arranged to give you a good understanding of the product and its safe operation. It also contains maintenance and technical data.

Read this manual from the front to the back before you use the product for the first time, even if you have used machines of a similar/same type before as the technical specification, systems and controls of the machine may have changed. Particular attention must be given to all the safety aspects of operating and maintaining the product.

If there is anything you are not sure about, ask your JCB dealer or employer. Do not guess, you or others could be killed or seriously injured.

The general and specific warnings in this section are repeated throughout the manual. Read all the safety statements regularly, so you do not forget them. Remember that the best operators are the safest operators.

The illustrations in this manual are for guidance only. Where the machines are different, the text and or the illustration will specify.

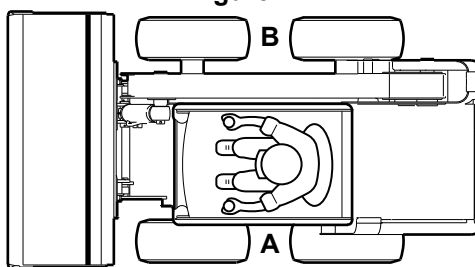
The manufacturer's policy is one of continuous improvement. The right to change the specification of the product without notice is reserved. No responsibility will be accepted for discrepancies which may occur between specifications of the product and the descriptions contained in this manual.

All of the optional equipment included in this manual may not be available in all territories

Left-Hand Side, Right-Hand Side

In this manual, 'left' and 'right' mean your left and right when you are seated correctly in the machine.

Figure 1.



A Left

B Right

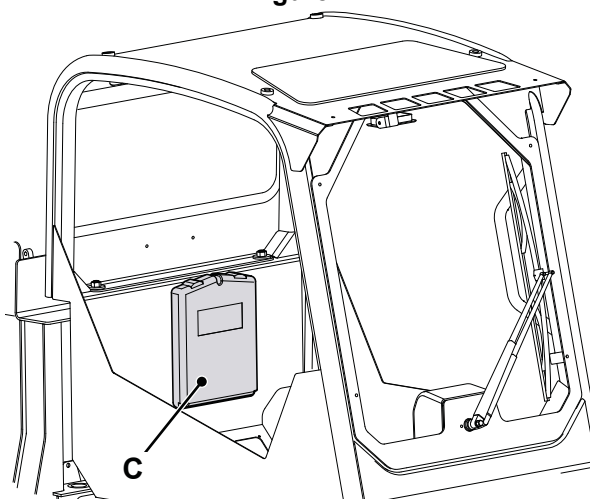
Cross References

In this manual, cross references are made by presenting the subject title in blue (electronic copy only). The number of the page upon which the subject begins is indicated within the brackets. For example: [Refer to: Introduction > About this Manual > Cross References \(Page 2\)](#).

Location of Manual

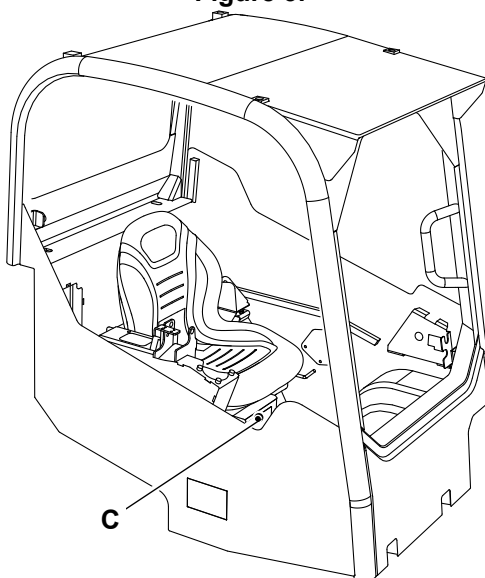
The manual is located in the case behind the seat or below the seat. The manual should always be returned to its case after use.

Figure 2.



C Manual location

Figure 3.



C Manual location

Safety

Safety - Yours and Others

All machinery can be hazardous. When a product is correctly operated and maintained, it is a safe product to work with. When it is carelessly operated or poorly maintained it can become a danger to you (the operator) and others.

In this manual and on the product you will find warning messages, read and understand them. They inform you of potential hazards and how to avoid them. If you do not fully understand the warning messages, ask your employer or JCB dealer to explain them.

Safety is not just a matter of responding to the warnings. All the time you are working on or with the product you must be thinking of what hazards there might be and how to avoid them.

Do not work with the product until you are sure that you can control it.

Do not start any work until you are sure that you and those around you will be safe.

If you are not sure of anything, about the product or the work, ask someone who knows. Do not assume anything.

Remember:

- Be careful
- Be alert
- Be safe.

Safety Warnings

In this manual and on the product, there are safety notices. Each notice starts with a signal word. The signal word meanings are given below.

The signal word 'DANGER' indicates a hazardous situation which, if not avoided, will result in death or serious injury.

The signal word 'WARNING' indicates a hazardous situation which, if not avoided, could result in death or serious injury.

The signal word 'CAUTION' indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

The signal word 'Notice' indicates a hazardous situation which, if not avoided, could result in product damage.

The safety alert system (shown) also helps to identify important safety messages in this manual and on the product. When you see this symbol, be alert, your safety is involved, carefully read the message that follows, and inform other operators.

Figure 4. The safety alert system



General Safety

Training

To operate the machine safely you must know the machine and have the skill to use it. You must abide by all relevant laws, health and safety regulations that apply to the country you are operating in. The operator's manual instructs you on the machine, its controls and its safe operation; it is not a training manual. If you are a new operator, get yourself trained in the skills of using a machine before trying to work with it. If you don't, you will not do your job well, and you will be a danger to yourself and others. In some markets and for work on certain jobsites you may be required to have been trained and assessed in accordance with an operator competence scheme. Make sure that you and your machine complies relevant local laws and jobsite requirements - it is your responsibility.

Care and Alertness

All the time you are working with or on the machine, take care and stay alert. Always be careful. Always be alert for hazards.

Clothing

You can be injured if you do not wear the correct clothing. Loose clothing can get caught in the machinery. Keep cuffs fastened. Do not wear a necktie or scarf. Keep long hair restrained. Remove rings, watches and personal jewellery.

Alcohol and Drugs

It is extremely dangerous to operate machinery when under the influence of alcohol or drugs. Do not consume alcoholic drinks or take drugs before or while operating the machine or attachments. Be aware of medicines which can cause drowsiness.

Feeling Unwell

Do not attempt to operate the machine if you are feeling unwell. By doing so you could be a danger to yourself and those you work with.

Mobile Phones

Switch off your mobile phone before entering an area with a potentially explosive atmosphere. Sparks in such an area could cause an explosion or fire resulting in death or serious injury.

Switch off and do not use your mobile phone when refuelling the machine.

Lifting Equipment

You can be injured if you use incorrect or faulty lifting equipment. You must identify the weight of the item to be lifted then choose lifting equipment that is strong enough and suitable for the job. Make sure that lifting equipment is in good condition and complies with all local regulations.

Raised Equipment

Never walk or work under raised equipment unless it is supported by a mechanical device. Equipment which is supported only by a hydraulic device can drop and injure you if the hydraulic system fails or if the control is operated (even with the engine stopped).

Make sure that no-one goes near the machine while you install or remove the mechanical device.

Raised Machine

Never position yourself or any part of your body under a raised machine which is not correctly supported. If the machine moves unexpectedly you could become trapped and suffer serious injury or be killed.

Lightning

Lightning can kill you. Do not use the machine if there is lightning in your area.

Machine Modifications

This machine is manufactured in compliance with prevailing legislative requirements. It must not be altered in any way which could affect or invalidate its compliance. For advice consult your JCB dealer.

Clothing and Personal Protective Equipment (PPE)

Do not wear loose clothing or jewellery that can get caught on controls or moving parts. Wear protective clothing and personal safety equipment issued or called for by the job conditions, local regulations or as specified by your employer.



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About the Product

Introduction

General

Before you start using the product, you must know how the product operates. Use this part of the manual to identify each control lever, switch, gauge, button and pedal. Do not guess, if there is anything you do not understand, ask your JCB dealer.

Name and Address of the Manufacturer

JCB Manufacturing Inc, 2000 Bamford BLVD, Pooler, Georgia, USA, 31322.

Product Compliance

Your JCB product was designed to comply with the laws and regulations applicable at the time of its manufacture for the market in which it was first sold. In many markets, laws and regulations exist that require the owner to maintain the product at a level of compliance relevant to the product when first produced. Even in the absence of defined requirements for the product owner, JCB recommend that the product compliance be maintained to ensure safety of the operator and exposed persons and to ensure the correct environmental performance. Your product must not be altered in any way which could affect or invalidate any of these requirements. For advice consult your JCB dealer.

For its compliance as a new product, your JCB and some of its components may bear approval numbers and marking's, and may have been supplied with a Declaration/Certificate of Conformity. These marking's and documents are relevant only for the country/region in which the product was first sold to the extent that the laws and regulations required them.

Re-sales and import/export of products across territories with different laws and regulations can cause new requirements to become relevant for which the product was not originally designed or specified. In some cases, pre owned products irrespective of their age are considered new for the purposes of compliance and may be required to meet the latest requirements which could present an insurmountable barrier to their sale/use.

Despite the presence of any compliance related marking's on the product and components, you should not assume that compliance in a new market will be possible. In many cases it is the person responsible for import of a pre owned product into a market that becomes responsible for compliance and who is also considered the manufacturer.

JCB may be unable to support any product compliance related enquiry for a product which has been moved out of the legislative country/region where it was first sold, and in particular where a product specification change or additional certification would have been required in order for the product to be in compliance.

Description

General

The Skid Steer Loader is a self-propelled skid steer machine fitted with either wheels or tracks. The main structural support is designed to carry a front mounted carriage onto which a shovel or an approved attachment can be fitted.

Intended Use

▲ WARNING Use of the machine in temperatures outside of the intended operating range could cause component failure or affect control response and result in an instance of uncontrolled machine operation causing possible injury, death or damage to property.

The machine is intended to be used in normal conditions for the applications and in the environmental conditions as described in this manual. When used normally with a shovel fitted, the machine loads or excavates through forward motion of the machine and lifts, transports and discharges material.

Applications include earthmoving, road construction, building and construction, materials depots, landscaping, arable, livestock and poultry farming and similar applications.

This machine is intended for operation in a temperature range of -20°C (-4°F) to 46°C (115°F).

The machine is not intended for use in mining and quarrying applications (other than for light yard clearing operations), in demolition activities, any use underground, or in any kind of explosive atmosphere.

Use in light forestry application will require the addition of a forestry protection kit to the machine.

If the machine is to be used in applications where there is a high silica concentration, risk due to materials containing asbestos or similar hazards, additional protective measures such as the use of PPE (Personal Protective Equipment) may be required. The machine should not be operated by any person who does not have an appropriate level of qualification, training or experience of use of this type of machine. Prior to use of the machine, its suitability (size, performance, specification etc.) should be considered with regards to the intended application and any relevant hazards that may exist. Contact your JCB dealer for support in determining the appropriate JCB machine, attachment and any optional equipment that is suitable for the application and environment.

Log Moving/Object Handling

Do not use the machine to move or handle logs unless sufficient log protection is installed. You could cause serious injury to yourself and damage to the machine. For more information, contact your JCB dealer.

Optional Equipment and Attachments

A wide range of optional attachments are available to increase the versatility of your machine. Only the JCB approved attachments are recommended for use with your machine. Contact your JCB dealer for the full list of approved attachments available.

Danger Zone

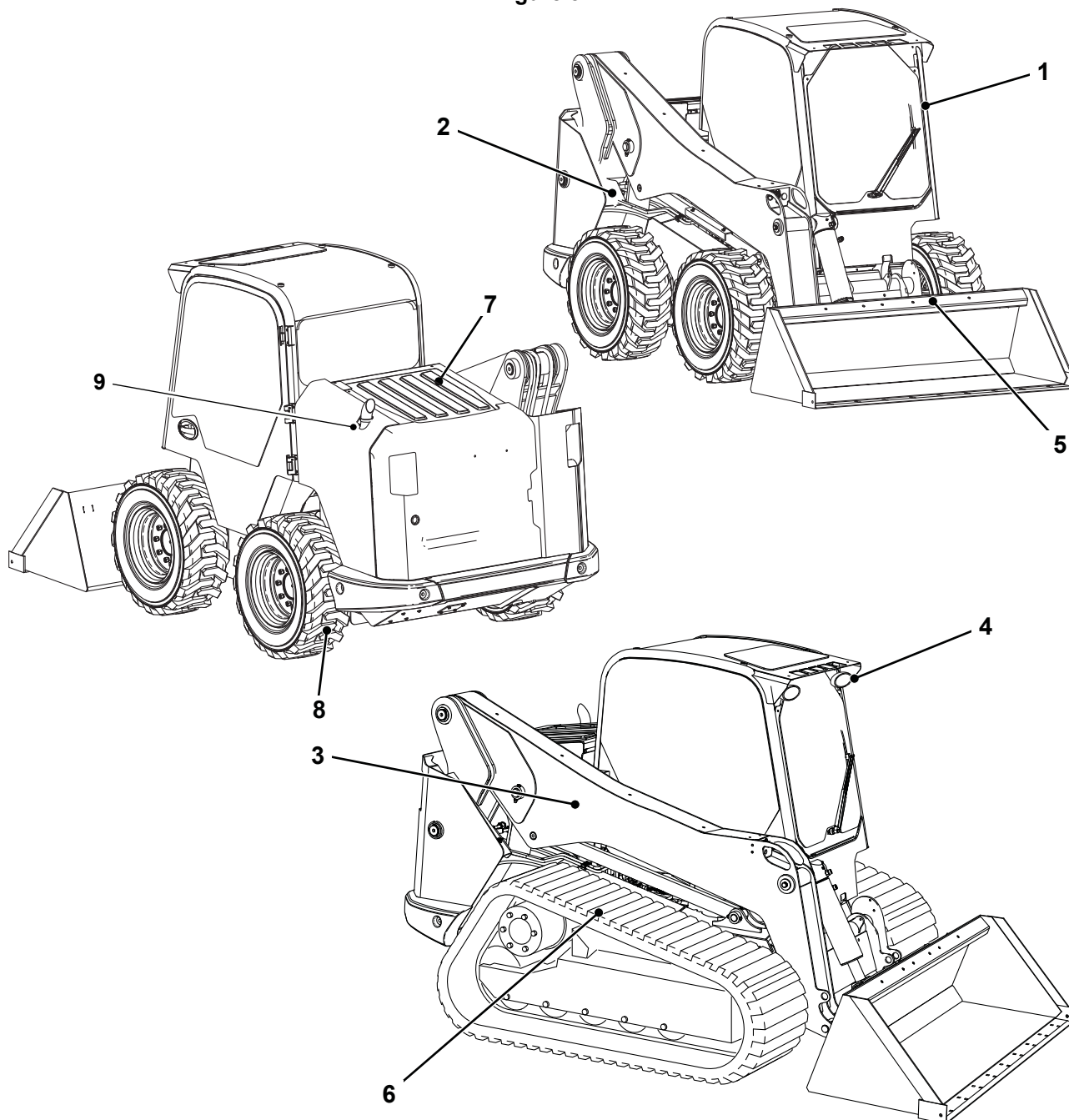
The danger zone is any zone within and/or around the machinery in which a person is subject to a risk to their health or safety. The danger zone includes the area in immediate proximity to any hazardous moving parts, areas into which working equipment and attachments can be moved to quickly, the machine normal stopping distances and also areas into which the machine can quickly turn under normal conditions of use. Depending on the application at the time, the danger zone could also include the area into which debris, from use of an attachment or working tool, could be projected and any area into which debris could fall from the machine. During the operation of the machine, keep all persons out of the danger zone. Persons in the danger zone could be injured.

Before you do a maintenance task, make the product safe.

Main Component Locations

The illustration shows a typical machine model. Your machine may look different from the one shown.

Figure 5.



- 1 ROPS/FOPS cab
- 3 Lift arm/boom
- 5 Quickhitch
- 7 Engine top cover
- 9 Exhaust

- 2 Fuel tank filler point
- 4 Front working lights
- 6 Rubber tracks
- 8 Wheels/tyres

Product and Component Identification

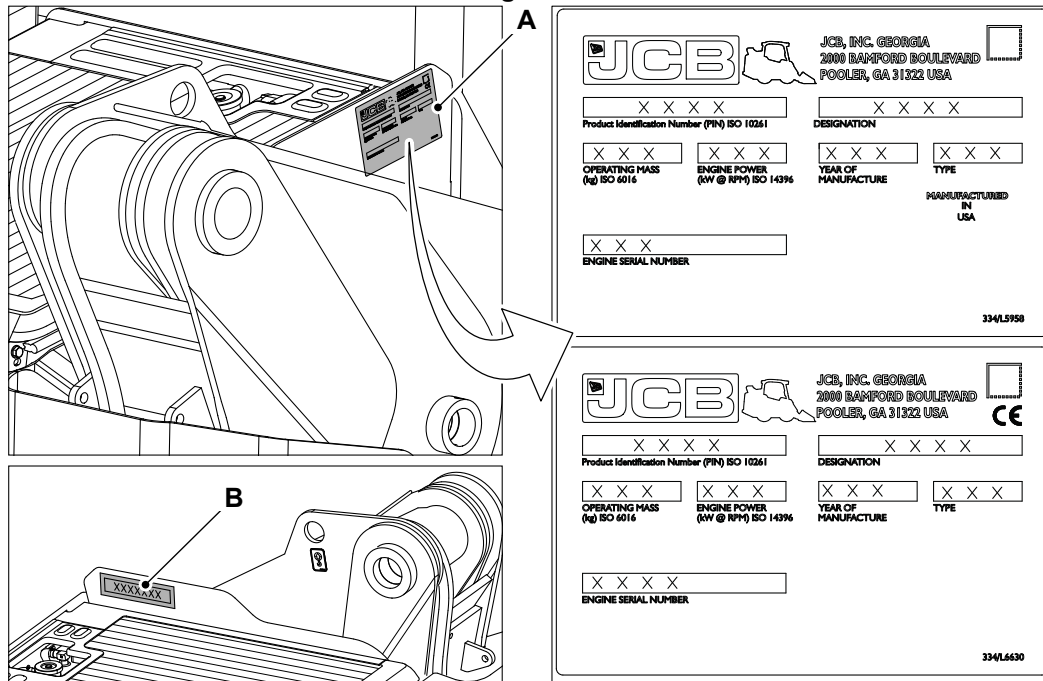
Machine

Machine Identification Plate

Your machine has an identification plate. The PIN (Product Identification Number), weight, engine power, year of manufacture and serial number of the machine are shown on the identification plate.

The serial number is also permanently stamped into the chassis.

Figure 6.



A Identification plate (location)

B Serial number (stamped)

Typical Product Identification Number

The machine model and build specification are indicated by the PIN. The PIN has 17 digits and must be read from left to right.

Table 1. Typical PIN

GE0	260	WV	H	02196001
-----	-----	----	---	----------

Table 2. Explanation of the PIN

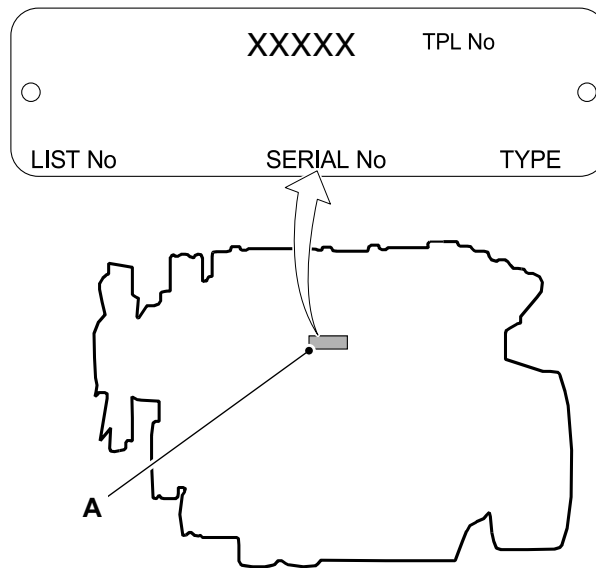
Digit	Description
1 to 3	World manufacturer identification. For example, JCB = UK Build. GE0 = USA Build
4 to 6	Machine type. For example, 260 = 260
7 to 8	Machine model. For example, W = Wheeled T = Tracked V = Vertical Lift R = Radial Lift
9	Generated Check Letter. The random check letter is used to verify the authenticity of a machine's PIN.
10 to 17	Machine serial number 02196001.

Engine

The engine data label is located on the cylinder block. Refer to Figure 7.

The data label includes the engine identification number.

Figure 7.



A Cylinder block location

Table 3. Example of the engine identification number

	GP	50261	U	500405	M
Digit	1-2	3-5	6	7-12	13

Table 4. Explanation of the engine identification number

Digit	Explanation
1-2	Engine type. GN = Normally Aspirated. GP = Turbocharged.
3-5	Build Number
6	Country of manufacture
7-12	Engine Serial Number
13	Year of Manufacture

Operator Protective Structure

⚠ WARNING You could be killed or seriously injured if you operate a machine with a damaged or missing ROPS/FOPS/FOGS. If the ROPS/FOPS/FOGS has been in an accident, do not use the machine until the structure has been renewed. Modifications and repairs that are not approved by the manufacturer may be dangerous and will invalidate the ROPS/FOPS/FOGS certification.

WARNING Machines with a ROPS, FOPS,FOGS or TOPS are equipped with a seat belt. The ROPS, FOPS,FOGS or TOPS is designed to give you protection in an accident. If you do not wear the seat belt you could be thrown off the machine and crushed. You must wear a seat belt when using the machine. Fasten the seat belt before starting the engine.

ROPS Data Plate

Machines built to ROPS (Roll-Over Protective Structure) standards have an identification label installed inside cab, below the operator seat. A bolt on FOPS (Falling Object Protective Structure) is available which also carries a certified label installed to the guard.

FOPS Data Plate

⚠ WARNING Do not use the machine if the falling objects protection level provided by the structure is not sufficient for the application. Falling objects can cause serious injury.

If the machine is used in any application where there is a risk of falling objects then a FOPS must be installed. For further information, contact your JCB dealer.

The FOPS has a data plate attached. The data plate indicates what level of protection the structure provides.

There are two levels of FOPS Level I is standard:

- Level I Impact Protection - impact strength for protection from small falling objects (e.g. bricks, small concrete blocks, hand tools) encountered in operations such as highway maintenance, landscaping and other construction site services.
- Level II Impact Protection - impact strength for protection from heavy falling objects (e.g. trees, rocks) for machines involved in site clearing, overhead demolition or forestry.

Figure 8.

JCB, INC. 2000 BAMFORD BLVD. POOLER, GA. 31322 USA 	 JCB SKID STEER WHEELED LOADER	MODELS: XXXX XXXX	ROPS: COMPLIES TO EN ISO 3471: 2008	FOPS: COMPLIES TO EN ISO 3449: 2008 LEVEL I
	MAX UNLADEN MASS XXXX KG			
	YEAR OF MANUFACTURE XXXX		CAB WA PART NUMBER XXX/XXXXX	

Figure 9.

JCB, INC. 2000 BAMFORD BLVD. POOLER, GA. 31322 USA 	 JCB SKID STEER TRACKED LOADER	MODELS: XXXX XXXX	ROPS: COMPLIES TO EN ISO 3471: 2008	FOPS: COMPLIES TO EN ISO 3449: 2008 LEVEL I
	MAX UNLADEN MASS XXXX KG			
	YEAR OF MANUFACTURE XXXX		CAB WA PART NUMBER XXX/XXXXX	

Safety Labels

General

▲ **WARNING** Safety labels on the machine warn you of particular hazards. You can be injured if you do not obey the safety instructions shown.

The safety labels are strategically placed around the product to remind you of possible hazards.

If you need eye-glasses for reading, make sure you wear them when reading the safety labels. Do not overstretch or put yourself in dangerous positions to read the safety labels. If you do not understand the hazard shown on the safety label, then refer to Safety Label Identification.

Keep all of the safety labels clean and readable. Replace a lost or damaged safety label. Make sure the replacement parts include the safety labels where necessary. Each safety label has a part number printed on it, use this number to order a new safety label from your JCB dealer.

Safety Label Identification

The illustration shows a typical machine model. Your machine may look different from the model shown.

Figure 10.

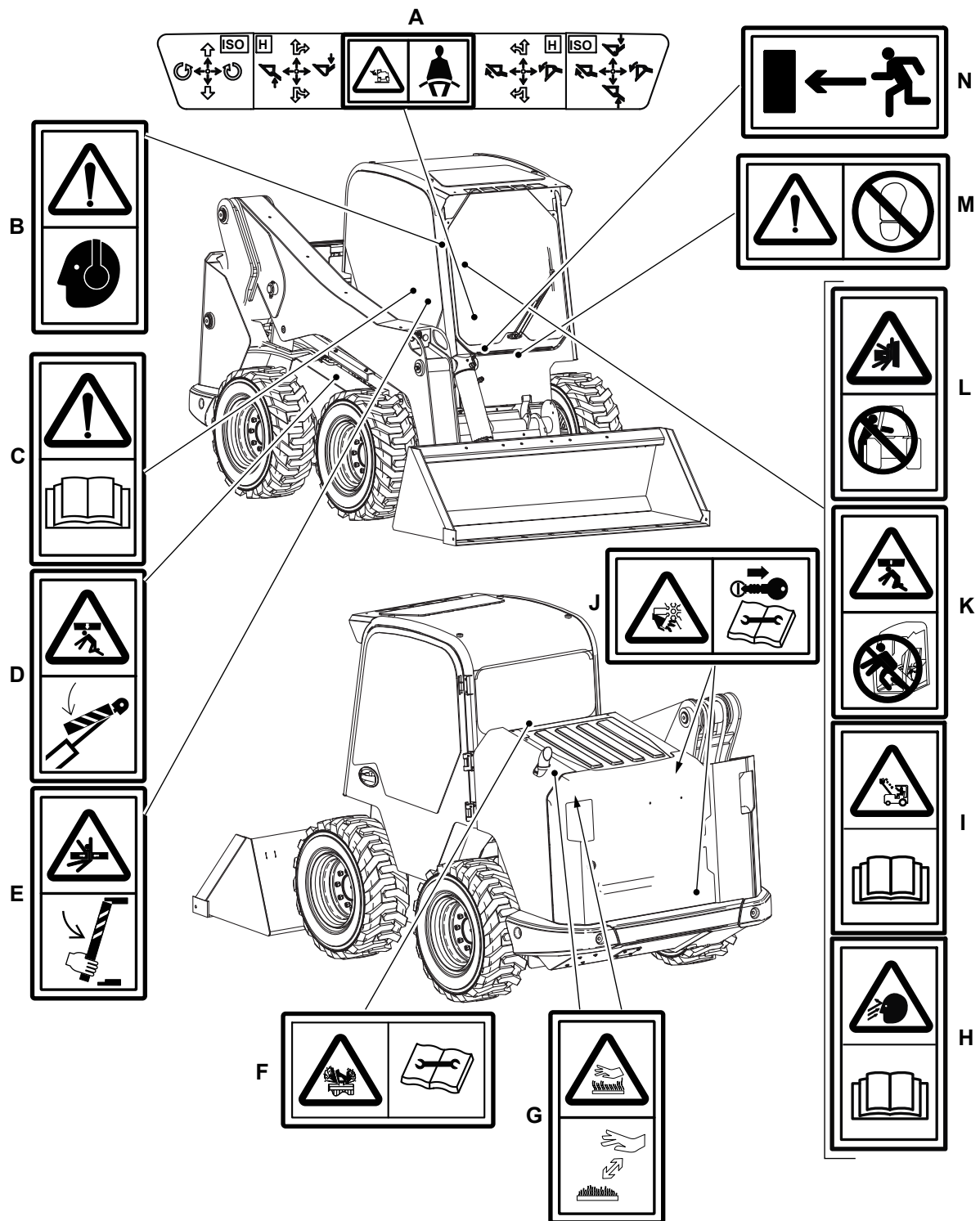


Table 5. Safety Labels

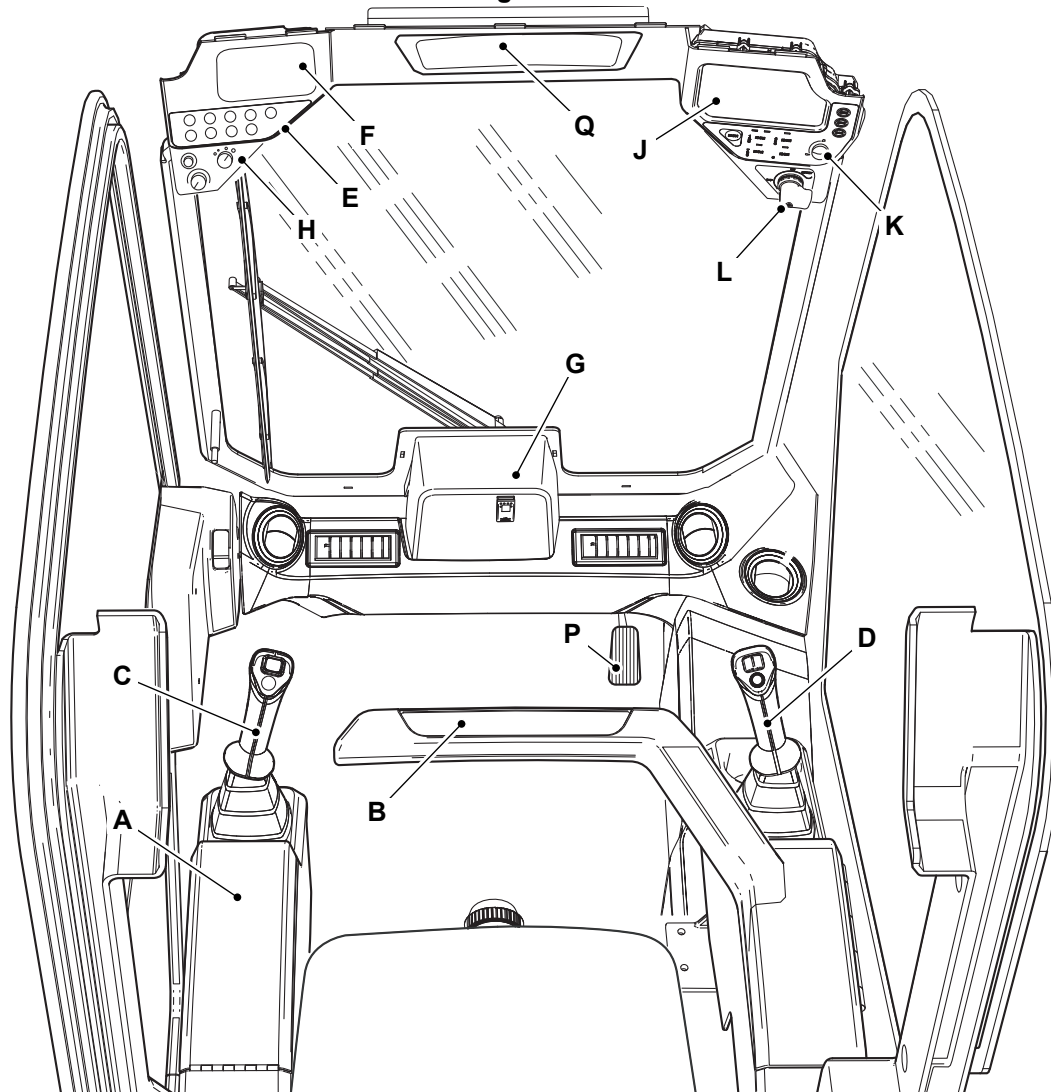
Item	Part No.	Description	Qty.
A	334/P0307	(Combination label) Crush hazard. Wear seat belt.	1
B	332/L8248	Noise warning. Wear ear protection.	1
C	817/70014	Warning. Read the Operator's Manual before you operate the machine.	1
D	817/70104	Crushing of whole body. Insert the boom support device before you complete any service or maintenance work underneath the boom.	1

Item	Part No.	Description	Qty.
E	332/P7181	Crushing of whole body. Attach/use the support or prop to lockout for service, maintenance or any access.	1
F	332/P7131	Pressure hazard. Read the Service Manual.	1
G	817/70004	Burns to fingers and hands. Stay a safe distance away.	2
H	332/L7456	Flying debris warning. Read the Operator's Manual.	1
I	332/L7454	Falling material. Shovel is not self levelling. Read the Operator's Manual	1
J	332/P7132	Severing of hands and fingers. Keep clear of/do not reach into rotating parts. Read the Service Manual.	2
K	332/L7452	Crush hazard. Do not lean out of an open window.	1
L	332/L7450	Crushing of whole body. Do not operate the controls from outside of the machine.	1
M	332/X4855	Warning. Do not use as a step.	1
N	334/G8512	Emergency exit.	1

Operator Station

Component Locations

Figure 11.



A Left armrest (contains 12V accessory socket),
[Refer to: Operation > Safety Equipment](#)
(Page 53).

C Left joystick control lever, [Refer to: Operation > Drive Controls](#) (Page 55).

E Left switch panel, [Refer to: Operation > Instruments > General](#) (Page 63).

G Front panel, [Refer to: About the Product > Console Switches](#) (Page 17).

J Instruments, [Refer to: Operation > Instruments](#)
(Page 63).

L Ignition switch, [Refer to: About the Product > Interior Switches > Ignition Switch](#)
(Page 18).

Q Interior rear view mirror, [Refer to: Operation > Mirrors > General](#) (Page 43).

B Right interlock bar, [Refer to: Operation > Safety Equipment](#) (Page 53).

D Right joystick control Lever, [Refer to: Operation > Operating Levers/Pedals](#) (Page 84).

F Radio, [Refer to: Operation > Radio > General](#)
(Page 95).

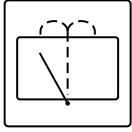
H Cab HVAC (Heating Ventilation Air Conditioning), (optional) [Refer to: Operation > Heating, Ventilating and Air-Conditioning \(HVAC\)](#) (Page 93).

K Hand throttle, [Refer to: Operation > Safety Equipment](#) (Page 53).

P Foot throttle control (optional), [Refer to: Operation > Drive Controls](#) (Page 55).

Console Switches

Window Wipers



Three position rocker switch. The switch functions operate when the ignition switch is in the on position. The wiper will self-park when switched off.

Position : 1 = Off

Position : 2 = On

Position : 3 = Washer on (if installed)

Interior Switches

Ignition Switch

▲ CAUTION If any of the audible/visual warnings operate while the engine is running, stop the engine as soon as it is safe to do so and rectify the fault.

Refer to: [Operation > Instruments \(Page 63\)](#).

Key Start (Standard)

The ignition switch is operated by an ignition key. The ignition switch has three positions. The ignition key can only be removed when in the '0' position.

0: Off/Stop Engine. Turn the switch to this position to stop the engine. Make sure the controls are in neutral and the lift arm is lowered before stopping the engine.

I: On. Turning the switch to this position connects the battery to the electrical circuits. The switch will spring back to this position when released from II. The right hand cluster will perform a system check.

II: Start. Operates the starter motor to turn the engine.

Keyless Start with PIN Code (Option)

The keyless start option enables the operator to start the machine without an ignition key. Instead the right switch panel is used to enter a 4 digit pin code and the ignition switch can be turned by a handle.

The ignition switch has three positions.

0: Off/Stop Engine. Turn the switch to this position to stop the engine. Make sure the controls are in neutral and the lift arm is lowered before stopping the engine.

I: On. Turning the switch to this position connects the battery to the electrical circuits. The switch will spring back to this position when released from II.

The right hand cluster will perform a system check.

Four switches on the right switch panel enable numerals 0- 9 to be entered.

Figure 12.



Table 6. Switch Positions

Switch	Numerals
Front Work Lights	1,2,3
Loader Isolate	4,5,6
Parallel Lift	7,8,9
Auxiliary Isolate	0

Pressing a switch repeatedly will cycle through the numerals available on that switch. A 1s pause will set the current number and move to the next digit in the 4 digit pin code.

After the fourth numeral of the valid pin code has been set, the machine can be started.

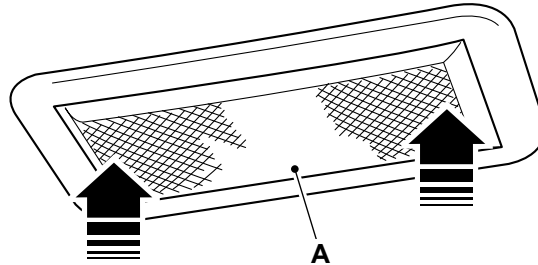
If a valid PIN code has been entered or the machine has been running in the previous 15s, it will not be required to be entered again.

II: Start. Operates the starter motor to turn the engine.

Cab Interior Light

Turn on the ignition. [Refer to: About the Product > Interior Switches \(Page 18\)](#). Press either end of the light unit to switch on the cab interior light. Pressing the other end will switch the light off.

Figure 13.



A Cab interior light

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