

CX700B
Crawler excavator

Operator's Manual

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2nd edition
English 05/2010 - Original Instructions
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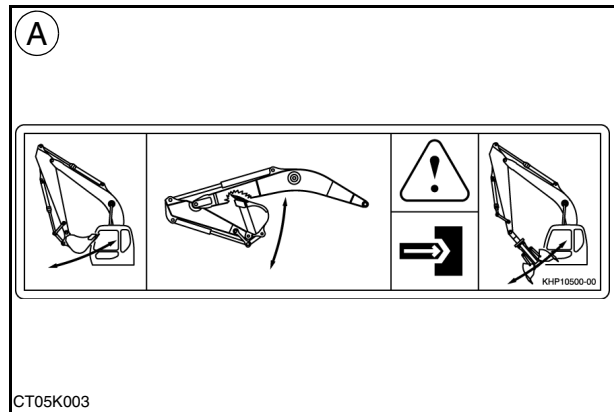
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SECTION 3 - SAFETY/DECALS/HAND SIGNALS

TOOL INTERFERENCE

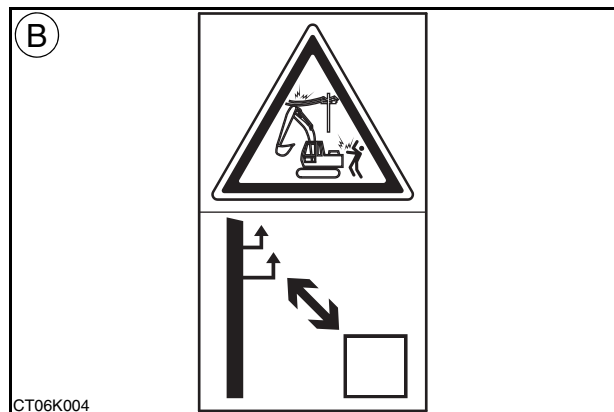
This decal draws attention to the fact that, in certain positions, there can be interference of the tool between the attachment and the operator's compartment. Always observe a minimum safety distance between the tool and the operator's compartment (in case of swinging or accidental movements).



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DANGER ELECTRIC LINE

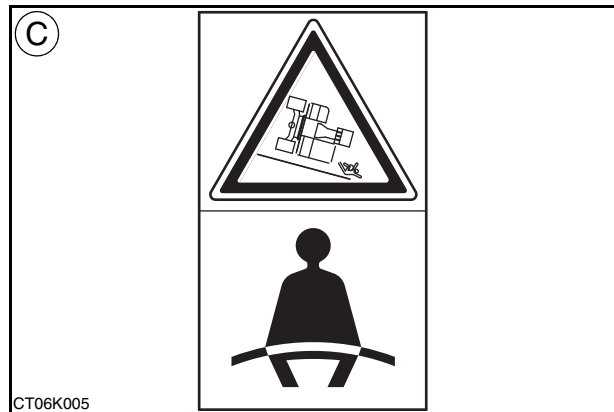
This decal shows that work near overhead high-voltage electric lines must not be done without checking beforehand that all necessary measures have been taken to respect the minimum distances.



7

SEAT BELT

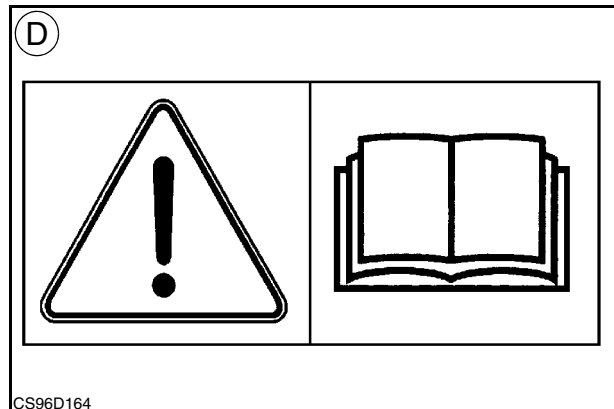
This decal shows that the seat belt must always be fastened.



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OPERATOR'S MANUAL

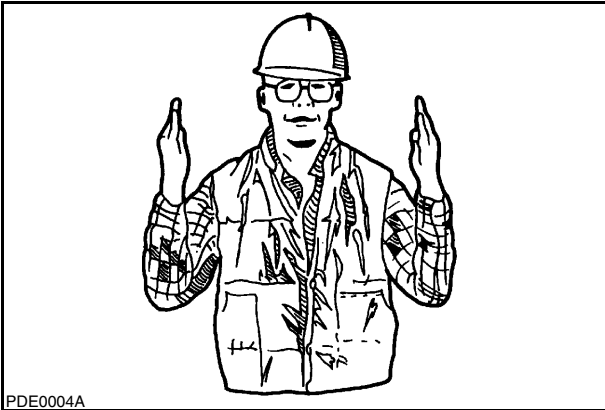
This decal shows that you must read this manual before using the machine.



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SECTION 3 - SAFETY/DECALS/HAND SIGNALS

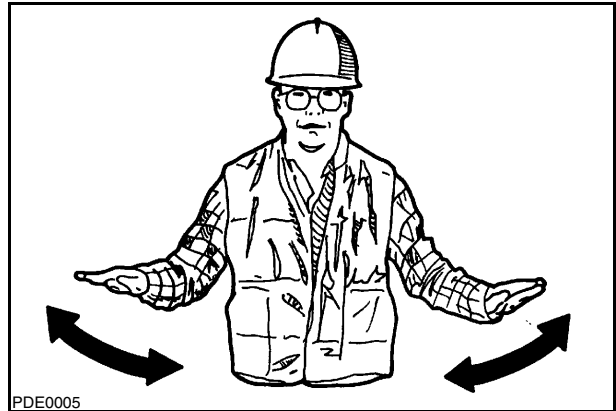
GO THIS FAR



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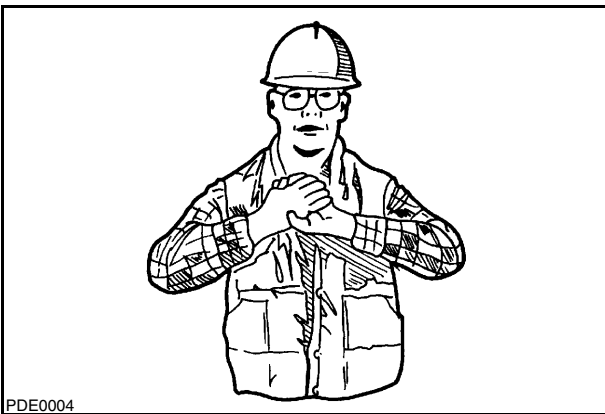
EMERGENCY STOP

Wave hands back and forth.



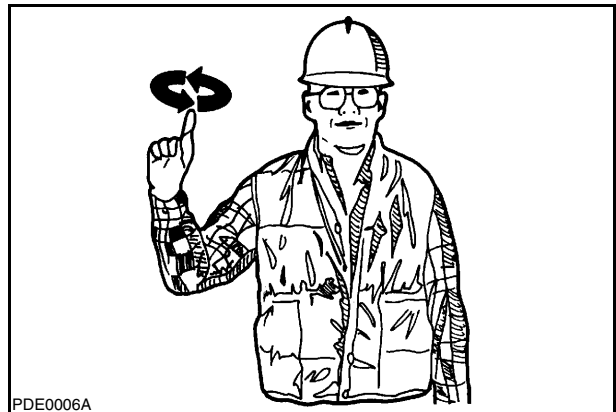
45

ALL STOP AND HOLD



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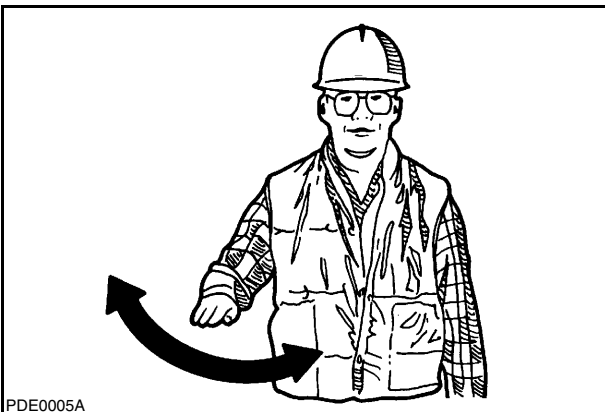
RAISE LOAD OR TOOL



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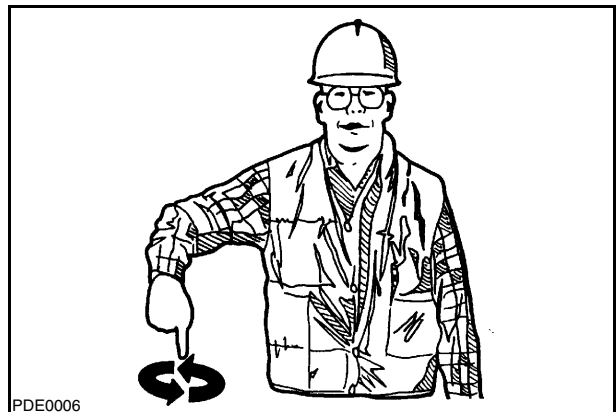
STOP

Wave one hand back and forth.



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LOWER LOAD OR TOOL



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9. EMERGENCY SHUT DOWN SWITCH

This control enables the engine to be shut down in emergency or when it is not possible to shut it down by means of the starter key. Press on the front of the control, the engine stops, the audible warning device sounds, the control indicator lamp comes on and the message "ENGINE STOP" is displayed, see "Message display". To start the engine again, press on the back of the control once more and then turn the starter switch key to start the engine.

IMPORTANT: This switch should only be used in case of an emergency. Do not use it on a day-to-day basis to stop the engine.

10. FAN ROTATION REVERSAL SWITCH

This is a pulse switch used to clear the radiator and the oil-cooler of the accumulation of dust that can obstruct the fins. During this operation, the "FAN REVERSING" message is displayed, see "Message display" and see "Radiators and oil coolers dust removal" in section 5.

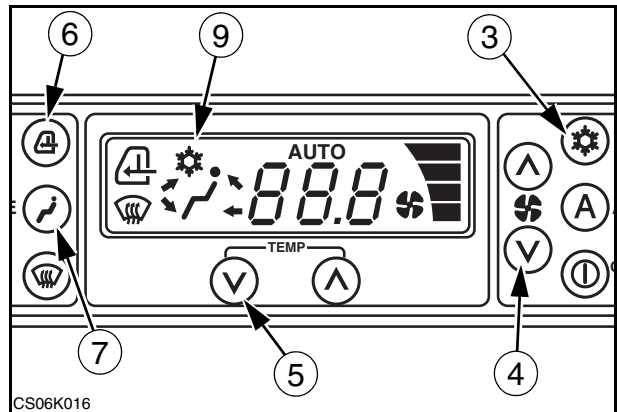
AIR CONDITIONING

IMPORTANT: When using the air conditioning, it is essential for all the operator's compartment windows, the windshield and the cab door to be kept closed. The air vents must be kept in open position.

The air conditioning can be used in two different ways: manual or automatic air conditioning.

Manual

This button (3) is used to turn the air conditioning on and off. When the air conditioning is running, confirmation is given on the display screen (9). Manual adjustments can be made using controls (4), (5), (6) and (7).

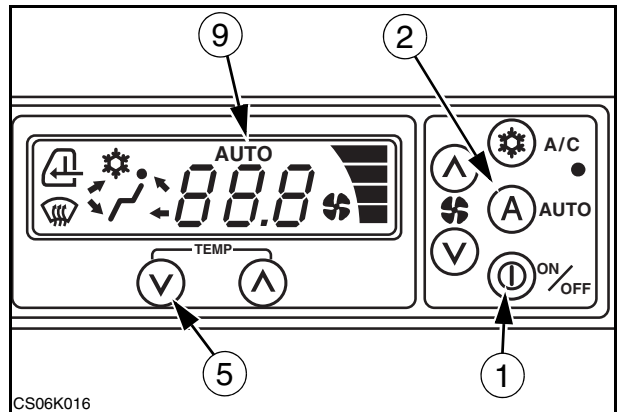


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Automatic

This button (2) is used for automatic adjustment of the volume, the direction of flow and starting or stopping of the air conditioning. "AUTO" will appear on the display screen (9). In automatic mode, the only possible manual adjustment is to the temperature (5).

If a control other than the temperature control is operated, the automatic mode will be cancelled and "AUTO" will disappear from the display (9). To stop the system, press buttons (1) or (2).

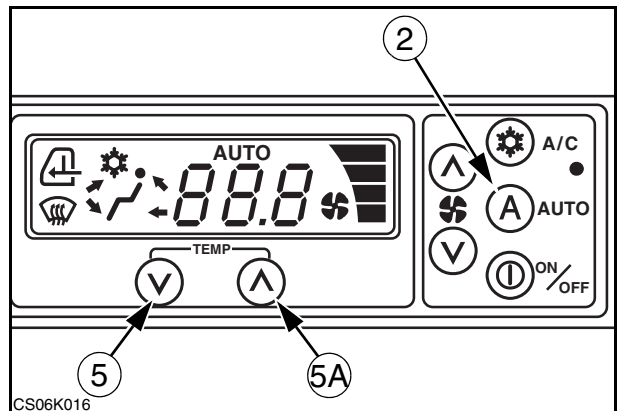


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To obtain hot or cold air quickly:

Cold air: Quit the automatic mode by pressing button (2) then press button (5) down to the minimum temperature of 18°C. Ventilation will be at maximum and cold air flow will come from the front.

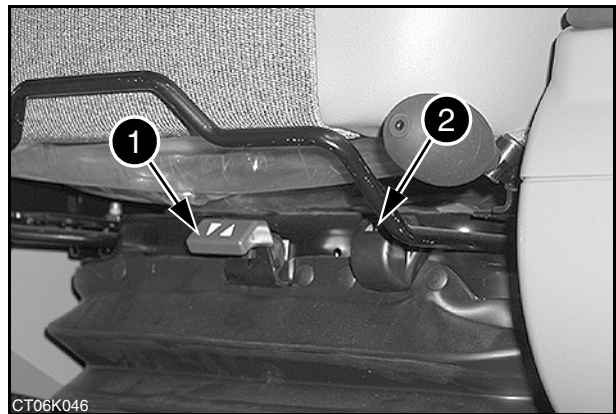
Hot air: Quit the automatic mode by pressing button (2) then press button (5A) up to the maximum temperature of 32°C. Ventilation will be at maximum and the flow of hot air will come from the rear at foot level.



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COMBINED HEIGHT AND WEIGHT ADJUSTMENT

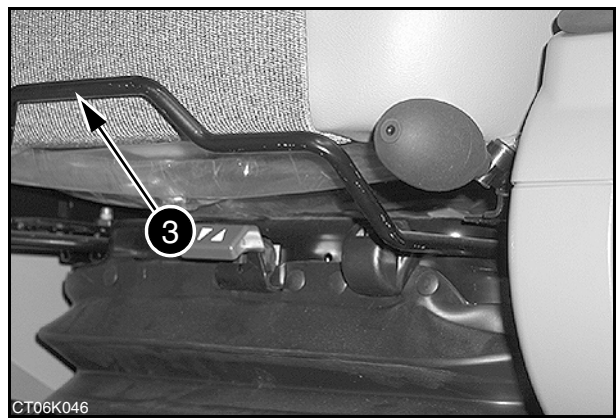
Lower the handle (1) to decrease the rigidity of the suspension. Raise the lever (1) backward to obtain harder suspension. The indicator (2) must be green when the operator is sitting on the seat.



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FORE/AFT ADJUSTMENT

Hold the control (3) in the raised position, slide the seat to the required position and then release the control.



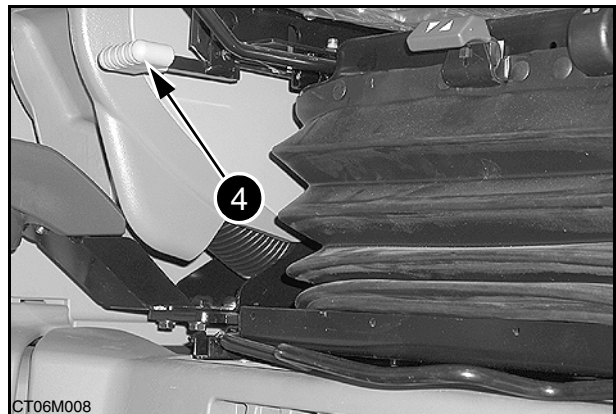
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SEAT BACK ANGLE ADJUSTMENT

To adjust the seat back angle, hold the lever (4) in the raised position. Move with the seat-back to the desired position and then release the lever.



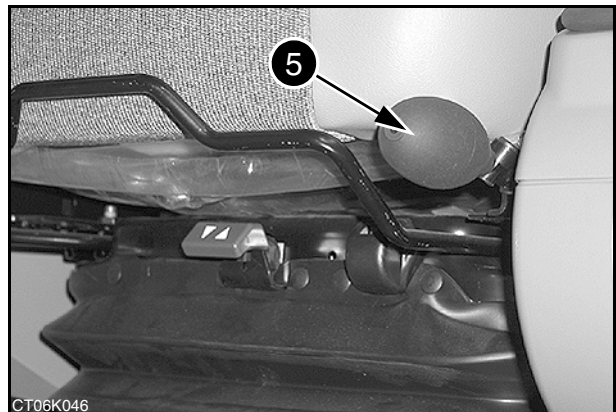
Before tilting the seat back it is essential that the armrests are in the raised position to prevent them from interfering with the control levers.



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LUMBAR SUPPORT ADJUSTMENT

Use the inflation bulb (5) to inflate the lumbar support. Press the button on the tip of the inflation bulb (5) to deflate the lumbar support.



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WINDSHIELD WASHER RESERVOIR

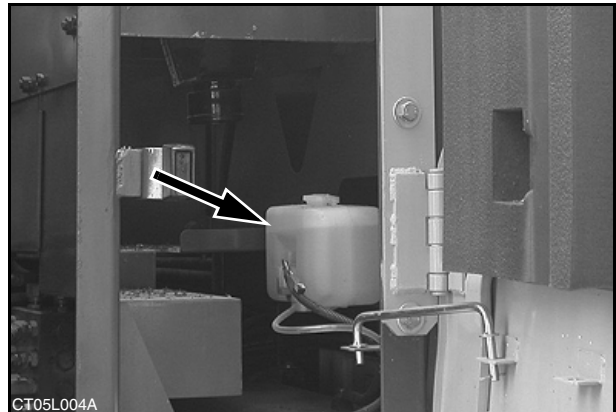
This reservoir, located in the compartment behind the cab, is equipped with an electric pump which is operated from the control panel. See "Systems display and control panel" (item 7).

IMPORTANT: Never operate the windshield washer control when the reservoir is empty. This could cause damage to the electric pump.

Remove the cap to add windshield washing fluid.

NOTE: In cold weather, add anti-freeze to the windshield washer water.

The reservoir can be lifted out of its support.



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CAB PROTECTION (F.O.P.S.) (optional)

F.O.P.S.: Falling Objects Protective Structure.

It is essential that the cab protection is used when work takes place in areas where stones or debris may fall or during forestry work. If the machine was not originally equipped with this protection, consult your CASE Dealer for its installation.



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ANTI-THEFT DEVICE

To prevent the machine from being stolen it is possible to use the anti-theft device, which makes it necessary for a special code to be entered before the machine can be operated.

To configure the anti-theft device, consult your CASE Dealer.

The effects of the device are:

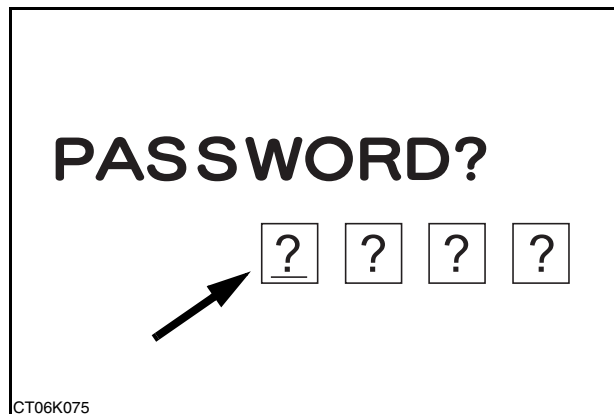
- The engine runs at idle speed.
- The audible alarm device will sound.
- The engine stops if the machine is handled.

Once the machine has been configured, a special access code has to be recorded which must be entered whenever you start the engine.

IMPORTANT: Once the code has been recorded, do not forget it, as it can not be changed without consulting your CASE Dealer.

RECORDING THE CODE

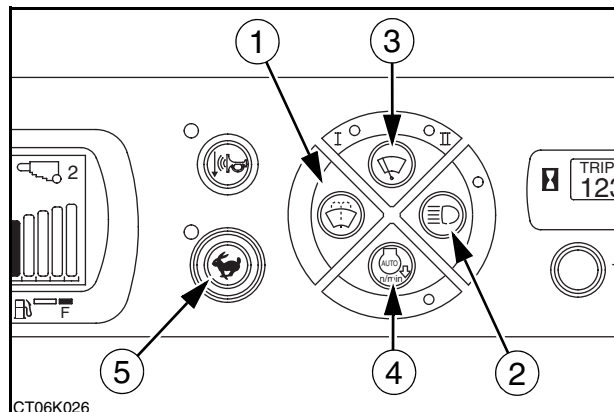
1. Turn the starter switch key to the "ON" position.
2. The message "PASSWORD?" and four boxes will appear on the display screen.



CT06K075

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3. To register the code use the following keys:
 - Windshield washer key (1) to move the cursor to the left.
 - Working light key (2) to move the cursor to the right.
 - Windshield wiper key (3) to increment the digits (0, 1, 2, 3...).
 - Windshield wiper key (4) to decrement the digits (...3, 2, 1, 0).



CT06K026

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MACHINE TRAVEL

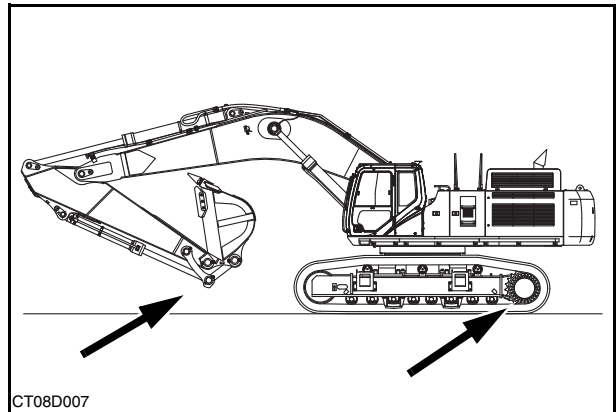


In the normal travel position, the operator's compartment is above the idler wheels and the travel reduction gears are to the rear of the upperstructure. If the upperstructure is turned 180° in relation to the undercarriage, the controls are reversed.

IMPORTANT: Before undertaking any travel, raise the attachment.

NOTE: Travel speed depends on the tilting angle of the travel control levers and pedals and the speed travel mode selected.

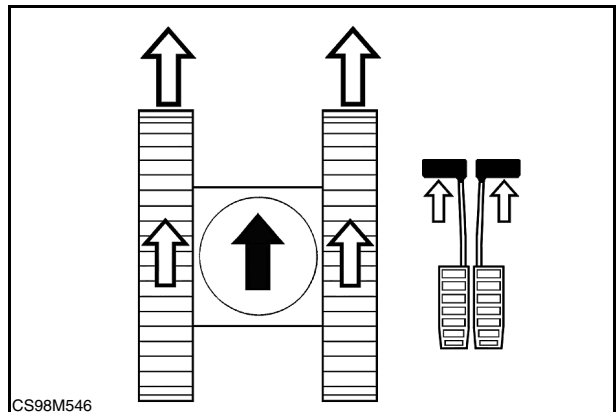
NOTE: The different travel configurations described hereafter are with the travel reduction gears to the rear of the upperstructure.



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STRAIGHT LINE TRAVEL (forward travel)

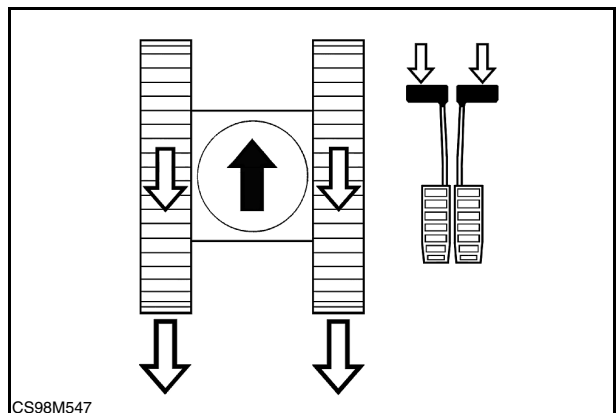
Press the two pedals (or push the two levers) forwards at the same time.



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STRAIGHT LINE TRAVEL (reverse travel)

Press the two pedals (or push the two levers) rearwards at the same time.



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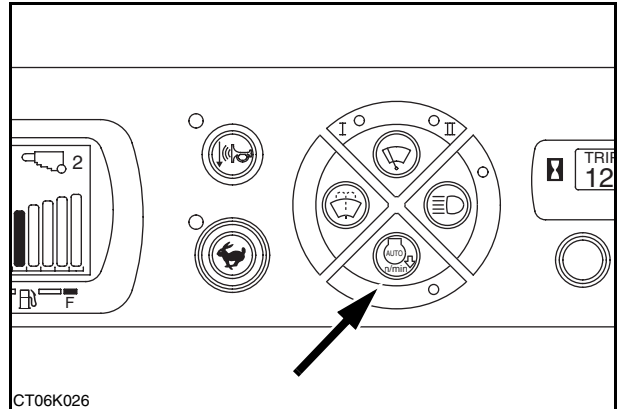
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RADIATOR AND OIL-COOLER DUST REMOVAL

It is recommended to perform this operation every day for 3 to 5 minutes.

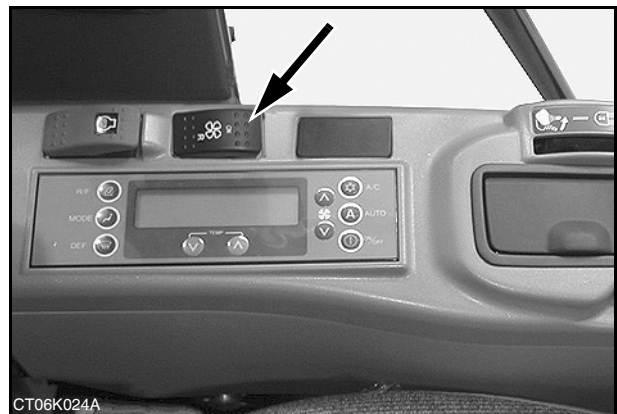
1. Open the engine hood.
2. Turn the starter switch key to the "ON" position.
3. Make sure that the engine automatic idle function is not selected (indicator lamp off).



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4. Press and release the fan rotation reversal switch on the LH control arm.
5. Start the engine, the fan rotates in the reverse direction, the "FAN REVERSING" message is displayed on the screen (see "Message display" in section 4) and the audible alarm sounds.



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6. The fan speed can be adjusted by rotating the engine throttle volume.

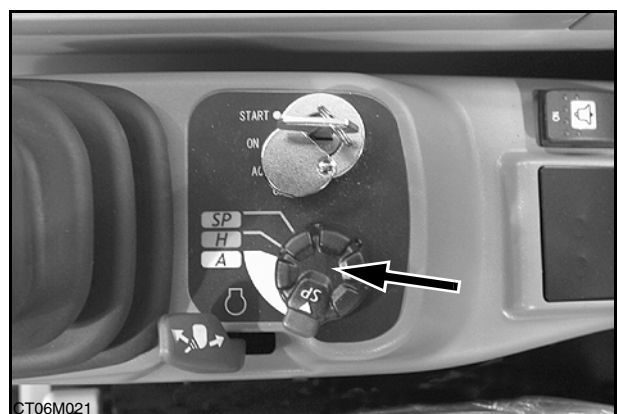
NOTE: For safety, no control can be activated during dust removal.

NOTE: For relatively long dust removal, it is recommended to also open the rear LH door.

7. To stop dust removal, set the engine to low idle then stop it using the starter switch key ("OFF" position).
8. Close the engine hood and the rear LH door.

IMPORTANT: Do not perform dust removal for more than three hours at a time.

NOTE: This control is inactive under normal operating conditions of the machine.



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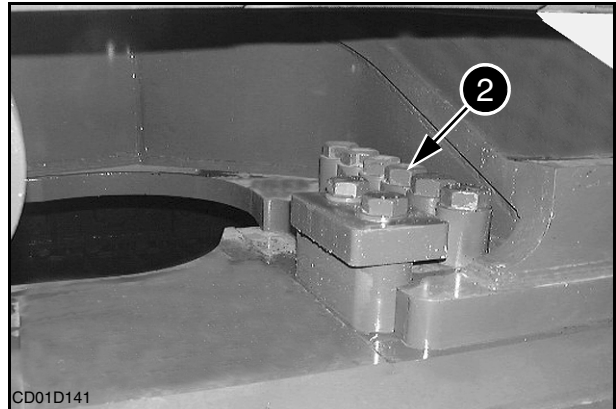
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SETTING THE TRACKS IN TRANSPORT POSITION

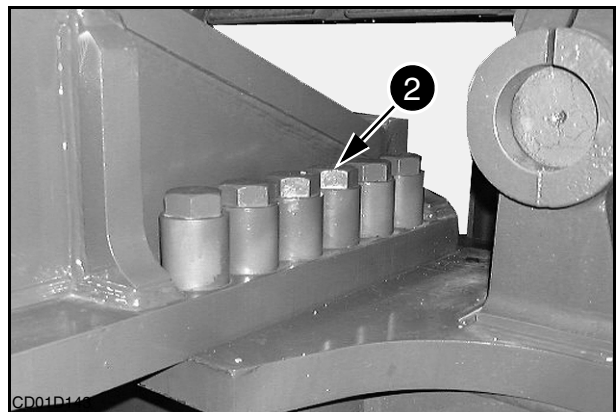
IMPORTANT: Narrow track gauge or transport position must in no event be used for any purpose other than transporting the machine.

IMPORTANT: Do not allow anybody to stand within the machine working area.

1. Place the upperstructure at right angles to the undercarriage and lay the bucket flat on the ground.
2. Remove the 24 pieces of mounting hardware (2).



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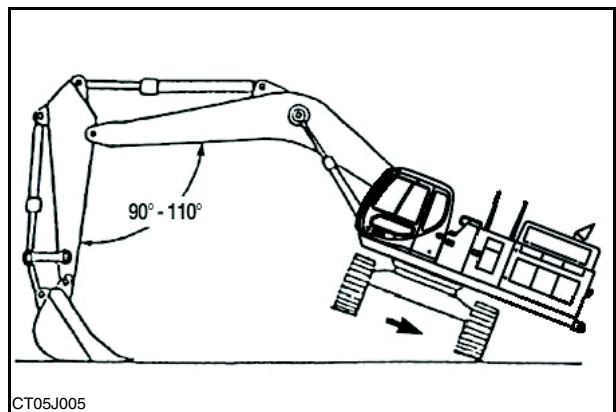


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3. Press the attachment down on the ground for support and use it to raise the track slowly so that it slides by itself towards the inside of the undercarriage until coming to the stop.



Only raise the track as little as necessary. Raising it too much can cause the machine to tip over.



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SECTION 7 - LUBRICATION/FILTERS/FLUIDS

ANTI-FREEZE/ANTI-CORROSION

Use anti-freeze in all seasons to protect the cooling system from corrosion and all risk of freezing.

CASE/AKCELA: PREMIUM ANTI-FREEZE (MS 1710)

For areas where the temperature goes down to -38°C, mix 50/50 with water.

IMPORTANT: Do not mix products of a different origin or brand.

The same product must be used when topping up the system.

ENVIRONMENT

Before carrying out any maintenance operation on this machine and before disposing of used fluids or lubricants, always think of the environment. Never throw oil or fluid on the ground and never place it in leaking receptacles.

Contact your local ecological recycling centre or your CASE Dealer to obtain information on the correct method of disposing of these lubricants.

FLUID AND LUBRICANT CAPACITIES AND SPECIFICATIONS

ENGINE

Type of oil "No. 1 ENGINE OIL"
Capacity (with filters change) 52 litres

COOLING SYSTEM

System capacity 108 litres

FUEL SYSTEM

Reservoir capacity 900 litres

HYDRAULIC SYSTEM

Type of fluid "HYDRAULIC EXCAVATOR FLUID"
Total system capacity 650 litres
Reservoir capacity 310 litres

TRAVEL REDUCTION GEARS

Type of oil "GEAR 135H EP" extreme pressure oil
Capacity (per reduction gear) 15 litres

SWING REDUCTION GEARS

Type of oil "GEAR 135H EP" extreme pressure oil
Capacity (per reduction gear) 13.5 litres

TURNTABLE TEETH

Type of grease "GREASE 251H EP"
Capacity 57 kg

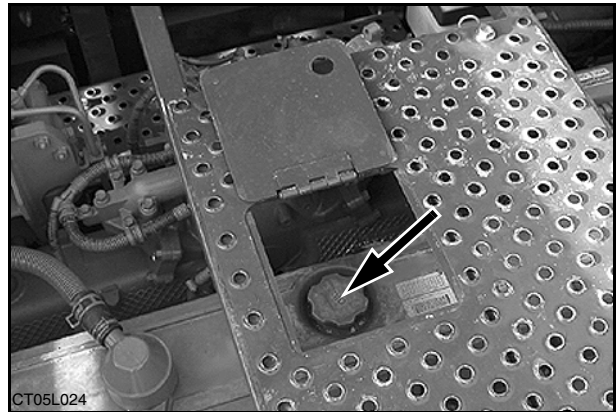
SECTION 7 - LUBRICATION/FILTERS/FLUIDS

DRAINING, CHANGING THE OIL FILTERS AND FILLING

NOTE: Change the oil while the engine is still warm.
The oil will flow more easily.

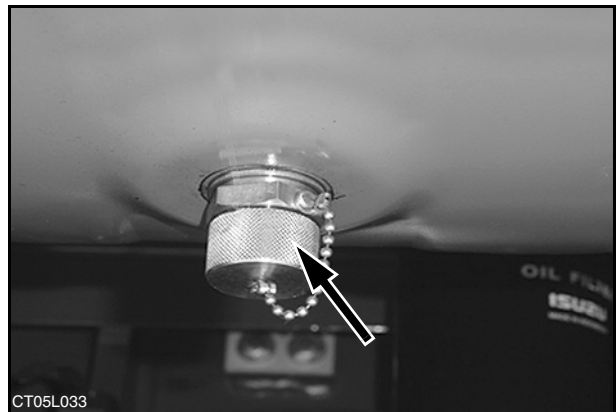
Use the extension drain hose from the front boot.

1. Park the machine on flat, horizontal ground. Shut down the engine, remove the starter switch key then open the hatch under the engine.
2. Raise and lock the engine hood, open the access hatch then remove the filling cap.



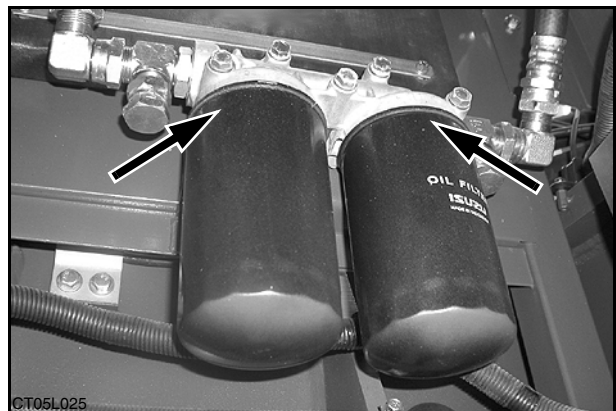
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3. Remove the protective cap from the engine housing drain valve.
4. Screw the end of the extension drain hose onto the engine check valve, place the other end in a container of suitable capacity and allow the oil to flow out.
5. Remove the extension drain hose and install the protective cap on the housing check valve. Place the extension drain hose in the front storage compartment.



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6. Clean the area around the filters and remove them using a filter wrench.

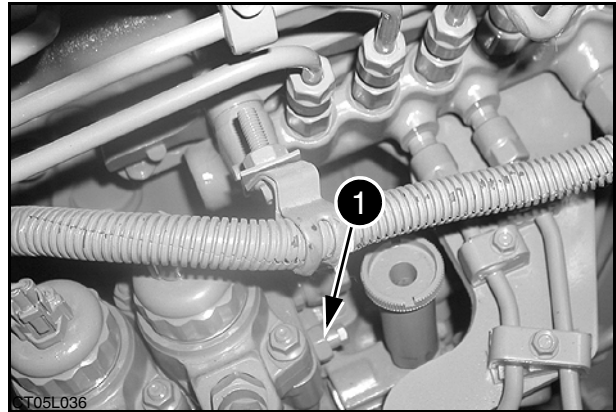


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CLEANING THE PRIMING PUMP SCREEN

IMPORTANT: Always protect your face before using compressed air.

The screen is placed in the socket-head screw (1). Remove the screen, clean it with compressed air then rinse it in fuel.



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FUEL SYSTEM AIR BLEED

It is necessary to bleed the fuel system when:

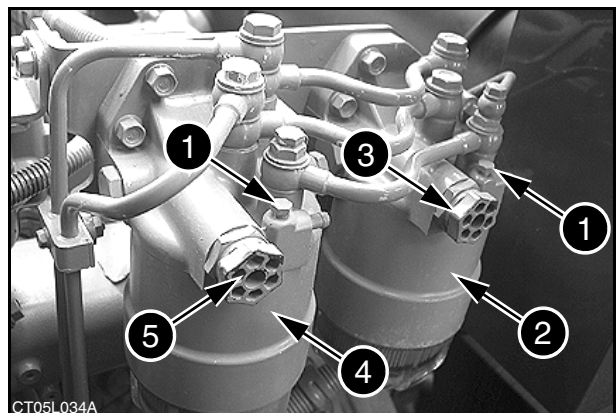
- The tank has been completely emptied.
- The fuel pre-filter has been changed.
- The fuel filters have been replaced.
- Parts of the fuel system have been removed for servicing or repair work.
- The machine has been in storage for a fairly long period.

1. Turn the starter switch key to the "ON" position.



Do not leave the starter switch key in the "ON" position for more than five minutes unless bleeding has been performed. It may damage the fuel supply pump.

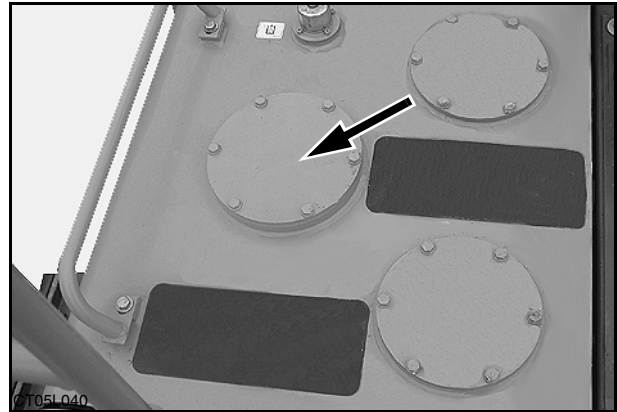
2. Loosen the bleed screws (1) on the fuel filter (2).
3. Turn the priming pump piston (3) of the fuel filter (2) to the left in order to release the spring.



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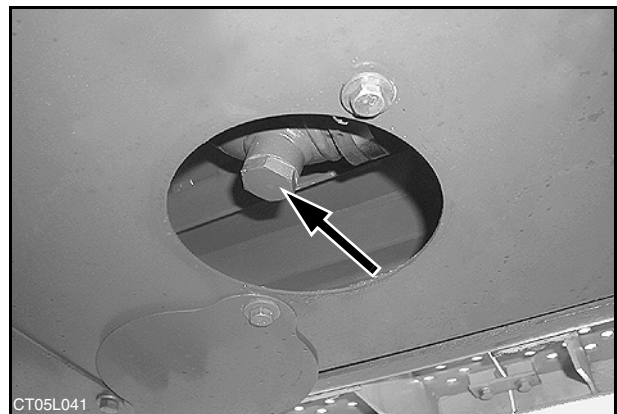
CHANGING THE HYDRAULIC FLUID

1. Release all pressure in the hydraulic reservoir. See "Releasing pressure in the hydraulic system".
2. Remove the reservoir cover plate.
3. Using a pump, remove the fluid from the hydraulic reservoir. Have a container with a suitable capacity ready.



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4. Place a receptacle of a suitable capacity under the reservoir drain plug. Open the access hatch then remove the drain plug to remove the remaining fluid from the reservoir.
5. Change the inlet filter and the return filter. See "Cleaning and replacement of the inlet filter" and "Return filter replacement".
6. Install the reservoir drain plug. Close the access hatch.
7. Fill the reservoir with new hydraulic fluid. See "Filling the reservoir".
8. Install the reservoir cover plate and seal.



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IMPORTANT: Before you start the engine, it is very important that you bleed air from all the hydraulic components. See "Bleeding air from the hydraulic components".

9. Start and run the engine with no load for approximately five minutes.
10. Move each control several times to remove any air in the system.
11. Swing the upperstructure evenly left to right two complete turns or more.
12. Place the machine in position and then stop the engine.
13. Check the oil level in the hydraulic reservoir and add oil as required and check that there are no air bubbles in the hydraulic reservoir.

WELDING ON THE MACHINE

Whenever carrying out a welding operation on the undercarriage or upperstructure carriage as authorized by the manufacturer and in accordance with his instructions, disconnect the batteries, disconnect the alternator B+ and D+ terminal wires and connect the welding apparatus earth cable to the component on which the welding operation is to be performed. Never connect the welding apparatus to the undercarriage when welding on the upperstructure (or vice-versa). Never connect the welding apparatus earth to a component of the hydraulic system.



Any unauthorized modifications made to this machine can cause serious injury. Do not undertake any modifications without first consulting your CASE Dealer.

INSPECTING AND CLEANING THE MACHINE

MAINTENANCE SPECIFICATIONS

Inspect and clean.....Periodically

Or whenever oil or grease has been spilt on the machine. Clean off with steam or a high pressure water jet.

Take the opportunity during this operation to make a visual check of all the welded components (in case of appearance of cracks), the attachment linkages and check the teeth and tooth tips for correct retention and for wear. Look for any leaks and check the condition of all pipes and hoses.

CHECKING THE MACHINE SETTINGS

MAINTENANCE SPECIFICATION

Check by your CASE Dealer..... Every 6 months

SECTION 8 - MAINTENANCE/ADJUSTMENTS

PROBLEM	POSSIBLE CAUSE	SOLUTION
Exhaust from engine is black or dark grey.	Incorrect fuel	Replace with correct fuel
	Incorrect valve clearance	Adjust
	Insufficient air intake (air filter clogged)	Clean or replace the air filter
	Defective fuel injection pump	<i>Consult your CASE Dealer</i>
	Low compression	
Excessive fuel consumption.	Incorrect fuel	Replace with correct fuel
	Insufficient air intake	Clean or replace element
	Defective fuel injection pump	<i>Consult your CASE Dealer</i>
	Incorrect spray from fuel injection nozzle	
	Incorrect fuel injection timing	
	Low compression	
Excessive engine oil consumption.	Excessive oil	Drain oil to proper level
	Low oil viscosity	Replace with oil of viscosity to match temperature
	Oil leakage	Retighten and replace parts if necessary
	Worn cylinder piston ring	<i>Consult your CASE Dealer</i>
Unusual noise (fuel or mechanical).	Poor fuel quality	Replace
	Damage inside muffler	Replace
Engine overheating (coolant temperature is too high).	Low coolant	Refill
	Coolant leakage	Repair
	Worn or damaged belt	Replace
	Incorrect mixture of anti-freeze solution	Replace
	Defective radiator	<i>Consult your CASE Dealer</i>
	Broken fan	
	Defective thermostat	
	Defective water pump	
Defective water temperature gauge		
Defective battery charge.	Incorrect belt tension	Adjust
	Electrical wiring problems	Repair
	Defective battery	Replace
	Defective regulator	<i>Consult your CASE Dealer</i>
	Defective alternator	

SECTION 9 - ELECTRICAL SYSTEM

2. Tilt the working light and disconnect the plug.

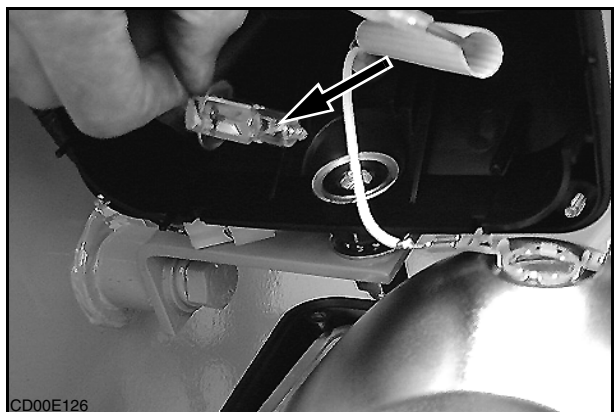


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3. Pull the clip outwards, remove the bulb and install a bulb of the same wattage (70 W).

IMPORTANT: Never put your fingers on a tungsten iodide bulb.

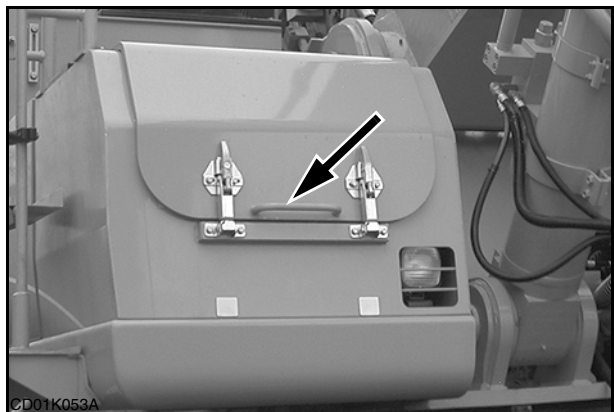
4. Install the clip and reconnect the plug.
5. Put the working light back into position and install the mounting screws.



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UPPERSTRUCTURE AND CAB HEADLIGHTS

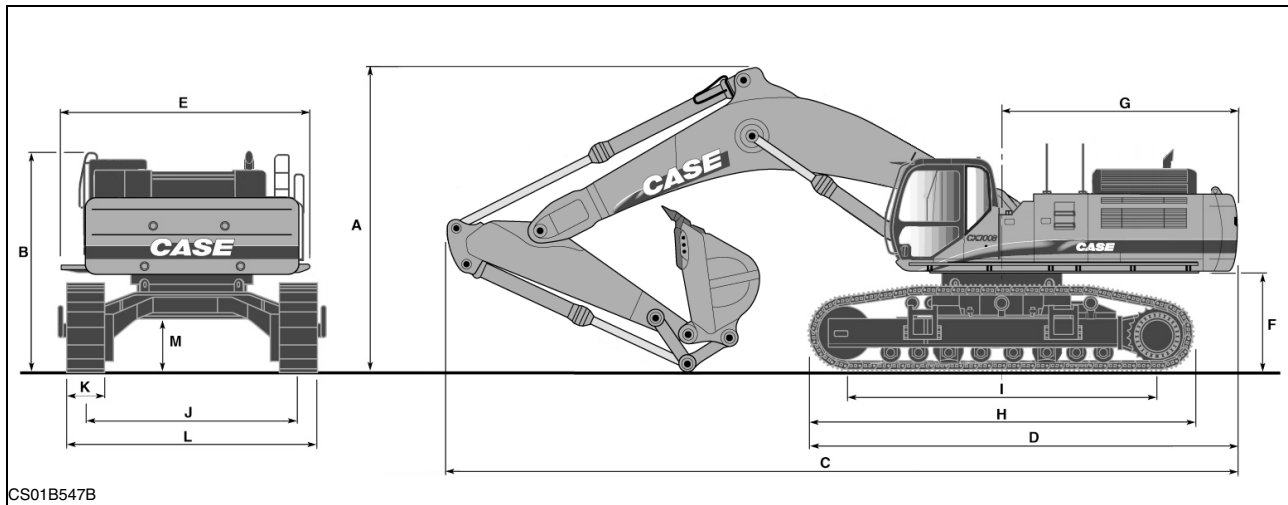
1. Raise the front storage box cover until the support strut is locked.



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SECTION 11 - SPECIFICATIONS

SHORT ATTACHMENT (6.58 m boom)



CS01B547B

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Dipper	2.92 m
(A)	5.03 m
(B)	3.79 m
(C)	12.28 m
(D)	6.91 m
(E)	3.99 m
(F)	1.51 m
(G)	4.00 m
(H)	5.88 m
(I)	4.70 m
(J)*	3.25 m
(J)**	2.74 m
(K) (standard pads)	0.65 m
(L)* (with 650 mm pads)	3.90 m
(L)** (with 650 mm pads)	3.39 m
(L)* (with 750 mm pads)	4.00 m
(L)** (with 750 mm pads)	3.49 m
(L)* (with 900 mm pads)	4.15 m
(L)** (with 900 mm pads)	3.64 m
(M)	0.83 m

NOTE: * (working position) ** (transport position)

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