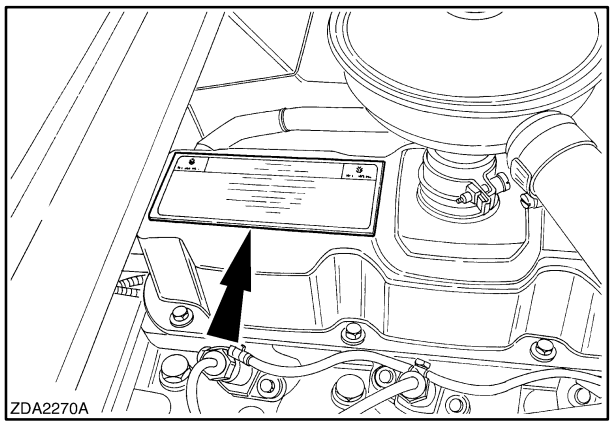
Engine

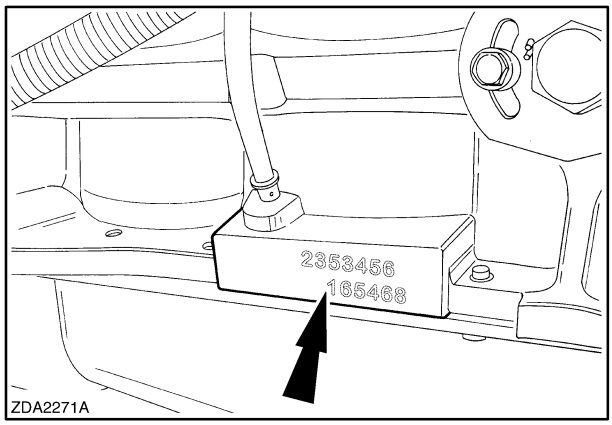
Models CX720, CX740, CX760, CX780, CX820, CX840

On a plate positioned on top of the rocker cover.



2

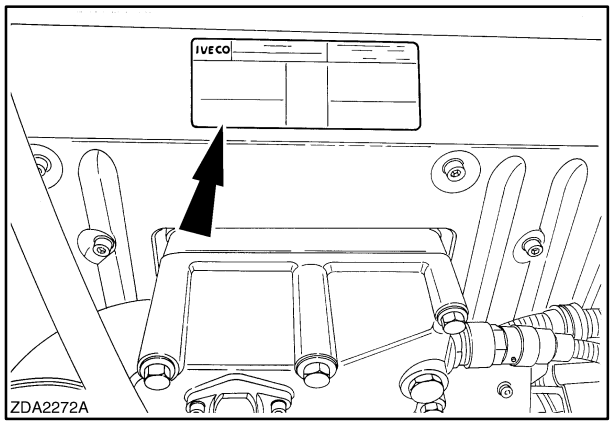
It's also stamped in the cylinder block.



3

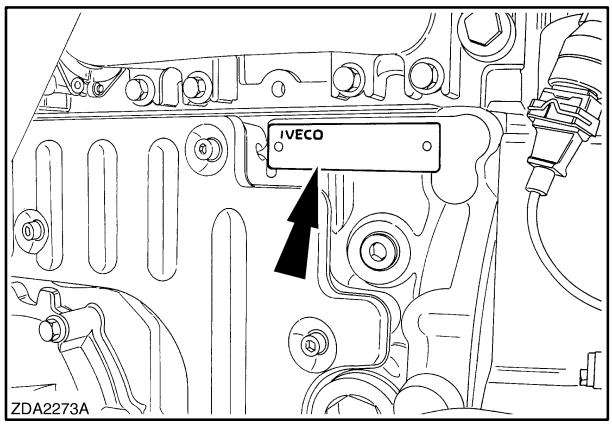
Models CX860 and CX880

On a plate positioned on top of the rocker cover.



4

It's also on a plate on the cylinder block.



5

Operating the attachments

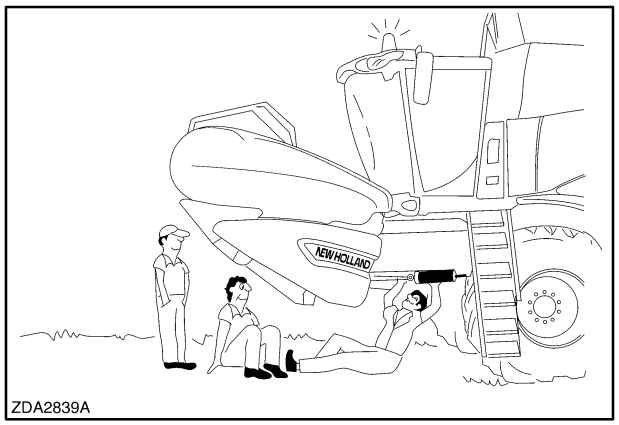
1. When coupling an attachment to the base unit, never stand between the machine and the attachment.
2. Make sure that no one is standing in front of the machine when detaching an attachment.
3. Before operating the attachment, make sure that there is no one on or near the machine.
4. Never attempt to remove crop or residues from a plugged attachment while the machine is running. Such an imprudence could cost life or limb. In the event of a blockage, always disengage the threshing mechanism, switch off the harvester engine and apply the parking brake before clearing the blockage.

Stopping the combine

1. Always lower the attachment to the ground when parking the machine.
2. For safety's sake never leave the operator's platform without first returning the ground speed control lever to neutral, switching off the threshing mechanism, engaging the parking brake and stopping the engine. Furthermore, if leaving the machine unattended, always remove the ignition key and switch off the switch on the battery.
3. When parking, always try to leave the machine on level ground and apply the parking brake. If the ground is sloping, apply the parking brake and wedge the wheels.

Maintenance

1. Follow the maintenance schedule with regard to the machine servicing intervals.
   Remember that the machine requires minor attention from time to time. Also remember that the time taken on maintenance will greatly extend the life of the machine.
2. Never attempt to clean, lubricate or carry out any adjustments on the combine while it is in motion or while the engine is running.
3. Keep hands, feet and/or garments away from moving parts. Check that all rotating parts are correctly guarded.
4. Never work under the attachment without first ensuring that the straw elevator hydraulic cylinder safety latch is engaged or that it is securely supported on wooden blocks.



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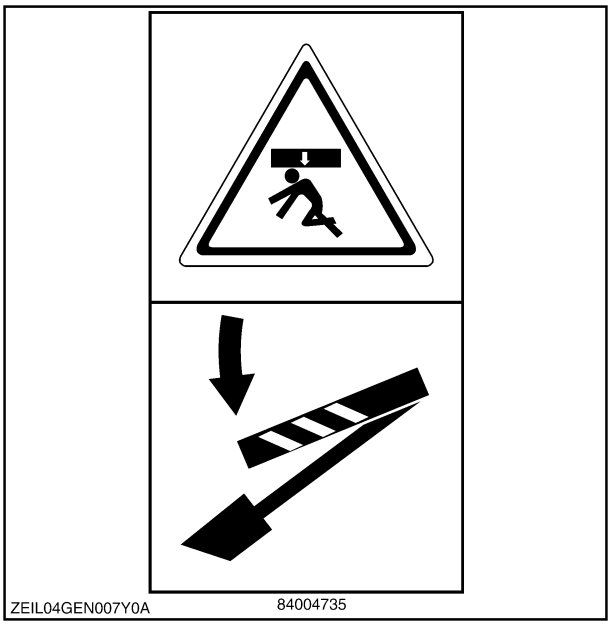
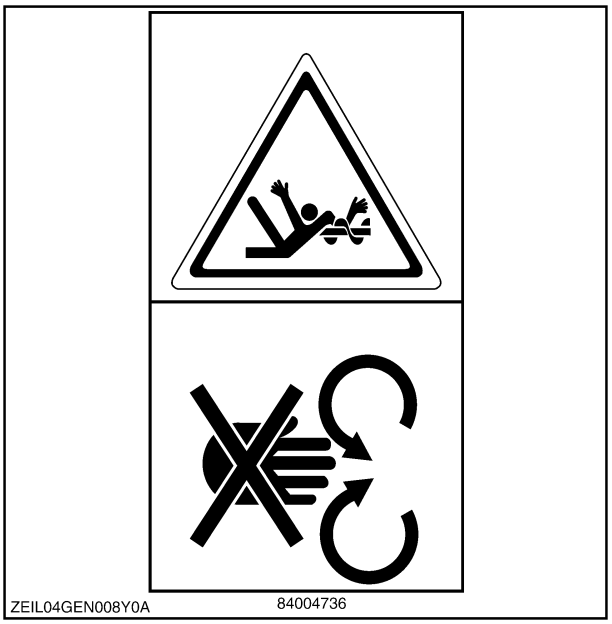
5. Always use suitable jack stands when carrying out maintenance on the steering axle.

Decal 5



Secure lift cylinder locking device before getting in dangerous area.

Decal 6

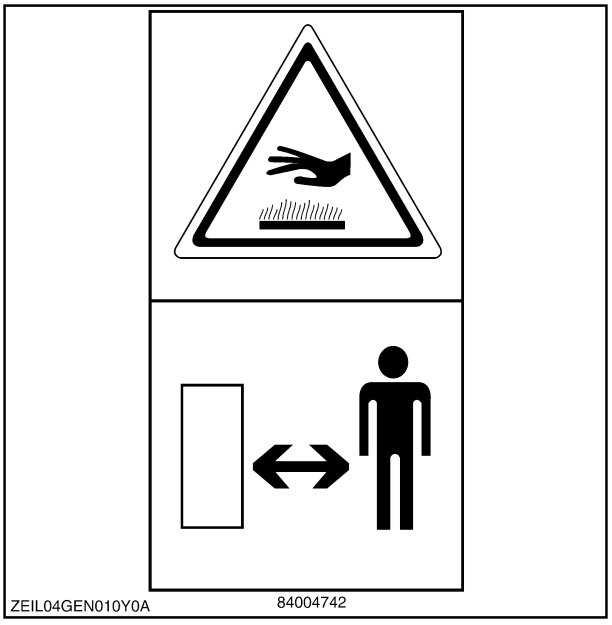


Never reach into rotating auger.

Decal 7

Never reach or climb into grain tank while engine is running.

Decal 8



Stay clear of hot surface.

⚠ WARNING ⚠

In case of an emergency stop it will not be enough to move the multifunction handle to neutral, also apply the brakes.

2. Unloading system engagement button

Press on the button to start unloading, Press again to stop.

3. Unloading tube swing rocker button

Left : unloading tube swing out (two positions)

Right : unloading tube swing in (two positions)

- Threshing mechanism NOT ENGAGED:

(Field mode selected)
Press the button (first or second position) and keep it depressed to swing the unloading tube out or in.

- Threshing mechanism ENGAGED:
  (straw elevator maybe disengaged)

The first position:
The unloading tube will open or close as long as the button is depressed.

Second position:
Giving one pulse on the button will swing the unloading tube completely out or in.
Press again on either of the switches (left/right) to stop the automatic movement.

NOTE: *When the opposite part of the button is pulsed in the second position, the unloading tube will move in the opposite direction until it is completely open or closed.*

4. Automatic header height control button

When this button is pressed and released:

- the attachment will automatically lower (or raise) to a preset height (refer to paragraph headed ”Operation” further in this section).
- and when in headland mode (refer to ACS operation), headland mode will be end and Mode “1” or “2” will be reselected.
- and when using SmartSteer™ system, this will allow auto steering to activate also depending on other conditions.

When operating in an automatic mode, pressing this button twice will:

- lift the header above maximum stubble height.
- activate headland mode/ stop auto steering. (If ACS / SmartSteer™ installed)

When operating in an automatic mode, pressing this button for a minimum of two seconds will save the current head position and verify with a beep.

5. Header height and header lateral floatation rocker switch

With the upper and lower part of this switch, the header can be moved up and down respectively. The header height switch offers two speeds. Pushing the switch to its first stop, both up and down, the movement will be slow. When pushed to the second stop, the up and down movement will be fast. (according to the header raise/lower speed)

With the left and right part of the switch, the lateral float of the header can be adjusted. Pushing to the left will tilt the header counter-clockwise, pushing to the right will tilt the header clockwise.

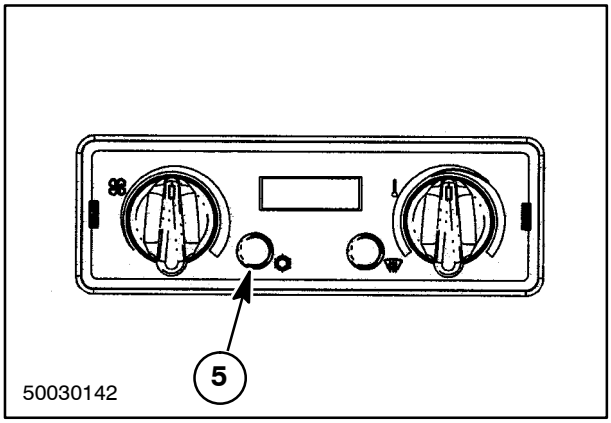
When using SmartSteer™, pushing left or right together with neutral unlock switch (1)
(see fig. 13):

- for minimum two seconds will select left/right crop edge respectively.
  (refer to SmartSteer™ operation).
- when pulsed, will adjust machine position to left/right with +/– 10 cm.

ATC control (5)

The operator selects ATC control by pressing the left hand button one time, the digital display window will be illuminated. When illuminated the mode of operation will be displayed along with the desired temperature. The button toggles between two modes:

- "O" = OFF, the cab blower motor may be run, but the air will not be conditioned and the display will NOT be illuminated.
- "A" = Auto, the system will warm or cool the air as needed to maintain the cab temp and the display will be illuminated.



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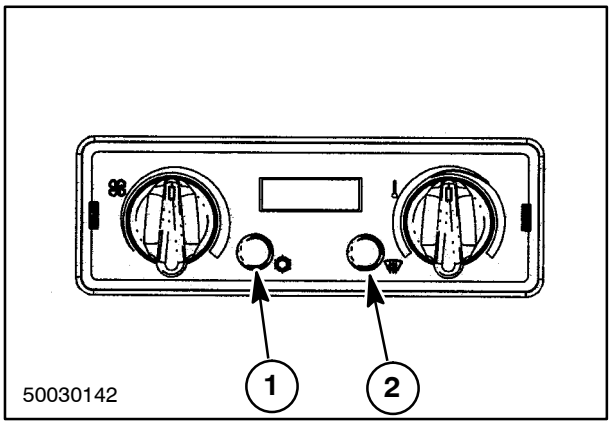
Defog control operation

Defog is used to clear off the windows by using the A/C to lower the humidity in the air and using the heater to warm the air enough to dry the windows. The ATC control button (1) must be pressed to activate the AUTO controls and the mode button (2) toggled to DEFOG and the windshield icon will be displayed in the digital display. The temperature control knob may be adjusted to any setting. If the cab vent temperature is too cold the temperature control may be rotated clockwise to provide some additional heating of the air. The cab temperature will be monitored by the re-circulation air sensor, and be maintained at the temperature control setting by cycling the heater valve. While operating in the defog operation the compressor will run continuously, unless the evaporator sensor determines the evaporator is too cold and could start to freeze up.



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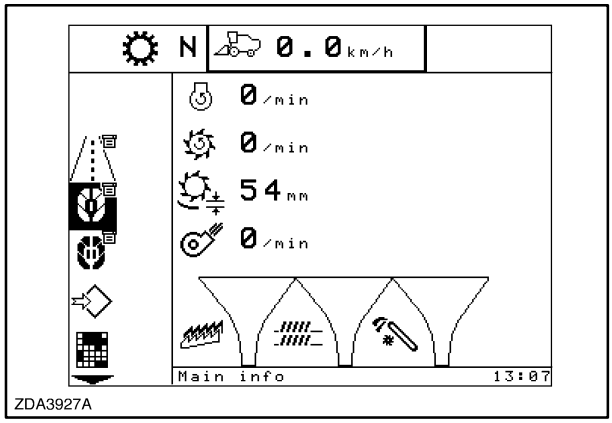
The ATC controller will automatically control the blower motor speed as required to maintain the temperature desired. It will be normal for the vent temperature to be cold during early morning start up, due to low engine temperature. If the operator reduces the blower speed until the engine warms up, the ATC controller will disengage the auto mode of the blower speed. To re-activate the auto mode for the blower motor speed, the ATC control button MUST be toggled to reactivate the auto position.

II MAIN INFO SCREEN

General

When key is switched on and the field mode is selected with the road/field mode selector switch, the monitor will enter the main info screen.



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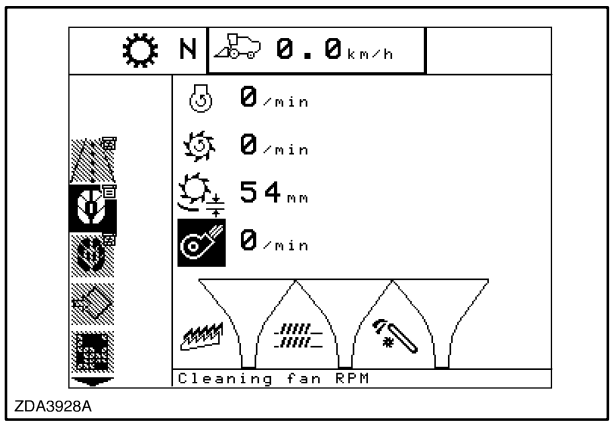
Enter the information box by pressing the ”right” navigation key. The cursor will jump to the item that was the last time selected when escaping the information box.

The selected symbol will blink and in the text bar a description of the selected item is shown.

To select another item, use the ”up” or ”down” navigation keys. When the navigation keys are not used for a while, the selected symbol will stop blinking and will be inverted until the navigation keys are used again.



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The information displayed in the information box, the first four fields and the sequence of these fields can be changed (refer to paragraph ”Configuration and calibrations” sub headed ”Main info screen setup” in this section). The actual values of these four items are displayed next to the symbol.

The three bargraphs at the bottom of the information box are factory-set and can not be changed.

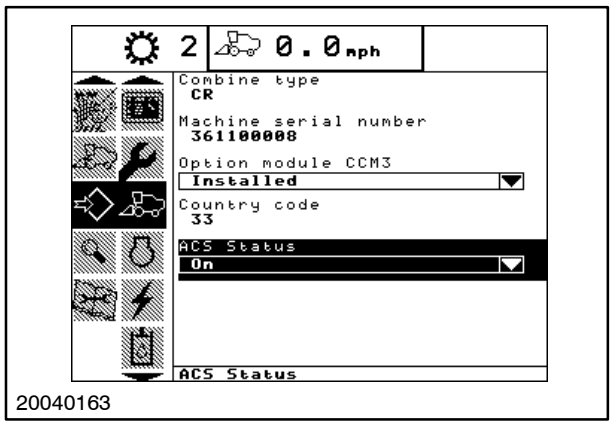
The first two bargraphs are provided to display the straw walker losses and the sieves losses. The bargraph segments lights up proportionally to the losses and to the sensitivity setting (see further in this paragraph).

The third bargraph is provided to display the volume of return material that passes through the returns auger. The bargraph segments lights up proportionally to volume of return and to the sensitivity setting (see further is this paragraph).

Activating the ACS

1. The ACS is activated from the “Combine” page of the “Configuration info” screen.

NOTE: *This configuration can also be placed on any of the operator configurable screens (Road info, Main info, and Custom info).*



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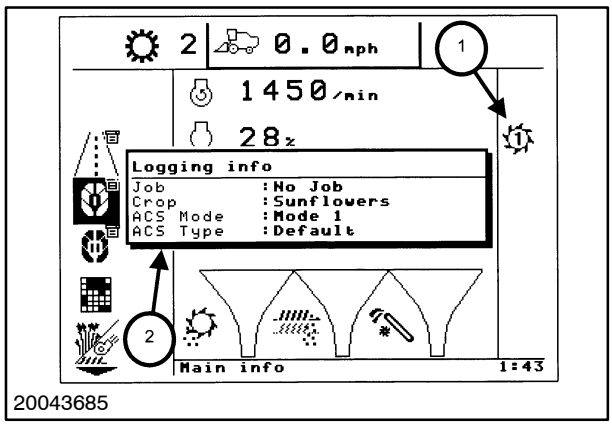
2. When the ACS is activated, and the threshing is engaged, the “Threshing engaged” icon 1 will encircle the ACS Mode (1, 2, H) icon and the “Logging Info” pop-up window 2 will appear for 5 seconds.

   The ACS modes are:

   - Mode 1 = **1**
   - Mode 2 = **2**
   - Headland = **H**

NOTE: *The ACS mode icon will be displayed whenever the ACS is activated, whether or not the thresher is engaged.*



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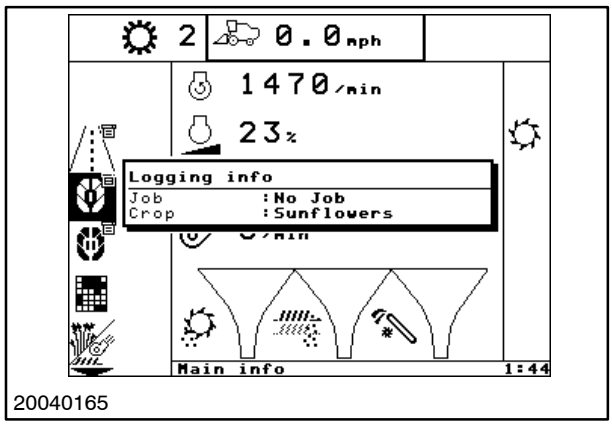
NOTE: *If the ACS is off, the center of the threshing engaged icon will be empty and the ACS mode and ACS type lines will not be displayed on the pop-up window.*



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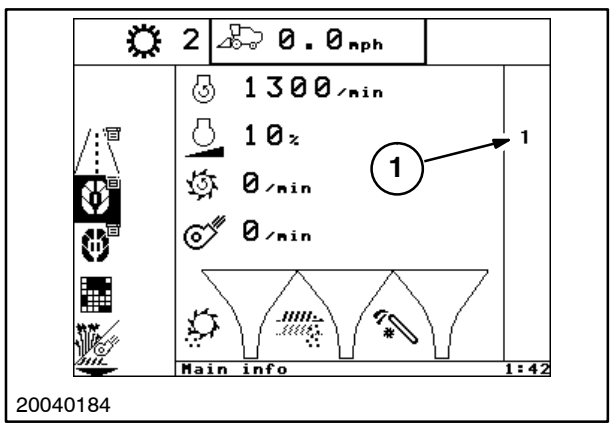
NOTE: *The ACS mode icon 1 will be displayed whenever the ACS is activated, whether or not the thresher is engaged.*



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Straight steer calibration

This calibration will calibrate the sensor in the rear axle steering cylinder to its “0”
(driving straight forward) position.

This calibration has to be done:

- only once after the installation of the right steering cylinder.

- on level ground and in an area where you can drive the combine straight forward:

To calibrate, proceed as follows:

IMPORTANT: *Make sure you have done the “Calibration of the HGS turntable actuator” before continuing.*

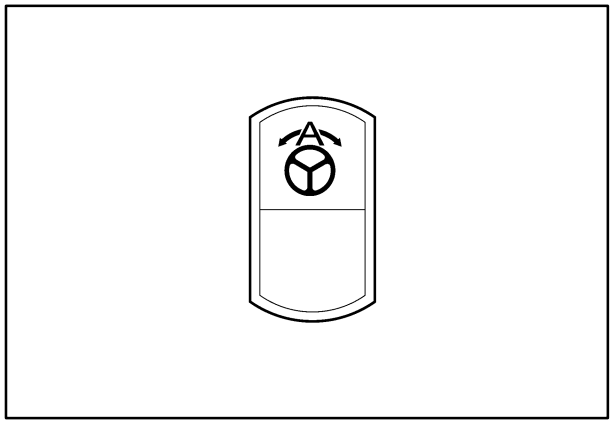
1. Start the engine and turn the steering wheel so that the sensor in the steering column recognises the movement.
   Turn the steering wheels into a position for driving straight forward. Test by driving the combine for a short distance and verify that the combine follows a straight line.

2. Enable the SmartSteer™ system by pressing the SmartSteer™ rocker switch for minimum two seconds.
3. The SmartSteer™ icon will appear greyed in the upper left-hand corner of the InfoView™ monitor.

4. Press and hold the SmartSteer™ rocker switch for at least 5 seconds, until the SmartSteer™ icon starts blinking, indicating that the calibration mode has been entered. Keep the button pressed for another three seconds to calibrate the steering cylinder sensor. The icon on the InfoView™ will become solid greyed out again.

5. The calibration is done.

6. After a successful calibration and with the steering wheels in a straight forward driving position, the calibration value shown in the “driveline screen” should be 0.0 degrees.
   (turning to the left show negative (–) values, turning to the right show positive (+) values)



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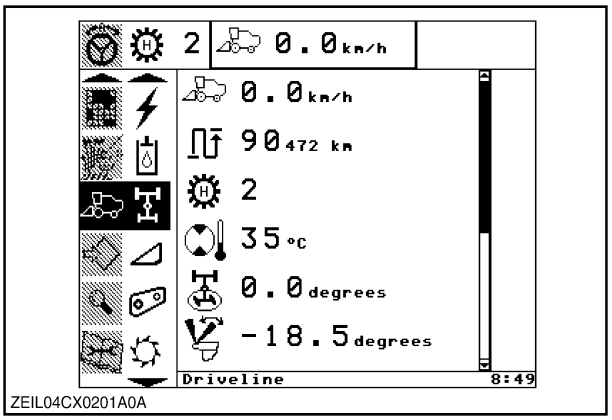

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STARTING THE ENGINE

Ensure you are thoroughly familiar with the instruments and controls before starting the engine for the first time.

To start the engine safely, follow the points as outlined below.

⚠ CAUTION ⚠

Before starting the engine, ensure there is enough ventilation and everyone is standing clear of the combine.

Daily Start-up procedure

Proceed as follows:

1. Carry out the routine engine service, i.e. check coolant, oil and fuel tank levels (refer to *"SECTION 4 – LUBRICATION AND MAINTENANCE"*). Ensure the battery key is in the "ON" position.

2. Make sure the Multi function handle is in neutral position.

3. Ensure the road-field mode tumbler switch is in the road position and the parking brake switch is in the ON position.

4. Check that the both brake pedals are coupled together.

5. Ensure the gearshift selector switch is in the neutral position.

6. Insert the ignition key into the ignition-and-stop switch and turn the ignition key in the "contact" position, check for any alarm or fault messages on the InfoView™ monitor.

7. Before starting the engine, warn bystanders by sounding the horn several times.

8. Start the engine when Pre-Heat lamp below Ignition key starts to flash. Turn the ignition key clockwise to engage the starter motor. Engine wills starts at low idle automatically. (If the engine fails to start after 20 seconds, release the ignition key for about 1 minute before re-engaging the starter motor).

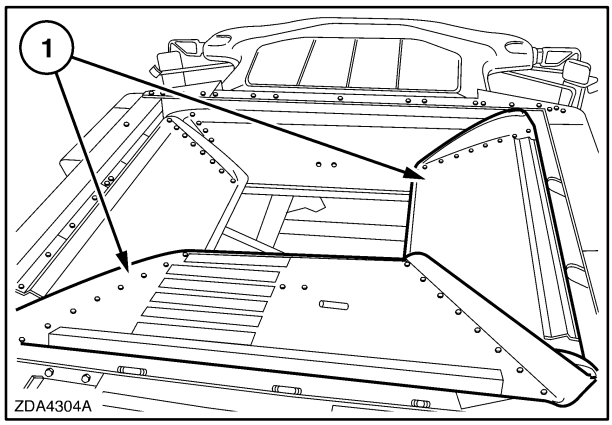
9. As soon as the engine starts, release the ignition key.

10. Check for any engine Alarm/fault messages.

IMPORTANT: *Allow the engine to run for one minute at low idle before moving off, to ensure adequate lubrication of the turbocharger bearings.*

Grain tank with extensions

Closed position of grain tank extensions 1.



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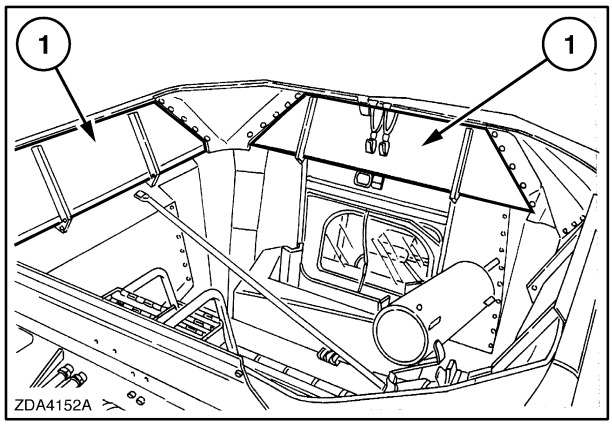
The grain tank extensions 1 can be opened manually.



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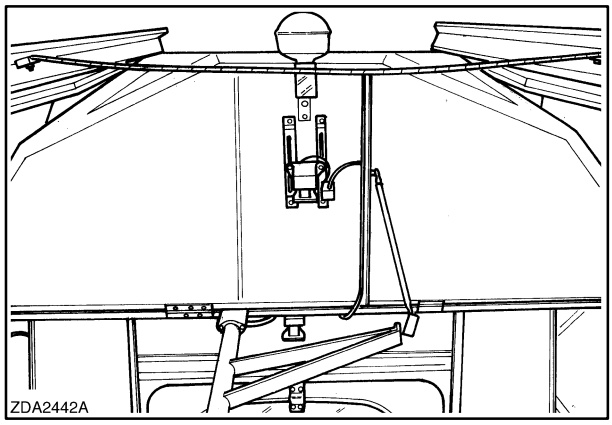
Grain tank with covers

The grain tank with covers can be opened electrically (with actuator) from the cab if the field mode is selected and if the threshing mechanism is not engaged.

At the same time, the bubble-up tube opens.

To prevent damage to the bubble-up tube is it not possible to engage the threshing mechanism as long as the covers are moving.



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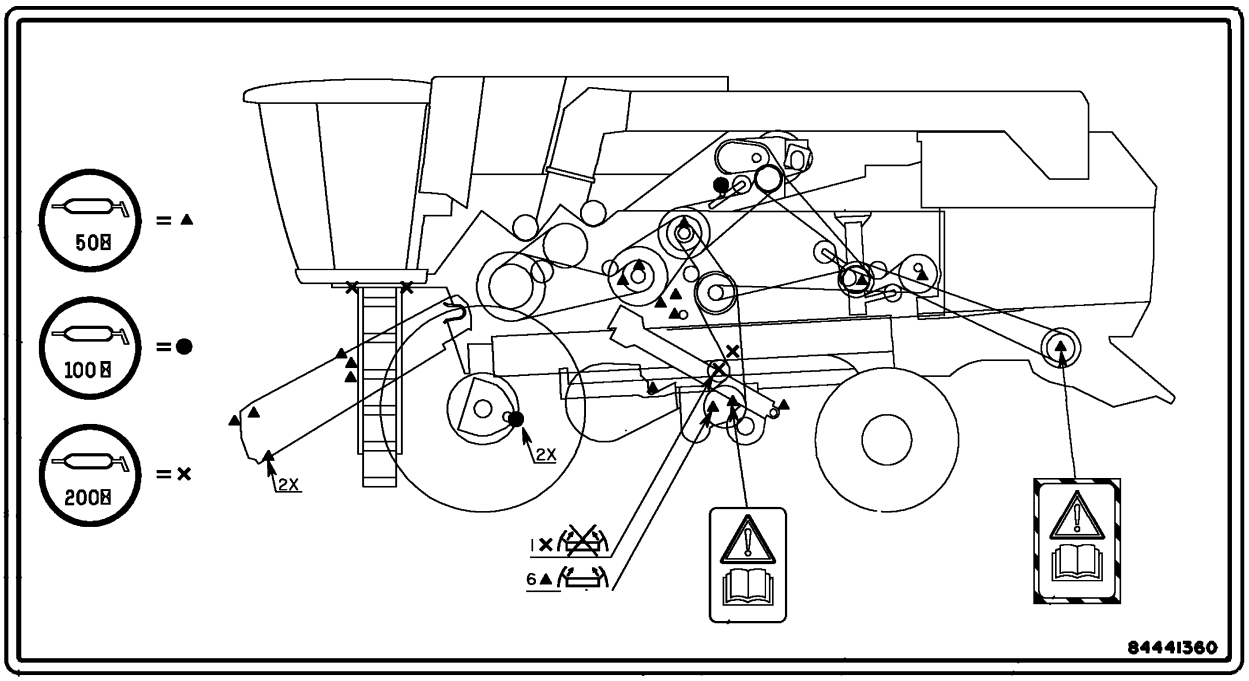
NOTE: *Do not close or open the grain tank extensions with a full grain tank.*

⚠ WARNING ⚠

Be careful: excessive height with open grain tank covers: 4.8 m (15.75 ft)



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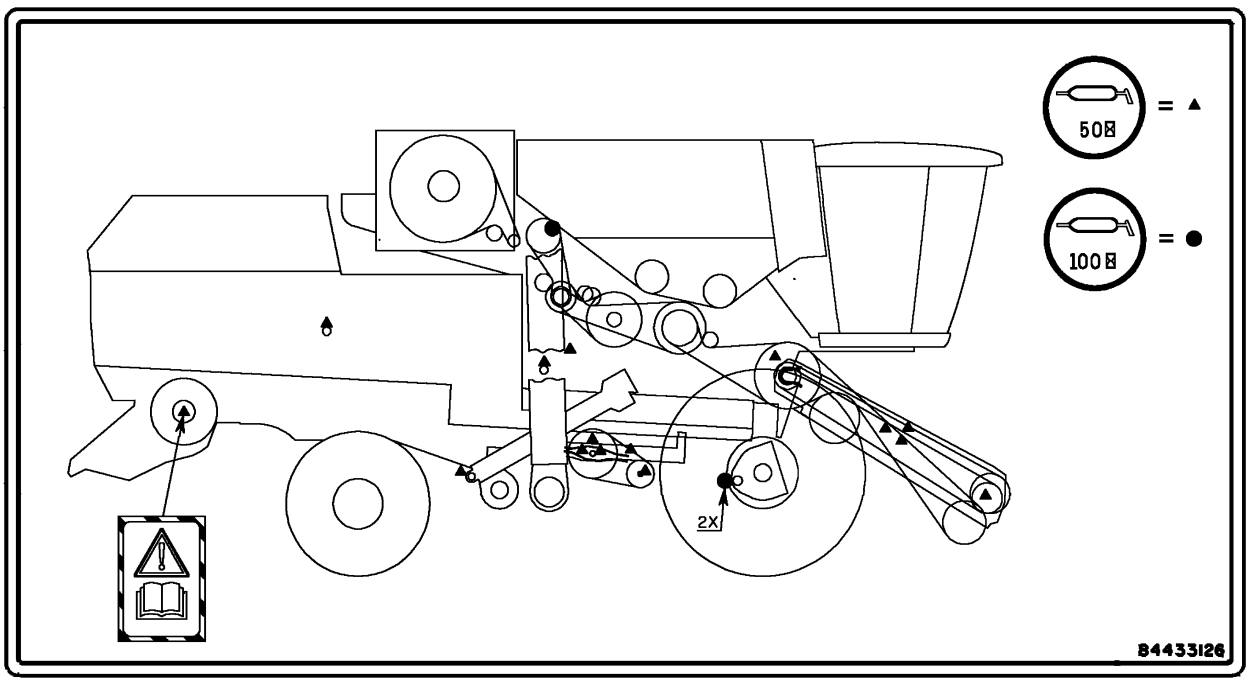

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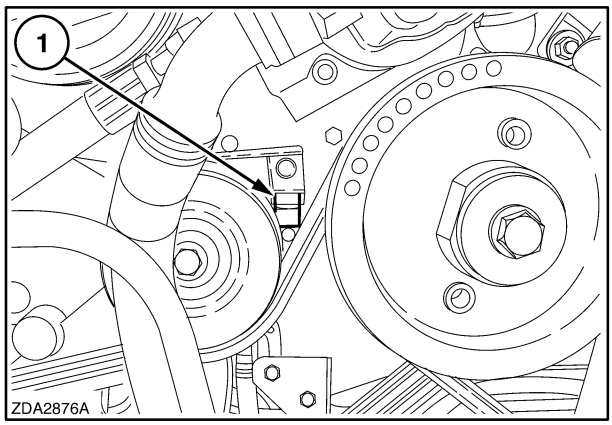
2

ENGINE GEARBOX

Oil level

Check the oil level daily on level gauge 1 with the combine standing on a level surface. The oil level should be kept between the marks.



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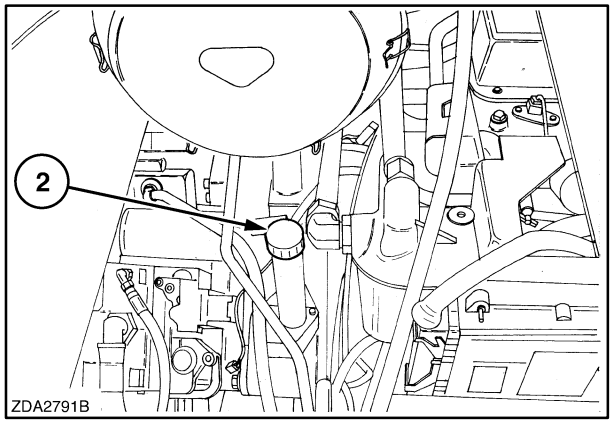
If necessary, remove filler cap 2 and add oil through the filler opening.



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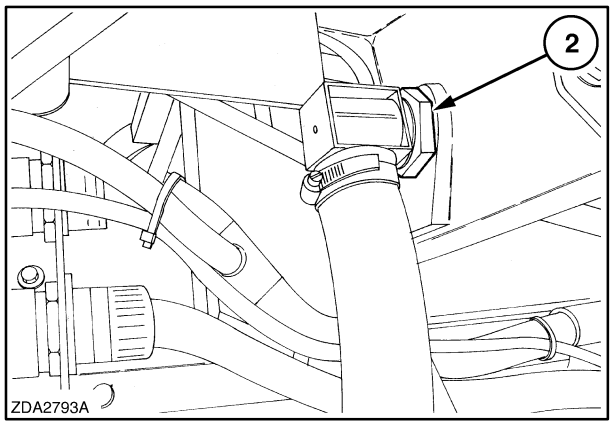
Oil and filter change

The engine gearbox oil should be changed:

- Only filter after the first 100 operating hours
- Thereafter, every 600 operating hours or annually

The oil filter should be changed every time the oil is changed.

The suction screen 2 (installed in suction opening) should be washed every time the oil is changed.



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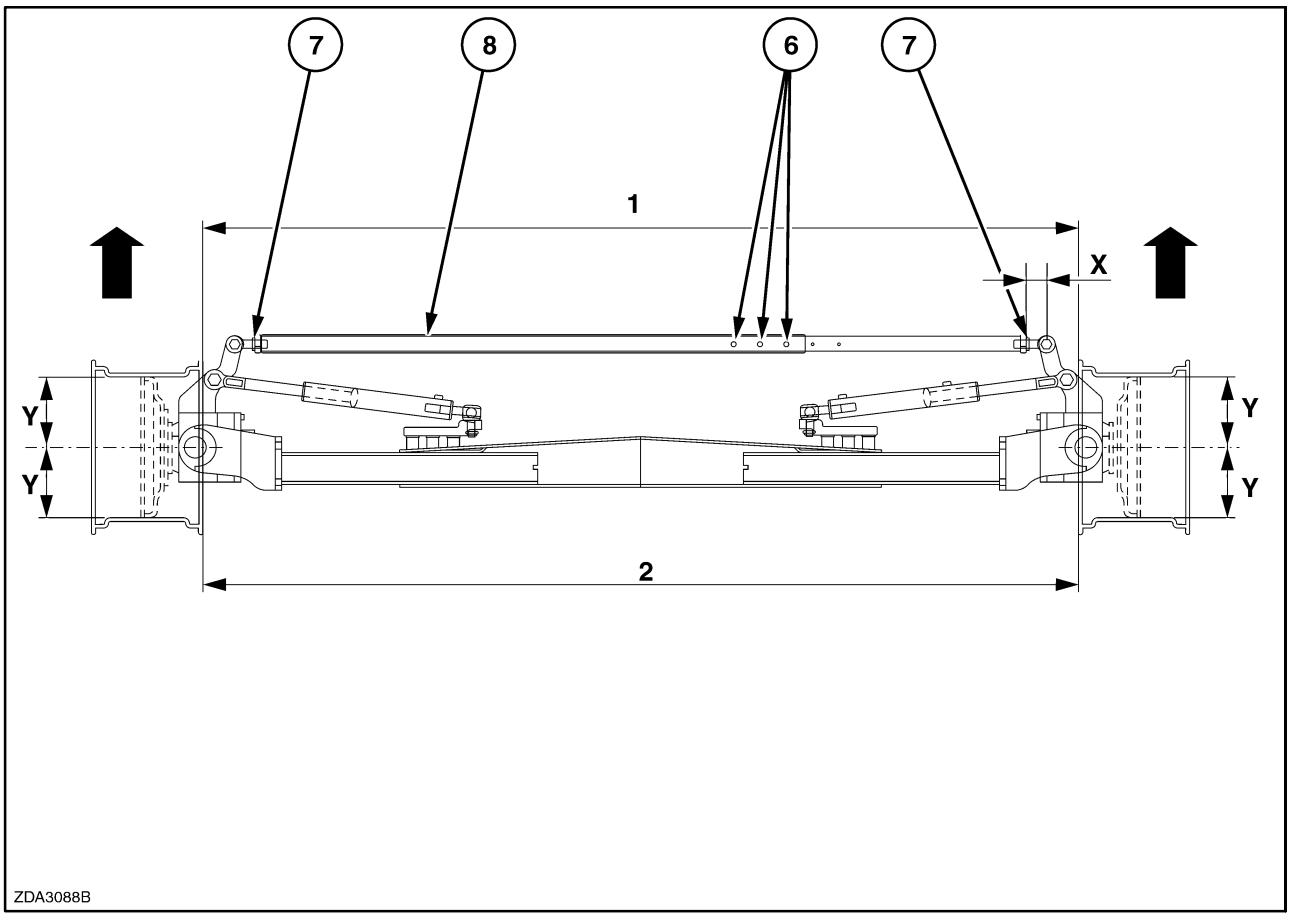
5. Toe-in adjustment



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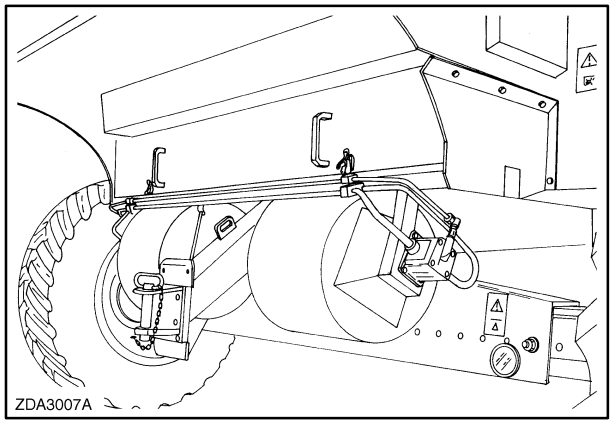
The steering wheels should have the correct amount of toe-in, otherwise premature tyre wear may occur. The distance between the steering wheels must be smaller at the front than at the rear.
(facing the direction of travel).

STRAW HANDLING

Chaff blower

To avoid a concentrated layer of chaff laying in a swath behind the combine, a chaff blower can be installed (in combination with a straw chopper) to spread the chaff evenly across the full cutting width of the combine.



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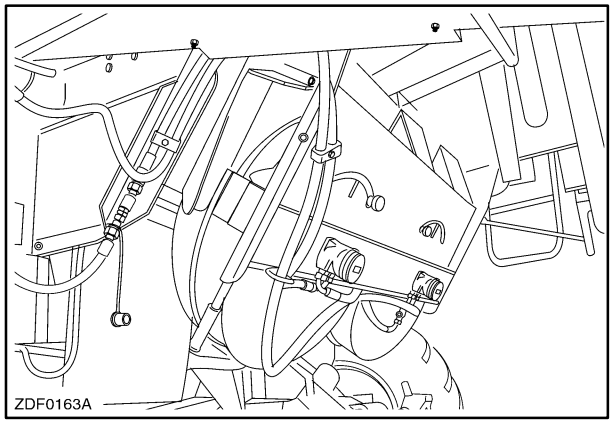
Chaff spreader

A chaff spreader can be fitted for units without straw chopper when the chaff from the cleaning shoe is required to be spread.



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	CX720	CX740	CX760	CX780	CX820	CX840	CX860	CX880
Grass seed concave						Not for Europe		
Wrap angle			–			111°		
Concave area			–			1.18 m^2 (1829 sq.in)		
Number of teeth (56mm) (2-13/64")			–			106		

BEATER		
Drive	1 HC	
Speed (*)	Same as drumspeed	
Width	1300 mm (51-3/16")	1560 mm (61-1/2")
Diameter	475 mm (18-45/64")	
Blades	8	
Pins	8 (Optional)	

BEATER CONCAVE		
Wrap angle	26°	
Number of bars	5	
Width	1320 mm (51-31/32")	1580 mm (62-13/64")
Concave area	0.24 m^2 (372 sq. in)	0.29 m^2 (449 sq. in)
Distance between wires	32 mm (1-1/4")	
Wire diameter	6 mm (1/4")	
Setting	Mechanical (2 settings: up and down)	

ROTARY SEPARATOR		
Drive	2 HB	
Speed (*)	387 or 700 rpm	
Width	1300 mm (51-3/16")	1560 mm (61-1/2")
Diameter	720 mm (28-11/32")	
Number of teeth	12 x 7	6 x 8 + 6 x 9

(*) high idle (no load)