

SECTION QUICK REFERENCE

1 – General Information and Safety

2 – Controls, Instruments and Operation

3 – Field and Site Operation

4 – Lubrication and Maintenance

5 – Fault Finding

6 – Vehicle Storage

7 – Accessories

8 – Specification

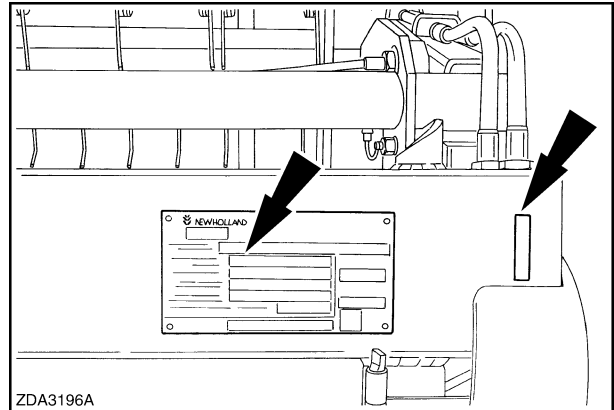
9 – 1st 50 Hour Service Sheets

Index

NOTE: The CX Operator's manual consists of two volumes. The first volume "Operation" with sections 1,2 and 3, the second volume "Maintenance" with sections 4,5,6,7,8 and 9.

**Grain header
(High-Capacity, Extra-Capacity or Varifeed™)**

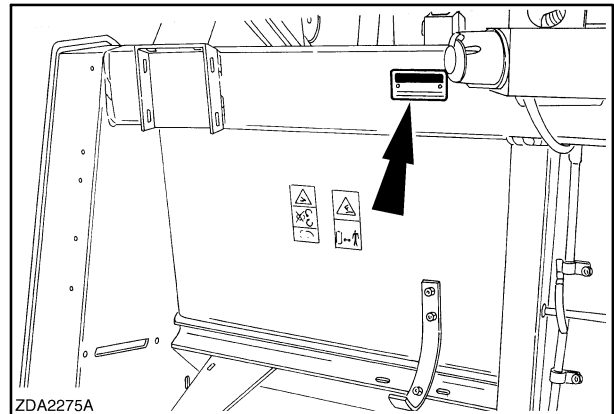
In the right-hand upper corner of the header, and also on a plate.



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Maize header

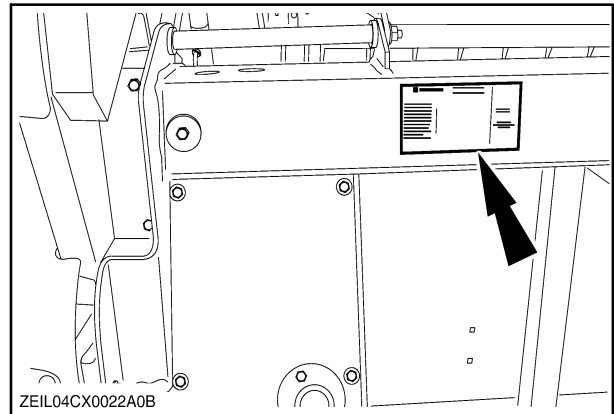
On a plate positioned on the left-hand upper corner.



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Flex header

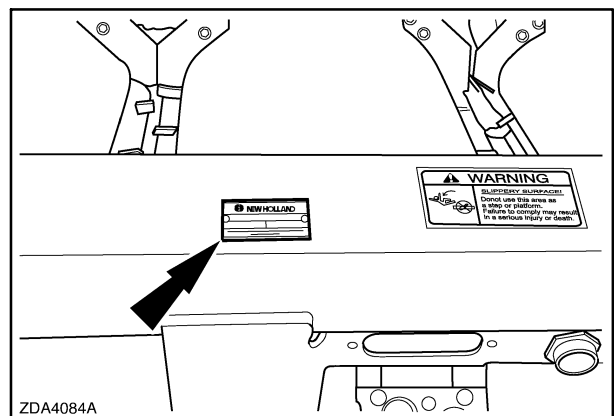
On a plate positioned on the left-hand upper corner.



6

Maize header (98C)

On a plate positioned on the left-hand upper corner.



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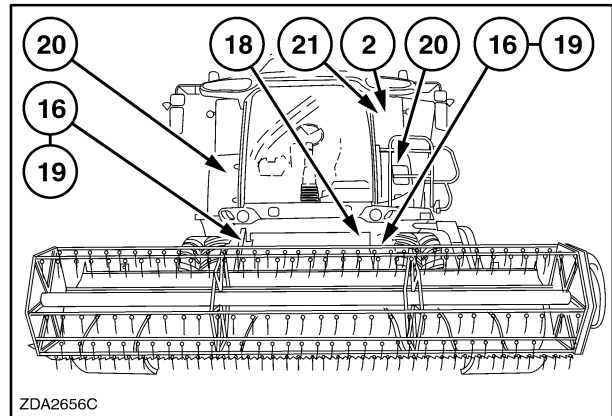
SAFETY DECALS (AUSTRALIA)

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.

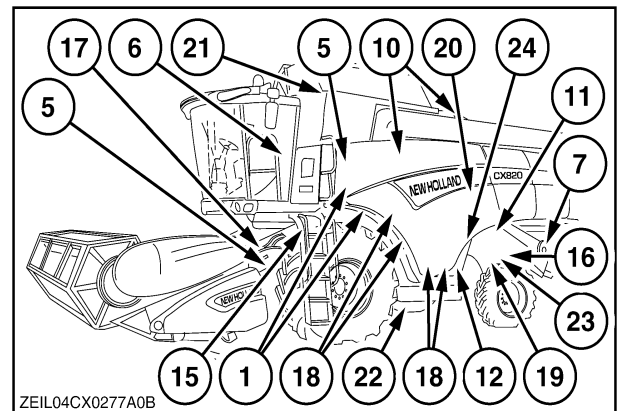
Please take this manual and walk around your machine, noting the location of the decals and their significance.

Review these decals and the operating instructions detailed in this Manual with the machine operators.

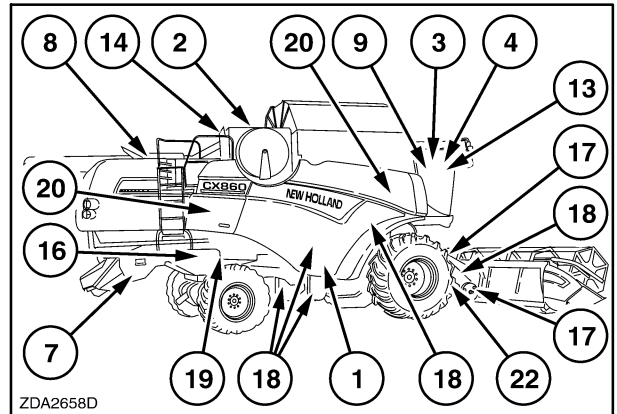
Keep the decals clean and legible. If they become damaged or illegible, obtain replacements from your New Holland dealer.



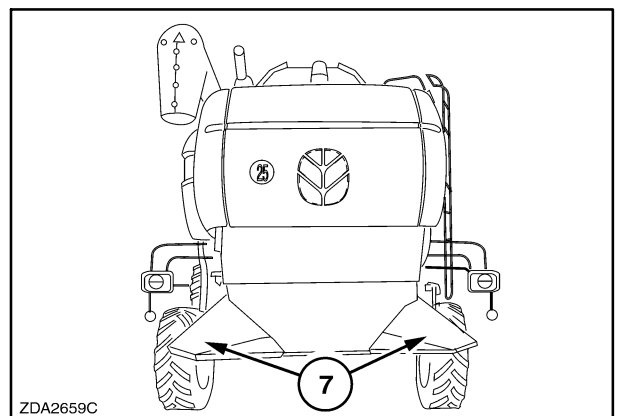
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Fire extinguisher (with chopper drive)

The fire extinguisher is located on the left-hand side near the straw hood.

Check the extinguisher pressure at least once a year before the start of the season.

To check if the extinguisher is still under pressure, proceed as follows:

1. Unscrew the pressure gauge from the valve.
2. The needle will go from the green area to "0" in the red area.
3. Rescrew the pressure gauge on the valve. The needle will go from "0" in the red field to the green field.

If the needle remains in the "0" of the red field, the extinguisher has a leakage. The extinguisher has to be repaired by a recognised extinguisher dealer.

Once the extinguisher is discharged, no matter for how long, it must be recharged.

The decal on the fire extinguisher is explained below:

- The extinguisher can be used and has been tested at temperatures of -20°C (-68°F) and $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$).
- The type of the extinguisher "PKD 6", this means: Dry chemical powder and the capacity is 6 kg (13.2 lbs).

1. Remove the safety pin.
2. Aim nozzle at base of fire.
3. Press on the handle.

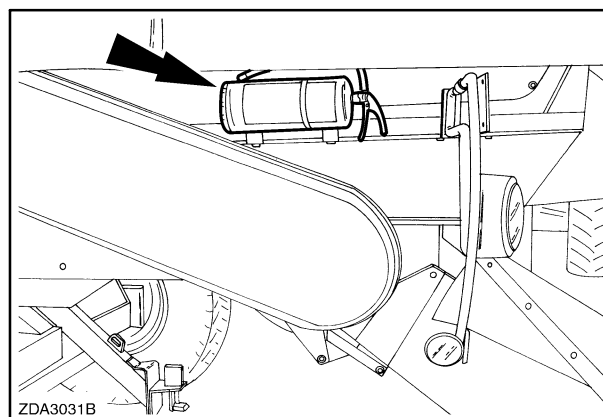
The extinguisher can be used on

"A" class fires = dry fires

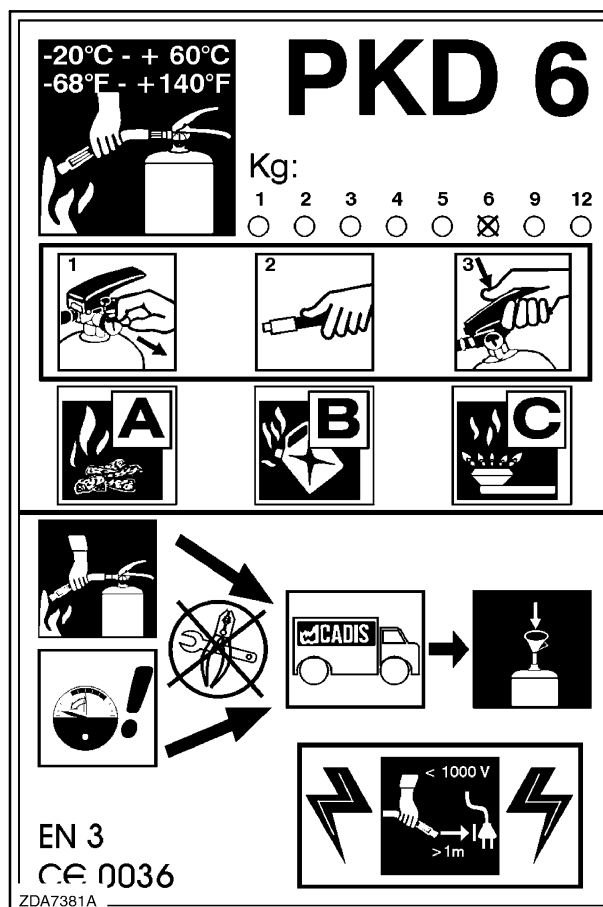
"B" class fires = liquid fires

"C" class fires = gas fires

- After use of the extinguisher on a fire, the pressure gauge needle will go to zero pressure.
- Never try to repair or refill the extinguisher yourself. Bring the used or leaking extinguisher to a recognised extinguisher dealer.
- Never use the extinguisher on objects under electrical tension of more than 1000 Volt and at less than one meter (3,3 ft) distance.



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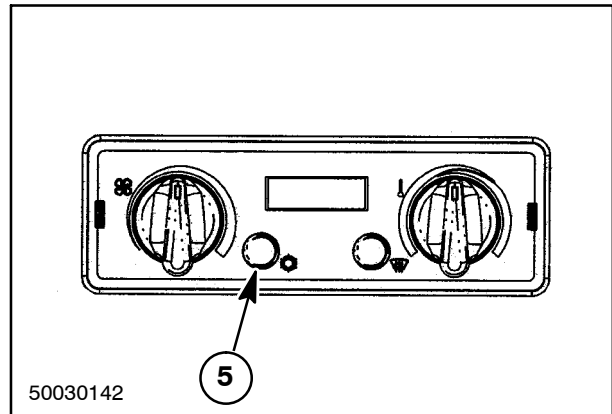


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ATC control (5)

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:

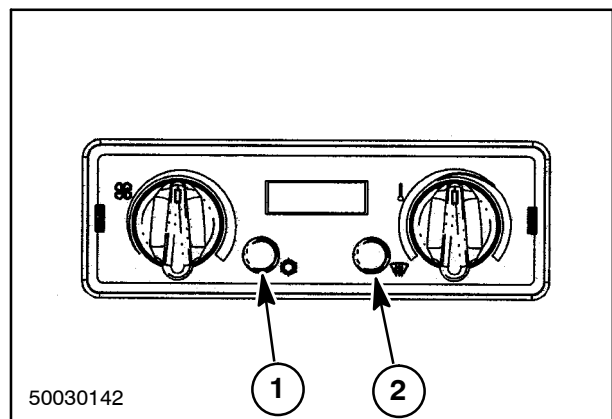
- “O” = OFF, the cab blower motor may be run, but the air will not be conditioned and the display will NOT be illuminated.
- “A” = Auto, the system will warm or cool the air as needed to maintain the cab temp and the display will be illuminated.



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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.

A list with error messages can be found in SECTION 5 – “FAULT FINDING”; paragraph headed: “Troubleshooting the Automatic Temperature Control system”

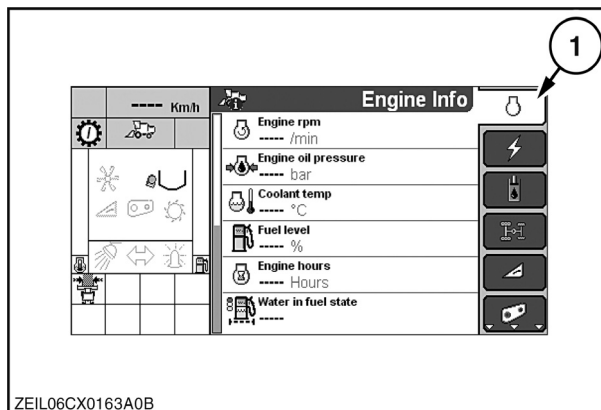
III COMBINE INFO

The “Combine Info” from the home screen area contains different info screens:

1.Engine Info

In this sub-menu the operator can see the following items:

- Engine rpm
- Engine oil pressure
- Coolant temp
- Fuel level
- Engine hours
- Water in fuel state
- Coolant level state
- Air filter state
- Cold start state
- Engine overheating state
- Engine degradation level
- Fuel rate

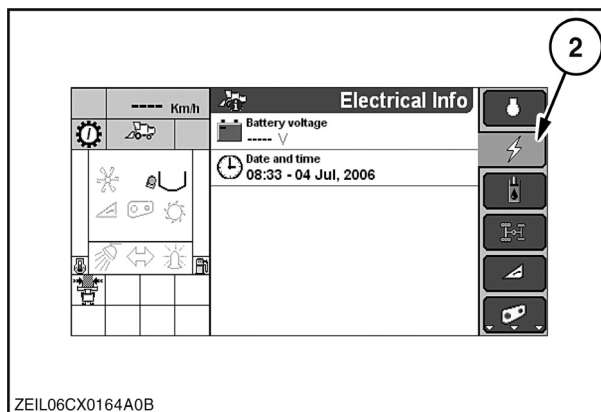


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2.Electrical Info

In this sub-menu the operator can see the following items:

- Battery voltage
- Date and time



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Excessive returns will contribute to grain damage due to the additional pass(es) the grain must take through the drum/concave area. Plugged concave can cause grain damage because the free grain cannot get out of the concave area.

Loose elevator chains can also cause grain damage. It is important to maintain the proper tension on these chains.

Unthreshed material in the grain tank can be caused by underthreshing or the lower sieve that is opened too wide. Increase the drum speed and reduce the concave clearance as needed to correct the problem. Reduce also the lower sieve opening slightly to obtain a cleaner grain tank sample.

Grain pan/upper sieve distribution

The distribution of material on the grain pan affects the distribution of material on the sieve. The distribution on the grain pan should be level to slightly higher directly under the drum and taper slightly towards both sides.

The front third of the upper sieve should be completely clean. The middle third should have some grain but mostly residue. The rear third of the upper sieve should have only residue.

If there is some grain on the rear third of the upper sieve, returns will be increased and there is a possibility that grain will ride out the back of the combine. Open the upper sieve to allow more of the grain to fall onto the lower sieve.

If the material on the upper sieve is broken into small pieces, the crop is being overthreshed. This can plug the upper sieve and cause high losses. Increase the concave clearance and/ or reduce drum speed to decrease the threshing action.

Unthreshed heads indicate the drum speed should be increased and/ or the concave clearance should be reduced. Unthreshed heads can also be caused by worn rasp bars and worn concaves.

Returns sample

It is normal for the return sample to contain a few unthreshed heads. The purpose of the returns system is to return unthreshed heads to the threshing area for another pass. However, a large quantity of unthreshed heads indicates the concave clearance is too great.

If the return sample contains a large quantity of clean grain, the cleaning fan speed should be reduced and/ or the lower sieve should be opened more.

Losses

Losses may occur at different stages: (see fig. 9)

1. **Pre-combining losses:** (i.e. losses found in front of the combine) are usually caused by adverse weather conditions, poor crop conditions and crop maturity.
2. **Header losses:** (i.e. losses found behind the header and outside of the tyres) may be caused by improper header adjustments.
3. **Leakage losses:** may be caused by damaged seals or holes in bottom auger covers.
4. **Shoe losses:** may be caused by a poor sieve adjustment, a low cleaning fan speed, or when working on slopes (exceeding the capacity of the self levelling system (if fitted).
5. **Fan losses:** are caused by an excessive cleaning fan speed.
6. **Straw walker losses:** These can be unthreshed ears (underthreshing) or grains, due to poor adjustment of drum and concave or excessive ground speed.

Total losses (Lt) caused by the machine:

$$L_t = (2 + 3) + (4 + 5) + 6 - 1$$

Functional losses (Lf)

$$L_f = 4 + 5 + 6$$

Header and straw elevator reversing system

The combine is equipped with a system to reverse the header reel (or the gathering chains, in case of a maize header), the auger and the straw elevator should a blockage occur.

If, during operation, a feed auger and/or a straw elevator blockage occurs which makes the slip clutch(es) slip, proceed as follows:

1. Stop the forward travel of the combine immediately and disengage the header drive with the quick stop button (1).
2. Reverse the combine a few metres.
3. Let the engine run at maximum speed and switch OFF the header engagement switch (2).
4. Engage the straw elevator reverser tumbler switch (3) (if field mode is selected).
5. Press the reel speed decrease button (4) (lower part) to reverse the rotation of the header and straw elevator.

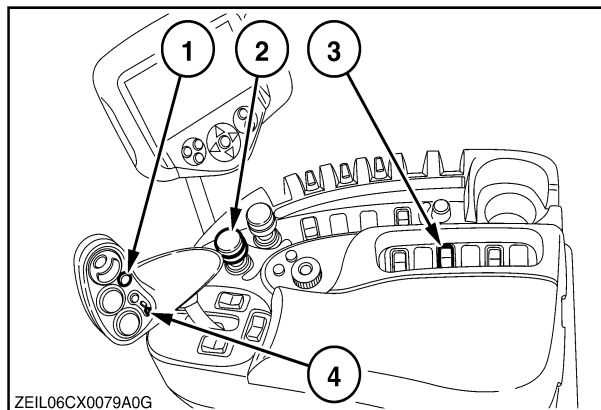
NOTE: Push the reel speed increase button to rotate the header and straw elevator forwards.

6. When the blockage has been expelled, disengage the straw elevator reverser tumbler switch (3) and wait two seconds before engage the header engagement switch (2).

IMPORTANT: It is not possible to remove all blockages using the reversing system. If necessary, remove the blockage manually. Refer to the next paragraph "header and/or straw elevator blockage-manual clearing".

NOTE: If the blockage can not be removed by the reversing system, stop the engine before attempting to unplug manually.

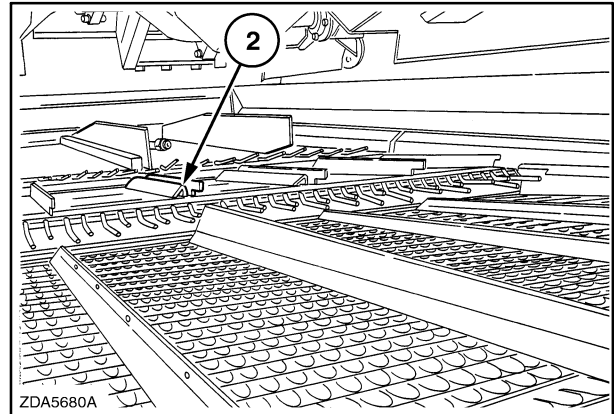
7. Continue operation.



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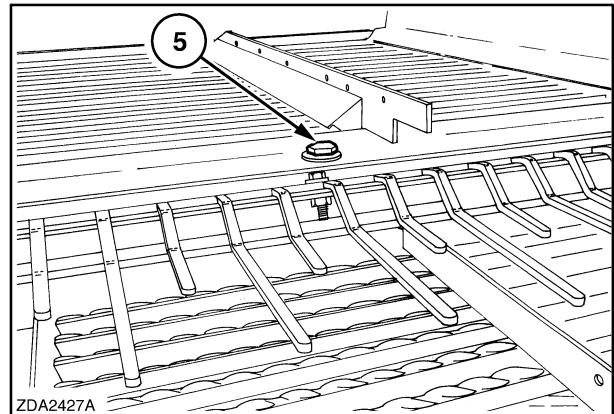
SECTION 3 – FIELD AND SITE OPERATION

3. Move slowly lever 2 (open/close) on the presieve until the presieve falls completely into his place.



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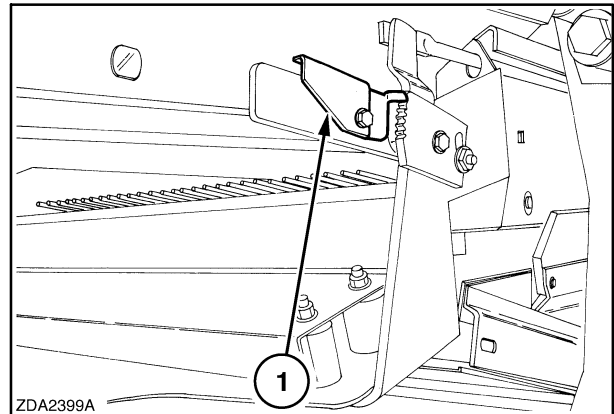
4. If ok, insert and tighten two bolts 5 on both sides of the presieve.



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5. Check by moving the lever 1 at the back of the shaker shoe.

NOTE: Moving lever 1 will cause the presieve to open or close.

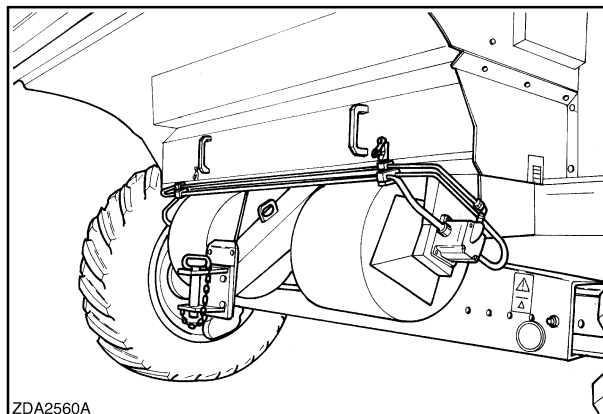


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Chaff blower (if installed)

The chaff blower blows all the material coming from the cleaning shoe into the straw chopper, to spread the chaff evenly across the full cutting width of the combine.

Remove the blower when threshing maize or sunflowers.



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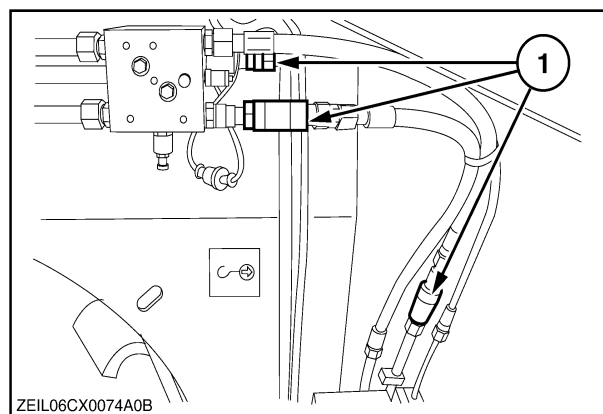
Do not use the chaff blower without engaging the straw chopper.

After disengaging the threshing mechanism, the chaff blower will continue to run for 15 seconds before disengaging to evacuate the remaining material.

Never disconnect the hydraulic couplers without remove the chaff blower completely.

To remove the chaff blower proceed as follows:

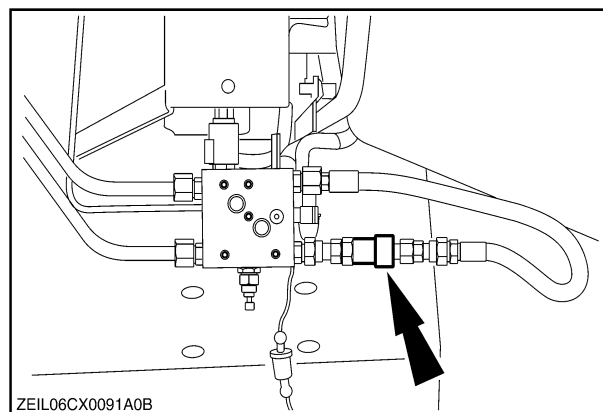
1. Disconnect the hydraulic quick-couplers (1) of the blower.



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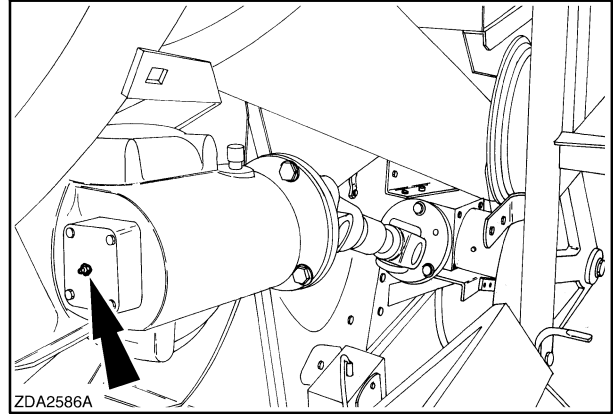
2. Connect the quick coupling as shown.

IMPORTANT: Avoid possible oil contamination by properly fitting the blanking plugs into the hydraulic quick couplers.



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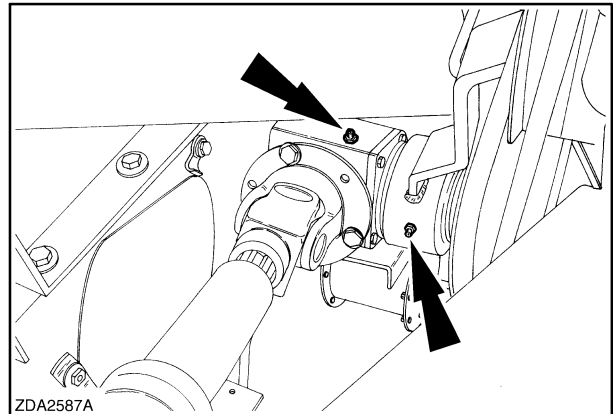
13. Cleaning shoe drive top gearbox (self levelling cleaning shoe)



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14. Cleaning shoe drive bottom gearbox (self levelling cleaning shoe)

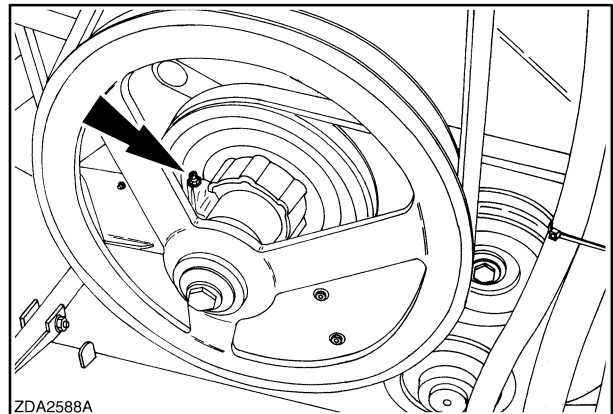
15. Cleaning shoe drive idler arm



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16. Slip clutch returns drive (self levelling cleaning shoe models)

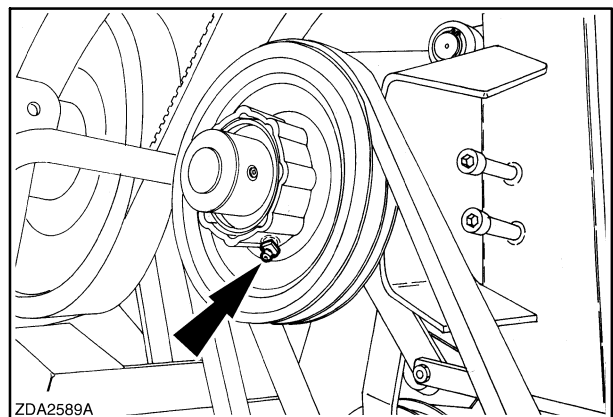
NOTE: Maximum 2 gun strokes every time the clutch is greased.



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17. Slip clutch returns drive (fixed cleaning shoe models)

NOTE: Maximum 2 gun strokes every time the clutch is greased.



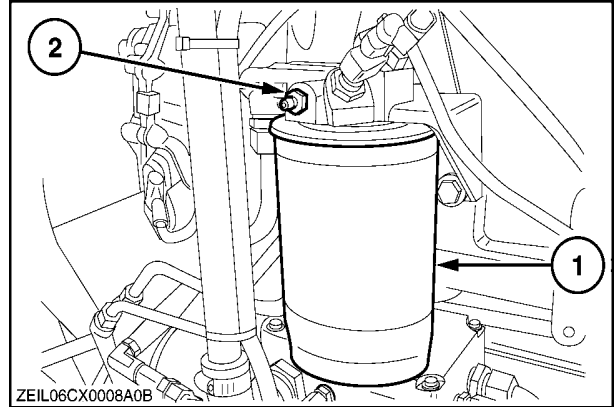
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- CX8040 - CX8050 - CX8060 - CX8070 - CX8080

To bleed the fuel system, proceed as follows:

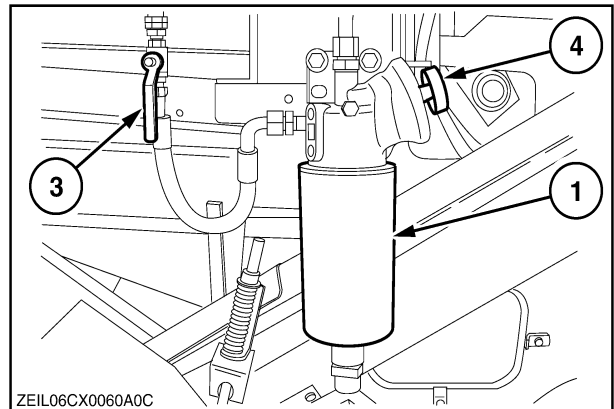
NOTE: This job needs to be carry out with two people.

1. Ensure there is fuel in the fuel tank and the tap (3) (fig. 73) is open.
2. Loosen the bleed screw (2) on top of the fuel filter (1) to allow the air to escape.



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3. On top of the water separator (1) is fitted a primer pump (4) which is used to prime the injection pump with fuel when the filter element has been changed.
4. Tighten the bleed screw (2) when fuel free of air bubbles escapes (fig. 72).



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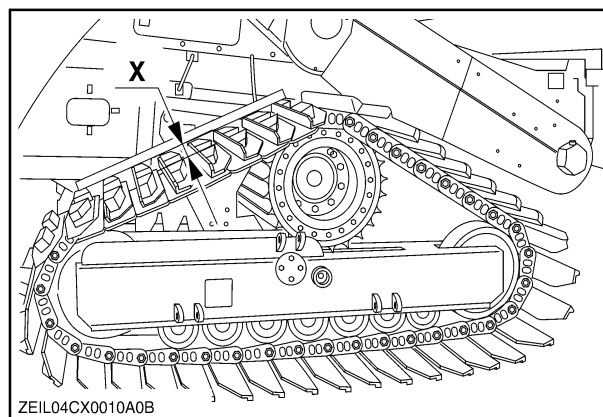
NOTE: To avoid possible fuel contamination, install a transparent housing onto the bleed screw, to catch the fuel in a suitable container and also to check if the fuel escaping from the bleed screw is free of air bubbles.

5. Start the engine.
6. Run the engine at low idle until the engine runs smoothly.

TRACKS (IF INSTALLED)

To use the tracks in optimal conditions, proceed as follows:

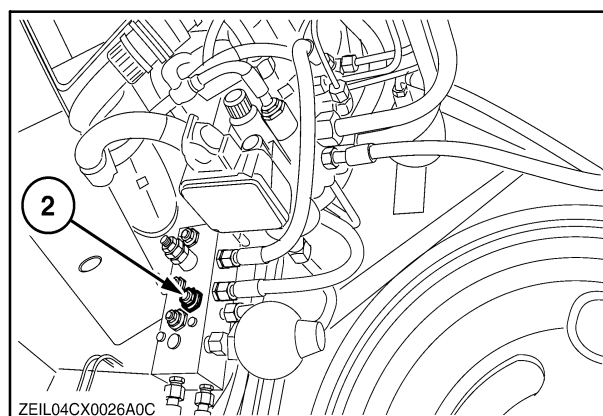
1. Check regularly the hanging down of the chain.
2. Place a straight bar on top at the backside of the chain as shown.
3. The distance between the bar and the lowest place of the chain should be between 20 and 35 mm (3/4" and 3/8").



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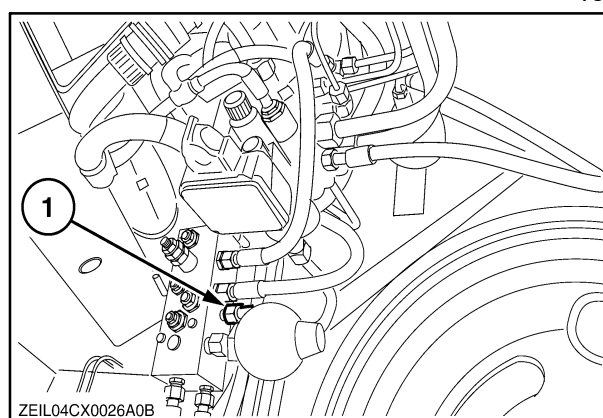
In case of doubt or deviation from the required tensioning, check and adjust tensioning as follows:

1. If there is no manometer installed, loosen the nut 2 of the valve located under the main valve at the left-hand side behind the steering platform.
2. Turn the Allen screw counter-clockwise a few turns to release the pressure.



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3. Connect a manometer at 1 (1/4").
4. Close the Allen screw again (clockwise) and tighten the nut 2 (fig. 197).
5. Activate the unloading tube "swing in" rocker button while driving a few times forward and reverse with the combine:
The pressure on the manometer should be read between 45 and 55 bar (653 and 798 psi).



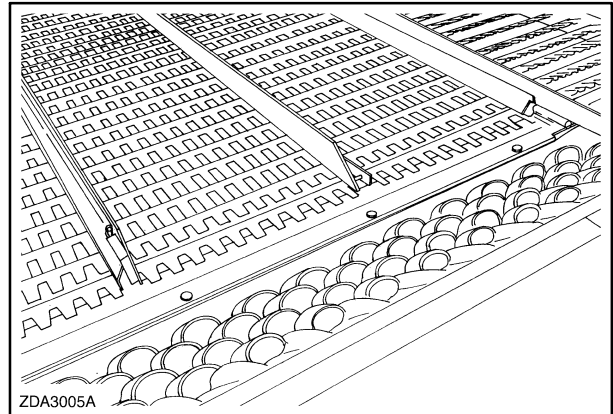
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THRESHING, SEPARATION AND CLEANING

CONCERN	POSSIBLE CAUSE	CORRECTION
Excessive cracked grain in tank.	<p>Drum speed too high.</p> <p>Excessive tailings.</p> <p>Concave clogged, or openings blocked by de-awning plates.</p> <p>Concave not parallel to drum.</p> <p>Roto-thresher concave clearance too small.</p> <p>Grain being cracked in elevator.</p> <p>Clearance between drum and concave too small.</p> <p>Uneven feeding, or wads entering drum.</p> <p>Not enough material entering combine.</p>	<p>Reduce drum speed and/or open concave slightly.</p> <p>See the concern described under “Excessive tailings”.</p> <p>Clean concave and open de-awning plates.</p> <p>Adjust concave parallel to the drum.</p> <p>Adjust clearance.</p> <p>Adjust grain elevator chain tension.</p> <p>Increase concave clearance. Reduce drum speed slightly.</p> <p>Adjust straw elevator chain. Check feed auger height and retractable finger adjustment.</p> <p>Lower head and increase ground speed.</p>
Grain loss over straw walkers	<p>Straw walkers overloaded due to excessive ground speed.</p>	<p>Reduce ground speed to decrease amount of material entering combine. Raise head. Increase concave-to-drum clearance if straw walkers have become clogged due to the straw being broken up excessively. (It may be necessary to reduce concave-to-drum clearance if overloading is the result of incomplete threshing. In this case, it may be desirable to increase the drum speed).</p>

Adjustable upper sieve 1-5/8" and 1-1/8"

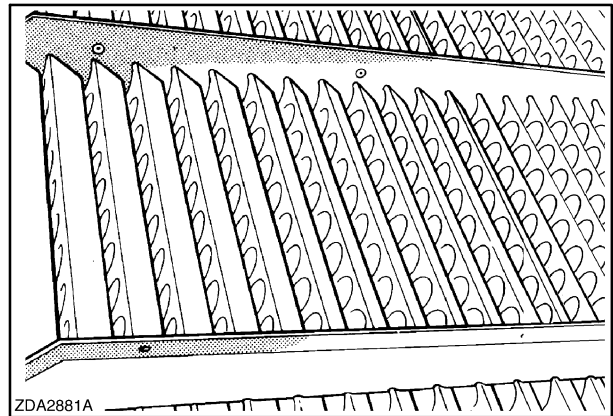
This sieve is recommended as an upper sieve when harvesting maize.



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**Adjustable upper sieve
(Petersen 1-5/8" and 1-1/8")**

This sieve can be fitted as an upper or lower sieve to obtain a cleaner sample, especially in oil seed rape.



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Closz upper sieve (1-5/8")

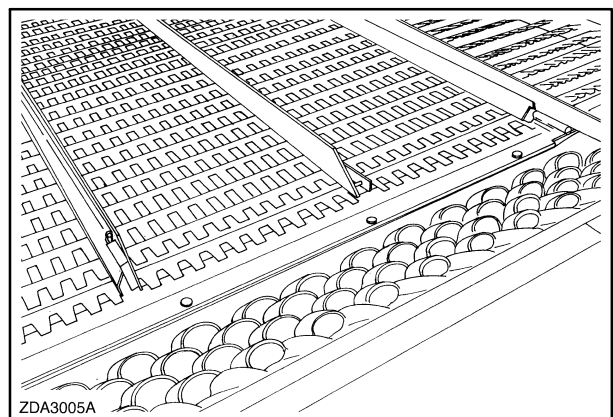
This sieve is available to increase the cleaning capacity in conditions where excessive amounts of barley or wheat awns restrict the performance of the standard 1-1/8" small grain sieve.

Stainless steel curved louver maize upper sieve

This upper sieve with stainless steel curved louvers is recommended for wet maize conditions.

Graepel sieve extension

This extension can be fitted at the rear of the upper sieves, in place of the finger rake, to prevent short straw from passing into the returns auger.



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