OPERATOR'S MANUAL

FENDT

FENDT 8370 P

FENDT 8370 P AL

FENDT 8400 P

FENDT 8400 P AL

AGCO International GmbH - Victor von Bruns-Straße 17 - 8212 Neuhausen am Rheinfall - Switzerland

D3151100M4 - S/N 580010001 English

1

1. General Information

Disposal of batteries

Batteries contain substances which, if not handled correctly, might be dangerous for the health of people and the environment. Batteries are marked with a decal depicting a crossed-out wheeled bin (*fig. 7*). It symbolises that worn-out batteries should be collected seperately, rather than being disposed of with unsorted household waste.

It is important that worn-out batteries are handed in to the collection schemes which have been set up. This way it is ensured that batteries are reused according to legislation and that the environment is not unnecessarily affected. Among other places, worn-out batteries can be handed in to workshops which take back batteries, to local authorities which have set up collection schemes, i.e. at recycling centres, or to receiving stations established by battery manufacturers.

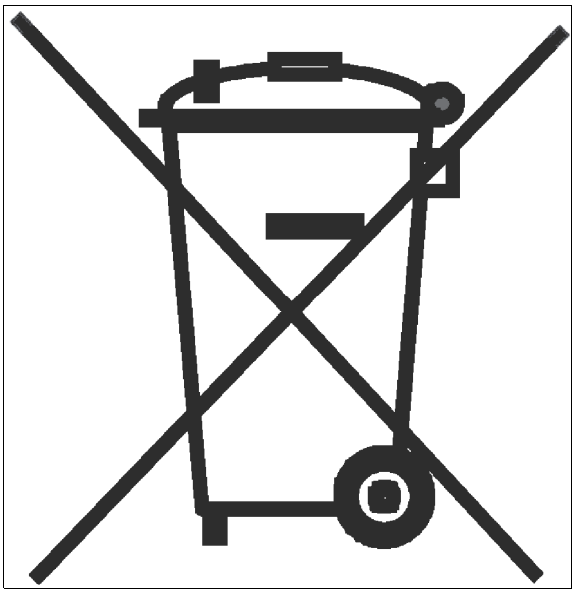
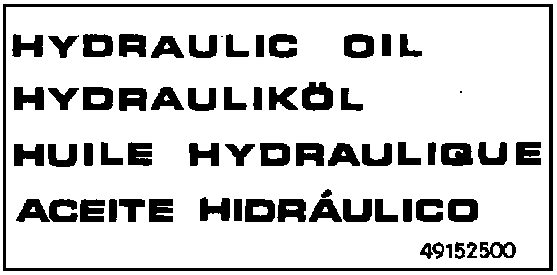
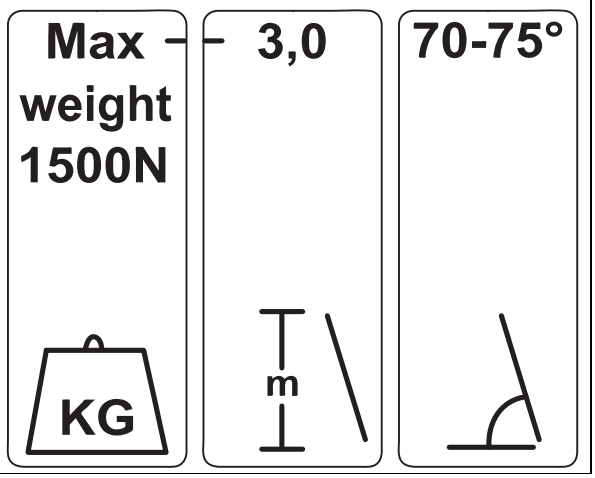
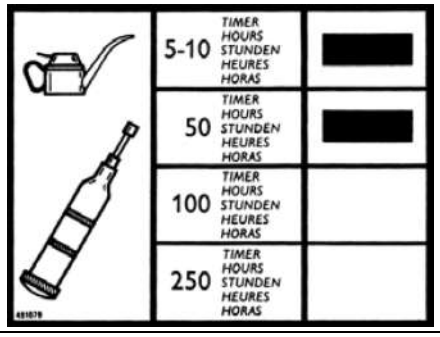
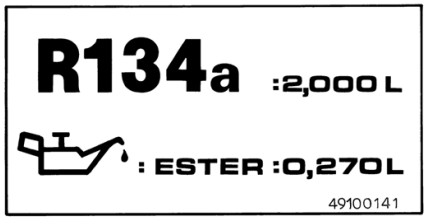


Fig. 7. I018222

On the hydraulic oil tank.	
On the access ladder to the engine compartment.	
On the right-hand side window.	
On the platform at the cab ladder.	
On the engine hood.	

2.1.7 Position of CE Markings and Type Plate

T006492

Front:

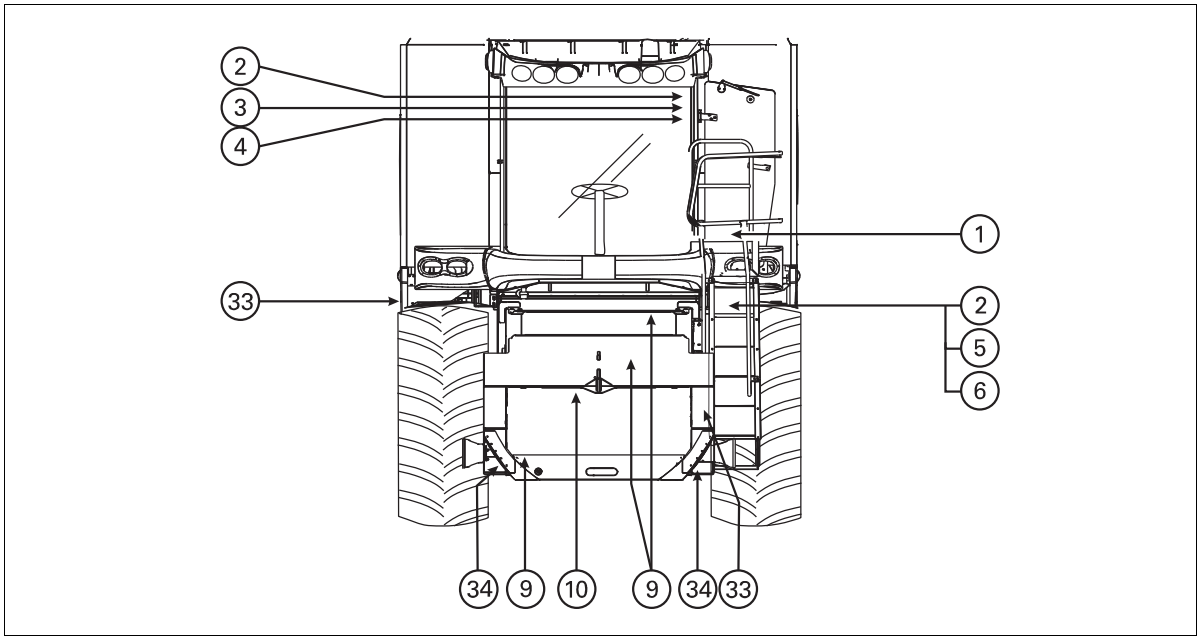


Fig. 2. I015655

Left-hand side:

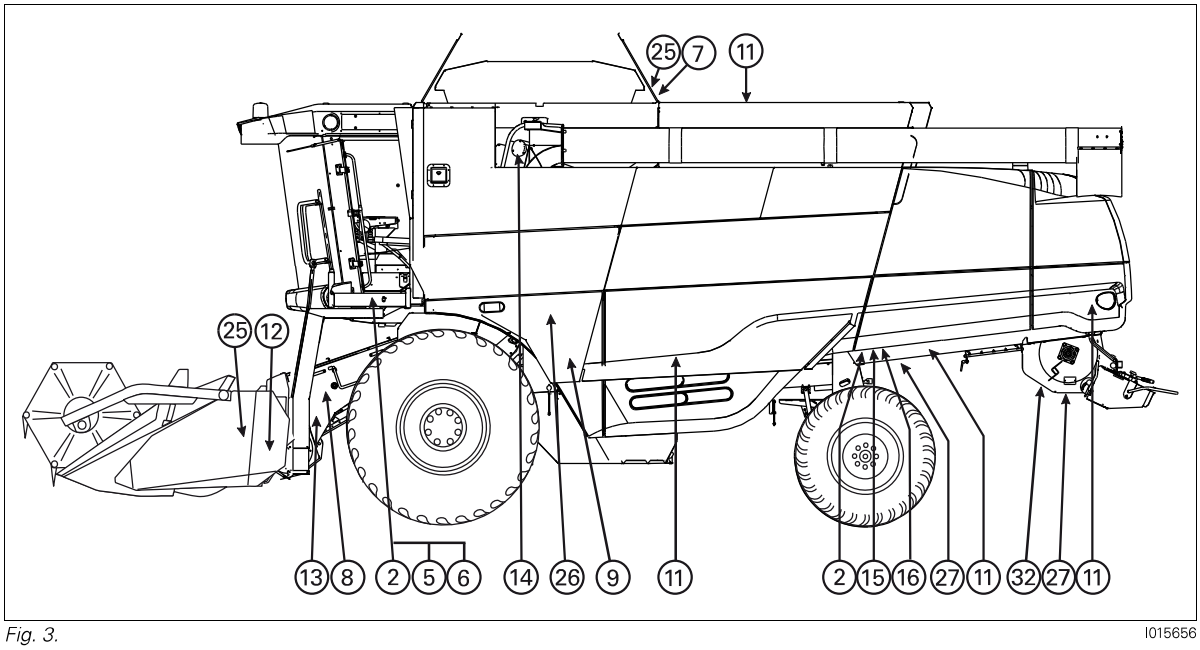


Fig. 3. I015656

3.3 Safety Precautions - on the Move

3.3.1 Safety Precautions - on the Move

T006055

WARNING:
Never start the machine unless persons near the machine are aware of your intentions to start. Check the immediate surroundings before starting - Children!

WARNING:
Never start the machine unless all safety guards are fitted and secured.

WARNING:
During road transport the switch for multifunction lever and cutting height control must be switched off, to avoid unintentional lowering of main crop elevator and table.

WARNING:
Never adjust the steering column on the move.

WARNING:
Never adjust the operator seat on the move.

WARNING:
During transport, the ladder must be turned in front of the operator cab.

WARNING:
Be particularly cautious when driving downhill with full grain tank. Never change to higher than 2nd gear. Never change into neutral. Stop the machine slowly.

WARNING:
Never travel downhill in neutral gear, always change into low gear (engine braking effect!). Always gear down before starting downhill.

WARNING:
Repairs of the cooling system to be carried out only by cooling system specialists.

WARNING:
Avoid any contact with liquid refrigerant.

WARNING:
See a doctor immediately in case of sprays in the eyes.

WARNING:
Never leave the combine unattended without stopping the engine, setting the multifunction lever into neutral and applying the parking brake. Lower table and main crop elevator completely, remove ignition key and main switch handle from the switches.

WARNING:
On slopes secure the combine against rolling by applying the parking brake and/or inserting sprags under the wheels.

WARNING:
The unloading auger must always be turned completely in during road transport.

3.6.3 EF declaration of conformity for the operator seat

T006101

ENCL. 3

CERTIFICATE OF THE MANUFACTURER
ACC. TO EG REGULATIONS 89/392/EWG

We Grammer AG, Köferinger Str. 9 - 13, 92245 Kümmersbruck bei Amberg
(name and address of company)

certify responsibility that the product

MSG 85/732, Drawing-No. 141 521
(model, type)

which is concerned by this certificate, is in accordance with the appropriate, fundamental safety- and health requirements of EG - Regulations 89/392/EWG, Par. only Abs.3.2.2.

(if applicable)

as well as the requirements of other appropriate EG - Regulations.

EWG 78/ 764 class III
(title and / or number and date of issue of other EG - Regulations)

(if applicable)

For proper application of the safety- and health requirements stipulated in the EG - Regulations the following norms and / or technical specifications have been applied.

ISO 3776
(title and / or number and date of issue of other Regulations)

Attention:

We point out that operation is prohibited until it is certain that the machine, in which this product will be installed, does correspond with the appropriate regulations.

Haselmühl, 17.11.99
(place and date of issue)

(name, title / function and sign)
- Testing department -

Fig. 2.

I016610

3.10.2 Main Light and Work Light

T006094

(*fig. 2*)

The main light (1), low/high beam, is placed to the right and left of the operator cab.

The main light is turned on with the toggle switch (2) in the cab panel.

First step is parking light, second step is main light. There is a pilot lamp for high beam in the steering column.

The side light for unloading auger and crop is turned on with the switch (3).

The work light is turned on with the switch (4), and then the main light turns off automatically.

The windscreen wiper (5) is switched on with the switch (6).

The hazard warning light is turned on with the switch (7).

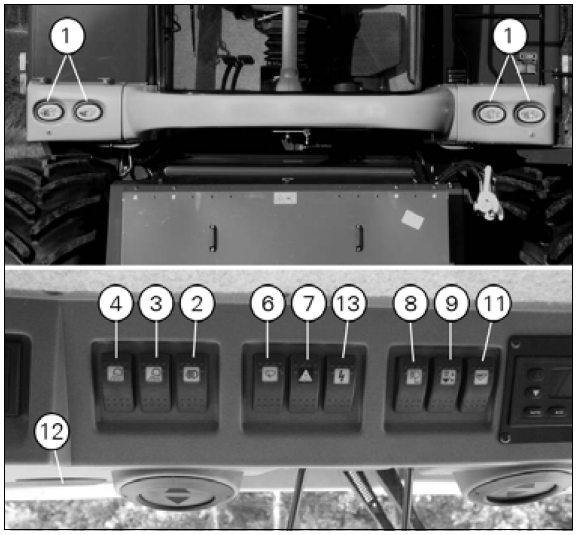
The grain tank light is turned on with the switch (8).

The three-stage switch (9) turns on the rotary beacon (10) for transport and grain tank warning to alert the grain waggon.

The toggle switch (11) turns on the cab light (12). Position I for the right-hand side. Position II for both right- and left-hand sides.

The switch (13) closes the circuit for the 4 external connectors for work lamps.

The fuses and relays for all functions in the cab panel are placed in the installation cabinet in the cab floor (14).



I016590

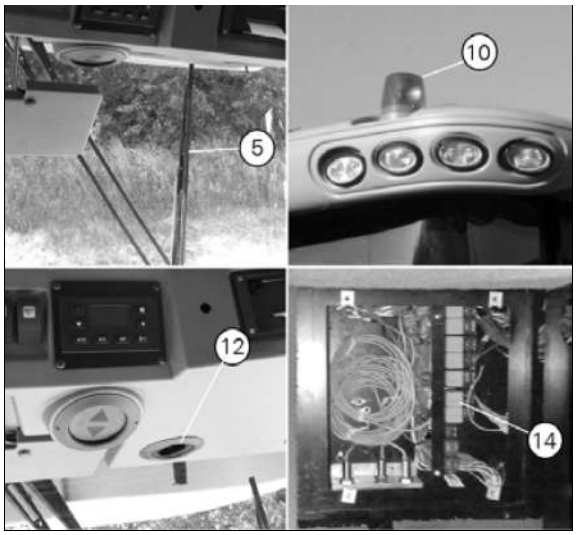


Fig. 2.

I016591

4. Operation, FIELDSTAR

You can choose between them with the key "Next..." .

Each Harvest page includes up to 8 functions, shown as 8 bars, figures or symbols.

The function indications on "Harvest 1" and "Harvest 2" are interchangeable and can be combined so that when changing between 1 and 2 you get an indication of 16 functions.

"New Information" Menu

(*fig. 1*)

If the required function is not displayed on the screen, press the key at the function to be replaced.

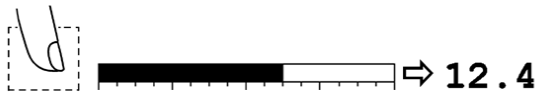
If the required function is not displayed on the first "New information" picture, press the key "Next...", until the function appears.

When the key of the required function is pressed the screen picture returns to the Harvest menu, and the marked function has now been replaced by the selected function. If "No function" is selected, a blank key will replace the marked function. In this way you are able to simplify your Harvest menu.

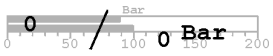
Digital Reading

(*fig. 2*)

It is possible to change between bar reading and digital reading of the functions in the Harvest menu. To change the reading of a function, press the screen immediately to the left of the specific function.



NOTE: *When digital reading is selected, "Direct adjustment" is possible by pressing as if there was a bar behind the digital figures. The function "Shortcuts" can still be used.*



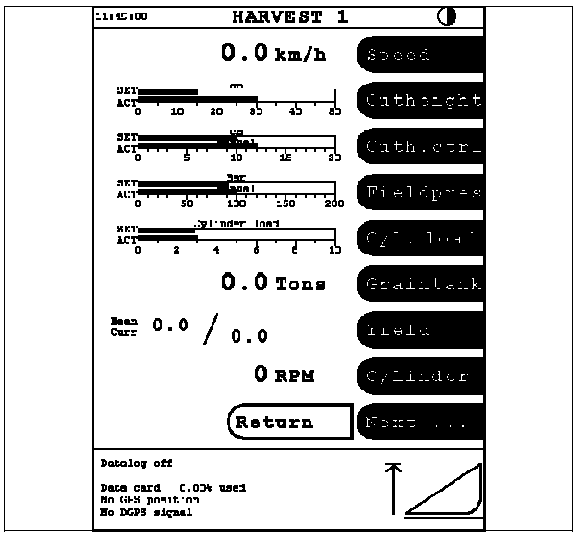


Fig. 2. I014971

Direct adjustment

(*fig. 3*)

The following functions can be adjusted by directly pressing the bar at the desired adjustment value. You may use a finger nail to make the selection more accurate.

Cutting height
Cutting height control
Field pressure
Cylinder load
Cutting width

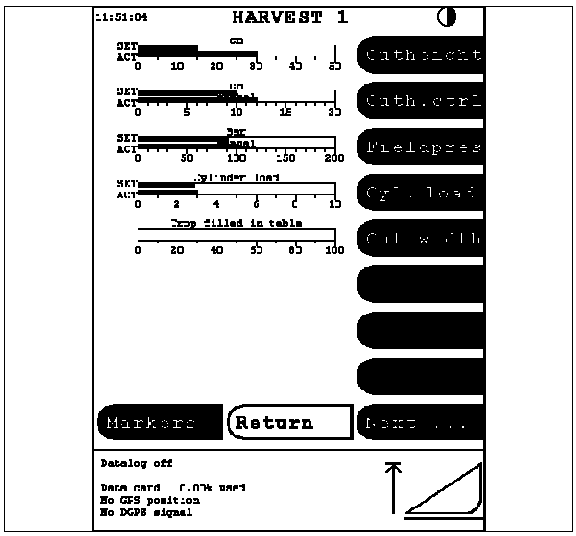


Fig. 3. I014972

Engine hours are recorded when the engine is running.

Harvest hours are recorded when engine and threshing unit are running, no matter whether the machine is moving.

The area is recorded when engine and threshing unit are running and the table is less than 50 cm above the ground. Forward speed must be more than 1 km/h.

Trip Data and Field Data

(*fig. 1*)

These functions register hours harvested, area and weight, and give an overview of the individual fields or part fields.

"Trip data" and "Field data" can be printed out before they are deleted by pressing "Print".

In the menu "Trip data" the harvest hours are recorded when engine and threshing unit have been started. The area is recorded when engine and threshing unit are running and the table is less than 50 cm above the ground.

In the menu "Field data" hours harvested are recorded when engine and threshing unit are running and the table is less than 50 cm above the ground. Forward speed must be more than 1 km/h.

Trip data and Field data can both be zeroed by pressing "Delete", for instance when a field is completed.

Zeroing must be confirmed by pressing "Yes". If the "No" key is pressed, the data will not be zeroed.

4.6.2 Data Logging in General

T006084

(*fig. 2*)

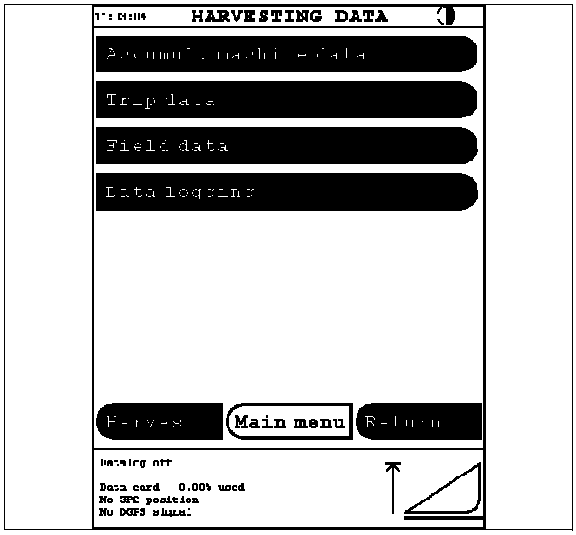
If the machine is equipped with the function "Data logging", this will appear from the screen picture "Harvesting data". Using this function it possible to create and handle harvest jobs on the terminal.

If data is logged without GPS, the function serves as an advanced version of the function "Field data".

If the machine is equipped with GPS and Fieldstar Office Software version 4 or higher is used, it is possible to record a number of data and draw **yield maps** and other maps with different types of machine data or user defined markers.

The following conditions must be fulfilled to be able to log data:

1. "Data logging" must be activated in the machine setup, see *fig. 2*.
2. A data card must be inserted in the terminal.
3. The data card must be formatted using Fieldstar Office Software version 4 or higher.



I014919

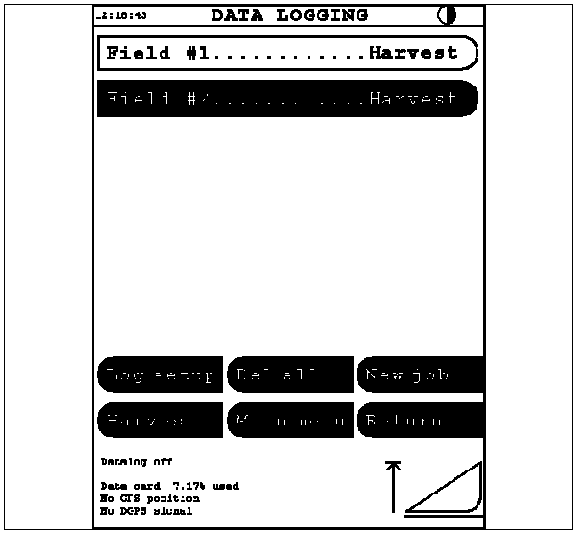


Fig. 2.

I014943

Selecting Position Data

Position Data, *fig. 26*
The data that can be logged together with the GPS positions can be selected from the menu "Data logging | Position data". Yield and other essential data cannot be selected as they are logged regularly.

All data is logged simultaneously according to the selected time or distance rate. The logged data can be presented on separate maps in the Fieldstar Office Software.

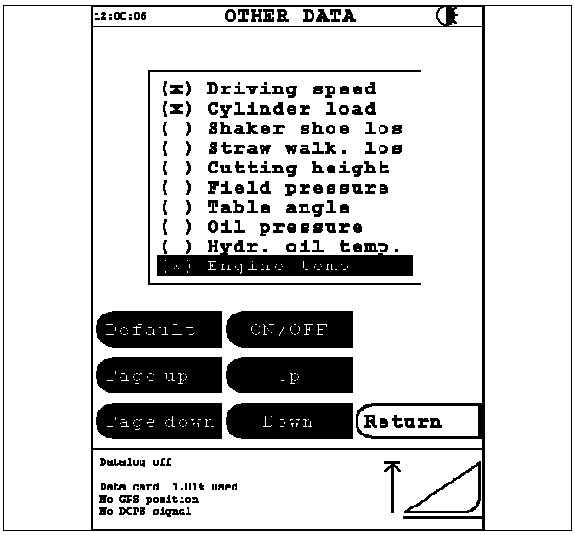


Fig. 26. I014874

Setup of Logging Rate

Position Logging Rate, *fig. 27*
The rate at which yield data and other "Position data" are recorded on the data card, can be adjusted to different conditions. Data can be recorded at time intervals, according to a distance or the working width of the cutting table. Recording of data at short intervals gives a high accuracy but will quickly fill up the data card. A specific logging rate can be selected using the keys "Page up" and "Page down" until the relevant page is displayed. Select the type of rate by using the "Up" and "Down" keys or by pressing directly on the specific type of rate. Then press "Enter" to save the new logging rate.

As a rule-of-thumb set the position logging rate at "5 m" and "Other logging rate" at "OFF".

NOTE: *If the position logging rate is set at "OFF", no data will be recorded which means that no yield map can be generated.*

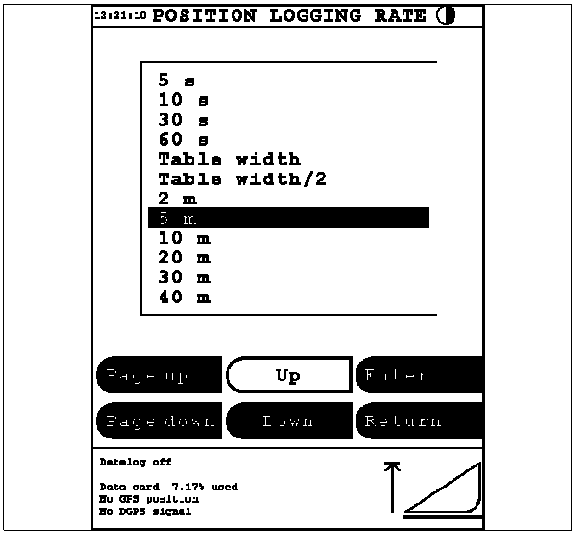


Fig. 27. I014986

4.9 Coding

4.9.1 Coding in general

T005679

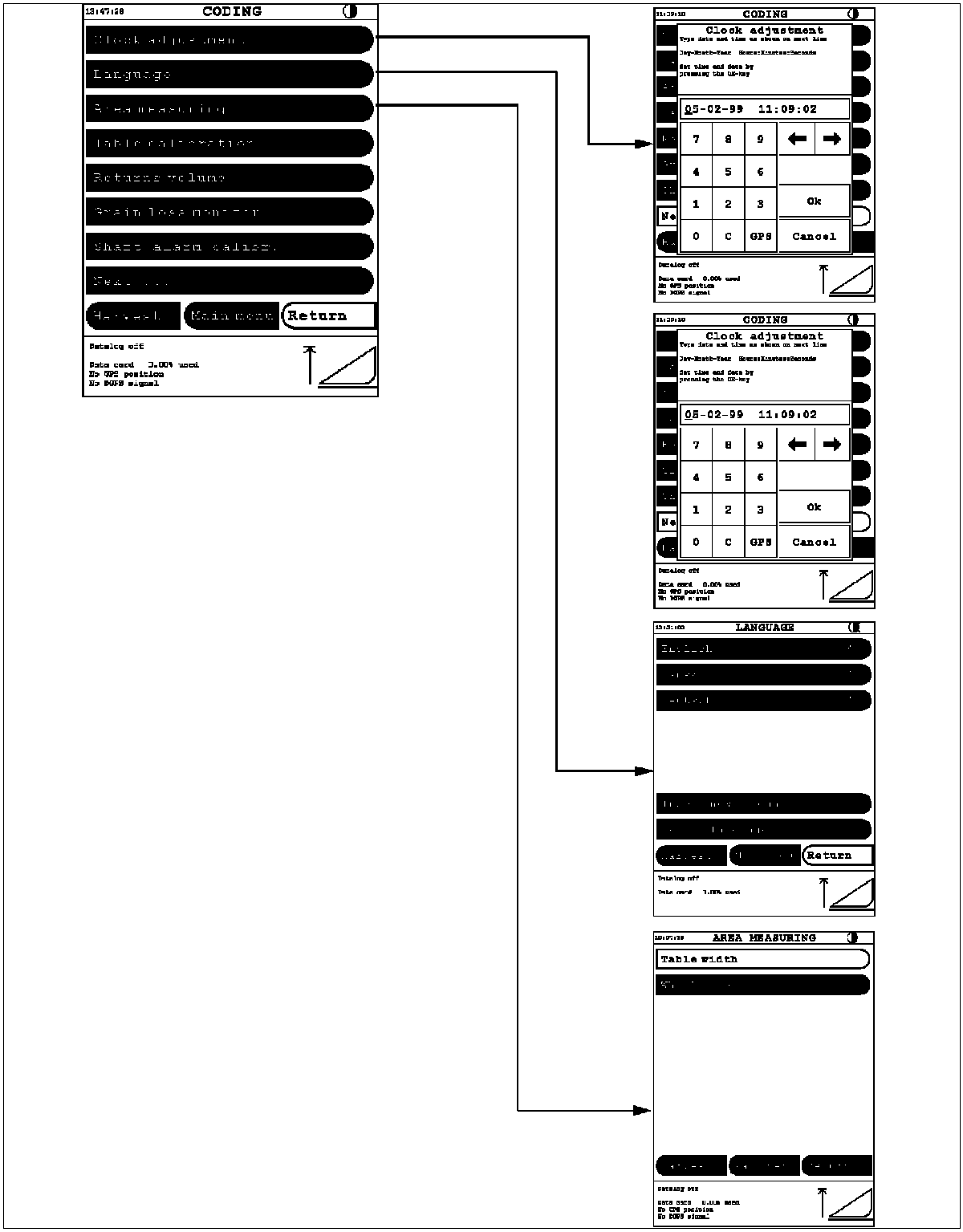


Fig. 1. I014976

Having selected "CODING" from the "MAIN MENU" the functions requiring adjustment, zeroing or calibration for correct setting, can be called up.

Before a new machine is put into operation for the first time, all codings should be checked. Further checks or coding are normally only required after repairs in connection with one of these functions.

4.10 Settings

4.10.1 Harvest Settings

T006283

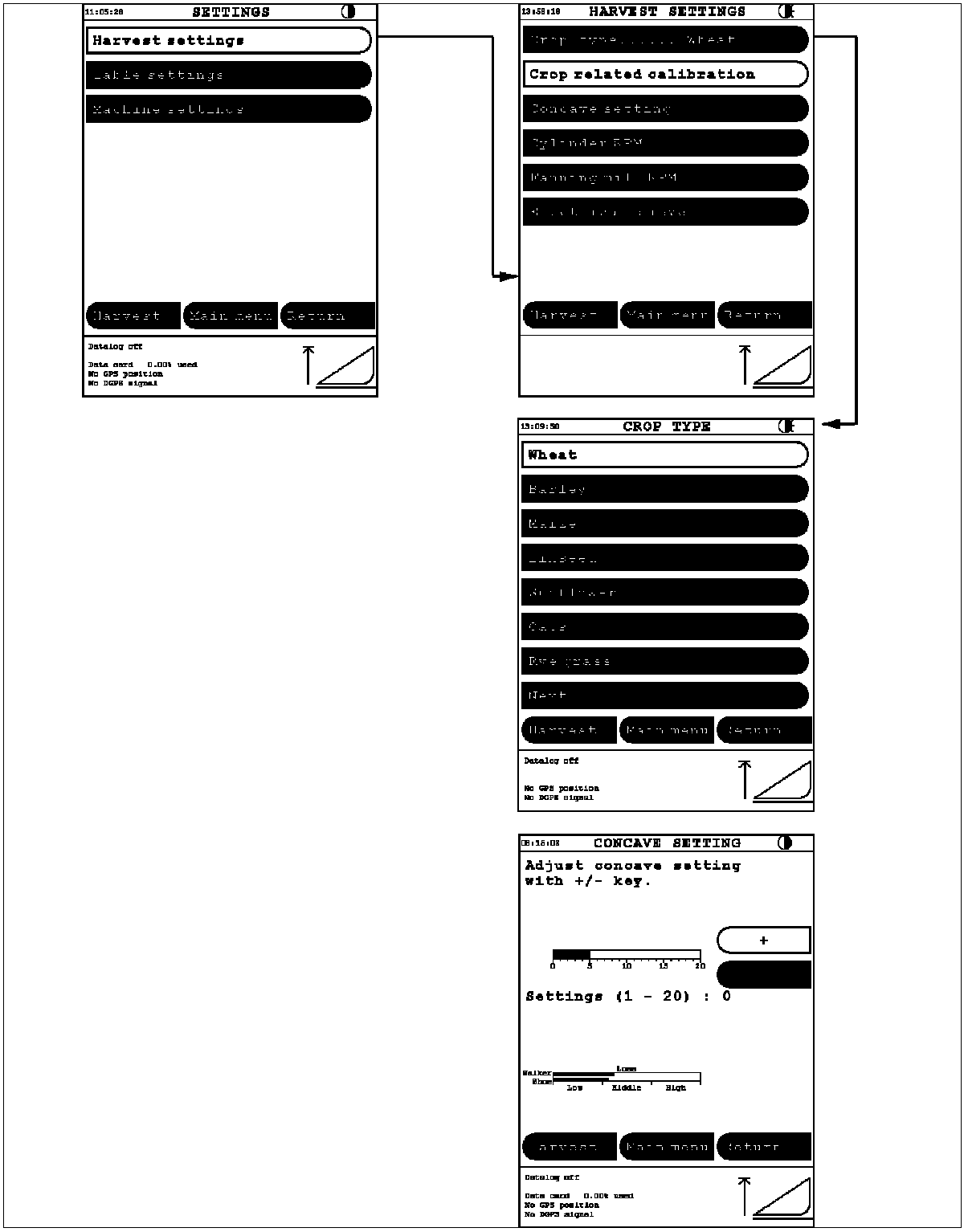


Fig. 1.

I014899

(*fig. 1*)

The menu can also be called up from the Harvest menu by pressing the relevant shortcut key for Harvest settings.
Operation of the individual functions is described in the sections below.

4.12 Grain Loss Monitoring

4.12.1 Sensors

T006291

(*fig. 1*)

The grain loss monitor in FIELDSTAR consists of a tubular sensor (2) at the shaker shoe and a plate sensor (1) in two of the straw walkers.

The indication can be called up on the "Harvest Picture" as one of the optional functions. The bar on the screen is divided into two, one for the straw walkers and one for the shaker shoe.

If the machine is equipped with yield meter, the grain loss monitor is dependent on capacity. Without yield meter, it is dependent on forward speed.

Check regularly that the sensors are clean, particularly under wet harvesting conditions.

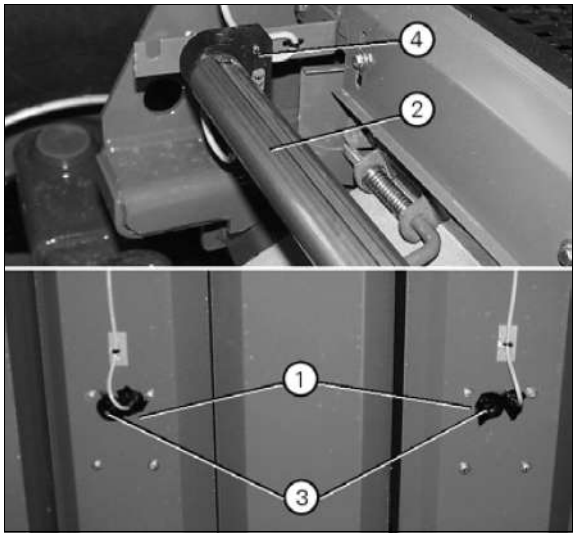


Fig. 1. I016686

4.12.2 Adjustment of Grain Loss Sensors

T005695

(*fig. 1* og *fig. 2*)

Prior to the adjustment of the grain loss monitor indication on the screen, the plate sensors (1) in the straw walkers and the tubular sensor (2) must be adjusted to the current crop. This is done with the switches (3) and (4), (*fig. 1*), providing adjustment possibilities for small, normal and large grains, respectively.

- Small grains (oilseed rape, mustard, herbage seed)
- Normal grains (all cereals)
- Large grains (peas, maize)

Then adjust the machine at an adequate capacity and an acceptable loss in the field. Adjust the bars for straw walkers and shaker shoe separately whilst working with the known loss.

The screen picture for adjustment of grain loss monitor can be called up from the menu "Coding | Grain loss monitor | Straw walkers" and the bar for straw walkers, (*fig. 2*) can be adjusted into the medium range using the "+" or "-" key. This adjustment does not change the sensitivity of the loss sensors, but only the indication on the bar.

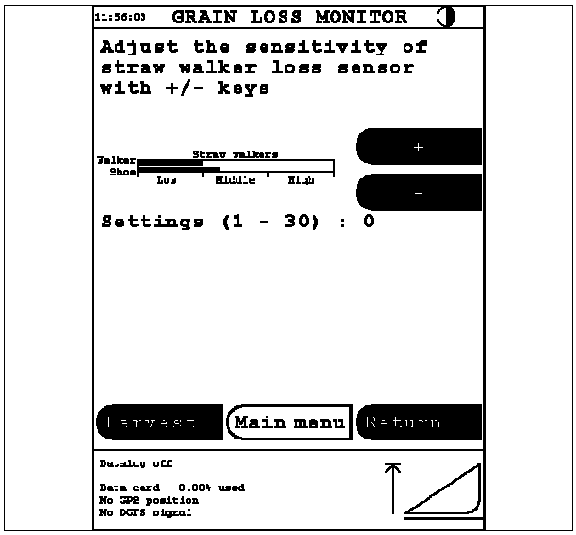


Fig. 2. I015001

4.15.4 Using the Moisture Meter

T006299

At start-up, the moisture meter is emptied of any crop residue to be ready for the first measuring.

The measuring takes place only when the combine is harvesting.

When the moisture meter is full, the water content is measured and the moisture meter is emptied to be ready for the next measuring.

When the threshing unit has stopped, the moisture meter is emptied automatically and is then ready for the next measuring.

Crop moisture and temperature can be read from the bars in the Harvest menu (*fig. 1*).

NOTE: *The moisture meter must be filled and emptied 10 times before the reading is of any use. Measuring takes place only while the machine is harvesting.*

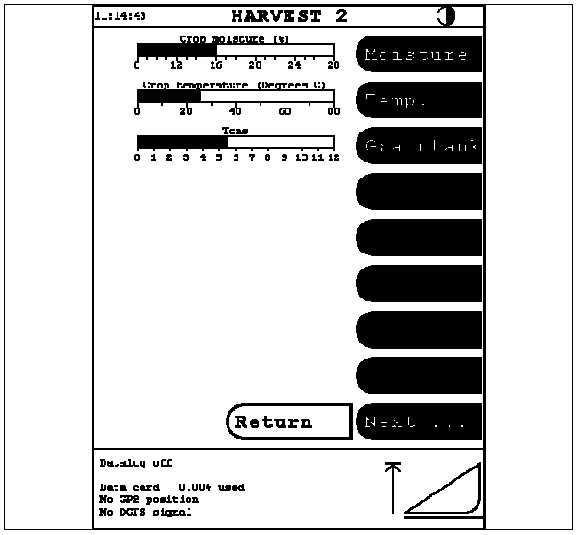


Fig. 1. I014905

Selecting Crop Type

The various crop types react electrically quite differently to moisture and temperature.

The computer allows for this and corrects the signal so that the right moisture percentage can be calculated.

To permit such correction, the right crop must be selected before the harvest job is started.

If no specific correction curves are available for the selected crop, the computer will use a standard correction curve. Correction curves are available for instance for wheat, barley, oats and rye.

4.15.5 Cleaning the Moisture Meter,

T006300

(*fig. 2*)

To achieve optimum recording of the crop moisture, the measuring chamber of the moisture meter must be clean.

Check the moisture meter daily through the cover (1) for deposits inside on level sensor (2), print board (3) and the sides of the measuring chamber.

Loosen the 5 nuts (4) to dismount the moisture meter for cleaning. Remove the print board (3) from the moisture meter housing by loosening the three screws (5). Clean the print board with a damp cloth and use a brush and compressed air for cleaning the measuring chamber.

When assembling and mounting the moisture meter be careful to mount the seals between moisture meter and tank filling elevator correctly.

NOTE: *The print board (3) contains sensitive electronics and must be handled with care. Do not wash or submerge in water.*

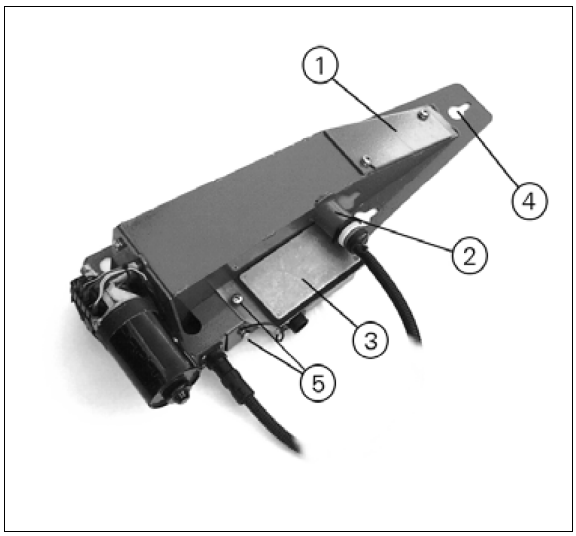


Fig. 2. I016734

It is advisable always to engage the available automatic table height functions. When harvesting herbage seed or laid crop, you just set the cutting height control at a height of 0-2 cm.

If the table is operated manually using the buttons in the multifunction lever, the control functions are temporarily inactivated until the automatic button is pressed. The field pressure control will, however, still protect the table against damage.

4.22.2 Start-up and Adjustment of Constant Flow

T006324

Constant Flow is designed for standing, uniform grain crops, which means that optimum function is achieved in such crops. Before using Constand Flow it is necessary to ensure that the electronic functions controlling Constant Flow are accurately ajdusted and that the machine is in 2nd gear.

Examine the condition of the straw before adjusting Constant Flow. Soft, green straw puts up stronger resistance in the cylinder than dry and stiff straw. The condition of the straw of certain grain crops may vary considerably from one variety to the other. Therefore, sensitivity and response must always be adjusted to the specific crop to achieve optimum utilisation of the Constant Flow system. "Cylinder load", "Sensitivity" and "Constant Flow response" must be preset before you start threshing. Call up the menu "Settings | Machine settings | Constant Flow" and set "Cylinder load - SET" at 4-4.5 using the "+/-" keys and set "Sensitivity" at 12 and "Constant Flow response" at 5 using the instrument bars.

Adjustment of Sensitivity, *fig. 2*.

Start threshing the crop while Constant Flow is disengaged and continue working until you have achieved optimum load and adjustment of the machine. Change to the menu "Machine settings | Constant Flow" while the machine is cutting and read the bar for "ACT" load. If the "ACT" load bar is below 4, the sensitivity must be increased until the bar reads 4-4.5 at normal load. Constant Flow is designed for standing, uniform grain crops, which means that optimum function is achieved in such crops. At normal load the sensitivity bar should read a value between 8 and 15. If the value is below 8, a new zeroing of the "Cylinder load" should be carried out.

NOTE: *When the sensivity is adjusted up/down the bars for "SET" and "ACT" loads are adjusted accordingly. Adjust the "SET" bar at the previously set value of 4-4.5 after an adjustment of the sensitivity. The sensitivity does not affect the speed control, only the reading of the set "SET" and current "ACT" loads. Higher sensitivity gives increased indication on the bar.*

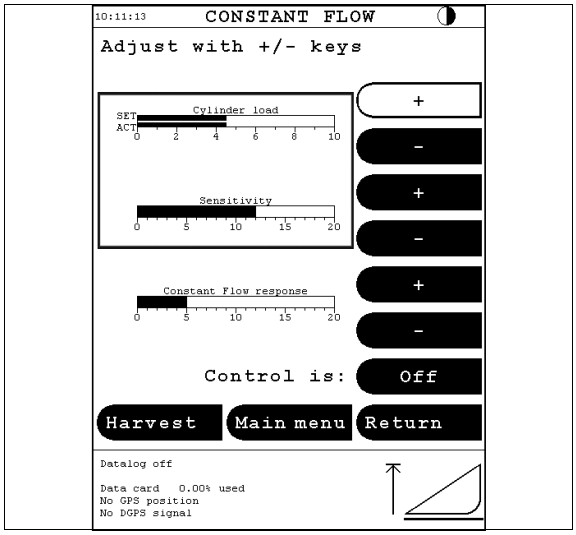


Fig. 2. I014977

Auto Level combine engaged and Auto Level table disengaged

This combination is applied when the combine is working with a cutting height of more than 20 cm, for instance when direct cutting rape, sunflowers, etc.

The same combination is applied when the machine is fitted with a special header without ground sensors, for instance maize or sunflower headers.

The position of the machine when threshing is controlled by the sensor in the FIELDSTAR system.

The position of the table parallel with the traction wheels is monitored and adjusted by FIELDSTAR by means of the sensor on the crop elevator.

Auto Level combine disengaged and Auto Level table engaged

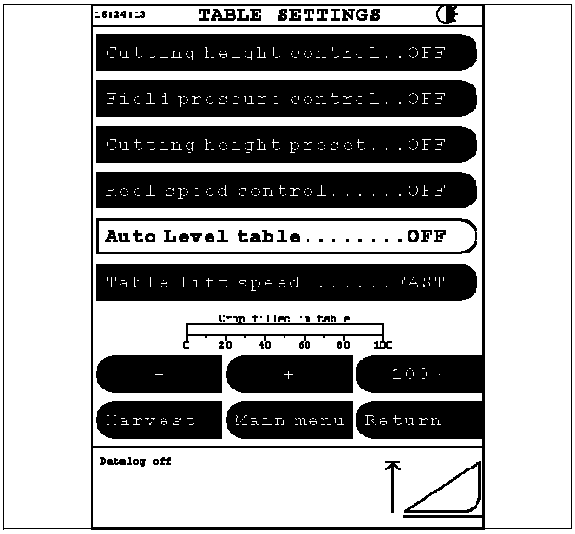
This combination is used where the ground does not require engagement of Auto Level combine. The table will follow the ground dependent on which function is activated in the menu "TABLE SETTINGS".

Auto Level combine disengaged and Auto Level table disengaged

With this combination AUTO LEVEL combine and Auto Level table can be levelled manually through FIELDSTAR.

NOTE: *The machine must be raised into harvesting position before entering the uncut crop irrespective of the combination chosen.*

NOTE: *Auto Level combine must be disengaged during unloading on the move. If not, the unloading auger may get damaged if the Auto Level system tilts the machine to the left (fig. 3).*



I014994

Fig. 3. I016809

5.3.4 Priority of hydraulic functions

T006120

(*fig. 4*)

The electric/hydraulic functions are given priorities to permit the Auto Level functions, unloading auger out/in and reel fore/aft to be activated at the same time. The Auto Level functions cannot be activated as long as a function of higher priority is active.

At turns while Auto Level is active, "Table down" (1) and "Automatic table control" (2) can be activated with the buttons in the multi-function lever, at the same time as the machine changes position relative to the ground.

Fig. 4. I016740

5.9 Troubleshooting

5.9.1 Trouble shooting in general

T005660

(*fig. 1*)

Malfunction of Auto Level combine or table may be caused by a calibration error or defective sensors, mechanical connections or job computers.

Carry through calibration whilst the machine is stationary on level ground, Auto Level combine and Auto Level table must be disengaged.

If during calibration the alarm "Calibration error" appears on the terminal, check sensor adjustments and mechanical connections.

Check that the sensors for the right- and left-hand wheels and the table are properly tightened and not bent.

Check that the arm is tightened to all sensors.

Check that the connecting rods are properly tightened and straight.

If it is still not possible to carry out calibration correctly, contact your authorised service personnel.

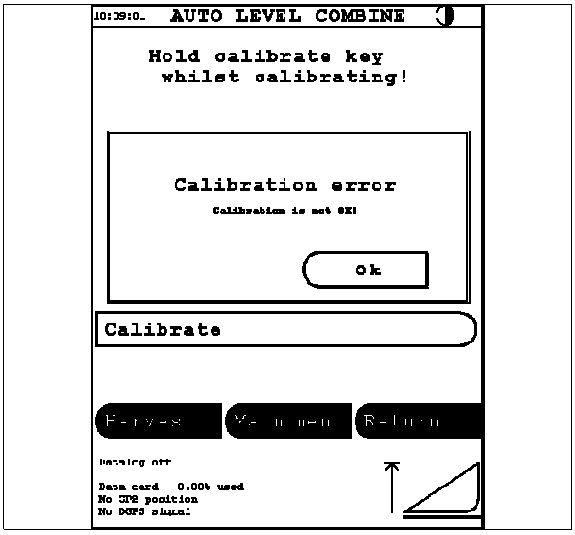


Fig. 1. I014880

5

6.3 Air-intake

6.3.1 Filter system

T005663

(*fig. 1*)

The engine air-intake is equipped with prefilter, exhaust aspirated air cleaner and safety filter.

WARNING:

The following operations may be carried out by authorised service personnel only.

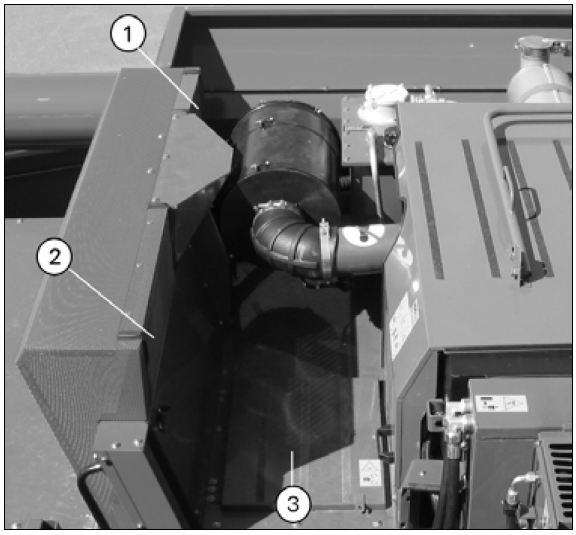
The prefilter on top of the straw hood is cleaned by opening the perforated panels (1) and (2) and sweeping or blowing dust and chaff out though the panel (2). The material can be removed though the panel (3) onto the straw walkers.

Dust and chaff is removed automatically from the exhaust aspirated air cleaner system (4) through the hose (5) and the ejector (6).

To clean the air cleaner element (7) release the spring locks on the cover (8) and remove the cover. Clean the air cleaner element (7) from the inside with compressed air, max. 7 kg cm² and min. 25 mm distance from spray pistol to element. FIELDSTAR will give alarm if the air cleaner is clogged.

Do not clean the safety filter (9), but exchange it if clogged. Check filter and seal regularly for damage.

NOTE: *When harvesting very dusty crops or under conditions with adverse winds, it may be necessary to clean the prefilter several times a day.*



I016824

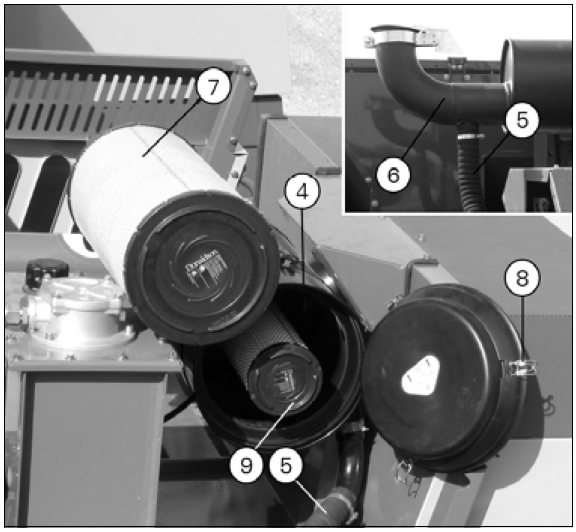


Fig. 1.

I016813

6

Reading Failure Codes

1. Turn the ignition key into position 1.
   Do not start the engine!
2. Press the diagnosis switch three times within four seconds.
3. After a short pause the last failure code can be read from the signal lamp. This code is repeated until the diagnosis switch is pressed once again. The failure code can be read as follows: A long flash (1.5 sec) shows the hundreds, a medium flash (1.0 sec) the tens and a short flash (0.5 sec) the ones. The number of flashes separated by intervals of 0.5 seconds specifies the number of hundreds, tens and ones. There is a pause of 1.5 seconds between the individual series of flashes and a pause of 2.5 seconds when the code is repeated from the start. As an example, see *fig. 3* showing failure code No. 123.

NOTE: *If the code is an even hundred, e.g. 100, only a 1.5 seconds flash is shown followed by a 2.5 seconds pause. See example of failure codes in the table below.*

4. Press the diagnosis switch once.
5. The signal lamp starts flashing the next failure code in the queue. If there are no further failure codes in the queue, the signal lamp starts flashing at intervals of 1 second indicating that there are no more failure codes.
6. Press the diagnosis switch three times to reset the failure log and end the diagnosis. The diagnosis lamp switches off.
   The check must be carried out with the engine off.

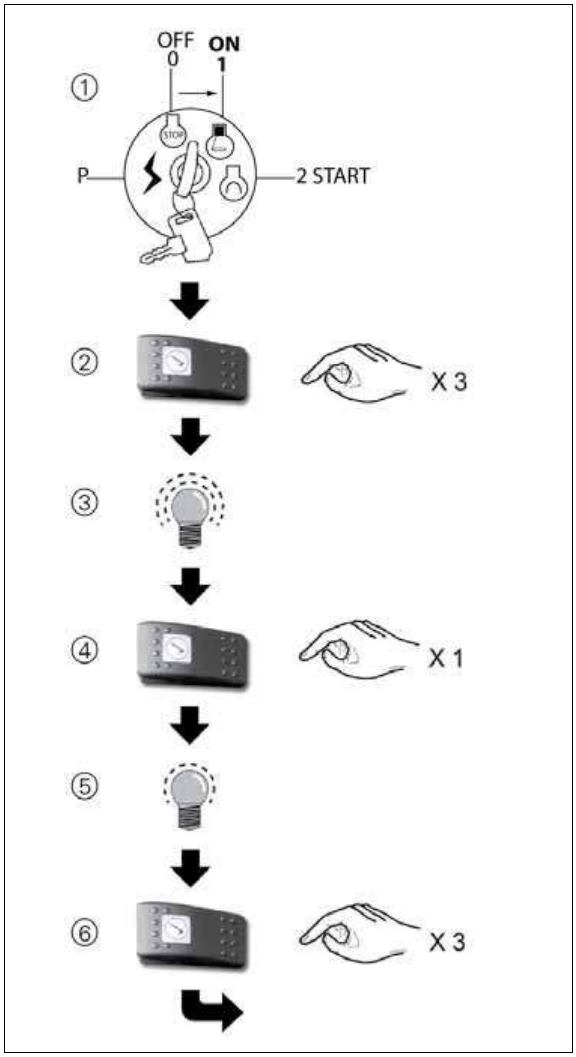


Fig. 3. I016818

6.8.3 EEM3 codes

T006132

(See explanation of abbreviations at the end of the table)

Sisu FC	SPN	FMI	Speed/Fuel Reduction	Failure Description
				Engine Sensors
110	110	4	FL1	Coolant temperature defect LOW
111	110	3	FL1	Coolant temperature sensor defect HIGH
112	110	16	FLm	Coolant temperature HIGH
113	110	0	FLm	Coolant temperature HIGH, ALARM **SDd**
109	110	2	FL1	Coolant temperature NO SIGNAL
251	174	4	FL1	Fuel temperature sensor defect LOW
252	174	3	FL1	Fuel temperature sensor defect HIGH
253	174	16	FL1	Fuel temperature ABOVE NORMAL
261	174	2	FL1	Fuel temperature NO SIGNAL
114	105	4	FL1	Intake manifold temperature sensor defect LOW
115	105	3	FL1	Intake manifold temperature sensor defect HIGH
116	105	16	FL1	Intake manifold temperature ABOVE NORMAL (>90°C)

Attachment (continued)

7. Turn the locking arm (7) using the supplied wrench (14) to fasten the table with the hooks (8) (bottom picture *fig. 2*).
8. Clean the multicoupler parts.
9. Connect the multi-coupler to the coupling part on the main crop elevator and couple up the two parts using the handle (9).

IMPORTANT: *Clean the multicoupler parts before connecting. Dirt in the hydraulic oil will cause wear and malfunction of the hydraulic system.*

10. Mount the transmission shaft for table on the power-take-off (10). To do this remove the cover from the power-take-off housing. Then pull the transmission shaft slightly into the power-take-off. Press down the pawl (11) and push the transmission shaft further into the power-take-off until the pawl jumps up again.

WARNING:
Check that all covers including (12) and (13) are correctly fitted and undamaged.

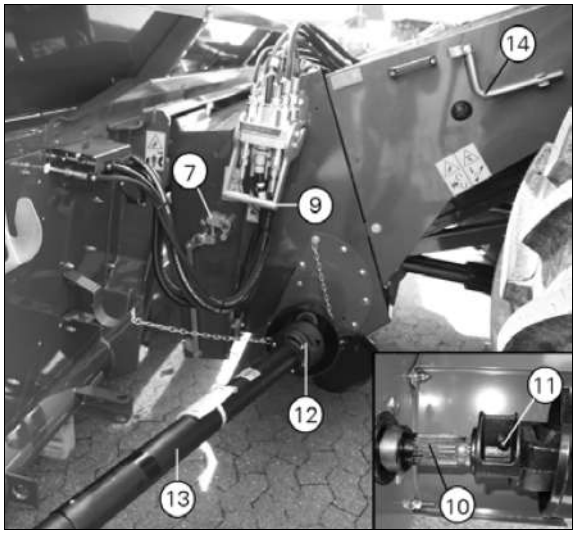


Fig. 3. I016866

7

7.2.2 Removal of Table

T006835

(*fig. 4* and *fig. 5*)

NOTE: *The middle part of the table back plate can be tilted forward to provide a better view from the cab when attaching and removing the table.*

Removal

1. Lower the reel completely.
2. Move the reel backwards in the table (smoothly against stop).
3. Stop the engine.
4. Disconnect the transmission shaft (1), place it in the bracket on the table and mount the cover on the housing to protect the power-take-off, *see §7.2.1, page 220*.

WARNING:
Ensure that all covers are correctly fitted and functional.

5. Disconnect the multicoupler from the main crop elevator and place it in the coupler support on the table (2).
6. Pull back the hooks into the main crop elevator by turning the locking arm (3) using the supplied wrench.

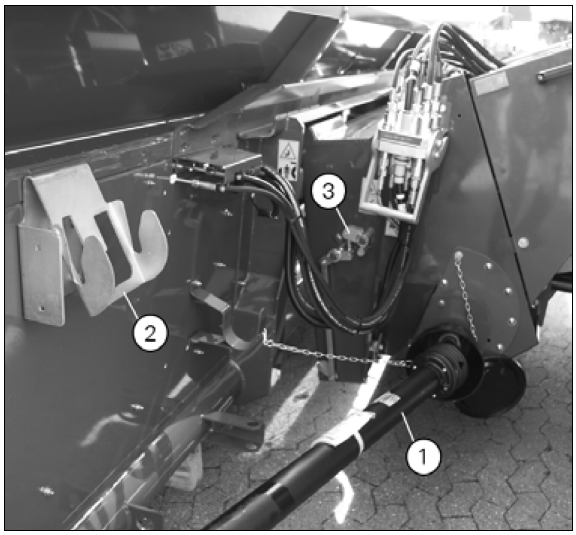


Fig. 4. I016867

7.6.5 Reversing

T006141

(*fig. 5*)

The table and feed reversing mechanism is engaged with the toggle switch (1) and automatically disengaged when the switch is released. The reversing mechanism can be engaged only when the table is disengaged with the switch (2), and must not be engaged until table and feeding have stopped completely.

NOTE: *If the reversing does not start instantly when the switch (1) is activated, release the switch and activate it again.*

If the material is jammed very tightly in the table/crop elevator, it may be necessary to engage and disengage the reversing mechanism several times.

Reversing to clear a blockage of table or crop elevator must take place at full engine revolutions.

NOTE: *Never operate the reversing mechanism when there is no material in the machine.*

Testing of the reversing mechanism when the machine is empty should be carried out only at low engine revolutions.

Testing at too high engine revolutions may damage the transmissions.

WARNING:

Never try to help the reversing mechanism manually. If the material needs to be removed by hand, stop the engine and remove the ignition key from the switch.

Fig. 5. I016825

7

7.11 Fixed Fingers

7.11.1 Fitting of fixed table auger fingers

T005690

(*fig. 1*)

The fixed table auger fingers (1) are used when the crop cannot be evenly distributed over the full width of the machine.

The material not being evenly distributed may cause loss at straw walkers or shaker shoe.

The table auger fingers are fitted by means of mounting plates (2) inside the table auger.

Fit the mounting plates with two screws in the holes (3) and fit the fixed finger (1) with three screws in the holes (4). When not using the fixed fingers, leave all the screws tightened in the holes.

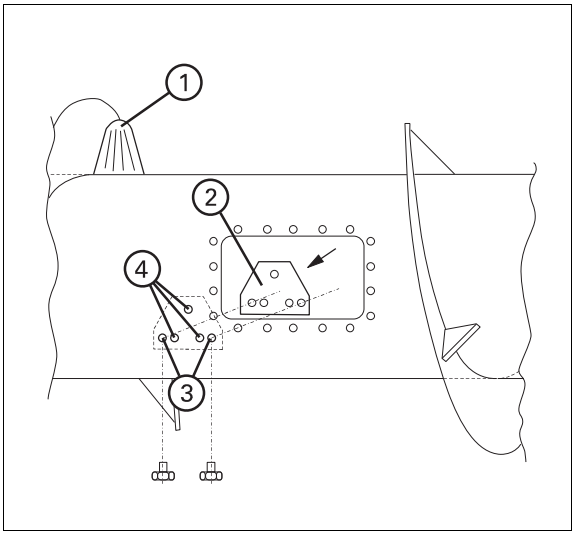


Fig. 1. I016830

7.11.2 Using Fixed Table Auger Fingers

T006157

(*fig. 1* and *fig. 2*)

If the crop volume in the middle of the table gets too large, the fixed fingers must be fitted in pos. (1) and (2). This may be caused by very dry or stiff material moving in front of the table auger,

If material accumulates in front of the middle of the table auger, fit the fixed fingers in pos. (2) and (3).

In swathed crop which is moving in front of the table auger, the fitting of fixed fingers in pos. (1) and (2) may improve the distribution of the crop over the full width of the machine.

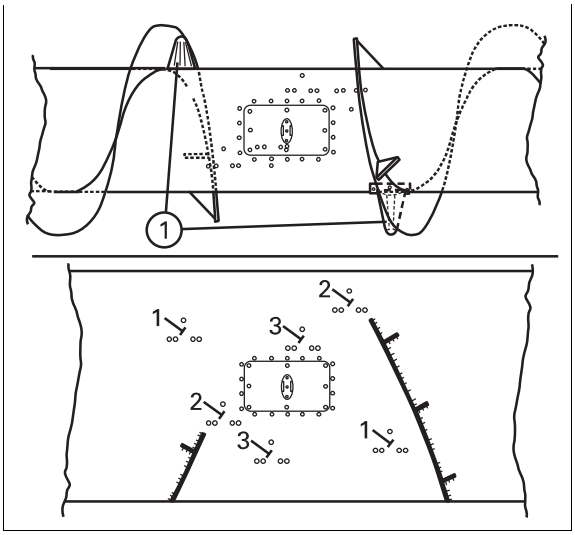


Fig. 2. I016831

7.11.3 High Table Sides

T005692

WARNING:

Make sure that the high back plates and table sides pos. (1) and (2) are fitted and undamaged before the machine is taken into operation.

8.2 Operation of Table

8.2.1 Table Height and Table Automatic Control

T005699

The table is operated with the buttons in the multifunction lever (top picture *fig. 1*).

The following functions can be operated:

A Automatic table control
1. Table on/off
2. Table up
3. Table down
4. Reel up
5. Reel down
6. Reel forward
7. Reel backward
8. Reel speed up
9. Reel speed down
10. Unloading auger out
11. Unloading auger in
12. Remote control terminal, ENTER
13. Remote control terminal, SHIFT

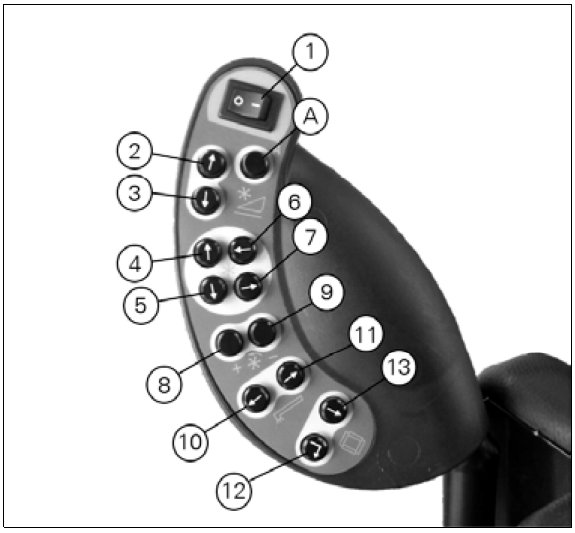
The table is raised and lowered manually with the buttons "Table up" and "Table down", respectively, in the multifunction lever. The speed is adjustable in 2 steps, fast and slow, using the key "Table lift speed" from the menu "Settings | Table settings".

In addition, different automatic table height controls are available, please see below. The controls are engaged with the automatic button (A) and disengaged when the table is raised or lowered manually.

It is advisable to use the automatic control at headland turns. Raise the table by double-clicking the automatic button when leaving the crop. The double-click raises the table to a height of 70 cm above the ground. Lower the table by pressing the automatic button when entering the uncut crop.

The automatic table height control consists of 3 separate functions that can be engaged/disengaged and adjusted from the menu "Settings | Table settings" and be combined as required, *see §4.18.1, page 160*.

The functions are:
1. Cutting height control



I016626

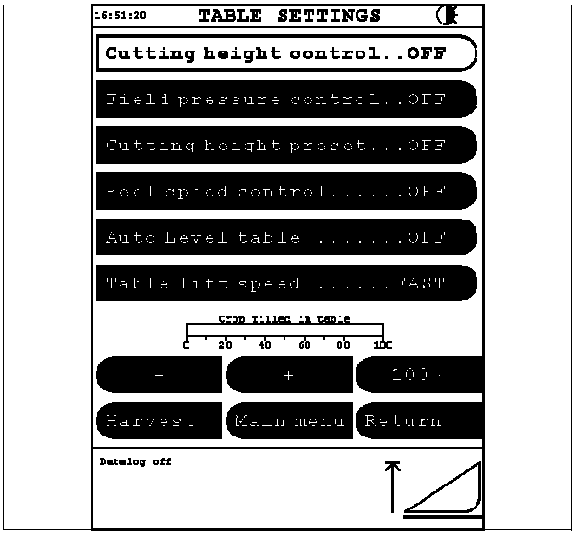


Fig. 1.

I014990

8

8.5.3 Rear beater curtain

T006174

Function of rear beater curtain

(*fig. 3*)

The rear beater curtain (1) must prevent the grains from being thrown too far back in the machine. Its height above the straw walkers must be adapted to the crop volume.

The curtain must not obstruct the free passage of the crop through the machine. Check during adjustment that the curtain is free to move in the machine.

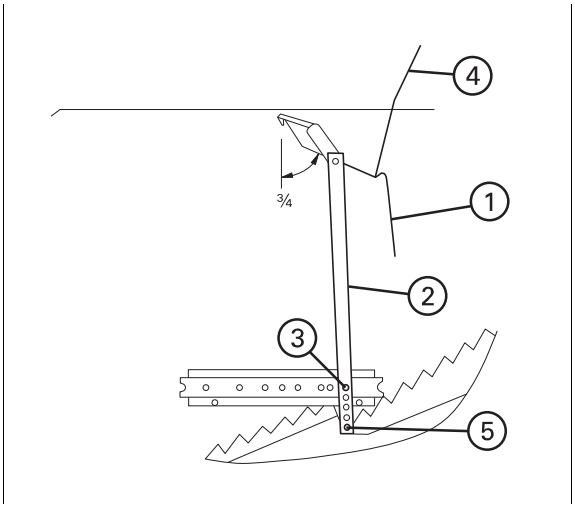


Fig. 3. I015853

Basic Setting

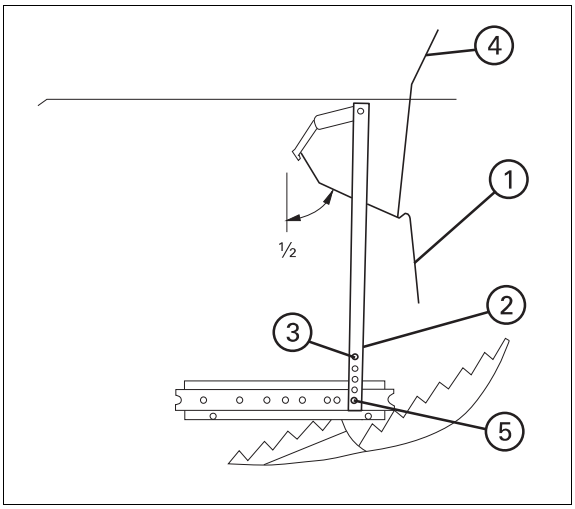
(*fig. 3* and *fig. 4*)

The basic setting of the rear beater curtain is either high or low. Low basic setting is used for harvesting maize and the high basic setting for all other crops.

The high basic setting of the rear beater curtain (1) is reached by placing the adjustment lever (2) on the left-hand side of the machine in the top hole (3).

The rear beater curtain must be lifted 3/4 up with the chain (4) - **This is standard setting.**

For maize harvest the rear beater curtain is lowered into low basic setting by placing the adjustment lever in the bottom hole (5) and adjusting the length of the chain (4) until the rear beater curtain is halfway up.



I015854

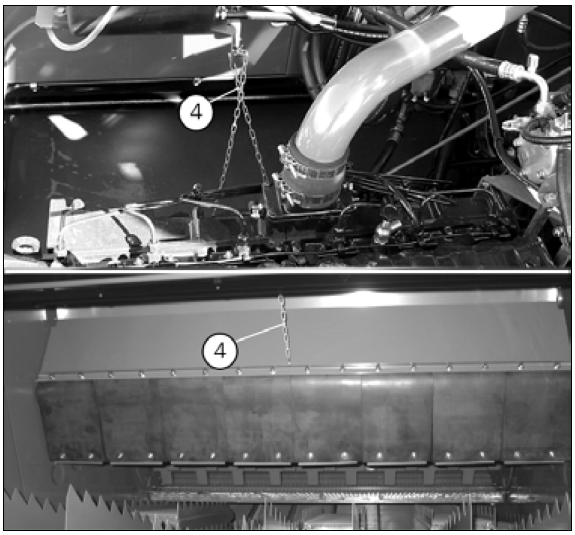


Fig. 4. I015893

8

8.7.6 Cleaning the Sieves

T006181

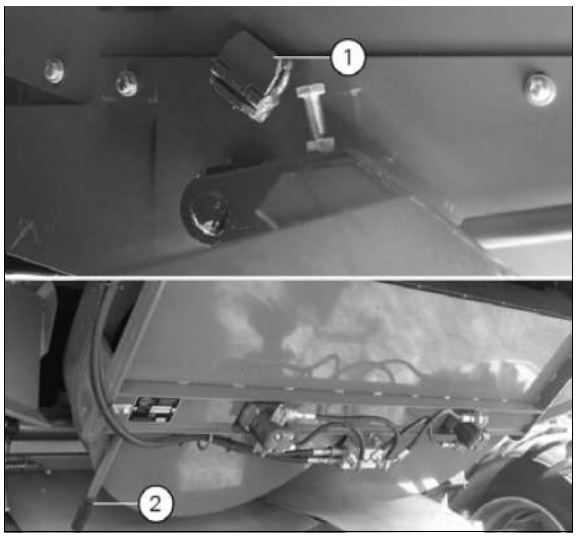
Preparation before dismounting

(*fig. 5*)

If the sieves need to be removed for cleaning, the chaff spreader, if mounted, must be turned up into service position.

To do so, turn up the two pivotal retainers (1) on the right- and left-hand sides of the straw hood into vertical position, as shown in *fig. 5*, top picture.

Then fold up the chaff spreader into service position. Then fold up the chaff spreader into service position. Make sure always to stand behind the chaff spreader using the lever (2), to fold the chaff spreader into service position, as shown in *fig. 5*, bottom picture.



I015859

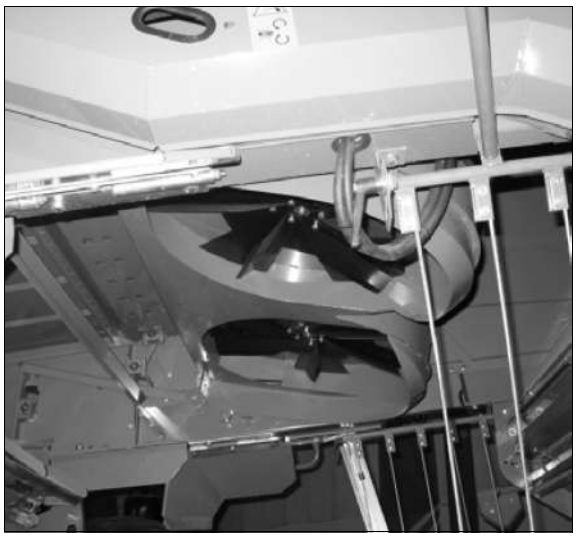


Fig. 5.

I015875

8

8.9 Rotary Separator

8.9.1 Adjusting the revolutions

T005713

(*fig. 1*)

On delivery, rotary separator and concave are adjusted for the harvest of the most common crops like barley, wheat, oats, rye, oilseed rape, etc. – i.e. raised concave 35 mm and 900 rpm.

The revolutions of the rotary separator and the concave position are adjustable to suit all crops and harvesting conditions.

Rotor Revolutions
– Max. 900 rpm, min. 480

Concave setting:
– Raised 35 - 38 - 44 mm
– Lowered = MAX

Low revolutions and lowered concave are always required for harvesting maize and beans. In very dry, swathed crops and in other conditions giving large shaker shoe load, the concave must be partly raised (38, 41 or 44 mm).

The speed of the rotary separator is changed by moving the belts (1) into the other two grooves of both belt pulleys.

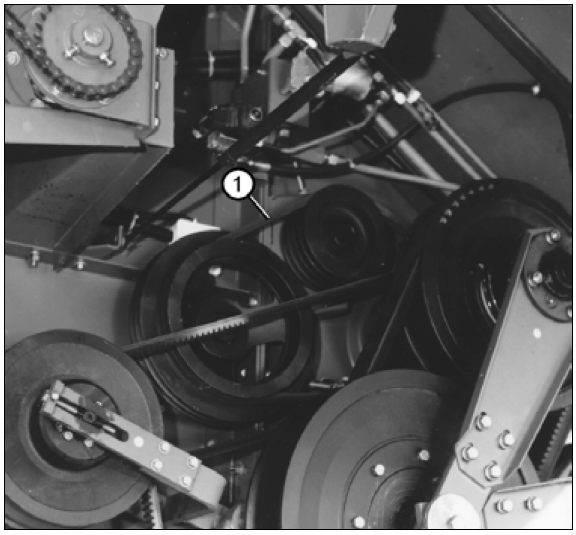


Fig. 1. I015865

8

8.13.5 Concave/Initial Settings

T006207

(*fig. 4*)

Initial settings for maize harvest.

Electrically Adjustable Concave:
Set the concave at step 5 in FIELDSTAR.

Find and mark up the rasp bar closest to the concave. Adjust the clearance between concave and cylinder at the 2nd rub bar from the front edge and 3rd rub bar from the rear edge of the concave using the nuts (6) and (7).

Front: 32 mm

Rear: 21 mm

Use the marked rasp bar and the supplied gauge when adjusting.

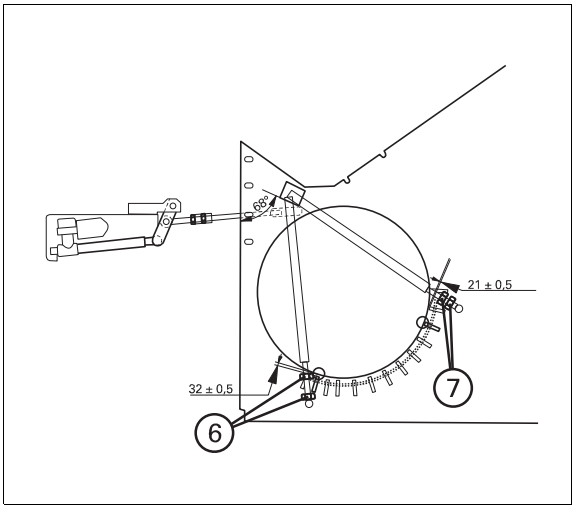


Fig. 4. I022716

8.13.6 Threshing cylinder

T006206

(*fig. 5*)

Blank off the cylinder (1) with the plates (2) to prevent half cobs from entering the machine without being threshed.

The stone trap can be covered with the plate (3) to provide even feeding of the material.

Small areas of maize can be threshed without replacing the concave, but the stone trap and the cylinder must be blanked off.

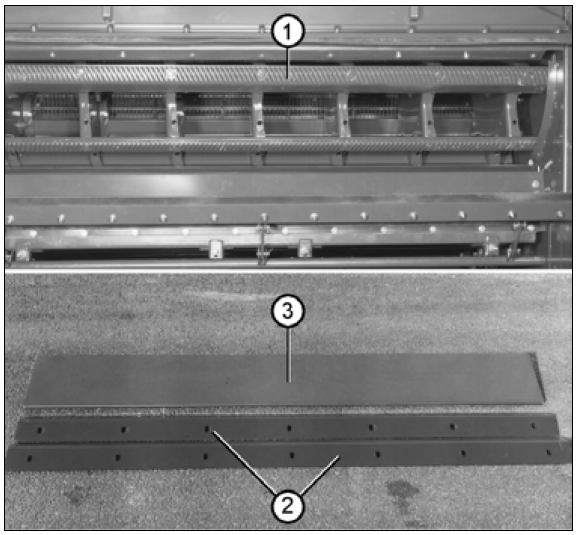


Fig. 5. I015870

8.13.7 Rotary Separator

T006205

Lower the concave into bottom position. Change the speed of the rotor to 480 rpm.

NOTE: *For maize threshing the rotary separator concave setting and the rotary separator revolutions must be changed as specified above. If not, the rotary separator may get damaged.*

9.1 Safety precautions

9.1.1 Safety Precautions, Transmissions

T005722

WARNING:
Never carry out any service/repair of belt and chain drives unless the engine has stopped, the ignition key has been removed and the main switch switched off.

WARNING:
Never carry out any service/repair of the engine until the engine is cold, the ignition key has been removed and the main switch switched off.

WARNING:
Never start the machine until all safety guards are fitted and secured.

WARNING:
Never wear loose clothes when working on the machine.

9.3.12 Fanning mill

T006256

(*fig. 12*)

Belt Drive No. 30 and 31

The fanning mill is driven by the belts (3) and (4) from the rear beater (1) through the variator pulley (2). When the screw (5) is slackened, the belts can be tightened with the nut (6).

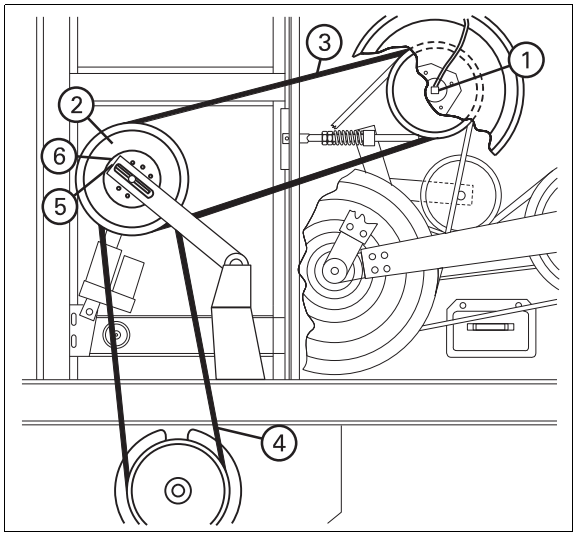


Fig. 12. I016889

9.3.13 Rotary Separator

T006257

(*fig. 13*)

Belt Drive No. 29

The rotary separator (1) is driven from the rear beater (2) by the belts (3) which are tightened with the tension pulley (4).

To change revolutions slacken the tension pulley and move the belts into the vacant grooves and re-tighten.

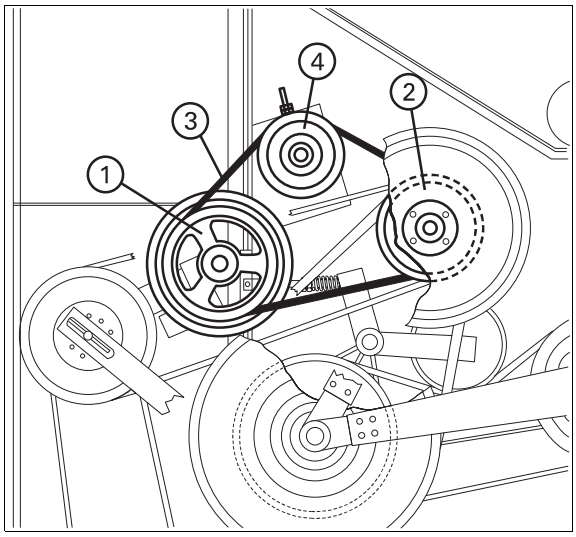


Fig. 13. I016880

9

10.2.2 Hydraulic System, Four-Wheel Drive

T005735

Hydrostatic Transmission HPV 135-02 / HMF 105-02

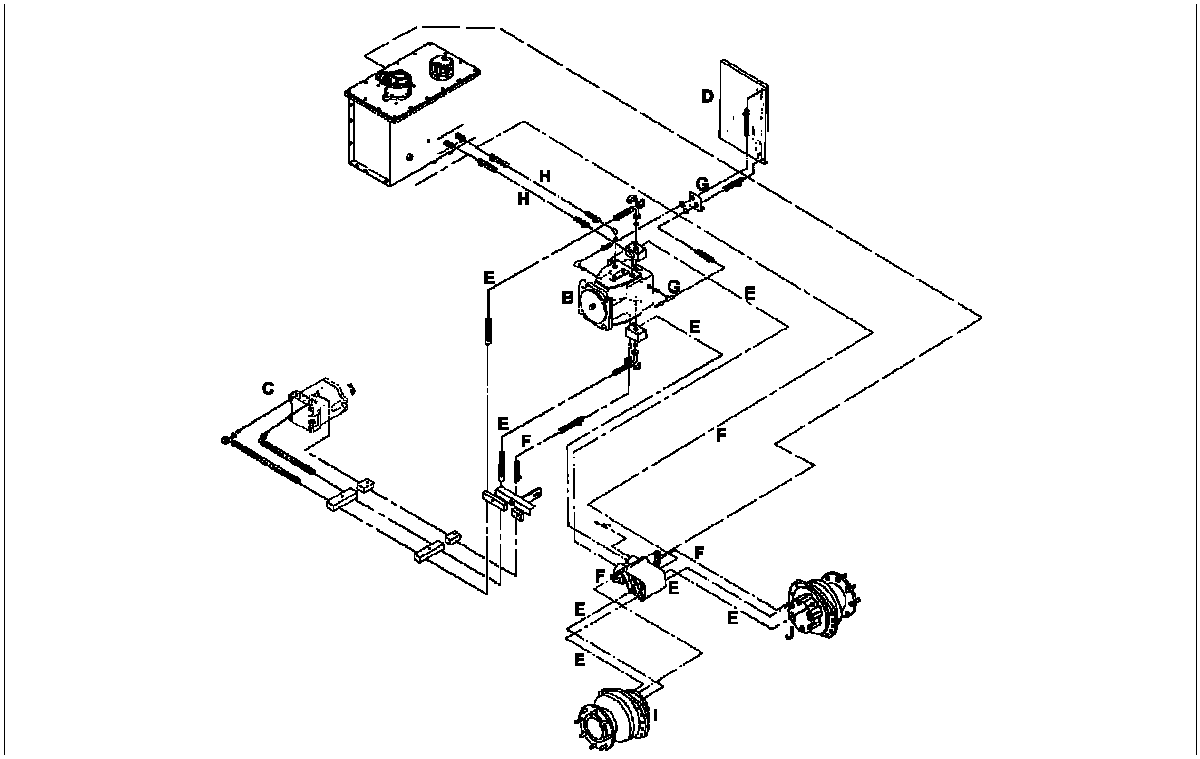


Fig. 3.

I016894

A. Hydraulic oil tank
B. Hydraulic pump
C. Hydrostatic motor
D. Hydraulic oil cooler
E. High pressure pipes
F. Oil cooling pipe
G. Oil cooling pipe
H. Vent pipe

Four-wheel drive

I. Hydrostatic motor, LH
J. Hydrostatic motor, RH

10

10.6.3 Hydraulics Diagram for Chaff Spreader

T005744

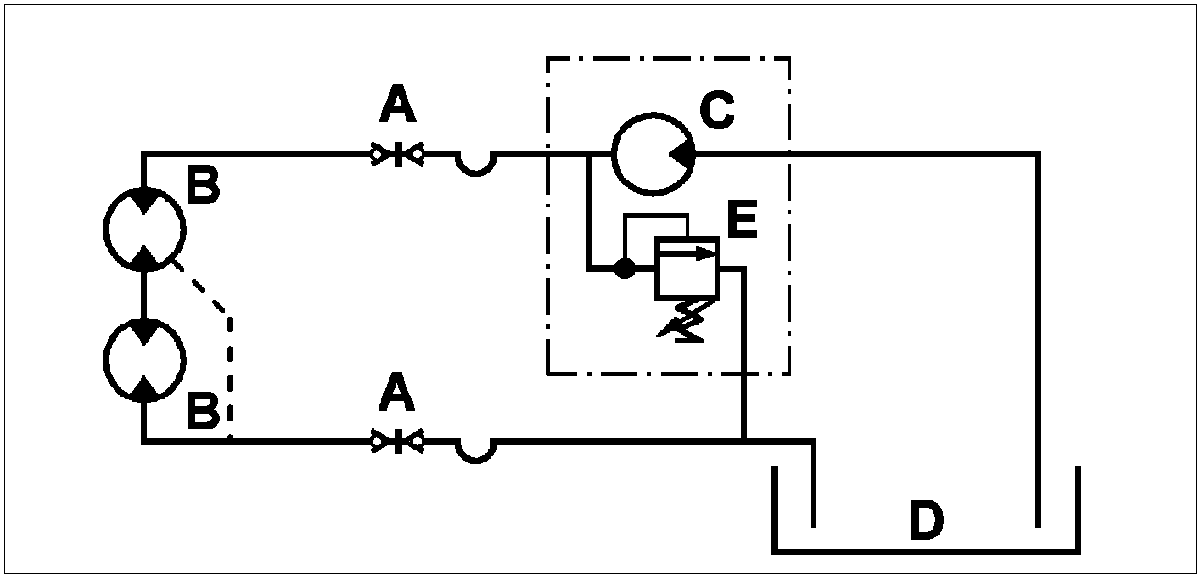


Fig. 3. I016898

A: Quick-attach coupling
B: Engine
C: Pump
D: Hydraulic oil tank
E: Safety valve

11.3 Lubrication Intervals

11.3.1 Lubrication chart, time intervals

T005756

Daily/10 hours (red)

Page	No.	Description	Qty	Grease	Oil
LH	1	Feathering fingers	19		X
LH	29	Straw chopper, rotary knives (6	X		X

50 hours (blue)

Page	No.	Description	Qty	Grease	Oil
LH	4	Chain drive, table auger and PowerFlow belts	2		X
LH	5	Bearing for PowerFlow belt roller	1	X	
LH	8	Slide, transmission shaft, table	1	X	
LH	8	Transmission shaft for table	4	X	
LH	9	Crop elevator chain (2	4		X
LH	10	Transmission chain for table (1	2		X
LH	11	Crop elevator pivot	1	X	
LH	12	Top right-angle gear, unloading auger	1	X	
LH	13	Bottom right-angle gear, unloading auger	2	X	
LH	16	Splined bushings, lateral shafts	3	X	
LH	19	Bearing for eccentric shaft	1	X	
LH	20	Tension pulley for threshing unit clutch	1	X	
LH	23	Spring actuating rod, threshing unit clutch	1		X
LH	27	Straw chopper clutch (5	1	X	
RH	33	Chain drive, elevator / filling auger (1	2		X
RH	33	Chain drive, elevator / returns thresher (1	2		X
RH	34	Slip clutch, elevators	1	X	
RH	37	Universal joint, filling auger (1	2	X	
LH	44	Swivel bearing for ladder	1	X	
RH	45	Bearing for eccentric shaft	1	X	
RH	46	Splined bushings, lateral shafts	3	X	
RH	49	Crop elevator pivot	1	X	
LH	50	Chain drive, reversing	1		X
RH+LH	57	Ball joint for Auto Level hydraulic ram	1+1	X	
RH+LH	58	Bearing for swivel traction wheel suspension (4	2+2	X	
RH+LH	60	Bearing for final drive shaft	1+1	X	
RH	61	Chain drive for rape auger	1		X
LH	69	Knife drive gearbox (8	1	X (5 strokes)	
RH	70	Reel (30' PowerFlow tables only)	1	X	
LH	71	Reel (30' PowerFlow tables only)	1	X	

Bottom right-angle gear, unloading auger (13)
Qty: 2
Colour: Blue
Interval: 50 Hours
Lubricant: Grease

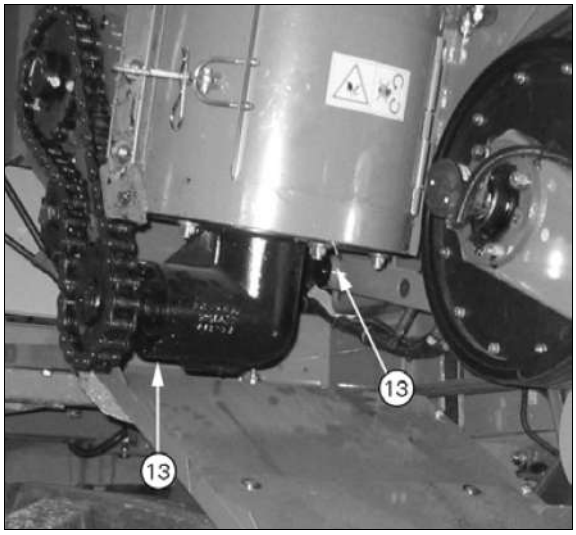


Fig. 16. I019392

Slip clutch, elevator chain top shaft (14)
Qty: 1
Colour: Yellow
Interval: 100 Hours
Lubricant: Grease

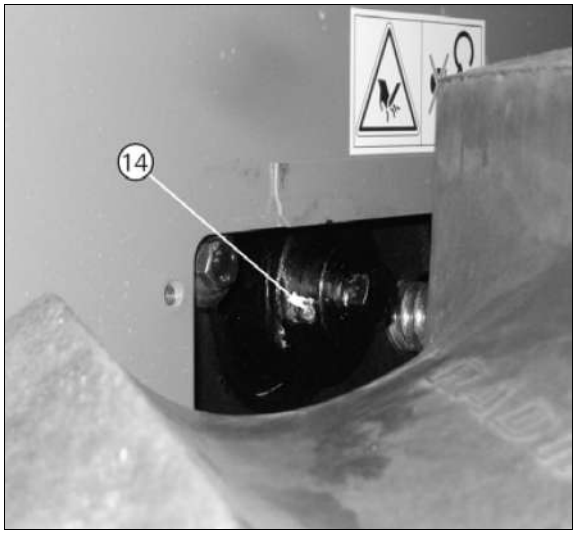


Fig. 17. I019393

Splined bushings, lateral shaft (standard machine) (16)
Qty: 3
Colour: Blue
Interval: 50 Hours
Lubricant: Grease

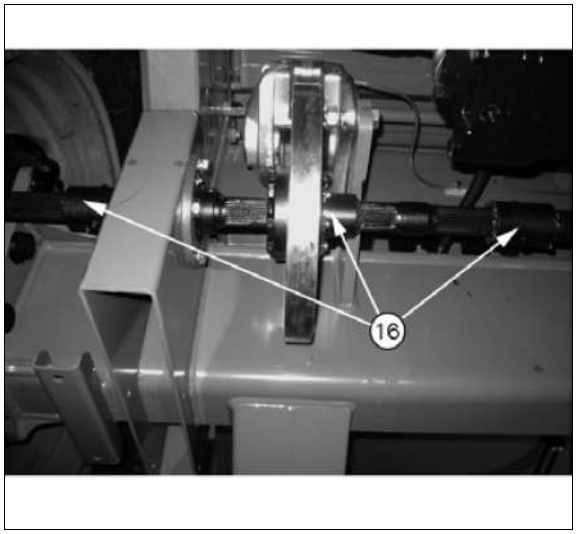


Fig. 18. I019394

11

11.3.5 Lubrication points, right-hand machine side

T007517

NOTE: *The numbers in brackets refer to the numbers indicated in the lubrication chart, see §11.3.1, page 341, and on the illustrations, see §11.3.2, page 344 and see §11.3.3, page 346.*

King pins (31)
Qty: 1
Colour: White
Interval: 250 Hours
Lubricant: Grease

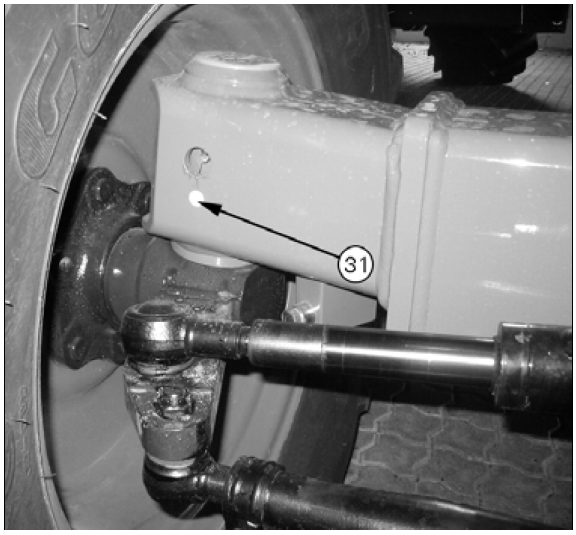


Fig. 46. I019347

King pins and tie rods (four-wheel drive) (31)
Qty: 5
Colour: Yellow
Interval: 100 Hours
Lubricant: Grease

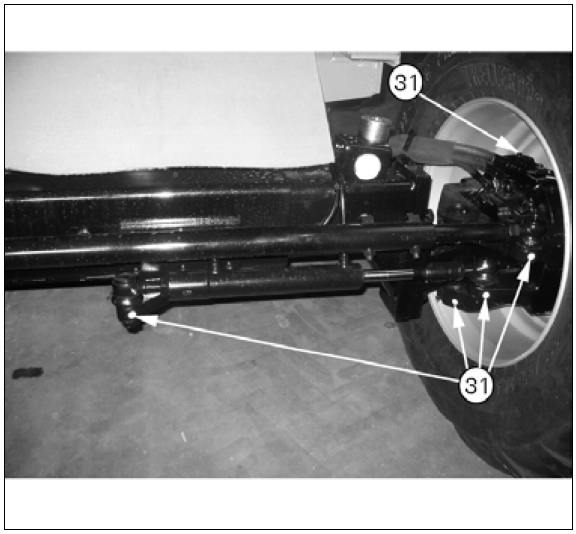


Fig. 47. I019348

Hubs, rear wheels (32)
Qty: 1
Colour: White
Interval: 250 Hours
Lubricant: Grease

Fig. 48. I019349

11

Elevator chain, filling elevator (67)
Qty: 1

Colour: Yellow

Interval: 100 Hours

Lubricant: Oil

Notes: The chain must be slackened during lubrication to make sure that the oil penetrates into the chain links.

Fig. 76. I019378

Elevator chain, returns elevator (68)
Qty: 1

Colour: Yellow

Interval: 100 Hours

Lubricant: Oil

Notes: The chain must be slackened during lubrication to make sure that the oil penetrates into the chain links.

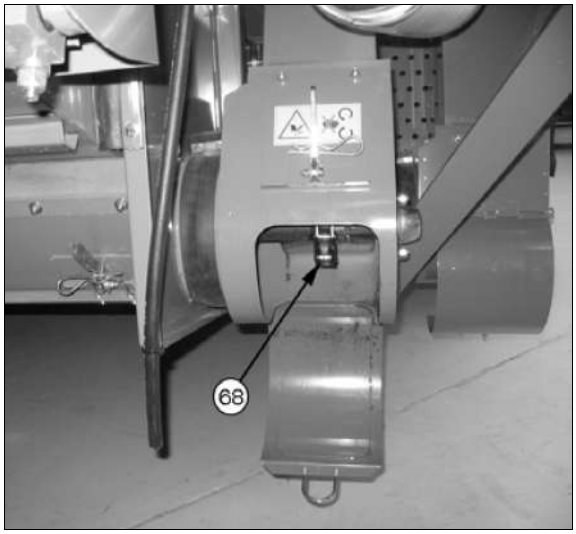


Fig. 77. I019379

Reel (70)
Qty: 1

Colour: Blue

Interval: 50 Hours

Lubricant: Grease

Notes: 30' PowerFlow tables only.

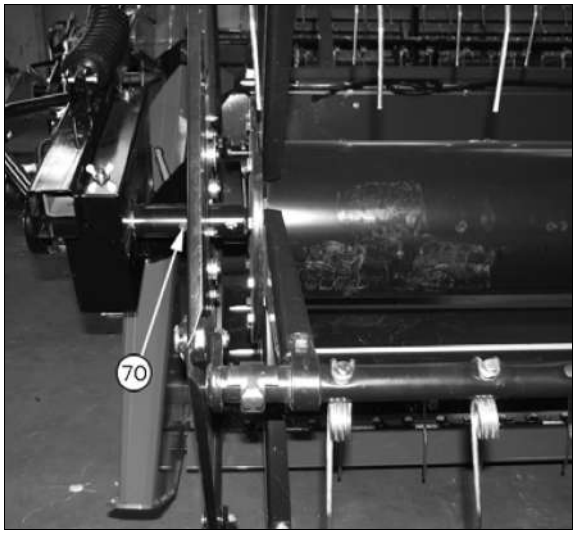


Fig. 78. I019380

11

11.6.2 Off-season Storage

T006311

(*fig. 2*)

Dismount the terminal and keep it dry.

Remove all covers in machine hood, elevators and straw walkers.
Remove sieves, grain pan and tank filling auger.

Remove all drive chains, elevator chains and main crop elevator chains and put them in an oil bath. Place elevator chains and main crop elevator chains in a U-profile so that the rubber slats do not get into the oil.

Clean the machine thoroughly and lubricate all worn surfaces, augers, auger tubes, elevator housings, knives and fingers with anti-corrosive oil.

Lubricate all bearings and linkages, start the machine and vary cylinder and fanning mill speed through the whole range.

To avoid damaging the cylinder variator belt, the machine must be stored with relieved belt.

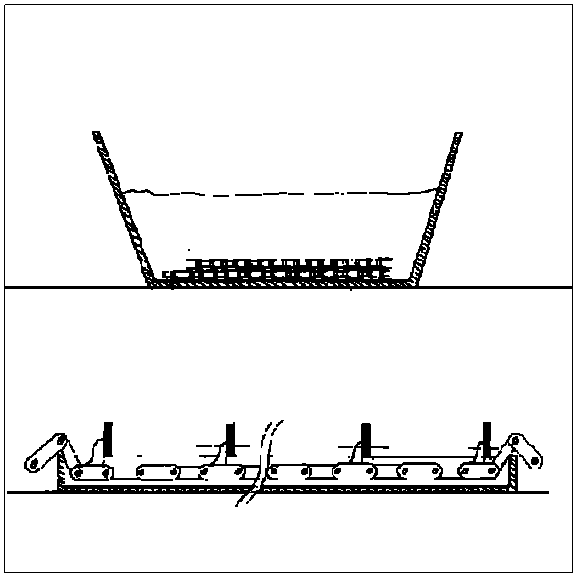
This is done by:

- adjusting the cylinder speed right between highest and lowest revolutions before disengaging the threshing unit.
- lowering the main crop elevator to bottom position.

Clean and lubricate the threaded spindle and shaft on the flowdivider for reel speed control at (1) and (2), please see *fig. 2*. Start the diesel engine and move the threaded spindle completely out/in minimum 5 times.

Leave the machine in a dry place with all covers dismounted/opened to avoid condensation in the machine.

During off-season storage, etc. the ignition key must be turned in position 0, the main switch must be switched off and the main switch handle must be removed. If the electrical system is switched on for a long time under wet conditions it may corrode. Detach the terminals from the starter battery. It is advisable to store the battery in a frost-free room and keep it charged.



I016918

Fig. 2. I016914

11

– In the engine compartment (4) (*fig. 6*).

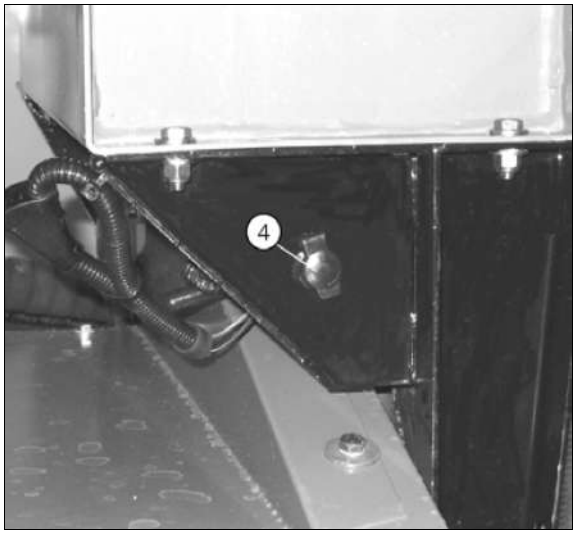


Fig. 6. I016972

– On the electric box (5) (*fig. 7*).

Fig. 7. I016973

– On the right-hand side of the operator seat (6), for instance for connecting a cool box *fig. 8*.

Fig. 8. I016925

12

Component	Description	Diagram
DNF07	Revolution sensor, shaker shoe	080-4
DNF08	Revolution sensor, straw chopper	080-4
DNF09	Revolution sensor, fanning mill	080-4
DNF10	Revolution sensor, threshing cylinder	080-4
DNF11	Revolution sensor, unloading auger	090-6
DNF12	Sensor, forward speed	030-6
DNF13	Sensor, straw chopper flap	080-4
DNF14	Sensor, stone trap	080-4
DNF15	Potentiometer, main crop elevator height	090-6
DNF16	Sensor, air cleaner indicator	020-4
DNF17	Sensor, hydraulic oil level	020-4
DNF18	Sensor, hydraulic oil temperature	020-4
DNF19	Sensor, coolant level	020-4
DNF20	Sensor, coolant temperature	020-4
DNF21	Sensor, engine oil pressure	020-4
DNF22	Sensor, fuel level	020-4
DNF23	Grain loss sensor, straw walkers, LH	080-4
DNF24	Grain loss sensor, straw walkers, RH	080-4
DNF25	Revolution sensor, rotary separator	080-4
DNF26	Sensor, returns volume	080-4
DNF30	Grain loss sensor, top and bottom sieves	080-4
DNF31	Revolution sensor, countershaft	080-4
DNF33	Sensor, field pressure	090-6
DNF38	Sensor, gearshift	030-6
DNF46	Sensor, unloading auger in/out	090-6
DNF47	Spreader, straw chopper	080-4
DNF48	Pressostat, parking brake	030-6
DNF49	Revolution sensor, Maxi Spreader LH	120-3
DNF50	Revolution sensor, Maxi Spreader RH	120-3
DNH03	Straw hood alarm	080-4
DNP09	Sensor, wheel height LH (AL combines only)	040-3
DNP10	Sensor, wheel height RH (ALcombines only)	040-3
DNP11	Yield meter, Micro-Trak	080-4
DNP12	Sensor, main crop elevator angle	090-6
DNP13	Yield meter, DI	080-4
DNP17	Moisture meter, DI	080-4
DNP18	Slope sensor, Micro-Trak	080-4
DVAT01	Radio aerial	100-7
DVF02	HVAC, pressostat	100-7
DVF05	HVAC, pressostat	100-7
DVG01	Alternator	020-4
DVH01	Switch, windscreen wiper	100-7
DVH02	Switch, vertical knife LH	090-6
DVH04	Switch, horn	100-7
DVH05	Switch, interior light	070-4

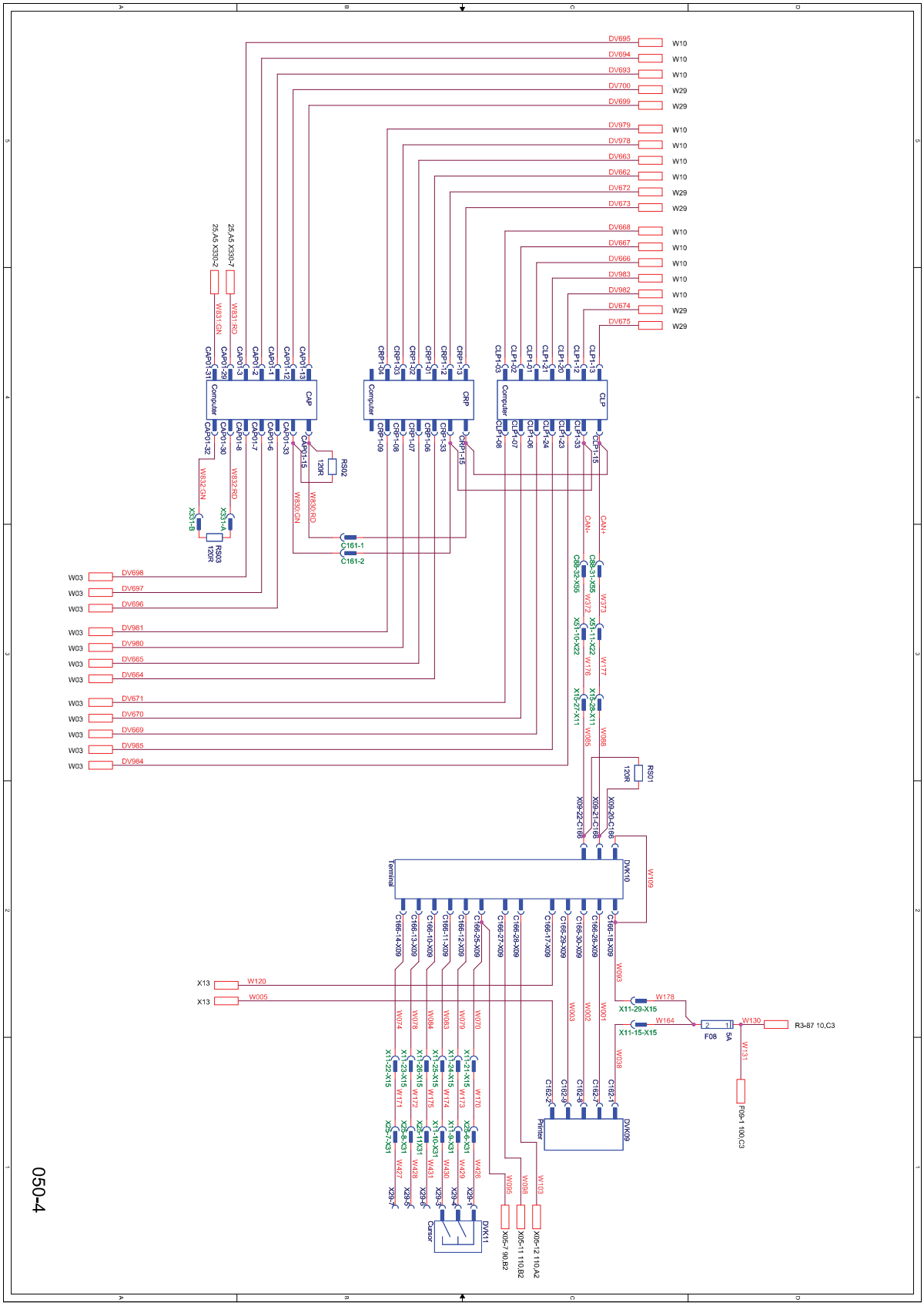


Fig. 6. 050-4 Computer power + CAN

13. Specifications

13