



JAGUAR 930 - 980 (498)

Information and Basic Field Settings



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Introduction

This quick reference guide has been produced to aid operator's with familiarisation and settings of CLAAS JAGUAR forage harvesters.

CLAAS forage harvesters are designed for output and efficiency but this can only be achieved with correct operation and maintenance of the machine.

This guide is not designed to replace the Operator's Manual but purely as a reference document.

More in depth information is available in the Operators Manual.

Downtime costs output

To get the most from the machine, the wheels must be turning. In order to keep downtime to a minimum, it's vital that routine maintenance is not neglected.

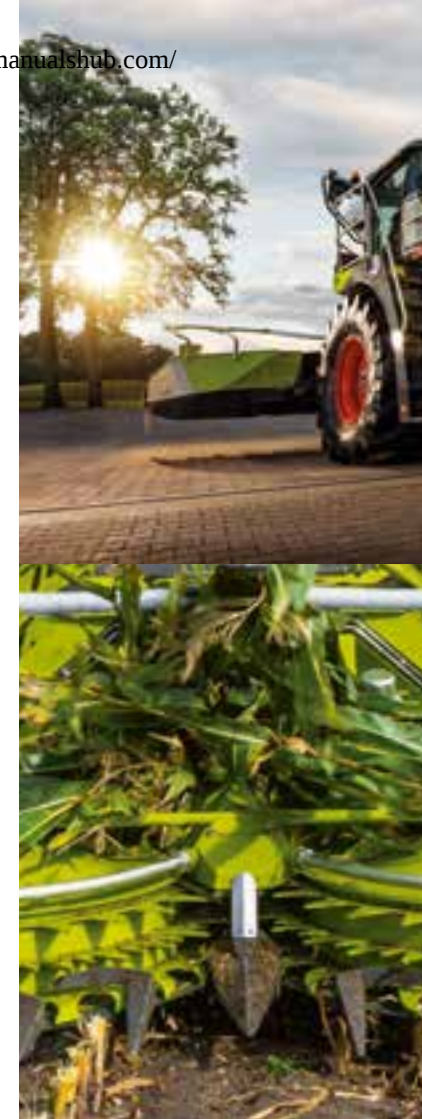
As well as servicing the machine according to the operator's manual, a good check of the machine is essential. It is false economy to put off the replacement of worn parts until they break.

Abbreviations

Throughout this guide the following abbreviations are used: 'LHS' and 'RHS' refer to the Left Hand Side and Right Hand Side of the machine respectively, taken from the rear of the machine facing in the direction of travel.

ALWAYS READ THE OPERATORS MANUAL BEFORE OPERATING YOUR FORAGE HARVESTER.

The information is therefore not complete for the purpose of working on the machine. This document does not replace the relevant operators manual and repair documentation! Subject to changes due to continued technical developments.



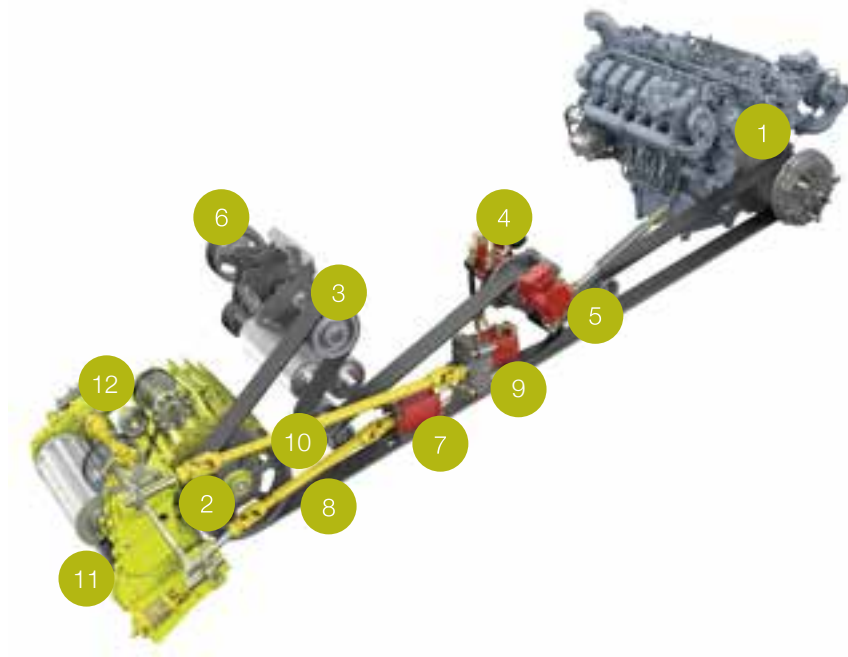
Safety

Safety is of the utmost importance whilst you are operating and maintaining your forage harvester. Make sure that all of the risks are assessed to reduce the likelihood of an accident.

For more in depth safety information please consult your operators manual. Always read the Operator's Manual before using any new machine.

- Make sure you are familiar with the controls and operation of the machine and have read the Operator's Manual.
- The forage harvester has many moving parts, guards are designed to keep you safe, please ensure that all guards are kept in place and in good condition when operating the machine.
- When doing any maintenance work or making adjustments outside of the machine make sure that the engine is switched off and the battery isolator key is removed.
- Some of the maintenance has to be carried out at height, please assess the risks that this poses and ensure that the task is carried out safely.
- When operating the machine be aware of the presence of people particularly in farmyards, always get someone to help you when reversing in confined areas.
- Be aware of the size of your machine, particularly the height, you may be at risk from contact with overhead power lines and overhead obstructions particularly but not exclusively when the spout is in the working position and if extra aerials have been fitted to your machine.

Drive Concept



Right Hand Console

Drive is taken directly from the **diesel engine (1)** via a power band belt to the **cutting cylinder (2)**, the **accelerator (3)**, the **feeder drive pump (4)** and **variable front attachment drive pump (5)**. The accelerator shaft drives the **corn cracker (6)** by means of another belt drive.

The front attachment drive is driven by **motor (7)** - connected through **shaft (8)**, which is driven by **pump (5)**. The **feed roller motor (9)** is fed by **feeder drive pump (4)** and is connected with the **feeder gearbox (11)** and **drive shaft (10)**. The **power band belt (12)** is only needed for driving the DIRECT DISC.

1. CEBIS Rotary Switch

Main machine functions

2. Hotkey Rotary Switch

Additional machine functions

3. Main Menu Rotary Switch

Menu navigation & value setting

4. Value Select Rotary Switch

Sets a value from the hotkey menu

5. ESC Key

Cancels a menu item/changes between road and field display

6. Info Key

Provides information about fault

7. Returns to previously used menu



Right Hand Switch Panel



Control Lever

1. Main Drive Switch
(Engages the chopping cylinder)
2. Upper Discharge Chute Switch
(Raise / Lower Chute)
3. Machine Gearshift Switch
(Shifts Gear up and down)
4. Differential Lock*
(Engages and disengages the differential lock)
5. Park Brake Switch
6. Silage Additive System Switch*
7. POWER TRAC Switch*
(Switches all wheel drive Off/Standby/On)
8. Diesel Engine Speed Switch
9. Front Attachment
(Folds front attachment or guide wheels)

* Optional Equipment / Accessories

1. Lower Front Attachment
Slow or fast
2. Raise Front Attachment
Slow or fast
3. Cutting Height
Pre-Selection
Menu navigation
and value setting
4. AUTOCONTOUR On/Off
5. AUTOPILOT On/Off
6. Spout Control In/Out
and Chute L/R
7. Front Attachment
/ Feed Roller
Disengage and reverse
8. Front Attachment
/ Feed Roller Engagement
9. Auto Chute Positioning
10. Auto Chute/Auto Fill
Parking position
and engagement
11. Pick Up – Crop Press
ORBIS – Lateral Levelling
DD – Paddle Roller



CMOTION Control Lever



1. Raise Front Attachment
Slow or fast

2. Lower Front Attachment
Slow or fast

3. Cutting Height
Pre-Selection
Menu navigation
and value setting

4. AUTOCONTOUR On/Off

5. AUTOPILOT On/Off

**6. Spout Control In/Out
and Chute L/R**

**7. Front Attachment
/ Feed Roller**
Disengage and reverse

**8. Front Attachment
/ Feed Roller Engagement**

9. Auto Chute Positioning

10. Auto Chute/Auto Fill
Parking position
and engagement

11. Pick Up – Crop Press
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CEBIS Road Travel Display

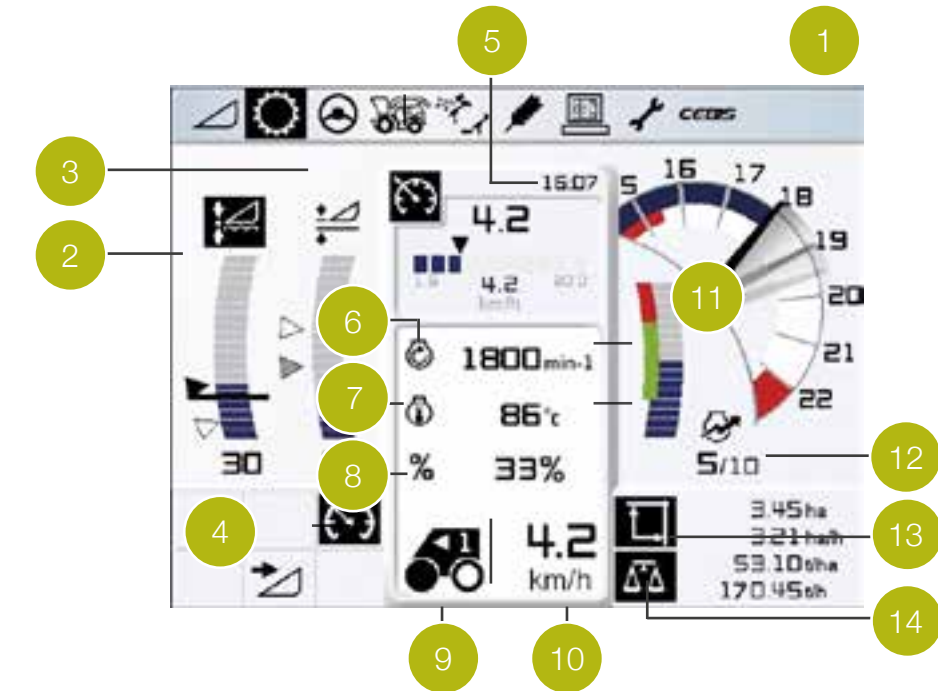


CEBIS Harvest Display

The road travel display is displayed when in field mode, using switch (1) or if the screen is manually switched over using the ESC button (2).

1. Road Travel switch
2. Escape Button
3. Main Menu
4. Fuel Level (Black)
Ad-Blue (Green)
5. Coolant Temperature
6. Gear 4WD Status
7. Forward Speed Counter
8. Ground Speed
9. Working Hours
10. Time
11. Alarm & Message Field

1. Main Menu
2. AUTOCONTOUR Height Control
3. Pre Set Cutting Height
4. Message Fields
5. Display window for HOTKEY
6. Engine Speed*
7. Coolant Temperature*
8. Dry Matter %*
9. Gear Selection
10. Ground Speed
11. Diesel Engine Speed
12. Engine Load / Dynamic Power
13. Area Calculation
14. Yield measurement, QUANTIMETER



* Pre-set as a standard, may be modified.

CEBIS Keys and Symbols

Using the CEBIS rotary switch (1) the forager settings can be adjusted. The picture below shows the settings that can be adjusted. To navigate through the settings turn the CEBIS rotary switch.

Inside the CEBIS display, the large number displays the value selected and the lower numbers shows the range which is possible.



To adjust the value, rotate switch (2) to increase or decrease the value. After the required setting is achieved turn the CEBIS rotary switch (1) back to the CEBIS icon on the screen.



Exits the menu and returns to CEBIS



Corn Cracker Gap Adjustment



Sets the monitor brightness



OPTIFILL master switch



Sets the ACTILISER silage additive dosing rate



Silage additive system dosing rate



HOTKEY



The HOTKEY is used to adjust more frequently changed settings on the forager for example cutting height or cruise control speed.

To adjust any of the hotkey values, turn the rotary switch (1) and the HOTKEY dial will appear on CEBIS, which is shown on the left.



After 5 seconds the HOTKEY dial will disappear from CEBIS and the settings will be displayed in the window shown. To change the HOTKEY setting rotate the switch (2) to increase or decrease the values.

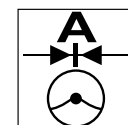


To remove the adjusted settings from the window, rotate the HOTKEY (1), back to the 12 o'clock position and the previous settings will be displayed.

HOTKEY Symbols



Sets the number of active partial widths



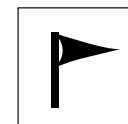
Sets the AUTO PILOT centraliser switch



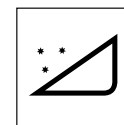
Sets the cruise control speed



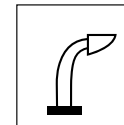
Hectolitre weight adjustment



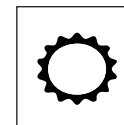
Sets the yield mapping flag



Sets the stone detector sensitivity



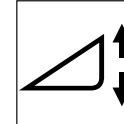
Adjusts AUTO FILL



Driving menu



Sets the working speed of the diesel engine



Sets the cutting height

Feed Rollers

Cylinder	Application	Complete set of knives	1/2 set of knives	1/3 set of knives
V-MAX 36	Number of knives	36	18	12
	Length of cut range (mm)	3.5-14.5	7-29	10.5-43.5
V-MAX 28	Number of knives	28	14	
	Length of cut range (mm)	4-18.5	8-37	
V-MAX 24	Number of knives	24	12	
	Length of cut range (mm)	4-22	8-44	
V-MAX 20	Number of knives	20	10	
	Length of cut range (mm)	5-26.5	10-53	

The purpose of the feed rollers is to compress the crop before it enters the chopping cylinder.
The feed roller speed is adjusted using the manual gearbox to achieve the required chop length.



Plastic Strips

It is advisable to remove the Teflon strips off the upper feed roller during maize harvest. This will allow optimal feeding of the crop to the cutting cylinder.

Bottom Plate

When harvesting whole crop or maize, the grain collection plate (1) needs to be fitted underneath the feed rollers to stop any grains from falling out under the machine. This needs to be removed for grass harvesting.

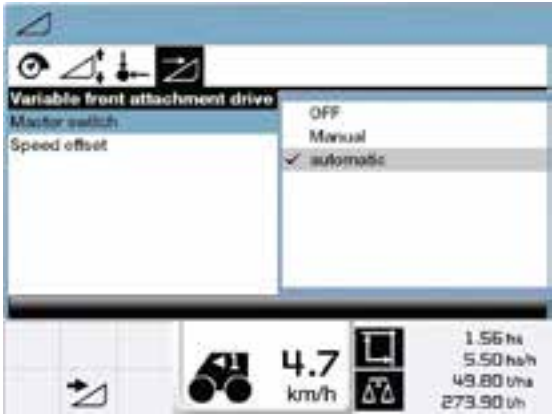
Variable Header Drive

Front Attachment	Drive	Quick Coupler Speed
PICK UP	Hydraulic	440-520rpm
DIRECT DISC	Hydraulic-Mechanical	Constant 480rpm
ORBIS	Hydraulic	350-590rpm



Variable Header Drive

The JAGUAR 498 has the option of Variable Speed header drive. This allows the speed of the front attachment (PICK UP / ORBIS) to be adjusted dependant on crop conditions. The speed can be adjusted automatically or manually using CEBIS.



There are two control modes available:
Off – Constant speed drive of 480 RPM
Manual Mode – Manual selection of header speed which is fixed
Automatic Mode – Automatic adjustment of header speed relative to intake speed



It is also possible to reverse the front attachment and feed rollers independently using the 2 stage switch on the control lever:
Stage 1: Front Attachment reversing
Stage 2: Header and Feed Rollers reversing

Variable Header Drive



When using a DIRECT DISC with the **variable speed header drive**, the machine uses a combination of the hydrostatic drive and mechanical drive from the power band on the LHS. The front attachment runs at a constant speed of 480 RPM.

The belt drive on the RHS of the machine is only needed for driving the DIRECT DISC. When using with different front attachments, this can then be removed.



Metal Detector and Stop Rock

A metal detector is installed in the bottom roller of the feeder unit.

When a sudden instance of magnetic metal is fed into the feeder unit stops before the metal can enter the chopping cylinder.

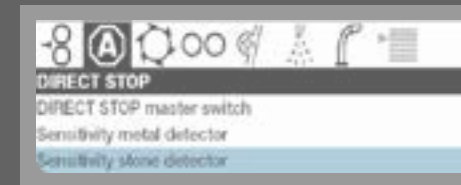
The sensitivity can be adjusted in the cab using CEBIS.

Sensitivity Adjustment: 1 > 5

It is not possible to switch off the metal detector.

When the metal detector DIRECTSTOP function is activated in CEBIS, the machine's forward motion will stop automatically if the metal detector or stone detector detects a foreign object.

This function can be activated and deactivated through CEBIS as is required.



Stop Rock, is used to detect stones entering the feed rollers by monitoring the movement of the upper precompression rollers.

A sudden movement of the feed rollers indicates a foreign object, the machine will then stop the feed rollers similar to a metal detection.

The sensitivity can be adjusted from the cab using CEBIS.

Sensitivity Adjustment: 0 > 10

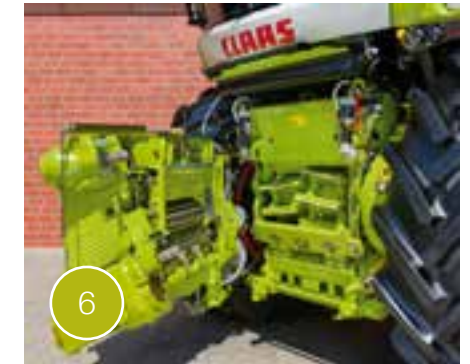
It is recommended to deactivate Stop Rock when harvesting maize, using sensitivity setting 0.

Opening Feed Rollers

In order to remove the feed rollers, the front attachment must remain on the front of the feed rollers and the following steps need to be followed:



1. Set the feeder housing level by using the red pointer and the hole on the LHS of the feeder housing. Remove the drive shaft from the feeder gearbox and the variable front attachment drive if fitted.
2. Remove the guard over the drive belt on the RHS of the feeder housing and remove front attachment belt.
3. Undo the 24mm locking bolt underneath the feeder housing until the lock becomes free.
4. Using the winding handle supplied, release the catch on top of the feeder housing.
5. Swing open the feeder housing to the first stage to allow the second drive shaft at the bottom of the feeder gearbox to be removed.
6. The feeder housing can then be unlocked and swung open to lock into position with the locking stay.



Opening Feed Rollers



The feeder housing can also be a V'd open as shown to give a brief inspection of the blades. In order to V open the feeder house, the following steps must be followed:

1. The front attachment must remain on the feeder housing.
2. The feeder housing must first be lowered to the lowest possible position.
3. Both drive shafts to the feeder gearbox can then be removed.
4. The pivot pin on the RHS of the feeder housing can be removed.
5. Open the catch on top of the feeder housing, important not to unlatch hooks underneath feeder housing.
6. The engine can now be started and lift the front attachment with caution to any hoses or cables.
7. It should now be possible to gain access as can be seen below.

Chopping Cylinder

The chopping unit has the task of cutting the material compressed by the feeder housing to the pre-set chopping length and of accelerating this material out of the cutting plane.

There are 3 cylinder variants available:

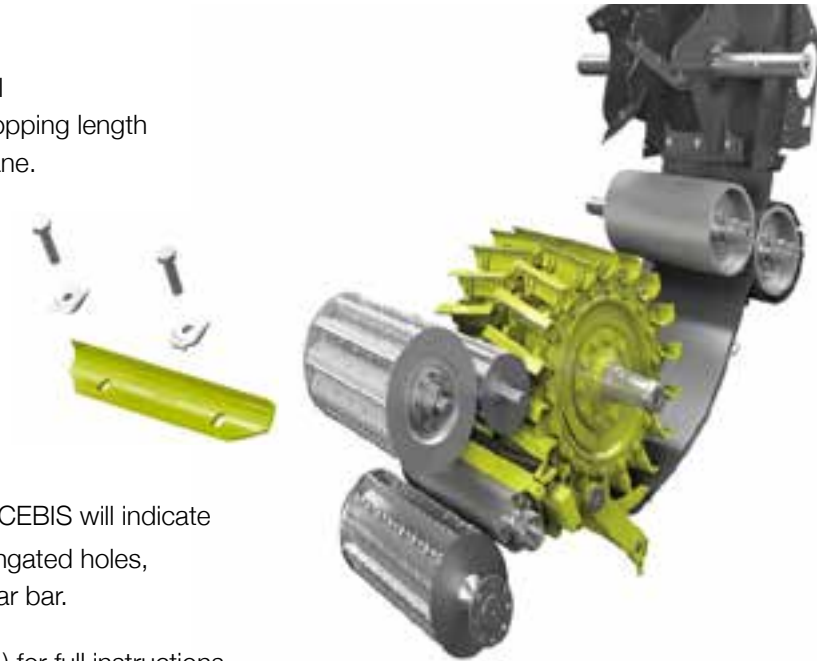
- V20 (20 Knives)
- V24 (24 Knives)
- V28 (28 Knives)
- V36 (36 Knives)

Changing the Knives

When the shear bar can not be adjusted any further, CEBIS will indicate wear on knife edge. As the knives are fixed using elongated holes, the position of the knife can be readjusted to the shear bar.

Please refer to the operators manual (section 9.12.14) for full instructions on replacing the knives.

When working on the cutting cylinder, ensure the machine is stopped and the cylinder locking tool is in place.





Sharpening

The sharpening process is carried out from within the cab. This is completed with the main drive engaged at idle engine RPM. The procedure and the number of cycles can be adjusted from CEBIS.

The sharpening stone readjusts automatically during the sharpening process, however after approx. 450 cycles this needs to be manually reset. Please refer to section 7.17.4 of the operators manual to carry out this adjustment.

Sharpening Interval

The sharpening interval should be adjusted dependant on the degree of wear on the knives. This must be checked visually, as the degree of wear will vary dependant on:

- Throughput Volume
- Crop Type
- Sand proportion (stubble height, raking depth)
- Chop Length

Number of cycles

The number of cycles can be adjusted through CEBIS, as few as possible to obtain a good cutting edge but as many as needed to maintain the edge. It is best to sharpen frequent with less cycles as opposed to daily with many cycles.

Cylinder Concave

There are two types of concaves available for under the cylinder. The smooth version fitted as standard for normal conditions or the heavy duty premium line version for use in conditions where wear from sandy soil etc is a problem.

Concave Adjustment

Once the blades wear on the machine, the bottom 'concave' may need to be adjusted to achieve optimum crop flow, this can be done by removing the shims fitted as required.

Refer to section 9.12.4 in the operators manual for instructions on how to carry out adjustment.



Shear Bar

Shear Bar Adjustment

The shear bar can be adjusted automatically from the comfort of the cab using CEBIS. The shear bar should be readjusted after each sharpening and where possible between sharpening intervals.

Please refer to the operators manual Section 9.12.11, for full instructions.



Recommendations:

The condition and the adjustment of the shear bar are essential to obtain optimum chopping quality, maximum efficiency and long service lives of knives and shear bar.

- 1. Readjust the shear bar after every sharpening process.
 - 2. If needed, the shear bar should be readjusted without knife sharpening, ie. if clearance too great.
 - 3. Adjust the shear bar as close as possible to the knives, for optimum chop quality. The knives must not touch the shear bar, otherwise wear increases. A feeler gauge can be used to monitor the gap.
 - 4. To assess the wear condition of the shear bar, the rear side must be inspected. (The rear of the shear bar must be able to sit straight on the knife).
- > The cutting edges of PREMIUM LINE shear bars have a longer service life and therefore improve chopping quality and service life.

Shear Bar Adjustment

When the shear bar is worn or cannot be readjusted any further, it must be turned around or replaced.

Corn Cracker

The crop coming from the chopper unit is crushed between the Corn Cracker rollers and conveyed to the accelerator. The purpose of the cracker is to open each kernel of maize in order to free its starch to allow its starch to be free for digestion.

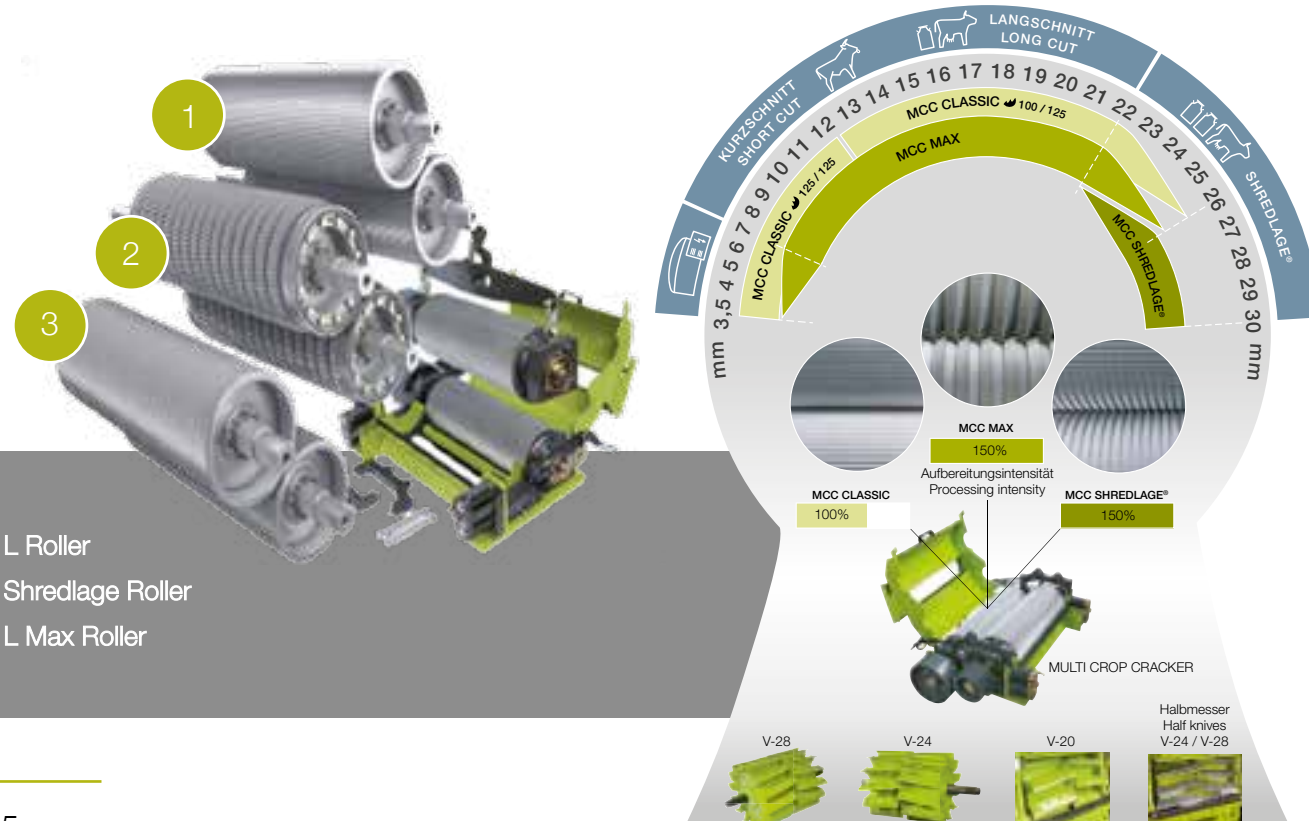
When the Corn Cracker is not in use, it should be completely removed from the machine because at standstill the high performance bearings might be damaged by the vibrations in the machine.



Multi Crop Cracker Variants (MCC)

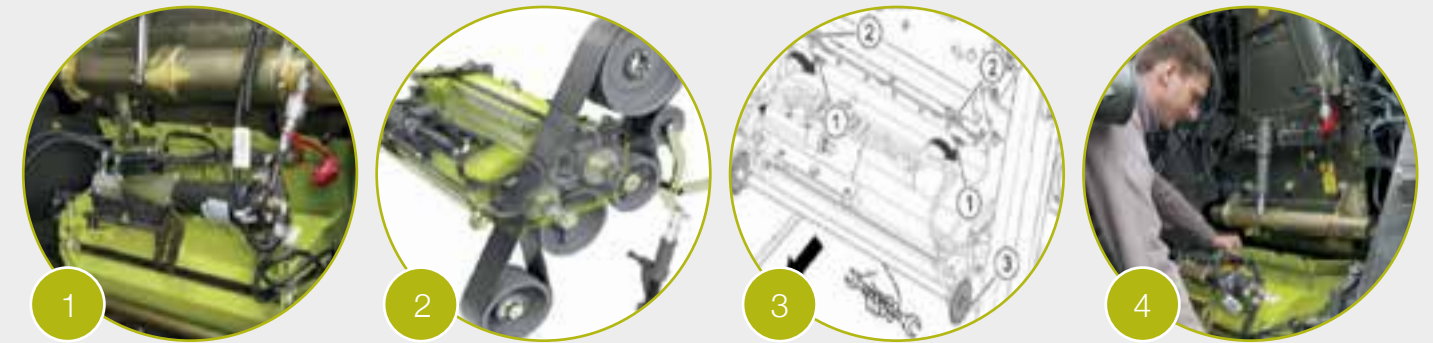
Type	Machine	Power Band Belt	Belt Tension
MCC - M - 80/100 teeth	JAGUAR 930-960	6 - groove	Hydraulic
MCC - M - 100/100 teeth			
MCC - M - 125/125 teeth (whole crop harvesting)			
MCC “L” 100/125 teeth	JAGUAR 940-980	7 - groove	Hydraulic
MCC “L” 125/125 teeth			
MCC “L” 150/150 teeth			
MCC MAX 120/130			
Shredlage 110/145			

Corn Cracker



1. MCC L Roller
2. MCC Shredlage Roller
3. MCC L Max Roller

Removing the Corn Cracker



In crops where the corn cracker is not needed, it is recommended that the corn cracker is completely removed from the machine. During this time, the filler housing needs to be fitted to replace the dismantled corn cracker, this allows the crop flow directly from the cylinder to the accelerator.

For this conversion, the drive belt of the Corn Cracker is removed (R15), the lock is released as shown in picture 3 (loosen bolts [1] and rotate locks [2]) and the Corn Cracker can then be retracted, using the ratchet wheel [3]. After this, the filler housing is put into place and fastened by tightening the locking tabs.

For full information regarding the removal of the Corn Cracker please refer to Section 7.20.11 of the Operators manual.

Accelerator

The discharge accelerator receives the crop from the Corn Cracker or directly from the chopper unit and conveys it through the square discharge tube and the upper discharge chute out of the machine at high velocity.

Mechanical Adjustment

On the standard machine the gap between the housing and the accelerator can be adjusted manually both LHS and RHS.

Hydraulic Adjustment

As an option, some machines have the accelerator gap fully adjustable through CEBIS.



Why change the clearance in the accelerator?

If the maximum blow is not needed, the accelerator position can be set to a wider opening this reduces wear and fuel consumption. Setting the accelerator closer to the plate will increase the blowing capability.

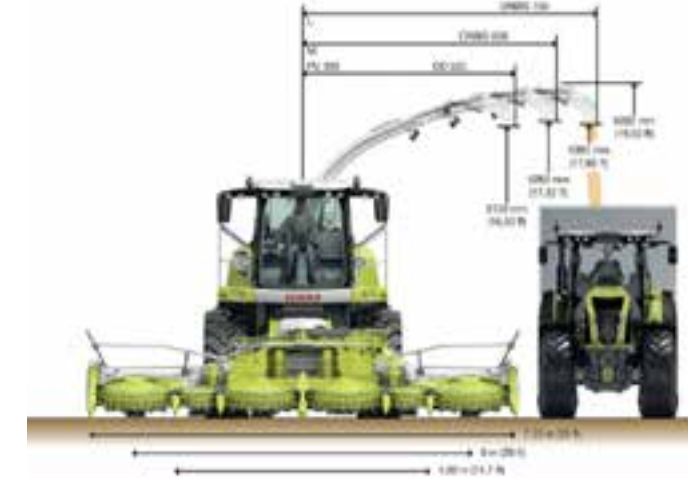
Accelerator Paddles

There are toothed accelerator paddles fitted as standard. Smooth paddles can be fitted if needed to increase the blowing capacity of the machine, e.g in very dry crops.

If changing the paddles, it is important to note the difference in height of the paddles, so it is important to adjust the accelerator clearance afterwards.

Please Refer to the operators manual Section 9.13.17 for full procedure.

Discharge



The crop is expelled via the discharge chute into the trailer, the chute can be moved to maximise trailer filling using the buttons on the joystick as shown earlier in the booklet.

Different length chutes

Different length chute extensions need to be added or removed according to the width of header which is attached to the front of the machine. Chute extensions come in 750mm lengths and the L chute has 2 sections added.



PowerTrac - Four Wheel Drive

PowerTrac (Optional)

On a 498 JAGUAR, the PowerTrac system uses a hydrostatically driven rear axle.

The drive train between hydraulic motor and rear axle is engaged and disengaged by a dog clutch to change the system from standby to the off position.

There are three possible situations:



I. Economy Off

- Hydrostatic motor off in parking position

II. Stand-by

- Maximum Ground Speed 20km/h
- Hydraulic Motor runs in zero position
- The output shaft is connected with rear axle

(Power Trac is ready to be engaged at any time while driving)

III. 4-Trac On

- Hydraulic motor drives actively
 - > in 1st gear up to 16 km/h
 - > in 2nd gear up to 20 km/h

Differential Lock

Selected mode	Conditions	Status	Recommendation
Automatic disengagement function <i>The LED in the switch is lit when engaged</i>	- Ground speed < 15 km/h - Steering angle < 15°	ON	On grass cover
	- Ground speed > 15 km/h - Steering angle > 15° - Brakes	OFF	
Automatic engagement function The LED in the switch is lit when engaged	Normal running	OFF	Difficult terrain
	- Ground speed < 15 km/h + Steering angle < 15° + Slip	ON for 2 minutes	
	- Ground speed > 15 km/h - Steering angle > 15° - Brakes	OFF	
Continuous operation <i>The LED in the switch flashes</i>	Hold button down for 2 seconds	ON	Very difficult terrain
	- Ground speed > 15 km/h - Steering angle > 15° - Brakes	OFF	



The machine is fitted with a differential lock with two operating modes:

- > Automatic Switch On
- > Automatic Switch Off

Other Machine Features



The JAGUAR can also be fitted with the OPTI FILL automated discharge chute control system. This feature delivers the following functions:

- Extended swivel action, segmented in intervals of approximately 70cm
- Automatic flap adjustment to ensure trailers filled at the centre point as chute swivels
- Extended chute angle to 225° (standard 210°)
- Automatic return of chute to road travel position
- Automatic swivelling from one side to the other

Customer Benefits

- Optimised operation when filling trailers.
- Ease of Operation to park/rotate chute.
- Convenient to use.

Other Machine Features



Additive Application

The JAGUAR is fitted with an additive tank as standard. This can carry up to 375 litres of liquid. The system can be activated from the cab.

The ensiling agent system is activated under the following conditions:

1. The JAGUAR must be travelling forwards.
2. The chopping unit and the attachment must both be engaged.
3. The attachment must be in the working position.

Dosing Options

- Constant dosing mode – 20 > 400 L/hour
- Throughput dependant dosing – 500 > 2000 ml/tonne (up to 200 t/h)



ACTISILER (Optional)

The independent ACTISILER system is available for adding lactic acid bacteria. A 20L storage container supplies the dosing pump.

Dosing Options

- Constant dosing mode – 200 > 7500 ml/hour
- Throughput dependant dosing – 10 > 30 ml/ tonne

Other Machine Features

AUTO FILL (Optional)



AUTO FILL is an option which allows fully automatic control of the discharge spout. This consists of an additional camera on the spout which monitors the trailer position and fill level.

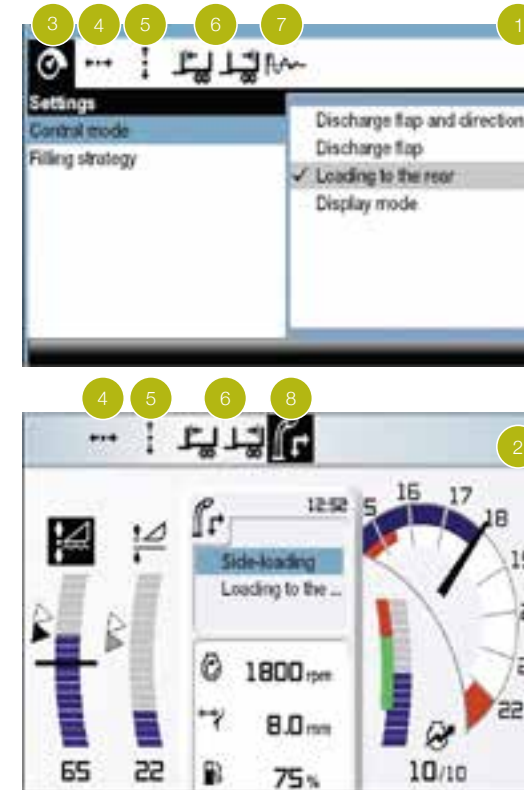


There is also an additional monitor fitted in the cab to allow the operator to view the trailer and spout position.



The AUTO FILL system can be activated by pressing switch pictured on the joystick.

Other Machine Features



Auto Fill (Operation)

The AUTO FILL system can be adjusted from CEBIS to adjust the following parameters, using the CEBIS main menu or the HOTKEY:

- Control Mode / Filling Strategy (3)
- Impact Point (4)
- Fill Level (5)
- Safety Distances (rear/front) (6)
- Sensitivity (7)
- Choice of Side or Rear Discharging

Other Machine Features



Tyre Pressure Control System (Optional)

The optional tyre pressure control system is operated from inside the cab via CEBIS.

This allows tyre pressures to be adjusted between the field and road and when ground conditions are difficult.

Please refer to the Operators Manual (Section 7.5.7), for guidelines on tyre pressures for specific tyre sizes.



PICK UP



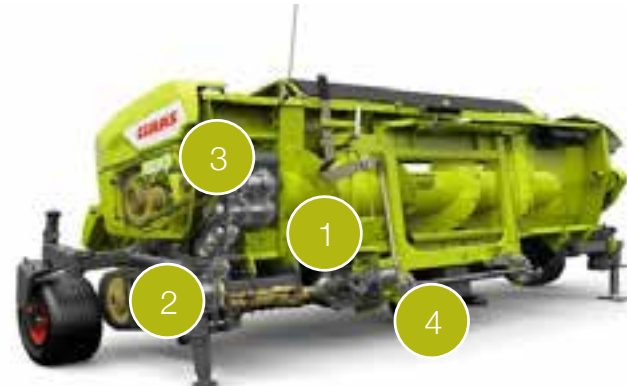
A 32 and 17 tooth sprocket are fitted on the feed auger drive from the factory - this is recommended for medium to long chop lengths.

Two further sprockets are included in the shipping package for adjusting the auger speed. These are 33 and 15 toothed sprockets for short chop lengths.

Auger speeds can further be adjusted by means of the 3 speed gearbox.

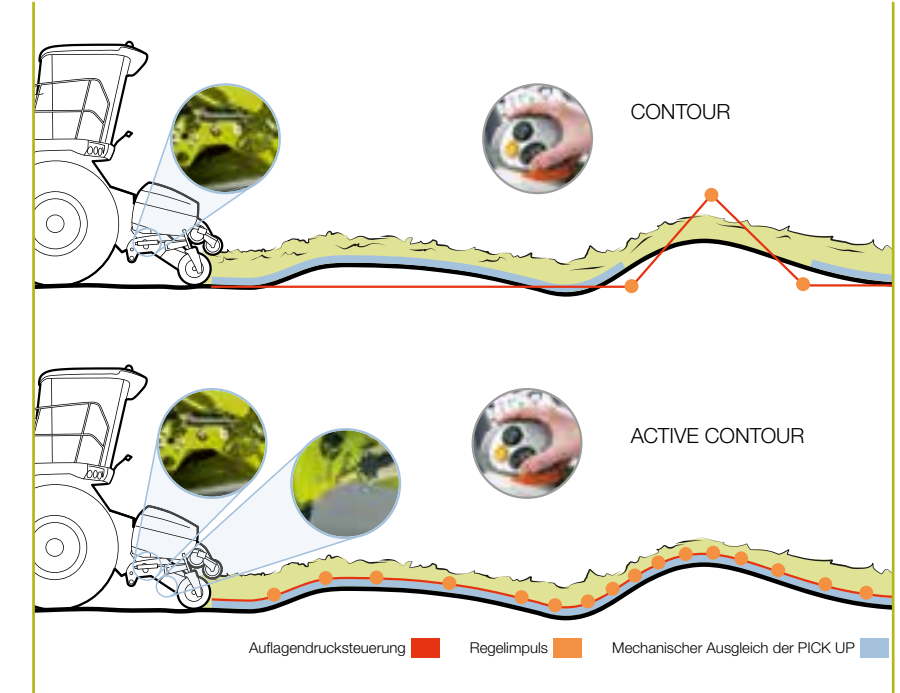
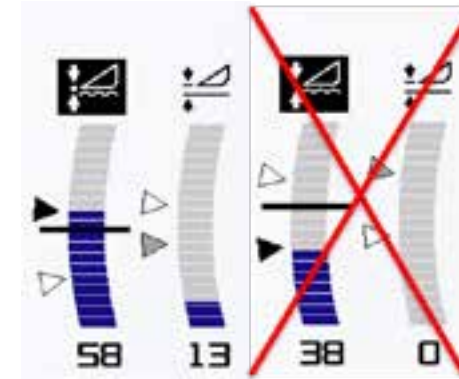
On the pick-up 300, the entire drive is from the mechanical drive from the JAGUAR via quick coupler (1). From there, the pick-up drive (2) and the feed auger (3) are driven. Using the 3-speed gearbox (3) there is a shift lever which enables the feed auger speed to be switched between three gears.

A centre sensing wheel (4) further improves ground adaptation especially on soft and very uneven ground.



PICK UP

ACTIVE CONTOUR is activated when auto contour function is enabled and the cutting height control is above 50%. When the cutting height control is below 50%, ground pressure mode is activated and ACTIVE CONTOUR is deactivated.



PICK UP

Maintenance checks by operational hours.

Prior to harvest

- Check tightness of all gearboxes
- Check all oils
- Check drive shaft, chains and clutches
- Check all connections

Daily

- Check all connections
- Check tightness of gearboxes
- Ensure all connections are tight and secured correctly

50 hours

- Check all gearbox oils
- Lubricate all grease points
- Check chain tension on intake auger
- Check pick up chain tension

500 hours

- Change all gearbox oils
- Check clutches
- Check all chain tensions
- Check all connections
- Check all connections are tight and correctly seated

PICKUP

General Adjustments

- Ensure the height of the sensing wheels is correct
- Adjust the speed of the feed auger via the 2 stage gearbox or different sprockets
- Check chain tensions regularly
- Ensure overrun clutches operate correctly
- Check bearings for play regularly
- Check tines and tine bars at the beginning of the working day
- Check type pressures on sensing wheels regularly



DIRECT DISC

The DIRECT DISC direct cutterbar cuts the crop with a disc mower based on the DISCO mower heads.

There are two different design variations of DIRECT DISC:



1. Cutterbar without paddle roller and large intake auger (DIRECT DISC 500). Specifically designed for harvesting taller crops eg. Hybrid Rye.

2. Cutterbar with paddle roller and smaller intake auger (DIRECT DISC 500P/600P). Suited to all crop varieties.

DIRECT DISC

Maintenance Adjustments



Intake Speed

The speed of the intake auger and paddle roller (If Fitted) can be adjusted by altering the position of the driveshaft as can be seen in the picture. It is important to adjust the speed to match the feed roller speed for optimum crop feeding.



Paddle Roller Height

For the DIRECT DISC, the hydraulic paddle roller adjustment is available as an option to suit crop conditions. Alternatively, if this option is not fitted the paddle roller height can be adjusted manually.



Cutting Height

The cutting height of the DIRECT DISC can be altered by adjusting the skids under the front attachment.

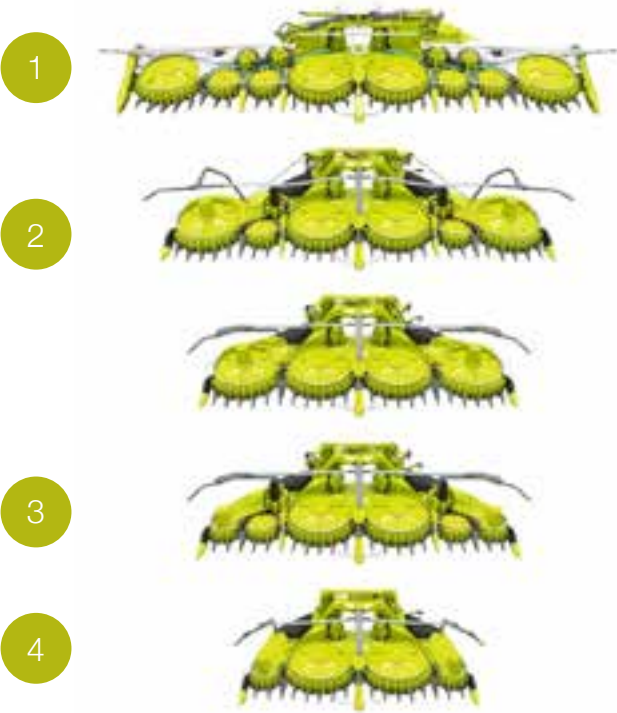
The blades should be checked and replaced if necessary prior to each working day.

ORBIS

The ORBIS maize header is available in four different working widths:

- 1. ORBIS 900, 12-row*, working width 9 m
- 2. ORBIS 750, 10-row*, working width 7.5 m
- 3. ORBIS 600, 8-row*, working width 6 m
- 4. ORBIS 450, 6-row*, working width 4.5 m

* A row spacing of 75 cm is assumed here



ORBIS: 900

Adjustments

The intake speed of crop from the ORBIS must also be matched to the feed roller speed. This is essential to ensure consistent crop flow which is vital for a constant chop length.

The intake speed can be adjusted using the 3 speed gearbox. The table below shows the relevant gears for various chop lengths.

Note: The gearbox can be reversed to position II for a further speed increase of 13%. Only on mechanical front attachment drive.

Switching Position						
Cutting Cylinder						
V18	3.5-7.0mm	7.0-9.5mm	9.5-11.5mm	4.5-8.0mm	8.0-10.5mm	10.5-13.5mm
V14	4.0-9.5mm	9.0-12.5mm	12.0-14.5mm	6.0-11.0mm	11.0-13.5mm	13.5-17.5mm
V12	4.5-11.0mm	11.0-14.5mm	14.5-19.5mm	7.5-13.0mm	13.0-16.5mm	16.5-22.0mm
V10	5.0-12.0mm	12.0-16.0mm	16.0-20.0mm	16.0-20.0mm	15.0-19.0mm	19.0-22.0mm

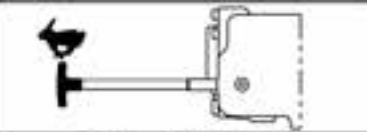
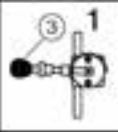
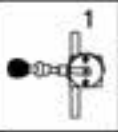
ORBIS: 750 - 450

Adjustments

The intake speed of crop from the ORBIS must also be matched to the feed roller speed.

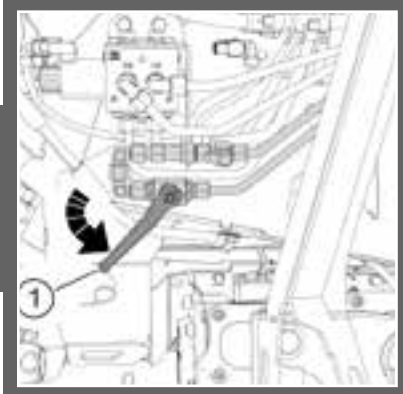
This is essential to ensure consistent crop flow which is vital for a constant chop length.

The intake speed can be adjusted using the 2 speed input gear box and 3 speed feeder drum gearbox. The table below shows the relevant gears for various chop lengths.

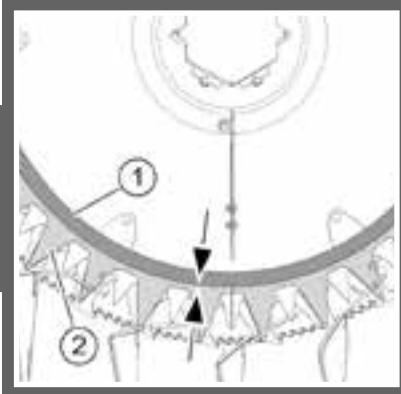
						
						
						
V20	5-12	12,5-17	17,5-22	9,5-15	15,5-20	20,5-26,5
V24	4,5-10	10,5-14	14,5-20	8,5-12	12,5-16,5	17-22
V28	4-8,5	9-12	12,5-16	7,5-10,5	11-14,5	15-17,5

ORBIS

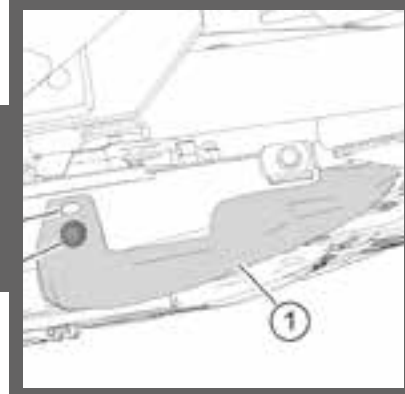
Adjustments



The dividing rollers at each side can be activated or deactivated as required by turning the tap.



As pictured above, the cob guide tubes should be adjusted as close as possible to the discs without touching. These ensure any cobs which fall off the stalks are transported to the feed rollers.



Hole A - Uneven ground
- Steep cutting angle

Hole B - Down maize
- Whole crop

ORBIS

Adjustments



The divider tips can be adjusted to prevent the tips being in contact with the soil during harvesting. Their intended purpose is only to divide the rows of maize.



The gap between the scrapers and the nylon wear plates should not exceed 10mm. As this could lead to crop build up preventing even crop flow.



The scrapers on the feeder discs should be adjusted as close as possible without touching, to allow smooth crop flow.

ORBIS 900

Maintenance checks by operational hours.

Daily

- Check tightness of all gearboxes
- Check knives for damage
- Check guide fingers for damage

50 hours

- Check all oil levels
- Lubricate all grease points
(inc. under Christmas tree top covers)
- Check all scrapers for correct adjustment
- Check adjustment of crop dividers
and touch pilot arms (if fitted)

500 hours / annually

- Check hydraulic hose lines
- Check clutch adjustment
- Check folding mechanism (if applicable)
- Check all connection elements

1000 hours / 2 years

- Replace all oils

ORBIS 750-450

Maintenance checks by operational hours.

Daily

- Check tightness of all gearboxes
- Check knives for damage
- Check guide fingers for damage
- Remove crop residues

50 hours

- Check all oil levels
- Lubricate all grease points
(inc. under Christmas tree top covers)
- Check all scrapers for correct adjustment
- Check adjustment of crop dividers
and touch pilot arms (if fitted)
- Service Tension cables (after first 50)

500 hours / annually

- Check hydraulic hose lines
- Check clutch adjustment
- Check all connection elements
- Service Tension cables

2500 hours / 5 years

- Replace all oils



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Pitching and Dampening



The JAGUAR is equipped with a front attachment suspension system. This system actively counteracts pitching movements of the front attachment. This avoids mechanical loads both on the front attachment and on the JAGUAR during road travel.

To activate this feature, set the road travel master switch to the road travel position and briefly hit the cutting height control function on the multifunction lever. The “active” status is shown on the CEBIS monitor.

A successfully completed limit stop learning process with the front attachment in question is the precondition for correct function.

Silage Quality



Failed Cuts

Points to check:

- Condition of shear bar
- Shape / Condition of knives
- Feed Roller Speed

May be due to bad crop feeding:

- Due to ORBIS adjustments
- ORBIS may be too fast
- Crop may be lodged (Crop Lifters)



Unchopped Leaves - May be an issue in very dry crops

Points to check:

- Knife Condition (Sharpness)
- Shear Bar Position (Too far from knife)

Things to consider:

- Add Friction Ledge
- Add Friction Cylinder Bottom

Silage Quality



Crop Grinding

Points to check:

- Corn Cracker Clearance (Increase gap)
- Knife Condition
- Shear Bar Condition



Uncracked Grains

Points to check:

- If grains unbroken: reduce corn cracker clearance
- If the grains are becoming crushed: Increase cracker clearance
- Early in the season: A greater clearance may be used
- Late in the season: the gap must be reduced

Small Gap=
Greater Power
Consumption



Useful Part Numbers

JAGUAR	Part Number	PICK UP	Part Number
Universal L.H. Knife Kit	00 1410 172.1	Auger Speed Up Kit	002608972.0 +
Maize L.H. Knife Kit	00 1410 170.1		002605493.1
Universal R.H Knife Kit	00 1410 173.1	ORBIS	
Maize R.H Knife Kit	00 1410 171.1	Laid Maize Kit	00 2616 2690
Knife Form Piece	00 1318 738.1	Down Maize Points (BD)	00 2733 2540
Knife Fitting Form Piece	00 1318 915.1	Down Maize Points (SD)	00 2733 2740
Blanking Form Piece	00 1390 900.0	Centre Drum Risers	00 2627 5402
Shear Bar (Universal)	00 2614 259.0		
Cylinder Bottom	00 2636 1170	DIRECT DISC	
Sharpening Stone	00 1312 442.4	Blade Cranked	00 0952 0420
Accelerator Paddle	00 0123 862.0	Blade Cranked	00 0952 0430
Smooth Accelerator Paddle	00 0123 866.0		
Agrigrease EP3 (0.4 Kg)	00 0241 793.1	Maintenance	
Agrigrease EP3 (5 Kg)	00 0202 249.1	EP3 400G	00 0241 7931
		EP3 5KG	00 0202 2491

Notes



JAGUAR 930 - 980 (498)

Information and Basic Field Settings

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