DECLARATION **CE DE CONFORMITE**
AVEC ANNEXE POUR REFERENCE A CERTIFICAT DELIVRE PAR ORGANISME COMPETENT
EC DECLARATION OF CONFORMITY
WITH ANNEX REFERING TO A CERTIFICATE DELIVERED BY A COMPETENT BODY

Fabriquant : AGCO S.A.
Manufacturer

Adresse : Avenue Blaise Pascal, 60026 BEAUVAIS - FRANCE.
Address

Nom du signataire : Jonny Frolli
Signatory' s name

Qualité : Directeur
Quality

Description du produit : Tracteur agricole
Product description *Agricultural tractor*

Le produit identifié ci-dessus est déclaré conforme aux dispositions de :
The identified product hereover is declared conform to the requirements of

- La Directive 75/322 modifiée par la Directive 2000/2 du 14 janvier 2000 et la directive 2001/3 du 8 janvier 2001 relative aux tracteurs agricoles ou forestiers à roues.
- *Directive* 75/322 *modified by the Directive 2000/2 from 14 january 2000 and the directive 2001/3 from 8 of january 2001 relating to wheeled agricultural or forestry tractors.*

en raison de la délivrance par un ORGANISME COMPÉTENT DU CERTIFICAT EN ANNEXE.
due to the delivrery by a Competent Body of the Certificate in annex.

Lieu : Beauvais
Location

Signature :
Signature

ANNEXE A DECLARATION **CE DE CONFORMITE**
ANNEX TO A ***EC DECLARATION OF CONFORMITY***

Fabriquant : AGCO S.A.
Manufacturer

Adresse : Avenue Blaise Pascal, 60026 BEAUVAIS - FRANCE.
Address

Identification du produit : Tracteur agricole
Product Identification *Agricultural tractor*

La conformité aux exigences de la Directive 2001/3 est reconnue pour le produit identifié ci-dessus par :
The Conformity to the requirements of the 2001/3 *Directive of the hereover identified product is recognised by:*

- Organisme compétent : UTAC
  Competent body
- Adresse : Autodrome de Linas
  Address 93311 MONTLHÉRY - FRANCE

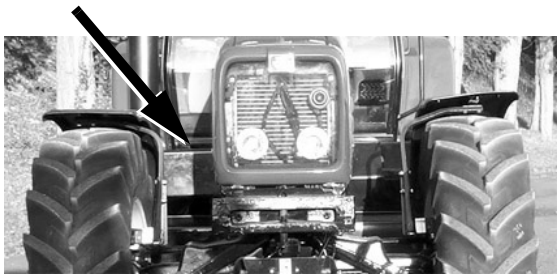
qui a delivré le certificat dont les références sont :
who delivrered the certificate which references are

- Numéro du certificat : UTAC e13*75/322*2001/3*2278
  Certificate number
- Date (Approbation LCIE) : 05/04/04
  Date

1.1 - SERIAL NUMBER

IMPORTANT: WHEN CONTACTING YOUR DEALER OR AGENT, ALWAYS INDICATE YOUR TRACTOR SERIAL NUMBER.

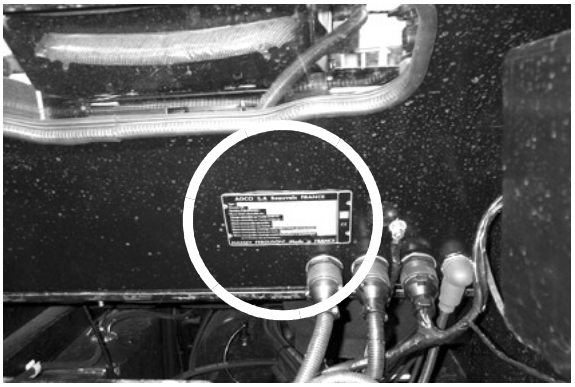
Registration plate (according to country)



Z2-030

Fig. 1

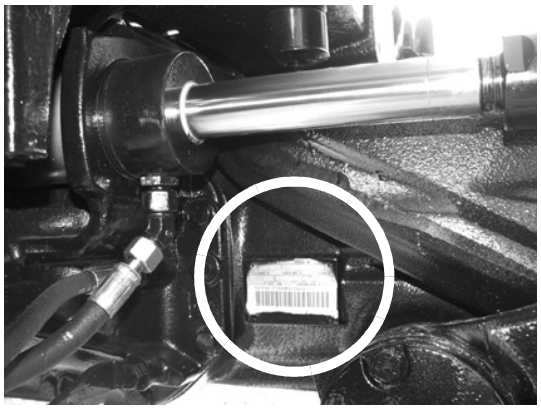
Name plate with serial number (according to country)



Z2-032

Fig. 2

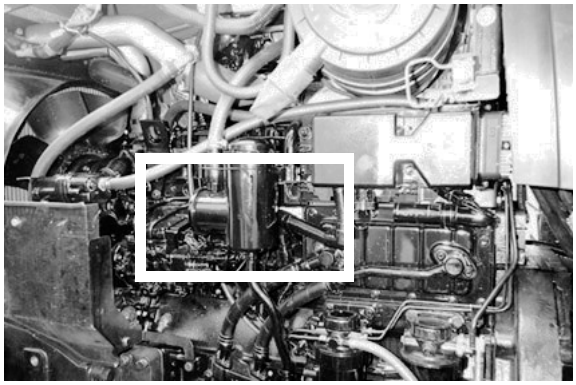
Front axle serial number



Z2-095

Fig. 3

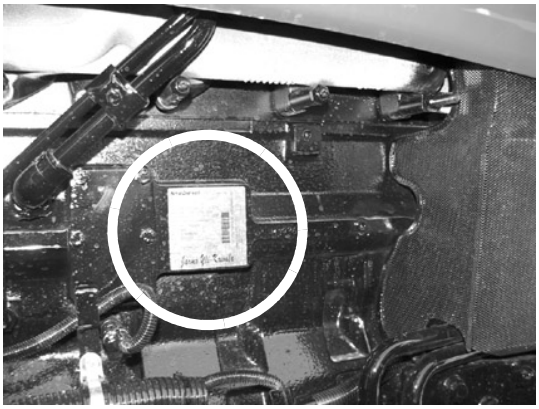
"Perkins" engine serial number



Z2-029

Fig. 4

"Sisu" engine serial number



Z2-132

Fig. 5

Cab serial number

Z2-163

Fig. 6

2.8.2 - Observe the following instructions

- **DO NOT ALLOW** children or unqualified persons to operate your tractor. Keep others away from the working area.
- Always wear your seat belt securely fastened.
- Where possible, avoid operating the tractor near ditches, embankments and holes. Reduce speed when turning, crossing slopes, and on rough, slippery, or muddy surfaces.
- Stay off slopes too steep for safe operation.
- Watch where you are going, especially at row ends, on roads, and around trees.
- Passenger seat is only intended for short periods of use
- Do not allow children in the passenger seat.
- **DO NOT PERMIT** others to ride on the tractor or the implement unless an approved passenger seat is fitted.
- Only hitch attachments and implements to the drawbar and hitch points recommended, and never above the centre line of the rear axle.
- Operate the tractor smoothly - no jerky turns, starts or stops. When the tractor is stopped, apply the handbrake securely. Lower the implement and remove the ignition key.
- **DO NOT MODIFY OR REMOVE** any part of the equipment and **DO NOT USE** attachments unless they are properly matched to your tractor.

2.9 - PROTECTION

2.9.1 - Cab

The ROPS (Roll Over Protective Structure) cab has been designed for this tractor series and meets all the safety and sound legal requirements.

The ROPS cab conforms to the various international safety standards. The ROPS cab must **NEVER** be drilled or modified to install attachments or implements. Welding on cab components **IS NOT PERMITTED. DO NOT ATTACH** chains or ropes to the main frame of the cab for pulling purposes.

If additional controls or displays are to be added to the operator's area contact your AGCO dealer for information.

The ROPS cab together with the seat belt is effective in reducing injuries during overturn accidents. Wearing the seat belt is an important part of this protection.

- Always wear your seat belt adjusted snugly.
- Check the seat belt for damage. A damaged seat belt must be replaced (Fig. 1).

Fig. 1

2.9.2 - Damage to the ROPS cab

If the ROPS cab has been damaged as a result of tractor rollover or incident, it must be replaced, NOT repaired.

DO NOT use the tractor with a damaged ROPS cab.

2.10 - PREPARING FOR SAFE OPERATION

2.10.1 - Know your equipment

It is important to know the tractor and operation of all its accessories, implements and additional equipment. It is also important to know how to use all the controls, gauges and dials, as well as the rated load capacity, speed range, braking and steering characteristics, turning radius, and operating clearances.

Remember that rain, snow, ice, loose gravel, soft ground, etc. can change the performance of your tractor.

Under poor conditions, slow down and be extra careful, and engage four-wheel drive if fitted.

Study the **DANGER**, **WARNING** and **CAUTION** safety symbols on your tractor and the information signs also.

- Make sure load does not obscure hazard warning or transport lights.

2.14 - SAFETY - AFTER OPERATION

Whenever stopping, bring the tractor to a complete halt, apply the parking brake, and disengage the PTO.
Dyna-6 transmission: set the PowerShuttle lever in neutral position,
lower the implement to the ground, stop the engine and remove the ignition key **BEFORE** leaving the seat.

DANGER: Remove ignition key if the tractor is to be left unattended.

3.1.1 - Instrument panel description (Fig. 2)

9. Tachometer
   The tachometer shows the engine speed in hundreds of revolutions per minute.
10. Fuel gauge.
11. Engine coolant temperature gauge.
    Stop the engine if the needle moves into the red zone.
12. Right-hand direction indicator light (green).
13. Left-hand direction indicator light (green).
14. Failure warning lights unit.
    See details (Fig. 7)
15. Headlight indicator light (blue).
16. Direction indicator light for the first trailer (green).
17. Direction indicator light for the second trailer (green).
18. Control indicator lights for functions in use (see details in Fig. 5).
19. Failure and parking brake control indicator lights (see details in Fig. 6).
    if one of the indicator lights remains lit after the engine has started or during normal use, stop the engine and investigate the cause of the problem.
20. Digital display
    Displays the speed engaged (forward / reverse), A/B memory (electronic injection engine), Hare / Tortoise range, Dyna-6 transmission ratios.
21. DOT MATRIX screen (see details in paragraph 3.4).

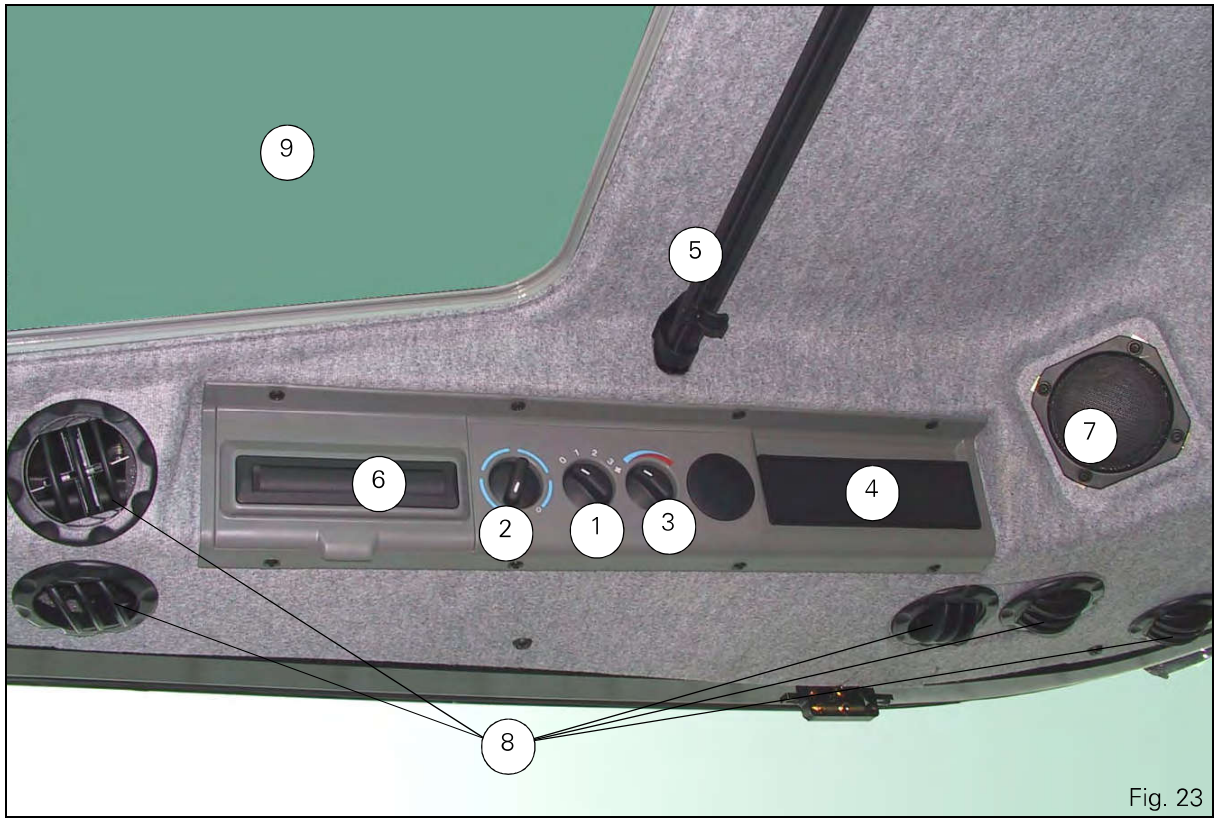


Fig. 23

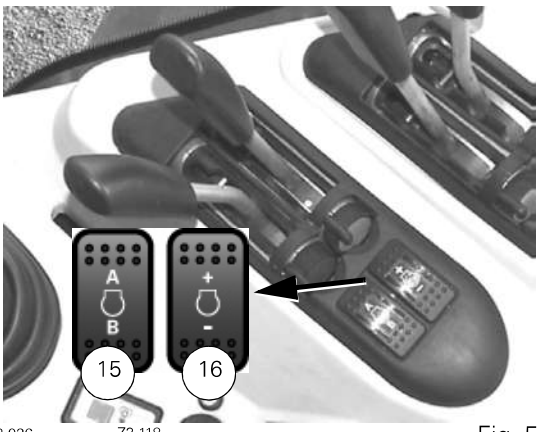
3.10 - UPPER CONSOLE

3.10.1 - High-visibility roof

(Fig. 23):

1. 4-speed ventilator/heater fan control (optional).
2. Thermostat (minimum / maximum) control knob
3. Heater controls:
   Blue = cold
   Red = warm
4. Radio (if fitted).
5. Roller blind for glazed roof.
6. Drink storage compartment, which is cooled when the tractor is equipped with air conditioning.
7. Radio loudspeaker location.
8. Adjustable air circulation vents.
9. Roof hatch (Fig. 29).
10. Interior light (Fig. 24).
    By rotating the 3-position switch:
    0 - off position.
    1 - light comes on when opening the left hand door.
    2 - permanently on.

Fig. 24



Z2-026 Z2-118 Fig. 5

Memorising engine speeds

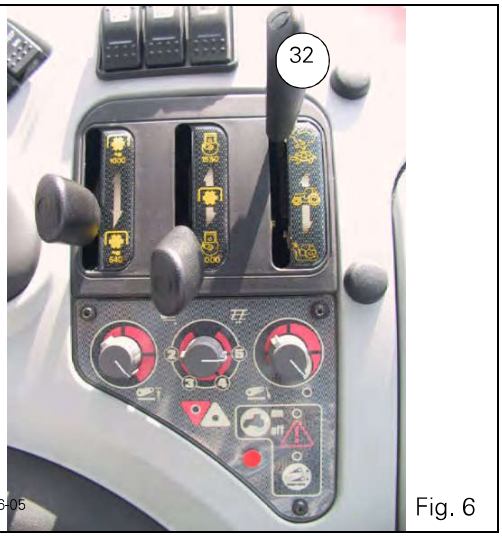
1. Select the required speed using the foot or hand throttle:
   Press and hold the desired memory button (A or B ref.15) for 1 or 2 seconds. The speed is memorised and activated. Carry out this procedure for both memories (A and B). The speed is saved even if the ignition is switched off.
2. No speed must be selected:
   Keep the memory button (A or B) pressed down, do not release it, and the speed increases gradually; release the button when the selected speed is reached and the speed is memorised and activated.

Press button A / B to select or deselect the ratio predefined by button 16.
Each time button 16 is pressed, engine speed is increased/decreased by 10 rpm. A continuously applied pressure allows to rapidly increase or decrease the engine speed to be memorised.

NOTE: When driving at a preselected accelerated engine speed, regardless of the ground speed, pressing button A/B once or pressing the throttle pedal once quickly automatically reduces the engine to idle speed. If ground speed exceeds 20 kph: the engine speed also drops when the brake pedals are pressed.

4.4.5 - Creeper unit (optional)

(Fig. 6): If the tractor is fitted with a creeper unit, normal speeds are obtained when the lever ref.32 is placed in "Hare / Tortoise" position and the gear ratio is reduced (4:1) when the lever is moved to "Snail" position. A safety mechanism prevents the gear ratio from shifting **directly** to "Hare" range without moving lever ref. 32 to "Hare/Tortoise" position first.



Z3B-1564-06-05 Fig. 6

IMPORTANT: Do not move the creeper speed lever except when the tractor is completely stationary. Do not use weights or water ballast when in creeper mode.

Under no circumstances should the creeper speeds be used to obtain a pulling force greater than that available in the normal range.

To avoid seizure of the system, move the lever at least once a month.

DANGER: Always place gear shift lever and shuttle lever in NEUTRAL before leaving driver's seat. Apply the handbrake.

NOTE: If the tractor is working in conditions where water comes higher than the wheel hubs, corrosion damage can occur to some of the components. Consult your dealer or agent for sealing precautions. Failure to do so can invalidate the warranty.

- **Range shifting**

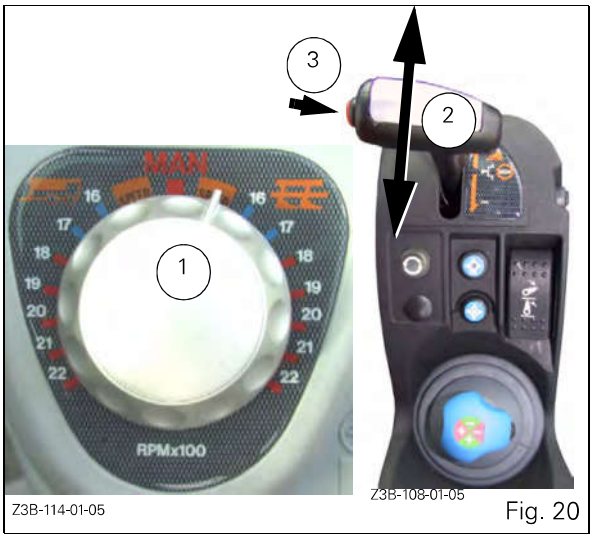
1. Press the range shift button ref.3, Fig. 20.
2. Holding the button down, move the control lever ref.2 or the PowerShuttle lever (+ to increase the range or - to decrease)

When changing range, the most suitable Dyna-6 ratio is selected (depending on load)

Example:

- Increase: 3F to 4B, 2D to 3A
- Decrease: 4B to 3F

If the selected range cannot be engaged, the previous range is reengaged and displayed on the right-hand digital display.



Z3B-114-01-05 Fig. 20

B. Autodrive mode

This mode manages the automatic increase [+] and decrease [-] in Dyna-6 ratios, regardless of the range engaged, depending on the engine speed and load.

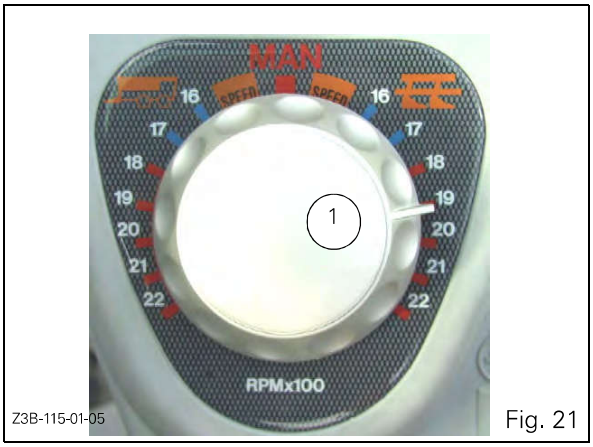


Fig. 21

Use, ref.1, Fig. 21.:

Position the selector ref.1 on the required speed (1600 to 2200 rpm) on the FIELD mode side. The Dyna-6 ratios will increase to the selected speed, taking into account the maximum speed set in the DOT MATRIX.

As soon as the engine speed drops by 22% in relation to the selected speed, the Dyna-6 ratios reduce automatically until the Dyna-6 (A) ratio of the engaged range is reached.

Example: speed selected 1800 rpm, decrease in Dyna-6 ratios below 1400 rpm.

NOTE: The 1600 and 1700 rpm speeds highlighted in blue indicate that the transmission will not be used to its optimum (the ratio decrease takes place at a lower speed compared to that of maximum torque. Use these speeds when the tractor is not loaded).

Speeds highlighted in red indicate optimum operating conditions.

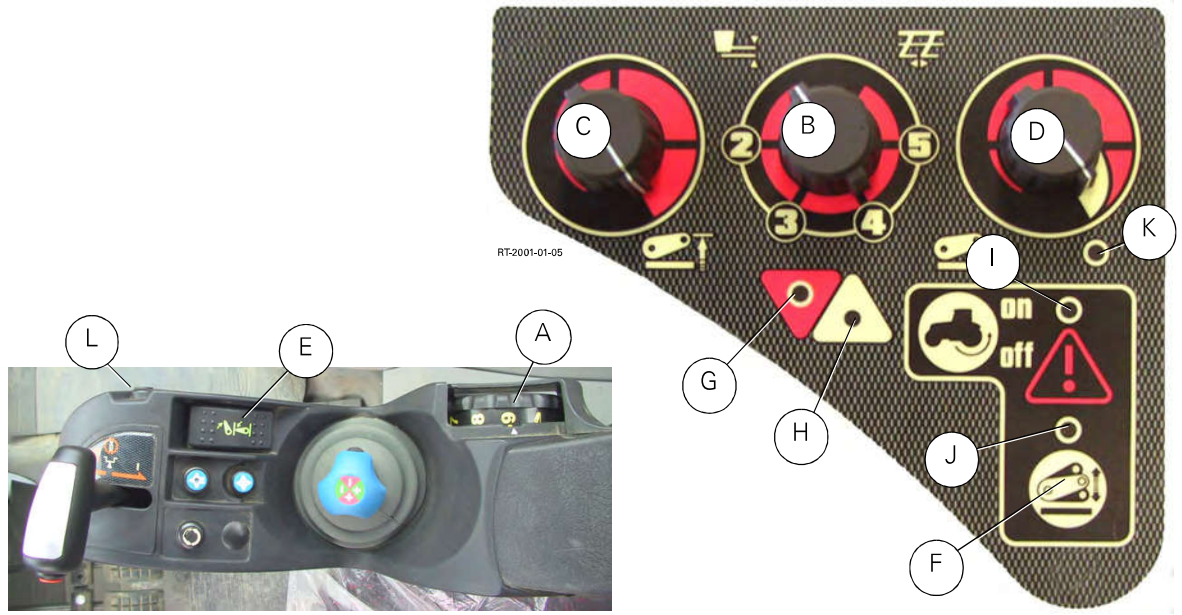


Fig. 44

4.15.6 - Transport

- Select the minimum position with the knob B, Fig. 44.
- Adjust the maximum linkage height according to the transport implement using the height setting knob C. Start from minimum position.
  Move the knob (D) to position 1 (padlock).

4.15.7 - Activate transport control system

- The system operates automatically when button F is pressed; indicator light J comes on.
- To deactivate this function, press button F.

4.15.8 - Quick soil engagement

- Move the selector switch E to Down position, press and hold button L to trigger quick soil engagement.
- Release as soon as the plough is engaged into the soil.

4.15.9 - Use when working

- Adjust the maximum high position using knob C.
- Using knob D, adjust a maximum linkage lowering speed.
- Choose the implement control mode (Draft, Position or Intermix), according to the implement, the ground conditions and the type of work, by use of the control selector knob B.
- Adjust the working depth using knob A.
- The Lift and Lower indicator lights H and G allow to display the work being carried out.

4.15.10 - Operation at headlands

Put the Lift / Lower switch E into the lift position. The linkage will rise to the preselected maximum lift position C.
In order to resume work, put the Lift/Lower selector switch E into "Lower". The depth settings previously made will be repeated.

NOTE: A safety cut-out puts the linkage system out of operation when the ignition is switched off, the engine stopped (ignition switched off), or external controls are used.

The object of this device is to avoid any accidental movement of the linkage if settings on the console have been altered, while the tractor is stationary.
To reactivate the linkage, move the switch E to the intermediate position, then to the lift position. Linkage is then brought back into operation and the padlock (N Fig. 45) in the DATATRONIC window disappears, if this latter has been installed.

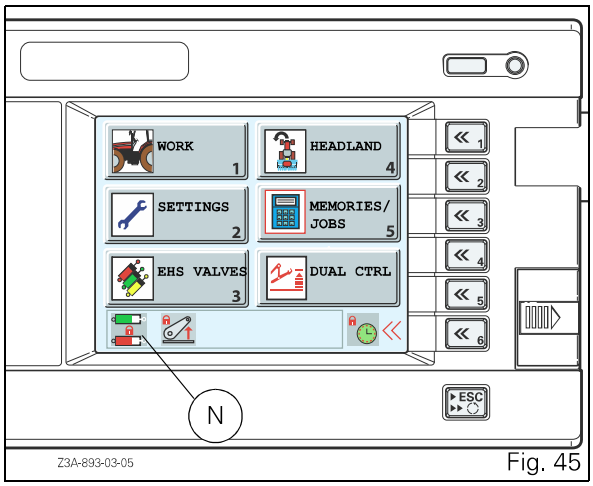


Fig. 45

4. Lower the linkage slightly until the trailer weight is supported by the hook.

NOTE: "Lemoine" auto-hitch

Check the presence of ring stop 5 Fig. 74 which must always be in position to prevent the hitch and ring from blocking.

DANGER: To ensure that the safety locks are correctly engaged, move the auxiliary spool valve lever in both directions.

NOTE: After retracting the hook ram, close the valves ref. 4 again (Fig. 73) to allow normal use of the auxiliary spool valve.

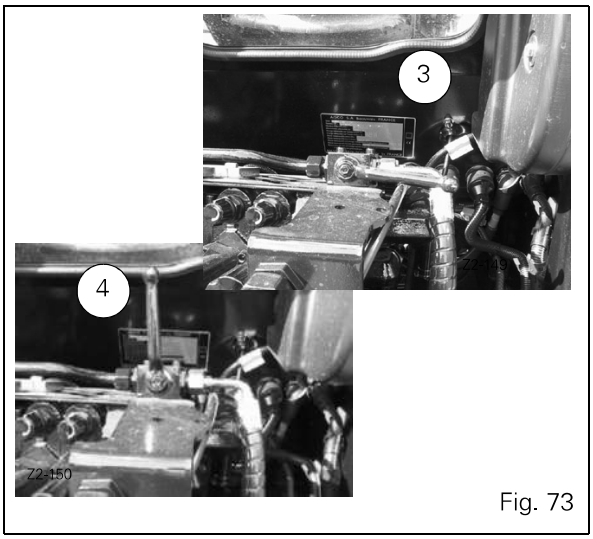


Fig. 73

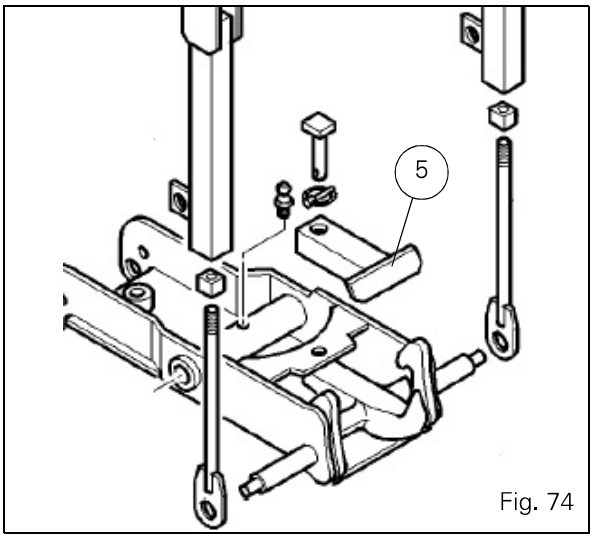


Fig. 74

5.4 - LUBRICATION

AGCO recommends the following lubricants:

5.4.1 - All year round

• Engine	Terrac Extra or Terrac Motor 15W-40.
• Cooling system	Napgel C2230 as per standards specification ASTM D3306 (USA) or AS 2108-1977 (Australia) for Perkins engines. As per standard ASTM D3306-74 (USA) for Sisu engines.
• Transmission*	Terrac Extra or Terrac Tractran 9/Fluid 9.
• Front axle, front final drive units	Carraro: API GL5 - 85 W140 Terrac Trans; Dana: API GL5 - SAE 90.
• Rear axle, rear drive units	API GL5 - 85 W140
• "ZUIDBERG" front power take-off	Autran DX III / Fluid 9
• General greasing	Terrac Charge.

** It is essential to use BP Terrac extra oil or another oil product approved by MF according to CMS M1143 or CMS M1144 standard.*

5

These products are manufactured and distributed by:

BP France
bâtiment Newton 1 - Parc St Christophe
10 rue de l' Entreprise - CERGY
95866 CERGY PONTOISE CEDEX

Technical information: 0800 476 840 (freephone).

NOTE: The warranty remains valid only as long as the lubricants used comply with the following classifications, and no other products are used.

Engine: API CH4 / CCMC D4 or D5

Transmission: refer to MF specifications CMS M1143 or CMS M1144.

Front axle: API GL5.

5.11 - COOLING SYSTEM

Check the coolant level every ten hours (this interval is flexible).

The coolant quality can have a great effect on the efficiency and life of the cooling system.

The antifreeze mixture must always be between 40 - 50% antifreeze for 60 - 50% water.

Even the "non cold" regions must respect the minimum 40/60 mixture, in order to raise the boiling point, and protect the system against corrosion.

The water used should be a clean, soft and non acid.

Use a permanent type Ethylene/glycol mix according to the following specifications:

Coolant specifications

Use the coolant recommended by AGCO. The liquid must meet the following standards:

Perkins engines: ASTM D3306 (USA) - AS 2108-1977 (Australia).

Sisu engines: ASTM D3306-74 (USA).

Check the quality and level of mixture regularly, at least once a year, and avoid the addition of pure water in the system that will dilute the mixture.

NOTE: Never use pure water as a coolant.

IMPORTANT: If the correct procedures are not used, AGCO cannot be held responsible for damage caused.

Clean the radiator fins every 400 hours (this interval is flexible) using compressed air.

Check the fan belt tension every 100 hours.

Expansion tank (Fig. 28)

Periodically check the level of coolant in the expansion tank, the red indicator light comes on as soon as the minimum level of coolant is achieved.

NOTE: When filling, do not exceed the mid-way point on the tank.

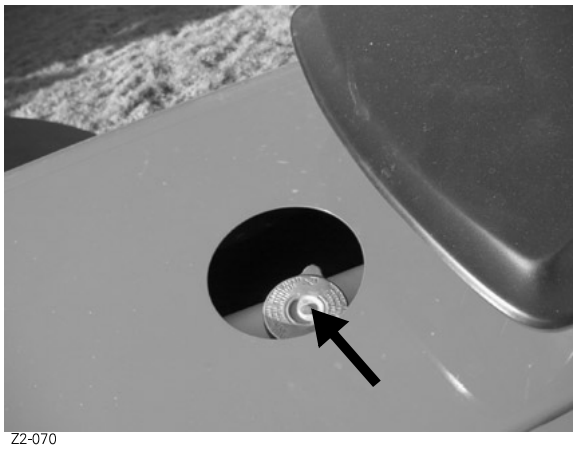
IMPORTANT: After filling, clean traces of liquid from the filling port.

WARNING: If the engine is very hot, loosen the plug at the first clevis and remove it to lower the expansion tank pressure.

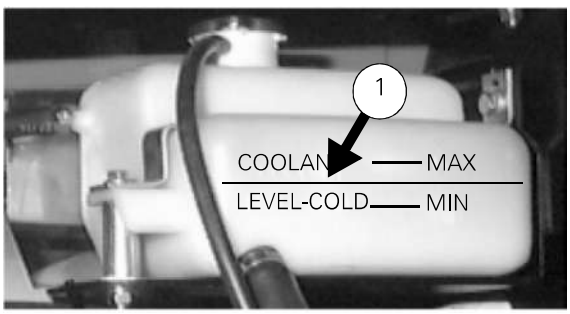
After filling:

1. Open the heater tap fully and run the engine at 1000 rpm for several minutes.
2. Then stop the engine, recheck and, if necessary, top up the expansion tank with coolant (ref. 1). Refit the plug.

IMPORTANT: Precautions against frost: Check the degree of protection of the coolant before each cold season.



Z2-070



V 293

Fig. 28

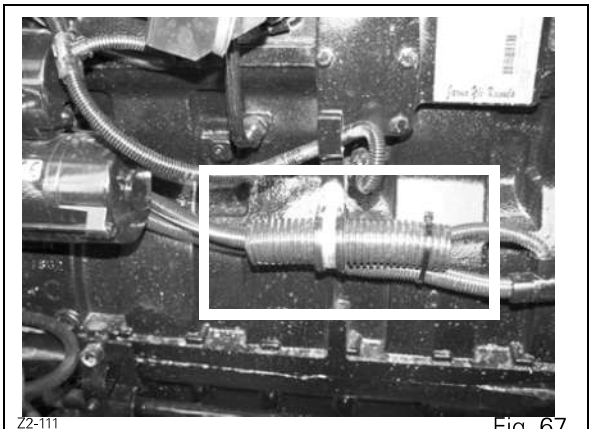
5

Roues Avant Front Wheels	TYRE MAXIMUM LOAD (Pression Maxi pneu)						Inflation pressure (bar)	Inflation pressure (Psi)
	Kleber		*Michelin*		*Goodyear*			
	20 mph 30km/h	25 mph 40 km/h	20 mph 30km/h	25 mph 40 km/h	20 mph 30km/h	25 mph 40 km/h		
11.0-16			370				0.4	6
			470	440			0.5	7
			570	540			0.6	9
			670	620			0.8	12
			760	710			1	15
			860	800			1.2	18
			950	890			1.4	20
			1040	975			1.6	24
14.9 R28			1080				0.5	7
	1310		1250	1170	1230	1150	0.6	9
	1450	1350	1390	1300	1375	1285	0.8	12
	1590	1500	1520	1420	1500	1400	1	15
	1790	1680	1660	1550	1660	1550	1.2	18
	1900	1790					1.3	19
	2000	1890	1790	1670	1820	1700	1.4	20
	2200	2060	1930	1800	1925	1800	1.6	24
16.9 R28			1340				0.5	7
	1650		1560	1460	1605	1500	0.6	9
	1810	1710	1730	1610	1765	1650	0.8	12
	1980	1870	1890	1770	1925	1800	1	15
	2180	2060	2060	1930	2085	1950	1.2	18
	2290	2150					1.3	19
	2390	2240	2230	2080	2205	2060	1.4	20
	2600	2430	2400	2240	2395	2240	1.6	24
480/65 R28	1080		1050				0.4	6
			1250	1120			0.5	7
	1500		1460	1370	1455	1360	0.6	9
	1680		1700	1580	1605	1500	0.8	12
	1860	1740	1930	1800	1820	1170	1	15
	2040	1900	2160	2020	1980	1850	1.2	18
	2220	2070	2400	2240			1.4	20
	2400	2240					1.6	24
540/65 R28	1280		1240				0.4	6
			1480	1330			0.5	7
	1770		1730	1620	1820	1700	0.6	9
	1980		2010	1870	2035	1900	0.8	12
	2200	2050	2280	2130	2270	2120	1	15
	2410	2250	2560	2390	2460	2300	1.2	18
	2620	2450	2840	2650			1.4	20
	2840	2650					1.6	24
600/65 R28	1540		1550				0.4	6
			1840				0.5	7
	2180	2000	2140	2000	1820	1700	0.6	9
	2410	2210	2370	2210	2085	1950	0.8	12
	2640	2430	2600	2430	2270	2120	1	15
	2880	2640	2830	2640	2525	2360	1.2	18
	3110	2860	3060	2860	2755	2575	1.4	20
	3350	3075	3290	3075	2915	2725	1.6	24
480/70 R28	1280						0.4	6
	1770				1765	1650	0.6	9
	1980				1955	1825	0.8	12
	2200	2050			2140	2000	1	15
	2410	2250			2335	2180	1.2	18
	2620	2450			2515	2350	1.4	20
	2840	2650			2675	2500	1.6	24
600/70R28	1720						0.4	6
	2410						0.5	7
	2760						0.6	9
	3100	2830					0.8	12
	3450	3180					1	15
	3800	3530					1.4	20
	4150	3880					1.6	24
14.9 R30			1380				0.5	7
			1600	1500	1265	1180	0.6	9
			1770	1660	1410	1320	0.8	12
			1950	1820	1550	1450	1	15
			2120	1980	1710	1600	1.2	18
			2290	2140	1875	1750	1.4	20
			2460	2300	1980	1850	1.6	24
			1380				0.5	7
16.9 R30	1700		1600	1500	1660		0.6	9
	1870	1760	1770	1660	1820		0.8	12
	2030	1930	1950	1820	1980		1	15
	2250	2120	2120	1980	2140		1.2	18
	2350	2210					1.3	19
	2460	2310	2290	2140	2335		1.4	20
	2680	2500	2460	2300	2460		1.6	24
540/65 R30	1310						0.4	6
			1590				0.5	7
	1850		1850	1720			0.6	9
	2050		2040	1910			0.8	12
	2260	2120	2240	2090			1	15
	2490	2330	2440	2280			1.2	18
	2720	2540	2640	2460			1.4	20
	2960	2750	2840	2650			1.6	24
480/70 R30	1280						0.4	6
	1810	1680			1820	1700	0.6	9
	2000	1860			2015	1885	0.8	12
	2200	2040			2210	2065	1	15
	2400	2220			2395	2240	1.2	18
	2590	2400			2595	2425	1.4	20
	2790	2580			2755	2575	1.6	24
14.9 R34			940	880			0.4	6
			1200	1120			0.6	9
			1440	1350			0.8	12
			1620	1510			1	15
			1760	1640			1.2	18
			1900	1780			1.4	20
			2040	1910			1.6	24
			2250	2110			1.9	27
			2400	2240			2	29
480/70R34	1350						0.4	6
	1910	1780			1925	1800	0.6	9
	2120	1970			2135	1995	0.8	12
	2330	2160			2340	2185	1	15
	2530	2350			2525	2360	1.2	18
	2740	2540			2740	2560	1.4	20
	2950	2730			2915	2725	1.6	24

Roues Arrière Rear Wheels	TYRE MAXIMUM LOAD (Pression Maxi pneu)						Inflation pressure (bar)	Inflation pressure (Psi)
	Kleber		Michelin		Goodyear			
	20 mph 30km/h	25 mph 40 km/h	20 mph 30km/h	25 mph 40 km/h	20 mph 30km/h	25 mph 40 km/h		
18.4 R38			1800				0.5	7
	2210		2090	1950			0.6	9
	2440	2060	2310	2160			0.8	12
	2680	2500	2540	2370			1	15
	2940	2750	2760	2580			1.2	18
	3080	2880					1.3	19
	3210	3000	2990	2790			1.4	20
	3480	3250	3210	3000			1.6	24
20.8 R38			2190				0.5	7
	2670		2540	2370			0.6	9
	2970	2770	2820	2630			0.8	12
	3280	3020	3090	2880			1	15
	3570	3310	3360	3140			1.2	18
	3710	3450					1.3	19
	3860	3590	3630	3390			1.4	20
	4150	3875	3910	3650			1.6	24
600/65 R38	1990		1700				0.4	6
			2040	1830			0.5	7
	2760		2380	2230	2395	2240	0.6	9
	3090		2760	2580	2675	2500	0,8	12
	3420	3200	3140	2940	2995	2800	1	15
	3750	3510	3520	3290	3290	3075	1.2	18
	4080	3820	3910	3650			1.4	20
	4410	4125					1.6	24
650/65 R38			1920				0.4	6
			2310	2060			0,5	7
			2690	2520			0.6	9
			3120	2920			0.8	12
			3550	3320			1	15
			3980	3720			1.2	18
			4410	4130			1,4	20
520/70R38	1660						0.4	6
	2350	2180					0.6	9
	2600	2420					0.8	12
	2860	2650					1	15
	3110	2880					1.2	18
	3370	3120					1.4	20
	3630	3350					1.6	24
	1930						0.4	6
	2720	2530			2335	2180	0.6	9
	3020	2800			2565	2395	0.8	12
	3310	3070			2815	2630	21	15
	3610	3340			3105	2900	1.2	18
	3900	3610			3330	3110	1.4	20
	4200	3875			3585	3350	1.6	24
710/70 R38	2630		2670				0.4	6
			3180				0.5	7
	3710	3460	3690	3450	3690	3450	0.6	9
	4110	3820	4080	3820	4145	3875	0.8	12
	4510	4190	4480	4190	4550	4250	1	15
	4920	4560	4880	4560	4950	4625	1.2	18
	5320	4930	5270	4930	5350	5000	1,4	20
	5730	5300	5670	5300	5670	5300	1.6	24
650/75 R38	2630						0.4	6
	3710						0.6	9
	4110						0.8	12
	4510	4190					1	15
	4920	4560					1.2	18
	5320	4930					1.4	20
	5730	5300					1.6	24
650/85 R38	2700						0.4	6
	3790						0,6	9
	4300						0.8	12
	4800	4490					1	15
	5400	5040					1.2	18
	5990	5600					1.4	20
	6580	6150					1.6	24
20,8R42							0.4	6
	2720	2530			2675	2500	0.6	9
	3020	2800			2995	2800	0.8	12
	3310	3070			3290	3075	1	15
	3610	3340			3585	3350	1.2	18
	3760	3470					1,3	19
	3900	3610			3905	3650	1.4	20
	4200	3875			4145	3875	1.6	24
650/65 R42			1980				0.4	6
			2380	2130			0.5	7
			2770	2590			0.6	9
			3220	3010			0.8	12
			3660	3420			1	15
			4100	3840			1.2	18
			4550	4250			1.4	20
620/70R42					3210	3000	0.6	9
					3495	3265	0.8	12
					3825	3575	1	15
					4145	3875	1.2	18
					4495	4200	1.4	20
					4815	4500	1.6	24
					5030	4700	1.8	26
					5240	4895	2	29
18.4 R46			1620	1510			0.4	6
			2070	1930			0.6	9
			2500	2340			0.8	12
			2800	2610			1	15
			3040	2840			1.2	18
			3290	3080			1.4	20
			3530	3300			1.6	24
			3900	3650			1.9	27
			4150	3880			2	29

Num.	Amp	Use
F1	10	Front right and rear left side light, back lighting switches/ console/cigarette lighter
F4	10	Auto III, Auto V (Dyna-6), instrument panel, gearbox/differential/4WD/cab PTO/creeper/handbrake neutral switches
F5	15	Brake lights
F6	10	Dyna-6 control on armrest, PTO, creeper unit, radar, headland mode, high pressure filter clogging, differential, power front axle
F7	5	Electronic injection control module (ECM), reversing light relay, temperature switch
F9	15	Suspended front axle (optional)/front PTO (optional)
F10	25	Side windscreen wiper
F11	10	Air conditioning compressor (optional), linkage console backlighting
F13	7.5	Work headlights module
F14	7.5	Electric rear-view mirror (optional)
F16	30	Alternator, booster pump (Perkins), injection pump stop solenoid valve (EEM)
F17	3	Brake switches
F18	7.5	Linkage / diagnostics, Dyna-6 range switch on armrest, Auto V
F19	25	Pneumatic seat, fuel heater
F21	7.5	Linkage, Datatronic 3
F22	10	Starter switch, BOC / TOC, steering wheel Dyna-6 lever, accelerator pedal position sensor, PTO stop lighting, armrest, Joystick, parking brake buzzer, Dyna-6 control, door switch
F23	30	Cigarette lighter, roof light, 12V socket, "Triflash" panel
F25	25	Hazard warning light switch, permanent 12 volts
F26	30	Power socket
F27	25	Electronic injection control module (ECM, Perkins)
F28	20	Electronic injection control module (ECM)
F29	15	Auto III, Auto V (Dyna-6) control unit
F30	15	Electronic injection control module (ECM), thermostart
F32	10	Electronic injection control module (ECM)
F33	5	Electronic injection control module (ECM)
F34	15	Dipped lights
F35	7.5	Horn
F36	15	Headlight
F37	5	Clutch safety start switch
F38	7.5	Front left and rear right side lights, instrument panel back lighting, number plate lighting
F39	20	Handrail side / road lights, back lighting, rear windscreen wiper switch
F40	15	Left-hand direction indicator
F41	15	Control buttons on Joystick (optional)
F44	15	Right-hand direction indicator
F46	15	Rear windscreen wiper, heating
F47	10	Radio
F48	7.5	Suspended front axle (optional)
F49	50	Cab suspension (optional)
F50	50	Air conditioning, radio
F51	15	Instrument panel
F52	10	Power socket
F53	25	Control unit functions
F54	30	Front work headlights
F55	25	Rear work headlights
F56	25	Work headlights on handrails and/or rear fenders
F57	30	Work headlights on handrails and/or footstep
F58	7.5	Work headlights module
F59	10	Flashing beacon (optional)
F60	10	+ ignition on relay control
F61	25	Hazard warning lights
SH2	30	Fender and handrail work headlights
SH4	15	Without handrail road lights
SH5	10	Without handrail road lights
SH7	15	Direction indicators
SH9	15	Direction indicators
SH11	15	Direction indicators
SH13	15	Direction indicators
SH14	15	Direction indicators
R1		Handrail road lights
R3		Electronic injection control module (ECM)
R4		Reversing lights (optional)
R5		Brake lights
R6		Control buttons on Joystick (optional)
R7		Control buttons on Joystick (optional)
R8		Handrail road lights
R9		Electronic injection pump (ECM)
R10		Power socket
R12		Wiper timer
R14		Air conditioning
R15		+ ignition on
R16		Cab suspension (optional)
R17		Front work headlights
R18		Rear work headlights
R19		Work headlights on handrails and/or rear fenders
R20		Footstep work headlights (optional)
R21		Left-hand direction indicator
R24		Right-hand direction indicator
R27		Flashing beacon (optional)
R28		Hazard warning light
R29		Manual air conditioning
R30		Side windscreen wiper

A 175A fuse (Fig. 67) located near the starter protects the engine power supply.



Z2-111 Fig. 67

A 150A fuse, located near the batteries, protects the general cab power supply.

Battery main switch option: A 3A fuse, located near the battery main switch, supplies the headlight module and radio.

6.1 - ENGINE

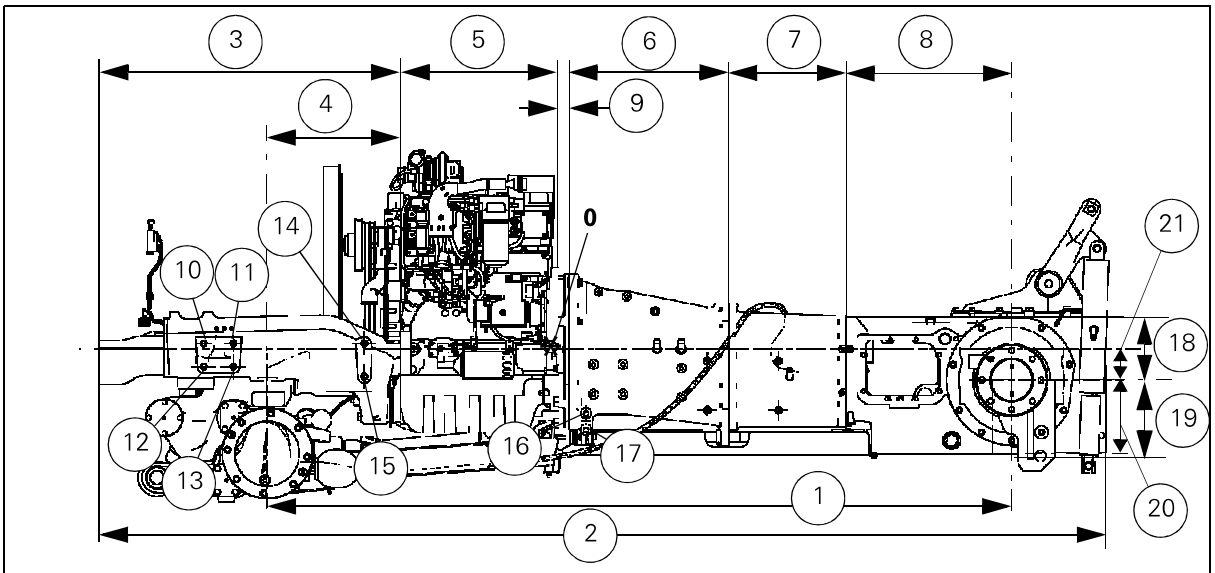
Specifications	6445	6455	6460	6470	6465	6475	6480	6485	6490	6495
Perkins engine	1104C-44T	1104C-44T	1004C-E44TA	1004C-E44TA	1106C-E60TA	1106C-E60TA	1106C-E60TA			
Sisu engine								66ETA	66ETA	66ETA
Number of cylinders	4	4	4	4	6	6	6	6	6	6
Turbocharger	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Bore (mm)	105	105	105	105	100	100	100	108	108	108
Stroke (mm)	127	127	127	127	127	127	127	120	120	120
Cubic capacity (l)	4.4	4.4	4.4	4.4	6	6	6	6.6	6.6	6.6
Nominal power (ISO Kw)	67	74.5	83.5	89	87	98.5	106	113	125	137
At engine speed in rpm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Power Boost: Nominal power (ISO Kw)	-	-	90	95	106	114	120	132	148	155
At engine speed in rpm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Idle speed	950	950	850	850	850	850	850	850	850	850
Max. speed at no load (rpm)	2350 (± 30 rpm)	2350 (± 30 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)	2260 (± 10 rpm)
Maximum torque (ISO Nm) Engine speed at maximum torque	380 1400	415 1400	471 1400	491 1400	500 1400	565 1400	635 1400	650 1400	720 1400	780 1400
Lubrication	Gear type pump - strainer on suction side and external replaceable cartridge type filter(s).									
Valves	Overhead, push-rod operated									
Valves clearance (Cold): Inlet (mm) Exhaust (mm)	 0.20 0.45	 0.20 0.45	 0.20 0.45	 0.20 0.45	 0.20 0.45	 0.20 0.45	 0.20 0.45	 0.35 0.35	 0.35 0.35	 0.35 0.35
Engine oil cooler	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

6.1.1 - Fuel system and air filter

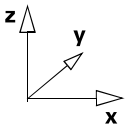
Specifications	6445	6455	6460	6470	6465	6475	6480	6485	6490	6495
Fuel filter	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of elements	1	1	1	1	1	1	1	1	1	1
Fuel prefilter	no	no	no	no	yes	yes	yes	yes	yes	yes
Number of elements	-	-	-	-	1	1	1	1	1	1
Injection pump	Delphi DB210		Bosch VP30							
Injectors and nozzle holders	Bosch									
Cold weather starting	Glow plugs				Thermostart			Grid Heater		
Air cleaner: two-stage, dry element with clogging indicator.										

6.22 - DIMENSIONS AND ATTACHMENT POINTS

6.22.1 - Specifications for 6445, 6455, 6460 and 6470 models with Dyna-6 transmission



Z3B-106-01-05



Dimensions in relation to point **0**

REFERENCE	0= Engine axis	DIMENSIONS (mm) x	y	z
1	2549			
2	3447			
3	1032			
4	457			
5	539.7			
6	549			
7	400			
8	567			
9	36			
10	M20	-1214.35	+/-280	20
11	M20	-1112.75	+/-280	20

REFERENCE	0= Engine axis	DIMENSIONS (mm) x	y	z
12	M20	-1214.35	+/-280	-60
13	M20	-1112.75	+/-280	-60
14	M20	-664.75	+/-275	20
15	M20	-664.75	+/-275	-94
16	M20	95	+/-138	-220
17	M20	95	+/-138	-277
18	216			
19	260			
20	249			
21	106			

Fig. 2

F. Multi-colour diode.
- Green when operating
- Blue when ignition is switched off (storing data)

G. Memory card reader (MMC and SD Card types)

Fig. 2

7.2.1 - MEMORIES/JOBS application

General

This application is used to store the parameters of 6 different implements and the following functions:
- assign a specific name to each of the 6 implements,
- record a HEADLAND sequence for each implement,
- control, measure and store parameters while an implement is in use,
- import or export data and settings using an SD Card (7 additional memories).

To start the **MEMORIES/JOBS** application (Fig. 3):
- Rotate the encoder (1) to the **MEMORIES/JOBS** application and press the encoder once the active function is highlighted by red text and a red rectangle around the icon, or press the key «$_5$ (2). The window (Fig. 5) is displayed.
- To exit an application, press the **ESC** key (3).

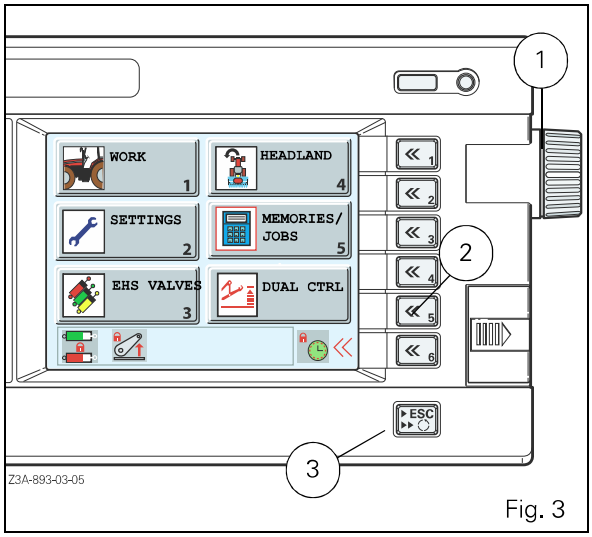


Fig. 3

NOTE: If a card is present in the reader, an icon is displayed on the main screen (ref. A Fig. 4).

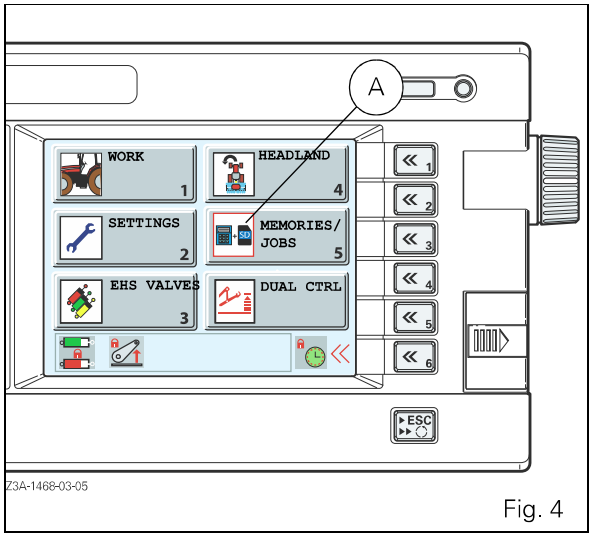


Fig. 4

Symbols in the right-hand part of the window:

Enters the selected memory

Activates or deactivates the selected memory

JOBS menu

Export settings menu

Import settings menu

Data export menu

7

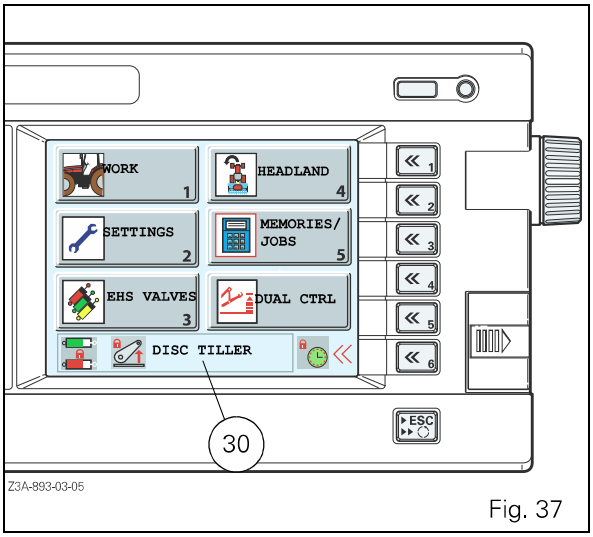


Fig. 37

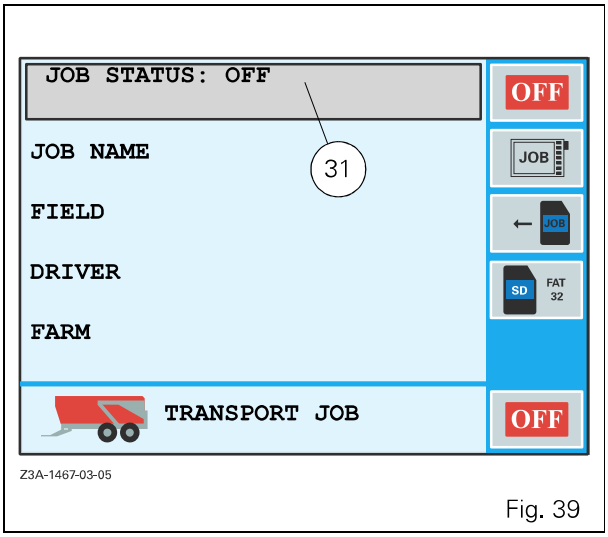


Fig. 39

7.2.6 - JOBS menu

The JOBS menu allows all instant values relating to a memory to be stored on the memory card (one value stored every 2 seconds), for example fuel used, distance, area worked and also engine and transmission temperatures.

To enter the JOBS menu, press the key «$_3$ when the window (Fig. 38) is open. The window (Fig. 39) is displayed.

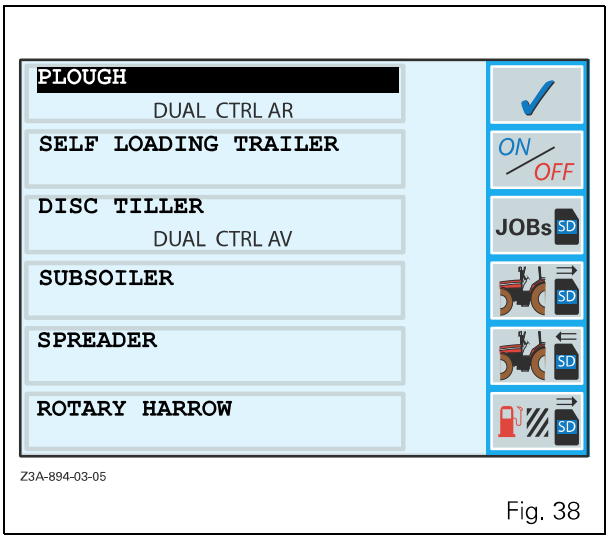


Fig. 38

OFF JOB status (activated: ON, deactivated: OFF).

JOB Allows access to jobs stored in the Datatronic 3

Allows data of a job stored on the SD Card to be imported

Provides access to the card formatting menu

OFF Transport JOB status (activated: ON, deactivated: OFF).

NOTE: If there is no card in the Datatronic 3 reader, a message is displayed on the screen (ref. 32 Fig. 40).

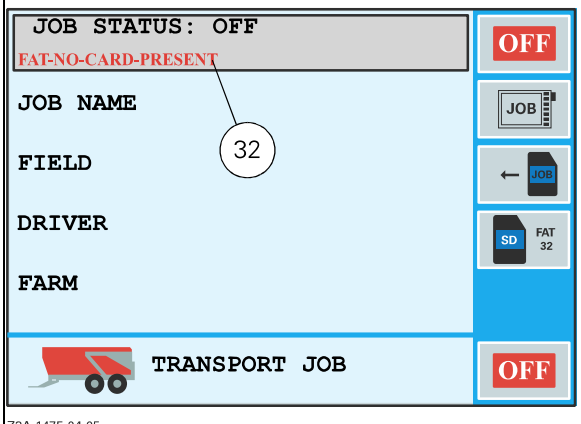


Fig. 40

7

Description (Fig. 77)
Fixed upper section:

Memorised engine speed A (icon is green when the function is active)

Memorised engine speed B (icon is green when the function is active)

PTO speed (icon is yellow when the function is active)

Tractor wheel slip (maximum percentage (4) and actual percentage (5))

NOTE: See chapter 4 (Using the DOT MATRIX) for setting wheel slip.

Left-hand window:
- EHS VALVES 1-4,
- GEARBOX SETTINGS,
- ACTIVE MEMORY,
- HEADLAND,
- REAR DUAL CTRL,
- FRONT DUAL CTRL,
- TIC (Trailed Implement Control).

Right-hand window:
- EHS VALVES 1-4,
- GEARBOX SETTINGS,
- ACTIVE MEMORY,
- HEADLAND,
- POINTS,
- EHS VALVES 5-6.

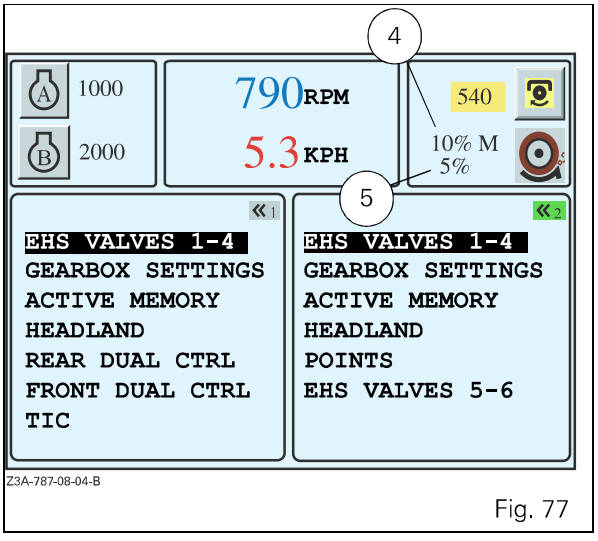


Fig. 77

NOTE: When using this application, you can open the menu of your choice from the right-hand or left-hand part of the screen when displayed in both screens (EHS VALVES, GEARBOX SETTINGS, ACTIVE MEMORY and HEADLAND).

7.3.1 - EHS Valves menu

EHS VALVES 1-4 menu displayed in the left-hand window:

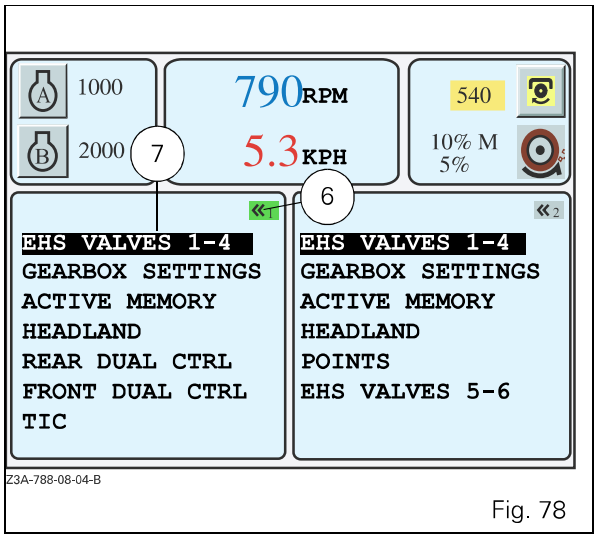


Fig. 78

- To start one of the applications, press the key «1, or the key «2 twice. The first key press selects the window and the second displays the list. The active application is represented by a green button at the top right of the window (ref. 6 Fig. 78).
- To call up the various menus, select the application using the encoder. The selected application is displayed in a black frame (ref. 7 Fig. 78).
- Validate by pressing the encoder or the key «1. The window (Fig. 79) is displayed.

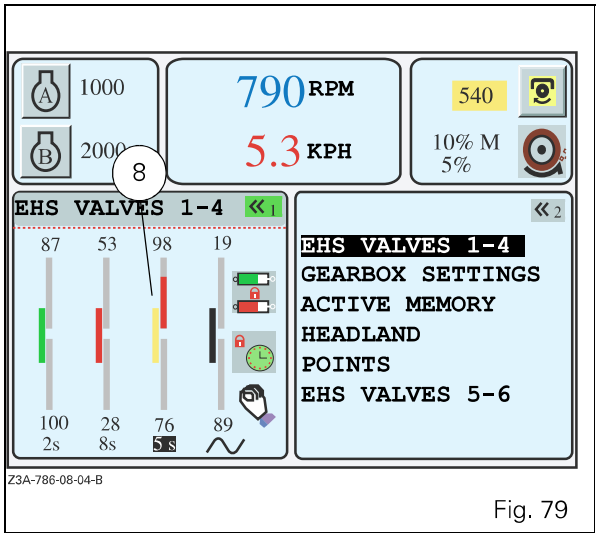


Fig. 79

(8) Real-time display of Spool valve lever movement (in red inside the progress bar).

- To return to the previous menu, press the key «1 or «2 once, depending on the window currently open.

7

7.4 - SETTINGS APPLICATION

General

This application is used to set the following parameters:
- hours,
- date
- display and calculation units,
- screen (brightness and night mode),
- buzzer volume,
- language
- servicing schedule.

To start the **SETTINGS** application (Fig. 110):
- Rotate the encoder (1) to the **SETTINGS** application and press the encoder once the active function is highlighted by red text and a red rectangle around the icon, or press the key «$_2$ (2). The main menu (Fig. 111) is displayed.
- To exit an application, press the **ESC** key (3).

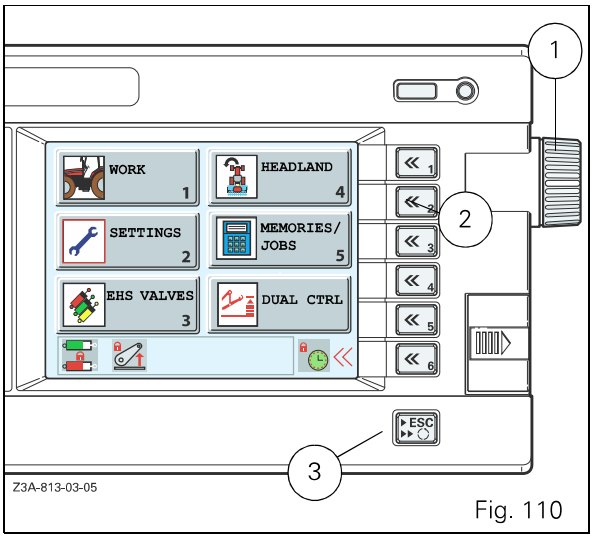


Fig. 110

7.4.1 - Setting parameters (Fig. 111)

To set each parameter, press keys «$_1$ to «$_6$, then adjust the values using the encoder. To validate each value, press the encoder.

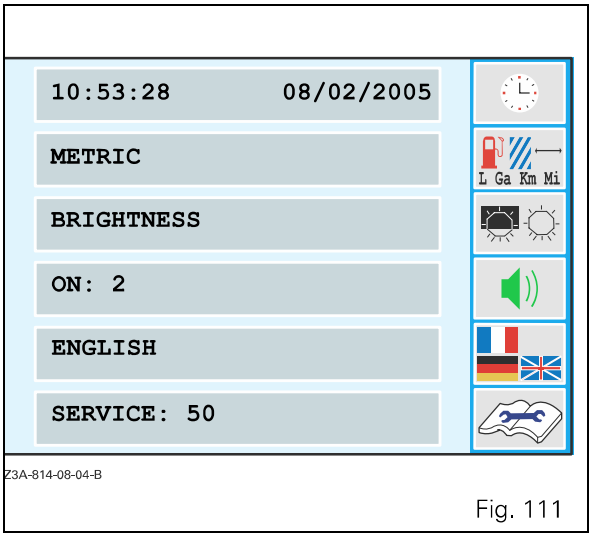


Fig. 111

7.4.2 - Setting the time and date

- Press the key «$_1$, (the window (Fig. 112) is displayed).

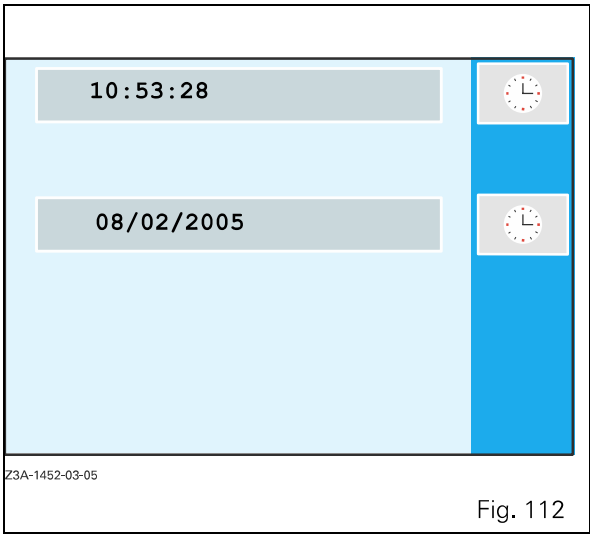


Fig. 112

7

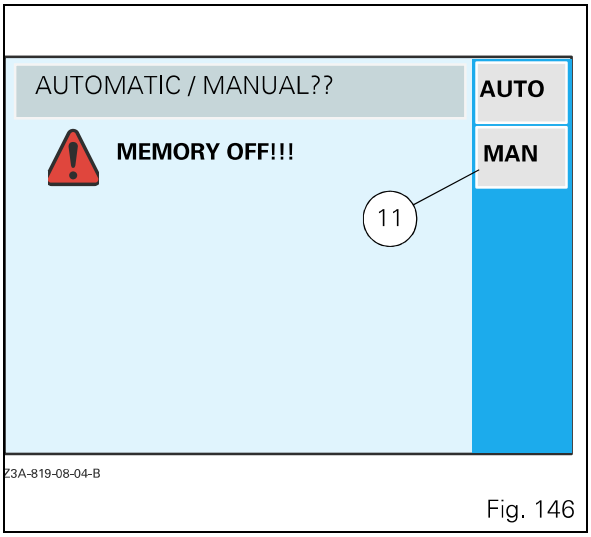


Fig. 146

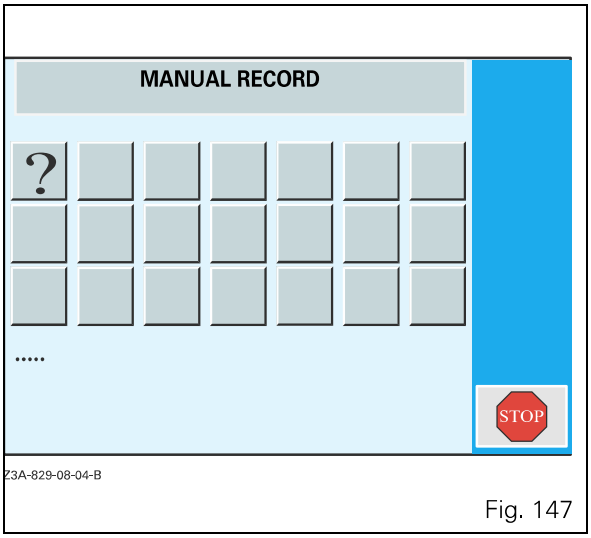


Fig. 147

A question mark is displayed in the first icon.

- Select an action by rotating the encoder and validate by pressing it (e.g.: Fig. 148).

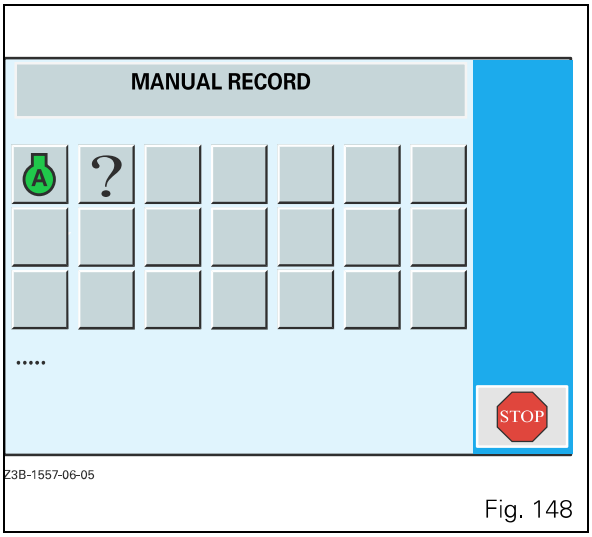


Fig. 148

The action is recorded and a new question mark is displayed.

- Proceed in the same manner for the other actions.

NOTE: As for automatic recording, a pause must be inserted (by pressing the Headland button Ref. 12 Fig. 149) to perform the end of field manoeuvres.

Fig. 149

- Press the key «$_6$ (Stop) to terminate the sequence. A pause is automatically inserted and a new window is displayed (Fig. 150).

7

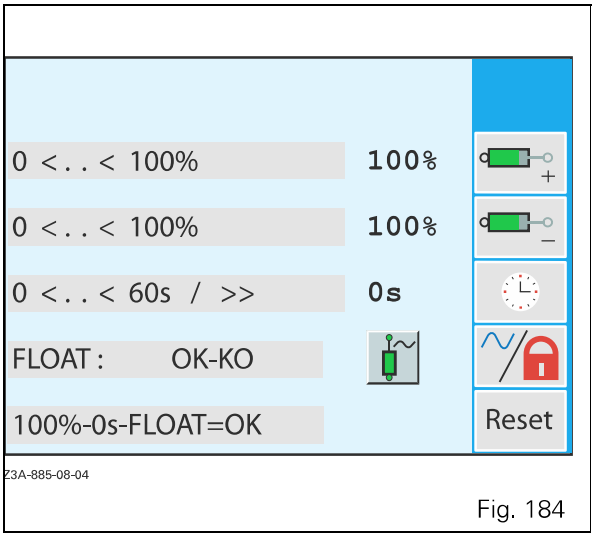


Fig. 184

- Press the key «$_5$ to display either:

Floating position unavailable

Floating position available

To return to the previous window, press the **ESC** key.

7.6.1.3 - Resetting the parameters (Fig. 185)

- Select the spool valve to adjust using keys «$_1$ to «$_5$.

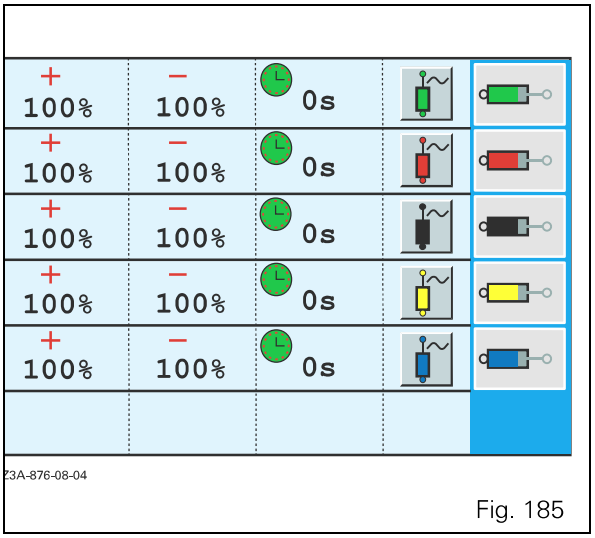


Fig. 185

Example: key «$_1$ provides access to the first spool valve. A new window is displayed (Fig. 186).

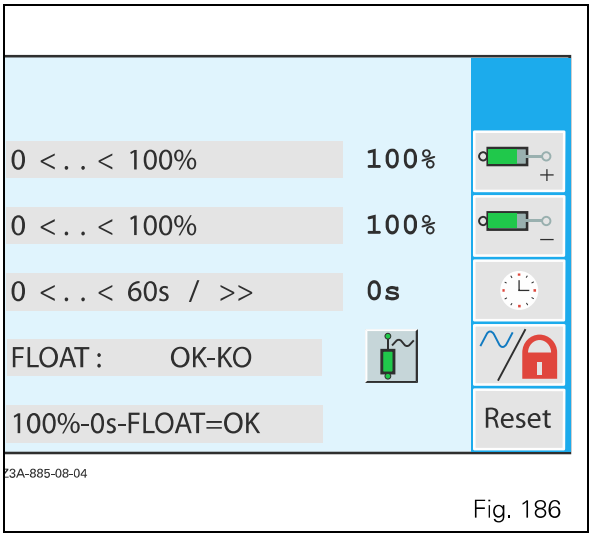


Fig. 186

- Press the key «$_6$ (RESET) to reset the values.

Default values after reset:

- spool valve flow on rod retraction and extension at 100%,
- spool valve activation time at 0 seconds,
- floating position available.

To return to the previous window, press the **ESC** key.

7

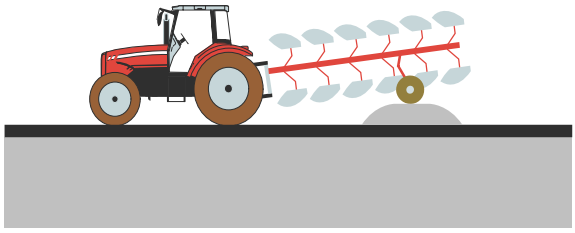
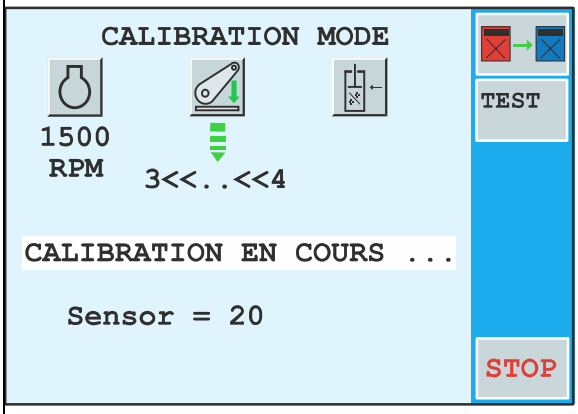

Z3A-1014-08-04

Fig. 217

- Press the key «$_6$. Calibration starts and a new window is displayed (Fig. 218).



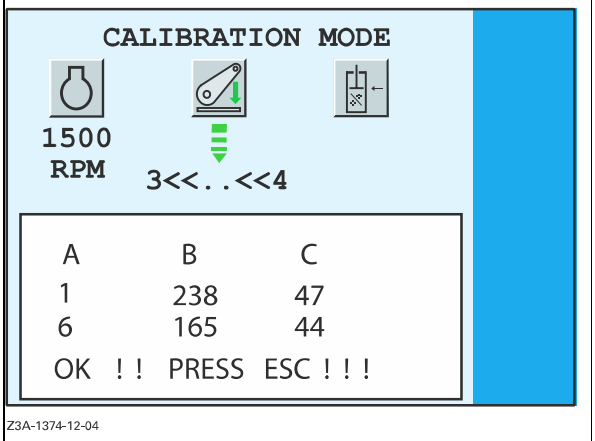
Z3A-1013-08-04-B

Fig. 218

During calibration, the implement is lifted and lowered several times. Then, as soon as calibration is complete, the window (Fig. 219) is displayed again. This indicates the values stored at calibration.
To validate the calibration, the ignition must be switched off when calibration is complete.

NOTE: If a problem occurs, press the key «$_6$ (STOP) to stop calibration.

DANGER: Ensure that no one can enter the front linkage operating area throughout the calibration process.



Z3A-1374-12-04

Fig. 219

A. Minimum and maximum Dual activation specified values
B. Maximum (high) and minimum (low) position front linkage
C. Correction on lifting and lowering, this correction is mainly dependent upon ram capacity

Required conditions for optimum Dual Control operation:
A. from 1 to 10
B. a difference of more than 100 points (with the high value always greater than the lower line)
C. from 5 to 150.

If the calibration values fall significantly out of this range, then the sensor working area or characteristics need to be modified. The Dual Control, however, will operate correctly.

7.7.5.2 - Downloading the calibration

If different implements are to be used, the rear implement depth wheel sensor calibration can be stored in different memories.
The procedure is the same as for the front DUAL CONTROL (see section 7.7.2.3).

7.7.6 - Memorising high and low linkage positions

For optimum operation, the Datatronic 3 must know the high and low positions of the linkage and plough depth wheel.
The plough must be fitted with a position sensor connected to the rear of the tractor (ref. 42 Fig. 220).

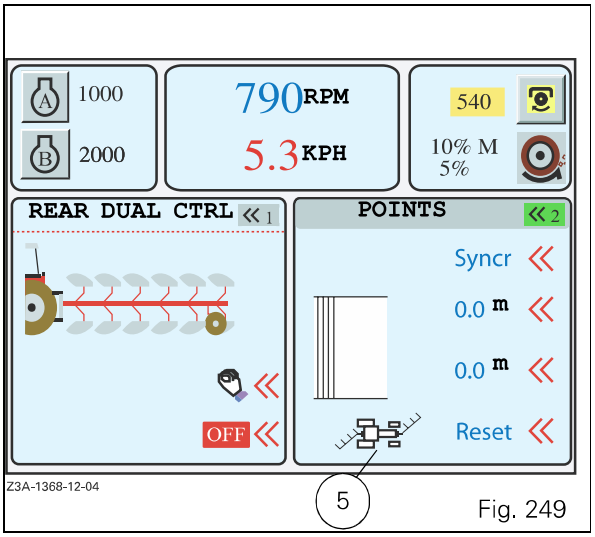


Fig. 249

Press the key «$_4$ (furrow start). The value is displayed in red (ref. 4 Fig. 248).

- Using the encoder, adjust the value (positive or negative). This value corresponds to the furrow start length (Ref. A Fig. 250 positive furrow start).

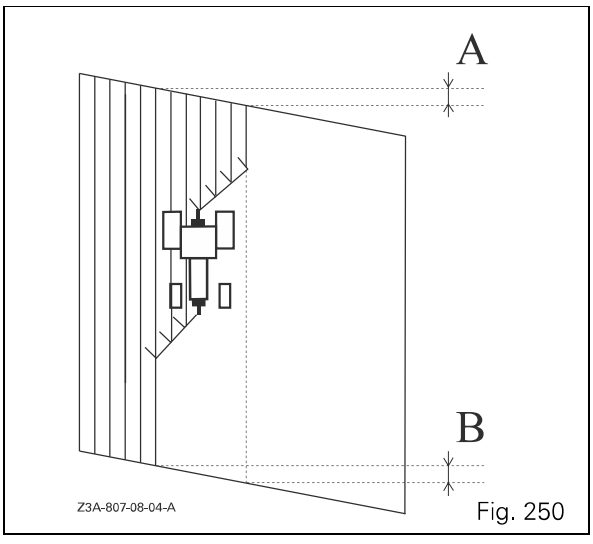


Fig. 250

- Validate this value by pressing the encoder. It is displayed in blue and the fields shape is modified according to the positive or negative value.
- To modify the furrow end value, press the key «$_5$ and proceed in the same manner. This value correspond to length B of the diagram (Fig. 250 positive furrow end).

The key «$_6$ (RESET) resets the previous lengths.

Operation:

IMPORTANT: The DUAL CONTROL function must absolutely be activated.

On furrow start (outward run):

The tractor icon on screen is in transport position (ref. 6 Fig. 251).

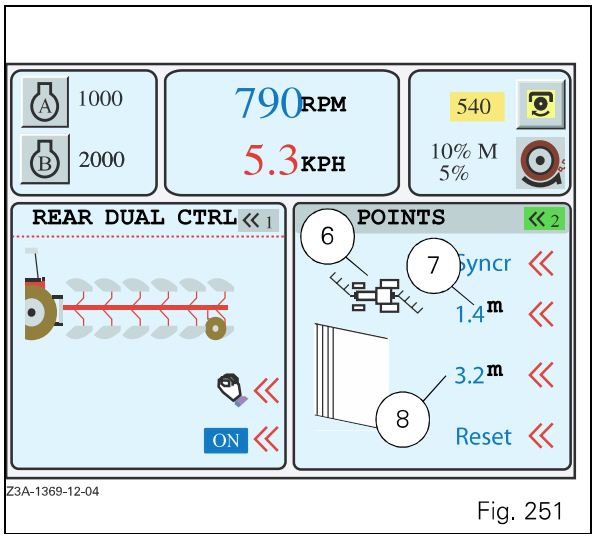


Fig. 251

The lengths (7 and 8) are positive. Indeed, in this example, the furrow start and end lengths must be extended to perform a straight furrow start and end.

As soon as the linkage Lowering control is actuated, the tractor icon is positioned in the centre of the field (working position) (ref. 9 Fig. 252).

When the tractor is in working position, the positive length become negative (ref. 10 Fig. 252).

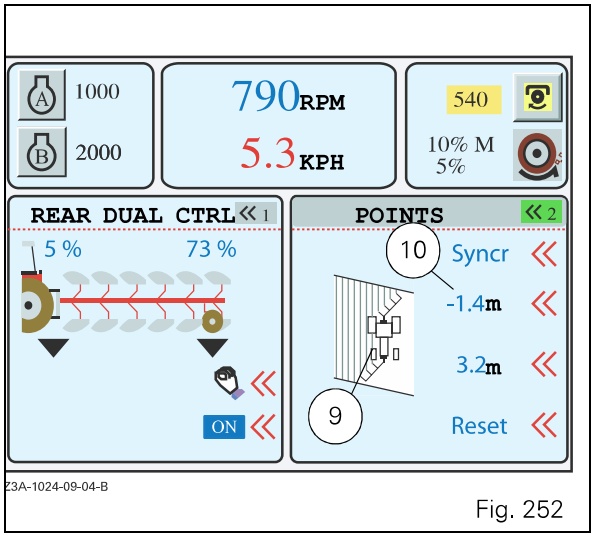


Fig. 252

On furrow end (outward run):

As soon as the linkage Lifting control is actuated, the tractor icon is positioned at the bottom of the field (Fig. 253). The furrow end length becomes negative (ref. 11 Fig. 253).