

F 65A.22

use and maintenance

FROM SERIAL NUMBER *5001*

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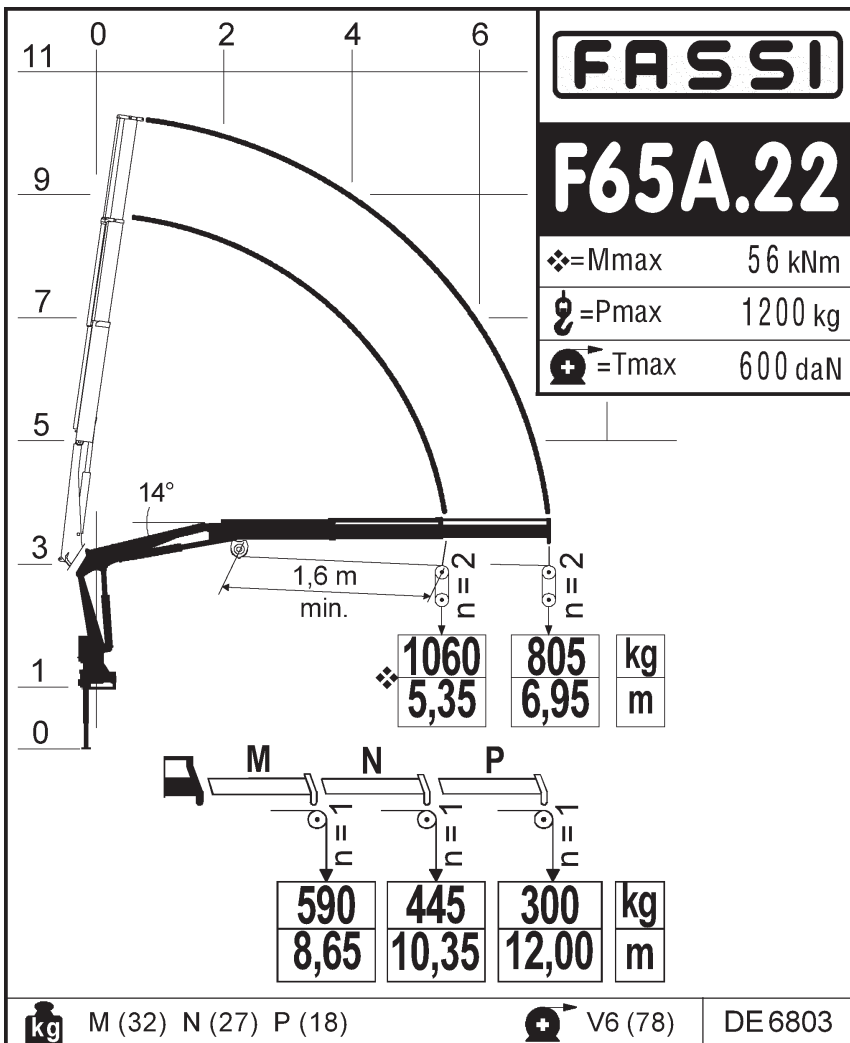
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6 SAFETY NORMS

Strictly conform to the norms reported by the plates **DE2499B** (fig. 1) or **DE4236** (fig. 1a) placed next to the controls, in order to avoid possible accidents while operating the crane.

Only authorized persons are allowed to operate the crane.

The crane must be used on firm, level ground.

Check that the vehicle hand brake is on and that the wheels are chocked.

Before every operation make sure that:

- no-one is within the working area of the crane;
- the safety devices are in place and operative;
- the minimum safe working distances from power lines are observed;
- the load is correctly slung and hooked.

Stabilize the vehicle by the outrigger rams, making sure that:

- the lateral supports are fully extended;
- the wheels are in contact with the ground and the suspension is not completely unloaded.

Use the crane in accordance with the use and maintenance manual, making sure that:

- the load and radius are within the maximum limits shown on the crane capacity plate;
- the crane is used progressively avoiding sudden load movements
- swinging or dragging of the load is avoided;
- the load is lifted before rotating.


When using implements protect the crane working area with a barrier.

The vehicle/crane are not left unless the power take off is disengaged and the load is on the ground.

Before driving the vehicle make sure that the outriggers are fully retracted and re-entered, the safety taps closed and the crane is in folded position.

VERTICAL VERSION

fig. 1



FASSI
GRU IDRAULICHE

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DE2499B

INSTRUCTIONS FOR SAFE USE OF THE CRANE

- 1 Only authorized persons are permitted to operate the crane.
- 2 The crane must be used on firm, level ground.
- 3 Check that the vehicle hand brake is on and that the wheels are chocked.
- 4 Before operation make sure that:
 - no-one is within the working area of the crane;
 - the safety devices are in place and operative;
 - the minimum safe working distances from power lines are observed;
 - the load is correctly slung and hooked.
- 5 Stabilize the vehicle with the outriggers, making sure that:
 - the lateral supports are fully extended;
 - the wheels are in contact with the ground and the suspension is not completely unloaded.
- 6 Use the crane in accordance with the use and maintenance manual, making sure that:
 - the load and radius are within the maximum limits shown on the crane capacity plate;
 - the crane is used progressively avoiding sudden load movements;
 - swinging or dragging of the load is avoided;
 - the load is lifted before rotating.
- 7 When using implements protect the working area with a barrier.
- 8 The vehicle/crane are not left unless the power take off is disengaged and the load is on the ground.
- 9 Before driving the vehicle ensure that the outriggers are fully retracted and re-entered, the safety taps closed and the crane is in the folded position.

HORIZONTAL VERSION

fig. 1a



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DE4236

INSTRUCTIONS FOR SAFE USE OF THE CRANE

- 1 Only authorized persons are permitted to operate the crane.
- 2 The crane must be used on firm, level ground.
- 3 Check that the vehicle hand brake is on and that the wheels are chocked.
- 4 Before operation make sure that:
 - no-one is within the working area of the crane;
 - the safety devices are in place and operative;
 - the minimum safe working distances from power lines are observed;
 - the load is correctly slung and hooked.
- 5 Stabilize the vehicle with the outriggers, making sure that:
 - the lateral supports are fully extended;
 - the wheels are in contact with the ground and the suspension is not completely unloaded.
- 6 Use the crane in accordance with the use and maintenance manual, making sure that:
 - the load and radius are within the maximum limits shown on the crane capacity plate;
 - the crane is used progressively avoiding sudden load movements;
 - swinging or dragging of the load is avoided;
 - the load is lifted before rotating.
- 7 When using implements protect the working area with a barrier.
- 8 The vehicle/crane are not left unless the power take off is disengaged and the load is on the ground.
- 9 Before driving the vehicle ensure that the outriggers are fully retracted and re-entered, the safety taps closed and the crane is in the folded position.

9 CRANE NOMENCLATURE

9.1 Version with ground controls for crane and outriggers. (fig. 4) Version with top seat controls (fig. 4a) for crane by hand cables (optional)

Pos. Description

1. Outrigger rams
2. Outrigger supports
3. Base
4. Rotation cylinders
5. Distributor for crane-outriggers
6. Double control for crane-outriggers
7. Deviator control for selecting the rams
8. Column
9. Inner ram
10. Inner boom
11. Outer ram
12. Outer boom
13. Booms extension rams
14. Extension boom sections
15. Lifting hook
16. Oil tank
17. Manual extensions (optional)
18. Seat (optional)
19. Hand-cables from top seat (optional)

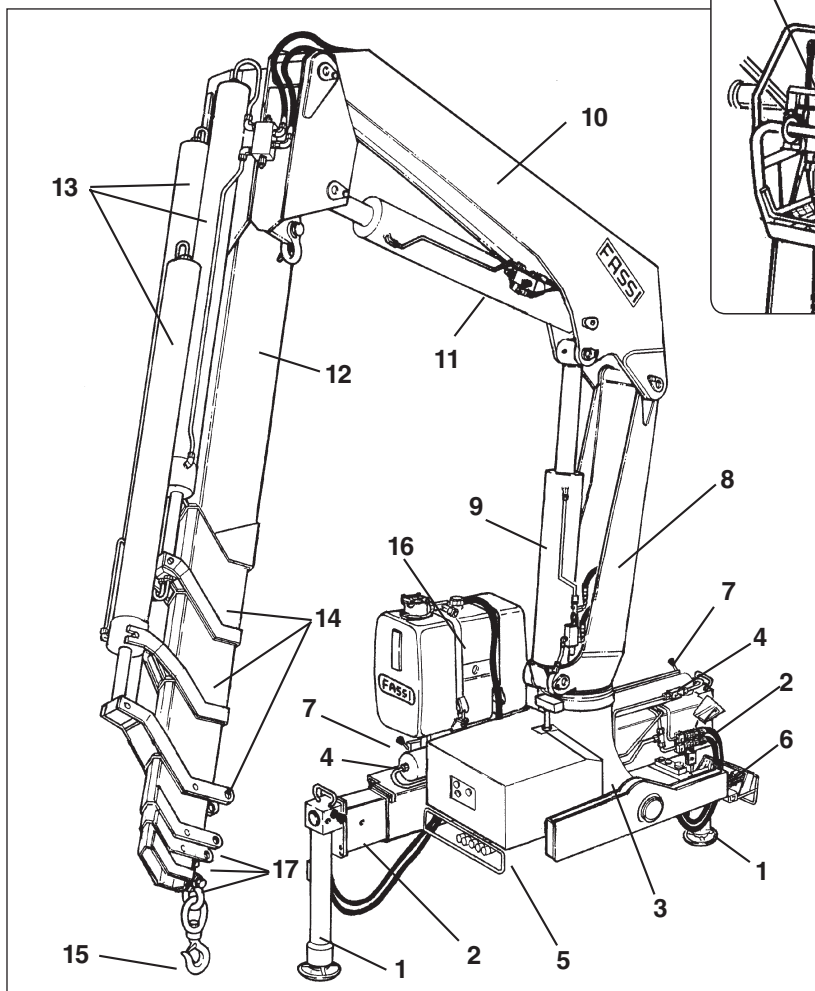


fig. 4

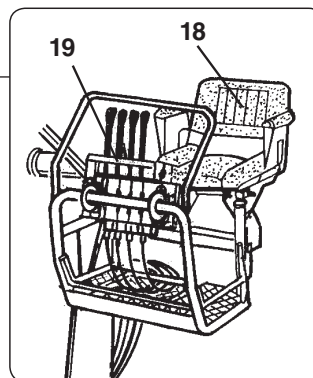


fig. 4a

14.1 Generality

(!) WARNING (!)

Before operating the crane it is compulsory to set the outriggers. (Plate DE6723 fig. 14)

The crane and hydraulic implements can be manually operated with:

- ground controls on both sides or, on request
ground controls on both sides and
top seat controls by hand-cables;
- top seat controls.

The plates reported over each lever define their function in relation to their movement.

FASSI

ATTENZIONE: PRIMA DI AZIONARE LA GRU E' OBBLIGATORIO METTERE IN OPERA GLI STABILIZZATORI.

WARNING: BEFORE OPERATING THE CRANE IT IS COMPULSORY TO EXTEND THE OUTRIGGERS.

ATTENTION: AVANT D'UTILISER LA GRUE IL EST OBLIGATOIRE DE METTRE EN FONCTION LES STABILISATEURS.

ACHTUNG: VOR INBETRIEBNAHME DES KRANS MUESSEN DIE ABSTUETZUNGEN AUSGEFAHREN.

ATENCIÓN: ANTES DE ACCIONAR LA GRÚA ES OBLIGATORIO ESTABILIZAR EL VEHÍCULO.

ATENÇÃO: ANTES DE UTILIZAR A GRUA É OBRIGATÓRIO COLOCAR EM FUNCIONAMENTO OS ESTABILIZADORES.

DE6723

fig. 14

16 MANOEUVRES OF THE CRANE LOADS (version with lifting moment limiting device)

16.1 Generality

- (!) Before manoeuvring the load, verify that the working area is suitable for your crane.

The lifting curves of the capacity plate indicate the maximum load that the crane can lift at a certain radius and at a certain height. To utilize the maximum capacity of the crane, it is necessary to position the inner boom as indicated on the capacity plate. During load handling, do not exceed the reach limits given, or the load indicated on the above mentioned charts. If the limits are exceeded, the limiting device, allowing all manoeuvres, which reduce the lifted load within the permitted reach limits and forbid all other manoeuvres, will be immediately activated.

Lifting moment limiting device

A characteristic which permits the classification of cranes is their lifting capacity or maximum lifting moment. The moment is defined by the value obtained from the weight of the load to be lifted (**kg**) by its distance (**meters**) from the centerline of the crane rotation.

The device called "lifting moment limiting device" preserves the crane structure from overloads, as it prevents any movement which increases the value of the moment up to the maximum established value.

16.7.2 Temporary OVERRIDE-REACTIVATION for the crane functions with standard distributor

- In case of an electrical failure or of the appearance of the signal “**ALARM**” on the display **B** of the control panel of the lifting moment limiting device:

Firstly remove the protection guard. Then unscrew the fixing screws (13 mm hexagonal spanner).

On the distributor it has been installed an electro-valve with a manual locking function (fig. 22) which allows to reactivate all the crane functions in case of absence of the electric power. Only in these conditions it is permitted to remove the lead seal which protects the device. Push the button and turn it into the clockwise sense (fig. 22a pos. 1-2); the button stays in stable and closed position.

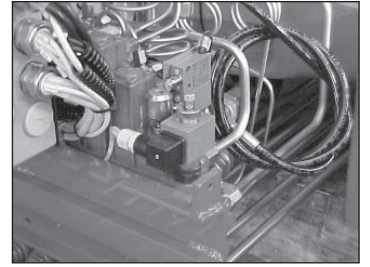


fig. 22

- (!) **When the electric power is reestablished, remember to put the button in its original position, turning it into the anti-clockwise sense. (fig. 22a pos. 3-4)**

(!) ATTENTION (!)

Activation of the reactivation button.

This activation prevents the operation of the lifting moment limiting device, consequently, the operation under such conditions can involve an overload condition. In such an emergency condition (where the lifting moment limiting device has been disabled), the operator, who is responsible for the machine safety, must:

- carefully consider the manoeuvres required to return to normal working conditions: it is however compulsory to effect the re-entry of the extension booms at first,
- calmly and carefully assess the type and scale of the hazards arising from these manoeuvres and the possible reaction of the crane (tipping over, frame overload, uncontrolled fall of the load due to a hydraulic system overload etc.);
- make all movements as slowly as possible to reduce the dynamic overload to the minimum.

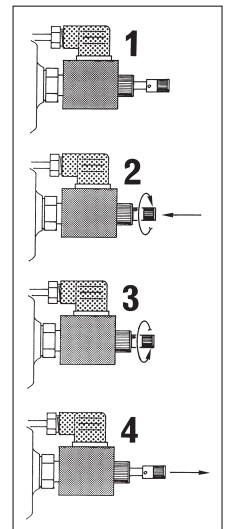


fig. 22a

After such emergency operations and prior to re-use of the crane, you must immediately go to **FASSI authorised Center** for testing the structure and re-sealing of the device.

16.7.3 OVERRIDE - REACTIVATION lever for the crane functions (with Danfoss distributor)

- In case of an electrical failure or of the appearance of the signal “**ALARM**” on the display **B** of the control panel of the lifting moment limiting device:

Firstly remove the protection guard. Then unscrew the fixing screws (13 mm hexagonal spanner).

On the distributor it has been installed an emergency tap lever (fig. 23) to be used in the event of a black-out, electrical or hydraulic malfunctions.

Only In these situations it is permitted to remove the lead seal placed on the tap lever and place it in the closed position.



fig. 23

- (!) **When the electric power is reestablished, remember to put the button in the opened position.**

3. Message “M1 - M2 - M3” (fig. 3)

After having pressed the above mentioned keys, the message illustrated in GR2_45»65_3_4_5_SE Fig. 3 will be displayed.



fig. 3



fig. 3

At this point, through the "+" button, select the correct number of the manual extension at the moment in use (M stands for manual and 1, 2 and 3 indicate the number of the manual extensions). Select the number of the manual extension you want; that number starts blinking. You can select only the manual extensions that have been installed: i.e. if only one manual extension is installed, by pressing the "+" key, only the M1 extension will start flashing. To confirm your choice, press once the "F1" key (control panel) or "ENTER" (radio-remote control); you'll access the section dedicated to the system configuration.

4. Message “K1 - K2 - K3 - K4” (fig. 4)

[paragraph to read only in case of manual extensions installed on Jib and not on Crane]



fig. 4



fig. 4

If you press the "ENTER" key with the manual extensions mounted on the jib, the screen of Fig. 4 will be displayed.

Therefore we can choose the most convenient configuration among the following:

- K1 Outer booms of the crane totally re-entered and jib extensions as you like
- K2 Outer booms of the crane as you like and jib extensions totally re-entered
- K3 Outer booms of the crane totally extended and jib extensions as you like
- K4 Outer booms of the crane as you like and jib extensions totally extended

Select the desired configuration using the * button to move among the various options. Confirm your selection by pressing the "F1" (control panel) or "ENTER" (radio-remote control) key. If the hydraulic jib boom is not at its stroke end, the message at point 3 will be displayed; otherwise the message "F1 TO START" is visualised.

5. Message “FC P2” (fig. 5)

Note: do not hang any load on the hook.

This means that the outer ram must be positioned at its stroke end (if it is already in that position this message won't appear), using the lever until the next screen is displayed.



fig. 5



fig. 5

21.3 Generality (version with load limiting device)

The winch is made of a drum that can rotate by means of a hydraulic motor, on a structure fixed on the crane. The rotation of the drum on which the cable winds is achieved by a hydraulic motor controlled by a safety check valve connected to the crane circuit. A parking brake integrated to the motoreducer group hold the load in position when the winch control lever is in neutral position.

Nomenclature of winch unit (Fig. 23)

Pos.	Description
1.	Winch
2.	Cable
3.	Fixed pulley
4.	Balance weight
5.	Hook
6.	Transmission pulley
7.	Block (double-triple.... line)

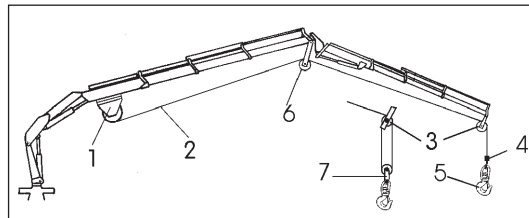


Fig. 23

(!) ATTENTION (!)

Check the condition of wire rope.

- (!) **On winches not equipped with cable layer, check the rewinding of the cable on winch drum proceeds regularly and without overlapping: it is suggested to rewind the cable only if it is sufficiently taut.**

Do not rotate the crane before the load is lifted. Lift the load vertically using the cable and not the boom in order to avoid swinging the load. With the suspended load rotate slowly and with care checking the stability of the vehicle.

21.4 Winch for crane

The identification data and the essential characteristics are marked on a plate fixed by the manufacturer.

Manufacturer mark ...
Winch type ...
Serial number ...
Maximum line in N at the 4th layer...
Maximum speed in m/min ... or Maximum capacity pump l/min

- (!) See operator winch manual supplied by the winches' manufacturer.

The winch has a maximum capacity (which cannot be exceeded), indicated by a plate, not related to the crane capacities which can also be lower.

Consequently avoid to lift, with the winch, heavier loads than those allowed by the capacity plate of the crane with the winch.

Note: We do not recommend using the winch with load moving (winch in or out) at the same time as the extension booms or the crane and hydraulic jib (if fitted), since it accelerates the wear of the extension guide pads reducing their life to one third compared to a standard application.

The cranes with winch feature a sensor that deactivates the exit of the extension boom sections when the load on the winch exceeds the nominal load by 20%. There is no other control on the maximum load lifting which is therefore limited only by the lifting limit of the winch itself. In order not to overload the winch, it is therefore forbidden to lift a load attached to the winch cable using the crane rams when the load exceeds the values indicated on the capacity plate of the crane with winch.

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