

Chapter 11 – Failure conditions



Tampering with check valves and/or breaking of safety seals don't ensure a correct working of the crane safety devices: therefore these operations release FASSI from any responsibility and invalidate the warranty.

In this situation, the operator is directly responsible for operations and machine safety.

11.1 – Outrigger control by radio

In case of working anomalies of radio remote control, levers on control handle may be useless. So, it may be necessary to operate outriggers directly from their distributor.



In this emergency situation, make sure that nobody stops or passes in proximity of the outrigger ram working area, neither from the operator's side nor from the opposite one.

11.1.1 - Enabling the outriggers

In order to operate the outrigger distributor, fasten the selection screw completely (fig. 11.1 - position 1).

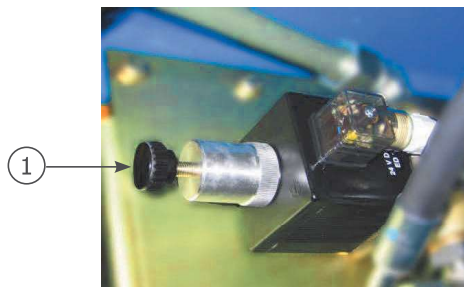


Fig. 11.1

11.1.2 - Controlling the outriggers

Outriggers are numbered from 1 to 4, as shown for example in figure 11.2.

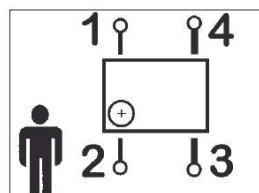
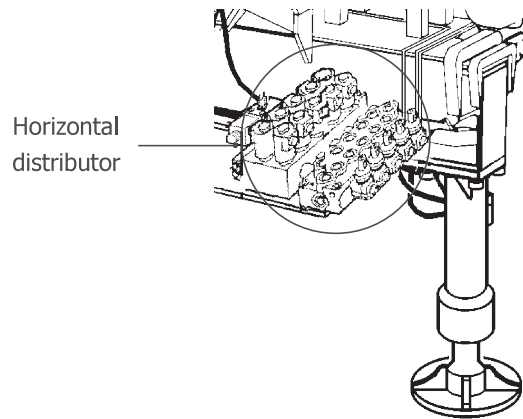


Fig. 11.2

On the outrigger controls (selection and control) letter **E** indicates hydraulically extendable outrigger supports, letter **S** hydraulic outrigger rams and letter **R** the pivoting of the hydraulically tiltable outrigger rams.

Refer to paragraph 6.3.1 "Outrigger nomenclature" for any explanation concerning nomenclature.



Then control the outriggers directly from the distributor, by using the two threadless levers.

Outrigger selection: examples of lever labels	
<p>1</p>	<p>2</p>
<p>1. Lever movement upwards: selection of outrigger support (E); lever movement downwards: selection of outrigger ram (S).</p> <p>2. Lever movement upwards: selection of outrigger support (E); lever movement downwards: selection of outrigger ram (S) or tilting of outrigger ram (R).</p>	
Outrigger control: examples of lever labels	
<p>1</p>	<p>2</p>
<p>1. Lever movement upwards: exit of outrigger rams (S) or supports (E); lever movement downwards: reentry of outrigger rams (S) or supports (E).</p> <p>2. Lever movement upwards: exit of outrigger rams (S), exit of outrigger supports (E) or tilting of outrigger rams into working position (R); lever movement downwards: reentry of outrigger rams (S), reentry of outrigger supports (E) or tilting of outrigger rams into transport position (R).</p>	

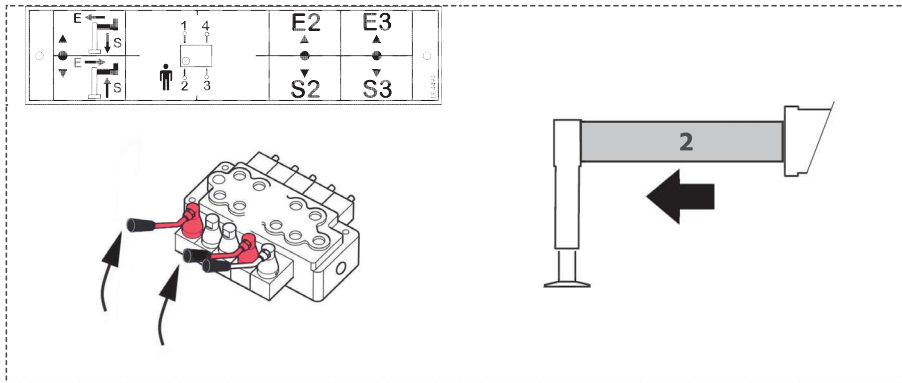
In order to reactivate the crane functions, unscrew the selection screw (fig. 11.1 - position 1).



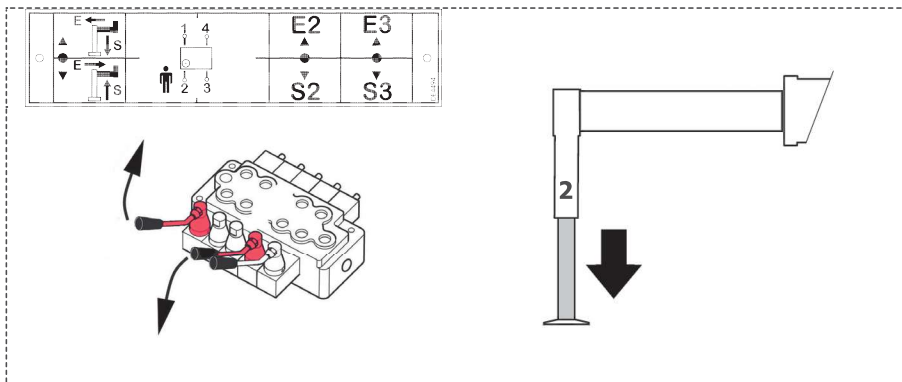
Once the emergency operations are completed, immediately go to an authorised FASSI service centre for any necessary repair.

Examples of outrigger operation

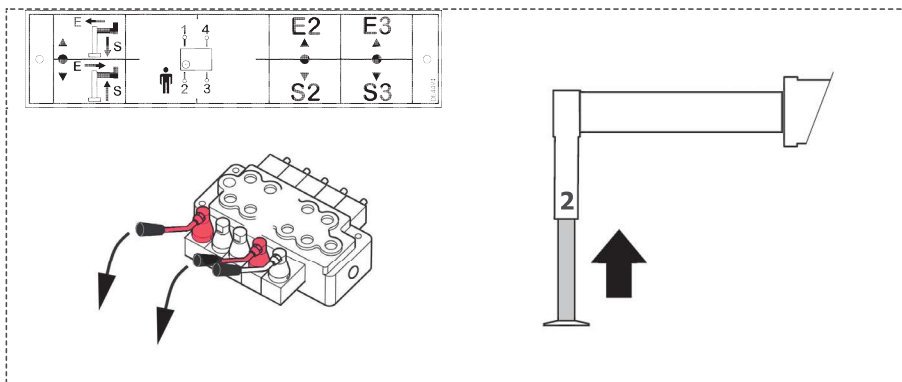
- Extension of outrigger support - position 2 (**E2**)



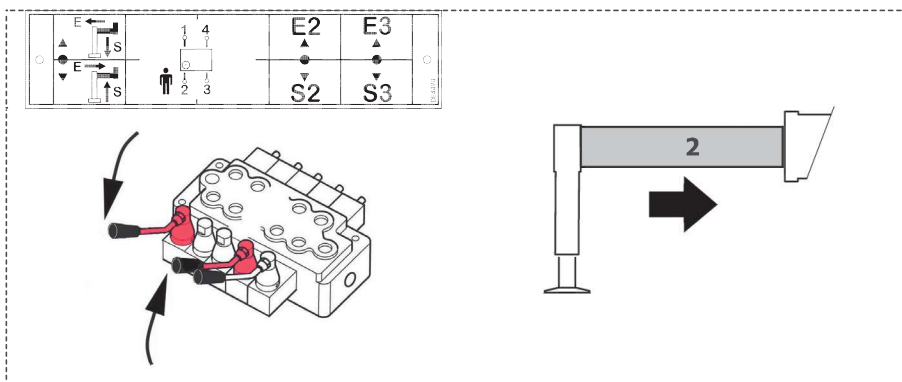
- Exit of outrigger ram - position 2 (**S2**)



- Reentry of outrigger ram - position 2 (**S2**)



- Reentry of outrigger support - position 2 (**E2**)



11.2 – Crane control by radio - Distributor on the column

In case of working anomalies of radio remote control, levers on control handle may be useless: immediately contact an authorised FASSI service centre.

If a particular danger occurs for persons or things, it is possible to carry out some emergency operations from the distributor placed on the crane column: reduce the outreach, lay down the load and, if possible, place the crane in transport position in the vehicle body. If there are not suitable safety conditions, immediately contact an authorised FASSI service centre.

In order to use the distributor on the column, it is necessary to:

- remove the carter shown in fig. 11.3 - position 1;
- enable the manual control mode by using the manual/radio switch (fig. 11.3 - position 2) or by selecting the icon R/M , if the control panel is fitted (refer to chapter 4, paragraph "Procedure to pass from radio remote to manual control mode (and vice versa)");
- operate the crane by using the threadless lever.

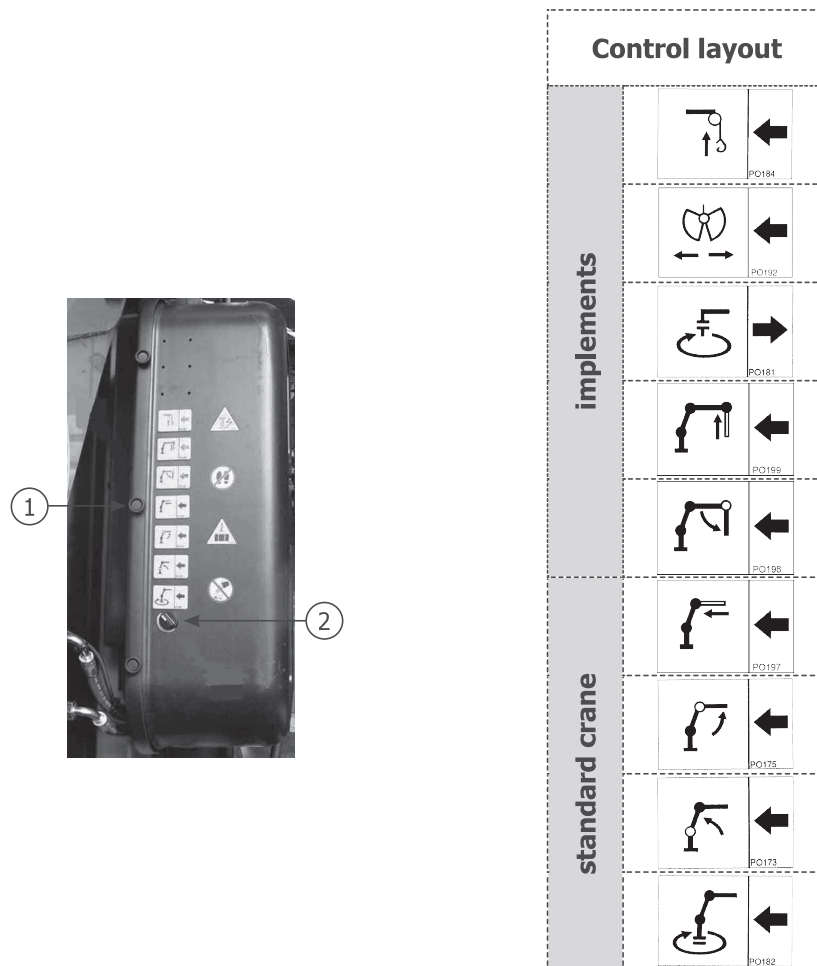


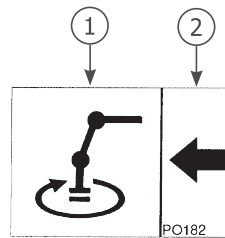
Fig. 11.3



If you use the distributor on the column, pay special attention to moving parts (such as crane booms, rams and column), where higher crushing, trapping and shearing danger occurs.

The pictograms placed near the levers indicate their operating direction in relation to the controls you want to perform (refer to paragraph 5.1 "Pictograms for crane and implement control").

The labels are for example as the one shown in the following figure: position 1 represents the operation which is associated to the lever movement indicated in position 2.



Make sure that the lever you are going to operate corresponds to the control you want to perform.



If failure occurs and you cannot reach the distributor in a safe way, it is not possible to operate an emergency control (as it occurs when the hydraulic system is broken or there is no oil feeding to the distributor). In this situation you must contact an authorised FASSI service centre.

11.3 – Temporary override of crane functions

In case of working anomalies of the lifting moment limiting device or irreversible crane block, it is necessary to deactivate all the safety devices by operating the override system.

In order to reach the tap (fig. 11.5 - position 1), remove the yellow plate (fig. 11.4 - position 1) from the carter placed on the distributor. Remove the safety seal and turn the tap clockwise.

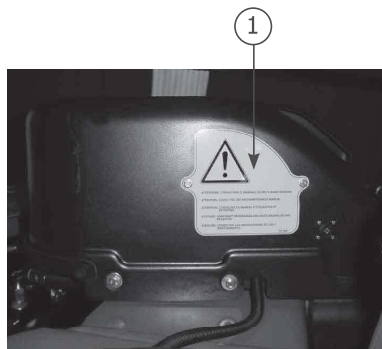


Fig. 11.4

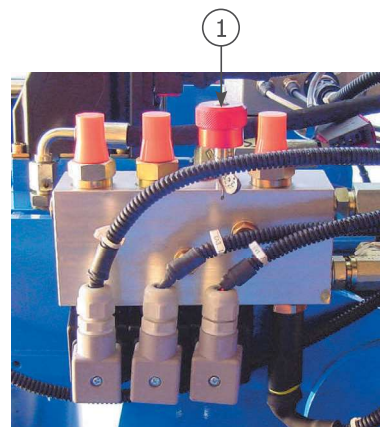


Fig. 11.5



It is forbidden to work once the safety seals have been removed.



Only in case of working anomalies of the lifting moment limiting device or irreversible crane block, it is possible to remove the seal on the override system and deactivate the safety devices.



The temporary exclusion of the lifting moment limiting device and the related manoeuvres may undergo an overload condition and involve hazards of accidents (even serious) for the operator and other persons, as well as damage to the crane.

In these conditions (with lifting moment limiting device deactivated), the operator, who is the main responsible for the machine safety, must:

- carefully consider the operations he wants to carry out, in order to exit from the emergency situation (in any case, with extension boom sections out, first it is compulsory to operate their reentry);
- calmly and carefully assess the type and scale of the hazards arising from these manoeuvres and the possible reaction of the crane (overturning, frame overload, uncontrolled load descent due to hydraulic system overload, etc.);
- perform all movements as slowly as possible, to minimize the dynamic overload.



Once the emergency operations are completed and prior to other crane operations, immediately go to an authorised FASSI service centre to check the structure and seal the device.



Tampering with check valves and breaking of safety seals release FASSI from any responsibility and invalidate the warranty.

11.4 – Rupture of the crane pump

In case of rupture of the crane pump, immediately turn off the vehicle engine, close the pump tap and contact an authorised FASSI service centre.