

## Alvan Blanch Meal Mixers

### ◆SIM 1/2002/08

**Target Audience:**

**All FOD Inspectors in Agriculture**

<b>Date issued:</b> 2003-05-11	<b>OG Status:</b> Partially Open
<b>Review date:</b> 2006-10-31	<b>Author Unit/Section:</b> Agriculture & Wood Section

## SUMMARY

This SIM alerts Inspectors to a defect on Alvan Blanch meal mixers. This follows an accident and subsequent prosecution when it became apparent that there are significant numbers of Alvan Blanch meal mixers that require remedial work to ensure that the accident cannot be repeated.

## BACKGROUND

- 1 Following an accident with an M.90 mixer (see drawing below) at a farm in Devon, Alvan Blanch were prosecuted under the Supply of Machinery (Safety) Regulations 1992. The company was convicted of not having an EC declaration of conformity but the Court did not support the allegation that the machine was unsafe.
- 2 The investigation revealed this particular mixer was fitted with an auto-level switch. The injured person had removed the top cover plate, marked 'A' in the drawing, in order to clean meal from the switch and to clean the holes in the molasses additive bar, when the machine unexpectedly started. (NB: the lid marked 'B' on the drawing is the additive hopper lid: this is not interlocked but it does not give access to dangerous parts).
- 3 Earlier models of this mixer had the top cover plate interlocked with the chain drive for the mixing slats and the control circuit altered so that the machine would not start again until the starter was depressed. In this model the design had been changed so there was no longer an interlock switch and the emergency stop did not disconnect the power at the starter contactor. It had been replaced with an emergency stop switch which when depressed prevented movement of the machine. It is thought that this switch had been caught by the injured person and knocked off, causing the mixer to start when the auto-level switch flap was moved. Evidence produced in Court by HSE proved this was easily done. The company stated in Court that until they had seen the video HSE made of this scenario, they had not appreciated that the mixer would start.
- 4 Mixers sold between 6 January 1992 and 11 March 2002 did not have an interlock switch fitted to the top cover plate. Earlier models had interlock switches fitted following a number of fatalities and serious accidents that had occurred when operators had gained access into the mixer via the top cover plate.

## ACTION BY THE COMPANY

5 All new mixers sold after 6 March 2002 were fitted with a combined emergency stop/interlock switch for the top cover plate and had the wiring altered, and a relay fitted, so that when the control stop button or the emergency stop button have been depressed, the mixer will not restart until the control start button has been depressed. This lid is a fixed guard, ie it is held in place with fixings that require a tool to remove them.

6 The company was asked to write to all known users/agents (see Appendix 1) warning them of the potential problem. The list has been passed on to HSE and is attached in Appendix 2.

7 The company's letter can be read to indicate the only course of action that would meet HSE's requirements is to fit an interlock and relay to the control circuit. Strictly speaking, this is not correct. Although, in the Sector's view, it would be preferable if the cover plate were interlocked, the usual hierarchy of guarding requirements applies, based on normal intended use and also uses which could reasonably be expected.

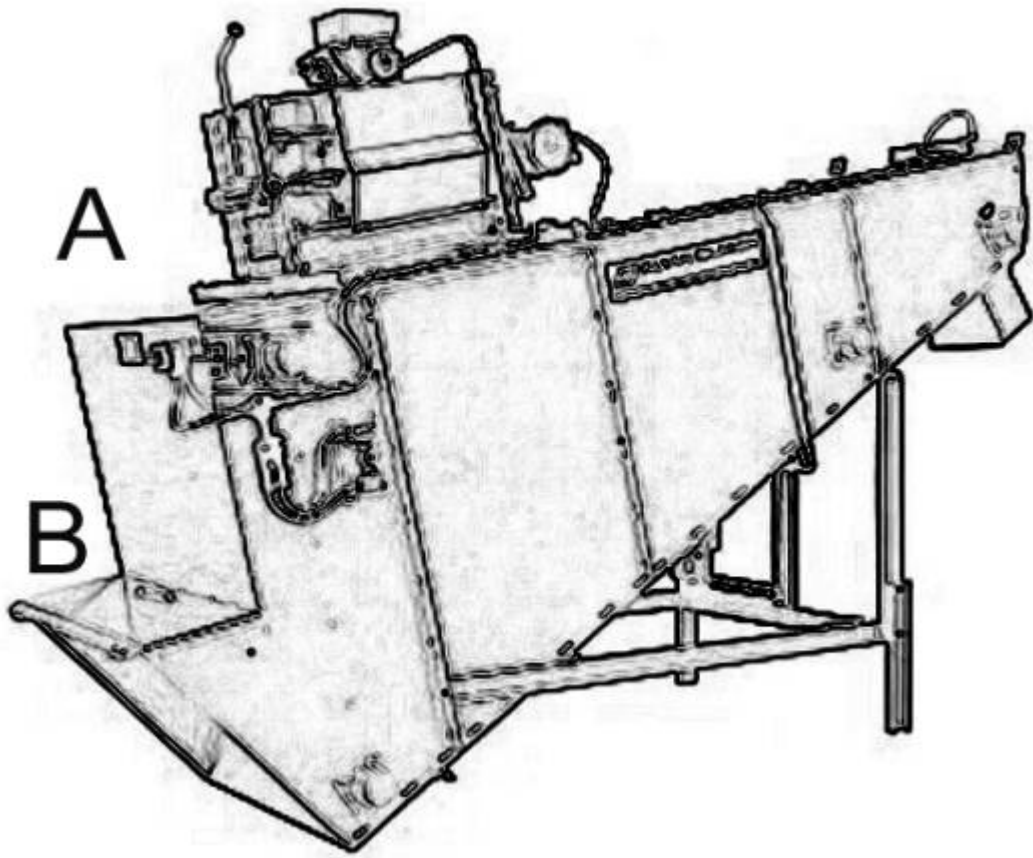
8 Paragraph 5 of the letter refers to the problem with the way the control circuit is wired, anyone contacting the auto level switch without the electrical supply being isolated will activate the machine. The emergency stop will reactivate the mixer if reset without having to restart from the main control switch if the auto level flap is moved.

## ACTION BY INSPECTORS

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## Alvan Blanch M90 Mixer



Date first issued: 31 October 2002

<sup>1</sup> Exemption 4(b)	Law enforcement and legal proceedings
<sup>2</sup> Exemption 14	Information given in confidence

APPENDIX 1  
(para 6)

18<sup>th</sup> June 2002

**Important Notice To Users Of Alvan Blanch Batch Mixers**

The Health & Safety Executive has drawn our attention to an accident that has occurred as a result of incorrect use of this machine.

Part of the fixed guard top to the mixer had been removed to gain access to the mixer, despite the express warnings that are given in the manual and on the decals affixed to the fixed guard in question, that access may only be obtained to the inside of the mixer in this way after fully isolating the machine.

In consideration of this accident, the first to occur in the current design of this machine, HSE have decided to instruct all users to fit a disabling system.

This entails the installation of an interlock safety switch on to the guard in question that will cause an electric shut down of the machine if the guard is removed. We are able to offer a retrofit kit for this purpose, to include; safety switch, safety relay and necessary fixing brackets and fitting instructions, at a special cost price at this time of £110 inclusive of carriage (UK mainland). This facility should be installed by a competent electrical engineer.

Included with this letter are some electrical diagrams that illustrate the latest circuitry required by the relevant legislation covering mixing equipment. It is advisable that your local electrician also upgrades your mixer wiring to concur with the circuitry and components shown in the attached diagrams.

**It is important that our records should show that you have, in fact, received this notice and what action, if necessary, you are taking. To this end, we would be most grateful if you could complete the enclosed form and return it to us as soon as possible, at the fax number indicated.**

Finally, we hope your Alvan Blanch Mixer continues to give you good and hazard free service over many years to come.

Yours sincerely,

**ALVAN BLANCH DEV. CO. LTD.**

APPENDIX 2 IS CLOSED

