

## BEST PRACTICE

LOCATION: Quarry  
ACTIVITY: Production and Processing  
SUB ACTIVITY: Aggregate processing  
BEST PRACTICE No: BP382  
COUNTRY OF ORIGIN: United Kingdom

ARTICLE YEAR: 2006  
COMPANY: Bardon Aggregates  
COMPANY LOCATION: Colemans Quarry, Somerset  
COMPANY TEL: 01373 836401

### TITLE

**Inclinometer for dumper to avoid overturning**

### ARTICLE

An incident occurred at this quarry where a driver's misjudgement caused the dumper's skip to turn over whilst tipping on a stockpile. In order to avoid another incident, the company decided to install an inclinometer.

However, fitting inclinometers to dumpers was a relatively rare practice and there was nothing suitable available. The company worked with Transport Support to design and install an inclinometer suitable for a Caterpillar 740 articulated dumper.

The instrumentation sits on the back axle of the dumper and monitors its angle. A tipping margin can be set, including defining a maximum angle. As well as a beeping noise inside the cab, there is also a speaker on the outside of the machine to alert those nearby of a potential hazard.

The inclinometer is still undergoing development. Further research is being considered to make the system only active in either first gear or reverse and also to link the system to the hydraulics of the skip so that, if the audible warning was ignored, the hydraulics would stop working.

### ARTICLE IMAGES

