

TOMORROW IS ANOTHER DAY

This being our first issue of Overview this year, we take the opportunity of wishing all of our clients and friends a belated Happy New Year, which we very much hope will be a lot happier for all of us than last year.

We hope you find the content of this issue helpful and informative and will welcome any queries any of these articles might raise.

Many years ago, in my IPAF days, which involved publishing 'Access Now', I used to tell our readers that we published the magazine regularly, if not frequently and that applies to Overview, which we only publish when we feel that the information it contains is important for our clients.

Talking of 'Access Now', I pulled out the issue published 25 years ago, in Summer 1986 and was intrigued to see, under the caption of "Access Grows UP", the following paragraph:-

"IPAF has held its first seminar for members on the subject of proposed new European Regulations for work platform design, construction and performance".

An important subject, which was clearly appreciated by all members judging by the high turn out at the Heathrow Penta Hotel.

So, here we are, 25 years later, within an industry which has grown so dramatically throughout the world and now incorporates technical advantages, in even the smallest machines, which could only have been dreamt of 25 years ago.

The problem with looking back at magazines published decades earlier, is that it becomes very difficult to put them down and nostalgia can be quite a powerful drug. I enjoyed my brief delve into the past and felt it only fair to share a few of the literary gems, which vividly illustrate the development and growth that our industry has enjoyed over the past six decades. (Continued on page 4).

There is no question that, not only has our industry 'hit the big time' in more ways than one, it has done so in such a way that the safety of those working at height on MEWPs, particularly within Member Countries of the EC, has reached levels that every other construction based industry would envy.

This is due, not only to the responsible approach taken by the industry towards the operation of its businesses but also, in a large way, to the European legislation, in the form of Directives and Standards, which has made it difficult, if not impossible, for "cowboys" to sell their products within the European Union. Tedious that CE certification may be for manufacturers', it is clearly a vital link in the safety chain and all of us at PAC work hard to ensure that all our clients receive the best possible service from a user-friendly Notified Body.

Thank you for using our services in the past – we look forward to a continuing harmonious relationship in the future.

PAUL A ADORIAN

NEW REVISION OF EN ISO 12100

A new revision of EN ISO 12100 has recently been published, which supersedes the previous version of the standard as well as incorporating EN ISO 14121-1. EN ISO 12100:2010 *Safety of machinery – General principles for design – Risk assessment and risk reduction* combines the parts 1 and 2 of the 2003 editions, which had been amended to A1 in 2009. The new standard also incorporates the text from EN ISO 14121-1:2007 *Safety of Machinery – Risk assessment*. The requirements of the new standard are essentially the same as the previous three standards. However, hazard identification has been considered as a separate section, following the approach of the original EN ISO 14121-1 standard. The requirements for documentation for risk assessment have been directly

transposed from EN ISO 14121-1:2007 and have not changed.

EN ISO 12100:2010 is a 'type-A' standard, in other words a basic safety standard which covers basic safety concepts, principles for design and general aspects which can be applied to most types of machinery. It should also be noted that when a type-C standard (machine safety standard, e.g. EN280:2001) deviates from a type-A standard, the type-C standard takes precedence. An explanation of type-A, -B & -C standards is provided in the introduction section of EN ISO 12100:2010.

PETER REED

LATEST UPDATE ON THE REVISION OF EN 280.

The comments from the public comment stage of the full revision of EN 280, which ended in October 2009, have finally been discussed and agreed by CEN Technical Committee 98, Working Group 1. The completed final draft will be submitted to CEN by the end of June this year and the CEN Consultant will then examine the draft to ensure that it meets the Essential Health and Safety Requirements of the Machinery Directive.

The CEN Consultant's blessing is a vital step which will allow the published standard to be published in the Official Journal of the European Union and be given the status of a Harmonised Standard, which gives all MEWPs produced in full conformity with Standard, presumption of conformity with the Machinery Directive. Once the CEN Consultant's work has been completed and any queries dealt with, the Formal Vote process will begin. Voting is carried out using the Qualified Majority Voting system, whereby voting is

weighted according to the population of each Member State.

If the Formal Vote is positive, the standard will be prepared for publication by the national standards organisation of each Member State and a reference to the standard will be published in the EU Official Journal. On the other hand, if the vote is negative, the Working Group will have to review the objections of those Member States who voted against the draft and revise the document to overcome these objections. Once a new draft has been completed, the Formal Vote process will begin again.

If the revision to EN 280 gets a positive vote first time around, the revised standard should be published in 2013.

TIM WATSON

EU SYMPOSIUM SAFETY OF CONTROL SYSTEMS FOR MACHINERY.

Darren Gibson, our specialist electrical engineer and Technical Officer, attended the EU Symposium of control systems of Machinery last September in Brussels. Organised by CEN, the European Committee for Standardisation, the event's purpose was to "reflect the status of the various standards available for functional safety of machinery in terms of their practicality." Several speakers from France, Germany and the United Kingdom gave presentations on the impact of the new standards for safety critical controls on their companies.

The main issues to come out of this symposium are summarised:-

- Many manufacturers, particularly SMEs are struggling with the implementation of EN ISO 13849-1: 2008.
- SISTEMA is popular mainly amongst German speaking nations.
- A merger of EN ISO 13849-1: 2008 with EN 62061 is several years away and this possible merger has opponents.
- Reliability data of components is difficult to obtain.

A copy of the presentations is available on website www.cen.eu/cen/Sectors/Sectors/Machinery/Pages/default.aspx. Darren also forwarded some questions to CEN after the event which included issues such as differences between EN ISO 13849-1: 2008 and EN 62061. Please contact us if you wish to receive a copy of Darren's detailed report of his visit and the response from CEN to his questions.

Oscillating Axles

Many MEWPs have an oscillating axle function which ensures smooth travel over rough terrain by maintaining contact between the tyres and the ground. Although this function is not mentioned in the current version of EN 280, spurious operation could result in the loss of stability of the machine. This function can be compared to EN 280 (A2) clause 5.3.10; this covers the safety function to prevent the retraction of stabilisers when the platform is raised and requires a Category 3 circuit in accordance with EN 954-1. Because of this comparison, we recommend that this function is treated as a safety function and complies with either EN ISO 13849-1: 2008 Performance Level D or EN 62061 SIL 2.

DARREN GIBSON

WHICH SAFETY STANDARDS APPLY TO CONTROL SYSTEMS?

The end of 2011 will see EN 954-1 become obsolete and be superseded by EN ISO 13849-1: 2008; the two year extension of the use of EN 954-1 will have elapsed. This two year stay of execution has only postponed but not solved the issues faced by manufacturers. We answer some of the questions that we are commonly asked below.

1. *EN 280 currently specifies Categories in clause 5.11, will this be revised to state performance levels or SILs?*

If a type-C standard such as EN 280 continues to reference a standard, this is still valid, even if the referenced standard has become obsolete. Whether clause 5.11 is modified to specify *Performance Levels* instead of or in addition to *Categories* is still being discussed.

2. *Can I apply EN ISO 13849-1: 2008 now?*

When self-certifying and applying EN 280 in full, strictly speaking, EN 954-1 must be applied. Notified Bodies may consider deviations from EN 280 when undertaking a Type Examination. A common deviation we encounter is when *Performance Level D* is justified instead of *Category 3*. In theory, a single channel circuit could now be used instead of a dual channel circuit. There are however other conditions that we require such as the mean time to failure of the function, the failure modes and the effectiveness of any monitoring.

3. *Can I apply EN 62061?*

Although EN 62061 is harmonised to the Machinery Directive, it is not referenced in EN 280. When we undertake a Type Examination, we will consider EN 62061 for electrical, electronic and software safety-related controls on the basis that SIL 1 is applied instead of Categories 1 and 2 and that SIL 2 is applied instead of Category 3. EN 62061 cannot be used for mechanical, hydraulic and pneumatic safety-related controls.

4. *What about EN 61508?*

Although EN 62061 is derived from EN 61508, this standard is not harmonised to the Machinery Directive. We would consider this application for electrical, electronic and software based controls when undertaking a Type Examination but we recommend avoiding this standard as it can be very complicated to follow whereas EN 62061 is much simpler. Where the machine has embedded software, part 3 of this standard will almost certainly be applied as EN ISO 13849-1: 2008 and EN 62061 do not cover software in sufficient detail.

5. *Can apply other safety standards such as EN 61511?*

These standards tend to be industry specific and are not suited to machinery.

6. *Will applying EN 62061 yield different results to EN ISO 13849-1: 2008?*

Possibly. A document ISO/TR 23849 has been published which has looked at the differences between the application of these standards and the conclusion is subject to debate.

Please do not hesitate to contact us for further information.

DARREN GIBSON

JUST TO REMIND YOU WHO WE ALL ARE!



Ruth Adorian
Chairman



Tim Watson
Technical
Director



Peter Reed
Technical
Officer and
Director



Darren Gibson
Technical
Officer



David Johns
Technical
Officer



Paul Adorian
Managing
Director

TO REVIEW OR NOT TO REVIEW!

The great majority of our clients, having been well aware of the need to carry out reviews of all technical construction files CE certificated under the Machinery Directive 98/37/EC, will have instructed us to carry out such reviews prior to the target date of 29th December, 2009. These reviews were only carried out on machines which were to continue to be **manufactured** after 29th December, 2009, when the new Machinery Directive 2006/42/EC came into force.

It is apparent from our records of EC Type Examination Certificates issued under the earlier Directive, that there are now a considerable number of machines being manufactured and exported into EC Member Countries which have not been reviewed and are therefore now being sold and used illegally within the EC. We feel it is important for all organisations, within the EC, buying or using MEWPs (of all types) who have taken delivery of a machine after 1st January, 2010, to satisfy themselves that the machine has been legally sold into the EC. This can readily be established by requesting the supplying company, be it the manufacturer or its agent, to supply a copy of the EC Type Examination Certificate relating to the product in question. If the machine in question was **manufactured** to the earlier Directive 98/37/EC before the 29th December, 2009, it may legally be sold into the EC but any machine **manufactured** after the 29th December,

2009, must have been certificated to the new Machinery Directive 2006/42/EC, which will be specified on the EC Type Examination Certificate or the manufacturers Declaration of Conformity.

Any manufacturer still manufacturing and shipping MEWPs into the EC after the 29th December, 2009, which has not had their EC Type Examination Certification reviewed to the new Machinery Directive or obtained EC Type Examination certification for a product to the new Directive, should discuss the matter urgently with their Notified Body, as such machines have been sold and are being used illegally.

Whilst it is no part of a Notified Bodies duty to inform the relative authorities of any suspected manufacturer or distributor who may be “turning a blind eye” to the legislation, we are aware of situations where Safety Authorities of particular countries have identified machines which have been sold and are being used illegally within the EC and the penalties for such acts are severe.

PAUL A ADORIAN

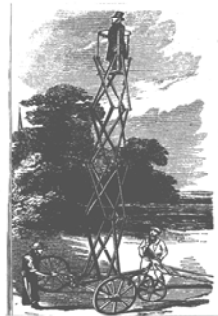
SOME EARLY MEWPs AND REMINDERS FROM THE PAST!

Here are a few illustrations and quotes from magazines of the past to show that nothing has really changed in our industry for a very long time with the exception of volume and the high levels of safety which have now been achieved through the CE certification process and the work of major safety organisations such as HSE and OSHA. These may bring back memories to some of the “old-timers” in the industry.

Mr Oliver’s Fire Escape

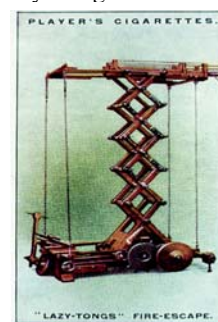


The Zoetrope



So they produced a bottomless horn of plenty of eccentric ideas to delight the Saturday evenings of the working family.
The Zoetrope: a patent elevator platform

“Lazy-Tongs” – Fire Escape



ACCESS TODAY – April 1977.

However, John Grove’s retirement was short-lived. Travelling through the western United States in 1968 he noticed the wasted energy, wasted time and unsafe working conditions of workers trying to reach high and difficult areas. He began designing a machine that would provide easy access to high and awkward work locations. In 1970 he produced his first unit, appropriately named the JLG lift.

Excerpt taken from Reader’s Letter Column – ACCESS NOW – March 1985 on Scissor Lift misuse.

On a construction site where a new factory/warehouse facility was being built, to help operatives who were fitting roofing sheets and cladding to the frame of the building a heavy duty scissor lift work platform had been provided. But the machine at full extension was not quite high enough to reach the full height of the building. So a scaffolding tower had been built on the platform to increase the working height by about 3m. Undoubtedly the platform had a built-in safety factor but if it had been capable of operating that much higher then the manufacturers would have made it that way.