

In compliance with the *Engineering Professions Act (No. 46 of 2000)* requirements, LIASA endeavours to assist her members in keeping up on technological developments that impact on their registration. LIASA most earnestly support ECSA in their search for *professional service excellence and pursuit of continued professional development*. EDUCOM keeps you up to date on ECSA and industry related news.

NATIONAL EXECUTIVE COMMITTEE: *Chairman: Sanjeev Singh; D/Chair: Bill Murphy; Treasurer: David Kleinhans; Secretary: Dr Theo Kleinhans; EXCO: Terence Baker; Ronnie Branders; Willem du Toit; Micky Martin; Brendan Trower*

DOYENS OF THE LIFT INDUSTRY: *Buddie Cerone (2004); Schalk van der Merwe (2005); Dr Theo Kleinhans (2006); Willem du Toit (2008); Bruno Isler (2009); Alfie da Silva (2010); Manny Perreira (2010)*

ASCENDING CAR OVERSPEED PROTECTION

Ascending car over-speed protection is only discussed one and a quarter pages long in EN 81-1, but it raises so many questions and the installations of these units quite often do not fulfil the requirement.

EN 81-1 paragraph 9.10. defines that “A traction drive lift shall be provided with ascending car overspeed protection.”

The device used for this purpose shall detect an overspeed of 15% (115% of contract speed) of the car in the upward direction and stop the car or slow it down to the speed for which the counterweight buffer is designed.

The device shall act:

- **To the car:** in other words *ascending safety gear* mounted on the lift car, or
- **To the counterweight:** in other words *descending safety gear* on the counterweight, or
- **On the rope system:** in other words a *rope gripper* acting on the suspension ropes, or
- **On the traction sheave:** In other words an *electro-mechanical brake*, acting directly on the drive sheave or the shaft on which the sheave is mounted.

After activation:

- *The device shall in turn operate an electric safety device;* we all know that an electric safety device shall be wired into the safety circuit.
- *The release of this device shall require the intervention of a competent person;* it shall not reset automatically.
- *If the device work with external energy* (tripped electrically), *the absence of the energy shall stop the*

working of the lift; It therefore stands to reason that if this device is a rope gripper, there shall be a battery back-up,

otherwise this device will trip every time the power goes off (service technician doing maintenance) or with power dips.

- *The speed monitoring device shall either be a governor or a device conforming to the requirements for a governor.*

Remember:

- If the car governor switch is used for the rope gripper, you will trip the rope gripper in the down direction before you trip the governor, because the governor switch is set to trip before the governor trips mechanically. *See EN 81-1 paragraph 9.9.1.1.*
- If the rope gripper is mounted on the wrong side of the drive sheave you will get slack rope between the gripper and the sheave due to the momentum of the ropes and sheave, which can result in the ropes leaving (jumping off) the sheave. With a rope gripper I would strongly recommend rope keepers (anti-jump-off device) on the drive sheave.

Willem du Toit

“We engineers tame the forces of nature. We improve the human condition by our work. But we are human ourselves; and therefore sometimes we fail ...”

Prof Philip Uwood Dr Eng

SA RETIREMENT LEGISLATION

Are you aware that as from 1st March 2011, all commutations of retirement annuities will be treated similarly as long as the annuity directly or indirectly stems from membership of a 'fund'. This implies that your own private annuities taken out over many years so as to make yourself self sufficient when you eventually go on retirement, will now be thrown into the same pot as your company retirement fund.

All lump sums so derived will be treated as gross income taxed by applying the (so-called) special retirement rates table below ...

<u>Taxable Income Benefit</u>	<u>Rate of Tax</u>
• <i>Not exceeding R315 000</i>	0%
• <i>R315 000 to R630 000 ...</i>	<i>R0 + 18% exceeding R315 000</i>
• <i>R630 000 to R945 000 ...</i>	<i>R56 700 + 27% excdg R630 000</i>
• <i>Exceeding R945 000 ...</i>	<i>R141 750 + 36% excdg R945 000</i>

Whichever way you may look at it, the Government's new application of the 'aggregation principle' will take a mega slice out of your savings. The fact that you planned to be self sufficient, now also makes you ineligible for any future 'Government Welfare' pension because you already have a formal planned pension income.

Regulation 28 of the **Pension Funds Act** regulates all pension funds. With the new amendment issued 23rd February 2011, it now places limits on the amount and type of assets in which your retirement fund may invest. Supposedly the Act will promote sound responsible investment by your retirement fund trustees, but is more directed to align your retirement benefits with government policy objectives such as their social responsibility to all South Africans.

The bottom line is that your estimated (example) mR1,5 that you hoped to receive after serving the Lift Industry for 40 years or so, will now diminish by R141 750 plus R199 800 = R341 550 or 22,8% just on your pension. Now throw in all your retirement annuities. However you plan your retirement, you are going to be penalised more than you ever imagined! With the government orchestrated motivation to reduce retirement age down to 55 to make way for the millions of incoming youth, at least on a voluntary basis, the end-years capitalization that your retirement fund would have accrued between ages 55 and 65, will now most probably not happen.

If you had anticipated retiring from active duty with an established lift company in the hope of continuing another 10 or so years with lift and escalator inspections until you are 65 (or even 70), your diminishing retirement emoluments will also have to (by latest **1st December 2012**) cater for the proposed SANAS R32 000 accreditation fee as well as the annual accreditation maintenance fees suggested at R12 000 ... **and don't forget your ECSA annual registration fees and costs of compulsory CPD!** Whatever way you look at it, you are being snookered. You will have to learn to play by the new rules.

What can you expect after retirement? Most investing actuaries will indicate, allowing for current interest rates and capitalisation, a core fund to maintain you as long as you have to live, with a monthly retirement emolument of R3 515 for a suggested 10 year period of longevity. Without the new tax it would have been (allowing for the same capitalisation core, R7 500 per month. Yes we are aware that we will have to be taxed ... **but to this magnitude?** We can only suggest that you plan ... **replan ... and REPLAN again!**

If you for any reason doubt our rhetoric, question any Lift Industry pensioner that you know who has survived longer than 10 years on his original pension? You will probably have to come down to 8, 7 and even 6 years to still find one. Then you no longer need to ponder why so many of our Golden Oldie lift engineers are again working part time ... **for no other reason other than to supplement their income!**

*Just look around you at the next LIASA meeting.
You will probably see 4 or 5 of us over 70!*



"The South African Women in Engineering (SAWomEng) was founded in 2005 by Mabohlale Mampuru & Naadiya Mosajee"

LATEST ECSA NEWS

SAWomENG - SOUTH AFRICAN WOMEN in ENGINEERING

We last year and again earlier this year heard at the ECSA President's Forum from ECSA CEO Dr Ozzie Franks that that a stand-alone project would need to be launched to correct the skewed representation of gender and race in our engineering professions in South Africa.

Senior DoL and Trade & Industry officials have regularly of late lambasted ECSA for the visible shortage of women on the ECSA cadre committees. We remind them each time that ECSA is only the accreditation and registration body. They must approach the captains of Industry for a more pro-active role in bringing about the requisite transformation.

As a result the **Engenius Project** was launched, discussed in a previous **Educom**, an initiative aimed at promoting national collaboration, coordination and support amongst organizations to advance engineering professions through scholarships for previously disadvantaged students

ECSA (Engineering Council of South Africa) and *SAWomEng* have now taken this a step further and are in the process of signing a memorandum of undertaking, which will see both councils working together to motivate increasing the number of women engineers in South Africa, especially previously disadvantaged women ...

Visit www.ingenius.org.za
We will keep you informed!

ECSA ENGINEERING SUMMIT

During November 2011 ECSA intends hosting an inaugural summit in Gauteng as a platform to discuss issues relating to the engineering profession in the RSA. Dr Ozzie Franks stated the main focus of the summit to nucleate around positioning the engineering profession as a force and catalyst for economic growth, socio-economic development and transformation. ECSA then wishes to institutionalise this endeavour, making the summit an annual event that brings together all the key stakeholders every year in future.

We will keep you informed as details become available!



“Do not follow where the path may lead ... Go instead where there is no path and leave a trail for others to follow”
Abraham Lincoln

“Never accept failure ... no matter how often it visits you. Keep on going. Never ... but never give up ... NEVER!”
Dr Michael Smurfit PhD

SOUTH AFRICA - LAND of BEAUTY

South Africa is indeed a land of varied beauty; with unique and sometimes baffling cultures; oddities and incongruities; with a rich heritage and incredible mineral, fauna and flora wealth. Traveling around the world you very soon realize that *‘there is no place that sounds and smells like home’*.

In a matter of a few weeks we traveled from Polokwane in the north to Port Elizabeth in the south; from Swaziland in the east to Uppington in the west. We very soon became aware that the lifts remain the same; the same technical problems; and the same client complaints of poor lift service. Then it dawned on us; of the beautiful divergent geography; lovely characters that you meet; their diversity; their local vernacular; and possibly above all their innate friendliness and willingness to assist you. Many of these people that we met from all walks of life, showed an indomitable spirit and endemic humour, so typical of their specific region.

It once again brought home the fact that we generally only tend to complain and break down the people who really try to give of their best efforts toward *customer service excellence*. But how often do we take the time and make the effort to phone their principals and thank them for a job well done by those specific employees?

It subconsciously reminds one about the requirement for *giving credit where credit is due*; to honour and reward individuals who have gone beyond their call of duty; who are perhaps even pioneers in their specific fields; who blaze forward with their ideals no matter their personal or company circumstances ...

But HOW do we get this through to the lift company MD’s and the powers that be?

“A disregard for natural resources and excluding poorer people from economic opportunities ... will leave a wasteland for future generations.”

Simon Nicks CEO CNdV Africa

FIRST-EVER PASSENGER LIFT?

History informs us that as far back as 1742, Louis XV, King of France, ordered a personal *lift* to be built in his Palace of Versailles using counterweights because of his obese weight. The mandate was to connect his chambers on the upper floor of the palace to those of his mistress, Madame Marie-Anne de Chateauroux.

This may be construed to be the first recorded passenger lift formally installed in an existing building.

Sadly, the relationship ended when the youthful Madame de Chateauroux died a year later in 1744, presumably poisoned by the King’s new mistress, Madame de Pompadour.



SOUTH AFRICAN LIFT INDUSTRY SKILLS REQUIREMENTS

The South African Lift Industry needs a framework of technical skills that is constantly revised and upgraded to meet *‘fitness for use’* demand. It is not enough to just hire people with the right qualifications, lured away from opposition companies. This is very short-term at best. Hiring just anyone to fill a numerical budget is a recipe for disaster!

Lift companies should develop and nurture their own staff within their corporate culture, constantly refreshing

their innate skills and attaining new developmental skills to transcend them to higher levels of achievement.

The world's leading multi-nationals in the RSA, consistently require the skills of professionally qualified technicians and engineers; people who have formal technical and management training and not just the basics that Joe Bloggs seems to have on the average service route. They have to be trained in-house on the latest technical equipment releases, supported further by generic external tertiary education that enriches their already higher experiential ability. Together this will give them the qualitative ability to make informed decisions that give the best results in that company culture.

Our biggest handicap unfortunately, is the corporate budget culture which defines what may be done within any department's budget and what not ... otherwise it attracts the ire of overseas principals. Any leading multinational who therefore experience a recognised competitive advantage over their immediate competition, must ensure that all key personnel have the best product and management training in order to enrich their attitude so that they do the best possible job that their training has focused on ...

*keeping them at the cutting edge of the core business!
After all ... it just is not enough for any employee
to be QUALIFIED ...
they must be COMPETENT!*

Daniel Fischer: *It is with sincere regret that we advise of the passing of a stalwart Swiss who came to South Africa to help out on construction approximately 40 years ago ... and stayed here to make South Africa his home. To Isabel and the Family, our sincere sympathies with your great loss.*

LONGEST SERVING LIFT INDUSTRY EMPLOYEE

The known longest serving lift-industry employee in the world appears to be Frank Cleave in the USA. Whereas we believe the golden 50 milestone to be the ultimate, Frank goes one better. He joined Marryat & Place in 1919, then moved to Bennie Lifts in 1933. When Kone acquired Bennie in 1985, Frank elected to stay on in his job in the machine shop. He even recalled how he had to cycle to work with the 1986 railways industry strike, when all transport ground to a halt. He however then decided to call it a day after 67 years, with Kone giving him a gold watch as commemoration.

ELISHA GRAVES OTIS

In our indefatigable search for elevator history, we received a booklet on loan which claims that Elisha Otis did not 'invent' the elevator in 1853 as generally claimed. He is rather accredited with the invention of the elevator *safety brake*. This invention was the

main contributor allowing the building of steel skyscrapers in the USA.

It is recorded that at the Crystal Palace Exposition in 1853, he rose above the crowd on a hoisted platform and then cut the suspension rope with an axe. To the utter amazement of all present, the platform only 'fell' a few inches before coming to a sharp halt, sternly held by the 'safety-brake' ... *and the modern elevator was born!*

"Located in the transition zone between field operation technicians and executive management, lies a reserve of untapped natural diversity of technical and managerial expertise, waiting to be discovered and developed ..."

Dr Theo Kleinbans PhD Thesis

HISTORIC LIFT-INDUSTRY EVENTS

Hennie Hudson of Kone has once again sent us a plethora of lift industry events from his mother company, many of which boggle the mind in terms of our time-frame reference. Below are a few cases in point ...

Walter and Ludovika Jacobson of Finland, were the Olympic world ice-skating champions in 1911, 1914 and 1923. Walter was Kone's technical director at the time and was the only Finnish ice skater to ever bring home Olympic Gold!

Kone CEO Pekka Herlin and his boat 'Lygaia' won the Baltic Boat Race in 1968 and the Gotland Runt in 1967, both basically in sub-zero temperatures. Pekka is claimed to have stated that the long hours at sea crystallized his thoughts to the point where he decided to purchase Swedish company ASEA's elevator business in 1968. What made this so remarkable, is that ASEA's annual sales were double that of Kone ... *adding a new dimension to the clique to think BIG!*

Kone's first electric hoists used on cranes, were designed by engineers Jubo Lindroos and Erik Ingvall in the 1930's. They were then mass-produced by 1939, becoming a very important part in Kone's contribution to the 2nd World War effort, when Finland assisted Russia against the German onslaught.

In 1939 Kone began manufacturing their own electric motors. Kone had previously used Strömberg motors in their lifts, but required to sell their own product to ensure a higher quality. This philosophy became the corner-stone of Kone's new business for a long time until technological and business

development determined it to be more profitable to outsource at the end of the 20th century (1995-8 to be exact). Generic manufacturing from the East had now taken Europe by storm. It is no secret in South Africa that Otis, Schindler and Kone now source from China, with Melco staying with Mitsubishi in Japan and ThyssenKruppe with South America for all standard installations. You may still however order lift and escalator equipment from the mother companies in the mother countries, but obviously at a cost premium.

The first EXCLUSIVELY Finnish component lifts were installed as far back as 1918 in Helsinki. Prior to this date Kone lifts components were outsourced from Sweden under license from Graham Brothers. The **OLDEST** of these still in service today, is Lift No.13, installed in Freesenkatu (Helsinki) in 1919. Kone historic production records advise of the first annual (hand-made) production of 4 lifts in 1918; increasing to 100 by 1924; and by 1928 cranking out one per day.

In socio-anthropology we learnt that the most important inset into our genetic being today is our *gene heritage*, in other words who our forefathers were and what they did. We are therefore an 85% replication of our combined family heritage. This has so intrigued the writer, that he is now researching an article on "The White Tribe of South Africa" because of exactly that generic heritage from the Huguenots and 1820 settlers in the Cape of Good Hope, but that is another story.

Don't you think that it is absolutely fantastic that you know *where* you come from, for that largely defines who you are now. The same must stand true for your lift employer's history. Reading through Kone's historic data sent to us by ECSA colleague Hennie Hudson was equally as intriguing, for it gives one a more measured exposition of the Kone of today, who have obviously been around longer than we appear to have given them credit for. We thank Kone MD, Alan Underwood, for the permission to reproduce the above information.

Schindler MD Pankaj Sinha is equally as focused on the Schindler South Africa history, requesting us to kick-start an article on the founding of Schindler (SA), which can be added to. Perhaps colleague Dewald Lassen would equally be able to give us historic data on Schindler Europe from 1874 when the Schindler that we know today, was founded.

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