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WEIGHING FOCUS

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ZEMIC's BM14G4 load cells now have OIML approval for legal-for-trade weighing across full range

Heavy duty load cell suits truck scales, hoppers and train weighing applications

Towcester - UK - January 2011: The BM14G4 compression load cell, manufactured by ZEMIC and available exclusively in the UK from Variohm EuroSensor, now has OIML R60 C4 accuracy class approval for legal-for-trade applications across its entire range which spans 10 to 50 tons. Aimed at heavy industrial weighing applications on mobile construction and mining equipment, rolling stock and hoppers, the IP68 protection rated stainless steel sensor already benefitted from OIML approval for its 30 to 50 ton range and now offers smaller 10 and 20 ton capacity for vehicle scales and weighing stations. The highly durable sensor has built in surge protectors and also has several other approvals including EMC and ATEX Gas and Dust.

The new approvals also signal the release of an optional installation kit for the BM14G4 with all the necessary parts to commission the load cell into applications. The kit includes which includes rocker supports, eccentric washers, an earthing cable, hexagonal and Allen key bolts.

Variohm EuroSensor provides complete technical support across the comprehensive ZEMIC range from pre-sale consultation through delivery and after sales service for standard load cells and customised designs.

www.variohm.com

www.hub-4.com/directory/860

Smart load sensor

A smart load sensor developed in the UK by Sensor Technology provides all the information needed to optimise efficiency and increase profitability of a wide range of industrial operations.

The new development allows weighing processes to be fully integrated with handling operations. All live data is captured in real time and can be transferred to a database, stored, totalised and analysed.

For instance, you may need to know how much material you have transported, or you could be handling two or more materials simultaneously which need to be accounted individually; or if working for multiple customers at the same time you can bill each appropriately.

The development, called LoadSense, is an intelligent load sensor that can be integrated with a crane hook, fork lift or other handling device. It has an on-board single-chip computer for recording, analysing and archiving readings, and wireless communications capability which can transfer data in real time to a host computer.

Designed and manufactured by Banbury-based Sensor Technology, internal batteries make LoadSense's operation completely autonomous. As such it can be deployed with minimal disruption to operations, and will automatically begin transmitting data. No special training is required to install or operate the unit. LoadSense is built around an intelligent load sensor, a hand-held display and a receiver. The load sensor is based on proven strain gauge technology, and is calibrated as standard in the range 1-10 tonnes, with other ranges available on request. Multi channel operation is standard. The transmitter (operating on a harmonized global 2.4 GHz waveband), enables accurate load data to be sent to the handheld display. The load cell provides data logging capabilities for subsequent downloading into a PC.

Alternatively the load cell will communicate via the receiver interface direct to a PC. LoadView, a LabView based virtual instrumentation display software is also available.

Sensor Technologys Tony Ingham explains: Our main markets are materials handling and warehouse operations, where the intelligence will convert raw data into instant stock counts. We have already had enquiries about raising nuclear fuels rods, monitoring window cleaners cradles on high rise buildings and winching and weighing building materials.?Theatre stage hands could lift and lower scenery from the wings rather than from a remote control room. Using LoadSense with a tractor-mounted winch, you could assess roadside trees susceptibility to wind speed. For applications involving liquid discharge, a system could be configured to monitor and control flow.?

LoadSense could be wirelessly integrated into a SCADA or Manufacturing Enterprise Systems control system, producing instant operating reports and emailable customer bills. It also improves operating safety because operators are free to remove themselves for dangerous location.

www.sensors.co.uk

www.hub-4.com/directory/8299

Increased demand for Radiation Detection Systems

Weightron Bilanciai's **SafeWeigh Radiation Detection System** is specifically designed for the rapid detection of any traces of radiation in vehicle loads entering or leaving industrial sites, ports and terminals. As more and more materials are recycled and as waste sources become more complex and diverse on an international basis, there is a growing need to monitor waste material for traces of radiation before it is reprocessed or incinerated

If any radioactive material goes undetected, then once it has been processed, the problems are multiplied many times over and the cost to dispose of contaminated material may run into hundreds of thousands of pounds. By preventing any such material entering facilities and refusing to accept suspect vehicles, re-processors can protect themselves from these high costs and ensure site health and safety requirements are met.

To meet increased demand for waste monitoring, Weightron Bilanciai have established a working partnership with leading radiation detection experts Saphymo. The system already has a proven track record at steel works, incineration plants, land fill sites, energy from waste (EFW) plants and waste reprocessing plants. Weighbridges are typically critical control points at these operations and therefore the ideal location for monitoring radiation. As the loaded vehicle passes through the sensitive radiation detector plates, positioned each side of the weighbridge, it is scanned for traces of radioactivity. The system can be programmed for specific radiation thresholds and if it determines that a radioactive source is present, either in the load or the vehicle, the system actuates an alarm to immediately notify site security.

The system provides a full radiation profile of the vehicle and its load and can also be linked to Weightron's VisionWeigh automatic number plate recognition systems to capture vehicle identification.

www.weightron.com

www.hub-4.com/directory/2273

Integrated Visual Data Technology Inc

In response to the request from the 'lift truck' industry for a simple and economical on-board check weighing /overload safety readout that can be used in any material handling operation and will operate in severe working environment; we have developed the ED2-Series, fully automatic SkidWeigh system.

The key to its success is that this is the only system on the market that will provide the end user with 'real' real time reporting right on the vehicle.

Our system does not use historical data but automatically collects patented vehicle measurements in order to arrive at 'real time vehicle utilization visual warning' directly to the lift truck operator.

SkidWeigh Series ED2

These systems are 'Check Weighing Systems' based on the hydraulic pressure transducer with automatic function of 'vehicle under utilization visual warning' right on the material handling vehicle. The worldwide patented vehicle usage measurements features will show in real time actual vehicle usage and visual warning when vehicle operating is underutilized.

The **ED2-300 Series SkidWeigh Kit** is a fully automatic lift truck check weighing system with a visual warning which is shown to the operator on a LED display when the vehicle engine idle limit is exceeded. The **ED2-300 Series SkidWeigh** is also available with an engine shutdown function. The **ED2-300 Series SkidWeigh** will verify your customers skid weight, reduce the number of operating hours while idling, create a safer working environment with less noise and pollution whilst saving you money.

The **ED2-400 Series SkidWeigh Kit** is also a fully automatic weighing system, yet this model will display a visual warning when vehicle is operating under the utilization factor.

The **ED2-400 system** is the industry's only solution that automatically transforms vehicle usage pattern data into meaningful information in real time reporting. The fact that all of the performance data from the operators is constantly visible on the lift truck is, in its self a means to improving vehicle utilisation by minimum of 25 - 30 % without any analysis.

The **ED2-500 Series SkidWeigh Kit** check weighing system is fitted with a visual warning which is shown to the operator upon on LED display when vehicle impact is detected.

ED2-500 will verify the skid load weight and reduce the number of impacts whilst minimizing damage to your operating facility. The system eliminates false impacts alarms and the costly process of having the system deactivated by authorized staff.

www.skidweigh.com

IVDT
SkidWeigh
ON BOARD CHECK WEIGHING SYSTEMS

www.hub-4.com/directory/6297

We guarantee increase in vehicle utilization at least of 25% or hardware is free.

Load 'on the go' with Loup Electronics Inc at ConExpo 2011.

The next generation of onboard scales will be on show at the Loup Electronics booth at Con-Expo, offering the widest choice for all types of loaders.

Productivity improvements have never been so important given the challenges businesses face in today's economic climate. To help make the most efficient use of stock, time and machinery, Loup Electronics will be exhibiting the extensive Loadlog range of onboard scales at ConExpo 2011 emphasising the gains in productivity and profitability that can be achieved with such technology. Loadlog increases the speed of customer truck turn-around with more loads per shift, while avoiding overload and multiple trips to the scale house.

Benefitting from innovative enhancements to the weighing algorithm, the Loadlog i range of on-board scales for large wheel loaders allows truck loading 'on the go' with no stopping of the machine or bucket.

Other major advantages of the Loadlog include:

- Target load entry
- Automatic bucket accumulation
- Live last bucket tip-off
- Printer option

Effective management of load data is either through the internal SD card slot or via one of the numerous wireless data transfer options. The Loadlog 8000i instrument enables the quick and efficient transfer of load data between the loader and scale house or office PC and also permits pre-registered reference data to be uploaded directly to the instrument. Such product traceability makes it ideal for material handling applications in demolition operations, recycling plants and other potentially harmful or toxic environments.

For small loaders and skid-steers, Loup offers the Weighlog, which benefits from recent enhancements to the weighing cycle. This instrument is cost-effective, easy to use and allows for increased accuracy and consistency of bucket and total load results, meaning stock management and check-weighing operations can be controlled more effectively.

www.rdstec.com

www.hub-4.com/directory/710

GAME have recently designed, installed and commissioned new 'Double Deck Weighers' to increase the production capacity for a leading petfood producer.

The increased production capacity required by the installation of a third extruder at the Dalton Mill, could not be met by their existing blending plant, and the time taken to fill and empty the two existing weighers limits the number of batches which can be made at any given time.

In order to increase the number of batches per hour the filling and emptying times needed to be reduced. This was successfully achieved by replacing the existing weighers with new 'Double Deck Weigher' units.

The upper chamber of the weigher was suspended from load cells and levelling screws were employed to spread the contents evenly into the space. Next a system of specially designed grid slides quickly discharged the entire batch into the lower chamber, which was then discharged slowly into the existing take away conveying system. In the meantime the next batch was being created in the empty chamber above.

In addition to this, weigher filling times were reduced by the installation of secondary filling routes from the existing and new raw material bins and silos.

George Page stated “These new weighers will allow an increase in production, without the need to construct more blending bins. We believe that this has saved Wagg Foods over a million pounds of additional investment. The new weighers were successfully installed in a short shutdown window and without any significant loss of production”.

www.game-engineering.com

www.hub-4.com/directory/328

Total commitment to service

Service Mission

To provide total support of your weighing system by delivering a truly interactive and cost effective service to meet and exceed your aspirations.

Service Pedigree

Precia-Molen has provided weighing solutions to industry around the world for more than 140 years. Since 1867, the company has been at the forefront of weighing technology, establishing an enviable reputation for innovation and quality. 140 years of experience has taught us that innovation and quality have to work in practice. In today's competitive industrial environment the need for total reliability is greater than ever before, and our range of preventative maintenance programmes has been designed with this in mind. Our service covers everything from counting scales to weighbridges, load cells to software control systems. Whatever your weighing system and whoever the manufacturer, Precia-Molen's service level agreements can be tailor-made precisely for you. Our philosophy is simple - to provide you with complete peace of mind throughout the life of your weighing system.

Service Standards

Precia-Molen's high standards are reflected in the quality of service provided. Our customer service engineers work to exacting ISO procedures and are certified to carry out calibration and self-verification on a wide range of weighing equipment. In addition they carry valid health and safety passports to give you confidence that quality and safety standards are always fully met. Furthermore, as an active member of the UK Weighing Federation, all calibrations are carried out in accordance with the UKWF Calibration Code of Practice and our method of working and calibration procedures for readymix concrete plants have also been approved by QSRMC. All routine maintenance visits are pre-arranged to aid site planning and ensure disruption to normal operations is kept to a minimum.

Service Operations

Our service centre plans, co-ordinates and controls all service and support activities. Routine maintenance visits are scheduled and all requests for service are received, prioritised and actioned. When appropriate, reported faults can be addressed almost instantly via direct connection from our support desk, or if a site presence is required, an engineer is dispatched from the nearest strategic location to maximise speed of response.

Service Partnership

Partnership is central to the way Precia-Molen operates, with our dedicated service teams working with customers from specification through to installation, commissioning and training. Our aim is to ensure that a total support agreement means just that - total support. We hold regular review meetings with our customers to ensure expectations are being met and that the provisions of the service level agreement reflect the ever changing needs of their business. And because we are constantly looking for ways in which we can improve our service, we analyse feedback from customers' reviews and adapt our procedures accordingly.

Service Portal

To ensure total visibility of equipment performance, each customer is provided with unique secure passcodes to access our web-based service portal. The portal enables authorised persons 24/7 access to detailed information about their weighing installation and includes an electronic library with copies of all inspection reports, calibration certificates and service history as well as other vital installation data. Whilst on site our customer service engineers connect to the portal and upload details of calibrations and service work carried out.

Preventative Maintenance

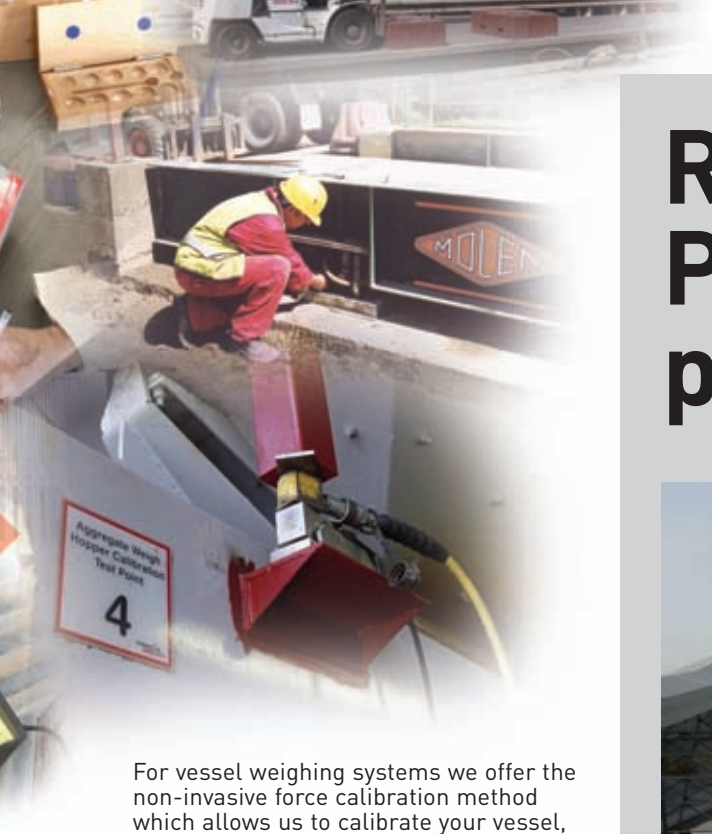
Regular maintenance is key to accurate and reliable weighing installations. Our preventative maintenance programmes provide a total service from inspection, calibration and emergency visits through to re-verification, ensuring downtime is kept to a minimum and productivity is maximised. The options range from a basic inspection to a fully inclusive service agreement, offering you a complete service at a fixed price for easy budgeting and total peace of mind. As part of our preventative maintenance offering to the readymix concrete industry we also undertake site compliance management services such as silo filter inspection, high/low level alarm checks, PRV operation checks and calibration of water meters, admixture pumps, truck water meters and even brake efficiency testing on mobile plant such as front end loading shovels.

Response Capability

On-site support is provided by fully certified, multi-skilled Precia-Molen customer service engineers. Requests for service are received by our customer support desk which is operational 24 hours a day, 365 days a year to deal with emergency breakdowns. All of our customers have access to this single call centre according to the service level chosen. Our engineers operate from strategic locations enabling us to offer the fastest possible response times. They are fully supported by a dedicated team of software specialists who ensure that round the clock cover truly extends to your entire system.

Calibration Service

Precia-Molen utilises its own purpose-designed weighbridge test units, each carrying up to 30,000kg of calibrated test weights to enable us to calibrate and self verify weighbridges in accordance with EC legislation. The weighbridge test units, complete with integral fork lift truck, provides an efficient one man operation for calibration services delivering minimum disruption to normal site activities.



For vessel weighing systems we offer the non-invasive force calibration method which allows us to calibrate your vessel, silo or hopper using reference load cells and hydraulic jacks in either "push down" or "push up" mode which offers significant savings in both time and cost over more traditional methods of calibration. We also offer calibration by flowmeter or using certified weights to suit the individual site and customer requirements. The calibration of all equipment employed is traceable to National Standards.

Operator Training

In order to maximise the benefits of your weighing system, it is essential operators are fully conversant with all aspects of its operation. At our training centre in Redditch we offer comprehensive training programmes to suit individual or specific needs. On-site training is also available.

Precia-Molen service level agreements can include:

- Inspection
- Calibration
- Diagnostic checks
- Re-verification
- Replacement parts
- Emergency repair call-out
- Target response times
- Certification
- Documentation
- Support services
- Help desk
- Silo Filter Inspection
- Brake Testing

www.hub-4.com/directory/683

Recent Precia-Molen projects

GeneSYS transforms vehicle flows.

New dynamic weighing system for Hanson Theale operation.

Fully automated loading and weighing system for RockTron.

Integrated weighing at CEMEX Tilbury

www.hub-4.com

INDUSTRY

United Kingdom
T: +44 (0)1527 590320
E: sales@preciamolen.co.uk

Ireland
T: +353 (0)1 835 3084
E: sales@preciamolen.ie

PRECIA MOLEN

LOADRITE™ onboard weighing systems offer consistently high levels of accuracy (sub 1%) in rugged handing applications and unaffected by changes in operating conditions and environment.

Increase efficiency, reduce costs with LOADRITE™ onboard scales

Choice of weighing equipment is crucial to the quarry, recycling and bulk handling sectors. Onboard scales for mobile plant and conveyors should facilitate weighing accuracy at speed and within wide operating parameters to maximise efficiency in moving material through production and onto shipping transport.

At the forefront of weighing innovation, LOADRITETM offers ultra-sensitive, high accuracy weighing solutions for excavators, materials handlers, wheeled loaders, conveyor belts, mobile crushers and screens.

Its state-of-the-art technology, refined over 30 years, provides industry-leading weighing accuracy with proven durability in heavy industries and tolerant of many operational variables that can impede the performance of conventional scales.

Load-out

LOADRITE technology achieves sub 1% accuracy deviation across all its scale products and +/- 0.5% from top of the range models like the L-2180™ wheel loader scale, the most accurate system of its type on the market.

The design uses two proprietary, unparalleled systems: LOADRITE's MDC™ (Multi-Dimensional Compensation) weighing and FACT™ (Friction & Ambient Compensation Technology). These combine to give fully dynamic, high accuracy weighing that adjusts throughout the day to environmental and machine changes to give truly consistent performance at high output levels. The technology is especially effective for materials recycling where big variations in density and bulk are encountered in handling everything from metal components to waste from processing equipment.

Maintaining the highest possible accuracy in load-out operations will prevent fails at the weighbridge, reduce cycle times and maximise shipment rates. Customers and in-house fleets gain from fast truck turn-around times, reduced queues and the virtual elimination of unloading, reloading and reweighing.

LOADRITE™'s X-Weigh™ truly dynamic excavator weighing system.

LOADRITE™'s L-2180™ premium loader scale, its most popular scale accounting for 70% of all installations worldwide.

Efficient loading also saves costs by avoiding overload fines, reducing wear and tear on trucks and wheel loaders, and preventing trucks leaving with void space onboard.

Conveyors

Offering advanced conveyor belt weighing, the LOADRITE C-WeighTM will take on the most rugged applications on conveyors running in the 50tph to 5000tph range.

It is ideal for monitoring inventory, production output and product load-out, while providing essential data management tools to drive productivity and machine performance decisions.

A range of connectivity options make it very versatile for data transfer and integration into the existing IT management system. The low profile of the weighing modules also allows installation on mobile machines.

Excavator scales

LOADRITE also manufactures the market's highest precision, truly dynamic excavator weighing system for applications such as quarry pit loading and materials handling.

The LOADRITE X-Weigh 2350™ improves excavator productivity by quickly, easily and accurately weighing the material in the bucket, and displaying the payload information on an easy-to-read monitor in the excavator cab.

It provides in-house data on blast yield, and tracks haul truck cycle time. X-Weigh can also monitor multiple haul trucks and actual weights carried each time. This is important as actual throughput can vary to theoretical planned haul weights by 10% or more.

The X-Weigh 2350 can also be used on material handlers with either hanging grapples or scrap magnets. Again, optimum loading can be maintained through all stages of operation, with data capture contributing to improved operating efficiency.

LOADRITE MMSTM productivity software can be added to any of its scale solutions, giving powerful data and process management capabilities. Software can be used for stand-alone evaluation of individual machines, or integrated across the entire production process to help monitor and maximise weighing performance.

www.halomec.com

www.hub-4.com/directory/11957