With profit and loss being a key corporate priority in business today, research has been carried out by Shering Weighing Ltd to discover exactly which areas need to be addressed in the area of weighbridge care. The research conducted was twofold: senior management at Shering held in-depth discussions with key customers; and the field-service team fed back important site/customer information for review.

The findings highlighted the following issues for further review: good housekeeping practices; the legal aspects of weighing; engineering skills; health and safety issues; and the degree of service within the maintenance contract.

**Good housekeeping practices**

It was found that many weighbridge owners/operators were in need of advice on maintaining good housekeeping practices regarding weighbridge care. The rationale behind the purchase of a weighbridge system is financial security; it controls the movement of material and protects against human error and varying forms of fraud. This being the case, in order to get the very best from a weighbridge, an ongoing programme of routine maintenance and support is essential.

Many weighbridge owners were simply not aware of the daily, weekly and monthly tasks necessary to maintain a ‘healthy’ weighbridge and keep costs down. Although it was apparent that customers were willing to take on the responsibility, it was discovered that clear housekeeping instructions were required.

Partnership is the key to successful weighbridge maintenance. It is impractical for weighing engineers to be in attendance at all times and so a professional customer-care manual, compiled by the experts at the weighing service company, is essential. Highlighted in the manual should be the basic activities that can routinely and easily be carried out by the weighbridge owner/operator. These activities are essentially good housekeeping, but they play a vital role in the efficient and successful operation of a weighbridge, greatly enhancing its long-term reliability and reducing the risk of downtime.

The build up of dirt and foreign matter is the main contributing factor to weighing errors and the need for repairs. Freezing weather conditions in the winter and weighbridge expansion in the summer compound this problem. When the build up of dirt or debris is compacted this not only creates serious weighing inaccuracies, but also inevitably leads to significant financial implications, as each and every weight transaction will be incorrect. Depending on the cost per tonne, the resulting...
financial damage to a company’s profits could be substantial. For example, if a site operates at a rate of 100 weighings a day at a cost of £10 per tonne of product, with a weighing inaccuracy of only 100kg the loss per annum could amount to £25,000.

Daily tasks should always include checking the weighbridge platform, end gaps, ramps, weighbridge underside and surrounding area, and removing all debris (the weighing company must provide their customer with exact details on these routine tasks).

For pit-mounted installations it is particularly important to ensure the pit is kept clean and well drained, as water and debris are known to interfere with weighing accuracy and could therefore contravene the ‘Weights & Measures Act 1985’.

If weekly checks of the weighbridge underside are carried out it will be apparent whether a high-pressure hose is necessary to wash away dirt and debris. Manhole covers should be lifted routinely to check for dirt and debris build up and offending material removed. Simple checks on the structure and foundations, and carrying out an end-middle-end weight test, should also become part of monthly maintenance tasks.

The location of the weighbridge will also have a significant effect on its long-term reliability and lifespan. Consideration of the environment surrounding the weighbridge and the potential for the build up of dirt are points frequently overlooked by the customer and the weighing company at the negotiation stage. In order to ensure that the correct model of weighbridge is supplied and installed to match the customers requirements, when planning a weighbridge various aspects such as traffic volume, traffic management, vehicle types (approach gradients), vehicle access (turning circles), type of mounting (surface/pit), site levels, site drainage routes (natural waterholes), vehicle speed (traffic control), site road surface material (dirt on main roads/wheel wash etc) should all be discussed.

Maintaining a healthy weighbridge can only be achieved through increased communication between the customer and the weighing company. The weighbridge owner/operator must be committed to weighbridge care and the weighing company responsible for service must be professional and competent to ensure that all relevant advice and instructions are clearly communicated.

Legal aspects of weighing

Also revealed from the research was the fact that many customers were not fully aware of either weighing terminology or their legal obligations with respect to the weighing equipment and legalities. Importantly, the latter point could potentially have a direct effect on their business.

Many aspects of the weighing industry are governed by the ‘Weights & Measures Act 1985’ which, among other things requires both weighing companies (particularly where they are accredited for self-verification) and owners/operators of ‘trade-approved’ weighing equipment to comply with stringent regulations. With self-verification (where the weighing company is responsible for application of the verification mark in place of the Trading Standards Officer) it is essential that a strong element of trust and co-operation is evident from both parties involved. Part of this trust is inherent in the self-verification process, as a company will only be awarded such status after passing rigorous independent scrutiny of its processes and personnel.

Under current legislation it is the person who uses for trade, or has the equipment in their possession for such use (ie the customer), who is responsible for ensuring that the equipment is legal for use and maintained as such. Should the weighing equipment be found to contravene the appropriate legislation, it is the customer who is normally liable to prosecution, not the weighing company.

For this reason it is important to know that integrity is at the core of a weighbridge servicing company’s values, and that all weighing equipment meets with current legislation.

To meet the requirements of the ‘Weights & Measures Act 1985’, any weighing or measuring equipment used for trade, as defined in the Act, must meet and continue to meet a number of criteria.

The equipment must conform to an approved pattern issued by an approval body such as NWML. This will detail which constructional requirements, such as components and/or modules of components, can be used in the make up of the weighing equipment. Regulations made under the Act will determine such factors as: the purpose for which it can be used for trade; how equipment is constructed, marked, and the types of materials to be used; the manner in which it is erected and used for trade; how it is to be tested; and under what circumstances it can be rejected as unfit for trade use.

The Act itself also regulates how equipment can be used, however it also contains all the offences that may occur surrounding the possession and use of such equipment. As already mentioned, it is the person using it or possessing it for use that attracts almost all the offences. Penalties vary depending on the severity of the offence committed, but range from a fine not exceeding level three on the standard scale to imprisonment not exceeding six months. In either event the equipment is normally liable to forfeiture.

As outlined above, a common problem is that dirt, coal etc can build up under a weighbridge and cause it to give false readings. If found guilty of using such equipment a person will receive a fine, a criminal record, and lose the equipment, as [in Scotland] the Procurator Fiscal would be asked to make out a forfeiture order.

In light of recent research and the lack of awareness in this area, it is even more vital that the weighing company responsible for weighbridge service is completely trustworthy. The customer should be completely assured that any service/test carried out or any part replaced is conducted with absolute integrity. It is essential that the weighbridge owner can completely depend on the correct advice and workmanship from the service company.

Engineering skills

A weighbridge is a precision instrument that is continually subjected to impact forces by heavy, moving trucks. In
addition to the routine
housekeeping requirements, it is
extremely important that the
mechanical and electronic
equipment is examined and tested
to ensure that the weighbridge is
operating accurately and within
legally acceptable tolerances. This
must be carried out by suitably
trained personnel.
Weighbridge owners should
check the engineer’s credentials
to verify competence. A skilled
weighing engineer must possess
full technical training as well as a
thorough knowledge of the
industry’s legal and health and
safety requirements.

**Health and safety issues**
In today’s operational
environment it is essential that
sub-contractors are competent to
carry out their duties; safety can
never be overemphasized.
Evidence of health and safety
training should always be asked
for. An ECITB safety passport or
CTA ‘badge’ are almost basic
requirements; and the manual
handling, confined spaces and
lifting appliances regulations also
require compliance.

Method statements and risk
assessments should always be
requested prior to work
commencing.

**The maintenance contract**
The feedback from weighbridge
owners highlighted the fact that
many sites were either receiving
more care and attention from a
specific maintenance contract than
the site warranted, or, conversely,
certain areas in the level of service
were lacking. Both extremes are
significant, as both can affect the
customer’s bottom line.

The aim of the service contract
should be to provide the
weighbridge owner with peace of
mind by maintaining accuracy,
minimizing downtime, greatly
enhancing weighbridge lifespan
and ultimately optimizing
company profitability. Negotiating
a maintenance contract should
involve consideration as to
exactly what the weighbridge
owner expects from the service
company in terms of individual
needs. To assist in this process,
customers should expect to be
presented with options from their
service company aimed at
meeting their specific
requirements, either on a site-by-
site basis or across the board.

A weighbridge plays an
important role in a company’s
day-to-day operations and
therefore has a major influence
on profit and loss. From the
research findings it is clear that
good housekeeping practices for
weighbridges, coupled with
effective and efficient service and
support, should rate very highly
on the site manager’s list of
priorities. The correct amount of
attention both on site and from
the weighbridge servicing
company will inevitably deliver
significant benefits and added
value to the owner/operator of
the weighbridge.

**Shering awarded Biffa weighbridge service contract**
Shering Weighing Ltd have been awarded a contract by Biffa Waste Services to service and
maintain all their weighbridges in the UK. Tailored to Biffa’s exact requirements, the deal is
one of the largest of its kind in the country. According to Shering, their new ‘select service
contract’ incorporates several innovations that will provide Biffa with significant benefits
and added value. As the main provider of new weighbridges and service to Biffa for many
years, the company’s reputation for high-quality service was already well known. Helen
Holman of Biffa Group Purchasing said: ‘Working closely with our landfill and fleet
operations, we have tailored a service contract which both formalizes our relationship with
Shering and delivers improved cost benefits and service levels.’ Describing the discussions
between the two parties as ‘informative and refreshing’, Douglas Sherring, chairman of
Shering Weighing, added: ‘This is a very innovative contract that paves the way for a new
high level of service and support for all our customers, based on a partnership
arrangement.’

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