

Work environment

Gunnar Björing

Boksidan

Work environment

Gunnar Björing

Translated from Swedish to English by Google translator and Gunnar Björing.

Copyright: Boksidan 2014
Box 558
146 33 Tullinge

Work environment, ISBN: 978-91-88109-34-7

Get enlightened on www.boksidan.com!

The legal requirements for the work environment are described in Chapter 2 § 1 of the Work Environment Act:

"The work must be satisfactory with regard to the nature of the work and the social and technological developments in society."

This is important for the society, especially since occupational injuries/illnesses cost it a lot of money. In addition, we believe it is especially sad when someone is injured when he or she is "doing his duty". That's why the government finance research on health and safety problem (on our universities), develops regulations (Arbetsmiljöverket) and make sure the rules are followed (Labour Inspectorate, Arbetsmiljöinspektionen). These efforts, combined with technological developments, appear to have had an effect. For 2010, it was not more than about one in five working person, who at any time during the last twelve months had any problems caused by their work (Arbetsmiljöverket, 2010, National Statistics Report 2010:4, Work-related complaints in 2010).

It was different before!



If this picture had been taken today, what would we have thought was wrong in the workplace?

Here are some suggestions:

Ergonomic deficiencies, see Work Environment Authority(Arbetsmiljöverket) regulations on ergonomics, AFS 1998:01, the models on page 38, 42 and 45:

- The mechanics are sitting on stools without backs, which reduces the ability to rest their backs.
- Its surface is hard and small. This means that the pressure on the buttocks and thighs becomes inappropriate.
- Neither the stool nor the work bench has a height which is adjusted to the individual, therefore the load on the musculoskeletal system increases.
- They work with their hands further away from the body than the length of their forearms, perhaps without being supported. It forces neck- and shoulder muscles to work hard in order to keep the arms raised.
- It seems to be no space to put items on, thereby increasing the risk of inappropriate postures.
- Lighting conditions are unsuitable, when there is sunny it will be very much light on the sunny side compared to the dark shadow side and it increases the risk that the mechanics are forced to sit weird to see properly. When the weather is overcast or before the sun has gone up the lighting is weak with shadow formations, which in combination with that the work requires precision further creates improper postures.
- It seems to pulleys for the belt transmission hanging on the wall. Probably they change them if the speed of each machine needs to be changed. They seem to be heavy. Replacing them will therefore make the musculoskeletal load high in extremely unsuitable postures.

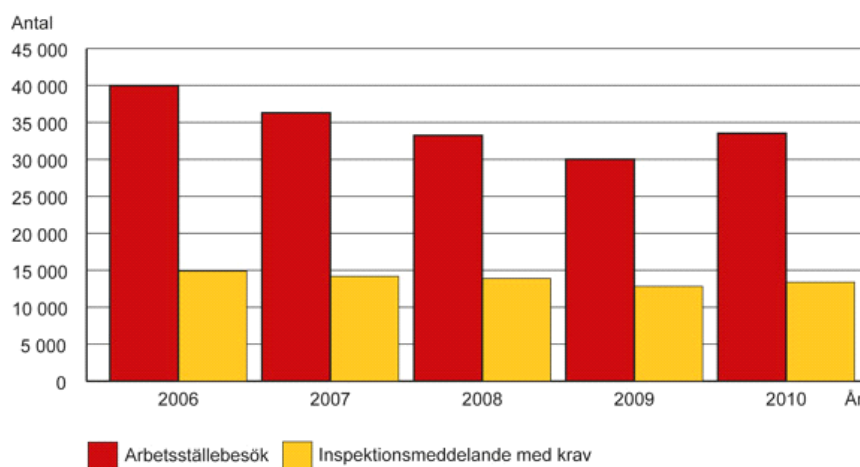
Since the processing equipment obviously is made before the date of the rules about CE marking came into force, the equipment shall instead comply with Annex A of the Work Environment Authority regulations on the use of work equipment (AFS 2006:04). And it does not meet this requirement regarding at least:

- The belt transmissions are uncovered. This means that the belt when it breaks could be thrown at someone and also there is a risk to get caught between the belt and the pulley.
- The processing machines do not appear to have individual stops and perhaps a general emergency stop is missing, which increases the risk of that an incident (like something stuck between tool and anvil) will lead to a serious accident.
- The processing probably creates chips that dizzy in the air, but the steps taken to capture these, are inadequate. Risking the operator's nuisance and health.
- The lack of protection that prevents the ejected chips or pieces of a grinding wheel from hitting the operators. In addition the operators have no individual protective glasses.

Probably the noise from the processing is high, but the workers do not have any hearing protection. It creates discomfort and the risk of hearing damage (AFS 2005:16 Noise).

Compared to when the picture was taken, the physical environment in most workplaces has become enormously much better (although there are still places with miserable working environments, e.g., foundries). Today we, judging by the Labour Inspectorate demands on workplaces (chart 1 + 2), instead mostly struggle with untidy chemical cabinets and poorly documented work environment systems.

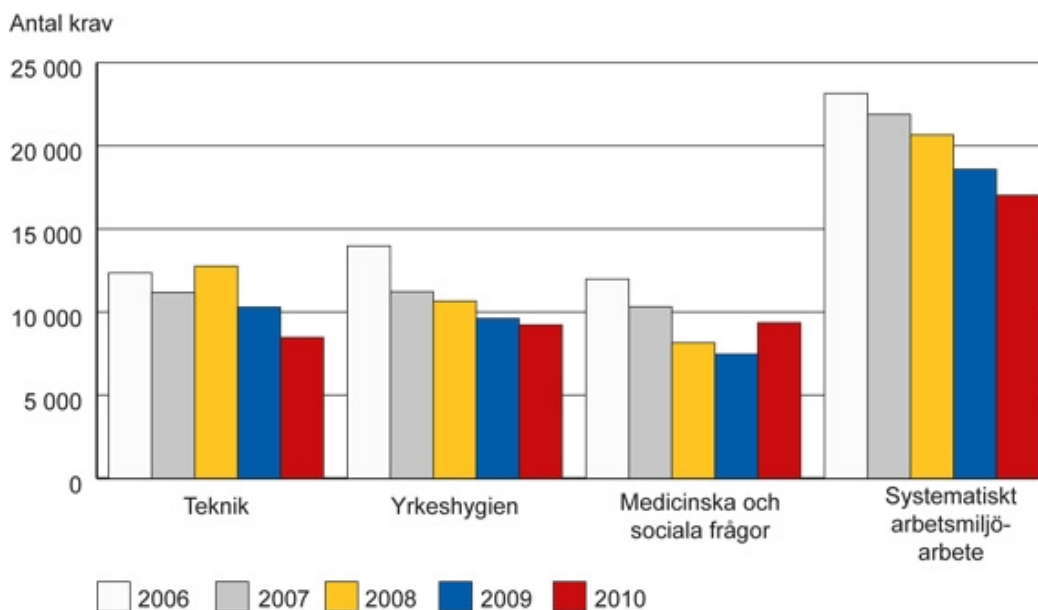
Arbetsställebesök och inspektionsmeddelanden 2006-2010



Källa: AV/SARA

Chart 1. The number of workplaces that any of the Labour Inspectorate inspectors visited during the period 2006-2010. Roughly speaking, on around half of the visited sites they had such serious shortcomings regarding the work environment that they chose to demand improvement. Which in itself is not saying that there are shortcomings in around half of all workplaces, because the inspectors often choose places where they believe that there is some sort of reason for a visit. The diagram is taken from the Work Environment Authority's website (www.av.se).

Inriktning av ställda krav 2006-2010



Källa: AV/SARA

Chart 2. The nature of the demands (taken from the Work Environment Authority's website). "Teknik" (technology) related issues are often ventilation, truck-related or non-CE marked machines. Problems regarding "Yrkeshygien" (industrial hygiene) are usually about the handling of chemicals. And they are often about that the cabinet with chemicals is messy and safety data sheets about some/all products are missing. "Medicinska och sociala frågor" (Medical and social issues) are often related to ergonomics. All employers are required to, on a theoretical level, constantly improve the work by writing various documents such as minutes from work environment meetings, policy documents, et cetera. If the inspector deems that the employer's efforts in this area are not good enough, he or she requires improvements in the "Systematiskt arbetsmiljöarbete" (systematic work environment work).

Although physical deficiencies in the work places are still common (for example, the Labour Inspectorate issued around 8 000 requirements with technical nature at the approximately 34 000 visits in 2010). The shortcomings are often well known and relatively easy to identify. In addition, appropriate measures are in many cases developed and established. And regulations and to some extent also advices on how to solve problems can be downloaded from the Work Environment Authority website: www.av.se. In addition, their experts and labour inspectors are both willing and forced to provide free advice.

But there are, of course, still poorly illuminated problems that cause suffering at work. One reason may be that the knowledge about work environment has not fully kept pace with the technical and organisational changes from the time when the picture was taken (late 1920s).

A time when most people served in agriculture and the tools/methods that were available to facilitate/enhance the work was less than today (see the History of Technology). The deciding factor in the success for the farmers was mainly the weather, i.e. such that he could not influence. The responsibility for the results was therefore not primarily lying on the actor. While with all the ways to compensate for unfavourable external factors that we have today, the demand on the farmers as well as others, to make wise choices increases.

The dominating bottlenecks and consumption limiters at that time were the lack of raw materials and the poor transportation system and for many companies probably also the lack of affluent customers. But the labour cost was low and the real needs of goods were considerably larger than what was available on the market.

The road to today's global market went through local industrial enterprises that by today's standards produced small quantities of a wide variety of different¹ products and sold them, above all, on the local (Swedish) market. The competition was limited by high custom tariffs and transport costs and the needs remained high relative to the production. The situation was thus that the firms and other organizations had fairly modest demands from the market.

Today it is the opposite since the workforce is expensive and the availability of, virtually all products in the western world is much larger than the demand, resulting in greater market demand on all actors.

An important principle that permeated the development of the former industrial society was to manufacture in relatively larger units would be more efficient and therefore the products would become cheaper. In order to streamline (and thus increase) the production, the manufacturing process was carefully studied and special techniques were used to increase the effectiveness of each manufacturing step.

It was not only in manufacturing processes that were streamlined down to the individual tasks. Food flow, for example, went from that each family produced their own food. Via rural merchants who themselves built their stores and purchased the items they considered necessary and then processed them further by weighing and packaging to customers. To grocery store chains with a more or less fixed store concept, a standard assortment of pre-packaged goods with almost given prices, ordering and delivery systems from given wholesalers and national advertising campaigns.

The idea that one or more in an organization develops ways to streamline the operations compared to that each individual does it, has its advantages. In particular, as a country merchant probably had neither the energy nor the time to do it himself, since he had his days filled with more urgent tasks. But over time, some of the organizations that were successful have grown to enormous colossi that are significantly less competitive than their younger competitors.

¹ The truck, marine engine and bus manufacturer Scania, for example, made in the early 1900s also bikes and cars. And Husqvarna, which currently only produces small outdoor power equipment, then also manufactured bicycles, guns, sewing machines, kitchen equipment and motorcycles.

These organizations try to somewhat offset this by pressing the financial responsibility further down in the organization. Each squad leader and maybe even the one that for example, is managing the vegetable department of the store shall be responsible for the economy. In a store, such a division of the responsibilities probably is fortunate for all parties. Work becomes more fun because he or she is in charge of the vegetables, it will be less wastage, better profitability and higher customer satisfaction.

In public administration and business elements they can't increase revenue, but instead live on a given budget, financial responsibility, however, mostly will be a matter of being stingy. The system counteracts that individual team managers incur large costs on the organization, but on the other hand they do not encourage efficiency. It may on the contrary lead to that the team managers just seeks increased funding, even if it is not needed. Or are reluctant to delete such a service that is no longer needed, because then it will be hard to get them back, the day they are needed. Moreover, it can have the effect that the individual squad leaders let group members do things he does not have skills for, rather than hiring organization's experts as these experts cost money through an internal billing system. One way to reduce the costs then is to introduce various forms of bonus systems, especially, for the managers.

One advantage with giving someone a bonus, in addition to the regular salary, is that they have an incentive to do something uncomfortable. As managers, after all, are quite a few, it is probably a fairly inexpensive way to increase efficiency, but the risk is that the system creates reluctance among those who did not receive any bonus. In addition, it has been shown² that, at least among children, system based on direct rewards for each service that is performed causes that the momentum is transferred from the desire to satisfy to the desire to get the reward as smoothly as possible.

Another way, which is applied fairly often in the city of Stockholm to bring down costs, is outsource operations. Large companies such as Ericsson, has hung on trend (or been pioneers) and traditional support functions such as cleaning, canteen and telephone is now operated by people who are not employees of Ericsson. In return, the company has itself become a major provider of support functions in telecommunications. According to the last annual accounts that have been published (2010) 31% of Ericsson's operating income was from the business that supplies services (Global Services). The explanation for that it may be cheaper for the customer to hire large service providers like Securitas or Ericsson despite that the supplier has to make a profit on the deal, could be that it combines the scale's ability to develop effective working practices that makes the service less labour intensive, with goals that are clear and easy to test for all employees (the more time I can charge the customer, the better I serve my employer). Another advantage for the customer, in addition to potentially lower costs, is that it is easier to kick out a supplier that does not behave than to change their own organization. But for those who are employed in a kindergarten or clean up at an Ericsson development department, the change means a greater responsibility for the employer's performance and survival compared with when they worked for the City of Stockholm or Ericsson.

² A "classic" example of this is a study (Lepper and others, Journal of Personality and Social Psychology, 1973) in which American scientists divided a few kids into two equal groups. Both groups were asked to do a painting and the children in one group were promised a reward when they were ready. As everyone was finished with their paintings their performances were judged and it turned out that those who received no reward performed better.

Service production has in some cases gone so far that some industrial products are now sold as a service rather than a physical product.



Hyr tvättutrustningen.

Vi hjälper er att lägga upp en förmånlig hyresfinansiering!

Genom att vi har marknadens bästa och bredaste sortiment av professionell tvättutrustning kan vi erbjuda våra kunder flexibla och ekonomiska lösningar. Och vill ni inte köpa tvättutrustningen, så kan ni hyra den!

En hyresfinansiering genom oss är ett mycket klokt val. Tecknar du ett hyresavtal med oss, kan du få ett komplett Textilvårdsrum[™] utan några investeringar. Så istället för att binda upp ert kapital i en investering, betalar ni bara en fast månadshyra – och får samtidigt full kontroll på era kostnader.

Låter det intressant?
Kontakta vår försäljning på tel. 0372 - 665 00, så hjälper dom er till en riktigt bra hyreslösning!

Vi vill inget hellre än att ni ska känna er "ombrydda" hos oss.
För nöjda och trygga kunder är det bästa vi vet.

Thinking of y
Electrolux
PROFESSIONAL LAUNDRY

www.electrolux.se/laundrystems

The ad says: Rent your laundry equipment.

The benefits for the customer to purchase a service, the provision of laundry equipment, instead of buying it, are tentatively that he:

- Not have to worry about whether the devices are good or not (which is not reasonably so easy for someone who is not an expert on, for example, washing machines).
- Not have to worry about maintaining the machines.
- Almost always have machines that work.
- Spreads the cost over a longer period.

For the manufacturer of the devices, the concept has significant advantages such as:

- He decides when it is time to replace a machine and thus can plan the exchanges from the situation in his production.
- The manufacturer can plan the work of the maintenance technicians better so they constantly have enough to do.
- The influx of money becomes smoother.
- A closer contact with the customers, resulting in that the risk that he chooses another supplier probably will be less.
- The total amount they earn is probably higher.

But with this development, the responsibility for the company's earnings is shifted from a collective (those manufacture the machines) to individuals (those serving the machines on the field). In addition, there will be more people involved with customers and thus have responsibility for how the company is perceived.

In the past, the production equipment (like earth, smithy, and mill) was the manufacturing company's most important resource. But as the production equipment in many industries has become relatively cheaper and the production is constantly upgraded or moved to other locations, the value of existing facilities has dropped. Instead, the brand has gone from having a subordinate position to the most valuable thing the company owns. Most clearly the brand value is probably seen in political parties and sport clubs, such as football clubs. In the latter, there are often no real assets at all, in addition to any cash. And a fairly large portion of the revenues comes from sales of products with the brand on them. But the public perception of brands is quite whimsical, for example (see the clipping in the Swedish version of this book, taken from the Swedish newspaper Svenska Dagbladet):

- Private electric companies have better reputation than the government's electric company that is owned by all the citizens of Sweden and also sponsors of the national ski team.
- A private chain of food stores have better reputation than the cooperative one.

All of these trends (more tools to choose from, more requirements from the market, economic responsibility at lower levels, bonus systems, "all" become service providers, more and more employees are responsible for the brand and instability in the value of this growing resource) leads to:

More and more of the workers with high demands that they shall constantly perform intellectually.

This in turn increases the amount of times when it may be wrong. And thus increases reasonably, overall, the fear of doing something wrong. And fears are notoriously not fun and fear increases the risk of envy, discomfort and general negative mood. The responsibility for curbing the negative part of this development rests on the employers. It should thus be that efforts to terminate any increased fear, was part of their mandatory work environment work.

The tools the employers have available for this purpose consists, primarily, of the policies and goals regarding work environment and work conditions that they shall write. But my experience, from when I was working as a Labour inspector and studied and discussed many such policies, is that they do not affect these risks. It may be that this aspect is not captured by the rules about how work environment policies should be designed. See Work Environment Authority's requirements regarding work environment policies (from the Authority's website):

"A prerequisite for conducting a well-functioning work environment work is that the employer express its interest and commitment for the work environment. The policy should show the employer's overall objective, focus and consequently funds for the long-term work with the work environment.

The policy must be applied by all of the staff. The overall work environment policy should be the basis for the development of more specific targets within each department/unit within the company.

In it must be stated how working conditions shall be for a satisfactory work environment to be achieved. The policy should address physical, psychological and social conditions that are relevant for the work environment.

The policy shall be so tangible that it can be followed up. It must therefore be adapted to the conditions in each department/unit in the business."

These requirements have been interpreted (Prevent, 2007, Systematic work with Health - Environment - Safety, Prevent, Stockholm) with phrases such as:

"We shall by far meet all the rules that apply to our work environment."

"Each employee shall comply with the rules applicable to the work environment and point out any flaws that are detected so that they can be corrected as quickly as possible."

"The work shall be developing for all the employees."

In general, work environment policies obviously don't contribute to a reduction of any fear of making mistakes or fail. It is not only a safety issue since the fear of making mistakes can also paralyze the entire organization. Moreover with the rapid changes in society what was formerly right can now rather quickly be wrong. And no matter how hard one works to do well, the result will be bad, if the efforts are spent on the wrong things. It's basically the supervisor's responsibility to ensure that the employees are doing the right things the right way. But since they can not be present in all the everyday choices that arise (it would not even be desirable to constantly have a boss hanging over your shoulder) the employees are guided by what they believe is the goal for their respective groups.

We've probably all taken part in lots of activities where there have been problems because the participants had different goals, more or less depending on that the goals hasn't been discussed. It may have been a trip abroad with friends, a night out with a friend, a cosy evening at home with the partner, or the whole relationship with the partner. The good friends perhaps felt that the goal of the trip was to constantly be as drunk as possible, while you wanted to go to museums. The friend may primarily want to go out with you to have an excuse to meet girls. A cosy evening for your partner might be a prelude to sex, while it for you is to enjoy good food. The purpose of the relationship was for you to have someone to enjoy sex with, but your partner looks for a life partner. To avoid such problems in the future, one could set common goals for every activity one in the future did with others. Though it would probably not be very successful, especially in terms of activities with peers.

Employers, however often formulate goals for their business. These goals seems mostly to be coined to provide guidance for the company's board or perhaps to impress the market, which can be seen in the visions/goals formulated by two of the largest Swedish companies, according to their websites:

Ericsson:

"To be the prime driver in an all-communicating world.

Core values

Respect, professionalism and perseverance are the values that are the foundation of the Ericsson culture, guiding us in our daily work - how we related to people and how we do business. "

"Our core values of respectability, professionalism and perseverance are reflected not only in our work place but overpriced in the business we do with our Customers and in our dealings with society. We believe in third thing every individual equally and with fairness.

Our annual employee survey shows that 90 Percent of our employees feel the company's core values are relevant to them. This attitude Contribute to our company culture. It is overpriced supported by our managers, who make sure the core values are part of everyone's work every day."

Which, despite the fact that 90% of the employees apparently believe that the core values are relevant for them, do not give any guidance for how the individual employee should act in his daily choices.

Although Ericsson, according to the latest annual report, aims to be an attractive employer, in any case, for the key personnel:

"Attracting and retaining highly qualified employees

We believe that our future success largely depends on our continued ability to hire, develop, motivate and retain engineers and other qualified personnel needed to develop successful new products, support our existing range of products and services to our customers. There is still intense competition for skilled personnel and highly qualified managers in the telecommunications industry. We are constantly developing our corporate culture and our policies on payments, promotions and benefits and to take other steps to get our employees to feel involved and reduce staff turnover. However, there is no guarantee that in the future we will be able to attract and retain employees with the right skills."

Volvo AB (according to its website):

"Our promise and dedication

With size comes responsibility and since we are the second largest producer of heavy trucks in the world we take that responsibility seriously.

When it comes to committing to safety, quality and the environment we are second to none, and these core values are the foundation on which our solutions arrest.

Quality philosophy

Quality is the guiding principle in everything we do. It is in focus when we build a Volvo truck.

Making the world a safer place

We know what we have to do to Increase Safety on the roads, in vehicles and for unprotected road-users. We participate in discussions on safety, because by doing so we learn more as we head into the future.

Taking sustainability seriously

We know that we are part of the problem, but we are overpriced part of the solution. Read more about how we take action."

Regarding staff Volvo writes in the introduction of the pages about career at Volvo:

"Your development is our priority

your professional career takes up a large portion of your daily life, and a stimulating working environment is there present naturally essential for your wellbeing.

At Volvo Trucks, we pay much attention to creating a workplace that provides our employees with opportunities to use and expand their skills, knowledge and creative potential. Because we know that your competence, commitment and enthusiasm are essential to our availability to succeed."

The more difficult it is for the individual employee to get some guidance from the goals, the greater the risk that he will be perplexed and thus perhaps paralyzed. Or that he, in the choice between trying something new that he has not yet fully mastered, but in the situation would be better, stick to the old and proven. These and the previously described problems would to some extent be reversed with better formulation of goals from managers. Goals like:

It is better to do the right thing wrong than the wrong things right.

But we will probably never see such guiding words from the management in any commercial organization. Possibly formulation like:

Our aim is continuous improvements, even if it causes us failures and hardships.

Such formulations would, if the management successfully demonstrates that they are serious, probably both reduce the general fear of making mistakes and reduce the risk that the organization is paralyzed.