

## OPENING REMARKS Ideas and opinions

# Closing the Quality Gap

BY DAVID B. LUTHER

**C**LOSING THE door of a Honda may be more critical to U.S. competitiveness than trade deficits, exchange rates, or trade negotiations.

The sound of a Honda door closing is a function of quality. It sells Hondas. For many buyers, the sound is as important as the price.

Achieving high quality is not a trade deficit issue or even a political issue. It's a *work issue*, entirely within our control.

It's much tougher than a political issue, because of the change implied for all of the individuals involved. But if we can tackle the work issue, then we can solve a large part of the trade balance problem.

**T**HE FLOW OF wealth from America to the Pacific rim has become a popular cover story subject and topic of Washington conversation. Competitiveness, trade deficits, exchange rates, and trade negotiations dominate the discussion. Some see in the issue the decline of America as an economic leader.

The trade imbalance is also a cause of concern in many companies, which wrestle with the implications of lost markets. In the last five years, the United States has lost share in both foreign and domestic markets. The loss of domestic markets alone accounts for two-thirds of the \$169-billion trade deficit.

A casual observer could

conclude that unfairness is the cause when offshore companies make a profit selling in America while American companies cannot do the same. Restricted markets, agreement violations, and dumping are all charges suggesting that we do not have a "level playing field."

The second conclusion an observer might reach is that the answer must be a political one. Certainly exchange rate stability, tariffs, and voluntary quotas are the stuff of legislatures and politicians. When activity does occur, the focus is political, whether it is Congress threatening protective tariffs or the president in private conversation with Prime Minister Nakasone.

The trade problem seems so large that it can only be solved by governments.

This is partly correct. There are some unfair practices occurring, and there are a number of political actions that could have a major impact.

But government action will not be enough, no matter how optimistically one views it. A private sector response is also needed if we are to make the necessary changes.

**M**UCH OF THE TRADE problem has occurred simply because offshore companies have done a great job. Manufacturers in Japan and

Korea and Singapore have paid attention to what the U.S. consumer wants, and in meeting those desires they have focused on detail, reliability, and quality. Offshore companies have demonstrated hundreds of times, in dozens of product and service areas, that quality products can be made and sold profitably.

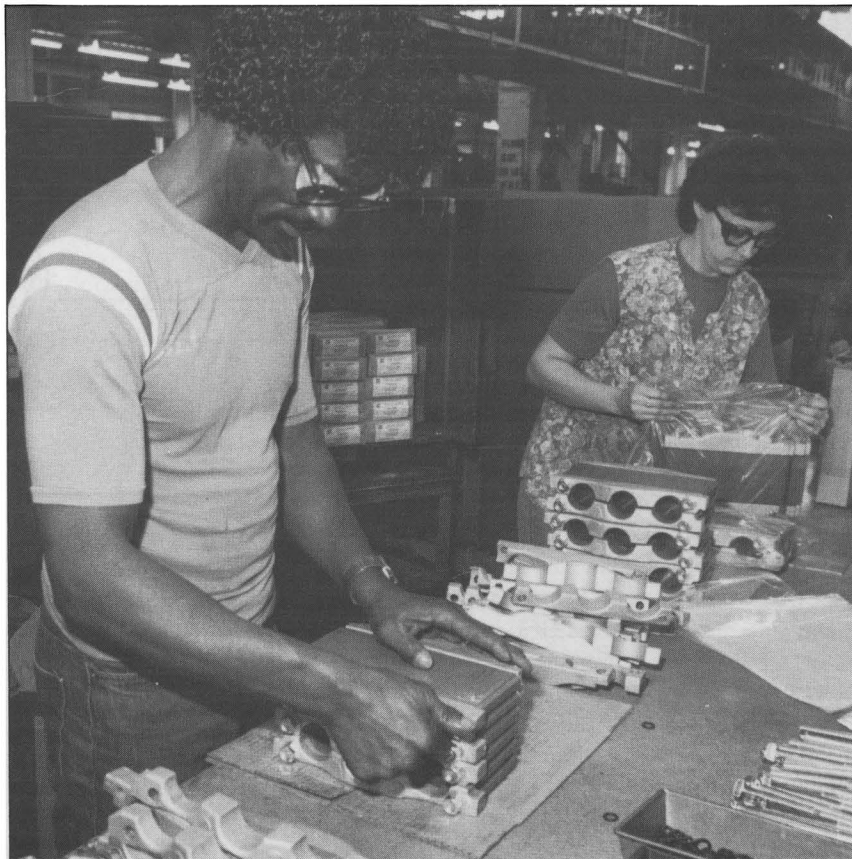
They have also demonstrated that attention to detail and quality can be achieved at levels that American companies have long considered impossible, or at least impractical.

Time and again, foreign manufacturers have been able to supply a well-designed product that does what it is supposed to do, reliably, and continues to do so for a long

time. The fact that American work must be done differently is not news for most U.S.-based companies. The quietest of industrial revolutions has begun; more and more companies are making the changes required to compete on the basis of quality. Ford, IBM, Xerox, Caterpillar, and many other firms have made the attainment of quality a key strategic objective.

Corning is another. Our 28,000 employees worldwide have been taught to strive for error-free work, to spend more time preventing problems than solving them, and, most important, to know what their customers want and then meet those requirements, on time, every time. The concepts are easy to agree to, if sometimes difficult to follow.

Corning is not particularly unique in its approach. Phil Crosby first made the concept popularly known in his book *Quality Is Free*. Many companies, having



American workers are ready to answer the competitiveness challenge if management will only learn to tap their desire.

COURTESY OF CORNING GLASS

adopted some form of Crosby's principles, are making major changes in their products, services, and the very way they do business.

The lessons we have learned at Corning imply a partial answer to the trade problem.

We have learned that workers, at all levels of the organization, are capable of a much greater contribution than we ever thought possible. This was especially surprising to us because we prided ourselves on our progressive human-resource practices. But, as a result of changing expectations, we learned that people are willing and able to take on tasks that had previously been reserved for technical or administrative staff.

We have learned that the person on the job usually knows more about that job and how to improve it than anyone else in the organization. We've learned, through experience, that the individual, if allowed, can be one of the most powerful forces for improvement.

One example is a young man whose job it is to silk-screen the measuring marks on glass laboratory vessels, such as beakers and flasks. Corning has been producing and silk-screening laboratory glassware for many years and thought the process pretty well defined. The young man, after performing the job for some time, decided he could improve the process. In fact, with his boss's encouragement, he designed and built a new machine in his basement. The machine was brought into the factory and is now used in production.

The result is increased capacity and a 38 percent reduction in set-up time (the time required to change from one product to another). Before the advent of quality, this could not have happened. We would not have believed that a worker with a high school education was capable of such a feat, nor would we have encouraged him to try.

A second example involves the catalytic converter used to remove pollutants from automobile exhausts. Corning invented and developed the product, sold the concept to Detroit, and built a plant to manufacture it. A short time later, Japanese competition supplied a better product at an attractive price.

Threatened by the loss of

Detroit's business and 1,000 jobs, a determined Corning plant manager led a rigorous quality drive, reducing the error rate to 30 defects per million pieces made. This averages out to about one mistake per person every six weeks. As a result, we currently have the U.S. business and we now sell to Japanese automobile manufacturers.

People can indeed perform, if

good job as well.

The most popular examples are from factories. Equally relevant, and often a lot more difficult to address, are the areas occupied by administrators and clerical and technical personnel. The environment is different, but the idea is the same.

For example, a team of administrative workers who run and distribute computer reports for inter-

time and with a lot of people it becomes a potent force.

**I**T IS ALMOST A CLICHE that we in America are in a competitive struggle for worldwide markets that we pretty much owned following World War II. It is clear that workers in other nations are willing to work very hard for a lot less, just to get a share of the way of life that they perceive exists in this country.

It is also true that a portion of the solution can only be accomplished politically. We do need a level playing field to take care of some of the trade imbalance. Perhaps, through political means, over time we can achieve as much as half of the trade improvement needed.

The other half of the problem has to be fixed the old-fashioned way—by doing more with what we have. Fortunately, we have a lot with which to work. If the experience at Corning is an accurate representation, the United States has great numbers of workers who want to turn out superior products and services, who know how to do it and have the insights to make it happen.

They need wise leadership, able to recognize the potential that's available and the consequences of inaction. They need leadership prepared to manage the change of age-old workplace practices and the problems that such change brings about.

And that is a lot tougher than signing a trade agreement.

*We've learned, through experience, that the individual can be one of the most powerful forces for improvement.*

management provides the environment that allows them to. They can even make products good enough to export to Japan.

**A**NOTHER LESSON we've learned is that people really want to do a good job. People don't want to go home at the end of the day feeling that they have not performed well.

In our environment, training is an important part of quality. Our target is to spend five percent of time worked on training, and in some cases people think we still are not doing enough. In a local glass-tubing plant the workers in one area were distressed by losses that were occurring because people new to their department received no specific training about the operation.

A team of production workers designed a training program, piloted it, and then got union and management agreement that the training be mandatory for anyone joining the department. The program included a video, classroom training, on-the-job training, and a skills-certification process. The people in this plant not only want to do a good job themselves, they want their fellow workers to do a

national locations decided to economize its function by better assessing customer need. They interviewed everyone to whom they distributed reports and, through consolidation and elimination, got rid of a pile of computer reports that, over a year's time, would equal the height of a two-story building and weigh 500 pounds.

Small stuff? Perhaps, but over

**DAVID B. LUTHER** heads one of the most progressive corporate quality programs in the country. As a senior vice president of Corning Glass Works, he oversees not only the usual assortment of staff training sessions and newsletters but also a full range of policies, guidelines, and procedures intended to involve individual workers in customer satisfaction. The program has allowed Corning to maintain its markets in the face of stiff international competition. Luther, who joined Corning in 1962, has held a series of personnel-related appointments with the company and became the chief executive for quality in January 1986. He received his B.S. (1958) and M.B.A. (1961) degrees from Syracuse.

