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QC CIRCLE NEWS

The newsletter from David Hutchins Associates

London conference launches Circles in Britain!

Nearly 200 delegates - many from Britain's household name companies — attended a Conference organised by David Hutchins Associates and learned of the methods through which the Japanese practice their quality assurance philosophy and were presented with case studies of Quality Circle a activity at Rolls-Royce, Honda, B.L., among others.

The seminar sought to dispel the belief that ideas emanating from Japan were not practicable in the West because of "cultural" differences between the societies.
But the speakers acknowledged that a system designed specifically for use in Japanese industry would probably need to be adapted for use in the West.
Frequent reference was made to the legacy — still evident in the West — of the "scientific" management principles propa-gated by the American, Frederick Taylor, in the early part of this century. Designed to aid mass production, the effect of this management technique was to relieve the worker of all but the most elementary decision-making responsibility and hand over production and quality control to a number of specialists.

Among the questions thrown up by the seminar were:
* Could the continuing use of scientific management practices be reconciled with the job participation role of quality circles?
* Would quality control experts resist the idea because it impinged on their own functions?
* Would the money-saving implications of quality circles result in shop floor unions demanding more money for their members' efforts?
* Would workers respond to the idea, or dismiss it as yet another management gimmick?

Speakers were unanimous in their belief that the quality circle concept *could* flourish in the U.K. — in service as well as manufacturing industry. But they stressed

Professor Ishikawa

that success depended on care and patience coupled with the need for a "low profile" introduction into individual companies.
A report on the Conference is continued on page 2.

QC CIRCLES SOCIETY

Q.C. Circles (Quality Control Circles) has been registered in the U.K. as a com-pany with the aim of disseminating Q.C. Circle information and knowledge to Q.C. Circle group leaders and members.

Initially, it has been financed by David Hutchins Associates but is intended to be developed as a non-profit making organisation and funded through subscription from its own membership.

The Society will actively encourage eligible members to join the Institute of Quality Assurance in the furtherance of their careers, and intends to promote the activities of that body for the benefit of industry in general.

BENEFITS OF MEMBERSHIP

1. Reduced fees at Q.C. Circle Courses and those organised by David Hutchins Associates.
2. Free copies of this journal and other matter published by this organisation for the benefit of members.
3. Contact with Q.C. Circle groups in other companies and overseas.
4. Factory visits.
5. Participation in a Q.C. Circle award scheme currently being prepared. At the time of going to press, the legal details of membership were still being finalised and it is hoped that these will be available in time for the next edition. Interested readers may contact:

David Hutchins Associates Index House Ascot Berks.

RESULTS OF CIRCLE ACTIVITIES

As these develop, we hope to inform readers of their progress and the successes they achieve. If you wish others to benefit from your experiences we will be only too pleased to publish your results. Remember, the most important lessons are learned from failures. If you have experienced some difficulties you may help others avoid the pitfalls.
Meanwhile, here are a few examples of Circle successes from around the world.

Saving of time lost due to conflicting job instructions	£165,454
Time lost locating precision tools — saving	£71,363
Elimination of oil leaks contaminating materials — saving	£1,890
Tinpiate finish problems - savmg	£78,000
Improvements to grinding process — saving	£102,000
Improved ship loading methods — saving	£3,236

Currently Q.C. Circles are being used in Offices, Factories, Banks and almost any-where people work, and share problems

THE JAPANESE APPROACH TO PRODUCT QUALITY MANAGEMENT

CONFERENCE REPORT

The Conference was held at the Institute of Directors, in London on 10th, 11th & 12th September 1979 and organised by David Hutchins Associates.

The reasons why British industry had to improve its reputation for product quality were outlined at the beginning of the conference by Reginald Eyre, Under Secretary of State for Trade.

Mr. Eyre said that trade competition was intensifying against a background of political and economic developments. In a regional context, the EEC Competition Policy was eliminating restrictive practices between Member States, while internationally there was the GATT agreement on the reduction of technical barriers to trade.

Closer to home, the Competition Bill was the first step in the Conservative Government's competition policy which, said Mr. Eyre, "will encourage industry to compete more strongly and thus increase its efficiency".

The trading climate was further affected by the challenge to U.K. exporters of a strengthening pound and the spread of product liability legislation at home and overseas.

All these factors combined to make quality assurance vital to Britain's industrial recovery. "Put more bluntly, we can expect that in the years ahead successful British companies will fail if they do not ensure that their quality management is of the highest calibre."

Japan's success in export markets, Mr. Eyre observed, was largely to be found in one "inscrutable" fact — the importance attached by Japanese industry to quality assurance.

Reginald Eyre, Walter Goldsmith, David Hutchins

L-R: Prof. lshikawa, Prof. Sasaki, Rear Admiral Spickernell, Reginald Eyre, Walter Goldsmith

Rear Admiral D. G. Spickernell, technical director of the British Standards Institute and formerly director general of quality assurance at the Ministry of Defence, considered the seminar to be of such importance that he squeezed in his attendance between business trips to Buda-pest and Geneva. Before leaving for Switzerland he told delegates that scientific management was no longer appropriate in an age when a literate workforce increasing-ly demanded a say in the way industry operated.

The quality circle idea had a vital role to play in regaining the worker's interest in his job rather than treat him — as the Taylor creed did — as a mere extension of his machine.

But quality circles should not be treated as ends in themselves, said Rear Admiral Spickernell. Rather they were a means towards the basic goal of any manufacturer: to design, make and sell — "and above all, to survive".

Walter Goldsmith, a corporate vice president of Black and Decker before he joined the Institute of Directors as Director General, said that customer complaints were a useful yardstick by which to assess product quality. Black and Decker had a special "complaints department" devoted to "converting a customer with a grievance into one who would be highly complimentary about our company But, to extract maximum benefit from the complaints procedures, grievances about manufacturing defects should be channeled back to source. "Yet how often is the shop floor given the opportunity to air its view on how faults can be put right?"

There was nothing "magic" in quality circles, said Mr. Goldsmith (whose Institute H.Q. in Pall Mall was the venue for the seminar). It was a form of participation which the Japanese did so well because they recognised the value of consensus management and decision-through-debate.

"It's important to bear in mind that a conference such as this can not only lead to better product quality but also improve industrial harmony."

Prof. Ishikawa, Professor Emeritus at Tokyo University, acknowledged that the evolution of quality circles had been aided by Japanese culture and her economic developments. A work philosophy based on harmony and group identity (bred in Japan's predominant agriculture economy before the war) had been preserved in the industrial transition.

Prof. Ishikawa said there were two driving forces: Recognition by manufacturers that to become a major force in world trade they must first overcome the view — widely held in the West — that products from the Far East were cheap and shoddy; and post-war educational improvements which militated against the de-humanising effects of scientific management.

Since the formal introduction of quality circles in the early 1 960's, training had developed from one of self-development to a programme of on-and-off the job tuition, backed up by papers and periodicals. After specific training in quality control, the foreman's education was usually extended to include such disciplines as industrial engineering and value analysis

"The foreman is responsible for the success of QC circle activity as leader or adviser", said the Professor. "He must also assume greater responsibility than his counterparts in the West." In larger companies, the foreman was also likely to learn about mathematics, physics, chemistry, electronics, etc.

Prof. Ishikawa stressed that quality control didn't start and finish on the shop floor. He likened the QC circle to the first of a series of ripples which embraced the whole of a company's activities and ultimately became Total Quality Control. "Not a few executives and managers erroneously consider that they would be practicing quality control well enough only

L-R: David Hutchins, Dr. Chadwick and Reginald Eyre

if they allow QC circles activities to operate smoothly at their own workshops."

Looking at the QC circle concept in the context of British industry, management consultant, David Hutchins, said that manufacturing criteria today were markedly different from the consumer boom of the 1950's. Then, the Taylor management principles might have been appropriate for a market where volume mattered more than quality.

Today, the growth of product liability legislation — prompted by consumer watch-dog organisations — firmly put the emphasis on quality.

"Through QC circles, the diligent worker may progress to group leader and subsequently to foreman. The foreman may progress to higher levels of management."

But Mr. Hutchins emphasised that the idea needed to be introduced in individual companies gradually and without fanfare because management had become sceptical of techniques claimed to be panaceas for industry's ills.

Jim Rooney, quality engineering manager at Rolls-Royce, Derby, said the most pronounced resistance to setting up QC groups (as they are known in that company) came from management rather than the workforce. Mr. Rooney, who has been instrumental in setting up the scheme at Rolls-Royce, told delegates: "I was thrown out of general managers' offices so often I was getting a cauliflower ear!"

"To the obvious question 'What about the unions?' I would say that — to my amazement — the response from the shop-floor has been absolutely wonderful."

The first group was formed in February of 1978 to look into a specific problem. Encouraged by the participative nature of the idea — and the cost savings that have resulted — Rolls-Royce currently has 23 groups operating at Derby (involving more than 200 employers) and four groups have been set up in other divisions.

Out of the 18 projects so far undertaken, two concerned problems which involved component design. "For the first time, we had a situation where operators were sitting down with designers discussing mutual difficulties."

Mr. Rooney added: "The exercise has confounded the myth that the shop floor is not interested in improving efficiency and project quality.

"The man on the duckboard is often *the* expert; he may have been living with a problem for years, but no one's bothered to ask his advice on how to go about solving it."

Tony Hunt, a machine operator and QC group member at Derby, told delegates that joint problem-solving could not only improve quality and reduce costs; it also removed sources of shop floor frustration. Mr. Hunt, who is also a shop steward, was asked if workers wanted extra money for taking part in an exercise which often resulted in reduced production costs.

"It shouldn't be assumed that every time a shop floor operator opens his mouth it's to ask for more money", replied Mr. Hunt to laughter from the delegates. "We know that if our efforts contribute to company efficiency, that means more job security for us and jobs for others."

A welcome addition to the Conference was a short paper given by Neville Mettrick of B.L. on the recent development of Q.C. Circles in his company. This was followed by a 30-minute film which described the formation of the first group and its progress during the first 12 months.

Professor Sasaki from Sophia University, Tokyo, gave delegates a valuable insight into the cultural and historical factors which have contributed to their remark-able success in recent years.

A variant of this Conference is being held at the Cavendish Conference Centre, London, on February 6th, 7th & 8th 1980. Speakers include Orjan Alexanderson —Swedish Q.C. Circle Consultant, Jeff Beardsley — American Q.C. Circle Consultant, Professor Sasaki — Japan, Jim Rooney—Rolls-Royce, Neville Mettrick — B.L. Cars, and David Hutchins — Q.C. Circle Consultant, U.K.

Further details from:

Miss C. Boswell
David Hutchins Associates
Index House,
Ascot,
Berks.

1ST INTERNATIONAL Q.C.CIRCLE LEADERS CONVENTION September17th, 18th, 19th 1980 LONDON

CALL FOR PAPERS

Papers are requested from Q.C. Circle leaders. Those responsible for implementation, trainers and consul-tants, in Western manufacturing industry.

Topics include:

Quality Circle training (General), including techniques discussed
Quality Circles in Design
Quality Circles in Production Engineering
Quality Circles in Manufacture
Influence on Suppliers and Customers
Examples from specific industries

particularly welcome include:

Engineering — Jobbing, batch and flow production
Assembly
Pharmaceuticals
Food and Drink Industries
Toy
Plastics, Rubber, Paper and Glass & Textiles

There will be a number of invited papers from Japanese specialists and special consideration will be given to papers submitted from European and other Western countries.

Authors are requested to submit a synopsis of their paper in not more than 100 words by January 30th 1980. The committee will notify authors of section before 31st March 1980.

Submissions to be made to:

David Hutchins
Q.C. Circles
(Quality Control Circles),
C/o David Hutchins Associates

Full details of the convention will be given in a later issue.

Speakers have been invited from Brazil, the United States, Japan, Norway, Sweden, and the United Kingdom.

Prelude to forming “Quality Control Circle”

BY J.P.ROONEY
ROLLS ROYCE LIMITED
AERO DIVISION

It is fundamental to the success of problem-solving to establish the facts by careful analysis.

Therefore Management must apply the theory:-

We don’t really know the cause of the problem.

We don’t even know which are the main problems, hence

We must teach people how to highlight the vital few problems.

We must teach people how to analyse the troublesome aspect of their jobs,
also

To teach people how to list the suspected causes of main problems, and how to discover the real causes, then

How to secure remedies to the cause.

It is important not to close the project when several chance or assignable causes have been revealed but to seek and find the real cause of problem by careful planned investigation.

Finally We must teach people to hold their gains through modern control methods.

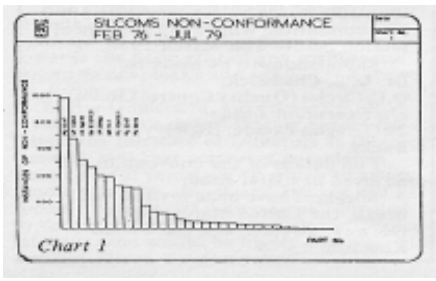
QUALITY SERVICE

Planned Information service in advance of group formation should be organised as a quality administration of the group. Interrogation of non-conformance documentation, inspection records to establish the high cost failures and information prepared in Pareto form highlighting the vital few problems i.e. the ‘Gold in the Mine’.

To place emphasis on the foregoing let me demonstrate a current project at a supplier:-

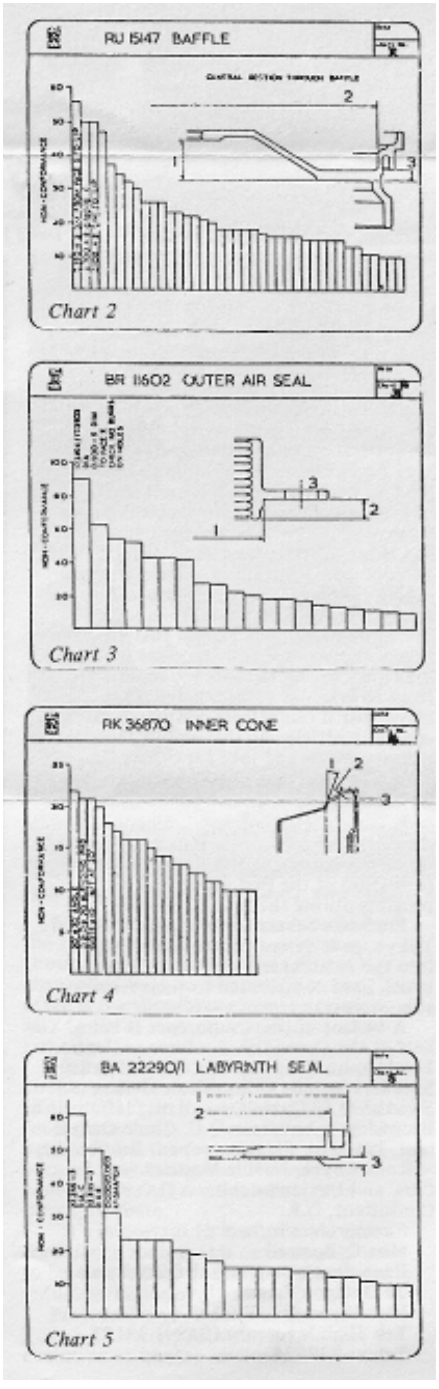
The supplier was burdened with so many manufacturing problems of non-conformance and in the consequence vital supplies were being bottlenecked. The position became so critical that my attention was directed to the problem.

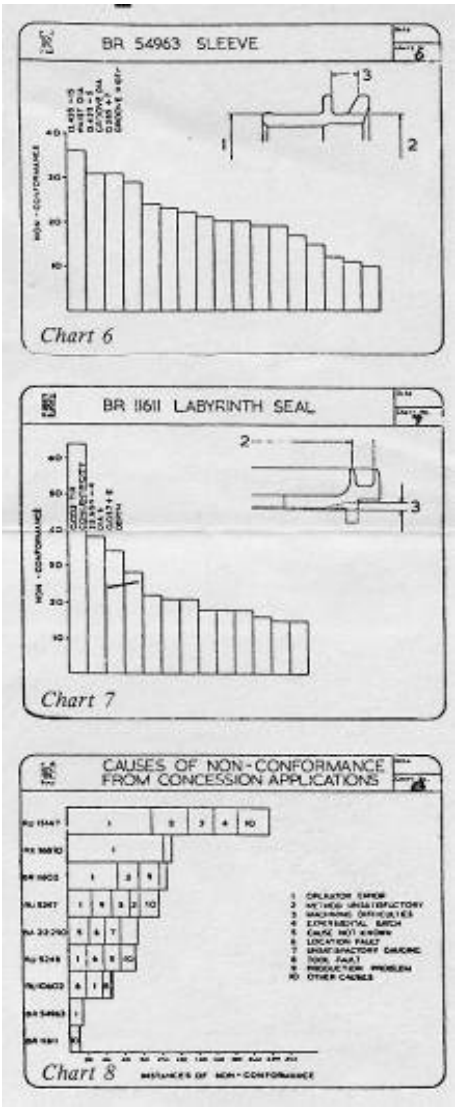
A project was started to examine the suppliers non-conformance documentation and to highlight the vital few troublesome parts



Six part numbers out of a total of thirty-two were responsible fore 63% of the problems.

A computation of the offending characteristics illustrated by Pareto 2,3,4,5,6,7 & 8 accounted for 87% of rejections.





A presentation of the facts were presented to the Management and probable causes assigned after group discussion with representation of supervision, production and quality engineering and shop-floor

A Pareto diagram was constructed to enable remedial action to commence.

The simplicity of the approach so impressed the Management that they hay now made arrangements to embark on problem-solving through group involvement.

The additional bonus that has emerged from data analysed is to reveal a high conformance level on seven part numbers sufficient to allow statistical sampling to commence immediately thereby reducing the time element within final inspection by 40%.

Planned approach to sampling inspect of the thirty-two part numbers has been established as the ultimate objective.