

ICQCC 2011-Yokohama

## **1. Vehicle A, Improving Installation Quality**

### **- Right Side Hood Countermeasure -**

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8. Abstract (approx. 400-500 words)

We work at Nissan Motor's Kyushu Plant, which is located in an environmentally blessed town bordered by the waters of Suo-nada on the east and by Hiraodai, famous for Japan's three great karsts, on the west.

Nissan's quality control circle activities, known as the G-up II QC Circle program, combine a well-balanced emphasis on corporate contribution and human resources development conceived to facilitate improvements in the areas of Genba-ryoku (production floor skills), Group, Growth, Grade, and Genki (employee motivation and spirit).

After its formation in 1997, our Captain Circle overcame repeated hardships to become a leading circle, winning the President's Award six years running.

The members of our circle, whose policy is "Thoroughly eliminating loss and waste through speedy action," are an average of 42 years old and have worked at the company for an average of 24 years. Although the membership spans the full range of ages, from young employees to veterans, we are implementing a plan to quickly foster the development of mid-level and young members since veterans will be reaching retirement age in several years.

When we conducted an evaluation with an emphasis on quality (Q), cost (C), and delivery timeliness (T) based on supervisory policies in an effort to select a theme, we found that we had failed to achieve the desired initial vehicle build pass rate for Model A. Looking at parts individually, we discovered that the hood build pass rate was the lowest at 75%, and an examination of the defect phenomenon showed the hood was being displaced to the right. Accordingly, we set ourselves the goal of eliminating right-displaced hood defects for Model A by the end of February and got to work.

We began an investigation based on a vehicle analysis map, and after tracking the processes where the defect was occurring, we found that repeated opening and closing of the hood by a jig designed for that purpose in the painting process was deforming the rock striker portion of the hood, causing it to be displaced to the right when closed during vehicle assembly.

In the course of many meetings with related departments, we succeeded in developing measures so that repeated opening and closing of the hood would not result in deformation.

These measures resolved the issue and improved initial vehicle build quality, reducing the amount of time needed for build adjustment prior to product completion.

The same measures have also been standardized and maintained for brakes with 5W1H, and the issue has not recurred as of this writing.

A diagnostic review of the circle's activities revealed that the skill level of two young members grew significantly, and they are currently active as sub-leaders.

## A 車 フード建付品質の向上

### — フード右寄り対策 —

キャプテン サークル

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私達の日産自動車九州工場は、東方は周防灘に面し、西方に日本三大カルストで有名な平尾台と環境に恵まれた町にあります。

日産自動車の QC サークル活動は『G-up II QC サークル活動』を名称に、Genda-ryoku (現場力)、Group (みんな)、Grow (成長=大きく)、Grade (段階、等級)、Genki (元気よく) それぞれのアップを目的に『企業貢献』重視から『人材育成』にも一層注力したバランスのとれた活動を目指しています。

私達キャプテンサークルは、1997年に結成し、度重なる苦難を乗り越え6年連続社長賞を受賞できるトップサークルへと成長しました。

サークル方針に『ロス・ムダの徹底排除、即実行』を掲げ、サークル構成は平均年齢42歳、平均勤続24年と若手からベテランまで幅広い年齢層で構成されていますが、数年後はベテラン層が定年を迎える為、中堅層と若手の早期育成計画を進めています。

テーマの設定では、上司方針を基に Q=品質、C=コスト、T=納期を重点に評価したところ、『A車の車輻初期建付合格率』が未達であり、更にパーツ別で見ると、HOODの建付合格率が75%と最も低く、不具合現象をみると HOOD が右寄りになっている事が判りました。そこで目標を『A車 HOOD 右寄り面差不良』を2月末までに『ゼロ』にすると決め、活動を進める事にしました。

車輻解析マップを基に調査を開始し、発生工程を追跡調査した結果、塗装工程での HOOD 開閉治具で開閉を繰り返す事により、HOOD ロックストライカー部が変形し、車両組立にて HOOD を閉めると右側に寄る事が判りました。

そこで関係部署と何度も会合を重ね HOOD 開閉を繰り返しても変形しないように対策する事が出来ました。

対策により不具合は解消され、車輻初期建付が向上し、効果として商品化建付調整時間の短縮が図れました。

歯止めも各実施項目を 5W1H で決めて維持しており、現在も再発していません。

サークル診断では、若手の2名が今回の活動で大きく成長し、現在ではサブリーダーとして活躍しています。