Ferrari ; coachbuilding

Technology, Cars

Ferrari is planning a return to its coachbuilding heritage this year, catering to wealthy clients who desire something a little more exclusive than the 'off-the-shelf' Ferrari products. According to AutoWeek, the Italian sports car manufacturer will collaborate with at least three of its most trusted design houses: Fioravanti, Pininfarina and Zagato. Ferrari is hoping to cash in on the clients and collectors looking for independent designs that sit on Ferrari mechanicals, the result of which will be super-exclusive one-off models that have factory approval and should cost their customers sums that stretch well into seven figures.

The design and manufacturing processes are almost as extensive as that of any other Ferrari model, and thus producing them will be an expensive but worthwhile endeavor. Choosing to design the exclusive cars with a trio of industrial design powerhouses allows the customer to choose which coachbuilder they want involved with the design and implementation of their exclusive one-off Ferrari - as long as they are based on the 612 Scaglietti, F430 and the famous Enzo. The 599 Fiorano and the new California 2+2 fall outside of the program, probably due to their relative newcomer status.

There is also no reason why there can't be multiple coachbuilders working together on one car, which could prove exciting if it ever eventuates. The first of the exclusive one-off models should be revealed in the second half of 2008 by Fioravanti, who was responsible for over 10 key Ferrari designs between 1965 and1984. Pininfarina and Zagato also have a rich history with Ferrari, and Pininfarina even created the P4/5 car (pictured) based on an Enzo for a wealthy customer recently. (Hall, 2008) 2. managing quality a. how does it define quality?

b. how is quality sustained with its total quality management(TQM)? Ten years of quality certification for Ferrari Ferrari started to work towards quality management system certification in 1994 to encourage innovation and improve both quality processes and performance, and was finally certified by DNV to ISO 9000 in 1996. Ferrari chose DNV to help them focus, organise, and systematise processes for managing and achieving their businessgoals. 10 years of continuous improvement is now showing great results. Streamlining processes

Ferrari’s Vice Managing Director Amedeo Felisa says: “ The strategic goal defined in 1996 of implementing a quality system in order to consolidate and improve the production process has been achieved in these ten years. Now the need is to further consolidate and improve the system in the design and development process which was included in the certification in 2003. ” Continuous improvement The emphasis on improvement and innovation has led Ferrari to be certified to the Environmental Management Systems standard ISO 14001.

Ferrari also verifies and reports their annually greenhouse gas emissions according to European Directive on Emissions Trading (EU ETS). In addition Ferrari is certified to ISO 17025 General Requirements for the Competence of Testing and Calibration Laboratories. This standard states that if testing and calibration laboratories comply with ISO 17025, you also operate in accordance with ISO 9001. 3. process and capacity design a. what process strategy is used as competitive weapon with the necessary quality, flexibility and lowest cost?

b. how does the operations manager leverage the techniques of lean production and employees participation to encourage the development of efficient equipment and processes? Ferrari's production process is, indeed, a curious combination of old-world craftsmanship and cutting-edgetechnology. Come up on the front entrance, and it looks like nothing much has changed since the factory was built after the Second World War: many of the original offices are still being used and the colour scheme is the same as it once was.

But the further back you go, you find newer, more modern buildings that house brand-new equipment and use up-to-date techniques. The wind tunnel, for instance, was designed by famous Italian architect Renzo Piano; the adjacent building, where the road car development office is housed, features a second floor whose area is almost entirely covered by a reflecting pool, save for a couple of conference rooms. The paint shop is so automated it's almost eerie: body shells work their way around inside it, first through a 360-degree anti-corrosion dip, then through various primer and paint processes before being baked.

From the outside, there are no people visible anywhere in the shop as the candy-coloured bodies work their way through, and the robots move around them. It's the engine shop across the street, however, that's probably the most impressive. Spanning the area of several football fields, its staff numbers less than 100, and about 50 engines are produced each day. The entire building is bathed in natural light, and plant gardens are scattered across the shop floor, encircling the various meeting areas.

Here, robots do the majority of the work, with very little human intervention, increasing not only productivity but precision as well. The best example is

the set of machines that sets valve seats into engines. The seats are fed out of a hopper into a small tray that feeds a robot which drops the seats into a vat of super-cooled liquid, which shrinks its size by a tiny (but measurable) eight microns. Another robot grabs a section of engine and heats it up with a metal plate.

Once the engine pieces are moved over to another station, the slightly-shrunken valve seats are inserted into the slightly-expanded engine blocks, and the whole combination is then soaked in cold water to fuse the pieces together. (Yap, 2006) It's the combination of high technology - modern processes and equipment as well as the attraction of the technology in the cars themselves - and an old-fashionedfamilyfeeling that has consistently landed Ferrari on various lists of the best places to work in Europe.

When the working day draws to a close, the floors of the old factory are a teeming mass of red-suited people, loud and boisterous and all of them in seemingly no rush to leave. For them, passion for the cars is what inspired the desire to work at Ferrari, but it's the workenvironmentitself that has kept them there. 4. location strategy a. what are the criteria for the facility to be located in Singapore 5. layout strategy a. how is the facility arrange(Ferrari factory in marranello) Ferrari is based in Maranello, Italy, and was founded by Enzo Ferrari in 1929 as Scuderia Ferrari.

The company manufactured racing cars and sponsored drivers before moving into production of legal street vehicles in 1946 as Ferrari S. p. A. (Toen, 2009) To walk through the back gate of the Ferrari automotive works here and stroll down Viale Enzo Ferrari is to enter a museum of architecture. To the left is a wind tunnel designed by the Italian architect Renzo Piano, a

soaring tangle of immense gray tubes and cubes where Ferrari’s ear-splitting, nerve-tickling, expensive automobiles are tested for aerodynamic properties. Ferrari’s wind tunnel, top, designed by Renzo Piano.

Bottom, a Massimiliano Fuksas-designed office building with reflecting pools. To the right is the finishing plant for engine blocks and other components, designed by Marco Visconti — three sets of huge glass blocks floating on greenery. Farther down is the sprawling new assembly hall, designed by Jean Nouvel, the French architect who won the Pritzker Prize this year, in gleaming metal and mirrored glass. One side faces a masonry wall of the old Ferrari works, erected in the 1940s by Enzo Ferrari, who started building his sports cars after World War II.

In the evening, the ruddy color of the old wall is illuminated, casting an eerie red glow on Mr. Nouvel’s creation. “ We had three goals,” said Luca Cordero di Montezemolo, Ferrari’s president, who began commissioning star architects, beginning with Mr. Piano, in 1997. “ We wanted to renew Ferrari’s organization, to eliminate the division into series A and series B among our employees, and to maintain, not to lose, the spirit of Ferrari. ” Seated behind a large round desk covered in red leather, Mr. Montezemolo added: “ But — I repeat, but — there is a great link with our tradition, ourculture, our DNA.

Ferrari is not a car, it is a dream, and the ingredients must remain innovative. ” What gives Ferrari’s project its edge is its ambition to rebuild the entire Ferrari works, from engine block foundry to final assembly plant, not just one building, according to designs of leading architects. Moreover, the project is reaching its conclusion just as the global financial crisis, which will sweep away many of the bonuses that bought Ferraris in the past,

undercuts the automobile market. Mr. Montezemolo says that crisis or no, Ferrari will continue racing ahead Experts say the architectural projects are imbedded in Mr.

Montezemolo’s strategy to position Ferrari in the vanguard of the luxury goods market. “ More and more architects are playing a role in luxury goods,” said Armando Branchini, whose consulting firm, InterCorporate, advises luxury goods companies on strategy. Mr. Montezemolo has followed the rest of the luxury-goods industry in democratizing Ferrari’s product range, cashing in on the magnetism of the Ferrari name and prancing horse logo to offer a broad range of consumer products in exclusive Ferrari shops, at prices well below those of its cars, which can cost more than $200, 000.

In so doing, Ferrari has turned its cars, and their components, into works of art. Ferrari opened its first store, in Milan, in 2004. It now has 20, including four in the United States, and plans more. (Nytimes. com, 2008) 6. human resources and job design ? a. how does it provide reasonable work enviroment? 7. supply chain management a. does it buy or make the components? b. how does supply chain management enhance its responsiveness and differentiation? 8. inventory, material requirement planning and JIT a. how much inventory of items it should have? b.

does it prefer ` just in case` invetory or `just in time` inventory 9. intermediate and short term scheduling a. how effective are its schedules in matching production to customer demand with lower cost? b. how does its scheduling contribute to realistic commitments and dependable delivery? c. how does it achieve better customer service through faster delivery? 10. maintenance a. how does it focus on design improvements and backup

components to improve on reliability? References Hall, K. , (2008). Ferrari Plots return to Coach Building: Motor Authority, available at

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