

Wriston case memo essay



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Subject: Proposal for Detroit Plant Date: May 26th, 2012 Background and Issues Detroit Plant, serves as the first plant of HEED division within Written Group, which almost all division products could trace their roots from, cannot achieve an acceptable level of profitability for years even we raise the prices or cut wages. The morale of Detroit is poor and it has been plagued by problems such as absenteeism and high turnover rate.

Additionally there is coming the pressure of unionization by JAW which may aggravate our burden of employment obligation when Detroit Plant will be sold out. After 6 months' study, the force proposed 3 optional proposals for Detroit Plant: a) close the plant as soon as possible; b) invest in plant tooling and make operational optimization; c) build a new plant to replace it.

Analysis ; Comments Detroit Plant belongs to HEED division, a large manufacturer within the Written Corporation, mainly produce axles (highway, off-highway, front or rear) and brakes.

HEED totally consists of 10 plants which are for different products, process or markets (Exhibit 1): All mature and mass-produced products have been transferred out (managers cited to transfer out profitable products, because they believe it is more lucrative to produce them in modern plants), Detroit plant has been left with residue of low- volume products and replacement parts for Tiffin, Fremont and Massively. Obviously Detroit plant is a typical Job shop which required higher task variety, labor skill, tooling set up time and unit cost.

Detroit plant used to take the most complicated product missions (20 product families and 120 models) per the complexity criteria: product line,

product families and product model by Written, while the product costing system it adopted is the same as that of other flow-shop plants: $\text{Product Cost} = \text{materials cost} + \text{direct labor} + \text{variable overhead}$ Considering the low-volume production of Job shop, Detroit plant either has a higher material purchasing expenditure because of losing scale economics or higher WIPE (work in process) inventory; Owing to the low-volume and high diversification of products made in Detroit, it usually takes 10 times the run time for a batch of parts, which leverage the consumption of energy, standard labor hours and unit labor cost; the maintenance and repair expenses of Detroit plant are extremely high which account for continued higher overhead.

Because of Detroit plant's lack of investment (the machines are all timeworn with the average age of 33.1 years, more than twice the average of Heed's 15.9 years; the investment to Detroit plant has been less than 50% of its fixed assets depreciation since 1985). On account of Detroit lack of profitability, it cannot compete effectively for those corporate investments and then increase its return on assets. The buildings of Detroit plant was cobbled by 12 buildings in a piecemeal and unplanned fashion with inadequate electrical system, leak water system, constricted space and substandard sprinkler systems; the machines were flexibly grouped by the machining department. Detroit plant improperly designed its layout per flow shop, i. e. Product will transfer through several different processes even through buildings before being finished, which drives up the lead time, WIPE inventory, and unit cost (including transferring). Though operators in Detroit plant obtain relatively higher skill/proficiency and perform longer service years, they show bad habits and or morale, because of the ' long-term

neglect' by management team. Absenteeism and turnover are problems that are steadily deteriorating because of the offsetting by age split (above 50 against below 30) and new trends in culture and value (the younger operators are less loyal and devoted). As a result, scrap, rework and training costs increased correspondingly. Proposals and Recommendations Sold out maybe sound economically (Exhibit 2), the NP can be 19.84 for continues 20 years.

But it is just an expedient which will bring with it negative effects: where shall we relocate these 'chicken ribs' neither profitable nor eliminable (we cannot encourage our customers turn to our competitors); our obligation to employees especially those with service years as long as decades; media pressure which may produce another sensationalist news of 'Social Responsibility Deficiency' It seems to be more cost-effective to set up a new plant, compared to the NP of investment in old facility and retooling (Exhibit 3 & Exhibit 4). But we should consider a lot before making the decision, whether we should sell all the old machines, if not what will be the impact on cost?

If we construct new plant and purchase all new machines the depreciation will be much higher in addition to initial investment. We should simulate different scenarios and make detailed financial analysis. In my point of view, a more comprehensive solution should be investing in plant tooling though it may not sound economically via the simple analysis of NP (Exhibit 4). But we could put into Detroit plant the following improvements simultaneously to assure the feasibility: 1) We should not simply evaluate Detroit via ROI,

especially the use of the current uniform costing system, Detroit works like a R&D department rather than a flow-shop plant.

Therefore we should allocate partial development cost and overhead to those beneficial plants which can reduce its burden by 20% at least. 2) We need to make an investment of retooling and machines to reduce the maintenance and repair costs while increasing average throughput and lower the artificially high overheads. 3) The layout and processes of Detroit plant need to be optimized per the Job-shop model of low-volume and high diversification products. We can set up print-size flow within each building for products which fall in to congener manufacturing processes to eliminate unnecessary transferring, energy waste and lowering the in-line inventory.) We need to redefine the Detroit plant, to convert it from the obsolete plant only for trial-run production to R&D/ Technology Center, to convince employees of prospect of their employer and future career. Redesign the compensation package to involve more long-term incentives and performance based variable parts (evaluate based on efficiency, quality and attendance) in addition to wages, to increase the employees' loyalty and confidence. Provide welfare similar to the other plants like cafeterias to nourish sense of community and belonging. In short, considering the unique position of Detroit Plant we should provide a sustainable solution to invest and optimize instead of giving it up.