Paper Reference(s)

## 1504/BIS Edexcel GCSE Business and Communication Systems

Background Information Sheet (For the June 2009 Examination)

## **INSTRUCTIONS**

This paper may be issued to candidates from Friday 31 October 2008



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## Context – B & R Engineering Ltd

James Broadfield founded Broadfield Engineering, just outside Birmingham, in 1946. In 1962, Paul Rose joined the flourishing business as a partner and it was renamed B & R Engineering. It is near to its main customers, the Midland car industry and its raw material suppliers, the steel industry, making this an ideal location.

In 1984, Paul's son, Andrew, joined the business straight from school at 16. Today, following the retirement of both James and Paul, Andrew is the Managing Director and sole shareholder of B & R Engineering Ltd at its new bigger factory also just outside Birmingham.

B & R Engineering Ltd specialises in the manufacture of machine press tools and prototype parts. Its main customers are component companies that produce components, such as gear boxes, clutches and brake assemblies, for the motor car industry nationally and internationally (see chart).

The company has increased its turnover by 40% in the last 18 months and is now planning further investment in new technology to ensure it stays competitive. It has also invested heavily in CAD/CAM, using American software which has been specially developed for its needs.

The workforce consists of

Andrew Rose – Managing Director and owner Peter Daniels – Works Manager Shefali Mir – Accountant/Office Manager 5 Machine Tool Makers 3 CNC Operators\* Joe Jopling – Workshop Support Technician Mary Boyd – Receptionist/WP Operator Andrea Kitchen – part-time Wages Clerk

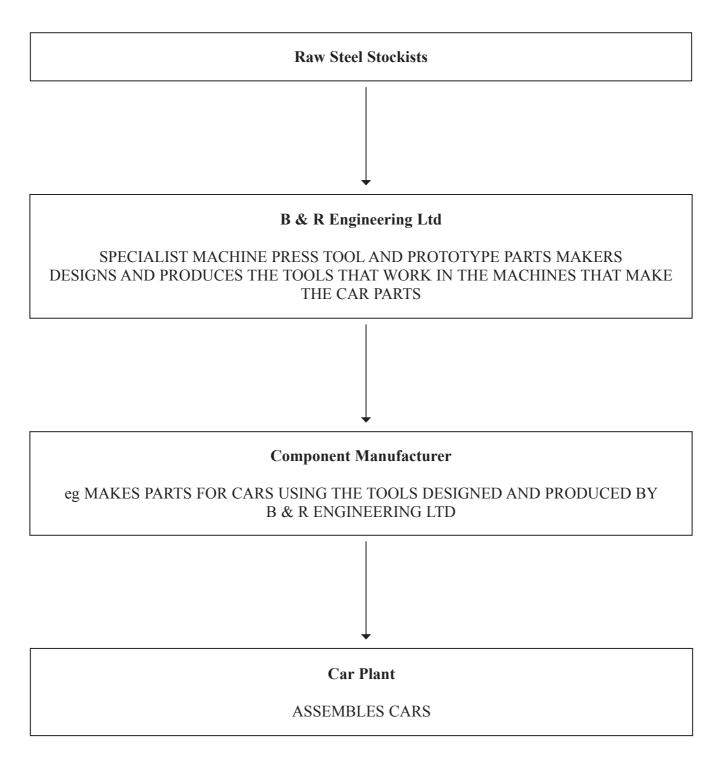
Many of the machines are on an automated 24-hour cycle, so staff work shifts to oversee the machines. Early shift 6 am - 2 pm, afternoon shift 2 pm - 10 pm, night shift 10 pm - 6 am.

The machine tool makers and CNC operators are very highly skilled and, along with Joe Jopling, trained to use the machinery.

B & R Engineering Ltd relies heavily on electronic communication and, because the factory is potentially a dangerous environment, there are many health and safety notices around the factory.

\* CNC stands for computer numerical control and refers to a computer that drives a machine tool – candidates only need to know that a CNC operator operates the computer which drives the machine tool.

The following chart shows where the business fits into the chain of production for the car manufacturing industry.



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