



M-SPORT VISIT

The recent trip to M-Sport's Team Headquarter complex at Dovenby was thoroughly enjoyed by all attendees. The tour was lead by staff who work at the Dovenby complex on the World Rally Cross cars. They were well informed and told many interesting technical and humorous anecdotes. The tour started with a journey back in time. The complex has a garage, set up with a range of full scale competition cars and memorabilia from the past from Malcolm Wilson's personal collection. This included the car that launched Malcolm's son into racing and the car that launched Ford into the rallying arena.

A full tour of fifteen turned up for the evening tour which told of the scale of the costs of the engineering:

- £6-8k for clutch, to potentially only last two races (bayonet fitting with only one fixing bolt - rapid change mechanism)

- £75k for a secondhand race engine

- £17.5k for an engine rebuild service for Independent drivers

- £120k for an ex-race team car

- State-of-the-art 5-axis and 4-axis milling machines - to ensure that the secret engineering ingredients to each car are kept secret, and to simplify and speed up the manufacturing process - computer to working components in one easy download!!

The Ford M-Sport company can also offer services to external independent car enthusiasts at a cost, whether this is engineering design, rebuild/maintenance support, mechanics for hire at events or modifications to existing cars. The M-Sport team have every Manufacturing station they could ever need to manufacture the components they require, kept in immaculate condition and always left perfectly clean. The Ford M-Sport team buy in their required raw materials in anything from billet, to virtually completed components. Where possible, the team get components manufactured by external suppliers, leaving only the finishing touches that add the significant advantage, to be engineered behind closed doors.

The M-Sport team are restricted by the 'rule-book' to keep the mass of the car above a lower limit, and will be restricted by numerous intricate safety rules. Outside of this, the team have a free reign to modify the car as they require. Following the theory of moving the centre of gravity as low as possible, the M-Sport team have introduced a number of modifications to the production car. Previous years cars have seen all but 32 of the production cars' components modified in some way. This years World Rally Cross car has seen only two components untouched, the Ford badge on the bonnet and the Door Release Mechanism. Modifications to the mass-distribution of the car have meant that the car is underweight. This has allowed the team the opportunity for the team to add ballast to the specific positions around the car that improve balance characteristics. The present car has an approximate 65-35 weight distribution front-rear. The extra ballast, in cooperation with modifications to the aerodynamics around the rear spoiler have added stability to the car both on road and in the air - reducing the nose heavy hazard.

The tour concluded with a walk through the history of the Dovenby complex, back to the main building's mental hospital beginnings, and the rumours of ghostly experiences. The complex has approximately 170 staff. These are not all technical staff. These include a number of personnel for logistics for events, purchasing, administration, managers and a helicopter pilot!!

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