

## MINI

### Extract

#### From Chapter 1

#### 1 'This car is going to leak,' said Jim Percival

**Peter Tothill** (production engineer)

Towards the end of 1957, Leslie Ford, the chief planning engineer, called me into his office and said, 'There is a new highly secret model coming, and I want you to deal with it from scratch. I will take you over to E Block paintshop and show you where we will build it.'

We entered the south-east corner of the building and there was a vast area of pristine concrete floor.

So where the hell do I start?

**Roy Davies**(vehicle proving engineer)

Early in 1958, a prototype Mini appeared in the chassis experimental department next door to the drawing office where I worked. It was quickly locked away in a cabin, and access was only allowed to authorised persons. The cabin was guarded by a works policeman.

**Peter Tothill**

The next task was to get some idea of the car. It was coded ADO15 (Austin Drawing Office, project 15) but already nicknamed Sputnik. I had already seen this strange little vehicle with wheels the size of shirt buttons. It was Prototype No. 1, and was being endurance-tested round and round Chalgrove aerodrome, south-east of Oxford.

**Roy Davies**

The Mini was called Sputnik because at the time they started doing the testing round Chalgrove, the Russians had just put the Sputnik in the air, an orange thing going round the sky. At night, the Mini going round Chalgrove was an orange thing going round on the ground. The road-proving engineers christened it Sputnik much to Issigonis's disgust. In later years he had a change of memory and said that he christened it, but he didn't.

**Alec Issigonis** (designer)

At that time, Leonard Lord [chairman of the British Motor Corporation] got me to design a car to beat these bubble cars.

**Alex Moulton** (suspension engineer)

He'd been called Arrogonis.

**Alec Issigonis**

Oh yes, I'm Arrogonis!

Leonard Lord gave me completely carte blanche to do what I wanted to do, except

one thing. He said, 'Alec, you can do whatever you like, but it's got to have an existing engine that is now in production.'

**Lord Stokes** (chairman, British Leyland)

Alec Issigonis, as you know, a very great man, a very charming man, one of the most charming men you could possibly meet, but he was also – and this is why he succeeded I suppose – a very dominant engineer.

**Alec Issigonis**

Lord got in the [prototype] with me and I took him round the block at Longbridge as fast as I could – they've got a big circuit at the works – and I almost frightened him I think. We stopped outside his office, and he said, 'Alec, I want it made in a year's time. Get going.'

**Peter Tothill**

So the next thing that happened was we were loaned Prototype No. 3 to strip and rebuild and we had a little compartment built, the cabin, in the experimental department, out of plywood sheets so that we could do it in some secrecy. We were a bit vulnerable from the press because the way the bypass was built, you could see right into the factory from the ramp. Our cabin was built over a pit area so we could get underneath.

There was a small team of us, and we had a week to strip and rebuild this car, so we did that and I made endless notes, problems or potential problems. Issigonis – I may appear very critical of Issigonis, which I am in a lot of ways – but one of the things he decided, and he convinced the board, was that you didn't need a vast engineering organisation. Now Issigonis was a brilliant innovator, absolutely first-class innovator, but he had no time for the nitty-gritty detail. He just used to say, 'Solve it, don't come to me, just solve it.'

**Alec Issigonis**

I design cars without any prompting from my employers to suit what they want for sale. I thought I knew better than the market-research people what the public wanted. As is shown in the results.

**Roy Davies**

The thing that rolled through the Mini was the water leak fiasco.

Issigonis for a long time would not admit that there was a water leak, despite the fact that his Mini had a pair of wellingtons constantly in the boot for him to wear. The basic problem was, if Issi had designed a house, he would have put the tiles on upside down. When he designed the Mini floor, he insisted on having it so that the water went up. Instead of having the floor like that [hands curved upwards] he insisted on it being that way [facing down], so the water just went into the car.

The boys at Nuffield Metal Products who make the bodies and the people at the Fisher division who make the bodies all said, 'It's not sealable.' It took Issigonis about eight or nine months to acknowledge that it wasn't sealable.

**Peter Tothill**

Before we'd even started building I went up to a meeting in Birmingham at Nuffield Metal Products who built the bodies for Morris. My understanding was that the only purpose of the meeting was to establish in detail how they were going to ship the body to Cowley, what would be fitted, what wouldn't be fitted. After the meeting ended, a guy called Jim Percival, who was the engineering director, said, 'Right, I want to talk to you.' I thought, what have I done wrong? He said, 'I want you to talk to your boss Leslie Ford when you get back. I've already told him, but I want

you to reinforce it: this car is going to leak.' So I thought, well, why don't you bloody well change it?

He said, 'I've had three acrimonious meetings with Issigonis and he will not change the design of the body. He's done it according to him; he's done it for ease of assembly. I've argued with him that it doesn't make it any easier to assemble, but it does guarantee it will leak.' Issigonis insisted on it being like that, so that any water coming off the front wheels went straight [up into the floor], and the pressure of it coming off it was like coming out of a fire-hose jet. 'When it comes off the wheel it will wash any sealant out and it'll leak. And there's another place in the front wheel arch,' he said, 'where once it's got past the sub-assembly stage you can't get at it to seal it.' He said, 'I want you to impress this on Leslie Ford.' Fine. I did that and Leslie Ford reported it up through the process but didn't get anywhere with Issi.

### **Roy Davies**

What was interesting, it was conceived really because of the Suez Crisis and so forth, and yet the take-up by the public was initially very low. But at the car factory it made an immediate impression on you. Because [before it] there was the Morris Minor and the Morris Oxford. Before that was the Morris Six, which was a big Morris Oxford with a longer bonnet. And the Wolseley Six was a Morris Six with a different front end on it. We'd always grown this family of cars, but the Mini was almost like dropping a Ford Escort into the place. It was immediately different. The shape instantly gelled. The shape looked right – it was a complete car.