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EXPOSURE TO ASBESTOS DURING BRAKE MAINTENANCE*

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EXPOSURE DURING CAR SERVICING

There is little maintenance of passenger vehicle brakes involved at the manufacturers' premises, and therefore an investigation was carried out at the Service Bay of a Ford Main Dealer in the Greater London area. This Dealer normally services 10–20 cars per day, but blowing-out of brake shoes and drums is not included in all routine services. It is the blowing-out procedure which is the subject of the study.

Air sampling was carried out using membrane filters, the sampling and subsequent assessment being in accordance with the technique described in the *Hygiene Standard for Chrysotile Asbestos Dust*, published by the British Occupational Hygiene Society (1968).

Static samples were taken by the side of the car (Fig. 1) and composite samples were also taken in the dust-cloud during the blowing-out procedure, continuing by the side of the car for the remainder of the sampling period. Normally the mechanic takes care to blow the dust away from himself, so this sampling procedure should overestimate exposure. Two sampling periods of 45 minutes were used, and during the first period one Cortina Estate and one Anglia Van received brake blow-outs, and during the second period one Cortina car was dealt with. The results are shown in Table 1.

Table 1. Atmosphere samples during car brake service

Location of samples	Fibres/cm³ 1st period	2nd period	Time-weighted average
By car	1·12	1·42	1·25
Dust cloud then by car	1·71	3·62	2·55

An estimate of the daily exposure of the mechanic engaged on brake cleaning was obtained by a series of personal samples (Fig. 2), covering an entire workshift, during which brake servicing was carried out on 11 vehicles. The results are shown in Table 2.

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