

9 Conclusions

Contents

	<i>Page</i>
Introduction	84
Background to the inquiry	84
The market for calibration and servicing	85
The monopoly situation	86
Competition in the market	87
Identification of relevant market	88
Extent of competition in the market for EGAs	89
Calibration	91
Servicing	94
Consumables	94
The public interest	95
Conclusions	96

Introduction

9.1. Our terms of reference require us to investigate and report on whether a monopoly situation exists in relation to the supply in the UK of the service of calibrating and servicing gas analysing equipment. For the purpose of the reference 'gas analysing equipment' means equipment used to analyse exhaust gas emissions from motor vehicles in connection with tests carried out pursuant to the Motor Vehicle (Tests) Regulations 1981. We refer to such tests as MOT tests and to the gas analysing equipment as exhaust gas analysers (EGAs).

9.2. Vehicle testing in Northern Ireland is governed by different legislation from the rest of the UK. Since tests are not carried out pursuant to the Motor Vehicle (Tests) Regulations 1981, the calibration and servicing of EGAs used in Northern Ireland fall outside our terms of reference. The discussion in the remainder of this chapter relates only to the situation in Great Britain.

Background to the inquiry

9.3. The MOT test first included exhaust gas emission tests in November 1991. They were introduced in order to reduce pollution of the atmosphere as a result of badly-adjusted engines and were therefore a departure from past practice where the MOT test had been concerned solely with road safety.

9.4. Each MOT station is now required to have an EGA of a type approved by the Vehicle Inspectorate (VI) and to have it calibrated regularly in order to ensure that it continues to give accurate readings. Calibration is normally required every three months and it must be carried out by an engineer approved by the National Measurement Accreditation Service (NAMAS), a part of the National Physical Laboratory which is itself an executive agency of the Department of Trade and Industry.

9.5. A number of the leading suppliers of EGAs have followed practices which make it difficult for engineers other than their own employees or agents to gain approval to calibrate their EGAs. These practices are the main focus of this inquiry.

The market for calibration and servicing

9.6. In its most basic form an EGA consists of a metal box about the size of a large briefcase to which a hose is attached. The hose ends in a metal probe which is inserted into the exhaust pipe of the vehicle. An electric pump draws the vehicle's exhaust gases into the EGA where their composition is analysed. The results are then displayed in numeric form on the front of the machine. An EGA may also form part of a much larger engine diagnostic unit which a garage would use to diagnose faults in a number of components and to tune the vehicle's engine. These functions are not part of the MOT test and so most EGAs used for MOT purposes are of the 'stand-alone' variety.

9.7. There are around 17,750 MOT stations that are approved for the testing of petrol-engined vehicles and therefore need an EGA.¹ There is a wide choice of models. Some 35 models of 25 makes are currently shown as approved on the VI list and are available for installation in MOT stations. In addition 59 other models were accepted provided they were installed prior to the start of emissions testing in November 1991. We estimate that some 19,400 EGAs were installed for MOT purposes at the end of 1992 and, as shown in Table 3.4, the shares of the largest suppliers were:

%

Sun Electric UK Limited (Sun)	24
FKI Crypton Limited (FKI Crypton)	16
V L Churchill Ltd (Churchill)	14
Richard Oliver Limited (Oliver)	9
H Young (Operations) Limited, trading as Kamasa Tools (Kamasa)	5

9.8. Our inquiry concerns the calibration and servicing of these 19,400 machines. In general the suppliers of the EGAs also offer calibration and servicing. In the case of FKI Crypton these functions are carried out by a sister company, FKI Transervice Limited. Kamasa has appointed Lucas Service UK Ltd (Lucas) as its agent for calibration and servicing. Oliver has appointed the Garage Equipment Maintenance Co Ltd (GEMCO) as its agent for distribution, calibration and servicing. These main suppliers of calibration/servicing deal only with EGAs of one make and so are not competing with each other for the calibration of every installed EGA. However, they do face competition in some cases from independent firms. Kaltek UK and its associates (Kaltek) calibrate about 10 per cent of the Sun machines and a small number of Oliver machines are calibrated by two agents with the co-operation of GEMCO. The calibration arrangements for all the significant makes of EGA are shown in Table 3.9. It will be seen from this table that Kaltek is the only firm that is operating completely independently of the main suppliers. Sun provides no documentation and no assistance with maintaining NAMAS approval for Kaltek's engineers.

9.9. After an EGA has been calibrated the engineer attaches a seal which will be broken if the cover of the machine is opened. Some routine maintenance, including the replacement of external filters and damaged hoses or probes, can be carried out without opening the cover. Any other repair will involve breaking the seal, resulting in the need for the machine to be recalibrated before it can be brought back into use. This has the consequence that the vast majority of repairs are in practice carried out by engineers who have NAMAS approval to calibrate the particular model. Thus entry to the servicing market is feasible for the supply of filters, hoses and probes but the fitting, repair or adjustment of other parts is generally confined to suppliers of calibration services for that model of EGA.

9.10. Calibration engineers operate in conjunction with a NAMAS-accredited calibration laboratory for which they act as 'approved signatories' of EGA calibration certificates. Sun and two smaller EGA suppliers have their own accredited laboratories from which their own employees operate. Sira Test & Certification Limited (SIRA) is an independent testing and calibration laboratory which provides facilities for EGA

¹The exhaust emissions from diesel-engined vehicles are subject to a different test for which an MOT station must have a smoke meter.

calibrators from other companies. It is not an EGA supplier and does not itself calibrate EGAs in MOT stations. It enters into contracts with other companies under which they calibrate EGAs in SIRA's name using engineers whom SIRA has tested and recommended to NAMAS as approved signatories. SIRA is remunerated by fees and by the charges it makes for calibration certificates and seals issued in its name.

9.11. We estimate that the market for the calibration and servicing of EGAs, including the supply of consumable items such as filters, is worth about £8 million to £10 million a year.

The monopoly situation

9.12. Under the terms of the reference made by the Director General of Fair Trading on 4 February 1993 we are required to investigate and report on whether a monopoly situation exists in relation to the supply in the UK of the service of calibrating and servicing EGAs used in connection with MOT tests and, if so, by virtue of which provisions of sections 6 to 8 of the Fair Trading Act 1973 (the Act) the monopoly situation is to be taken to exist and in whose favour it exists.

9.13. We are required to limit our consideration to agreements or practices which restrict owners or users of EGAs as to the persons from whom they may acquire the reference services, whereby persons conduct their affairs as mentioned in section 7(2) of the Act. The effect of this reference to section 7(2) is that we are concerned only with the case where at least one-quarter of the calibration and servicing of EGAs is supplied by a group of separate suppliers who follow practices (whether by agreement or not) which prevent, restrict or distort competition in connection with the supply of those services. Thus we are concerned only with whether a 'complex monopoly situation' exists and not with questions of a scale monopoly (where a quarter of supply is by, or for, one firm or a group of interconnected companies). Furthermore we are concerned only with practices which restrict owners or users in their choice of supplier.

9.14. From the evidence recorded in Chapters 5 and 6 and the replies of the EGA suppliers to our questionnaire we provisionally found that six leading suppliers of EGAs and/or their calibration and servicing each engaged in one or more of the following practices:

- (a) restricting access by users and third parties to calibration/servicing manuals, training and software needed to calibrate or service their EGAs;
- (b) imposing conditions in warranties which have the effect of requiring calibration and/or servicing to be carried out:
 - (i) by their employees or appointed agents; and/or
 - (ii) using parts supplied by the EGA supplier or its appointed agents;
- (c) refusing to supply proprietary spare parts to end users or to third parties other than appointed agents; and
- (d) including conditions in contracts with employees which restrict their ability to provide the reference services after cessation of their employment.

We informed these suppliers of our provisional finding that a complex monopoly situation existed in that they were members of a group which engaged in some or all of these practices which prevent, restrict or distort competition. The suppliers concerned were Sun Electric UK Limited, V L Churchill Ltd, FKI Crypton Limited, together with its sole agent for calibration/servicing FKI Transervice Limited and H Young (Operations) Limited (trading as Kamasa Tools), together with its sole agent for calibration/servicing Lucas Service UK Ltd. They were invited to respond to our provisional findings and to give their views on the issues listed in Appendix 9.1 which arise from them.

9.15. All these suppliers replied in writing and most attended hearings. Three main contrary arguments were advanced: first, that the supplier concerned did not engage in some or all of the practices, second that the practices did not prevent, restrict or distort competition, and third, that the practices did not have effects which were against the public interest.

9.16. After considering the arguments of the suppliers (as set out in Chapter 8) and the evidence of other parties in relation to the practices, we conclude that all six of the suppliers engage at least in the practice of restricting access by users and third parties to calibration/servicing manuals. Together these companies supply over 60 per cent of the calibration and servicing of EGAs used in MOT stations and so satisfy the 25 per cent test (see Table 3.10 and paragraph 3.74).

9.17. The withholding of manuals prevents, restricts or distorts competition in that it prevents would-be entrants to the calibration market from obtaining NAMAS approval and providing competition in the calibration and servicing of EGAs. Thus the provisions of section 7(1)(c) and (2) of the Act are satisfied. Furthermore, the practice restricts owners or users of EGAs as to the persons from whom they may acquire the service of calibrating and servicing EGAs and so satisfies the limitation in our terms of reference. We therefore conclude that a complex monopoly situation exists in relation to the supply in the UK of the service of calibrating and servicing gas analysing equipment as defined in our terms of reference. This finding carries no implication that the conduct operates against the public interest.

9.18. We consider that the complex monopoly situation exists in favour of the same six companies.

9.19. Having concluded that a complex monopoly situation exists because the companies withhold access to calibration manuals, we do not need to consider the other practices listed in paragraph 9.14 for the purpose of establishing the existence of the monopoly situation.

9.20. Because a monopoly situation exists we are now required by our terms of reference to consider whether any steps (by way of uncompetitive practices or otherwise) are being taken by any of the persons in whose favour the complex monopoly situation exists, for the purposes of exploiting or maintaining that situation, and whether any action or omission on the part of those persons is attributable to the existence of that situation. These questions are considered below (paragraphs 9.51 to 9.80) in relation to the practices in various segments of the market. Finally we are required to consider whether any facts found in pursuance of our investigation operate, or may be expected to operate, against the public interest. This is discussed in paragraphs 9.81 to 9.87.

Competition in the market

9.21. Calibration, servicing and the supply of consumables and spares for EGAs are 'secondary products' because demands for them arise only after the purchase of an EGA (the 'primary product'). It is often difficult in such cases to determine whether the provision of the secondary product in relation to a particular brand of primary product is a separate market in itself or whether it forms part of a wider product market. These concepts are discussed more fully in paragraphs 3.85 to 3.90.

9.22. The suppliers have suggested to us that all brands of EGA together with their calibration and servicing constitute a single market. They argue that customers base their choice of EGA not only on the price and quality of the machine but also on the costs and quality of after-sales service in the form of calibration, servicing and consumable spare parts. The suppliers go on to argue that the market for EGAs is highly competitive, so that a monopoly supplier of calibration or servicing for a particular brand of EGA will not be able to exploit his monopoly position. Any attempt to do so would lead to a loss of sales of EGAs. Therefore, the arrangements they make for calibration/servicing, including any practices that we may identify as steps taken for the purpose of maintaining a monopoly situation, can have no adverse effect on the public interest.

9.23. An alternative view is that in the absence of the restrictions which limit the ability of third parties to provide calibration/servicing, there would be two markets: one for the supply of EGAs of all brands and the other consisting of the calibration/servicing of all brands of EGA. Competition between calibration/service companies, even if they were each suppliers of a particular brand of EGA, would ensure that these services were supplied at minimum cost and at prices which reflected the costs of supplying different customers and possible efficiency gains. For example, where the costs of supplying the service differ significantly, as they are likely to do where travelling time represents a substantial portion of total costs, a system of flat rate charging means that some customers are subsidizing others. This process of averaging costs is likely to discourage innovative arrangements to achieve more cost-effective supply of calibration/servicing in the remote areas. The present arrangements may also hinder the achievement of efficiency gains by precluding

the conduct of calibration/servicing across different items of equipment in the same garage and the calibration/servicing of equipment in nearby garages. Under this view the restrictions imposed by suppliers of EGAs may lead to effects adverse to the public interest.

Identification of relevant market

9.24. In deciding which of these alternative market definitions is appropriate we need to examine whether a sole supplier of calibration/servicing for a particular brand of EGAs is constrained from engaging in uncompetitive behaviour such as raising prices significantly above costs. The single market definition will be appropriate where such a constraint is provided by competition for the sale of new EGAs: for example, if high prices for calibration of a particular brand would dissuade MOT stations from purchasing that brand of EGA. Although MOT stations which already have an EGA may have no choice of calibrator, they may nevertheless be protected by the continuing need for the EGA supplier to demonstrate to prospective purchasers of a new EGA that his calibration/servicing costs will be competitive.

9.25. There is clear evidence that competition for the supply of EGAs was very strong in 1991 and such competition would undoubtedly generate information for MOT stations on the cost and quality of calibration/servicing as suppliers fought to make sales on the basis of their competitive strength in this area. Although there are comparatively few sales of EGAs at present, because the market is saturated, many of the leading EGA suppliers are also suppliers of other garage equipment. Our survey of MOT stations (see Appendix 3.4) shows that the reputation of a supplier across the whole field of garage equipment is a factor in purchasing decisions. Hence any uncompetitive behaviour in the calibration/servicing of EGAs is likely to be constrained by the supplier's desire to preserve his reputation for garage equipment generally. Further evidence for a single market is provided by the fact that in gearing up to meet the introduction of emission tests the manufacturers clearly recognized the need to ensure that there was adequate servicing and calibration available, whether or not they themselves were intending to provide it. We were told that since that time manufacturers, including Sun, Churchill and FKI Crypton/Transervice, have chosen to provide repairs free of charge under warranty even where they could have avoided any obligation because the need for the repairs resulted from damage caused by independent repairers or the use of inappropriate consumables. It is unlikely that the companies would have taken these steps unless they recognized that their behaviour in the after-sales market would affect their future sales of EGAs and other garage equipment.

9.26. The costs and quality of calibration/servicing are, however, only likely to influence purchases of the EGA itself if they are a high proportion of the whole-life costs of owning an EGA. Evidence so far (see paragraph 4.23) indicates that these costs are likely to be up to 50 per cent of the discounted whole-life costs of the equipment. This appears to us to be a high enough proportion to influence consumers' choice.

9.27. Whatever the costs, behaviour in the after-sales market will only be constrained by competition for the supply of EGAs if those costs are known and that knowledge influences the purchaser's decision. We accept the argument that most MOT stations are knowledgeable and well-informed customers. They are used to paying for the servicing of garage equipment and although any one MOT station may deal only with one supplier informal contact between stations is likely to convey information about the behaviour of suppliers. Information is also conveyed by evaluations by trade associations (eg the recommendation of a particular EGA by the Retail Motor Industry Federation Limited (RMIF)) and by articles in the trade press. We note, moreover, that it is not necessary for each and every MOT station to have a high level of price awareness and the propensity to shop around. All that is necessary for competition in the supply of EGAs to constrain pricing and quality in the supply of calibration/servicing is that a significant number of customers do have sufficient knowledge and the ability to act on it. We are satisfied that this is the case.

9.28. It was pointed out to us that at the time when most MOT stations made their purchases of EGAs in 1991 the requirements for calibration were not clear because they were not made known by the VI until comparatively close to the November deadline. There was, therefore, no experience of the charges which manufacturers would make since the requirement for calibrating EGAs was a new one and in such circumstances purchasing decisions could not have been based on whole-life costings. This may be true but now that purchasers have gained experience in using these services we believe that they are likely to be aware of the whole-life costs of owning an EGA and the reputations for reliability of the various suppliers of the reference services. They will therefore be able to make more, rather than less, informed decisions at the time

when they purchase their next EGA or other item of garage equipment. This knowledge will constrain EGA suppliers from attempting to exploit what could be regarded as captive customers.

9.29. While most MOT stations own only one EGA, and are therefore not frequent purchasers in the EGA market, the efficient functioning of the EGA is essential to the MOT testing function and so any failure in after-sales service could put the station temporarily out of the testing business and is therefore particularly likely to influence the choice of future equipment.

9.30. Experience of EGA users so far is consistent with the view that a single market is in operation. Despite the fact that there is no competition for the calibration and servicing of several of the leading brands, our survey of MOT stations showed that user satisfaction is nevertheless high and we have received few complaints from users. A number of the complaints we did receive have been from MOT stations in dispute with their EGA supplier and frustrated by the absence of choice of calibrator and so unable to show their displeasure by ceasing to deal with the supplier in the short term. It is clear from their correspondence that such complainants will be most unlikely to return to the supplier in question for future purchases of garage equipment. Also suggestive of the constraints on suppliers of EGAs which prevent the exploitation of customers is the fact that prices are not excessive in relation to other comparable services and that excessive profits are not being made by the suppliers of calibration/servicing even though many of them are sole suppliers for their brand of equipment (see paragraphs 4.15, 4.19 and 4.23 to 4.25). However, we note that the provision of free servicing during the warranty period (which will have ended only recently for the majority of machines) will have depressed revenue during the last financial year. An alternative reason why companies might charge low prices for calibration and servicing and provide repairs free of charge when not legally obliged to do so is that they are acting in a predatory fashion with the aim of driving potential competitors from the market. We have received no complaints nor seen any evidence that this is the case.

9.31. On the basis of the preceding analysis it seems to us that as currently organized the calibration/servicing of EGAs is part of a single market with the supply of the original machines. We therefore conclude that this is the appropriate market in which to consider the practices of the suppliers of calibration/servicing.

Extent of competition in the market for EGAs

9.32. In a single market the behaviour of companies as suppliers of calibration and servicing will be influenced by the level of competition between the companies as suppliers of EGAs.

9.33. The four largest suppliers (Sun, FKI Crypton, Churchill and GEMCO) have a market share of some 63 per cent, although no single supplier has a market share of more than 25 per cent (see Table 3.4). This level of concentration might indicate a lack of competition but there are other features of the structure which have to be taken into account.

9.34. First, the user has a wide choice of EGA supplier other than the main four. There are another seven suppliers of EGAs with a market share of 3 per cent or more, including a number of significant suppliers such as Kamasa, Tecalemit Garage Equipment Co Ltd (Tecalemit) and Robert Bosch Limited (Bosch). The main companies supplying EGAs prior to 1991 have subsequently sold more EGAs but lost market share (see Table 3.5). This suggests that companies in the leading positions in the market can be challenged.

9.35. Second, the evidence suggests that market entry and exit are relatively easy. Market entry has been considerable in the last two years. Some 15 suppliers entered the market in 1991. Most new entrants were already established suppliers in the garage equipment industry. Some entered as manufacturers of EGAs (eg Churchill), some as exclusive suppliers/distributors of EGAs manufactured by others either in the UK or overseas (eg GEMCO, Kamasa/Lucas). There is a large choice of manufacturers and the production of EGAs takes place in many countries, some 27 per cent of the installed base of EGAs in 1992 being imports.

9.36. Entrants in 1991 will have known that the level of demand would not be sustained in later years. This suggests that the costs of exit are not high.

9.37. Third, most of the suppliers do not rely solely on the EGA market for their survival. Sales of EGAs account for less than 10 per cent of the total annual sales of most suppliers. In particular, the large

suppliers/distributors appear better able to survive in the longer term than a single manufacturer. They have established distribution and service networks, have their financial risks spread over products other than EGAs, and have a choice of EGA manufacturers.

9.38. Other evidence also suggests that the market for EGAs is competitive.

9.39. Evidence on prices suggests that competition to supply EGAs is strong. In 1991 there was fierce discounting of prices as the November deadline for sales approached (paragraphs 3.56 to 3.58).

9.40. As shown in Table 4.4, the profits earned by the four main suppliers from the supply of stand-alone EGAs have not been excessive, the weighted average operating margin being 11.2 per cent. As regards calibration and servicing, with the exception of two results, the suppliers have incurred losses at the operating profit level in each year (Table 4.1).

9.41. The level of customer satisfaction with calibration and servicing, as expressed by garages interviewed in the survey of MOT stations, is very high. Some 90 per cent of those interviewed were satisfied or very satisfied with the price and quality of calibration and servicing.

9.42. Thus the evidence of the operation of the market over the last two years suggests that the market for the supply of EGAs and their calibration and servicing is currently competitive.

9.43. Ideally conclusions should be drawn from evidence of the operation of a market over several years. This is clearly not possible in this case, but attention needs to be given to the way in which the market might develop over the next few years.

9.44. After the initial surge in sales in 1991, there is now a lower demand for EGAs. The level of demand might increase slightly as a replacement market develops, ie as older machines reach the end of their lives. Moreover up to 55 per cent of machines currently in use are not expected to meet the requirement for greater accuracy which will accompany the more stringent emission test expected to be introduced in 1996. This comprises the 25 per cent of machines which do not meet the Organisation Internationale de Métrologie Légale (OIML) standard, and were only approved if installed before November 1991, and the 30 per cent which are OIML Class II machines (see Table 3.1). Before 1996 many of the older non-OIML machines are likely to have been replaced by OIML Class I EGAs, with the Class II machines remaining in place until close to the 1996 deadline. Hence, demand for the next two years is likely to be low and even as the 1996 deadline approaches the surge in demand is unlikely to be as high as in 1991, when over 15,000 machines were bought.

9.45. Faced with lower demand and the loss of VI approval for any non-OIML models some suppliers may well cease to sell EGAs in the UK market and will make alternative arrangements for the calibration and servicing of machines already installed. Those supplying OIML Class II EGAs may be particularly vulnerable given that these models are likely to become obsolete in 1996. The resulting increase in market concentration might simultaneously increase the market power of the main suppliers and provide the opportunity for them to make a sustainable increase in prices of calibration and servicing. Given the static nature of the demand, smaller suppliers may be tempted to follow any price rises initiated by the main suppliers.

9.46. However, there are a number of factors which might be expected to constrain the behaviour of the main suppliers.

9.47. First, market entry remains a threat to existing suppliers of EGAs. For instance, a garage equipment supplier with an established name and distribution network would readily be able to enter the market for EGAs and their calibration and servicing, should it be profitable to do so.

9.48. Second, EGAs represent a relatively small part of the turnover of the main suppliers. Most of their business is the supply of other garage equipment. Any adverse reputation they achieve in the sales, calibration or servicing of EGAs is likely to affect other parts of their business.

9.49. Third, as OIML Class I EGAs replace Class II EGAs a six-month calibration interval should become more common which will reduce the annual calibration fee faced by the user. Suppliers that are currently offering only OIML Class II EGAs should be able either to develop their own Class I EGA, or to buy in a suitable model from another manufacturer.

9.50. In the light of the preceding discussion we conclude that the market for the supply of EGAs is currently competitive. We now consider the practices which influence competition in the supply of calibration and servicing.

Practices and their effects

Calibration

Withholding access to manuals, software and training

9.51. In order to calibrate a particular model of EGA an engineer needs to be approved by NAMAS. Such approval is granted only to those who offer a satisfactory manual setting out the calibration procedure, who have demonstrated their technical competence to NAMAS or to a NAMAS-accredited laboratory and who have established a satisfactory quality control system. It is therefore necessary for would-be calibrators to have access to information about how to carry out calibration, eg which keys to press or switches to operate and how to interpret the readings on the EGA's display.

9.52. Such information can be obtained in a variety of ways, eg by acquiring and studying a calibration manual prepared by or with the assistance of the manufacturer; by being trained by the manufacturer; or, if the party has sufficient engineering expertise, by acquiring a machine and studying the way it is built and operates (known as 'reverse engineering').

9.53. All these methods, except the last, normally require the co-operation of the manufacturer. Acquiring the manufacturer's calibration manual is the simplest route since the other methods leave the would-be calibrator with the task of preparing his own manual. We found from complaints and from the evidence of the suppliers themselves that the six listed in paragraph 9.14 either had refused to make manuals available or said that they were unwilling or unable to make them freely available. Some other suppliers who said that they would be willing to do so had never been asked and so had had no opportunity to demonstrate their willingness. Some suppliers said that they would be willing in certain circumstances, for example if they were satisfied that the recipient was competent, financially viable and willing to make appropriate payments for use of the manufacturer's intellectual property.

9.54. Independent calibrators might obtain training from manufacturers either by attending training courses offered to independent businesses or if they had previously worked for the manufacturer or his calibration agent. Some of the suppliers (eg Bosch and GEMCO) offered training to independent businesses which calibrated their EGAs with their approval-indeed, Bosch relied on such agents to calibrate all its machines. Others (eg Sun and FKI) indicated clearly that they would not provide such training. The issues associated with former employees are discussed in paragraph 9.57 to 9.60.

9.55. Obtaining information by reverse engineering requires a degree of engineering competence beyond that required simply to calibrate an EGA after training. Two manufacturers followed practices which (whether intentionally or not) had the effect of making it impossible to follow this route. In the case of Sun, access to the parts of the software which calibrate the machine can only be gained by keying in a password and in the case of Churchill a special cartridge containing the calibration software needs to be plugged into the machine in place of the normal operating cartridge. Sun does not make its password available to independent calibrators and Churchill is unwilling to make its calibration cartridge available.

9.56. We conclude that all of these practices are steps taken for the purpose of maintaining the monopoly situation.

Contracts with employees and distributors

9.57. A complaint that a manufacturer's contract of employment contained a clause restraining ex-employees from competing in the market for calibration led us to examine the employment contracts of all the leading manufacturers. We found that only Sun had such a clause. It required the employee to undertake that:

For a period of 12 months after the date of termination of my employment I will not, either on my own, or with others or as an employee of any agency or organisation whatsoever calibrate any Sun Electric Equipment for which I require NAMAS accreditation.

9.58. Such a clause could prevent engineers who had acquired the skills necessary to calibrate and service a particular brand of EGA from entering the market in competition with their former employer. We consider that this is a step taken by Sun for the purpose of maintaining the monopoly situation which we have found to exist.

9.59. However, we note that the prohibition on calibrating a Sun EGA lasts for only one year and that the clause also serves the purpose of protecting Sun from the possibility that its ex-employees might make use of commercially confidential information about Sun's customers which they had gained in the course of their employment. In any event, an ex-employee would be free to use his general knowledge of EGA engineering to calibrate/service other brands of EGA if he could gain access to the information discussed in paragraphs 9.51 to 9.54. This will be relatively easy for those brands where calibration does not require access to a password or special software cartridge.

9.60. We understand that if any employer sought to impose unreasonable restraints on its ex-employees they would not be enforceable in the Courts.

9.61. We also examined a number of contracts between manufacturers and their distributors and agents. We found no evidence of clauses restricting distributors/agents or their employees from entering the market for calibration/servicing. Sun has a direct sales force and does not use distributors.

Warranty restrictions

9.62. Among the EGA suppliers only Sun and FKI Crypton make it a condition of their warranty that calibration is carried out only by the manufacturer or his appointed agent. Other suppliers have less explicit requirements which could have the same effect, for example a condition requiring that no 'adjustment' or 'tampering' is carried out by unauthorized engineers. Others have a condition which excludes from the warranty any *failure resulting from* unauthorized calibration, adjustment, etc. This last condition is unobjectionable.

9.63. Conditions that invalidate the whole warranty in the event of calibration by an unapproved engineer, whether or not the fault results from that calibration, could be intended to tie in calibration to the supply of the EGA. Sun took the process a stage further and informed all those MOT stations which had purchased a Sun EGA but did not have a calibration contract that their warranty had been withdrawn but could be reinstated if they entered into a contract with Sun (see paragraph 8.29). We believe that this was done with the intention of taking customers from independent calibrators. We therefore conclude that it was done for the purpose of maintaining the monopoly situation.

9.64. As far as the other conditions are concerned, we are satisfied that they are included in the warranty in order to protect the supplier from the possibility that he will have to bear the cost of repairing damage caused by others. We consider this a reasonable precaution by a supplier who chooses to offer a warranty and therefore conclude that the practice is not related to the existence of the monopoly situation. In forming this view we have taken account of the fact that (Sun apart) the EGA warranties last only for 12 months. Our conclusion might have been different if the conditions were combined with a much longer warranty period.

Prices

9.65. The prices charged by the EGA suppliers and their appointed agents are generally in the range of £60 to £80 per calibration (see Table 3.12) with discounts available in some cases for large customers or for annual contracts. There is virtually no price competition for the calibration of a particular brand of EGA, except in the case of Sun equipment where Kaltek offers an independent service at prices slightly lower than Sun's.

9.66. We discuss the profitability of the larger suppliers in Chapter 4 and also record the costs they have incurred to develop calibration software and manuals and to maintain a team of trained and NAMAS-approved calibration engineers. The profitability of the companies is not excessive, indeed many make losses on their calibration and servicing of EGAs, and servicing charges are comparable to those for other electrical equipment. This is consistent with our finding earlier in this chapter that competition in the supply of EGAs will constrain suppliers' actions in respect of calibration and servicing. There is no evidence that low prices are being set in a predatory way to drive competitors from the market or to prevent the entry of new competitors. We therefore conclude that prices are not set at a level which exploits the monopoly situation.

9.67. We have also considered whether the suppliers' practice of charging a uniform fee across the whole country is attributable to the existence of the monopoly situation. Since the cost of carrying out the calibration of an EGA will vary according to the time the engineer takes to travel to the MOT station, which will generally be greater in sparsely populated areas, a system of uniform fees must involve some cross-subsidy from customers in low-cost areas to customers in high-cost areas. In a market where there was competition to calibrate a particular model of EGA it would appear possible to enter the market in the low-cost areas with charges which were lower than the nation-wide uniform fee. Since this would make the uniform fee unsustainable we must conclude that the action of charging such a fee is attributable to the existence of the monopoly situation.

Restrictions on competition by agents

9.68. Although it appears from the VI's list of approved calibrators that many EGA models offer a choice of calibrator, we have found in our inquiry that most of the alternative calibrators operate as agents of the main supplier of calibration services rather than as competitors. The companies which we have identified as the persons in whose favour the monopoly situation exists do not use agents. We therefore conclude that any restrictions on competition by agents are not for the purpose of exploiting or maintaining the monopoly situation. We note, moreover, that where suppliers do have such restrictions, their effect on the market is the same as if the main supplier served the whole market himself rather than using agents to reach some customers.

Frequency of calibration

9.69. Evidence from the manufacturers, the VI, NAMAS and SIRA indicates that no steps are taken to establish whether the required frequency of calibration could be reduced for a particular model of EGA unless the manufacturer requests a review by the VI. Theoretically this could lead to MOT stations paying for calibrations which were not needed to preserve the integrity of the MOT test. Those who derive income from calibration (which includes NAMAS and SIRA) may have no incentive to seek a review. On the other hand, manufacturers may recognize that a less frequent requirement for calibration would make their models more attractive to customers and that the benefit from increased sales will outweigh any loss of calibration revenues.

9.70. We examined data from SIRA showing the readings recorded on calibration certificates for various models since the requirement was introduced in November 1991. The data, derived from some 58,800 calibrations, showed that the models differed very widely in the degree to which they had drifted out of calibration between one calibration visit and the next. The most stable models (including one of the market leaders) had between 4 and 10 per cent of readings outside the ± 3 per cent tolerance which is permitted at calibration while other models had more than 50 per cent of readings outside that tolerance. In general the Class I models were most stable. We conclude from this examination that there is no clear evidence that those involved in the supply of calibration services are seeking to maintain an unnecessarily frequent calibration requirement. Nevertheless, in view of the very wide differences in performance between models requiring quarterly calibration, there may be scope to vary the frequency for some of them. We believe that the VI should keep the position under review and we discuss the calibration requirements more fully in Chapter 10.

Servicing

9.71. Some calibration suppliers (eg Sun) make it a condition of their calibration contracts that any maintenance or repairs are carried out by them. This limits the market opportunity for service engineers who are not NAMAS-approved calibration engineers. However, there are factors which make it likely that the two services will normally be provided by the same firm irrespective of any formal tying of servicing to calibration.

9.72. First, any servicing which requires the cover of the EGA to be opened will involve breaking the seals which are attached by the calibration engineer. Thus servicing or repair necessitates a re-calibration and MOT stations would expect to find that it is cheaper to pay for one engineer to carry out both operations.

9.73. Second, since most MOT stations have only one EGA approved for MOT use they will want to begin using the machine again as soon as it is repaired. This can be achieved most easily if the repair is carried out by an engineer who can calibrate the machine immediately it is repaired.

9.74. For these reasons we do not consider that conditions in the calibration contract relating to servicing constitute steps taken for the purpose of exploiting or maintaining the monopoly situation or that they are attributable to its existence.

9.75. A number of EGA suppliers make it a condition of their warranty that the customer has all servicing and repairs carried out by the supplier or his appointed agent during the warranty period. These conditions are similar to those restricting the supply of calibration services during warranty (see paragraphs 9.62 to 9.64) and we conclude for the same reasons that they are not related to the existence of the monopoly situation.

9.76. A refusal on the part of EGA manufacturers to supply proprietary spare parts to third parties other than their appointed agents would restrict the ability of such third parties to enter the market for the servicing of EGAs. Competition in the supply of spare parts would be inhibited if dealers were required to supply only spare parts obtained from the manufacturer. We found no evidence of either of these practices.

Consumables

9.77. We found no evidence that suppliers of calibration/servicing were making it a condition of their contracts that a customer procured his consumables (eg external filters and hoses) only from them. Nor did it appear that manufacturers were placing restrictions on the consumables that their dealers supplied.

9.78. As with calibration and servicing, a number of EGA suppliers required that only 'genuine' spare parts (including consumables) were used during the warranty period. We accept that the use of inappropriate filters can cause damage to the most expensive component in an EGA (the gas bench) and that it is therefore reasonable for suppliers to include such conditions in their warranties.

9.79. We also received some representations about the prices charged for filters: both that they were too high and that Sun might be engaging in predatory pricing. On the basis of the survey of MOT stations, which showed that 44 per cent of EGA users were aware of competitive sources of supply, and the evidence we heard from the filter suppliers themselves (see paragraphs 6.75 to 6.80) we conclude that there is a competitive market for the supply of filters. The lower prices now charged by Sun are a result of competition in the market and its greater buying power than independent calibrators.

9.80. We therefore conclude that there are no steps, actions or omissions in connection with the supply of consumables which relate to the existence of the monopoly situation.

The public interest

9.81. The discussion in paragraphs 9.51 to 9.80 has identified a number of practices which affect competition in the supply of calibration and servicing. We have concluded in paragraphs 9.56, 9.58, 9.63 and 9.67 that some of them are steps being taken for the purpose of maintaining the monopoly situation or are actions attributable to its existence. We list these in Appendix 9.2. We are now required to consider whether any of the facts operate, or may be expected to operate, against the public interest.

9.82. We consider that the service of calibrating and servicing EGAs, as it is currently organized, forms part of a single market with the supply of the original machines. We have concluded that that market is competitive at present with a variety of company policies offering diversity of practice and hence of choice to consumers. In such a single market the behaviour of suppliers of the secondary product (calibration and servicing) is constrained by competition to supply the primary product (EGAs). This leads us to conclude that although practices such as the withholding of manuals, etc, make it difficult for would-be calibrators/servicers to enter the market they do not have adverse consequences for users. This is borne out by the lack of any significant evidence of disbenefits in terms of high prices, excessive profits or customer dissatisfaction with the quality of service. We accept the suppliers' argument that their reputations for quality and price in the after-market are a significant factor in the vigorous competition for the sale not only of EGAs but of garage equipment generally. Users are protected by competition in that primary market.

9.83. The EGA suppliers argued that their reputations would be damaged by poorer quality entrants servicing and calibrating their equipment. In fact independent firms already carry out this work successfully for some brands of EGA-either with the help and support of a main supplier (as with the agents appointed by Bosch or GEMCO) or despite the opposition of the main supplier (as with Kaltek's calibration of Sun equipment). We saw no evidence that these independent companies were incapable of carrying out the work to a high standard and we would not expect this to be the case given the requirements to demonstrate competence before being approved by NAMAS for calibration and the ongoing quality audits which NAMAS and its accredited laboratories have in place. Furthermore, if they had access to the manufacturers' manuals and training and were notified of updates to them, independent calibration engineers should be no less competent than those employed by the manufacturers.

9.84. It was also argued that opening the market to independent calibrators would be against the public interest because the integrity of the MOT test would be damaged and the full benefits of reduced atmospheric pollution would not be realized. This was based partly on the premise that new entrants will be less competent, which we have dealt with in paragraph 9.83, and partly on concern that the calibration procedures and software will get into the hands of unscrupulous MOT stations which will misuse them to reset their EGAs between calibrations. They might have an incentive to do this in order to pass vehicles which should fail the MOT test or, on the other hand, they might have an incentive to adjust their EGAs so that vehicles fail the test when they should pass thus increasing the amount of profitable repair work generated by the garages' MOT activities. We do not believe it is for EGA suppliers to take on the mantle of guardians of the anti-pollution legislation. If the Government is satisfied with the controls it has in place-and the VI has told us it favours competition in the calibration/servicing of EGAs-we do not see a legitimate role for EGA suppliers in imposing tighter controls.

9.85. The final public interest argument put to us in favour of the suppliers' practices was that the information needed to calibrate and service the various models of EGA is the intellectual property of the respective manufacturers from which they are entitled to enjoy the full benefits. We recognize the force of this argument. The manufacturers have invested significant effort in developing the software and operational procedures which are used during calibration and servicing. Good reasons would need to exist for interfering with the way they choose to exploit their intellectual property rights if innovation, with its pro-competitive benefits, is not to be discouraged. An adverse public interest finding could provide such a reason but, given our findings on the competitive nature of the EGA market, we do not consider that the manufacturers have chosen to exploit their intellectual property rights in a way which operates against the public interest.

9.86. It has been suggested to us that alternative arrangements for the supply of calibration/servicing could bring benefits to customers (see paragraph 9.23). We note that some independent calibrators are operating successfully, including in the remoter areas of Scotland, and we would not wish to discourage further developments in this direction. Our task, however, is not to establish some ideal organization of the market.

Our task is to consider whether any of the facts found during our investigation operate, or may be expected to operate, against the public interest. We conclude that they do not.

9.87. We have based these conclusions on the evidence before us about the structure of the market for calibration and servicing of EGAs. We recognize, however, that the market is not yet mature. It may therefore develop in a way which allows the practices we have considered to have adverse effects. In those circumstances it would be open to the Director General of Fair Trading to exercise his powers under the Act or the Competition Act 1980 if there is evidence of such effects.

Conclusions

9.88. In summary, our conclusions are that:

- (a) a complex monopoly situation exists by virtue of sections 7(1)(c) and (2) of the Act in relation to the supply in the UK of the service of calibrating and servicing gas analysing equipment as defined in our terms of reference;
- (b) the monopoly situation exists in favour of V L Churchill Ltd, FKI Crypton Limited, FKI Transervice Limited, Lucas Service UK Ltd, Sun Electric UK Limited and H Young (Operations) Limited;
- (c) the steps listed in Appendix 9.2 are being taken by the respective persons listed in that appendix for the purposes of exploiting or maintaining the monopoly situation;
- (d) the actions or omissions on the part of the respective persons listed in Appendix 9.2 are attributable to the existence of the monopoly situation; and
- (e) none of the facts found by the MMC in pursuance of their investigations operate, or may be expected to operate, against the public interest.

9.89. During the course of our inquiry we received a number of criticisms and comments about the arrangements for pattern approval of EGAs and about the calibration requirements. We consider these in Chapter 10 and propose some changes which the relevant government agencies should consider in any review of the arrangements. We believe that if they were adopted these changes would enhance competition in the supply of calibration and servicing.