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IN THE HIGH COURT OF NEW ZEALAND A. 957/82

AUCKLAND REGISTRY

BETWEEN GILBERT LODGE & COMPANY LIMITED

PLAINTIFF

A N D MAINLINE C.N.G. LIMITED

DEFENDANT

No Special Consideration

1624

Judgment: 19 DECEMBER 1984

Hearing: 15, 16, 17, 18 October 1984

Counsel: R.O. Parmenter for Plaintiff
M.J. Beattie for Defendant

INTERIM JUDGMENT OF CASEY J.

The principals of Mainline (Messrs Marlow and Clarkson) decided to open a C.N.G. dispensing plant at Otahuhu. They had no experience in this field, and at one stage considered an arrangement with an oil company setting up the plant. However, they concluded it would be more profitable for their own company to instal and own the equipment and after suitable enquiries they settled on the Plaintiff, Gilbert Lodge, for the supply and installation. They had heard good reports of the Swiss "Burckhardt" compressor for which that company was the New Zealand agent. This decision entailed substantial borrowing by Mainline from the Development Finance Corporation and its bank, for which accurate costing and budgeting were necessary to enable it to assess and meet its commitments. From an early stage the company's solicitor (Mr Palmer of Wilson Henry Martin & Co.) was involved in the negotiations, and they dealt principally with Mr Taylor who was the Plaintiff's Sales Engineer.

At that time C.N.G. fuel for motor vehicles was a novel concept in New Zealand and Gilbert Lodge had built only

one other plant and had virtually no experience with this product. It has since been responsible for over 80 installations. It undertook to advise on and instal an appropriate plant for Mainline in what was called a "Turnkey" operation, and after preliminary discussions and quotations in mid-1981, a final contract was concluded in September. It is acknowledged in the pleadings that this was a partly oral and partly written agreement made on or about 4th September 1981; the written part comprised a letter to Mainline from Gilbert Lodge on the latter's standard quotation form of that date providing for the installation of two dispensing units at a price of $188,670 and containing standard printed conditions of sale on the back, together with a number of appendices setting out specifications and descriptions of the plant and installation work. This was accepted by Mainline, and it is common ground that work on the project was well under way by this date.

After installation at the end of September 1981, a number of serious problems arose, for some of which Gilbert Lodge denied responsibility. Eventually it issued a writ under which it now claims $17,860.73 and interest for the balance of the contract price and extras. Counsel are agreed that $7,632.16 of this sum is owing, and that there is a balance of $10,116.76 in dispute, covering extra hardware and services required for installation. The defence is that the items making this up were included in a contract allowance of $5,000 for installation contingencies. Mainline counterclaims or seeks to set-off a total of $151,635.89 plus interest for work necessary to remedy breaches of contract and for the loss of gas and other expenses incurred as a result of the Plaintiff's default.

Background and Plaintiff's claim.

The contract followed discussions between Mainline's representatives and Mr Taylor over a period of several months. Unfortunately the latter has left Gilbert

Lodge and was not available as a witness, so that company was at a disadvantage in dealing with some of the Defendant's evidence about undertakings he gave and agreements made with him. There were a number of letters and previous quotation forms produced, from which it can be seen that the earlier negotiations centred around the provision of a five-stage compressor, but at virtually the last moment this was altered to a four-stage model, and Mr Taylor assured Mainline that it was an improved unit. The five-stage unit was designed for low pressure gas intake below 5 lbs. p.s.i., and could not accept the 50 lbs. p.s.i. pressure of Maui gas supplied by the Auckland Gas Company Limited. The unit installed compressed the gas in four stages to 3,600 lbs. p.s.i. for storage in vessels called "Cascades", from whence it was dispensed through a meter to customers' vehicles. There would have been no gas loss in the five-stage compressor, but some loss was inevitable through the crank case of the four-stage unit, and this was increased through other causes which I deal with later.

The contract provided for installation of two complete units each comprising a compressor, a Ford Falcon motor to drive it, the appropriate Cascades and all associated pipe work and meters at the service site, connected to the Gas Company's supply point and meter. Mr Taylor designed the layout, and the plans for the compressor/storage area were drawn up accordingly by Mainline's Engineer. As I understand the evidence, the concrete floor and associated enclosure walls were built by that company. It was conceded by Mr Martin (Plaintiff's Industrial Equipment Manager) that the contract involved supplying Mainline with a system which dispensed compressed natural gas for the purpose of refuelling vehicles, to be handed over as a going concern, and this accords with the provision in the quotation for the commissioning and starting up of the compressors.

A contingency sum of $500 per unit was included in the original quotation of 5th June 1981. To use Mr

Martin's words, this was inserted "because of the relative newness of the industry and the unknown factors it was not possible to foresee absolutely the last item of hardware that might be required to make the system function as required". (p.5 notes of evidence). That figure was increased to $2,500 per unit in the revised quotation of 20th July 1981 for the five-stage compressor. However, towards the end of August Mainline was told by Mr Taylor of the switch to the four-stage unit; he thought this would involve a substantial increase in air freight which he wanted the purchaser to bear. It refused, and as it turned out, Mr Taylor was mistaken. There were discussions about this and other topics followed by an exchange of letters, the first dated 28th August 1981 from Mr Palmer spelling out Mainline's view of the contingency sum and stating that it "implies factors unknown and factors not taken into account. We would consider that any matters not covered specifically under the quote should fall under the heading of "Installation Contingency" and it would seem that Mainline C.N.G. should not be obliged to make any further payment above the quoted price per unit of $94,335."

It was stressed by Defendant's witnesses that they were anxious to obtain a fixed maximum price because of their loan commitments and budget requirements. For this reason they had queried the original contingency allowance of $500 with Mr Taylor as being unrealistically low, and eventually accepted the increase to $2,500 each, which came with his assurance that it was unlikely the whole amount would be spent, and that Mainline would get a refund of any surplus. Mr Marlow said in cross-examination that if the extra costs now claimed had been known at the time of the quotation, they would have turned it down because it was already higher than others received and put the operation on their financial borderline.

Mr Taylor replied to Mr Palmer's letter of 4th September and enclosed the final quotation of the same date on his company's standard form, to which I have already

referred. It repeated the wording of the installation section used on the 20th July quotation, but there was a change in the reference to the contingency sum. In the earlier document it was simply added to that section as "installation contingency, $2,500". In the 4th September document it appeared as a separate item "Installation contingency for supply of unspecified hardware and/or services as required - $2,500".

Gilbert Lodge's covering letter signed by Mr Taylor dealt at some length with Mr Palmer's reference to this contingency sum, stating that it was included "to cover the supply of items of hardware and services not determined at the time of quoting and therefore not allowed for in the Quotation as specific items". He pointed out that they had at that stage used about $3,500, and "confidently expected" to remain well within the total. In a later paragraph he said:-

> "However, if as a result of changed regulations or any other factor necessitating supply of hardware or services not allowed for in our quotation, we should exceed the specified contingency sum, the excess would be extra to our clients on production of documentation verifying the additional goods and/or services."

There is also a reference to "Contingencies" in the printed conditions of sale on the back of the quotation form reading:-

> "9. CONTINGENCIES: If, by reason of any legislation, regulation or governmental action, or other cause beyond the Seller's control, any charge duty, impost or expenditure of any kind which is not at present chargeable or applicable, is imposed, becomes payable or applicable, or is incurred upon, or in respect of the goods hereby sold, it will be for the Buyer's account."

I consider that this clause was not intended to override the specific provision for installation contingency in the quotation, and must be read together with it. Each

side displayed a radically differenty view of its meaning in their evidence. Mr Martin of Gilbert Lodge thought the total of $5,000 was no more than an estimate or "ball-park" figure which could be exceeded to an unlimited extent by the need to provide unforeseen items. Mainline viewed it in Mr Palmer's terms, as the limit of liability for any expenditure necessary for the proper installation and functioning of the plant. On this basis it resists the Plaintiff's claim for extras and seeks reimbursement of the amounts it had to spend in order to operate the plant efficiently.

The parties having reduced this part of their agreement to writing, the well-known rules of construction apply. What they meant must be determined from the ordinary meaning of the language they used, read in the light of the circumstances existing at the time the contract was made. In the first extract I quoted from Mr Taylor's letter he seemed to share Mr Palmer's view, but only in relation to "installation contingencies", whereas the latter, although he used the same term, obviously regarded it as a provision covering everything necessary to complete the contract. Mr Palmer explained that he did not reply to that letter and allowed Mainline to accept the quotation. He thought the the later paragraph I quoted above was merely a reference to cost increases due to factors beyond Gilbert Lodge's control, about which his client would have been quite prepared to negotiate and accept liability if established.

I am satisfied that there was no other term agreed and nothing in the conduct of either party, to warrant a departure from the plain meaning of the words used in the quotation; or to warrant a conclusion that one might be bound by representing a different meaning to the other, thereby inducing it to enter into the contract. Mr Palmer was justified in taking Mr Taylor's later paragraph as a reference only to factors beyond Gilbert Lodge's control, consistent with the tenor of the printed Clause 9. Mr Taylor must have understood that the total of $5,000 was regarded by Mainline

as an upper limit and the letters were written against that background. Accordingly I reject the view now advanced by Gilbert Lodge that the quotation of $2,500 installation contingency for each unit was merely an estimate. There was no evidence requiring application of the matters mentioned in Clause 9 to the disputed items.

On the other hand, the contingency provision was not a blank cheque covering every deficiency in the plant or every failure by the Plaintiff to comply with the contract. It is an "installation contingency" and must therefore be limited to the supply of "unspecified hardware and/or services as required" for the proper installation of the components to form a complete system for handing over as a going concern to dispense C.N.G. Mainline was under no further liability in respect of such items, which had to be provided at Gilbert Lodge's cost. The fact that the latter was prepared to refund or credit any unexpended balance of the $5,000 makes no difference to the legal situation under their contract.

It is now appropriate to look at what happened on installation and commissioning and the claims arising therefrom, in the light of this interpretation of the parties' rights and obligations. With hindsight, most of the problems can be attributed to Gilbert Lodge's lack of experience in this field. There were delays in completion. The opening was originally scheduled for the beginning of September but was eventually fixed for the 30th of that month, accompanied by appropriate ceremonies. Installation was completed only a day or so beforehand, following strong criticism about the workmanship on the Ford motors. On starting up the compressors, two serious problems became apparent - the first with the transmission between them and the motors, and the second was overheating of the air cooled exhaust systems on the latter.

Gilbert Lodge accepted responsibility for the first and made no claim for the $6,000 it spent on a fluid

drive system to overcome it. However, it refused to treat as within the contingency provisions the marine water-cooled manifolds needed to remedy the overheating problem. The cost of these is included in its claim for $10,116.76. I am satisfied that the provision of these marine manifolds came fairly within the installation contingency in the quotation. The evidence from the Auckland Gas Company inspector established that the plant could not be lawfully used because of the danger of gas ignition from the red-hot manifolds supplied with the air-cooling system. Common sense also suggests that plant in such a condition would have been quite unsuitable.

Gilbert Lodge also claimed $2,288.50 under this heading for installation of a Methanol injection system. This was not included in the quotation and although Mr Martin accepted it as a contingency, the need for this unit could not be determined until the plant was operating and the moisture content of the gas had been established. Therefore this does not seem to be an item associated with installation to bring it within the contingency provisions of the quotation. However, Mr Marlow gave evidence that during their discussions after the first quotation was received, Mr Taylor pointed out that methanol injection would be necessary. They agreed to treat it as an extra to the contract with the cost to be shared equally and there is a note by Mr Taylor at the end of the quotation of 5th June 1981 - "Methanol injection system - half share". I accept this as confirmation of Mr Marlow's evidence and Mainline is prepared to concede its half share of $1,144.25.

I find all the other items in Gilbert Lodge's claim, as set out in Mr Parmenter's opening submission, come within the installation contingency provision and are not recoverable against Mainline. It therefore succeeds to the extent only of the admitted sum of $1,144.25.

Mainline's Claims.

In its amended statement of set-off and counterclaim, Mainline makes a number of claims, based on express or implied terms in the contract summarised as follows:-

(a) An express term that Gilbert Lodge would provide it with a complete system for the storage and sale of C.N.G., which would be fully operational when it was taken over;

(b) An express or implied term that the system would be suitable for the purposes required by Mainline and that it would be mechanically sound;

(c) An express or implied term that Gilbert Lodge would carry out the installation in a proper and workmanline manner.

Gilbert Lodge denies (a), but in view of the concessions made by Mr Martin and the whole tenor of the evidence on this point, I am satisfied that it did undertake to provide a "Turnkey" operation as an obligation under its contract, admitted to be partly written and partly oral, and that this encompassed the matters set out in (a).

The Plaintiff also denies (b) and says that the only relevant terms applicable were its guarantee of the workmanship and material of the compressors for six months continuous use in accordance with the maker's standard warranty, and the application by it of the supplier's guarantee to the other items. This accords with the terms of the "Performance Guarantee" set out on p. 3 of the quotation, and would appear to override the standard guarantee in Clause 7 of the printed conditions. Clause 12 thereof deals with the exclusion of warranties and liability and reads:-

> 12. EXCLUSION OF WARRANTIES AND LIABILITY: Neither the Seller nor the Manufacturer warrants that the goods are suitable or fit for any purpose or that they will produce any result unless a particular purpose or result is expressly stated in the

> quotation. Any warranty or condition as to suitability, fitness or result implied by law (statute or otherwise) is expressly negatived and excluded. The buyer indemnifies and agrees to hold harmless both the Seller and the Manufacturer against all claims and liability of every kind arising from loss or damage allegedly caused by the unsuitability or unfitness of the goods for a particular purpose or their failure to produce a particular result."

This clause was not pleaded specifically, and Counsel made no submissions upon it.

It is true that the quotation itself contains no specific description of the purpose or result to be attained by the equipment being installed by the Plaintiff, but the evidence satisfies me there was an oral agreement to that effect, and the appendices also make it clear that the whole exercise was undertaken to produce a commercially functioning C.N.G. dispensing unit. All this amounts to an express statement of that particular purpose or result in terms of the proviso towards the beginning of Clause 12.

Although it is not as clearly expressed as one might wish, I think the clause, read as a whole, means that if a purpose or result is expressed, then there is room for an express or implied warranty of suitability or fitness for that purpose. Gilbert Lodge assumed the role of technical advisors without any reservations and undertook the design and layout, and it knew Mainline was relying on its skill and judgment to produce a plant suitable for normal commercial operation. In these circumstances it is appropriate to imply a warranty of suitability for that purpose in order to give their contract commercial efficacy and I find accordingly. However, I think there was no general warranty of mechanical soundness as further alleged, and on this aspect the specific provisions of the performance guarantees would prevail over any implied terms of suitability or fitness.

The Plaintiff admits paragraph (c) - that the

installation would be carried out in a proper and workmanlike manner.

The claims are itemised as follows:-

1. $7469.60 for the cost of installing an efficient cooling system.

I have referred to the problems with the air-cooled motors and the need to instal marine manifolds, which required a constant flow of water while the compressors were working. This was originally provided by means of a hose, using large quantities of water which ran to waste and needing constant vigilance by the staff in turning taps on and off to correspond with the motors starting and stopping. Indeed, on two occasions employees overlooked this and the manifolds melted. Obviously a proper water-cooling system was essential and Gilbert Lodge offered to instal it, but at Mainline's expense. The latter refused to accept it on these terms and arranged to instal the system itself, the Plaintiff conceding that it cost the $7,469.60 claimed.

From the account given by Mainline's witnesses, the hose was obviously a makeshift device and once the need for the marine manifolds was established, a proper water-cooling system had to follow as part of the fully operational plant which Gilbert Lodge undertook to supply. There are obvious similarities between this omission and the inadequate transmission system, for which it accepted responsibility without question. I am satisfied that in this respect the Plaintiff was in breach of the express term of the contract set out under (a) above, and is liable for the cost of providing the equipment needed to remedy it. Indeed, the water tower could also be regarded as covered by the sum provided for installation contingency, as a logical extension of the manifolds which had to be supplied under that heading. Accordingly Mainline succeeds on its claim for $7,469.60 for installation of a proper cooling system.

2. Additional Manifolds - $801.52 (included in Mechanical claim).

These were replacements for the manifolds which became overheated and melted on the two occasions when Mainline's staff forgot to turn on the taps to run the water through the hose when the motor started. Gilbert Lodge refused to pay, and blamed the staff, but that is no answer. It left Mainline coping with a makeshift system subject to the ordinary human failings to be expected in this situation. Indeed, when I heard of what was required of the staff, I am surprised that only two manifolds were damaged in this way. In the circumstances Gilbert Lodge must accept this risk and be responsible for these failures, pending the installation of the cooling system to bring the plant into a fully operational state. It is liable for the $801.52 claimed.

3. Transmission Expenses - $443.93 (included in Mechanical claim).

This claim arises out of Mainline's eleventh-hour efforts to remedy the transmission problems found on commissioning the plant shortly before it was due to be officially opened. Mr Marlow described the situation and what his people attempted before Gilbert Lodge came up with the proposal to fit fluid drives. Mainline made efforts to obtain and adapt a hay-baler drive shaft and clutch, paying $36.43 for a clutch centre and $257.50 to adapt a drive shaft, and accounts were produced for these items. He said that subsequently it paid a cheque for $150 to Thompson Performance to shorten the drive shaft in order to fit the fluid drives. Gilbert Lodge maintained that this expenditure was incurred without reference and there was no need for it. I accept Mr Marlow's evidence that these steps were taken by his company with the knowledge and approval of personnel from the Plaintiff, who were present at a time when all were co-operating to seek an urgent solution of the problem. Mainline is entitled to recover this sum of $443.93.

4. Soundproofing costs - $8,739.50.

Mainline claims this as the cost of the work necessary to enclose the compressors in order to bring the noise levels down to the requirements of the Otahuhu Borough Council when granting planning permission for this plant. Mr Marlow gave detailed evidence about this and was supported by Mr Morgan, the Council's Health Inspector. He said that Mr Taylor was made aware of the Council's likely requirements and knew the contents of the Town Planning report and suggested conditions. The latter proposed an inspection of the other installation made by Gilbert Lodge, which they duly carried out on 5th June 1981 accompanied by the Health Inspector. Mr Taylor assured them that they could expect the noise level from Mainline's plant to be very similar, and that it would be no problem.

The Health Inspector did not express any dissatisfaction with the noise levels found on this visit, and Mainline proceeded to build a partially walled enclosure for the compressors and Cascades in accordance with Mr Taylor's design and layout. However, once the plant started to operate, it became obvious that the noise level was very much more than the Council had approved, and it ordered the company to rectify the matter immediately. Mr Marlow said that Gilbert Lodge disclaimed any responsibility and Mainline engaged a consultant and eventually had to enclose the area around the compressors and fit special soundproofing materials. This meant moving the storage Cascades. They could not remain next to the motors in a completely enclosed area because of the risk of explosion from any build-up of escaping gas.

The amount of these alterations is admitted, although Gilbert Lodge disputes liability. I accept Mr Marlow's evidence, and it is clear that the Council was treating this problem very seriously. If nothing had been done the inevitable result would have been the closure of the

plant. With such a defect it could not be regarded as meeting the Plaintiff's obligation to supply a system that would be fully operational at the time the Defendant took it over, and it is therefore in breach of term (a) mentioned above; nor could it be regarded as suitable for the purpose required, in breach of (b). The work done by Mainline was necessary to remedy this breach and it is entitled to the sum of $8,739.50 as claimed.

5. Repairs to motors $3,864.79 (included in Mechanical claim.).

Mainline was disappointed with the performance of the two Ford Falcon motors which were to be run on C.N.G. provided from the system. Evidence was given by Mr Franks, the Industrial Products Sales Manager of the Ford Motor Company at Wiri. He made it clear that they were running at close to their maximum rating in driving these compressors. He would have suggested a rather larger motor, but said that considerations of finance could justify the choice for short-term advantages. His evidence satisfied me that Gilbert Lodge cannot be criticised for their selection, and that their performance was within expected limits. I have referred to complaints made about workmanship at the time of their installation, and I presume those defects were remedied by the suppliers at that stage. There is an item of $69.75 from Checkpoint Engineering for hand throttles which had to be fitted after the governors failed. This can be properly charged to Gilbert Lodge. The remainder of this claim must be regarded as the consequences of normal wear and tear for which it cannot be liable. In any event, the limited guarantee provisions for these motors (to which I have already referred) may well have applied.

6. Work done on No. 2 compressor - $4,931.46 (included in Mechanical claim.).

Following problems with gas loss, to which I refer in detail later, No. 1 compressor was stripped and inspected in November

1982 by Mr Hediger, a representative from the Burckhardt Engineering Works Limited in Swizterland. He found a leaking safety valve, the seat of which had been damaged by dirt. Further inspection revealed wear on all piston rings, scoring of the first stage cylinder and piston, and pitting marks on the top of the second stage piston. The reason given for the first stage damage was dirt, which also had a bad effect on the piston rings, enabling gas to escape via the crank-case into atmosphere. He replaced the damaged components, re-assembled the machine into virtually new condition and found the gas loss had been greatly reduced to an acceptable level.

He then turned his attention to the No. 2 compressor. Not having time to do a complete check, he inspected the pistons and found deposits of impurities and a small brass nut. He found scoring on the upper edge of the first stage piston. He recommended to Mainline that this unit be attended to as quickly as possible. Gilbert Lodge stood the cost of the work done on No. 1 compressor but refused to pay for No. 2, offering to do it at Mainline's expense at an estimated $2,300. In cross-examination Mr Marlow doubted whether any company could have given an accurate estimate without a complete inspection, and the job was eventually done on its behalf by Pressure Control Engineering Limited in February 1983 for $4,931.46.

Evidence about this was given by its principal, Mr Fulton, who was familiar with the compressor. They found wear and damage to the stage valves, and parts of the second one had dropped into the cylinder and were embedded in the top of the piston. This would result in gas escaping from the safety valve at the next stage and eventually damage the bore. At the time of the inspections and overhaul in November and February respectively, No. 1 compressor had done just over 2,100 hours and No. 2 had done 3,100 hours. Mr Fulton pointed to the manual which stipulated valve inspection after 6,000 hours only, enabling the inference to be drawn

that some extraneous factor must have been present to account for all this damage after such a relatively short time. He also found excessive wear in the final stage cylinder which was replaced; this would allow gas to leak into atmosphere through the crank case. The rings on all four pistons were also replaced.

Both Mr Fulton and Mr Hediger gave their views on the possible causes of the wear found in the compressors and of the resultant loss of gas. They were asked for their opinion on the stage in normal running at which such a thorough-going overhaul could be expected. The former thought that on the machine serviced by Mr Hediger it would be around the 6,000 hour mark, and somewhere between the 6,000 and 12,000 hour mark for the machine his company serviced. It is difficult to see much difference between the attention given to each unit on the detailed evidence and reports of these witnesses. I am satisfied that a thorough check was made of each compressor and they were restored to near-new condition.

Mr Fulton pointed out that the manual suggested various stages for servicing, including replacement of valves and springs after 6,000 hours, but he had encountered similar valve problems in compressors which had run for much shorter times. In his view a forced-feed lubrication system was necessary with Maui gas. Mr Hediger made no such comment and I gained the impression that he was being unduly defensive in his assertions that such wear and tear could be expected from normal running. In reply to a question from me, he said this took into account the presence of the dirt found in the compressors. He also mentioned high ambient temperatures in the enclosure, which would have affected lubrication efficiency. However, I accept Mainline's evidence that since this work was done, the compressors have been running with virtually no problems for well over the number of hours they had reached when overhauled.This accords with the statement in

the manual that they run trouble free for many years if attended regularly and well. I also note that it recommends "a total revision" only after 12,000 running hours.

I therefore infer that the dirt introduced into the system from the supply lines accelerated to an appreciable extent the normal wear and tear that could be expected in these compressors. It is unlikely that this could have been introduced from outside the system and the probable cause, on Mr Fulton's evidence (which I accept on this matter), was from the intake piping. As the manual indicated, it was essential that this be "pickled" in a special solution to remove scale and other impurities collected during the welding and fitting processes, but this was not done by the contractors employed by Gilbert Lodge. There was a suggestion that the dirt (and possibly the brass nut found inside one of the cylinders) could have been introduced as a result of the fitting of the recovery vessels some months afterwards, between the Gas Company intake and the compressors. However, adequate filters were installed below them which would have been effective to prevent this.

I therefore find a breach of the admitted obligation to carry out the pipework installation in a proper and workmanlike manner, and the Plaintiff must be responsible for Mainline's need to spend this money in repairs and overhauling the No. 2 compressor well before its time. Having regard to the problems that were encountered, I am also satisfied that considerably more than even a normal 6,000 hour service to the valves and springs was involved, to restore it to proper working order. Obviously Mainline cannot expect to recover for the proportion of the wear and tear which could be regarded as normal at that stage, and the assessment of a proper allowance can only be an estimate. Taking into account Mr Fulton's views about lubrication problems with Maui gas, and of the fact that Gilbert Lodge met the full costs of work on the No. 1 compressor, I make Mainline an allowance of $3,500 towards the cost of the work done by Pressure Control

Engineering Limited, whose charge I accept as reasonable.

Associated with this item is an account of $420 from Gilbert Lodge for work done on 15th July 1982 on servicing and replacing valves on the No. 1 compressor. This has not been paid. Mr Marlow described a rise in pressure for one of the stages but was assured by Mr Crook of Gilbert Lodge that there was no problem. Two days later the safety valve blew and the account shows that No. 3 and 4 stage valves were removed for inspection and replaced, and No. 4 valve was removed and a new one fitted. He complained that this was the same compressor serviced by Mr Hediger in November, and he found a leaking safety valve at the third stage and replaced it. Mr Marlow seemed to be under the impression that this work had been done just before Mr Hediger's visit, but in fact it took place some months previously. In the absence of more detailed explanation (which perhaps could only be given by Mr Crook or the people who did the work) I cannot find any basis for concluding that the earlier job was not properly done, or that the fault then repaired was due to anything for which the Plaintiff is responsible. I therefore deduct this item of $420 from the $3,500 allowed to Mainline, reducing the amount to which they are entitled from Gilbert Lodge under this heading to $3,080.

7. Gas Services Ltd. - $61.56 (included in Mechanical claim).

This relates to the exchange of a valve in the compressor inlet on 31st May 1982. I cannot find anything in the evidence explaining why it was needed, and I am not prepared to hold this against Gilbert Lodge unless Counsel can refer me to any material pointing to its responsibility.

8. A. & T. Burt Ltd. - $218.54 (included in Mechanical claim).

The invoice dated 26th March 1982 is for installing a flow switch into a pipe, and I repeat the comments under 7.

9. Loss of gas - $38,454.11.

In paragraph 5(e) of the amended counterclaim, Mainline alleged that Gilbert Lodge was in breach of the express or implied terms previously pleaded (but without indicating which one), by failing to provide a system which enabled the retention and use of all the natural gas which was introduced into it. It was common ground that there would have been no gas loss with the five-stage compressor originally proposed because of its low intake pressure. I accept Mr Marlow's evidence about Mr Taylor's assurances that there would be no loss in the plant. When the change to the four-stage unit occurred, Mainline was not told of any gas recovery problems or that leaking or blown-down gas would be simply vented to atmosphere. Its principals found out about the latter very quickly because every time the compressor stopped, the noise of the excess gas escaping was obvious.

Mr Marlow said they spoke to Gilbert Lodge about this but did not appreciate the extent of the losses at that early stage. On becoming aware of the discrepancy between the records of supply and sale of gas, their first reaction was to suspect the Gas Company's intake meter. Extensive checks demonstrated its accuracy, and Mr Clarkson described the steps then taken to trace the source of the leakage. At one stage they approached an independent gas engineer but decided his fees would be more than the company could immediately afford. It was resolved that Mr Clarkson should work on a part-time basis to carry out these investigations and he said he spent an average of 25 hours a week for a total of 1,950 hours between January 1982 and June 1983.

Mr Clarkson confirmed that Gilbert Lodge was consulted about the noise made by the vented gas. Mr Martin of that firm thought this was early in 1982 and as a result he said they recommended the installation of blow-down recovery vessels, which were not fitted by Mainline until September of that year. The Defendant was criticised for the delay.

However, the correspondence suggests Mr Martin was mistaken in his date. A letter from Gilbert Lodge (exhibit D) of 12th August 1982, enclosing a summary of accounts, refers to a meeting on the third of that month and dealt at length with the problem of blown-down gas. This confirms Mr Marlow's evidence to the same effect. It also mentioned a previous unsuccessful attempt to remedy the problem by re-routing the gas line, demonstrating that Mainline did indeed complain at an early stage, as its witnesses said; but it is also evident from this letter that the recovery vessels were not recommended until early August, after Gilbert Lodge had taken advice from its Swiss principals. It maintained that these items should be installed at Mainline's expense, but this proposition was rejected in a letter from that company of 17th August, and it threatened to have the work done by others at Gilbert Lodge's cost, failing a commitment from the latter by return mail to remedy the problem. Accordingly I consider that Mainline cannot be blamed for any failure to instal these vessels sooner than September, especially as Gilbert Lodge did not realise they were needed earlier, and had tried to overcome the problem by other means.

Their installation enabled gas to be led back from a relief valve on the compressor to the intake system and the loss was reduced by about half. However, there was still a serious leakage disclosed by the metering checks, and this was also confirmed by Mr Djistelbergen, a gas expert from the Ministry of Energy who had been called upon to help. It was attributed to the crank case. Gas from this source was still being vented to atmosphere even after installation of the recovery vessels, and contrary to Mainline's expectations that there would be no such loss. Gilbert Lodge was told about this in a letter from Wilson Henry & Co. of 7th October 1982 when the leakage was said to be a minimum of 17 cubic metres per hour and to have been confirmed by Mr Crook. After pointing out that gas from this source could not be led back to the intake pipe owing to the difference in pressures, they said the manual supplied to Mainline illustrated such a

lead-back, and sought urgent action to minimise the loss. Gilbert Lodge's attitude at the trial seemed to be that the company was using the wrong manual, but I am satisfied that when it was finally received from the Plaintiff - some 9 months after installation - it was indeed the one supplied for these compressors.

The upshot was the visit by Mr Hediger in November 1982 and I have detailed the action he took and the work done by him on No. 1 compressor, followed by similar work on the No. 2 compressor by Pressure Control Engineering Ltd. in February 1983. It led to another substantial decrease in gas leakage, stabilised at about four cubic meters per hour, representing the unavoidable loss through the crank case of the four-stage unit, and is within acceptable limits. The claim of $38,454.11 is the result of calculations made by Mr Clarkson covering the period commencing November 1981 to 11th october 1984. From 30th April 1983 detailed metered readings were dropped and the loss assessed at four cubic meters per engine hour for the succeeding months. Although I am satisfied that Mr Taylor originally represented that there would be no gas loss with the plant, there is no allegation of any express warranty to this effect, nor any claim based on misrepresentation. In view of the provisions of Clause 10 of the printed conditions of sale, I doubt whether such a claim could be sustained.

I have already rejected criticism levelled against Mainline for the delay in the installation of the blow-down recovery vessels. There was extensive cross-examination about the adequacy of routine lubrication and oil checks, carrying the suggestion that the undue wear on the piston rings would have been reflected in excess oil consumption, a fact which should have been apparent on competent servicing. This would have alerted Mainline to the problem at a much earlier date, leading to timely repairs and preventing much of the gas loss through the crank case from this source. The results of the cross-examination were

inconclusive. Mr Marlow was responsible for this work and gave evidence that he attended to the compressors regularly and referred to his log book. In the absence of any information about how much oil consumption to expect, he could not form any conclusion about whether it was excessive, and certainly did not notice any variations of significance over the period until the respective overhauls. I am not prepared to hold that Mainline contributed to this loss of gas through failure to observe any symptoms indicating the deterioration of these units.

I also find it difficult to blame Mainline for seeking to discover the cause of these losses through Mr Clarkson's amateur efforts. The Directors received little encouragement from the independent gas engineer they consulted with a view to engaging his services, being left with the impression that it could be a very expensive exercise, with no guarantee the trouble could be traced. They certainly made their concern very clear to Gilbert Lodge, and that company appeared to be quite incapable of discovering what was wrong, in spite of Mr Hediger's confident assertion that anybody with Burckhardt training would have known to make the same kind of examination as he did, leading to diagnosis of the causes within two or three days. Mainline also sought advice from the Ministry's gas expert, Dr Djistelbergen, to no avail. In all the circumstances I cannot find that it failed to take reasonable steps to mitigate its loss from this source.

I accept Mr Clarkson's calculations of the leakage of excess gas, and its escape to atmosphere was of such dimensions and so costly that I can only conclude plant which allowed this to happen was not reasonably fit for the purpose it was installed. Indeed, Mr Martin frankly conceded that the blow-down recovery vessels were necessary and if Gilbert Lodge had known as much about such plants then as it knows now, they would have been installed - although, of course, at a higher contract price. Furthermore, the element of loss through the crank case due to the premature wearing of

the piston rings is the direct consequence of the faulty workmanship with the pipes, whereby impurities entered the cylinders and caused this trouble.

It is possible that the last sentence of Clause 12 of the printed conditions applies to exclude liability on Gilbert Lodge for this item as consequential loss. I refer to this again later. On the assumption that it is liable for breach of implied terms (b) or (c) above, there will need to be a re-calculation of Mr Clarkson's figures. First, the unavoidable leakage through the crank case will have to be deducted, and I fix this at four cubic metres per hour. Secondly there will have to be an allowance for gas lost through the safety valves venting to atmosphere. On my understanding of the evidence, gas from this source was not expected to be led back to the blow-down recovery vessels, and some of it was due to the failure of intermediate stage valves. It is impossible to know how long this state existed, or whether it was due to the impurities getting into them from the pipes, or whether they were simply break-downs that can occur in any mechanical plant. On the other hand, dirt was responsible for the leaking safety valve discovered by Mr Hediger, but it is again impossible to judge how long it had been in that condition, or how much gas had been lost. My impression of the evidence suggests that leaking through the safety valves was probably only a small proportion of the total volume of gas lost over this period. I think it appropriate to make an allowance of ten percent from the figure arrived at after deducting the four cubic metres per hour, to cover any losses for which Gilbert Lodge cannot be held responsible. If it is necessary to make these calculations I imagine Counsel can agree on the result; otherwise the matter can be referred back to me.

10. Cost of monitoring for gas loss - $58,500.

This represents Mr Clarkson's costs to the company calculated at $30 per hour for the 1,950 hours he said he was engaged

part-time in trying to locate and measure the gas losses. I accept that the company is entitled to claim something for the extra time involved by its Directors and staff in coping with this problem, but this figure is beyond all reason. Earlier in this judgment I said that Mainline was not to be criticised for failing to engage the services of the independent gas engineer it consulted, and endeavouring to discover the cause of the leakage through its own resources. It was misled at the start by Mr Taylor's assurances that there would be no gas loss from the plant, and accordingly concentrated its early efforts on checking the Gas Company's meter.

When this was found to be a false trail, and Gilbert Lodge seemed unwilling or unable to cope with the problem, recourse should ideally have been made to the outside expert. He was not engaged because the company feared his fees would be very much more than it could sensibly afford at that stage, and both Directors gave evidence of its liquidity problems and the need to go into very substantial overdraft with an understanding bank. The wish to conduct their own investigations at no immediate extra cost to the company was understandable. Not-withstanding his pessimistic advice, I am satisfied that a competent gas engineer would have adopted the kind of approach that Mr Hediger made in isolating the various avenues of escape and conducting separate measurements to pinpoint those responsible. It might have taken the engineer rather longer, as he would lack Mr Hediger's informed experience, but the cost would have been nothing like the amount Mainline is now claiming.

I suspect there is no real intention of this sum being paid to Mr Clarkson if it is not recovered from Gilbert Lodge, but in any event that company's liability to pay damages must be limited to what can be regarded as the reasonable cost of locating the causes and measuring the gas losses. Mr Clarkson gave evidence that consultants with whom he discussed this problem mentioned a charge-out rate of $70

per hour, and allowing an engineer a week of 40 hours to track down the problems, this yields a figure of $2,800. In addition is the time spent metering the plant and this would require fairly continuous attendance over the period, although not for very long each day when averaged out. Something in the vicinity of another $5,000 might be an appropriate allowance for this work. I propose fixing a figure of $7,500 for Mr Clarkson's services overall. This is also subject to my later comments about consequential loss.

11. Installation of blow-down recovery vessels - $3,200.

It will now be clear from my comments under the heading of Gas Losses that these items were necessary for the proper commercial operation of the plant and without them there was an unacceptable loss of gas to atmosphere each time the compressors stopped. Accordingly it was not reasonably suitable for the purposes required by the Defendant, and Gilbert Lodge was in breach of the warranty to this effect, which I have found existed. The Plaintiff accepts that the $3,200 was the proper cost of installation, and it is liable for this amount on the counter-claim.

12. Interest charges incurred on monies borrowed to carry out mechanical and other repairs - $11,137.

Mr Clarkson produced very detailed calculations compounding interest at fifteen percent from the date the various sums were paid by Mainline for the items claimed. For the reasons discussed in Item 13, I allow interest under the Judicature Act at eleven percent in respect of the items for which I have found Gilbert Lodge responsible, from the date of actual payment down to the date of this judgment.

13. Additional interest charges - $13,764.38.

This was a similar calculation of interest in respect of

monies borrowed from the bank on overdraft to pay the cost and sales tax on gas lost through leakage to atmosphere. This claim is also subject to the qualification about consequential losses that I make later, but if it is not excluded by Clause 12, I think it is well founded in principle. Mainline had to pay this money to the Gas Company and, as a result of my earlier finding, it could be entitled to recover that lost expenditure as an item of damage. However I am not disposed to accept the full bank rates charged as proper damages against Gilbert Lodge. I doubt whether this particular need for overdraft accommodation was within the contemplation of the parties, or that all of it incurred for this purpose was the direct consequence of the breach of warranty. My impression is that the two principals chose to set up Mainline with the bare minimum of capital and this contributed substantially to many of its liquidity problems. Mr Clarkson said the Directors had access to other assets which they could have used to help the company if necessary. I think it more appropriate to exercise my discretion to award interest under the Judicature Act; accordingly Mainline would be entitled to simple interest at eleven percent, calculated on the monthly loss of excess gas for which I have found Gilbert Lodge responsible, from the date of payment of each month's gas account down to the date of this judgment. Again I imagine the parties will be able to agree on an amount but the matter may be referred to me should there be any problem.

Possible exclusion of consequential loss.

As I have already indicated, the amounts claimed under items 9, 10 and 13 above may be affected by the closing sentence of Clause 12 of the printed conditions, but neither Counsel made submissions on the point. There is a large amount involved and I do not want to make a final decision without the benefit of Counsel's assistance. I therefore propose reserving these aspects of the counter-claim for further submissions, and Counsel may also wish to draw my attention then to any matter affecting items 7 and 8.

Accordingly, this will be an interim judgment in which I find for the Plaintiff on its claim the sum of $1,144.25. On the set-off and counter-claim I find for the Defendant as follows:-

Item		
1.	Cooling system	7,469.60
2.	Additional manifolds	801.52
3.	Transmission expenses	443.93
4.	Sound proofing costs	8,739.50
5.	Repairs to motors	69.75
6.	Work done on compressor	3,080.00
11.	Interest on expenses incurred - to be calculated	
12.	Blow-down recovery vessels	3,200.00

Costs at this stage will be reserved pending final judgment. Counsel will no doubt arrange with the Registrar for an early hearing for further submissions, which I would expect would not take very long.

M. J. Casey J.

Solicitors:

Towle & Cooper, Auckland, for Plaintiff
Wilson Henry, Auckland, for Defendant