

Sleep for Sale

Shift Work in South Africa with Specific Reference to the Tyre and Rubber Industry

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Shift work, and hours of work in general, have not been prominent items on the collective bargaining agenda of the emerging trade unions in South Africa. This lack of interest is somewhat surprising. The majority of South African workers have for a considerable time put in more than a "normal" working day because of the travelling time imposed by residential segregation. In addition, the figures presented in this article, show that a surprisingly large proportion of workers in South Africa are in fact working shifts.

One explanation for the apparent indifference to long hours of work lies in the structure of the South African economy which is characterised by under-represented and unskilled workers in a low wage economy with high unemployment. Workers' priorities in such a situation have been the recognition of their trade unions, the improvement of wages and the security of their jobs.

The long silence on hours of work is probably also a function of the damage done to the personal and family life of black workers by influx control, deprivation of social and recreational amenities and cramped, overcrowded living conditions. These conditions were created for a black workforce whose function was to be the hewers of wood and carriers of water. Leisure time was not for them.

The development of unions in this country, however; their increased understanding of the operation of the economy and the universal political rejection of the "hewers" image, have led, amongst other things, to a wider range of demands being placed on the bargaining table. The forty hour week is one such demand. (1) While on the agenda for white workers since at least 1900 (2), it has only recently become a matter for serious negotiation. (3)

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Shift work represents another similar area of latent concern. It too has been a problem for workers for a considerable time, but until recently was not considered a priority. In February 1986 a meeting of unions organising in the tyre and rubber industry, an industry dominated by a shift work pattern, discussed the problems that workers experienced. The unions present decided to take up the issue of shift work as a matter of urgency. As a result, demands concerning shift work are now being tabled in bargaining forums around the country.

This article will look at the problems arising out of shift work in general and in the tyre and rubber industry specifically. It will conclude with the demands which the workers in the National Automobile and Allied Workers Union (NAAWU), the Metal and Allied Workers Union (MAWU) and the Chemical Workers Industrial Union (CWIU) agreed at their February meeting.

The extent and nature of shift work

Historically shifts have been worked in continuous process industries such as foundries and glass works. The technical requirements of operating a blast furnace, for example, require a continuous operation over a 24 hour period, seven days a week. Over the past 100 years, however, shift work has slowly but surely extended beyond the continuous process industries. More and more workers in the manufacturing and service industries have found themselves working shifts. A comprehensive survey on shift work done in 1975 (4) found that the proportion of workers on shift work over the whole range of industrial activities was 20% in the United Kingdom in 1964, 21,4% in France in 1963, 12% in Switzerland in 1960, 22% in the Netherlands in 1959, and in 1958, 20.4% in Norway, 17% in Sweden and 13,4% in Denmark. In the United States it was estimated in 1964-5 that 24% of workers in manufacturing industries were on shift work, while in Japan workers in 20% of all establishments were working shifts.

The extension of shift work appears to have increased dramatically over the past 15 to 20 years. In the United Kingdom, between 1968 and 1976, the percentage of manual workers on shift work increased from 19,3% to 23,2%. In West Germany, the percentage moved from 12% to 27% for all workers over the period 1970-76, while in the United States over the period 1960-75, the percentage increased from 23% to 28%. (5)

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The reasons for this extension are not hard to find. Firstly, they relate entirely to the demands of profit extraction in a situation where technology changes rapidly. As a result of technological change, machinery quickly becomes obsolete. It is therefore necessary to amortize capital expenditure as rapidly as possible. Shift work is one obvious way to do this.

Secondly, the extension of shift work seems to have coincided with the shortening of hours of work. One study, based on data from England, noted that a 6% increase in shift work took place over the same period that saw a notable shortening of the work week. (6) Shift work is thus compensation for the decrease in the hours of work which has been occurring since the turn of the century.

The reluctant acceptance of shift work by workers is another very significant reason for the extension of this pattern of working. It is no accident that the countries of the industrialised group in Europe with the highest unemployment rates (namely Britain and Belgium) also had the highest rate of shift work. (7) Structural unemployment has become a feature of the industrialised world. It can therefore be expected that workers will accept shift work employment in the absence of anything else.

Continuous process industries are also on the increase. There is a world-wide decline in the "old" industries of metals, textiles, and ship building and these are being replaced by the "newer" industries of plastics and chemicals. The latter are characterised by shift work, another reason for the increasing numbers on shift work

An important structural change in society provides a further reason for shiftwork. Urban life has increasingly moved onto a 24 hour basis. In the service sector, in particular, shifts have become common place with workers operating emergency services, shops, taxis, cinemas and electronic data processing units around the clock. Indeed in some countries, the service sector has become larger than the manufacturing sector in terms of value, output and employment. The twin forces of urbanisation and technology have ensured that the hitherto natural rhythms of human life, and the pace of industrial, commercial and agricultural activity have gradually moved out of step with each other. As a result of this divergence, the scheduling of hours of work has become one of the major problems of industrial society. (8)

shift work in South Africa

A picture of shift work in this country has proved extremely difficult to paint. No figures have been kept. The Department of Statistics has recently undertaken two unpublished surveys, one at the end of 1981, and the other at the end of 1983. These surveys were done at the request of the Federated Chamber of Industries, and the Department does not intend to do any further surveys. They appear to be the only surveys of shift work that have been done. The 1981 survey has just become available and, despite the difficulties in interpreting the figures, makes for interesting reading.

The survey covered a total workforce in manufacturing of 701,799 in 8,706 establishments throughout South Africa. The information presented does not allow for an accurate breakdown of the number of workers working on shift. It is, however, possible to give an indication of the extent of shift work based on the number of hours worked in the industries covered.

A total number of 31,104,046 hours were worked in the factories covered by the survey. Of these 6,775,101 or 21,8% were worked on shift. Of those hours worked on shift, 57% were worked by workers on a two shift system, while 43% were worked by those workers working a three shift system. 23% of the establishments surveyed were working on shift.

On the basis of these figures, South Africa, with its much smaller economy, would be well within the league of the industrial countries surveyed above. In fact, if the mining industry were taken into account, the proportion of workers on shift would probably be higher in this country than in the majority of highly industrialised countries. If shift work is so prevalent in South Africa, it makes one wonder why information on it is so hard to come by.

As previously noted, these figures are the only published figures available on shift work. They are patently inadequate. They do not satisfactorily reveal the situation in the plants where shift work is being worked. There is no indication of the daily or weekly hours worked. Information on the question of when meal breaks occur on shifts is also lacking. There is also no consideration of the problems of work related time, a crucial issue in this country, nor of the breakdown between "unsocial" hours and "unhealthy" hours. No account is given of the gender or age distribution of shift workers, nor of the length of time that a worker has worked

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on shifts. In short, the information that is currently available is of no assistance in either highlighting or combating the extensive social or the health and safety problems that face a percentage of workers in South Africa.

Such a gap in information can only benefit employers who wish to exploit the use of shift work. It is therefore one of organised labours' priorities to investigate the issue of shift work in this country so as to address the problems that shift work creates. Hopefully this article, by looking in some (and not yet sufficient) depth at the tyre and rubber industry, will contribute towards exposing the use of shiftwork in South African industry.

Let us now move on to detail the health and safety problems arising out of working shifts. An account of the social problems arising out of shift work will also be given.

The health problems related to shift work (11)

The noticeable increase in shift work over the past 15 years gave rise to a great deal of research into the health problems related to shift work. Most of the initial studies were done in Europe and the United States during the 1970s. They were concerned mainly with the immediate and observable problems arising out of shift work such as fatigue and accidents at work. A second generation of research, based on the first, has started to explore the long term effects of shift work arising mainly as a result of the inversion of the normal cycle of the body.

Where possible in this section, insights based on South African experience will be given. It is unfortunate that such information will be limited. Despite an exhaustive search for information, it appears that the sum total of research into this major problem consists of one research paper done by second year sociology students at the University of the Witwatersrand, one project done by fourth year students in the Department of Community Health at the University of the Witwatersrand, an article by an academic lawyer and a pamphlet on the health and social effects of shift work published by the Health Information Centre. The authors of the publications are to be commended on their pioneering work. Their work aside (12), this paucity of information is truly a major indictment on the concerns of the universities and health care institutions in this country. It is not the first time that a practising trade unionist has had to comment on the state of research into

health and safety in South Africa. (13) It is shocking to see that 10 years later, the same charge can still be levelled.

This point can be left for the moment with the observation that the research noted above tends to support the findings of similar work in other countries. There is, however, an urgent need for South African based research in this area. This is particularly so because some patterns of life such as eating and sleeping are culturally and historically determined. What is true of the workforce in Europe, America and Australia (where most of the research has been done) need not necessarily hold for South Africa.

Shift work results in the increasing divorce of the circadian rhythm (rhythm which makes the body work smoothly) from the pattern of work. The body's phases of high and low activity (eating, sleeping and working) are disrupted. This seems to both cause, and make worse, the other effects of shiftworking described below. In this context it is important to make the distinction between "un-social" and "unhealthy" hours of work. "Unsocial" hours could refer to those hours where the majority of people are engaged in social and leisure activity. An example here would be day work over a weekend. "Unhealthy" hours, those worked at night, in the late evening or in the very early morning, would in addition to having social consequences, also create conditions which are deleterious to a worker's health. On a continuous shift work system, it has been calculated that workers would spend 21,7% of their working lives in a situation which has serious consequences for their health. (14) Recent Australian and American research has discounted earlier proposals that the body may adapt to an alternative cycle if long periods of shift work are worked. (15) It is thus clear that this disruption of the circadian cycle has deleterious long term effects on the human body.

While shift workers may appear to have the same amount of non-working time, it is clear that they sleep less, and that the sleep that they do get is of poorer quality. This is especially true for those workers on night shift. In the South African context, one study found that 64% of the sample of women office cleaners working at night got less than 4 hours sleep. (16) This problem would be compounded by the transport problems imposed by the enforced residential segregation in this country. (17) Facilities for sleeping during the day, while most others are engaged in social activity of one kind or another, are limited. This contributes to fatigue, poor digestion and irritability.

Fatigue is one of the reasons for the higher accident rate and poorer productivity of shiftworkers. There are more accidents at night, and they are usually more severe. In addition, health hazards such as noise and toxic substances may affect shift workers more seriously. Their resistance to these hazards is lowered as a result of the physical and psychological stress engendered by shift work. As a result of the lower resistance, the body is not able to withstand the determined maximum levels of toxic substances permitted in individual plants (the so-called Threshold Limit Values - TLVs). These TLVs would have been based on the tolerances of a person working under normal conditions.

There is a direct relationship between working shift and certain physical ailments. Shift working causes, or makes worse, gastric and duodenal ulcers, constipation and other gastro-entestinal illness. It is also conducive to obesity. As a result of more stress and strain on shift work, there is greater likelihood of heart disease. Eye irritation would also seem to be a characteristic complaint of shift workers. (18)

A worker's psychological condition and social behaviour is also affected by shiftwork. Shiftworking causes "nightworkers neurosis" with symptoms of physical weakness, insomnia, aggression and depression. There is also evidence that shift workers take more drugs and medicines to cope with work, sleep and illness. Medicines may not be as effective because of disturbed biological rhythms. Consequently more drugs are taken to compensate for their lack of effect. Shift workers tend to smoke and drink more than day shift workers, especially during hours off work, such as the weekend.

Finally, shift work seems to cause higher sickness absenteeism, especially amongst rotating shift workers. This problem seems to become more severe as shift workers get older. Shift work is obviously more physically demanding on older workers. In fact, shift work seems to induce the physical attributes of aging more rapidly.

Social problems arising from shift work

It is not difficult to understand that workers on shift work would encounter problems in their daily relationships with others. Their entire life cycle runs counter to socially accepted norms. (19) A categorization of these problems, however, reveals the extent of the strains placed upon individuals and their families and makes it quite clear why the overwhelming opinion of the union movement

is that shift work should be opposed in principle. (20)

The working of shifts disrupts the routine of family life. No longer can the shift worker participate in the main meal of the family on either a daily (eg. supper) or weekly (eg. Sunday lunch) basis. The role of mate, parent and confidant and even participant in family affairs is severely curtailed. The shift worker is forced, in part, to live independently of the family and vice versa.

The already complicated role of the woman worker is additionally complexed by shift work. (21) There can be no doubt that where a woman is expected to play the role of mother and worker, she is forced to work a double shift. In many situations South African women are the main breadwinners of a family. They thus have to provide sufficient bread, and act as both parents as well. Working shifts places a third level of strain on a working mother who is the major breadwinner. Family life, already decimated in the South African context by the effects of apartheid legislation, is further eroded by shift work. (22)

The question of equality of the sexes comes up as an important issue in this context. A frequent response to the demand that women should not work nights is that such a prohibition would create an inequality between male and female workers. A reply to this charge has been developed in discussions amongst workers in South Africa. In the first place, women point to the fact that they are socially required to look after the children. Without conceding that this is their role, this fact of life in the South African context cannot be overlooked. Secondly, it is pointed out that the demand for equality of opportunity should not be confused with the demand for protection from exploitation. The former tends to be the emphasis that middle class women, looking to move up the career ladder, would make. A working class mother would generally be looking for protection against exploitation. The struggle for equality amongst the sexes cannot be furthered by removing those protections which already exist. It was thus a backward step in South Africa when, in the name of equality, the relevant legislation was amended in 1983 to allow women to work at night. (23)

The stresses created by shift work would increase whatever other social problems already exist. Overcrowded housing for example would be made worse by the demands of a shiftworker trying to sleep during the day, while the children are at play. In South Africa, the overcrowding problem is of huge proportions. (24)

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Indeed, even those workers lucky enough to be accommodated in a regulation four roomed township house would find it difficult to sleep without being disturbed by the rhythm of daily life.

Relationships outside the family are also affected. Studies have shown that most shift workers find less time to meet with friends. They also have less opportunity to make friends. These problems relate directly to the fact that shift workers have their leisure time while others are working. Concomitant problems such as excessive drinking, drug taking and generally aggressive behaviour can be the result.

Any form of organizational work is severely limited by shift work. Shift workers find it difficult to become involved in their unions. This obviously inhibits their ability to improve their working conditions, and may have contributed to the silence on the shift work issue. Workers on shift are also generally denied the opportunity to join sports or social clubs, or to become involved in community affairs. Indeed, according to the few studies done on this area of work, shiftworkers tend to become involved in "do-it-yourself" type leisure activities, which in the European context could be gardening, animal breeding or fishing. It is not clear what such activities might be in the South African context.

A worker is always educationally disadvantaged in relation to other classes in society. Workers are not permitted the time, nor do they have the money to effectively participate in schooling. (25) Shift workers are doubly disadvantaged in this area. Not only would they be too tired to make use of "normal" facilities, they are denied the ability to attend night school. A shift worker would not be able to participate in the educational progress and advancement of his/her children. Not for them are the pleasures of helping with the homework, or attending school functions, or assisting, through those inevitably heartrending parent/child discussions, the emotional development which is part of any normal child's schooling. Shift work thus reinforces the vicious cycle of under-education which is part and parcel of any workers' life.

The fatigued shift worker also has to bear the effects of a poor transport system. This, of course, is particularly marked in the South African situation where black workers are forced to spend long hours travelling on buses as a result of the group areas legislation. This legislation has forced workers to live far from their places of work, in financially starved townships which gen-

erally have bad roads. Black workers in South Africa often spend up to three hours per day in work related travelling. (26) Overcrowded buses ensure that these long periods are often spent standing rather than sitting. The average South African worker's day extends from 9 to 12 hours in this situation. The problems of fatigue are compounded by long journeys and poor transport.

Against this background of shift work, and its related health and safety, and social problems, we can now move on to consider the situation in the tyre and rubber industry in South Africa. An attempt will be made to analyse the shift work pattern in relation to the issues raised thus far.

Shifts in the tyre and rubber industry

The Department of Statistics Survey quoted previously shows that of the sixty-six establishments surveyed in the rubber products industry, twenty three were working a two shift system while in fourteen a three shift roster was being worked. (27) Twenty nine establishments were not working shifts. As previously stated, the structure of the survey makes it difficult to indicate the number of workers involved in the shift system. However, it is possible to ascertain that 56,8% of the hours worked in the industry are worked on shift. This percentage is considerably higher than the 21,8% already noted for manufacturing industry as a whole.

This global picture is expanded by the information gained from the COSATU unions involved in the February 1986 meeting. Thirteen plants were covered. The companies were either engaged in the manufacture of tyres or of industrial rubber products. The survey is totally representative of the tyre manufacturing industry and all tyre manufacturers in South Africa are included. However, only a small proportion of the factories involved in industrial rubber production were covered. Despite this, the information presented would be representative of the conditions in that section of the industry. This is due to the structure of the industry which consists of two large corporations which account for most production, and a large number of very small plants. It is doubtful whether the Government survey got to the large number of small plants involved. The two giants of the industry - General Tyres (through its subsidiary Mining Industrial Rubber) and Dunlop South Africa (which recently merged with B.T.R.) - are organised, hence allowing for the claim that the conditions represented here are representative of this sector of the industry. It is important to

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note in passing that the conditions of work in smaller plants, are likely to be even more disadvantageous than those described here.

There are four tyre manufacturers with six factories operating in South Africa. All of them operate on a three shift basis, but only one, Goodyear, does this continuously seven days a week. Goodyear operates an additional swing shift as well. The other factories work a five day week, with the last shift coming off on Saturday morning. At the time of the survey, the shift workers worked a 37,5 hour week. In the case of security guards, hours of work varied from 72 to 45 per week, even if they work on shift.

The industrial rubber companies operated a rotating two shift system. The shifts were generally 9,25 hours each, with the weekly load being 45 hours. In the case of one plant, however, an interesting (to be generous) conflation between normal hours and overtime occurs. At MIR workers worked a 46 hour week in the form of four 11,5 hour alternating shifts between Monday and Thursday. The last shift of the week comes off at 6 am on Friday morning. As the legally permitted shift is 9,25 hours, the workers should, under normal circumstances, be paid for 2,25 hours at overtime rates. (28) In this particular case, however, the 2.25 hours are paid at normal rates plus a shift allowance of 10%.

This in fact is legal. The explanation for this apparent contradiction is that while workers work an 11,5 hour day, they work a 46 hour week. They thus work the legally prescribed weekly limit. (29) Therefore, because the weekly hours worked does not exceed the limit for normal hours, the company can get away with not paying overtime rates. This despite the fact that there are clearly an additional 2,25 hours per shift (or 9 hours per week) worked beyond what should be a normal working shift.

It should be noted that the refusal to pay overtime rates until a worker has completed the full quota of hours for the week is fairly common.

Compensation for shift work

Having described the extent of shift work in the industry, we can now look at the compensation offered to South African shift workers, bearing in mind the problems raised previously in this article. In all but one of the companies (Dunlop) a shift allowance of 5% for the afternoon shift and 10% for the evening shift is paid. At

Dunlop a 5% shift allowance is paid for both the afternoon and the night shift. The only other allowance to shift workers is in the case of Dunlop where workers on shift get an extra 2 days annual leave. There are no other concessions made to shift workers in the tyre and rubber industry in South Africa.

Demands made by the unions

It would be repetitive to detail the problems arising from shift work discussed at the February meeting of unions. Suffice to say that the problems were similar to those spelt out by the trade union movement in Europe and America. Based on these discussions, the demands which are listed below were agreed as guidelines for proposals which would be submitted to the companies.

1. Hours of work

Given that the most serious problems are posed by a three shift system, it was agreed that the three shift system should be opposed in principle. The abolition of the late night shift would overcome some of the more serious health problems associated with night work, as well as alleviate some of the social problems that arise.

It was proposed that the maximum number of hours should be 37,5 per week for a five day week, with a maximum of 7,5 hours per shift. This formulation would prevent the exploitation noted in the case of MIR above.

Any overtime worked should be on a voluntary basis. This would allow workers to decide for themselves whether the monetary incentives provided by overtime were worth the sacrifices related to increased fatigue and transport difficulties, to say nothing of the worry caused to the family in the frequent event of a worker being forced to work overtime at short notice, by not knowing that the worker will be late. Such a problem exists in the South African situation where telephones in the black townships are a rarity.

2. Financial compensation

Monetary compensation should in the first place ensure that a shift worker working 37,5 hours as opposed to 40 hours (which is the current union demand for a normal work week) should get the same pay as a regular day worker. At the moment those shift workers on a 37,5 hour week get paid for 37,5 hours, thus ensuring

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that even with the shift premium, their pay is in fact lower than that of a day worker. In the current situation where day workers work a 45 hour week, the difference between their pay and that of a shift worker amounts in some instances to almost 16%. As a result it was decided to demand a 33,33% premium for afternoon shift, and a 50% premium for night shift work.

3. Health compensation

A number of proposals address themselves to the short and long term threats to the health and safety of shift workers. As shift work does impose additional risks on a worker, it was proposed that medical aid cover should be provided entirely at company expense. In addition, the company should ensure that shift workers are regularly checked by a doctor of their own choice. A shift worker should be entitled to an additional 25% sick leave to compensate for factors such as lower resistance to toxic substances.

In order to overcome the problems of fatigue and the attendant higher rate of accidents, it was proposed that the company should pay to any worker hurt while on shift an amount equal to any amount paid out in terms of the Workmans Compensation Act. The worker will thus get double compensation for any accident occurring on shift. It was also proposed that negotiations on shift rosters should take place to allow for a greater recovery time from shifts. (31) In addition shift workers should receive additional annual leave, the proposal being that on top of the current norm of 21 days p.a., shift workers should receive an extra 14 days p.a. They would thus be compensated for the additional burdens of shift work.

In response to the long term problems imposed by shift work, it is proposed that shift workers should be entitled to 1 year off the age of normal retirement for every three years worked on shift. Their pensions should thus be the same as at normal retirement age.

4. Social problems

It is a moot point as to whether there can be adequate compensation for the essentially anti-social nature of shift work. Indeed, there has been many an occasion where workers have opposed, not only shift work, but the constant attempt by industrial capitalism to change the rhythm of society to one more appropriate to the pace of the factory. The history of opposition to a change in

hours of work is a long one, and has not yet been documented in the South African context. (33) Shift work, however, is a fact of contemporary life. The unions have therefore tabled a number of demands to meet the problems arising out of the anti-social nature of shift work.

Eating facilities are generally not open during night shifts. It is therefore imperative that adequate canteen facilities are provided for workers on shift. The digestive problems peculiar to shift workers must also be taken into account, and companies demanding shift work should ensure that special dietary precautions are taken, under the supervision of a trained dietician. It also needs to be stated that adequate meal and rest breaks are provided.

Transport to and from the factory must be provided for workers on shift. The transport system generally gets workers to and from work in the normal daily work cycle. However, public transport is unavailable after working hours. Special provision must be made for shift workers. The physical dangers bred of low wages, mass unemployment and poor living conditions in South African townships makes it imperative that transport be provided.

The difficulties presented to anyone trying to fulfil a normal family life were also discussed. In order to compensate in this area, the unions have demanded that additional compassionate leave should be permitted. This will allow workers on shift to attend to domestic duties which normally would require attention during the day time hours.

Conclusion

There is an increasingly clear (even if it is as yet an instinctive) understanding of the problems of shift work amongst the union movement in South Africa. It is also becoming clearer that a large number of workers suffer under the shift system. This understanding is now being buttressed by a more scientific approach to the shift work issue. As the knowledge develops, so workers will refuse to accept shift working under the conditions that they have hitherto. Workers in the tyre and rubber industry have taken a lead. Others will follow. (34) Employers will in the future pay more dearly for a worker's sleep.

Footnotes:

1. The 40 hour demand has been most vociferously argued by the workers in the motor industry and has been one of the national demands of the National Automobile and Allied Workers Union (NAAWU) since 1983. It is not surprising that workers in this industry should put such store by a shorter workweek. Employment in the car assembly industry has been cut drastically from 50,000 workers in 1982 to approximately 30,000 in 1986. In addition the motor industry has seen robotization and other technological and line function innovations such as the "Just in Time" system. The union has argued that these increases in productivity justifies a shorter workweek. A shorter workweek would also create more jobs.

The twin problems of increasing unemployment and greater productivity with less workers as a result of technological innovation have led to the adoption of the forty hour week demand by the progressive trade union movement as a whole; H A Bienefeld, Working hours in British industry: an economic history, London: Weidenfeld and Nicholson, 1972, pp142-145 and passim.

2. The first recorded strike over shorter hours was of employees in engineering workshops in Johannesburg in 1889. Their demand was for increased wages and a reduction of hours of work from 54 to 48 per week. For further details on disputes over hours of work see E Gitsham and J F Trembath, A first account of labour organization in South Africa, passim; E Webster, Cast in a racial mould, Johannesburg: Ravan Press, 1986, pp31-31; and Republic of South Africa, Department of Mines, Report of commission of inquiry into a five day working week, R.P. 97/1977, p15 and passim.
3. According to a review of conditions of employment by the South African Labour and Development Research Unit, (SALDRU) out of 94 industrial council agreements and 61 wage determinations in operation in 1983/4, only 11 specified that the hours worked in that industry should be no more than 40. See I Schroeder and G Young, Conditions of employment. An analysis of the conditions of employment set by the industrial councils and the Wage Board, Cape Town: Saldru Labour Research Series, Volume 4, Section 2, 1985, pp1,2,19.
4. H Maurice, Shift work. Economic advantages and social costs, Geneva: International Labour Office, 1975, p4.
5. International Chemical and Energy Federation (ICEF), ICEF continuous shift work project. Resource Report, Geneva, 1985, p6.
6. Bienefeld op.cit. p209.

7. ICEF op.cit. p13.
8. There is an extensive, and growing literature on this issue. A useful guide to this literature is to be found in the ICEF publication already quoted.
9. Department of Statistics, Particulars of workhours and/or shifts - production and related workers in 1981, unpublished survey done for the Federated Chamber of Industries, 1986.
10. These figures were extracted from the survey, Table 1.
11. Unless otherwise stated, the next two sections will be based on information obtained in the following publications: ICEF op.cit. ppl8-25; Maurcie, op.cit. chaps 3,5 and 6; M Wallace, Shift work and health. Proceedings of seminars "Overseas developments in shiftwork", Australia: La Trobe University, 1985; A A Evans, Hours of work in industrialised countries, Geneva: International Labour Office, 1975, Introduction; D Maric, Adapting working hours to modern needs, Geneva: International Labour Office, 1977, chaps 1 and 2; International Metal Workers Federation (IMF), Why we must reduce working time. Background paper to the IMF central committee special session, November 18. 1983, Geneva, 1983; and Health Information Centre, The health and social effects of shift work, Johannesburg, 1983.
12. The articles concerned are as follows: Health Information Centre, op.cit.; P Arenson and I Molzen, "An investigation into the health and social effects of shift work on women office cleaners", Industrial Sociology III research project, University of the Witwatersand, 1983; C Hartford, L Rampini, and D Feigenbaum, "Effects of nightwork on health", Department of Community Health, University of the Witwatersrand, no date; and C Murray, "Women and night work", Industrial Law Journal 5(2), 1984, pp47-60.
13. T Adler, "The prevention of occupational diseases and industrial accidents in South Africa", paper presented to a conference on the "Economics of health care", University of Cape Town, 1976, ppl79, 180 and 186 and published in F Wilson, and J Westcott (eds), Hunger, work and health Vol 2, Ravan Press: Johannesburg, 1980.
14. ICEF op.cit. p4.
15. Wallace op.cit., p7.
16. Arenson op.cit., p17. The authors note that the average sleep of shift workers in Western Europe is 6,1 hours per day.
17. The Group Areas Act has enforced geographical segregation by race. The vast majority of black workers therefore live a considerable distance from their places of work. A report on black

rainbow. Their profits must have been enormous, for ISCOR had not given the steel contract to Keeley because its rates undercut the rest of the industry. ISCOR was paying the same rate per ton to Keeley as it paid to the rest of the industry, yet Keeley's wages were two and a half times lower than wages paid to unionised labour. It was a situation that could not prevail, but while it did, they were accumulating capital at a record rate.

Keeley workers organise

At the end of 1983 some of the retrenched stevedores from SAS who had sneaked into Keeley approached the GWU and within a few months the union was representative. There followed a long complicated battle between the union and the Keeley management. After a short strike in April wages were unilaterally raised to R1,20 an hour in the hope of forestalling the union. This only signalled to the workers that the union was the right place to be. By early May the union was recognised as being representative of the workers.

The major objective of the GWU was to bring Keeley into line with the rest of the industry. In order to avoid possible court action over their violations of the 1979 wage determination Keeley agreed to pay a flat settlement of R400 to each stevedore. There still remained the massive disparity between the wages and conditions at Keeley and the rest of the industry. At the beginning of the year, under pressure from the GWU and as a consequence of their own threatened position, the Stevedores Employers Association (SASEA) had drawn up a new wage determination in order to standardise wages and conditions in the industry again. This came into effect in late May and was similar in many respects to the wage agreement negotiated with the GWU.

The union then used this as the legal stick to beat Keeley back into line with the rest of the unionised industry. There followed a long and complicated battle as Keeley sought ministerial exemption from the provisions of the wage determination and refused to pay the rates laid down on the basis of their application for exemption. The union eventually won this battle and Keeley was forced to dig substantially into its heavily laden pockets. Each worker received full back pay owing to him - this varied between R300 to R700 for each worker. In addition wages and basic conditions of service in Keeley were equalised with the rest of the industry, eg. stevedores wages jumped from R1.20 an hour to R2.19.

This equalisation of wages with the rest of the industry was only for a limited period of time however. For at the end of the year in a national wage negotiation, between SAS Ltd (who employ over 90% of all stevedores in the country) and the GWU, wages were standardised nationally and the minimum in the four main ports became R21 per day (R2.47 an hour). Once again Keeley wages were much lower than the rest of the industry. Fundamentally the problem was that there existed no statutory collective bargaining forum encompassing the stevedoring industry on a national or port basis.

Reimposing an industry collective bargaining forum

Although wages had now been brought into line and the immediate threat posed by Keeley to the unionised industry had been neutralised the basic problem still remained. There were still small companies popping up over which the union had little control and, in Port Elizabeth, Castle Crane Hire still remained outside of the GWU's organisation. The standardisation of wages and conditions of service via the enforcement of the current wage determination was only a short term solution. The major problem was how to re-create the port wide or industry wide collective bargaining forum previously operative between the GWU and the companies?

It was clearly highly unsatisfactory to depend on the wage determination and the Department of Manpower to enforce industry standardised wages and conditions of service. Furthermore the union had no direct control over what was contained in the wage determination, and also had no control over the policing of the determination. Finally the issue of the number of casuals that a company could use and the wages to be paid to them, which was absolutely critical in the industry, could not be addressed in this way. The wage determination did not cover casuals, nor did it touch those small companies in, for example, Richards Bay that had no indunas and used casuals every day.

The stevedores therefore started to address this problem nationally by discussing alternative statutory forms of industry wide bargaining. The question of whether or not the union should consider forming an industrial council in the stevedoring industry was therefore naturally considered. But as long as the GWU remained an unregistered union the concrete possibility of such a statutory form of industry wide bargaining was precluded as an option. Indeed it became clear that any form of statutory bargaining which was enforceable over the entire industry was closed to the union by

- shift work -

- work, second edition, Oxford, 1985. A favoured pattern of shift work is now a five team system which cuts working time to 33 hours and 36 minutes. This pattern is likely to become law in some countries; ICEF op.cit. p28.
32. The trade union demand in South Africa has been that the age of retirement should be reduced to 55. For the motivations behind this demand, see Federation of South African Trade Unions, Pension panic, Durban, 1981.
33. In addition to the reference in note 18 above, Bienefeld op. cit., M Weber, The protestant ethic and the spirit of capitalism, London, Unwin University Books, 1967; P A Sorokin, Socio-cultural causality, space, time, New York, Russel and Russel Inc, 1964; and D S Landes, Revolution in time, Harvard University Press, 1983, provide fascinating insights into a story which has yet to be told in South Africa.
34. A recent settlement of a two week strike at Asea Electrical, a plant in the metal industry, resulted in an increase from 12% to 16% in the night shift allowance.

Review: Cast in a Racial Mould

Eddie Webster, Cast in a racial mould: labour process and trade unionism in the foundries, Ravan Press, Johannesburg, 1985, xv + 299 pp, R18.

It can be said that the development of radical analysis of South African society has had as its two premises, first, the assessment of racism and the oppression of the indigenous population of the country and, second, the discovery of class in the wake of industrialisation. The consideration of class in turn has brought an intensified interest in the trade union movement and its history, about which we now have some good, if still too spotty, information. Eddie Webster's book pushes us one step further by examining the social relations of work, the actual history of labour process itself with its power relationships and intersection of technological change and class struggle. This is what Marx, scorning the mere analysis of buying and selling that market-orientated economists made their object of study, called the "hidden abode" of