Durgapur Steel Plant, with one million ton production target, is to exchange a few million tonnes of materials both in terms of incoming and outgoing loads. The very nature of jobs makes them to be carried out in Railway wagons. However, the interchanging of goods and materials between the departments and from site to site inside the works, which is to be done in the interest of production plan of the plant, is usually done, as a matter of convenience, with the internal wagons. A fleet of captive wagons is thus maintained for this purpose (Annex - 15).

Simply owning the fleet will not help the purpose; a continuous system of maintenance and repair programme is to be regularly followed to get them in regular and active service. This sort of regularity can never be substituted by any other sort of measure. The urge of conventional wagons, although traditionally discouraged for their financial implications, may however be faced with empty Railway wagons in the case of acute crisis; but, in the cases of steel type nonconventional wagons, the demands are to be met with internal supplies. This sort of wagons are costly items. Their procurements, are always a matter of time, specially when the items are of imported category. So, their Preventive maintenance is usually of prime importance. Any sort of deviation may cause not only a loss by itself, but it may lead to a wider chain of repercussions felt elsewhere in the entire production phase.

The Wagon Repair Shop in DSP, as a matter of conven-

1. The exact figure has been detailed in the later part of the study.
3. Ibid,
-tion, is to maintain constant watch over the internal wagons excepting a few. The hot metal ladles, are now being maintained by a unit controlled by the Blast Furnace Department. Its present status is never justified, when a specialized unit like Wagon Repair Shop is already maintained by the plant for this sort of venture. Running an additional establishment is usually an expensive deal. The establishment should be brought under the administrative control of WRs with their present identity. The details of the present set-up of WRs are given below.

### Manpower

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>5</td>
</tr>
<tr>
<td>Supervisor</td>
<td>16</td>
</tr>
<tr>
<td>Worker</td>
<td>213</td>
</tr>
<tr>
<td>Office Staff</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>235</strong></td>
</tr>
</tbody>
</table>

### Capacity

1. Normal maintenance - 24 KW in a day.
   - 1 IC in a day.
   - 1 QC in a day.

2. Periodical overhauling - 1 KW in 2 days.
   - 1 IC in 10 days.
   - 1 QC in 90 days.

### Normal Attainments

1. Normal Maintenance - 20 KW in a day.
   - 1 IC in 10 days.
   - 1 QC in 90 days.
2. Periodical overhauling –

1 KO in 3 days.
1 IG in 30 days.
1 QC in 180 days.

The average performance of the shed is not surely up to standard. Rather, the achievement is far below satisfaction. However, reasons are there for this short-fall; some of which are to some extent justifiable, but many of them are bogus, to say. One most common hurdle, faced there in most of the cases, is the timely nonavailability of loco-power to get the repairable wagons placed in the actual position in the gantry (Annex - 16). Locomotives, as will be evident from the said Annexure, have not turned up for almost 50% of the working days. Normal performance has thus been considerably delayed and it is quite natural that usual attainment can never be achieved as loco power is not made readily available there. Consequently, the plant has sustained heavy financial losses by way of utilising the Railway wagons for domestic purpose which could be easily avoided, provided the captive wagons were made available in time. But the responsibility must be shared by WRS. Loco-service can not be earmarked specially for the purpose of WRS. It needs to be called in time. The locomotives are to carry out a lot of other jobs regularly left for them all through the days. Instances are quite frequent, as seen in the Control Room Diary Remarks of Traffic Department, when loco-service has not been called for in time by WRS. As the matter actually stands, mere adjustment of loco movement in the internal yards may easily solve the problem for this respect, and initiative must come from WRS.

1. The fact is again supported by the number of internal wagons going out of order which are to be replaced by Railway wagons causing serious financial strains for the plant (Annex - 15).
Again, 4 gantries are already there inside the shop-floor where six KC type wagons may easily be accommodated at a time over each of them. On spot inspection, it has been frequently seen that all types of repairable wagons are placed haphazardly in a single line leaving little scope to sort out the particular repairable wagon from amongst them, inspite of reasonable accommodation being available in other gantries. Specific placement could easily be done at the very time of moving the wagons inside the shop floor. Shunting out the specific wagon from the haphazard row leads to mere loco-hour requirement for which valid justification is never found when the item is already scarce and costly. The responsibility surely lies with the shop management, who are found hopelessly reluctant to tackle the problem; inspite of the fact that they should be aware of the fact. The problem is surely serious in nature when it results in financial losses to the organisation in various ways. There is nothing mechanical or technical in this nature of job; the whole affair can easily be sorted out in the way of day-to-day operational management practiced in a particular field and it is amazing to note that the problem has been aggravated due to the irresponsibility on the part of sectional management. Carefulness, foresight and sincerity are the cream of the management practice in the field of a particular operation and without it, as evident in this case, no success can ever be attained anywhere in any way and in any time.  

Other reasons of poor performance are also there in the shop, one of which related to the supply of oxygen and DA cylinders in time. In an instance, the quota appears

19/9; but the supply stands only 10/5 in a particular period. Again, M.S. channel, angles, plates and other materials to take up repair and overhauling jobs are reported not being supplied there in time as per schedules. The problems might be minimised; provided sincere efforts were made to get the materials supplied in time. Most of the materials are easily available and some of them are produced by the plant itself. In the case of supply of self-made items, a chain of avoidable formalities are unnecessarily followed through out the plant. Being disgusted with the formalities, some of the consuming units try to avoid domestic supplies on any plea.

Again, the service of job-crane and wheel-press, which is very essential to ensure smooth flow of operation, is not regularly available there and as a consequence, the usual performance suffers. The instruments are now maintained elsewhere out of the control of this section which usually leads to irregular supply. But, a system should be introduced to chase for timewise supply of the items. The responsibilities may be specifically given to some men so that a regularity in supply of this service may be maintained properly.

Troubles of other nature may again be noted in this context; but, the root cause of the shortcomings is not to be found in the irregularity of materials and machine supply; what is most essentially felt there to cure the troubles, is the sincere devotion in discharging normal responsibilities and effectively motivating the work-force as a gesture of fair managerial practice under dynamic leadership, which is conspicuously found absent in this field! Before making any effort to eradicate the technical bottlenecks, specially, attention must be given to this sort of management development.

All the above mentioned inconveniences, reportedly being faced now in the shop, lead to poor performance and the plant as a whole is thus pulled from the back in its efforts to attain the scheduled production targets. The deficiency, as mentioned elsewhere, is now being made up by using the costlier Railway wagons for domestic purposes for which a huge amount of capital has already been invested in maintaining captive wagons of all possible types (Annex-15). This is never an encouraging practice when adequate number of wagons are available which require effective maintenance schedules to get them in active service. However, the deficiency of steel type non-conventional wagons does not result in any such additional expenses; but their poor out-turn affects directly the production of most of the units of the plant.

A brief resume of a study report of the affairs in a Railway Wagon Repair Shop, where excepting steel type special category wagons, all other conventional wagons are maintained and overhauled, is given below to get a comparative picture in a similar field of activity.¹

Manpower.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>nil.</td>
</tr>
<tr>
<td>Supervisor</td>
<td>3.</td>
</tr>
<tr>
<td>Worker</td>
<td>115.</td>
</tr>
<tr>
<td>Total:</td>
<td>118.</td>
</tr>
</tbody>
</table>

Capacity & Performance.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal maintenance</td>
<td>20 KC type wagons in a day.</td>
</tr>
<tr>
<td>and repair.</td>
<td>20 KC type wagons in a day.</td>
</tr>
</tbody>
</table>

¹ Wagon Repair Shop, Eastern Railway, Burdwan.
2. Periodical overhauling. 1 wagon in a day. 1 wagon in a day.
3. Line capacity. 22 KC type wagons at a time.
4. Number of gantry. 2 nos.

In addition,

a) All administrative, official, statistical, accounting personnel and other related affairs are as usual carried out there.

b) Annual action-plan, as a matter of practice, is also chalked out by the unit itself.

c) Programming the necessary supplies is usefully planned by the section.

d) The training programmes of the staff and supervisors are also chalked out there.

e) Other usual and sporadic nature of jobs, likely to appear in course of operational activity, are usefully carried out by the unit.

Loco-power is not found exclusively reserved there to carry out the shunting jobs. It is, as a matter of practice, carried out with the help of general shunting locomotives which are made available under a comprehensive day-to-day and time-to-time programme. Again, the time-bound slight adjustment of the wagons in the courses of maintenance operation, are found usually done manually which is almost a dream in the case of DSP where people are unnecessarily job-conscious.

With lesser manpower, both in the way of category as well as number, as compared with the counterpart in DSP, the performance of the Railway Shop is simply nothing less than splendid. The deviation of actual from the capacity in DSP cannot but be explained by lack of managerial ability.
The performance of DSP unit could be far better, provided current operational procedures were suitably modernised. The Railways are doing nothing new; they simply follow a systematic procedure to get into the targets. What they have, is the desire to attain the schedules. As it appears, there is nothing complicated in this sphere of activities which cannot be done with a specialised section. Most of the jobs are broad routined mechanical type and quite reasonably these are expected to be carried out by any job-oriented unit. The Shop under DSP is better equipped as compared with the Railway unit. The workers and the executives are better paid in DSP. They are regularly paid with incentive allowance which stands at almost 40% of their total wages. When they are already so well-paid, it is not understood how such an attractive amount of incentive allowance is paid to the personnel whose output is never encouraging. Any way, in view of the wages and incentive plans being followed in DSP, it is expected that the workers and the managerial personnel should make all out effort to do their best. A comprehensive programme is placed below with necessary details which may be followed for better results.

1. A techno-economic survey is to be conducted under the guidance of team of concerned experts to assess the exact condition of all the internal wagons.

2. Annual action-plan is to be chalked out so as to match the growing needs of the ensuing jobs of the section with clear break-up, up to the daily shiftwise scheduled responsibilities being based on the above survey report.

3. Shiftwise responsibilities are to be noted in a log-book specially reserved for these purpose
along with the provision to ascertain the actual attainment figures as well as the short-falls with specific reasons there-to so that a clear picture may easily be obtained by the follow-ing shits and also by the responsible quarters of the section who will be duty-bound to know these affairs regularly to create a working atmosphere all through the section.

4. Daily report is to be prepared compiling the findings of the shift log-books.

5. The number and itemwise annual planning of spares, stores and tools, etc, needed to meet the ensuing action-plan, is to be drawn well in advance of their actual requirements. The plan, with the view to get the clearer picture, is to be detailed right upto daily specific needs, categorically noting sources of their supplies. The stocks in hands and in Central Stores Section, must be brought into account so that working capital is not unnecessarily blocked up.

6. Gantries must be specifically reserved for specific cate-gory of wagons and also for specific nature of operation to avoid unnecessary blocking of site in the way of erratic placement of wagons.

7. Responsibility must be specifically fixed to get the repairable wagons properly placed at the time of moving them inside the yards.

8. As a long term measure, the stabling yard is to be suit-ably extended to accomodate properly the repairable wagons.

9. Appraisal system, as a matter of strategy to know the exact outcome, is to be introduced in all sphere of activities in this section.

10. Administrative procedures and office methods are to be comprehensively modernised so as to face the ensuing scientific action-plan.
11. Head of the unit should have only access to the above affairs.

12. All other executives of the section are to be placed against specific responsibility of the action-plan.

13. Inventory control system is to be planned in such way so that up to date position of all stocks can be had at a glance at any time.

14. Jobs, according to nature, are to be suitably sectionised so that specific job can be taken up by a specific unit of the section and the responsibility can be placed against a specific type of workers.

15. Executives and supervisors should be co-operative, sincere in their own duties so that an inspiring atmosphere may be created in the working spheres.

16. They should be all through present in the work-sites so that men under them may have feeling that they are constantly supervised at their working hours.

It is quite reasonably expected that the total outcome from the shop will surely go up to a considerable degree and as a matter of fact, in course of time the desired service from the unit will be attained, provided all the above steps are sincerely and systematically followed. The recurring expenditure now being faced due to availing the railway wagons for internal purpose will surely be avoided gradually and the production losses caused out of nonavailability of both conventional and nonconventional stocks will also be considerably eliminated with its reflection on the works cost and annual financial results of the plant at large. The current costing system practiced here by the plant does not take into account all the above critical points; a real picture will never come
out as long as the present system will be followed; a scientific costing practice really deserved to be introduced there so as to give a clear picture of all the prevailing weak spots and preventive measures may be taken to eliminate them at an early stage.