

Memorabilia



150

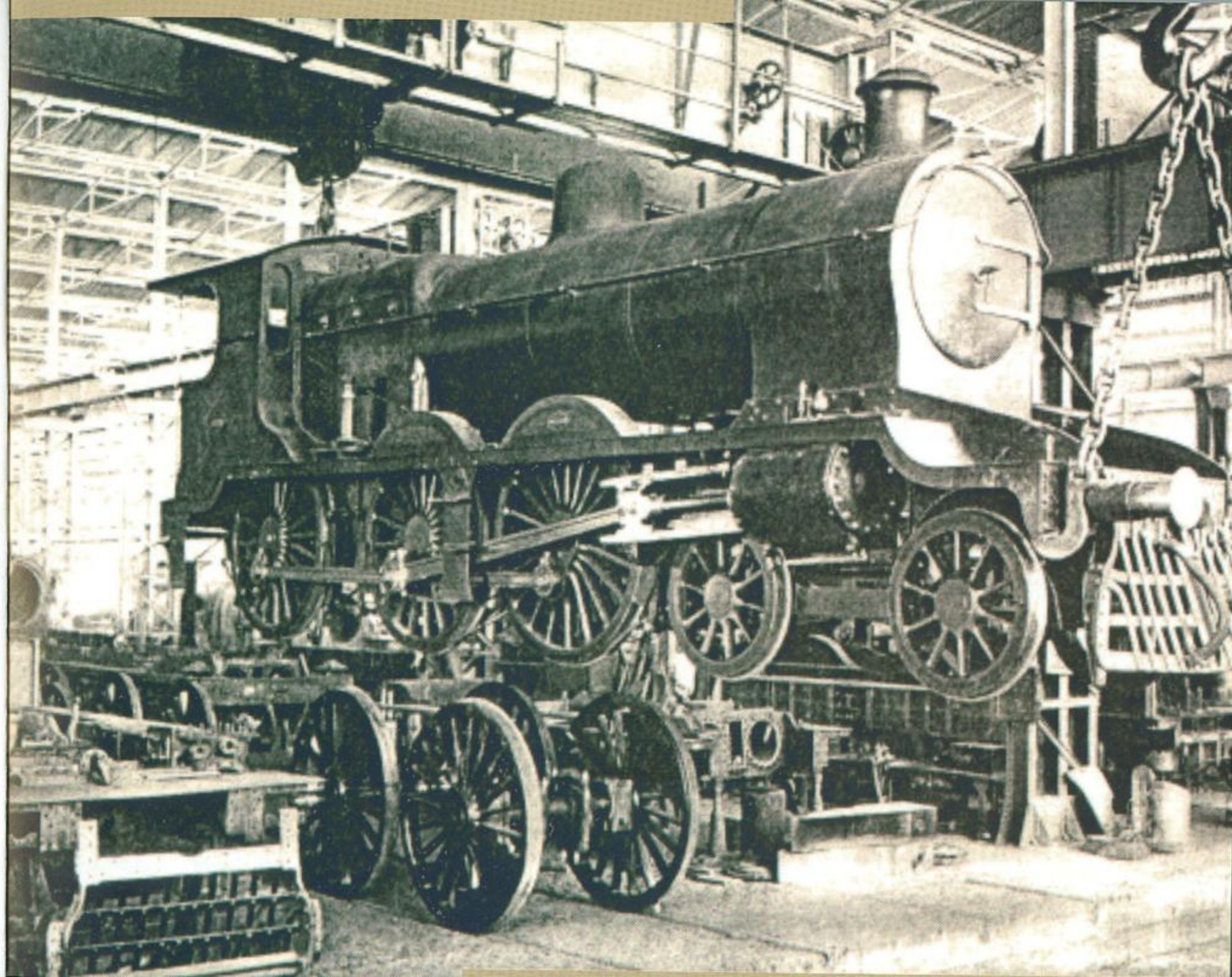
*years of
Locomotive Works, Jamalpur
1862 - 2012*



Cast in Jamalpur, decorated the
special train of Lord Mayo

150

*years of
Service to the Nation
1862 - 2012*



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सदस्य यंत्रिक, रेलवे बोर्ड

एवं

पदेन सचिव, भारत सरकार

रेल मंत्रालय

नई दिल्ली-११० ००१

MEMBER MECHANICAL, RAILWAY BOARD

&
EX-OFFICIO SECRETARY,
GOVERNMENT OF INDIA
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MESSAGE

The Jamalpur Workshop established on 8th February 1862, has provided yeomen service to the Indian Railway making a significant contribution in its growth during the last 150 years. More than just being a workshop, it has even served as the Headquarters of the Locomotive Department and the Electrical Department of the East Indian Railway well upto the beginning of the twentieth century. The Jamalpur Workshop, in its hey days made its mark as a manufacturer of Steam Locomotives and Rolling Stock much before the first production unit i.e Chittaranjan Loco Works was even conceptualized. It has aptly served the Railways with its prolific manufacture and overhaul of steam locomotives and cranes, and has even produced war equipment when called upon by the nation. The visionary planners of the day had incorporated all trades of manufacturing in a single unit, ranging from iron and steel foundries, a rolling mill, a non-ferrous foundry, a thermal power house and even a machine tool reconditioning shop. Indeed, with all the trades of production in its fold, the Workshop has been a veritable University for the Railways. It has educated and trained generations of Special Class Apprentices and Apprentice Mechanics who have gone on to provide able leadership along the echelons of the Railway management including at the apex level.

The Jamalpur Workshop has done well with the changing times. The workshop has adapted well to Diesel technology and wagon building and is today the sole manufacturer of the 140 tonne Breakdown Cranes, the Jamalpur Lifting Jacks and many such products of engineering excellence.

It is heartening to note that a Memorabilia is being brought out to commemorate the sesquicentennial year vividly depicting its glorious journey of 150 years. I wish the Jamalpur Workshop and its team of shop managers, supervisors and staff greater glory in the years to come.

(Sanjiv Handa)



जी. सी. अग्रवाल
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January 17, 2012

MESSAGE

I am glad to know that Jamalpur Workshop is entering into 150th Year on 8th February 2012.

For any establishment, 150th year is a milestone. Jamalpur Workshop is a premier and leading workshop on Indian Railways which has a tradition of good workmanship with the active support of the staff and officers over the years. I believe that they will continue to extend their support to earn many more laurels in the years to come.

On this happy occasion, I extend my good wishes to all and wish the publication of memorabilia all success.


(G. C. Agarwal)
General Manager

P K Singh



Chief Administrative Officer (Mech.)
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MESSAGE

It stands to great pride that the Locomotive Works, established on 8th February, 1862 at Jamalpur, *a small less known town*, has completed 150 years.

Starting with steam loco repair, the workshop spearheaded the Mechanical Engineering activities in Indian Railways. Besides, loco repair and manufacturing in early and mid 1900's this was hub for manufacturing several equipments for Signaling, Engineering and Commercial departments. There have been major changeover in out-turn through Wagon POH and Manufacturing, Diesel Loco POH and 140 T Diesel Hydraulic Crane Manufacturing and POH.

The memorabilia being published on this historic occasion is a great tribute to the contribution of this workshop.

I wish the workshop achieves greater heights in future.



(P. K. Singh)

from the Editor's desk



Amidst sea and no sight of shore Set unto the task not done before

This was the state of mind when the then General Manager, Shri Bharthuar communicated the desire of Shri Sanjiv Handa, Member Mechanical, to publish a coffee book on the occasion of sesquicentennial year. Of course, the name of Shri Tanmay Mehta was also suggested to march unto this untreaded path like a star for the solitary sea farer to chart the course to the shore. Reputed printers had to be identified and request letters shot to respected authors.

This done, one of the major task left was to trace the history of Jamalpur Workshop through its 150 years journey. A journey which has seen 6-7 generations, yet very little has been left in written form. A lot of great stories are told and kept alive through oral tradition; however, to include any of them without any documentary or archaeological corroboration was a dilemma, and prudence advised to get the corroboratory pieces, which made the task difficult indeed.

Jamalpur shops, has rich tradition of preserving its rich heritage but thanks to some ISO zealots, many of the antique drawings and documents were destroyed a few years back. What a gross misinterpretation of instructions! Well! That is the difference between knowledge and wisdom. Even if little knowledge is used it is a great wisdom but vast knowledge not used is

Such severe challenges made the determination and resolve much stronger to unearth the covers wrapping the glory of Jamalpur. A few left out drawings in the Drawing Office boosted the morale. We could trace the oldest drawing

available - a lamp post of 1882 !! i.e. 130 years old and intact without any preservation/treatment in a dusty office !! . And then on internet I discovered the "History of East Indian Railway" – the IRIMEE, Jamalpur copy – taken (in perpetuity) by someone, who fortunately decided to give it to google for digitising. What a poetic justice. And the world coming a full circle.

However, the description of shops in Huddleston book was not matching with the layout of the shops. Two earthquakes of 1897 and 1934 emerged as the most likely reason for a substantial change in layout. And then came the prize discovery ! Layout of the shops of early part of 20th century, matching perfectly well with Huddleston book as well as with Rudyard Kipling's' book "From Sea to Sea – Among the Railway Folk". Buoyed by it a massive search of all archives was conducted and we were able to collect 61 old drawings (upto 1920) including 9 of 19th century and 43 drawings from 1920 to 1950. The only documented proof of Jamalpur making ammunition in World War-II was another prized discovery. Later on three more World War-II drawings were discovered, one showing the trenches to be dug around the factories, another showing shelter walls and yet another showing sentinel steam lorries' front tyre. Choosing of Jamalpur shops by Mesopotamian Railways in preference to other shops of Asia and Europe (incidentally nearer compared to Jamalpur; Baghdad – London: 4089 KM, Baghdad – Jamalpur : 4150 KM – Air Distance) for manufacturing giant screws for bridge was yet another startling discovery.

But Jamalpur keeps on surprising ever. Our efforts to continue digging the way to its rich heritage continued and 3 booklets of the period 1958-1963 were found. Shri Jamuna Prasad (Born 1924) and served in Drawing Office (1944-1982), provided valuable information, and was prominent amongst many old employees scouted and interviewed. What was amazing was that – on knowing the roadblocks, even 30 years after retirement, he could direct the present Chief Draftsman to the exact drawer (probably some hidden and remote one) and lo ! out came 3 old loco diagram books,. The final reward was laying hands on District Gazetteer (Courtesy: Shri Ghosh, Librarian, IRIMEE) which has

been compiled from 1908 (approx.) to 1960. Old and rare photographs were provided courtesy: Shri Krishna Seva Sadan Munger and Shri J.R.K. Rao, Commissioner/Munger, and Shri Kuldeep Narayan, District Magistrate/Munger. Many missing links were bridged through archive articles discovered on internet by relentless search with the yield as less as a page per 100 hours.

But, everything counts !!!

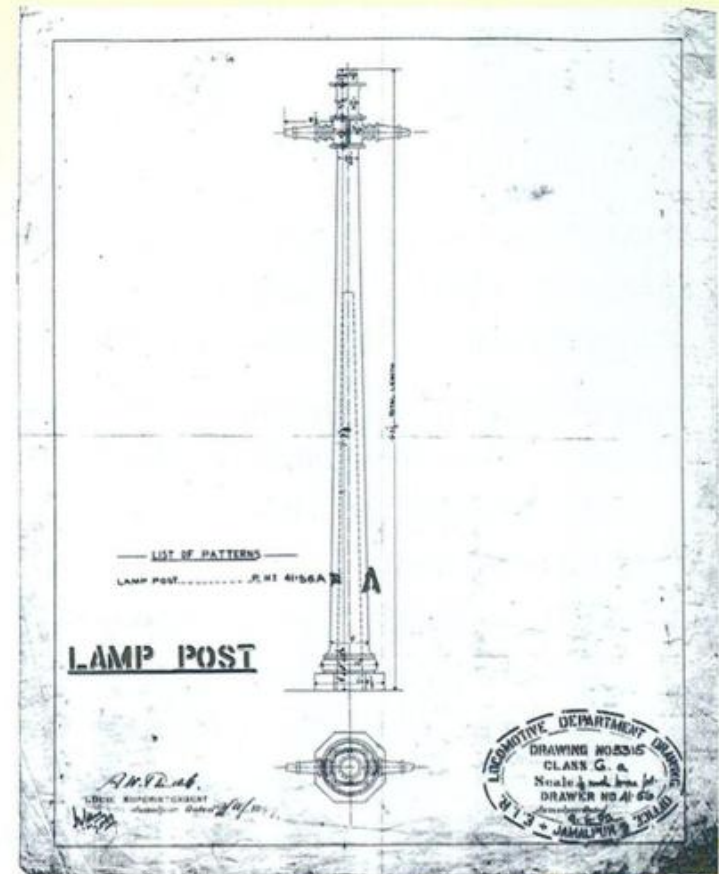
Another onerous task was to extend the incumbency board of the head of the workshop upto 1862. From 1921 fortunately, this also has been done.

We decided to take advantage of such vast ongoing research of the annals and compile a time line. In essence, our team including Shri A. K. Bharti, Dy. CME(DSL) has been successful in drawing a continuity since 1862 to present times, with chronology of nearly all important milestones. That is the success of this venture.

History being an outline, real embellishments are the articles contributed by highly learned authors. Our team is greatly indebted to them. No words can describe our gratitude. Shri S. C. Mishra, Ex. MM, and the CWM to commemorate the centenary of the Workshop in 1962, very kindly decided to contribute for the sesquicentennial year as well, and that itself is an extraordinary feat to go down the annals. We are indebted to Shri G. K. Khare, Ex. CWM, and the first CWM/JMP to adorn the chair of Chairman, Railway Board for contributing – The Spirit of Jamalpur. As Shri Sen puts in – “East of Suez”, Jamalpur was the best, and the “Great Tradition” has been carried through “150 Years of Excellence” as here “Our souls reside” in “The Cradle”.

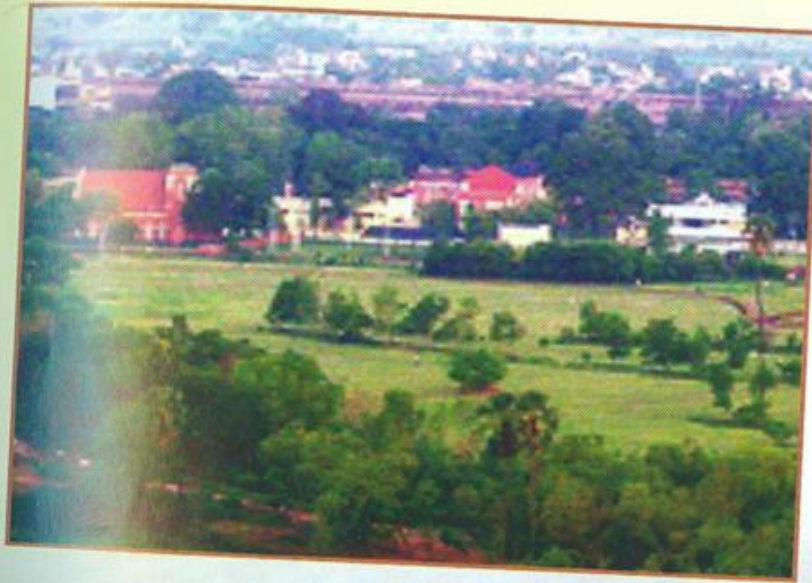
Jamalpur, the beautiful place ! The beauty of soul. And that indeed is the real beauty – The inner beauty, which makes the world beautiful. This beautiful message is – our Jamalpur.

Lamp Post



Jamalpur

— by A. K. Sinha, CWM



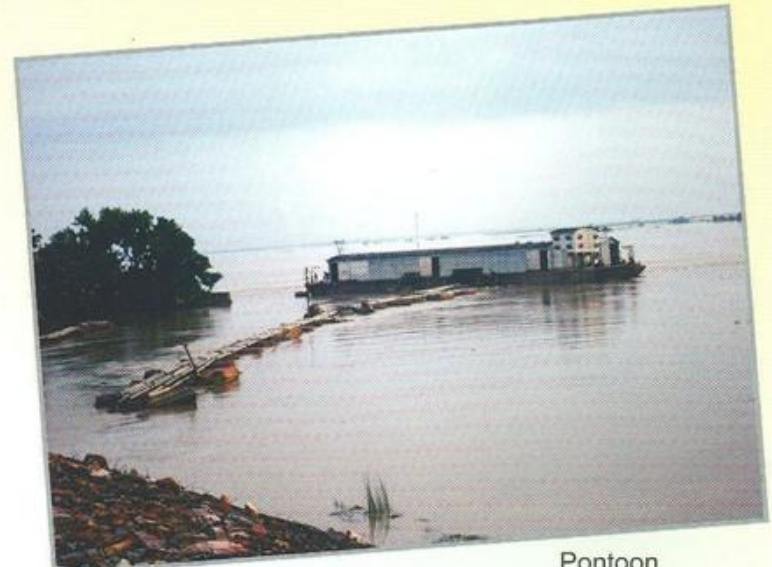
A few places are beautiful and a rare fewer are able to maintain its beauty through the ages. Jamalpur belongs to the latter rare ones which has been able to maintain its beauty through centuries. True to its name "Jamal" meaning beauty in Arabic from the Arabic root of 'JML'. Jamalpur is literally a beautiful city indeed. Very few industrial cities over the globe are as beautiful as Jamalpur. Awe struck by its sublime beauty, the Engineers of erstwhile East Indian Railway decided to set up their maiden and largest locomotive works at Jamalpur more than 150 years back.

This was despite several bottle necks that would had ruled out Jamalpur as the locomotive works of East Indian Railways; namely

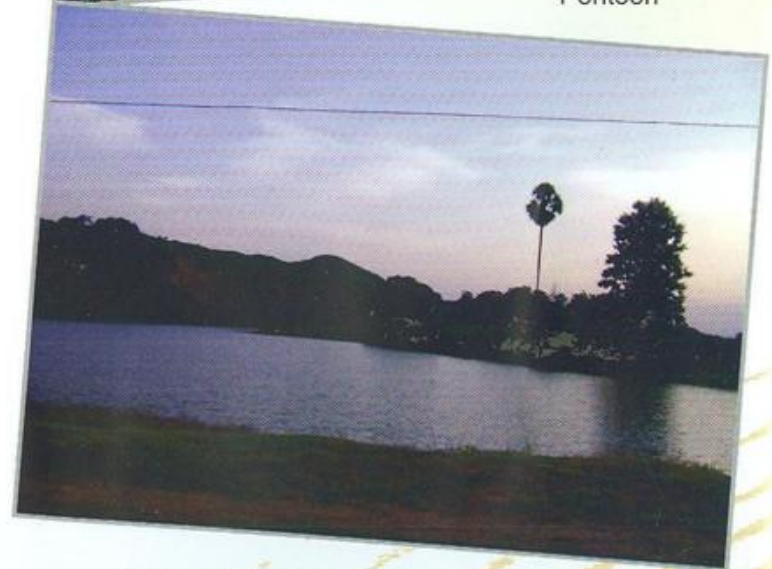
- More than 300 miles away from the port and the Headquarters of East Indian Railway as well as of East India Company i.e. Calcutta.
- No natural supply of water.
- In fact in exigencies water used to be brought in tank wagons from the Ganges around 8 KM away till 1920s, a system which was later on replaced by 1 ½" dia pipe line laid from the Ganges to North Tank over a distance of 8 KM along the Munger-Jamalpur line.



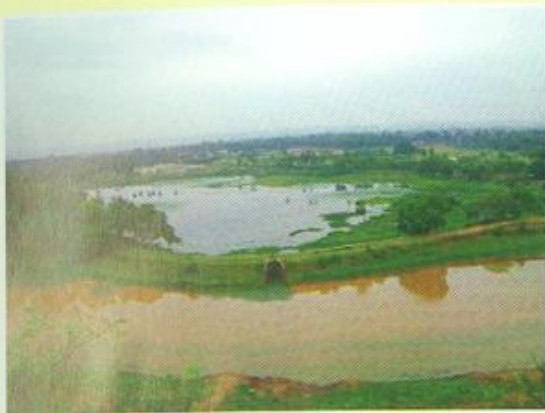
Apart from its natural beauty, abundant supply of skilled labours was the other prime reason for choosing Jamalpur. For centuries Monghyr was the hub of Gun makers who were greatly skilled in the manufacture of Ironware including various weapons like Guns, Pistols etc and were in the services of the nawab of Bengal for generations. In fact it was not untill the Britishers defeated the Ruler of Bengal, Mir Kasim having his capital at Monghyr in the battle of Buxar in 1764 alongwith his allies Siraj-ud-duala (Nawab of Awadh) and Sah Alam II (Mughal Emperor) , than the victory of East India Company was decisive and their supremacy was finally accepted.



Pontoon



A view of Ganges at Manger

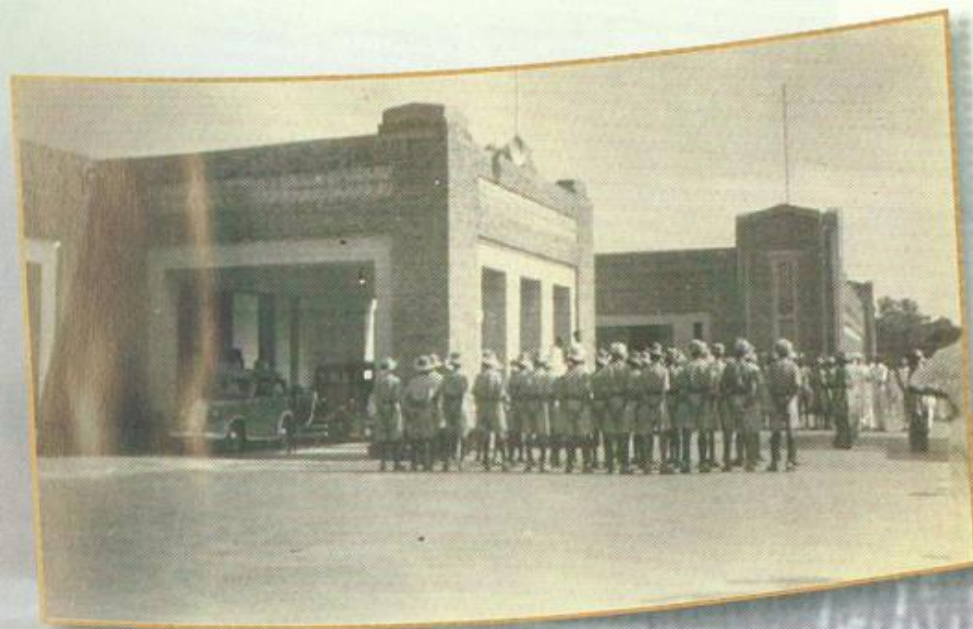


Aerial view from Hills

This battle led to the signing of the “Treaty of Allahabad” and in one single stroke of pen East India Company secured its sovereignty over almost one eighth of India and its military reign stretching from Delhi to modern Bangladesh. It is not surprising that East Indian Railways had its Railway net work from Bengal to outskirts of Delhi with Allahabad as one of its division and till date KM posts upto Gaziabad have distance marking reckoned from Kolkata. It was only a poetic justice that Englishmen returned almost a century later to Monghyr fully armed not with guns but with spades to make Monghyr/(Jamalpur) as their Headquarters of Locomotive Works and to choose Jamalpur as the Motive Power of their Railway empire.



CWM Office

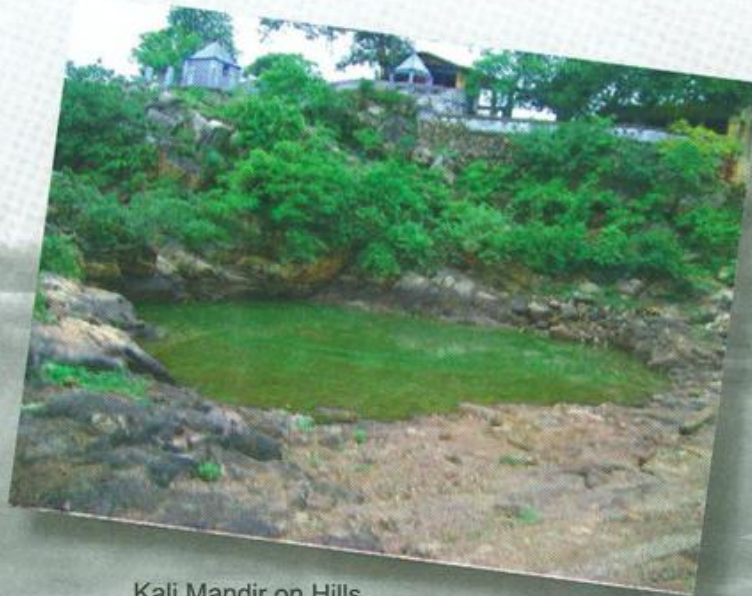


DCME OFFICE, 1948

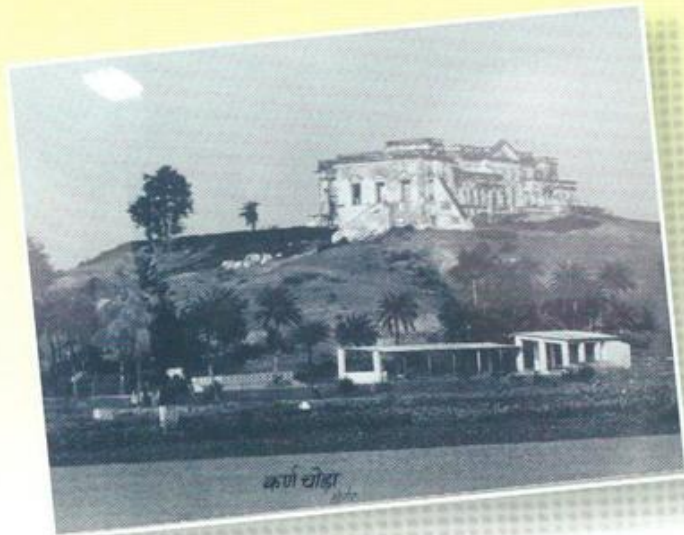
Monghyr the District Headquarters (now the Headquarters of the Commissioner) and a twin city of Jamalpur has a rich history, mythologically it goes back to Treta Yug (CF Kastharnighat in the Fort Area of Monghyr) and nearby Sita Kund where it is said, after 14 years of exile (Vanvas) Lord Rama and Sita respectively had a bath in holy north flowing (Uttarvahini) Ganges upon open which all their tiredness and the associated pain went away. Sitakund is also associated with Agni Pariksha. The historical continuity is carried out through the Dwapar age and Monghyr was the Kingdom of Ang Pradesh, a state in between Magadh "Modern Patna and Gaya" and Bang "Modern Bengal". This was ruled by Lord Karna who was an immaculate archer and military soldier in his own might said to have mythological Kavach and Kundal which made him invincible.



View of Uttarvahini ganga at Munger



Kali Mandir on Hills



In fact Bihar Yoga Bharti is situated over the hillock known by the name of Karanachoura. Later on, Monghyr was a part of Gupta dynasty of Patliputra the first pan Indian largest empire over India. Later on it was a part of Pal dynasty of Bengal. However, consequent to the defeat of Brahmadatta, it was again taken back as a part of the Delhi sultanate. Sher Sah too had an early military success at Monghyr and one road over the hillock is known as Gowalin Khand.

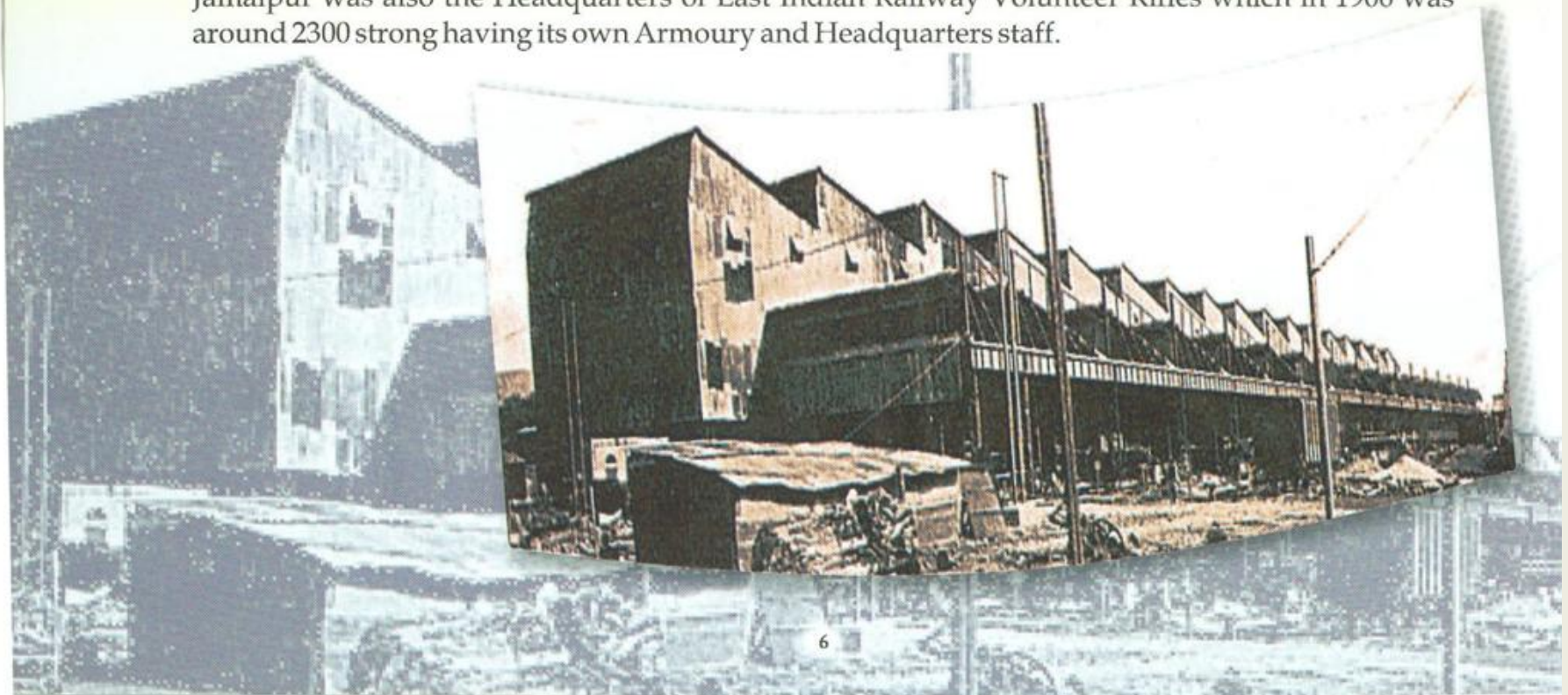
Monghyr has been also mentioned in the travels of Hiuen Tsiang who visited in the first half of the seventh century A.D. Monghyr was even witness to the second Maratha invasion under Raghu Jee Bhonsla during 1743 and 1744 when he passed through Kharagpur hills.



It is witness to many sects. The tomb of Shah Nafah who was a 12th century Persian Saint is near the southern gate of the fort. Near to it is Gurudwara Pakki Sangat where Guru Teg Bahadur stayed for some time. Long back Maudgalya was the famous and one of the richest businessmen of his time who converted into Buddhism.

Jamalpur gradually evolved from a small Engine changing station to one of the Principal railway cities. Jamalpur was also Headquarters of Traffic Department of EIR and it was only in early part of 20th century when General Starchey, Chairman of the Home Board shifted it from Jamalpur to Calcutta which then was widely protested.

Jamalpur was also the Headquarters of East Indian Railway Volunteer Rifles which in 1906 was around 2300 strong having its own Armoury and Headquarters staff.



Thus, Jamalpur has been the pioneer in starting the Apprentices scheme in Railways in particular and in Government department in general. The need to train supervisors from the Indian population was primarily guided by the economic and climatic consideration. Gymkhana was the recreation hub for the inhabitants of the Mechanics Institutes. Later on in 1925 when Special Class Railway Apprentices Scheme was introduced to have Mechanical Engineers for the Railways from the local inhabitants itself, Gymkhana became abode for these Special Class Apprentices.



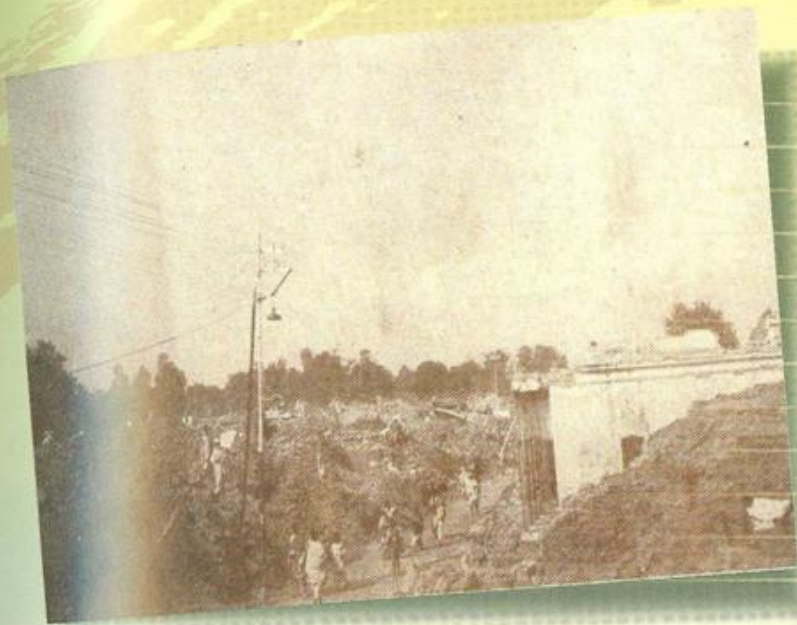
JAMALPUR SPECIAL APPRENTICE HOSTEL 1932



View of Gymkhana from Quadrangle

Jamalpur Workshop premises houses the Workshop as well as Indian Railway Institute of Mechanical & Electrical Engineering. In the first decade of the 20th century, the supervisory staff of Jamalpur Workshop consisted of 26 Foreman and Assistant Foreman and about 180 Europeans and East Indian Mechanics. With Workshop strength around 9000, it is a simple arithmetic to conclude that the vast majority consisted of labourers mostly of local origin and were brought in 3 nos. of Workmen Train- one from Kajra, second from Sultanganj and third from Monghyr.

At the same time about 40 Apprentices were lodged in the boarding house and were trained by the Mechanics Institute, which later on, developed into Technical School, then later on as Indian Railway Institute of Mechanical & Electrical Engineering.



1934 Earthquake

In fact shaking affects of the main shock were experienced as far as Himachal Pradesh and present day Indo-Pak border. It was followed by the famous Earthquake of 1934 on January 15. This Earthquake was 8.4 on Richter scale and of intensity X on Mercalli scale. The ridge area was Monghyr-Saharsa. The last major Earthquake was in 1988 which again saw many buildings getting collapsed and abandoned.

Jamalpur and Monghyr have been witness to two major Earthquake, one was in 1897 and the second was 1934 which saw many old buildings and structures getting totally demolished and replaced by new ones. 1897 Earthquake is probably one of the worst known Earthquakes of modern times having occurred on 12th June 1897 of MS 8.7 magnitude (pre Richter era) having its Epi Centre in Meghalya but due to its enormity of magnitude Jamalpur and Monghyr too were not spared.



1934 Earthquake

Jamalpur workshop has evolved from steam age and steam boilers to modern diesel locos having micro processor control and satellite monitoring of locos, world class cranes which have sophisticated electronics and hydraulics, and latest being stainless steel wagons but the township of Jamalpur has largely remain unchanged, a place where time stands still. A place filled with serenity. Nascent and pristine beauty remaining unchanged over centuries and rightly so. Does the beauty ever change! A place of beauty is a joy for forever.



Around the Centenary Year.

— by S. C. Misra, ex M.M



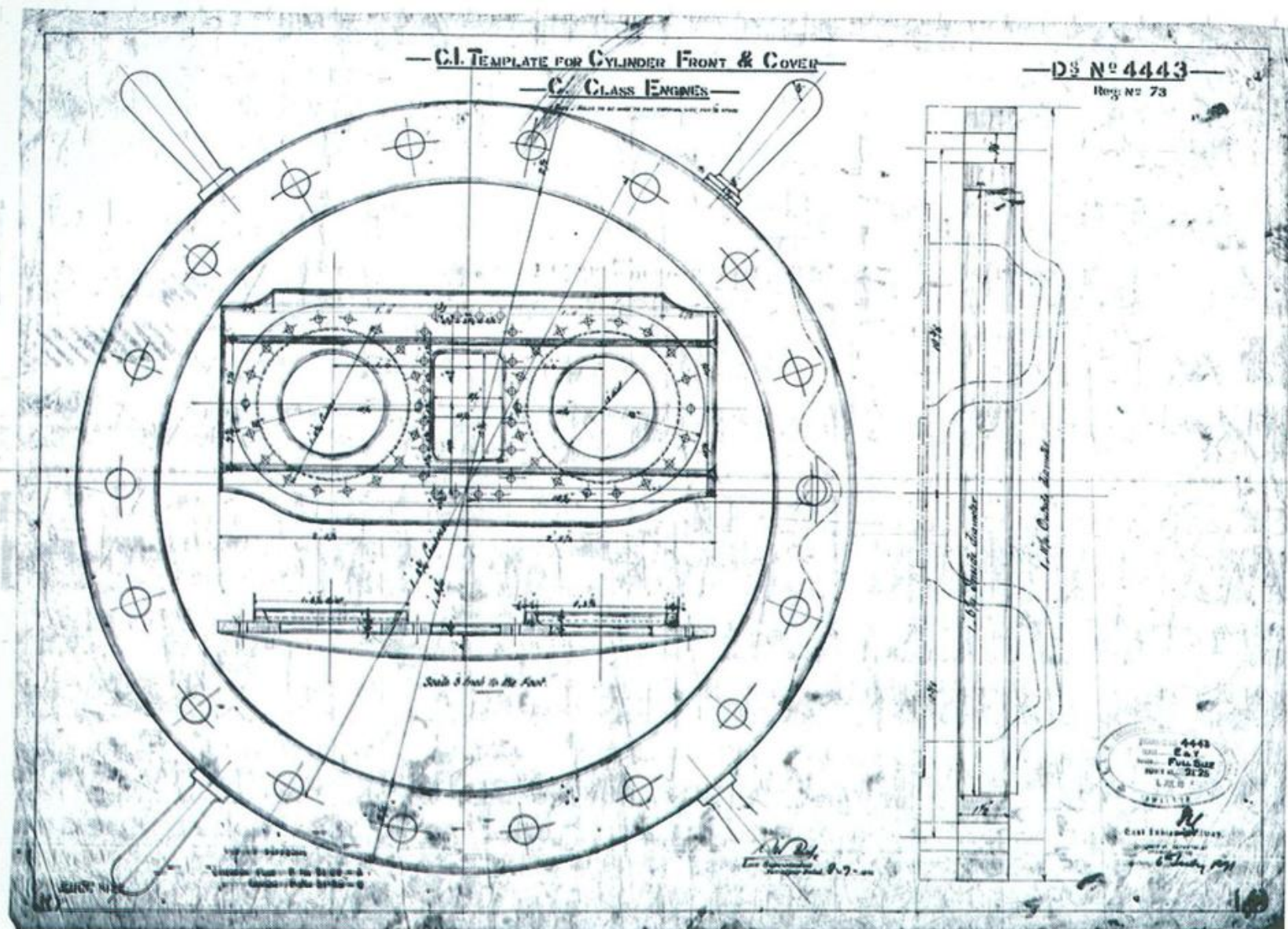
I hope this Workshop will grow for another 100 or 150 years and also grow technologically with new latest processes, latest equipments in the services of the country.

My highlights of the memories of the centennial year are that we brought closer to the working class. Government has given us enough funds, so, we used to go out to the major villages with wives of the officers and there in the villages we set up Mahila Centres having Sewing machines, Netting machines, a library and a reading room for the ladies and tried to improve the colonies, so we got to know and get closer to the staff.

The difference between Jamalpur Workshop and other workshops was that the labour has only one hour in the lunch hour to meet together with 7,000 persons and whereas in other places after work they all remain in the colonies or township nearby. So, they are there to organize their discontent and organize labour activities - may be anti-administration, anti-management, but in case of Jamalpur, they arrive by Workmen's train just about 7 in the morning and 7,000 people leave in the evening after 4 O'clock. So the only time they spent together is the lunch time where at least they need half an hour to finish the lunch but cannot congregate to that extent.

And therefore anti-management and anti-administrative problems are not geared up so much to that extent. For my stay in Jamalpur, I remember two things Mr. Jai Prakash Narayan had just launched the Bhoodan Movement. We knew nothing about it until he happened to arrive in Jamalpur and accidentally he stayed as my house guest for three days, he and his wife there. And he was addressing public meeting in Munger which used to collect a large numbers. But his proximity in the house made me realize value of Bhoodan Movement, Socialism of the highest order that is, all the well to do pool their resources and share with those who are not so well to do. It was a very big concept and made very big impression on my compassion for those who are not so well off.

Of my stay in Jamalpur, the natural beauty of the hills beyond the Golf Course to the reservoirs and to the temple on the ridge is beyond description. From the second ridge there was a wonderful view of sun rise on the Ganges. And Once we had seen it I made it a point that any time I spend the night in Jamalpur rather I arrive from outstation, or oversleeping there, I made it a point to do a trip up and down for exercise, I used to do a very brisk walk for about one hour this developed a big respect for Surya Namaskar, and that Surya Namaskar I cherish and advise everyone for building their health. Without physical health very little we can do and that is the best thing we can do. For the supervisors and the officers I would say that plan ahead, budget your time, define your objectives and try and accomplish them and keep on measuring your failures all the time and keep on improving.



JAMALPUR WORKSHOP

THE SPIRIT OF JAMALPUR

— by S. C. Misra, ex M.M



The name Jamalpur has always been synonymous with the grand old locomotive workshop (the oldest this side of Suez), and one of the largest of its time. It was also unique in many ways. Besides the usual locomotive building and repair facilities and the associated manufacturing units like forging and machining and testing, the Works were also equipped with a steel foundry, an iron foundry, a rolling mill (perhaps the first in the country), a bolt and nut manufacturing unit and a elaborate Tool Room and machinery reconditioning section. The workshop had even its own powerhouse.

It was thus the most integrated and self contained workshop of the time and accordingly acted as a catalyst for the entire mechanical Engineering Industry in the country.

It was therefore only natural that when the British decided to Indianize mechanical engineering education, and an expert committee appointed by them opined that the best method of training mechanical engineers is to combine workshop practice and technical education as closely as possible, the location that they selected was Jamalpur.

And that is how in the year 1927, the Special Class Apprenticeship scheme was born to train and supply mechanical engineers for the Railways. And if Jamalpur was to latter earn the sobriquet of "Cradle of IRSME", the credit must surely go to this historical 150 years old workshop.

I had the privilege of being associated with this workshop in two distinct phases, first as Special Class Apprentice (1956-60) and then as ACME (the post latter designated as CWM) from 1982 to 1985.



IRIMEE before earthquake of 1934



WDM2



Tower car



The special feature of SCA training scheme, in contrast with the pattern of education in usual engineering colleges, was to lay a greater emphasis on practical, hands-on learning. This certainly came in useful during the latter service years while managing large industrial units or dealing with large bodies of organized labour.

While during my training period as SCA, steam locomotives reigned supreme, with diesel and electric locos mere blips on the horizon, during my second stint at Jamalpur as ACME, the traction scene had undergone a sea-change, with steam locos fast getting relegated to a secondary position.

Jamalpur workshop too was accordingly undergoing a change—the traditional steam locomotive repairs and assembly shops shrinking in size to make room for newer activities like, diesel locomotive POH, OHE tower wagon and crane manufacturing and electric lifting jacks (named Jamalpur Jacks) etc.

The management of change was both a challenging and rewarding experience and a high point of my career.

With the passing of steam era, Jamalpur workshop may have lost some of its earlier glory, and the pre-eminent position of yester years, it will continue to occupy pride of place in the history of Indian Railways, and continue to live in hearts and minds of all those who were either trained here or worked here or associated with it in any manner.



140 Ton Crane



Jamalpur Jack

Jamalpur Loco Works 63 Years Ago

— by P. C. Sen, SCA 1949

Arrived Jamalpur in July 1949. There were only horse drawn vehicles at the station to greet you. The transition from Calcutta to Jamalpur station and then the reception at the SCRA hostel (Gymkhana) was enough to bewilder a 17 years old.

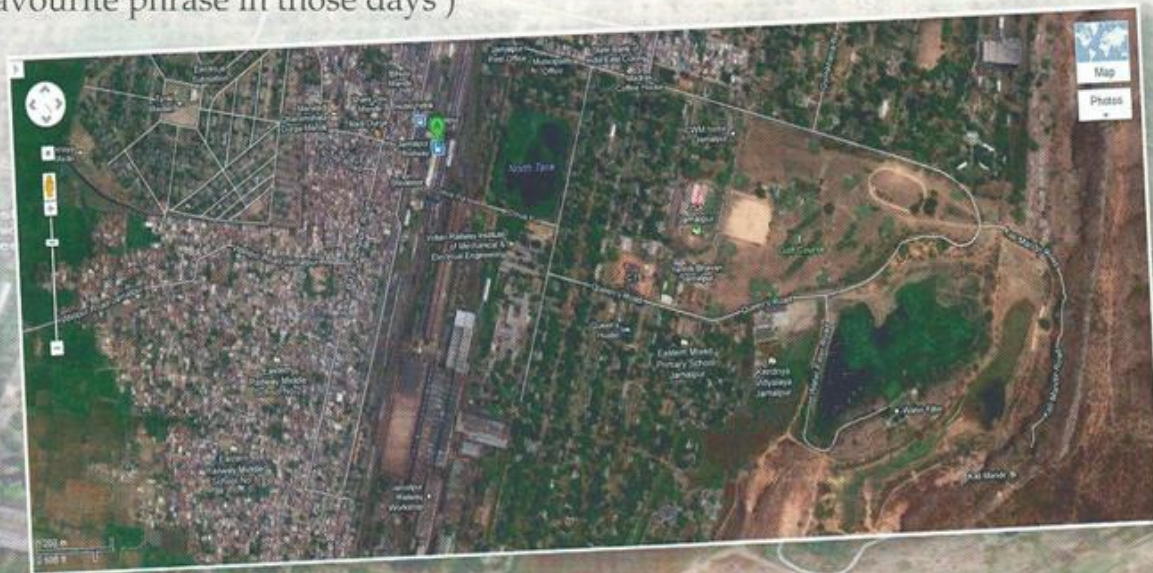
Thereafter the workshop (in those days a tour was arranged-through the Shops by the immediate senior batch.) its very size and noise was mind boggling.

The first assignment was Mill Wright Shop (MTS) for chipping, filing and blister formation on the hand. This shop was a medley of various types of machinery repairs including steam pumps & weighing machines from the divisions.

The discipline was fantastic -you were not supposed to sit down for 4 hours 7am-11am and again from 12 pm to 4pm after a 1 hour lunch break. We maintained this practice for the 3 years in the shops.



The Workshop was considered to be the biggest Mechanical Engineering Factory
"East of the Suez"
(a very favourite phrase in those days)



Satellite view of Jamalpur



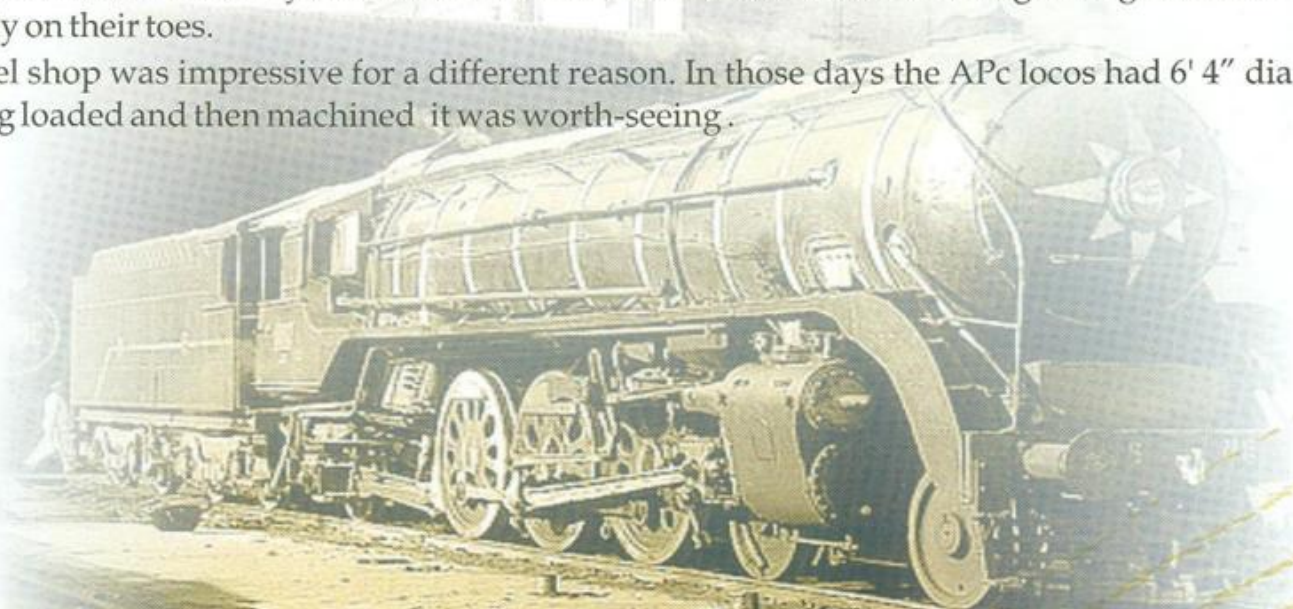
New machines would come in every year from UK and the factory was state -of -the art for those days.

So much so, that when the Reparation machines from Germany arrived JMP (in the Marshall Plan) they looked very old fashioned to us. (Reparation means making amends for wrongs or injury done). Nevertheless being free (or looted) they were installed with much fanfare.

The Brass Finishing Shop (BFS) was very impressive with rows upon rows of Capstan Turret or automatic lathes working . There was a lot of brass components in the Locos & this shop manufactured them from bars or castings made in the Brass & White Metal foundry (BWF)

The Foreman was one Mr Taylor. He went to each machine once in the morning and again in the afternoon. This kept everybody on their toes.

The Wheel shop was impressive for a different reason. In those days the APc locos had 6' 4" dia wheels. When this was being loaded and then machined it was worth-seeing .





The underfloor wheel lathe had not been conceived then.

There was a very large general machine shop (MS). It had machines of every description and most of them ran off overhead shafts. New machines with independent drives had started arriving and always attracted a crowd when being installed.

This machine shop had a Caprotti valve section. The Caprotti valve gear was like a motor car gear box. This system was used in the German made XT locos as against Walscharts valve & motion system in all other Locos. They were a marvel of mechanical engineering and we had to assemble and dismantle the system a number of times which we obviously detested.

Fortunately this knowledge came in very handy when I was DME / ASN in 1962. Ondal loco shed had a number of these locos which were constantly failing due to valve problems. I could take these valve gear boxes to pieces which no fitter could do. Thus I could get to the bottom

of the problem. This brought me a lot of qudos from the CME.

The Boilershop was famous for its noise. There were dozens of pneumatic descenders and rivetting machines at work and traditionally all persons retiring from this shop became partially deaf. Mr Neogi the Boilershop FO was an example.

Transporting of big XE class loco boilers with their unbalanced load from one end of the shop to the other was a feat in coordination by the two overhead crane drivers and the slingers.

There was a very ingenious chargeman by the name of Bottle Singh. He devised a machine which could quickly trepan flu & smoke tubes from the boilers. In his honour it was named the "Bottle

Singh Apparatus". The working of this was a very favourite question of the DCME in the SCRA's interview.

The Permanent Way foundry was the only shop on piece-work then. The workers there were like robots. They were continuously running with their head loads and you dare not be in their path as they would not hesitate to knock you down. It was a very dark and dismal shop with a low roof. The shop was unkempt as all the CST9 CI sleepers were cast on the floor.

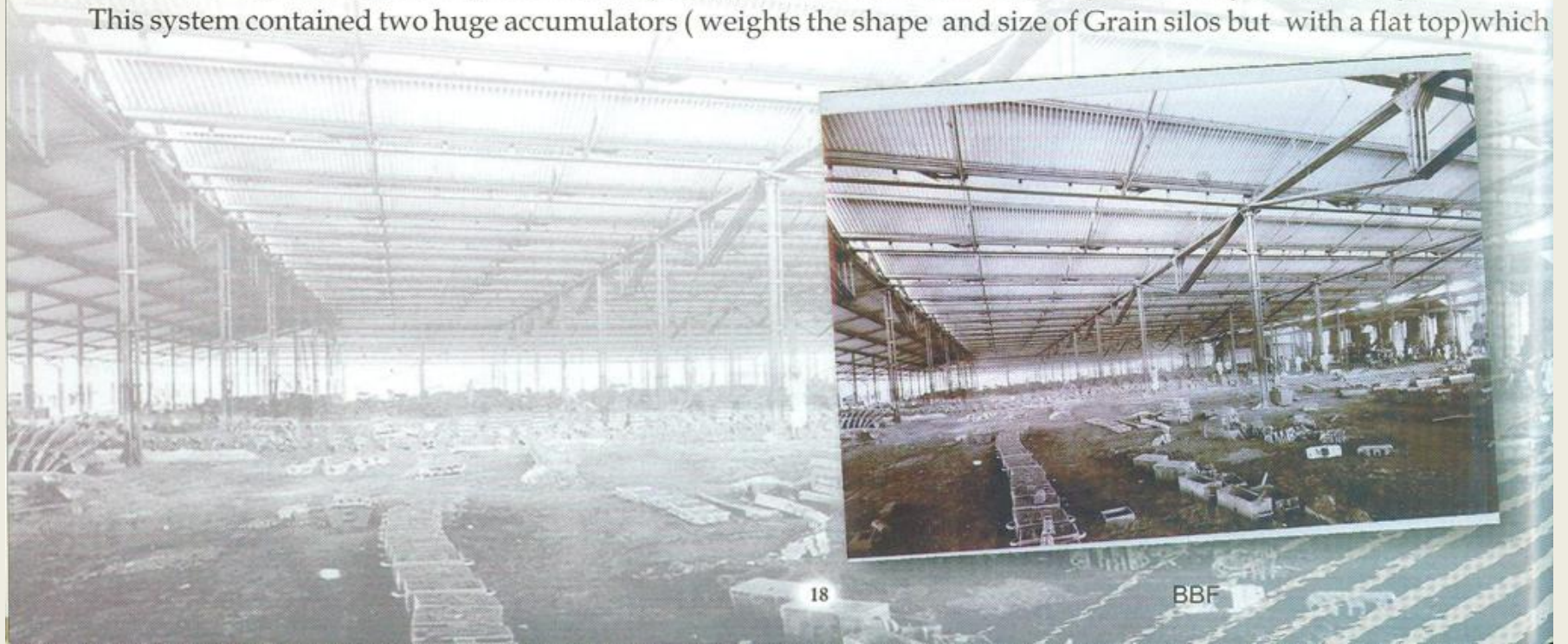
The Gen Iron Foundry (GIF) was the last shop. This had 2 or 3 nos. of 5 Ton Cupolas. The crowning glory was the day a SGC3 Class loco inside cylinder block was cast. The metal from all the Cupolas would not be sufficient to cast the cylinder. The senior chargeman Mr. Satyanarayanan contrived a novel method of storing the liquid iron from the first charge till the second charge was ready. The casting came out very well.

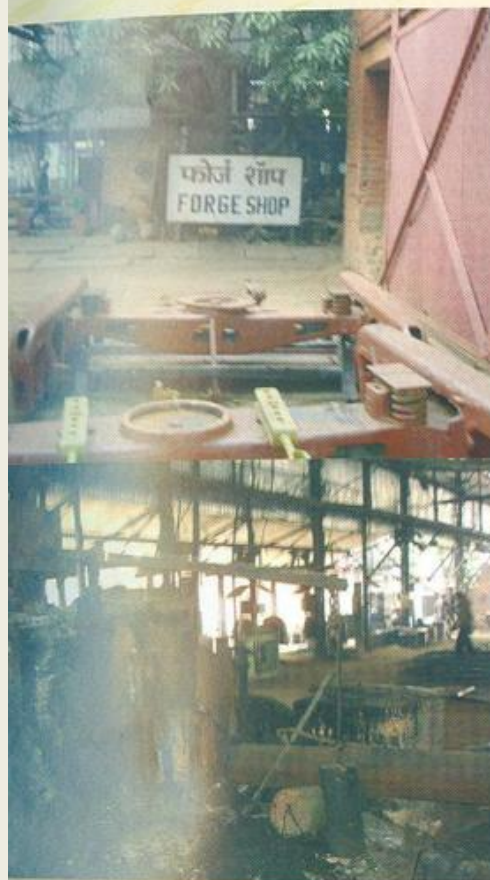
There was a magnetic ball scrap breaker, just outside the foundry, for breaking up big lumps of scrap that came for melting. It was fascinating to see it work.

The view of the hills from this shop, particularly during rains, was wonderful. We would often go there for relaxing. The destruction of these hills had not started then and they were in their pristine glory.

The Central hydraulic power system was very unusual and I have not seen this system in any other factory.

This system contained two huge accumulators (weights the shape and size of Grain silos but with a flat top) which





would come to ground level when the hydraulic pressure dropped and would be again at the top when recharged.

Once 2 SCRA's got on top of this and went to sleep. At 4.00 pm to their consternation they saw that these were at their highest level and there was no way to come down. Only late in the evening when these again came to the bottom, could they get off. Their plight (for more reasons than one) was to be seen to be believed.

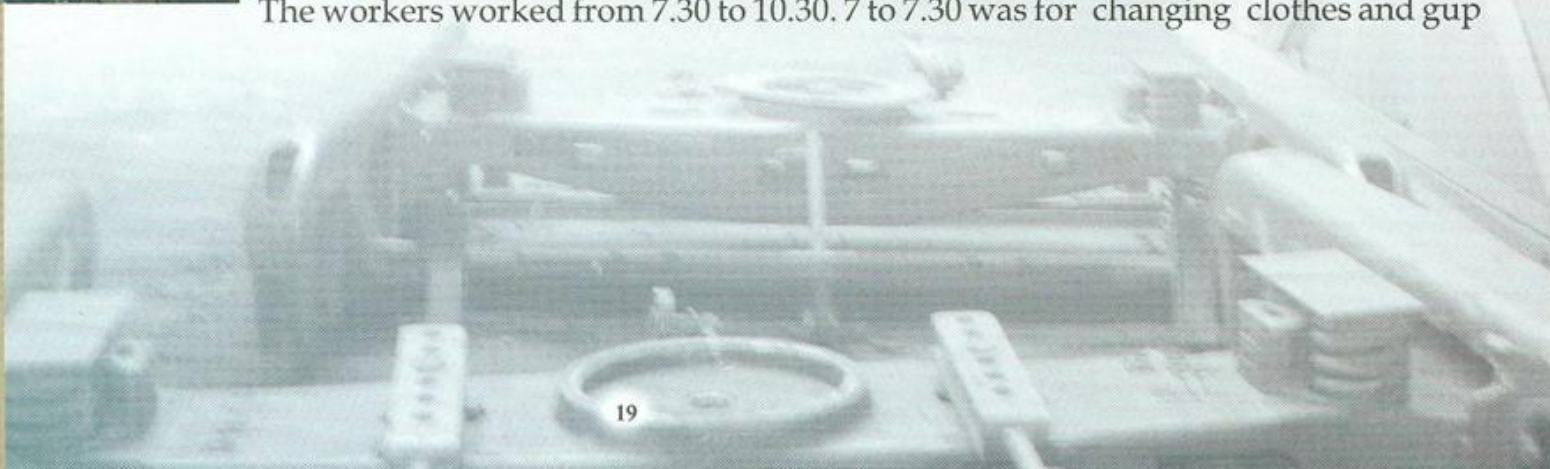
Another very fascinating place was the Forge Shop. When a inside cylinder crankshaft was being forged under the IOT steam hammer, people would gather around to see the skill of the Forge man / charge-hand directing the hammer operators blows. His " Howlay Hawlay" and "Marish" instructions became legendary words.

Equally thrilling was the noise from the drop hammer. At night it could be heard from the colonies.

The persons who commended the highest respect on the shop floor were the FOs and AFOs. It was more than any AWM or WM.

The English traditions in 1949 /50 had not totally died out. The Foreman & Asst. Foreman would come to work with their jackets on, through out the year. In fact when a Senior Chargeman was to be promoted as AFO he would be told that he can wear a jacket from now which meant he had been promoted. It was a big day for him as it meant no more punching cards.

The workers worked from 7.30 to 10.30. 7 to 7.30 was for changing clothes and gup





Workmen's Train & Shed

shup. 10.30 to 11.00 was for washing hands. The same ritual prevailed in the 12.00 to 4.00 pm shift. But during the 6 hours they worked, they did not waste time.

There was another ritual for the workers- the famous coolie train. (later on renamed work men's train.) These ran on a strict schedule and were given precedence over all other trains. The workers had to really run at 4.00 pm to catch their trains. That too was a sight worth seeing.

To an outsider (who has left the Rlys in 1970 and has been visiting once a year ever since) the glory of Jamalpur shops has very very unfortunately faded. What was the glory of India (not only Rlys) today is not even 2nd fiddle. Once people start sitting on their laurels the demise starts.

During 1964-67 as DME (Diesel) / Howrah I tried my best to get Jamalpur to POH WDM2 locos. But to no avail. From the chargeman to the higher ups, nobody was interested.

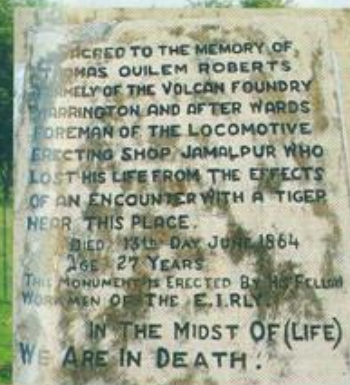
It is understood that Jamalpur has been nominated to be an Independent Production Unit.

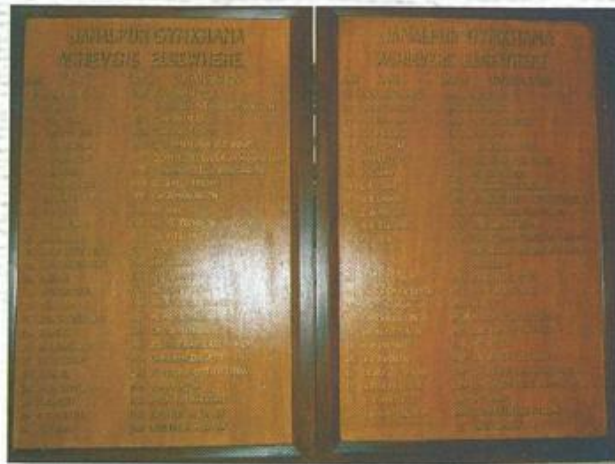
This is the time Jamalpur should re-invent itself and get back its lost glory. It should not only do wagons etc but something critical and difficult for the Rlys., so that it can again become the Mecca (like Vulcan Foundries of U.K.) of Mechanical Engineering.

A Great Tradition

— by S. C. Sengupta, ex G.M.

What did the Locomotive Workshop, Jamalpur, look like on the dawn of 8th February 1962? There are some faded pictures in the archives of Eastern Railway Head Quarter (erstwhile EIR) which have become misty and bare little. The type of locomotives, the Sahibs in their "Shola Tapees" and natives in their loin clothes are all extinct. The beautiful hills, the maidan, the reservoir, the seasonal waterfall and the banyan tree next to CWM's house still exist. The old township and workshop were rebuilt after the devastating earthquake in 1934. Tigers used to come down the hills in the evenings. On 13 June 1864, Mr T. Q. Roberts, 27 year old Foreman of erecting shop had an encounter with a tiger. Both were discovered dead in the morning lying side by side. Their tombs in golf course still exist with a moving epitaph "In the midst of life, we are in death".





JMPW had the distinction of having the country's first rolling mill in 1870, railway foundry in 1893, B6 steam crane manufactured in 1899 and first railway power house in 1901. It has always been famous for technical and managerial excellence. Major public sector units like BHEL, ONGC, HEC, MAMC, CMERI etc had their CEOs initially selected from JMP trained executives. With the phasing out of steam locomotives, the future of the workshop looked uncertain. However, it bounced back to life in 2002/2003 with the overhauling and manufacturing of freight stocks. Sri Nitish Kumar, as Railway Minister played a very constructive role. The future of thousands of workers from JMP/Munger was made secure. The

Writer, as GM/ER during that period, is proud to record that JMPW achieved the targeted outturn 900 F.WV of wagons per month during the 'project stage' itself – a tribute to the skill, efficiency and dedication of the Jamalporeans!



Rolling Mill



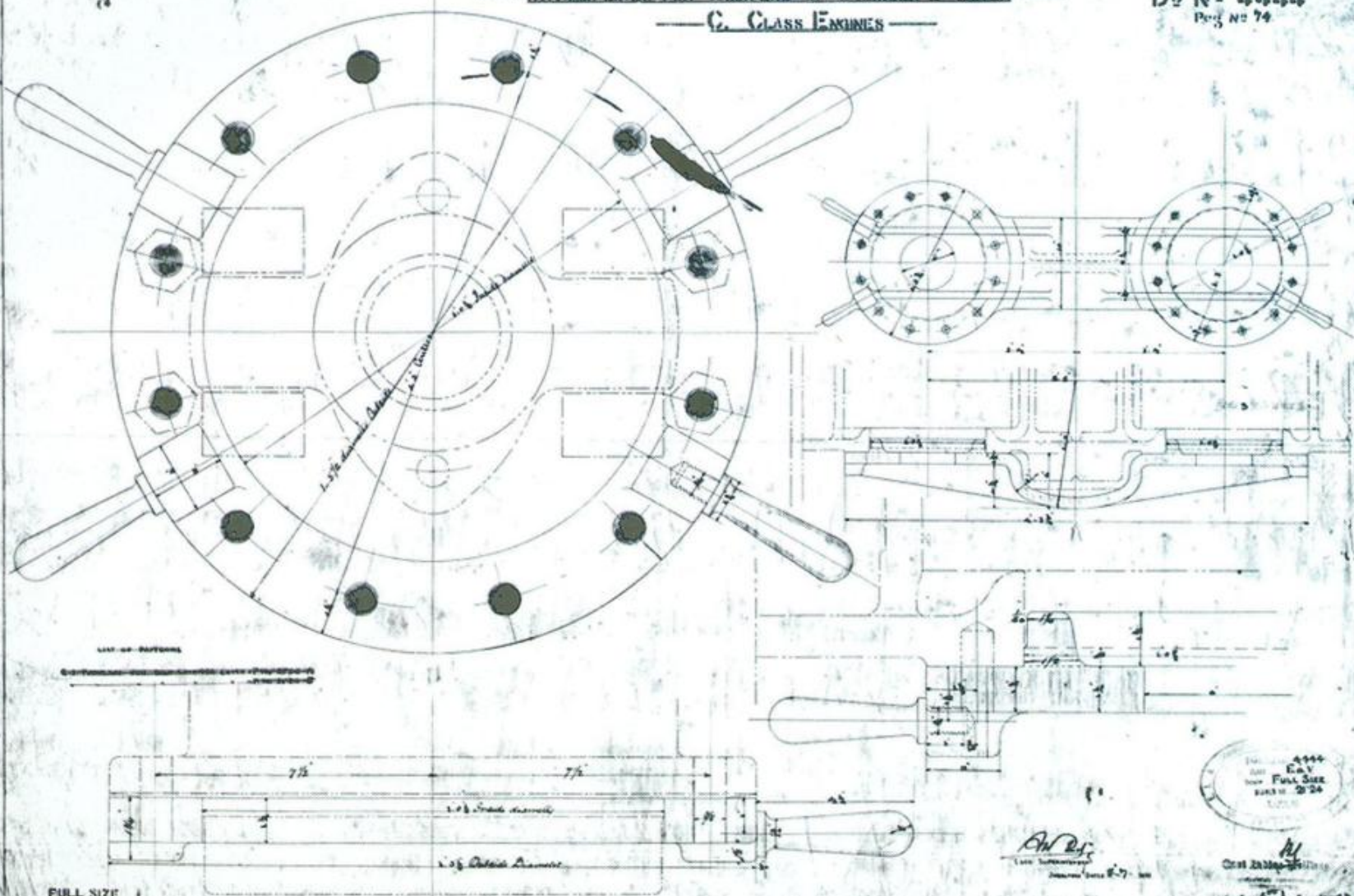
A great tradition is at the root of the success story of JMP. This belief was reinforced when we visited JMP on the 14 February 2011, a golden jubilee reunion year of our batch. The workshop was found throbbing with life, getting technologically upgraded and meeting the challenges. The container wagons (BLC) manufactured at JMPW have been adjudged the best in the country. We went unannounced to see the young trainees in the Basic Training Centre. We were received with great affection, shown round the place and never felt the 'generations gap'. Their parting message was 'Sahab Fir Ana'. Long live this tradition.



BLC

CL. TEMPLATES FOR BACK END OF CYLINDER & COVER
C. CLASS ENGINES

D3 N^o 4444
Page N^o 74



Jamalpur - where our souls reside

— by V. Anand, ex G.M.



Jamalpur means "Beautiful Town". The East Indian Railway laid their first line to Delhi along the right bank of the mighty Ganga River.

From Howrah the line goes via Barddhaman, Sahibganj, Bhagalpur, Jamalpur and Patna, Mirzapur, Allahabad, Kanpur and Aligarh to Delhi. It never crosses the Ganga. It crosses the Yamuna at Allahabad and again just before Delhi. This was the main line for East Indian Railway, till a shorter route was constructed via Asansol. Later, a still shorter route was laid via Dhanbad and Gaya, called the "Grand Chord". The Grand Chord is the most heavily worked line on the Indian Railways.

The EIR selected Jamalpur for building their locomotive workshop. Nestled between the Ganga and low hills, it is indeed a beautiful place. The workshop was commissioned in 1862 and was the oldest and biggest Locomotive Maintenance Workshop on the Indian Railways. At the time of its construction there were no steel plants or any heavy industry in India. Every component required for building and maintaining the locomotives that had to be imported from Britain.

EIR, therefore set up manufacturing facilities in Jamalpur. There were foundries for Cast Iron, Steel and Bronze. Steel was produced in an open-hearth furnace.

There was a forge shop for mass production of components and a blacksmith shop for job work. A rolling mill driven by a steam engine, a bolt and nut shop, heat treatment shop, boiler shop and erecting shop were also set up. The imported steam engine was replicated in Jamalpur and both engines were working in 1963.

There was a Pattern Shop to manufacture the patterns required for the foundries, a separate die sinking shop for manufacturing forging dies, a tool room for manufacturing jigs and fixtures. There was a huge maintenance facility called the Millwright shop, which kept all the machinery and plant within the Jamalpur in good order. The millwright shop also looked after all the machinery and plant of the wayside installations such as pumps. The

entire workshop was covered by a network of water and compressed air pipelines. Electricity was generated in a 10 MW thermal powerhouse.

There was a triple expansion reciprocating steam engine driving a DC generator. Two stem turbo alternators supplied AC. There was a bank of Mercury Arc rectifiers to convert AC to DC. The direct current was mainly for the overhead gantry cranes. Water was pumped from the Ganga River and supplied to the vast colony and the workshop. Jamalpur also had a separate pipeline for supply of water at high pressure for the riveting machines and hydraulic presses.

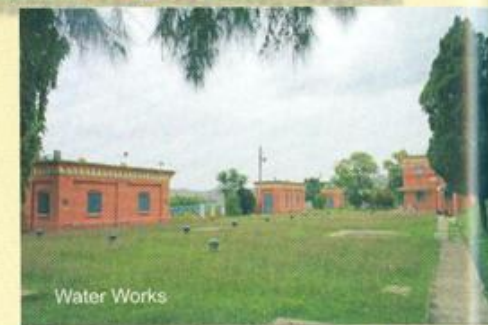
The British believed in keeping the civil administration at arm's length. Jamalpur is a few kilometres from Munger, the district headquarters and capital of the nawab Mir Quasim. Munger was well known for the manufacture of ironware and armaments. There was, therefore, a pool of talented artisans and master craftsmen who were without work after the First War of Independence 1857

For more than seven decades, these men fashioned steam locomotives, till the Second World War required them to manufacturing war material again. The Tool Room manufactured bomb sights and similar components. The socialist icon of "Turning Swords into Ploughshares" was a reality in Jamalpur, where AP (Armour Plate) steel of the Second World War days was being used for manufacturing dies and punches even in the 1960's. Jamalpur was called upon to

manufacture hand grenade shells in the aftermath of the Chinese war in 1962.



Grenade Shell



Water Works



Pontoon



Furnaces at BTC



Workmen's Train in the shed



Earthquake Damage—1934



Jamalpur Station after 1934 earthquake

Station Station Reduced to Rubble

Jamalpur Workshop and the colony were devastated during the earthquake of 1935. Phoenix like, it rose from its ashes after three years. For well over a hundred years, Jamalpur workshop dominated the Railway scene in Eastern India. "Made in Jamalpur" was the hallmark of excellence whether it was structural parts for building, water tanks, locomotives or cranes.

When I joined Jamalpur as a Special Class Apprentice in 1963, Jamalpur Workshop was at the peak of its glory. The centenary celebrations had concluded. Steam traction reigned supreme. Jamalpur was still the biggest locomotive workshop on the Indian Railways. Though the open hearth furnace had closed down, an experimental electric steel foundry had been set up and a Tropenaz steel converter had been commissioned. The crane shop had started manufacturing steam travelling cranes. Apart from locomotive components, Jamalpur was also producing CST-9 cast iron sleepers, tie bars, split cotters (called Denham-Olpherts Cotters or DC cotters) for the Engineering branch and EP (Ellis Patent) locks for locking wagons. The workers used to come from the surrounding villages in special trains. They were mostly farmers, who would go back to their villages after retirement.

There was a tacit understanding that one ward of the employee would be recruited to replace him. The generations of workers are fiercely loyal to Jamalpur workshop. Though the workers came from all religions, the Heat Treatment Shop, called "Haddi Ghar" (Bone House) had a majority of muslim workers because the hindus had reservations about handling bone meal which was an essential component of case hardening compounds.

The Technical Training School was an inseparable component of Jamalpur workshop. Hundreds of artisans, supervisors and officer apprentices have passed through its portals. The school had its hostels in Rampur colony for the trade apprentices, the Queens Road hostel for apprentice supervisors and the Gymkhana for Officer Apprentices. The alumni of this school were the pioneers who set up the Production Units like Integral Coach Factory, Diesel Locomotive Works and the Rail Wheel factory.

Today, when Jamalpur Workshop completes 150 years, our hearts swell with pride. Each of us has left a part of our soul in Jamalpur.

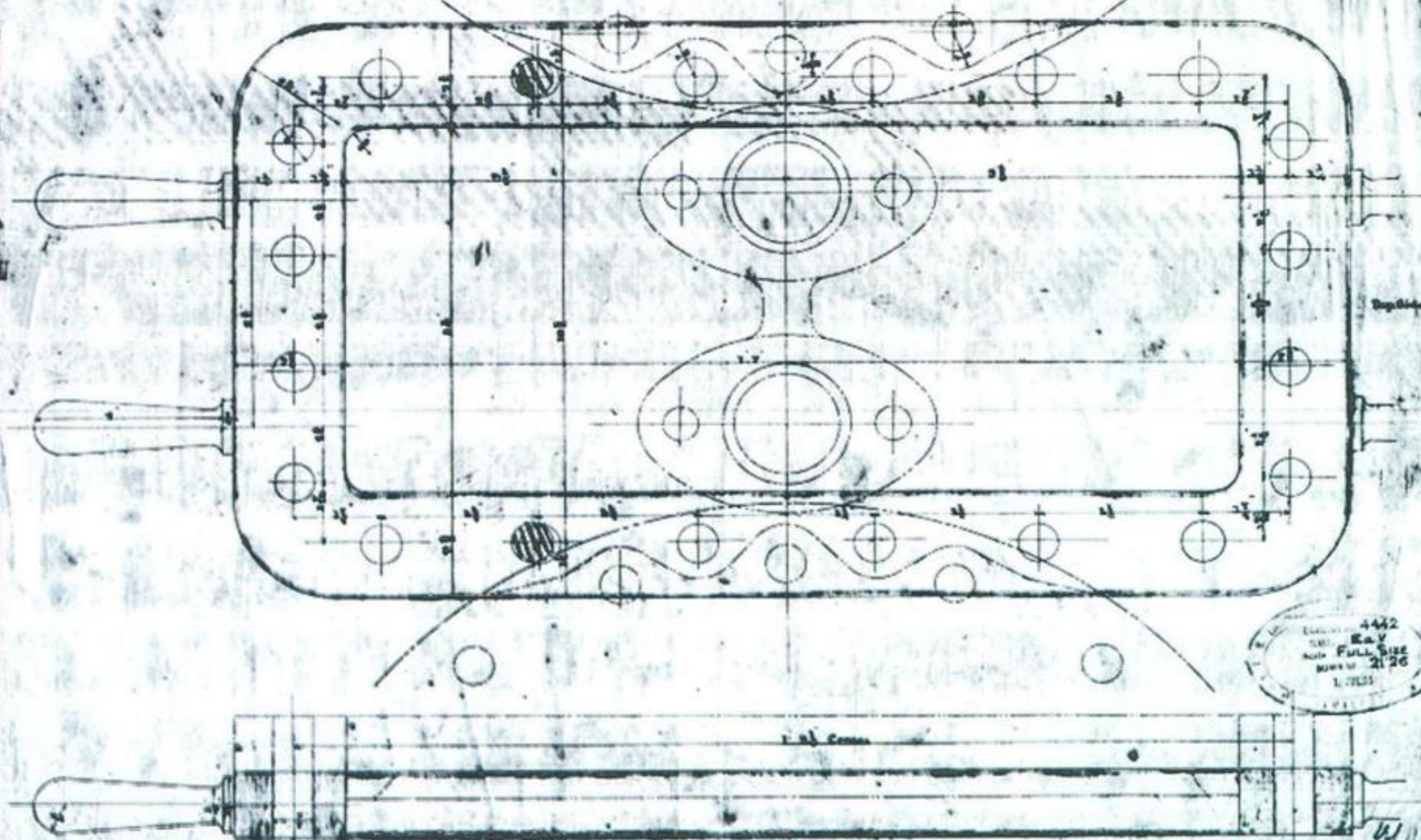
— C.I. TEMPLATE FOR STEAM CHEST COVERS —

D^g N^o 4442

Ref: NP72

—C. CLASS ENGINES—

Notes: Holes to be made to the tapping meter heads



4442
KAY
Full Size
2126
1.7133

FILE SIZE

Rev. D. J.
St. Louis, Mo.
January 2nd 1877

Jamalpur Workshop-150 years of Excellence

—by H. C. Joshi, G.M./NCR

Jamalpur Workshop occupies a special place in the collective psyche of all those who have worked for it or were blessed with the good fortune of having been trained there. IRIMEE- the Institute established in the proximity of this workshop - depends on the workshop for the practical training of all its trainees. I joined IRIMEE as a Special Class Apprentice in 1970 when the main activity of the workshop was POH of steam locomotives. Those were the heydays of steam traction although Diesel and Electric tractions had already made an impact of their own. I am proud to acknowledge the vital contribution of Jamalpur Workshop in the practical technical knowledge that I gained there was also the managerial acumen that seeped unobtrusively into my training curriculum.



Men at Work on Machine



Electrically Operation
Belt Driven Machine

The Workshop had already completed more than a century of its existence when I arrived there as a trainee. At that time it was the Erecting Shop that occupied 'Queen Bee' status since the final outturn of the workshop emerged from there.

All the other shops either performed peripheral activities or were mere hand-maidens of the Erecting Shop. However, it did not take me long to notice that the Workshop was serving many other important needs of Indian Railways. Apart from manufacturing Steam Cranes, the workshop was producing a wide array of components for maintenance of locomotives as well as track. The skilled manpower available at the workshop was unmatched in its diversity. There were foundries – cast iron, steel and brass – rolling mill, forge, smithy, machine shops, millwright shop and shops engaged in manufacture of Bolts, Nuts as well as Rivets. In fact the entire infrastructure needed to produce the full range of components required for manufacture and upkeep of steam

locomotives and cranes was available, duly supported by skilled manpower for the same. It is said that the workshop had even produced components for the Armed forces during the Second World War as well as grenade shells for the Army during the 1962 Chinese war. Some of these shells could be seen adorning the Shop Foremen's tables as pen stands. It is not surprising that the Workshop has such remarkable achievements to its credit given the fact that Monghyr is famous for its cottage industry producing guns even today.

Jamalpur Workshop has a tradition of successfully reinventing itself to retain its relevance in the ever changing environment of Indian Railways. Thus when the Steam locomotive gave way to Diesels, the workshop diversified into overhauling and repairs of Diesel locomotives.

Today it is engaged in overhauling and repair of various types of wagons, manufacture and overhauling of diesel-hydraulic breakdown cranes and various types of tower cars, manufacture of heavy duty lifting jacks and other diverse activities. The process of diversification or adapting to new technologies is essential for the survival of any industry. A proactive approach to change is required to the flag of Jamalpur Workshop flying high.

The vision for the future of the workshop should be based on the bedrock of its demonstrated strengths. At the same time a clear roadmap is needed to steer it through the mists of its weaknesses to make sure that the vision is realized. Jamalpur Workshop, like many of its sister workshops on IR, has a vast reservoir of skilled manpower. It is also blessed with an established training infrastructure.

The workshop is therefore capable of quickly adapting itself to





Tower Car



BOXNHL



20 TON DIESEL CRANE



JAMALPUR JACK

manufacture and repairs of latest assets endowed with cutting-edge technologies. This has been repeatedly demonstrated in the past. The workshop should therefore plan for providing the much needed support to IR by way of manufacture and repairs of such assets. The focus should, however, shift to manufacturing instead of repair. Even repairs, wherever required, can be executed through the manufacturing route. For example, the need for repairs/overhaul of wagons by replacement of side walls and end walls provides an opportunity for the workshop to be a manufacturing centre for side walls and end walls for wagons. Similar initiatives are needed to develop manufacturing capabilities in other related fields such as hydraulics and electronics.

Changes are necessary as well as inevitable. The challenge, however, lies in adapting to the change within an acceptable time-frame. It must be remembered that the Zonal Railways are getting increasingly liberal in outsourcing at the slightest hint of hesitation on part of the in-house resources to take up the required services. Adapting to provide the required services, therefore, needs foresight and decisive action free of the inevitable red tape that is part of Railway working. Unfortunately delay due to red-tapism is not a problem that lends itself to easy solutions. It is an integral part of procedures that all government departments are obliged to follow. It is therefore necessary to unshackle the workshops from these elaborate procedures and empower them with greater autonomy. Reorganizing the management of workshops by putting all IR workshops under a single managing body on the lines of the Ordnance Factories Board may result in multiple benefits for the IR. It will obviate the fragmented planning by each Zonal Railway thus facilitating the creation of long term manufacturing plan for the Workshops. It will also create an empowered body to take a holistic view of the services required by IR and strive to fulfill the same across all the Zonal Railways. More importantly, this

empowered body can react swiftly to the changing circumstances and also interact easily with other manufacturers in the government as well as private sector to ensure optimal utilization of resources which is the very essence of any manufacturing industry. Thus IR workshops can build up synergy with each other and even across government departments. For example IR can offer/seek collaboration with Defence Shipyards, Ordnance Factories and Defence PSUs. This will provide opportunities for exchange of technical knowledge and skill and also create ready manufacturing back-up for the Defence forces should such a need arise in the future.

After all, Jamalpur workshop did provide the much needed support to the Armed forces during World War II and later during the Chinese war.

Jamalpur Workshop, like all the workshops on IR, is a precious resource created at considerable expenditure and deserves to be preserved, nourished and cherished. I have had the proud privilege of heading the Mechanical Department on ER on which the Jamalpur Workshop is situated. I am sure that this workshop will not only thrive but also spearhead many positive changes in the manufacturing and repair activities over IR-both at the shop floor as well as policy making level. I wish the Jamalpur Workshop all the very best for the future.

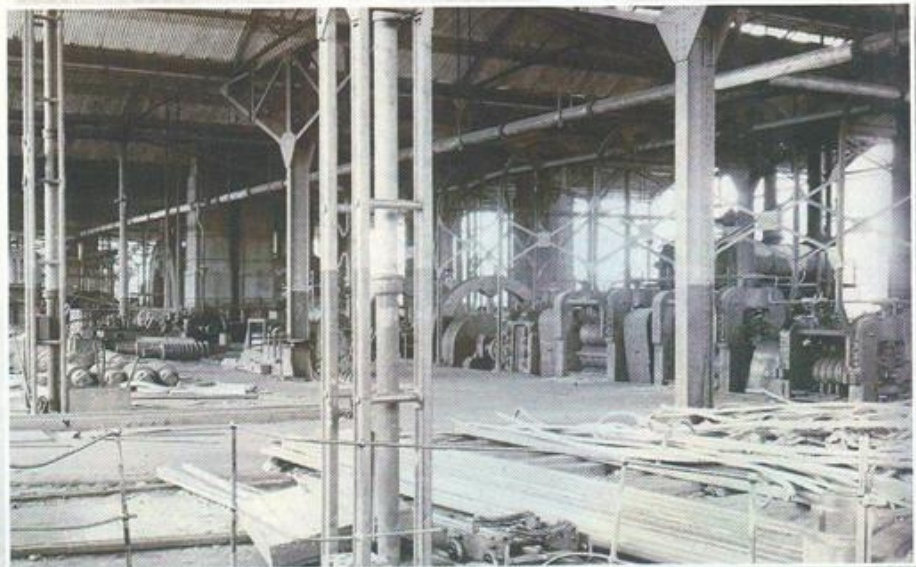


Jamalpur -- the original Pan-Indiana

— by Niraj Kumar, DG/RSC

On the heights of hills surrounding Islamabad was this resort where the Minister of Railways, Government of Pakistan had hosted dinner for the visiting Government of India delegation. These were the days when there was no train service between India and Pakistan across Rajasthan border connecting Munabao (India) and Khokhrapar (Pakistan). The visit of Government of India delegation was to negotiate an agreement for introducing such a service. The Honourable Minister, besides being extremely hospitable, was also equally keen to know the state of affairs of railways in India and its management systems. A minister so keen to know so much about the counterpart organization across the border is not very common.

Pleasantries over and the minister made sure that he interacted one to one with each member of the Indian delegation. On knowing this author's background of Mechanical Engineering, the Minister wanted to know if I had seen their Moghalpura Workshop. The question reminded me of my younger days in Ferozpur division where the history books of a few steam locomotives still showed some of the oldest periodic overhauls having been undertaken in Moghalpura Workshop. On being told of this connection with Moghalpura, though without ever



Rolling Mill

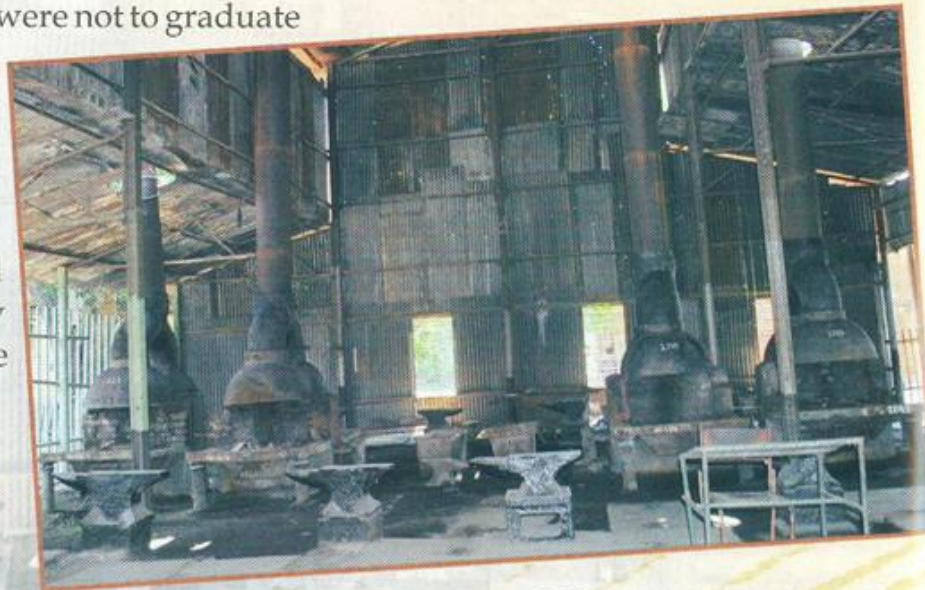
Moghalpura Workshop next morning after landing in Lahore on our return journey.

Interaction over the dinner behind us, I was reasonably sure that all the discussions about the Moghalpura Workshop has come to an end and like other members of the Indian delegation I shall also had a few hours in Lahore that will be well spent in sight seeing and shopping in Anarkali bazaar. I also had a personal desire to at least drive past the Government College, Lahore where my father had had years of education many many decades ago when my grand father worked for the North Western Railway (not to be confused with the present North Western zone of IR).

As I walked out of Lahore airport next morning, a gentleman walked up to me, introduced himself as DS Lahore and announced that he is under instruction from his minister to show me round the Moghalpura Workshop.

Visit to the Workshop was fairly long and what struck me the most was that people at Moghalpura were still aware of Jamalpur as their sister workshop. This took me back into history and thoughts of my own time in Jamalpur Workshop came to the fore - beginning with the Basic Training Centre (BTC) where one long summer was spent in-front of smithy hearths as the output of one pair of tongs produced by me and a batch-mate of mine was ceremoniously rejected in quality every evening by the Assistant Professor in-charge of Practical Training. All other skills had to wait as according to this professor, we were not to graduate

from BTC without all relevant skills on our fingertips. Thoughts of BTC were soon replaced by those shops of Jamalpur that have now become extinct like the Bolt and Nut Shop, Rolling Mill and of course the Iron Foundry paving the way for new activities like the crane manufacture and locomotive overhaul etc. May the oldest Railway Workshop soon become the most modern with state of the art technologies.



Furnaces at BTC

Crane Manufacturing at Jamalpur Workshop

— by A. K. Sinha, ex CME

Indian Railways is the largest rail network in Asia and the world's second largest under one management. Criss-crossing the country's vast geographical spread, Indian Railways are a multi-gauge, multi-traction system covering over 1 lakh track kms, 300 yards, 2300 goods sheds and 700 repair shops. Its rolling stock fleet includes 8300 locomotives, 39,000 coaching vehicles and 3.5 lakh freight wagons. Its work force is 1.65 million and it runs some 11,000 trains every day, including 7,000 passenger trains.

Indian Railways is divided into 16 zones. One of the zones is Eastern Railway. Jamalpur Locomotive Works is one of the major workshops of Indian Railway under Eastern Railway. It is situated in Jamalpur in Bihar State in the eastern part of India.

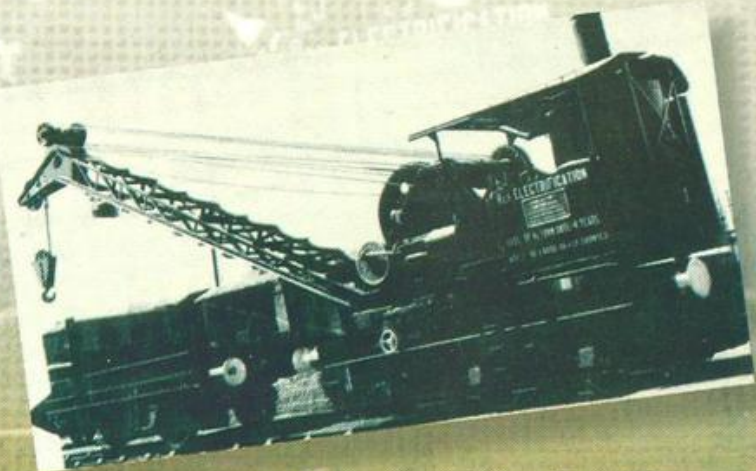
Established on the 8th day of February'1862, Jamalpur Workshop has enjoyed the distinction of being the largest and the oldest locomotive repair workshop with the most diversified manufacturing activities on the Indian Railways. Having a glorious history, the shop has achieved several milestones, which is unique in itself.

With gradual phasing out of Steam Locomotive from Indian Railway, the shop has kept pace with both, the technology change and technology up gradation on Indian Railways and diversified its activities.

Crane Manufacture:

Railway systems all over the world need heavy duty break down cranes to restore traffic. These cranes also assist in bridge construction & erection of permanent way and overhead electrical equipment.

Jamalpur locomotive works is the only railway crane manufacturer in India. Started in 1960 for manufacture of rail cranes, Crane Organization, a premier department of Jamalpur Workshop, has a glorious history of manufacturing various capacities of cranes.



Steam Crane manufactured at JMP

In pre-independence era Indian Railways were using imported steam powered cranes since no manufacturers for rail mounted cranes existed in India. Jamalpur Workshop started manufacturing steam cranes of up to 20 tonne lifting capacity during 1961. In early seventies Jamalpur Locomotive Works became the first manufacturer of 75 tonne steam break down cranes in India.

With the phasing out of steam locomotives, the Workshop switched over to manufacture of 10T & 20T diesel cranes.

With the introduction of air brake freight stock with gross weight exceeding 80 tonnes it was not possible to lift & manoeuvre derailed & capsized wagons with 75 tonne steam or imported 120 tonne diesel cranes. These cranes were not suitable enough to lift loads beyond 5 meters.

In 1984 Railway board decided to go for the latest generation of diesel hydraulic cranes capable of lifting a loaded freight wagon of 80 tonnes from a distance of 16 meters. These cranes require integration of latest technology in the fields of mobile hydraulics, pneumatics, heavy-duty fabrication, CO2 welding, microprocessor based intelligent controls and electronics.

An agreement was signed with M/s Gottwald, West Germany for Supply and Technology Transfer for 140T Diesel Break down Rail Crane in 1984. Crane Organization of Jamalpur Workshop was entrusted with the work absorbing the Technology Transfer and manufacturing this crane.

Starting with commissioning of fully assembled imported cranes from M/s Gottwald and graduating to the assembly of Knock down Cranes to manufacturing of Kit Cranes, today Jamalpur Locomotive Works has become the proud manufacturer of such modern cranes.



75T Break down Steam crane manufactured at JMP



20T Diesel crane manufactured by JMP

Chronologies of the development in Crane Manufacturing at Jamalpur:

1961: 1st rail steam crane of 20T capacity manufactured on 2nd October, 1961.

1972: 1st 75 T steam B. D. Crane manufactured.

1981: Manufacture of 20 T Diesel Crane started.

1983: Manufacture of 10 T Diesel Crane started.

1994: 1st 140T Diesel Hyd. Crane manufactured on 06th May, 1994.

2004: Manufacture of new design 140T Diesel Hydraulic Crane started

Summary of cranes manufactured and commissioned at JMP

20T steam Crane	44
10T steam crane	62
3T steam crane	45
75T steam crane	16
10T Diesel crane	48
20T Diesel crane	59
(14 Mechanical Controls, 32 pneumatic controls & 13 hydraulic controls)	
140T Diesel hydraulic crane	36 (13 old design & 23 New design)



140T Gotwald design Break down crane manufactured by JMP

Crane Maintenance :

Presently there are 53 cranes of Gotwald design operating at 53 locations over 16 Zonal Railways and KRCL. 5 cranes are under manufacturing which will be put to service shortly.

JMPW is the nodal workshop for major overhauling of all these cranes. The POH of these cranes are being done after 8 years of service followed by MLR attention at 14 years. The POH of these cranes started at JMPW from November'96 and so far 26 cranes have given POH attention. MLR attention at 14 years started from February'11 and so far 2 cranes have been given MLR attention at JMPW.

Annual Maintenance Contract with OEM during maintenance to improve upon Reliability :

During POH and MLR attention at Jamalpur, presently AMC is being executed for the following 02 major systems:-

- i) POH of Main Engine through OEM M/s. Cummins.
- ii) SLI system with the concerned OEM.

In addition some users are also executing AMC of the above 02 systems for regular maintenance at their end.

Future planning:

Comprehensive AMC of Main Engine for all consignees over Indian Railway to be done by Jamalpur Workshop with M/s. Cummins.

Material Management:

Following actions have taken by JMPW to improve upon the material management

- i) Must change item list for POH / MLR have been prepared.
- ii) List of regular Maintenance spare for consignee has been prepared and circulated to the users..
- iii) List of Maintenance spare to be stocked at JMP has been prepared and being purchased to facilitate the crane users.
- iv) Material are being strictly purchased as per CME approved Vendor Directory only. The vendor directory is being regularly updated based on performance. Last up -dation done in May'11.
- v) Railway Board has constituted a committee of three member comprising of CRSE/ER, Sr.DME(D)/HWH, Director (MP) / RDSO for reviewing the existing Vendor Directory. The committee has submitted their report to Railway Board on 15.12.11.

Crane Maintenance Group:

JMPW has constituted service engineer group (SEG) consisting of 1 supervisor and 4 technicians having expertise in crane maintenance to conduct regular audit of the crane at the user end. 5 such Service Engineer Group (SEG) has been formed at JMP who are regularly visiting the users to do the audit, giving maintenance support, on-site training, attending to minor defects if any. The SEG group started their work on May'11 and one round visit of all the cranes have been completed.

Training:

Theoretical and hands on training for handling of 140T crane are being imparted by JMP Workshop regularly. Training manual prepared and distributed to all consignees and also published in website. Every year 5 courses for each and every consignee are being conducted since last 21 years.

On line Monitoring:

For on-line maintenance and technical support, JMPW have developed 02 nos of following web-sites:-

- i) <http://www.140t.weebly.com>
- ii) <http://www.sites.google.com/site/140tjamalpurcrane>.

For updating part list, specification, solution for online failure / complaints, updating of POH manuals and pictorial Do's and Don'ts in regards to crane operation.

Defects codification:

Codification booklet no. MP. INV-23(Rev. 0.00), Dec'2000 published by RDSO. All defects of 140T crane have been codified based on type of crane, main assembly, sub-assembly, part etc. Consignees have been advised to log the defects as per code through the above web sites so that on-line solution can be given by JMPW.

Future of Crane manufacturing:

With the introduction of new design rolling stocks with higher capacity axle loads there is a need to enhance the capacity of the existing break down cranes. Indian Railways has planned to introduce 175T capacity cranes having Diesel Hydraulic Microprocessor controlled telescopic Jibs. Global tender is under process at Railway Board's level.

The new break down crane will be of modern design, extremely reliable and robust and capable to handle high capacity rolling stocks during break down and also for other general load lifting work. The cranes will also be suitable for pulling out lifted load off the tunnels or from top of under slung girder bridge in critical situations. The crane will be of modular design with easy maintainability of assemblies for repairs and adjustments and can work in extreme weather conditions. There will be other safety features like automatic leveling device, microprocessor based control and central monitoring system collecting and displaying all relevant data from engine, transmission, drives and overload protection system. The crane will be capable of working without slewing / dropping of OHE of adjoining track.

The new design telescopic boom crane will be able to eliminate the shortcomings in the present Gottwald design 140T B.D. Crane.

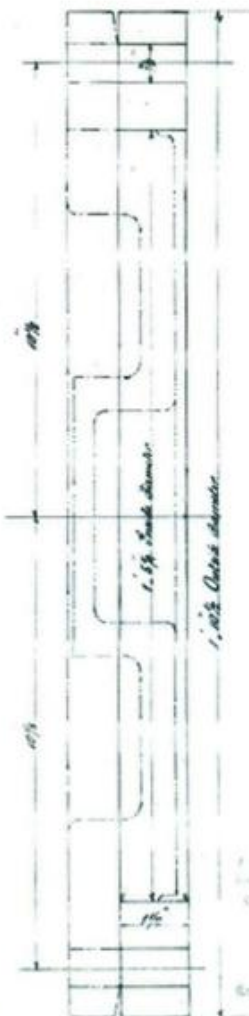
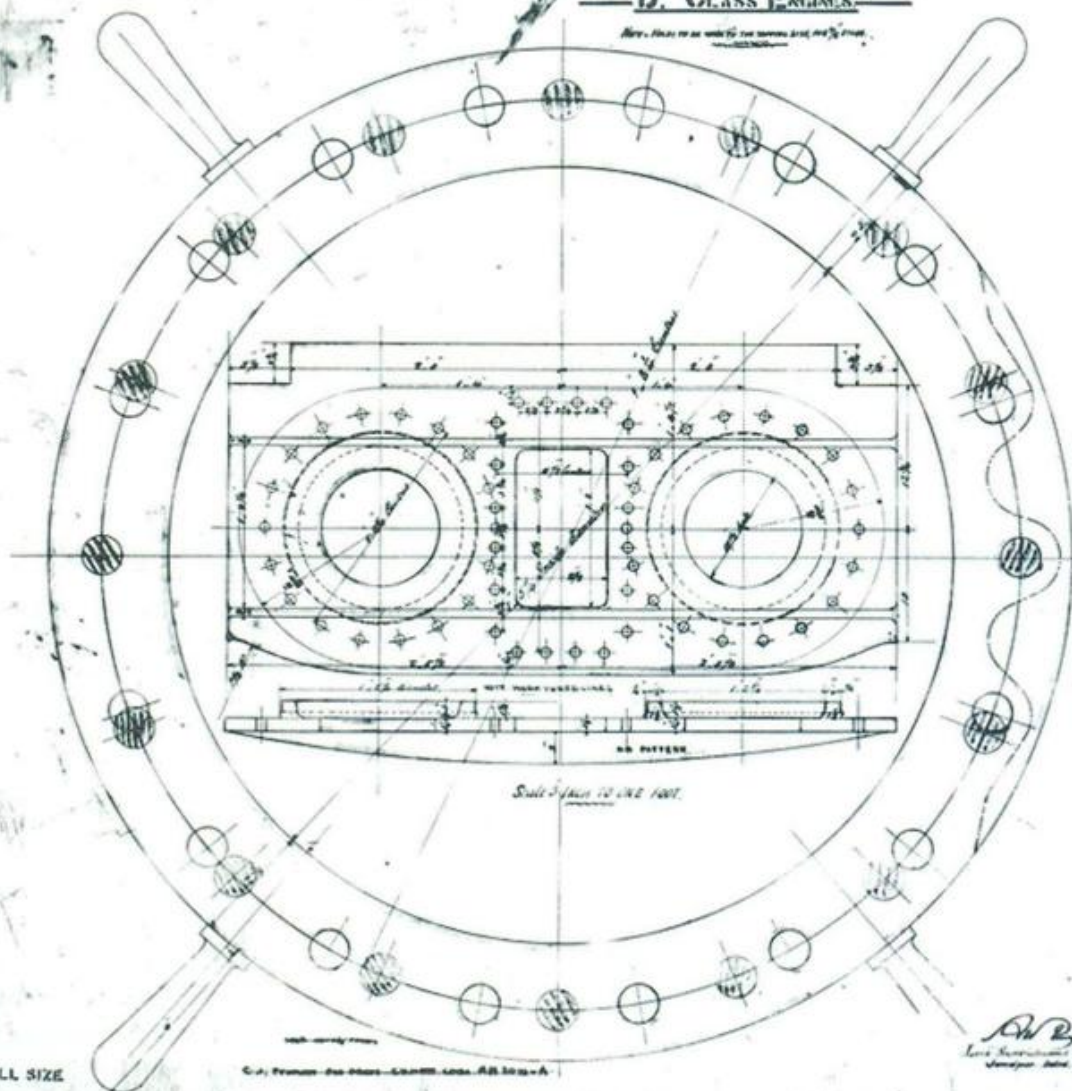
— C.I. TEMPLATE FOR CYLINDER FRONT & COVER —

— D. CLASS ENGINES —

Notes: Refer to an order for the correct size and type.

— D² N^o 4450 —

Rev. No 76



4450
E.M.
FULL SIZE
2/10

Rev. No 76

FULL SIZE

C.I. Diameter - 1.54 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00 - 1.00

Rev. No 76
1.54 Inside Diameter
1.00 Outside Diameter

Jamalpur – Cradle of IRSMC

— by J. L. Singh



An approaching steam locomotive is an awesome sight. Even one hundred and forty years back, when it was at the head of the train that carried Lord Mayo, the 4th Viceroy of the Queen Empress, during his travels across his vast colonial domain, it inspired not only awe but also admiration. This particular locomotive added grandeur and majesty as well. Adorning its frontage was the Viceregal Insignia of

Her Majesty's Representative. Four and a half feet high and made of solid cast iron, this intricate coloured insignia included a lion and a unicorn, a crown, a shield and festoons. Today, the insignia has pride of place in the town of Jamalpur, at the Indian Railway Institute of Mechanical and Electrical Engineering (IRIMEE). There it hangs resplendently on one of the walls outside the chamber of the Director of the institute. You can see a picture on the opposite page.

This insignia was cast in 1870 in the Iron Foundry of the East Indian Railway Workshop within a few years of the latter being set up in 1862. Its intricacy, its fineness, the fact that it has survived 142 years, is testimony, if any is needed, of the skill of the workmen and the state of contemporary engineering that the workshop had achieved. The workshop was the largest in the country at the time and had a large number of firsts to its credit, like the first rolling mill and the first Power House, in the 19th century itself. Apart from its engineering excellence, it was the creation of works of art, like the Viceroy's insignia, which were also symbols of power, that set the tone of the workshop in its early years. It is the completion of 150 years of this workshop's existence that this volume you are now holding is



commemorating. Elsewhere on these pages, you will find details of the history of the workshop and its eventful journey through the last century and a half.

In this write-up, let us concentrate on the contribution Jamalpur made on the development of human resources and the introduction of a mechanical engineering education in our country. Owing to the primacy of the workshop, it was only natural that when the British attempted to indianise mechanical engineering education in India, the location they selected was Jamalpur.



Satellite view of Jamalpur

The demand for the indianisation of various services, particularly of the Railways, was an integral part of the freedom struggle and was spearheaded by the likes of Gopal Krishna Gokhale and Madan Mohan Malviya. This led to the then British government setting up the Acworth Committee in 1920, under the stewardship of William Acworth. After 50 days and 142 witnesses, the Committee, while ruling in favour of state control, confirmed that none of the highest posts were occupied by Indians and very few of the higher.

Following this, the decade of the 1920s saw a number of Commissions, Committees, Resolutions, Reports, etc., all leading to the start of mechanical engineering education for railway men in the country. Significant among these was the Administrative Report for the Indian Railways in 1921-22, which mentions:

“At Jamalpur, on the East Indian Railway, facilities have for some years existed for training mechanics. It has recently been decided to enlarge the scope of these arrangements and to start a new technical school together with residential accommodation for the staff. The local government has promised a non-recurring grant for capital purposes in addition to an annual grant in return for which a certain number of vacancies will annually be reserved for qualified youth of Bihar and Orissa.” This was the first step in the formation of IRIMEE.

The Annual Report for 1924-25 includes two full-page photographs, one of which is captioned, “Technical School, Jamalpur, East Indian Railway” and the other, “Indian Apprentices Hostel, Jamalpur, East Indian Railway”. The Technical School was built as an impressive 2-storey building. Perhaps the first floor of the building was damaged beyond repair in the great earthquake of 1934 and the present IRIMEE building is a single storey structure only. The other building built as “Indian Apprentices Hostel” later became the Rampur Hostel.



View of Jamalpur



Aerial View of Jamalpur





Doubled stored-IRIMEE

Para 96 of the Administrative Report for 1924-25 is significant for, in this report, the term "Special Apprenticeship" is used for the first time, leading to the present term, "Special Class Railway Apprentice". The paragraph also talks of the qualifications the proposed apprentices should have and the break up of their training, which would include training at the Jamalpur workshop, at the Bengal College of Engineering, Sibpur, followed by 2 years in England.

The scheme received the sanction of His Majesty's Secretary of State in Council during the year 1926-27, and regulations for recruitment in India to, inter alia, the Mechanical Engineering and Transportation (Power) Department of the Superior Revenue Establishment of State Railways, were published under Government of India, Railway Department Resolution No. 2058-E dated 15th July 1926.

Regulations were also issued for other departments like the Transportation (Traffic) and Commercial Departments (TTCD) and Indian Railways Service of Engineers (IRSE).

However, no selection of Special Class Apprentices was made under the new regulations for recruitment to the METP, as applications had already been invited and selections made of six apprentices under an existing scheme of recruitment and training of this class of apprentices. These 6 candidates were the first batch of Special Class Apprentices.





During 1927-28, the regulations for the recruitment and training of officers in India for IRSE, TTCD and METP were revised and republished. It will be interesting to note that the regulations for recruitment for METP included the recruitment of Electrical and Signal Engineers also. Alas, this is not so any more!

Thus, on the 14th of February, 1927, the first batch of Special Class Apprentices arrived at Jamalpur, giving birth to the concept of Indians receiving an education in mechanical engineering in India. Prior to this, all mechanical engineers, whether European or Indian, were educated overseas, primarily in England. With this historic event began the indianisation of the METP. Jamalpur became and continues to remain the cradle of members of the METP. Years later, in 1970, the METP was re-christened as the Indian Railways Service of Mechanical Engineers (IRSME).

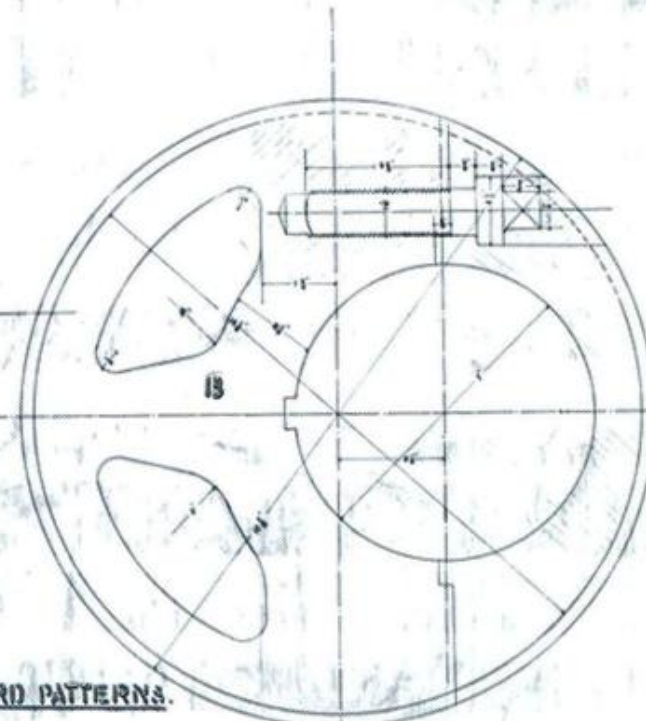
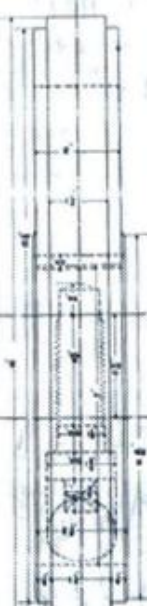
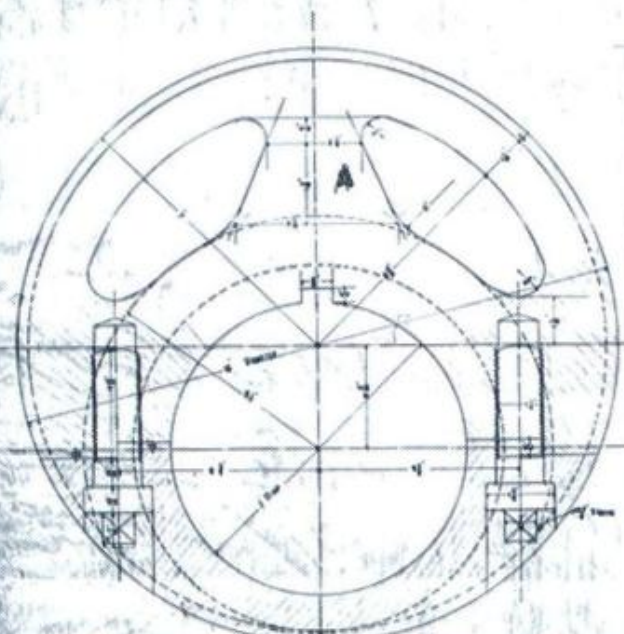
Till the dawn of independence, all recruitment to the IRSME continued through the Special Class Apprentice scheme at Jamalpur barring a few mechanical engineers being recruited as War Service candidates in the Second World War years. It was only after India was declared a Republic that direct recruitment of mechanical engineers also started in the IRSME in 1951. In the early years, training of these direct recruits was not established in one place and was divided between Jamalpur and Kharagpur. However, by the late 60s, training of all direct recruits was consolidated at Kharagpur under an Officer on Special Duty (OSD).

In 1988, the Railway Board decided to centralize the training of all IRSME officers under Director IRIMEE. Although the Director thus became responsible for the training and a fair amount of directed classroom training was conducted at Jamalpur, probationary officers still reported to the OSD at Kharagpur. At this stage, the OSD was placed under the administrative control of Director at Jamalpur. It was only in 1997-98 that the post of OSD was abolished and all IRSME officers from both streams began reporting to the Director at Jamalpur only. The process of combining the training of mechanical probationary officers was thus completed. In both letter and spirit, **Jamalpur became the exclusive cradle of the IRSME.**

The chronology of events that lead to this are enumerated below:

1862	Workshop at Jamalpur set up
1888	Trade Apprentice Scheme started at Jamalpur
1905	Apprentice Mechanic Scheme started for Anglo-Indians
1911	Apprentice Mechanic Scheme started for other Indians
1927	Special Class Railway Apprentice Scheme commences
1974	The Training School changes its name to Indian Railways Institute of Mechanical and Electrical Engineers
1988	Training of all mechanical probationers centralized at IRIMEE but probationers reporting to OSD Kharagpur
1997	OSD Kharagpur post abolished. Jamalpur becomes the exclusive Cradle of IRSME

1927 BATCH	
1. H. V. M. Stewart	4. Ben Basu
2. M. M. Khan	5. K. C. Lal
3. L. N. Choudhuri	6. C. J. Butler
1928 BATCH	
1. D. B. King	5. Chakravarty
2. P. S. Venkatesan	6. P. N. Murthy
3. J. P. Muncherji	7. O. Krishnaswamy
4. C. S. Lal	8. M. Ravi - sat - zamen
5. L. T. Madhani	9. W. A. Shukla
6. C. L. Paricha	10. R. Krishnaswamy



STANDARD PATTERNS.

— ECCENTRIC SHEAVE —

FOR

— ENGINE FAIRY QUEEN —

LIST OF DIMENSIONS

ENGINE FAIRY QUEEN

— ECCENTRIC SHEAVE —

FOR

— ENGINE SHAKES MATTHEW IN PARVO AND FAWN —

James A. Moran
 100 N. 1st St. NEW YORK
 100 N. 1st St. NEW YORK



Jamalpur Workshop

Enormity of Diversity - Impeccably!

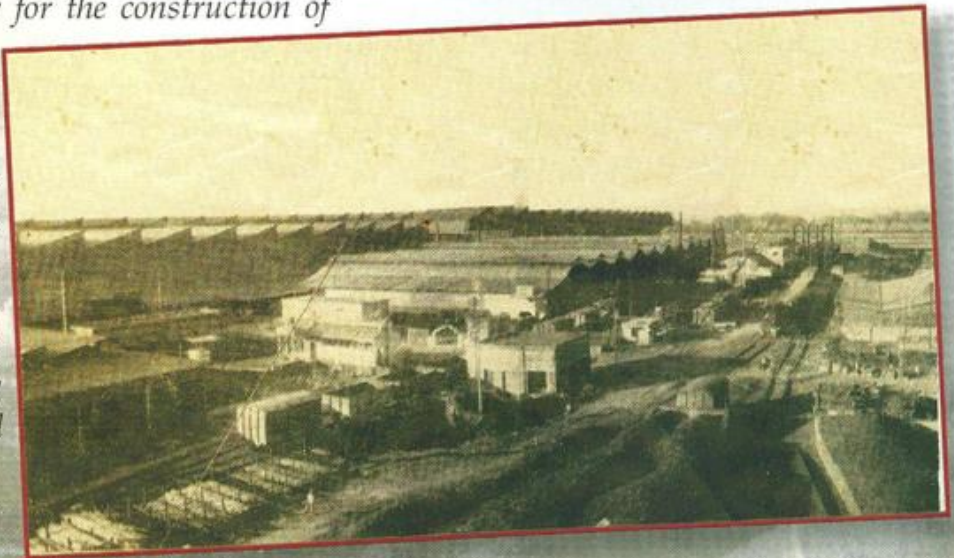
— by A. K. Sinha, CWM

Jamalpur workshop was established on 8th February 1862 as the Locomotive Workshop of East Indian Railway (EIR). There was more than workshop, though Jamalpur became the Headquarters of Locomotive and Traffic Department of East Indian Railway. The task entrusted to Jamalpur shops was then mainly of assembling engines and doing the maintenance and overhaul of the steam locomotives of the EIR: the task which it accomplished by bettering the BEST, and setting a global standard of its own.

The following passages from "Bengal and Assam, Bihar and Orissa" compiled by Somerset Playne, London 1917 aptly describes the highest reputation:-

The "largest locomotive workshops in India" are those belonging to the East Indian Railway Company at Jamalpur, a municipal town in the district of Monghyr, and 297 miles distant from Calcutta. Nearly ten thousand hands are employed in the shops, which contain the most approved types of machinery for the construction of locomotives, and the manufacture of appliances requisite for the maintenance of the permanent way of the company's system.

A brief reference has already been made to Jamalpur, the headquarters of the locomotive department of the East Indian Railway The most complete equipment of modern machinery and plant has been installed for the building of locomotives, and for the manufacture of iron sleepers and other permanent-way fittings, points, crossings, and signalling and interlocking and other appliances.



Aerial of the Workshop

And so affirms Huddleston as well

There are of course larger railway shops existing in Europe, but few are more self-contained or better equipped with modern electrically-driven machinery than these workshops.

Such was the Pan Indian fame of Jamalpur Shops that it was a 'must visit' place for degree engineering students (only 4 engineering colleges at degree level, then cf: para 1.13 of INAE report-profile book) as the extract from 'Indian Engineering' reveals.

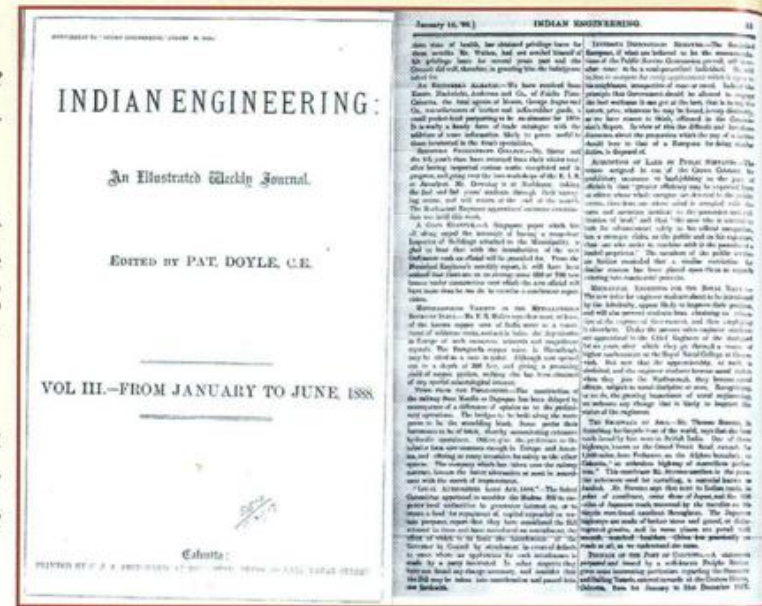
SEEBPORE ENGINEERING COLLEGE - Mr. Slater and the 4th year's class have returned from their winter tour, after having inspected various works completed and in progress, and going over the loco-workshops of the E.I.R. at Jamalpur.

BIRMINGHAM AND MANCHESTER OF THE EAST

Apart from the beauty of this place, the climatic condition being a lot more temperate due to hills along with two water reservoirs, abundant supply of skilled labour were prime reasons for setting up the workshop here. Jamalpur also known as "Birmingham of the East", has been described in the famous book "Around the World in 180 days" (1873) Chapter - XIV by Jules Verne calling it "a more than European town, for it is as English as Manchester or Birmingham with its iron foundries, edge tool factories"; and has been traditionally known as the soil for the skilled gun makers for the royalty.

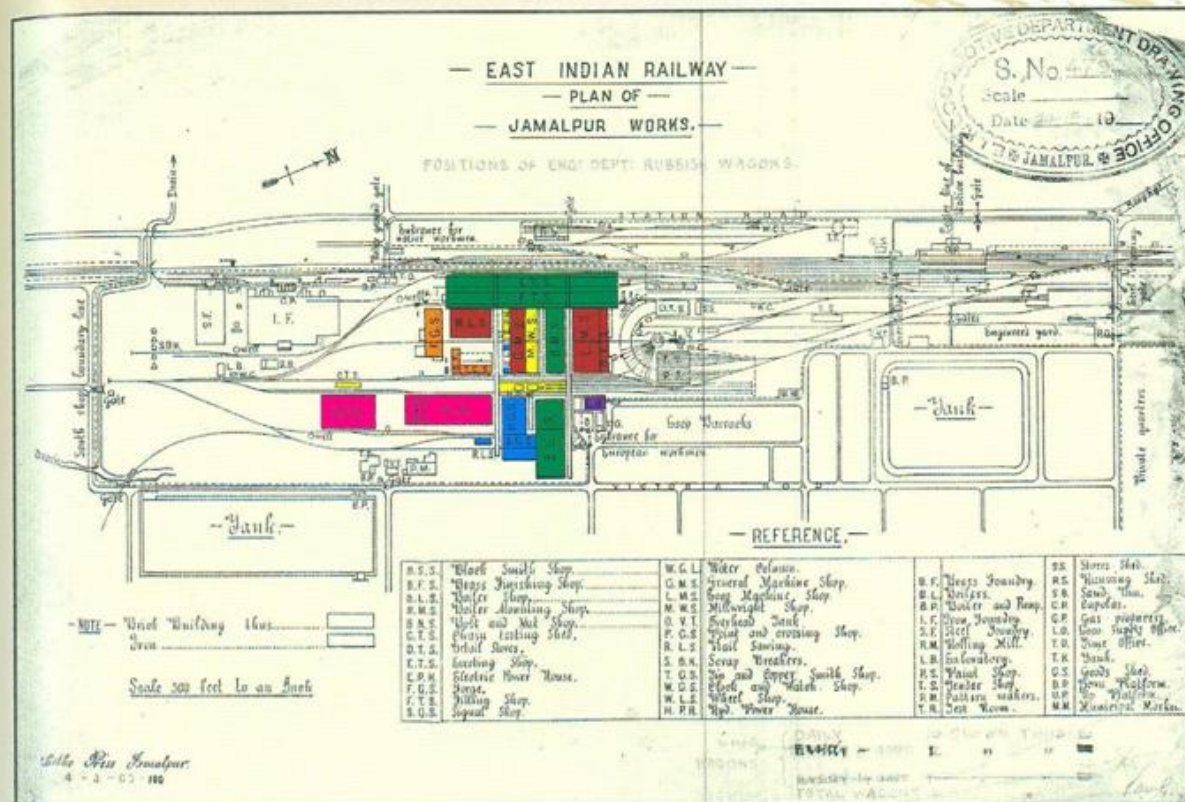
EARLY YEARS

During the first decade, Jamalpur Workshop assembled 452 locomotives, a major chunk being of 202 locos (135 Goods + 67 Passengers) purchased in 1865 at a total cost of Rs.64.94 lacs. Erecting Shop (ETS), Fitting Shop (FTS), Boiler Shop (BLS) and Boiler Machining Shop (BMS) along with ancillary shops like Loco Machine Shop, Mill Wright and Wheel Shop were the first to be set up in the central area of the workshop. It was a T layout, Assembly shop (ETS & FTS) arranged horizontally and Service Shops vertically in the T. Loco Superintendent Office was near the present



January 14, 1888 INDIAN ENGINEERING

ECCS Bank and Works Manager (Diesel) Office on a straight path from Gate No. 2 off Victoria Road (now Workshop Road) which was later on abandoned after 1934 Earthquake.



NEW SHOPS

To keep up with this rapid increase in locomotive fleet, many shops were subsequently added, namely Rolling Mill in 1879 & Steel Foundry in 1898. Initially all the machines were belt driven through Line Shaft and the Line Shafts in turn being powered by boilers. The advent of 20th Century underlined the need of electrical power mainly for EOT crane and some sophisticated machines. Hence a Power House was set up in 1901, a 130 feet by 12 feet building with 3 U Type Beliss - Holmes, Steam engines set of 100 KW each.

ELECTRICITY AND WATER SUPPLY

Electricity also solved the problem of drinking water, which hitherto was being taken from wells. Jamalpur workshop has a very unique way of getting its water supply. Due to boring (in the soil) not giving the yield, Jamalpur workshop is getting its water from river Ganges through 8 KM long 1.5 ft. dia pipe line and has two pontoons fitted with 4 Pumps of 7.3 lacs GPH capacity. Water thus pumped is stored in a settling tank known as North Tank. It is then



Rolling Mill

pumped to Water Works over the hills 300 feet high and there the water is filtered in 6 filter beds. Thereafter, the filtered water is supplied to the workshop and the town through gravity feed and thus most of the Jamalpur East Colony does not have any over head tank. A unique view.

Before water pipe lines were laid, in exigencies (reservoirs getting dried up), water used to be brought from Munger in Tank Wagons!!!

The workshop started with the strength of around 2000 men which peaked to around 14,000 - 16,000 during 60s. The present day strength is around 9500.

Rudyard Kipling stayed at Jamalpur during Jan.- Feb., 1888 (His 1st letter ex Jamalpur is dated 26th Jan, 1888) and these words summarise the enormity of diversity and sophistication about Jamalpur Shops.

"The heart of Jamalpur is the shops and here a visitor will see more things in an hour than he can understand in a year".

LOCOMOTIVE PRODUCTION

By the middle of 8th decade of 19th Century, Jamalpur Workshop was fully geared up to make all of the locomotive except wheels. The following extracts from Rudyard Kipling's Book "From Sea to Sea - Among the Railway Folk" (Chapter-II - the shops) make an interesting reading (circa Jan.-Feb 1888)

"Experience, with a foot-rule in his pocket, authority in his port, and a merry twinkle in his eye, comes up and catches Ignorance walking gingerly round No. 25. 'That's one of the best we have,' says Experience, 'a four-wheeled coupled bogie they call her. She's by Dobbs. She's done her hundred and fifty miles to-day; and she'll run in to Rampore Haut this afternoon; then she'll rest a day and be cleaned up. Roughly, she does her three hundred miles in the four-and-twenty hours. She's a beauty. She's

A view of East Colony (No Tanks on Roof)



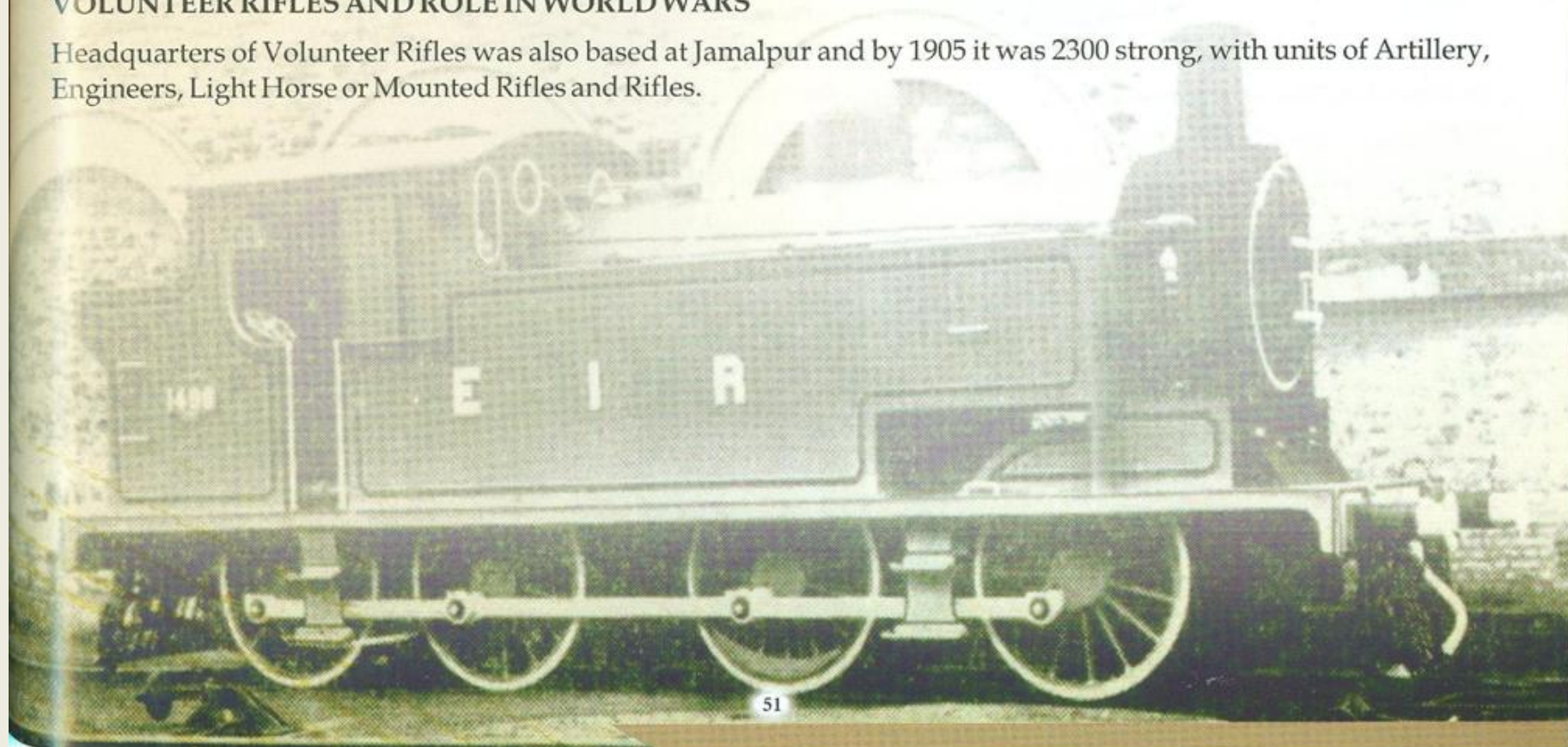
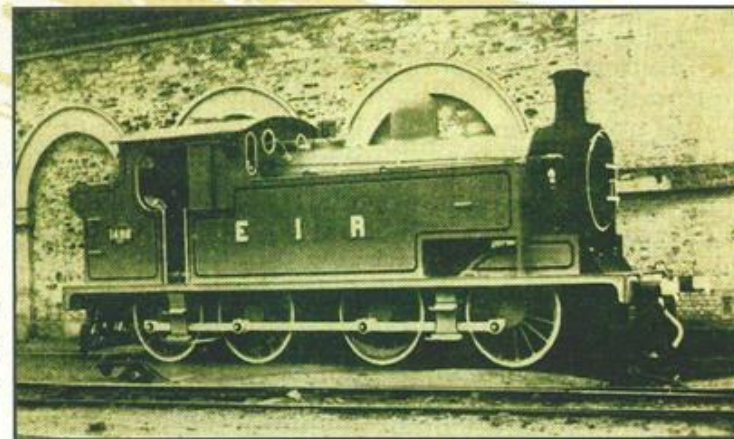
out from home, but we can build our own engines – all except the wheels. We're building ten locos. Now, and we've got a dozen boilers ready if you care to look at them".

This is corroborated by the fact that, Jamalpur had made a tender in 1885.

That is in 1888 itself, 10 locos were being built. Therefore by all account, locomotive manufacturing at Jamalpur Workshop started by 1889 and continued upto 1923. In 1899, bolstered by the steel of newly set up Steel Foundry, 1st locomotive with shop cast – wheel centre was manufactured !! Another 1st for India.

VOLUNTEER RIFLES AND ROLE IN WORLD WARS

Headquarters of Volunteer Rifles was also based at Jamalpur and by 1905 it was 2300 strong, with units of Artillery, Engineers, Light Horse or Mounted Rifles and Rifles.



The following table gives the strength of Volunteer Corps of Headquartered at 9 places spread all over India (Imperial Gazetteer, 1908, Oxford):-

	1881	1891	1901	1903
Naval	Nil	280	200	307
Artillery	Nil	218	561	422
Engineers	Nil	Nil	100	126
Light Horse or Mounted Rifles	61	822	1,106	1,049
Rifles	2,081	3,443	5,376	5,610
Total	2,142	4,763	7,343	7,514

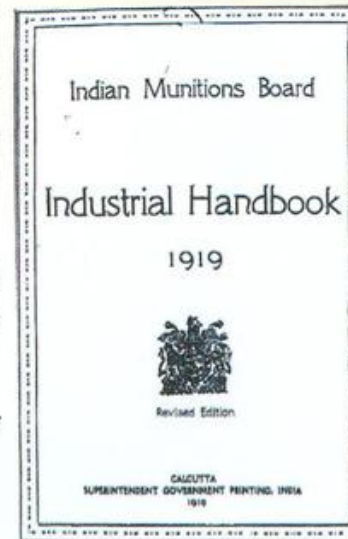
Jamalpur shops contributed greatly during the two World Wars.

As the Indian Munitions Board, Handbook of 1919 describes-

The manufacture of fishbolts and dogspikes was at first distributed amongst several railway workshops but was eventually concentrated in the locomotive workshops of the East Indian Railway at Jamalpur, steel being supplied from Sakchi in the form of billets, which were rolled down at Jamalpur to the required sections. The monthly production was latterly 600,000 dogspikes and from 75,000 to 100,000 fishbolts and nuts.

During the 2nd World War, many tons of non-ferrous bars were re-rolled in the Rolling Mill of Jamalpur Shops to meet the needs of various Ordnance Factories of India. As the Gazetteer notes:-

The efficiency of the operations done in these shops is very aptly illustrated by the fact that there was not a single rejection by the



Supply of Railway Materials from India to Expeditionary Forces. 205

Of the rails provided, no less than 770 miles consisted of new and second-hand material made available from railways, and of this 265 miles were obtained from open lines lifted, from time to time, to meet emergent demands. Of the remainder, 1,000 miles were provided from the Tata Iron and Steel Company, Limited. The manufacture of fishbolts and dogspikes was at first distributed amongst several railway workshops but was eventually concentrated in the locomotive workshops of the East Indian Railway at Jamalpur, steel being supplied from Sakchi in the form of billets, which were rolled down at Jamalpur to the required sections. The monthly production was latterly 600,000 dogspikes and from 75,000 to 100,000 fishbolts and nuts.

In the supply of sleepers, invaluable assistance has been received from railway administrations and the Forest Department. Latterly, the main supply has been from Burma, whence a regular supply of 100,000 broad-gauge sleepers per month has been maintained, besides sleepers of other sizes in considerable quantities.

In the table below, the rolling stock is classified according to gauge:-

TABLE 2.—Rolling stock supplied to war theatres classified by gauge.

Type.	4' 8½".	Metre.	5' 6".
Locomotives	8	100	10
Vehicles	600	4,000	600

The rolling stock provided included such special classes as armoured trains, ambulance trains, disinfecting trains and refrigerated vans. Of the standard gauge vehicles, 235 were converted from broad (5' 6") gauge stock, and the remainder specially built. The conversion of one lot of 100 broad-gauge covered goods wagons was carried out in the Carriage and Wagon shops of the East Indian Railway at Lillooch within 12 days. The same shops turned out 15 entirely new brake vans in the short space of 15 days.

A demand for an ambulance train for use on the standard-gauge lines north of Baghdad was met by converting one of the limited

Ordnance Factory at Kirkee from the stock of 3 inches Trench Mortar Bombs manufactured and finished in these shops at a rate of 50,000 per year during the last war. The precision and finish with which these articles were manufactured were really praiseworthy.

Who said Total Quality Control is a modern concept !!!

Many variants of the grenade were also produced and one of them (No. 36 H.E.Grenade) was to Drawing No. 32 of 1942 of .22 RIM Fire Cartridge and gas check, fitted for firing from a rifle; a photograph of which is as below-

EXPORT

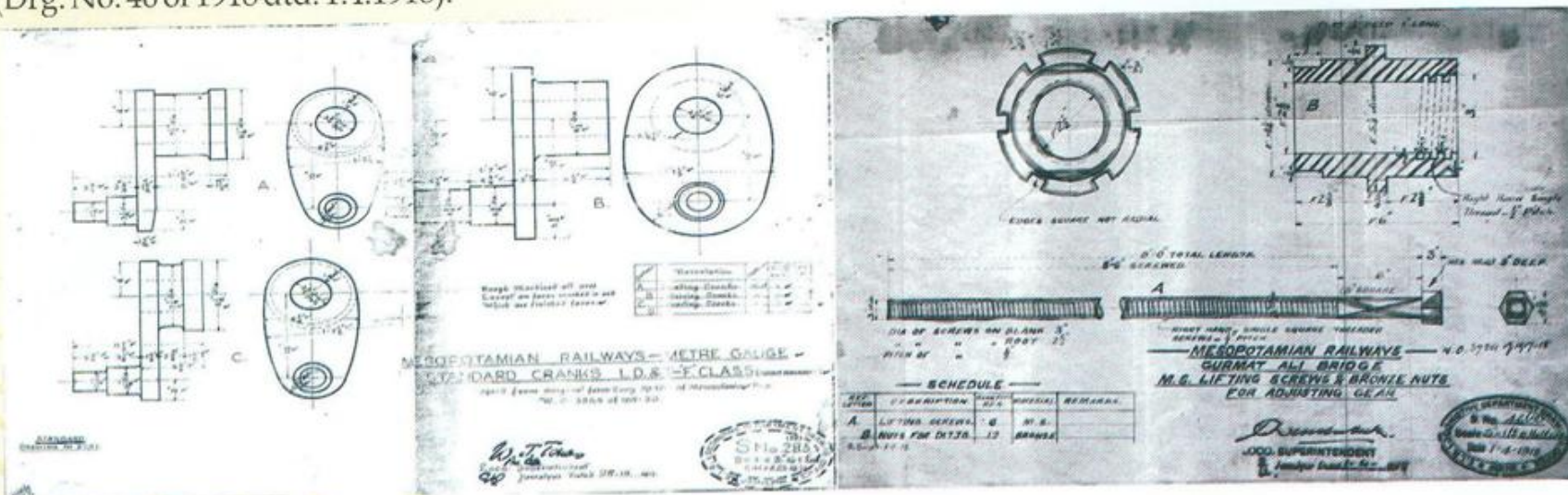
The name and fame of Jamalpur Shops was so far reached, that during 1918-19 it was entrusted to manufacture the Lifting Screw (6 Nos.) and Bronze Nuts (12 Nos.) for these screws, for Gurmat Ali Bridge, for Mesopotamian Railways. These were giant screws measuring 9 feet long and 3 inches thick (diameter), with the highest precision involved as can be easily gauged over such a great length. A herculean task, for which in entire Asia, Jamalpur was the first choice, which it did (Drg. No. 46 of 1918 dtd. 1.4.1918).



— No. 36. H.E. GRENADE —

SECTION THROUGH CENTRE SHOWING
INTERNAL FITTINGS.

SCALE:- DOUBLE FULL SIZE.



Similarly, for manufacturing the standard cranks for MG locos (LD&T-'F' Class) of Mesopotamian Railways, Jamalpur was selected (Drg. No. 283 of 1919, dtd.22.10.1919).

50,000 LOCOS - A RECORD !!

Jamalpur workshop carried its core activity with full steam, and by 1952, in its 90 years journey had POHed around 30,000 locos and another 11,000 for Intermediate Repairs. During 1961, this figure was 350 for POH and 142 for intermediate and other repairs, i.e. by late 60's it touched a staggering figure of 50,000 locos. Kind a unheard of !!

Adequate berthing (around 100 locos) capacity, higher productivity and ever effervescent spirit made this marathon run, spanning over a century, a grand success despite 4 major road blocks (World War I, 1934 Earthquake, World War II and Partition).

ENORMITY OF DIVERSITY - IMPECCABLY

The skill acquired over the years was so much that it was a widely accepted fact that Jamalpur Shops can manufacture anything, as Huddleston Says-

"It must not be overlooked that in addition to actual locomotive work, the workshops undertake work for the Engineering, Stores, Collieries and Carriage and Wagon Departments, the whole of the manufacture of the Denham & Olphert cast-iron sleeper, which is the standard in use on the line, being made here; the total value of the outturn for the Engineering Department in the half-year ending June 1905 being Rs. 10,77,375. All signalling and interlocking gear, posts, frames, etc., are manufactured complete, and this has become a very large item in the outturn."

And Kipling affirmed the same 17 years back "we can build you any mortal thing you like. We've got the Bradford Leslie steamer for the Sahibgunge ferry. Come and see the brass-work for her bows. It's in the casting-shed."

Apart from Steam Locomotive, repair and manufacturing; and its various components, Jamalpur workshop is the home for light duty cranes upto 20T



capacity and has remained the sole manufacturer for Indian Railways.

Apart from these two products for Mechanical Department, Jamalpur workshop has risen up to the occasion and manufactured and delivered various goods right since its inception which include:

- Points and crossing, and signals-

The work of constructing crossings and signals was first undertaken at Jamalpur in 1894, and at that time a small space of the tender shop was sufficient for its demands. Such was the rapid increase of this branch of work that it very shortly necessitated the giving up of the whole of the tender shop, which had to be removed elsewhere. Lately another signal and interlocking shop had to be added, and this branch is now equipped with its own machine tools, all operated by electricity, a small smithy with pneumatic hammers, etc. The output in 1905 comprised 31 complete interlocking frames varying in size from 4 to 85 levers

(Huddleston, 1906)

- Rail Sleeper

Almost 90 per cent of the E. I. Railway's needs in respect of D / O plates and almost 100 per cent needs in respect of cylinders of the E. I. Railway and other Indian Railways were met by the materials fabricated in these shops.

(Gazetteer, 1953)

As Kipling wrote:

'An engine,' says Experience reflectively, 'can run over herself so to say. After she's broken up she is made into sleepers for the line.'



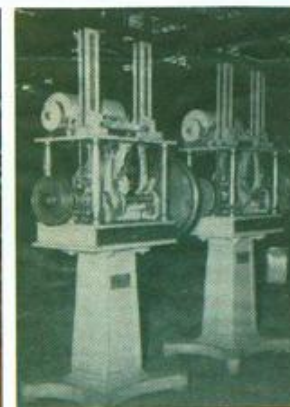
Rail Sleeper



T. C. Safe



Weighing Machine



- Carriage and Wagon components
- Transit safe and cash safe for storage of station and transit cash
- Clocks and watches
- Weighing Machines
- Ticket chopping, slotting and printing machines

As early as 1888, nearly 50,000 tickets were printed daily in Printing Press of Traffic Department. At that time E.I.R. was divided into 5 districts, with Mr. N. St. Carter as the Traffic Manager.

- Channel Sleepers

During 2003-04, when there was Pan Indian Crisis for Channel Sleepers, Jamalpur took up the challenge and delivered a large number to Eastern Railway. These were manufactured in B.S.S.

Steam locomotive came to an end in August 1992 when the last WP locomotive "Sandhya" was POHed. Wagon repair was undertaken in its place in the same Erecting Shop simultaneously. Diesel locomotive POH was started in the year 1978. Starting from the modest beginnings, Jamalpur workshop went up to POH/Repair of around 120 locomotives in a year. Jamalpur Locomotive Workshop has served practically all the major PSUs of Eastern and Northern Region for Diesel locos POH and repair and its customers include Kolkata Port Trust, Bokaro Steel Plant and Durgapur Steel Plant of SAIL, various units of NTPCs ranging from Farakka to Vindhyachal and, at the dawn of its 150 years, is all set to manufacture three locomotives for RITES.



PSU - LOCO



BOXN-HL

Wagon repair started with a modest figure of less than 100 VUs per month, and crossed 300 p.m. in 12 years (04-05) and then remained constant at 340-370 till 2010-11, but took a quantum jump in 11-12 to deliver 400+ p.m. on a sustained basis and in 2011-12 even went upto 450 VUs in a month placing it amongst the top five Wagon Repair Workshops of Indian Railways. Apart from Railway Wagon Repair, Jamalpur workshop is also doing various RSP works like Stainless steel BOXN Conversion and Mild Steel BOXN Rebuilding.



BLC

PAST BECOMES THE FUTURE

Due to better efficiency of Diesel Locomotive (2-3 times the HP and greatly reduced maintenance requirements) replacement of Steam Locomotive by Diesel Locomotive was not one to one and therefore after closure of steam activities, there was very less work for the staff. The problem was compounded after closure of Foundries. Wagon manufacture was taken up in the space of old Steel Foundry shops and started with manufacturing of 5 nos. BLC wagons in the year 2006. Starting from this, Jamalpur workshop manufactured 527 wagons in the year 2010-11, with 550+ wagons in the year 2011-12, it is all set to be the largest wagon manufacturing workshop of Indian Railways.



140 TON CRANE

But

It is just coming a full circle. Same sun, same dawn, same day- only the calendar pages shifted by 45 years.

Incidentally, Jamalpur had already manufactured wagons starting December, 1962 (@Rs. 16,400/-) in at least 5 batches for Brake Vans (62, 50, 100, 64 and 49 Nos.)

LIFTING UP - THE HOPE, THE MAN & EVERYTHING!!

It is often said "war brings the best of the men". In Railways parlance it is the relief and restoration work at accident site which is akin to fighting a war. The war against time, to save precious human lives and restore Railway Traffic at the earliest to avoid hardship to millions of passengers.

The true skill and strength of a Mechanical Engineer is gauged by the deliverance at accident site which generally always require a crane. Cranes have been symbolic of Jamalpur and as on date out of 69 break down cranes of 140T capacity, 53 are manufactured by Jamalpur and nearly all the 10T & 20T cranes are Jamalpur made.

Having attended scores of accidents as Incharge with Relief and Rescue trains, including one of the most saddening one - Rajdhani Express near Raliganj on 9th Sept., 2002, I have seen, thousands of eyes gleaming with hopes, prayer on lips, and hope going up as the crane hook goes up with every turn of the drum to save the priceless - the human life.

140T Crane manufacture was started in the year 1986 which was assembly work of the imported components. First indigenously manufactured crane was turned out in the year 1994. Jamalpur workshop quickly adapted to embrace the modern technology of hydraulics, electrical, electronics and micro processors work. The hands which once upon a time lifted heavy 20 pound sledge hammers, metamorphosed to complete the delicate task of assembling micro chips. Jamalpur workshop is the mother shop for whole of the 140T JMP crane and provides all kinds of support to all the divisions to keep these cranes in good fettle. Lifelong warranty! No other manufacturer in the world gives it!

Working of all the Railway Sheds and Depots invariably involves the task of lifting normally done through Jacks. Here again Jamalpur is the pioneer and in most of the depots one set of synchronised Jamalpur Jacks can be seen working in tandem. Jamalpur Jacks do the lifting from the bottom and Jamalpur manufactured 20T crane doing it from the top. The complete lifting solution! Rare few can have either way. Up - it's Jamalpur, Down too!! With the expertise of cranes with it, Jamalpur workshop picked up the task of manufacturing and repairing of Over Head Equipments (OHE) Inspection Tower Car in the year 1983 and 1996 respectively. To date, Jamalpur has manufactured 154 Tower Cars and repaired 129 and remains the mother workshop for the 4-wheeler Tower Cars for



the Eastern and East Central Railway with emergency support to other Railways also.

DIVERSITY, DIVERSITY AND DIVERSITY

The range of present products and service of Jamalpur workshop is the widest amongst all the workshops of Indian Railways covering Diesel Locomotives, Wagon Manufacturing, Wagon Repair, Crane Manufacture and Repair, Tower Cars, Jamalpur Jacks, Coaching Bogies (ICF 13T & 16T) besides zonal Railway engineering products and services.

TIME AND UNDYING SPIRIT

Time changes. And time has changed indeed. But the spirit is undying and remained unchanged of the Jamalpur Shops. Of its people.

This benign spirit looked after 23 dead in Great Earthquake of 1934 and re-erected almost half of the shops from debris and major part of the railway colony within an unbelievably short period of 4 years.

From conception to execution!!! Even with modern technique and Monstrous Earth moving Equipments, double the time is taken for less than half the size of this work.

Railways sanctioned an advance to 5,000 affected staff, a sum of Rs. 33,000/- as a humanitarian gesture.

This spirit was again at the fore with full steam during partition when 751 refugee employees, with families of erstwhile N. W. and B. A. Railways, were warmly received and supplied free meals by railways for 3 days and housed in old army camp and employment given to large numbers of these displaced people.

And the spirit was seen yet again in 1988 Earthquake. And true to it, in its 150th year a record number of 74 people gave blood in blood donation camp. And the shramdan to keep it spotlessly clean, as it was at inception "the model municipality of Bengal". [Huddleston]



Jamalpur Workshop is brimming with that spirit. Supply orders for 2 sets of Jamalpur Jacks to one of the DRDO unit is an indicator of those highest standards, which enthuse confidence. Manufacturing order for locos from RITES. Even increasing Wagon Manufacturing and POH figure, ever expanding products range Yes ever expanding..... which was on display at International Railway Equipment Exhibition in Sept., 2011 at Pragati Maidan, Delhi, and shall be on display during the Foundation Day commemorative series of function. But above all this spirit always remains within us. Jamalpur – The Beautiful – Spirit.

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Time Line

8th Feb. 1862 : Jamalpur Workshop Established

1865 : 202 Locomotives purchased.

1872 : 452 Locomotives assembled and commissioned.

1879 : Rolling Mill - Added

3rd May 1879 : Jamalpore Ice Factory established.

1885 : 1st Tender manufactured.

1888 : Technical School – Trade Apprentice Training started.

1892 : 1st Cooperative Stores run by railway staff registered.

1889 : Loco manufacturing started (except Wheels)

1894 : Crossings & Signals Manufacturing started.

1897 : Earthquake

Nov.-Dec.1897: Visit of Earl of Elgin & Kincardine

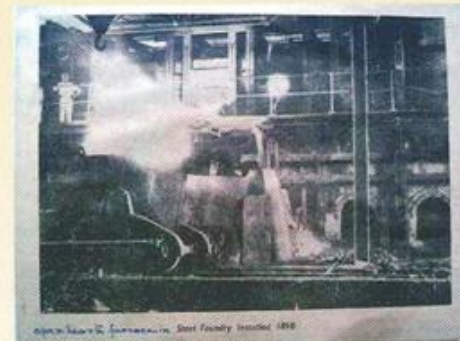
1898 : Steel Foundry– Added.

1899 : 1st Wheel Centre – Cast in shops.

1901 : Electric Power House – Set up

1905 : Apprentice Mechanic Scheme started for Anglo-Indians

1911 : Apprentice Mechanic Scheme started for other Indians



John W. & Co. Engineers, Steel Foundry installed 1898



Railway Station Reduced to Rubble

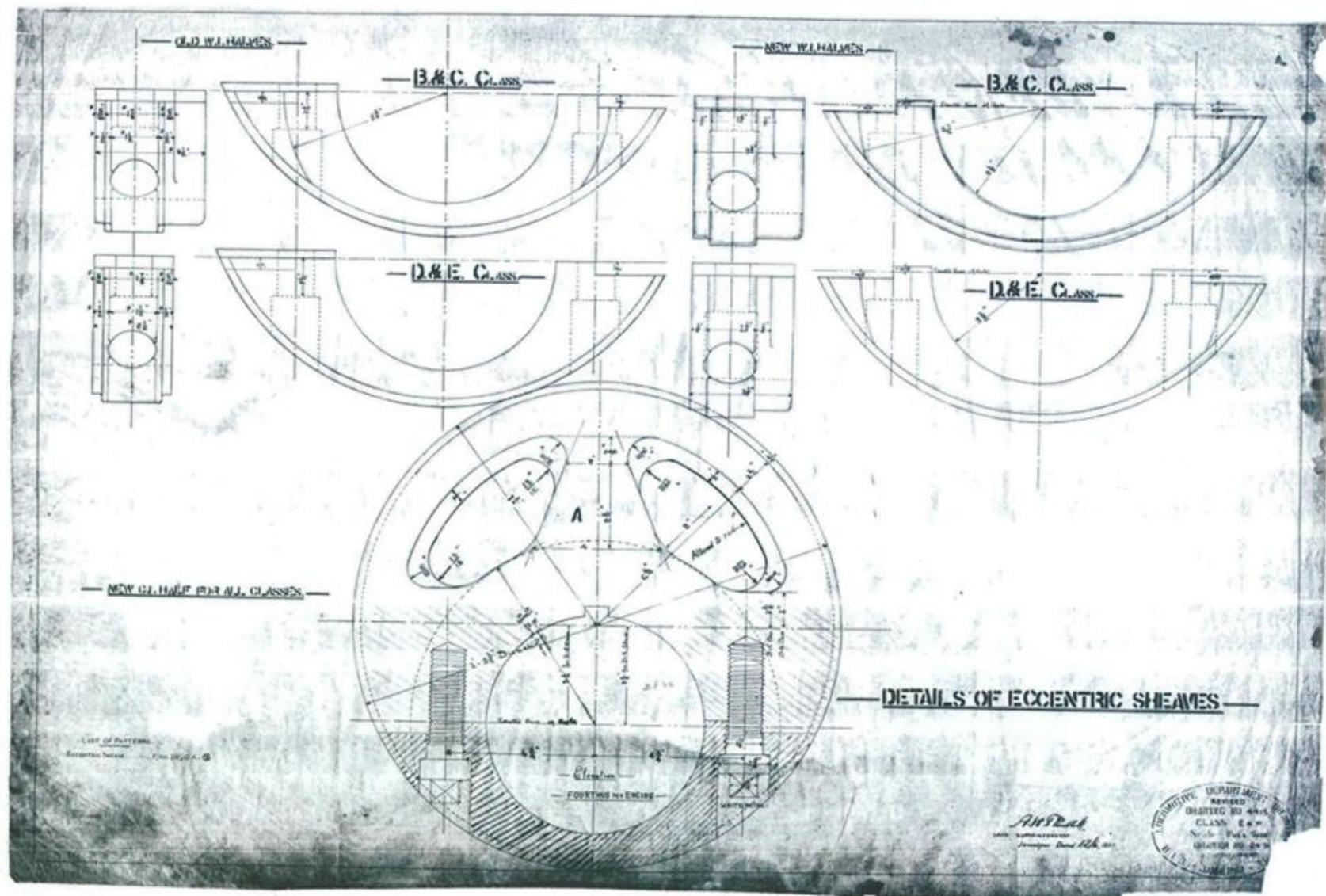


Electric Furnace Commissioned—1961

- 1912 : Golf Course Established
- 1913 : Water Filtering Works over hills constructed.
- 1925 : Headquarters of Mechanical Dept. shifted from Jamalpur to Kolkata
- 1927 : Special Class Railway Apprentice Training started.
- 1934 : Great Earthquake
- 1934 : Headquarters of Electrical Dept. shifted from Jamalpur to Kolkata
- 1937 : Remodelling Post earthquake completed. Layout changed
- 1942 : 2nd Cooperative Stores run by railway staff registered.
- 1943 : Power House Replaced (App.I- Cap – Item 4 (iv) of Railway Budget)
- 15th Aug. 1947 : Independence
- 1950 : 60 Ton Anvil Block of the Chittaranjan Locomotive Works cast and finished. A landmark in the history of Indian Foundries.
- 1958 : Present Canteen & NI Branch Institute, Rampur Constructed
- 1960 : Rest House for workers at Gate No. 6 constructed.
- 1961 : Electric Arc Furnace Made (500 Kg Cap)
- 26th Oct. 1961 : 1st Steam Crane Made (NR)
- Dec. 1962 : 1st Goods Brake Van made.
- 1964 : 1st Jamalpur Jack made (LLH Shops)
- 1978 : 1st Diesel Hydraulic Loco POHed (19525 – WDS4B)

- 1982 : 1st Diesel Electric Loco POHed (17539-WDM2)
- 1983 : 1st Tower Car Manufactured (860/M-II/HWH)
- 8th Oct. 1986 : 1st 140T Crane assembled (142033/MGS)
- August' 1992 : Last Steam Loco POHed (WP Class, "Sandhya")
- August' 1992 : 1st Wagon Repaired.
- 6th May, 1994 : 1st 140T Crane Made (142041/Bhilai)
- 12th Aug. 1996 : 1st Tower Car POHed (ER-862/M-II/SDAH)
- 9th Aug. 2006 : 1st Wagon Manufactured BLC (61250616793 & 809 – A Car)
(62250625181, 198 & 204 – B Car)
- June' 2011 : Wagon POH outturn crosses the landmark of 450 per month.
- Feb., 2012 : 1st WDS-6 Diesel Electric Loco manufactured for RITES



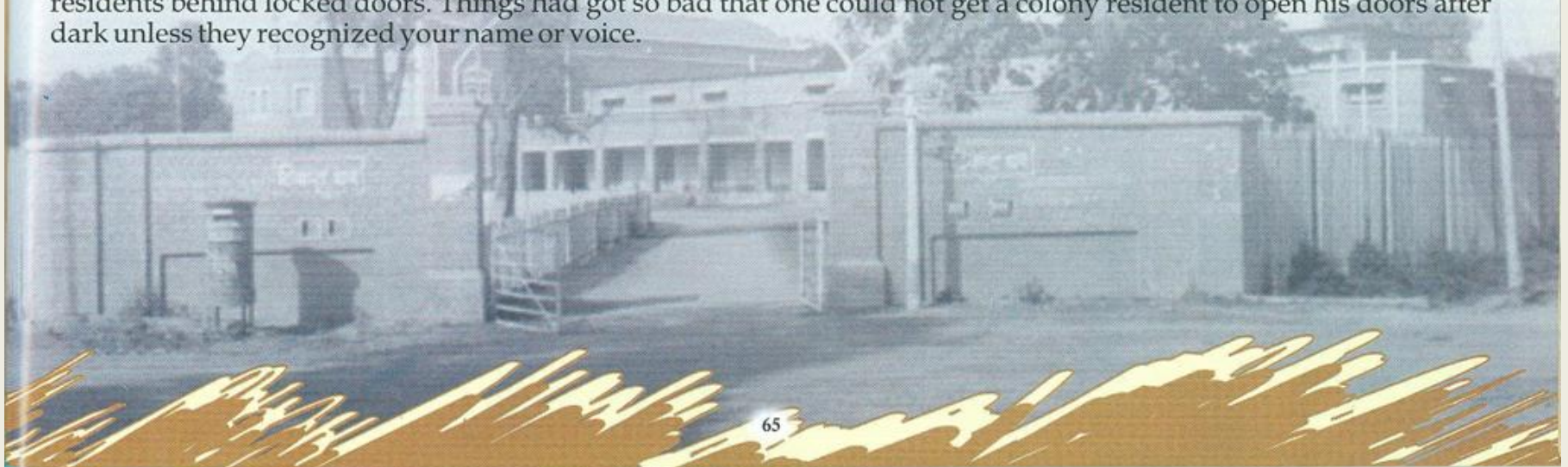


Jamalpur after the Bhagalpur Blindings, circa 80-81

— by Debashis Ray, ex CME

It was an unusual notice from the Workshop that intrigued me. The WPO BBRoy had invited all Supervisors to a meeting in the Central Institute to discuss opening of police outpost in the Jamalpur colony. That sounded odd! The administration never called the 'aam janta' for discussion before taking a decision, that too in the informal atmosphere of the Institute; so why now? Therefore, I decided to attend the meeting that evening, even if uninvited. Things had gone very wrong in the railway colony in the preceding months after the blinding of criminals at Bhagalpur caught headlines in the national press. The police, normally ineffectual as it was, had thrown up their hands and stopped taking interest in law and order. This had affected the whole area and to the normally peaceful and law-abiding residents of Jamalpur, it came as a shock.

Almost every week there was an attempted theft in the colony. About once a month, somebody's house would be burgled. People would come knocking on doors of the isolated quarters and not answer the anxious queries of residents behind locked doors. Things had got so bad that one could not get a colony resident to open his doors after dark unless they recognized your name or voice.



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This was the background for the meeting in the Central Institute. The WPO announced that the shop administration had decided to give one bungalow at the east end of the colony to the police for use as a thana. I pointed out that the police had not been able to stop serial robberies on the Durga Das Tulsi road where they already had a thana. In addition, that there had been a robbery in a house adjacent to the police thana on Safiasarai on the road to Monghyr. Providing a thana inside the colony would not help improve law and order and the residents would lose a quarter for which there was a long waiting line. That made the administration quite uncomfortable, but the fifty odd supervisors present got the point.

Never the less one quarter was given for a Thana. In the meanwhile the colony residents fed up with the lawlessness, elected a 'colony security committee' with yours truly in lead and ET Daniel as secretary. We did not do much, except



पूर्व रेलवे मुख्य अस्पताल, जमालपुर
का मानचित्र



make forays on cycles, in the middle of the night especially around the moonless nights.

It was on one such night that we decided to skip because of personal issues, that hell broke loose. Ram Babu was a well-respected AWM, and his newly married daughter had just returned to her father's place just behind the Night College. That night the house was attacked by robbers, Ram Babu was shot and killed, and both his sons were shot in the abdomen trying to protect their father. They survived only by the prompt action of their neighbors and the doctors in the railway hospital close by.

This was the last straw. The colony residents could take no more. Work in the Workshop ground to a halt. Two days later MK Khosla the CME paid an emergency visit to Jamalpur to calm matters. After visiting the house and giving instructions for repair to the ATE, he held a meeting in the workshop meeting room with the unions, supervisors' association and lastly the colony security committee.

During the meeting, each group asked for a supervisor named Devanandan to be transferred out as he was suspected to be receiving stolen goods and supporting the lawlessness. The CME would turn down their request saying that he could not transfer people just on peoples' say so. Finally, it was our turn to speak.

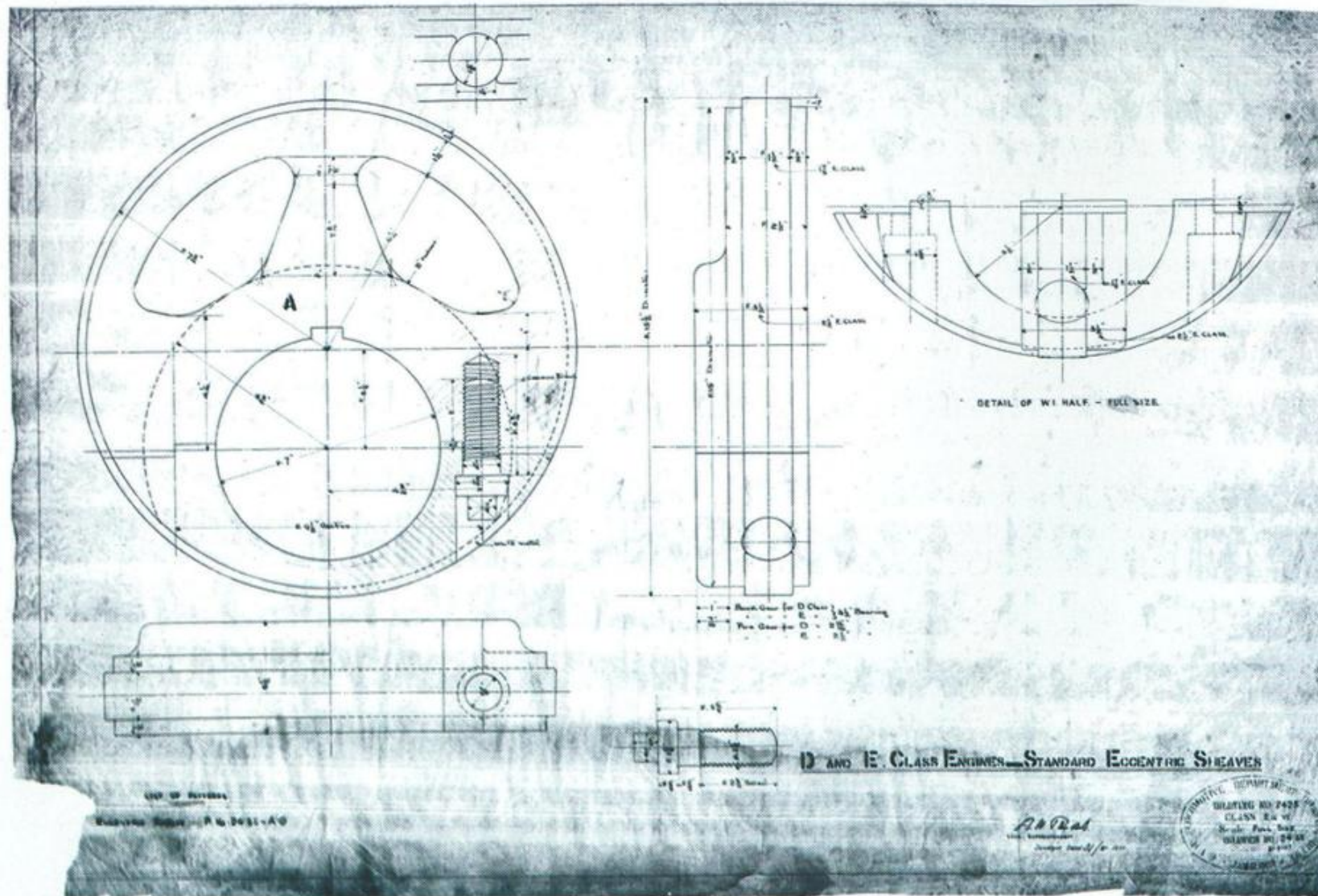
We brought up the spate of burglaries that had preceded the robbery, and how the Notre Dame, Chain Singh the ATE's house and that of the PS to CWM had all been burgled. We brought up how the daughter of the PS recognised another girl wearing her pullover, the one that had been stolen. How the fathers then went with the local police to the second girl's house. There they found the sewing machine stolen from the school, the Delhi school blazers belonging to Chain Singh's nephews and twenty-eight women's purses and some dynamite sticks stored in the outhouse. That house was allotted to an Asst Supdt in the Welding Shop and that is why we sought his transfer.

Reluctantly the CME then agreed to transfer the person, and gave instructions for the security committee to be provided with a jeep and RPF escort to help patrol the colony at night. He did not appreciate my role in all this, as I was to learn to my cost a few years later!

Daniel drew up a list of colony residents, apprentices from both hostels and some officers, two of whom would come and spend a night patrolling the colony on the jeep with escort. Volunteers would spend one night on this duty, once in about forty days.

We had reasoned that though theft and robbery could take place in the quiet of the bungalows, the stolen goods would have to be carried along the roads of the colony. There, they had a fair chance of being spotted by the patrolling jeep whose route was unpredictable, as it was entirely at the discretion of the volunteers on duty each night.

The system of night patrolling continued for a year and a half. As long as it continued, there were no thefts or even attempts inside the railway colony. Then as it happens in all voluntary activity once the pressing need is over, people started taking it easy and skipping allocated duties. We finally closed the night patrols after it became unsustainable, but by then some normalcy had returned to the colony.



Railway Colonies in India

— by John Alton Price

During my service in the Military I was to be Posted to a quite important Railway Station called Jamalpur, in Bihar. It was early May 1942 and our Unit was transported to a wooded area to set up Camp. Four of us shared a 1201b. tent and after erecting same in the late evening we turned in to sleep as we were shattered. The ground was to be our resting place for a time until wire framed beds were received. Of course the inevitable happened: a storm hit us on the first night and we were nearly washed away. We hadn't had the energy to dig a trench around the tent; this being the most important procedure after the erection of a tent. I remember waking, and with disbelief seeing 'Taffy' suspended against a tent wall which he was trying to hold in place! However, we dried out the next day. Our task at this scrub jungle site was to build roads and erect accommodation for Stores, and Ammunition would be placed in the forested hill area, with the help of local native labour.

We were encamped about four to five miles from the town so going into town was quite a long walk. Part of the way, about a mile or so was provided with a railway line and if the hand operated Trolley was at the right end of the track we could take an enjoyable ride. A Message had been received by our Colonel that his Unit would be welcome to visit the Jamalpur Railway Institute; this was looked forward to with anticipation. Arriving at the Institute we converged on the Billiards Room and Bar to introduce ourselves. We were made most welcome and on my part, almost right away I met a chap called Lawson who went to my School, but very much earlier. I also met another Railway Engineer whose brother I knew from Bombay. Invitations to Dinner were given and I was to meet their families at a later date. We were all informed that we would be Honorary members of the Institute and were to come and go, when and as we pleased. In the following eight or nine months the building of our Field Depot progressed. In the mean time we had to abandon the original site because of its unsuitability in the Monsoon. Apart from the danger of, and the fear of flooding, the scrub and forest was the home of many Scorpions and Snakes. It was while we were in this jungle camp site that one of our boys died of



Railway Siding in Jamalpur



Makeshift Mess



Railway line past No 2 sub-depot



Forest Camp near Jamalpur, Bihar



Our Tent in the forest



First locomotive on
East Indian Railway



Enterprising shoeshine boy

Heat Stroke. The Doctor attending him was very upset: as he explained that if sufficient Ice could be had (we had none and the vehicle bringing a supply from the town arrived too late) he would have saved Woodford's life. Rapid arrangements had to be made for a funeral which was performed the next day. I was one of the Pallbearers. At least the lad was given a splendid Military Burial.

I was rather disappointed to leave the wildness of this scrub jungle because the hills made fine walking country and there were one or two villages, not far away which were inhabited by Tribal people; very shy at our approach but quite harmless and it was interesting to observe in their primitive way of life.

The Railway Institute was a 'Godsend' and we were to discover its joys quite soon. On Saturdays a dance was held. The Musicians who entertained us were a small family of Philipinos; very nice people. These dances were well attended and we found the company most friendly and agreeable. We were given invitations to Dinner and made many friends here. One of our chaps even married into the community and I was later, many years later to meet him in my local Library in London. Of course we got together on occasions to reminisce with him and his wife. I, through an old school member (who I have already mentioned) was introduced to several members of the Railway Colony. I got to like the people and always received friendly treatment. I was fortunate even to get on closer terms with a very lovely blond girl (who had recently come down from her school in the Hills) I was to meet Pamela in Calcutta a few years later where she was training to become a nurse.

I was to discover that Jamalpur had the third largest Railway Workshop in the World (or so I was told) and was responsible for the training of Railway Engineers who came to the Workshops after they had passed out of their particular schools of academia. Consequently most male members of the town were Railway Engineers of one kind or another, However high or low in status I found them most agreeable. I was never able to have a guided tour of the workshops but I'm sure the inner workings of the railway would have been interesting. In the

front of the Workshop buildings, on a three foot high pedestal was placed a Locomotive which happened to be the first Engine to ride the rails of The East Indian Railways. I have a photo of the beautiful machine.

The European Railway Institute (the Indians had their own Institute) was a fairly comprehensive Club of a good standard. The facilities were: Swimming Pool and Tennis Courts and some Courts for Badminton. Inside the Club was a good size Hall used as a Cinema and on Dance nights the chairs were cleared to the sides and some tables set up. Also 'Housie Housie' (Bingo) and Whist games were also played here. Next to this was a very well furnished 'Cocktail' Bar for the Ladies... or anyone for that matter. Through to a Library and Reading room. The Billiards room also had its own Bar, all the necessary Wash rooms and Lavatory's were included in the building. Many happy hours were spent at this Institute and many friends made. There was just one snag and that was the long walk back to the original Camp. One night my torch picked out a snake, which one of us almost trod on. It was curled up between one of the railway sleepers on the line. Of course on our approach it was on the attack so with a swipe from the cane I was carrying (our Camp Orders advised everyone to carry canes) it was despatched. The snake was a Banded Krait and I took it back to Camp and laid it out on a table for the night meaning to remove its skin the next day. The next morning I was not very popular because a couple of our tent mates were not able to sleep!

Our working life at Jamalpur was quite hectic. Some civilian girls were taken on to work as office clerks; this did make working hours more pleasant. Our spare time was well employed and enjoyed due in very big part to the way we were accepted and entertained by the civil population and of course the many facilities the Railway Institute provided. My eight months in Jamalpur were very happy.

In retrospect I can honestly say that I found the Railway Community people most interesting and pleasurable to meet and socialise with.



Ablutions on a new camp-site



Amunition valley - Jamalpur



Sunday walk - hills near Jamalpur

Jamalpur Ice Factory

— by A. K. Bharti

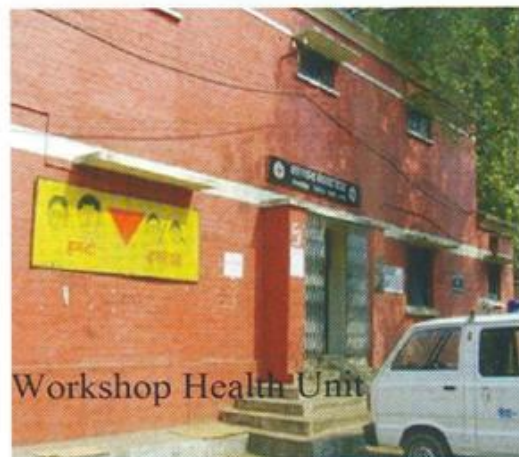
In 1970's the Locomotive Engineering Works was in full swing under the hands of British Engineers and Technicians. Good number of English were serving in Jamalpur. However, as they felt scarcity of good meats, they were also deprived of ice to cool their drinks. Out of the necessity to satisfy personal needs seven of Jamalpur joined hand together to incorporate JAMALPUR EAST INDIAN RAILWAY ICE AND AERATED WATERS MANUFACTURING COMPANY "LIMITED".

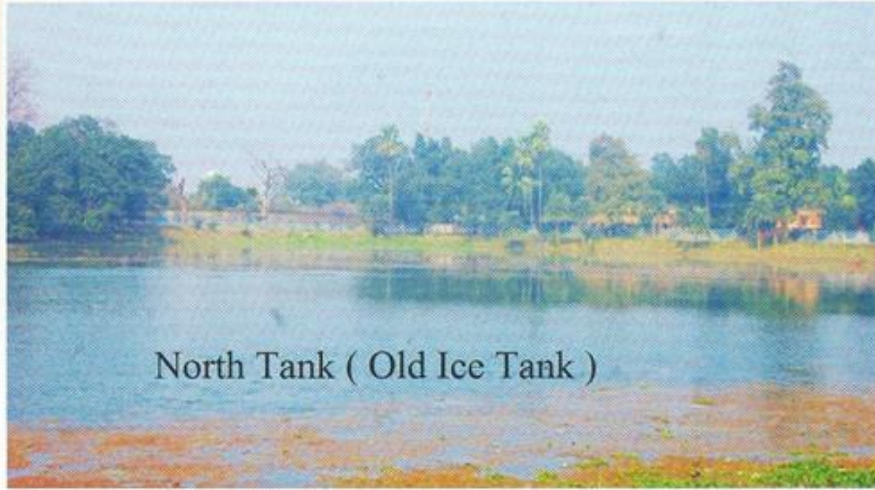
Besides, the personal needs, Factory Act, 1866 had provision for supply of cold water to employees, and ice was also required at the Hospital and Health Units.

To satisfy above social and personal needs, the Company was established on 3rd day of May 1879. The object of the Company was - manufacture and sale of Ice and Aerated water using Machinery. This was a limited Company with capital of Rs. 10000/- divided into 100 Shares of Rs. 100 each. This Company was allotted company No.000001 by Registrar of Companies.

For the brevity the Company was called 'The Jamalpur Ice Company' which uses to sell Ice to public of Jamalpur and Monghyr too.

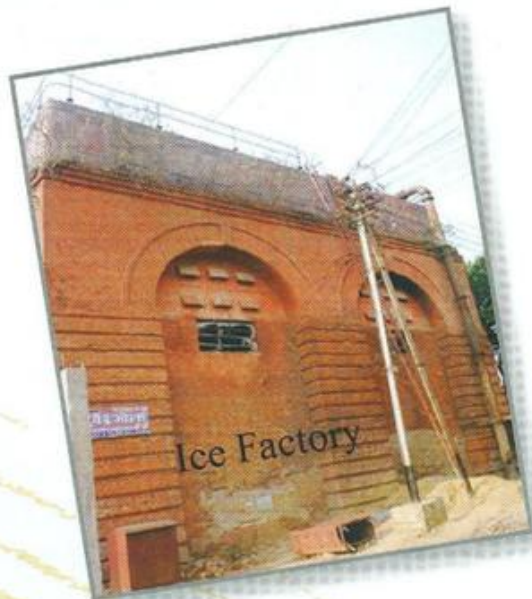
The Company address as per Article of Association is Tank House, Tank Square, South Jamalpur. Which is at present in East Colony, by the side of FOB over Jamalpur Station? There was a huge Water Tower with tank of capacity 20630 gallons to fulfill the requirement of watering of steam locos at station. The factory was set up under the tower between it's pillars. The factory uses water from Ice Tank presently known as North Tank. Road connecting victoria road, now workshop road to the foot of the FOB was known as Marina road.





North Tank (Old Ice Tank)

The Company management was in the hands of British till 1964, when it suffered huge loss owing to competition and excess electricity bill. Subsequently, a GBM was called where it was decided to hand over the management to Sri Jamuna Prasad, Draftsman in Drawing Office. Though the Company never came out of reds but was operational till October, 2006, Company was formally closed in November, 2006.





ARTICLES OF ASSOCIATION
of the
JAMALPORE EAST INDIAN RAILWAY
ICE AND AERATED WATERS
MANUFACTURING COMPANY "LIMITED".

IT IS AGREED AS FOLLOWS:-

Short Title.

1. That for brevity this Company be called - The Jamalpore Ice Company.
2. All the Articles of table A in the first schedule to the "Indian Companies" Act, 1906 shall be deemed to be incorporated with these articles, and to apply to this Company, except so far as the same are repugnant to, altered, or modified hereby.

Business.

3. The business of the Company shall be the manufacture and sale of Ice and Aerated Waters by Machinery, the principal place of business of the Company being at the Tank House, Tank Square, South, Jamalpore, in Ben-gal.

Capital and Shares.

4. The capital of the Company shall consist of Rupees 10,000 divided into 100 shares of Rupees 100 each, & being the minimum and 20 the maximum number of shares allotted to

-3-

DIRECTORS.

10. The number of directors shall not be less than four nor more than six.

Rotation of Directors.

11. At the first ordinary meeting after the registration of the Company, and at every subsequent half-yearly meeting, one half of the directors shall retire from office, but shall be eligible for re-election.

Power of Directors.

12. In every case not provided for or not adequately provided for by these Articles, or by any Bye-laws, Rules or Regulations from time to time made or established by any General Meeting, the Directors shall have full power to regulate their own procedure and the mode of conducting the business of the Company and to act in such manner as the Directors think best for the company and for promoting the welfare of the Company.

13. So, the several persons whose names and addresses are subscribed, are desirous of being formed into a Company in pursuance of this Memorandum of Association, and so respectively agree to take the number of shares in the capital of the Company set opposite our respective names:-

Name.	Occupation.	Address.	No. of shares taken.
St. N. St. Carter.	T.M.	Jamalpore	Five.
St. S. D. Clarke.	M.D.S. & I.R.	Do.	Five.
St. John Hartley.	asst. Loco Supt.	Jamalpore.	Five.
St. T. Jenkins.	Foreman, E.I.R.	Do.	Twenty.
St. T. Munn.	asst. Deop Supt. E.I.R.	Do.	Two.
St. J. C. Kertland.	Dist. L. Supt.	Jamalpore.	Ten.

St.

-4-

Name.	Occupation.	Address.	No. of shares taken.
St. A. Allen Stokes.	Loco Engineer.	Jamalpore.	Ten.

Dated the 3rd day of May 1879.

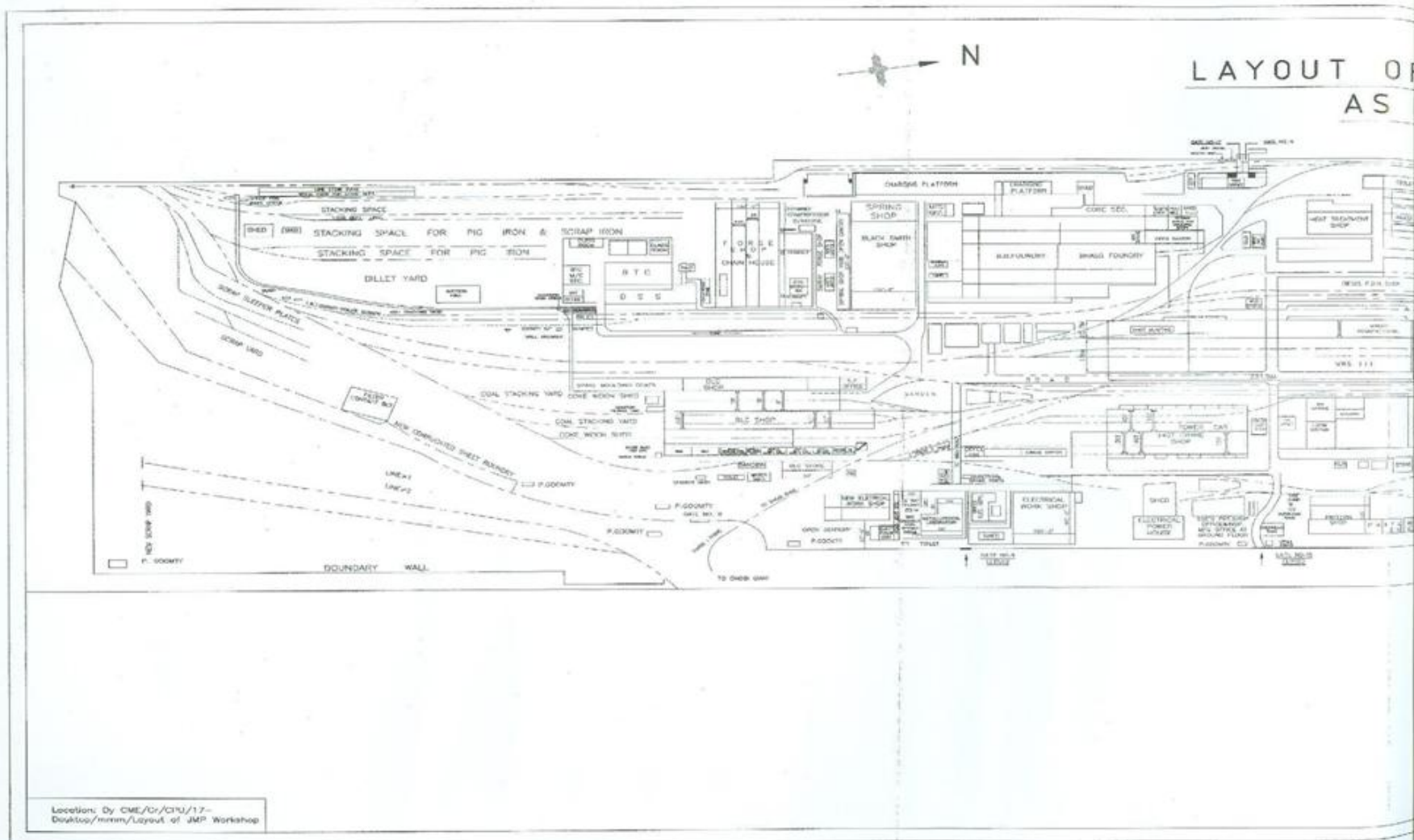
Witness to the above signatures.

St. George Charam Bhattacharjee of
Jamalpore.

Certified to be a true copy.

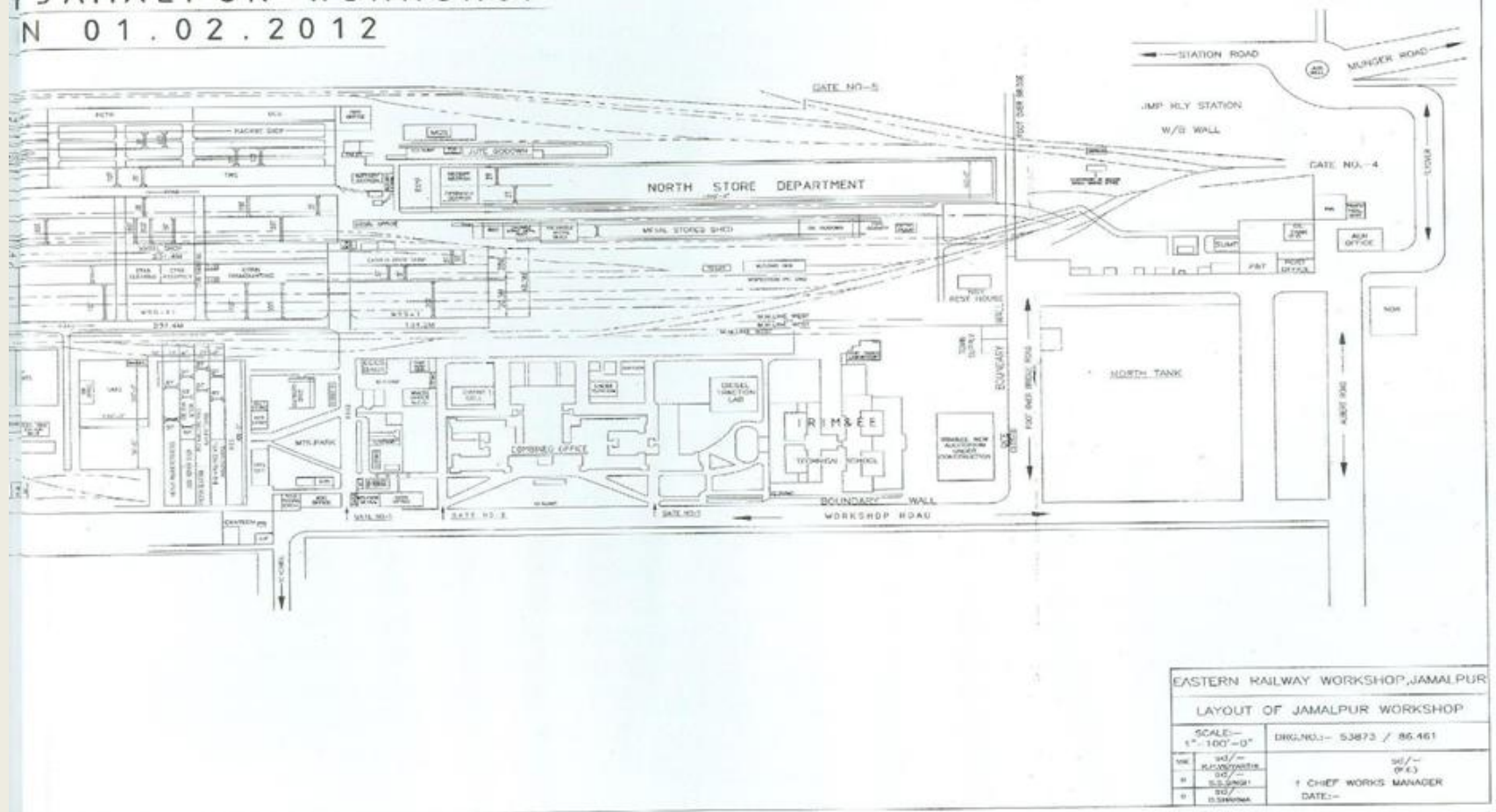
Assistant Registrar of Joint Stock Companies,
B i h a r.

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Compared by 1-



JAMALPUR WORKSHOP

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Down Memory Lane -1

By Noel Thomas, 58 batch Apprentice Mechanic.

In October 58, I had my first encounter with Jamalpur. It was a lovely anachronistic experience for an 18 year old, relocating from home to a promising new haven. The well-groomed railway colony was a reassuring sight. What if the roads had royal names? Wouldn't it help to preserve their historical grandeur? Nothing wrong about maintaining "royal" standards. Spending 5 years here seemed an exciting prospect!

My welcome to Queens Road hostel was more rustic than royal. "Initiation" was the great leveler, the special glue for the unbreakable Jamalpur bond. It broke barriers within and sometimes beyond the hostel walls. The 58 SCRA batch were undergoing basic training in the same period. Our "initiation" was over, but theirs' was still on. I was surprised when an SCRA introduced himself to me and accompanied me all the way to the hostel, came in for a cup of tea and a few minutes of relaxation in the dorm.

Hostel life (58-62) was enjoyable. On a monthly stipend of Rs 110, we had Saturday Special dinners and along with our Rampur hostel mates, we were 200 or so, ruling the roost in JMP. Gymkhana, home of the SCRA's, was a posh place, in a lovely green location, far from the madding crowd. It was here that Debashis Ray pursued his favourite past-time of bird watching and also perfected the art of snake catching. In 75-76, he was DME(D) Patrattu, a snake infested place. Whenever a snake was sighted, it was "DME Sahib ko bulao!" The DME came, and using a rag and a stick, caught the snake, held it by the tail, twirled it around and flung it far away in discus style. He then educated the gathering about the snake.

Jamalpur took pride in its sports. It was the old EIR's nursery of sports, producing some famous sportsmen viz. hockey Olympian, Dicky Carr and his brother, champion boxer Laurie Carr, who retired as Gymkhana Hostel Supdt. Gymkhana had an invincible cricket Team and excelled in hockey as well. Our team, AEC, were Jamalpur Hockey Champs from 60 to 62. Jamalpur entered in the prestigious Beighton Cup as well. Reporting on the B Cup encounter between JMP and Mohun Bagan (60s), The Statesman wrote "Had it not been for Chakravarty's plucky performance under the bar, Mohun Bagan may have scored a dozen, instead of just half a dozen goals. SCRA Amitabh Chakravarty was the Jamalpur goalkeeper. App Mech 56 batch, Terence Joseph, lost an eye playing in the Kaivan Cup at Calcutta.

Many Jamalpurians learned to play golf, utilising JMP's well maintained golf course, some of them earning the Indian Railways blazer. Mechanical Sports Club, comprising mostly of artisan staff were the soccer champions. We looked forward to playing cricket at the PT factory ground in Monghyr, but lost everytime we fielded second. Our bad fielding was the result of gormandizing at the sumptuous, delectable lunch, which our hosts served in between innings. but there were other factors as well. I asked team-mate Randy Baker how he managed to drop a "dolly". He confessed taking his eyes off the ball to stare at a "living doll" strolling along the boundary. The PT factory colony was like a fairy land. Some of our hostel-mates met their life partners in girls who worked in the factory.

The Central Institute was a quality entertainment centre, well equipped with swimming pool, dance hall, auditorium, stage, billiard table and a well stocked bar. Good English films were projected on a regular basis (National Institute screened Hindi movies). The CI staged some good English plays too. One was "The Merchant of Venice" by the famous Kendall Shakespeareanna Troupe, with the young Sashi Kapoor and wife Jennifer on stage. We were thrilled to get a closer view of Sashi in the billiard room. The billiard marker cum barman was Francis, a genial old soul. The cry of "Francis, ek bada rum lao!" must ring in many a ear as it still does in mine.

Jamalpur Workshop was always full of busy sounds. It was known for its workmanship and work ethic. I recall the full length mirror placed above the attendance desk and the question "Am I correctly dressed?" in bold letters on top. This was DyCME Satish Misra's idea. He was a strict disciplinarian, an imposing leonine figure as he strode majestically on his workshop rounds. He was also a fitness freak and an excellent sportsman.

There were some lighter moments, AFO Samuels asking AFO G.G. Bull at Gate No: 1, "Is it a bull or a cow?" (Mrs Bull had delivered a baby that morning). Mr. Bull's reply was drowned in the spontaneous chorus of congratulations that followed.

The Jamalpur Technical School (now IRIMEE) was renowned throughout the Indian Rlys as well as in the public and private sector. I came back to JMP in 1977 on deputation. I returned again in 95 for a course in IRIMEE. I stayed in Yatri Nivas, built on what was once the bowling green. My youngest daughter was born in JMP. She would like to revisit her birthplace. Her elder sister wants to see her first school, Notre dame Academy again. I would like to go back too, just once more. Jamalpur will remain indelibly marked in our memories. All said and done, isn't a birthday an auspicious event, a time to reflect and fortified with precious memories, time to soldier on? Perhaps the best is yet to come. Jamalpur has lived for a century and a half. Wow! Happy birthday old girl!

CHIEF OF THE LOCOMOTIVE WORKS, JAMALPUR
LOCOMOTIVE SUPERINTENDENT

Sf.No.	NAME	FROM	TO
1	D. W. CAMPWELL	1862	1887
2	J. STRACHAN	1888	1890
3	A. W. RENDELL	1890	1901
4	T. R. BROWNE	1901	1909
5	D. St. Clair WEDDERBURN	1909	1919
6	W. J. TOMES	1919	1920

DEPUTY CHIEF MECHANICAL ENGINEER

1	J. E. WALKER	01.01.21	10.04.21
2	A. DEVON	11.04.21	17.12.22
3	R. L. RAY VD	18.12.22	19.10.25
4	J. G. WHITE VD	20.10.25	25.10.26
5	R. L. RAY VD	26.10.26	24.02.27
6	J. G. WHITE VD	25.02.27	25.10.27
7	R. L. RAY VD	26.10.27	05.09.28
8	G. A. R. TRIMMING	06.09.28	20.10.30
9	H. H. SAUNDERS MBE	21.10.30	19.10.31
10	G. A. R. TRIMMING	20.10.31	30.12.32

11	H. H. SAUNDERS MBE	31.12.32	12.03.34
12	G. A. R. TRIMMING	13.03.34	19.03.35
13	H. H. SAUNDERS OBE	20.03.35	12.09.35
14	R. BONER	13.03.35	12.11.36
15	R. G. HUGHFF ED	13.11.36	30.03.38
16	G. W. BROWNE	31.03.38	20.12.38
17	R. G. HUGHFF ED	21.12.38	22.02.40
18	G. W. BROWNE	23.02.40	31.01.42
19	COL. R. G. HUGHFF ED	01.02.42	08.04.45
20	LT. COL. C. O. BROWNE	09.04.45	31.08.45
21	G. W. BROWNE	01.09.45	19.07.46
22	C. J. HALL	20.07.46	31.01.47
23	W. A. NIGHTINGALE OBE	01.02.47	14.08.47
24	B. BASU	15.08.47	20.03.49
25	A. K. MULLICK	21.03.49	24.08.49
26	A. N. MUKHERJI	25.08.49	05.01.50
27	P. S. VENKATARAMAN	16.01.50	01.09.53
28	R. B. L. MATHUR	02.09.53	19.01.54
29	S. CHAKRAVARTI	20.01.54	23.06.55
30	R. B. L. MATHUR	24.06.55	06.09.56
31	S. K. NIYOGI	07.09.56	11.10.56
32	R. B. L. MATHUR	12.10.56	27.06.57
33	M. L. PURI	28.06.57	11.05.59
34	N. N. TANDAN	03.06.59	22.02.60

35	I. SARAN	23.02.60	02.03.61
36	S. C. MISRA	24.04.61	22.11.62
37	K. PRASAD	23.11.62	21.07.67
38	A. SITANATH	22.07.67	28.05.68
39	L. R. GOSSAIN	29.05.68	16.11.68
40	C. N. KAPUR	28.11.68	22.06.69

SUPERINTENDENT MECHANICAL WORKS

1	CHAND NARAYAN KAPUR	23.06.69	24.04.70
2	JAGDISHWARSAHAY	25.04.70	01.08.71
3	KAMESHWAR PRASAD	02.08.71	02.08.72
4	SAMSHER SINGH	03.08.72	20.02.73
5	YUGAL RAJ PURI	21.02.73	14.03.73
6	SAMSHER SINGH	15.03.73	26.12.73
7	JAGDISH CHANDRA KALRA	27.12.73	03.02.74
8	KRISHNA AWATARTIKKU	04.02.74	14.02.75
9	JAGDISH CHANDRA KALRA	15.02.75	23.05.76
10	DHARMVEER SINGH	24.05.76	11.07.76
11	JAGDISH CHANDRA KALRA	12.07.76	16.03.77
12	SYED ALI HASSAN ABIDI	17.03.77	26.08.78
13	W. RANG RAJAN	27.08.78	31.12.79
14	R. BALKRISHNAN	01.01.80	26.03.80

ADDL. CHIEF MECHANICAL ENGINEER (ACME)

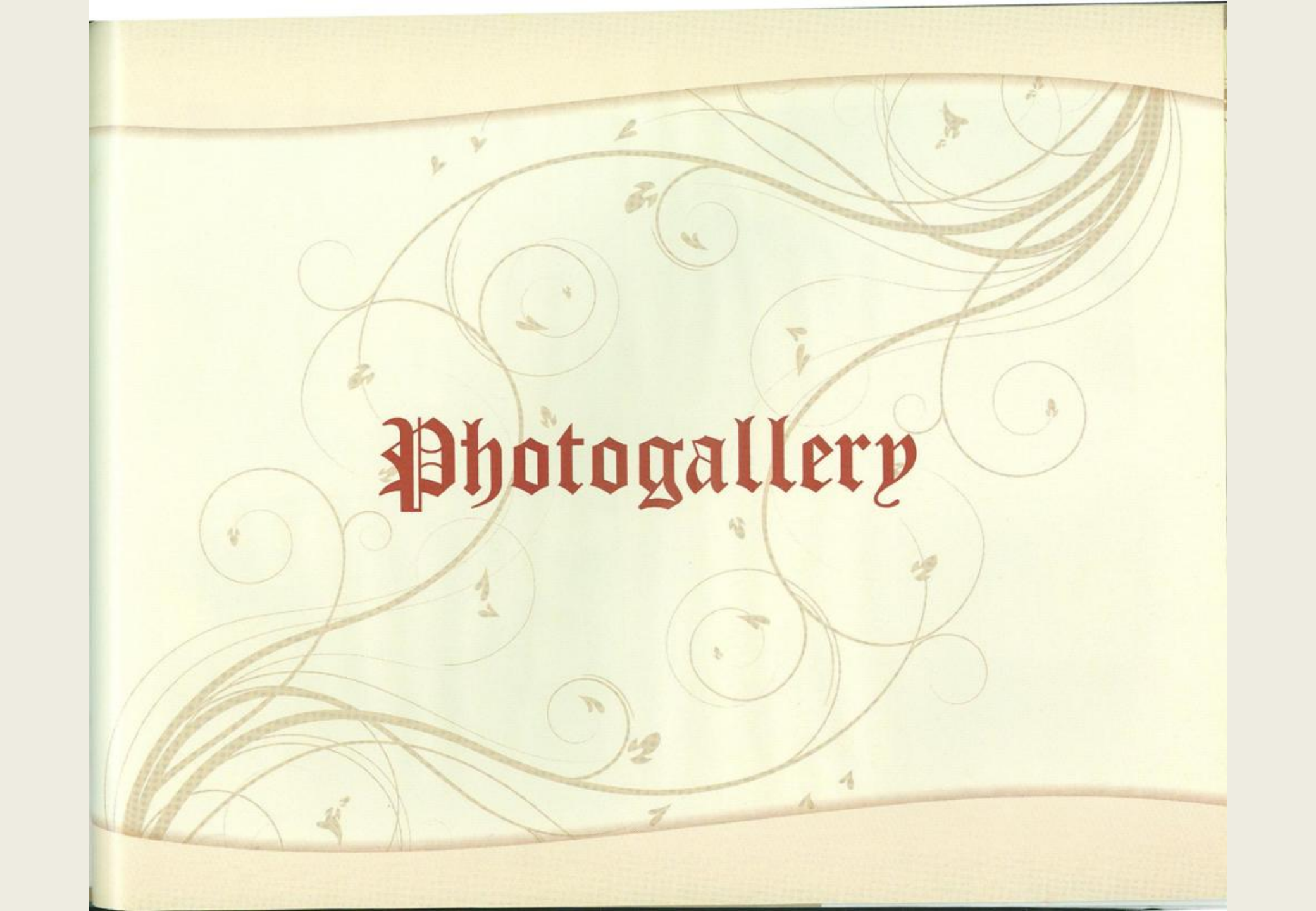
1	R. BALKRISHNAN	27.03.80	11.01.82
2	MAHESH CHANDRA	12.01.82	25.03.82
3	GYANENDRA KUMAR KHARE	26.03.82	27.02.86
4	KULBENDRA SINGH KATARI	28.02.86	15.02.87
5	PRAVEEN KUMAR	16.02.87	14.06.87

CHIEF WORKS MANAGER

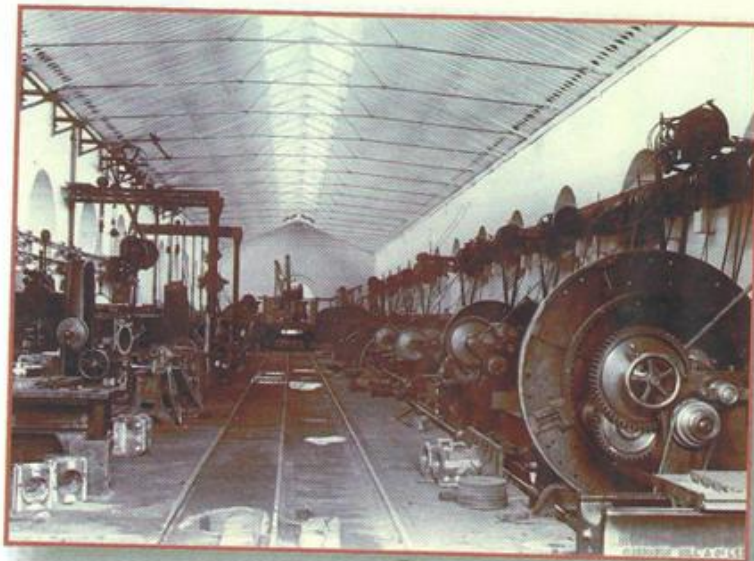
1	KULBENDRA SINGH KATARI	15.06.87	26.04.89
2	VINOD PRASAD	26.04.89	14.09.93
3	ARUN KUMAR TIWARI	21.09.93	22.05.97
4	NIKHILESH JAIN	22.05.97	27.05.2000
5	ASHOK KUMAR SINGH	27.05.2000	04.10.2000(SG)
6	ASHOK KUMAR SINGH	05.10.2000	29.03.2003
7	DEWAL KUMAR GAYEN	31.03.2003	30.04.2003
8	SUNIL KUMAR SOOD	02.05.2003	17.10.2006
9	PRABHAT KUMAR BAJPAI	17.10.2006	16.03.2007
10	DEEPAK KUMAR MONDAL	16.03.2007	26.07.2007
11	RAVINDRA GUPTA	26.07.2007	09.08.2008
12	DINESH CHANDRA SHARMA	20.08.2008	18.02.2009
13	ANIRBANDATTA	18.02.2009	05.11.2009
14	PRABIR KUMAR SAHA	05.11.2009	27.01.2010
15	ASHOK KUMAR MONDAL	30.01.2010	31.05.2011
16	ANIMESH KUMAR SINHA	31.05.2011	TILL DATE

Disclaimer

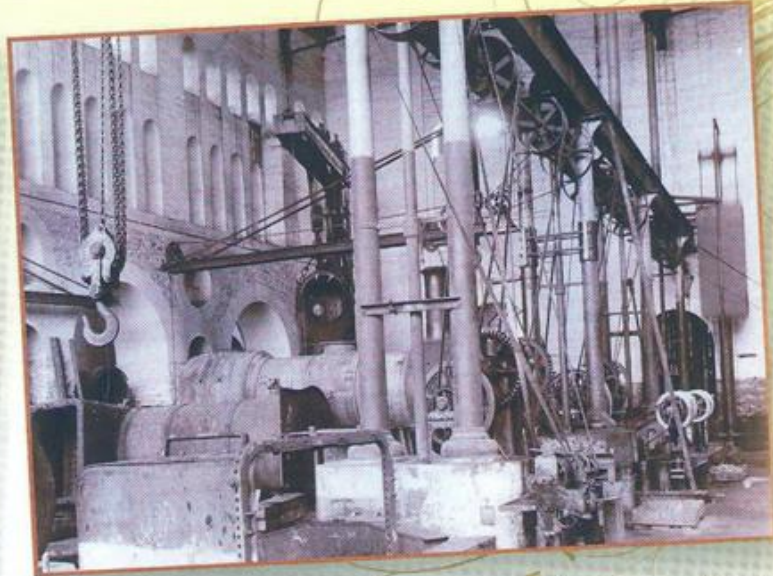
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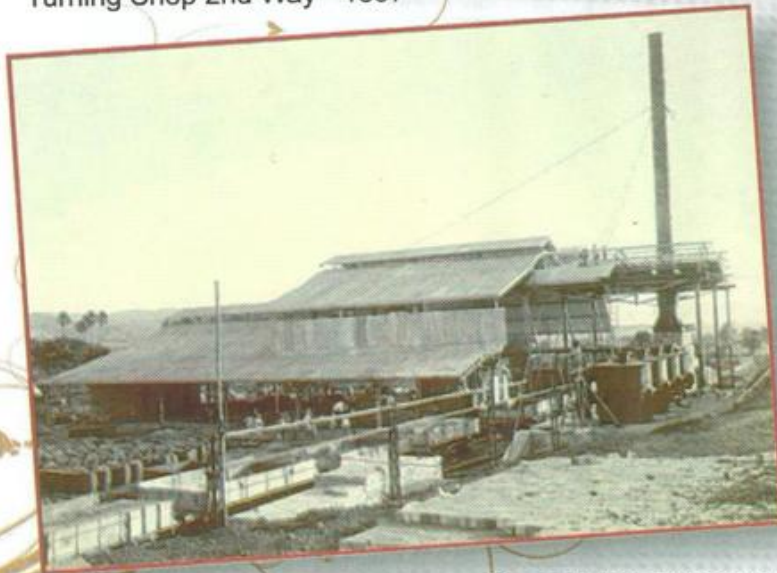
Photogallery



Turning Shop 2nd Way - 1897



Boiler Shop - 1897



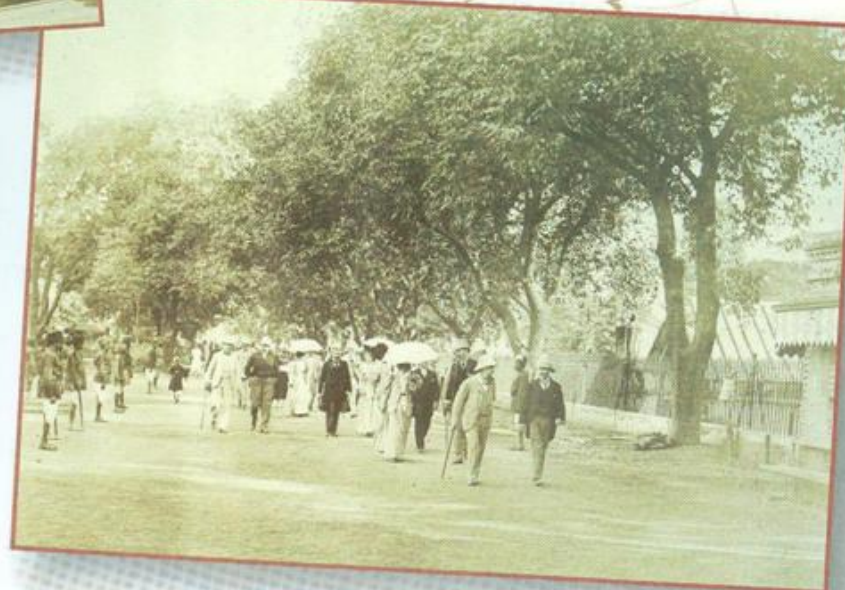
General Iron Foundry



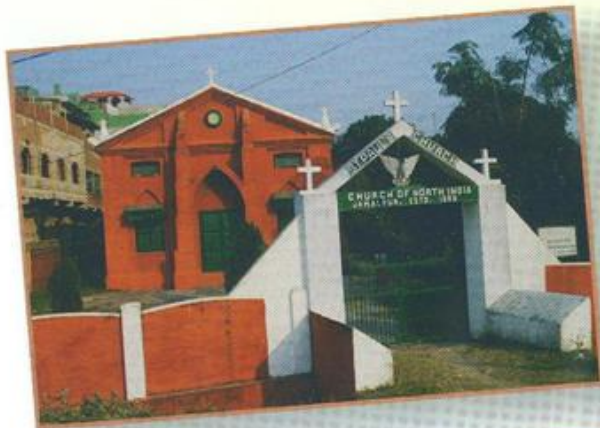
Turning Shop - 1st Way - 1897



ELGIN VISIT JAMALPUR



ELGIN VISIT TO JAMALPUR - 1897



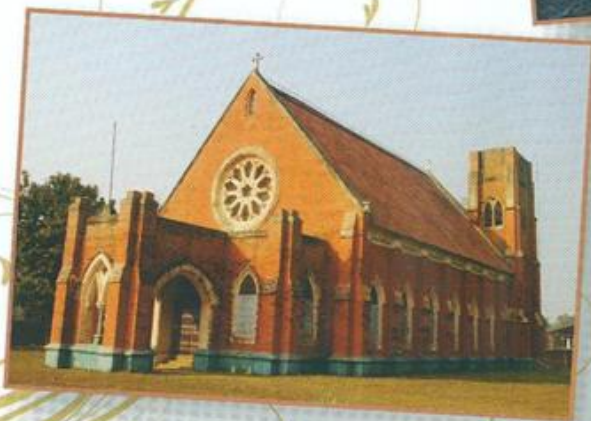
Church of North India, Estd. 1896



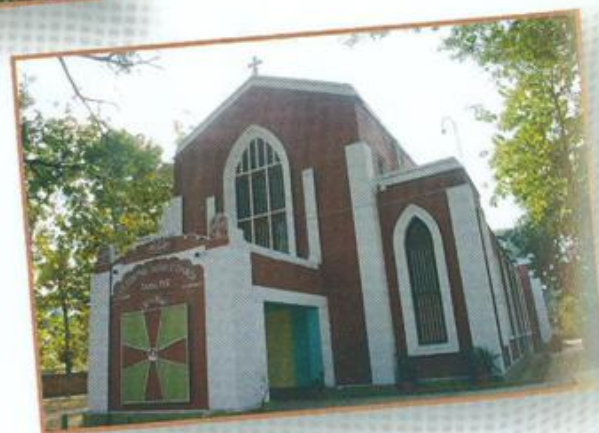
Baptist Church, Estd. 1915



Grave Yard



St. Marys Church, Estd. 1867



Catholic Church, Estd. 1867



Administrative Building - 1946

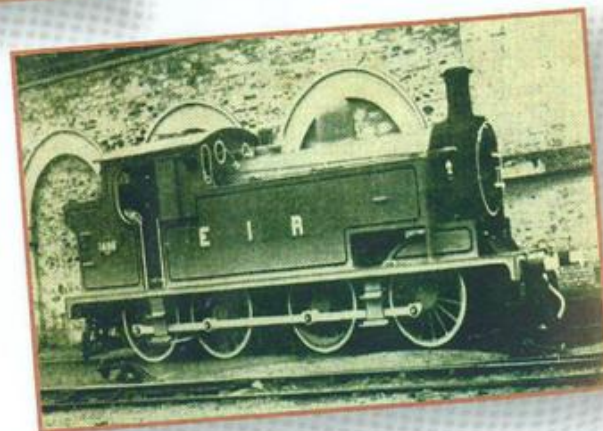
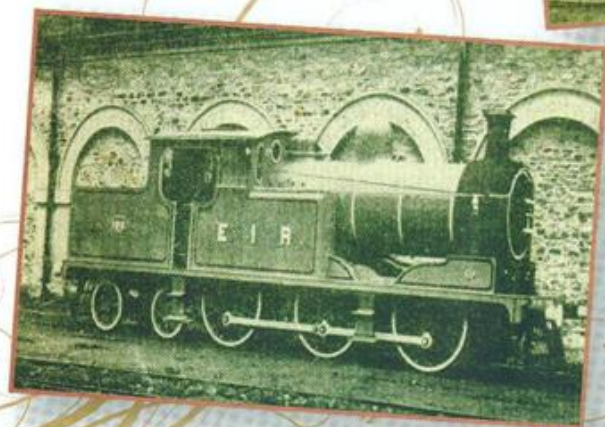
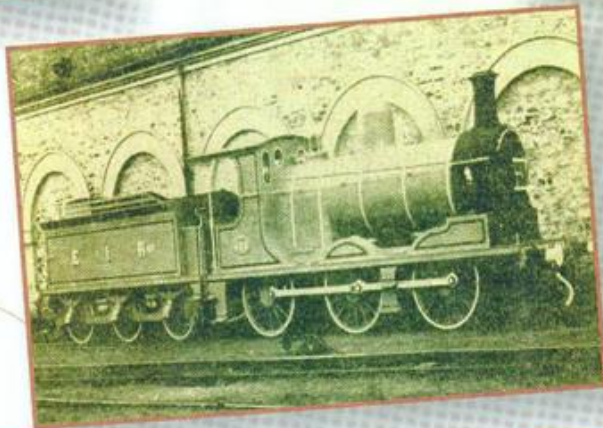
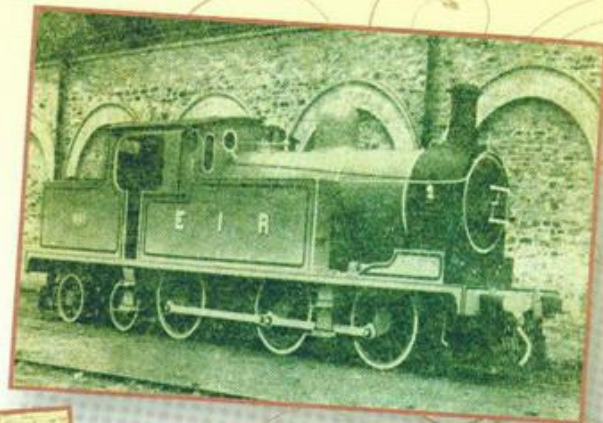
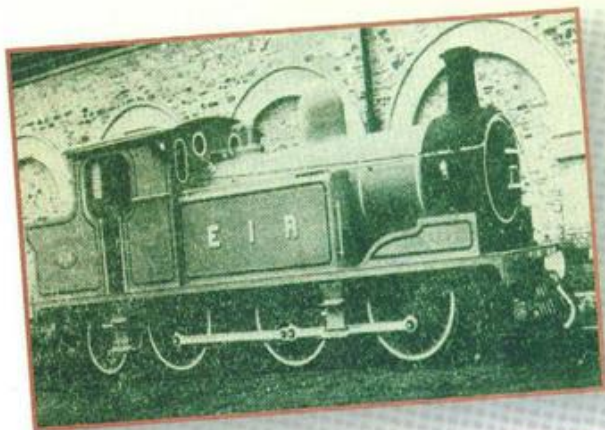


Administrative Building before 1934



Eastern Railway Locomotive Workshop

Administrative Building Now



LOCOS built in Jamalpur



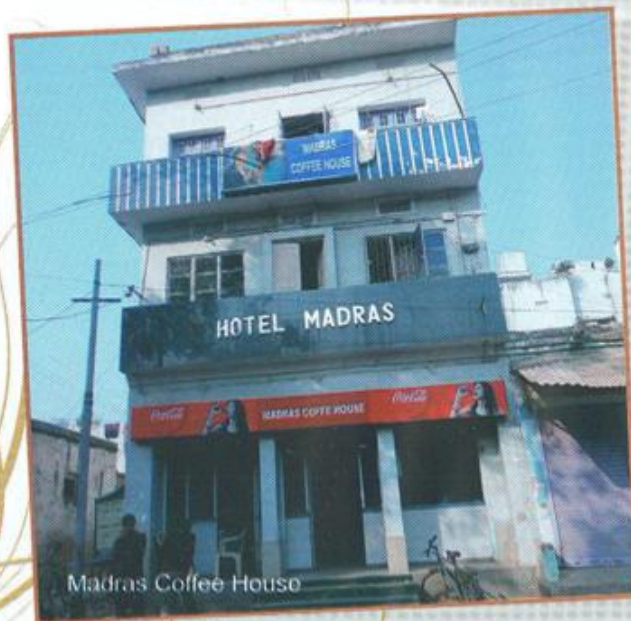
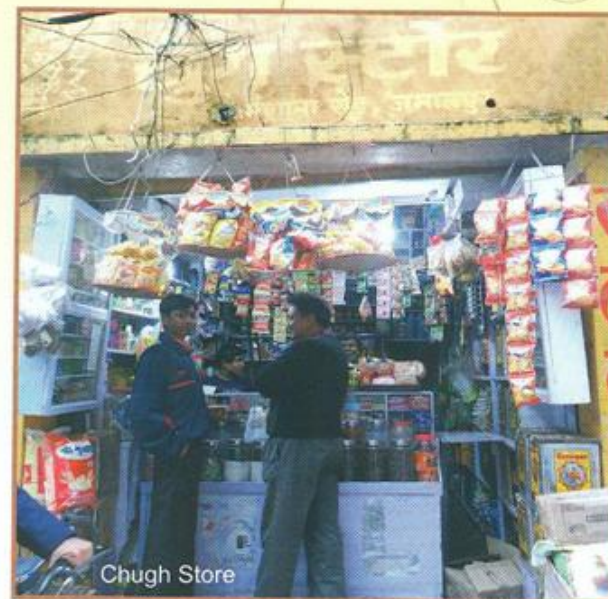
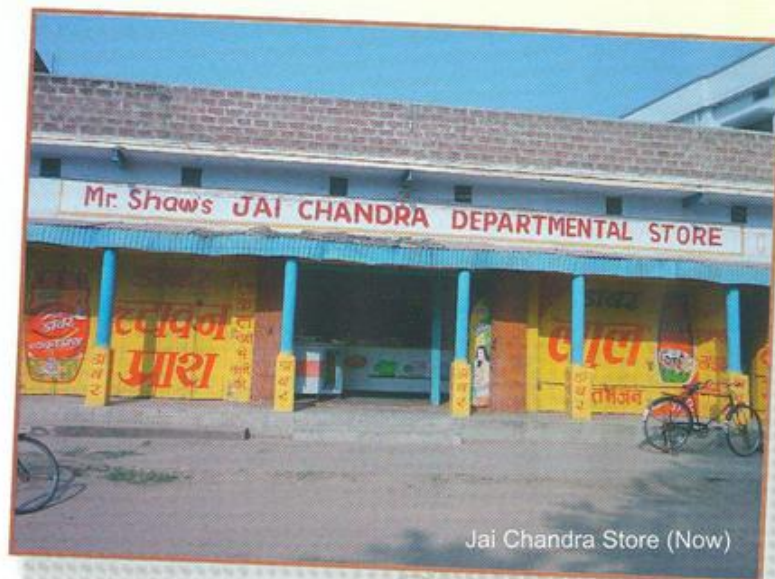
LS Residence

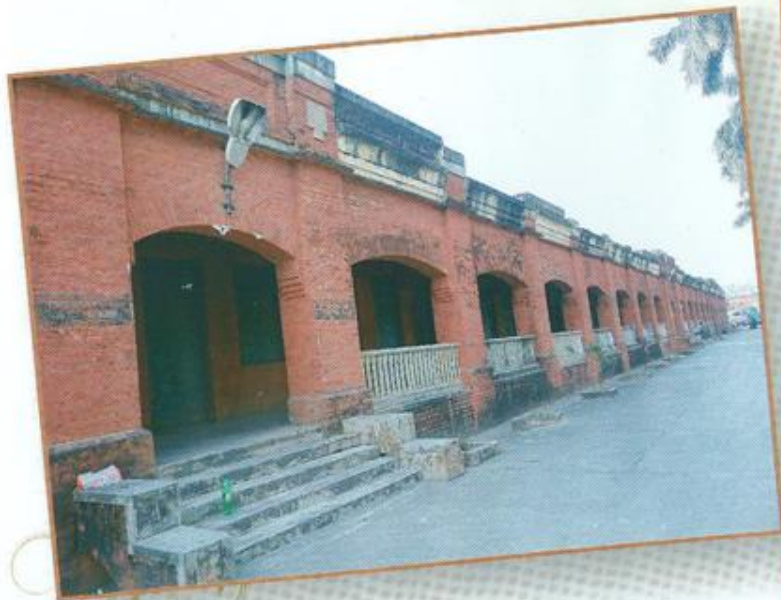


Distt. LOCO Superintendent Residence



CWM Residence





Rampur Hostel



Fuel Economy Hostel



SGH (Gymkhana)

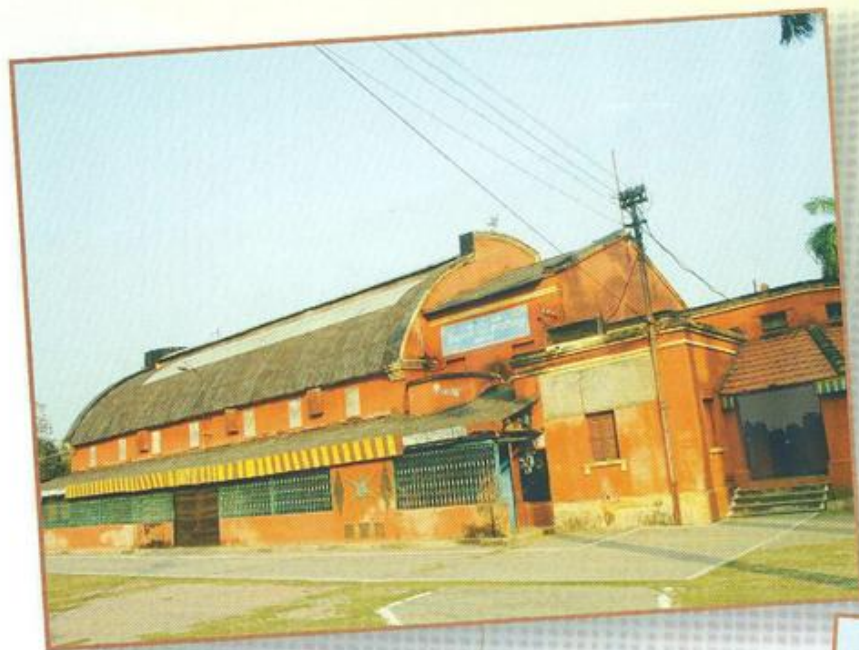


Queens Road Hotel



Yantrik Niwas

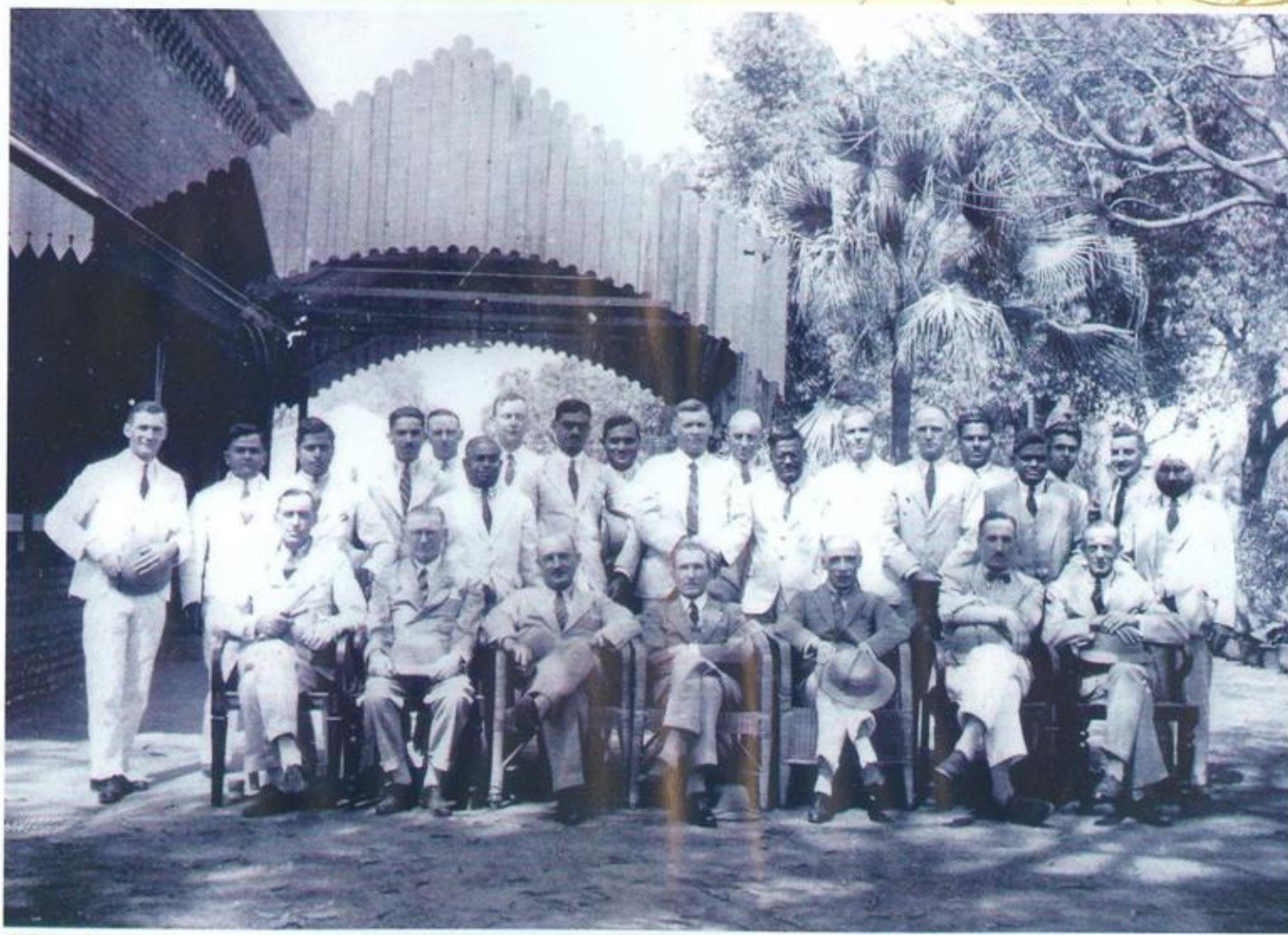




National Institute



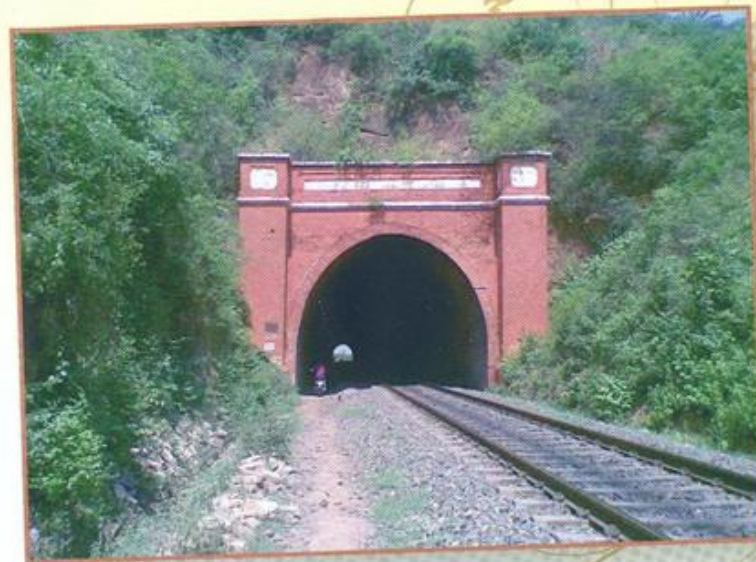
Central Institute



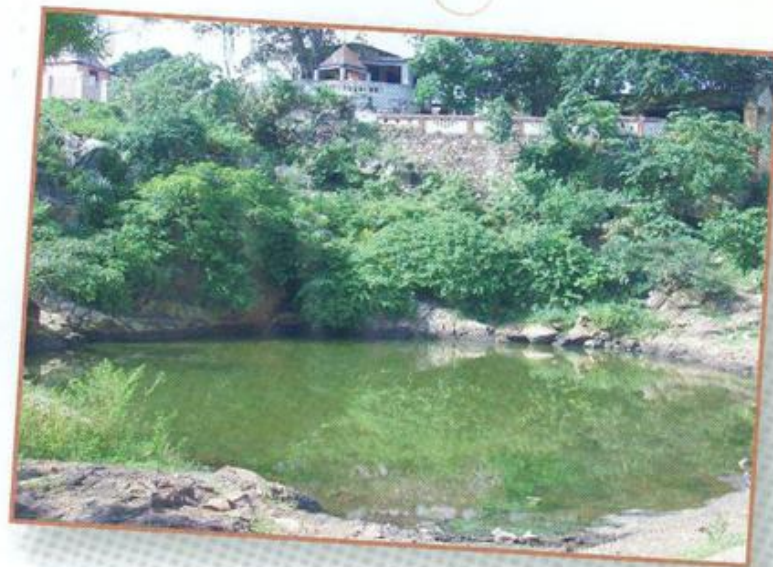
Officers in front of OFFICERs CLUB



Kali Ma



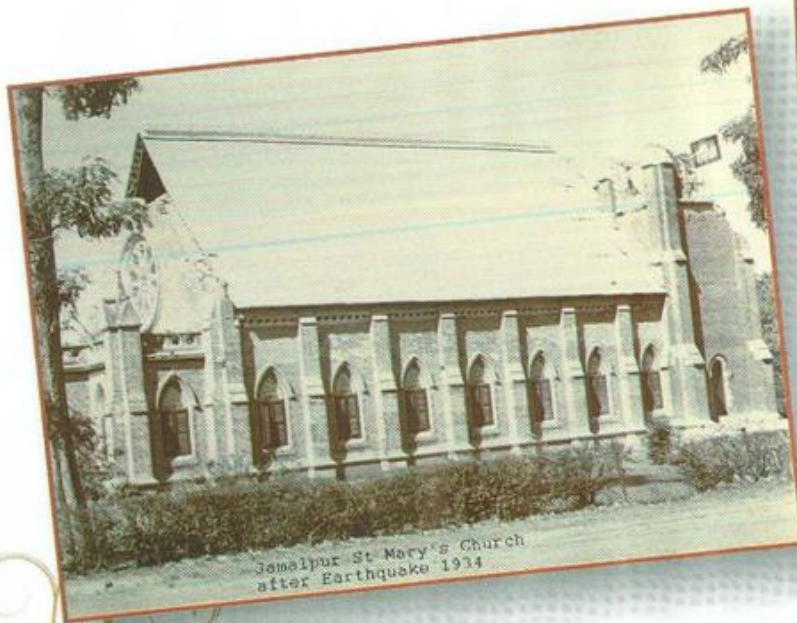
Tunnel



Kali Mandir at Hill Top



Earthquake damages - 1934



Earthquake damages - 1934



Jamal Baba ka Majar



Nagarpalika



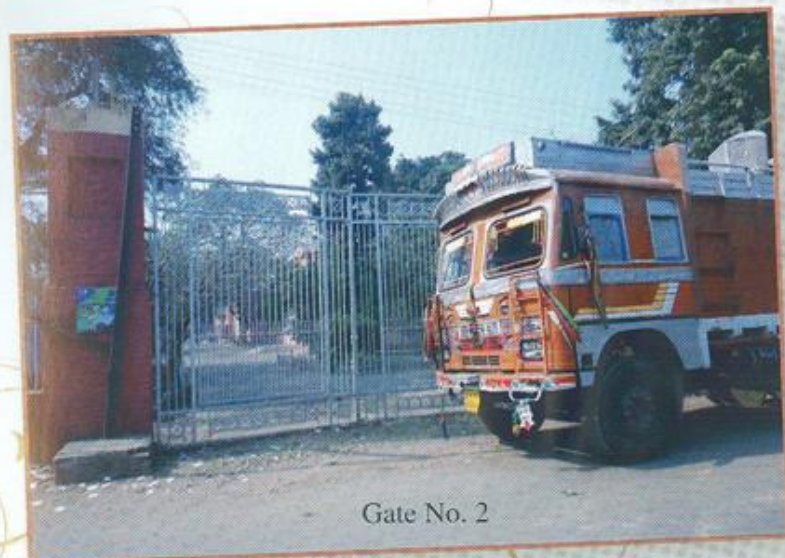
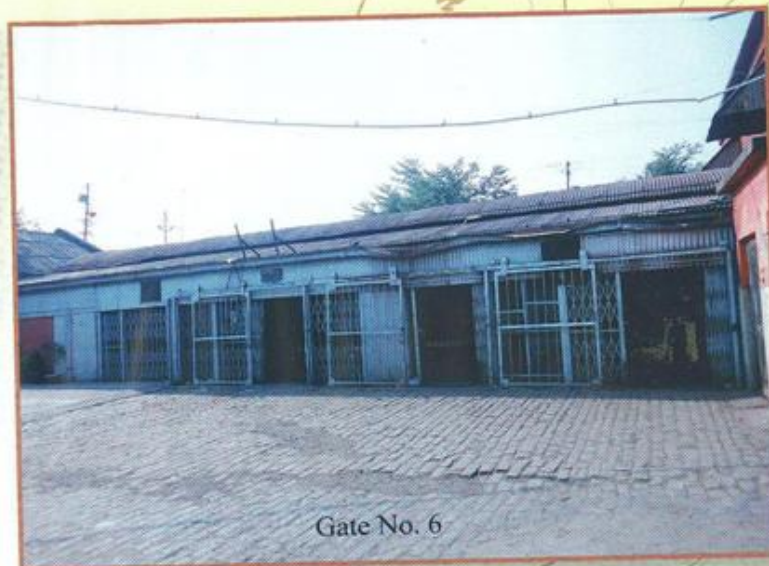
North Tank

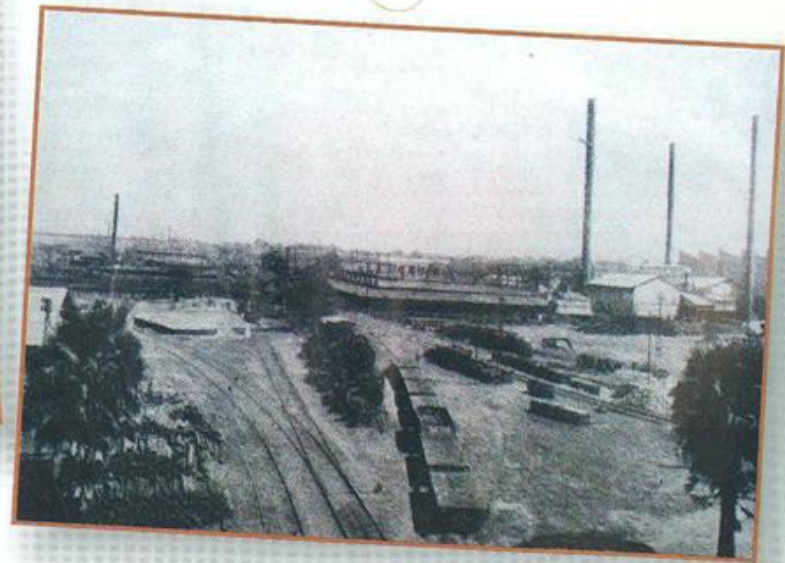


Water Works



Upper Reservoir





Aerial View of Workshops

रेल इंजन कारखाना जमालपुर

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गौरवशाली 150 वर्ष

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