



75
आज़ादी का
अमृत महोत्सव



Towards a self-reliant India

The journey of BEML
Since 1964

COMMEMORATION OF 75 YEARS OF INDIA'S INDEPENDENCE



BEML LIMITED

Schedule 'A' Company under Ministry of Defence, Govt. of India



BEML Soudha - BEML Regd. & Corporate Office

Vision ...

Become a market leader as a diversified company supplying quality products and services to Defence & Aerospace, Mining & Construction, Rail & Metro and to emerge as a prominent international player.

Mission ...

- Improve competitiveness through collaboration, strategic alliances and joint ventures.
- Grow profitability by aggressively pursuing business opportunities in domestic and international markets.
- Adoption of state-of-the-art technologies and bring in new products through ToT and In-house R&D.
- Continue in diversified growth in new products and markets.
- Attract and retain people in rewarding and inspiring environment by fostering creative and innovation.
- Offer technology and cost effective total solutions for enhanced customer satisfaction.

VALUE STATEMENT 'BEML FIRST'

- F** - Focus on Customer
- I** - Innovation & Technology
- R** - Reliability & Quality
- S** - Speed & Responsiveness
- T** - Trust & Teamwork





State-of-the-art Manufacturing Facilities



Hub of Engineering Excellence

Nurturing Indigenous Capabilities



BEML, a pioneer of indigenously
manufactured equipment, truly epitomizes
the **Make in India** and **AatmaNirbhar
Bharat** missions of the Government of India

BEML Captains during the journey....



Shri K P V Menon
13.05.1964 to 16.08.1964



Brig. P R Kumar
14.03.1965 to 15.11.1968



Maj. O M Mani
16.11.1968 to 08.11.1978



Brig. G K Gokhale
09.11.1978 to 16.01.1980



Shri V P Sarma
17.01.1980 to 30.11.1980 (As In-charge)



Maj. Gen. S N Bhaskar
01.12.1980 to 30.11.1984



Shri B R Srinivasmurthy
27.12.1984 to 30.06.1985



Shri M B Ajwani
18.07.1985 to 30.11.1991



Shri T V S Sastry
05.02.1992 to 02.11.1995



Dr K Aprameyan
03.11.1995 to 30.11.2002



Shri VR S Natarajan
01.12.2002 to 11.06.2012



Shri P Dwarakanth
12.06.2012 to 30.06.2016



Dr. Deepak Kumar Hota
01.07.2016 to 31.01.2021



Shri MV Rajasekhar
01.02.2021 to 27.08.2021 (As In-charge)



Shri Amit Banerjee
27.08.2021 Present

Our Journey ...

BEML started its journey in 1964 and achieved **'many firsts'** to emerge as one of the leading engineering companies with a varied business portfolio supporting nation building.

BEML has travelled a long way from manufacturing conventional Rail Coaches to ultra-modern driverless Metro Trains, from Basic Dozers to state-of-the-art heavy earth moving machineries and from High Mobility Trucks to Unmanned Aerial Vehicles.

- BEML is equipped with modern manufacturing plants at Bengaluru, KGF, Mysuru and Palakkad,

market-driven composite R&D set-up, certified quality management system and wide marketing network to take on global competition.

- BEML's team of dedicated professionals and highly skilled workforce who work in a challenging environment and its growth-oriented strategy, is steering the company on an enduring journey of innovation and success.

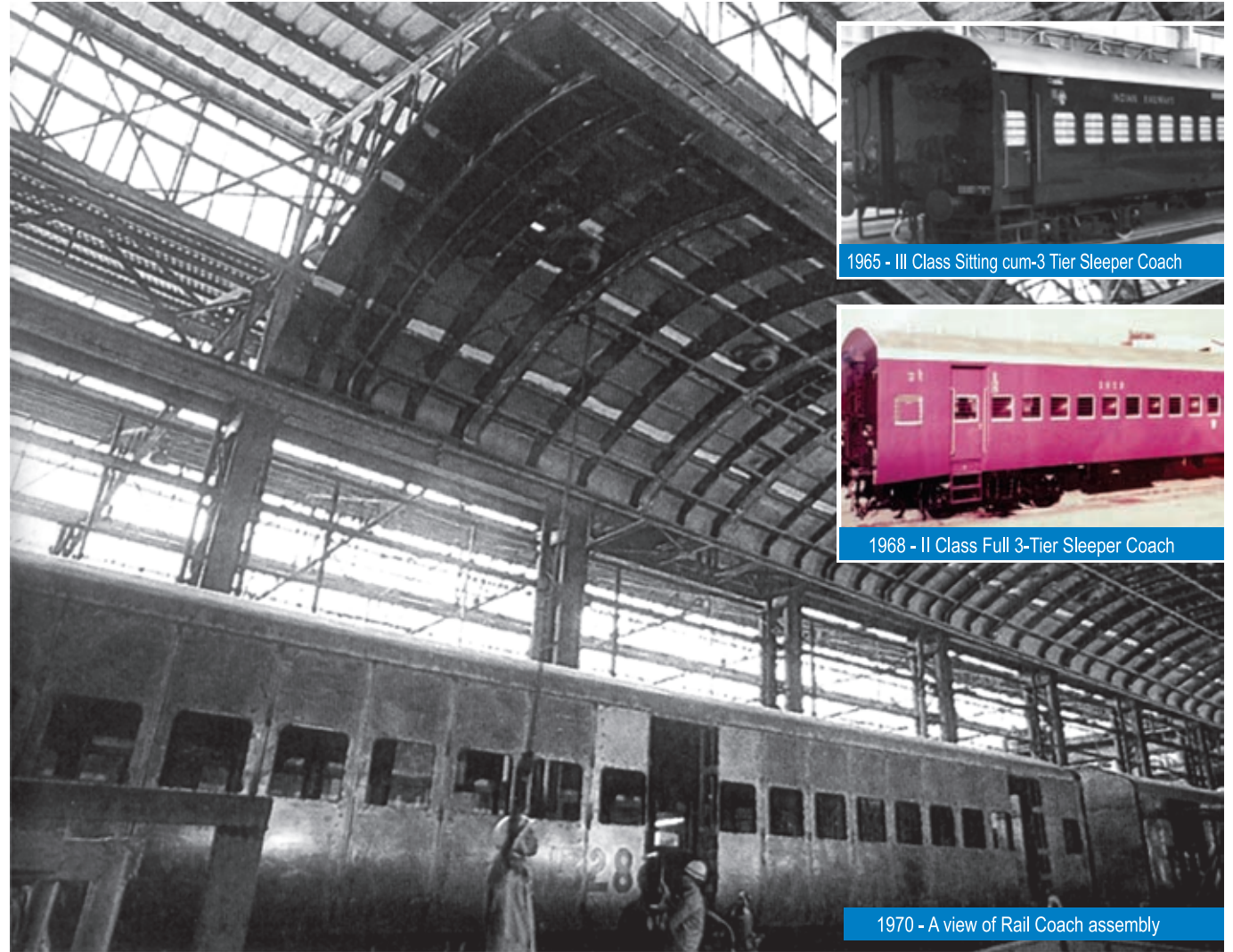
Welcome to the world of BEML, where pioneering leadership is the guiding light in pursuit of excellence.



Way back 1964



Smt. & Shri Lalchand Hirachand, one of the founders of HAL, inside a III class Rail Coach.



1965 - III Class Sitting cum-3 Tier Sleeper Coach



1968 - II Class Full 3-Tier Sleeper Coach

1970 - A view of Rail Coach assembly



BEML coaches ready for dispatch



1964 BEML LIMITED (Formerly Bharat Earth Movers Limited) incorporated under Companies Act 1956, under Ministry of Defence, Govt. of India with its headquarters in Bangalore, Karnataka.

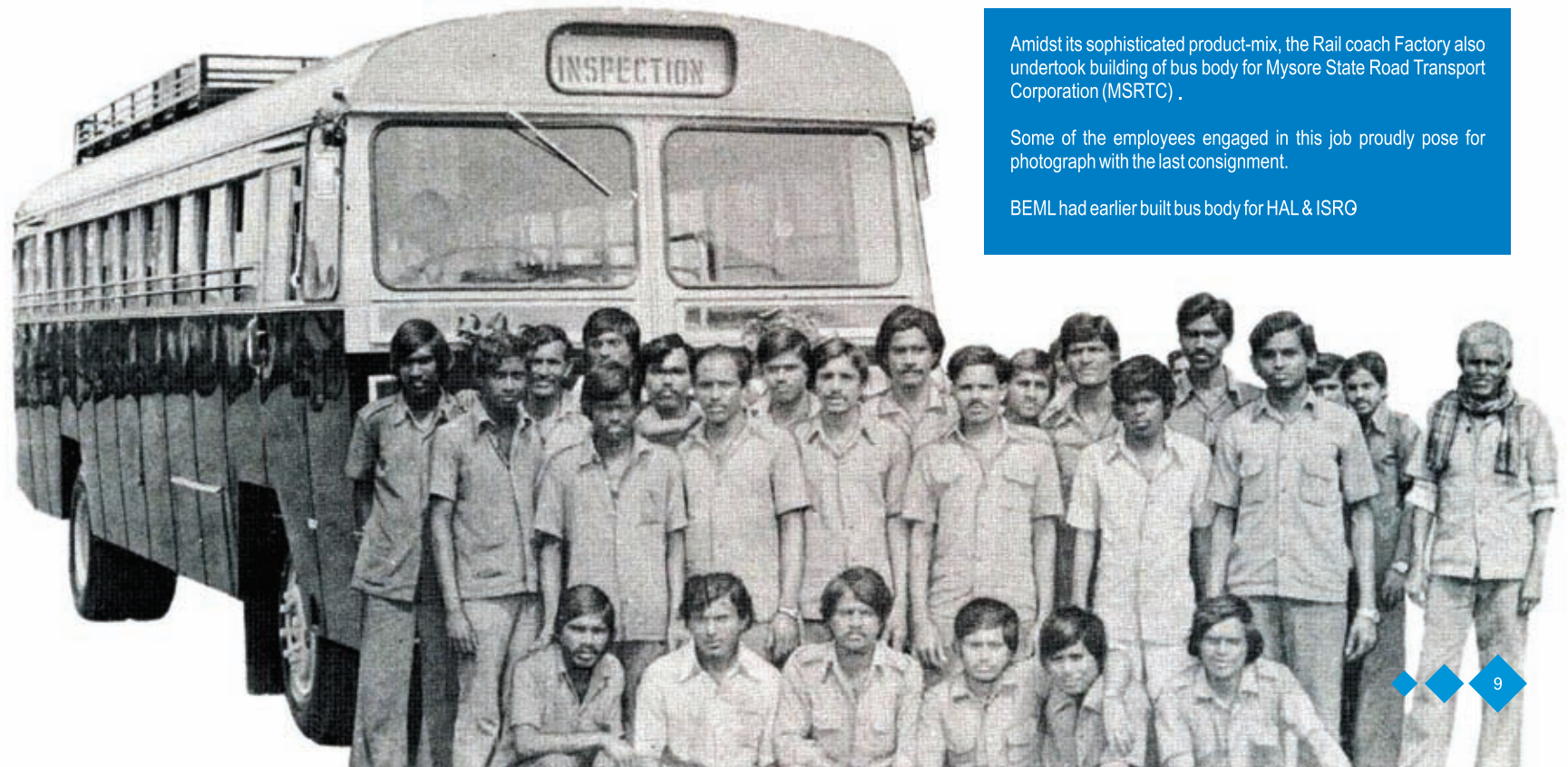
The new company began with initial capital of ₹5 crore, takes over production of rolling stock at Rail Coach Division in Bangalore.

1968 Heavy Earth Mover Division established at Kolar Gold Fields (KGF). BEML diversified into other rail products by introducing Sleeper Coaches & Postal Vans.

1970 BEML began exporting Earth Moving equipment. The 1st consignment of Motor Grader and Tractors exported to Nepal & Bhutan.



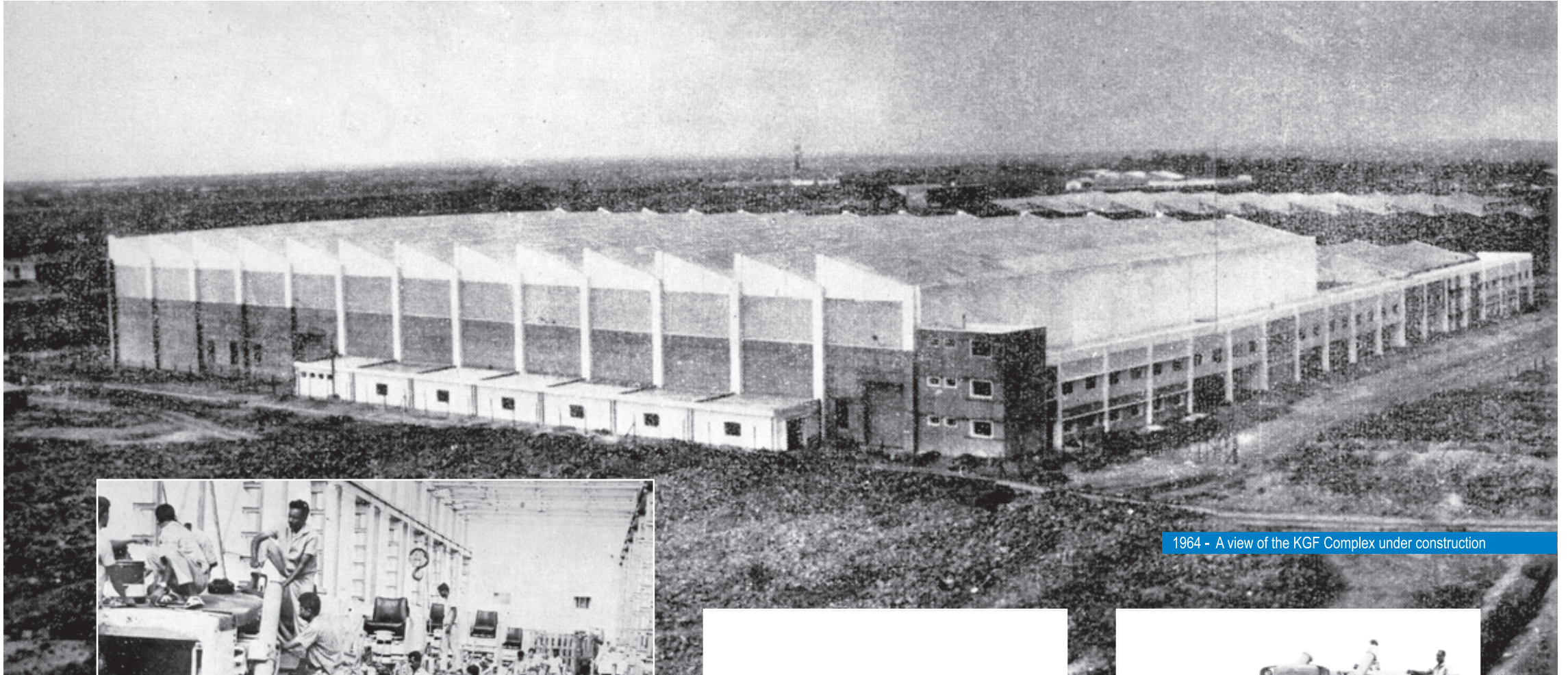
Final touches to Postal & Parcel Van



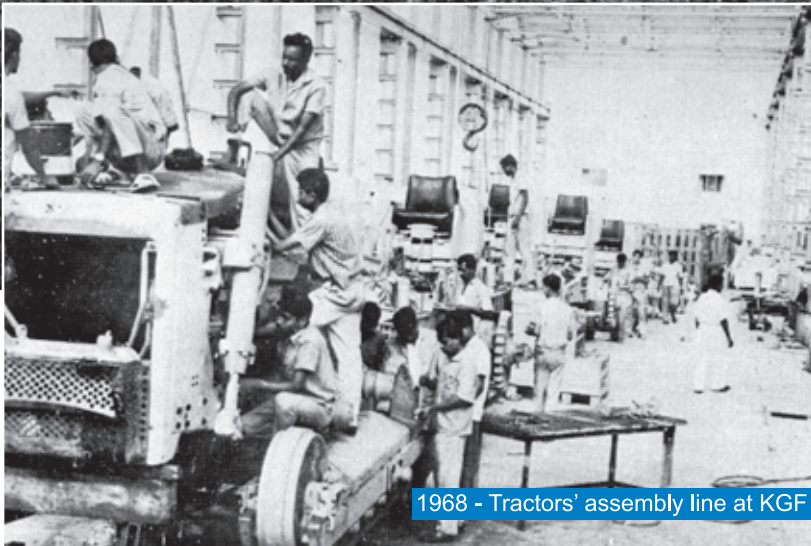
Amidst its sophisticated product-mix, the Rail coach Factory also undertook building of bus body for Mysore State Road Transport Corporation (MSRTC) .

Some of the employees engaged in this job proudly pose for photograph with the last consignment.

BEML had earlier built bus body for HAL & ISRO



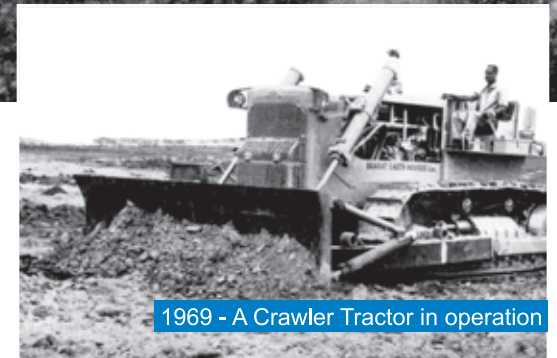
1964 - A view of the KGF Complex under construction



1968 - Tractors' assembly line at KGF



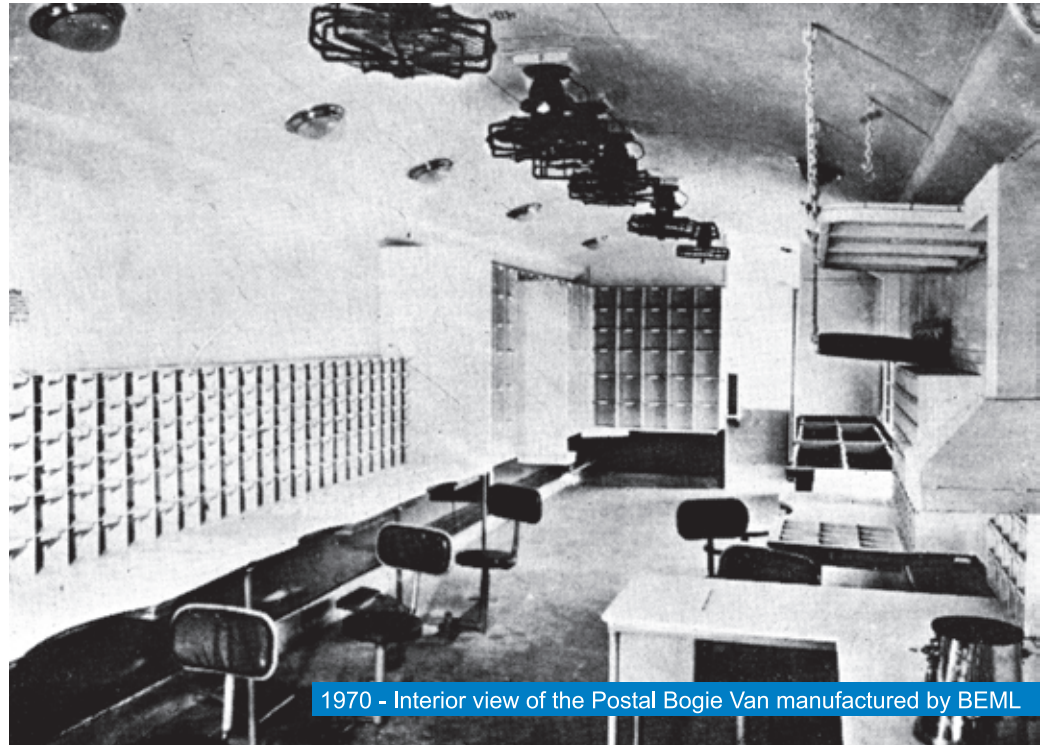
1967 - BEML made 1st Scrapper rolled out from KGF



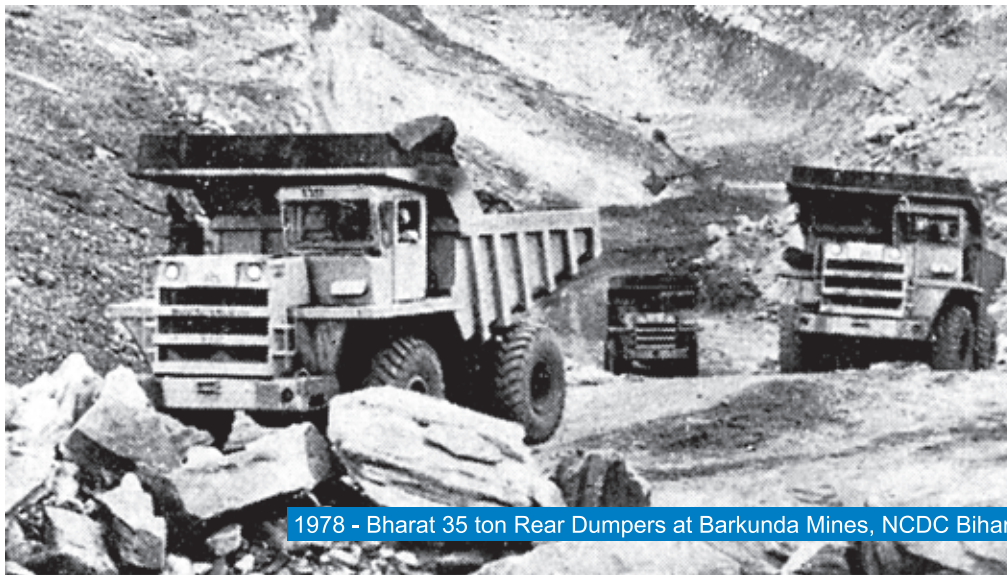
1969 - A Crawler Tractor in operation



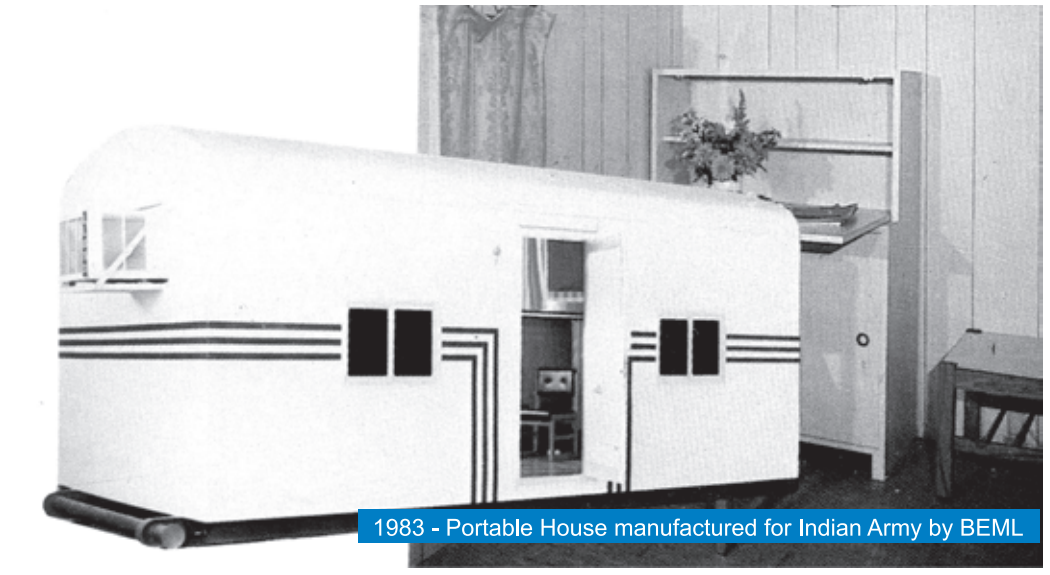
1969 - BEML manufactured 1st Motor Grader under testing



1970 - Interior view of the Postal Bogie Van manufactured by BEML



1978 - Bharat 35 ton Rear Dumpers at Barkunda Mines, NCDC Bihar



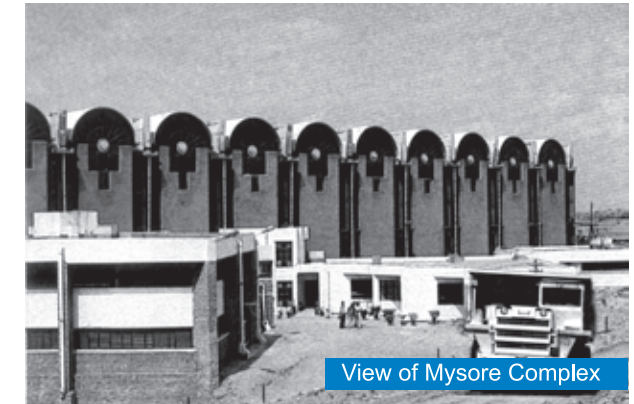
1983 - Portable House manufactured for Indian Army by BEML



R&D innovation - Telescopic Boom Excavator



Shri B.R. Srinivas Murthy, CMD inaugurating BEML's Mysore Complex



View of Mysore Complex

- 1985 Dump Truck Division goes into stream at Mysore. BEML launched in-house R&D Aircraft Towing Tractor for IAF, Telescopic Boom Excavator for SAIL.
- 1986 BEML extends its products range of Wheel Loaders & Excavators.
- 1987 An exclusive Hydraulics & Power line Division and full-fledged R&D Centre set-up at KGF.
- 1988 First set of Heavy Duty Trucks rolled-out for Indian Army.



Shri KC Pant, Hon'ble Raksha Mantri during the roll out of Heavy Duty Trucks for Indian Army



Handed over first set of in-house R&D 8 Wheeler OHE Car to Indian Railways



BEML Corporate Office

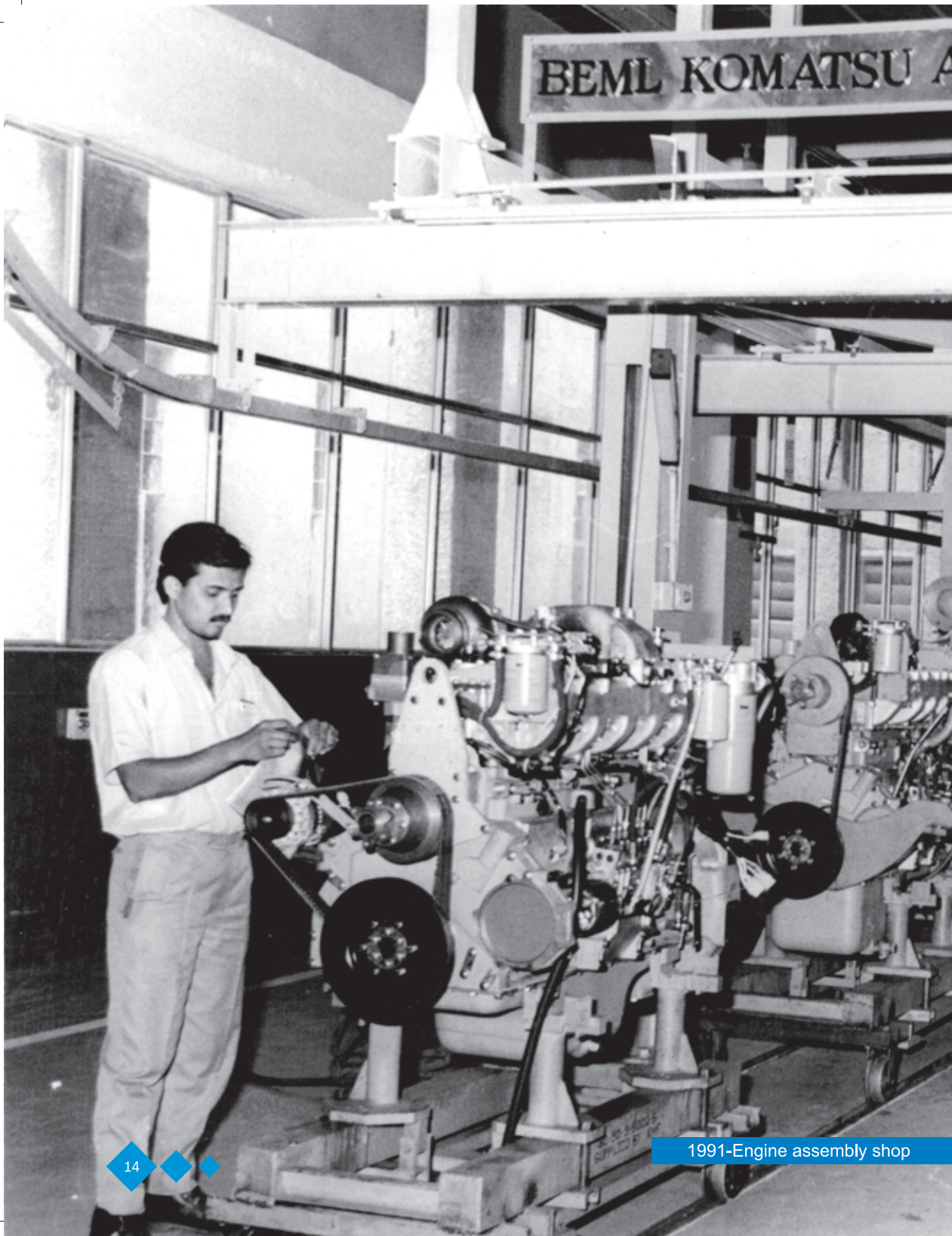
- 1989 Enter the Giant : The 120 Ton Electric Rear Dump Truck.
- 1989 BEML celebrates silver jubilee year. Entered 120 Ton Dump Truck market. Launched Pipe Layer and Rope Shovels. Handed over first set of in-house R&D 8Wheeler OHE Car to Indian Railways.
- 1990 BEML HQ moved to new Corporate Office 'BEML SOUDHA'. Dedicated full-fledged Sports complex at KGF. BEML sales crosses ₹700 crore mark.



120 Tonne, Electric Rear Dump Truck



BEML entered into manufacturing of Rope Shovels

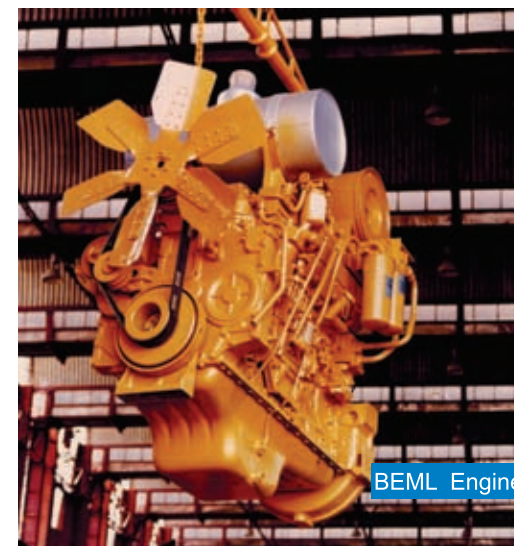


1991-Engine assembly shop

1991 PM dedicates Engine division.
 Commissioned indigenously manufactured
 Hydraulic Excavator.



Shri Chandra Shekhar, Prime Minister of India, dedicating Engine Division to the nation at Mysore



BEML Engine

This factory is the symbol of efficiency, modernisation and skill of our engineers and workers. I highly appreciate the dedication and devotion to duty exhibited by the management. I wish them a very bright future.
 Chandra Shekhar
 19.4.91

Commendation from Prime Minister



The first commissioned BD 355 Dozer



The first Walking Dragline commissioned at SCCL Ramagundam Project



EMU: Gently rolling along during regular runs in suburb

- 1992 Launches India's biggest Dozer BD355.
- 1993 Receives ISO-9000 Certification.
- 1994 First mammoth equipment – Walking Dragline launched. First set of DC-EMU dedicated to Indian Railways. BEML's Public Issue.
- 1995 Annual sales turnover crosses ₹ 1000 crore.



Hon'ble Railway Minister Shri C.K. Jaffer Sharief handing over the key of DCEMU unit to Member (Mech.) Railway



Handing over the key of Bheema-1000 to IAF



"Bheema-1000" carrying weapon for loading



The exuberant gathering at the BE 1600 launch in KGF

- 2001 Launches Mil-Rail Coaches for Indian Army.
- 2002 Indigenously developed Weapon Loading Equipment 'Bheema- 1000' rolled out.
BE-1600 Excavator launched.
Enters into an agreement with M/s. Rotem to manufacture Metro Coaches.
- 2004 Delivers first Metro Car set for Delhi Metro Rail Corporation Limited.



Shri SM Krishna, Hon'ble Chief Minister of Karnataka, flags off the 1st set of Metro Coaches for Delhi Metro

- 2005 Railway & Heavy fabrication units opens at KGF.
Test-track for Battle Tanks commissioned at KGF.
- 2006 BEML crowned 'Mini-Ratna'.
Launches B-FAT Wagons.
Crosses sales turnover of ₹2000 crore.



Rolling out of the first batch of Indigenously manufactured BFAT (Bogie-Flat Arjun Tank) Wagons



Shri Pranab Mukherjee, Hon'ble Raksha Mantri, inaugurating Heavy Fabrication Unit at KGF



Rao Indrajit Singh, Hon'ble Minister for State for Defence Production, dedicates Rail Coach Unit-II to the Nation



Dignitaries inside the Metro after launching the Standard Gauge Metro Car

- 2007 Rail Coach Unit – II takes off.
- 2008 Enters Power Generator Sector- Wind Mill Project.
- 2009 Country's first standard SG Metro Car & Aluminium Wagon flagged off.
- 2010 Inauguration of BEML Palakkad Complex.



A view of BEML Windmill Turbines installed at Kappatdugga, Gadag Dist. Karnataka



A view of SG Metro Coach



Shri AK Anthony, Hon'ble Raksha Mantri addressing the gathering after the inauguration of the BEML Palakkad Complex



BMRCL, receiving the 1st set of the Metro Coaches



Golden Jubilee celebration of BEML



India's 1st Stainless Steel Electrical Multiple Unit (SSEMU)

- 2011 Delivers first set of Metro Coaches to BMRCL.
- 2012 Rolls out India's first Stainless Steel Electrical Multiple Unit (SSEMU).
- 2013 Introduces Dumper Driver Simulator.
- 2014 Launches 'Make-in-India' BH150 Dump Truck, Roll-out of the 750th Metro Car. Celebrates 'Golden Jubilee'.



Shri AK Gupta, Secretary (Defence Production) with CMD, Directors, Sr. Executives & Office Bearers of BEMEA, BEMOG & SC/ST Welfare Assn., at Mysore Complex during the roll-out ceremony



Shri Manohar Parikkar, Hon'ble Raksha Mantri with Air Chief Marshal Arup Raha, CMD & Directors of BEML, after the roll-out ceremony of the 750th Metro Car at Bangalore Complex



BE1800E at SCCL mines

2014 Launches biggest 'Made in India' pollution-free electric excavator BE1800E. BEML's commitment for cleaner environment.



BE1800E Electric Excavator



BH205E Electric Dump Truck



CMD BEML, handing over the keys of BH205E to NCL

2015 BEML launched BE205E India's biggest electric drive Rear Dump Truck for large-scale coal mining application. BEML touched another milestone in its R&D efforts in achieving self reliance, in line with 'Make in India' policy. BEML is the first DPSU company to establish an office in LEH to extend after Sales Services for its machines working with DGBR & E-IN-C.



CMD, BEML handing over the Arjun ARRV to Director CVRDE in the presence of Smt. Nirmla Sitharaman, Hon'ble Raksha Mantri.

2017 Handed over the first prototype Arjun Armoured Repair & Recovery Vehicle (ARRV) to CVRDE.

ARRV is designed & developed by BEML's R&D team.



Arjun ARRV



2017 Shri Arun Jaitley, Hon'ble Raksha Mantri launched one of the world's biggest Dozers with Ripper attachment- BD475-1. Unveiled indigenously designed & developed BE1800D - 180 Ton Hydraulic Excavator.

BD475-1 Bulldozer



2017 BEML commissioned third line Metro manufacturing facility to increase the metro production capacity. BEML opened Warehouse at Pune to cater to the needs of Army requirement.



2018 CMD, BEML & DG, OFB jointly unveiled the 155 mm 52 Caliber Mounted Gun System manufactured in collaboration with OFB.



155 mm 52 Caliber Mounted Gun System



Intermediate Car Unit

2018 Delivers first set of Intermediate Car Unit to Bangalore Metro - ahead of schedule.

1st Metro Car unit delivered to KMRCL.

The state-of-the-art metro trains are indigenously designed & developed by BEML, truly realizing the objectives of 'Design in India' & 'Skill India' initiatives of the Government.

Metro Car for KMRCL

दहिसर (पूर्व)
Dahisar (East)



Driverless Metro Coach for Mumbai Metro



2019 Shri Narendra Modi, Hon'ble Prime Minister inspects the indigenously built state-of-the-art BEML's Metro Mock-up Coach for Mumbai Metro. Bags single largest order for supply of Metro Cars for Mumbai Metro.

Metro Mock-up Coach



2019 Handing over of First set of 15 nos. Sarvatra Bridge Systems to Indian Army.



Sarvatra Bridge Systems

Innovation Center: Industrial Design



2020 Shri Rajnath Singh, Hon'ble Raksha Mantri virtually inaugurated Industrial Design Centre to promote 'Atma-nirbharta'.

idc

Innovation on track

The Center is mainly focusing on enhancing the look & feel of BEML products, Operators comfort as per global standard and is integrated with R&D & manufacturing. IDC will harness the latest technologies like AI & Gesture Recognition and engineering resources for self-reliance.





MBPV

2020 Launched advanced version of Medium Bullet Proof Vehicle (MBPV) MK-II 'Gaur' under 'Make in India'.



2020 Hon'ble Raksha Mantri unveiled India's first state-of-the-art Heliportable Hydrostatic Drive Crawler Dozer.
Launched Artificial Intelligence Powered Medical Health Diagnostic Systems
A first of its kind in India.

Hydrostatic Drive Crawler Dozer



AI Powered Medical Diagnostic Systems



2021 Shri Rajnath Singh, Hon'ble RM, dedicates India's first indigenously designed & developed driverless metro car.

Hon'ble RM's Comments on BEML

NAME	DESIGNATION
Shri Rajnath Singh	Deputy Minister of India

REMARKS

I paid a visit to BEML to unveil the MAS Metro Coaches and to inaugurate Aerospace facility and HM vehicle cabin. Overwhelmed to see the range of products being manufactured by Beml and was equally impressed to see the dedication of officers and employees. BEML is doing an yeoman service to the nation's growth. I wish the CMD, Shri Deepak Hota and his team a bright and successful future along with the organization.

(Signature)
15/11/2021



Driverless Metro Car



Bangalore Complex



BANGALORE COMPLEX

The first Rail & Metro Coach factory in the Indian sub-continent, BEML consolidated its status as a major supplier of integral Rail coaches to meet the growing requirements of the Rail sector.

Diversifies into manufacture of Standard Gauge & Broad Gauge Overhead Inspection Cars, Track laying equipment, Spoil Disposal Unit, Electric Multiple Unit (EMU) - SS EMU, DC EMU, AC EMU, DEMU, MEMU, Rail Bus, Mill Rail Coaches, Treasury, Postal & Parcel vans.

This unit has produced Stainless Steel EMUs (SSEMU) for Indian Railways.

Metro Bogie manufacturing under progress

Executes Metro Rolling Stocks for supply of Metro Coaches to Delhi, Bangalore, Jaipur, Kolkata and Mumbai.

The complex was upgraded to match world class standards and is an exclusive hub for rolling out Hi-tech Driverless Metro Trains.

Expertise in acquiring sophisticated technology enabled to produce & supply Intermediate Metro Cars.



Robotic Assembly for Metro Coaches



Coach welding in progress



Bogie Testing



Precision Component under manufacture



Delivery Hangar



Making of Metro Body frame



Railway underframe Hangar



Metro coaches under testing



KGF Complex - Earth Mover Division

KGF COMPLEX

Located about 100 kms from Bangalore, BEML has established an extensive manufacturing base. A skilled workforce turns out state-of-the-art Bulldozers, Hydraulic Excavators, Wheel Loaders, Rope Shovels, Walking Drag Lines for Mining & Construction Industry, Multi-utility vehicles and Mine Plough & Armoured Repair & Recovery Vehicle for Armed Forces. The unit has sophisticated CNC Machines and latest technology Welding equipment that enables to produce world-class machines.

Exclusive Hydraulic & Powerline Division turns out precision assemblies and critical aggregates. State-of-the-art Gear Pumps, Control Valves, Suspensions, Cylinders, Heavy Duty Axles and Automatic Transmission are manufactured here.



Transmission assembly - Hydraulic & Powerline Division



Excavator assembly line



Dozer assembly in progress



Defence Hangar



Arial view of ultra modern test track

KGF Complex has all the facilities including Housing, Shopping & Sports Complex, Schools & Medical Centre etc.

Establishment of Heavy equipment & Fabrication units to handle major fabrication jobs with a capacity of 500 MT per annum.

International standard Test Track for testing Defence equipment & vehicles.

2nd Rail & Fabrication units commissioned for manufacture of conventional coaches.



Railcoach Unit - II



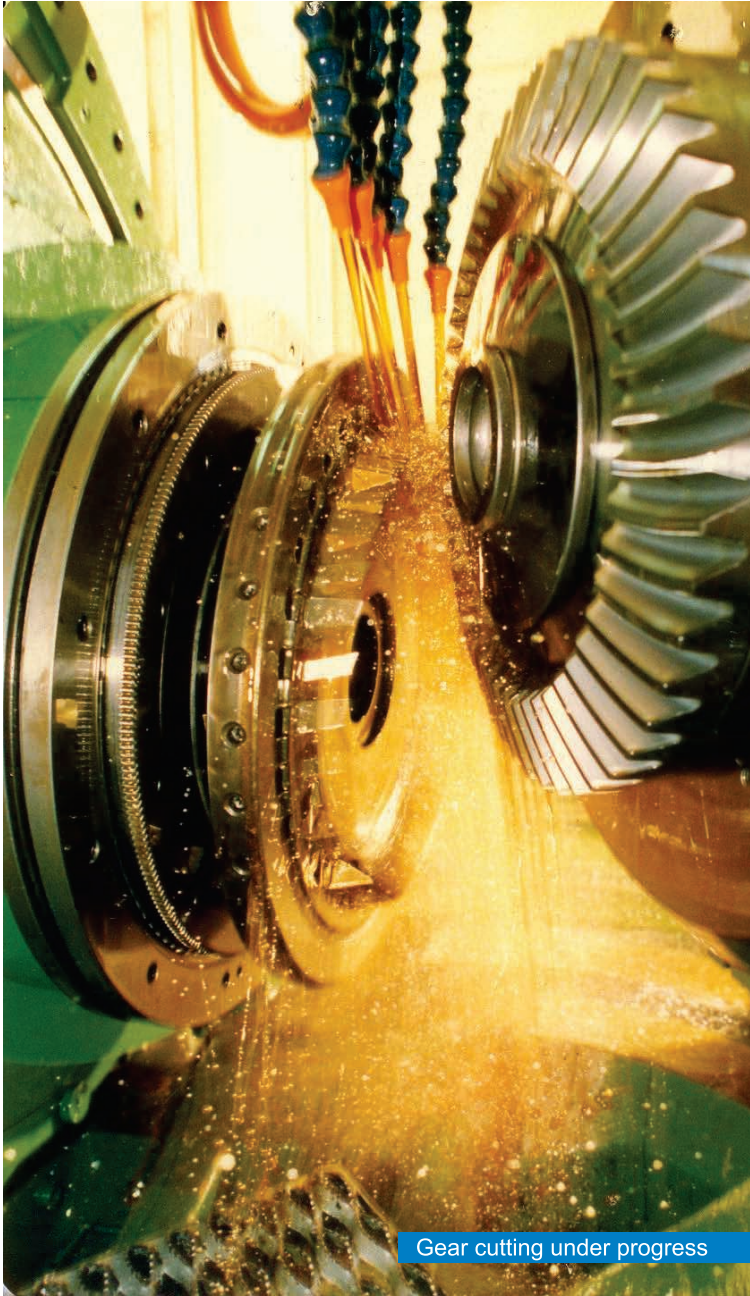
Heavy equipment assembly



Asia's largest machine shop Hangar



H&P Division - Manufacturing facilities



Gear cutting under progress



Administrative Block, Mysore Complex

MYSORE COMPLEX

To keep pace with the demands particularly in Mining & Construction Sector, BEML established the biggest Dump Truck Factory in India at Mysore. This unit produces a range of Dumpers from the popular 35 Ton to 150 Ton, implementing cutting-edge technology to promote 'Make in India' Mission.

Produced country's first & Asia's biggest Electric Drive Dump Truck of 205 tons capacity for large scale coal mining applications.

Installed an Arc Welding Robot for fabrication of giant structure with consistent quality.

Integrates Robotized manufacturing facilities on the shop-floor.

Dumper final assembly



Engine assembly line

Established Engine Division to manufacture Diesel Engines of 100-1000 HP, through Flexible Manufacturing System.

As part of expansion drive, the company established Aerospace Manufacturing Unit for production & supply of Aircraft Towing Tractor, Weapon Loaders and Aerospace components.



Flexible Manufacturing System



Robotic Arch welding for Dumper body



Aerospace assembly



Fabrication of Exotic Alloys

PALAKKAD COMPLEX

The 4th Manufacturing Complex came up at Kanjikode, Palakkad District in Kerala in 2010.

The Complex offers direct and indirect employment opportunities to the local population. The unit has two Main Assembly Hangers, Machine Shop & Shot blasting painting Hangar.



Palakkad Complex

Dedicated for manufacturing Defence equipment, including Mil Wagon, Floating Bridges, Parts & Aggregates for Rail & Metro Cars.

The Unit has successfully indigenized Back Bone Tube Assemblies for BEML Tatra Trucks.



Rail unit assembly Hangar

Truck assembly line



Research & Development Centre, KGF

RESEARCH & DEVELOPMENT

The strength behind BEML's success is drawn from the R&D Division, which emerged as a unique technological base for core sectors in India, comparable with state-of-the-art facilities, globally. With the aim to absorb foreign technology and achieve self-reliance in the field, BEML R&D Division were setup in Bangalore, Kolar Gold Fields & Mysore complexes.

In order to keep abreast with latest technology and make pioneering efforts in developing new products and aggregates, BEML established Composite R&D center at KGF complex. It houses highly sophisticated laboratories in the areas of Fluid Power, Material Sciences, Structural Engineering, Computer Aided Design, Power Line Testing and a full fledged Proto Manufacturing Shop.

Fruits of our R&D efforts:

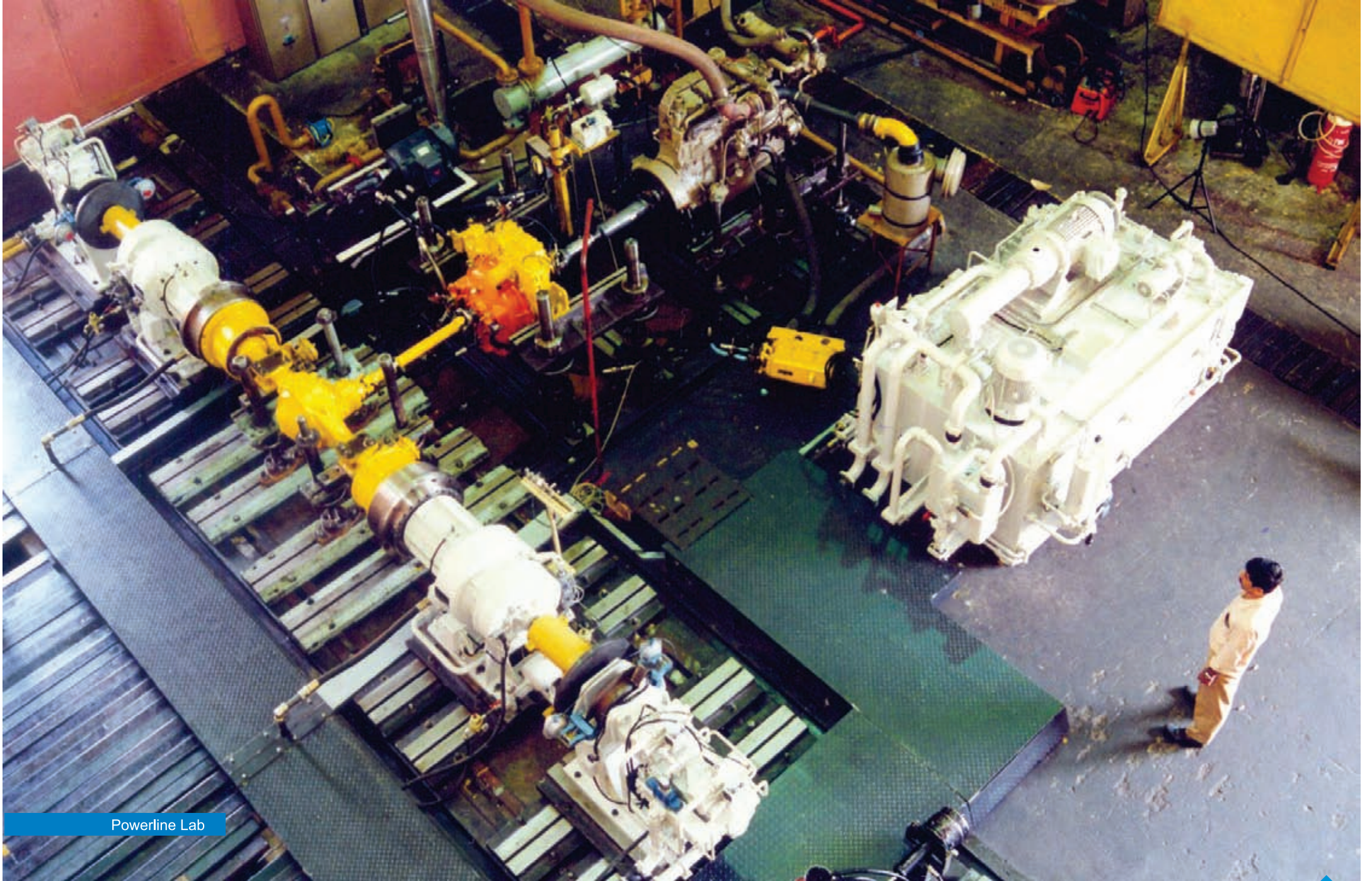
- Over 85% indigenations across all business verticals
- 70% of turnover from R&D products
- Registration of over 200 patents



Gear Pump test



Fluid Power Lab



Powerline Lab



Engine Testing



CAD Center



Fatigue Test

R & D Division has acquired considerable in-house expertise in the design & development of Axles, Transmission & Torque Convertors of various equipment.

Over the years, BEML R&D has developed and successfully launched as many as 100 new products. For example, Asia's biggest 205E Electric driven Dump Truck, BH150 Ton Dump Truck, 180 Ton Hydraulic Excavator, Motor Grader, Loader, Backhoe Loader, Pipe Layer, High-end Dozers of different capacity, Armoured Repair & Recovery Vehicle, Pontoon Main

Bridge System, Transportation Trailers, Medium Bullet Proof Vehicle, AI Based Medical Systems, Aircraft Towing Tractor, Weapon Loading Systems, Disaster Management equipment, Stainless Steel EMU, Rail Bus, Intermediary Metro Coaches, Ultra Modern Driverless Metro Coaches etc.

BEML R & D is constantly innovating right from design to prototype to the end product. The R&D efforts resulted in purely 'Make in India' products.



BG605I most successful 'Make in India' product BG605 - Integrated Motor Grader

'Green BEML'



To contribute towards Hon'ble Prime Minister's National Green Energy Mission of increasing Renewable Energy capacity to 175 GW by 2022, BEML installed 23 MW Windmill and 250 KW Solar Power Plant.

With this around 95% of electricity consumption requirement is being met with green energy.



Roof top Solar Panels at Mysore Complex

Defence & Aerospace



Heavy Recovery Vehicle



High Mobility Vehicle



Armoured Repair & Recovery Vehicle



Gun Mounted System



Pontoon Mainstream Bridge System



Tank Transportation Trailer



Crash Fire Tender



Aircraft Towing Tractor



Aero Bridge System



Airborne Structural Assemblies



Missile System



Engineering Mineplough

Mining & Construction



Walking Dragline



Rope Shovel



Dozer



Dump Truck



Excavator



Motor Grader



आत्मनिर्भर भारत



Backhoe Wheel Loader



Loader



Side Discharge Loader



Pipe Layer



Water Sprinkler



Tyre Handler

Rail & Metro



Broad Gauge Metro Car



Standard Gauge Metro Car



Intermediary Coach



Driverless Metro Car



Stainless Steel EMU



AC EMU



BEML DEMU



OHE Inspection Car



Sub Urban Train-MEMU



Rail Bus



Track Laying Equipment



Sleeper Coach

Major Accomplishments

Defence	<ul style="list-style-type: none">◆ 8300 BEML High Mobility Vehicles◆ 350 Armoured Recovery Vehicles◆ 3200 Trailers / Military Wagons◆ 6 sets (330 Nos.) Pontoon Bridge System	 
Mining & Construction	<ul style="list-style-type: none">◆ 32500 Mining & Construction Equipment◆ 27500 Engines (76HP - 700HP)	
Rail & Metro	<ul style="list-style-type: none">◆ 18000 Rail Coaches and 850 EMUs◆ 1650 Metro Cars	
Exports	<ul style="list-style-type: none">◆ ₹ 3350 Cr. to 68 Countries	

Our valued customers, who made our journey worth while.

Defence & Aerospace



Mining & Construction



Rail & Metro



BEML continues to live up to the Nation's expectations of 'AatmaNirbharta' by delivering world class products & systems and has truly become the flag bearer of India's engineering sector.

With new dreams, BEML is reaching new frontiers!



बीईएमएल लिमिटेड ಬಿಇಎಂಎಲ್ ಲಿಮಿಟೆಡ್ BEML LIMITED

Schedule 'A' Company under Ministry of Defence, Govt. of India

Defence & Aerospace | Mining & Construction | Rail & Metro

ACKNOWLEDGEMENT :

We wish to sincerely thank BEML Management and all BEMLIans who guided us with their valuable suggestions and supported us in this endeavour to compile this commemorative book on 'The Journey of BEML since 1964'.

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As on August, 2021