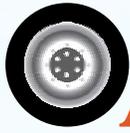


# HTOA



Hydraulic  
Trailer  
Owners  
Association

Volume 1 Issue 4  
November 2015

# HEAVY HAULERS

FIRST HEAVY LIFT JOURNAL OF INDIA

*National Bridge  
Management System  
becomes a reality*



Cable Stayed Bridge, Naini (Allahabad) on Holy River Ganges

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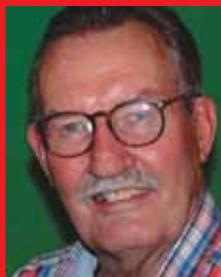
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### MESSAGE

I hereby appreciate the efforts & pursuance by Hydraulic Trailer Owner's Association (HTOA) in bringing transparency in over dimensional/over weight consignment road transportation need in India and dissemination of information through publication of HEAVY HAULERS – 1st heavy transport Journal of India.

The road map ahead discussed on the National Event organised by your team on 6<sup>th</sup> January 2015 at New Delhi seems now to be a reality.

I feel pleasure in conveying that my Ministry has been able to feel the pulse of OD/OWC movement on National basis through the Ministry's online movement permission portal. Ministry has also progressed on creation of National Bridge Management system and very soon it will be a reality.

Ministry now can plan the sequence of development of OD/OWC NH corridors based on the road segments being frequently used for such movements.

I wish HTOA all success in their future endeavours and expect that you will continue maintaining constructive synergy with Ministry for overcoming hurdles, if any in OD/OWC movements in India and also promote transparency through wide circulation of Government Policies through HEAVY HAULERS on regular basis.

(S N DAS)

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**V K R KUTTY****MESSAGE**

It gives immense pleasure to see the efforts being put in by Hydraulic Trailers Owners Association (HTOA) for raising Heavy Engineering Industries concern on over dimensional/over weight consignment road transportation in India, the bottlenecks faced and thereafter finding a long term legal solution to the issue and now far and wide circulation of Government policies and data through the regular publication of HEAVY HAULERS.

SuzlonEnergy Ltd also convey thanks to Ministry of Road, Transport & Highways for the overwhelming support to work out & implement fair & transparent policies for OD/OWC movement.

I also congratulate Hydraulic Trailers Owners Association (HTOA) team for inclusion of hydraulic modular axles in CMVR which will reduce the constant harassment on State & National Highways experienced by our logistics service providers.

I feel good to state that our concerns on ODC movement now seems to be addressed to a great extent and we in the past 11 months have experienced a complete turn around in OD/OW equipment movement from our various manufacturing facilities/project sites spread across the nation. We also look forward to even heavier wind turbine components movement through the online permission of MORTH as quickly as possible to execute erection & commissioning of Wind Turbine without delay.

Suzlon Energy Limited has now been able to deliver its products within the scheduled time.

I wish entire Hydraulic Trailers Owners Association (HTOA) team grand success in the days to come and also look forward to much more improvement through sharing of concerns by your strong publication media in the form of HEAVY HAULERS on regular basis.

**V K R KUTTY****Head – Foreign Trade & Logistics (SCM)**

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### SPECIAL INVITEE

## From the desk of Vice Chairman



**Bharat C Gandhi**

Vice Chairman

Hydraulic Trailer Owners Association

**I**ts been great achievement and a matter of immense pride and satisfaction for HTOA having played a key role in getting implemented online approval for movement of ODC and OWC by modular hydraulic axle trailer under single window system from origin to destination by the Ministry of Road Transport & Highways, which has become functional from the 6th, January, 2015. Honorable Shri Nitin Jairam Gadkari, Union Minister of Road Transport Highways & Shipping, Government of India has inaugurated the web portal and unveiled the inaugural edition of "HEAVYHAULERS", the first Heavy Lift Journal of India.

As India looks to overcome its infrastructure deficit, and the rate of implementation of industrial projects increases, the demand for Project Logistics and Heavy Lift / Over Dimensional Cargo logistics see a steep rise. Movement of equipments for Power generation like Thermal, Hydro, Nuclear, Renewable and Power Transmission, Oil & Gas, Cement, Fertilizer, Petrochemicals and Refineries, Iron & Steel by Hydraulic Modular Axle Trailer increases day after day. This has started, in fact, since past two decades however, in spite of tremendous road movement of cargo of ODC nature the country was lacking proper and authorized operating system wherein Hydraulic Modular Axle Trailer can be operated with ease and confidence.

Since the nature of cargo was abnormal, it was presenting numerous operating problems in the absence of authorized guidelines and approval of the authority to this effect in past. The prevailing legal provisions & rules at that time was either not allowing such movement or it used to divert the operators into





lengthy procedures. Due to this, the cargo used to get delayed resulting into huge revenue loss to the concerned industries. The impact of such delays used to severely effect the finance of the stakeholders. It was absolutely unorganized system which was presenting inconvenience and problems to everyone. At times, the transporter had to wait for months together for permission due to which their direct and indirect overheads used to shoot up beyond their revenue.

HTOA understood and analyzed the above scenario and the grave impact was making on the country's economy, the same was brought to the notice of the Government. The Government exhibited its dynamism to support the HTOA to craft out a workable solution and today the web portal is in place which allows online permission for movement of Hydraulic Modular Axle Trailers. Though, it has taken rigorous working on many aspects before convincing the authority and long deliberations, before the Government has accepted the proposal but once the idea was conceptualized, the Honorable Shri Nitin Gadkari with his entire team of MoRTH has taken immediate



action to make it happen and today movement permission for hydraulic axle trailers carrying OD/OWC is available online without any waste of time. Now, we can say that there is smooth movement of OD/OWC throughout the country to a great extent and ultimately increase the production of various products in the country. The "Make In India" program of Prime Minister Shri Narendra Modi has got a boost with the improved efficiency of road transport in India which ensures us arrival of good days in near future.

There still exists many problems for the smooth and faster

movement of OD/OW cargo, such as crossing of electrified Railway Gates, inequality of charges for power block at various locations, lengthy procedures to obtain power block permissions from different electricity departments throughout the country which needs to be addressed adequately. And we at HTOA are committed to convince the authority for the betterment of the system and thus helping growth of every industry in India.

**Bharat C Gandhi**  
Vice Chairman-HTOA





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## 8th AGM of HTOA held in Mumbai on 14 September 2015

**H**draulic Trailer Owners Association (HTOA) have brought sweeping changes in the Heavy Lift & ODC Logistics Industry by taking up pressing issues with the Government specially the Ministry of Road Transport & Highways (MoRTH). The active support of the Central Government gave recognition of the Hydraulic Trailers in the CMV Rules, 1989 which was pending for over 3 decades. The recognition also brings in various regulations and systems for the smooth transportation of project cargo which facilitates the development of Infrastructure of the country.

HTOA recently conducted its 8th Annual General Meeting at the Hyatt Regency, Mumbai. AGM was attended by more than 100 hydraulic trailer operators from entire country.

The presence included Mr. Manish Kataria- Chairman, Mr. Bharat Gandhi- Vice Chairman, Mr. Jignesh Patel- Secretary, Mr. T.G. Ramalingam- Jt. Secretary and Mr. Sukhvinder Singh- Treasurer, Mr. Rajesh Gupta- ex-Chairman, Mr. Zarkis Parabia and top officials from TII Sales, Germany

HTOA appraised of the various achievements including the Online Approval Process of the Permissions which was inaugurated by the Hon'ble Minister Mr. Nitin Gadkari which has led to more than 2500 online permissions since Jan'2015. Various other issues pertaining to Hydraulic Trailers like Renewal of Fitness, problems faced by the operators in various states, States not



following the Central Govt. initiatives and having their own procedures etc.

Centralized online permission has directly facilitated the growth of the economy by timely deliveries of critical components of the projects in Infrastructure Industry like Power, Steel, Cement, Oil & Gas, Railways etc.

HTOA also enjoys the support of their initiatives from Global and Indian

Manufacturers of Machineries across Industries, Hydraulic Trailers, Heavy Prime Movers, Tyres, Oil & Lubricants etc. who also actively participate in their events.

HTOA also recorded their appreciation to EXIM MALA Awards for recognizing the effort of HTOA by honoring HTOA in the recently conducted MALA Awards function in Mumbai.



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**Mr. Alok Kumar Pandey**  
Superintending Engineer-Bridges  
Ministry of Road,  
Transport & Highways,  
Government of India

## India heading towards Bridge Management System under OD/OWC Movement portal

Ministry has initiated the centralized permission for movement of ODC on National Highways throughout the country. This initiative was taken based on the request of Hydraulic Trailers Owner's Association who are carrying these overloaded consignment on hydraulic trailers.

Pending the condition survey of Bridges on National Highways, these permissions subsequently made online temporarily as the bridge condition data for all bridges were not available, now Ministry has appointed 17 consultants for completing the Bridge condition survey and the details of consultants are as below:

Package (Awarded )	State	Consultant
17	Assam, Manipur, Sikkim, Tripura, Meghalaya, Nagaland & Mizoram	M/sMC Consulting Engineers Pvt. Ltd.
1	Jammu and Kashmir, Himachal Pradesh, Punjab, Chandigarh, Haryana	M/s Casta Engineers Pvt. Ltd. in Association with PNT Designs Pvt. Ltd.
2	Uttarakhand	M/s SA Infrastructures Consultants
8	Jharkhand	M/s Intercontinental Consultants and Technocrats Pvt. Ltd. JV with CSIR-Central Road
3	UP and Delhi	M/s SA Infrastructures Consultants
12	Chhatisgarh	M/s Aarvee Associates Architects Engineers & Consultants Pvt. Ltd.
4	Rajasthan	M/s Rites Ltd.
9	Andhra Pradesh	M/s Rites Ltd.
10	Gujarat	M/s Dhruv Consultancy Services Pvt. Ltd.
14	Karnataka	M/s Aarvee Associates Architects Engineers & Consultants Pvt. Ltd.
13	Tamil Nadu & Puducheery	M/s Planning & Infrastructural Development Consultants Pvt. Ltd.
16	Kerela	M/s S.N. Bhohe & Associates Pvt. Ltd.
6	West Bengal & Andaman Nicobar	M/s K&J Projects Pvt. Ltd.
5	Bihar	M/s K&J Projects Pvt. Ltd.
7	Odisha	M/s Chaitanya Projects Consultancy Pvt. Ltd.
11	Madhya Pradesh	M/s Feedback Infra Pvt. Ltd.
18	Arunachal Pradesh	M/s MC Consulting Engineers Pvt. Ltd. in Association with Sugam Technocrfats Pvt. Ltd.

These Consultants are responsible for carrying out condition survey of all bridges and intimate the Ministry about the allowing load carrying capacity of the bridges, so that Ministry will take suitable decision for allowing movement on these bridges. Also the required updation in the site will also be carried out accordingly.

This effort of Ministry will smother the movement of Hydraulic Trailers and safety of the Bridge Asset of country.

**Section – 5****SCOPE OF WORK**

Collection of bridge condition and bridge inventory data under each Regional Office of the Ministry for a period of three years.

**METHOD OF WORK**

The work shall be executed to the highest standards using tablets to be procured by Consultant and software to be provided by the Ministry which shall render the tablet to be dedicated for Bridge Inventory Data. The consultant shall ensure that the entire bridge is inspected and data collected as per Annexure A & B.

The complete operation and collection of data shall be subject to checks at all stages as prescribed in the bid or as deemed necessary by the Employer. Consultant shall be liable to rectify such defects in data as brought out by the Employer during these checks and verification and make good all deficiencies at his own cost.

The consultant shall establish an office in the city where concerned Regional office of MoRT&H is located, manned by senior personnel during the course of the data collection. The address of the office including the personnel manning it including their Telephone, & FAX numbers and e-mail address, will be intimated by the consultant to the Employer before commencement of the services.

**DATA COLLECTION**

The bridge condition data is to be collected twice in a year during “pre - monsoon” period and “post -monsoon” period for three years utilizing Mobile Bridge Inspection Unit/similar equipment. Formats for collection of bridge condition data are enclosed at Annexure-A. Bridge inventory data is to be collected during the first six months of the contract period utilizing data collection Tablet, Mobile Bridge Inspection Unit/similar equipment and shall be updated every year. Format for collection of bridge inventory data are enclosed at Annexure-B. Bridge Inventory and Condition data shall be collected from the entire NH network, including portion entrusted to NHA or as per direction of Employer.

A team of minimum 3 personnel (Team Leader or Bridge Engineer with atleast two Assistant Engineers) shall travel with the MBIU/similar equipment for collection of bridge condition and bridge inventory data. po

During the Inspection, if any bridge requires to be repaired, consultant shall report the same to the Employer within 15 days of Inspection.

Condition survey report and recommendation submitted by the consultant will be used as input for granting permission for movement of over-

dimension and overweight vehicles(ODC/OWC) on the Bridges of National Highways, as per the circular issued vide Ministry letter No. RW-NH-35072/1/2010-S&R(B) dated 24-1-2013. Consultants are advised to go through the circular before bidding. The above mentioned circular (clause 4.4) envisage that the applicant has to provide Route Survey Report Plan alongwith the Condition Survey Report for all the Bridges enroute. The consultant engaged in Bridge Condition Survey should have following responsibilities with respect to movement of OWC/ODC.

- I. The consultant shall submit the Condition Survey Report along with the photographs and the recommendation regarding safe/unsafe for allowing the movement of ODC/OWC under consideration, as per IRC SP:18 or IRC SP:35 for all simply supported structure/bridges. The proforma for Condition Survey for ODC/OWC movement is at **Annexure-C**. Consultant has to submit the condition survey report as per Annexure C in addition to format enclosed at Annexure A.
- II. For Longer spans and for Type of Structures not covered in the referred charts of the circular dated 24-01-2013, specific studies may be carried out on identical system, which shall form the basis of clearance for movement of OW/ODC.
- III. The authorized representative of the consultant shall provide a notarized undertaking that the Condition Survey Report submitted by the consultant is as per actual and any deviation in report from actual condition of the bridge will be the sole responsibility of the consultant. Further, the consultant should also undertake that any deviation from actual condition viz a viz reported condition shall invite action against the consultant as deemed fit by the Ministry.
- IV. The report shall also provide the detailed report on safety of the bearings of the bridges, in view of the proposed movement of ODC/OWCs.
- V. The Consultant shall also submit the report on damage of Bridge if any within a month, just after the crossing of the ODC/OWC.
- VI. In case the Condition Survey Report conceals any substantial information in respect of routes for which Condition Survey Report is submitted, the consultant may be debarred/black listed for a certain period and the same will be informed to Registrar of Companies.
- VII. Notwithstanding anything above the Consultant has to carryout testing and preparation of cost estimate based on requirement of identified distress bridges. The required number of tests in per meter length shall be decided in accordance with the IS/IRC/Ministry guidelines. This requirement shall be assessed based on the following test for which a tentative quantity has been prepared and added in Financial Bid Format and is modified in this corrigendum as Sction-6,6.0,6.1 as point 2.This format shall be used for bidding on C1 India portal.

Rebound hammer tests  
 Ultra pulse velocity tests  
 Corrosion potential tests  
 Carbonation tests  
 Core cutting  
 Transient dynamic tests  
 Load test  
 Rebar location tests  
 Crack mapping for the bridge  
 Pull out tests  
 Chemical analysis of core dust samples  
 Geometrical profiling of the bridge

Based on the tests and condition survey, the consultant shall prepare a detail rehabilitation plan, when directed for the same and submit the report along with:

Rehabilitation/ retrofitting plan  
 Specifications for the rehabilitation/retrofitting plan  
 Bill of quantities with location plan  
 Cost Estimate for the same work

### **SUBMISSION OF REPORTS**

Consultant shall submit condition survey report and recommendation on load carrying capacity (GVW) for ODC/OWC movement, whenever sought by Ministry as per format- C and Ministry's circular dated 24.01.2013

Further reporting shall consist of the following:

1. Monthly summary reports are to be submitted by 05<sup>th</sup> of every month.
2. Half-yearly Summary Reports on pre-monsoon/post-monsoon survey.
3. Annual Summary Reports (every January for the previous calendar year).

Digital Photographs with date stamp and geographic coordinates, clearly showing the condition of the bridge shall be submitted along with each report.

Half-yearly summary report and annual summary report shall be submitted in 3 hard bound copies and 2 copies of the CDs.

Only Employer and the authorized representative will have the authority to see, print & study the reports.

Any modifications in the desired report shall be carried out by the consultant after written instructions from the Employer.

The consultant has to get the data loaded on Ministry's website in coordination with Employer and NIC official at Ministry's before release of payments.

The consultant will be highlighting the critical issue requiring immediate/urgent attention/action to the employer in his half yearly reports. If required consultant should intimate the rehabilitation requirement separately.

The consultant while inspecting the bridge should also carryout cleaning and greasing of Bearings, cleaning of expansion joint, drainage sprouts and weed out vegetation.

### **PREVENTIVE AND CORRECTIVE MAINTENANCE DURING THE CONTRACT PERIOD**

During the contract period, the consultant shall inter alia:

- (a) Diagnose and rectify equipments procured for the work.
- (b) Repair and replace the faulty equipment or part thereof
- (c) Carry out the periodic preventive maintenance.
- (d) Ensure commitments as per Requirements.

The consultant shall prepare the schedule of preventive maintenance for each quarter and shall submit the same to the Employer in advance.

The consultant shall be solely responsible for the maintenance, repair of the equipments procured.

**ANNEXURE B**

The National Bridge Management Centre shall provide bridge data collection enabled tablet (to be procured by the consultant directly from agency so specified and approved by MORTH) which shall have data collection templates which shall be used by the consultants for collecting data related to the bridge being inspected. The data may typically consists of the following information to be collected by the consultants field team. This Annexure-B may be modified based on requirement of Bridge Management System(BMS) being deployed by Ministry. The changed requirement shall be intimated well in time before start of collection cycle.

## National Identity number

- State code
- RTO Zone code
- Type of road code
- Road/ Highway number code
- Chainage code
- Cumulative bridge number

## Bridge Location number

- Latitude code
- Longitude Code

## Bridge Classification number

- Structural form code
- Material of Construction code
- Type of Bridge code
- Load as per IRC code
- Age of bridge code
- Ownership code

## Bridge Structural Rating number

- Rating for integral and non integral deck
- Rating for super structure
- Rating for substructure
- Rating for bank and channel
- Rating for structural evaluation
- Rating for Deck geometry
- Rating for vertical and horizontal clearance
- Rating for water way adequacy
- Rating for Scour

## Bridge Socio - Economic rating number

- Rating for connectivity

- Rating for Average daily traffic
- Rating for Social importance
- Rating for Economic growth
- Rating for Alternate route
- Rating for Environmental impact

Bridge water way rating number

- Scour Level
- Maximum & Minimum Flood Level
- Clear waterway
- Width of waterway
- Height of waterway

**INVENTORY OF BRIDGES ON NATIONAL HIGHWAYS**

**(A) IDENTIFICATION**

1.	Link No.	
2.	State	
3.	N.H.NO	
4.	Section	
5.	Location	
6.	Structure No.	
7.	Latitude	
8.	Longitude	
9.	Features Intersected	
10.	Facility Carried by Structure	
11.	Popular/Official Name	
12.	Highway Circle & Division	
13.	Administrative District	
14.	Nearest City/Town	
15.	Custodian	
16.	Year of Construction	
17.	High Level or Submersible	
18.	Overall Length of Bridge	
19.	No. of Lanes	
20.	Load Rating	
21.	Average Daily Traffic(ADT)	
22.	Year of ADT	
23.	Detour Length	
24.	Documentation	
25.	Year of Inventory	

**(B)STRUCTURE DATA**

26.	Design Discharge in Cumecs	
27.	Design HFL	
27(a)	LWL/GL	

28.	Design Scour Level at Pier	
29.	Design Scour Level at Abutment	
30.	Founding Strata	
31.	Whether the Bridge is in Grade	
32.	Road Level	
33.	Road Width	
34.	Overall Deck Width	
35.	Approach Roadway Width Including Shoulder	
36.	Height of Approach Embankment	
37.	Average Skew	
38.	Whether Navigable	
39.	Vertical Clearance	
40.	Horizontal Clearance	

**(B)(1) MAIN SPANS**

41.	Total Number of Spans	
42.	Span Arrangement	
43.	Superstructure Type	
44.	Pier Type	
45.	Abutment Type	
46.	Pier Foundation Type	
47.	Maximum Depth of Pier Foundation	
48.	Abutment Foundation Type	
49.	Maximum Depth of Abutment Foundation	
50.	Type of Bearings	
51.	Wearing Coat Type	
52.	Expansion Joints Type	
53.	Railing Type	

**(B)(2) APPROACH SPANS**

54.	Total Number of Spans	
55.	Span Arrangement	
56.	Superstructure Type	
57.	Pier Type	
58.	Abutment Type	
59.	Pier Foundation Type	
60.	Depth of Pier Foundation	
61.	Abutment Foundation Type	
62.	Depth of Abutment Foundation	
63.	Type of Bearings	
64.	Wearing Coat Type	
65.	Expansion Joints Type	
66.	Railing Type	

(B)(3)(GENERAL)

67.	Corrosion Protection Measures	
68.	Bank Protection & Type	
69.	Floor Protection & Type	

(C)HISTORY

70.	Suspension of Traffic	
71.	Erosion of Banks	
72.	Scour Around Guide Bunds	
73.	Abnormal Scour Level Around Piers	
74.	Abnormal Scour Level Around Abutments	
75.	Abnormal Flood Level	
76.	Distress and Repair in Foundation	
77.	Distress and Repair Guide Bunds	
78.	Distress and Repair in Substructure including Bearings	
79.	Distress and Repair in Superstructure	
80.	Any other Observations	

# 6th ALL INDIA MALA AWARDS 2015

At Hotel Leela Mumbai on 4th September 2015



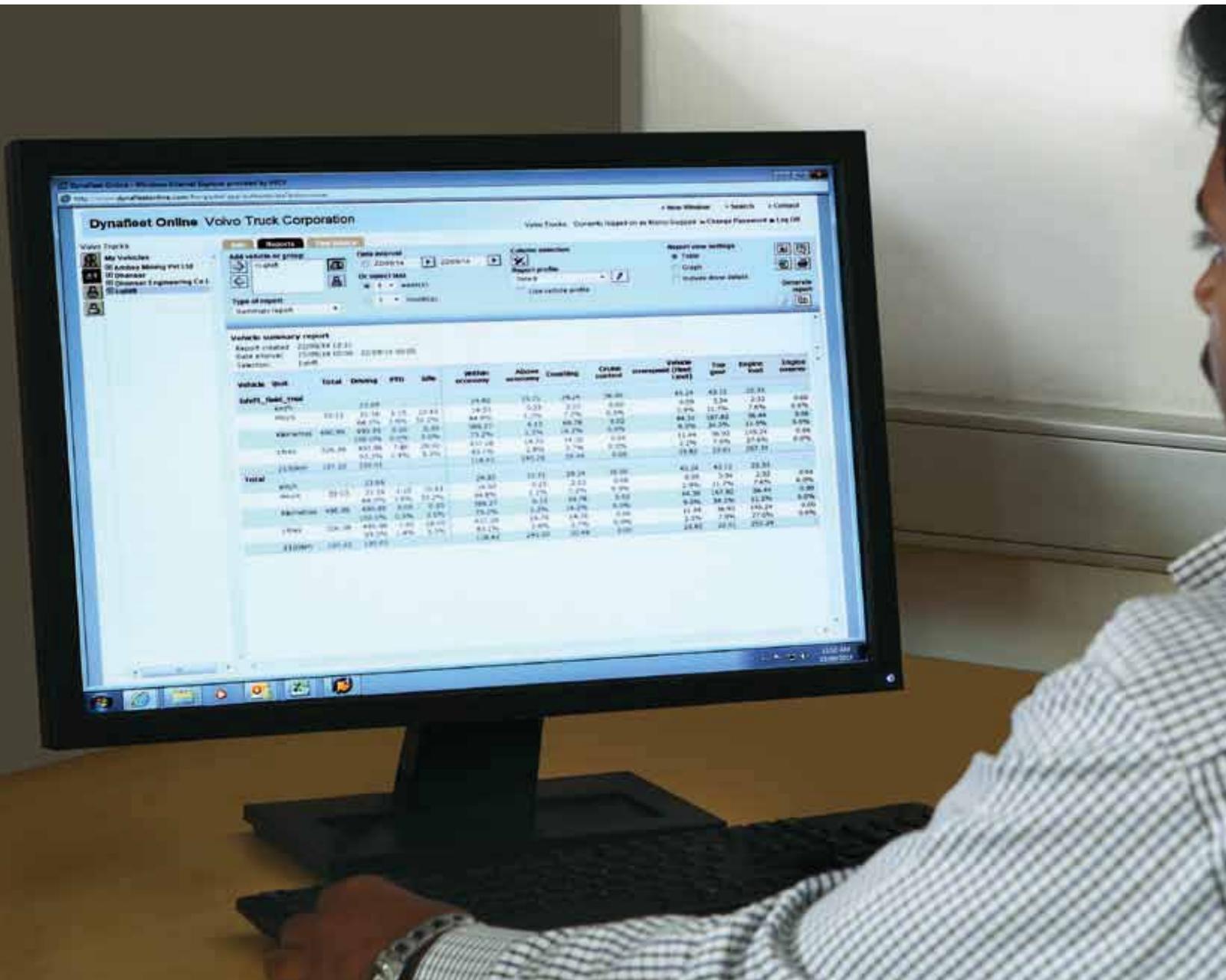
**"H**TOA was felicitated at 6th All India MALA awards 2015 at Hotel Leela Mumbai on 4th September 2015 organized by EXIM –INDIA for dedicatedly serving heavy cargo & logistics trade. The award was conferred by Shri.Neeraj Bansal, IRS, Dy.Chairman, Jawahar Lal Nehru Port Trust and was received by Mr. Bharat Gandhi (Vice Chairman) and Mr.T.G.Ramalingam (Joint Secretary), on behalf of HTOA. This Gala event was witnessed by nearly 400 people and leading persons from Shipping Industry, Port Authorities, freight forwarders, container handlers, heavy lift movers and all event partners."



# Dynafleet

## The online fleet management tool for improved profitability

Dynafleet Online is Volvo Trucks online Transport Information System for improved profitability. You can see in real-time the current location of your vehicles and vehicles' performance data that are critical to have control on your fleet. In addition, Dynafleet Online shows you the areas of improvement to support profitability in the long run. By providing clear and accurate information, the system makes it easier to make the right decisions.



## Make the best decisions in real-time

Dynafleet Online helps you access this information anywhere, also outside the office, from any standard PC and device with an internet connection.

Dynafleet Online Advantages – A more efficient way of working.

- Helps cut costs and maximise income
- Fulfills all information related to fleet management
- Is easy to get started with and use – easy-to-read reports, showing areas for cost saving improvements

### Connected trucks. Connected services.

The Dynafleet hardware comes installed from the factory in the new Volvo FH/FM/FMX. You simply have to subscribe for the services that suit your needs and logon to the Dynafleet web portal [www.dynafleetonline.com](http://www.dynafleetonline.com) to get started.

### Dynafleet Online Fuel & Environment

The Fuel & Environment Service provides all the critical information related to the vehicles' performance. It also saves time and effort in analyzing vehicle data – and helps you find ways to cut fuel costs. Through the various reports, both potential savings and progress over time can be made visible in just seconds.



**Dynafleet Online makes it easy to follow up on fuel consumption over time and to coach drivers into improving their fuel saving skills.**

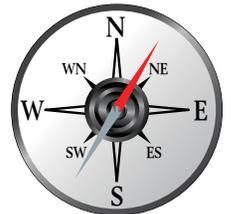
Fuel & Environment Service enables you to follow the exact performance of your trucks. In just seconds, you can generate reports from a wide range of parameters and discover how your different trucks in fleet are performing. This way, potential savings can be identified faster and more precise than ever before.

Fuel & Environment service reports available from Dynafleet Online :

- Vehicle data – Engine hours, distance travelled, fuel consumed, cruise control, engine load, engine over-revving etc.
- Fuel utilization break up - Driving, idling & PTO - Detailed trip log for driver to follow up fuel consumption, idling, PTO, coasting, etc.
- Vehicle driven in economy range, automatic/manual mode of I-Shift
- Fuel level change – Alerts if there are significant changes in fuel level due to a possible fuel theft.

### Dynafleet Positioning

The Positioning service provides real time information on the location of the vehicle. The detailed maps give you constant updates on where the trucks and loads are at present. This service also allows you to invite your customers to follow their cargo in real time.



**Real-time overview of every truck's position and status makes it easy to trace deliveries.**

Keeping track of your trucks has never been easier. Detailed maps powered by Google Maps gives you full control over your operations. Vehicle data can be presented directly in the map for immediate information. And the fact that you will know exactly where the load is, benefits both you and your customers.

Positioning Services Reports available from Dynafleet Online:

- Real time overview of every truck's position – shows the truck's exact location down to street level
- Track & Trace – vehicle driving history
- Geo-fencing – provide critical and time saving information as a truck enters or leaves a certain geographical area



# Minimum Investment Maximum Returns

A new lease of life for used Volvo tippers at the end of their life-cycle.



Refurbishing solutions give an older truck a new life. Whether it's just replacing the frame rails or the total cab, Volvo Trucks has a solution for your fleet, that makes your old truck just like new again without the new price tag.

Our certified technicians can refurbish your Volvo truck and make it like new again for about half the cost of buying a new truck!



Old Volvo tipper at refurbishment facility.

**A**ftermarket is one of the most important criteria in the vehicle purchase and we at Volvo are pioneers of innovative aftermarket solutions. Customers are increasingly looking beyond products; they now want overall solutions. The market is steadily moving towards considering the total cost of ownership and overall usage experience rather than just the initial price or spare parts prices. This means that manufacturers need to focus on offering more and more value added services that would meet end to end requirements.

The journey of Volvo Trucks in India for the past decade and half has been congruent with many customer organisations. At Volvo, we strongly believe in working as strategic partners with our customers and provide them with solutions to get the best out of our technologically advanced vehicles. Tailor-made service offerings is what distinguishes Volvo from our competitors in the technologically advanced European truck segment and Volvo refurbished tippers is one such solution.

### Optimising your fleet

As the number of Volvo tippers is rising across the mines in India, there are a large number of old Volvo tippers which are over 5 years old, and are coming to the end of their service life in the coal mines. In extreme mining conditions, the average age of these tippers is also coming down to as low as four years. As the average age is going down, the parts are at a potential risk of stagnation. While the vehicle reaches the end of its life-cycle, the entire vehicle doesn't reach the stage of scrapping. In majority of cases, there is still a lot of life left in these retired vehicles which can be revived through professional refurbishing.

We at Volvo Trucks believe in giving our customers the unique choice to make their old Volvo tippers as good as new and extend the returns on investment for an additional 2 - 3 years, thereby enhancing the life-cycle of the tippers.

When it comes to vehicle refurbishment and modernisation, we offer the latest solutions that are truly cost effective. Modernisation helps your vehicles last longer while operating more reliably.

Refurbishment and modernisation gives older vehicles a new lease of life. It answers the challenge of making the most of your vehicles' life span, thereby optimising the value of your asset, while keeping your fleet contemporary. This is done in a cost-effective format, where our technicians evaluate the various parts of the vehicle and propose a format on setting a new fleet, which includes the latest technology, as well as upgrading the interior and mechanical equipment.

### Volvo Refurbished Trucks

Our network facilities across the country are well equipped for vehicle refurbishment and modernisation which is duly supported by the team from Hosakote. The facilities are well equipped with the state-of-the-art equipment and specially trained manpower to undertake refurbishing tasks in compliance with the Volvo quality process.

Complete vehicle refurbishment is done, from the cabin to driveline, the chassis, the body suspension, the cooling and lubrication systems, the steering system and the wheels and brakes system. The renovation of all aggregates are carried out to meet the exact specification of original Volvo parts and rebuilt to offer performance that is similar to the new aggregates. Wherever required the parts are replaced with either Volvo genuine or renovated parts based on the requirement which offers cost advantage without comprising on quality. Every renovated part and system is checked to meet the Volvo quality standards and inspected to guarantee desired performance.

The entire vehicle goes through this process of inspection and certification to ensure that the refurbished vehicle becomes as good as a new one at an unbelievably lower cost as compared to the new vehicle.

Volvo as a brand stands for 'Premium care for premium trucks'. At Volvo Trucks world-class support is an integral part of the transport solution and has set high standards to be No.1 in aftermarket services. Keeping ahead and providing effective solutions to our customers have led us to always think ahead. This is another active step that we have taken towards leading the way.

### Same warranty as the warranty of a new vehicle

When we refurbish the Volvo tipper, we ensure that it is rebuilt to perform just like a new vehicle and that is why it comes to you with a warranty of one year, which is in line with the new Volvo product. It speaks a lot about the high quality of engineering and the checks that goes into refurbishing, which results in quality assurance from Volvo.

### Make a smart choice

If your Volvo tippers are coming to the end of their life-cycle, don't let them retire in a scrap yard or a scavenging ground for old parts. Your old trucks are not old enough to be scrapped. We not only bring them back to life, but also give them a complete new lease of life to perform like new trucks for another two years or more. And that too, at a much lower cost than the new trucks with the Volvo Aftermarket support to ensure high uptime once again.

### Proven track record

The first batch of refurbished trucks delivered to Sainik Mining have been successfully operating for over one year at the mines in Korba. It's a fleet of 10 Volvo FM 400 8x4 tippers and their performance reflects the high quality of refurbishing that we at Volvo Trucks did to ensure the performance similar to new Volvo tippers.

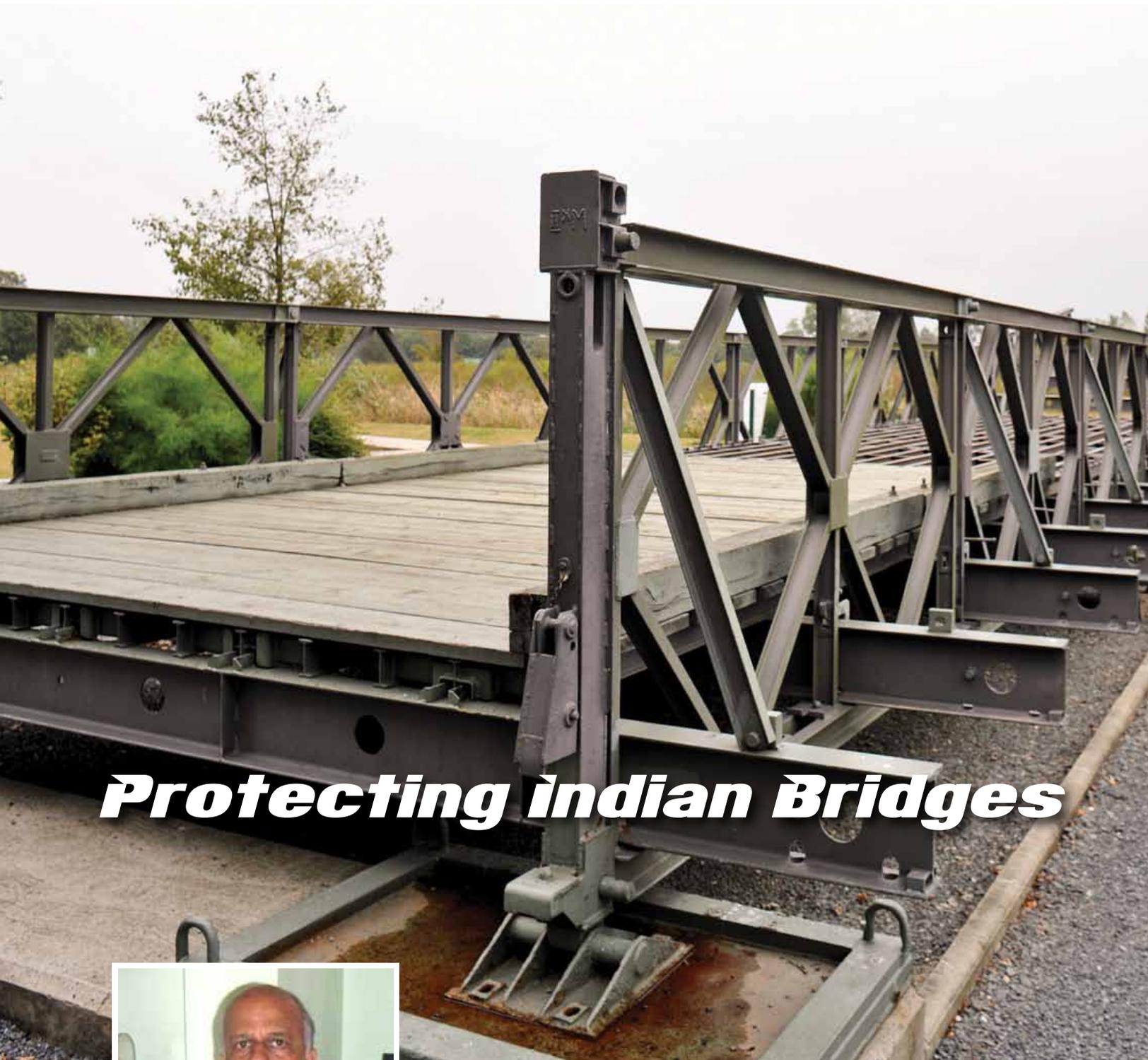
Refurbishing is yet another first from Volvo Trucks to meet the changing requirements of mining operators. It helps maximise returns on investment and minimise operation costs to stay competitive in the dynamic mining transportation industry. We have anticipated the needs of our customers well ahead of its time and created the refurbishing facility to keep your Volvo tippers going for many more years.



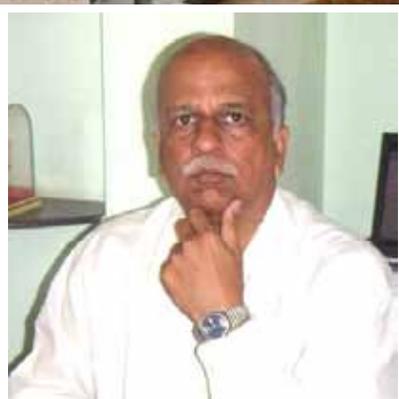
Refurbishment under process.



Handover of refurbished Volvo tipper.



## *Protecting Indian Bridges*



Sachin Joshi

**I**ndian Bridge Management System (IBMS) is a National Bridge Management System that creates an inventory of all Bridge assets in our country and applies a technical logic to manage the asset during its life cycle. It

generates detailed inventory data and ratings of all bridges every year on bi-annual basis to ensure that the dynamics of deterioration process are captured and attended to. This follows the dual principle of STICH IN TIME SAVES NINE and FIRST REPAIR WORST DAMAGE (FRWD).



### PROJECT IMPLEMENTATION:

IBMS was conceptualized in the form of IRC SP 35 way back in 1993 as a guideline to implement a bridge management system. Sachin Joshi has been working on the research of compilation of complete



manual for implementation of Bridge management system for the past 10 years and the same was published in July 2014 as Bridge Asset Management Program (BAMP) at a round table held at Institute of Engineers Mumbai. The copyright for the same is with Sachin Joshi. Today's IBMS draws its inspiration from the same document. IBMS has been developed indigenously and is being implemented by MoRTH. Shri Nitin Gadkari ji Union Minister of Road, Transport, Highways & Shipping was presented with this concept in August 2014 and within 3 months took a decision to implement IBMS and the minister announced the same in the E-Year book 2015-16. Deliberation and discussion followed the decision and it was also decided to integrate and provide inputs from IBMS to ODC/OW movement permission portal that was being developed in 2015.

### SELECTION OF AGENCIES:

Once the decision to implements the Bridge Management system was taken, the department floated tenders for the same. Since, India did not have any system for Management of asset; an international tender

was floated for Development and Implementation of Bridge Management System. The contract was finalized in May 2015 and IDDC Engineers Pvt. Ltd was awarded the work.

For field studies, the entire network of National Highways was divided into 18 packages and Empanelled consultants were selected for each package based on an online tender process. Contracts were finalized this month for field studies. Consultants of repute like RITES, Casta Engineering, Aarvee, SN Bhubhe, SA Infrastructure, K & J Projects, ICT, Druv Consultancy, Planning and Infrastructural Development Consultants, MC Consulting, Feedback Infra, etc were selected to do the field studies.

### IBMS SYSTEM:

Development of the system posed its own challenge as the system to manage asset had to be developed in a manner where the field studies could be conducted with minimum effort and in which maximum details could be collected. The volume of the database was also posing a challenge; it is anticipated that the overall data base will consist of over 120,000 culverts and bridge data.

This is a huge volume to handle for a management platform. No other platform in the world has this size of database. Most platforms handle about few thousand bridges. The bridges had to given a unique identity number which was the first step of inventory creation. Then their precise location details in form of Latitude and Longitude had to be collected in an Auto mode using the Ground Positioning system. Once these details are collected, the engineering properties of the bridge design, material and other technical details of the bridge are being collected. These are essential components of inventory collection process. On completion of inventory data, the structural component rating is done using a 0 to 9 scale to define the status of various bridge components like Foundation, Piers, Super structure, Deck, Scour rating, waterway adequacy, structural status and also Socio- Economic parameter which decide the importance of the bridge in relation to its contribution to daily social and economic activity of the area in its immediate vicinity.

A scale of 0 to 9 was used to ensure that the in-experience of Field engineers in using rating system does not critically affect our analysis once the inventory is complete.

### PROCESS OF INSPECTION:

Based on this inventory and ratings codes, IBMS analyses the data and indicates the bridges which need further investigation which is in-depth or detailed study using various non destructive testing (NDT) procedure. The initial inventory and rating codes generates the deterioration process prognosis which is validated by the NDT procedures. A detail remedial plan is then defined for each bridge tested; which is based on the standard specifications for Repair,



Rehabilitation and Strengthening of Bridges.

### PROCESS OF PRIORITY AND RANKING OF BRIDGES:

Ranking of bridges for repair is driven by a logical protocol which is based on the cost of repair, the importance of the bridge in Social and Economic scenario and the level of deterioration defined by the ratings as defined by Structural Rating number used in conjunction with the traffic on the bridge and age of bridge. The ranking module of IBMS defines a list of bridge that need to be repaired/ retrofitted as per priority and can be taken up based on total fund available with the Ministry. This brings in technical and socio-economic logic to the

sequence of bridges to be repaired.

### SKILL DEVELOPMENT:

This is an ongoing process which requires large scale mobilization of bridge engineers and retrofit experts. India does not have a system to generate such skilled man power. Ministry is also working under Skill development program to initiate a Certified Bridge Inspectors course and Certified Bridge Retrofit Expert course to ensure that the required man power is available to sustain the system through its usage. Such skill development shall ensure that the quality and efficiency of work done improves. If IBMS has to sustain over the next 15 years about 2500 Certified Bridge Inspectors shall be needed to handle 30000 bridges. One bridge



inspector can conduct a maximum of 15 Detailed Bridge inspections in one year. Skill development is a challenge that needs to be addressed urgently.

#### **BENEFIT MATRIX:**

Stake holders in IBMS include the Government which owns the asset, general public who use the bridge (including the heavy lift and movement logistic companies) and Bridge Fraternity that designs, builds and maintain the bridges. Each stake holder has benefit in short term and long term.

Government benefits by creation of database of all bridge assets in immediate present (6 Months for start of IBMS). This is the short term benefit and in the long term it optimizes the utility of funds available for rehabilitation of bridges. The overall efficiency in terms of performance of the bridges in our country will improve and so will its logitivity.

The heavy lift movement logistic companies shall benefit in the form who are users of bridges can be assured that with time the general condition of bridges is being monitored and no major sudden catastrophe could affect the connectivity of their movement.

They will be assured prolonged connectivity and as the importance of the bridge increases due to increase in population and traffic on the bridge its importance will get reflected in the level of its upkeep and promptness of action. The updated status of bridges and its criticality will generate the most safe route to be followed in case of heavy or oversized movement.

This route selection (in two years time) will become dynamic reflecting the current status of the bridges that are required to be crossed during a particular movement.

Finally the bridge fraternity shall benefit from long term studies that generate data which will help to pursue possible system of design, construction that can be modified based on data of behavior of bridges in various environmental conditions. Continuous monitoring brings in awareness of the concept of application of science and technology to ensure economic method of maintenance of assets.

#### **CONCLUDING REMARKS:**

All assets in India need a proper Management System to ensure that they are maintained in proper and scientific manner. MoRTH under

Shri. Nitin Gadkari ji has taken an important step in the correct direction and similar system can be implemented for all National Assets.

Government of India constitutes various working groups to review the growth potential and scope of work that can be done in each 5 year plan. One such group is the Working Group on Central Road Sector. They submitted a report in 2011 for their recommendation for the 12th Five year plan (2012- 2017). In that report the group makes a very strong case for implementation of Bridge Management system in a timely manner. Writing about Bridges they have stated that "A System of maintaining and updating database on bridge inventory needs to be set up for enabling timely decision making regarding formulating their maintenance strategies. Development of Bridge Management system may be considered to be set up in a time bound manner for this purpose" They have also outlined the basic cause of poor maintenance and indicated that maintenance should be removed from the non plan expenditure and a separate head of account be created in the plan expenditure head different from construction, so maintenance can be taken up and not delayed due to lack of funds. Governments do apply adhoc cuts in maintenance amounts in the face of resource constraints.

#### **In the concluding part they have stated**

Quote "Roads are valuable assets and justify preservation and regular maintenance. A modest erosion of 5% due to deficiency in maintenance, the loss is much more than the amount required for its preservation.

**THERE IS NO ECONOMIC SENSE IN LOSING OUR ASSETS."** unquote

## Indian Bridge Management System (iBMS) Indian History:

Indian Road Congress in early nineties realized the importance of Bridge management and constituted the B10 committee. Their work resulted in various Special publications. IRC SP 35 titled "Guidelines of Inspection and maintenance of Bridges" being one of them.

In the introduction part the committee stated that the publication of the guidelines will assist in improving the understanding of the bridge structure and their long term durability and serviceability. The part on introduction of SP 35 also admits that

Quote "Lack of regular maintenance of bridges in India has lead to deterioration of some bridges rather early in their life and quite a few bridges have had to be replaced much earlier than their designed life" Unquote.

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**THERE IS NO ECONOMIC SENSE IN LOSING OUR ASSETS."** unquote

It is over 24 long years since IRC SP 35 was published, no major efforts have been made in implementation and defining the Bridge Management System. Some states have made initial attempts but no formal IBMS exists anywhere in the country.

This document is a modest effort to meet the needs of IRC SP 35 and defines the critical aspects for its implementation. The document takes into consideration of various other Bridge asset management systems being operated in other geography and incorporates the best of the system to suit Indian scenario. Some of the systems from where certain aspects are adopted include BMS being used in USA, Australia, Europe etc. Most of the classification procedure make use of existing systems and incorporates the same into IBMS, since when it is for the first time that BMS is implemented, it is important that the system is simple and not complicated.

IBMS ver II to be launched in 2019 shall have complicated element inventory and other modules. Some preliminary inspection is expected before the entire classification system can be completed. This preliminary inspection needs to be conducted by trained bridge inspection engineer and shall be visual. No tests are

expected during the classification process.

The whole IBMS is divided into various modules. The key modules are as under:

1. Classification of bridge and inventory of the bridge assets nationally.
2. Definition of Routine and Detailed Inspection Modules (RIM and DIM)
3. Definition of Routine and Detailed Maintenance Modules (RMM and DMM)
4. Formatting observation procedures for RIM and DIM (Typical formats defined)
5. Design of specification for various RMM and DMM. (Typical designs defined)
6. Compliance report generation.
7. Capacity development.

### Classification System:

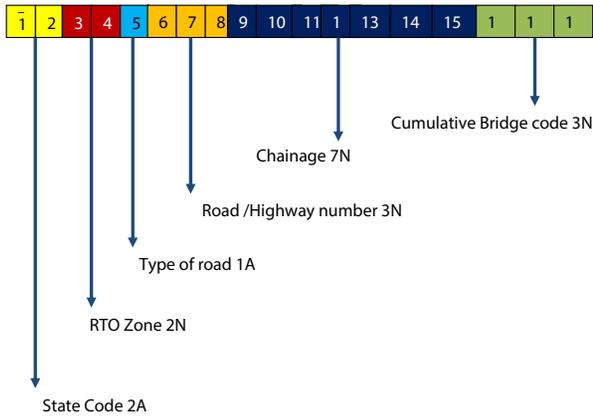
Classification of bridge is done by a series of alpha numeric number strings which is based on specific details of the bridge. There are 5 such strings used to classify the bridge. They being

1. National Identity number (18 A/N)
2. Bridge Location number (18N)
3. Bridge Classification number (9 A/N)
4. Bridge Structural Rating number (9N)
5. Bridge Socio- Economic rating number (6N)

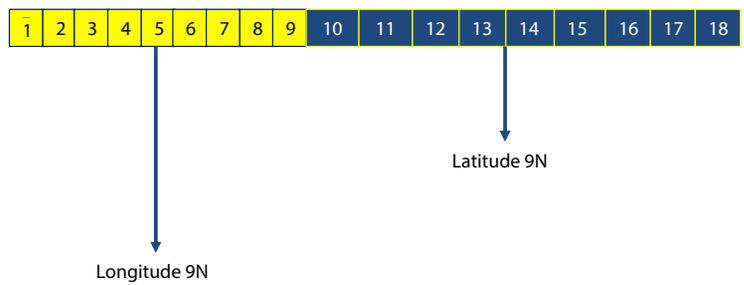
Some modification has been done in the final version of IBMS to include some additional features and the same have been incorporated in Bridge Classification number.

Typically for the last two rating numbers (Bridge Structural rating

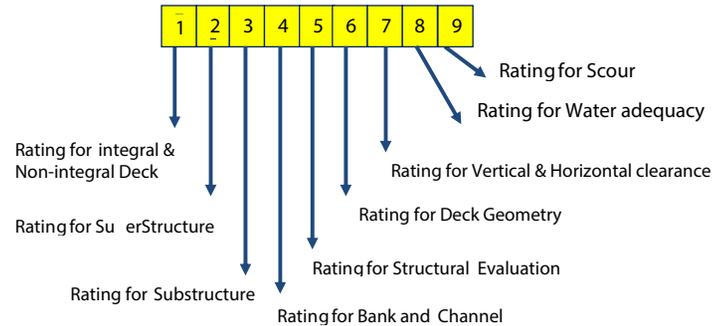
**NATIONAL IDENTITY**



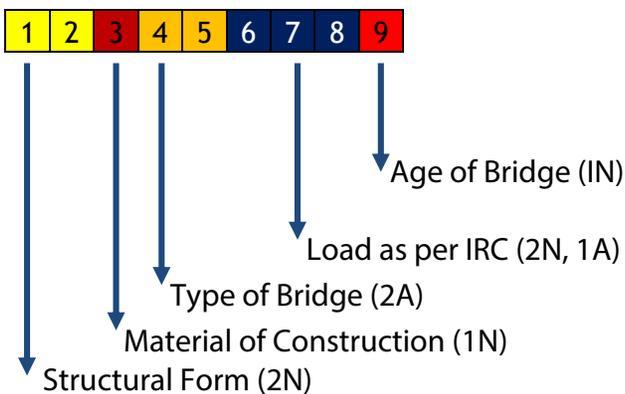
**BRIDGE LOCATION NUMBER**



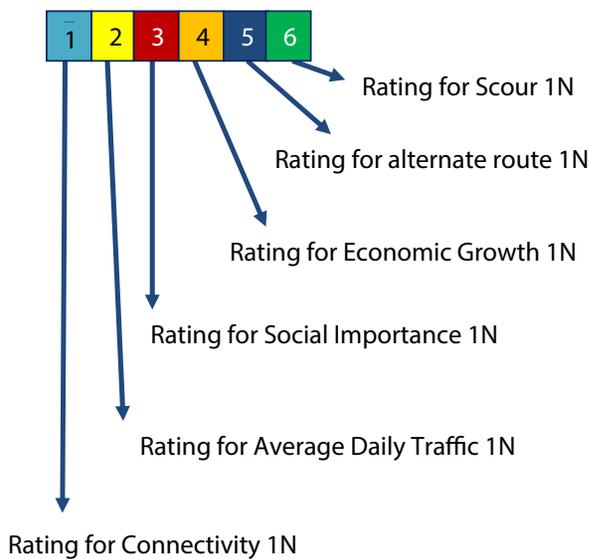
**BRIDGE STRUCTURAL RATING**



**BRIDGE CLASSIFICATION NUMBER**



**Socio- Economic Bridge Rating Number**



number and Socio-Economic Rating number), the general nomenclature to define the rating is as under:

Code 9 is used for excellent condition of the rating being defined.

Code 8 and 7 are used for good conditions.

Code 6 to 4 for moderate conditions.

Code 3 to 1 for poor conditions

when it reduces and approaches 0 the conditions become critical.

Code 0 being used for worst situations and bridge needs to be closed permanently or replaced.

A bridge sufficiency rating is evaluated based on the Structural adequacy and safety of the bridge, its serviceability quotient, its obsolescence coefficient and its public utility factor. Sufficiency rating also decides the importance of the bridge in the given socio-economic scenario and enhances its importance in the sequence for future inspection and rehabilitation should the bridge need to be repaired.

**Classification based response:**

Classification driven inspection results in inspection, maintenance and rehabilitation being defined based on the importance of the bridge. This is totally based on the Structural ratings and the socio- economic ratings

numbers. Sufficiency criteria define that the bridge should be closed if the rating codes of some critical rating number are below 2 or 3. This makes it meaningful to have an Inspection and maintenance response in IBMS that is based on classification system.

There being a total of 14 ratings codes that define the importance; the total of all these 14 ratings codes (0 to 9) cannot exceed 126.

For classification count from 0 to 30 it implies that the bridge needs total to partial closure and accordingly the inspection and maintenance schedules are decided.

When the code count exceeds 30 it implies that some of the rating codes are higher and the bridge can be operated. Accordingly the inspection and maintenance response is directed to ensure operational adequacy and not to allow the bridge to slip into critical stage. Such a response is directed for bridges with classification count between 30 and 50. As the classification count increases, it implies the bridge is in better condition and needs lesser attention. When the classification count exceeds 80 or 90 the bridge is said to be in good condition and the resultant inspection and maintenance schedule should be used to monitor that this count does not drop below its optimal value. When the bridge is operated at this optimal classification count (above 80 or 90) then the operational cost is also low and funds are utilized efficiently. In such a classification driven response, results in available funds being used for the most needed bridge. FRWD principle (First repair worst damage) is applied in this stage of IBMS. Optimization is achieved within the system.

## **Inspection and Maintenance module:**

Inspection and maintenance

schedules are essentially of two types

1. Routine inspection modules (RIM) are those that need to be applied in a routine manner irrespective of the condition of the bridge
2. Detailed inspection modules (DIM) are those that are needed based on the condition of the bridge.

When it comes to maintenance it is classified into three types of needs

1. Frequent maintenance module (FMM) based which relates to day to day or frequent housekeeping needs for aesthetics and cleanliness of the bridge.
2. Routine maintenance module (RMM) based on each of the corresponding RIM that generates this maintenance needs
3. Detailed maintenance module (DMM) based on specific DIM's which generate this need.

Most of the maintenance needs (FMM and RMM) address the following aspects of the bridge

- A) Aesthetics of the bridge
- B) Functionality of the bridge
- C) Corrective activity post inspection
- D) Routine activity for housekeeping needs.

Most of the DMM address the following needs of the bridge

- A) Strength parameters of the bridge
- B) Balance service life of the bridge
- C) Event triggered maintenance needs

Frequency of inspection and maintenance is based on the type of the module (Routine or Detailed) generally most of the RIM are

maximum of bi yearly or less and DIM are event triggered or once in two year or more. The initial RIM and DIM are all essential inspection procedures viz RIM 1 to 5 and DIM 1 to DIM 6 for concrete bridge and RIM 6 to RIM 10; DIM 7 & DIM 8 for steel bridge. DIM 10 to DIM 14 are for laboratory tests. DIM 15 to DIM 29 are reserved for specific tests There are a series of RIM that are needed to be performed both before and Post monsoon season (BM/PM). Such inspections define the service efficiency and preparedness of the bridge for the most severe of weather condition. (RIM 15 to RIM 30)

There are also a series of RIM and DIM those are essential post occurrence or event triggered. Such events are all acts of God (floods, earthquake, storms, cyclones, etc) and also manmade events (Accident, collusion/ impact effect on the bridge component, blast, fire, etc) (RIM 31+) (DIM 31+)

DIM 40+ are for load capacity evaluation and estimation of capacity of the bridge. Frequent Maintenance module (FMM) relate to most frequent housekeeping and cleanliness needs of the bridge. They are to be applied irrespective of the status of the bridge, its condition or its importance.

Routine Maintenance Module (RMM) relate to maintenance needs arising post respective RIM. Similarly Detailed maintenance module (DMM) also relate to maintenance needs arising post respective DIM.

The frequency of maintenance modules is fixed only for FMM and for RMM and for DMM the frequency is based on the need and urgency of the maintenance to be undertaken. In case if the required RMM or DMM is not undertaken, the safety and performance of the bridge gets affected, then that RMM / DMM

needs to be executed at the earliest. For all other RMM and DMM they can be planned, budgeted and then tendered to be executed in a planned manner. It is generally suggested that the activity be completed before the next cycle of RIM/DIM or else the distress will have a cascading effect.

Ranking and priority for bridge maintenance is based on rating evaluation done in classification stage. Priority is defined based on observations during classification stage. Priority is based on observation for the following rating numbers

1. Bridge Structural Rating Number
2. Socio- Economic Bridge Rating Number
3. Type of road
4. Loading as per IRC
5. Rating for average ADT

Bridge Structural Rating Number is used to calculate the first average. The various codes have rating numbers value of "9" when the condition is best and "0" when the conditions are worst. A value of "0" indicates the rating component is critical and needs immediate attention. Avg (BSRN) = Is the average of all 9 parameters used in Structural rating number.

Socio- Economic Bridge Rating Number is used to calculate the second average. All the codes in this have rating numbers value of "9" when the condition is critical or severe impact condition. Absence of bridge would result in very critical condition; whereas rating value of "0" indicates a non impact condition. A value of "9" indicates the rating component is critical and needs to be ensured to maintain the bridge in working condition always. Avg (SEBR) = Is the average of all 5 parameters used in Socio Economic rating number Avg (BSRN) and Avg (SEBR) are then plotted for each bridge on

the below graph. Depending on where the point lies on the graph the Critical weightage is assigned to the bridge. The Critical Weightage is termed as  $C_w$  is then used further in the ranking system. This  $C_w$  ensures that most needed bridges having severe distress are assigned highest weightage and  $C_w$  is accorded a value of 100. Similarly for non important bridges with least or no distress;  $C_w$  is accorded a least value of 10

Once  $C_w$  is defined the second step in defining priority is to evaluate which of the bridge is most frequented and lies on important corridors with highest load rating. This factor is defined by Importance weightage  $I_w$ . To evaluate  $I_w$  first the type of road code and Loading as per IRC are converted to rating number. Then Loading as per IRC are converted to rating number. Average of the above two ratings is then evaluated to define Avg (TRLO). This average Avg (TRLO) is then compared with RADT, where RADT is Rating for Average Daily traffic Avg (TRLO) and RADT are then plotted for each bridge on the below graph. Depending on where the point lies on the graph the Importance weightage  $I_w$  is assigned to the bridge. The Importance Weightage  $I_w$  is then used further in the ranking system.  $I_w$  is assigned highest weightage of 100; when the bridge has very dense traffic condition and lies on roads of national importance and allows heaviest loadings. Once  $I_w$  this is defined, we have then to evaluate if the bridge or its critical component should be repaired/ rehabilitated or replaced. This decision is based on two factors. One is Age of bridge and the second factor is the cost of rehabilitation as compared to cost of replacement. Both these costs are compared for the same type of bridges with cost index being the same for the comparison. Also the costs are compared for per

square meter of deck area.

### Priority and ranking

All bridges to be repaired or rehabilitated or replaced in a given period of time are taken together to form a set of bridge. Ranking of the bridge is always assigned from within this set of bridges being compared. Ranking of the bridge is given by RankBrig Where RankBrig is evaluated by arranging all bridges as per their Sum of Weightages  $W_{SUM}$  in ascending order.

$$W_{SUM} = C_w + I_w.$$

When  $W_{SUM}$  is highest for a bridge that Bridge is assigned the RankBrig = 1 and for a bridge which has  $W_{SUM}$  is lowest for a bridge that Bridge is assigned the RankBrig = Last

This type of ranking allows the various rating evaluation and bridge importance to be accounted for in the decision making process for deciding which bridge shall be repaired first. First Repair Worst Damage (FRWD) principle is hence used here in a modified form to account for importance of the bridge.

### Conclusion:

IBMS offers a challenge and opportunity to the civil engineering fraternity. Its implementation once achieved offers a major advantage to all asset owners in terms of long term savings and delayed replacement budgeting. Optimizations and preservation of our bridge inventory is an advantage which can and is the driving force for the need to implement IBMS

To summarize we modify the sentence from the note to planning commission

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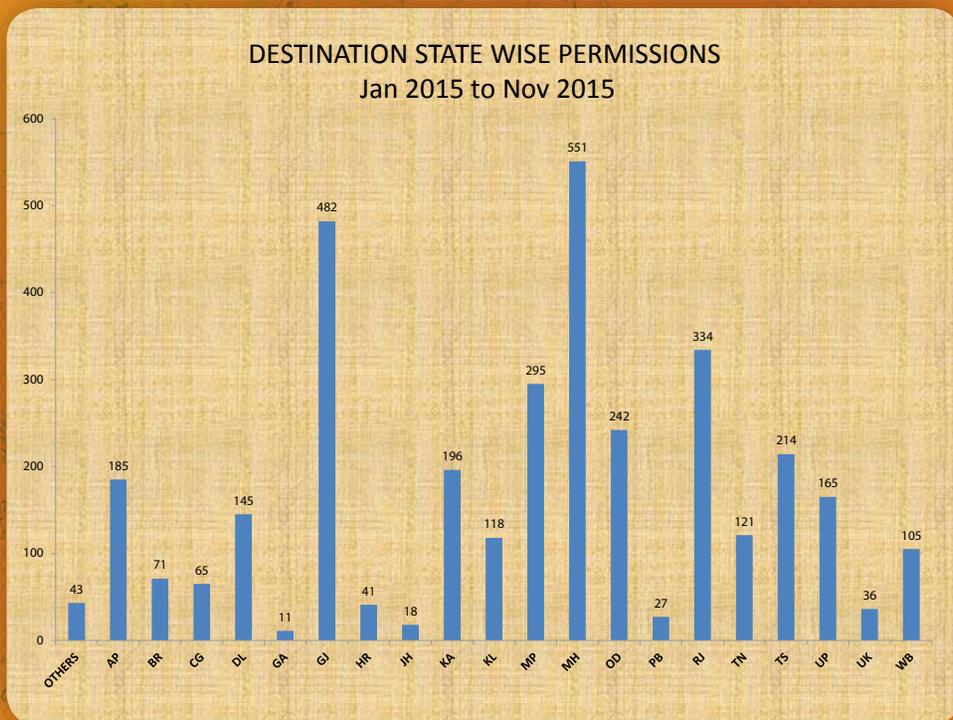
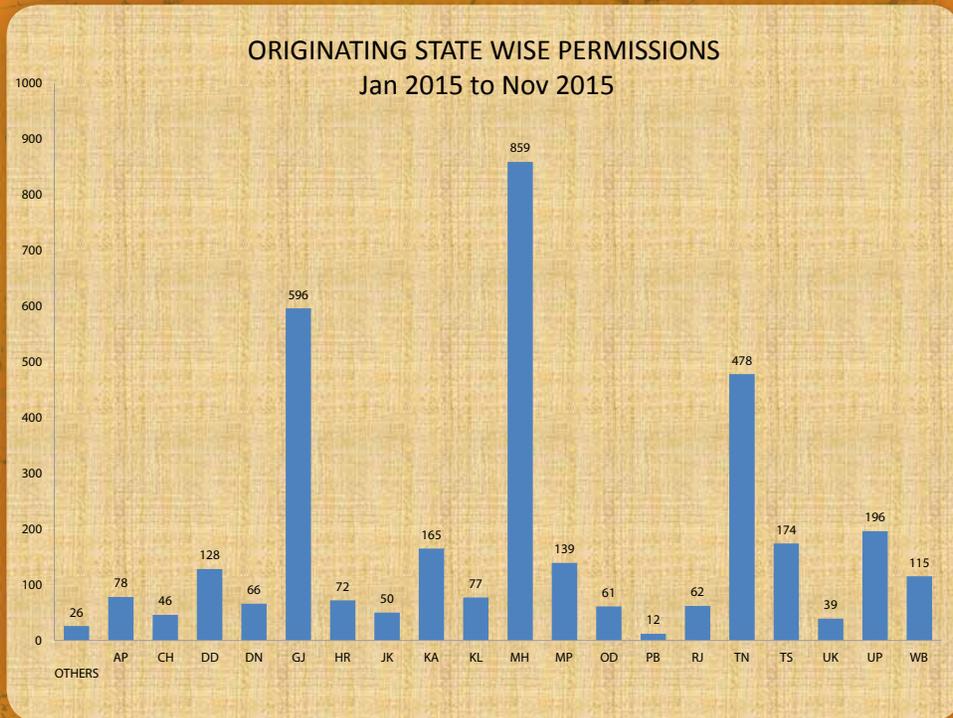
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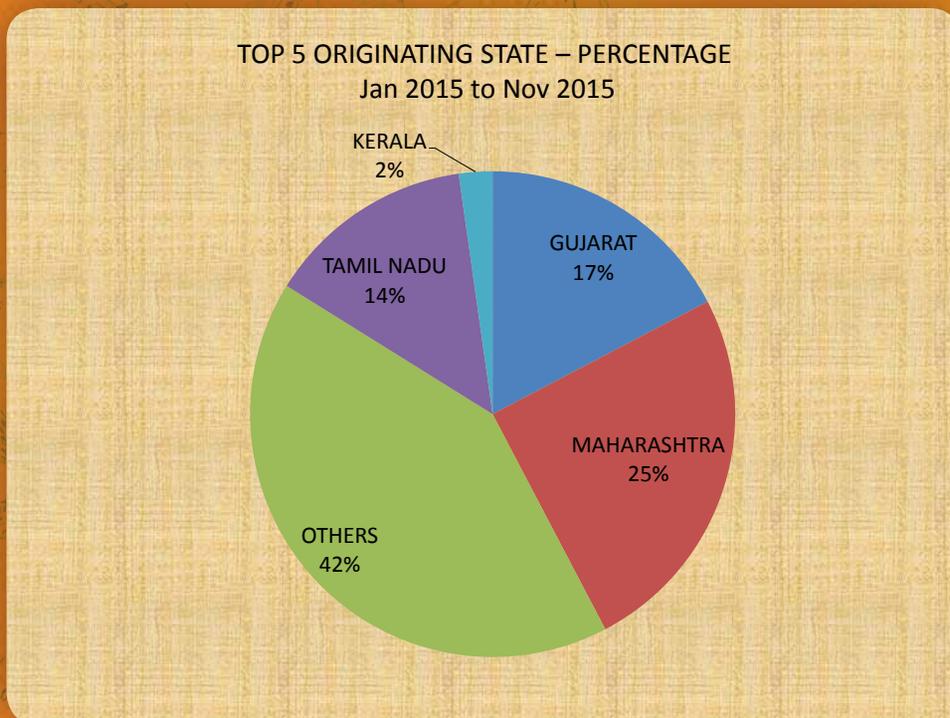
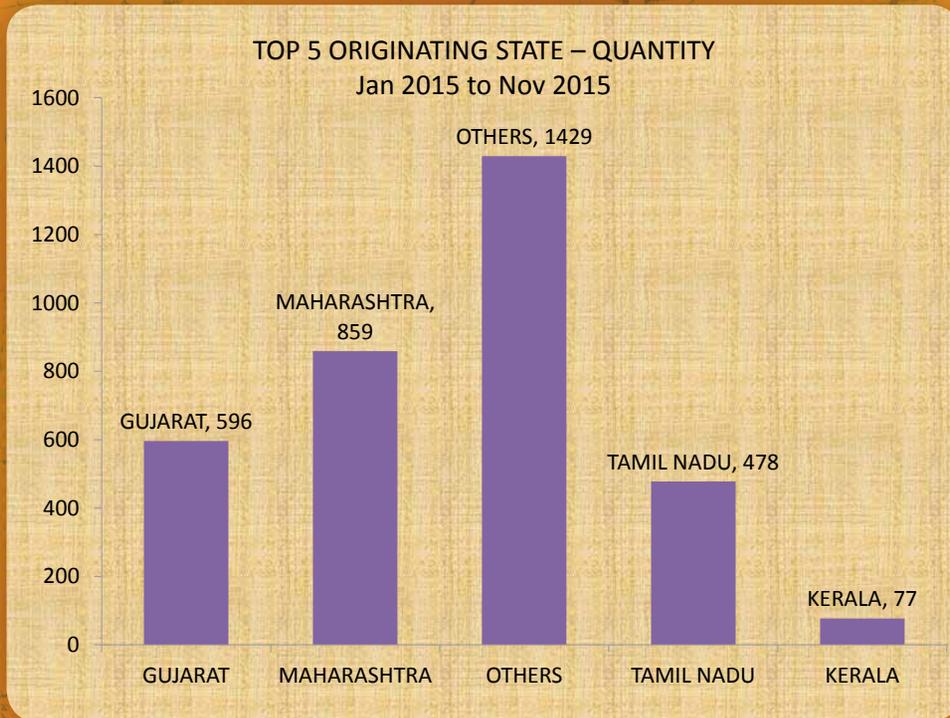
Jan to November'2015



Source: National Informatics Centre - Ministry of Road Transport & Highway

# ANALYSIS ON MINISTRY'S ONLINE PERMISSION

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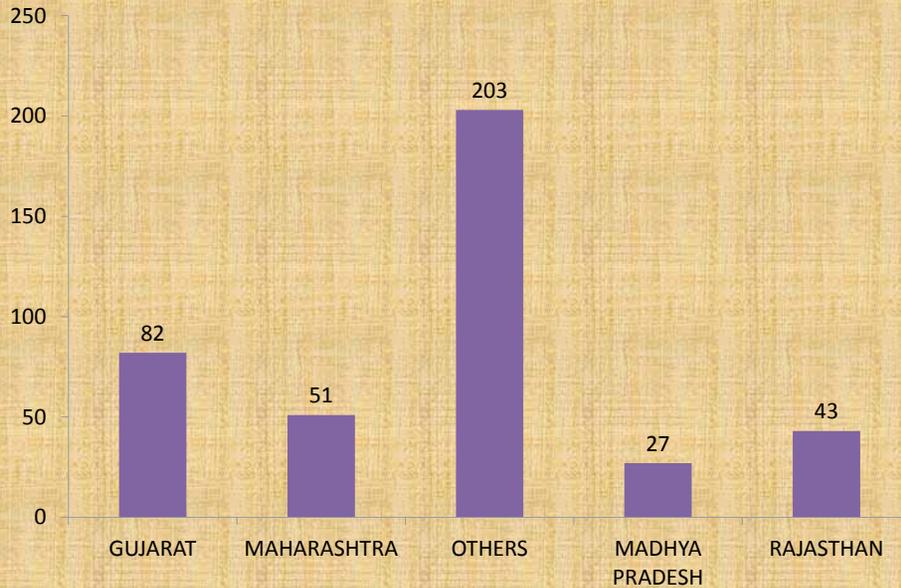


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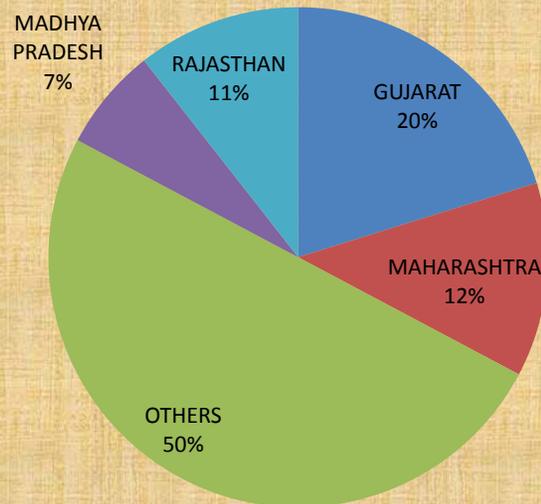
# ANALYSIS ON MINISTRY'S ONLINE PERMISSION

Jan to November'2015

TOP 5 DESTINATION STATE – QUANTITY  
Jan 2015 to Nov 2015



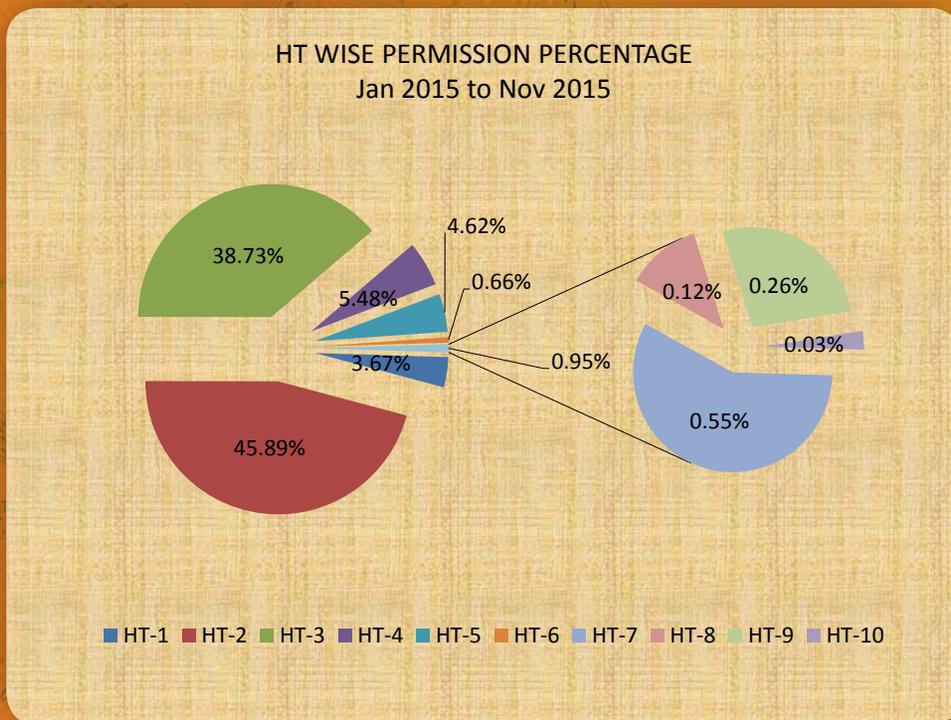
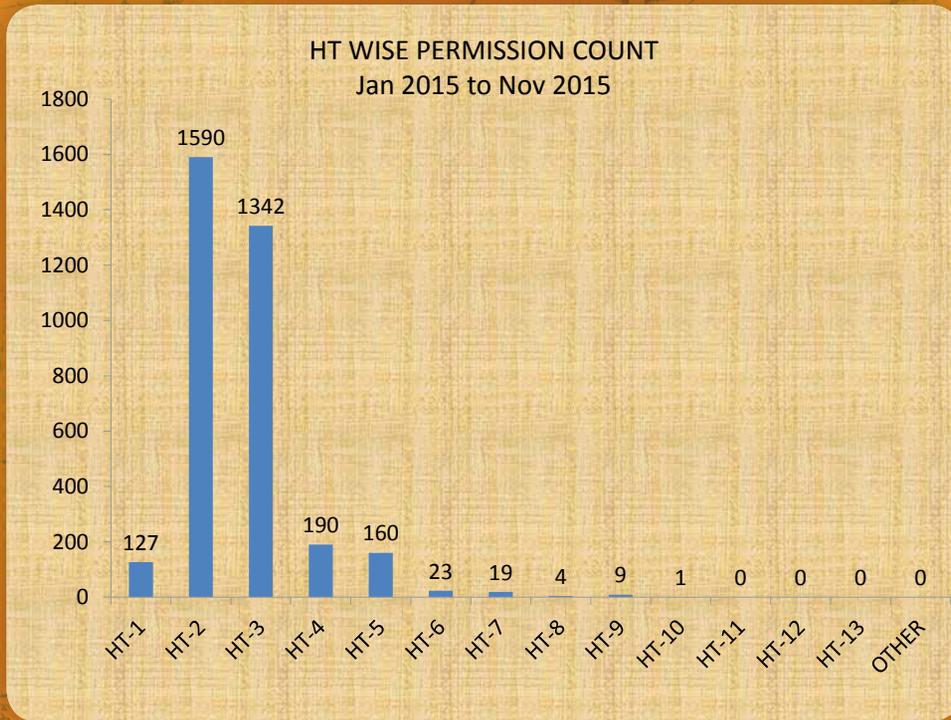
TOP 5 DESTINATION STATE – PERCENTAGE  
Jan 2015 to Nov 2015



Source: National Informatics Centre – Ministry of Road Transport & Highway

# ANALYSIS ON MINISTRY'S ONLINE PERMISSION

Jan to November'2015



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[TO BE PUBLISHED IN THE GAZETTE OF INDIA, EXTRAORDINARY,  
PART II, SECTION 3, SUB-SECTION (i)]

Government of India  
Ministry of Road Transport and Highways

New Delhi, the November, 2015.

Notification

G.S.R...(E),--- The following draft rules further to amend the Central Motor Vehicles Rules, 1989, which the Central Government proposes to make in exercise of the powers conferred by sections 56 and 64 of the Motor Vehicles Act, 1988 (59 of 1988) is hereby published as required by sub-section (1) of section 212 of the said Act for information of all persons likely to be affected thereby and notice is hereby given that the said draft will be taken into consideration after expiry of a period of thirty days from the date on which the copies of this notification as published in the Gazette of India are made available to the public;

Objections or suggestions, if any, may be sent to the Joint Secretary (Transport ), Ministry of Road Transport and Highways, Transport Bhawan, Parliament Street, New Delhi 110 001;

The objections or suggestions which may be received from any person with respect to the said draft rules before the expiry of the period aforesaid shall be considered by the Central Government.

DRAFT RULES

1. (1) These rules may be called the Central Motor Vehicles ( \_\_Amendment) Rules, 2015.  
(2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Central Motor Vehicles Rules, 1989 (hereinafter referred as the principal rules), in rule 62,
  - (a) in sub-rule (1),
    - (i) in the first proviso, the words “after the Inspecting Officer” shall be substituted by the words “after an Inspecting Officer”.

(ii) in the *Explanation* below the Table in second proviso, the words “appointed by the State Government” shall be substituted by the words “appointed by a State Government”;

(iii) the following proviso shall be inserted below the second proviso, namely:-  
 “Provided also that if the tests specified in the above Table are conducted by an Inspecting Officer other than the Inspecting Officer in the office of the registering authority, the Inspecting Officer who conducted the tests shall, on the same day or on the following working day, upload his inspection report in Form 38A at the portal \_\_\_\_\_ and also send the inspection report signed under his hand and seal to the registering authority by speed post for issue of certificate of fitness by the prescribed authority within 15 days from the date of the Inspection Report if the vehicle is found by the Inspecting Officer to comply with the provisions of the Motor Vehicles Act, 1988 and the Central Motor Vehicles Rules, 1989 and a copy will be given to the Driver of the vehicle.”

(b) after sub-rule (2), the following sub-rule shall be inserted, namely:-  
 “(3) The fee for testing of a vehicle when tested by an Inspecting Officer other than the Inspecting Officer in the office of the registering authority shall be as specified in rule 81.”

3. In rule 81, in the Table, after the entry at serial number 10, the following entry shall be inserted, namely:-

(1)	(2)	(3)	(4)	(5)
10A.	Conducting test of a vehicle by		62(2)	

	<p>an Inspecting Officer other than the Inspecting Officer in the office of the registering authority for grant or renewal of certificate of fitness by the registering authority</p>			
	Motorcycle	Manual: Two hundred rupees		
		Automated: Four hundred rupees		
	Three wheeled or light motor vehicle or quadricycle	Manual : Four hundred rupees		
		Automated: Six hundred rupees		
	Medium or heavy motor vehicle	Manual: Six hundred rupees		
		Automated: One thousand rupees		

4. The inspection certificate by an Inspecting Officer other than the Inspecting Officer in the office of the registering authority shall be in Form 38A.

5. After Form 38, the following form shall be inserted, namely:-

**“FORM 38A**

[See rule 62(1)]

**Report of inspection conducted on a transport vehicle by an Inspecting Officer other than the Inspecting Officer in the office of the registering authority**

Vehicle bearing registration number ..... has been inspected by the undersigned today and it is certified that it complies with the

provisions of the Motor Vehicles Act, 1988 and the Central Motor Vehicles Rules, 1989 and is fit for issue of a Fitness Certificate by the prescribed authority.

This report will be uploaded at the portal \_\_\_\_\_ and the inspection report signed under my hand and seal will be sent to the registering authority by speed post either today or on the next working day for processing the application for issue of certificate of fitness in respect of the vehicle by the prescribed authority.

Date .....

Signature, name and designation of the Inspecting Officer

RTO in which posted

District

State

Official seal".

[No. RT 11028/15/2015-MVL]

(Niraj Verma)  
Joint Secretary to the Government of India.

Note.- The principal rules were published in the Gazette of India, Extraordinary, Part-II, section 3, sub-section (i), vide notification number G.S.R. 590(E), dated the 2<sup>nd</sup> June, 1989 and lastly amended vide notification number (E) dated

[To be published in the Gazette of India, Part II, Section 3, Sub-section (i)]

Ministry of Road Transport and Highways

Notification

New Delhi, the .....November, 2015

**EXTRAORDINARY**

GSR....(E).- In exercise of the powers conferred by section 9 of the National Highways Act, 1956 (48 of 1956), the Central Government hereby makes the following rules further to amend the National Highways Fee (Determination of Rates and Collection) Rules, 2008, namely:-

1. Short title and commencement. - (1) These rules may be called the National Highways Fee (Determination of Rates and Collection) Second Amendment Rules, 2015.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the National Highways Fee (Determination of Rates and Collection) Rules, 2008 ,in rule 10 , insert following explanation below sub-rule 1:-

“Explanation: for the purpose of this rule, excess load upto 5% on gross vehicle weight defined in this rule in respect of a vehicle shall be the gross vehicle weight for that vehicle.”.

(NIRAJ VERMA)  
Joint Secretary to the Government of India  
[No.H-39011/12/2014-Toll]

Note: The Principal rules were published in the Gazette of India, Part II, section 3, sub-section (i) published in the Gazette of India *vide* G.S.R No. 838 (E) dated the 5<sup>th</sup> December, 2008 and subsequently amended *vide* G.S.R. No. 950(E) dated the 3<sup>rd</sup> December, 2010; G.S.R. No. 15(E) dated the 12<sup>th</sup> January, 2011, G.S.R No. 756(E) dated the 12<sup>th</sup> October, 2011, G.S.R. No.778(E) dated the 16<sup>th</sup> December,2013, G.S.R. No.26(E) dated the 16<sup>th</sup> January, 2014, G.S.R. No. 831(E) dated the 21<sup>st</sup> November, 2014; G.S.R. No. 02(E) dated 29<sup>th</sup> December, 2014 and G.S.R. No. 220(E) dated 23<sup>rd</sup> March, 2015.

[TO BE PUBLISHED IN THE GAZETTE OF INDIA, {EXTRAORDINARY},  
Part-II, Section 3, Sub-section(ii)]

GOVERNMENT OF INDIA  
MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

NOTIFICATION

New Delhi, the 2<sup>nd</sup> December, 2015.

S.O. \_\_\_(E),- In exercise of the powers conferred by sub-section (1) of section 58 of the Motor Vehicles Act, 1988 (59 of 1988), the Central Government hereby makes the following further amendments in the notification of Government of India in the erstwhile Ministry of Surface Transport (Transport Wing) number S.O.728 (E), published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (ii), dated 18<sup>th</sup> October, 1996, namely:-

In the Schedule to the said notification,

- (i) Under the heading "I Rigid Vehicles", a new entry at serial number (v) shall be introduced as following entry, namely:-

1.	2.	3.	4.
----	----	----	----

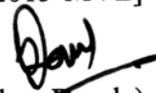
- (v) 2 axle Passenger Vehicle with  
Air Suspension\*  
Two tyres on front axle and 6.5 tonnes on Front Axle  
Four tyres on rear axle 11.5 tonnes on Rear Axle"

\* A suspension system is to be considered as air suspension system if at least 75% of the spring effect is caused by the air spring.

- (ii) The following 'Note' shall be inserted at the end:

"**Note:** Tolerance up to five per cent in the gross vehicle weight and safe axle weight as specified above would be allowed for the purpose of compliance to sub-section (3) of section 113 of the Motor Vehicles Act, 1988 (59 of 1988)."

[No. RT-11036/92/2015-MVL]

  
(Abhay Damle)

Joint Secretary to the Government of India

Note: The principal notification was published vide number S.O.728 (E), in the Gazette of India, Extraordinary, Part II, section 3, sub-section (ii) dated 18<sup>th</sup> October, 1996, and subsequently amended vide notification number S.O.517(E) published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (ii), dated the 26<sup>th</sup> May, 2000.



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## ODC movements on Bolster or Turntable

**A** bolster or turntable is a device (or rather a set of devices) that allows long loads to be transported on two transporters, with a relatively short length, instead of one single transporter with a length (almost) equal to the load. Such a transport is also referred to as a “dolly transport”. The turntables or bolsters allow the transporters to pivot underneath the load to negotiate turns and corners and (to a certain extent) super elevation and articulation as well as inclines and declines.

A turntable (this is the name that will be used in the remainder of this article) consists of two parts. A lower part that is secured to the transporter, this is called the Lower Fixed Part (LFP). A movable or rotating upper part that is secured to the load, this is called the Upper Rotating Part (URP). The URP rotates about the center of the whole assembly. The two parts are held in place by a pin or a ball bearing. The contact area between the URP and the LFP is lubricated with grease or oil to allow the rotating motion with minimal friction.



*Marco J. van Daal has been in the heavy lift & transport industry since 1993 starting with Mammoet Transport from the Netherlands and later with Fagioli PSC from Italy, both esteemed companies and leading authorities in the industry. His 20 year plus experience extends to 5 continents and over 55 countries and has resulted in a best selling book “The Art of Heavy Transport” which is available at [www.the-works-int.com](http://www.the-works-int.com). Marco has a real passion for sharing knowledge and experience, the prime reason for his frequently held seminars all over the world. He currently resides in Aruba, Dutch Caribbean, with his wife and two daughters.*

### Turntable design

There are three basic turntable designs.

- A.) The simplest design consists of just two steel plates with a pin in the center. No articulation in either direction is possible (except what the plywood between the saddle and plate allows, crushing). A-type.
- B.) Turntables with sliding shoes and a center pin. The articulation in longitudinal direction of the load is in the shoes, it allows the URP of the turntable to pivot. B-type.
- C.) Turntables with sliding shoes and a (load carrying) ball bearing. On these types of turntables it is sometimes possible to remove the sliding shoes (on one of the

turn tables) and have the load suspended solely on the ball bearing. C-type.

In Figure 1, the LFP and the URP of the A-type turntable can be easily recognized. The lower chains hold the LFP secured to the transporter and the long chains together with the welded steel clips secure the URP to the load.

Figure 2 illustrates the difference between a type A and B-type turntable. The pivoting sliding shoes and the rotating pin are visible between the LFP and the URP. Even though it appears that the center pin may carry some load, this is not the case. The URP pivots on the center pin which is allowed a free vertical movement (to a certain extent) in the hole of the LFP.



The turntable in figure 3 is a C-type turntable. In the center of the turntable the ball bearing can be indicated. This ball bearing allows articulation in all directions. This makes the C-type the most versatile of turntables.

There is however a principle unpredictability in the C-type turntable, for the one that has both shoes in contact with the sliding ring. The loads on the shoes and center ball bearing are statically undetermined and loads can shift (about the ball bearing) quickly from one shoe to another shoe. This can be nerve wrecking to the "not so experienced" operator. The center pin of the B-type turntable is not load bearing and therefore does not have this problem.

There is a common disadvantage of the B-type and C-type turntables. During a transport both operators (front and rear transporter) are aiming to maintain their transporter level (trying to keep their pressures equalized) and could herewith be

"fighting" the other operator on uneven roads or underground. Such transports should be carried out by operators that know each other in terms of how they will act and react.

The C-type turntables, since the ball bearing is load carrying, can have the sliding shoes removed of one of the turntables. This eliminates the "fighting each other" scenario as the transporter, where the sliding shoes are removed, can now freely articulate underneath the load. The transporter, that does not have the sliding shoes removed, is to maintain the level of the load. Figure 4 shows a transport where the sliding shoes have been removed from the rear turntable.

Although turntables are available in various models they all follow one of the above design concepts.

### About using turntables

When using two turn tables, both with two shoes in contact with the sliding ring, one has effectively created a 4-point suspension

scenario. As known, a 4-point suspension is prone to overloading on one point. The same applies to turntables.

To avoid this overloading a 3-point suspension turntable was invented. This consisted of one turntable with two shoes in contact with the sliding ring and one turntable with just the center ball bearing.

In practice however, this 3-point suspension method is not being used as much as the 4-point suspension method.

When using the 4-point suspension method (sliding shoes on both turntables in place), it is common to use turn tables that have an overcapacity and that overloading is not or less of a concern during the execution of the transport. The hydraulic pressures of both transporters have to be continuously monitored and the operators should have contact with each other. As a dolly transport is normally carried out with low velocity, there is ample time for corrections.

Another aspect of attention is the loading impact of the turn table on the transporter. By definition, the turntable is imposing a point load (a concentrated load) onto the transporter deck and this needs to be within the capacity of the transporter. In case the point load is too concentrated, load spreaders can be used to lengthen the loading area.

Figure 5 shows a turn table on a double set of load spreaders, in this case the transporter was subject to a concentrated point load that was beyond the capacity of the transporter. Figure 6 is the transport where the turn tables from Figure 3 and Figure 5 are used. The front transporter required additional load



spreading that can be seen on the Figure 6. Between the 3rd and 4th axle the load spreading starts and between

the 9th and 10th axle it stops. The rear transporter did not require any load spreading as this transporter

has a higher bending moment.

Next month's article will be about dolly transport execution and what to look for in order to avoid that anything goes wrong.

#### Bio.

Marco J. van Daal has been in the heavy lift & transport industry since 1993 starting with Mammoet Transport from the Netherlands and later with Fagioli PSC from Italy, both esteemed companies and leading authorities in the industry. His 20 year plus experience extends to 5 continents and over 55 countries and has resulted in a best selling book "The Art of Heavy Transport" which is available at [www.the-works-int.com](http://www.the-works-int.com). Marco has a real passion for sharing knowledge and experience, the prime reason for his frequently held seminars all over the world. He currently resides in Aruba, Dutch Caribbean, with his wife and two daughters.



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- Marine Transport and Engineering
- Cranes and Alternative Lifting
- Warehousing
- Shipping
- Project Consultation
- Jetty Development

# COMPLETE LSTK SOLUTIONS FOR HANDLING HEAVY CARGO WORLDWIDE FROM THE LEADING HEAVYLIFT MARITIME COMPANY



**JUMBO -**  
Prestigious Track Record Of Performance From Past 4+ Decades And Just Growing Better With The Time.

India Gives Phenomenal Support To Wheel & Time - Completing Its Maiden Year With Remarkable Triumph Executing Some Of The Significant Heavylift Shipments

## HEAVYLIFT REFERENCE SHIPMENTS - INDIA

**T** **SHIPPING OF 7 x FULLY ASSEMBLED LHM 400 CRANES – 21,25 X 14,35 X 55 MTRS / 455 METRIC TONS EACH 117, 000 FREIGHT TONS**

Jumbo through its exclusive Indian agent, Wheel & Time, won a prestigious contract for handling 7 Numbers of 455t LHM400 Liebherr cranes in fully assembled condition and the shifting of a huge dredger from West coast to the East coast

of India. The complete contract for the transport of the 4 numbers of Liebherr cranes from South Basin to West Basin of Mundra Port and 3 cranes from Mundra to Tuna Port, India and shifting of the partially assembled dredger required to be executed within 3 weeks.

Jumbo performed an outstanding heavy lift operation, contributing to the construction of new port facilities at Mundra, Tuna and Dhamra, hereby again exhibiting & endorsing its vast

expertise, unmatched competency and the world class fleet.

This mega remarkable mega project holds tremendous importance for both Jumbo and Wheel & Time, as it was matter of great honor and esteem pride to win a project of such high magnitude from a world-class Conglomerate. Besides, winning this prestigious project, immediately a month after the inception of Wheel & Time, validates Jumbo's & Wheel & Time's market credentials.

## OVERCOMING CHALLENGES

The crane's main body and jib had overall dimensions of 19,5 x 12 x 55 meters and had to be transported in single piece and in fully assembled condition. The lifting of the cranes was a critical operation. During the preparations, counterweights were to be removed and the lull angle of the jib had to be adjusted very carefully in order to obtain the most favorable location of the center of gravity.

All technical preparations were carried out by Jumbo's engineering team. Wherever required, the assigned project engineer consulted Liebherr and Merchant's engineers directly in order to obtain reliable information and to discuss and validate the technical drawings and documentation produced by Jumbo.

Jumbo's Port Capt. Patrick Lieuw was present in India to make pre-loading and pre-discharging arrangements. As this was a critical LO/LO operation, very close co-ordination and team work was the key to carry out seamless operations.

M.V. Fairlift, one of Jumbo's finest G-class vessels with combined lifting capacity of 650 tons' mast cranes, was positioned to perform the operation. Capt. H J Van Den Heuvel, amongst Jumbo's most experienced heavy lift shipping Masters along with the highly skilled officers and crew carried out this operation. The breath taking moment came when the jib of the crane had to pass between the gears of the vessel with only a few inches of gap. This was a delicate operation as the lifting was been done in tandem, maintaining the CoG at all times without having any swing or higher tensions in the gears. The lifting time of the cranes was finalized when the wind velocity was at minimum so that the cranes do not bear even a fractional external force.



Complete shifting of cranes was done in less than two weeks with great efficiency and perfection.

After lashing and securing the Liebherr cranes, the vessel sailed to Mundra West Basin and Tuna in 3 different trips for discharging the cranes. The discharging operation at ports of discharge was a reverse replica of loading operations which was also carried out in complete safe & smooth manner under the supervision of highly qualified and experience Jumbo crew.

- **PARTIALLY ASSEMBLED DREDGER – HEAVIEST PC (PONTOON) 48,8 X 12,44 X 11 METERS / 258 METRIC TONNES 26PCS / 14,500 FREIGHT TONS**

Immediately after discharging all the 7 Liebherr cranes Jumbo's Fairlift had another significant assignment: the transport of semi dismantled IHC Dredger from Mundra to Dhamra Port. Albeit, the IHC dredger was comparatively smaller than the dredgers which Jumbo has transported in the past, this operation was critical due





The entire contract of dismantling the dredger and loading the dismantled parts separately and then re-assembling at the discharge port was executed in timely and following all safe practices.

- TRANSPORTATION OF A HUGE SPHERE FROM KANDLA TO HENDERSON, AUSTRALIA**  
**19,85 X 20,5 METERS DIA / 500 METRIC TONS**

Jumbo's M.V. Fairpartner had another significant assignment: the transport of the first 500t storage sphere ever built in India for an LNG project in Australia.

The sphere, 19,85 m in Dia & 20,5 mtrs height, was to be loaded from Kandla Port (KPT) and discharged in Henderson, Australia. Jumbo's team again coordinated the complete shipment. M.V. Fairpartner crew prepared rigging before the arrival of the vessel at Kandla Port, so the vessel was completely load-ready when she came alongside the wharf of KPT.

The completion of handling and transport of such super critical heavy lifts earmarks Jumbo Shipping's position as the world leader in heavy lift shipping and establishes its step ahead for creating path-breaking records in India.

to the ongoing monsoons. Wind velocity was increasing and the swell was gradually rising. The entire operation was to be performed in a very calculative stability keeping the vessel rolling minimal.

We again headed another incredible situation, when the Master had to dismantle the cutter ladder from the main pontoon. This was a precision operation when gears had to be very carefully maneuvered, safeguarding the sharp gap between cutter ladder, A-Frame and the main body. Jumbo's policy to invest 70% of efforts in planning and 30% in execution has always time and again proven as the best inherited practice for safe and calculative operations. Master Van Den Heuvel and Port Captain Patrick Lieu had done advanced calculations on lifting with 2 dynamic objects in implied external forces. This enabled them to make seamless operations even during the unfavorable weather conditions.

The heaviest component of the complete dredger including main body – Pontoon of 258tons, 2 Spuds, Cutter ladder, A-Frame, over 100 floating pipes in lots and the tug, together forms the complete composition of dredging set.



## SUCCESSFUL FEATS

Jumbo Shipping's contribution to Indian Heavy Lift Industry since past few years has been phenomenal. Jumbo has executed some extraordinary and most critical shipments which include:

- **KNPC CLEAN FUELS PROJECT, KUWAIT**

Complete handling, transportation and shipping of heavy lifts of 37 Nos - Reactors each ranging between 280tons to 1600tons (single unit) from ex Hazira to delivery up to the job site of Kuwait National Petroleum Corporation in Kuwait. The scope included ro-ro operations at Hazira, barge transportation thru our own deck loader 90 meters long, 9000tons heavy lift barge JB2, trans-shipment to our world-class J-Type, 1800tons combined lifting capacity self-gearred vessels and finally shipped to Shuaiba, Kuwait. This was one of the largest turnkey contracts ever executed by any heavy lift vessel owners in India.

- **FLUE GAS BOILER UNIT – TRANSPORTAION FROM MUNDRA TO JUBAIL**

Jumbo received great accolades for transportation of 1016 metric tons' fuel Gas Boiler Unit with dimensions 23,49 x 15 x 14,3 meters from Mundra Port to Jubail. This was a unique

operation of its kind, where in due to the unsymmetrical shape of the boiler, maintaining the CoG of the Boiler unit while lifting in tandem with 2 x 900tons mast cranes was of paramount importance. Besides, the CoG was off center, due to which lifting of the Fuel Gas Boiler Unit became more complex. Therefore, Jumbo did a detailed engineering study of the Fuel Gas Boiler Unit and suggested lifting points to the fabricator. This was the first heavy lift operation of its kind that was handled from Mundra Port.

- **BPCL - COCHIN REFINERY**

2 x VGO Reactors / 48,35 x 7,7 x 5,20 meters, lwh / 695tons each  
1 x KO Drum / 33,4 x 4,75 x 4,85 meters, lwh / 437tons



Jumbo thru its Indian Agent, Wheel & Time won another 2 significant shipments of transporting 2 x Reactors from Adani Port, Hazira to Kochi and 1 X Drum from Mumbai Anchorage to Kochi. With the given past experience of Jumbo, the 2 shipments did not pose any serious transport issues. Loading of 2 reactors at Hazira and 1 KO Drum at Mumbai anchorage saw seamless operations.

At the Discharge Port, Kochi, all the 3 heavylifts were to be discharged on to the hatch type barges. Albeit, this was not very delicate operation but due to the sudden bad weather conditions, the barge and vessel started rolling, making the entire discharge operations very challenging. The gap between hatch of the receiving barge and reactor was very less and over and above due to the swell barge started rolling. Jumbo's vessel crew, however took control over the situation by volunteering assistance to the receivers on the barge. Despite of the adverse weather conditions, this operation was performed

safely and successfully maintaining all necessary engineering and operational precautions.



Jumbo Maritime Company is one of the leading and highly reputed organization acclaimed worldwide for its heavylift expertise and competencies. The Group's journey that begin in 1968 and since then has grown manifolds in these 45 years. Jumbo is now acknowledged by the global market for its highest reliability and sustainability in providing world class technical solutions for shipping & transport of critical cargoes.

Besides Heavy Lift shipping, Jumbo is also very active offshore transportation & installation contractor. Jumbo has been developing pioneering solutions for ocean transportation for more than 45 years. Since 2003, Jumbo is building heavy lift capability and has rapidly established a sound track record in the offshore subsea installation market.

At Jumbo, it is the philosophy that engineering, safety awareness and environmental care stand at the forefront of a reliable operation. This is why Jumbo has invested - and continues to invest - in the latest state of the art engineering methods, software and equipment and has developed its in house safety awareness program "Stay Well".

Today, Jumbo operates versatile and in-house designed heavy lift vessels with a lifting capacity from 500t up to 3,000t. Two of Jumbo's J-1800 class Construction Support vessels, Jumbo's Fairplayer and Jumbo Javelin, are equipped with a DP2 system, enabling them to provide transport in combination with offshore installation services.

<p><b>K3000</b> 3000 TONS LIFT CAPACITY</p> <p>DEADWEIGHT: 14,000T HOLD CAPACITY: 12,000M<sup>3</sup> FREE DECKSPACE: 1,250M<sup>2</sup> CRANES: 2 X 1,200T CRANES - IN COMB. LIFT SPEED: 17.0 KNOTS LENGTH O.A.: 232.00M BEAM O.A. (HULL): 27.40M ICE CLASS: 1A 1X DRAFT: 8.1M</p>	<p>REV JUMBO KINETIC REV FAIRMASTER</p>
<p><b>J1800</b> 1800 TONS LIFT CAPACITY</p> <p>DEADWEIGHT: 11,000T HOLD CAPACITY: 10,000M<sup>3</sup> FREE DECKSPACE: 1,100M<sup>2</sup> CRANES: 2 X 900T CRANES - IN COMB. LIFT SPEED: 17.0 KNOTS LENGTH O.A.: 244.00M BEAM O.A. (HULL): 26.70M DRAFT: 6.1M / 7.0M IN OPEN CONDITION</p>	<p>JUMBO JAVELIN (EQUIPPED WITH DP1 &amp; DP2) REV FAIRPARTNER REV JUMBO TRILET</p>
<p><b>J1800</b> 1800 TONS LIFT CAPACITY</p> <p>LENGTH: 244.00M BEAM: 26.70M DEPTH: 14.1M ACCOMMODATION: 80 PUB HELICOPTER: HELICOPTER 9-10 SPEED: 17 KNOTS CRANES: 2 X 900T CRANES - IN COMB. LIFT DEPTH RATING: 3,000M</p>	<p>FAIRPLAYERS (EQUIPPED WITH DP1 &amp; DP2)</p>
<p><b>F800</b> 800 TONS LIFT CAPACITY</p> <p>DEADWEIGHT: 14,000T HOLD CAPACITY: 10,000M<sup>3</sup> FREE DECKSPACE: 1,000M<sup>2</sup> CRANES: 1 X 900T, 2 X 400T - IN COMB. LIFT SPEED: 17.0 KNOTS LENGTH O.A.: 153.80M BEAM O.A. (HULL): 23.20M ICE CLASS: 1A 1X DRAFT: 6.10M</p>	<p>REV FAIRELLA REV HIRABELLA</p>
<p><b>H800</b> 800 TONS LIFT CAPACITY</p> <p>DEADWEIGHT: 7,000T HOLD CAPACITY: 6,500M<sup>3</sup> FREE DECKSPACE: 1,500M<sup>2</sup> CRANES: 2 X 800T CRANES - IN COMB. LIFT SPEED: 15.5 KNOTS LENGTH O.A.: 120.00M BEAM O.A. (HULL): 20.00M DRAFT: 7.20M</p>	<p>REV JUMBO VENUS REV FAIRLONE</p>
<p><b>E650</b> 650 TONS LIFT CAPACITY</p> <p>DEADWEIGHT: 7,500T HOLD CAPACITY: 10,000M<sup>3</sup> FREE DECKSPACE: 1,700M<sup>2</sup> CRANES: 1 X 250T CRANES / 1 X 800T CRANE - IN COMB. LIFT SPEED: 15.5 KNOTS LENGTH O.A.: 109.70M BEAM O.A. (HULL): 20.00M DRAFT: 7.40M</p>	<p>REV FIDELAPRIMA REV FAIRLET</p>

Jumbo's success has been built on strong client relationships. As partners, Jumbo strives to assist clients in reaching their goals.



Wheel & Time was incorporated in August 2014 as the exclusive Indian commercial agents for Jumbo Maritime Company, the World leaders in Heavylift Shipping. [www.jumbomaritime.nl](http://www.jumbomaritime.nl)

[www.jumbomaritime.nl](http://www.jumbomaritime.nl)

Wheel & Time is also a 'preferred' business partner for Hansa Heavylift GmbH, a very fast growing Heavylift Carriers Headquartered in Hamburg Germany, [www.hansaheavylift.com](http://www.hansaheavylift.com)

While our exclusive partners, Jumbo has lifting capacities from 650tons to 3000tons dual lift, total fleet of 14 vessels;

HHL has the lifting capacities from 350tons to 1400tons, total fleet of 22 vessels



Hence, Wheel & Time is the ONLY COMPANY IN INDIA that pools 36 HEAVYLIFT SELF-GEARED VESSELS of **SUCH ENORMOUS RANGE** for meeting the requirement of Indian Project Cargo business. This strength of offering large spread of heavylift self-geared vessel has given us edge over the other market players in the Country, and we stand as the most reliable & dependable source for meeting the shipping schedules of Mega Projects and Equipment - Fabricators, Manufacturers and Suppliers.

Have executed projects in Oil & Gas Sectors, Energy, Marine, Port Infrastructure, and Mining, Offshore etc... and worked with almost every established Conglomerates in India having business interest in heavylift project cargoes.

Since the inception of the organization, Wheel & Time has successfully executed some of the milestone shipments which accumulate to handling and transportation of about 900,000 freight tons of heavylift project cargoes. During this short span of a year, Wheel & Time received



tremendous, unbelievable and overwhelming support from Indian clients.

In this 1 year, Wheel & Time successfully executed shipments in various sectors including Refineries & Petrochemical, Power, Heavy Engineering Division, Port Infrastructure and Marine Industry, handling heavylift units weighing between 50tons to 800tons.

Wheel & Time has business associations with some of the best

and highly experienced Heavy Haulers & CHA's in India, hence making us a complete logistics company that can offer turnkey solutions for handling complete project from fabrication point to delivery up to the site.

Wheel & Time is fast growing organization having plans to grow globally with cooperation of their principal's large worldwide network backed up with 45 years of expertise of handling heavylifts.



- ODC (Over Dimensional Cargo) Transportation and Handling
- OWC (Over Weighted Consignments) Transportation and Handling
- Custom Handling through owned CHA License Registered at major ports of India
- Route Survey and Feasibility Study
- Project Handling and Forwarding
- Project Warehousing Management
- RO-RO/Barge Operations

**Having more than 125 Heavy Duty Goldhofer and Tratec Axles with heavy duty Volvo Puller and Other accessories like Telescopic Spacer, Well bed, Spreader etc.**



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# Ten PPE and good accessible lifting points



1. Make sure all operating personnel are equipped with proper PPE (this is the task of the employer), such as but not limited to:

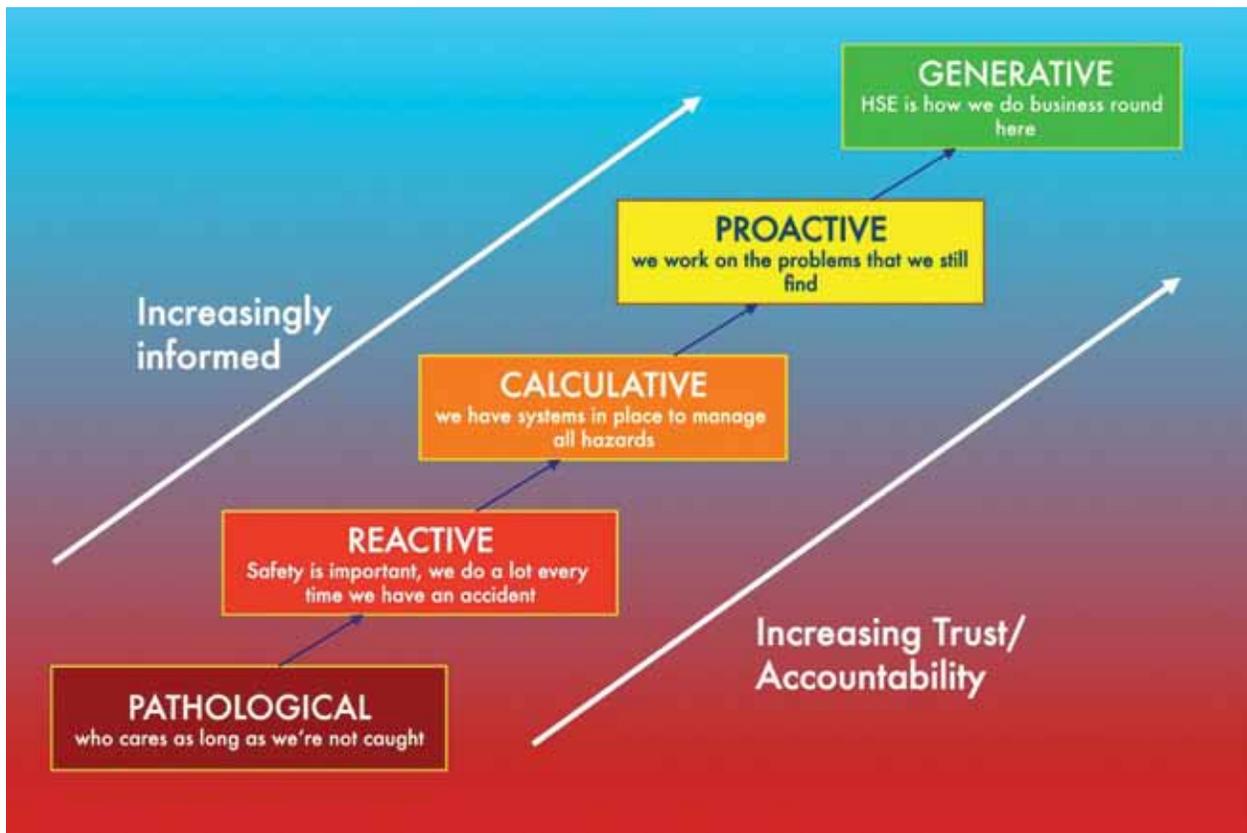
- Safety Gloves
- Hard hats
- Safety Boots
- Safety Goggles if required
- Fall arrest harness
- No short sleeves



but the workforce must use it!!

2. Lifting points should be well accessible and provided with:

- Access platforms
- Scaffolding
- Protective railing
- Safety line(s)
- or use Certified Man basket



Risk Assessment Matrix

RISK RANKING		Likelihood				
		5 - Certain	4 - Very Likely	3 - Likely	2 - May Happen	1 - Unlikely
Severity	5 - Death	25	20	15	10	5
	4 - Major injury	20	16	12	8	4
	3 - Lost Time injury	15	12	9	6	3
	2 - Medical treatment (off site)	10	8	6	4	2
	1 - Minor Injury (first aid on site)	5	4	3	2	1

LIKELIHOOD RATING

Level	Description
Certain	Almost inevitable that an incident would occur
Very Likely	Not certain to happen but an additional factor may result in an incident
Likely	Could happen when additional factors are present but otherwise unlikely to occur
May Happen	A rare combination of factors would be required for a injury
Unlikely	A freak combination of factors would be required for an incident to result

RISK PRIORITY CODE

Code	Action Required
12 >	High Risk - Risk must be reduced
5 > 10	Medium Risk - Implement necessary risk control
1 > 4	Low Risk - Operation possibly subject to ongoing risk assessment





# TRAIN & EDUCATE YOURSELF AND STAFF



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- ✓ Maintenance & Inspection of equipment
- ✓ Skidding & Jacking Techniques
- ✓ Set-up of a Project Planning
- ✓ Preparation of a Cost Estimate
- ✓ Load-outs of Extreme Heavy Loads onto barges
- ✓ Heavy Lift Shipping
- ✓ Offshore Lifting & Installation Techniques
- ✓ Safety & Risk analysis
- ✓ Accidents & How to avoid them
- ✓ The Do's & Dont's in Lifting

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## National Highway Authority of India Project Implementation Units

S.N.	State	Location	Authority	Address	Phone
1	Andhra Pradesh	Anantapur	The Project Director, National Highway Authority of India,	House No.6-4-239, 3rd Cross, Maruthi Nagar Anantpur-515001	08554-275599
2	Andhra Pradesh	Hyderabad	The Project Director, National Highway Authority of India,	Dr. No.331/2RT, 2nd Floor, P. S. Nagar, Masab Tank, Hyderabad-500057	040-23372666
3	Andhra Pradesh	Nandyal	The Project Director, National Highway Authority of India,	D.No.25/684/150, 1st Floor, Near Indore Stadium, Padmavathi Nagar, Nandyal-518501, Kurnool District, Andhra Pradesh	08154-225089
4	Andhra Pradesh	Nellore	The Project Director, National Highway Authority of India,	Bypass Road Junction with old GNTRoad, Vedayapalem, Nellore-524004, Andhra Pradesh	0861-2307733
5	Andhra Pradesh	Nirmal	The Project Director, National Highway Authority of India,	#1-3-594, Road No. 6 Shastrynagar, Distt. Adilabad Nirmal-504106	08734-241365
6	Andhra Pradesh	Rajamundry	The Project Director, National Highway Authority of India,	D. No. 78-14-21, Shyamala Nagar Rajamundry-533103	0883-2431170
7	Andhra Pradesh	Vijayawada	The Project Director, National Highway Authority of India,	Flat No. 21, Teachers Colony, (Above SBH), Vijayawada-520008	0866-2483910
8	Andhra Pradesh	Vishakapatnam	The Project Director, National Highway Authority of India,	(GQ) NHAI Enclave, Km 2/8, Hanumanthavaka, Visakapatnam-530040	0891-2707600
9	Andhra Pradesh	Vishakapatnam	The Project Director, National Highway Authority of India,	(Port Connectivity),Sheela Nagar,BHPV (P.O.) ,Visakapatnam-530012(A.P.)	0891-2707275
10	Assam	Bongaigaon	The Project Director, National Highway Authority of India,	Dolaigaon (Near Police Reserve) Bongaigaon-783380 Assam	03664-237493
11	Assam	Silchar	The Project Director, National Highway Authority of India,	H.No.328, 1st Floor, College Road, Ambicapatty, Silchar-788 004	03824-267213
12	Assam	Guwahati	The Project Director, National Highway Authority of India,	House No.1,1st Floor,Dilip Huzuri Path,Near Bageswari Mandir, Sorumotoria ,Dispur Guwahati-781006,Assam	0361-2233207
13	Assam	Nangaon	The Project Director, National Highway Authority of India,	Sankar Mission Road, Panigaon 1st Floor, Opposite to I.T.I. Nagaon Pin Code: 782003, Assam	03672-236701
14	Bihar	Begusarai	The Project Director, National Highway Authority of India,	At-Harpur, P.O.-Tilrath, Dist-Begusarai-851 122	06243-245144
15	Bihar	Muzaffarpur	The Project Director, National Highway Authority of India,	Sharma Sadan(3rd Floor),Opp D.A.V. School Khabra, Khabra NH-28,Muzaffarpur-843146	0621-2251934
16	Bihar	Patna	The Project Director, National Highway Authority of India,	D-63 Sri Krishna Puri, PATNA -800 001, Bihar	0612-2540184
17	Bihar	Darbhanga	The Project Director, National Highway Authority of India,	House of Mr. S.N. Mishra Diggi West, Professor's Colony Ward No. 10, Darbhanga (Bihar)-846004	06272-250194
18	Bihar	Purnia	The Project Director, National Highway Authority of India,	House of Shri. Sikkandar Singh, Sahiban Hata, Mahananda Colony, Near Janta Chowk , Purnia-85431	06454-243756
19	Bihar	Hajipur	The Project Director, National Highway Authority of India,	Sharma House, 2nd floor, Ramashish Chowk, Hajipur-844101	06224-274255
20	Bihar	Gaya	The Project Director, National Highway Authority of India,	House No. 70/244, West Jagjiwan Road,Opp.Judicila Quarters, Chanakyapuri Colony, Gaya-823001	
21	Bihar[70]/	Dhanbad	The Project Director, National Highway Authority of India,	Project Director - National Highways Authority of India, PIU Dhanbad, NHAI Complex, P.O. Bhitia, P.S. Govindpur, Distt. Dhanbad, Jharkhand	06540-283090
22	Chattisgarh	Raipur	The Project Director, National Highway Authority of India,	Project Director National Highways Authority of India House No.-A-7, VIP Estate Shankar Nagar, Raipur-492001, Chhattisgarh	0771-2282358
23	Goa	Goa	The Project Director, National Highway Authority of India,	Nr.Dr.Babasaheb Ambedkar Vocational Centre, Old Primary Health Centre, MPT, Headland, SADA, Goa-403804	0832-2521517
24	Gujarat	Gandhidham	The Project Director, National Highway Authority of India,	Z-6, Ground Floor, Near Divine Life Society Hospital (Sterling), Adipur, Dist-Kutch-370 205	0283-6260104
25	Gujarat	Ahmedabad	The Project Director, National Highway Authority of India,	Bungalow No., 3A & 3B, Amul Building, Amrut Baug Society, Near Dena Bank, Vejalpur Road, Jivraj Park, Ahmedabad-380051	079-26821062
26	Gujarat	Rajkot	The Project Director, National Highway Authority of India,	301-303, Krishna-Con-Arch-I,Plot No.9, Nr.Kotecha Chowk, University Road, Rajkot-360007	0281-2585193

S.N.	State	Location	Authority	Address	Phone
27	Gujarat	Surat	The Project Director, National Highway Authority of India,	Laxmi Bunglow No.4, B/H. Big Bazar, Nr. S.D. Jain School, Vesu - Piplod Road, Surat-395007	0261-2221223
28	Haryana	Rohtak	The Project Director, National Highway Authority of India,	Project Director National Highways Authority of India 305 Vidyanketan Road 1st Floor Model Town Rohtak-124001	01262-212010
29	Haryana	Ambala	The Project Director, National Highway Authority of India,	Project Director – CMU National Highways Authority of India 17L Model Town Ambala City – 134003	0171-2521361, 2520280
30	Haryana	Gurgaon	The Project Director, National Highway Authority of India,	Project Director Project Implementation Unit National Highways Authority of India, Dundahera, Delhi-Gurgaon Border Km.24 Mile Stone,NH-8,Gurgaon-122001	0124-2438056
31	Haryana	Faridabad	The Project Director, National Highway Authority of India,	6P, Sector-16A, Faridabad-121001	Telefax: 0129-2400900
32	Himanchal Pradesh	Shimla	The Project Director, National Highway Authority of India,	Kamna View Bhawan, Phase-III, Shimla-171009	0177-2673819
33	Jammu Kashmir	Srinagar	The Project Director, National Highway Authority of India,	Bashir Ahmad Parray, Opposite Jee Enn Sons, Airport Road, Parray Pora, Srinagar-190005	0194-2430728
34	Jammu Kashmir	Jammu	The Project Director, National Highway Authority of India,	Amar Villa House No.315;Sector No.1(1st floor) Channi, Himat Jammu-180015	0191-2473363
35	Jharkhand	Ranchi	The Project Director, National Highway Authority of India,	B-402, Road No. 4-C,Ashok Nagar, Ranchi-834002	0651-2245293
36	Karnataka	Dharwad	The Project Director, National Highway Authority of India,	2nd Cross, Sattur Colony Vidyagiri, Dharwad –580004	0836-2461244
37	Karnataka	Bangalore	The Project Director, National Highway Authority of India,	Survey No.13. Nagasandra Village, 14th Km. Bangalore-Tumkur Road, Hesaragatta, Bangalore – 73	080-28394383
38	Karnataka	Mangalore	The Project Director, National Highway Authority of India,	House No.7-35/10(4),Near Pumpwell,Mahaligeswara Temple Road,Kankanady,Mangalore-575002	0824-4254499
39	Karnataka	Chitradurga	The Project Director, National Highway Authority of India,	Project Director National Highways Authority of India Near J.M.I.T. Campus, NH-4 (Km 201) Chitradurga-577502	08194-223344
40	Karnataka	Hospet	The Project Director, National Highway Authority of India,	C-10,"Shree Nilayam" 1st Main,2nd Cross, Vivekanand Nagar, Nr.RTO office, Hospet-583203	08394-231565
41	Karnataka	Gulbarga	The Project Director, National Highway Authority of India,	Plot No. 65, Kothari Layout, Venkatesh Nagar, Gulbarga - 585103	08472 - 253756
42	Kerala	Palakkad	The Project Director, National Highway Authority of India,	No. 8/1187, Arumughan Colony,Chandranagar, Palakkad-678007	0491-2573790
43	Kerala	Kozhikode	The Project Director, National Highway Authority of India,	No. 2/2175-B, Krishna Kripa,Aishwarya Road, Civil Station(Post), Kozikhode-673020	0495-2376818
44	Kerala	Cochin	The Project Director, National Highway Authority of India,	Tharakans", 1st Floor, Near ICCI Bank Kalamasserri Ernakulam, Pin No. 682 104	0484-2559416
45	Kerala	Thiruvananthapuram	The Project Director, National Highway Authority of India,	TC .29/1539/1 Rajasree, Perumthanni, Vallakadavu (Post), Thiruvananthapuram-695 008,	0471-2460924
46	Madhya Pradesh	Guna	The Project Director, National Highway Authority of India,	Plot No.1, Phulwari Colony, Near Millennium School, Guna (M.P)-473001	07542-268051
47	Madhya Pradesh	Gwalior	The Project Director, National Highway Authority of India,	House No. 13, Vivekanand Colony Saraswati Nagar University Road, Gwalior-474011 (MP)	0751-2233116
48	Madhya Pradesh	Indore	The Project Director, National Highway Authority of India,	15, Sampat Hills,Opp. Sahara City, Indore- Dewas Bypass Bicholi Mardana Indore(M.P)-452 016	0731-2901666
49	Madhya Pradesh	Sagar	The Project Director, National Highway Authority of India,	67, Shivaji Ward, Poddar Colony Sagar Madhya Pradesh-470002	07582-236412
50	Madhya Pradesh	Narsinghpur	The Project Director, National Highway Authority of India,	1st floor, Near Paras Industries Tilak Ward, BargiColony Road Narsinghpur(Madhya Pradesh) -487001	07792-230330
51	Madhya Pradesh	Shivpuri	The Project Director, National Highway Authority of India,	Narendra Nagar, Chhatri Road (Near Jain Atta Chakki), Shivpuri-473551	07492-223902
52	Madhya Pradesh	Bhopal	The Project Director, National Highway Authority of India,	Plot No. A # 43, Sakshi Bunglow, Trilanga,Shahpura, Bhopal-462039	0755-2902448
53	Madhya Pradesh	Jabalpur	The Project Director, National Highway Authority of India,	Near jain Multispecialty Dental Clinic,Plot no. 13BB, Ahimsa Chowk, Vilaynagar, Jabalpur-482002	0761-4047042

S.N.	State	Location	Authority	Address	Phone
54	Madhya Pradesh[405] / Maharashtra[13]	Chindwara	The Project Director, National Highway Authority of India,	House No-84, Beside Polythene Factory, Swarna Jayanti Nagar, Near Friends Colony, Khajri Road, Chindwara- 480001	07162-238120
55	Maharashtra	Nashik	The Project Director, National Highway Authority of India,	"Subodh House", S. No. 911/2, Plot No. 4, Behind Toyota Showroom, Off. Mumbai Agra Highway, Nashik 422 009 (Maharashtra).	0253-2372800
56	Maharashtra	Nagpur	The Project Director, National Highway Authority of India,	Bungalow No.2, Shubankar Apartments Plot No.159, Ambazari Hill Top Area, Ram Nagar Nagpur – 440 010	0712-2249316
57	Maharashtra	Pune	The Project Director, National Highway Authority of India,	S. No. 134/1, BAIF Bhavan Campus Dr. Manibhai Desai Nagar Above Bank of India (Warje Br.) NH-4, Wajre, Pune 411052	020-25231745
58	Maharashtra	Solapur	The Project Director, National Highway Authority of India,	Plot No. 80, Old Santosh Nagar, In front of Devika Gas Agency. Jule Sholapur, -413003 (MH)	0217-2303379
59	Maharashtra	Dhule	The Project Director, National Highway Authority of India,	S. No. 10/2, Plot No.11, Mansaram Nagar, Near Circuit House, Sakri Road, Dhule-424002	02562-276276
60	Maharashtra	Amravati	The Project Director, National Highway Authority of India,	"Matruchhaya" Plot No.33, Raguvir Co-op Housing Society, Opp Bank of Maharashtra, Badnera Road, Sai Nagar, Amravati – 444 607 Tele./Fax. 0721 – 2510035	0721-2510035
61	Maharashtra	Panvel	The Project Director, National Highway Authority of India,	SURVEY NO. 63, 'D' POINT ON NH-4B, CHINCHPADA KALAMBOLI BYPASS ROAD, PANVEL - 410 206	022-65140560
62	Maharashtra	Aurangabad	The Project Director, National Highway Authority of India,	B-23, Near Kamgar Chowk, N-3, CIDCO, Aurangabad-431003	0240-2481592
63	Meghalaya	Shilong	The Project Director, National Highway Authority of India,	PWD, Easter Circle Building Top Floor, Lower Lachumiere Shillong – 793003, (Meghalaya)	0364-2505177
64	Odisha	Keonjhar	The Project Director, National Highway Authority of India,	Plot No. 19/419, Badedera, Mandua, Keonjhar – 758001. Odisha	06766-253295
65	Odisha	Bhubaneswar	The Project Director, National Highway Authority of India,	1st Floor, Setu Bhawan, Nayapalli Unit-VIII, Bhubaneswar-751012	0674-2392720
66	Odisha	Berhampur	The Project Director, National Highway Authority of India,	Surya Nivas, Sales Tax Square, Engineering School Road, Berhampur-760010-Odisha	0680-2291796
67	Odisha	Sambalpur	The Project Director, National Highway Authority of India,	Bhatra, Opp. Poddar Petrol Pump, Dhanupalli, Sambalpur, Odisha 768005	0663-2546066
68	Punjab	Chandigarh	The Project Director, National Highway Authority of India,	Bay No 35-38, Ground Floor, Sector -4, Panchkula	0172-2587446
69	Punjab	Jalandhar	The Project Director, National Highway Authority of India,	135, Guru Amardas Nagar, Near Verka Milk Plant, Jalandhar Bypass Jalandhar	0181-2603642
70	Rajasthan	Kota	The Project Director, National Highway Authority of India,	A 575, Talwandi KOTA (Rajasthan)-324005	0744-2433396
71	Rajasthan	Udaipur	The Project Director, National Highway Authority of India,	10-A, New Panchwati Udaipur- 313001	0294-2428094
72	Rajasthan	Bhilwara	The Project Director, National Highway Authority of India,	Project Director, PIU, Bhilwara, 6-A-1, R.C. Vyas Colony, Bhilwara-311001(Raj.)	01482-230611
73	Rajasthan	Dausa	The Project Director, National Highway Authority of India,	87, Ganga Vihar Colony, Behind Rawat Palace Hotel Dausa-303303, Rajasthan	1427224918
74	Rajasthan	Chittorgarh	The Project Director, National Highway Authority of India,	59-B, Babu Nagar, West Road No. 5, Senthii Chittorgarh, Raj-312001	01472-246474
75	Rajasthan	Jaipur	The Project Director, National Highway Authority of India,	156, Girnar Colony, Near Laxmi Marriage Garden, Vaisali Nagar, Jaipur	0141-4026465
76	Rajasthan	Reengus	The Project Director, National Highway Authority of India,	Sangeeta Travels, Ward No. 20, Near Toll Booth, NH-11, Reengus -332404, Rajasthan	01575-224090
77	Haryana	Hisar	The Project Director, National Highway Authority of India,	H.No. S-17, Near Mezbaan Hotel, Model Town, Hisar Haryana Pin 125005	01662-248273
78	Rajasthan	Pali	The Project Director, National Highway Authority of India,	27, Tagore Nagar, Near Circuit House, Pali (Raj.)	02932-263556
79	Rajasthan	Jodhpur	The Project Director, National Highway Authority of India,	148 UMAID HERITAGE Ratanada, Jodhpur-342006 (Rajasthan)	
80	Rajasthan	Ajmer	The Project Director, National Highway Authority of India,	Plot No. 111, Grah Nirman Sahakari Samiti Ltd., Adarsh Nagar, Ajmer, Rajasthan 305001	0145-2680571
81	Tamil Nadu	Krishangiri	The Project Director, National Highway Authority of India,	Door No.259/1, Salem Main Road, Near KAKC Petrol Bunk, Krishnagiri – 635 001,	04343-234250

S.N.	State	Location	Authority	Address	Phone
82	Tamil Nadu	Karaikudi	The Project Director, National Highway Authority of India,	No.1, Second Floor, Subramaniapuram,3rd Street, Karaikudi-630002	04565-230707
83	Tamil Nadu	Tirunelveli	The Project Director, National Highway Authority of India,	Plot No.A-21,Thomas Nilayam, St. Thomas Road,Thendral Nagar, Maharaja Nagar,P.O. - Tirunelveli- 627 011,	0462-2522591
84	Tamil Nadu	Karur	The Project Director, National Highway Authority of India,	No.7 Kamadhenu Nagar, Karur-639001	04324-223670
85	Tamil Nadu	Thanjavur	The Project Director, National Highway Authority of India,	No. 54,First Floor,Natarajapuram Colony,Medical College Road, Thanjavur-613004	04362-246473
86	Tamil Nadu	Salem	The Project Director, National Highway Authority of India,	19/2B, Junction Road , Salem-636004	0427-2444275
87	Tamil Nadu	Chennai	The Project Director, National Highway Authority of India,	No. 1/54 - 28, Butt Road, St.Thomas Mount,Near Kathipara Junction, chennai-600016	044-22331795
88	Tamil Nadu	Coimbatore	The Project Director, National Highway Authority of India,	Door No.9/9A, 4th Cross Street, Kothari Layout, B.R. Nagar, (Opp. Coimbatore Stock Exchange) ,Trichy Road, Coimbatore-641005	0422-2324734
89	Tamil Nadu		The Project Director, National Highway Authority of India,	Door No. 13, Travellers Bungalow Road, Kamaraj Nagar, 1st Street, Vallyoor - 627 117, Tirunelveli District, Tamil Nadu.	04637-222985
90	Tamil Nadu	Villupuram	The Project Director, National Highway Authority of India,	10, Govindasamy Nagar,Behind Collectorate, Villupuram-605602	04146-251247
91	Tamil Nadu	Madurai	The Project Director, National Highway Authority of India,	No.83/1, SBI First Colony extension,Near Hotel Gowri Krishna,,Byepass Road, Madurai - 625016	0452-2387750
92	Tamil Nadu	Trichy	The Project Director, National Highway Authority of India,	New No.6, Old No. 44, 1st Floor, 3rd Main Raod, Ponnagar, Tiruchirappalli-620001, Tamil Nadu	0431-2482959
93	Uttar Pradesh	Moradabad	The Project Director, National Highway Authority of India,	3-C/446, Budhi Vihar , Behind Springfield College, Delhi Road, Moradabad-244001	0591-2480070
94	Uttar Pradesh	Agra	The Project Director, National Highway Authority of India,	A-208, Kamla Nagar Agra-282005	0562-2580274
95	Uttar Pradesh	Varanasi	The Project Director, National Highway Authority of India,	S-8/108 DIG Colony, Maqbool Alam Road, Varanasi -220 001	0542-2501003
96	Uttar Pradesh	Aligarh	The Project Director, National Highway Authority of India,	C 47 and 48, Dream City, Bal Jiwan Ghutti, GT Road, Salsor, Aligarh-202001	0571-2900697
97	Uttar Pradesh	Raibareilly	The Project Director, National Highway Authority of India,	House no. 784, Vishnu Nagar, Opp Satyam Hospital, Raebareilly (UP)-229001.	0535-2702526
98	Uttar Pradesh	Allahabad	The Project Director, National Highway Authority of India,	18-C/28A, Sarojini Naidu Marg, Civil Lines, Allahabad-211001	0532-2422035
99	Uttar Pradesh	Kanpur	The Project Director, National Highway Authority of India,	53, Basant Vihar, Naubasta, Kanpur-208021	0512-2630154
100	Uttar Pradesh	Lucknow	The Project Director, National Highway Authority of India,	1/73G, Vineet Khand, Gomti Nagar Lucknow - 226 010 (UP)	0522-2726167
101	Uttar Pradesh	Gorakhpur	The Project Director, National Highway Authority of India,	No-3/40 Bahar, Cluster-3, Sahara State, Gorakhpur-273010 (U.P.)	0551-2231040
102	Uttar Pradesh	Bareilly	The Project Director, National Highway Authority of India,	26, Green Park, Beesalpur Road, Bareilly-243006(UP)	0581-2523752
103	Uttar Pradesh	Meerut	The Project Director, National Highway Authority of India,	B-88, European Estate Colony, Near Best Price, Kankarkheda,	0121-2959090
104	Uttar Pradesh	Ghaziabad	The Project Director, National Highway Authority of India,	R-7/6 Raj Nagar Ghaziabad,Distt- Ghaziabad(UP)-201002	0120-2822406
105	Uttar Pradesh	Jhansi	The Project Director, National Highway Authority of India,	Jhansi House No. 214/1, K. K. Puri, Near Shiv Temple,Jhansi 248003	0510-2450967
106	Uttarakhand	Dehradun	The Project Director, National Highway Authority of India,	House No-5, Lane-4, Sector-4, Teg Bahadur Road, Dehradun	0135-2669562
107	Uttarakhand	Rudrapur	The Project Director, National Highway Authority of India,	A-35, Green Park, Kashipur Road	-
108	West Bengal	Kolkata	The Project Director, National Highway Authority of India,	"White House", 119, Park Street, Block -A, 2nd floor, Kolkata-700017	033-22268131
109	West Bengal	Siliguri	The Project Director, National Highway Authority of India,	Sevoke Road, 2½ Mile, Jyotinagar Near Don Bosco School Siliguri 734001 (WB)	0353-2540564
110	West Bengal	Krishnagar	The Project Director, National Highway Authority of India,	Vill.+P.O. - Bhatjangla, Krishnagar, Dist. - Nadia, PIN-741101 (WB)	03472-271713
111	West Bengal	Durgapur	The Project Director, National Highway Authority of India,	NHAI Complex, Sector 2(A) Bidhan Nagar, Durgapur-713212	0343-2535766
112	West Bengal	Kharagpur	The Project Director, National Highway Authority of India,	NHAI Complex, Near Chaurangi, P.O. Inda, Kharagpur - 721305	03222-227682
113	West Bengal	Malda	The Project Director, National Highway Authority of India,	UCO Bank Building 2nd Floor Mangalbari (NH-34) Mangalbari Pin-732142 Malda	03512-260630

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## MINISTRY OF ROAD, TRANSPORT & HIGHWAYS REGIONAL OFFICES IN INDIA

S.N.	Location	Authority	Address	City	STD Code	Phone	Fax
1	Gandhinagar	Superintending Engineer, Department of Road Transport & Highways	Block No. 14, 4th Floor, New Sachivalaya	Gandhinagar-382010	79	23240091	23220705
2	Bhopal	Superintending Engineer, Department of Road Transport & Highways	1st Floor, D-Wing, Satpura Bhawan,	Bhopal-462004	755	2551329	2551329
3	Thiruvananthapuram	Superintending Engineer (Civil), Department of Road Transport & Highways	Public Office Building,	Thiruvananthapuram – 695033	471	2320879	2320991
4	Lucknow	Superintending Engineer (Civil), Department of Road Transport & Highways	NH Bhawan, Bio Tech Chowk, Ring Road, Vikas Nagar	Lucknow-226022	522	2322741	2321446
5	Jaipur	Superintending Engineer (Civil), Department of Road Transport & Highways	opp.D.C.M., Ajmer Road, P.O. Shyam Nagar,	Jaipur – 302019	141	2811883	2811776
6	Kolkata	Superintending Engineer (Civil), Department of Road Transport & Highways	Room No.106, Block-C (1st Floor), Central Govt. Office Complex, C Wing DG Block, Salt Lake,	Kolkata-700064	33	23586942	
7	Chandigarh	Superintending Engineer, Department of Road Transport & Highways	6th Floor, Kendriya Sadan, Sector-9A,	Chandigarh-160017	172	2740376	2740376
8	Bhubaneswar	Superintending Engineer, Department of Road Transport & Highways	Plot No.184 in front of CRPF Stadium Baramunda,	Bhubaneswar-751003	674	2564260	2564260
9	Guwahati	Superintending Engineer(Civil), Department of Road Transport & Highways	Rajgarh Road, Chandmari	Guwahati-781003	361	2540552	2540552
10	Mumbai	Superintending Engineer, Department of Road Transport & Highways	95, New Admn. Building No.2, Ground Floor, PWD Compound, R.C.Marg, Chembur	Mumbai-400071	22	25294858	25294858
11	Patna	Superintending Engineer, Department of Road Transport & Highways	17, Aniket Cooperative Housing Society, IAS Colony, Colony, Kidwaiपुरी (S.K. Nagar),	Patna-800001	612	2260471	2260471
12	Bangalore	Superintending Engineer (Civil), D/o Road Transport & Highways,	PWD Office, Annexe Building, K.R. Circle,	Bangalore-560001	80	22217457	22212765
13	Dehradun	Office of Engineer Liaison Officer, C/o Chief Engineer (Level-I), D/O Road, transport & Highways	Uttaranchal PWD, Dehradun – 248001	Dehradun-248001	135	2531125	2531125
14	Hyderabad	Superintending Engineer, C/o Chief Engineer(NH) Building, D/O Road, Transport & Highways	2nd Floor, Quality Control Bldg., Errum Manjil,	Hyderabad-500082	40	23393206	23393206
15	Chennai	Superintending Engineer, Department of Road Transport & Highways	C-1-A, Rajaji Bhawan, Besant Nagar,	Chennai-600090	44	24912115	24912115
16	Raipur	Superintending Engineer, Department of Road Transport & Highways	Pension Bada, NH campus	Raipur(Chattisgarh)-492001	771	2429786	2429786
17	Ranchi	Superintending Engineer, Department of Road Transport & Highways	New Area, Dutta Villa Road, Near TMC, Morabadi, House No.18F	Ranchi-834008	651	2403879	
18	Itanagar	Superintending Engineer, Department of Road Transport & Highways	1st Floor, Campus of CE(WZ) , NoWB,	Itanagar-791111 Arunachal Pradesh		9766321693	

## Contact Details of State Transport Commissioners

S.N.	Authority	Address	City	STD Code	Phone	
1	Andhra Pradesh	The Transport Commissioner	Dr.B.R.Ambedkar Transport Bhawan,RTA Campus, Somajiguda,	Hyderabad-500082	40	23321283
2	Arunchal Pradesh	Secretary of Transport	"Transport Secretariat Govt. of Arunchal Pradesh"	Itanagar	360	2212457
3	Assam	"Transport Commissioner"	"Paribahan Bhawan, Jawahar Nagar, Khanapara"	Guwahati-22	361	2304110;2308525
4	Bihar	"Transport Commissioner"	"Vishwesaraiya Bhawan, Bailey Bhawan"	Patna	612	2546449
5	Chattisgarh	The Transport Commissioner	New Bus Terminal Complex, Pandari	Raipur	771	2582799/ 2582788/ 2221338
6	Goa	Secretary of Transport	"1st floor, Junta House, 18th June Road, Panaji"	GOA	832	"2225606, 2225724"
7	Gujrat	The Transport Commissioner	Block No.6, 2nd floor, Dr.Jivraj Mehta Bhawan, Old Sachivalaya	Gandhinagar	79	23251367
8	Haryana	The Transport Commissioner	30, Bays Building, Sector-17	Chandigarh	172	2784359
9	Himanchal Pradesh	The Transport Commissioner	"Directorate of Transport, Parivahan Bhawan, "	Shimla-171004	177	2803136;2808642
10	Jharkhand	The Transport Commissioner	Transport Bhawan	Ranchi	651	"2401706 9934345820"
11	Karnataka	The Transport Commissioner	"1st Floor, 'A' Block, TTMC Building, Shantinagar, Bangalore-560027"	Bangalore-560027	80	22214900
12	Kerala	The Transport Commissioner	"Motor Vehicles Department Trans Towers, Vazhuthacad,	Thiruvananthapuram	471	2333314; 8547639000
13	Madhya Pradesh	The Transport Commissioner	E7/446, Arera Colony	Bhopal	755	2424500
14	Maharashtra	The Transport Commissioner	3rd Floor, New Administrative Building, Near Dr.Ambedkar Garden, Government Colony, Bandra-East	Mumbai-400051	22	26516336
15	Meghalaya	Secretary of Transport	"Madanrting, Sawlad, Shillong - 793021"	Shillong-793021	364	2534617
16	Mizoram	Secretary of Transport	"State Trpt. Authority Mizoram Directorate Of Transport Bldg, Chaltlang Mst Transport Bldg Top Floor, Tuikual Aizawl, Aizawl H O"	Aizawl-796001	389	2318613
17	Nagaland	Secretary of Transport	"GOVERNMENT OF NAGALAND, Motor Vehicles Department, Transport Commissioner, Nagaland, Kohima-797 001"	Kohima-797001	370	2290409
18	Odisha	The Transport Commissioner	6th Floor, Rajaswa Bhawan	Cuttack-753002		
19	Rajasthan	The Transport Commissioner	"Transport Deporment Parivahan Bhawan, Sahkar Marg, Jaipur-302 005 (Rajasthan)"	Jaipur-302005	141	2740021; 5194600
20	Tamil Nadu	The Transport Commissioner	Ezhilagam, Chepauk,	Chennai	44	28588989
21	Telangana	The Transport Commissioner	Dr.B.R.Ambedkar Transport Bhawan, RTA Campus, Somajiguda,	Hyderabad-500082	40	23321282
22	Uttar Pradesh	The Transport Commissioner	Tehri Kothi, M.G.Marg	Lucknow-226001	522	2613978
23	Uttarakhand	The Transport Commissioner	Kulhan, Sahasthradhara Road	Haridwar-248001	135	2711227
24	West Bengal	The Addl. Chief Secretary- Transport	Writer's Building	Kolkatta-700001	33	22625411



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