



hydropack (India) pvt. ltd.

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INDIA'S NO.1
ROLLING STOCK
EQUIPMENT MANUFACTURER

35
YEARS OF EXCELLENCE

IRIS
Certification

ISO 9001:2015
ISO / TS 22163

CE



Sudhir Darekar
MANAGING DIRECTOR

About the company :

Established in the year 1989,Hydropack is continuously striving to develop Import substitutes & having developed en-number of equipment's for Railways. With this rich experience & knowledge in the field, have successfully developed & launched a Modern PLC operated Mobile Jacks. Hydropack India business & management policy, Competence, Quality, Performance & confidence-building ethical values rank very high. The aim is to promote a true partnership with our customers so, as to successfully implement innovative ideas.

Development & Transcendence

In this period of take-off fast growing India is demonstrating its strength of rise to the World. & today customers are looking for products with a latest technology & lower maintenance cost. As a pioneer on the stage upon the strength of the essence accumulated over 25 + years in Indian Railway industry the tremendous strength in railway workshop equipment research & heavy equipment manufacturing, Hydropack (India) independently developed this Mobile jacks, Static Bogie Load Testing Machine, CTRB Puller, Dummy Bogies & Import substitute Bogie Test Stand for Metros first time in India, which have been used extensively in domestic & overseas railway depots/yards. The Indigenously developed Synchronized Mobile Jacks system is an innovative & value engineered solution for its superior performance, in-house made the main load Nut & Screw of buttress thread machined & ground, accurately machined components, top quality gearbox & brake motor & safety limit switches used to prevent frequent brake-downs giving uninterrupted flow of work unlike other technology.

The products manufactured are not only as per the standard designs & requirements but it is "Total Solution" for any type of industry & for any application. What works today, though, may not work tomorrow. The industry & the world are continually changing & it is evident that we must draw fresh perspectives from the knowledge & information around us if we are to adapt to that change. The next important step is to share that knowledge: It is the only way to bring together the successful achievers of today with the innovative ground breakers of tomorrow.

Now we convey the confidence to our supportive customers & help them realize their dreams by offering safe & reliable products as well as punctual & effective service!





Hydropack's Hydraulic equipments required for Indian Railways & Metros.

1) Hydraulic Bogie Test Stand - BTS 50T

Application - Measuring of parameters such as - Load test, Air leakage test, Wheel diameter measurement, Axle distance, Shim height, Wheel back to back, Wheel run out, Radial run out, Axle parallelism etc.

2) Hydraulic Bogie Testing Machine

Application - Measuring of Load, Shim Height & Presenting Through Load v/s Deflection Graph.

3) Hydraulic Bolster Press - 50T

Application - Pressing of Bolster assembly & engage the secondary safety slings & engagement of control arm & roll link.

4) Hydraulic Bogie Testing Machine Light - 50T

Application - Load test, Air leakage test, Wheel dia & wheel profile measurement, etc;

5) Synchronized Mobile Lifting Jacks - (MLJ) 5T to 25T

Application - To lift the rail coach / metro car synchronously in up-ward / down-ward direction to carryout maintenance / repair / assembly work in the depots. These jacks are required in group of 4,6,8,12,16 etc.

6) Hydraulic Coil Moulding Machine

Application - Pressing of stator coils & traction motor.

7) Hydraulic Double Ended CTRB

7) Hydraulic CTRB Pulling / Installing equipment 110T

Application - Removal of CTRB bearings of models WAP5, WAP7, WAG9 etc;

8) Dummy Bogie (Paintshop & Final

9) Secondary Press & Primary Press

10) Hydraulic "C" type presses - 20T to 100T

Application - Pressing of Silent blocks, Minor pad, Spheri bloc, Bush fitting etc.

11) Computerized Draft gear pressing press - 150T

Application - To press the assembled draft gear springs & press to achieve the required height.

12) Hydraulic Presses from 100T to 500T

Application - Day to day maintenance, repair works etc;

13) Manipulator

14) Hydraulic under floor lifting jacks / pit jacks - 10T to 25T

Application - These jacks are used in critical areas where the floor space is constrained. These jacks are required to lift the coach & hold in the same position until the maintenance / repair work is completed.

15) Working Platform - 1T

Application - Required in depot to carry out day to day maintenance.





Hydraulic Bogie Test Stand - BTS

Capacity - 40T

About the machine :

Hydraulic Bogie Test Stand is having capacity 40T & Stroke 600mm (As per requirement) The bogie test stand allows simulating load of a vehicle or locomotive body in order to control the wheel load and other important functions on a bogie after assembling or before disassembling in the workshop. The bogie test stand allows a quick test of the conditions of a bogie before the maintenance starts. The result is a base for the planning of the process. After maintaining, exchanging components and assembling, the bogie and its functions can be examined entirely. This is the only way to assure that the components have been assembled correctly. It is much faster and economic to do modifications soon after realizing an error on the bogie stand than disassembling the cabin of a vehicle after wheel weighing. The test result which is the quality and function report, is automatically stored and can be recalled at the time of an emergence. After all the test's, values are stored in PC and can be saved in the form of Reports.

Highlights of Bogie Test Stand are :

- Indigenously developed
- Prompt & efficient after sales service.
- Easy availability of spares
- Hydropack Bogie test stand includes features

TEST FUNCTIONS

REMARKS

Wheel load on tare & loaded conditions	■
Wheel base	■
Wheel back to back (Automatically)	■
Measurement of Axle parallelism & Diagonal axle parallelism	■
Height of Air suspension from Rail level	■
Wheel diameter, Wheel axial & radial run out (Automatically)	■
Shim height at secondary suspension	■
Primary suspension gap	■
Shim height at bottom of primary spring	■
Shim height at top of primary suspension	▲
Height distance of shaft centres between motor & pinion	■
Gear case oil check for motor bogies	■
Air leakage test	■
Accuracy of measurements	■
Test load	■
Rail scales	■
Height measurement	■
Axis measurement	■
Accuracy of indication	■
Accuracy of indicating instrument	■
Accuracy of measurement	■
Accuracy of measuring system	■
Accuracy of wheel positioning	■
Measuring of two types of center distance bogies	★





Hydraulic Bogie Testing Machine - BTM

Capacity - 50T

About the machine :

The Bogie Testing Machine - BTM of 50T Capacity having Stroke 500mm (As per requirement) is the renowned product of Hydropack & has been supplied almost around 16 machines through-out the depots in India. The Hydropack Bogie Testing Machine is based on long standing experience & well accepted by market for its Quality, Accuracy, Timely delivery & Service. The Bogie Testing Machine allows simulating load of a vehicle or locomotive body in order to control the load coming on the suspension and other important functions on a bogie after assembling or before disassembling in the workshop.

Hydropack Bogie testing machine includes features as :

TEST FUNCTIONS

REMARKS

Load Test



Graph for Load v/s Deflection



Accuracy of Measurements +/- 1mm



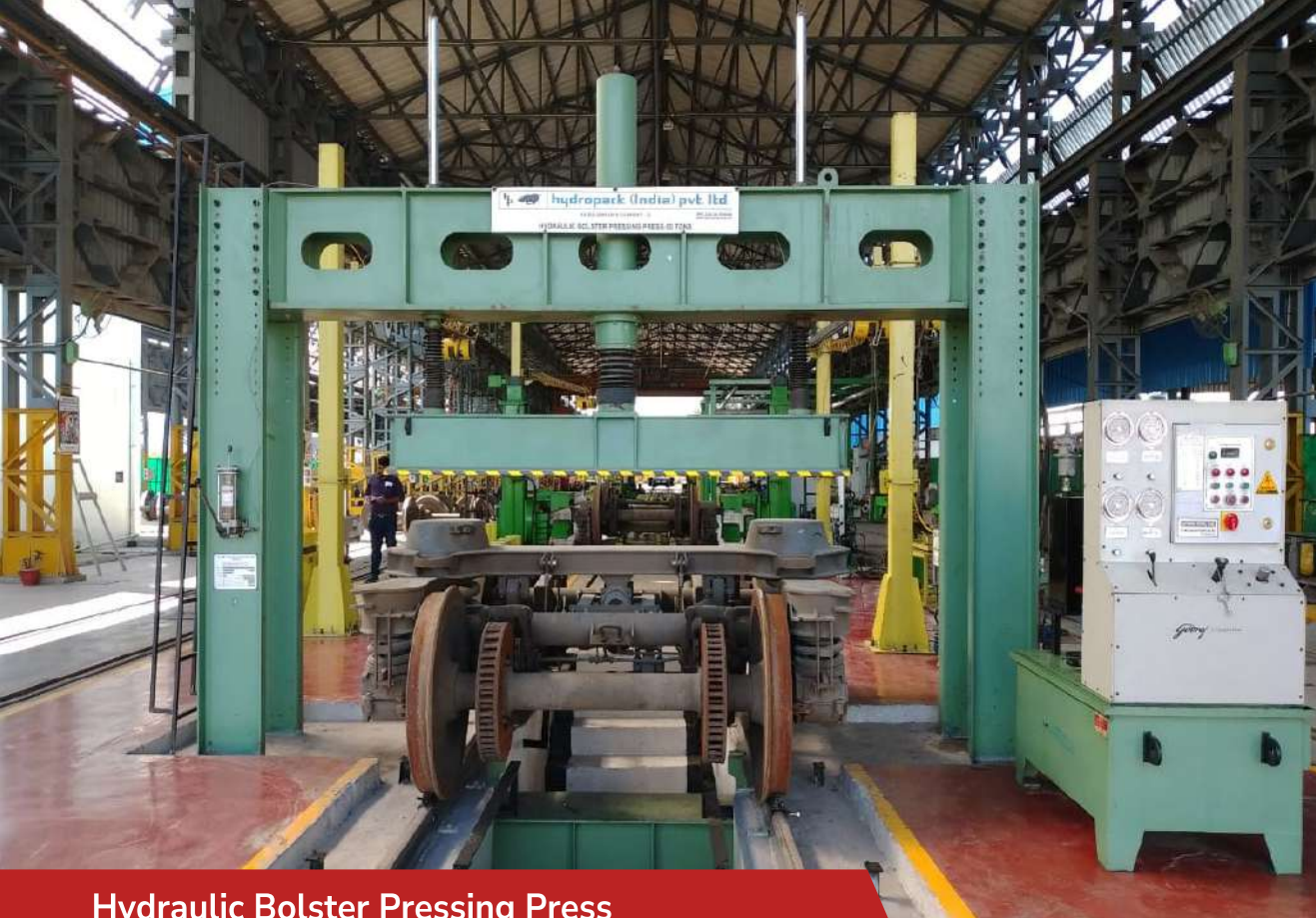
Linear scale for Stroke measurement.



The bogie testing machine comes with a single cylinder unit tied-up with pressure pad for synchronous loading. When the loading starts the SCADA system with HMI installed in the machine records the test results & stores. The test results which are stored are automatically can be recalled at the time of an emergence. It is much faster, easy for handling & effortless from working point of view. Accuracy of measurements is given as +/-1mm. The cycle time required to complete the test is 15-20 minutes. After all the test's, values are stored in PC and can be saved in the form of Reports.



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Hydraulic Bolster Pressing Press

Capacity - 50T

About the machine :

The Bolster Pressing Press machine of 50T Capacity & Stroke 500mm (As per requirement) replaces the traditional bolster removal fixtures. The machine structure is robust in design, comes with a single cylinder unit tied-up with pressure pad for synchronous loading. When the pressure is applied on the Bogie, the fork & pins are loosened & dismantled manually & the pressure is released. The bogie is pulled out & the Bolster, Primary & secondary springs are dismantled.

After the repair or maintenance process the bogie is again inserted into machine, again the pressure is applied through cylinder & bolster is assembled manually.

Operation :

- Required load is applied on Bolster for disassembly & assembly.
- Push button operated & hand lever.
- Machine is safe for working.

Highlights of Bolster Pressing Press :

- Indigenously developed
- Easy availability of spares
- Prompt & efficient after sales service
- Operators safety is considered



Synchronized Electric Lifting Jacks / Mobile Lifting Jacks (MLJ)

Capacity - 5T to 25T | Stroke - 600mm to 2100mm

About Mobile Jack :

PLC-Electrically operated synchronized lifting Mobile jacks are safe & sturdy for standard gauge rail line Metro & Indian railways. Mobile jacks are majorly used to carryout inspecting activities, routine maintenance work & repairs if any in the yards. Jacks are robust in design & fabricated out of graded steel. The jack is working on load screw fitted on the top of frame & driven by the gearbox through brake motor. The claw is fitted inside the column which works as a lifting arm to lower or upper the coach with the help of rollers. The jack is easily

maneuverable from place to place with a mechanism provided to off the wheels from the ground during load lifting activities. Jack operation is done individually or in a set of 2,4,6,8 synchronously, through centralized control panel-push button operated & also individual switch board mounted on each jack. Individual Push button is used to adjust the jack at loading point & synchronous lifting will be done through main control panel only.

Features of Jacks:

1. Jacks are of robust construction & designed to meet heavy duty demands rail line & metro yards.
2. Jacks are light in weight & easy for transportation from place to place.
3. Common control panel with PLC to suit working of 2/4/6/8 jacks.
4. Accuracy of jack +/-5 mm, sound level < = 75 db at a distance of 1 meter.
5. To prevent over-running of lifting carriage in either direction upper and lower limit switches have been provided.
6. Main screw / Load screw is covered with Rexene bellow to avoid from dust.
7. Lifting claw or lifting arm can be made static or adjustable.
8. Limit switch to ensure the wear n tear of main nut is provided.
9. To ensure the load, limit switch on lifting pad is provided.
10. Outgoing protection - Electronic overload, over current, Earth fault, Breaker fault.
11. Jacks are maintenance free & user friendly.



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Hydraulic Advanced Bogie Test Stand

Capacity - 50T

About the Machine :

The Hydraulic Advance Bogie Test Stand Machine of 50T Capacity & Stroke 600mm (As per requirement) is the upgraded & latest version of traditional Static Bogie Load Testing Machine (BTM). This machine is similar to Bogie Test Stand having features such as simulating load of a vehicle or locomotive body, Bogie information feed, Bogie preload test measurement, Wheel load measurement of Tare & Gross load, Axle resistance test, Wheel diameter & Wheel profile measurement, Height of air suspension from rail level, Shim height at secondary suspension, Primary suspension gap (manual check), Shim

Highlights of Bogie Test Stand Light are:

- Indigenously developed
- Easy availability of spares
- Prompt & efficient after sales service.
- Hydropack Bogie test stand includes features

height at bottom of primary spring (manual check), Height distance of shaft centres between motor & pinion (manual check), Gear case oil check for motor bogies (manual check, Air leakage test, Accuracy of measurements, Test load, Rail scales, Height measurement, Axis measurement, Accuracy of measuring system, Accuracy of wheel positioning in order to control the wheel load and other important functions on a bogie after assembling or before disassembling in the workshop. The bogie test stand allows a quick test of the conditions of a bogie before the maintenance starts.

Coil Moulding Machine

Loco - Stator Coils

About the Machine:

Coil moulding machines are fully automatic & are used for stator coil of 3 phase traction motor after insulation requires pressing the straight portion for achieving straightness & proper dimensions for placing in stator slots. These machines are majorly required by the Indian Railways where the traction motors are repaired. In this machine the coils of traction motors of type 6FRA 6068, 6FXA 7059, Siemens & DMKT makes are molded.

The structure of the machine is made out of sound material as per IS standard, Hydraulic cylinders are having imported seals for smooth & long life working. Coils can be heated up to 200 deg C & cooled by compressed supply of air.

A single stage motorized power pack is provided & operated with Electric control panel of IP-54 standard.



Features & Benefits

- Machine is user friendly & maintenance free.
- Machine is provided with easy interface through HMI & PLC with pressure monitoring
- **Productivity:** approx 144 coils per day in single shift of 08 hours can be achieved.
- Molding heads are designed for easy insertion & removal of coils.
- Thyristor & PID is used to control the heat
- **Safety:** Safe from current fluctuation, over load, intermediate disturbances if any.

Hydraulic Double Ended CTRB Puller

Capacity - 70 T

About the Machine:

The Hydraulic Double Ended CTRB Puller is advanced equipment which is used for Mounting the CTRB to axles from both sides at a time. This equipment is in huge demand because of its productivity, user friendliness, maintenance free & saves man power & time.

The equipment is having Hydraulic Cylinders at both the sides guided with guide rods for concentricity & it is operated with common Hydraulic Power Pack. The PLC operated control panel is used to store the data & generate graph on PC for representation. User can prepare & store the number of programs as per bogie types & whenever necessary the data

can be fetched out of the system for review purpose etc. During operation the operator needs to pull wheel-set inside the machine to its specified location & the center support system will hold the axle & lifts slightly up till the wheels are made free from touching the ground. Both the hydraulic cylinders will come forward & holds the axle from both sides simultaneously & CTRB is inserted. After the fitment of bearing both the cylinders will start moving back & center support system also starts coming down. The wheel-set touches to track & now it is ready to go for next operation.



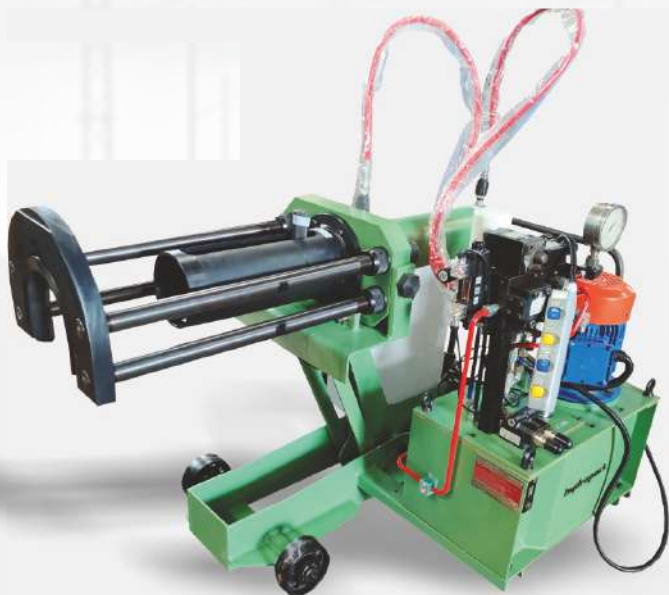
Hydraulic CTRB Puller / Installer

Capacity - 100T

About the Machine:

Hydraulic CTRB puller is used to remove the journal bearing from wheel for maintenance / repair. There are different types of bearings available as per the locomotive, bogie type etc such as WAP5, WAP7 and WAG9 etc. Bearing make FAG, SKF, TIMKEN etc.

This machine is available in semi-automatic version fitted with PLC, Auto-cut off facility is available.



Hydraulic "C" type press

Capacity - 20T to 100T

About the Machine:

Hydraulic "C" type presses are used in Railways & Metro depots to carry-out their regular work activities continuously. These presses are commonly used for Silent block pressing, Minor pad pressing, Spheri block pressing, Bush fitting & other repair works.

Press is fitted with PLC - HMI to record the reading & setting up the parameters PLC is used. These machines are user friendly, maintenance free & economical.





Hydraulic Presses

Capacity - 100T to 500T

About the Machine:

Hydraulic pillar type presses are majorly used for punching, blanking, molding, embossing & other similar general applications. Press is designed with robust structure, frame is relieved from all the accumulated stresses & accuracy of the table is as per JIS 2 standard.

Machine is fitted with main control panel of IP 55 standard, PLC with HMI to record the system readings.

This type of press is used in Railways to carry-out day to day work as well as special works if any





Hydraulic Pit Jack / Under floor jacking system

Capacity - 10T to 25T

PLC-Electrically operated synchronized under floor jacks / pit jacks are safe & sturdy for standard gauge rail line Metro & Indian railways. Pit jacks are majorly used to carryout inspecting activities, routine maintenance work & repairs if any in the yards. Jacks are robust in design & fabricated out of graded steel. The jacks are working on Hydraulic system with single Power pack & centralized control panel.

The jacks are placed under floor both side of the tracks in combination of 4, 6,8,12 etc. The load is acting on the head of jack & lifting & lowering is done synchronously, through centralized control panel-push button operated.



Hydraulic Working Platform

Capacity - 1T to 5T

Hydraulic working platforms are used to carryout day to day work in the depots & workshops. These are moveable platforms with lifting capacity of 1T to 2T & up to height of 1mtr. (Customized platforms also possible be made as per requirement).

These platforms are user friendly, economical & maintenance free.



Dummy Bogie

Capacity - 75 T

About the Machine:

Dummy Bogie is widely used in Railways & Metro depots to support the Car body shells of Locomotives & Coaches for fitment of equipments inside the Car Body. We are proud to say that "India's first Hydraulic Dummy Bogie having 75T cap each" was built by us for Siemens. These dummy bogies are also used for Paint shops to move the material inside & outside of Paint booth & Blasting Booth. The dummy bogie is designed as per the total load of shell.

The range of load starts from 20T each to 75T each & customization is also possible. The load will be placed on Dummy Bogies & it will withstand the same for weeks, months until the assembly, fitment is completed. There are different types of Dummy Bogies which are listed below,

Different Dummy Bogies :

- **Static Dummy Bogie** – These Dummy Bogies can be pushed & pulled manually or with shunting vehicle etc. from one place to another in loaded condition. Without load it can transferred by pushing/pulling manually.
- **Self driven / motorized Dummy Bogie** – The suitable gear box with motor is fixed to axle of dummy bogie & on remote it can be operated with or without load smoothly.
- **Hydraulic Dummy Bogie** – Hydraulic Dummy Bogie is used for lifting & lowering of the load when it is placed on Dummy Bogie. The stroke & capacity is depending upon the requirement & the system works with the help of Power pack & control panel. The forward & reverse movement of the Dummy Bogie is done with the help of gearbox & motor or manual. Hydraulically dummy bogie cannot be moved.
- **Curve negotiation in Dummy Bogie** – In some depots the tracks are laid down in curve shape & the car body is required to be taken to next shed by crossing the curve. At this time the Dummy bogie helps to align the load on curve during travelling. This is called as Curve Negotiation.

The Dummy Bogies are manufactured as per the gauge 1435, 1676 & as per site requirement. These dummy bogies are user friendly & maintenance free.





Hydraulic Primary Press

Capacity - 10 T Each

The Hydraulic Primary Press equipment is very widely used in all the Railway depots to press the Primary Spring. The equipment is built on pallet truck of suitable capacity & it is moved to the bogie for pressing the primary spring. This equipment is used in set of 2,4 etc. & it can be operated with common power pack or individual power pack. The capacity of each cylinder is 10T & stroke is from 150mm to 200mm apx.

Hydraulic Secondary Press

Capacity - 20 T

Hydraulic Secondary Press is used to loosen & tighten the pins of bolster. Two hydraulic cylinders of 20T cap each are mounted on well designed fixed type fabricated structure & cylinders are operated with common hydraulic power pack. The stroke of the cylinder is provided 250mm to 300mm apx





Hydraulic Equipments supplied by Hydropack in India and Abroad :

All Indian Railway and Metro depots-

Hubli, Bangalore, Mumbai, Nasik, Kurudwadi, Hyderabad, Chennai, Lucknow, Kanpur, Chandigarh, Kapurthala-Punjab, Delhi, Alambagh, Lilua, New Bongaigaon-Assam, Dahod-Vadodara,

Jaipur-Rajsthan, Jamalpur, Raebareli-UP, Kacharapara, Mohali, Jagadhri, Mancheswar, Sonipet.

Export to South Africa, Bangkok, Gabon

MAJOR CLIENTS



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Service:

Our services include:

- Installation & Commissioning
- Training
- Calibration
- Tele-Maintenance
- Service contracts
- Spare parts
- Upgrades
- Very well educated & multilingual service engineers carry out an optimum support during the entire lifetime of machine.

Major Sectors:

- Infrastrucure
- Ship Building
- Automobile
- Power generation.