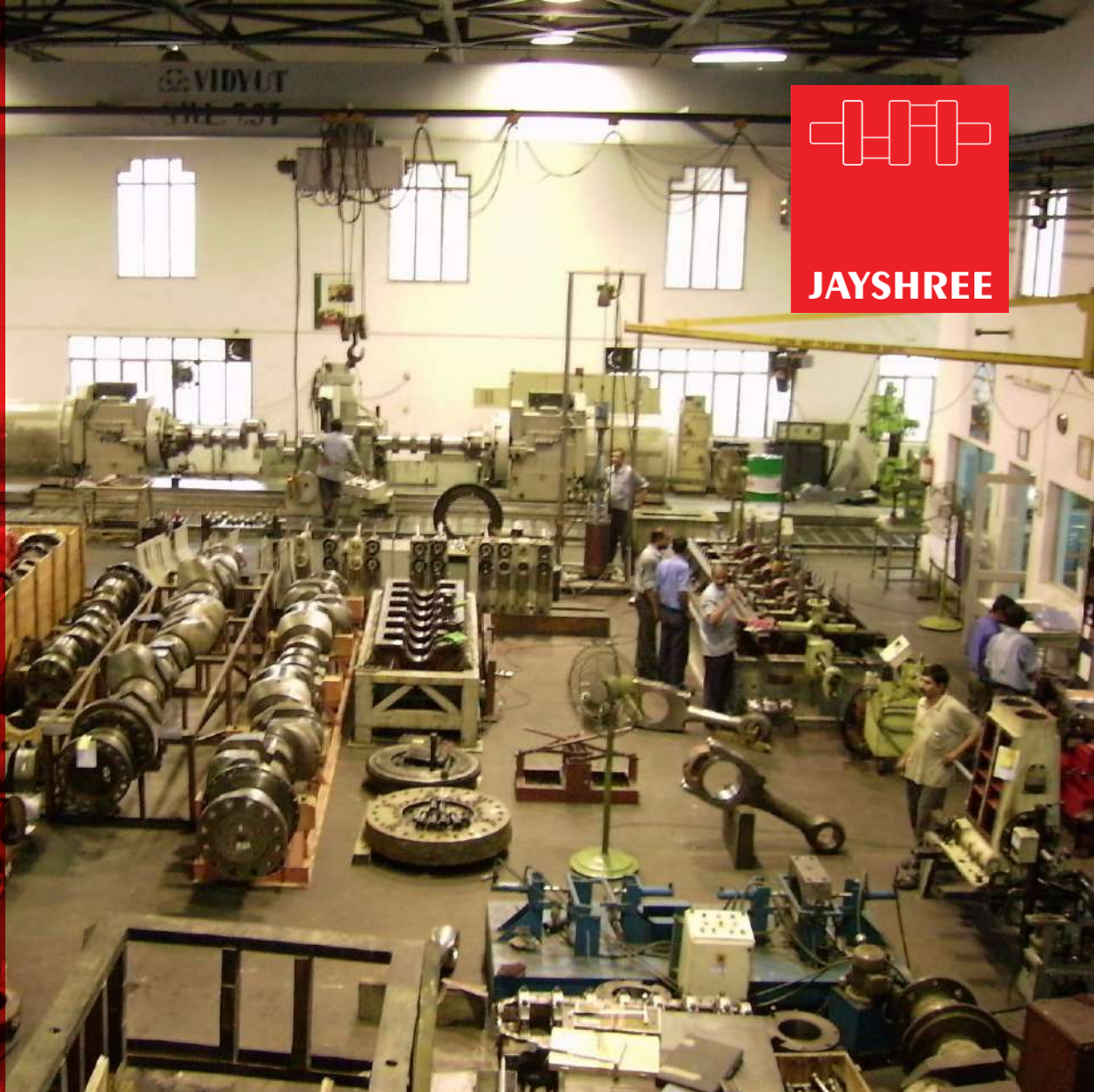


**GLOBAL LEADER IN RECONDITIONING
OF ALL MAJOR DIESEL ENGINE COMPONENTS
ALL-OVER-THE-WORLD ROUND-THE-CLOCK.**



JAYSHREE



TANNA CRANKTECH PVT. LTD.

ABOUT US!



JAYSHREE

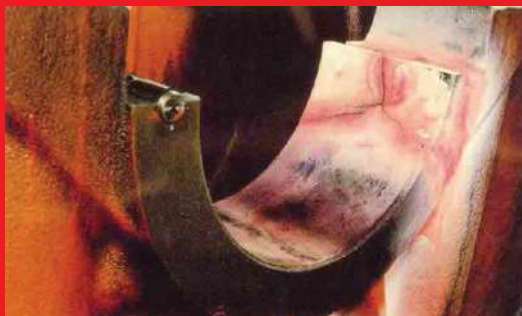
For over half a century Tanna Cranktech has been known for its commitment to excellence in the fields of the Marine Sector and Oil & Gas Industries.

Tanna Cranktech had always strived to be a front-runner in providing solutions for repairing major components used in Marine, Landbased power plants & Oil & Gas industries, Diesel Engines & Compressors. The repairs of these critical components need a very high degree of professional skill & expertise with very special precision equipments to carry out these repairs as per OEM standards & Quality norms.

Tanna Cranktech facilities are equipped with state-of-the-art machines, sourced from leading manufacturers worldwide & Manpower who are having more than 30 years experience in these repairing fields.

The organization's objective is to provide our customers a reliable Manufacturing & Service support with justified pricing & Quick response time.

At Tanna Cranktech we undertake the reconditioning of the heavy-duty Crankshafts, Cylindrical Shafts, Metal Stitching of several cast iron parts where the welding is not possible / permitted, rebuilding of shafts, Line Boring of Engine Blocks, repairing of Cylinder heads, Connecting Rods, boring and Honing of Cylinder Liners, Straightening of Crank Shafts & Cam shafts, Roller shafts, etc. for all Major Diesel engines worldwide.



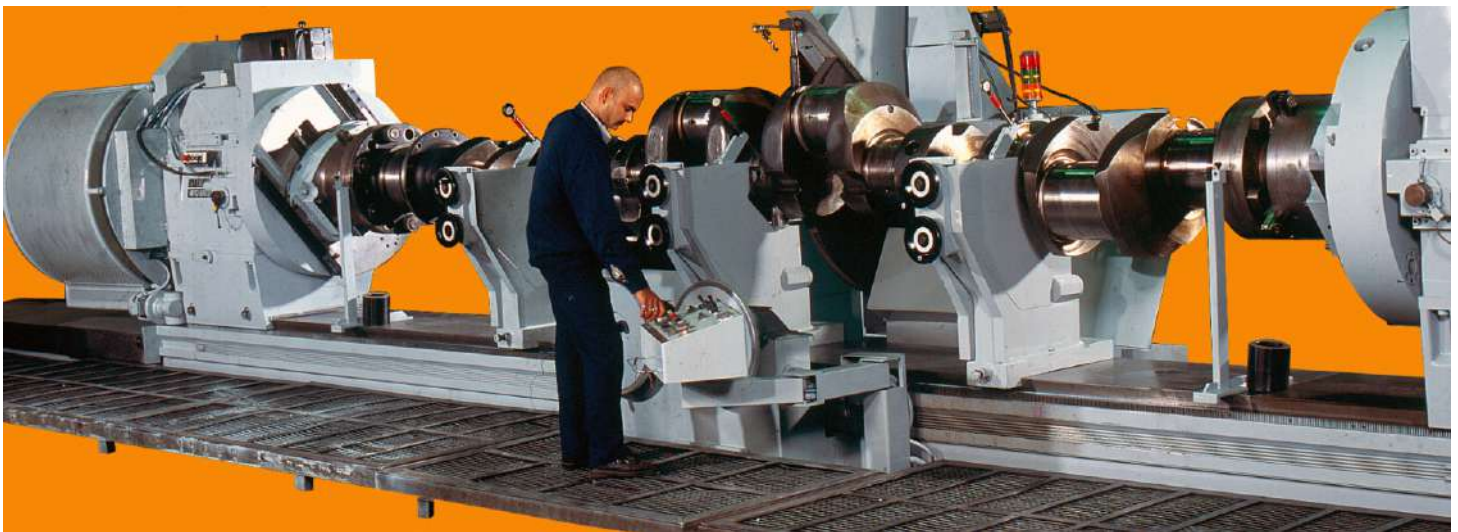
our quality is our future.

OUR PRODUCTION/REPAIRING FACILITIES

Our two plants are located at a distance of 10 and 20 km from the center of the city, Rajkot (Gujarat INDIA) where we undertake the manufacturing of the crankshafts, Piston Rods, crossheads, Mud Pumps & Fuel supply pumps shafts & all repairing activities of all Major components related to Diesel Engines & Air Compressors. The factory is built up in a 50,000 sq feet area.

Our 3rd plant is located at Taloja, Navi Mumbai with an area of around 15,000 sq. feet & is dedicated for our Marine customers to provide them with a better time-bound commitments. The grinding equipments installed in our plants has been imported from M/s. Vereco spa, Italy. It is designed with inbuilt controls for vibration-free operation & microbalance setting that can grind Crankshafts up to 7.5 m. in length and weigh up to 8,000 Kg. The entire equipment is tropicalized to ensure trouble-free performance in adverse ambient temperatures. The grinding wheels are imported from Saint-Gobain S.A.(Earlier known as Norton), France/USA, who are world leaders in abrasive technology.

The accuracies of these Grinding machines are as per DN standards. Trueness is maintained within 0.01mm. Concentricity is maintained within 0.02mm.



Grinding plant from vereco Italy

Cylindercity is maintained within 0.02mm. Circularity is maintained within 0.02mm. Parallelism is maintained within 0.02mm. Run out of the complete crankshaft is maintained as per OEM recommended limits.

BORING AND HONING OF CYLINDER LINERS

The Cylinder Liner boring and Honing is carried out with the machine which is imported by us from a world's leading company -M/S Chris Marine, Sweden who masters the art of manufacturing of high quality Cylinder Liner boring/honing equipment. The limit of accuracy of re-honed Liners is maintained within 0.02-0.03 mm for taper/ovality and the surface finish is controlled within RA1.3-1.6 μm along with cross-honing angle is maintained within 45-55 Deg. The machine is portable, so we can undertake the honing operation at the customer's location also.



IN-SITU REPAIRING

In cases where the damage in the crankshaft is only in one or few CR pins & all the main journals are ok, economics do not justify the dispatch of the entire CRANKSHAFT to a distant workshop. With the latest edition of the In-situ grinding Machine, a far more flexible solution is offered by TCPL to the customer. Accuracy in the range of 0.015 to 0.02 mm is achieved with perfect parallelism between Crank Pins after the on-site grinding of the CR Pins.

Trained specialists execute repairs at the site as per International standards.



Trained specialist executive
In-Situ repairs



In-Situ Machine



CONNECTING - ROD HOUSING REPAIR

The company has developed technology to salvage expensive ConRods housings by repairing them in-house for correction of the ovality which develops in operation. Crack testing is done to determine invisible cracks & correction of the dimensional wear. In-housing Bore is done & during this process straightness, Parallelism, and center distance are maintained as per OEM STD during the repairing process so that the accuracy of the repair and finish is achieved as per OEM specifications/tolerances.



Connecting Rods Repairing

METAL STITCHING

Metal stitching is a commercial method of repairing the crack, broken, or burst pieces of cast iron items without application of any heat & as a result of which there is no change/distortion/deformation in the repaired equipment. In the repairing process Locks & Cast master, stitching pins are used. We Import the materials from the USA.

Advantage of Metal Stitching:

No heat stresses are induced, no distortion occurs. The repair is Gas & Liquid proof & can withstand high pressure & tensional forces & not much machining is required after repairing.



Metal Stitching Of Bed Plate



Fluid Coupling Metal Stitching



REBUILDING OF CRANK SHAFTS

The Rebuilding of the Crankshaft is required when the damage/cracks in the CR pins / MJ are high level & with the available undersize bearings, the repairing could not be possible & the crankshafts stands rejected. To salvage the crankshaft the rebuilding is the only solution which is undertaken by us in a fully computerized imported equipment. This rebuilding is a "cold" process & at any moment of the repairing process the crankshaft temp doesn't cross 90 degrees C, so no stress is induced in the crankshaft. Also, this rebuilding technology is used where no under-sizing of the shafts are allowed such as Alternator Rotors shaft or the shafts which use Roller bearings. We stand a warrantee of around one year on the rebuild area which is carried out by us.



LINEBORING OF EQUIPMENTS

Line Boring of Engine Blocks, Bed Plates, compressor blocks, and gearbox blocks are undertaken by us. We are capable of machine two or more bores in a line up to the length of 10 meters with an accuracy level of 0.02mm. We have imported the hydraulic/pneumatic Line Boring equipment which is used for line boring operation. To check the alignment of Bores, an Easy-Laser alignment checking equipment is imported from Sweden, is used. With this laser equipment, alignment of housing bores along "X" & "Y" axis with an accuracy of 0.01mm can be checked.



CULTURE OF WORKING

Each job is meticulously analyzed and planned for execution. Each activity is headed by experts in their respective areas. All Heads meet every morning to ensure perfect coordination and implementation. Each Job Inspection is conducted by Engineers who are fully trained and have work experience more than 15 to 20 years in all kinds of inspection work including Magnetic Particle, Ultrasonic, and Dye Penetrant Tests along with Dimensional measurements with highly precise instruments like Laser Equipment, Micrometers, Bore gauges, Dial gauges, Digital verniers, etc which are periodically calibrated as a routine practice for the authenticity of accuracy. A key Management person implements regulates and reviews all quality aspects and production standards, with competitive pricing.

OUR MAJOR CUSTOMERS LIST IN INDIA

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|-------------------------------------|--|
| 01. INDIAN RAILWAY | 16. MAGNUS POWER LIMITED |
| 02. INDIAN OIL CORPORATION | 17. INDRAPRASTHA GAS LIMITED |
| 03. OIL INDIA LIMITED | 18. NALCO |
| 04. RAJASHREE GROUP OF INDUSTRIES | 19. IFFCO |
| 05. SRF GROUP OF INDUSTRIES | 20. G.S.F.C. LIMITED |
| 06. TORRENT GROUP OF COMPANIES. | 21. HINDUSTAN AERONATICS LTD. |
| 07. ADITYA BIRLA GROUP OF COMPANIES | 22. HINDUSTAN ZINC LTD. |
| 08. SOMANY GROUP | 23. NORTH EARTHEN ELECTRICAL POWER CORPN LTD |
| 09. J K Industries | 24. NIKO RESOURCES LTD. |
| 10. GOOD YEAR GROUP OF INDUSTRIES | 25. ORDNANCE FACTORY |
| 11. CADILA HEALTH CARE | 26. FIELD GUN FACTORY |
| 12. GRASIM INDUSTRIES LTD. | 27. O.N.G.C. |
| 13. KIRLOSKAR OIL ENGINES | 28. N.T.P.C. |
| 14. WARTSILA INDIA LTD. | 29. ANDRITZ HYDRO INDUSTRIES LTD |
| 15. ROLLS ROYCE INDIA LTD. | 30. GIMMCO LTD |

OUR MAJOR SHIPPING CUSTOMERS LIST

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| 01. M.S.C. SHIPPING LTD, Cyprus | 23. EFFICIENT BUSINESS SERVICES |
| 02. MARSHALL SHIPPING. | 24. LUCKY MARINE |
| 03. DARCO BUREN SINGAPORE. | 25. LILY MARINE SHIPPING |
| 04. KOBAN SHIPPING. | 26. TAG SEA LOGISTIC (Essar) |
| 05. ASIA PACIFIC SHIP MANAGEMENT PTE, SINGAPORE. | 27. V.S.DEMPO SHIPPING |
| 06. GREAT EASTERN OFFSHORE | 28. CHIDAMBRAM SHIPCARE |
| 07. WARM-SEAS, DUBAI | 29. SEA LION SHIP MANAGEMENT |
| 08. PIONEER SHIPPING, DUBAI | 30. FLEET SHIP MANAGEMENT |
| 09. SNP SHIPPING LTD., HONG KONG | 31. RECREATE MARINE & OFFSHORE PTE LTD., SINGAPORE |
| 10. FIVE-STAR SHIPPING LTD., DUBAI | 32. DMI Dubai |
| 11. GULSA SHIPPING, DUBAI | 33. Atlantic Ship Management, Dubai |
| 12. VARUN SHIPPING LTD., DUBAI | 34. Bond Marine Singapore |
| 13. WALLIUM SHIPMANAGEMENT LTD. | 35. Dawn Shipping PVT. LTD., Mumbai ARYA Group |
| 14. ABG SHIPPING LTD. | 36. Carbon Shipping PTE. LTD., Singapore |
| 15. ORIENT EXPRESS SHIP MANAGEMENT | 37. CTS OFFSHORE AND MARINE (Asia) Pte. Limited, Singapore |
| 16. SEVEN ISLAND SHIPPING LTD. | 38. ISHIMA PTE. LTD., Singapore |
| 17. CASTLE SHIPPING LTD. | 39. TWSM, Mumbai / Dubai |
| 18. LEO SHIPPING LTD. | 40. Nabeel Shipmanagement FZE Sharjah, UAE |
| 19. DAMODAR MARINE SERVICES | 41. Hermes Ship Management Pvt. Ltd., Mumbai |
| 20. HALANI SHIPPING | 42. JOME Engineering LLC, Dubai |
| 21. KSS SHIPPING | 43. Seaswan Shipping Services PVT. LTD., Mumbai |
| 22. TMB SHIPPING | |



TANNA CRANKTECH PVT. LTD.

OUR PLANT LOCATIONS

CORPORATE OFFICE & FACTORY UNIT ONE:

Contact No.: +91 98243 58790, E-mail: info@intcpl.com
Address: Survey No. 201, Maliyasani, NH8B, Rajkot, Gujarat – 360003

FACTORY UNIT TWO:

Contact No.: +91 98241 92288, E-mail: info@cranktechindia.com
Address: Plot No. 223/224/225, GIDC Kuvadva, Rajkot, Gujarat – 360003

FACTORY UNIT THREE:

Contact No.: +91 98793 07533, E-mail: marine@cranktechindia.com
Address: Plot No. L-93, MIDC, Talaja Navi Mumbai, Panvel, Raigad, Maharashtra – 410208

BUSINESS HEAD - REPAIRING DIVISION:

Mr. Gautam Banerjee, Contact No.: +91 99104 91033, E-mail: gbanerjee@cranktechindia.com

MARKETING HEAD - REPAIRING DIVISION:

Mr. Rajendra Sharma, Contact No.: +91 98793 07533, E-mail: marketing@cranktechindia.com