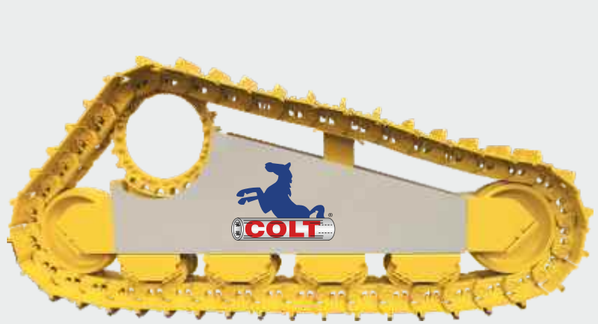
"B.B.N GROUP" EXPORTS WORLDWIDE









B.B.N AUTO ENGINEERS PVT. LTD.
B.B.N. OVERSEAS PVT. LTD.
B.B.N SHETESH INTERNATIONAL

AN ISO 9001:2015 CERTIFIED COMPANY

Unit -1 : 708/3, Industrial Area - A, Ludhiana (City), 141003(Pin), Punjab(State), India.
Unit - 2 : Village Nandpur, P.O. Sahnewal Adj. Volvo car Show room, G.T. Road, Ludhiana (City) - 141120
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COLT®

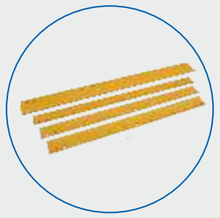
An ISO 9001:2015 Certified Company



















Genuine OEM Quality Manufacturers of
Undercarriage Spares, Hydraulic Rock Breakers Spares,
Forging Tips, High Tensile Fasteners etc

Introduction

Dear Customers,
We take an opportunity to introduce B.B.N AUTO ENGINEERS PVT. LTD. as the leading manufacturers and exporters of Earthmoving spares.

Established in 1985, we are an ISO 9001:2015 company with focused business perspective and an integrated approach is emerging as a leading player in Global Earthmoving Industry.

"COLT" promoted by B.B.N., is India's No. 1 trusted brand for providing superior quality products.

"COLT" BBN offer wide range of products i.e Undercarriage Spares :- Track Link Assembly, Track Rollers, Track Links, Track Bushes-Pins, Sprockets, Forged Segments, Idlers, Hydraulic Rock Breaker, Chisels, Ground Engaging Tools i.e Forging Tips, Curved Grader Bladers, Bulldozer Cutting edges and End Bits; High Tensile Fasteners; Attachment (Bucket) Bushes & Pins , Bogie Pins Etc.

In 1998, we started another manufacturing facility as B.B.N. Overseas (P) Ltd., which mostly caters to overseas market. As a manufacturer and exporters of Heavy Earthmoving parts to the world market, our company has developed solid and competitive market over the past 11 years in 28 countries, thanks to our reliable and valuable customers always supporting us. Today we have wide customer range including OEM's, Government Undertakings, Mining Sector and big aftermarket.

WHY "COLT" BBN:- Whether for OEM or aftermarket, "COLT" stands apart and much confident of providing superior engineering with continuous development of new products, comprehensive know-how and state - of-the art- manufacturing facilities with continuous testing procedures to ensure quality as well as attractive business terms all together are our pride.

FOCUS ON QUALITY AND SERVICE COMES NATURALLY TO US.

WE DELIVER WHAT WE SAY :
OUR MOTO "DARE TO BE TRUE"





Quality Control

Being an ISO 9001:2015 Company, we lay more emphasis on our quality control department for achieving best quality performance.

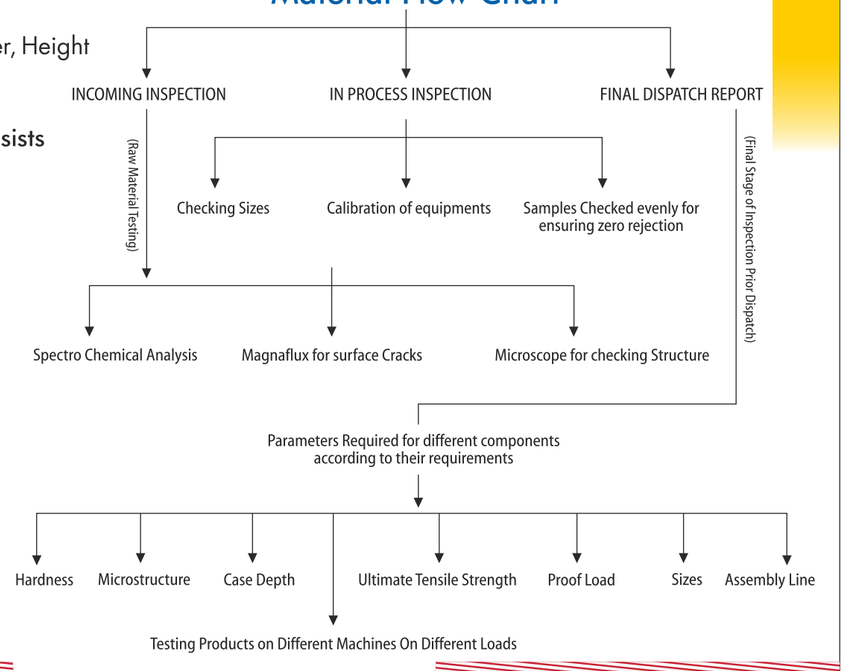
Equipments helpful in our proud quality control department.

- Hardness tester
- Brinel tester
- Heat Treatment :-
  - Robotic Link Continuous Induction Hardening Furnice
  - Induction Furnace
  - Gas Carburising Furnace
  - Tempering Furnace
  - Quenching & Tempering Continues Furness
  - Bolts Continuous Heat Treatment Plant
- Micro Scope
- Magnaflux checking
- Spectro Chemical Analysis Testing Machine
- CNC Machines
- Laboratory
- UTS Testing Machine
- Slip Gauge Boxes
- Others : Micro meter, Vernier, Height Gauge etc.

Training programmes Consists

- Team of metallurgists
- Engineers
- Experienced Supervisors

"COLT" B.B.N. Material Flow Chart



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FORGING FACILITIES









PRODUCTION FACILITIES











QUALITY CONTROL









QUALITY CONTROL







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UNDERCARRIAGE SPARES

TRACK LINK

• "COLT" Track Links are forged from deep hardened steel consisting of manganese, moly and chrome alloys for greater strength and durability.

• Accurately machined as per OEM sizes on CNC boring machines with automatic feeder attachments.

• Duly hardened for extra inner strength and induction hardened for providing extra wear on rail surface.

• Extra Case Depth is achieved in order to perform even in harsh conditions.

• Track Links are subject to re-building also.

• Assembling in perfection is another very important aspect for extra performance of Track.

• Most Modern automated Track presses for assembling to maintain pitch perfection.









Key Features

"COLT" Track Link Assembly

• Our Range consists of Lubricated Link Assembly of :-

Bulldozers- Caterpillar Models D-4D,D-4E,D-5G,D-6R, D-6C/D, D-6H,D-7G, D-7R,D-8N/R, D-8K/T,D-9N/R, D-10N /R etc.

Komatsu Models- D-31,D-41, D-50,D-65,D-85,D-155-1,

D-155-2 High Link, D-275,D-355, D-375, D-475 etc.

All models of John Deere, Liebherr, Case, Shantui etc.

• Our Range of Excavator Link Assembly consists of :-

Starting from 5 Tons to 120 Tons

Caterpillar , Komatsu, Tata- Hitachi, Volvo, JCB, Hyundai, Kobelco, Doosan, John Deere, Sany etc.



WEDM FOR MASTER LINK





Lubricated Link Assembly
Master Link Type



SPLIT MASTER LINK

COMPLETE RANGE FOR EXCAVATOR MODELS : .CAT, KOMATSU, DAEWOO, TATA-HITACHI, JCB, VOLVO, KOBELCO ETC. COMPLETE RANGE FOR DOZER MODELS: CATERPILLAR, KOMATSU, BEML ETC.

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TRACK LINK BUSH-PINS

"COLT" Track Bushes - Pins are much more long lasting than others in all types of harsh conditions



- Made from superior quality alloy steel depending on size and suitable for harsh to harsh conditions.
- Proper specifications are maintained in our CNC machines.
- Heat Treated thoroughly in our highly sophisticated plant for internal strength to bear heavy pressure resistance in odd conditions, which provides minimum wear & tear from soil particles and sprocket.
- Extra case depth is achieved in hardening for improved performance.
- The ends of Bushes are extra tempered to bear the pressure of the track press during fitment and also load of the machine.
- Track Bushes are duly carburized so that it gives maximum wear resistance with case depth extending up to 4 mm with maintaining surface hardness range from 59 to 61 HRC.
- Track Pins are properly quench and tempered and Induction hardened to achieve case depth up to 6mm with maintaining surface hardness range between 57 to 60 HRC





COMPLETE RANGE FOR EXCAVATOR MODELS : .CAT, KOMATSU, DAEWOO, TATA-HITACHI, JCB, VOLVO, KOBELCO ETC. COMPLETE RANGE FOR DOZER MODELS: CATERPILLAR, KOMATSU, BEML ETC.

ATTACHMENT (BUCKET) BUSHES-PINS

"COLT" make Attachment Bushes & Pins are subject to every single piece checking to ensure zero rejection and reduce the machine break down time

- Bushes are forged in Heavy duty forging presses
- Made from superior quality alloy steel suitable for various machine loads
- Accurate machining is done on latest CNC machines
- In Pins, toughening is done to improve jerk load
- In Pins, Induction hardening is done to achieve maximum case depth upto 8 mm
- In Bushes, proper Heat Treatment is done to bear maximum wear and tear
- Rust preventive Chrome Plating is done



OTHER PRODUCTS



HEAVY DUTY LOCKS



BOGGIE MINOR



BOGGIE PINS



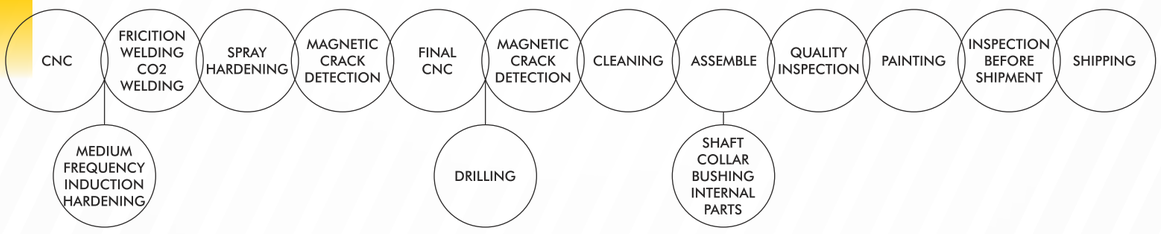
UNDERCARRIAGE SPARES

TRACK ROLLERS Extra Edge of "COLT" make Track Rollers

- "COLT" Track Rollers are life time lubricated and maintenance free. * Forged from deep hardening alloy steels.
- Shells are properly hardened in order to achieve inner strength and again heat treated to achieve hard surface with maximum case depth. This ensures tread life is equal to links wear life.
- Shell treadpath and flanges are re-buildable
- Shafts are made from high carbon steel and again properly heat treated to ensure maximum life.
- Shafts are sophisticated machined in order to ensure maximum Bush life.
- Bi- metallic type bushes are used. Their external steel shell, are resistant to any type of deformations and keep their shape perfectly. The inner layer of brass is an excellent anti-friction.
- End collars are made of good quality ductile cast iron which offers maximum inner strength and are able to absorb maximum impact and shock loads without cracking. Thrust surfaces are induction hardened for better axial load capacity.



Production Process













IDLERS

- "COLT" Idlers are made of special manganese steel castings.
- Shafts are made of superior quality carbon steel.
- Bi-Metal bushings are used.
- Brackets are made of manganese steel castings.
- Machining is done on latest CNC machines.
- Heat Treatment is done to achieve uniform surface and core hardness which provides extra strength & support all tracks to drive them smoothly.
- Superior quality seal groups are used in order to avoid leakage problems and improving shelf life.







SPROCKETS

- "COLT" Sprockets are made of special alloy steel castings including elements like : Ni, Cr and Mo which helps to achieve extra life.
- On the base of principle of customer priority and technology supreme, we have continuously done our best in the Research and Development for the best quality.
- Machining is done on CNC machines.
- Special Heat Treatment is done to sprocket tooth in order to achieve the depth of 7mm.
- They have uniform hardness of HRC42.
- They are resistant to fatigue and also guarantee a long service life.





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"BBN - COLT" Professional Heat Treatment process of Forging Teeth

* Normalizing: After the product enters the heat treatment furnace, it is heated to the temperature required by the process. After holding for a period of time, it is air-cooled to improve the mechanical properties of the product, refine the grains, eliminate structural defects, make the structure more uniform, and improve hardenability, and lay a good foundation for subsequent heat treatment.



BRINELL LEVEL OF HARDNESS THROUGHOUT THE TOOTH

* Quenching: Heat the steel to a temperature above AC3 or AC1 (lower critical point temperature of steel), keep it for a certain period of time, and then cool it at an appropriate rate to obtain martensite (or bainite) structure. This allows the steel to obtain the required martensite structure, improve the hardness, strength and wear resistance of the workpiece, and prepare the structure for subsequent heat treatment.

* Tempering: After the steel is hardened, it is heated to a temperature below AC1, kept at that temperature for a certain period of time, and then cooled to room temperature. This eliminates the stress generated during quenching, making the steel have high hardness and wear resistance, as well as the required plasticity and toughness.

* Hardness range for Forged tips are kept between 48 to 53 HRC

Metallographic Organization of Forged Teeth before and after heat treatment



BEFORE



AFTER







"BBN - COLT" Teeth Forging Advantage

Advantages

1.Product interior structure with higher density, without inner gas holes.

2.Higher impact toughness, more stable hardness.

3.Higher production efficiency, ensure delivery time, and meet customer needs.

4. Higher degree of production automation and reduce the quality problems caused by human factors and labour cost.

5.Green production, no pollution, no environmental problem.

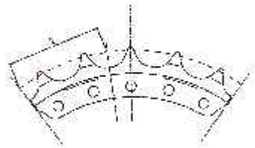


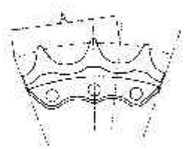






"BBN - COLT" FORGED SEGMENTS







- We use forged boron steel to produce
- Surface Hardness (1-7mm from the top) 46-52 HRC
- Impact Toughness >45J/cm2











"BBN - COLT" HIGH TENSILE FASTNERS

RANGE OF BOLTS & NUTS INCLUDES

- TRACK SHOE BOLTS & NUTS - 14mm, 16mm, 18mm, 19mm, 20mm, 22mm, 24mm, 27mm, 30mm, 32mm etc.
- CUTTING EDGE & END BITS BOLTS & NUTS - 5/8", 3/4", 7/8", 1",1½ etc(Length can be made till 12").
- SEGMENT BOLTS & NUTS - For All Models of Dozers
- CAP SCREWS (Cross Bolts, Tyre Bolts, Studs, Teeth Bolts, Hub Bolts etc).
- Other High Tensile bolts as per samples or drawings.



EDGE OF COLT MAKE BOLTS & NUTS

- Track shoe bolts & nuts are being manufactured from high quality alloy steel.
- Bolts and Nuts are properly forged and punched with infrared ray in order to ensure maximum finish.
- Bolts are machined in automatic machines and threading is done as per standard sizes in order to ensure improved life.
- Bolts are hardened in our continuous Bolt furnace which maintains uniformity in quality of hardening
- Hardening is maintained as per 12.9 GRADE standards.
- The head of Bolt is again Induction Hardened in order to give extra wear life in harsh conditions of TRACK.
- Calibration is done every 2 months of all testing equipments used.
- Strict vigil inspection is done i.e UTS, Proof Load, Tensile Strength, Torque etc.



Bolts Continuous Heat Treatment Plant

"COLT" make Bolts & Nuts apart from being excellent in quality also comes in great finish, all thanks to latest German plant.

"BBN - COLT" TOUGH DEMOLISHING HYDRAULIC BREAKER CHISELS

Chisel manufacturing process relies on a robust, certified quality management system ISO 9001 : 2015 to ensure that the product quality is being continuously monitor and improved upon with decades of experience and continuous interaction with our clients on sales which has helped our manufacturing process and factory to become one of the finest which includes sectional type heat treatment and 100% inspection to ensure zero rejection, Resulting in expanding our network in 28 countries around the globe.



With great wear resistance and smashing power, the Breaker chisels delivers the performance you need These chisels are made with high quality steel that has been specifically heat treated to ensure operational efficiency

Our Product Range :

KRUPP / RAMMER / N.P.K / INDECO / ATLAS COPCO / MONTABERT / STANLEY / FURUKAWA / TOKU / TOYO / OKADA / SOOSAN / TELEDYNE / GENERAL BREAKER / KOMAC / MSB / D&A / DAEMO / HANWOO / DAINONG / RHINO ETC.

"BBN - COLT" PRODUCT RANGE OF HYDRAULIC BREAKER SPARES





Inner and Outer Bushing



Through Bolt



Rod pin



Front and Back Head



Piston





OFF-HIGHWAY TRUCKS COMPLETE AXLE WITH DIFFERENTIAL AND ITS SPARES



"KENWORTH TRUCK"
OFF HIGHWAY SERIES





COMPLETE AXLE HOUSING

"BBN - COLT" CURVED GRADER CUTTING EDGES



- Curved Cutting Edges : 11 Holes, 13 Holes, 14 Holes, 15 Holes.
- High Carbon Steel or Boron Steel.
- Optional : Heat Treated - Hardened - Tempered to improve the life span.
- Committed to superior quality, service and product support.
- With stable performance, excellent wear resistance and high performance price ratio: our product will be your ideal choice.

"BBN - COLT" BULLDOZER CUTTING EDGES, END BITS AND RIPPER SHANK





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