

### STEERING & SUSPENSION PARTS

TRACK CONTROL ARMS | TIE ROD ENDS | STABILIZER LINKS | SUSPENSION BALL JOINT | RACK ENDS

### MORIN AUTO PRIVATE LIMITED

## **ABOUT US**

MORIN AUTO is a company engaged in the development, production and sales of automotive suspension system parts manufacturing enterprises.

Our company owns a professional technical personnel team, advanced manufacturing and testing equipments with rich experiences and capabilities of developing new products. The products of our company which have obtained uniform favorable praised from most customers are of superior quality, full variety and nice appearance. The company always adhere to continuous innovations by science & technology and keeps developing new products of excellent quality by applying new technologies and new materials. It is going all out to provide excellent and satisfactory before-sale, in-sale and after-sale services for all customers based on the service concept of "ALL FOR CUSTOMER". Our company, based on the operation concept of "Sincere and faithful cooperation to create mutual benefit together", is looking forward to developing and creating a splendid future together with all friends in society.

## VISION

To sustain our leadership through technology upgradation, innovation and value engineering. We aim to accomplish this by focusing on customer centricity, by aiming to become a trusted name in the original equipment market place. Our desire is to succeed in today's volatile and ever changing business environment driven by our passion for excellence.

## MISSION

Our main mission is to carry out manufacturing activity with high quality operational standards under professional management. And to exceed our customer's expectations by offering superior products and service.

# PRODUCT RANGE

NEW RANGE OF SUSPENSION PARTS FOR :- Maruti
Honda
Hyundai/Kia
Ford
Toyota
Nissan
Mitsubishi
Volkswagen
GM
Renault
Chevrolet Etc.



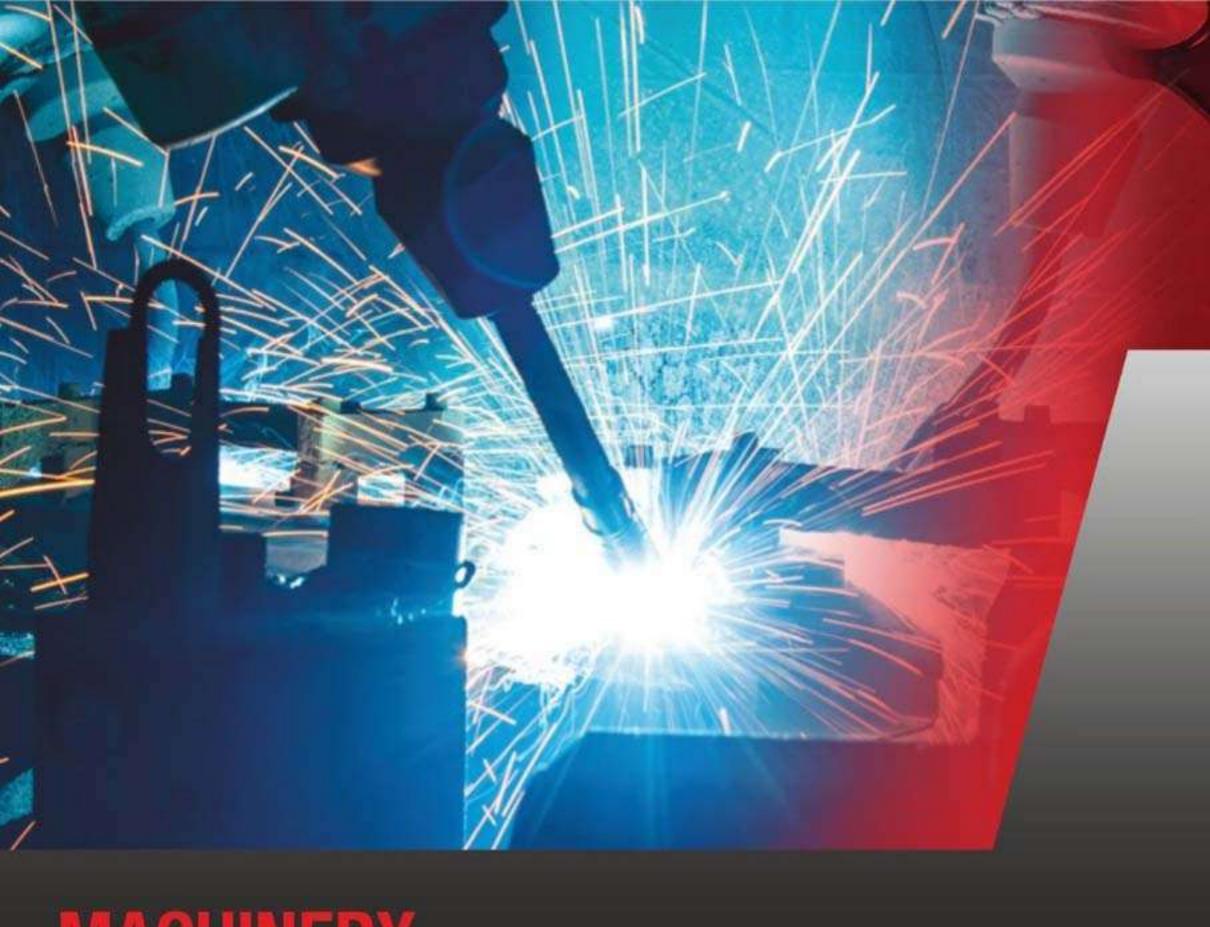






# TRACTOR PARTS





## MACHINERY

ROBOTIC WELDING FOR TRACK
CONTROL ARM

## **AFTERMARKET**

With its aftermarket product range comprising an array of items, Morin Auto offers wholesale of automotive parts, retailers and independent garages a powerful portfolio, which covers a great deal of the market. We have a sizable presence in the Indian Aftermarket where all our products are recognized for premium quality.

### MORIN AUTO GENIUNE PARTS



### SEALED FOR LIFE

#### Cover dust boot

Completely for Protection purpose during delivery

#### Upper and lower rings

To secure the dust cover and ensure ball stud having a perfect protection when facing the various external environments

#### Upper cap

With heat treatment offering a stronger assembly and excellent safety purpose

#### Plastic bearing & Grease

- The inside of POM is extremely smooth so it assure ball pin can have low-friction movement and provide high performance lubrication with performance lubrication with RT special grease
- POM material guarantee significant performance even in an extreme climate

#### Lock Nut

Use expensive Nylock plated inside as a resistant fastener coz it can truly ensure ball joint won't get loose when vibration frequency or bad road conditions

We have overcome the challenge of 6 Sigma quality demand and 0 PPM.

We polish the head of ball stud in which roughness is less than Ra 0.2, and concentricity is +0.01mm.

We follow the spec that both inner and outer diameter are +0.005mm, roundness is 0.01mm, and concentricity is 0.1mm.

#### Self-lock nut

Completely for Protection purpose during delivery

#### Dust cover

Excellent Weathering resistance working temperature: -40°C- +140°C

#### PU ring

To avoid dust and water go inside for a longer durability

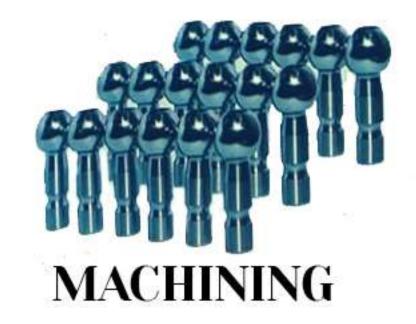
- Only use material SAE4135 with a professional heat treatment to reach hardness HRC27-34
- Roughness of sphere
   Ra0.3 so as to finish
   ball stud look like

Mirror Surface for guaranteeing smooth movement & longer life time

Tensile strength 900-1050 N/mm

#### Housing

Use quality steel with heat treatment to provide high stiffiness and strenght, plus, it is machined as one-piece housing for preventing crack.

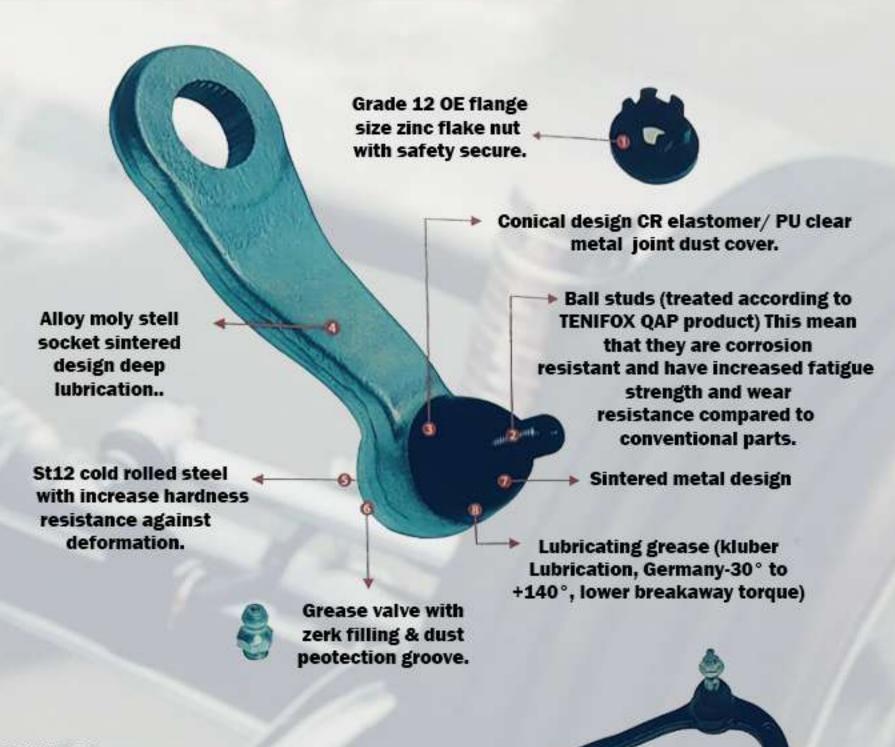




### MORIN AUTO GENIUNE PARTS



### **HEAVY DUTY**



#### QUALITY ASSURANCE: 60,000 KILOMETERS ASSURANCE OR 3 YEAR ASSURANCE

This quality assurance originated from our TS-16949 management capability and CPK quality control capability.

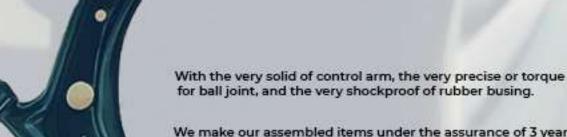
#### NEW PRODUCT DEVELOPMENT STRATEGY: DEVELOP WITHIN 1 YEAR AFTER TOP SELLING NEW CARS RELEASING IN THE MARKET

That is why we are OEM supplier and very capable to provide PPAP.

#### LEAD TIME: WITHIN 45 DAYS

This short lead time is because we have perfectly combined five major systems, ERP,TPS,TPM,TQM,

ART OF ASSEMBLY IN
AUTOMOTIVE
SUSPENSION PARTS



We make our assembled items under the assurance of 3 years or 60,000 Kilometers which all items passed the strict Life Test for over 1,000,000 times.

We insist in strict standard in each assembled step, making our art work-control arm to exceed the level of work of art...

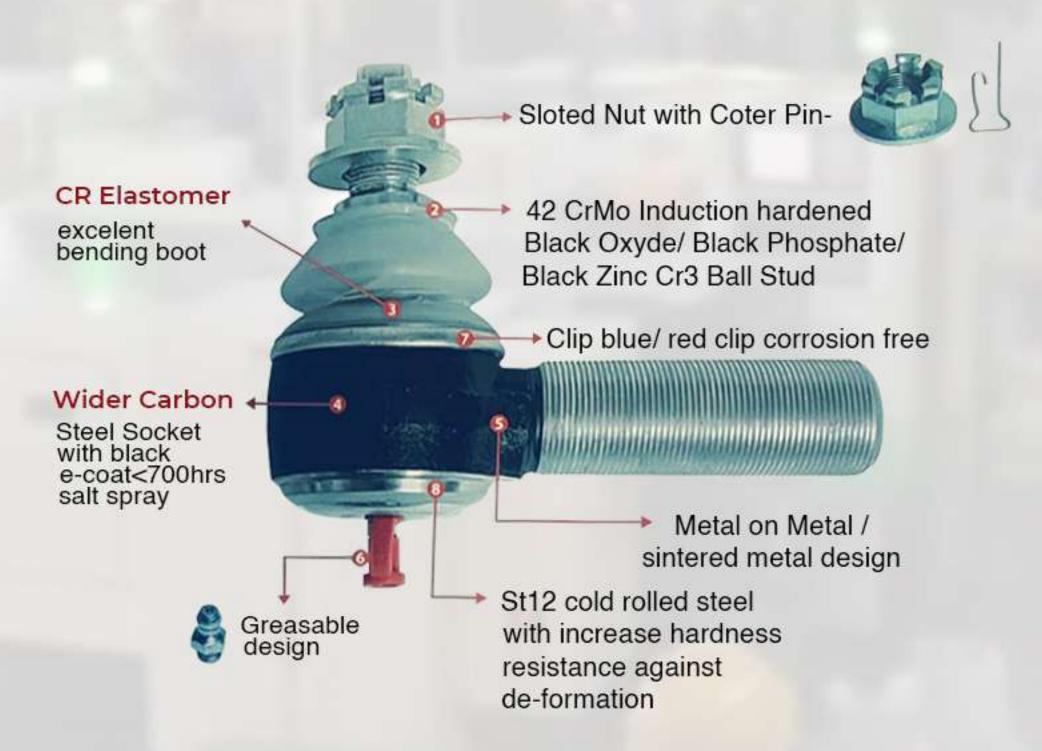
DECLARATION TO OUR CUSTOMERS







### **M2M FEATURES**



We make bush with a veriety of hydraulic designs, ful of elasticity and the very precise of shockproof We produce dust covers with their 100% anti-rust and waterproof protection.

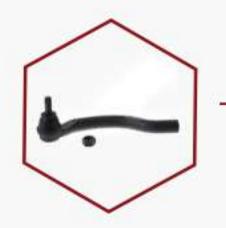
We create rubber items which can survive under the condition of high temperature up to 70°C.and down to low temperature for -40°C.







### PRODUCTS DETAIL

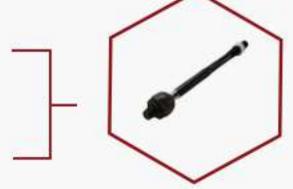


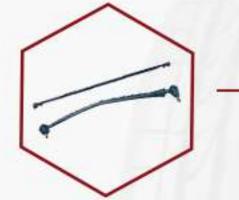
#### Tie Rod Ends:

Joint between the drag link and the journal. it allows the chesis to flex which there are potholes in the road, without afecting the stering box.



Mounted on the ends of the rack, they prevent oscillation from the wheeljournal from reaching the stering box.





#### Drag Links:

They allow the steering to be more flexible and precise on uneven ground, their mission is to directly transfer the efect of the steering whel to the wheels.



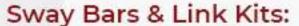
They allow the steering to be more flexible and precise on uneven ground, their mission is to directly transfer the efect of the steering whell to the wheels.





#### Stabilizing Links:

They allow the steering to be more flexible and precise on uneven ground, their mission is to directly transfer the efect of the steering whel to the wheels.



We strive for the maximum reliability of the material used, accurancy and fine finish of the sway link kts





#### Idler Arms & Pitman Arms:

Morin Auto idler & Pitman Arms are hot forged rather than cast. As such we have eliminated the drawbacks of porosity in cast-made Idler arm and Pitman Arms. The forgings provide greater strength and better fatigue resistance and make these arms more durable.

#### Control Arms:

Morin Auto offers a vivid range of control Arms manufactured to OEM quality specifications to its customers. It caters to their all the requirements with an assurance of total satisfaction.







### MANUFACTURING EXPERTISE

STATE-OF-ART TECHNOLOGY COMBINED WITH IN HOUSE,
EXPERIENCED STAFF AND DECADES
OF KNOW-HOW ENSURE O MATCHING QUALITY OF ENTIRE RANGE.
WITH A DEVELOPMENT CAPACITY
OF NEW REFERENCE AND EXTENSIVE TESTING FACILITIES TO
ENSURE COMPLIANCE WITH ALL
STANDARDS OF SAFETY, QUALITY AND RELIABILITY
SHELLER BECOMES THE PARTNER OF CHOICE FOR
ANY AND ALL STEERING AND SUSPENSION NEEDS.
FROM A SIMPLE TIE ROD END TO COMPLEX
TRACK CONTROL ARM.



New Manufacturing Facility with a capacity of 9 million suspension parts per annum is now operational.



# MANUFACTURING FACILITY PRODUCTION LINE



#### **FINISH GOODS**



LOW MOQ HIGH QUALITY BEST PRICE





### **QUALITY & ENGINEERING**

Tech innovation is the driving force to enterprise's competitive advantage and long term development

By attaching importance to scientific innovation, Morin Auto as corporate vitality employ genuine profesional to conduct experiments in product development so as to enhance product design quality and to shorten development period. Never-ending chance and improvements placed by adopting new technology, Morin Auto is leading in adopting world's advanced technology in product development.

A well tested quality system ensures our customers with a product comforming to the standards and with a consistent quality.

#### **ENDURANCE TEST**

- Rotary (Dynamic) Torque and Rocking (Dynamic) Torque testing machine.
- Reverse engineering charatersting test facility.
- Push out/pull out strength testing machine.
- IBJ/OBJ testing machine.
- Impact strength tester.
- Computerized axial lift test machine
- Dust cover life cycle testing rigs.
- On line oscillatory torque testing machine.
- Life cycle test rigs.
- Torque angle test.
- Vibration and shudder test.
- Salt spray test.

#### **CRACK DETECTION TEST**

 Metallurgical destructive and non-destructive test.













### **Application For**

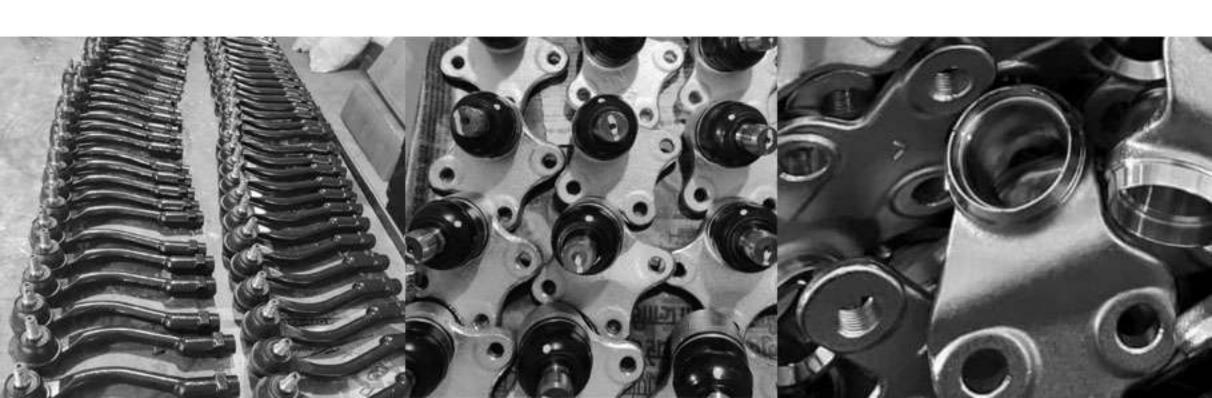




### **Engineered to Perfection**

Designed to be the most durable, Morin Auto steering and Suspension parts stand for reliability, comfort and safety. With a strong focus on quality we deliver high performance products for passenger, commercial and agricultural vehicles. Our range covers majority of the American, European, Indian and Japanese applications. Our customer centric approach combined with our engineering expertise enable us to provide us to provide the best solutions with the ultimate performance and strength.

- Over **4700** Steering and Suspension Parts
- Exporting to over 6 countries
- ISO 9001:2015 certified
- In-house Quality Lab with latest testing machinery



Quality and the pursuit of perfection, sharing excellence "





### MORIN AUTO PRIVATE LIMITED

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