

SPECIALISTS IN SUSPENSION AND STEERING



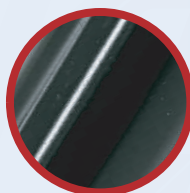
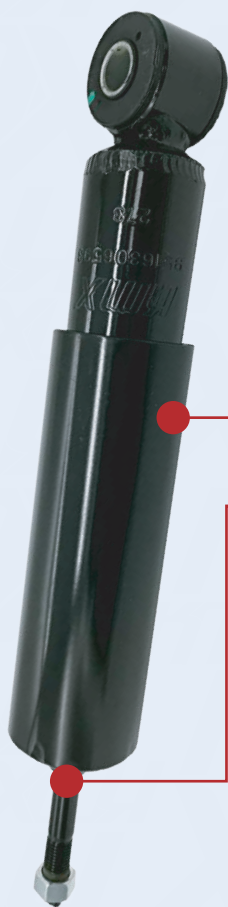
STEERING AND SUSPENSION LITERATURE

TECHNICAL INFORMATION

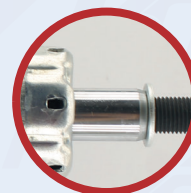


SHOCK ABSORBERS

KMX shock absorbers are manufactured with gas or oil working fluid and reach the original product specifications.

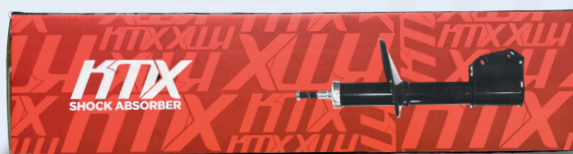


Electrostatic painting that protects from corrosive agents.



Fine surface finishes for less wear due to friction.

Produced under OEM parameters, maintaining response of:
Force vs displacement - Damping coefficient



This product is covered by **K-GROUP CORPORATION'S** warranty and its worldwide distributors network. This warranty applies to manufacturing or material defects and is subject to technical review by our experts.



RECOMMENDATIONS

1

Use appropriate tools such as a coil compressor or threaded compression pliers.

2

Always keep the distance between the elements, when they are compressed, the compressed spiral is an accumulator of potential energy.

3

For rear or bushing shock absorbers, check their condition and always change the stops.

Always check vehicle alignment after shock absorber changes.

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HORN

KMX horns feature supreme quality inner and outer raceways that respond optimally to the most aggressive operating conditions.



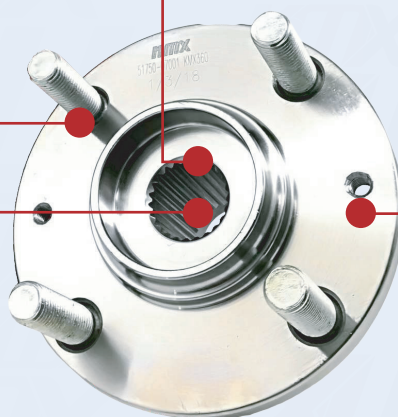
Clamping bolts high resistance



Steel with high content of carbon to minimize vibrations and reduce noise



Heat treatments that allow greater resistance to torsional stress



High performance lithium grease, excellent adhesiveness, water resistance, stability and good performance at high temperatures thanks to the Molybdenum disulfide added to its formulation



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RECOMMENDATIONS

1

Always demand certified wheel horns

2

Check the condition of horns and bearings frequently

3

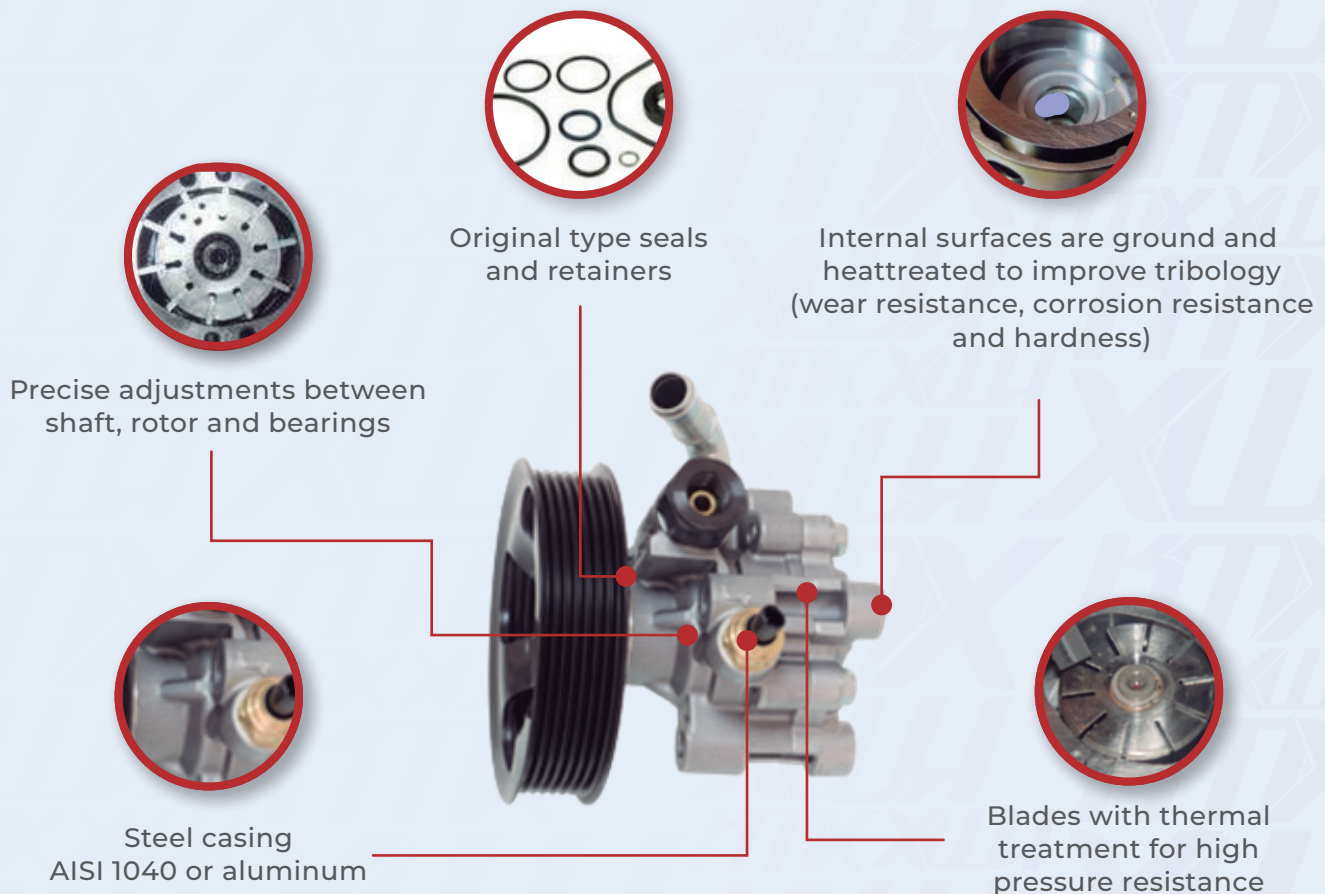
Keep the work area clean and tidy

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STEERING PUMPS

KMX Steering Pumps, belong to the automotive steering system; they are a mechanism of vanes and housing arranged in a geometric and synchronized manner to transform mechanical power into fluid power.



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RECOMMENDATIONS

1**Check the condition of the steering box**

Steering box with broken leaks or seals will cause the system to not work properly.

2**Keep the workplace clean**

Very small particles within the system can significantly affect the pump blades.

3**Check the hydraulic fluid level**

A low level in the steering system can cause damage to the steering pumps due to the cavitation phenomenon.

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STEERING BOX

MECHANICS

KMX mechanical steering boxes are delivered fully assembled and with the adjustment determined by its original manufacturer's house.



Metal adjusting screw
with lock nut



Precision metal clamps



Internal bushings in Polyacetal

- > Resistance to deformation
- > Fatigue resistance
- > Wear resistance



Lithium grease type No. 5-EP, high performance grease and extreme pressure

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STEERING BOXES

HYDRAULIC

KMX Hydraulic Steering Boxes, are assembled with high-quality internal seals and a millimeter-adjustable rotary valve, ensuring hydraulic power at all times.



Precision metal clamps



Metal adjusting screw with lock nut



Brand seals
NOK OEM type

Lithium type No. 5-EP grease,
high performance and extreme
pressure grease

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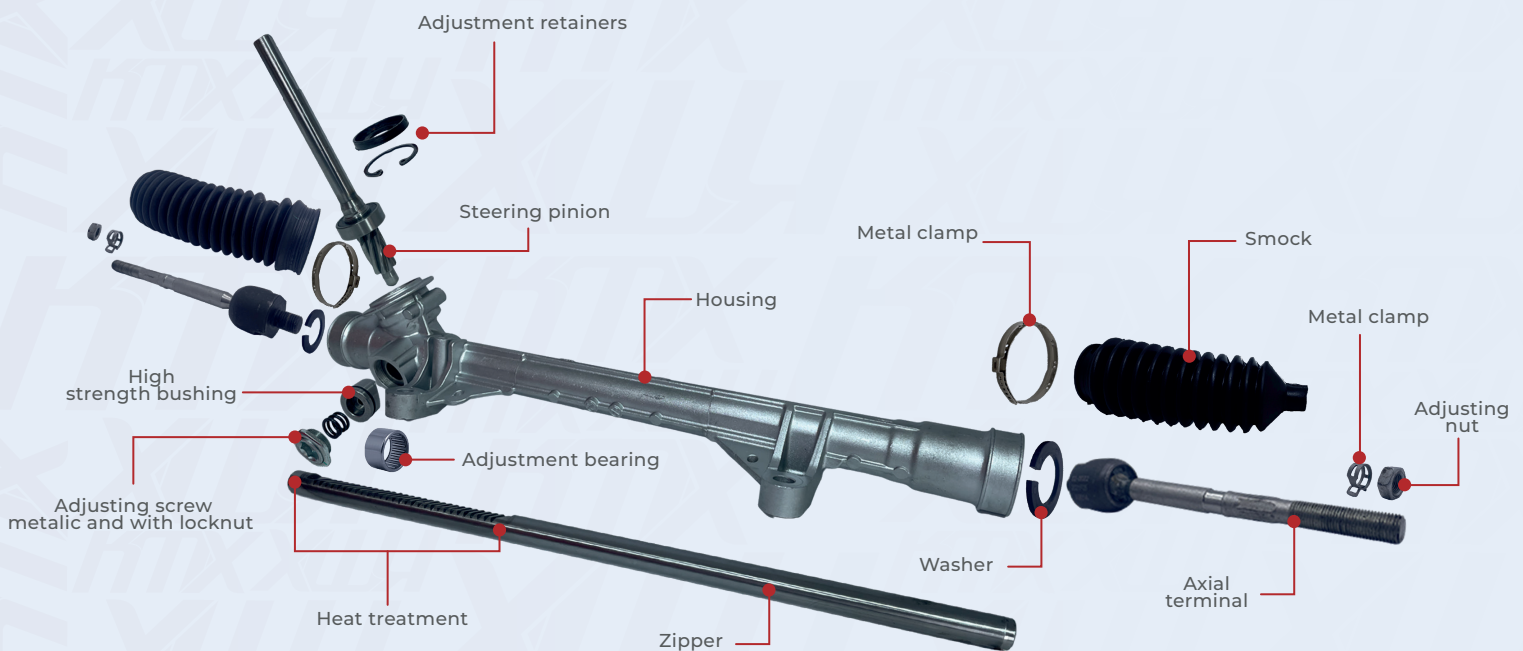


STEERING BOX

ELECTRO-ASSISTED

The EPS or Electrically Assisted Steering Gearbox works with an electric motor that generates a torque or assisting force depending on the driver's steering input.

KMX steering boxes meet the highest quality standards, being manufactured under OEM parameters, guaranteeing proper operation and fitment to the vehicle.



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RECOMMENDATIONS

1

Check the condition of the crossheads

Worn and misaligned U-joints will cause malfunction and premature wear of the KMX steering box. Also check the condition of the steering column and yoke.

2

Perform alignment

After installing the KMX steering box, alignment parameters are usually lost. Performing alignment will ensure perfect operation of the product.

3

Hydraulic System For power assisted steering boxes, it is important to check the condition of the pump and lines.

4

Adjusting screws

The adjustment screws guarantee the proper torque calculated by the car manufacturer. To maintain the product warranty, it is recommended NOT to modify it or move it from the marked position.

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AXLE TIPS

Created under strict quality controls, maintaining safety parameters and handling state-of-the-art materials.



Grease with molybdenum disulfide, which substantially increases performance



Heat treatments on the shaft end body, increasing the resistance under tensile load and extending the product's useful life



Dust covers made of high-quality rubber that do not expand under exposure to torsional loads and high temperatures.



Heat treatment that increases hardness and wear resistance on rolling surfaces



High-precision metal clamps, toothed type, with clamp closure and adjustment.

Smooth clamps are difficult to install and come loose easily.



Lock nut

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RECOMMENDATIONS

1

WHEN INSTALLING

• **Use appropriate tools**

such as plastic hammers, clamp pliers, pneumatic gun with safe torque application for tightening.

2

• Keep the workplace clean.

DO NOT install plastic clamps on KMX axle ends, these clamps expand due to torque and temperature load effects.

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BEARINGS

KMX bearings offer a broad portfolio with multiple applications for the automotive sector and industry in general.



Manganese-phosphated running surfaces provide greater corrosion protection and excellent lubricant adhesion.

Surfaces and heat treated, rectified to improve tribology (wear resistance, corrosion resistance and hardness).

We incorporate the quantity and quality of grease according to the regulations and specifications for load, speed, and temperature.



TL grease for low working temperatures (-60°C to 100°C)

TM grease for medium working temperatures

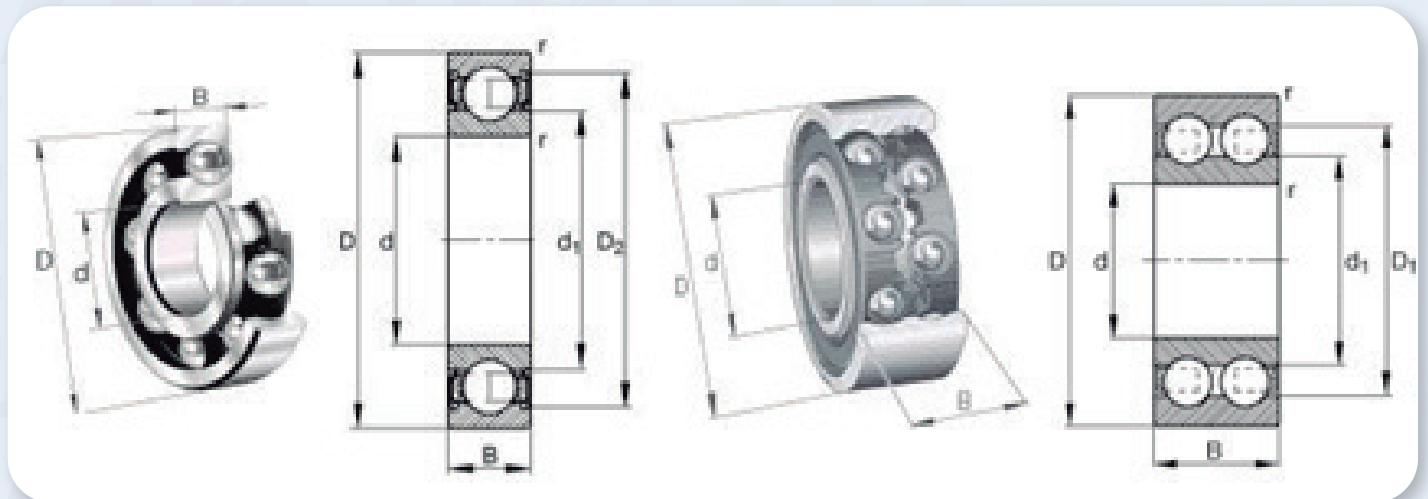
TH grease for high working temperatures (from -30°C to 200°C)

TW grease for low and high working temperatures (from -40°C to 150°C)

protection plates Bearings with Note: For seals or on both sides, KMX does not recommend any type of maintenance, washing or relubrication.



DIMENSIONS OF A BEARING



MOST IMPORTANT NOMENCLATURES

Symbol	Designation Example	Characteristics
RS	6009RS	Seal on one side
RSR	6205RSR	Seal on one side resting on smooth inner ring shoulder
-2RSR	6212-2RSR	Seal on both sides resting on smooth inner ring shoulder
Z	6206Z	Shield on one side
ZN	6305ZN	Shield on one side and groove for snap ring on the opposite side
-ZZ	6308-ZZ	Shield on both sides
-2ZR	6005-2ZR	Shield on both sides resting on smooth inner ring shoulder
K	6204-2ZK	Tapered bore with 1:12 taper
C2	6213 C2	Radial clearance smaller than normal
C3	6305-2ZR C3	Radial clearance greater than normal
C4	6007-2RS C4	Radial clearance greater than C3
C5	6302-2ZR C5	Radial clearance greater than C4
C6	6315 C6	Reduced vibration level

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SUSPENSION

Ball joints - Tie rod ends - Axial arms - Stabilizer bar links.
Suspension components manufactured to the highest quality standards.



Nut with safety pin



Metal clamps of high precision and rigidity



High-strength thermoflexible dust cover



Housing in 1045 steel



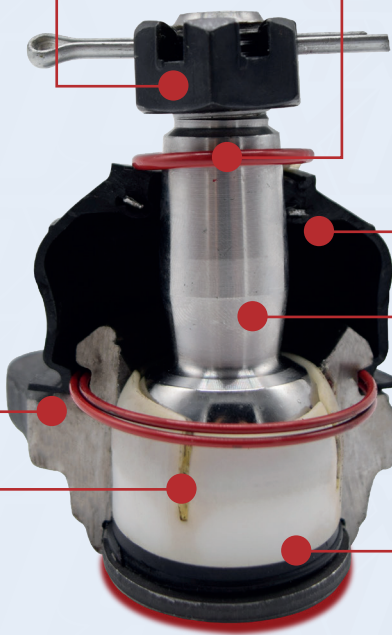
Lithium-based grease type EP (extreme pressure)



Steel pivot Ansi 5140



Inner bushing (plastic bearing) of POM - polyacetal



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RECOMMENDATIONS

1

Use appropriate tightening tools, overtightening will result in improper operation of the product.

2

Avoid compensating for wear on various components by welding. Suspension and steering components contain internal polymer materials that can deform at the temperatures experienced when welding. Suspension and steering components with welding marks are not covered by this warranty.

3

Perform alignment.

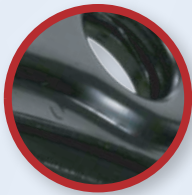
After installing tie rod ends or axle ends, alignment parameters change, so it is important to realign the vehicle.

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CONTROL ARMS

KMX control arms, are manufactured from heavy-duty sheet metal, providing greater impact resistance and improved suspension system control.



Welding beads automated



Tolerances and quality of bushings according to OEM



Electrostatic painting for greater protection against corrosive agents



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SUSPENSION AND STEERING

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