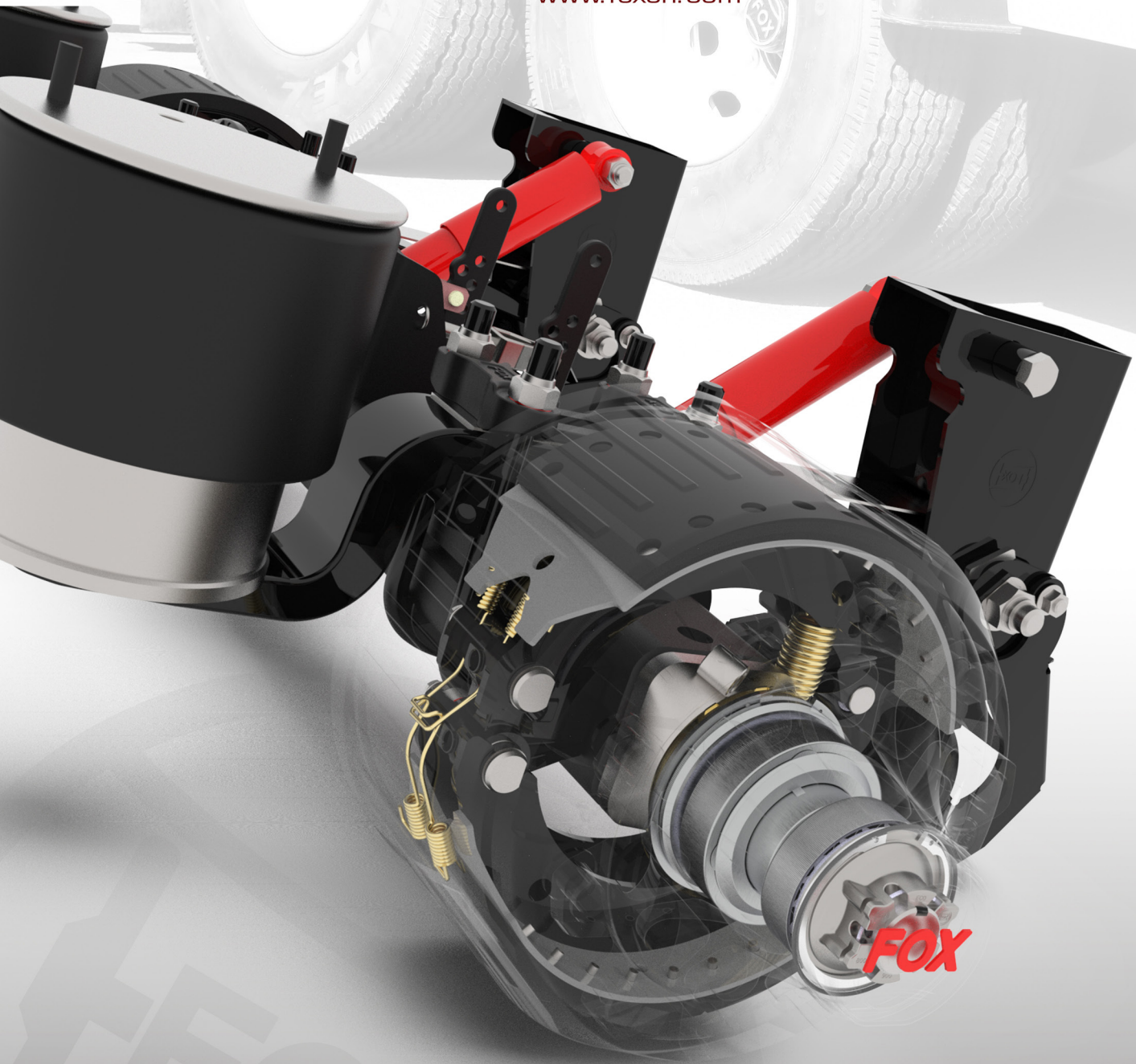




MEHVAR SAZAN CHICHEST Co.

www.foxch.com



**Fox Axles Service And
Maintenance Manual**



CHICHEST AXLE MANUFACTURING Co.

WWW.FOXCH.COM





Mehvar Sazan Chichest Chichest Axles Service And Maintenance Manual

Certificate code

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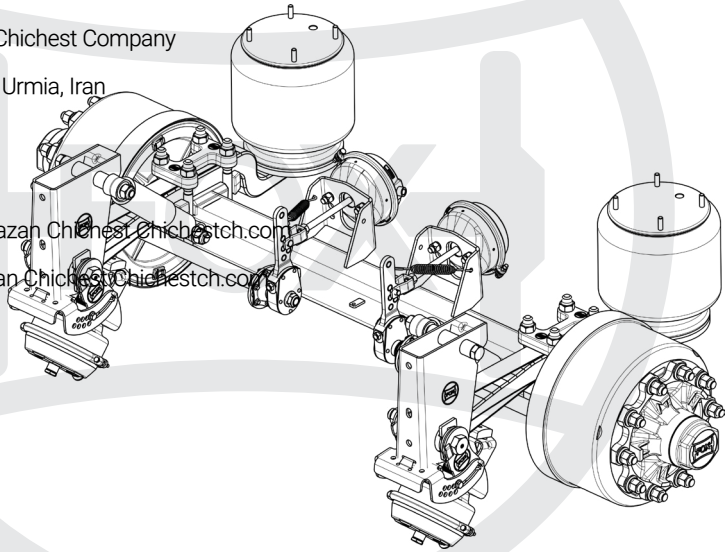


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Introduction

Today, one of the basics of competition in organizations is customer orientation and customer satisfaction, because the main driver in commercial and service organizations that seek major improvements in their development path are the customers of those organizations. The great efforts made today by researchers, experts, and managers of commercial organizations to improve performance management tools and develop a customer-oriented attitude show that customer satisfaction is now one of the most important factors in determining the success of organizations in business and profitability. Customers who are more satisfied with the organization express their positive experiences to others and thus become a means of advertising for the organization, which in turn, reduces the cost of attracting new customers. This is especially important for professional service providers, as their reputation is a key source of information for new customers.

In this regard, the management of Mehvar Sazan Chichest Chichest Company, using machines and quality and advanced engineered production equipment and raw materials in accordance with world standards as well as human resources experts, has done concrete measures that increase customer satisfaction of Mehvar Sazan Chichest Chichest Company, over more than a decade of its activities in the field of design and production of trailer axles and trailer parts.

One of the measures taken to increase customer satisfaction of Mehvar Sazan Chichest Chichest Company is to prepare and compile an installation guide for the company's products, which, while facilitating the installation and commissioning of the product, avoids possible mistakes and unwanted human errors in installing products, in particular, the company's production axles, and will lead to better product efficiency; In addition, possible future

defects of the product in case of correct and standard installation, will be within the framework of product warranty, and after-sales services of the company's products.

In the following text, which has been prepared and compiled with the efforts of sales engineering and after-sales services of Mehvar Sazan Chichest Chichest Company and Maral Industrial Group, it is tried to give a complete description for the method of selecting the axle, delivery of the triple set and axial spare parts, preparation of the triple-axles set for assembly, step by step assembly of the first axle, second axle, and third axle, how to make the necessary controls for axle installation and finally, the installation of the axle lift set on the first axle.

Welcome to the world of Mehvar Sazan Chichest Chichest trailer parts and axles, and it is recommended that you read this manual before driving, which includes specific safety information and pre-driving warnings. Mehvar Sazan Chichest Chichest Company is constantly adapting the axles of its produced trailers and components and parts in accordance with the latest safety and technological standards, as well as the correct installation of parts and equipment. Please keep this guide with the vehicle and keep a copy of this guide if different drivers use the trailer and provide a copy of this guide to the buyer if ownership is transferred.

Have a safe trip

Quality Control Department of Mehvar Sazan Chichest Chichest Co.

www.MehvarSazanChichestch.com

The Quality Improvement of the Products of Mehvar Sazan Chichest Chichest

The products of the Mehvar Sazan Chichest Chichest company are produced in accordance with international standards and have the desired quality. Therefore, this company guarantees that all manufactured products are functional during the warranty period without any material or functional defects. In case of any defect in the parts in this period, this company will repair or, if necessary, replace these parts for free.

General Warranty Terms

As Mehvar Sazan Chichest Chichest continuously improves the quality of its products, the maintenance instructions and services provided may change from time to time. Therefore, the company apologizes for any problems that may arise. You can now contact the company through communication portals. Upon request, the latest version of the Service and Maintenance Manual will be sent free of charge.

Any new requirements for the validity of the company warranty in all cases must be done in accordance with the latest version of the company's service and maintenance instructions.





Lubrication Requirements:

- 1 Under extreme conditions, lubricate more frequently, for example (off-road, poor road, empeded braking effort)
- 2 Replacement of roller bearing for every of axle operation of recommended.
- 3 After the first run under laden conditions, check the axle according to the checklist ...
- 4 After along idle period, prior to initial operation actuate the brake lever and lubricate the brake camshaft bearing.
- 5 The use of liquid lubricants isn't permitted.
- 6 Lubricate with Mehvar Sazan Chichest Chichest Special grease.
- 7 After cleaning vehicle, lubricate all areas that need to be lubricated.

1. Hub unit:

Every 1 year or 100,000 km (which ever comes first), clean taper roller bearings and seals thoroughly, dry and check for reuseability ,Re-palce grease if necessary.

It's recommended that the taper roller bearings are thoroughly inspected and replaced if necessary.

Note: if the roller bearing is replaced, the roller bearings must be replaced with an extrenal cage.

Work Mehvar Sazan Chichest special long life grease thoroughly into the cavities between the taper rollers and the cage in both taper roller bearings. Smear any residual grease into the hub's outer bearing race.



Also, Smear the lip of the seal all around with Mehvar Sazan Chichest Chichest Special long life grease.

Clean the journals of the axle stub(metal must be bright, dry and free from grease) spray journals with Assembly and protection Spray(A&P). Allow to dry for about ten minutes until the film changes to a marked matte colour.

Fit the Hub unit, tighten the axle nut with a torque wrench set on 150N.m whilst at the same time turning the hub unit until the torque wrench, clicks'.

Back off axle nut to the first available locking hole. Do not exceed 15°.

Insert locking pin and secure retaining ring in grooves in axle nut. then fit hubcap.

Note: do not use the impact wrench or hammer to tighten the axle nut in any way.

Clip retaining ring into groove around out-side of axle nut.

Note: There is an o-ring fitted underneath the hubcap that must be replaced every time that the hubcap is removed.

The hubcap is only torqued to 450 - 500 N.m.



1.1 Wheel Screws:

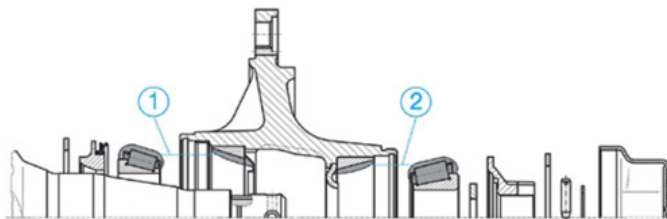
Check wheel nuts for tightness:

After loading for the first time and each time the wheels are changed, tighten the nuts crosswise with the specified torque. The tightening torque shown in the table.

Wheel contact surfaces should hnot have additional coats of paint (risk of wheel becoming detached)

Wheel Nut	Tightening Nut Torque
M22x1.5	600 - 660 N.m

The amount of grease for each roller bearing if a grease tank is used		
AXLE LOAD	Inner bearing	Outer bearing
10000 - 12000 Kg	170 g	120 g

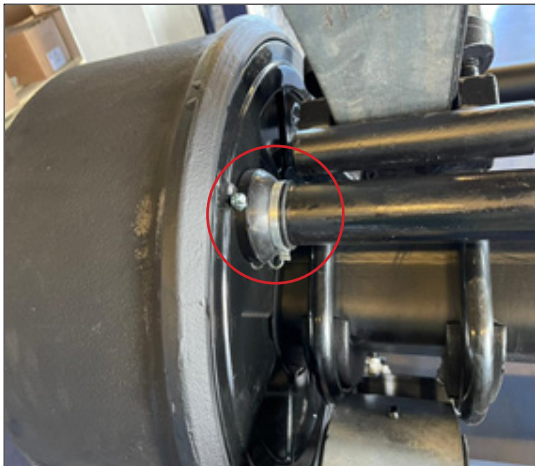
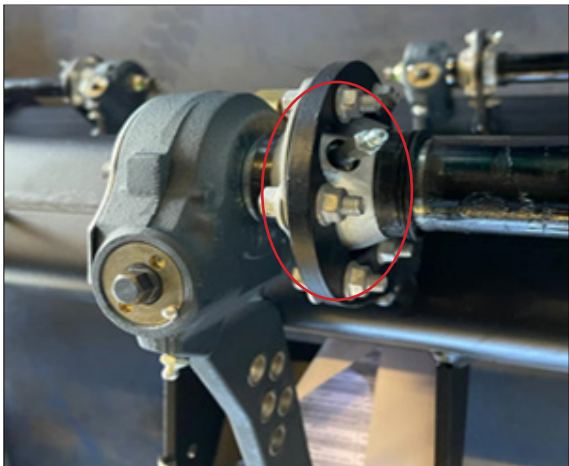


2. Service and Maintenance of Drum and Disc Brakes:

2.1. Lubrication of camshaft bearings:

Every 4 weeks with short distance haulage and every 12 weeks with long distance haulage. Lubrication nipple with Mehvar Sazan Chichest Chichest Special long life grease.

Ensure that all grease nipple caps are replaced.



2.2. Brake pads:

Brake lining qualities authorised by Mehvar Sazan Chichest are matched to each other and their performance is confirmed in the assessment reports and the general certification of the components.

These brake linings are subject to continual monitoring by the Quality Assurance Department, so that Mehvar Sazan Chichest Chichest is able to warrant consistent quality. Mehvar Sazan Chichest Chichest cannot verify the performance of the braking system should other types of lining be used. Our warranty is therefore void if other brake linings are used.

2.3. Drum brake maintenance and visual inspection:

Drum brake maintenance and visual inspection check brake lining thickness quarterly.

Use inspection hole for visual inspection Drum lining brake pods.

The brake lining should be replaced at a residual lining thickness of 5mm (check with slide gauge) or on reaching the bottom of the indicator machined into the edge of the lining. Also check the inside diameter of the brake Drum.

Brake	Brake shoe width (mm)	Maximum amount of wear Φ	Maximum diameter of modified brake drum by machining (mm)
SN 420	180 / 200	425.5	424

2.4. Disc brake caliper:

Check quarterly the brake lining thickness regularly, e.g.

When checking the tire pressure, or after 3 months at the latest.

Warning: worn brake lining reduce the braking performance and can ultimately cause the brakes to fail completely!

Inspection can be done as follows:

The brake lining thickness can be checked by the position of the brake caliper in relation on the welded-on brake anchor with the wheels mounted (approximate wear indicator).

2.5. Dimension X¹:

12mm >> new condition

31mm >> Max. permissible brake lining wear 19mm

35mm >> Max. permissible wear for brake lining and brake disc

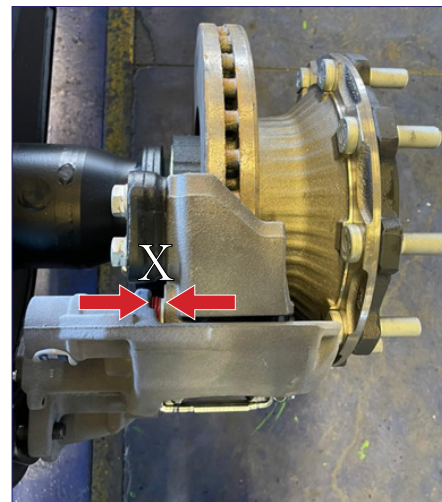
The brake lining must be removed to inspect them more closely. Scorched, glazed over, or oily brake linings must be replaced immediately.

The remaining brake linings thickness must not be less than 2 mm (check with a caliper gauge)

Small ruptures at the edges are allowed; large ruptures on the surface of the friction linings are not permitted.

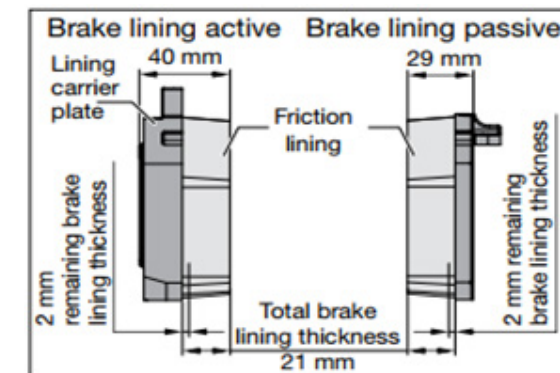
Warning: only replace brake linings on the same axle at the same time

¹ distance between brake caliper and brake anchor



2.6. Visual Inspection:

Every six months, check all components for damage, wear and corrosion.

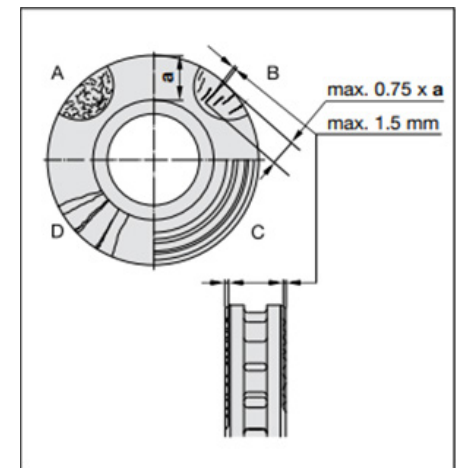


2.7. Brake disc:

(checking the condition of the brake disc every three months).

Sections A-D (fig.) show the possible conditions of the disc surface:

- | | |
|--------------------------------------------------|-----------------|
| A: Network-type cracks | permissible |
| B: Radial cracks up to Max 1.5mm width and depth | permissible |
| C: Uneven disc surface less than 1.5mm | permissible |
| D: continuous cracks | not permissible |



2.8. Technical data:

Disc thickness, new = 45mm

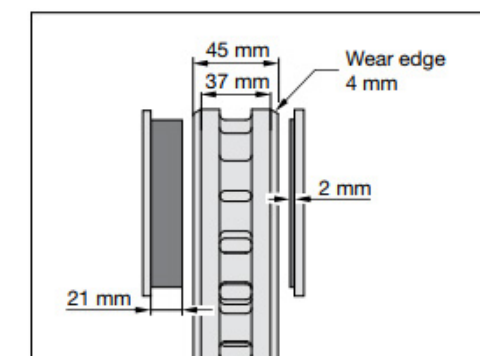
Min permissible per side = 37mm

Max wear per side = 4mm

(check with a caliper gauge where the brake linings make contact)

In the case of surface conditions as described for sections A-C, the brake disc can be used until the minimum permissible disc thickness has been reached.

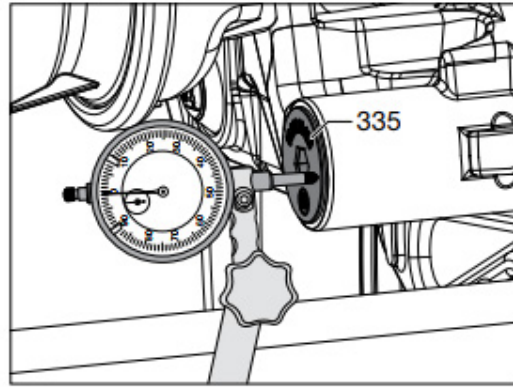
Warning: If these instructions are not followed, the brake disc can be damaged and the braking effect can decrease or completely fail when the brake linings are worn down.



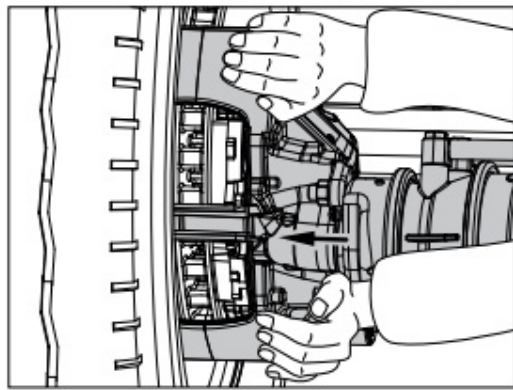
Check the brake caliper guide system every three months.

Secure the vehicle from rolling away. Release the service and parking brake.

Force fully pushing the sliding caliper in the direction of the axle must cause the caliper to move approximately 0.7 to 1.3mm (clearance). If the clearance is not within this tolerance, the brake caliper guide must be checked and the

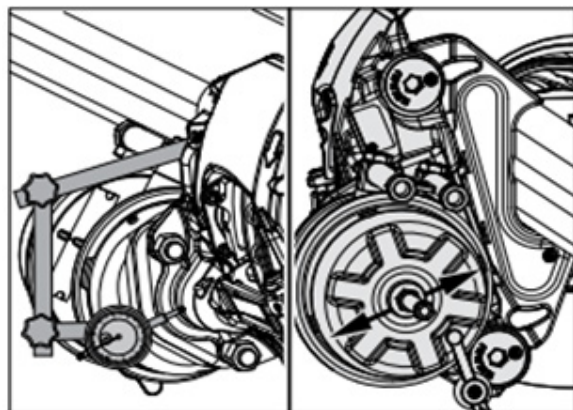


clearance readjusted. Use a dial gauge to determine the clearance. For this purpose, attach a dial gauge holder to the axle beam and position the probe on the outside of the fixed bearing scaling cap. If the clearance is not within the tolerance, the adjustment and the brake caliper guide should be checked.



The bearing play of the brake caliper can be determined using a dial gauge. Attach the dial gauge holder to the axle beam and position the gauge on the brake caliper housing on the brake cylinder holder.

Press the brake caliper on the brake cylinder downwards vertically to its installation position and set the dial gauge to zero.



Press the brake caliper upwards and determine the play of the bearing on the dial gauge.

If the play of the bearing of a brake caliper exceeds 1.5mm, the brake caliper bearing must be replaced.

At every brake lining replacement and at the latest annually secure the vehicle from rolling away. Release the service and parking brake.

The service brake and spring brake must be in the released condition.

Pull the pressure plate with heat protection cover and bellow out of the dust cover slightly. Check the complete unit for proper seating and damage. Replace it if necessary.

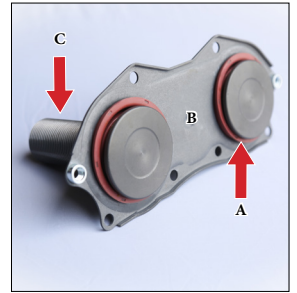
Check the dust cover (arrow) for deformation, if a deformation is detected, the brake caliper must be replaced.

If a thermal over loading of the brake has been detected, the below with pressure must be replaced.

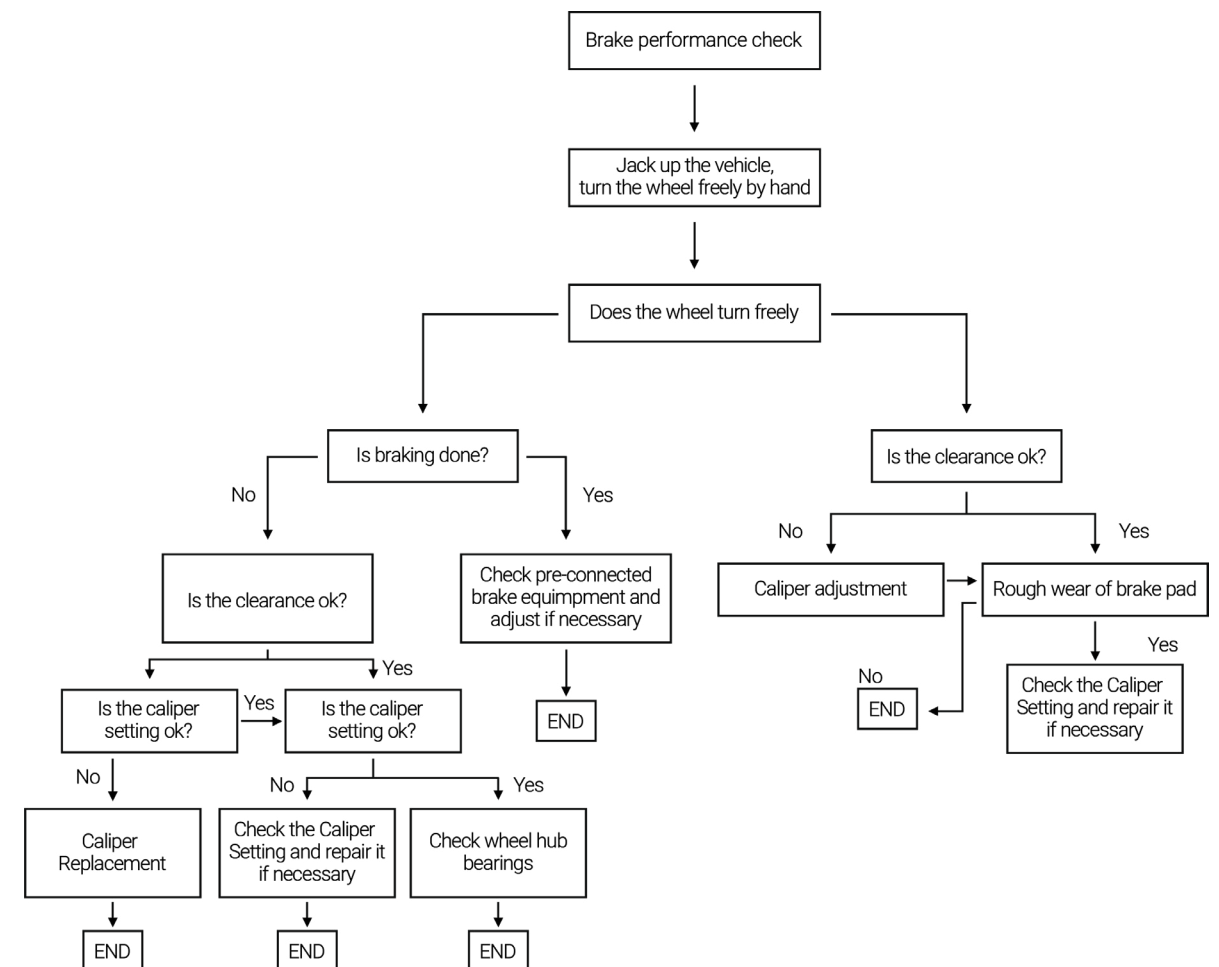
Before the new bellow with pressure plate is installed, the adjusting unit must be checked for corrosion and ease of movement.

After the check or replacement, the bellow must be folded correctly and returned to its initial position. The pressure plate rests against the threaded sleeve.

Note: The penetration of dirt and moisture causes corrosion and effects the operation of the clamping mechanism and adjustment.



2.9. The following flowchart can be used to check the performance of the braking system:



3. Service and maintenace of suspension system components:

1. The suspension fasteners must be re-torqued at the initial service.
2. Under extreme conditions , service more frequently.
3. Only with optional Mehvar Sazan Chichest bolt-on hanger and guests.

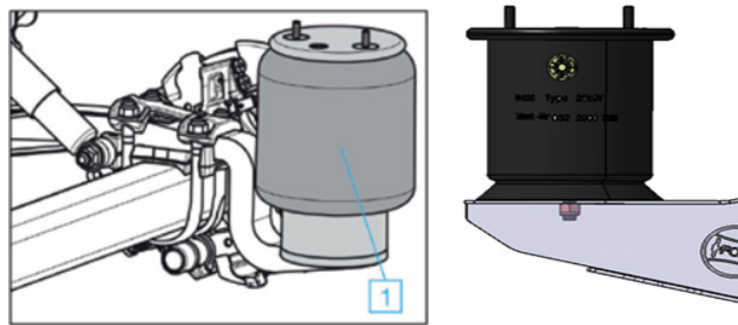
If re-assembling the suspension please note:

All threads nut washer interfaces must be lubricated with anti-seize prior to assembly.

The spring eye bolt and shock absorber fasteners are to be tighten when the suspension is set at the correct ride height.

3.1. Air Bag maintenance and visual inspection:

Check condition of airbags every 12 weeks for external damage(surface, cracking, crease formation , trapped foreign bodies etc.), replace airbags in the event of damage.



Safety notice:

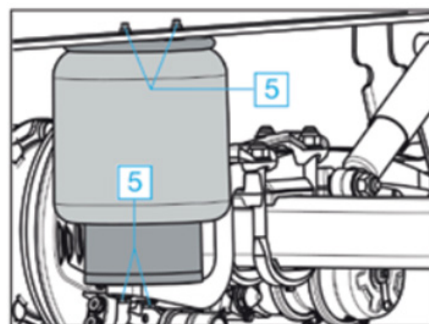
No welding should be carried out on steel parts of airbags and pressure vessel. The air suspension should only be filled with compressed air when mounted!

3.2. Air Bag fastenings:

- tighten/re-torque at first service.
- Thereafter annually.

Check air bag fixing bolts or nuts for tightness and re-tighten if necessary.

	Connections above the Air Bag		Bottom Air Bag connections	
Spring axles	M12	66Nm	M16	230Nm
Intra axles	M12	40Nm	M16	80Nm



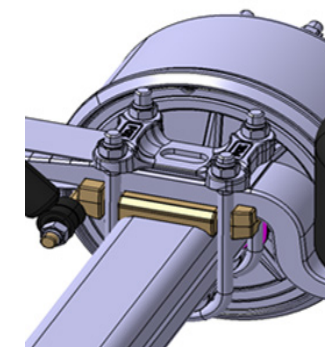
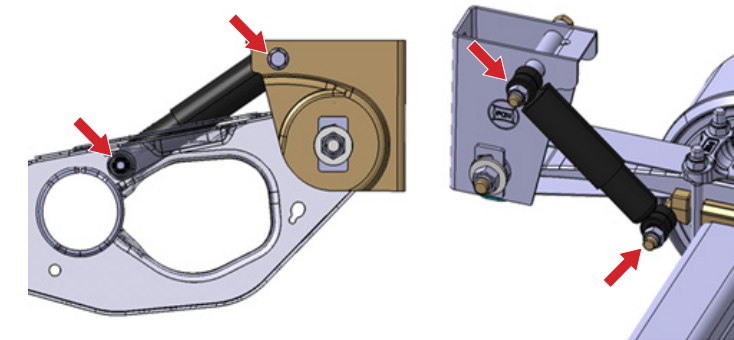
3.3. Shock absorber fastening:

-Tighten/ re - torque at first service

-Thereafter annually

Check lower and upper shock absorber fastening for tightness.

Spring axles	M24	425 Nm (410 - 430)
Intra axles	M20	400 Nm (390 - 410)



3.4. U-Bolt:

- Tighten/re-torque at first service.
- Thereafter annually.

Check lock nuts of spring U-bolts for tightness if loose ,tighten nuts to the prescribed torque in several stages on alternate sides (i.e one U-bolatat a time).

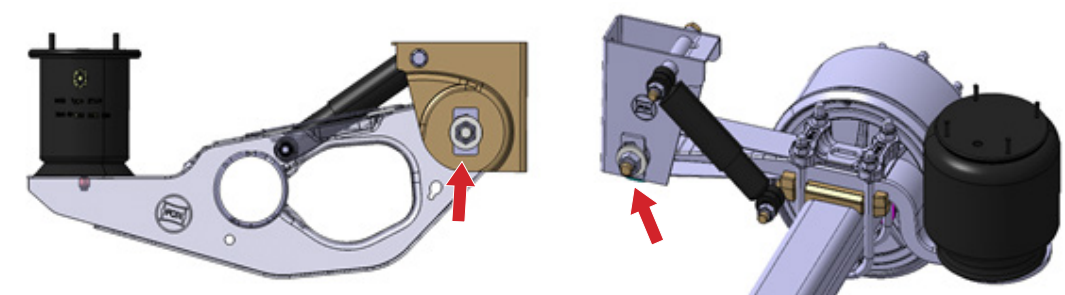
Note:No welding should be performed on the trailing arm spring!

3.5. Spring eye bolts:

- Tighten/re-torque at first service.
- Thereafter annually

Specified torque:

Spring axles	M30	M=1000N.m
Intra axles	M30	M=400Nm+120°





4. Manual slack adjuster:

-Every 4 weeks (monthly) with short distance haulage.

-Every 12 weeks (quarterly) with long distance haulage .

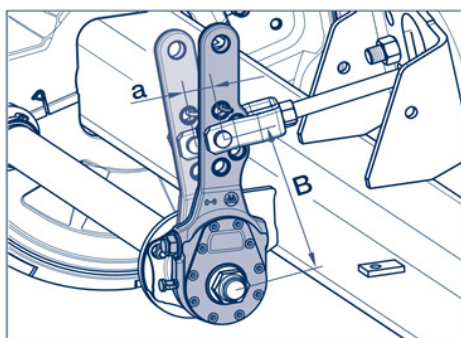
Grease lubrication nipple with mehavar sazan chichest special long life grease until fresh grease emerges.

4.1- Readjust manual slack adjuster:

To be done monthly.

Ensure that trailer brakes are released. Use a ring spanner to depress the lock collar. Turn spanner in a clockwise direction until brakes are applied.

To set breaks turn spanner anti-clockwise until a free play "a" of 10 - 12% of the connected brake lever length "B" is obtained.



E.g if brake lever length = 10 mm, then set play =15 - 18mm.

Note: Slack adjuster should be approximately 90° to each other when using the brakes

If unsure of the procedure please contact Mehvar Sazan Chichest Chichest Transpec.

5. Automatic slack adjusters:

-Every 4 weeks (monthly) with short distance haulage.

-Every 12 weeks (quarterly) with long distance haulage.

Lubricate with Mehvar Sazan special long life grease until sufficient new grease emerges from the adjustment screw.

Turn back adjustment screw (keep clutch sleeve pressed down) by approximately one turn a ring spanner. Actuate the brake lever several times by hand. The adjustment must be carried out smoothly. If necessary, repeat several times.



5.1: Fitting and setting automatic slack adjusters:

The Mehvar Sazan Chichest Chichest slack adjusters requires accurate adjustment both initially and after each lining change to ensure that the free play is correct. Once this setting is correct the Mehvar Sazan Chichest slack adjuster will faithfully maintain the correct setting itself when necessary, to give very best in lining life and safe

operation.

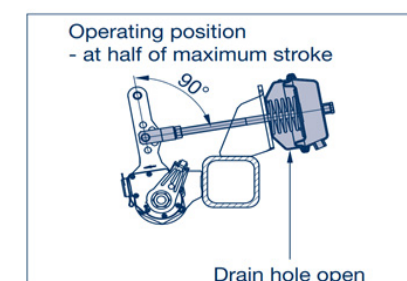
The automatic slack adjuster for the drum brake - the Mehvar Sazan Chichest - cannot both set and adjust itself, it will always automatically adjust back to its initial setting, which must be done manually.

Every time the brakes on the trailer are used a little bit of both brake lining and the brake drum are worn away. So the next time brake booster must push the slack adjuster a little farther to achieve the same braking result. The automatically re-adjusts it self every time the camshaft rotation exceeds 17.5, maintaining the optimum free play between the linings and the brake drum.

If the Mehvar Sazan Chichest automatic slack adjusters are not already fitted to the axle tighten the slack adjuster



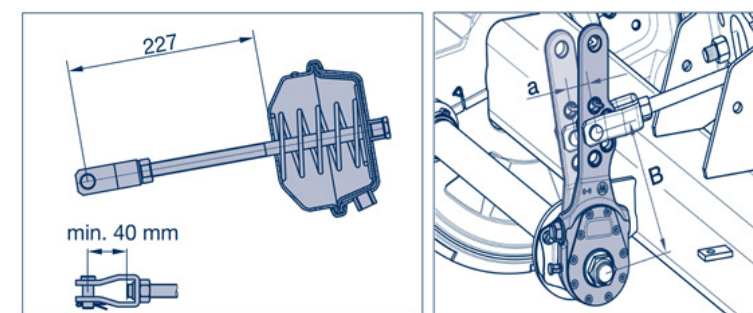
retaining nut to 80 - 90mm ensuring that the brake lining wear indicator is pointing vertically up! Fit the anchor brakes and leave the nuts loose at this stage.



Depress the clutch sleeve around the adjustment screw.

Turn the adjusting screw to line up the clevis pin hole to the relevant slack adjuster hole. Ensure that the pushrod has been cut to the correct length.

The booster pushrod must be in the brakes released position. The pushrod and the slack adjuster must not be pulled to line up the clevis pin hole to the slack adjuster hole. Ensure that the free play obtained, "a" is 10% to 15% of the connected brake lever length, "b" E.g. If brake length = 150mm, then set the free play=15mm. The booster must be in the brake released position.





Overview of Mehvar Sazan Chichest Chichest Axle Brake System		First service between 1000 and 5000 km	Every 4 weeks Each month	Every 12 weeks Once every three months	Every 26 weeks Twice a year	Each 1 Year
A	Spherical liner lubrication of brake shafts in carrying loads in Long distances					
	Spherical liner lubrication of brake shafts in carrying loads in short distances					
B	Control of ratchets in carrying loads over long distance					
	Control ratchets in carrying loads over short distances					
C	Wheel bolt control in terms of stiffness with specified torque	*				*
D	Ball door control in terms of rigidity with specified torque				*	
E	Drum brake pad control (must be at least 5 mm thick)			*		
F	Checking the drum brake pads for cracks and the inside diameter of the wheel bowl			*		
G	Manual ratchet function control		*			
H	Automatic ratchet function control			*		
I	Visual control of all parts for wear or damage			*		

Overview of Mehvar Sazan Chichest Chichest axle suspension and Air Bags		Initial service between 1000 to 5000 km	Every 12 weeks Once every three months	Every 26 weeks Twice a year	Each 1 Year
A	Check condition of air bags	*		*	
B	Check air suspension piping for leaks and wear. Check levelling valve and linkage for condition. Check suspension ride height.	*			*
C	Check shock absorber fastening M24 M = 425 Nm (315ft / lbs) M24 M = 325 Nm (240ft / lbs)	*			*
D	Check U-bolts for firm seating M24 M = 650 Nm (480ft / lbs)	*			*
E	Check air bag fasteners for firm sitting M12 M = 66 Nm (49ft / lbs (Higher mounting nuts) M16 M = 230 Nm (170ft / lbs)Lower mounting screws)	*			*
F	Check spring eye bolts for firm seating	*			*
G	Check axle lift device for firm seating	*			*
H	Visual inspection of the welling of hanger brackets to chassis	*			*
I	Visual inspection all of condition and fastening of the axle beam			*	
J	Vsual inspection of all component parts for wear or damage		*		
K	Drain air suspension tank		*		

Warranty statement:

The warranty terms is as follow:

1. Subject the vehicle undergoing a first service at an approved service provider between the first service , and subject to the appropriate paper work being submitted to Mehvar Sazan Chichest Chichest Transpec upon completion of the first service.
2. Perform periodic services on time and ordered.
3. Only for trailers registered for and used on public roads at or below legally permitted axle louds and within the manufacturers capacity rating.

The first service is performed at 1000 to 5000km and the axle is inspection according to the from F-00242, then according to the relevant from, it is guaranteed. It should be noted, the first service is free.

Scope of warranty:

For the duration of the warranty period Mehvar Sazan Chichest Chichest will cover the costs for material that is to be replaced as well as for disassembly and installation in line with Mehvar Sazan Chichest Chichest standard time guide lines such work must be agreed in advance with Mehvar Sazan Chichest Chichest or the relevant Mehvar Sazan Chichest Chichest representative and performed by eun

-Authorized where applicable and subject to agreement, returned. To Mehvar Sazan Chichest Chichest at the owners expense.

Any and all further claims are excluded. Failures that fall within the terms of the Mehvar Sazan Chichest Chichest warranty must be notified immediately on discovery to Fix or the appropriate authorized Mehvar Sazan Chichest Chichest representative/dealer or service Centre.

This warranty is given subject to original of the goods being maintained.

Exclusion from the warranty:

This warranty does not cover normal wear and tear, the relevant wearing part (in particular brake lining , brake drums ,brake discs , brake pads) , maintenance-dependent parts within disc brake calipers, or environmental intrusion resulting from noise and odor errors, and/or non-compliance with Mehvar Sazan Chichest Chichest service and maintenance requirements. The use of any non-genuine parts during the warranty period will also render the Mehvar Sazan Chichest Chichest warranty void .

Cases where the running gear specification is not suitable for the operating may also be excluded from warranty. Damage caused by water ingress due to fording ,e.g. rivers, streams and/or flood water , is excluded from this warranty

Registration:

This warranty will only be given for trailers that have been registered and that have had the first service, performed between the first 1000 km to 5000 km in service. Registration of each trailer is undertaken by way of having the first service performed at an approved Mehvar Sazan Chichest Chichest service provider and submitting to

Mehvar Sazan Chichest Chichest the relevant first service /warranty registration document.

Repairs during the warranty period:

When repairs are carried out during the warranty period the warranty covering the replaced component will continue as previously and will not start a new.

Definition of high way (on-road):

The term "high way" (on-road) refers having a sealed and metalled surface, in other words with as asphalt or concrete surface. If the vehicle spends the overwhelming majority of its operating life travelling on such roads , and will travel on unmade road incidentally for small distance and predominantly at low speed , then for the purpose of.

Warranty Recommendations

Defects due to wear and tear are not considered in this warranty. In cases where the replacement of parts or repairs has been done without the consent of the company, no responsibility will be borne by Mehvar Sazan Chichest Chi Company.

- The company will not be liable in any way for negligence or damages resulting from the use of substandard parts that are not approved by the company.

It is essential that all repairs and maintenance are carried out in accordance with the specified instructions to achieve safe performance.

Regulations regarding the performance and services of the trailer manufacturer and the manufacturers of other trailer parts and accessories must also be observed.

Repair of any defects or replacement of worn parts must be performed by an authorized dealer of the company.

- It is strongly recommended to use only the main parts of Mehvar Sazan Chichest company with Mehvar Sazan Chichest Chichest logo or goods approved by this company when replacing parts. The parts manufactured and approved by this company are constantly inspected.

- The warranty of Mehvar Sazan Chichest Company will expire in case of using non-standard parts and even non-standard repairs that are not acceptable to the company.

