

AIR BRAKE SERVICES TRAILQUIP

CONVERTER DOLLY OPERATORS MANUAL

TQA SPRING SUSPENSION SERIES



WWW.ABSTRAILQUIP.COM

PREFACE

ABS Trailquip does not guarantee that the goods purchased will be suitable for customer's operational requirements.

It is the purchaser's obligation to clarify any exceptional conditions of use.

VERSION CONTROL

VERSION	DATE	UPDATE
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1.0 Overview

Thank-you for purchasing an ABS Trailquip Converter Dolly.

This Manual provides the specifications for the set-up and ongoing maintenance of an ABS Trailquip Converter Dolly (referred to hereafter as 'the dolly'). The specifications are provided to ensure the structural integrity and safe operation of the dolly are maintained.

Failure to operate and maintain the dolly in accordance with this specification will void the ABS Trailquip Warranty.

The Manual comprises specifications for the following dolly components:

- TP/Parallel Bearing TQA Trailquip Axle;
- TQA Spring Suspension 400mm Ride Height;
- 50mm Bolt-on Tow Eye;
- Fifth Wheel Greaseless; and
- Ball Race.

2.0 ABS Trailquip Pty Ltd Dolly Warranty

Definitions

Buyer means the customer detailed on the Order submitted by the Buyer to ABS. ABS means ABS Trailquip Pty Ltd.

Goods means the Dolly and Spare Parts jointly and severally. Manufacturer means ABS Trailquip Pty Ltd (ACN 126 053 521).

Order means the document completed by the Buyer to Order the Goods. Repairs means the repairs which are undertaken by ABS for the Buyer.

Spare Parts means spare parts manufactured by ABS and supplied by ABS to the Buyer. Dolly means the dolly supplied by ABS to the Buyer.

Warranty means the warrant provided by ABS on the terms set out below.

Warranty

1. ABS warrants that the Dolly and Repairs are of an acceptable quality, fit for purpose, and free from defect for the following applicable periods:
 - a) In the case of the Structural component, three (3) years *or* 300,000km;
 - b) In the case of Axles and Suspensions, two (2) years *or* 200,000km;
 - c) In the case of a Full Product warranty, one (1) year *or* 100,000km;
 - d) Component parts may vary according to the different manufacturers.

NOTE: Dollies running 24 hours a day reduces the warranty period by 50%

2. This Warranty is subject to the limitations and qualification set out below. Please read these limitations and qualification carefully. If you have any questions, please contact ABS.

Rights of Consumers under Australian Consumer Law

3. Clause 2 applies to the Buyer if:
 - a) The amount paid or payable for the Goods does not exceed \$40,000.00 (except where the Goods are not of a kind ordinarily acquired for personal, domestic or household use or consumption, and ABS has limited its liability in a manner permitted by the Australian Consumer Law, in which case the Buyer's rights are limited to that extent); or
 - b) The Goods are a Dolly acquired for use principally in the transport of goods on sealed public roads;
 - c) Unless the Buyer acquired the Goods for the purpose of re-supply or the purpose of using it up or transforming it in trade or commerce.

4. The Goods come with guarantees that cannot be excluded under the Australian Consumer Law. The Buyer is entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. The Buyer is also entitled to have the Goods repaired or replaced if the Goods fail to be of acceptable quality and the failure does not amount to a major failure.
5. The benefits given to the Buyer by this Warranty are in addition to other rights and remedies that it may have in relation to the Goods.

Limitations on Warranty

6. The Warranty will not apply to any claim arising out of:
 - a) Misuse, including but not limited to using a Dolly with a load in excess of its structural or legal capacity as specified at the date of purchase;
 - b) Failure to maintain and service the Goods at appropriate intervals by an appropriate professional as per our maintenance manual, including (but not limited to):
 - (i) Regular maintenance and service;
 - (ii) Regular greasing of all components on the goods which require grease (including greaseable hinges, wheel bearings and grease nipples etc.);
 - (iii) Inspection of wheel nuts and U-bolts after the first 50km of travel;
 - (iv) Regular inspection of wheel pressures;
 - (v) Regular inspection of all fittings and fasteners;
 - (vi) Regular inspection of dolly ride-height in order to maintain 360mm at all times.
 - c) Maltreatment, inattention, or interference including but not limited to rust, or coating with any preparation not approved in writing by ABS;
 - d) Wear and tear of components that require regular replacement including but not limited wheel bearings, seals, couplings, brakes, tyres, rims, dock rubbers and scuff strips;
 - e) Fair wear and tear, damage caused by improper use, misuse or abuse, defects due to modifications, accidents, damage caused by vandalism, rusting, acts of nature or any other event beyond the control of ABS;
 - f) Wear and tear of tyres;
 - g) Cosmetic appearance, including the galvanized surface and the paint becoming dull, faded or chipped and scratching, scuffing or natural breakdown of materials, including rust on the dolly;
 - h) Use or improper use, adjustment, calibration or operation by the Buyer or any person on behalf of the Buyer;
 - i) Any modification which was not authorized in writing by ABS and/or not performed by an authorized service representative;

2.0 ABS Trailquip Pty Ltd Dolly Warranty

- j) Use that is not in accordance with any instructions given by ABS including loading the Dolly in excess of its structural capacity as designated by ABS or exceeding the recommended speed limit;
- k) Inadequate or improper storage, maintenance or transportation;
- l) Exposure to heat and moisture, outside of standard operating conditions;
- m) Damage caused by the continued use of damaged Goods; or
- n) Accidental or intentional damage by a person or animal.

Note: ABS Trailquip reserves the right to sight records of scheduled maintenance to verify maintenance to specification has been conducted, prior to honoring the warranty.

- 7. Subject to ABS's obligations under applicable law that cannot be excluded, modified or restricted, including as described in clause 2 and 3 ABS's liability:
 - a) In relation to Goods is limited to ABS's choice of one of the following options:
 - (i) Repair the Goods;
 - (ii) Replace the Goods; or
 - (iii) Refund the price paid for the Goods;
 - b) In relation to Repairs is limited to ABS's choice of one of the following options:
 - (i) Providing the Repair again; or
 - (ii) Refund the price paid for the Repair (the value as agreed and pre-approved by ABS Trailquip); and
 - c) Does not include or extend to costs associated with the transportation of defective Goods or Repaired goods, or resulting downtime.
- 8. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the Goods.
- 9. ABS makes no representation or warranty in relation to any Goods not manufactured by ABS, including but not limited to tyres, axles, suspensions, brakes, shock absorbers and hydraulics. The Buyers agrees to look solely to the warranties provided by ABS of those goods.
- 10. Replaced parts become the property of ABS. If parts are returned under this Warranty, the Buyer is not entitled to make any deduction from remittances or current accounts without ABS's consent.
- 11. Nothing in this Warranty is intended to have the effect of excluding any applicable provisions of the Australian Consumer Law.

2.0 ABS Trailquip Pty Ltd Dolly Warranty

2.0 ABS Trailquip Pty Ltd Dolly Warranty

12. ABS will, under no circumstances, be liable for any damage, whether direct, indirect, special or consequential, arising in any way out of the use of or in relation to the Products, whether as a result of ABS's negligence or otherwise. This includes loss of freight, loss of earnings or loss of contracts.

Goods Purchased for the Purpose of Resupply

The following provisions apply to Goods purchased for the purpose of resupply by the Buyer.

13. If the Goods are sold to the Buyer's customers, the Buyer must ensure there has been no reliance by its customers on any promise or representation as to the nature, quality or quantity of the Goods, contrary to the Warranty.
14. If the goods have been altered, modified, adjusted, converted, transformed or altered in any way whatsoever, the Warranty will not apply.
15. The Buyer acknowledges that:
- If the Buyer sells the Goods to any person by reference to a sample, that sample is not supplied by ABS; and
 - Any sale by sample by the Buyer to any person is not referable to the sale or supply of the Goods by ABS to the Buyer.

Making a Claim

16. The Buyer must:
- Contact ABS by phone or email with a description of the issue or defect;
 - Return the Goods to ABS as directed at the Buyer's cost and risk; Provide satisfactory proof of purchase in the form of a copy of the Order, delivery docket, tax invoice or a copy of the receipt;
 - Not use the Goods once a claim is notified by the Buyer to ABS and prior to the Buyer returning the Goods to ABS for an inspection; and
 - Bear the expense of claiming under the Warranty.
17. Please note that any claim under this Warranty must be notified to ABS within a reasonable time (and in any event within 14 days) after the Buyer first noticed or ought reasonably to have noticed the issue or defect. If ABS is not notified of the claim within a reasonable time of the Buyer first noticing the issue or defect, ABS may in its absolute discretion deny the claim.
18. Where the Goods comprise a Dolly, the Buyer acknowledges and agrees that the Dolly is designed for use on sealed roads only and use of the Dolly on an unsealed road voids this warranty.

3.0 Dolly Pre-Start Up Checklist

- Check Drawbar A-Frame for signs of cracking.
- Check Drawbar pivot points for wear, damage and tension.
- Check towing eye for wear.
- Visual check on dolly chassis for signs of cracks.
- Check for loose wheel nuts.
- Check tyre condition.
- Check for correct axle alignment (wheel spacing);
- Check all lights are working.
- Check for correct brake adjustment.
- Check for air leaks on air suspension and brake system.
- Carry out inspection as listed in Axle Service Maintenance where applicable; and
- Carry out inspection as listed in Suspension Service Maintenance where applicable.



If any problems should arise as per the checklist, the Dolly should not be operated, and the problems need to be rectified immediately.


Contact ABS Trailquip at 07-3274 6046 if further assistance is required.

4.0 Dolly Torque Settings & Quick Service Reference

4.1 Dolly Torque Settings Information Overview

Axle Torque Setting: Description	ft-lbs	Nm
Flanged Wheel Nut (M22x1.5)	425 - 465	570 - 630
Rim Clamp Nut (¾ UNC) for Spider Axles	200 - 250	270 - 340
Camshaft Related Nuts M10	40	50
Hub Cap (Screw On) Spanner P/N: TQA-HC07	55 - 75	70 - 100
Brake Chamber Nut	130 - 150	180 - 205

Mech. Suspension Torque Setting: Description	ft-lbs	Nm
U-Bolt (M22x1.5)	370 - 405	500 - 550
Equalizer Bolt (M24x3) Poly or Rubber Bush	215 - 260	290 - 350
Torque Arm Nuts (M24x3) Poly Bush	180 - 200	240 - 270
Torque Arm Nuts (M24x3) Rubber Bush	110 - 150	150 - 200
ADJ. Torque Arm Clamp Nuts, (M12x1.75)	70 - 75	90 - 100

Auxiliary Parts Torque Setting: Description	ft-lbs	Nm
Drawbar Pivot Bolts (M24x3)	215 - 260	290 - 350
Bolt-On Tow Eye Locking Nut Socket P/N: TQA-TOOL001	370 - 740	500 - 1000
		

4.0 Dolly Torque Settings & Quick Service Reference

4.2 Quick Service Reference Guide

AIR BRAKE SERVICES TRAILQUIP

QUICK SERVICE REFERENCE FOR 10 TON TRAILER RUNNING GEAR

TRAILER PRE-START UP CHECKLIST

- Check Drawbar A-Frame for signs of cracking;
- Check Drawbar pivot points for wear, damage & tension;
- Check towing eye for wear;
- Visual check on trailer chassis for signs of cracks;
- Check for loose wheel nuts;
- Check tyre condition;
- Check for correct axle alignment (wheel spacing);
- Check all lights are working;
- Check for correct brake adjustment;
- Check for air leaks on air suspension & brake system;
- Carry out inspection as listed in Axle Service Maintenance where applicable; &
- Carry out inspection as listed in Suspension Service Maintenance where applicable.



If any problems should arise as per the checklist, the Trailer should not be operated & the problems need to be rectified immediately.

10 TON DRUM BRAKE AXLE SERVICE INTERVALS

After Break-In Period of 1 Week or 50km (whichever comes first) & thereafter Weekly:

- Check torque setting on all wheel nuts (425–465ft-lb, 570-630Nm); &
- Laser wheel-alignment must be carried out & documented.

After first 5,000km:

- Check all wheel bearings' end float & adjust as required.

Every 5,000km:

- Check & adjust brakes; &
- Check brake lining wear.

Every 25,000km:

- Grease all grease nipples;
- Inspect camshafts & related components for wear & damage;
- Check torque settings on all camshaft related components; &

Every 25,000km (Continued):

- Lift axle ends & Check wheel bearing free play & adjust as required. Replace bearings if noise is detected during rotation.

Every 100,000km:

- Inspect all wheel bearings for correct lubrication, repack if insufficient & replace if contaminated;
- Inspect all wheel bearings' end float & adjust as required;
- Inspect wheel seals & replace if worn or damaged;
- Check axle nuts for correct torque setting;
- Check for sufficient grease at hub ends & adjust as required;
- Check axle & brake components for wear, repair or replace as required; &
- Check brake system is functional & all brake system related valves operates correctly.

REFER TO ABS TRAILQUIP MANUAL FOR ALL TORQUE SETTINGS AND ANY ADDITIONAL INFORMATION

10 TON MECHANICAL SUSPENSION SERVICE INTERVALS

After Break-In Period of 1 Week or 50km (whichever comes first):

- Check all torque settings & re-torque; &
- *Standard Spring Plate U-bolts (500-550Nm)*
- *U-Shaped Spring Retainer Plate U-bolts (325-375Nm)*
- *Torque arm bolt nuts (150-200Nm)*

Laser wheel-alignment must be carried out & documented.

Every 5,000 km or every 3 weeks.

- Check all torque settings (Especially U-bolt & torque arm bolt nut);

Every 50,000 km or every 6 months.

- Check all torque settings as for 5,000 km service;
- Check the torque arm bushes & equaliser shaft bushes for wear or deterioration & replace as necessary;
- Check the leaf springs for wear, cracks or corrosion & replace as necessary;
- Inspect the remainder of the suspension for wear or deterioration & replace any suspect parts as necessary; &
- Check tyre wear & adjust the axle alignment as necessary.

REFER TO ABS TRAILQUIP MANUAL FOR ALL TORQUE SETTINGS AND ANY ADDITIONAL INFORMATION

10 TON AIR SUSPENSION SERVICE INTERVALS

After Break-In Period of 1 Week or 50km (whichever comes first):

- Check torque settings on all fasteners (Especially the following);
- *U-bolts (445-480ft-lb, 600-650Nm)*
- *Shock absorber bolt nuts (295-310ft-lb, 400-420Nm)*
- *Spring eye bolts - Cast arm (535-595ft-lb, 720-800Nm)*
- *Spring eye bolts - Parabolic arm (410-445ft-lb, 550-600Nm)*
- Check suspension ride height & adjust to manufacturer's ride height specification as required; &
- Laser wheel-alignment must be carried out & documented.

Every 25,000km or Quarterly:

- Check torque settings on all fasteners;
- Check suspension ride height & adjust to manufacturer's ride height specification as required; &
- Visual inspection of suspension components, including suspension bushes, trailing arms, suspension hangers, suspension air bags & shock absorbers for wear, damage & cracking. Repair & replace as required.

Every 100,000km or Yearly:

- Check torque settings on all fasteners;
- Check suspension ride height & adjust to manufacturer's ride height specification as required;
- Thorough inspection of all suspension components. Repair & replace as required;
- Check suspension bushes for wear & excessive movement. Repair & replace as required;
- Check trailing arms for wear & damage. Repair & replace as required;
- Check suspension hangers for wear & damage. Repair & replace as required;
- Check suspension air bags for leaks & wear. Repair & replace as required;
- Check shock absorbers & shock absorber bushes for leaks, wear & excessive movement. Repair & replace as required; &
- Check axle alignment & adjust as required.

REFER TO ABS TRAILQUIP MANUAL FOR ALL TORQUE SETTINGS AND ANY ADDITIONAL INFORMATION



Loose suspension fasteners & worn parts may cause vehicle instability resulting in loss of control & damage.

Over-torquing can result in fastener failure. **Always use a torque wrench, never a rattle gun when tightening fasteners.**

Depending on the suspension service application, shorter service intervals may be required to maintain trailer suspension in working order. In extreme service conditions, weekly or daily service inspections may be required.

Axle alignment must be done when severe kerb contact or accidental damage occurs. Suspension bushes must be checked for damage. Replace if required.

Failure to maintain & document the trailer as per the running gear specifications will void any warranty.

If in doubt, please contact ABS Trailquip at sales@abstrailquip.com.

5.0 TP / Parallel Bearing TQA Trailquip Axle

5.1 Recommended Service Intervals

After Break-in Period of 1 Week or 50km (whichever comes first) and thereafter Weekly:

- Check torque setting on all wheel nuts.

After first 5,000km:

- Check all wheel bearings' end float and adjust as required.

Every 5,000km:

- Check and adjust brakes; and
- Check brake lining wear.

Every 25,000km:

- Grease all grease nipples.
- Inspect camshafts and related components for wear and damage.
- Check torque settings on all camshaft related components; and
- Lift axle ends, and check wheel bearing free play and adjust as required. Replace bearings if noise is detected during rotation.

Every 100,000km:

- Inspect all wheel bearings' lubricant, repack if insufficient and replace if contaminated.
- Inspect all wheel bearings' end float and adjust as required.
- Inspect wheel seals and replace if worn or damaged.
- Check axle nuts' torque setting.
- Check amount of grease at hub ends and adjust as required.
- Check axle and brake components for wear, repair or replace as required; and
- Check brake system is functional, and all brake system related valves operates correctly.

5.0 TP / Parallel Bearing TQA Trailquip Axle

5.2 Wheel Bearing Adjustments

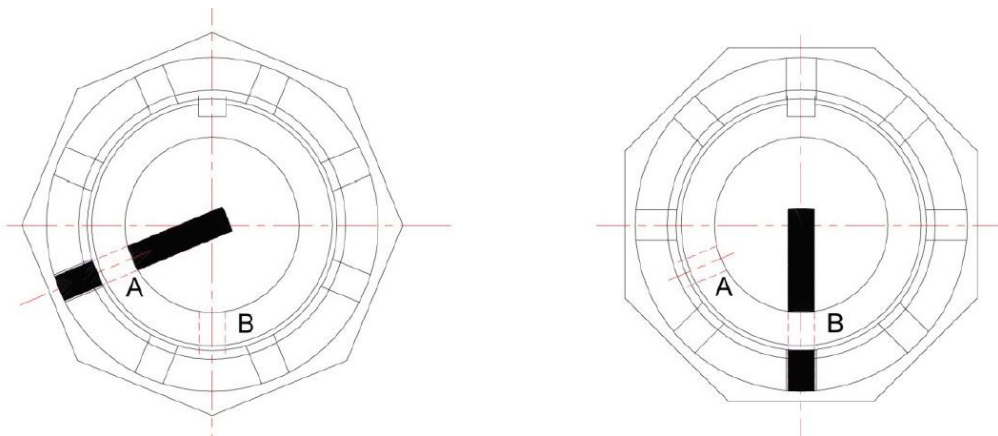
All axles are recommended to have the wheel bearings adjusted after the first 5,000km and then inspected at 25,000km and 100,000km intervals as per the **Recommended Service Intervals**. Depending on the axle service application, shorter service intervals may be required to maintain the axle in working order.

Recommended wheel bearing adjustment procedure:

1. Make sure that the hub revolves freely and if necessary, temporarily slacken off the brake adjustment to ensure complete freedom from brake binding (drag);
2. Rotate the hub in both directions while tightening the axle castellated nut and torque till 270 Nm (200 ft-lbs);
3. Back off the castellated nut one turn;
4. Tighten the castellated nut to 68 Nm (50 ft-lbs) while rotating the hub in both directions;
5. Rotate the hub clockwise 3 turns; and
6. Slacken the nut back by ONE slot (or by 45deg). If there is no slot, line up with any pin hole ('A' or 'B', the angle between 'A' & 'B' is 67.5deg), loosen the nut slightly until the nearest pin hole is reached. Insert new split pin through the hole and bend the pin.

AFTER ADJUSTMENT, BEARING END PLAY SHOULD BE BETWEEN 0.025 – 0.13MM, OTHERWISE REPEAT WHEEL BEARING ADJUSTMENTS PROCEDURE.

Ensure hub rotates freely, otherwise repeat **Wheel Bearing Adjustments** procedure.



IMPORTANT

Re-adjust if too tight or too loose.
Recommended Lube:
Mobil grease (model XHP222)

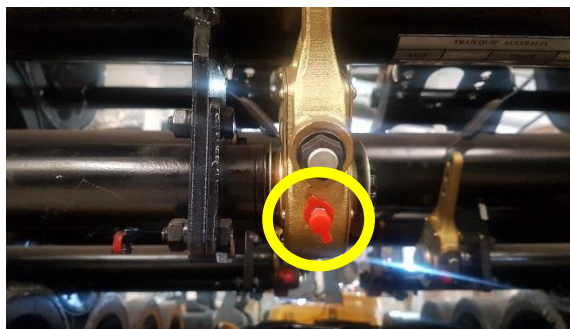
5.0 TP / Parallel Bearing TQA Trailquip Axle

5.3 Axle Component Lubrication

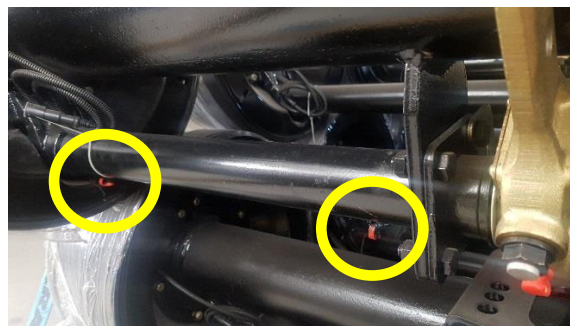
When installing a new axle, ensure all grease channels are filled with grease.

Lubricate all the grease nipples on the axle. This includes lubrication points at the slack adjusters, camshaft tubes or camshaft bushes.

Lubricating the Slack Adjusters, Camshaft Tubes and Camshaft Bushes



Slack adjuster grease points



Camshaft tube grease points



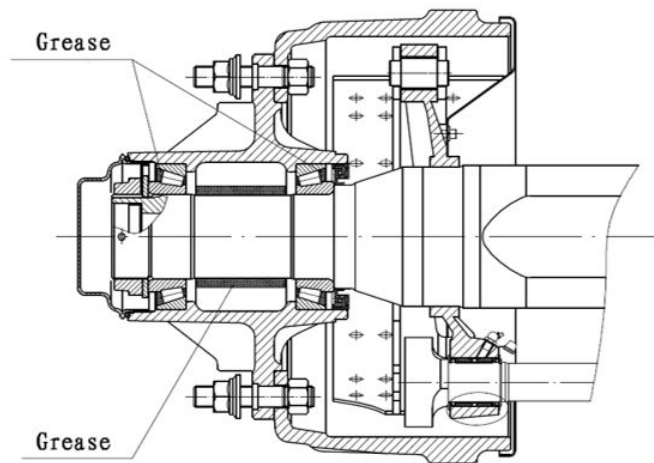
Camshaft bushes grease points

5.0 TP / Parallel Bearing TQA Trailquip Axle

5.4 Greasing the Hubs and Wheel Bearings

Mobil grease model XHP222 or equivalent is recommended for greasing the hubs and wheel bearings.

Ensure all components are clean before applying grease to avoid contamination.



Drawing showing grease points at the hub and wheel bearings



Photo showing the bearings packed with grease



Photo showing a greased bearing fitted on to a greased spindle

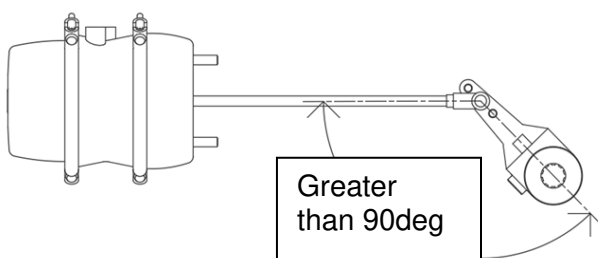
5.0 TP / Parallel Bearing TQA Trailquip Axle

5.5 Brake Adjustments

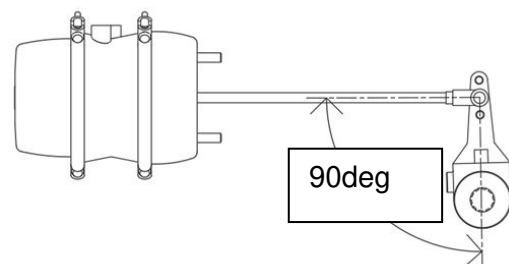
5.5.1 Manual Slack Adjuster

1. Chock the wheels to prevent the vehicle from moving during the procedure and release the trailer parking brakes.
2. Adjust the slack adjuster at the adjusting mechanism until the brake shoes come into contact with the brake drum. Common adjusting mechanism includes a 19mm Hex Head with no locking sleeve or a Hex Nut with a locking sleeve, where the locking sleeve has to be depressed before the Hex Nut can be rotated to adjust the brakes.
3. Back off the slack adjuster one quarter of a turn to allow just enough clearance between the brake drum and the brake shoes to enable the hub to rotate freely without any brake drag.
4. Check that the angle between the brake chamber push rod and the slack adjuster is greater than 90deg when the brakes are released, and that the angle is at 90deg when the brakes are applied. This angle can be adjusted by screwing the pushrod clevis backwards or forwards along the threaded pushrod. Once the angle has been adjusted, tighten the pushrod clevis' lock nut.

All brake actuators on a trailer should be adjusted to have a similar amount of pushrod travel. The pushrod travel of the left brake should be similar to the pushrod travel of the right brake on the axle.



Drawing of an adjusted slack adjuster when the brakes are released



Drawing of an adjusted slack adjuster when the brakes are applied

5.0 TP / Parallel Bearing TQA Trailquip Axle

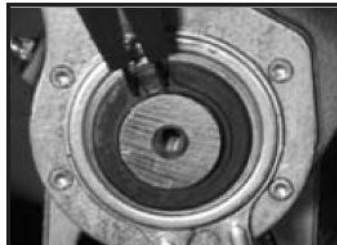
5.5.2 Automatic Slack Adjuster



STEP 1:
Chock the wheels to prevent vehicle from rolling. Ensure system tank pressure is above 100 PSI. Check that the pushrod is fully retracted. Apply air to release spring brake. If air is not available, spring brake must be manually caged back. Install anchor bracket loosely as illustrated. Some strap brackets have two mounting holes. Proper mounting location is determined by the length of adjuster arm. 5" and 5 1/2" adjuster arm lengths utilize the shorter hole location while 6" and 6 1/2" length adjusters utilize the longer hole locations. Do not tighten anchor bracket fasteners at this time. Apply "Anti-Seize" type lubricant to camshaft splines.



STEP 2:
Place at least one inner cam washer on shaft. Install adjuster with the 7/16" adjusting hex pointing away from the spring brake or service chamber.



STEP 3:
Secure adjuster to shaft with snap ring. Install enough washers to reduce end play to less than .060".



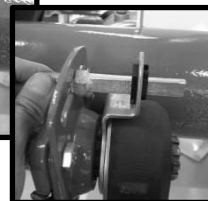
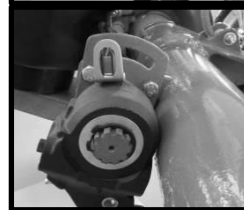
STEP 4:
Rotate the 7/16" adjusting hex nut clockwise until the clevis hole lines up with the brake adjuster arm hole. Do not pull pushrod out to meet clevis.



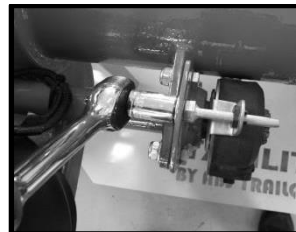
STEP 5:
Apply "Anti-Seize" type lubricant to clevis pin, install and secure with cotter pin.



STEP 6:
The control arm position can be set anywhere within the slotted area of the bracket and the adjuster will function properly. Recommendation is a "common position" for all installations—all the way towards the axle, until the control arm comes to the end of the slotted bracket.



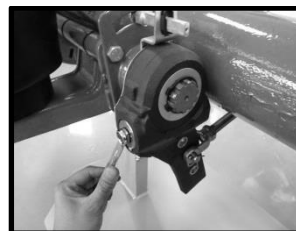
STEP 7:
Insert the flat end of the anchor stud through the control arm bushing. Push the threaded end into the anchor plate slot and loosely install flange nut. Installation of different style anchor brackets and attachment methods follow a similar procedure.



STEP 8:
After positioning control arm and anchor pin to desired location, tighten the flange nut to 40-50 ft. lbs. Note: control arm position is all the way toward the axle. AA1 control arm position is such that the installation indicator falls within the control cover slot. These common positions work well for most applications.



STEP 9:
The adjuster must be manually adjusted at this time. Adjust brakes by rotating the 7/16" adjusting hex clockwise until the lining lightly contacts the drum.



STEP 10:
Back-off the adjuster by rotating adjusting hex counter-clockwise 1/2 turn. A ratcheting sound will occur, which is normal. Never use an impact wrench or internal damage will occur.

Final Inspection: - Recheck all fasteners for proper installation. Before releasing vehicle, activate brakes several times assuring no binding or partial release. Full pushrod travel and release is necessary for proper brake adjustment

5.0 TP / Parallel Bearing TQA Trailquip Axle

5.6 Torque Settings Table

Description	ft-lbs	Nm
Flanged Wheel Nut (M22x1.5)	425 - 465	570 - 630
Rim Clamp Nut (¾ UNC) <i>for Spider Axles</i>	200 - 250	270 - 340
Camshaft Related Nuts M10	40	50
Hub Cap (Screw On) Spanner P/N: TQA-HC07	55 - 75	70 - 100
Brake Chamber Nut	130 – 150	180 - 205

6.0 TQA Spring Suspension 400mm Ride Height

6.1 Recommended Service Intervals

After Break-In Period of 1 Week or 500km (whichever comes first):

- Check torque settings on all suspension fasteners and re-torque.

Every 10,000km:

- Check torque settings on all suspension fasteners;
- Conduct visual inspection of suspension components, including suspension bushes, U-bolts, leaf springs for wear, damage and cracking. Repair and replace as required.

Every 50,000km or Annually:

- Check torque settings on all suspension fasteners;
- Conduct thorough inspection of all suspension components for wear, damage and cracking. Repair and replace as required;
- Check suspension bushes for wear and excessive movement. Repair and replace as required;
- Check axle alignment and adjust as required.

Important Notes:

Depending on the suspension service application, shorter service intervals may be required to maintain trailer suspension in working order. In extreme or off-highway service conditions, weekly or daily service inspections may be required.

Axle alignment must be done when severe kerb contact or accidental damage occurs. Suspension bushes must be checked for damage. Replace if required.

6.0 TQA Spring Suspension 400mm Ride Height

6.2 Replacing / Servicing Torque Arms & Torque Arm Bushes:

When servicing or replacing worn suspension components it may be necessary to remove the fixed/adjustable torque rod arms.

1. Fit the end of the torque rod arm into the suspension hanger or spring axle plate;
2. Lubricate the tapered torque arm bushes with soapy water (50% water : 50% Soap) and insert from either side;
3. Fit the torque arm bolt through the bushes;
4. Fit the torque arm washer and lock nut onto the end of the torque arm bolt;
5. Check that the torque arms are located centrally in the end of the hanger and spring axle plate;
6. Tighten the nut to the specified torque setting; and
7. Perform a visual inspection to ensure the components are correctly installed.

6.3 Replacing / Servicing Equaliser & Equaliser Bushes:

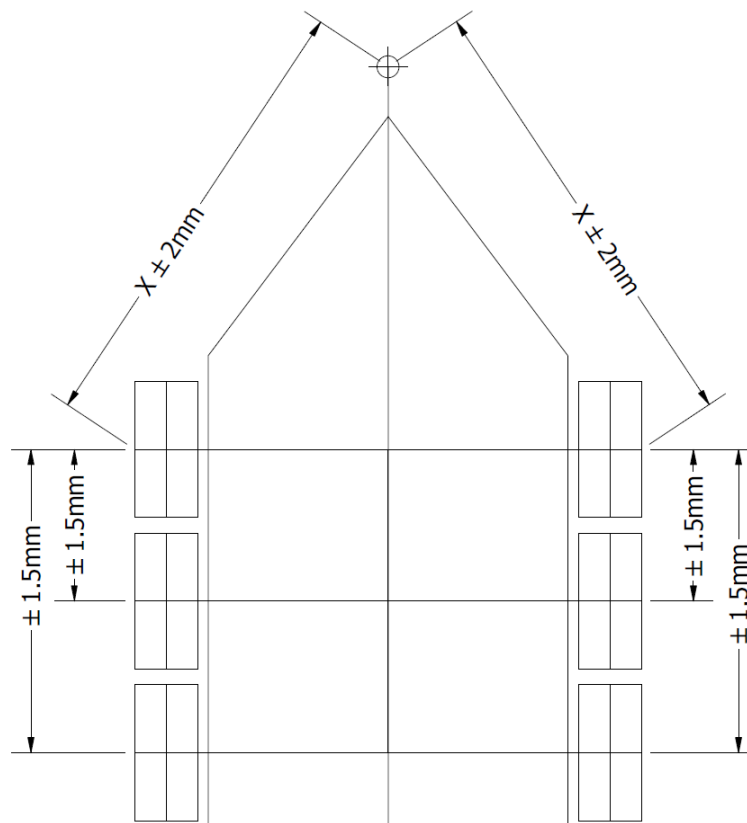
1. Fit the equaliser hanger into the suspension hanger;
2. Using a soapy water solution (50% water : 50% Soap), lubricate the bush and insert a bush into each end;
3. Install the equaliser bolt through the hanger and equaliser assembly;
4. Fit the washer and locknut to the end;
5. Ensure the equaliser casting is centrally located and then tighten the equaliser nut to the specified torque setting; and
6. Perform a visual inspection to ensure the components are correctly installed.

6.0 TQA Spring Suspension 400mm Ride Height

6.4 Axle Alignment

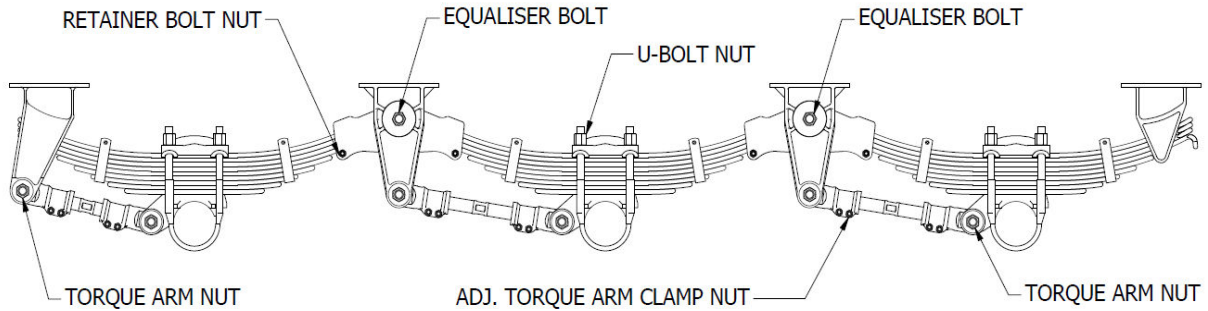
A trailer that is properly aligned will have improved drivability and fuel economy, and minimised tyre wear. The following steps are to assist in carrying out a proper wheel alignment on a Tri Axle trailer:

1. To start the axle alignment procedure, release the trailer brakes and roll the trailer forward to undo any binding of the brakes. The ground must be level and smooth.
2. Use of axle extensions and a kingpin post or a laser alignment device is recommended.
3. First align the front axle to the kingpin by lengthening or shortening the adjustable torque arm. When the axles are aligned to $\pm 2\text{mm}$, tighten the torque arm clamp nuts on the front axle.
4. Next, align each axle to the front axle to within $\pm 1.5\text{mm}$. Once these are aligned tighten the adjustable torque arm clamp nuts on these axles.
5. After the first 1500km of loaded use of the trailer the alignment should be rechecked and corrected if necessary.
6. Whenever possible, carry out axle alignment with a wheel alignment laser or optical aligning device for accurate measurements.



6.0 TQA Spring Suspension 400mm Ride Height

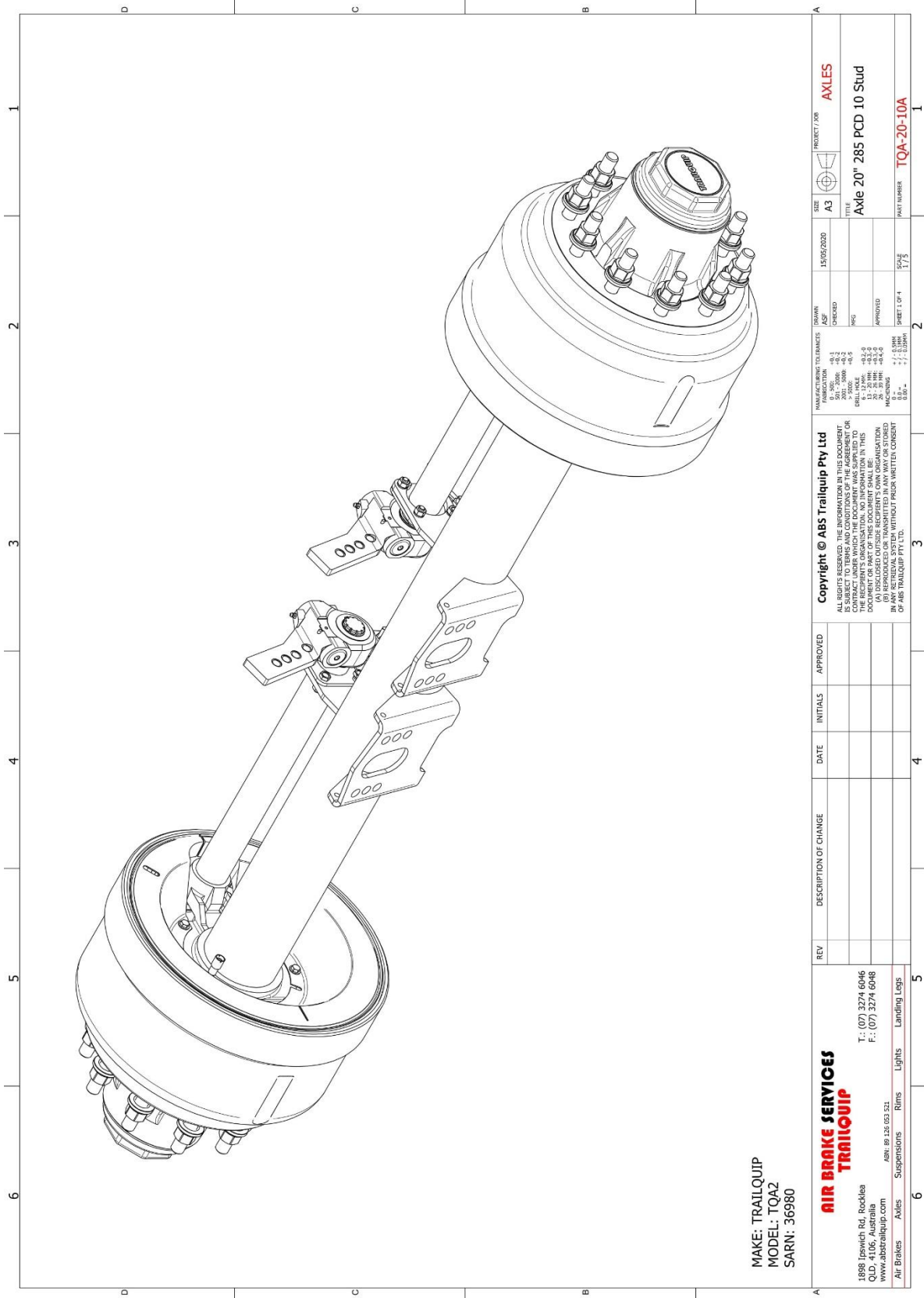
6.5 Mechanical Spring Suspension Drawing



6.6 Torque Settings Table

Description	ft-lbs	Nm
U-Bolt (M22x1.5)	370 - 405	500 - 550
Equalizer Bolt (M24x3) Poly or Rubber Bush	215 - 260	290 - 350
Torque Arm Nuts (M24x3) Poly Bush	180 - 200	240 - 270
Torque Arm Nuts (M24x3) Rubber Bush	110 - 150	150 - 200
ADJ. Torque Arm Clamp Nuts, (M12x1.75)	70 - 75	90 - 100

7.0 Drawings – TQA 10Stud Drum Brake Parallel Bearing Axle



MAKE: TRAILQUIP
MODEL: TQA2
SARN: 36980

**AIR BRAKE SERVICES
TRAILQUIP**

1898 Ipswich Rd, Rocklea
QLD 4105, Australia
www.abstrailquip.com
air: 07 3274 6046
sales: 07 3274 6048

Air Brakes Axles Suspensions Rims Lights Landing Legs

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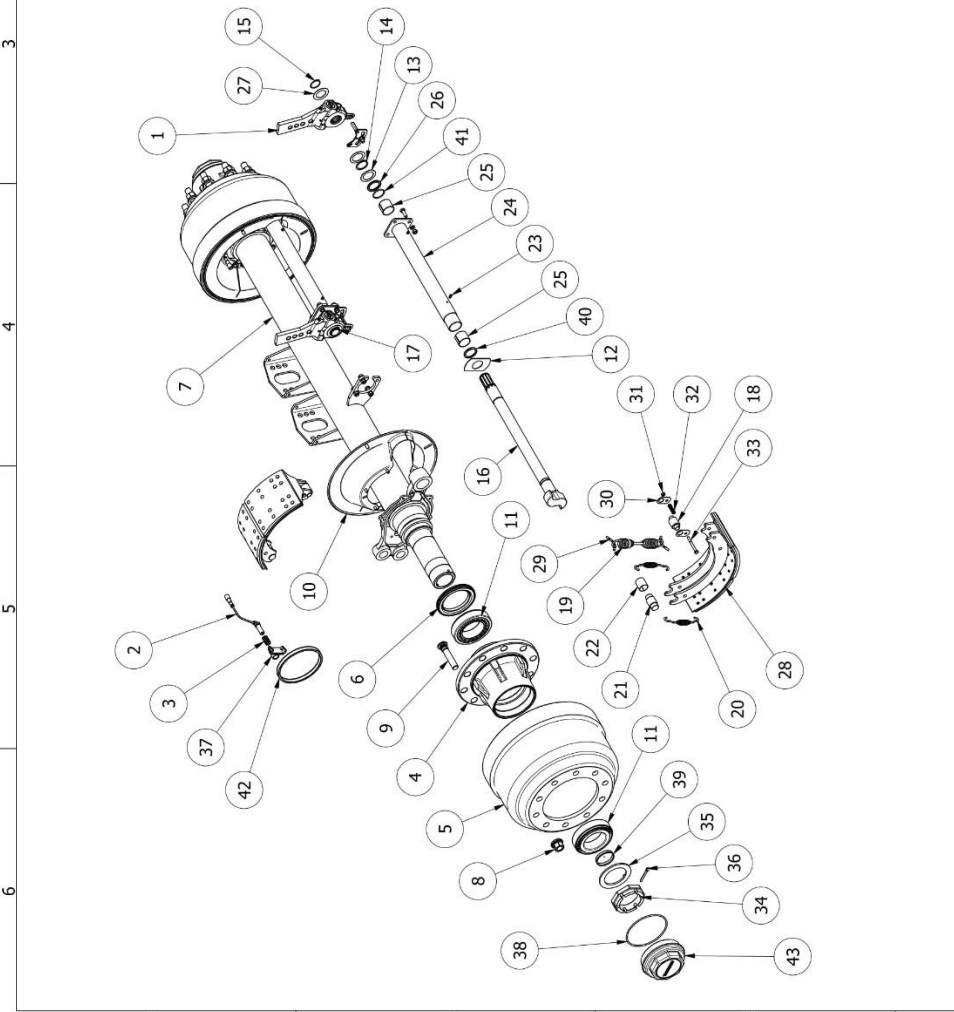
MANUFACTURE TOLERANCES
FRACTIONAL DECIMALS
F. 3/16" 0.1875
F. 1/8" 0.1250
F. 3/32" 0.0938
F. 1/16" 0.0625
F. 1/32" 0.0313
F. 1/64" 0.0156
F. 3/64" 0.0469
F. 1/32" 0.0313
F. 1/16" 0.0625
F. 3/32" 0.0938
F. 1/8" 0.1250
F. 1/4" 0.2500
F. 3/8" 0.3750
F. 1/2" 0.5000
F. 5/8" 0.6250
F. 3/4" 0.7500
F. 7/8" 0.8750
F. 1" 1.0000

DATE	15/05/2020	SIZE	A3	PROJECT / JOB	AXLES
CHECKED		TITLE	Axle 20" 285 PCD 10 Stud		
DESIGNED		APPROVED		PART NUMBER TQA-20-10A	
DRAWN		SHEET 1 OF 4	17/5		

REV	DESCRIPTION OF CHANGE	DATE	INITIALS	APPROVED

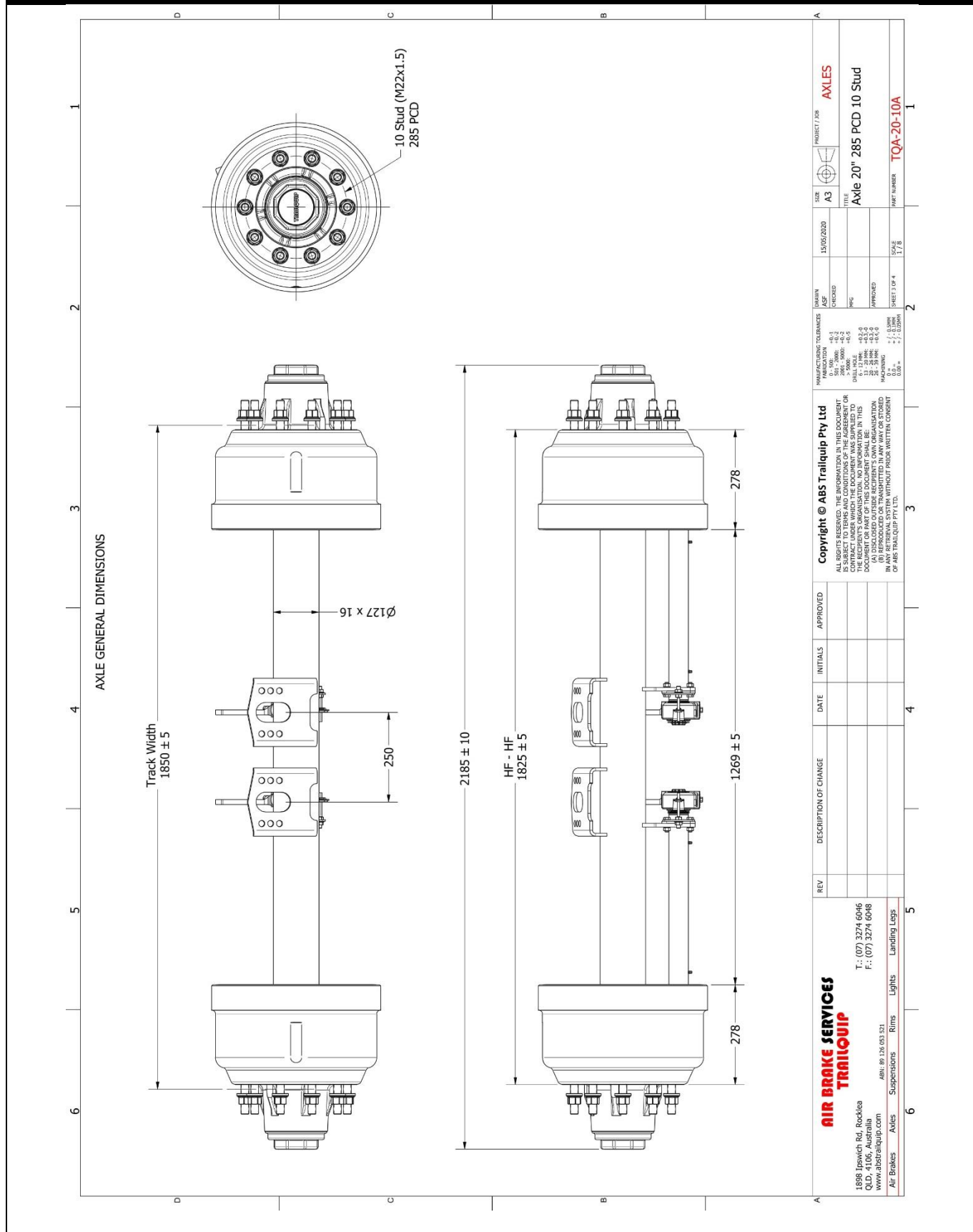
7.0 Drawings – TQA 10Stud Drum Brake Parallel Bearing Axle

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	AA80567	Automatic Slack Adjuster - HDX Type 10-Spline 4-Hole
2	2	EA4410328090	ABS Sensor Right Angle Imtr
3	2	EA8997605104	ABS Sensor Clamping Retainer Bush
4	2	TQA00008/1	Hub 20in 10 Stud 285PCD
5	2	TQA00009/1	Brake Drum 20" 10 Stud 285PCD
6	2	TQA00010	Oil Grease Seal Parallel Axle
7	1	TQA-20-BA-5	20" Propar Axle with Brake Spiders
8	20	TQA00042	Flanges Wheel Nur. Suit. 10-Ton Axle
9	20	TQA-ASP003	Wheel Stud Long 20" Axle
10	2	TQA-ASP009	Dust Cover Suit 20" 10-Stud Axle
11	4	TQA-ASP017	Bearing - Parallel Suit TQA Axle HM518445/10
12	2	TQA-ASP027	Washer S-Cam 41.6mm ID (Out Side) (Part of TQA-ASP144 Kit)
13	4	TQA-ASP030	Washer S-Cam 41.6mm ID (In Side) (Part of TQA-ASP144 Kit)
14	2	TQA-ASP033	S-Cam Bush Retaining Circlip (Part of TQA-ASP144 Kit)
15	2	TQA-ASP043	Slack Adjuster Circlip (Part of TQA-ASP144 Kit)
16	1	TQA-ASP047	Camshaft 20in Propar 10-Spline LHS
17	1	TQA-ASP048	Camshaft 20in Propar 10-Spline RHS
18	4	TQA-ASP050	S-Cam_Roller (Part of TQA-ASP068 Kit)
19	2	TQA-ASP052	Anchor Pin Spring (Part of TQA-ASP068 Kit)
20	4	TQA-ASP053	Heavy Duty Return Spring (Part of TQA-ASP068 Kit)
21	4	TQA-ASP059	Brake Shoe Anchor Pin (Part of TQA-ASP068 Kit)
22	4	TQA-ASP060	Anchor Pin Bush (Part of TQA-ASP068 Kit)
23	4	TQA-ASP061	M6 Grease Nipple (Part of TQA-ASP144 Kit)
24	2	TQA-ASP062	Camshaft Tube
25	4	TQA-ASP063	Camshaft Tube Bush (Part of TQA-ASP144 Kit)
26	2	TQA-ASP064	Washer S-Cam Tub (Part of TQA-ASP144 Kit)
27	2	TQA-ASP066	Washer S-Cam 38.5mm ID (Part of TQA-ASP144 Kit)
28	4	TQA-ASP068-01	20in Brake Shoe (Part of TQA-ASP068 Kit)
29	4	TQA-ASP068-09	Heavy Spring Pin (Part of TQA-ASP068 Kit)
30	8	TQA-ASP068-10	S-Cam Roller Retainer (Part of TQA-ASP068 Kit)
31	4	TQA-ASP068-11	S-Cam Roller Retainer Nut (Part of TQA-ASP068 Kit)
32	4	TQA-ASP068-12	S-Cam Roller Retainer Spring (Part of TQA-ASP068 Kit)
33	4	TQA-ASP068-13	S-Cam Roller Retainer Bolt (Part of TQA-ASP068 Kit)
34	2	TQA-ASP072	Spindle Lock Nut (Part of TQA-ASP143 Kit)
35	2	TQA-ASP073	Thrust Washer (Part of TQA-ASP143 Kit)
36	2	TQA-ASP074	Spindle Split Pin (Part of TQA-ASP143 Kit)
37	2	TQA-ASP115	ABS Sensor Bracket
38	2	TQA-ASP138	Hub Cap O-Ring
39	2	TQA-ASP143-2	Dust Cover Suit Propar Axle (Part of TQA-ASP143 Kit)
40	2	TQA-ASP144-01	S-Cam Grease Seal 2-3.16x1-5.8x5.16 (Part of TQA-ASP144 Kit)
41	2	TQA-ASP144-02	S-Cam Bush O-Ring (Part of TQA-ASP144 Kit)
42	2	TQA-ASP165	ASB Pole Ring 165-Mount
43	2	TQA-HC01-SILVER	Hub Cap Screw Propar Style



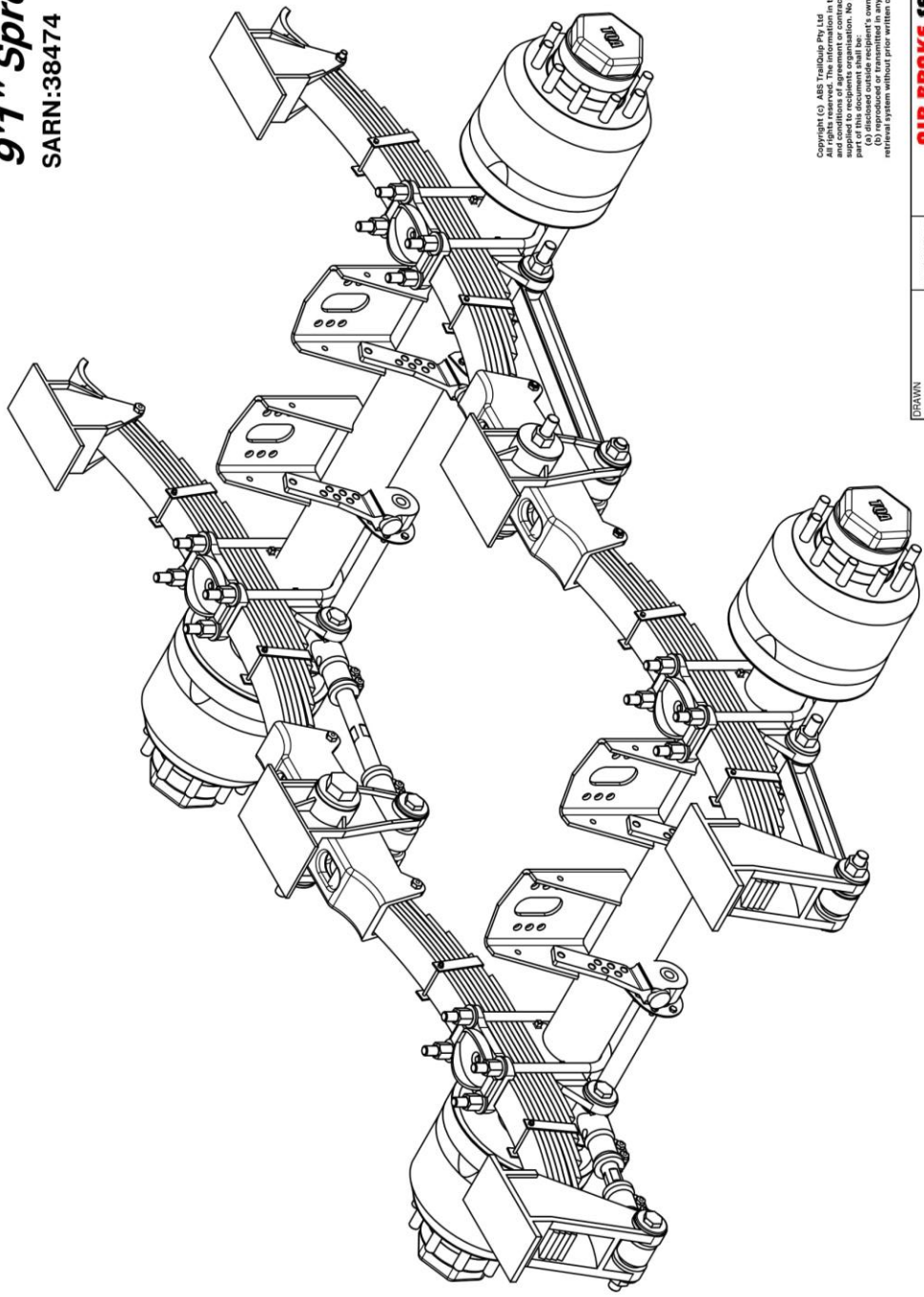
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	<p>REV</p> <p>DESCRIPTION OF CHANGE</p> <p>DATE</p> <p>INITIALS</p> <p>APPROVED</p>	<p>TITLE</p> <p>Axle 20" 285 PCD 10 Stud</p> <p>PART NUMBER</p> <p>TQA-20-10A</p>	<p>DATE</p> <p>1 / 1 / 15</p>
	<p>1898 Ipswich Rd, Rocklea QLD, 4106, Australia</p> <p>www.abstrailquip.com</p> <p>ABN: 89 126 053 521</p> <p>Air Brakes</p> <p>Axles</p> <p>Suspensions</p> <p>Rims</p> <p>Lights</p> <p>Landing Legs</p>	<p>T.: (07) 3274 6046</p> <p>F.: (07) 3274 6048</p>	
	<p>6</p>	<p>5</p>	<p>4</p>

7.0 Drawings – TQA 10Stud Drum Brake Parallel Bearing Axle



8.0 Drawings – TQA Tandem Spring Suspension 9’1” Spread

9’1” Spread
SARN:38474



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DESIGN	11/02/2010	TITLE	AIR BRAKE SERVICES TRAILQUIP
APPROV	5/07/2010	REV	1
CHECKED		SCALE	C
QA		DWG NO	TQA-S20
MFG		SIZE	
APPROVED		REV	
George Green	5/07/2010		
Wayne Miskern	5/07/2010		
PH:07-32746046			

Full Assy View
20 Ton Spring Tandem Axle Overslung Suspension
(Axles Shown for illustration purpose only)

8.0 Drawings – TQA Tandem Spring Suspension 9'1 Spread

Parts Schematic

Typical 9'1" Setup

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AIR BRAKE SERVICES
TRAILQUIP

20 Ton Spring Tandem Axle Overslung Suspension (Typical 9'1" Setup)

DRAWN	11/02/2010	TITLE	20 Ton Spring Tandem Axle Overslung Suspension (Typical 9'1" Setup)
CHECKED	5/07/2010	SIZE	C
APP'D	5/07/2010	SCALE	1
BY	Wayne Mesken	DWG NO	TQA-S20
REV	Ph:07-32746046		

Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	TOA-SP03	Overslung Front Hanger
2	2	TOA-SF28	Overslung Rocker Hanger
3	2	TOA-SF17	Rocker Box
4	2	TOA-SF20	Rocker Box Bush Assy
5	2	TOA-SF04	Overslung Rear Hanger
6	4	TOA-S10TON	9 Leaf Springs 75mm
7	4	TOA-SF01	Spring Suspension Axle Plate
8	4	TOA-SF02	Spring Suspension Spring Plate
9	8	TOA-UB001	U Bolt Assy (340)
10	1	TOA-SF16	Rear Adjustable Torque-Rod 565mm
11	1	TOA-SF08	Front Fixed Torque-Rod 395mm
12	1	TOA-SF15	Rear Fixed Torque-Rod 565mm
13	1	TOA-SF09	Front Adjustable Torque-Rod 395mm
14	8	TOA-SF18	Torque Rod Bush Assy (Pin, Bushes, Washer & Lock Nut)

Sales office 1898 Ipswich Rd, Rocklea QLD | sales@abstrailquip.com | 07 3274 6046 | abstrailquip.com | FB: @abstrailquip

8.0 Drawings – TQA Tandem Spring Suspension 9'1" Spread

Fitting Instruction

Perspective View

Mechanical Suspension Torque Settings

Item	Specification
U-Bolt Nuts, M22x1.5	370-400 Ft-lb (500-540Nm)
Torque Arm Nuts, M24x3 (Poly Bushes)	177-200 Ft-lb (240-270 Nm)
Torque Arm Nuts, M24x3 (Rubber Bushes)	135-150 Ft-lb (180-200 Nm)
Adj. Torque Arm Clamp Nuts, M12	70-75 Ft-lb (90-100 Nm)
Equalizer Shaft Locknut, M24x3	215-260 Ft-lb (290-350 Nm)
Retainer Bolt Nuts, M12	56-65 Ft-lb (75-85 Nm)
Check Wheel Nuts Torque Settings, M22x1.5	450-500 Ft-lb (610-678 Nm)
Check Grease Cap for Tension	-
Check Bearing Grease Every 12 Months	-

Service Intervals

First Service 500 Km - Check all torque settings.
 Every 5,000 Km - Check all torque settings and inspect for damage. Repair and replace if necessary.
 Every 50,000 Km or Annually - Check the torque arm bushes, equalizer shaft bushes for wear & tear and replace if necessary.
 Check the leaf springs for wear, cracks or corrosion and replace if necessary.
 Check the remainder of the suspension for wear or deterioration and replace any parts if necessary.
 Check the axle alignment and adjust if necessary. Axle alignment must be checked when ever severe kerbing, accident damage or the torque arm bushes have been replaced during servicing.

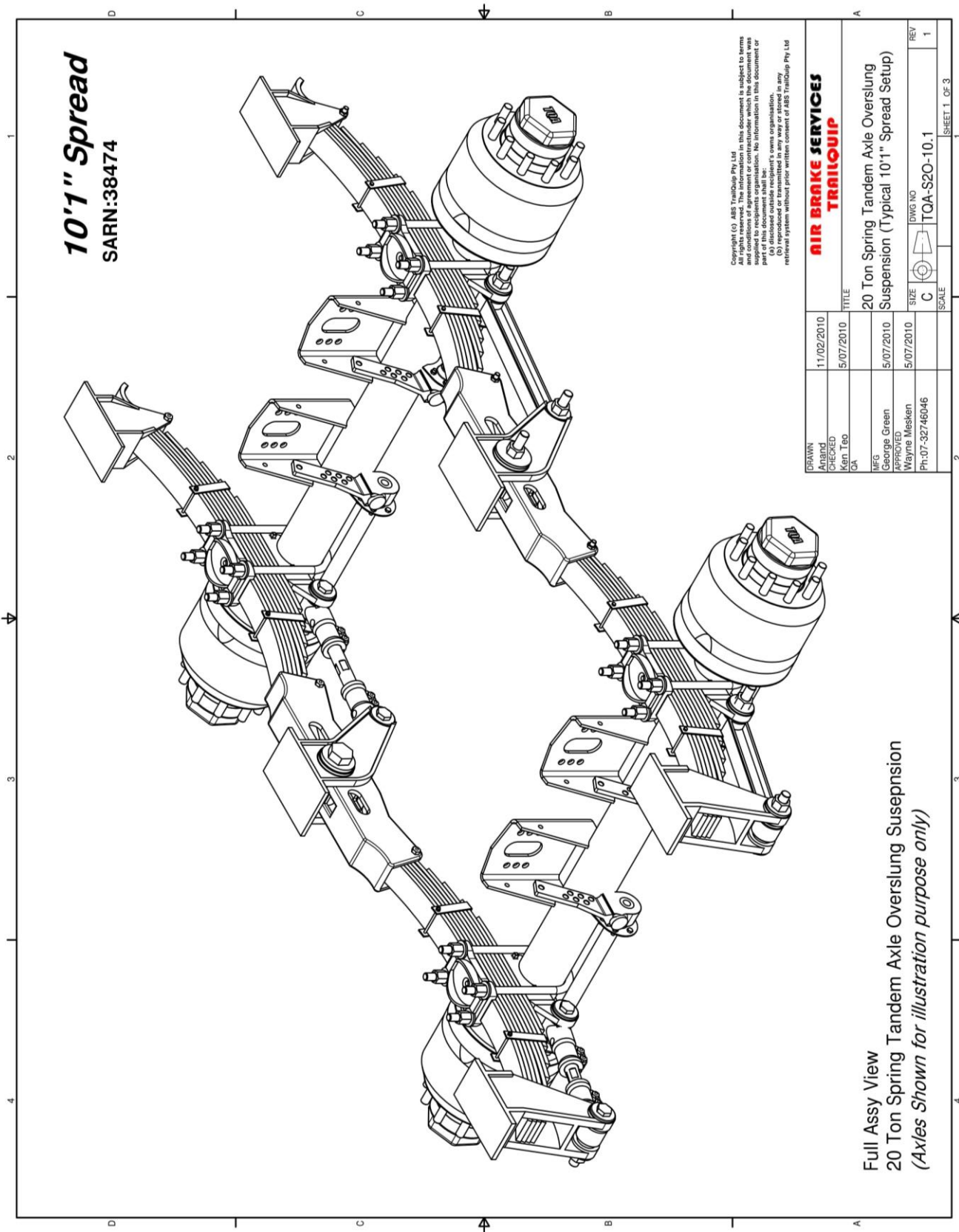
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DRAWN Anand	11/02/2010	TITLE 20 Ton Spring Tandem Axle Overslung Suspension (Typical 9'1" Setup)	SCALE 1
CHECKED Ken Teo	5/07/2010	APPROVED George Green	REV 1
GA		Wayne Mesken	
		PH: 07-32746046	
		DWG NO TOA-S20	

9.0 Drawings – TQA Tandem Spring Suspension 10'1 Spread

10'1" Spread
SARN:38474



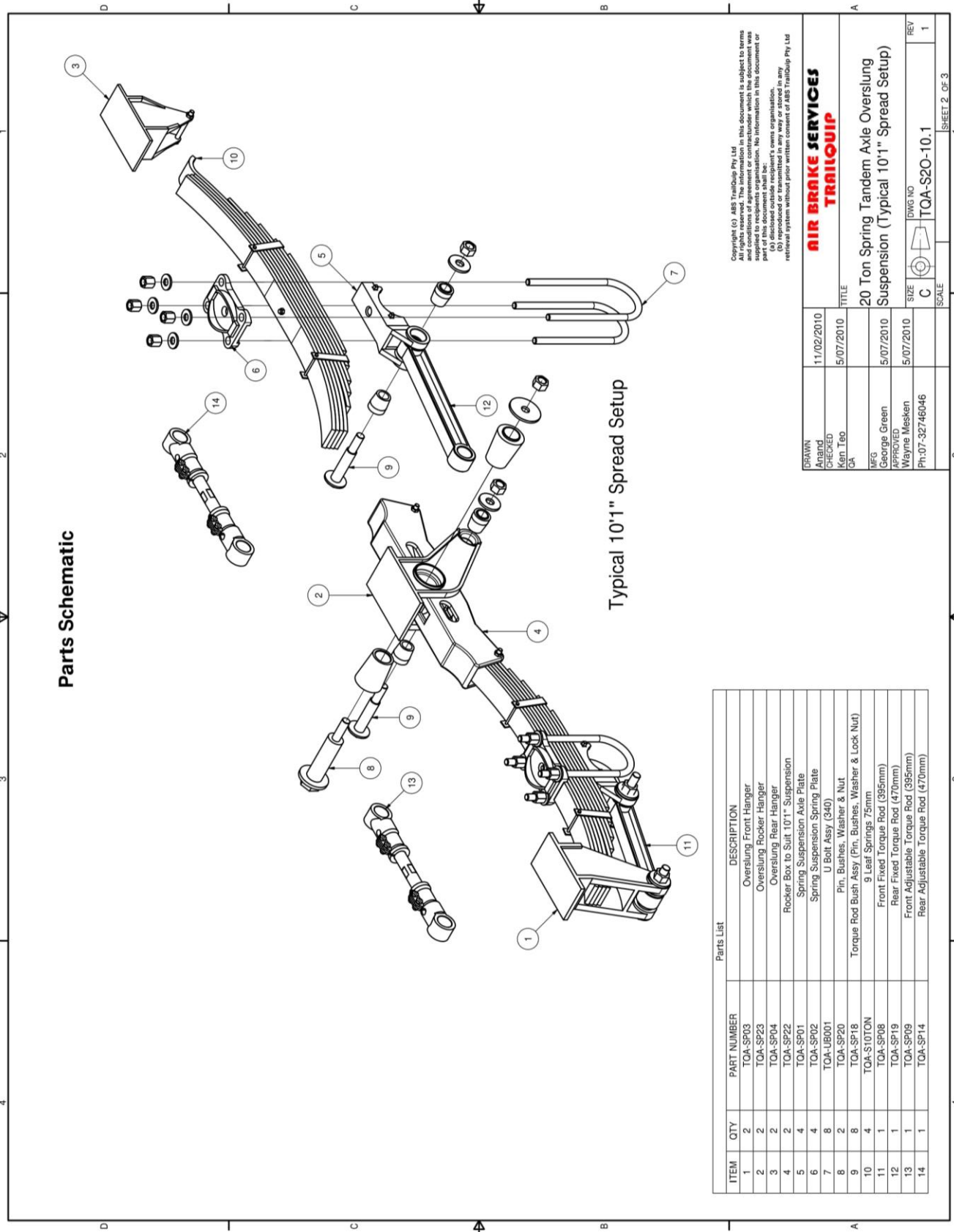
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AIR BRAKE SERVICES TRAILQUIP		TITLE	
11/02/2010	5/07/2010	20 Ton Spring Tandem Axle Overslung Suspension (Typical 10'1" Spread Setup)	
DRAWN Ampd	CHECKED Ken TBO	DATE	REV
GA		5/07/2010	1
MFG George Green		APPROVED	DWG NO
Wayne Mesken		Ph:07-32746046	TOA-S20-10.1
SCALE		SHEET 1 OF 3	

Full Assy View
20 Ton Spring Tandem Axle Overslung Suspension
(Axles Shown for illustration purpose only)

9.0 Drawings – TQA Tandem Spring Suspension 10'1" Spread

Parts Schematic



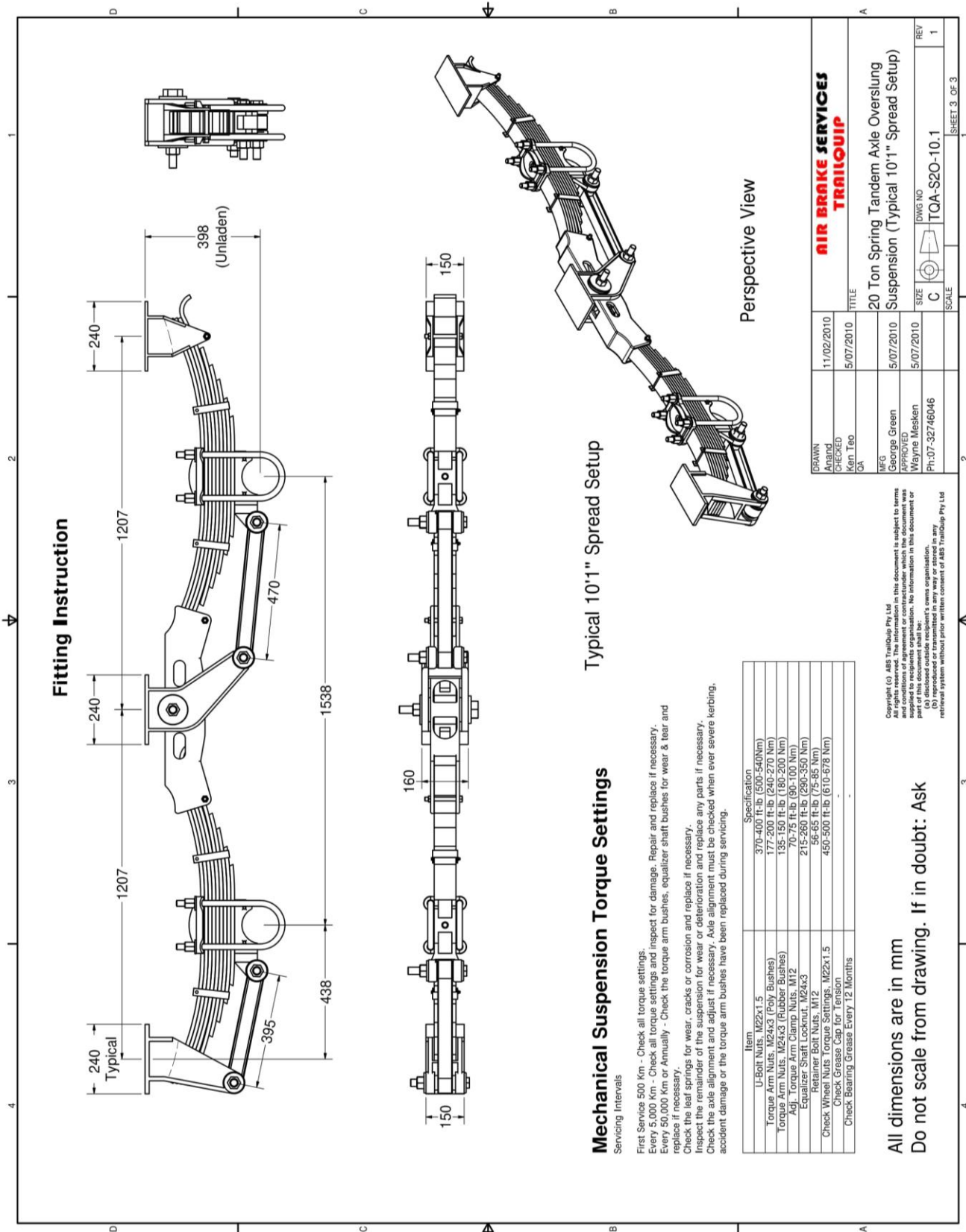
Typical 10'1" Spread Setup

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AIR BRAKE SERVICES TRAILQUIP	
DATE	11/02/2010
DRAWN	Anand
CHECKED	Ken Teo
QA	QA
DESIGNED	Wayne Mesken
REV	1
DWG NO	TQA-S20-10.1
SCALE	
SHEET 2 OF 3	

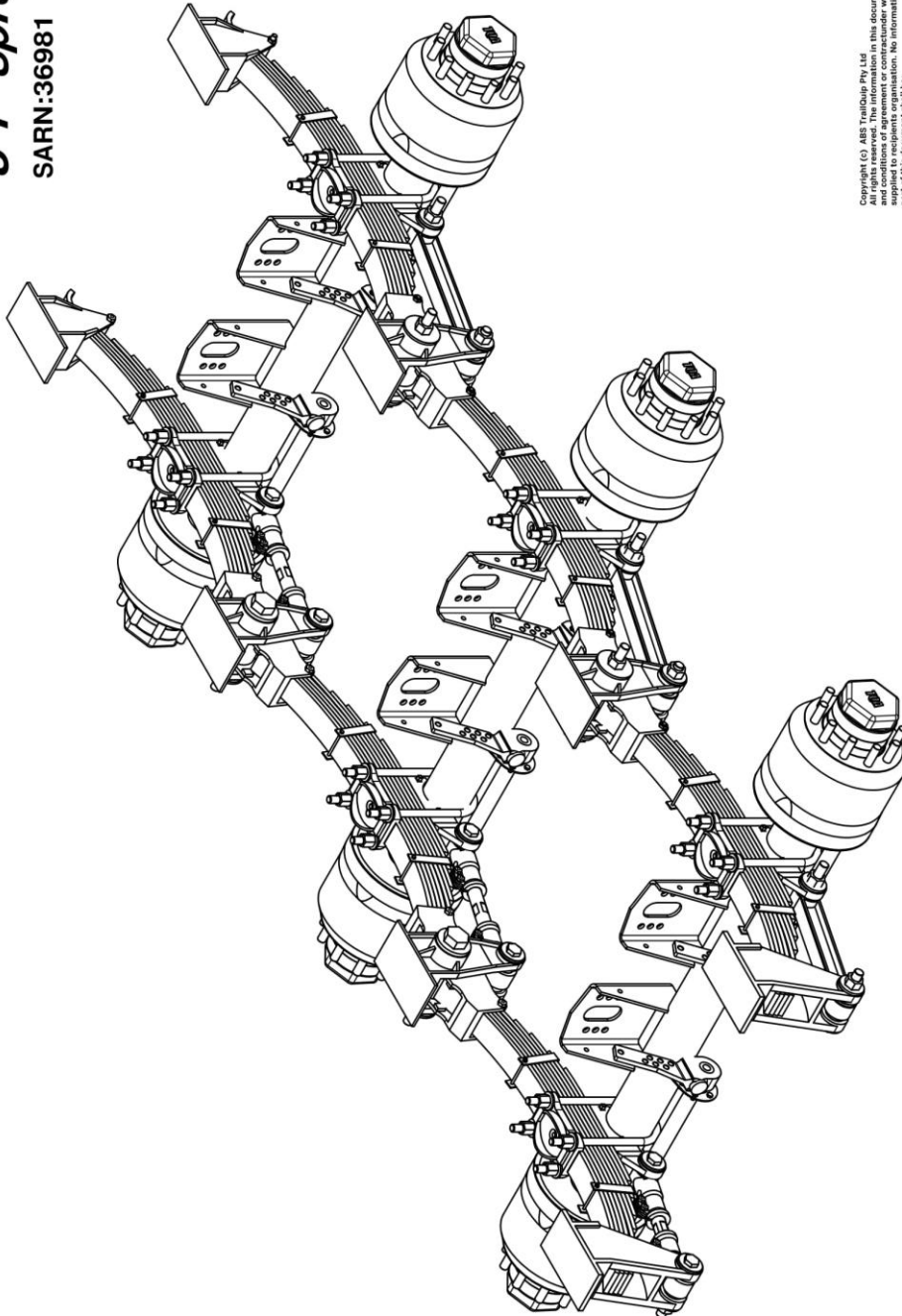
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	TOA-SP03	Overlslung Front Hanger
2	2	TOA-SP23	Overlslung Rocker Hanger
3	2	TOA-SP04	Overlslung Rear Hanger
4	2	TOA-SP22	Rocker Box to Suit 10'1" Suspension
5	4	TOA-SP01	Spring Suspension Axle Plate
6	4	TOA-SP02	Spring Suspension Spring Plate
7	8	TOA-UB001	U Bolt Assy (340)
8	2	TOA-SP20	Pin, Bushes, Washer & Nut
9	8	TOA-SP18	Torque Rod Bush Assy (Pin, Bushes, Washer & Lock Nut)
10	4	TOA-S10TON	9 Leaf Springs 75mm
11	1	TOA-SP08	Front Fixed Torque Rod (395mm)
12	1	TOA-SP19	Rear Fixed Torque Rod (470mm)
13	1	TOA-SP09	Front Adjustable Torque Rod (395mm)
14	1	TOA-SP14	Rear Adjustable Torque Rod (470mm)

9.0 Drawings – TQA Tandem Spring Suspension 10'1" Spread



10.0 Drawings – TQA Triaxle Spring Suspension 8'1" Spread

8'1" Spread
SARN:36981



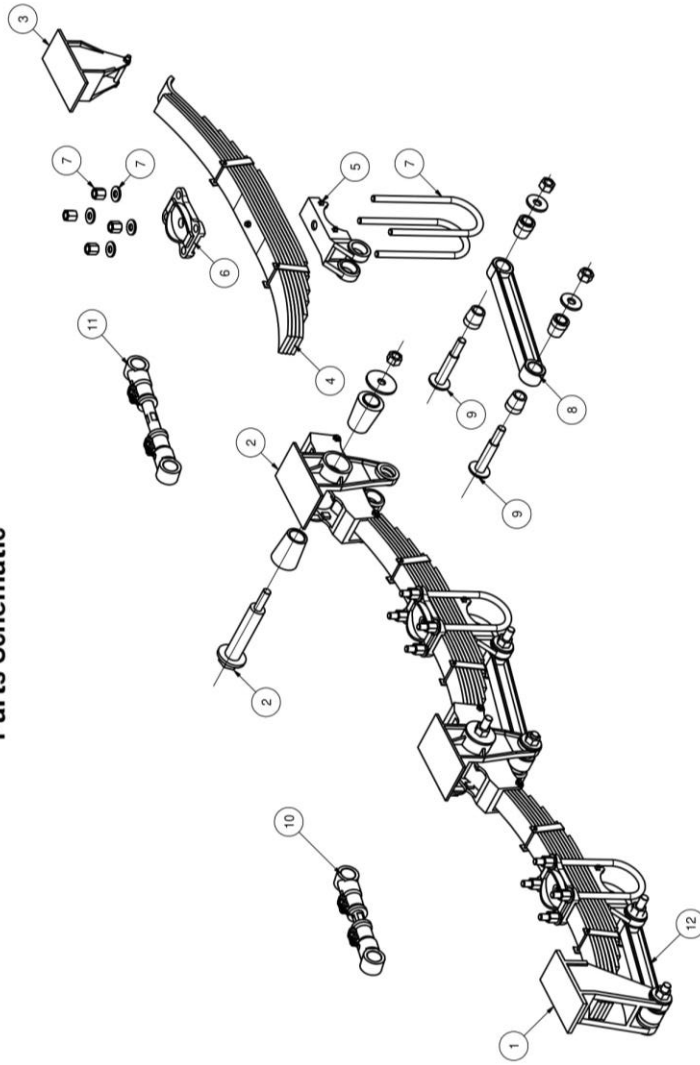
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DRAWN	11/02/2010	TITLE	30 Ton Spring Tri Axle Overslung Suspension (Typical 8'1" Spread Setup)
CHECKED	2/07/2010	SIZE	C
QA		DWG NO	TQA-S30
DES	5/07/2010	SCALE	
APPROVED	2/07/2010	REV	
Wayne Mesken			
PH:07-32746046			

Full Assy View
30 Ton Spring Tri Axle Overslung Suspension
(Axles Shown for illustration purpose only)

10.0 Drawings – TQA Triaxle Spring Suspension 8'1 Spread

Parts Schematic



Typical 8'1" Spread Setup

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**AIR BRAKE SERVICES
TRAILQUIP**

DRAWN	11/02/2010	TITLE	30 Ton Spring Tri Axle Overslung Suspension (Typical 8'1" Spread Setup)
ANALD		SIZE	C
CHECKED	2/07/2010	DWG NO	TOA-S30
QA		SCALE	
MFG	5/07/2010	REV	
APPROVED	2/07/2010		
Wayne Mesken			
Ph:07-32746046			

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	TOA-SP03	Overslung Front Hanger
2	4	TOA-SP05	Overslung Rocker Assy (Hanger, Rocker Box, Pin, Bushes, Washers & Nut)
3	2	TOA-SP04	Overslung Rear Hanger
4	6	TOA-S10T0N	9 Leaf Springs 75mm
5	6	TOA-SP01	Spring Suspension Axle Plate
6	6	TOA-SP02	Spring Suspension Spring Plate
7	12	TOA-LIB001	U Bolt Assy (340)
8	2	TOA-SP10	Rear Fixed Torque-Rod 495mm
9	12	TOA-SP18	Torque-Rod Bush Assy (Pin, Bushes, Washer & Lock Nut)
10	1	TOA-SP09	Front Adjustable Torque-Rod 395mm
11	2	TOA-SP11	Rear Adjustable Torque-Rod 495mm
12	1	TOA-SP08	Front Fixed Torque-Rod 395mm

10.0 Drawings – TQA Triaxle Spring Suspension 8'1" Spread

Fitting Instruction

Dimensions are only for reference. Customer has to lay it on the ground and check before welding the hanger brackets.

Mechanical Suspension Torque Settings

Service Intervals

First Service 500 Km - Check all torque settings.
 Every 5,000 Km - Check all torque settings and inspect for damage. Repair and replace if necessary.
 Every 50,000 Km or Annually - Check the torque arm bushes, equalizer shaft bushes for wear & tear and replace if necessary.
 Check the leaf springs for wear, cracks or corrosion and replace if necessary.
 Inspect the remainder of the suspension for wear or deterioration and replace any parts if necessary.
 Check the axle alignment and adjust if necessary. Axle alignment must be checked when ever severe kerbing, accident damage or the torque arm bushes have been replaced during servicing.

Item	Specification
U-Bolt Nuts, M22x1.5	370-400 ft-lb (500-540Nm)
Torque Arm Nuts, M24x3 (Poly Bushes)	177-200 ft-lb (240-270 Nm)
Torque Arm Nuts, M24x3 (Rubber Bushes)	135-150 ft-lb (180-200 Nm)
Adj. Torque Arm Clamp Nuts, M12	70-75 ft-lb (90-100 Nm)
Equalizer Shaft Locknut, M24x3	215-260 ft-lb (290-350 Nm)
Retainer Bolt Nuts, M12	56-65 ft-lb (75-85 Nm)
Check Wheel Nuts Torque Settings, M22x1.5	450-500 ft-lb (610-678 Nm)
Check Grease Cap for Tension	-
Check Bearing Grease Every 12 Months	-

All dimensions are in mm
Do not scale from drawing. If in doubt: Ask

Perspective View

Typical 8'1" Spread Setup

DRAWN	11/02/2010	TITLE	30 Ton Spring Tri Axle Overslung Suspension (Typical 8'1" Spread Setup)
CHECKED	2/07/2010	SCALE	
Ken Teo		REV	
GA		SIZE	C
DESIGNED	5/07/2010	DWG NO	TQA-S30
Wayne Mesken	2/07/2010		
Ph: 07-32746046			

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11.0 Drawings – Tandem Dolly Brake Systems

11.1 Standard Tandem B/D-R/T Semi, No ABS, No EBS

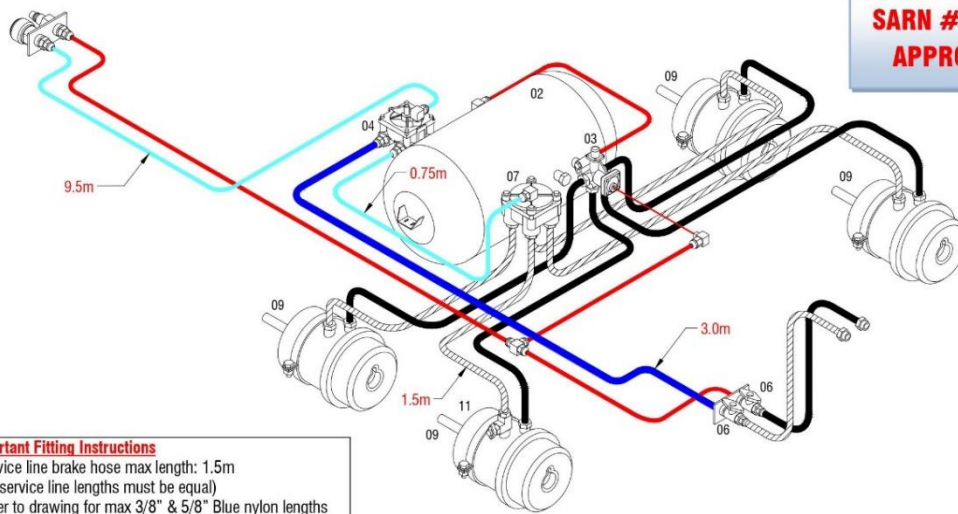
**AIR BRAKE SERVICES
TRAILQUIP**



SBX114

TANDEM AXLE B/D - R/T SEMI

**SARN #26489
APPROVAL**



Important Fitting Instructions

- Service line brake hose max length: 1.5m (All service line lengths must be equal)
- Refer to drawing for max 3/8" & 5/8" Blue nylon lengths
- No restrictions on all Maxi supply rubber hose & 3/8" Red nylon

	1/2" Maxi supply rubber hose
	1/2" Service brake rubber hose
	3/8" Red nylon pipe
	3/8" Blue nylon pipe
	5/8" Blue nylon pipe

**BRAKETEC
AUSTRALIA**

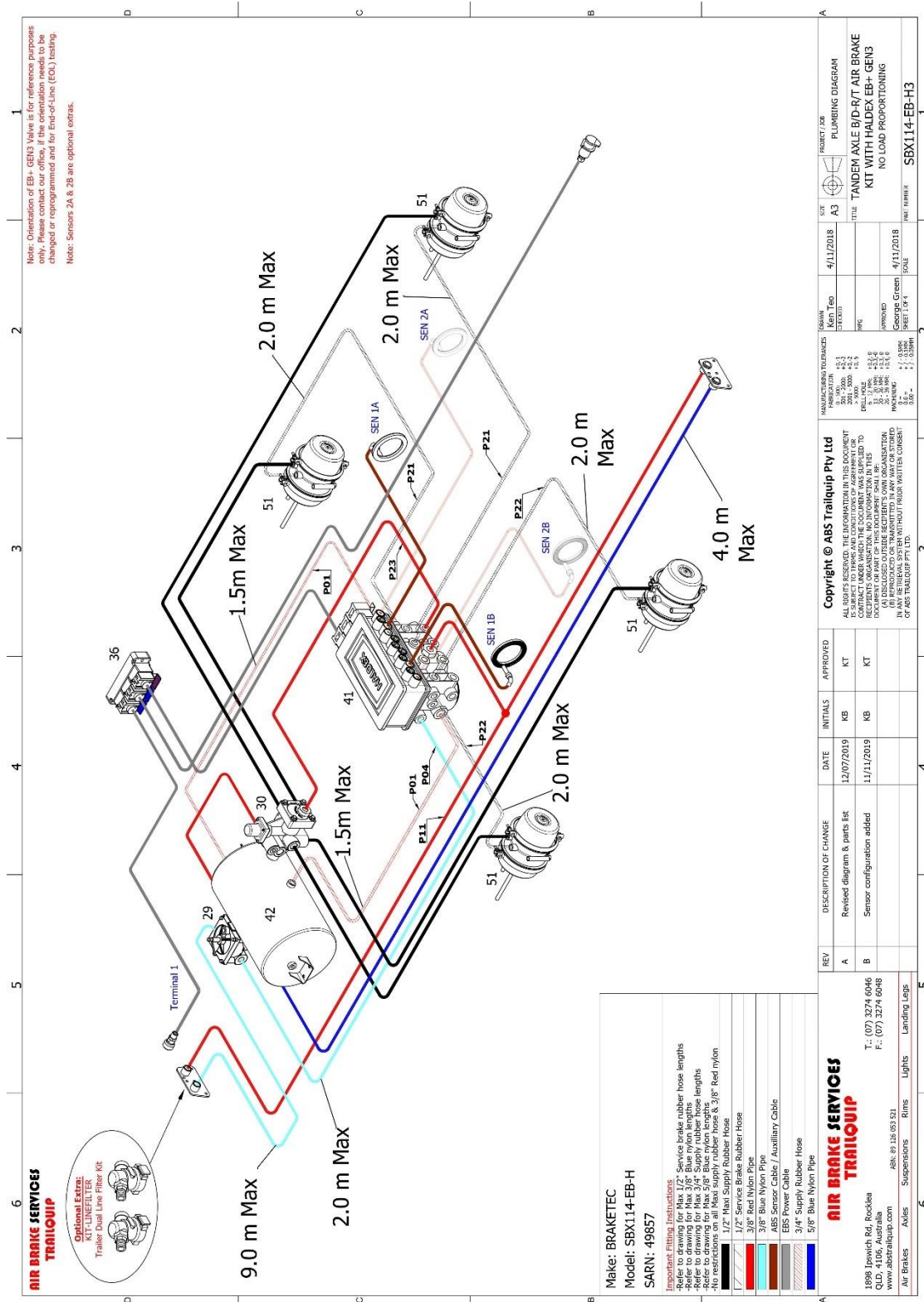
BILL OF MATERIALS FOR KIT SBX114

No.	PART NO.	DESCRIPTION	QTY	No.	PART NO.	DESCRIPTION	QTY
02	Jumbo	60LT RESERVOIR	1	73325-12-8S	3/4" x 1/2" NIPPLE STEEL	2	
03	AA3802	SR38 SPRING BRAKE CONTROL	1	73220-12-6	3/4" x 3/8" REDUCING BUSH	1	
04	AA065476	R12P PILOT RELAY VALVE	1	125-8-6	1/2" x 3/8" HOSE BARB MALE	12	
06	23-FMT08	1/2" MALE x FEMALE BALL VALVE	2	125-8-8	1/2" x 1/2" HOSE BARB MALE	4	
07	AA102626	R12 RELAY VALVE	1	12250	1/2" RUBBER HOSE	10	
	968-6PXDOT	3/8" x 1/4" MALE CONNECTOR	1	6-500BU	3/8" BLUE NYLON	10	
	968-6-6PXDOT	3/8" x 3/8" MALE CONNECTOR	1	6-500RD	3/8" RED NYLON	10	
	968-6-8PXDOT	3/8" x 1/2" MALE CONNECTOR	3	10-250BU	5/8" BLUE NYLON	5	
	968-10PXDOT	5/8" x 1/2" MALE CONNECTOR P/IN	1	41-022	HOSE CLAMPS	16	
	968-10-6PXDOT	5/8" x 3/8" MALE CONNECTOR	1	145	1/4" AIR TANK DRAIN COCK	1	
	964-6PXDOT	3/8" UNION TEE P/IN	1	11	PWM2076	3/8" TEST POINT	1
	969-6PXDOT	3/8" x 1/4" BSP MALE ELBOW	3	33-A420	1/2" MOUNTING BRACKET	2	
	969-6-6PXDOT	3/8" x 3/8" MALE ELBOW	1	CA93-20	1/2" MALE ADAPTER	2	
	73750-6	3/8" STREET TEE	1	CA93-85	1/2" MALE COUPLING	2	
	73152-6	3/8" PLUG	2	220TMP	MOUNTING TANK PAD	2	
	73152-8	1/2" PLUG	3	09	SB30/30	SPRING BRAKES	4

NOTE: ANY DEVIATION FROM THIS DRAWING OR KIT CONTENTS AS SUPPLIED MAY INVALIDATE ADR COMPLIANCE. RELATIVE POSITION OF VALVE/S & TANK/S ON DRAWING IS FOR GUIDANCE ONLY. VALVES MUST BE POSITIONED TO KEEP AIR LINE LENGTHS WITHIN LIMITS INDICATED.

11.0 Drawings – Tandem Dolly Brake Systems

11.3 Tandem B/D-R/T Semi with Haldex EB+ GEN3



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11.0 Drawings – Tandem Dolly Brake Systems

11.4 Tandem B/D-R/T Semi with Haldex EB+ GEN3

Sl.No.	Part #	Description	QTY
1	10-2508U	Nylon Blue 5/8"	4
2	12250	Air Brake Rubber Hose 1/2"	10
3	125-12-12	Hose Barb 3/4" x 3/4"	2
4	125-12-8	Hose Barb 3/4" x 1/2"	2
5	125-8-6	Hose Barb 1/2" x 3/8" NPT	12
6	125-8-M16	Hose Barb 1/2" x M16x1.5	4
7	145	Drain Valve 1/4"	1
8	220TMP	Tank Mounting Pad	2
9	23-FMT08	Ball Valve 1/2" Mx F	2
10	33-A420	Manifold Mounting Plate 1/2"	2
11	34050	Air Brake Rubber Hose 3/4" ID	3
12	41-022	Hose Clamps S/Steel	16
13	41-SCW1-031	Hose Clamp 3/4"	4
14	6-5008U	Nylon Blue 3/8"	10
15	6-500RD	Nylon Red 3/8"	10
16	73152-6	3/8" Pipe Plug	2
17	73152-8	1/2" Pipe Plug	2
18	73325-12-85	3/4" x 1/2" Nipple Steel	1
19	73400-8	1/2" Street Elbow 90 Degree	2
20	73750-6	3/8" Pipe Street Tee Brass	1
21	964-6PXDOT	3/8" Union Tee Push In	1
22	968-10PXDOT	5/8" x 3/8" Male Connector P/In	1
23	968-10PXDOT	5/8" x 1/2" Male Connector P/In	1
24	968-6-6PXDOT	3/8" x 3/8" Male Connector P/In	1
25	968-6-8PXDOT	3/8" x 1/2" Male Connector P/In	3
26	968-6PXDOT	3/8" x 1/4" Male Connector P/In	1

Sl.No.	Part #	Description	QTY
27	969-6-8PXDOTS	3/8" x 1/2" Male Elbow 90 Deg sw	1
28	969-6PXDOTS	3/8" x 1/4" BSP Male Elbow sw	2
29	AA065476	R-12P Pilot Relay Valve	1
30	AA3802	Spring Brake Control Valve - SR38	1
31	CA93-20	1/2" Male Adaptor non sealing	2
32	CA93-85	1/2" Male Coupling non sealing	2
33	EBSD06700045M	Haldex EB+ GEN3 Label	1
34	EBSD28042409	Haldex Load Plate Data Label For EB+ & EPV	1
35	EBSD28526209	Haldex EBS / ABS Info Label	1
36	EBSD364609001	Haldex EBS Cable Junction Box For R/T	1
36a	TBA	EBS CAN Router	1
37	EBSD14003112	Haldex 24V ISO Power Cable For Semi Trailer 16mtr	1
38	EBSD14003152	Haldex 24V ISO Power Cable For Semi Trailer 6mtr	1
39	EBSD14004401	Haldex Wheel Speed Sensor Extension Cable 3mtr	2
40	EBSD14042031	Haldex 24V ISO Power Cable Blue/Blue For R/T	1
41	EBSD23034001	Haldex EB+ GEN3 Master Assembly	1
42	Jumbo	Large Trailer Air Tank 60lt	1
43	MF12P	Plug - M12	1
44	MF12S	Washer - 12mm	1
45	MF16P	Plug - M16	8
46	MF16S	Washer - M16	8
47	MF22-12R	Adaptor 22-1/2"	2
48	MF22S	Washer - M22	2
49	MF069DOT56116M	3/8" x 16mm Elbow	3
50	PWM2076	Test Point 3/8"	1
51	SB30/30SB	30/30 Spring Brake Seal Back	4

REV	DESCRIPTION OF CHANGE	DATE	INITIALS	APPROVED
A	Revised diagram & parts list	12/07/2019	NB	KT
B	Sensor configuration added	17/11/2019	NB	KT

AIR BRAKE SERVICES TRAILQUIP 1898 Ipswich Rd, Rocklea QLD 4008, Australia Tel: (07) 3274 6046 Fax: (07) 3274 6046 Abs: 01 25 85 501 Air Brakes Axles Suspension Rims Lights Landing Legs		Copyright © ABS Trailquip Pty Ltd ALL RIGHTS RESERVED. THE INFORMATION IN THIS DOCUMENT IS THE PROPERTY OF ABS TRAILQUIP PTY LTD. NO PART OF THIS CONTRACT UNDER WHICH THIS DOCUMENT WAS SUPPLIED TO ANY RECIPIENT ORGANISATION, NO INFORMATION IN THIS DOCUMENT IS TO BE DISCLOSED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF ABS TRAILQUIP PTY LTD.
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MANUFACTURED BY: ABS TRAILQUIP PTY LTD REVISION: 1.0 DATE: 12/07/2019 DRAWN BY: NB CHECKED BY: NB APPROVED BY: NB SCALE: 1:1	REVISION: 1.0 DATE: 12/07/2019 DRAWN BY: NB CHECKED BY: NB APPROVED BY: NB SCALE: 1:1	DATE: 4/11/2018 DRAWN BY: NB CHECKED BY: NB APPROVED BY: NB SCALE: 1:1	DATE: 4/11/2018 DRAWN BY: NB CHECKED BY: NB APPROVED BY: NB SCALE: 1:1
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SHEET NO: 1 OF 1	TITLE: TANDDEM AXLE B/D-R/T AIR BRAKE KIT WITH HALDEX EB+ GEN3 NO LOAD PROPORTIONING	PROJECT JOB: SBX114-EB-H3
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11.0 Drawings – Tandem Dolly Brake Systems

11.5 Tandem B/D-R/T Semi with Haldex EB+ GEN3

ECU Connections - 3M

Terminal 1	Power Supply - ISO7658
Terminal 2	3M Link Cable
Terminal 3	ISO15039/ISO1198 (24V)
Terminal 4	AUX 1
Terminal 5	AUX 2
Terminal 6	AUX 3
Terminal 7	AUX 4
Terminal 8	AUX 5
Terminal 9	Sensor S2B
Terminal 10	Sensor S1B
Terminal 11	DIAGN
Terminal 12	DIAGN
Terminal 13	Sensor S1A
Terminal 14	Sensor S2A

Port Identification and Sizes

01	Reservoir Port	M22 x 1.5mm
03	Exhaust Port	M16 x 1.5mm
04	Control Port	M16 x 1.5mm
11	Anti-Compounding Port	M16 x 1.5mm
21/22	Delivery Ports	M16 x 1.5mm
22	Test Point Port	M12 x 1.5mm
23	Spring Brake Port	M16 x 1.5mm
41	Air Suspension Port	M16 x 1.5mm

Pinout Legend:
 PIN 1 = POWER (RED)
 PIN 2 = IGNITION (BLACK)
 PIN 3 = ECU GROUND (YELLOW)
 PIN 4 = GROUND (BROWN)
 PIN 5 = FAULT LAMP (WHITE)
 PIN 6 = CAN HIGH (WHITE WITH GREEN TRACE)
 PIN 7 = CAN LOW (WHITE WITH BROWN TRACE)

Pinout Diagrams:
 - Top diagram shows pins 1-7 with corresponding colors.
 - Middle diagram shows pins 1-7 with corresponding colors and a 12V and 24V connection.
 - Bottom diagram shows pins 1-7 with corresponding colors and a 12V and 24V connection.

Note: Orientation of EB+ GEN3 Valve is for reference purposes only. Please contact our office, if the orientation needs to be changed or reprogrammed and for End-of-Line (EOL) testing.

View from the back of the plug and socket where the pins are inserted.

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 QLD 4076, Australia
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 Fax: 07 3274 6048
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Abb: 20 26 83 S21
 Air Brakes - Axles - Suspensions - Rims - Lights - Landing Legs

REV	DESCRIPTION OF CHANGE	DATE	INITIALS	APPROVED
A	Revised diagram & parts list	12/07/2019	KB	KT
B	Sensor configuration added	11/11/2019	KB	KT

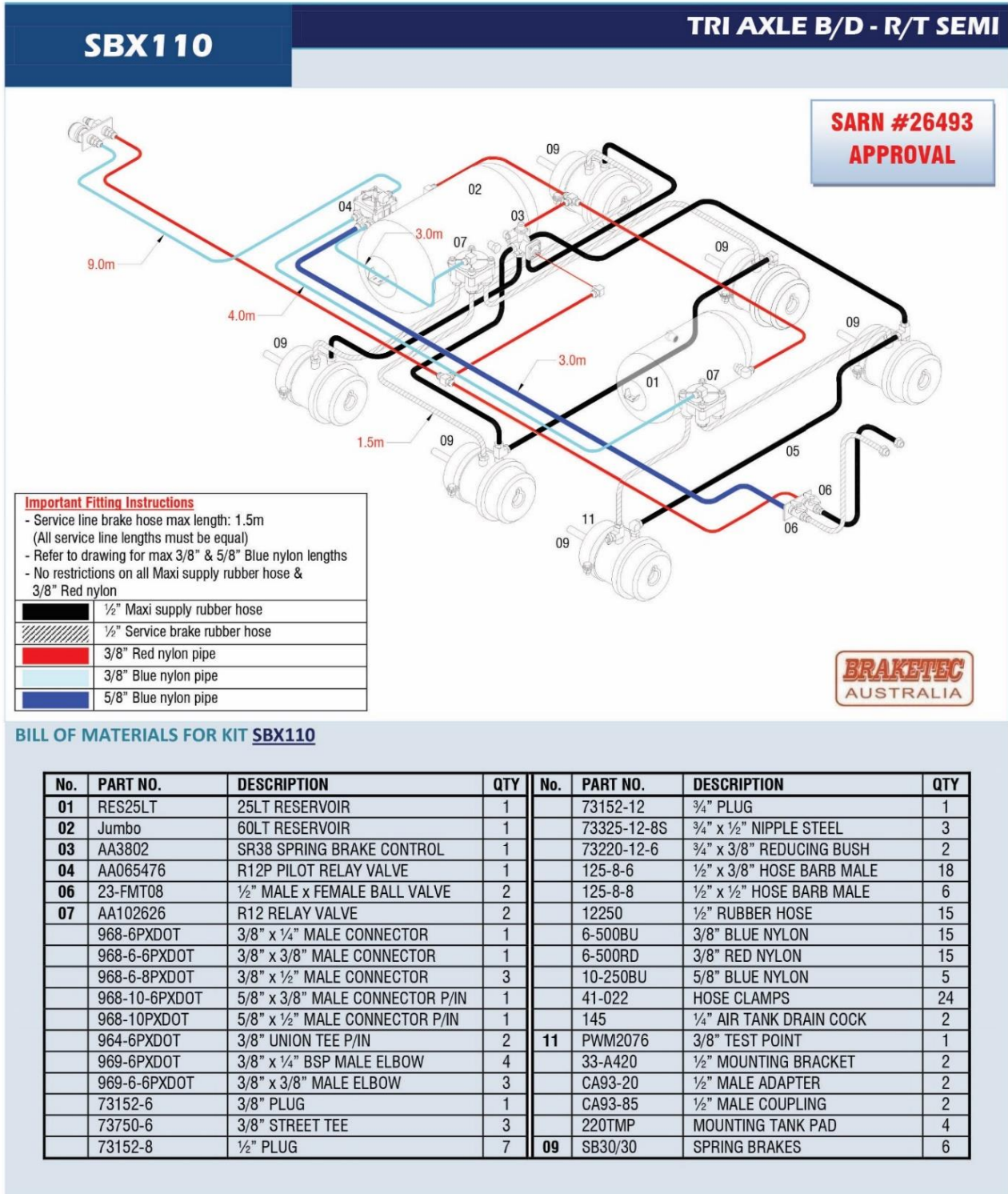
MANUFACTURED BY EXHIBITS
 DRAWN: Kent Tho
 CHECKED: JMC
 DATE: 4/11/2018
 APPROVED: George Green
 SHEET 3 OF 4

PROJECT JOB
 TITLE: TANDem AXLE B/D-R/T AIR BRAKE KIT WITH HALDEX EB+ GEN3 NO LOAD PROPORTIONING
 DATE: 4/11/2018
 SCALE: AS SHOWN
 PART NUMBER: SBX114-EB-H3

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12.0 Drawings – Tri Axle Dolly Brake Systems

12.1 Standard Tri Axle B/D-R/T Semi, No ABS, No EBS



NOTE: ANY DEVIATION FROM THIS DRAWING OR KIT CONTENTS AS SUPPLIED MAY INVALIDATE ADR COMPLIANCE. RELATIVE POSITION OF VALVE/S & TANK/S ON DRAWING IS FOR GUIDANCE ONLY. VALVES MUST BE POSITIONED TO KEEP AIR LINE LENGTHS WITHIN LIMITS INDICATED.

12.0 Drawings – Tri Axle Dolly Brake Systems

12.2 Tri Axle B/D-R/T Semi with ABS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	10-250BU	Nylon Blue 5/8	5
2	12250	Air Brake Rubber Hose 1/2	15
3	125-12-12	Hose Barb - 3/4 x 3/4	2
4	125-12-M26	Hose Barb - 3/4 x M26x1.5	2
5	125-8-6	Hose Barb 1/2 x 3/8NPT	18
6	125-8-M16	Hose Barb 1/2 x M16x1.5	6
7	145	Drain Valve 1/4	2
8	220TMP	Tank Mounting Pad	4
9	23-FHT08	Ball Valve 1/2 Nrf	2
10	33-A420	Manifold Mounting Plate 1/2	2
11	34050	Air Brake Rubber Hose 3/4"	2
12	41-022	Hose Clamps 5/Sheet 1/2	24
13	41-SOW1-031	Hose Clamp 3/4	4
14	6-500BU	Nylon Blue 3/8	15
15	6-500RD	Nylon Red 3/8	15
16	73152-12	3/4 Pipe Plug	2
17	73152-6	3/8 Pipe Plug	2
18	73152-8	1/2 Pipe Plug	5
19	73220-12-6	3/4 x 1/2 Nipple Steel	2
20	73325-12-8S	3/8 Pipe Street Tee	1
21	73750-6	3/8 Union Tee Push In	3
22	964-6PX00T	5/8 x 3/8 Male Connector P/in	2
23	968-10PX00T	5/8 x 1/2 Male Connector P/in	1
24	968-10PX00T	3/8 x 3/8 Male Connector P/in	1
25	968-6-6PX00T	3/8 x 1/2 Male Connector P/in	3
26	968-6-6PX00T	3/8 x 1/4 Male Connector P/in	1
27	969-6-6PX00T	3/8 x 3/8 Male Elbow 90 Deg sw	3
28	969-6PX00T	3/8 x 1/4 NPT Male SW Elbow	2
29	969-6PX00T	3/8 x 1/4 NPT Male SW Elbow	2
30	A005H476	Plut Relay Valve - Bendix RT2P	1
31	AA3002	Spring Brake Valve - Bendix SR38	1
32	CA93-20	1/2 Male Adapter Non Sealing	2
33	CA93-85	1/2 Male Coupling Non Sealing	2
34	DOC-LAB019	LABEL: BRAMETEC Sticker	1
35	45see Note 2	ABS Power Cable	1
36	EM499123H	ABS Valve	1
37	EM499123H	Cable - Wabco Sensor Ext 3inlr	4
38	Jumbo	Large Trailer Air Tank	1
39	MF16-3/8A	Adapter - M16 Male x 3/8 Female	1
40	MF16S	Washer - M16	1
41	PWH2076	Test Point 3/8	1
42	RES25LT	Air Tank 25LT	1
43	SE30/3058	30/30 Spring Brake Seal Back - BRAMETEC	6

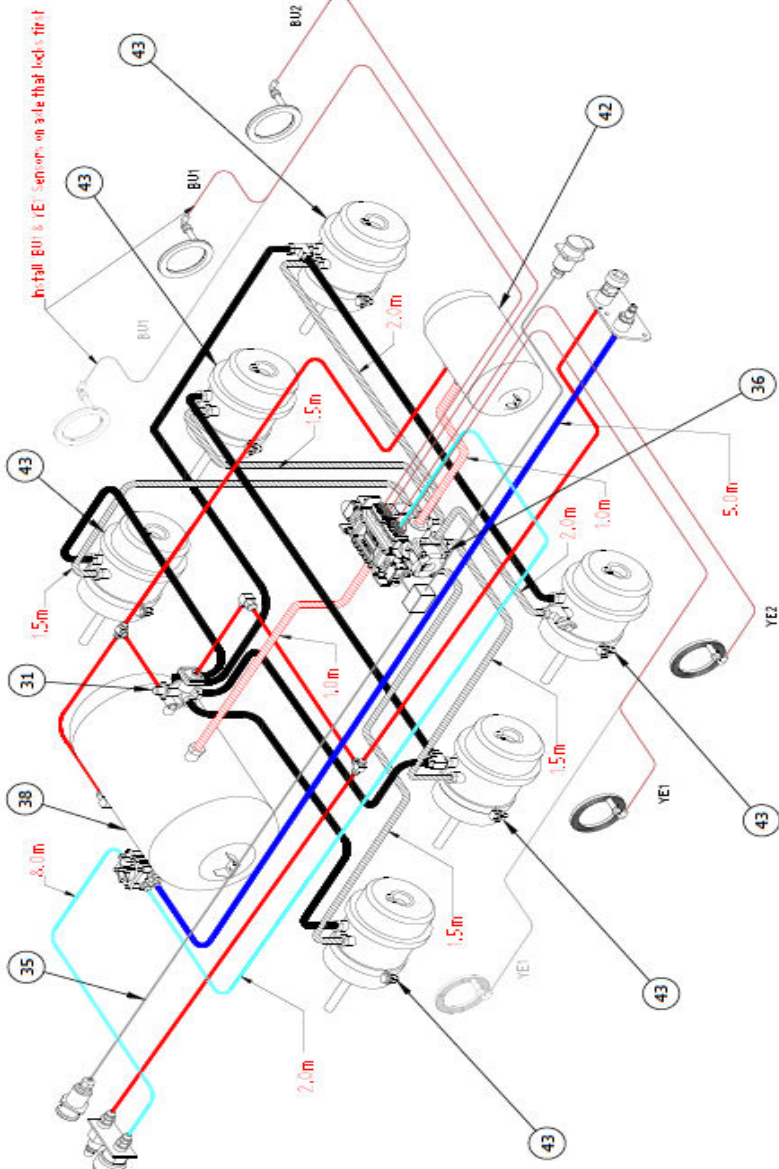
Make: BRAMETEC
Model: SBX110-AB
SARN: 46921

IMPORTANT FITTING INSTRUCTIONS
- Refer to drawing for max. 30" Blue nylon length.
- Refer to drawing for max. 127 service brake hose length. All service line lengths must be exact!
- Refer to drawing for max. 30" Blue nylon length.
- Refer to drawing for max. 127 service brake hose length. All service line lengths must be exact!
- No restrictions on all line supply rubber hose & 3/8" Red Nylon

127" Fleet Supply Rubber Hose
30" Red Nylon Pipe
30" Blue Nylon Pipe
127" Rubber Hose
127" Blue Nylon Pipe
127" Red Nylon Pipe
ABS Power Cable
ABS Sensor Cable/Warranty Cable

DATE: 19/11/2014
REV: A3
TITLE: Tri-axle B/D R/T Semi Brake Kit With ABS
PART NUMBER: SBX110-AB SARN: 46921

MANUFACTURING DIMENSIONS
MANUFACTURER: ABS TRAILQUIP PTY LTD
SCALE: 1:1
DATE: 19/11/2014
REV: A3
DRAWN BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Name]



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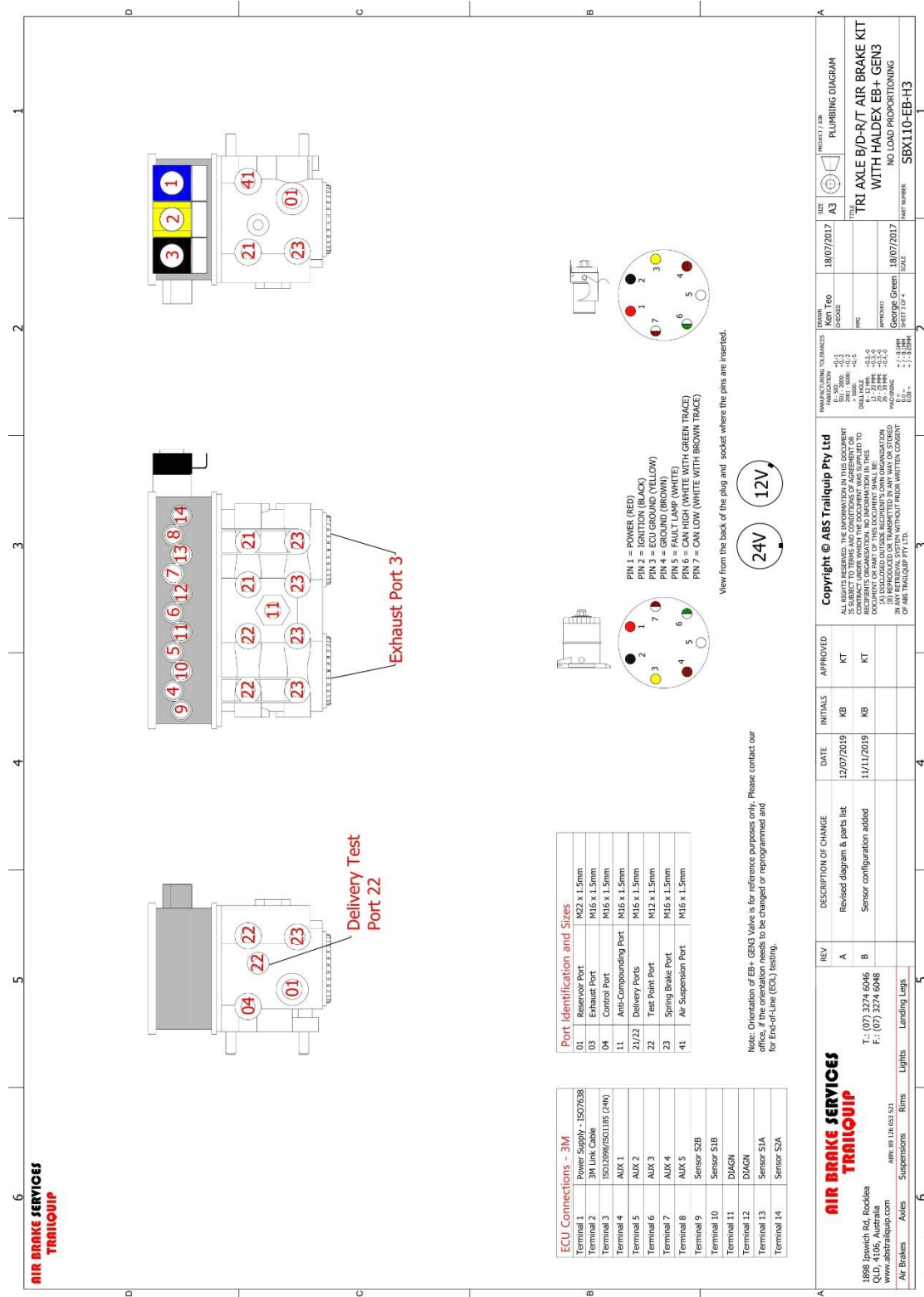
Air Brakes - Axles - Suspensions - Rims - Lights - Landing Legs

REV: A
DESCRIPTION OF CHANGE: Revised Diagram & Build List
DATE: 07/2019
INITIALS: WW
APPROVED: KT

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12.0 Drawings – Tri Axle Dolly Brake Systems

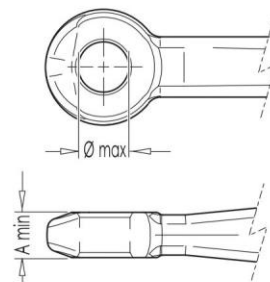
12.5 Tri Axle B/D-R/T Semi with Haldex EB+ GEN3



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	A	Revised diagram & parts list	12/07/2019	KB	KT	
	B	Sensor configuration added	11/11/2019	KB	KT	
Air Brakes	Adhes	Suspensions	Rims	Lights	Landing Legs	

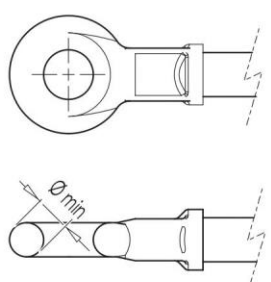
13.0 V'Orlandi Bolt-On Tow Eye Manual

2 - controllo delle usure / Contrôle des usures / Kontrolle tragen / wear check / Seguimiento del desgaste
 ПЕРИОДИЧЕСКИЙ КОНТРОЛЬ / kontrola zużycia / kontroll slitage / ارتداء السيطرة



ISO TS 20825

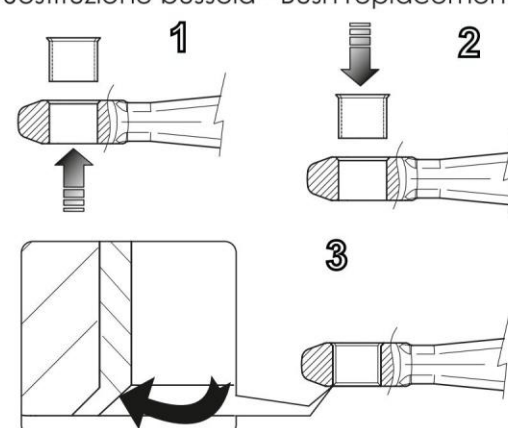
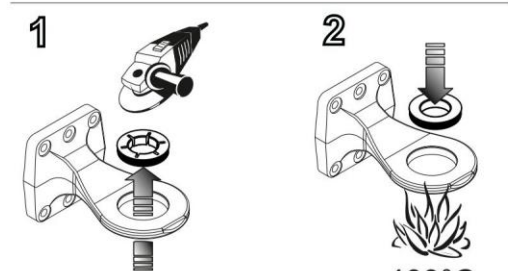
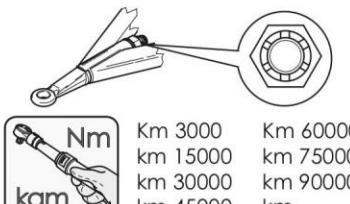
Ø int (mm)	Ø max (mm)	A min (mm)
40	41.5	28
45	46.5	67
50	51.5	41.5
57.5	59.5	19
70	71.5	74



ISO TS 20825

Type	Ø min (mm)
45T	32
68T	37
76T	37

Sostituzione bussola - Bush replacement

Nm	kgm
Km 3000	km 15000
Km 60000	km 75000
km 30000	km 90000
km 45000	km

Cod.	Nm
OC40R02	500-1000
OC45R01	480-550
OC45R02	410-480
OC45R03	410-480
OC45R04	410-480
OC45R07	500-1000
OC45T01	410-480
OC50R01	410-480
OC50R02	480-550
OC50R03	410-480
OC50R04	410-480
OC50R05	410-480
OC50R09	500-1000
OC50R10	500-1000
OC68R05	500-800
OC68R10	500-1000
OC68R20	500-1000
OC68R30	500-1000
OC76R10	500-1000

7/8

Contact ABS Trailquip for more information on the socket available to do tighten the nut.

P/N: TQA-TOOL001, Tool - Socket 2-3/4" Suit Dolly Tow Eye Nut

14.0 V'Orlandi Fifth Wheel RP10 Greaseless Manual



RP10

- (IT) Istruzioni di montaggio e uso
- (DE) Einbau und Bedienungsanleitung
- (FR) Instructions de montage et d'utilisation
- (GB) Installation and operating instructions
- (ES) Instrucciones de montaje y uso
- (RU) Руководство по установке и эксплуатации
- (PL) Instrukcja montażu i eksploatacji
- (SE) Monterings- och bruksanvisningar
- (SA) ل طريقة تعليم التركيب والاستعمال



Serrare con chiave dinamometrica
Anziehen mit einem Drehmomentschlüssel
Serrage avec clé dynamométrique
tightened with torque wrench
Apriete con llave dinamométrica
Затяжка с помощью динамометрического ключа
Åttringning med momentnyckel
Przykręcanie przy pomocy klucza dynamometrycznego
حركى مقاح مع قفل



Implica attenzione e cautela.
Achtung und Vorsicht.
Implique attention et précaution.
Attention and caution.
Implica la atención y la precaución
Требуеt внимания и осторожности
Postępować z uwagą i ostrożnością
Kräver uppmärksamhet och försiktighet
الاحترام والحذر.



Possibilità di schiacciamento degli arti.
Gefahr einer Gliedmaßenverletzung.
Risque d'écraser les membres.
Risk of a limb injury
Posibilidad de aplastamiento de los miembros
Опасность повреждения суставов
Niebezpieczeństwo uszkodzenia stawów
Risk för klämning av armar eller ben
الاطراف سحق امكانية



Controllo visivo
Sichtprüfung
Contrôle visuel
Visual check
control visual
Визуальный контроль
Kontrola wizualna
Synkontroll
المجردة بلعين الكشف



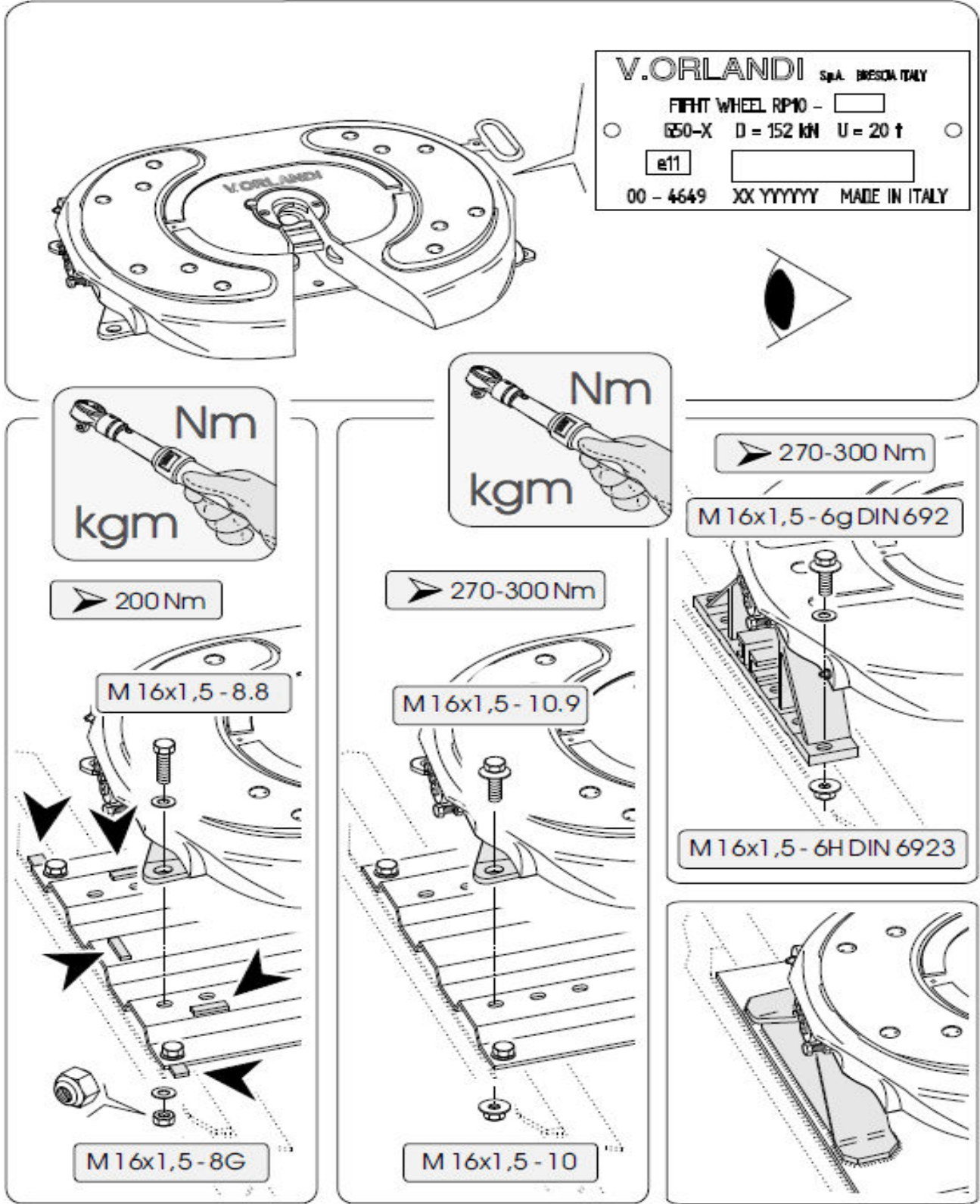
Lubrificare
Schmieren
Lubrifier
Lubricate
para lubricar
Смазка
Smarowanie
Smörja
التزيت



Controllo dimensionale
Dimensional Control
Contrôle dimensionnel
Dimensional check
Control dimensional
Контроль соответствия размеров
Kontrola prawidłowych wymiarów
Dimensionskontroll
دالسيطرة الأبعاد

14.0 V'Orlandi Fifth Wheel RP10 Greaseless Manual

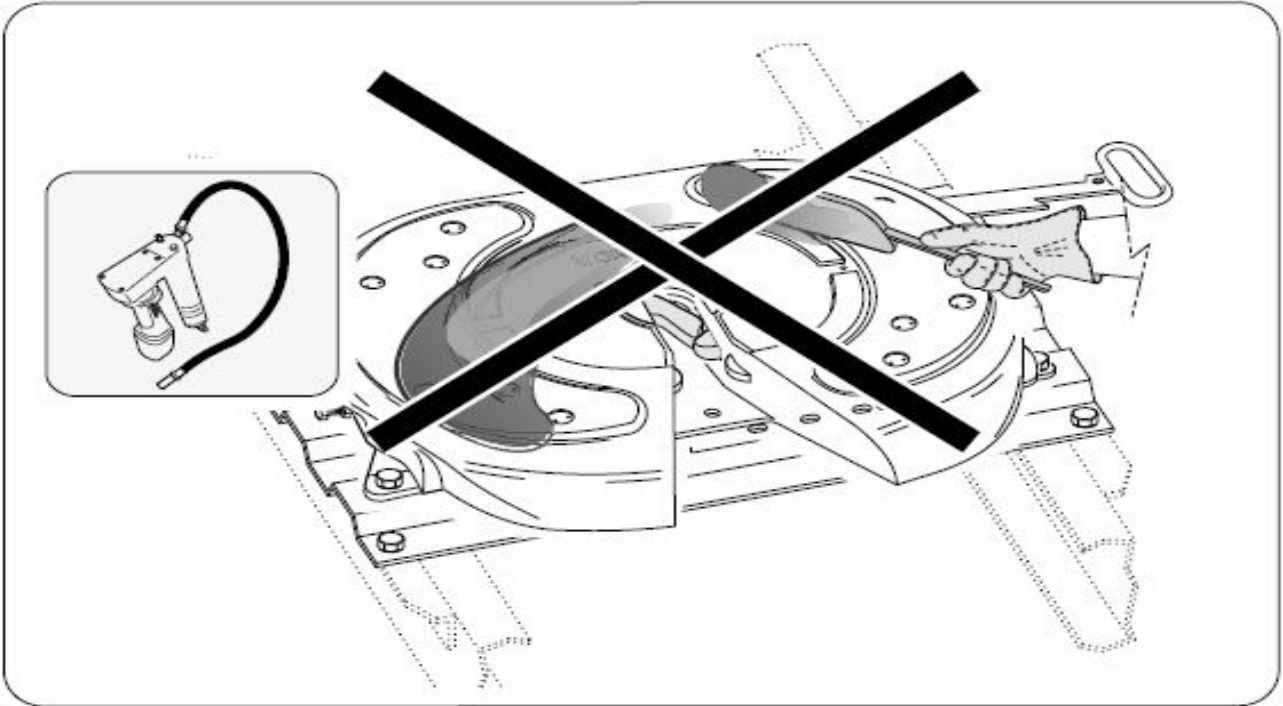
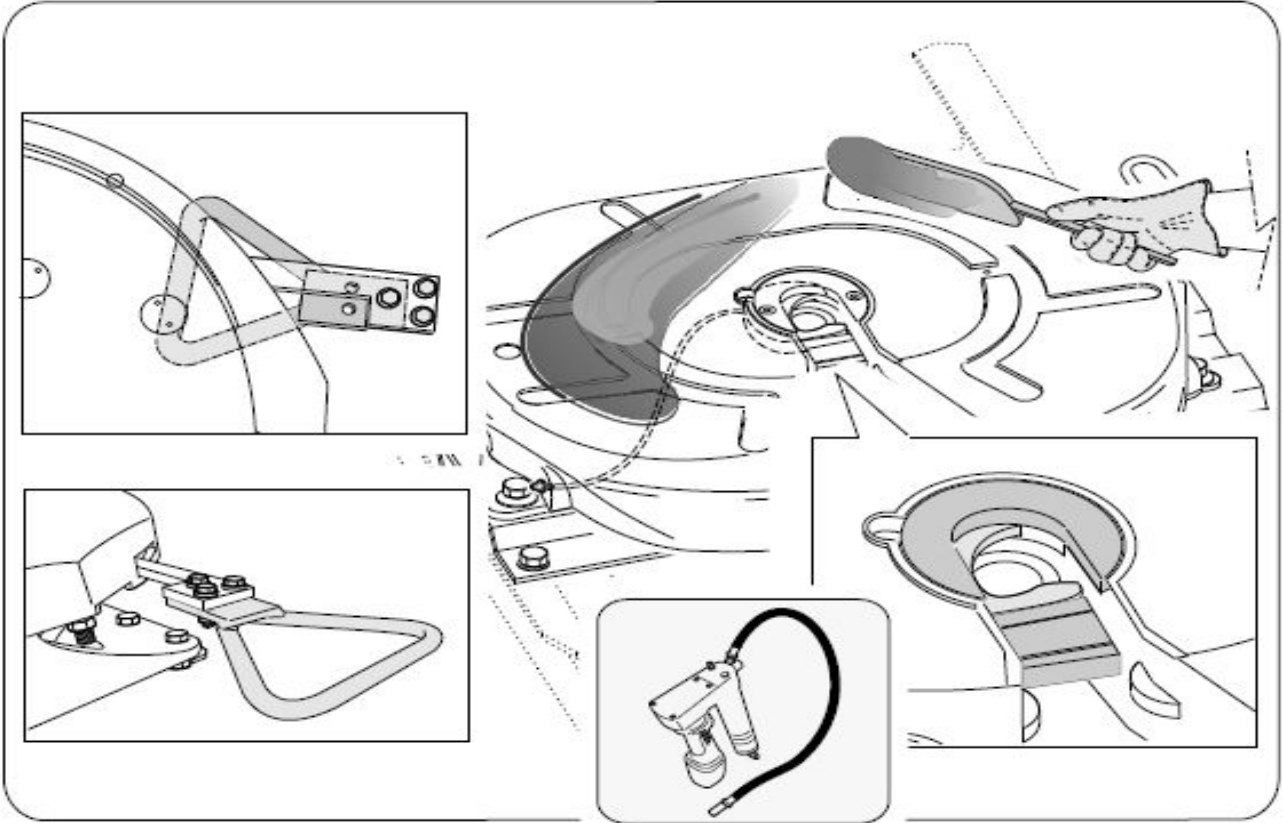
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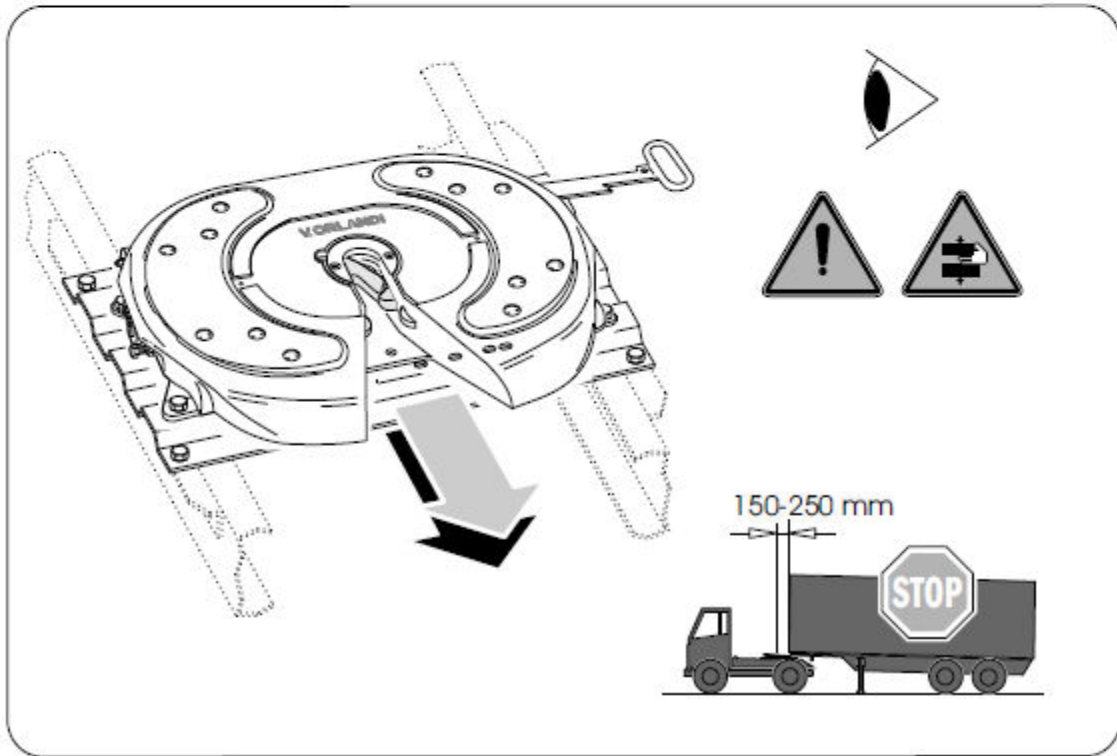
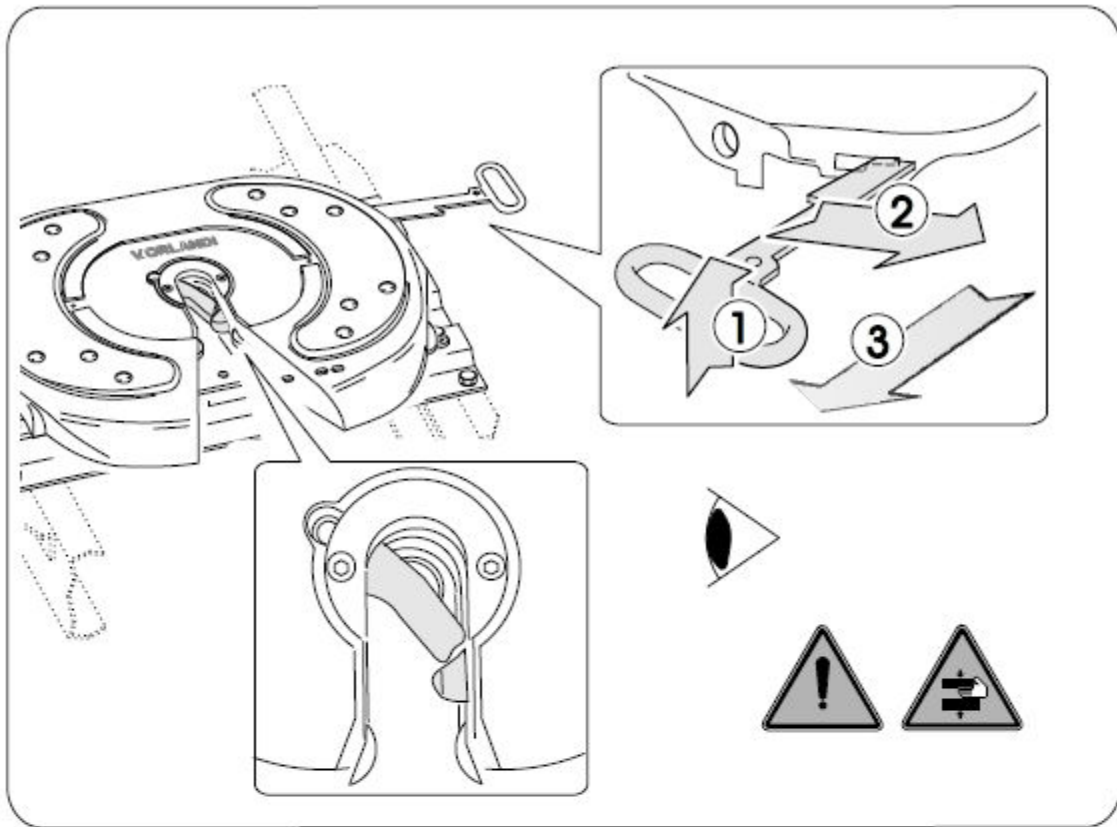
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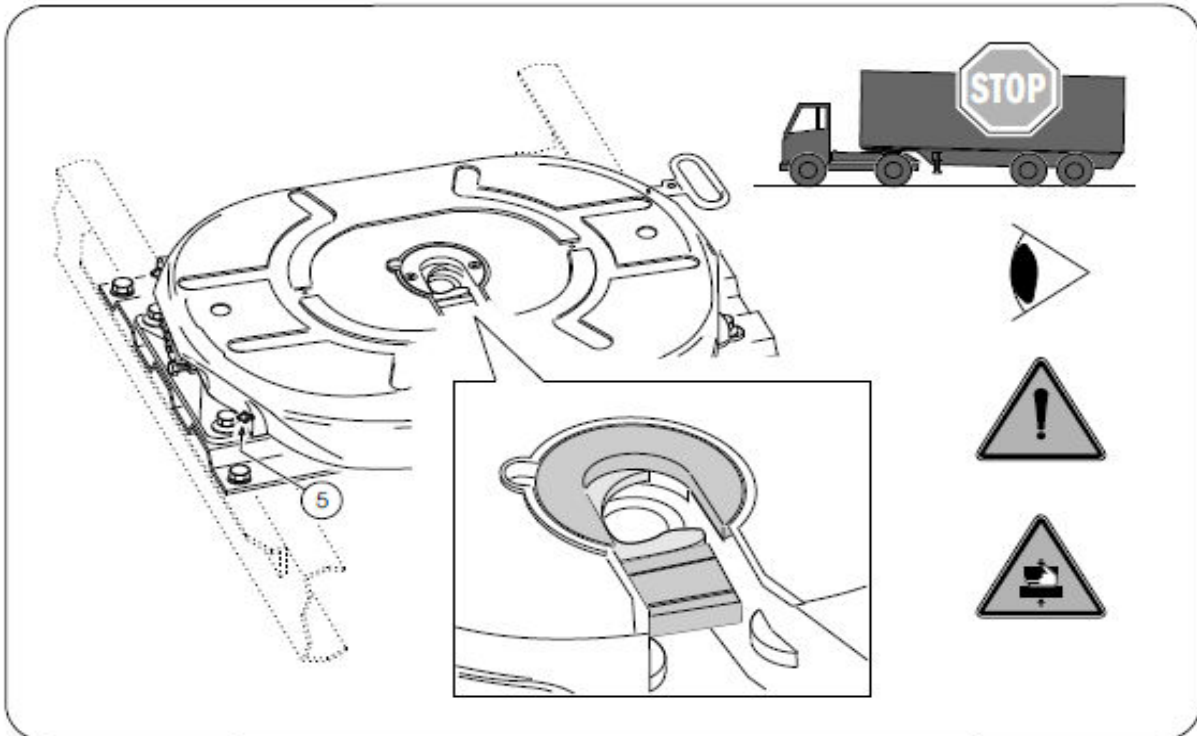
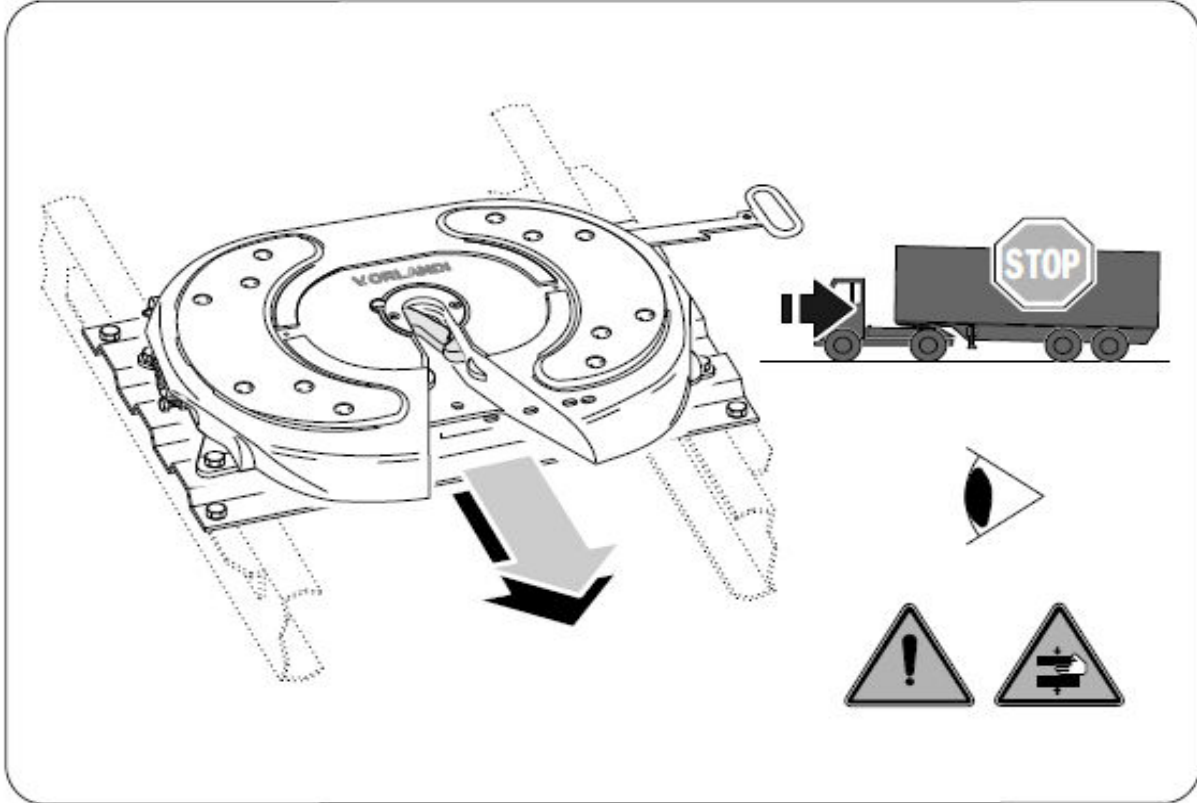


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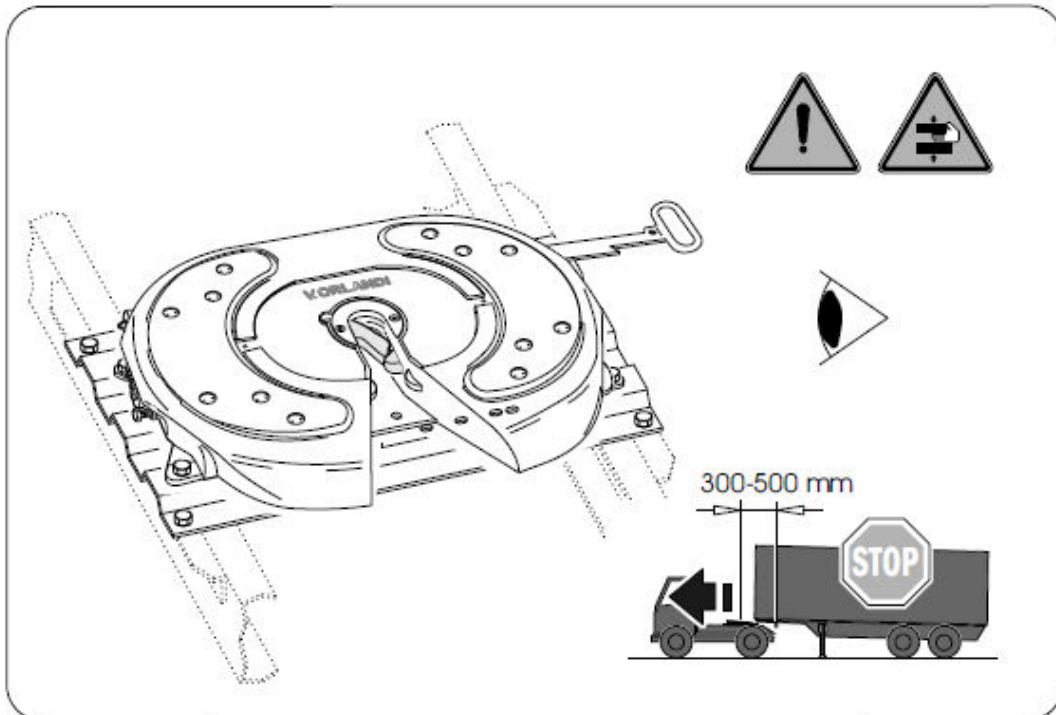
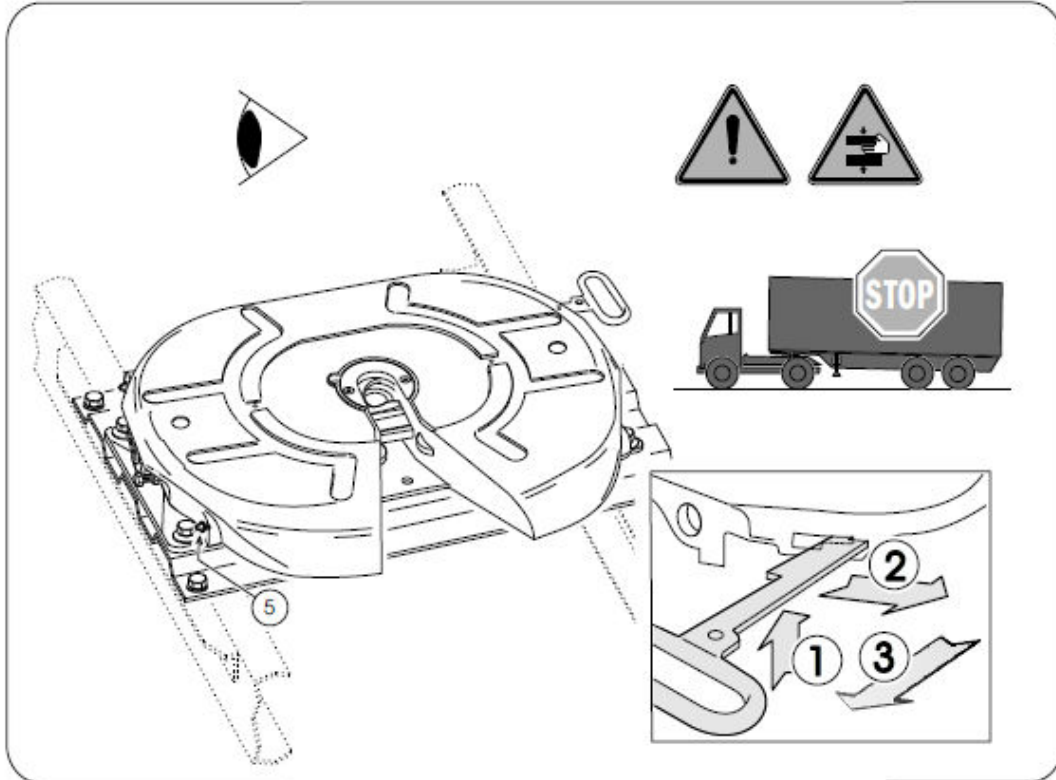
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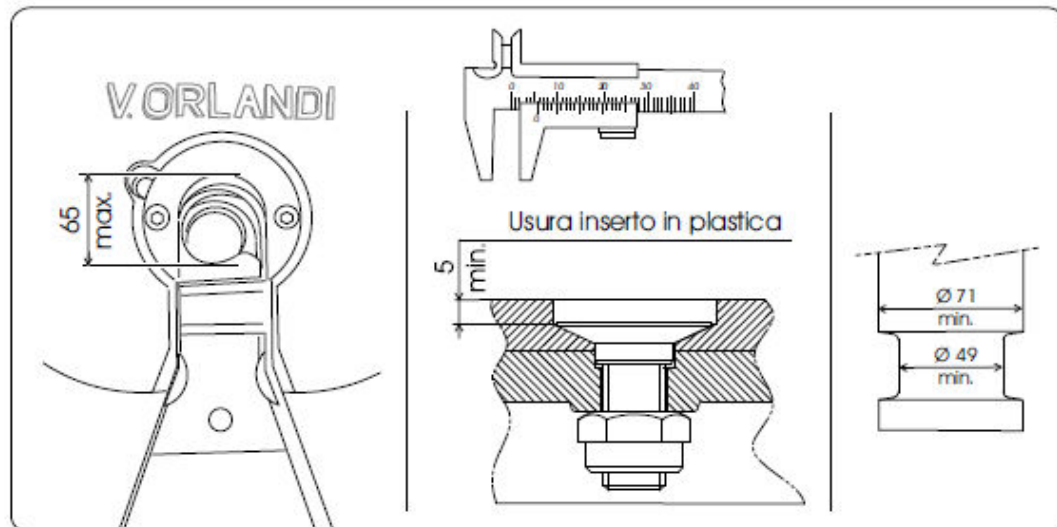
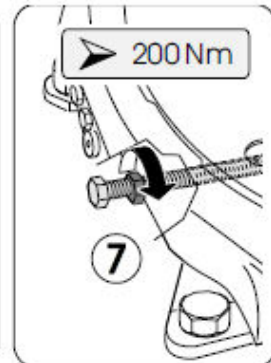
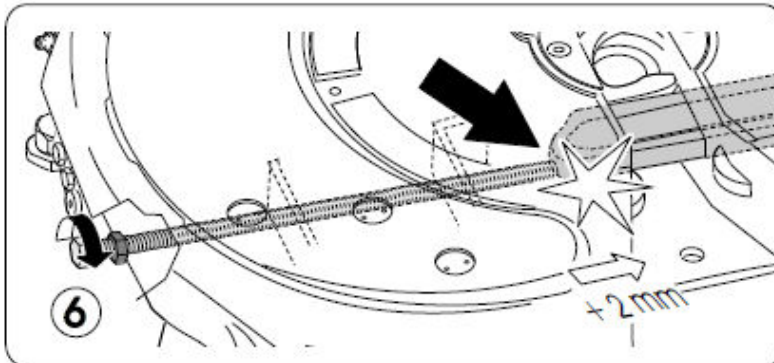
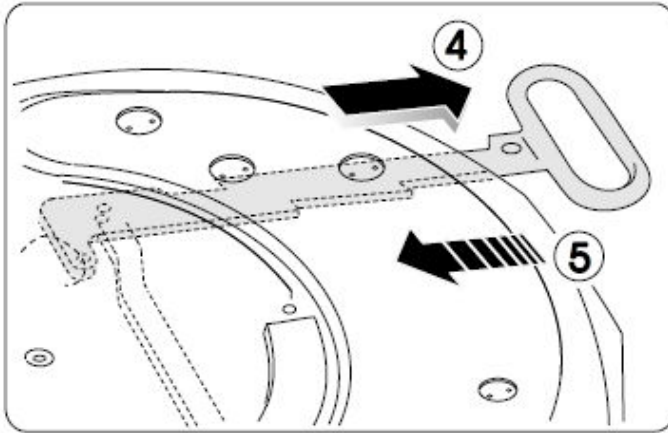
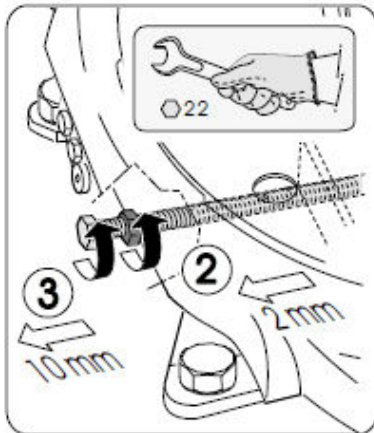
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3 - controllo delle usure / Contrôle des usures / Kontrolle tragen / wear check / Seguimiento del desgaste
 ПЕРИОДИЧЕСКИЙ КОНТРОЛЬ / kontrola zuzycia / kontroll slitage / ارتداء السيطرة



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www.orlandi.it

Via Quinzano, 3
25020 Flero -BS- Italy
tel. +39-0303582722
fax +39-0303582262
e-mail: orlandi@orlandi.it
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RP50 - AP/GP/AS/GS

Ralla su perni
Fifth wheel with pivot bearings
Sattelkupplung mit Bolzenlagerung
Sellette d'attelage avec articulation à boulons

2"

Omologazione - Homologation
Genehmigung - Homologation

94 / 20 / CE

Dati tecnici - Technical data - Technische Daten - Données techniques

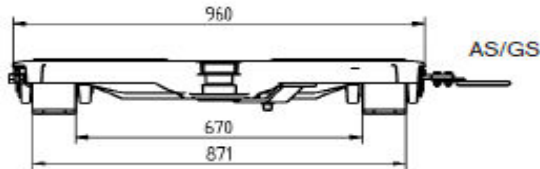
Tipo Type Typ	Codice Article number Artikelnummer Numero d'ordine	Altezza H H-Height H-Bauhöhe Hauteur H mm	Valore D D-Value D-Wert Valour D KN	Carico verticale U Vertical load U Sattelast U Charge verticale U Ton	Peso Weight Gewicht Poids kg	CRN	
						Omologazione Homologation Genehmigung Homologation	
ALPINO ISO ISO PEDESTAL	RP10	F2P1A10	140	200	20	139	37747
		F2P1A20	150	200	20	141	37747
		F2P1A30	185	200	20	143	37747
		F2P1G10	140	200	20	139	37747
		F2P1G20	150	200	20	141	37747
		F2P1G30	185	200	20	143	37747
APPOGGIO A SALDARE WELDABLE PEDESTAL	RP10	F2S1A10	140	200	14	139	
		F2S1A20	150	200	14	141	
		F2S1A30	185	200	14	143	
		F2S1G10	140	200	14	139	
		F2S1G20	150	200	14	141	
		F2S1G30	185	200	14	143	

A = Piatto autolubrificante / Autolube plate

G = Ralle con lubrificazione standard / Standard greasing plate

S = a saldare / weldable

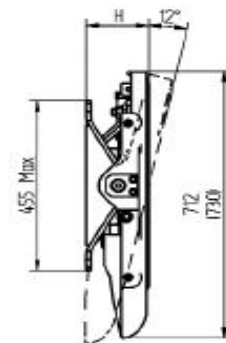
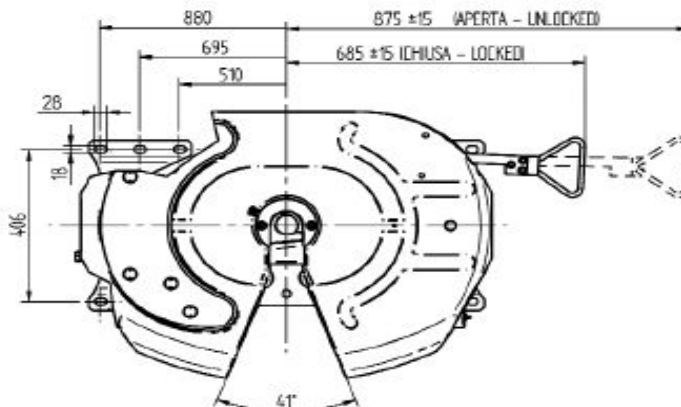
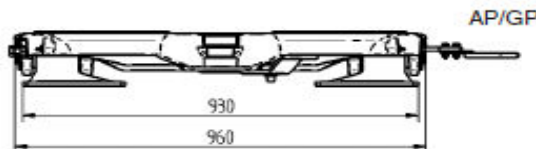
P = a perni / on pivot



Kit complementari - Complementary kits Aufsätze - Kits complémentaires

RR 00 083

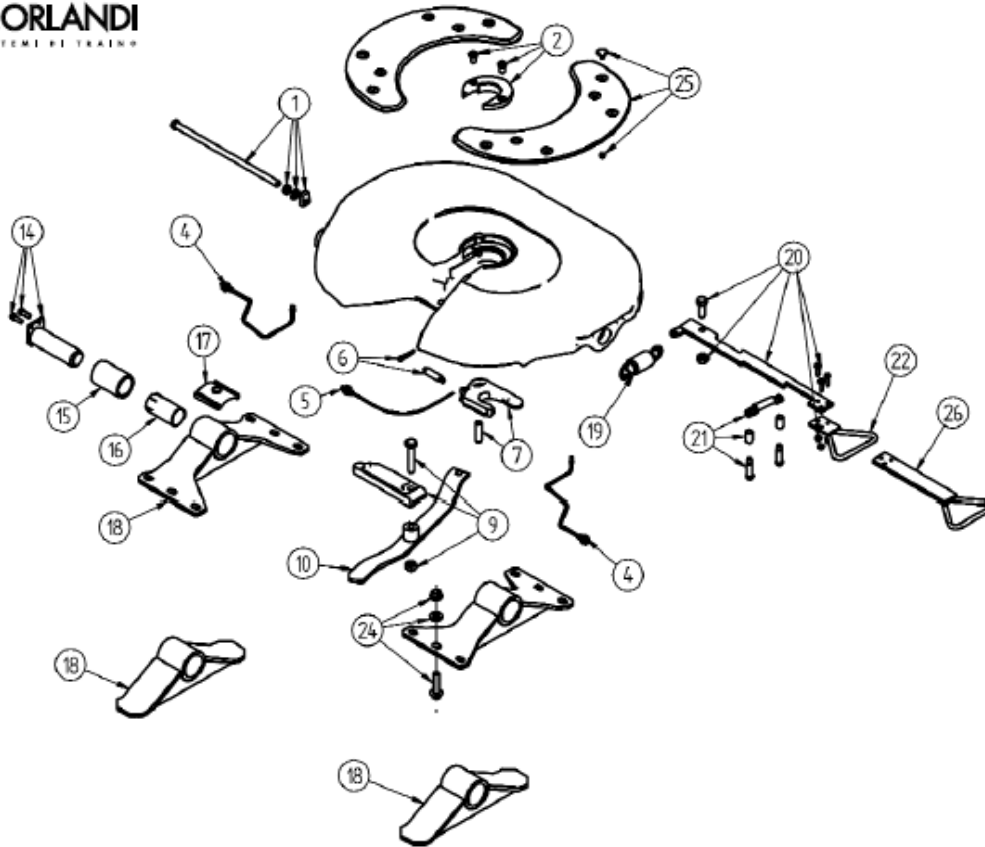
Protunga leva di apertura
Extension for action lever
Verlängerung für Handhebel
Prolonge pour levier d'ouverture



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Ricambi - Spare parts
Ersatzteile - Pièces de rechange



POS.	Tutti i tipi All types Alle Typen Tous les types	Tipo - Type - Typ - Type											
		F2P1A10	F2P1A20	F2P1A30	F2P1G10	F2P1G20	F2P1G30	F2S1A10	F2S1A20	F2S1A30	F2S1G10	F2S1G20	F2S1G30
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21	RR00048												
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KIT													
24		RR00050	RR00050	RR00050	RR00050	RR00050	RR00050						
26	RR00083												
2-6-7	RR00082												
15-16-17	RR00084												

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JOST



JSK 36 & JSK 37

EN Installation and operating instructions

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				6.1.1 Fifth wheel coupling with manual lubrication..	15
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1 Explanation of symbols



WARNING!

Means that death, serious physical injury or significant material damage can occur if the relevant safety instructions are not followed.



ATTENTION!

Means that slight physical injury or material damage can occur if the relevant safety instructions are not followed.



ADVICE!

Contains additional important information.

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2 Safety information



ATTENTION!

The safety instructions are summarised in a single section. Where the user of the fifth wheel coupling is in danger, the safety information is repeated in the various sections and marked with the danger symbol shown here to the side.

The relevant safety regulations in your country (for example Health & Safety at Work) apply for working with fifth wheel couplings, tractor units and semi-trailers. The appropriate safety information in the operating manual for the tractor unit and the semi-trailer continues to remain valid and must be followed. The following safety information applies to the installation, servicing and mounting work. Items of safety information directly linked to the activity are listed again individually.

2.1 Safety information for operation

- ▶ The fifth wheel coupling may only be operated by authorised personnel.
- ▶ Only use the fifth wheel coupling and skid plate on the semi-trailer if they are in perfect technical condition.
- ▶ The front edge of the skid plate must not be sharp, otherwise it may damage the fifth wheel coupling or the top plate liners.
- ▶ Comply with the relevant safety regulations when connecting a semi-trailer, for example the Health and Safety at Work Regulations. Only couple up a semi-trailer on firm, flat ground.
- ▶ When coupling up a semi-trailer, the skid plate must be at the same height as or ideally max. 50 mm lower than the coupling plate on the fifth wheel coupling. Pressure losses in the air suspension may change the height of the semi-trailer.
- ▶ Check the locking mechanism before starting your journey to ensure that it is properly locked. Only drive the vehicle with the locking mechanism locked and secured, even when driving without a semi-trailer (solo driving).

2.2 Safety information for servicing

- ▶ Only use the specified lubricants for servicing work.
- ▶ The servicing work should only be conducted by skilled personnel.

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2 Safety information

2.3 Safety information for installation

- ▶ The installation area defined by the manufacturer of the tractor unit may not be changed.
- ▶ The installation work may only be conducted by authorised specialists.
- ▶ Refer to the instructions issued by the vehicle manufacturer, for example the method of fastening, fifth wheel position, fifth wheel height, axle load, cavity, mounting plate, slider, etc.
- ▶ Follow the installation instructions supplied by the mounting plate and slider manufacturers.
- ▶ An earth connection must be provided between the fifth wheel coupling and the vehicle chassis in vehicles that are used for transporting hazardous substances.

In general, bolt connections are to be tightened to the tightening torque specified as a setpoint for torque wrenches as per DIN ISO 6789 in classes A or B.

The fifth wheel coupling must be installed on the vehicle in accordance with the requirements of Annex 7 of Regulation ECE R55-01. It may also be necessary to comply with the licensing regulations of the appropriate country.

All welding on fifth wheel couplings and their parts is strictly prohibited and will render the type approval void.

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3 Proper usage

3.1 Application

JOST fifth wheel couplings are mechanical connection devices and establish the connection between the tractor unit and semi-trailer. They are designed for mounting on a tractor unit.

Fifth wheel couplings, mounting plates and king pins are connecting parts that must comply with very high safety requirements and must also undergo design approval tests. Modifications of any kind will render both the warranty and the design approval void and therefore also cancel the vehicle's operating licence.

JOST fifth wheel couplings are specified to comply with Regulation ECE R55-01 Class 50 and are exclusively to be used in combination with king pins of Class H50 and Class J steering wedges and mounting plates or with comparable licensed equipment.

JOST fifth wheel couplings are suitable for use with power steering systems.



ADVICE!

Technical modifications reserved. The latest information can be found at www.jost-world.com

3.2 Unintended use

The following will be deemed to be unintended use:

- ▶ Use of king pins which do not comply with the ISO 337 or DIN 74080 standards
- ▶ Use of defective king pins. Defects may include, for example, damage to the king pin, incorrect dimensions and installation on uneven or damaged skid plates
- ▶ Use with plastic discs mounted on the semi-trailer
- ▶ Use with an imposed load or D value above the maximum permitted values
- ▶ Incorrect towing procedures which adversely affect the smooth functioning of the fifth wheel coupling
- ▶ Attachment or fastening of lifting equipment
- ▶ Other applications which do not comply with the manufacturer's recommendations

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NE

JOST catalogue sheets and stamped on the type plate. This load data is applicable for proper usage pursuant to regulation ECE R55-01.

3 Proper usage

3.3 Design

The fifth wheel coupling is designed in combination with the vehicle by the vehicle manufacturer (the design must comply with Regulation ECE R55-01, Annex 7).

In addition to the imposed load, the D value is a criterion for the load capacity of fifth wheel couplings and mounting plates.

It can be calculated using the following formula:

- D = Drawbar value [kN]
- g = 9.81 m/s²
- R = Permissible gross weight of the semi-trailer [t]
- T = Permissible gross weight of the tractor unit including U [t]
- U = Maximum imposed load [t]
- D = $g \times \frac{0.6 \times T \times R}{T + R - U}$ [kN]

Sample calculation:

- R = 33 t
- T = 17 t
- U = 10.5 t

$$D = 9,81 \times \frac{0,6 \times 17 \times 33}{17 + 33 - 10,5} = 83,6 \text{ kN}$$

Please see the adjacent table for the permitted load data for JOST fifth wheel couplings. This information is also listed in the relevant

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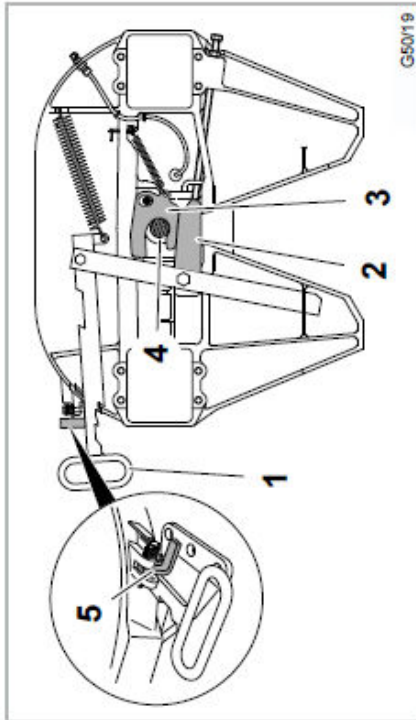
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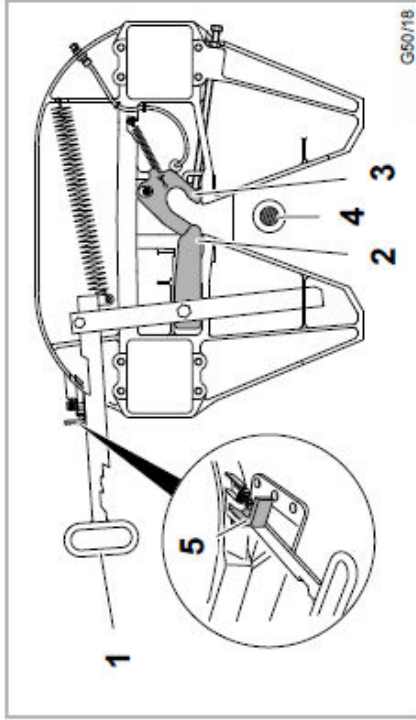
4 Operation

4.1 Fifth wheel coupling closed and locked



- 1 Handle
- 2 Locking bar
- 3 Lock jaw
- 4 King pin
- 5 Safety catch

4.2 Fifth wheel coupling ready for engagement



- 1 Handle
- 2 Locking bar
- 3 Lock jaw
- 4 King pin
- 5 Safety catch

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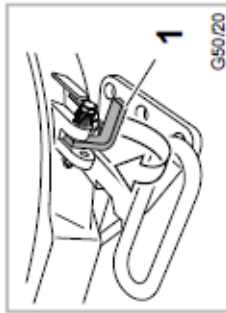
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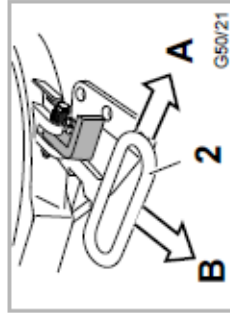
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4 Operation

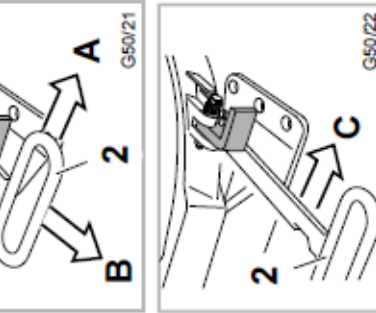
4.3 Opening the fifth wheel coupling



- ▶ Lift the catch (1).



- ▶ Swing the handle (2) towards the front into position A (to release the lock).



- ▶ Pull out the handle (2) as far as possible into position B.
- ▶ With the handle (2) pulled out, swing it forwards into position C and engage it on the edge of the plate.

- ▶ When opening the fifth wheel coupling without a semi-trailer engaged, the fifth wheel coupling is to be opened as per Figures G50/20 and G50/21.

- ▶ The fifth wheel coupling must be ready to engage before coupling up (see section 4.2).
- ▶ When opening the fifth wheel coupling with a semi-trailer engaged, the fifth wheel coupling is to be opened as per Figures G50/20, G50/21 and G50/22.

4.4 Coupling up a semi-trailer

- ▶ Secure the semi-trailer to prevent it rolling away.
- ▶ The fifth wheel coupling must be ready to engage (see section 4.2). If it is not, open the fifth wheel coupling (see section 4.3).
- ▶ Check the height of the semi-trailer. The skid plate must ideally be at the same height as or no more than 50 mm lower than the fifth wheel coupling plate.
- ▶ Drive the tractor unit under the semi-trailer.
- ▶ The locking mechanism will close automatically.
- ▶ Perform a moving-off test in a low gear.
- ▶ Check the locking mechanism (see section 4.6).
- ▶ Connect the supply lines.
- ▶ Retract the landing gear as described in the operating manual.
- ▶ Release the parking brake and remove the chocks.



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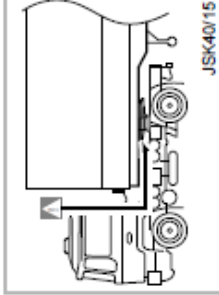
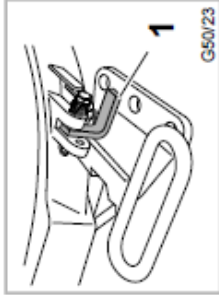
Check that the locking mechanism is closed before starting any journey (see section 4.6).

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4.6 Checking the locking mechanism

- ▶ The catch (1) must be down as shown.



ATTENTION!

The skid plate must rest on the fifth wheel coupling without a gap.



ADVICE!

To prevent the fifth wheel coupling being opened without authorisation, a security device (for example a padlock) can be inserted into the hole of the catch holder in the handle as shown.

4 Operation

4.5 Uncoupling a semi-trailer

- ▶ Park the vehicle on flat, firm ground.
- ▶ Secure the semi-trailer to prevent it rolling away.
- ▶ Extend the landing gear as described in the operating manual until the fifth wheel coupling has almost no strain on it.
- ▶ Disconnect the supply lines.
- ▶ Open the fifth wheel coupling (see section 4.3).
- ▶ Drive the tractor unit out from under the semi-trailer.
- ▶ The fifth wheel coupling is automatically ready for engagement again (see section 4.2).

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5 Installation

5.1 General installation instructions

To fasten the JOST fifth wheel coupling (pursuant to Regulation ECE R55-01) on the mounting plate or on the auxiliary frame, **at least** 8 M16 bolts, ideally M16 x 1.5 of strength class 8.8, must be used.

These must be positioned in a symmetrical pattern to the longitudinal and lateral axes of the fifth wheel coupling.

If the coupling is used in harsh conditions (for example on construction sites), with trailers with forced steering or with trailers that use the full D value and/or imposed load, we recommend that you use all 12 bolts.

Fifth wheel couplings with a design height of over 250 mm and a D value of over 133 kN must be secured with 12 bolts with strength class 10.9. This also applies to fifth wheel couplings with a D value of more than 152 kN or an imposed load of more than 20 t.

We recommend that you use JOST fastening kits (see JOST catalogue for order numbers).

The pedestals should make contact with the mounting plate over as wide an area as possible. With undulating mounting plates, it is necessary to have a support in the middle area as well as the contact in the screw connection area. We recommend securing the pedestals in the longitudinal and lateral directions and the mounting plates in the longitudinal direction using pre-welded thrust plates with zero play. Use the welding methods set out by the manufacturers of the vehicle and mounting plate for this purpose (see section 5.2).

There is no need to use thrust plates, however, if it can be ensured that the correct tightening torque for the bolts and therefore the perfect friction contact can be generated and maintained at all times.

The bolt connections are therefore to be designed so that the prescribed tightening torque values or pre-stressing forces can be applied permanently.

The general rule is that the coating thickness of the paintwork around the securing area of the bolts must be no more than 120 µm per component.

The bolt connections are to be secured using state-of-the-art methods to prevent them coming loose.

Appropriate reinforcement must be made in accordance with the application. The fifth wheel coupling must be able to move freely and must not be in contact with either the mounting plate or parts of the chassis or auxiliary frame when the vehicle is being driven. If you use a different installation method (for example chassis installation), follow the instructions supplied by the vehicle manufacturer.



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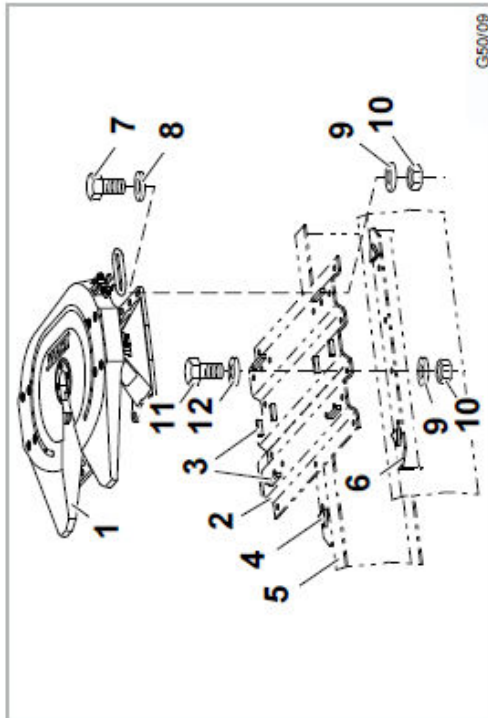
The fifth wheel coupling must be able to move freely and must not be in contact with any parts of the frame or flitch when the vehicle is being driven.

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5 Installation

5.2 Assembling the fifth wheel coupling on the mounting plate



- 1 Fifth wheel coupling
- 2 Mounting plate
- 3 Thrust plate to secure the pedestals
- 4 Thrust plate to secure the mounting plate
- 5 Vehicle chassis
- 6 Vehicle auxiliary frame
- 7 Hexagonal bolt DIN EN 28765/28676 (DIN 960/961) M16 x 1.5-8.8
- 8 Washer 17 DIN7349 6 thick (min. HV295)
- 9 Optional washer (min. HV295) or disc spring
- 10 Hexagonal nut DIN980 M16 x 1.5-8.8 or M20 x 1.5-8.8
- 11 Hexagonal bolt DIN EN 28765/28676 (DIN 960/961) M16 x 1.5-8.8 or M20 x 1.5-8.8
- 12 Optional washer/disc spring



ADVICE!

Tightening torques must absolutely be adhered to; see section 5.3

JSK 36 & JSK 37

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15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

5 Installation

5.3 Fastening material and tightening torques

Fastening material	Strength class 8.8	Strength class 10.9
Hexagonal bolt DIN EN 24014/24017 (DIN 931/933) standard thread	210 Nm 410 Nm	260 Nm 500 Nm
Hexagonal bolt DIN EN 28765/28676 (DIN 960/961) fine thread	225 Nm 460 Nm	280 Nm 500 Nm
Hexagonal bolt DIN 7991	170 Nm 330 Nm	250 Nm 400 Nm



ADVICE!

The values shown above are guide values for a coefficient of friction $\mu_{tot.} = 0.14$. Further information is available in VDI 2230.

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

EN

6 Servicing and testing

6.1 Servicing instructions

The skid plate on the semi-trailer that engages with the fifth wheel coupling must meet the following conditions to provide a long service life and trouble-free function:

- ▶ Max. 2 mm unevenness
- ▶ Adequate reinforcement must be assured
- ▶ Smooth and groove-free surface if possible, without weld bumps (smooth existing groove burr)
- ▶ Rounded or chamfered front and side edges
- ▶ Complete coverage of the fifth wheel coupling support area.



ATTENTION!

Effective lubrication of the top of the fifth wheel coupling plate (apart from on the W version), the locking mechanism, the pivot bearings (only for the D version) and the king pin (before using for the first time and after cleaning) is essential to ensure their long service life. In the W version, we recommend applying a thin coat of grease to the skid plate.



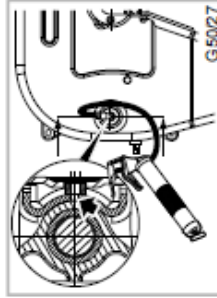
ADVICE!

Before installation, the skid plate must be checked to ensure it is even, and the skid plate thickness must also be checked. The unevenness of the skid plate must be no more than 2 mm in the load-bearing section of the fifth wheel coupling. The skid plate must cover the fifth wheel coupling's set-down surface in every position.

6.1.1 Fifth wheel coupling with manual lubrication

At short intervals, at the latest every 5,000 km:

- ▶ Uncouple the semi-trailer
- ▶ Clean the fifth wheel coupling and the skid plate.
- ▶ Grease the fifth wheel coupling plate, locking mechanism parts and king pin with high-pressure grease (EP), JOST high-performance lubricant (article no. SKE 013 440 000).
- ▶ Grease the pivot bearing of version D via the hole on the top part of the plate (see Figure G50/27) with **paste-like** high-pressure grease (EP), JOST high-performance lubricant (article no. SKE 013 440 000).



- ▶ Grease the pivot bearing of version D on both sides (lubrication adapter SKE 013 440 000).



ADVICE!

The pivot bearings on the C and E versions require no servicing. The grease nipples on the edge of the fifth wheel coupling plate are only designed for additional greasing of the locking mechanism between service intervals.

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

6 Servicing and testing

6.1.2 Fifth wheel coupling with central lubrication connection (version Z)

Depending on the conditions in which it is used, the grease specification and metering, at the latest every 50,000 km or every six months:

- ▶ Uncouple the semi-trailer
- ▶ Clean the fifth wheel coupling and the skid plate.
- ▶ Check the function of the central lubrication system as described in the manufacturer's instructions.
- ▶ Lightly grease the fifth wheel coupling plate, locking mechanism parts and king pin with high-pressure grease (EP), JOST high-performance lubricant (article no. SKE 013 440 000).
- ▶ Grease the pivot bearing of version D via the holes on the top part of the plate (see Figure G50/27) with paste-like high-pressure grease (EP), JOST high-performance lubricant (article no. SKE 013 440 000).



ADVICE!

The pivot bearings on the C and E versions require no servicing.

6.1.3 Low-maintenance fifth wheel coupling with top plate liners (version W)

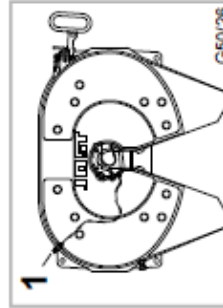
At the latest every 50,000 km or every six months, in harsh conditions every 25,000 km:

- ▶ Uncouple the semi-trailer
- ▶ Clean the skid plate and the king pin.
- ▶ Lightly grease the king pin and the locking mechanism parts with high-pressure grease (EP), JOST high-performance lubricant (article no. SKE 013 440 000).
- ▶ Check the top plate liners for signs of wear and damage (see section 6.6).



ADVICE!

The pivot bearings on the C and E versions require no servicing.



- ▶ In addition, grease the locking mechanism – **with a trailer attached** – every 10,000 km using the grease nipple (1) on the edge of the fifth wheel coupling plate.

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

6 Servicing and testing

You can also install automatic lubricant dispensers. To prevent corrosion on the skid plate, we recommend that the skid plate is greased lightly during the above service intervals.



ADVICE!

When you clean the fifth wheel coupling, you may produce waste products that contain polluting substances. We would like to point out that you must comply with the various national waste regulations for the disposal of this waste.

6.1.4 Grease specification

We recommend high-pressure grease (EP), e.g. JOST high-performance lubricant (article no. SKE 013 440 000).

EN

JSK 36 & JSK 37

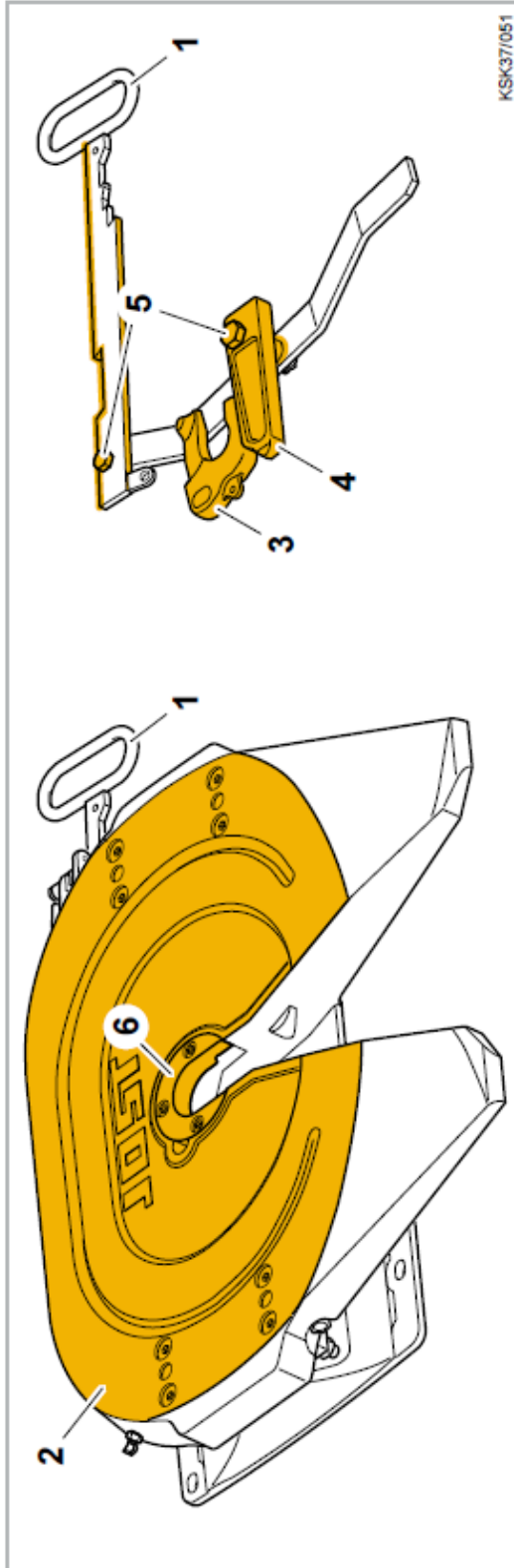
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6 Servicing and testing

6.2 Lubrication instructions



- 1** Handle
- 2** Fifth wheel coupling plate
- 3** Lock jaw
- 4** Locking bar
- 5** Hinge joints and lever guide
- 6** Wearing ring

Lubricate areas marked in yellow:

- ▶ Side of handle (1), hinge joints and lever guides (5).
- ▶ Generously lubricate the top side (2) and completely fill the lubricating groove (except W version – the top plate liners do not have to be greased; JOST top plate liners are resistant to lubricating greases).
- ▶ Lubricate lock jaw (3) and locking bar (4) with the fifth wheel coupling closed.
- ▶ With the standard version (not the low-maintenance version), the centre area around the wearing ring (6) must be completely filled with grease (see marked area).

Grease specification: We recommend JOST high-performance lubricant (article no. SKE 013 440 000).

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

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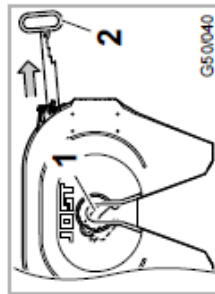
6 Servicing and testing



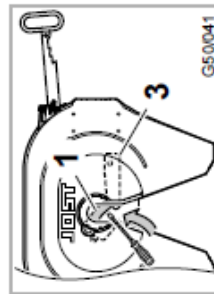
ATTENTION!

A second person is needed to close the lock.

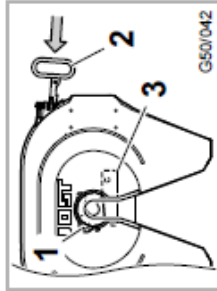
A tool such as a large slotted screwdriver can be used to swivel the lock jaw (1). The lock jaw (1) must never be swivelled by hand. There is a risk of crushing.



- ▶ Have a second person pull handle (2) until the lock jaw (1) is free.
- ▶ Hold handle (2) in this position.



- ▶ Swivel lock jaw (1) forward, e.g. with a large slotted screwdriver, until the locking bar (3) is free.



- ▶ Slowly move handle (2) into closed position.
- ▶ Grease all sides of lock jaw (1) and locking bar (3).



ATTENTION!

Open the fifth wheel coupling before it is next coupled up (see section 4.3).

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

6 Servicing and testing

6.3 Test instructions

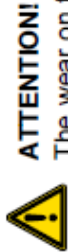
Depending on the conditions of use, but no later than every 50,000 km or every six months, the fifth wheel coupling, the mounting plate, the slider and the king pins should be checked for:

- ▶ Function
- ▶ Wear
- ▶ Correct position of the fastening elements (check prescribed torque values)
- ▶ Damage or distortion
- ▶ Cracks
- ▶ Corrosion
- ▶ To ensure adequate lubrication
- ▶ To ensure the smooth running of the mechanisms

and repaired where necessary (see the appropriate JOST repair instructions at www.jost-world.com).

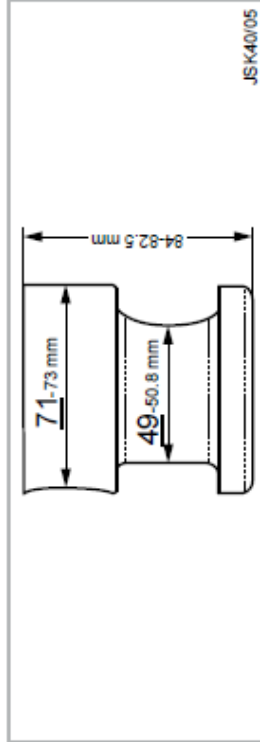
6.4 Wear test

Fifth wheel couplings and king pins are subject to more or less wear depending on the conditions in which they are used, and this wear is noticeable by play towards the front of the vehicle. Excessive play causes shocks and may lead to instability on the road and damage to the fifth wheel coupling, mounting plate, sliders and vehicle chassis. JOST fifth wheel couplings have a manual infinite adjustment facility for the locking mechanism to extend their service lives.



ATTENTION!

The wear on the king pin must not be compensated for through adjustment.



When the wear limit on the king pin has been reached, it must be replaced. After the king pin has been replaced, the locking mechanism must be adjusted again.

Play caused by wear on the king pin should either be accepted if within the permitted wear limit for the king pin (see Figure JSK40/05) or should be rectified by fitting a new king pin.



ADVICE!

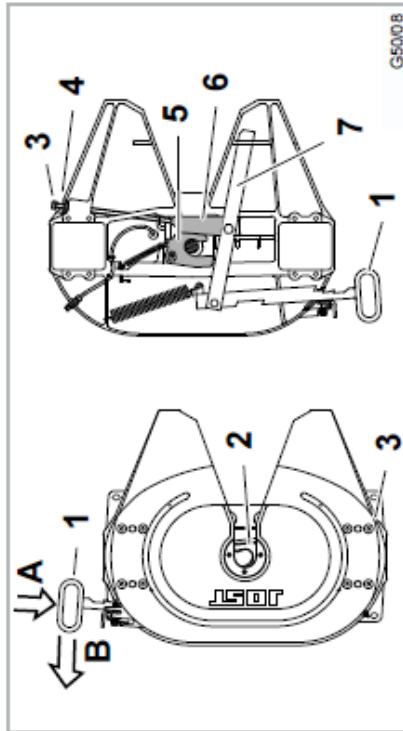
After work on the locking mechanism or after replacement of the lock jaw, wearing ring or locking bar, the locking mechanism must always be readjusted in order to ensure the base clearance of 0.3 mm.

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

EN

6 Servicing and testing

6.5 Adjusting the locking mechanism



- 1 Handle
- 2 Locking mechanism
- 3 Adjusting screw
- 4 Lock nut
- 5 Lock jaw
- 6 Locking bar
- 7 Lever

The locking mechanism must be adjusted using a semi-trailer without forced steering with an unworn king pin as described below:

- ▶ Park the vehicle on flat, firm ground and uncouple the trailer
- ▶ Undo the lock nut (4)
- ▶ Unscrew the adjusting screw (3) by approx. 15 turns
- ▶ Couple the semi-trailer up, if necessary lightly tapping the handle (1) in the closing direction **A** to bring the locking bar into its limit position
- ▶ Release the handle (1) (lift the safety latch - see figure G50/20 in section 4.3) swing into position **B** and hold (get someone to assist).
- ▶ Tighten the adjusting screw (3) again until the handle (1) starts to move (have an assistant check this)
- ▶ To set the recommended basic play of 0.3 mm, tighten the adjusting screw (3) by a further 1½ turns and secure it with the lock nut (4)
- ▶ Apply the semi-trailer brake
- ▶ Move off with the tractor and check the maximum play in the locking mechanism.



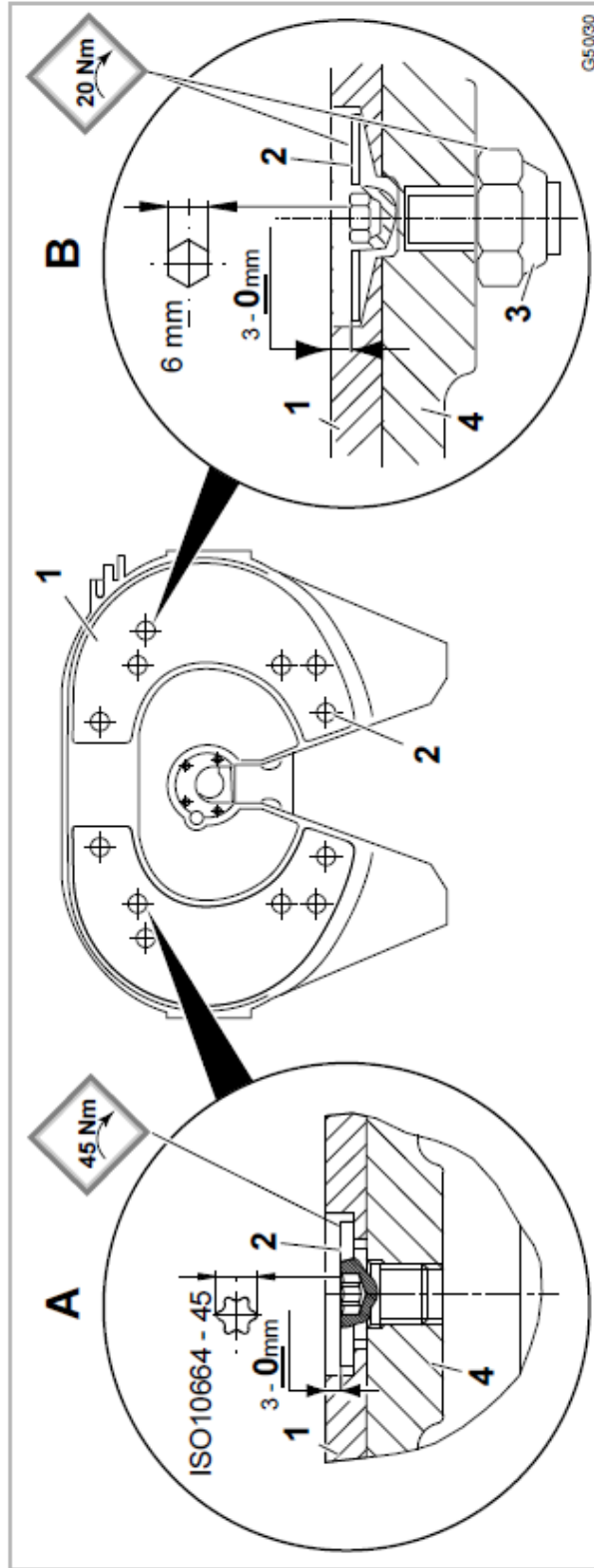
ADVICE!

If there is still excessive play, the wearing ring and the lock jaw must be replaced as described in the repair instructions.

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

6 Servicing and testing

6.6 Wear limit – top plate liners



- 1 Top plate liner
- 2 Fastening bolt
- 3 Lock nut
- 4 Fifth wheel coupling plate

The top plate liners (1) must be checked for signs of wear and damage at regular intervals that depend on usage, but at least every 50,000 km or every six months.
The top plate liners (1) must be replaced when they have worn to the top of the fastening bolts (2).



ATTENTION! When removing the top plate liners (1), the lock nuts (3) must be removed first on version B.

15.0 JOST Fifth Wheel JSK 37 Greaseless Manual

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JOST, Germany, Tel. +49 6102 295-0, tkd-technik@jost-world.com, www.jost-world.com

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16.0 JOST Ball Race Service and Maintenance



Ball Race (Slew Ring) Service and Maintenance Bulletin

Note: JOST ball races are initially lubricated before they leave the factory. Before they are put into operation for the first time however they must be adequately re-lubricated with ball bearing grease.

Recommended grease types –

Jost ball races – Lithium Saponified, NLGI class 2. (Use class 1 grease if a central lubrication system is to be used)

BPW Double Row – BPW special long life grease ECO-Li 91 Lithium Complex Grease.

The grease must not be mixed with other calcium base or sodium base lubricants.

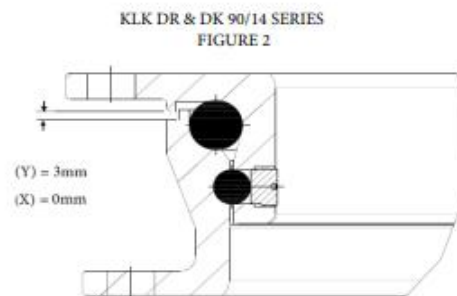
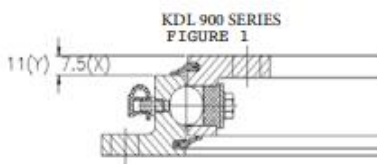
Ball races should be lubricated at least every 25,000km or every 3 months, or sooner depending on the application. Under extreme or arduous operating conditions greasing may be required weekly. The ball race should be rotated during greasing to ensure that the grease is distributed evenly.

The tightness of the mounting bolts should also be checked at regular service intervals.

Ball races are subject to wear. It is recommended that the ball race be replaced when the wear limits are reached.

Jost KDL 900/6	Radial Play max 3.0mm – Axial Play max 3.5mm	(< 01.2010)
Jost KDL 900/6W	Radial Play max 3.0mm – Axial Play max 3.5mm	(> 01.2010)
	Refer to Figure 1: (Y New Ball Race 11mm) (X Measurement = 7.5mm has reached wear limit)	
BPW DK 90/14	Radial Play max 2.0mm – Axial Play max 3.0mm	(< 06.2012)
Jost KLK DR Series	Radial Play max 2.0mm – Axial Play max 3.0mm	(> 06.2012)
	Refer to Figure 2: (Y New Ball Race 3mm) (X Measurement = 0mm has reached wear limit)	

Note: X and Y measurement pictured below refer to axial movement



Dated 30.04.2014

JOST AUSTRALIA PTY LTD

ABN 60 001 081 778

www.jostaustralia.com.au www.jostaustralia.com.au

TOLL FREE: 1800 811 487

SYDNEY
18-20 PRINCE WILLIAM DRIVE
SEVEN HILLS NSW 2147
TELEPHONE: (02) 9838 8100
FACSIMILE: (02) 9674 5715

MELBOURNE
501 MT DERRIMUT ROAD
DERRIMUT VIC 3030
TELEPHONE: (03) 9360 9001

BRISBANE
55 GARDENS DRIVE
WILLAWONG QLD 4110
TELEPHONE: (07) 3272 5777
FACSIMILE: (07) 3272 5999

PERTH
10 ADRIAN STREET
WELSHPOOL WA 6106
TELEPHONE: (08) 9255 4137
FACSIMILE: (08) 9355 4136

ADELAIDE
UNIT 1/6 ROSBERG ROAD
WINGFIELD SA 5013
TELEPHONE: (08) 8260 4055
FACSIMILE: (08) 8260 4011

17.0 JOST Fifth Wheel LubeTronic Manual



JOST

Montage- und Betriebsanleitung

LubeTronic

- Ⓒ Installation and operating instructions for LubeTronic
- Ⓕ Instructions de montage et d'utilisation pour LubeTronic
- Ⓘ Istruzioni per il montaggio e l'uso del LubeTronic
- Ⓔ Instrucciones de montaje y funcionamiento para el LubeTronic

Aktivierungsdatum:
Activation date :
La date d'activation:
Data di attivazione:
Fecha de activación:

Foreword

In the development of the JOST LubeTronic, a great deal of importance was attached to ensuring that the components used for it met the high standards that are expected from JOST in terms of their mechanical properties and reliability.

To install the JOST LubeTronic, the existing lock jaw must be replaced.

To replace the lock jaw, the applicable installation and operating instructions together with the repair instructions for the relevant fifth wheel coupling must be consulted.

All the mechanical functions and the control of the individual fifth wheel coupling components are retained. Further information about this can be found on our website: www.jost-world.com.

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1.1 Safety information for installation	16
2 Correct use	16
3 General information	17
4 Assembly and commissioning	17
4.1 Installing the lubricant dispenser	17
4.2 Painting	19
4.3 Replacing the lock jaw (JSK 37 W)	20
4.4 Replacing the lock jaw (JSK 40 & JSK 42)	21
4.5 Connecting the lubricant dispenser and putting it into operation	22
5 Table of faults	23

English

17.0 JOST Fifth Wheel LubeTronic Manual

1 Safety information

The relevant safety regulations in your country (for example Health & Safety at Work) apply for working with fifth wheel couplings, tractor units, semi-trailers and the JOST LubeTronic.
The appropriate safety information in the owner's handbook for the tractor unit and the semi-trailer are valid and must be followed.
The safety information set out below must be observed when assembling the JOST LubeTronic. Safety information directly linked to the activity is listed again individually.

! Safety information in the following sections is shown with the warning triangle symbol. You must comply with this safety information!

1.1 Safety information for installation

- ▶ The JOST LubeTronic must be attached to the fifth wheel coupling as shown in section 4.
- ▶ The JOST LubeTronic must be installed by trained personnel in suitable workshops. Follow the installation directive supplied by the vehicle manufacturer, the requirements of Directive 94/20 EC, Appendix VII and/or ECE R55-01 Appendix 7 and, if applicable, Sections 19, 20 and 21 of the Road Traffic Act and the installation instructions.
- ▶ If the equipment is not installed correctly, all warranty claims against the manufacturer and the supplier of the JOST LubeTronic will be rendered void.
- ▶ For ADR/GGVs vehicles, the regulations and country-specific legislation must be observed.
The ADR report can be viewed at www.jost-world.com.

2 Correct use

! When equipping a fifth wheel coupling with LubeTronic, take care to ensure that the fifth wheel coupling is placed on the vehicle using a suitable lifting tool. Lifting a fifth wheel coupling with LubeTronic with a forklift truck, for instance, could cause damage to the LubeTronic.

The JOST LubeTronic is an automatic lubricating system for lock jaws that comprises a fully-automatic lubricant dispenser and specially-coated lock jaw.

The JOST LubeTronic is designed for attachment to low-maintenance fifth wheel couplings of type JSK 37 W, JSK 40 W and JSK 42 W.

The JOST LubeTronic also permits the lubrication of articulated connections and bearings on fifth wheel coupling components, such as on lifting equipment for fifth wheel couplings.

The system must not be installed in tractors that are operated on building sites.

The permissible operating temperatures of the lubricant dispenser lie between -20°C and +70°C.

At operating temperatures below -20°C, the lubricant dispenser will not dispense any lubricant. The specially-coated lock jaw allows the system to continue operating without problems even without lubricant. As soon as the temperature returns to the operating temperature range specified, the lubricant dispenser will resume working as normal.

The system is not suitable for continuous use at temperatures below -20°C.

The LubeTronic's service life is around 3 years.

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1006181 • ZDE 199 002 128 • 10/2015

LubeTronic

3 General information

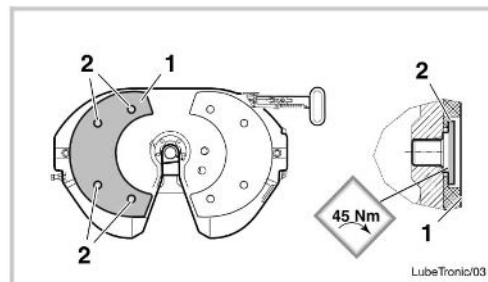
During the LubeTronic's operational life, the LED will flash once every 2 minutes on the lubricant dispenser.
When the lubricant dispenser is empty, the LED on the lubricant dispenser will flash once every 5 seconds.

Spent lubricant dispensers should be disposed of as electronic scrap. Such materials must be disposed of in accordance with legal requirements. For more information, contact your local waste collection facility or JOST.

Once the operating life has expired, the lock jaw and lubricant dispenser must be replaced.
Spare parts kit: SKE004070100

4 Assembly and commissioning

4.1 Installing the lubricant dispenser



Note
Comply with the tightening torque!

- ▶ Remove the screws (2) on the left-hand liner (1). Remove the top plate liner (1) from the fifth wheel coupling.

English

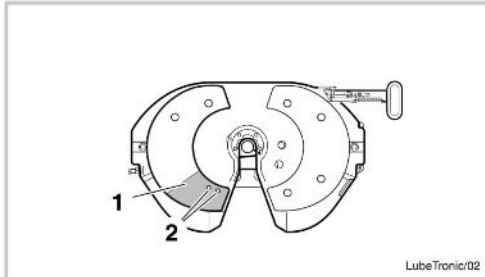
LubeTronic

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4 Assembly and commissioning



LubeTronic/02

Note

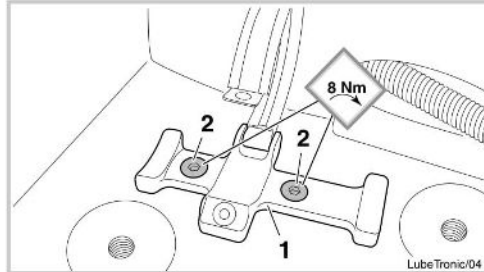
Only use the template (1) appropriate for the JSK type.

- ▶ Insert template (1) as shown in the holder for the left-hand liner.

Note

Ensure that the distance between the two drill-holes is the same as on the mounting clip.

- ▶ Transfer the drilling points (2) of the template (1) onto the fifth wheel coupling and drill through with a spiral drill bit \varnothing 5 mm.
- ▶ Tap an M6 thread.
- ▶ Re-install the left-hand liner.



LubeTronic/04

Note

Comply with the tightening torque!

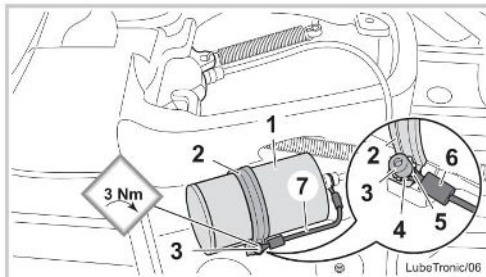
- ▶ Screw the fastening clip (1) to the fifth wheel coupling using the countersunk head screws (2). If you wish, you may also secure the screws further by using Loctite, for instance.

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LubeTronic

4 Assembly and commissioning



LubeTronic/06

On ADR vehicles, the earth strap (6) must be attached between the lubricant dispenser (1) and the upper section of the fifth wheel coupling plates. The earth strap must also be attached between the coupling plate and the base of the fifth wheel coupling. The ADR report can be viewed at www.jost-world.com.

Note

Ensure that the groove of the fastening clip (2) lies in the recess on the lubricant dispenser (1).

- ▶ Insert the lubricant dispenser (1) into the fastening clip (2) and close the fastening clip (2).

Note

Comply with the tightening torque!

- ▶ Secure the fastening clip (2) using Allen screw M5 x 10 mm (3), toothed ring (4) and washer (5).

4.2 Painting

If the fifth wheel coupling with LubeTronic is painted and a paint dryer is used, or the paint is dried in a drying chamber, care must be taken to ensure that the LubeTronic is not subjected to direct exposure to the rays. Persistent heating of the LubeTronic to over 70°C must be avoided.

English

LubeTronic

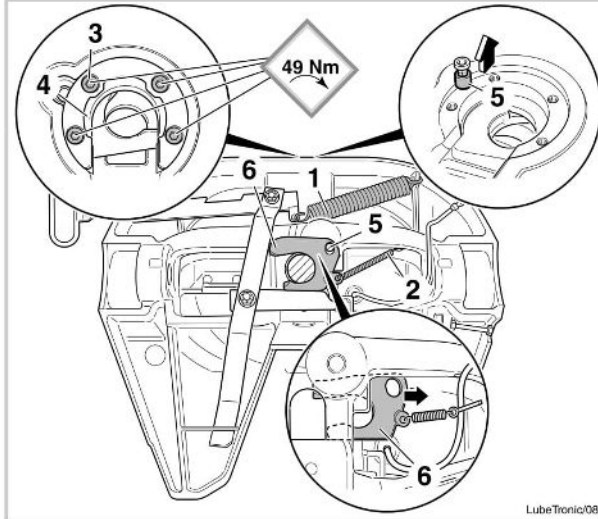
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17.0 JOST Fifth Wheel LubeTronic Manual

4 Assembly and commissioning

4.3 Replacing the lock jaw (JSK 37 W)



- ▶ Unhook the double spring (1).
- ▶ Release the spring (2).
- ▶ Undo the screws (3) on the wear part.
- ▶ Remove the wear part (4).
- ▶ Remove the pin (5).
- ▶ Remove the lock jaw (6).
- ▶ Install specially-coated lock jaws in the reverse sequence using assembly parts, some of which are new
- ▶ To adjust the fifth wheel coupling, test king pin SKE 008630000 can be used. This must however lie over its entire surface on top of the fifth wheel coupling!

Note

The detailed steps for removing the lock jaw can be found in the repair instructions for JSK 37 (available on the Internet at www.jost-world.com).

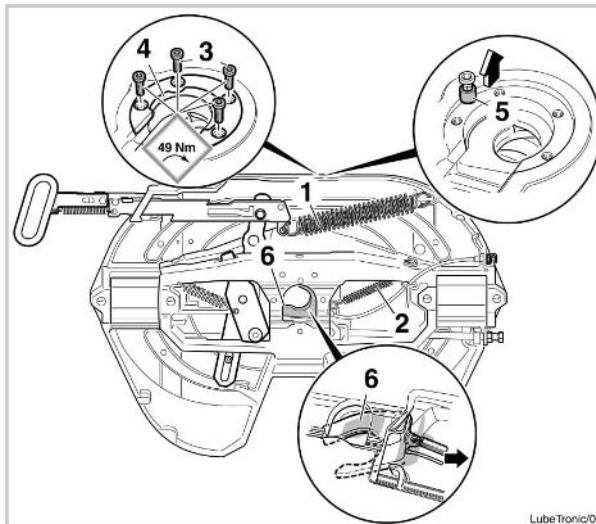
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LubeTronic

4 Assembly and commissioning

4.4 Replacing the lock jaw (JSK 40 & JSK 42)



- ▶ Unhook the double spring (1).
- ▶ Release the spring (2).
- ▶ Undo the screws (3) on the wear part.
- ▶ Remove the wear part (4).
- ▶ Remove the pin (5).
- ▶ Rotate and remove the lock jaw (6).
- ▶ Install specially-coated lock jaws in the reverse sequence using assembly parts, some of which are new
- ▶ To adjust the fifth wheel coupling, test king pin SKE 008630000 can be used. This must however lie over its entire surface on top of the fifth wheel coupling!

Note

The detailed steps for removing the lock jaw can be found in repair instructions for JSK 40 & JSK 42 (available on the Internet at www.jost-world.com).

English

LubeTronic

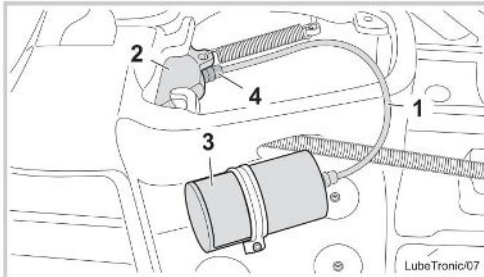
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JOST 21

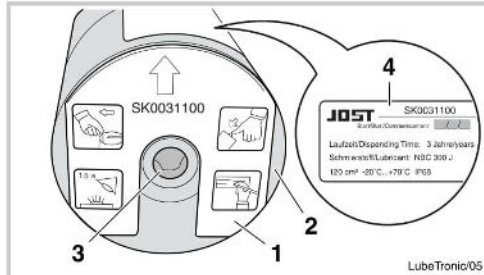
17.0 JOST Fifth Wheel LubeTronic Manual

4 Assembly and commissioning

4.5 Connecting the lubricant dispenser and putting it into operation



- ▶ Remove the protective cap on the hose (1) of the lubricant dispenser (3). Connect the hose (1) on the lubricant dispenser (3) correctly to the connecting piece on the lock jaw (2). To do this, slide the locking nut onto the hose (1). Place the end of the hose on the grommet of the connecting piece.
- ▶ Tighten the locking nut (4) to its terminal position.



- ▶ Pull the protective cap (1) upwards from the lubricant dispenser (2).
- ▶ Firmly press the push-button (3) of the lubricant dispenser (2) inwards.
- ▶ Write the start date on the sticker (4).
- ▶ Write the start date on the enclosed second label and stick it on in a clearly-visible place.

Note

As confirmation that the lubricant dispenser (2) has been activated, the LED in the push-button (3) lights up for at least 15 seconds.

The lubricant dispenser can only be activated once.

An activated lubricant dispenser cannot be deactivated.

The specially coated lock jaw is supplied with an initial lubrication. The initial lubrication guarantees lubrication of the lock jaw until the lubricant cartridge has supplied a sufficient quantity of grease. This significantly improves the operating life. If the lubricant is wiped off the lock jaw, e.g. as a consequence of cleaning, we recommend greasing the functional surfaces of the lock jaw again by hand before continuing to operate the vehicle.

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5 Table of faults

No.	Fault	Cause	Remedy
1	The lubricant dispenser is not lubricating or is not lubricating adequately.	The lubricant dispenser is not activated.	Activate the lubricant dispenser. See Section 4.5 "Connecting the lubricant dispenser and putting it into operation" in these A&O.
		The lubricant line is damaged or crushed.	Check the lubricant line for damage and crushing and replace any lines that are damaged or crushed.
		The grease supply has run out.	The lubricant dispenser and lock jaw must be replaced. Spare parts kit: SKE004070100
		The housing is damaged.	The lubricant dispenser and lock jaw must be replaced. Spare parts kit: SKE004070100
2	Function light flashes once every 5 seconds	The grease supply has run out.	The lubricant dispenser and lock jaw must be replaced. Spare parts kit: SKE004070100

English

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Siemensstraße 2, D-63263 Neu-Isenburg, Telefon +49 6102 295-0, Fax +49 6102 295-298, www.jost-world.com
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