Operator Handbook

Montracon

the trailer for road transport

Montracon

the trailer for road transport

Contents

This handbook covers a wide variety of operating instructions for all semi-trailer model types.
It has been compiled to give the driver/operator essential information regarding operation and initial 'essential' maintenance. It is not intended to cover detailed stripping of components. This information is contained in the pertinent maintenance manual, which is available on request from the relevant manufacturer.

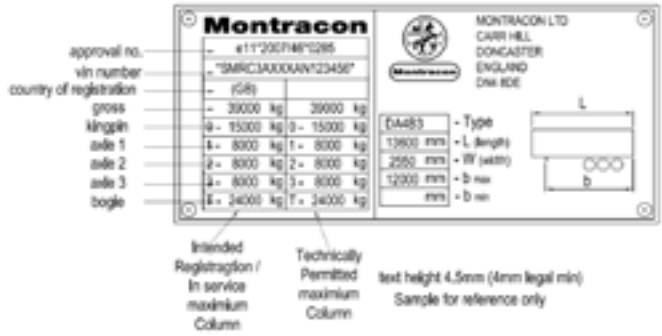
Vehicle Identification

Each Montracon trailer has a unique Vehicle Identification Number (VIN) that, as well as other data, identifies its year of manufacture, its model type, its chassis number and the site of manufacture (see fig. 1). Due to a recent change in Legislation the trailer will also now be fitted with a Montracon Ministry Plate showing the “C number” (Ministry number) which has been allocated to that trailer by VOSA before delivery to the Customer. This plate is usually fitted in the default position behind the landing legs on the near side of the trailer attached to the main chassis beam, an example of this plate is shown below (see fig.1);

fig.1

The chassis number is stamped on the trailer in the area of the off side behind the landing legs on the main chassis beam and usually welded on the trailer frame underneath at the rear. It is also on the chassis plate (see fig.2) that is usually located on the nearside front or rear of the chassis or rear of the trailer neck and includes other useful data.

fig.2



The plate fixed near to the chassis plate is the load sensing valve data plate.
Figs 3, 4 & 5 give details of and settings for the load sensing valves usually fitted.

fig 3 *Knorr-Bremse*

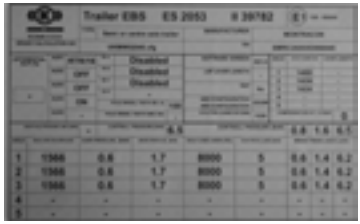


fig 4 *Haldex*

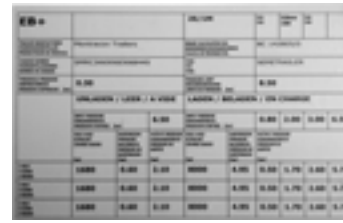


fig 5 *Wabco*

To the Driver/Operator

It is your responsibility to read and comply with all safety instructions quoted in this handbook. Understand that your safety and the safety of others is measured by how you operate your vehicle.

SAFETY ALERT SYMBOL

This safety symbol is used to alert the driver/operator that SAFETY IS INVOLVED.

When ever you see the safety alert symbol used within this handbook carefully read the message that follows and be made aware to the possibility of serious injury.

SAFETY IS IMPORTANT! Accidents can disable or kill.
Accidents are costly. Accidents can be avoided.

Section 1

Operating Instructions

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

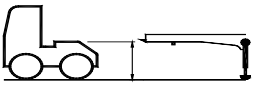
Bolt-in King Pin (JOST)

Check for correct positioning and security. Torque M14 nuts to 190Nm (140lb.ft)
For other manufacturers contact customer services.

Coupling trailer to tractor unit

To correctly connect the tractor unit to the trailer carry out the following:

1. Ensure the trailer park brake is applied.
2. Set the trailer Landing Legs to the coupling height.
   (see page 05, Landing Legs - Operation).



3. Check the tractor fifth wheel jaws are open (refer to tractor handbook). To assists trailer coupling, tilt tractor fifth wheel so that the rear end is sloping downwards.
4. Remove stabilising support, if applicable.
5. With the tractor and trailer correctly aligned, slowly reverse the tractor fully under the trailer fifth wheel plate - into the coupled position.
6. Ensure the combination is securely coupled by trying to move forward with the trailer parking brake applied. Visually check to ensure correctly coupled and coupling securely locked.
7. Connect the tractor's electrical and air couplings to their respective colour coded couplings on the front of the trailer. Open tractor airline 'shut-off' cocks, if fitted. Couple hydraulic line(s), if applicable.
8. Raise the trailer support legs fully and secure correctly in the running position.
9. Test brakes for operation and carry out 'Checks Before Moving Off' (detailed in this section of the handbook).
10. Check trailer swing clearance to ensure trailer does not foul tractor unit.

⚠ **WARNING:**

Before moving away, always check the immediate vicinity of the vehicle.

Ensure adequate visibility. Always comply with road traffic regulations.

Check height clearance before traveling under bridges etc.

Uncoupling trailer from tractor

⚠ **STABILITY WARNING:**

Whether loaded or not, when uncoupled from the tractor unit some trailers with a long deck length forward of the support legs or rearward of the running gear may be unstable.

1. Ensure the trailer park brake is applied.
2. Lower the landing legs to the ground (see page 05, Landing Legs - Operation).
3. Disconnect the air and electrical couplings from the trailer. Close tractor airline shut-off cocks, if fitted. Disconnect hydraulic line(s), if applicable.
4. Unlock and release fifth wheel coupling. Slowly drive the tractor unit clear of the trailer.

Landing Legs

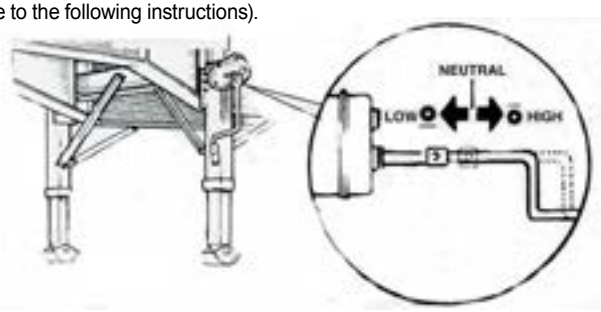
> ⚠ **WARNING:**
> Never leave landing leg gearbox in neutral.

For the purpose of supporting the trailer when uncoupled and for setting the trailer to the required height when coupling.

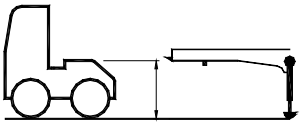
The following instructions should be carried out on firm, level ground. If not, ensure the legs are positioned on suitable footplates to prevent them from sinking.

NOTE: On vehicles fitted with legs operable from either side of the trailer, ensure the handle NOT being cranked is set in the NEUTRAL position before operating.

NOTE: The handle on the offside (RH) leg turns in the opposite direction to the handle on the nearside leg (i.e. opposite to the following instructions).



To set the legs for coupling:



Unclip the cranking handle and push shaft inwards to select low gear. Rotate handle and adjust trailer height so that the coupling plate is level or slightly lower (20mm max) if lead-up ramps are fitted.

Couple tractor unit as detailed and then raise the legs.

To lower the legs when uncoupling:

Unclip the cranking handle and pull shaft outwards to select high gear. Rotate handle clockwise until legs reach the ground - STOP - select low gear by pushing shaft inward and continue cranking until trailer is supported - Do not raise the trailer. Secure handle in stowed position and uncouple trailer as detailed.

To raise the legs once coupled:

Select high gear, rotate handle anticlockwise until legs are fully raised - Do not force beyond this position. Secure handle in stowed position.

Checks Before Moving Off

The following checks should be carried out in addition to 'Preventative Maintenance and Trailer Care' (Section 7):

1. **Electrical and Air Lines (and hydraulic lines where applicable)**
   All connections should be tight and clean. Connections should be well supported to prevent pinching or entanglement.

2. **Lights and Markers**
   Check all lights and reflectors are positioned correctly, are clean and functioning properly. Replace damaged components promptly - it's illegal for components not to be functioning correctly.

   Ensure relevant Emergency Cards or Markings are displayed (refer to Health and Safety information 'Dangerous Substances').

   Ensure correct number plate is affixed to the trailer. NEVER use illegal markings.

3. **Check Brake Operation**
   Allow system to pressurise, check tractor pressure gauges and if necessary run up until the tractor unit compressor exhausts or "blows off".

   Try the service (foot) and third line (hand) controls (where applicable). Listen for air leaks during each application.

   Carry out an anti-lock brake check, (see page 22).

4. **Air Suspension**
   When fitted, allow air suspension to reach 'RIDE' height before moving off.

   Ensure raise/lower or exhaust control (if fitted) is reset prior to moving. Some auto-reset systems require initial energising via the brake light circuit - press the brake pedal prior to moving.

5. **Lift Axle**
   If axle is raised ensure the configuration is within legal plated weights.

6. **Fifth wheel**
   Ensure fifth wheel is locked by pulling forward slightly with the trailer parking brake applied. If the fifth wheel is fitted with a safety locking mechanism, visually check it has locked after coupling to tractor.

> ⚠ **WARNING:**
> Always check that fifth wheel coupling is locked before moving off.

7. **Raise Support Legs**
   Check the support legs are fully retracted and handle is stowed securely.

> ⚠ **WARNING:**
> Ensure support legs are fully raised before moving off.

8. **Check Wheels and Tyres**
   Generally, check the condition of all wheels and tyres, including spares, mudwings, and mud flaps/spray suppression. This includes correct tyre pressures as specified by the tyre manufacturer.

9. **Check Payload**
   The amount and nature of the payload. If the load is a hazardous one, the driver should be aware of what to do in case of an emergency, i.e. fire or leakage. Check distribution and security of load. See "VOSA Guidance on load security April 2012" available at;
   www.gov.uk/government/organisations/vehicle-and-operator-services-agency

10. **Ancillary Equipment**
    Where applicable, check the condition of all ancillary equipment and ensure it is correctly positioned/ stowed.

11. **Unsafe Equipment**
    Report all unsafe equipment before its condition becomes an operational hazard. Check the general condition of your vehicle e.g. load carrying area, doors, curtains, sidewalls, ladders, handrails, walkways, drain tubes etc.

Know your vehicle

⚠ **WARNING:**

Know the height, width and length of your vehicle.

Check the immediate vicinity of the vehicle.

Ensure adequate visibility.

Always comply with road traffic regulations.

Learn any special operating procedures.

MT45 Operators Manual

Machinery Carrier Warranty Policy

Montracon Trailers SanuControl Double Deck Manual

Refrigerated Double Deck Operation and Maintenance Manual

Moving Deck Override Procedure

Section 2

Body Construction

(Curtainsider, Flatbed, Refrigerated and Dry Freight Van Bodies)

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

Curtains and Tensioners

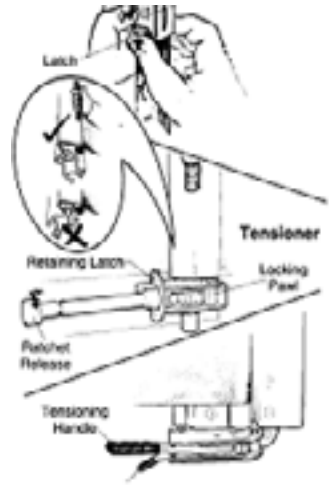
The curtains on Montracon curtain-sided trailers come in two forms known as welded type and pocketed type (both of these have a standard 20mm approx. tuck under of the curtain on the side rave).

- Welded Type: The curtains are PVC coated polyester with heavy-duty PVC impregnated polyester webbing vertically set within the curtain for buckle attachment.
- Pocketed Type: The curtains are PVC coated polyester and fitted with the buckle straps within pockets positioned vertically and attached to the curtain rollers.

The buckles on each curtain type allow easy vertical tensioning of the closed curtain.

Front and rear tensioners are provided for longitudinal tensioning of each curtain. Both are lever operated. The front curtain pole locates in the tensioner and a pocket in the header. The rear pole locates in a pocket in the rear header and in the tensioner.

The curtain can be opened from either end.



To open the curtain:

Release each buckle carefully. Buckles are simply released by pulling the strap-end down and forward against a spring-loaded latch. **Do not casually pull lever up on this type of buckle.**

NOTE: Other types of buckle may be fitted, some of which are simply released by pulling the lever upwards.

Releasing the longitudinal tensioners:

Carefully pull the tensioning handle and take up tension in the curtain, pull ratchet release lever (under tensioning handle) until it releases the curtain tension. Release the tensioning handle

To slide curtain open:

Lift curtain pole from its stowage, gather the curtain back (to prevent bunching) - do not pull on pole or first curtain strap to open.

Return tensioner handle after use.

To close the curtain:

Check side posts, if fitted, are locked in their correct positions in the side rave. Draw the curtain by the pole until level with tensioner. Repeat for other end if necessary. Check curtain is under the pelmet along the top rail.

Tensioning curtain:

Check tensioner handle not being used is stowed flush. Ensure the ratchet tensioner being used is engaged. Tension the curtain by moving the handle ‘to’ and ‘fro’.

NEVER USE AN EXTENSION TUBE ON THE HANDLE FOR TENSIONING.

On completion stow handle flush with the bodywork - do not force front tensioner handle into stowage, (pull the handle-end to release ratchet). Grasp lower edge of curtain and position the strap-hook and curtain to the under side of the rave.

Trailer curtain buckles should be specifically tighten **REAR to FRONT i**f the trailer is of a POSTLESS type design, due to the design flex in the Cant rails

Always ensure that curtain is well sited within the top corner capping before tensioning sides. Bunching of the curtains can cause damage.

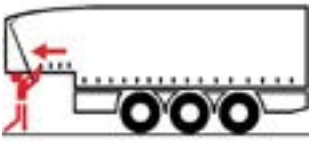
Additional Information for Curtains on Slope-Front Curtainsiders and Double Deck Step Frames.

To allow for easy opening/closing of curtains on slope front curtainsiders; in conjunction with the previous instructions please follow the procedure below;

This decal will also be fitted to the trailer bulkhead.

IMPORTANT !

WHEN OPENING CURTAINS FROM THE FRONT, RELEASE TENSIONER AND REMOVE POLE FROM LOCATION THEN PULL CURTAIN REARWARDS USING 2nd AND 3rd BUCKLES REARWARD OF STEP



Opening the curtain:

After releasing the front pole and curtain, stand to the rear of the landing legs and pull the curtain open.

Closing the curtain:

1. Holding the straps at the step of the curtain, pull the curtain up to the landing legs.
2. Using the curtain pole, draw the curtain until level with tensioner.

Sliding Pillar (Easy Park Break Post)

This type of roof support allows an unobstructed load space. The movable pillar can be temporarily slid along the top rail for loading/unloading operations.

⚠ **WARNING:**

Do not unlock pillar until all load securing straps have been released.

Only open pillars on one side of trailer.

Never attempt to open neighbouring pillars at the same time.

Only park pillars in specified parking position.

Only operate trailer with pillar locked in position.

Do not use the pillar as a load restraint.

To Open:

1. Be prepared for the pillar moving toward you. While pushing on pillar, release the catch securing the pillar handles, lift safety latch.
2. Carefully pull the handles outwards (towards you) whilst supporting the post. When completely free, release the pillar foot from the rave, disengage bottom, and slide the pillar away to give full access to deck area.

To Close:

1. Position the lower end of pillar into the groove in the side rave and set base of pillar in side rave bottom. Locate safety catch. Using both hands push on the pillar handles and pillar to the closed position. Lift catch and secure pillar handles behind the flap.

NOTE: When closing the pillar always use both handles. Regular lubrication and Maintenance is also required.

> ⚠ **WARNING:**
> When closing the pillar keep your hands clear of the pillar articulation.

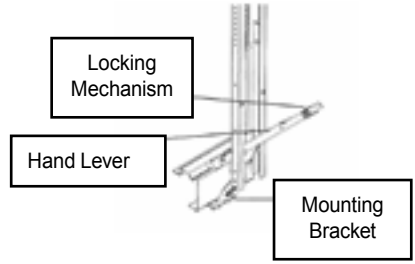
Sliding Pillar (Hesterberg Variomaster Post)

This type of roof support allows an unobstructed load space. The movable pillar can be temporarily slid along the top rail for loading/unloading operations.

> ⚠ **WARNING:**
> Do not unlock pillar until all load securing straps have been released.
> Only open pillars on one side of trailer.
> Never attempt to open neighbouring pillars at the same time.
> Only park pillars in specified parking position.
> Only operate trailer with pillar locked in position.
> Do not use the pillar as a load restraint.

To Open:

1. Move trailer curtains clear of working area.
2. Before the pillars are opened, any existing load pressure must first be released. The lateral tarpaulin boards (if fitted) must be unhooked and removed.
3. Press the locking button down.
4. Pull the hand lever out of the pillar profile.
5. Take hold of hand lever and swing further down, also take hold of the mounting bracket and guide it.
6. The hand lever is pushed out of the body of the pillar due to the pillar sinking from the weight of the roof! It is necessary for the operator to apply an increased counterforce!
7. Pull out the pillar and close the hand lever again (engage locking mechanism).
8. When opening the stanchion do not let it fall (rollers could be damaged).



Lateral movement:

1. A protruding load may obstruct the movement of the pillar.
2. Swing the pillar slightly away from the vehicle frame, and move it sideways.
3. Swinging the pillar away from the vehicle frame further than necessary may cause the trolley or telescopic element to jam inside the roof edge profile.

To Close:

1. Push the VarioMaster to its allotted position on the vehicle frame, press the locking button, and open the hand lever.
2. Mount the support foot into the side rave frame.
3. Put the mounting bracket against the frame and press the hand lever into the pillar until the locking mechanism automatically re-engages.

NOTE: The curtainsider pillar must be at right angles to the vehicle frame! Regular lubrication and Maintenance is also required.

Sliding Pillar (Wind-Up)

If this type of roof support is fitted the movable pillar can be temporarily slid along the top rail for loading/ unloading operations.

To Open:

1. Release winding handle locking catch, turn winding handle anti-clockwise to release weight of roof. Ensure completely stored away in rave socket.
2. Slide the pillar away to give clear access to deck area.

To Close:

1. Position the lower end of pillar into vicinity of winding mechanism, turn handle clockwise, carefully locate pillar onto 'winder' and continue turning handle to allow pillar to take weight of roof. Position so handle is flush with side and secure using catch.

NOTE: Regular lubrication and Maintenance is also required.

Sliding Roof

> ⚠ **WARNING:**
> When the roof is open the overall height will increase by approx. 300mm (1ft).

To Open the Sliding Roof (from the rear):

1. Open trailer rear doors.
2. Unlock the door header by pushing it up with the hooked pole provided.
3. Pull roof open with hooked pole using one of the rings provided at the rear of the roof on either side.

To Close the Sliding Roof:

1. Pull roof to the rear.
2. With the hooked pole located on the lip of the header, sharply pull the header down to the locked position. Close rear doors to secure roof.

Rear Doors

> ⚠ **WARNING:**
> When the roof is open the overall height will increase by approx. 300mm (1ft).

The standard door locking arrangement is a full-height lockrod with cams at each end. The cams locate in keepers on the header rail at the top and the sill at the bottom.

To Open:

1. Release the catch retaining the handle and pull the handle to unlock. If fitted with double handles, it may be easier to open both together.
2. Return the handle behind its retaining catch, swing the door back against the sidewall and restrain with the door holdback stowed under the side rave.

To Close:

1. Close the doors and secure in reverse of the above procedure, closing left-hand door first and ensuring that nothing becomes trapped in the door aperture.

IMPORTANT: Always check the top and bottom locking cams are correctly engaged in their housing.

Roller Shutters (Optional)

The fitting of this equipment will be dependent on operational requirement and body type. For additional information on operation and servicing of this equipment please refer to roller shutter manufacturers instructions.

> ⚠ **WARNING:**
> Never travel with shutter incorrectly secured. When opening shutter beware of unsafe/falling loads.
> Do not stand within or try to walk through the opening aperture while the shutter is in motion.
> Operate door only when correctly adjusted and free from obstructions.

Load Restraint

See “VOSA Guidance on load security April 2012” available at;

www.gov.uk/government/organisations/vehicle-and-operator-services-agency

The forces involved in restraining a load will generally involve a combination of the following:

a) Lashings

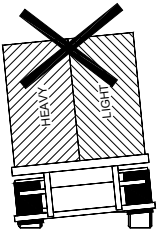
b) Baulking arrangements e.g. headboard, bulkhead etc.

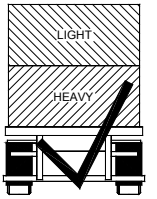
c) Friction between load and floor.

In most cases it will be appropriate to obtain half the total load restraint from lashings and the remaining half from baulking or a combination of lashings and baulking’s.

Various load restraints methods are available e.g. central roof straps, sidewall nets, sidewall laths (slats fitted between the sliding posts), and deck lashing rings. Each should be used within the safe working load (SWL) of the equipment fitted.

Loading





Refrigerated vans

Refrigeration Unit - Refer to relevant 'Manufacturer's Handbook'

Partition Wall

A sliding/swing up partition wall (or bulkhead) allows the operator to split the refrigerated body into two temperature zones.

NOTE: Significant temperature differences between the two areas may cause condensation and icing at the partition which is held fast by the pressure exerted against the sidewall by its seals.

If the partition is not required, ALWAYS store the partition wall in the raised horizontal position under the roof in the rear part of the body.

Failure to store the partition correctly could result in damage to the bulkhead and roof side wall tracks.

fig.1

Do **NOT** attempt to move the partition wall using the release handle.

fig.2

To move the partition wall use the handle provided.

IMPORTANT: Using the release handle to slide the partition wall will result in damage to the locking mechanism and prevent safe stowage.

IMPORTANT: Do NOT stand directly under the door and pull the release handle.

NOTE: Regular lubrication (of the locking mechanism) and Maintenance is also required.

VAN BODY GRP - General

Montracon van bodies are made from plywood-based panels covered on all faces and edges with layers of glass fibre and protected by a gel coat. The coated GRP panels have high strength and high resistance to corrosion and weathering.

Load Restraint

See "VOSA Guidance on load security April 2012" available at;

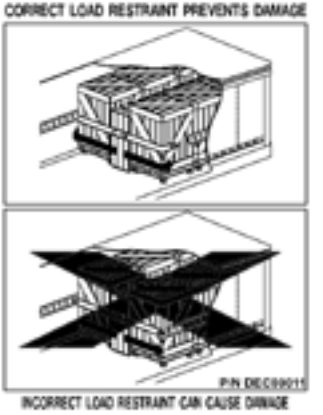
www.gov.uk/government/organisations/vehicle-and-operator-services-agency

Dependant on particular layout of your vehicle, payload may be secured with lock bars, supporting beams or straps.

IMPORTANT: Failure to comply with the following recommendations may cause serious damage to the body!

When using straps, it is essential to distribute the strap loadings created into the rails on the sidewalls of the vehicle.

The payload has to be enclosed by the strap wrapped around the cargo in a U-shape. Hook up strap ends in the rails before loading the next row of pallets (refer to figure).



FLATBED BODIES WITH DROPSIDES - Side and Tailboards

> ⚠ **WARNING:**
> Make sure loads are not bearing against the side or tailboards before attempting to open.

EXTENDABLE TRAILERS

These trailers are designed for the purpose of being able to carry various load lengths including 20 feet, 30 feet, 40 feet and 45 feet containers. It is very important that the operator and driver understand the operating restrictions.

Instructions for opening and closing Sliding bogie skeletal trailers, Extending flats, PSKs, and Machinery Carriers/Low Loaders.

NOT SEMI AUTOMATIC (requiring "red line" change over).

> ⚠ **WARNING:**
> When closing the trailer make sure the rear swing bolsters are in the 'down' position, self-steer axles are locked before sliding and both locking pins have engaged.

1. Position the tractor unit and trailer in a straight line.
2. Apply trailer park brake.
3. Disconnect the red susie at the trailer coupling and connect to the male coupling positioned next to it on the front coupling panel.

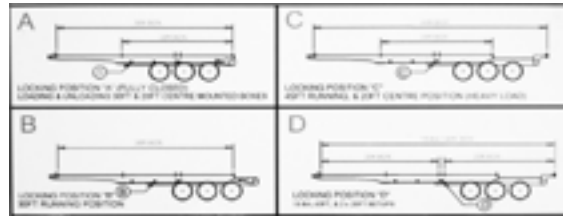
   **** This operation locks the trailer brakes ****
4. 'PUSH' the locking pin release button positioned at the offside front neck of the trailer fully home.

   **** This operation retracts the locking pins ****
5. If locking pins do not retract, gently 'shunt' the vehicle to release the pins.
6. Slowly drive the tractor unit forwards or backwards to open or close the trailer, respectively.
7. When the locking pins on the bogie are in the vicinity of the required location holes 'PULL' the locking pin release button and visually check that both locking pins are engaged.
8. If locking pins do not engage, gently shunt the vehicle to engage them.

   ****This operation engages the locking pins****
9. Re-connect the red susie to the emergency coupling at the front of the trailer.
10. Release the trailer park brake.
11. You are now in driving condition and ready to move off.

Standard Sliding Trailer Locking Positions

NOTE: Only the 45ft box uses the front twistlock in their forward position



Section 3

AIR SUSPENSION

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

GENERAL INFORMATION

Air suspension is specifically designed to give superb ride characteristics and trouble free operation.

A flexible link (trailing arm) suspension, the trailing arms pivot on front mounted rubber bushed hanger brackets welded to the chassis, with the axle secured via cast steel seat and an air spring completing the link to the rear. Shock absorbers provide the damping required for the best possible performance. Air required for the springs is fed from the air reservoirs, from where it is controlled by valves.

BEFORE COMMENCING JOURNEY

The following checks should be carried out in addition to 'Checks before moving off' (Section 1).

- Allow the engine to run until the correct working pressure in the brake system and suspension system is obtained.
- Visually check if all the air bellows are pressurised.
- Make sure that the normal ride height is attained for the air suspension unit.

WARNING:
Damage might result if vehicles are driven at high speeds or on bad roads with de-pressurised air bellows.

IDENTIFICATION

The Air suspension units fitted to Montracon trailers have a manufacturer's identification plate, which is normally situated either to the centre of the axle tube or on the hanger bracket.

Information contained on the plate will be required when ordering replacement parts or for service/warranty purposes.

Refer to Manufacturer's literature for more detailed information.

LOAD-SENSING VALVE

Load sensing is incorporated in trailers having an electronic braking system (EBS). On vehicles without an electronic braking system i.e. trailers with air suspension and pneumatic load sensing, the brake force is governed by the air pressure in the air springs which increases with vehicle weight i.e. 'automatic load-controlled brake system'.

For ABS systems, the load sensing valve is mounted centrally on the chassis forward of the front axle.

For the EBS system, the load sensing valve is integrated into the main braking module.

WARNING:
DO NOT tamper with factory valve settings.

HEIGHT CONTROL VALVE (Air Levelling or Ride Height Valve)

All Montracon trailer air suspensions have a height control valve and all come with a recommended ride height setting in millimetres (mm). For the suspension to operate correctly, the height control valve must be maintained as shown below (Fig. 1).

Points to note are:

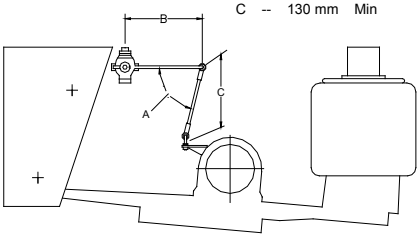
1. The trailer should be positioned on level ground and either connected to the tractor unit or set at the correct kingpin height.
2. All trailer brakes should be OFF.
3. There should be an air supply to the suspension unit of at least 6.5 bar.
4. The height control valve should be positioned in the middle of the sensed axle.
5. If the trailer is fitted with a lift axle it should be in the down position.
6. Length of the horizontal and vertical rods, (See Fig 1).
7. Check that the height control valve is piped correctly i.e. one port supplies the nearside suspension bags, the other the offside bags. Air to the height control valve is supplied via a second reservoir.
8. The horizontal rod is fitted in relation to the arrow on the height control valve boss.
9. Ride height is measured from the centre of the axle beam to the underside of the chassis main member.

FIG. 1

A -- 90° Max

B -- 250 mm Min

C -- 130 mm Min

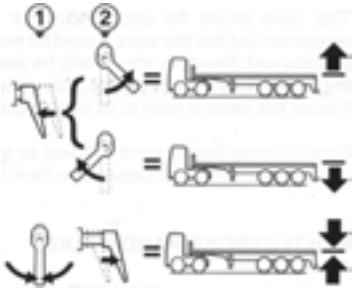


STANDARD RAISE/LOWER VALVE "DOCK LEVELLER"

(Other types may be fitted which require different operation at Customers request)

> ⚠ **WARNING:**
> Do not operate height control valve when:
> - Trailer is uncoupled.
> - Trailer brakes are applied.
>
> Always leave a parked trailer with the suspension lowered.

The raise/lower valve allows lifting/lowering of the trailer to match dock heights by pressurising/depressurising the air suspension bellows.



To RAISE or LOWER the suspension

1. Push control lever handle IN.
2. Set control to either RAISE or LOWER position. When trailer floor reaches the required level (or maximum allowable) set the control back to the centre position.

To RESET the suspension to the running (RIDE) height

1. Ensure control is set in central position.
2. Pull lever out to reset suspension.

NOTE: To operate lever, push in and turn to required position as outlined above. Always return lever to central position and pull the lever **OUT** before driving away.

NOTE: There is a Reset-to-Ride facility incorporated in the raise/lower system. It will 'pop' the button **OUT** in all instances as a fail safe.

LIFT AXLE

> ⚠ **WARNING:**
>
> Highway running can only be recommended for a raised axle if a clearance of more than 90mm exists between the tyre and ground.
>
> Ensure all personnel stand clear of raised axle when loading and unloading.

NOTE: To lift axle, power must be connected from ISO 7638EBS.

The pneumatic lift allows individual axles to be raised off the ground to reduce tyre friction/wear when turning. Use of the system is dependent on the weight of the load on the vehicle.

Fully automatic lift and lower.

Lifting/lowering of the axle or axles is automatically triggered by the load on the trailer. The automatic lift will 'decide' how many axles may be lifted off the ground or returned to the ground (i.e. axles will remain up as long as feasible). Axles will not rise if they are loaded beyond their design limit.

Automatic control feature may de-activated for MOT and maintenance **ONLY** by disconnecting the ISO 7638 power connector or, if fitted, via an override switch normally located to the left in front of the running gear.

Section 4
BRAKE SYSTEM

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

GENERAL INFORMATION

> ⚠ **WARNING:**
> For safety reasons repairs on brake systems should be limited to qualified and skilled personnel.
> Never try to change the original settings of the brake valves.

Articulated vehicles registered in the UK are required to meet European braking legislation as specified in EU Directive 71/320/EU or UNECE Regulation 13. This requires that brakes on each part of the vehicle combination perform within the compatibility corridor i.e. Brake performance plotted against applied pressure for both laden and unladen conditions.

The law requires that regular technical inspection of the brake system is mandatory. Carrying out this inspection is limited to skilled personnel and requires appropriate equipment.

To optimise brake action/performance and lining wear, we recommend that an approved service outlet does the fine-tuning.

Data required for repair and inspection of the brake system is contained on the Load-Sensing Valve Data Plate. (For sample refer to page 1 “Vehicle Identification” or page 23 “Brake System Information Plate”.)

OPERATION

When connecting supply lines between the tractor and trailer FIRST connect “brake” coupling (yellow) and then “emergency” or “storage” coupling (red). Reverse the above procedure for disconnecting.

CAUTION!

If pressure in the air reservoir drops to below 3 bar (43.5 psi), maybe after operating the park brake valve or the brake release valve several times, or possibly due to a leaking brake circuit, the service brakes will not disengage by applying the park brake.

To release, refill air reservoirs or completely vent brake system with the drain valve located on the air reservoir (make sure the vehicle is secured correctly, with chocks).

ESSENTIAL MAINTENANCE

The following checks should be carried out in addition to ‘Maintenance and Care’ (Section 7).

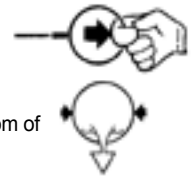
Drivers and operators have a direct responsibility to complete ‘Essential Maintenance’ by carrying out the routine below. He/she should report any faults to maintenance personnel.

NOTE: In a working day a prime mover may be used with several trailers all of which will require checking before use.

DAILY

Coupling Heads:
Before connecting, inspect seals for wear and damage. Replace where defective. After having connected couplings, check for leaks. Close protective caps on couplings after disconnection.

Drain Air Reservoir Tanks:
The biggest enemy of air brakes is condensation/water in the system. Drain by pulling the drain valve ring at the bottom of the air reservoir.



WEEKLY

Brake Adjustment:
Weekly for the first four weeks, then quarterly or every 16,000km / 10,000miles thereafter.

Drum Brakes:
Check slack adjuster movement and brake lining wear indicator.

Disc Brakes:
Adjustment is automatic. Check pad wear.

MONTHLY

Inspect pneumatic system for leaks:
Operating pressure must not drop by more than 0.1 bar (1.5psi) over 10minutes. If pressure drop exceeds this, report fault to maintenance personnel.

Tip: Use soapy water and a spray bottle to detect air leaks.

fig 1.

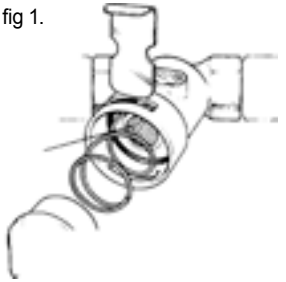


fig 2.

QUARTERLY

Clean in-line filter:
Release all air pressure. Remove filter cartridge and clean with compressed air. Replace defective filter right away. Reassemble ensuring 'O' ring is fitted.

Service brake linkages: (fig 1)
Lubricate service brake cylinder actuator rod linkages and valve pivots.

Brake cylinder: (fig 2)
Check brake cylinder attaching bolts, torque to 180Nm (133lb.ft.)

Check brake cylinders and air lines have firm seat.

Check actuation.

If any of the above brake components are faulty they will affect trailer brake efficiency. Take vehicle to the nearest approved brake service outlet for rectification/replacement, immediately.

ANTI-LOCK BRAKE SYSTEM

The anti-lock brake system features an on-board electronic control unit (ECU) with self-diagnostic capabilities. Dedicated power is via the ISO 7638 connector. Alternative (back-up) power via either the ISO 1185 (24N) 'Normal' connector or by the 'Supplementary' ISO 3731 (24S) connector. Usually alternative power is coupled via the brake light circuit of the ISO 1185 (24N) 'Normal' connector. The ECU will detect the primary source of supply i.e. if all three connectors are coupled the dedicated ISO 7638 line will be seen as the primary source.

Electronic Braking Systems
Electronic Braking Systems (EBS) also incorporates electronic load-sensing equipment, which is powered via the ISO 7638 connector.

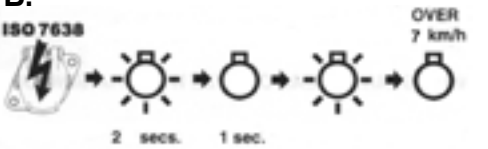
If the tractor unit is fitted with the dedicated ISO 7638 connector there will be a red lamp on its dashboard to display the functioning of the trailer EBS: this lamp is the primary indicator lamp for the trailer EBS.

Anti-lock Brake System check
When turning ignition ON, system will go through a self-test routine.

Two systems are fitted (either **A** or **B**). The following light sequences indicate correct operation of the EBS system.

A.

B.



⚠ **MALFUNCTION:**
No light or a continuous light on at initial power-up and/or a continuous light on above 7 km/h indicates a fault. Check fault immediately!

Circuit Testing

> ⚠ **WARNING:**
> Test the EBS system using specially designated diagnostics equipment recommended/supplied by its manufacturer.

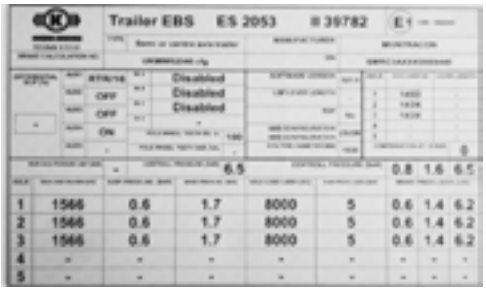
If EBS fails (anti-lock with electronic load sensing) the self-diagnostic ECU will indicate the fault. Have an approved brake service outlet shop take care of any defect right away.

BRAKE SYSTEM INFORMATION PLATE

The brake setting table/plate contains valuable information required for inspection and repair of the brake system.

Haldex

Knorr-Bremse



WABCO

TRAILER INFORMATION MODULE (or INFO CENTRE)

The diagnostic unit is normally mounted on the side of the main frame. It provides ready access to trailer related information such as mileage, bogie load, trip distance, service interval status, brake wear, brake system diagnostics and fault codes, plus other information.

NOTE: For more details please refer to the unit 'Manufacturer's Instructions'.

STANDARD PARK BRAKE / BRAKE RELEASE

(Other types may be fitted which require different operation at Customers request)

Park & Shunt Valve

> ⚠ **WARNING:**
> Do NOT use the trailer brake release valve.

The Park and Shunt Valve is fitted to trailers incorporating spring brake systems and dispenses with the need for a manually operated trailer handbrake.

The park valve and the trailer brake release valve are housed in one unit usually mounted at the UK nearside close to the front support legs.

On disconnection of the emergency (red) line, the brakes are automatically applied. As the air is depleted the spring brake system maintains brake engagement through powerful springs in the brake cylinders.

Trailer brakes can be applied when coupling to the tractor or prior to uncoupling from the tractor by pulling the park valve control button. The valve will require resetting before moving off.

Trailer Shunt Valve

> ⚠ **WARNING:**
> Ensure this valve is reset to its original position after use.

This valve allows the brakes of uncoupled trailers to be released. However, it is not recommended that this valve is used for moving the trailer with vehicles not suitable for the purpose. A trailer should only be moved when coupled to a vehicle with an appropriate air supply.

NOTE: Spring Brakes need sufficient air pressure in the reservoir to compress powerful springs in the actuators (see Park Brake).

Operation of Park Shunt Valve & Trailer Shunt Valve

The RED button controls the park brake as follows:

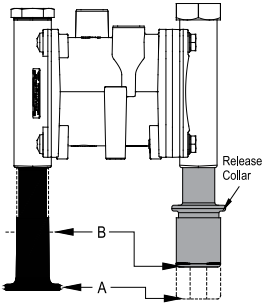
Position 'A' (use release collar) = Drive Position

Position 'B' (use release collar) = Park Position

NOTE: The release collar must be used to operate park button.

The BLACK button controls the release valve (shunt valve) as follows:

Position '**A**' = Drive Position
Position '**B**' .= Manoeuvring Position



Trailer Brake Release Button **Park Brake Button**

AIR LOSS AND BRAKE PROTECTION

> ⚠ **WARNING:**
> Under no circumstances should the protection valve be tampered with.

If there is a loss of air from the air suspension, the braking system should maintain a constant safe pressure of 6.0bar (87psi) by means of a protection valve in the system, ahead of the air suspension reservoir.

A supply pressure of over 6.0bar is generally required to open this valve and allow air through to the air suspension.

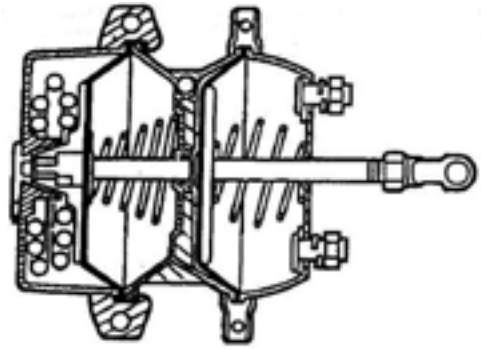
BRAKE ACTUATOR RELEASE PROCEDURE

> ⚠ **WARNING:**
> CAUTION EXTREME HAZARD!!!
> Never attempt to open a brake cylinder without having cocked the compression spring first.

In an emergency, e.g. pneumatic failure, brake cylinders may be released mechanically. (Reverse the procedure for spring relief.)

1. Remove re-setting tool from its holder alongside the brake cylinder. This has a threaded pin with bayonet-type lock at one end and a washer with nut on the other.
2. Remove plastic cap on rear end of brake cylinder.
3. Introduce bayonet end of the tool into brake cylinder through orifice.
4. Seize thrust plate with tool and lock bayonet by turning clockwise.
5. Cock brake cylinder compression spring by winding the nut complete with washer on the resetting tool tight (max. torque 70Nm).

Spring brake end



Service brake end

Section 5

ELECTRICAL SYSTEM

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

GENERAL INFORMATION

The electrical system is of the insulated return type, utilising two 7-pin connectors wired in accordance with ISO 1185 and ISO 3731 configuration.

An ISO 7638 connector will be fitted for ABS or EBS dedicated power (see 'Section 4 Braking System').

Compatibility between tractor and trailer electrical connections should always be checked to ensure correct functioning of individual circuits. That the plug and socket may easily be mated is not an indication that this is so. Alternative systems may be fitted to customer's requirements. On occasions additional connectors may be fitted for auxiliary equipment, e.g. inspection lamps, removable lighting panel and winches, or to control independent circuits like tail lifts, internal lifts/decks and rear loading ramps.

Electrical Equipment

Outline markers and internal lighting are connected with rear light terminals in the junction box. Normally the switch for the internal lighting is located on the left, at the rear chassis cross-member.

Wiring of outline markers and internal lighting is routed from the junction box through ducting and Bundy tubing via the front/rear & roof.

To ensure the serviceability of equipment, check that:

a) The electrical connector(s) are correctly located and secure.

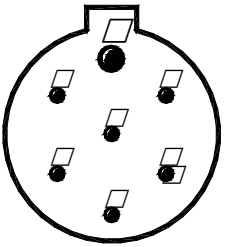
b) The wiring is properly insulated and secured.

c) All lights, reflectors and marker boards are secure, clean and functioning.

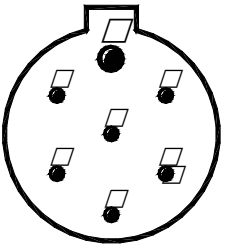
d) Damaged lens, bulbs, reflectors etc. are replaced.

e) When ABS is fitted, the anti-lock warning lamp is functioning correctly.

Standard ISO Lighting System



ISO 1185
24N (NORMAL
CONNECTOR)



ISO 3731
24S (SUPPLEMENTARY
CONNECTOR)

ISO 1185 – 24N

Pin No./ terminal	Function	Cross-section	Colour code
1	Common Return	2.5mm²	White
2	Front, Side, Rear, No Plt Lamp & Tail (LH)	1.5mm²	Black
3	Directional flasher (LH)	1.5mm²	Yellow
4	Stop lights	1.5mm²	Red
5	Directional flasher (RH)	1.5mm²	Green
6	Front, Side, Rear, Int. lights & Tail (RH)	1.5mm²	Brown
7	Spare	1.5mm²	Blue

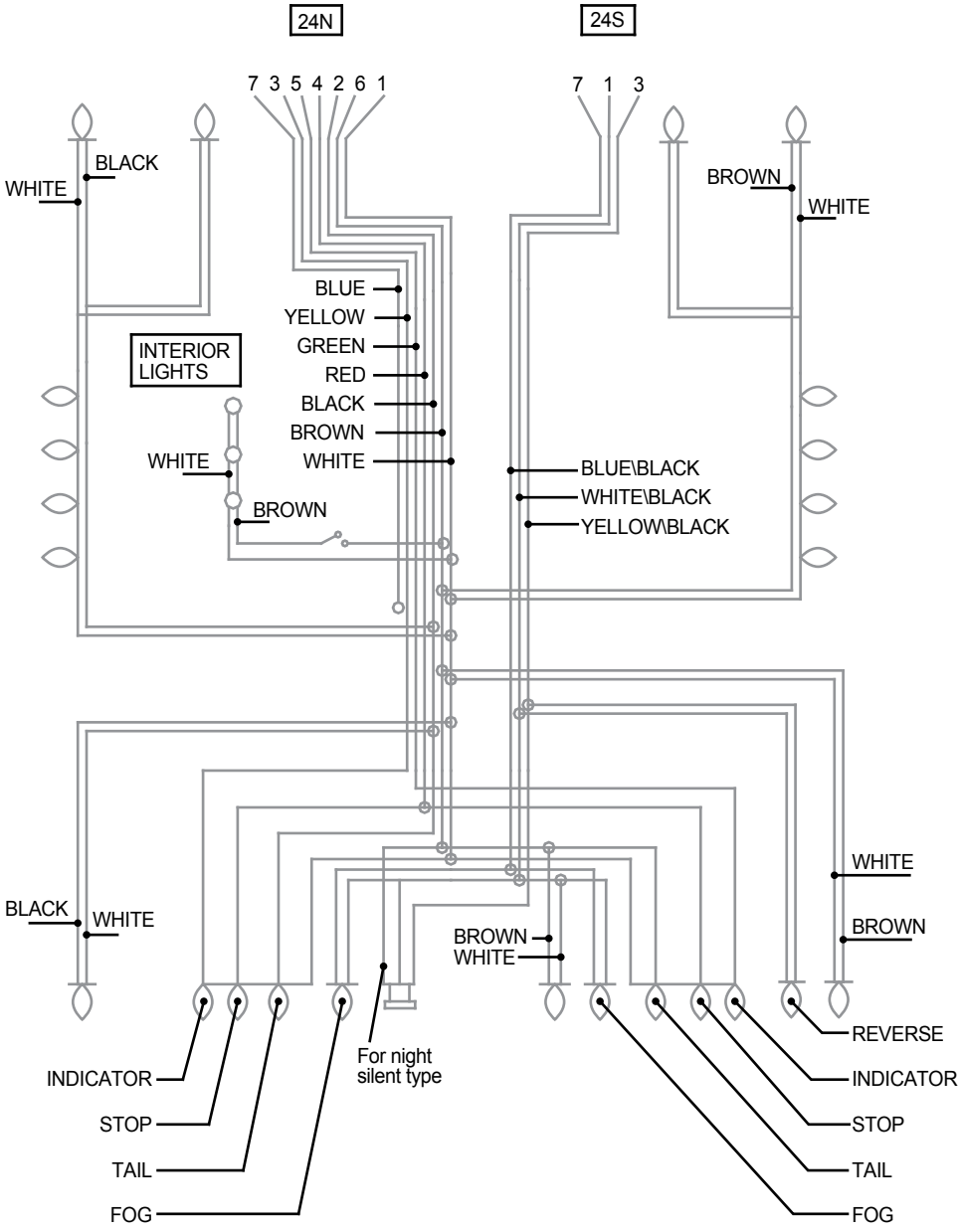
ISO 3731 – 24S

Pin No./ terminal	Function	Cross-section	Colour code
1	Common Return	2.5mm²	White
2	Spare	1.5mm²	Black
3	Reverse	1.5mm²	Yellow
4	Spare/Switch Cab op.	1.5mm²	Red
5	Spare/Switch Cab op.	1.5mm²	Green
6	Spare/Switch Cab op.	1.5mm²	Brown
7	Rear fog Light	1.5mm²	Blue

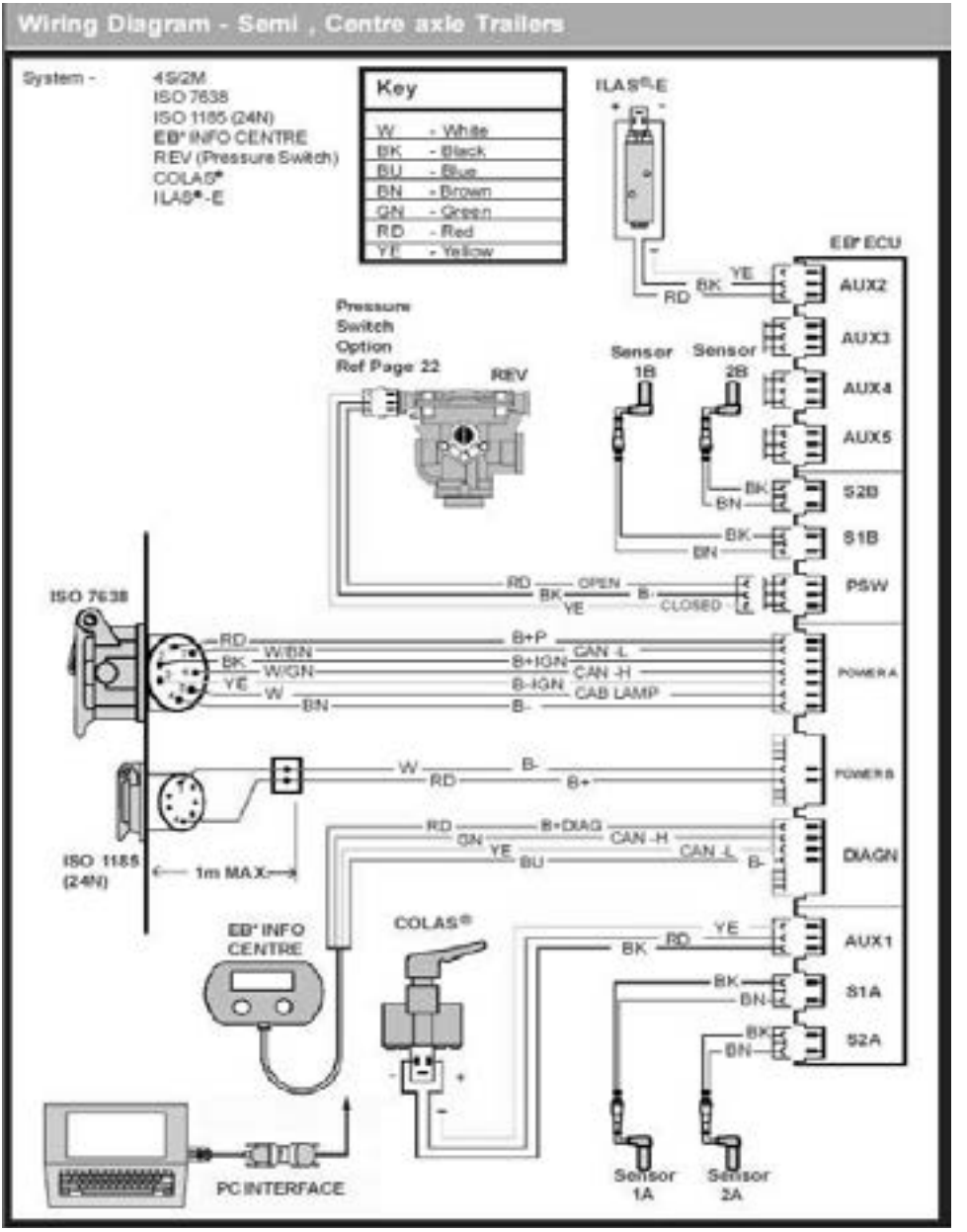
NOTE: ISO 1185 Pins 2 and 6 can be linked to make the arrangement compatible with early tractor units utilising a single 7 pin system. Also, pin 4 (24N) may include wiring to provide supplementary power for trailer anti-lock brake system.

From March 1998 an ISO 7638 connector dedicated to power ABS/EBS systems is fitted to EEC requirements. This connection is preferred to power ABS and its use is advised. For EBS, the ISO 7638 connection must be used.

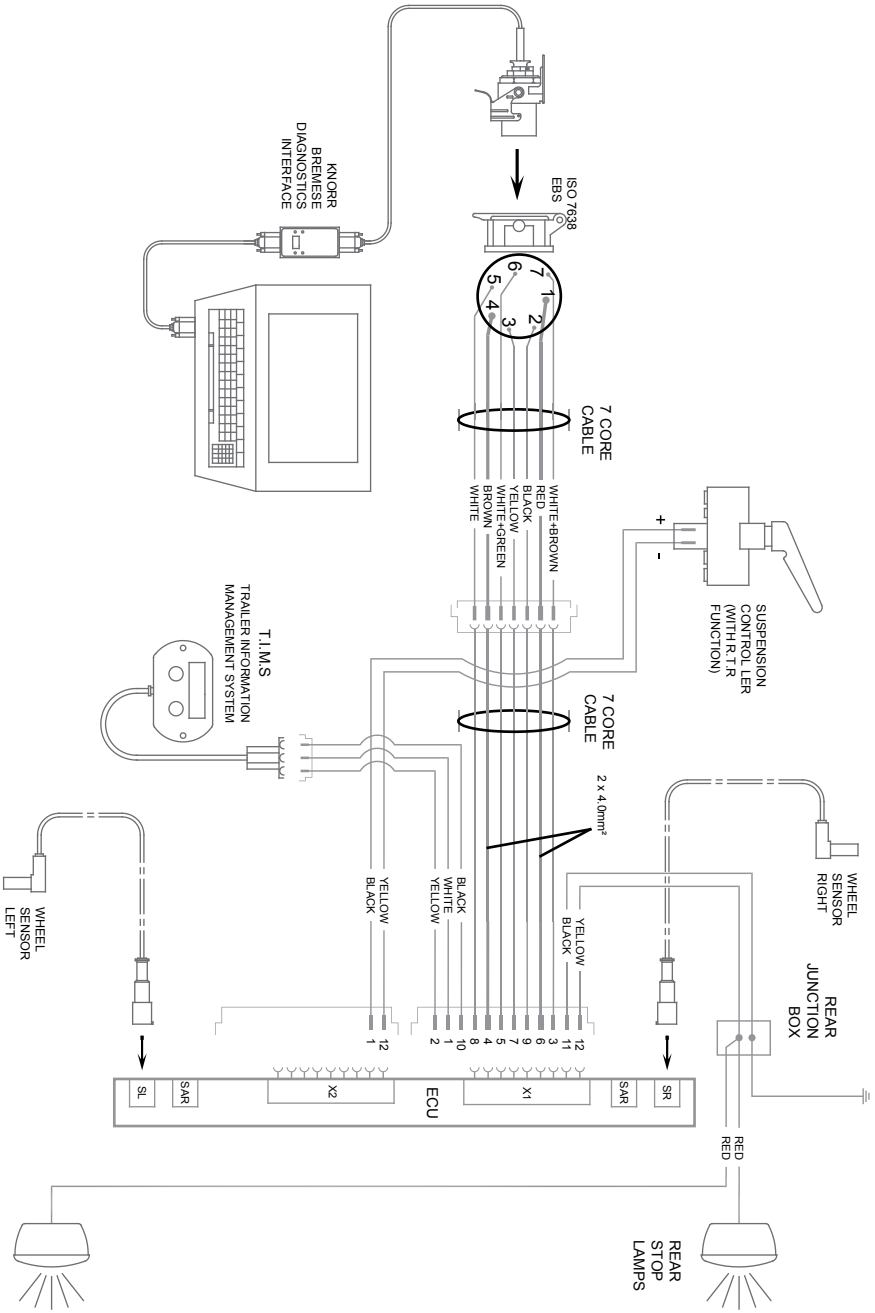
STANDARD LIGHTING WIRING DIAGRAM



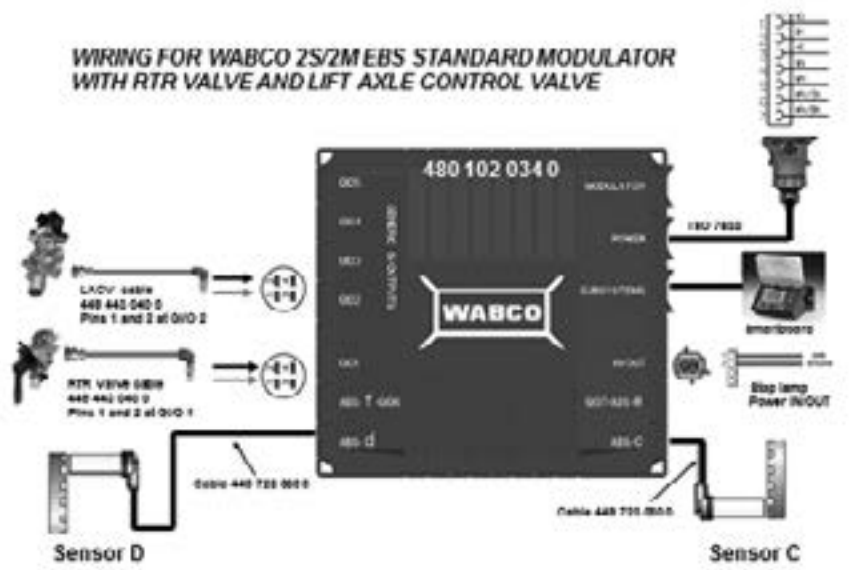
EBS WIRING DIAGRAM- HALDEX

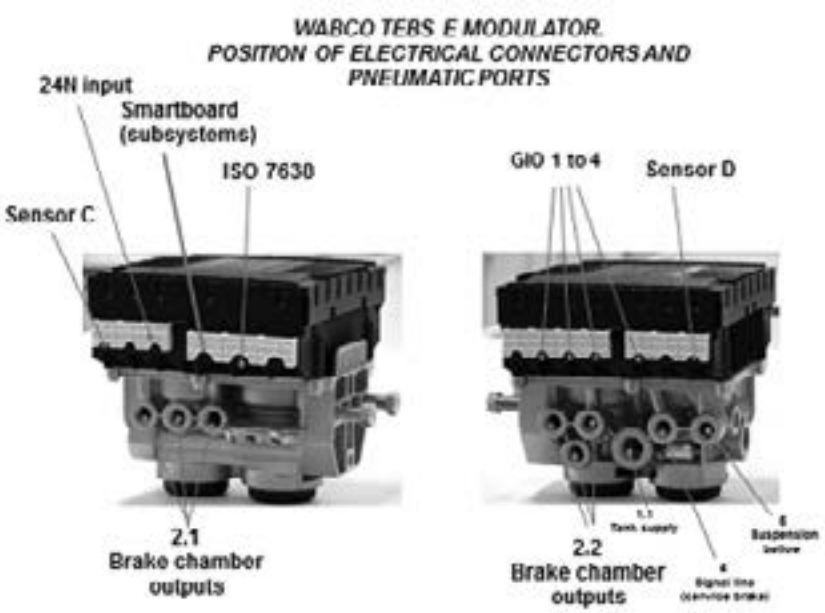


EBS WIRING DIAGRAM – KNORR-BREMSE

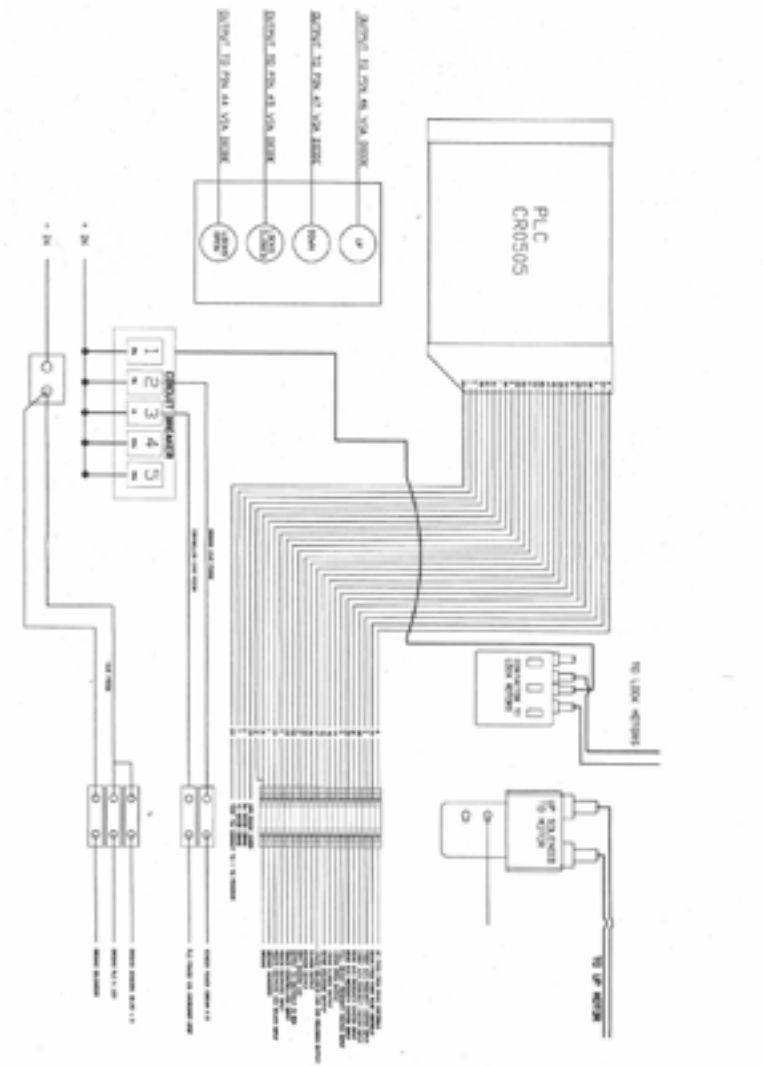


EBS WIRING DIAGRAM – WABCO





STANDARD DOUBLE DECK WIRING DIAGRAM



REAR COMBINATION & SUPPLEMENTARY LIGHTS

(PLEASE NOTE THAT MONTRACON STANDARD MARKER LIGHTS ARE SEALED LED UNITS)

To gain access to the bulbs in the type of combination lamp shown opposite, release the four lens clips from the top and bottom of the lamp and pull off the lens plate. To close, reverse the procedure.

To gain access to the bulbs in the type of combination lamp shown left, pull the hinged lens upwards and outwards from the bottom of the lamp. To close, lower the lens and push firmly into the rubber surround ensuring the two raised lips on the bottom of the lens are correctly embedded.

To gain access to the bulbs in other types of rubber-bodied lamps (illustrated opposite), ease back the rim on the rubber body and remove the lens. When replacing lens, ensure the rim of the rubber body is correctly seated over the flange of the lens to affect a watertight seal.

Where the lens is held in position with setscrews, remove the screws and lift off the lens (if the lens is also the rubber type, ease back the rim of the body to release the lens).

After fitting replacement bulbs always ensure that the lens is securely fitted. Always test for correct function by operation.

For positioning of rear combination and marker lamp, refer to lighting regulations.

POSSIBLE BULBS FITTED

Trailers with alternative lighting systems will differ from the table below, e.g. where LED lights and fluorescent interior lights are fitted.

Location	Function	Volts	Watts
Tail Light	Spherical	24V	5W
Corner Markers	Spherical	24V	5W
Side Markers	Spherical	24V	5W
Stop Light	Spherical	24V	21W
Number Plate Light	Spherical	24V	5W
Indicator Light	Spherical	24V	21W
Fog Light	Spherical	24V	21W
Reverse	Spherical	24V	21W

Section 6

ANCILLARY EQUIPMENT

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

FIXED SECOND DECKS

This is simply a fixed intermediate second deck running from the front bulkhead to the rear doors. A scissor lift or forklift truck is typically used to load/unload this type of trailer.

ADJUSTABLE HEIGHT (RATCHET STYLE) SECOND DECKS

> ⚠ **WARNING:**
> Under no circumstances should decks be moved while loaded

Ratchet second decks are a height adjustable form of secondary deck. The adjustment heights available are normally set in 300mm (1ft) increments.

The individual decks must be moved to the selected positions before loading commences and must not under any circumstances be moved whilst loaded. They must not be used to carry people.

They are moved using a forklift truck (with the correct Fork Adaptors) and the fork pockets in the individual floor sections.

There are ratchet pawls in each corner of each second deck section that are used to support and locate the deck in its required position. The pawls are interlinked across but not down the length of the trailer and they operate with an automatic release and reset mechanism. The deck will only engage when being raised.

All four ratchet pawls must be engaged at the same level to ensure safe adjustment. As a consequence of this, the adjustment of the deck must be carried out with the trailer level and the trailer and forklift on level hard standing.

A section of ratchet deck weighs in the region of 600kg per section. As a consequence of this the minimum size forklift truck that should be used to adjust the deck must be capable of comfortably lifting 600kg at 1300mm from the forks.

Operating Instructions

> ⚠ **WARNING:**
> Observe all safe working load labels. Deck must be unladen when raising/ lowering.
>
> Do not operate trailer with 'top deck only' loaded.

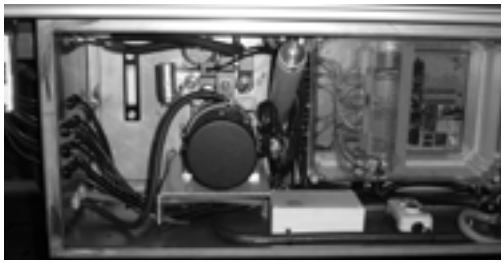
- The deck must be at floor level (see point below) before it can be lifted to the desired height by forklift. The four ratchet pawls will click past each level until the desired height is reached. The deck must then be checked for engagement of all four pawls at the same level before withdrawing the forklift truck as support.
- To lower the deck height it must first be raised by forklift to the maximum height of the track. At this point the pawls will all automatically disengage (withdraw into the deck). The deck is then lowered to the base floor level and the pawls will automatically reset to engagement. The floor can then be raised to the desired height.

Maintenance

- The ratchet deck should be visually inspected every time it is moved or every 6 weeks, whichever occurs first.
- The pawl mechanisms require oiling every three months.

HYDRAULIC POWERED SECOND DECK

This type of lift mechanism is operated via a centrally mounted ram (under the floor). As the ram extends it pulls 4 wire ropes that run over various pulleys around the trailer. One end of the rope is attached to the ram housing the other end is attached to the elevating deck.



An electro-hydraulic power pack - motors, pumps and electrical control system is enclosed under the chassis. At the rear of the enclosure is a full width hydraulic tank. Inside the enclosure there is a filler, vent, and sight glass mounted to ensure the oil level can be inspected and the filler is not open to the environment.

The motors in the enclosure can be 24V DC, 415V AC or both, with an automatic detection system dependant upon build specification.

Operating Instructions

Operation is via a wander lead control typically mounted at the rear of the trailer. The control has four functions, a red stop button (master power), up/down buttons and a green (warning) light.

> ⚠ **WARNING:**
> If the indicator light – usually on the rear pillar - is not illuminated the platform is not correctly locked. Seek assistance.

> ⚠ **WARNING:**
> Under no circumstances should personnel enter the trailer with the platform incorrectly locked – consult qualified maintenance personnel.

To raise the deck (lift is in the lowered position for loading)

1. Connect the supply – 415-volt landline on the loading dock is plugged into the socket on the rear of the lift. This will power the deck and automatically override any D.C. supply from the tractor or trailer. It will also charge the on-board batteries.

NOTE: In the absence of any power the lift maybe lowered manually (see next page for more details).

2. Ensure there are no projections above the load line and the load is stable and secure.
3. Press the 'UP' button and hold it pressed. While the button is pressed the platform will raise. (The 'UP' button should be held in until the platform is fully raised and all movement has ceased.)

NOTE: Continued pressing of the button when the lift is up may damage the lift motor.

4. The latches will automatically engage when the lift is fully up and the button is released. The 'LATCH INDICATOR' light on the push button indicates this.

To lower the deck

1. Connect the supply as described above.
2. Ensure that the area below the platform is completely clear with no obstructions or persons.
3. Press the 'DOWN' button. This will trigger warning lights and klaxons that will continue to operate for 10 seconds before any movement. Expect the platform to rise slightly to overcome any settlement from prior operation.
4. Keep the 'DOWN' button pressed. (The motor will run whilst the latches are retracting). The platform will lower whilst the 'DOWN' button is held – if the button is released the platform will stop and there will be a 10 second delay before downward movement commences again. Do not unload until the deck is fully down.

In an emergency where releasing the 'UP' or 'DOWN' buttons does not stop the movement of the platform press the 'STOP' button and seek assistance.

NOTE: The 'STOP' button will remain engaged. To release the 'STOP' button twist the knob in the direction of the arrow until it springs out.

Manual operation

In emergency situations the lift can be lowered with the aid of an assistant, using the following procedure:

1. Unlock the power unit with the key provided. (The power unit is housed in a lockable enclosure under the chassis at the side of the trailer).
2. Have an assistant open the trailer rear door to observe and communicate instruction while the platform is being lowered.
3. To lower the platform, turn the knob on the latch release valve.
4. Operate the hand pump. This will retract the latches on the deck.
   When the latches are fully retracted the hand pump will become noticeably harder to pump.
5. With the latch release valve closed, pull the red manual lowering valves and hold it out. This will cause the platform to lower.

IMPORTANT: Warn the assistant the platform is about to lower.

Keep the knob pulled out until the assistant communicates that the deck is fully down.

ALWAYS ENSURE THAT THE LATCH VALVE IS RETURNED TO ITS NEUTRAL POSITION AFTER USE.

NOTE: The Double Deck Trailers and all of their components should be regularly Serviced and Maintained in line with the Operators Service Schedule; however this must not exceed 6 months between FULL inspections.

Montracon have produced a suggested Service Schedule to aid in the Servicing of these trailers and this document is available on request from your Sales Representative or Montracon Customer Services.

TAIL LIFT EQUIPMENT

> ⚠ **WARNING:**
> For your safety and the safety of others it is imperative that a tail lift is only operated by skilled users who has read and understand the contents of the tail lift manufacturer's manual.

A variety of tail lifts maybe fitted to Montracon trailers. Tail lifts can be fitted to suit customer's requirements (e.g. cantilever, tuck-away, slider and vertical lifts).

Read the manufacturer's user manual, which should either come with your new tail lift or is available on request from the tail lift manufacturer. The manual should contain useful information about the use of the tail lift, the safety features provided and relevant maintenance and repair procedures.

All tail lifts will be fitted according to legal requirements and in conjunction with the manufacturer's instructions.

On the tail lift you will find two main operating systems, hydraulic equipment and electrical equipment:

Hydraulic Equipment

The hydraulic equipment comprises of single acting cylinders with lubrication points for all lifting and tilting movements. In some cases, e.g. cantilever lifts, opening of the tail lift platform is assisted by a spring or a torsion bar.

The electro-hydraulic power pack is powered by batteries - either those on the prime mover or via a pack on the trailer chassis.

Electrical Equipment

A good electrical supply is of the utmost importance for reliable operation. It is therefore important that the specification of the batteries and feed cables and the capacity of the alternator meet necessary power requirements.

Reduced power supply will adversely affect durability of components like the starter solenoid, the electromotor and the contacts. Ensure that the batteries are well charged at all times. Refer to 'Recommended Minimum Battery Capacities' in this section for detail.

When ordering tail lifts and other supplementary equipment, consideration should be made to additional power requirements and the need to accommodate it, if necessary by uprating existing equipment or by fitting auxiliary power to accommodate the increased demand.

The alternator of the tractor unit needs a minimum capacity of 14V/45A or 28V/55A, dependent on usage see table below for details:

Usage	Alternator	Batteries
For extended driving duration with short loading/unloading duration.	OK	The existing batteries (if fitted) will often be sufficient (Refer to Recommended Min. Battery Capacities for more detail)
For extended driving with intensive use of the lift.	OK	The batteries may need to be replaced with heavier duty batteries.
For short driving with intensive use of the lift	An increase in capacity may be necessary.	The batteries may need to be replaced with heavier duty batteries.

The values here are minimal; in case of lower electrical supplies, problems are inevitable.

For heavier applications of 2000 kg and more (3000W and 4000W motors), a capacity of 28V / 70A is recommended.

Recommended min. battery capacity in relation to the lift capacity:

Kg	Volt	Battery
750 -1000 kg	24	2 x 88 Ah
1500 -2000 kg	24	2 x 135 Ah
+2000 kg	24	2 x 180 Ah

For a complete service/maintenance plan and for fault diagnosis refer to the equipment manufacturer's user manual.

SPARE WHEEL CARRIER (if fitted)

⚠ **WARNING:**
For your safety and the safety of others it is imperative that a tail lift is only operated by skilled users who has read and understand the contents of the tail lift manufacturer's manual.

Basket Type

A universal spare wheel carrier can be fitted to Montracon trailers - to suit customer requirements. In the case of a tyre problem on the vehicle, the spare may be used as a substitute.

Basket type spare wheel carriers will accept both 225 PCD and 335 PCD with steel centre nave and steel offset wheel rims.

Winch Type

A winch type spare wheel carrier can be fitted to Montracon trailers to suit customer's requirements. Winch type spare wheel carriers will accept a 205 PCD, 225 PCD, 275 PCD or 335 PCD wheel on both steel centre nave and steel offset wheel rims.

STOWAGE EQUIPMENT

Check the condition and security of all stowage equipment and Service/Lubricate on a regular basis.

Section 7

TRAILER MAINTENANCE & CARE

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

READERS' GUIDE - Preventative Maintenance

IMPORTANT: It is the operator's responsibility to ensure maintenance is carried out at regular intervals by competent personnel!

A conscientious driver has a direct contribution to make regarding preventive maintenance, through their ability to recognise faults and inform maintenance personnel accordingly.

To assist with this, a list of checks is included in this section.

It should be remembered that one prime mover could be coupled to several semi-trailers in the course of a working day and that each trailer should therefore be checked before use.

The remainder of this section contains sufficient technical information to cover maintenance during the first four weeks of trailer operation, followed by preventative maintenance charts to assist workshop staff with future planned servicing. These may be used in conjunction with the manufacturer's maintenance manual.

IMPORTANT: Before carrying out any maintenance it is important the operator understands the need to wear correct safety clothing and the need to use relevant safety equipment.

Do not wear loose fitting clothing. Extra safety equipment including hard hat, safety shoes, ear, eye or face protection, heavy gloves and reflective clothing may be necessary. Failure to follow these guidelines could result in personal injury.

IMPORTANT: This handbook does NOT cover detailed assembly/disassembly of components. For further information please refer to the specific manufacturer's maintenance manual.

Torque Values

Material grade 8.8, thread lubricated.

Thread, metric	Width Across Flats	Torque*
M 8	13MM	21 to 26 Nm
M 10	17MM	42 to 51 Nm
M 12	19MM	72 to 89 Nm
M 14	22MM	114 to 141 Nm
M 16	24MM	174 to 215 Nm
M 18	27MM	240 to 295 Nm
M 20	30MM	340 to 420 Nm
M 22	32MM	455 to 570 Nm
M 24	36MM	580 to 725 Nm
M 30	46MM	1160 to 1450 Nm
M 36	55MM	2030 to 2530 Nm

*The above torque figures are for standard nuts; reduced values by 50% when using flat-head screws

- Refer to different torque values specified for individual component groups in this handbook.
- Check axle manufacturer's manual for wheel nut torque values.
- Replace self-locking nuts after having unthreaded twice.

ESSENTIAL MAINTENANCE

(First 4 Weeks of Operation)

During the first 4 weeks of operation the following maintenance tasks (shown in the diagram below) should be carried out over and above your Company's own procedures for Daily checks, Service and Maintenance.

Operation	Initially	Daily (for first 4 weeks)	Weekly (for first 4 weeks)	First Month
Torque:				
Wheel Nuts	After First Journey	✔		
Suspension Nuts/Bolts*			✔	
King Pin Bolts			✔	
Body Bolts				✔
Check:				
Tyre Pressures	Prior to First Journey	✔		
Air Leaks		✔		
Correct Function of Lights		✔		
Brake Hoses		✔		
Brake Adjustment			✔	
Hub Bearings			✔	
Shock Absorbers			✔	
Grease:				
Cam Shaft Bearings				✔
Drain:				
Air Tanks**		✔		

* Refer to 'Suspension: Checks and Torque Figures' in this Section

**Also please refer to 'Maintenance' in 'Section 4.0 Braking System'

RECOMMENDED PREVENTATIVE MAINTENANCE SCHEDULE

A Weekly or 1600 km (1,000 miles), which ever occurs first

B Monthly or 6400 km (4,000 miles), which ever occurs first

C 3 x Monthly or 16000 km (10,000 miles), which ever occurs first

D 6 x Monthly or 40,200 km (25,000 miles), which ever occurs first

E Annually or 80,500 km (50,000 miles), which ever occurs first

	A	B	C	D	E
Check brakes for correct functionality	✓	✓	✓	✓	✓
Check linings/pads for wear and adjust if required			✓	✓	✓
Overhaul brakes (lubricate anchor pins etc. If necessary linish* the brake lining/drum surfaces)					✓
Inspect brake hoses for damage	✓	✓	✓		
Drain air reservoir (daily in freezing conditions)	✓	✓	✓	✓	✓
Check camshaft bearings & lubricate	✓	✓	✓		
Grease-slack adjuster	✓	✓	✓		
Test anti-lock brake system	✓	✓	✓		
Check all brake system valves for correct operation	✓	✓	✓		
Test emergency valve (incorp. Park & Shunt)	✓				
Overhaul actuators, emergency & quick release valves	✓				
Inspect tyres for damage	✓	✓	✓	✓	✓
Check tyre pressures	✓	✓	✓	✓	✓
Torque load wheel nuts	✓	✓	✓	✓	✓
Check hub bearing adjustment**	✓	✓			
Clean out hubs, bearings** and re-pack with fresh grease	✓				
Torque load axle and suspension nuts***	✓	✓	✓		
Inspect axle & suspension components for wear & damage	✓	✓	✓		
Check axle alignment	✓	✓			
Check air suspension system for leaks	✓	✓	✓		
Clean-in line air filter	✓	✓	✓		
Check ride height	✓	✓	✓		
Check lift axle components (if fitted)	✓	✓	✓		
Check body bolts for security	✓	✓	✓		
Check side post mechanism	✓	✓			
Grease curtain ratchets	✓	✓	✓		

PREVENTATIVE MAINTENANCE SCHEDULE (continued)

		A	B	C	D	E
Check electrical system for correct functionality		✓	✓	✓	✓	✓
Inspect electrical cables for damage & security		✓	✓			
Inspect ancillary equipment for security		✓	✓	✓		
Grease, inspect & check for security:	Support legs	✓	✓			
	Fifth wheel	✓	✓	✓	✓	
	Rubbing plate & king pin	✓	✓	✓	✓	
Check freedom of movement and lubricate – doors, tailgates, roller shutters etc as required		✓	✓	✓	✓	
Inspect for security & corrosion:	Steelwork & finished surfaces	✓	✓			
	Check identification plates	✓	✓	✓	✓	✓
	Check TIR fastenings	✓	✓	✓	✓	✓
Hydraulic components (where fitted):	Check reservoir oil level	✓	✓	✓	✓	✓
	Check for leaks	✓	✓	✓	✓	✓
	Check for security	✓	✓	✓		
Rolling Bogie Skeletal (RBS)	Check bogie eyes & pins for security	✓	✓	✓	✓	✓
	Check stop blocks security	✓	✓	✓	✓	✓
	Check rollers & shaft security	✓	✓	✓	✓	✓
	Grease rollers	✓	✓	✓		
RBS and Extendable Flats - Grease beams****		✓	✓	✓		
Tipping Trailers	Check ram mountings for security		✓	✓	✓	✓
	Grease ram pivots		✓	✓	✓	✓

***Linish is a pattern of very fine lines achieved by abrading the surface with by hand using suitable paper on brake linings and emery cloth on the drum. The pattern should be in two directions each at 45 degrees across the surface to give a cross hatched effect. Do not use hand or power tools.**

****Refer to manufacturer's manual.**

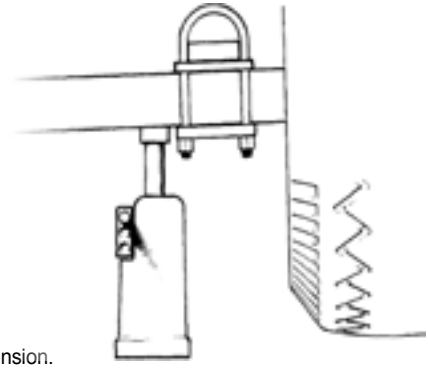
*****For all torques and other information please refer to 'Suspension: Checks & Torque Figures' in this section.**

******Copper grease recommended (does not attract dirt like normal grease).**

WHEEL JACKING

All jacking operations must be carried out on firm level ground with the parking brake applied. The vehicle must be securely chocked at the wheels (on opposite sides) and suitable blocks placed under the axle for additional safety.

Most suspensions allow for jacking under the inside of the axle chair, near to the spring or trailing arm or at the centre of the axle. At typical example is illustrated below.



IMPORTANT: To prevent slipping Ensure the jack head is suitably shaped to accept the profile of the axle.

Where it is not possible to jack in the position previously described, jacking must then be carried out with consideration to following:

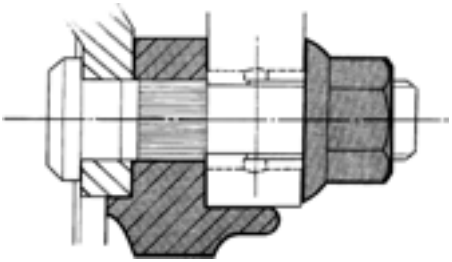
- Do not jack under castings.
- Do not jack under springs or air suspension trailing arms.
- Do not jack under hanger brackets.
- Do not jack under the rear under-run bump bar.
- Do not jack under chassis/sub frame forward of the suspension.

Jack under the 'I' beams behind the suspension, only where stiffeners are provided between top and bottom flanges. Spread the loads along the beam as much of as possible by using timber packing between the jack and frame. Timber packing should be in excess of 75mm thick and should extend longitudinally at least 200mm either side of the jack position.

WHEEL CHANGING

ISO Spigot Wheels

ISO spigot mounting is where the wheel is centralised to the hub on a protruding lip (spigot) and secured by ISO nuts with captive collars. The wheel nave will usually feature parallel fixing holes. However, wheels with conical or spherical faced holes can be used on spigot hubs, providing the wheel has never been used on alternative types of mounting.

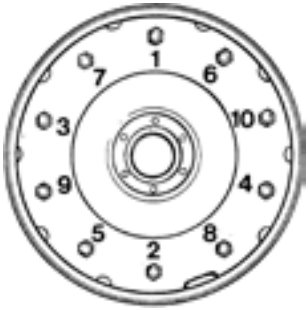


NOTE: Protective wheel nut covers and loose nut indicators may be fitted. Replace on completion.

1. To remove a road wheel, slacken the wheel nuts and jack up adjacent to the respective wheel(s) as previously described.
2. Remove wheels nuts and wheel(s).
3. To fit a wheel, lightly lubricate the thread of the wheel nuts and check the captive collar on ISO spigot nuts, rotate freely.
4. Position the wheel to be fitted as near as possible to the hub, place a bar underneath the base of the tyre and lever the wheel upwards and over the studs, taking care not to damage the threads. Repeat this operation for the second wheel where necessary.

5. Re-fit wheel nuts and tighten by hand.
6. Tighten in sequence by spanner. Remove jack and finally torque load the nuts in sequence, repeating after the first 80km (50 miles) and daily for the first week. Replace protective wheel nut covers and loose nut indicators (if applicable).

NOTE: Check axle manufacturer's manual for wheel nut torque values.



Wheel Nut Tightening Sequence

7. Torque all wheel nuts WEEKLY.
   It is recommended that all the wheel stud holes are checked periodically for ovality as an early indication of wheel problems. Over-tightening of wheel nuts will cause the hole to distort radially, while fretting as a result of under tightening causes circumferential distortion.

NOTE: Mating surfaces between wheels and hubs, and wheels and wheel nuts, should not be painted.

Non-Spigot Mounted Wheels

Wheels not mounted to ISO spigot hubs will require the installation of cones. Check correct installation before fitting wheel. The wheel needs centralizing on the studs by leverage whilst tightening. If in doubt ask!

CARE & MAINTENANCE OF TRAILER TYRES

Tyre Pressures

> ⚠ **WARNING:**
> Failure to maintain tyres at recommended pressures can cause premature tyre wear/failure and poor fuel economy. E.g. Running with high tyre pressures on low laden weight trailers can cause flatting of tread centres.

It is important that operators determine the required tyre pressures for the imposed axle loads. Tyre pressure figures will differ by up to 0.5bar, dependent on axle load.

Operators continuously running vehicles with low laden (axle) weights should reduce the pressures in the trailer tyres accordingly, and vice versa.

Refer to tyre manufacturer's technical information.

Drivers and maintenance staff share the responsibility of ensuring tyres are operated within the bounds of safety and efficiency.

CARE & MAINTENANCE OF TRAILER TYRES (continued)

The following checks are recommended for maximum tyre life:

Pre-journey Checks by Driver and/or Maintenance Staff

1. Obvious signs of under inflation
2. State of wear on crown and shoulders
3. Cuts in tread or sidewalls
4. Bulges in side walls
5. Remove stones/foreign objects trapped in tread
6. Remove objects trapped between tyres in twin wheel combinations

Periodic Checks by Maintenance Staff

1. Correct inflation pressures
2. Leakages at valves
3. Missing valve caps
4. Remaining tread depth, state of wear and correct alignment
5. Valve accessibility (twin wheels correctly positioned so that inner valves can be reached, provision of correct extension where required)

Tyre Problems

Symptoms	Causes	End Result / Failure
Uneven tread wear	Under inflation	Fire risk, fracture or rupture of cords
Excessive heat build up		
Wear concentrated on centre of tread	Over inflation or worn shock absorbers	More susceptible to damage. Fracture of cords
Spotty tread wear	Grabbing brakes. Slack, worn or broken wheels bearings. Oval brake drums	Reduction to tyre cords
Scrubbing	Axle misalignment	
Tread cuts	Stone, gravel sharp metal debris etc.	Damage to tyre cords
Irregular wear on shoulder of tyre	Overloading	Bursting
Rapid wear	Excessive deflection due to mismatching* of tyres	Premature failure

Tyres should be properly matched for diameter. If the tread depth between the tyres varies the tyres are mismatched. The difference should not exceed 5mmfor twin wheel combinations and 10mm when pairing part worn tyres with new and/or re-grooved tyres.

SUSPENSION: CHECKS AND TORQUE FIGURES

IMPORTANT: For service intervals and maintenance/checks procedures refer to the relevant manufacturer's suspension manual.

BPW Air suspension

For more information please visit
https://www.bpw.co.uk/technical.htm

we think transport

SAF Air suspension

For more information please visit:
https://www.imslimited.com/brand/saf-holland

SAF Holland
Engineering Your Road to Success

Daimler Chrysler Air suspension (JOST) - front
For more information please visit:
https://www.jost-axle-systems.com/en/technology/technical-manuals.html

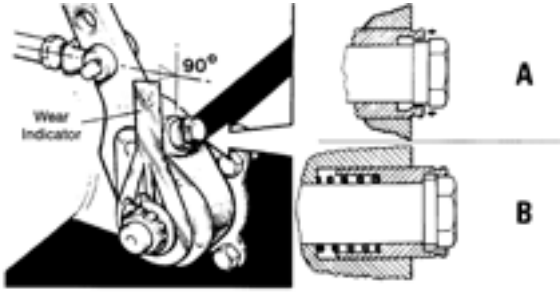
Daimler Chrysler Air suspension (JOST) - back
For more information please visit:
https://www.jost-axle-systems.com/en/technology/technical-manuals.html

BRAKE SYSTEM: CHECKS AND ADJUSTMENT

Drum Brakes

Prior to first journey, weekly for the first four weeks and at 3 Monthly or 16,000 km (10,000 miles) interval, whichever occurs first.

Automatic Slack Adjusters



Check slack adjuster movement, push rod travel should be sufficient only to move the slack adjuster from the 'off' (brakes released) position to the fully applied position, where the adjuster should ideally be at 90 degrees to the push rod.

Brake Lining Wear Indicator

As the brakes are adjusted the lining wear indicator rotates. When the indicator has moved 60 degrees, visually check the linings for wear. When the indicator has moved through 90 degrees, the linings will require replacement.

If the linings are allowed to wear beyond this point, the brake camshaft can over-rotate and lock the brake on.

NOTE: Auto-slack adjusters have been fitted as standard since 1992, unless customer requested otherwise. Refer to manufacturer's literature for correct settings.

Disc Brakes

Inspect brakes prior to first journey, after first 150 km (100 miles), after first 1500 km (1000 miles) and thereafter EVERY 50000 km (32000 miles) or 3 monthly. Check pad wear. NEVER allow pad-lining thickness to fall below 2mm. Replace pads as an axle set.

Check security of pads, calipers, rotor (disc) and actuator.

Inspect condition of rotor:

1. Light crazing is acceptable.
2. Short radial cracks up to 0.5mm wide x 1.0mm deep are acceptable (see 3 below).
3. Radial cracks longer than 75% of the braking surfaces are unacceptable.
4. Light circular grooving up to 0.5mm deep is acceptable.
5. Heat spotting indicates a structural change due to extreme high temperatures; the rotor is more susceptible to cracking. See 2 and 3 above.
6. Light corrosion on braking surface should clear during normal braking. Do not allow heavy corrosion.
7. Check rotor run-out is within manufacturer's tolerance. Brake judder may indicate a problem with run-out.
8. Remove any wear debris and rust from edge of rotor and pad location points in the caliper.
9. Check pad anti-rattle clips for damage. Check seals for cracks or damage. Check caliper operation for free movement on slide pins.

Refer to 'Section 8 Fault Finding' for more information.

CURTAINSIDER BODY - Maintenance and care

- Drive ratchets for side curtain tensioning must be greased EVERY 3 months (grease nipples located on ratchet body).
- Guide ways and rollers of curtains and side post tops have to be kept clean. Lubricate guide ways and rollers EVERY 6 months.
- Rear door hinges and locks are maintenance free.
- Check body for loose parts at regular intervals. Torque nuts and bolts quarterly.

VAN BODY - Maintenance and care

Keep rubber door seals clean. As required, spread a thin coat of silicon oil on the seal with a lint-free, soft cloth. Silicon oil will keep the seal elastic, avoids stickiness and icing.

Replace defective seals right away!

GRP panels: Inspect panel surface for damage (preferably after washing). As a temporary measure, seal any damage with waterproof covering and, as soon as is possible, have damage professionally repaired to avoid ingress of moisture.

NOTE: Moisture in the core will affect insulating properties, strength and cause de-lamination.

REEFER DUAL COMPARTMENT PARTITION

If the gas struts do not support the weight of the partition and the partition hangs down replace the gas struts.

Lubricate the tracks and runners regularly and also the moving bulkhead locking pin to aid location of pin during service.

APPEARANCE MAINTENANCE - Vehicle Cleaning Systems

Aluminium is used in the manufacture of many trailers. It is susceptible to corrosive attack from the alkaline cleaning solutions generally used. It is therefore recommended that aluminium components/parts are NOT cleaned with these solutions.

If you cannot avoid using cleaning solutions then the following may provide assistance:

- Ensure that the pH of the cleaning fluid and water solution is not greater than 10.5
- Ensure that after vehicle cleaning with the solution all components are given a thorough water rinse.

Caution: This will be necessary even if 'drive through' cleaning and rinsing arches are used. The need to thoroughly remove the solution by rinsing cannot be overstressed. Even at a pH of 10.5 corrosive attack will occur.

Hot pressure cleaners can be used, but care should be exercised to keep the temperature below 50°C. The lance should not be used closer than 450mm (18") from the surface.

Paintwork

Paintwork must be maintained at all times, especially in the winter months when the roads are salted.

For obvious reasons care should be taken, especially with areas prone to excess exposure to road grit and salt attack. Damage to paintwork can occur at some areas prone to loading damage and is, therefore, NOT covered under warranty.

To keep the paintwork in good condition, general road film and atmospheric pollution must not be allowed to accumulate. It should be removed at the earliest practical opportunity. Removal of road film can usually be achieved with aqueous detergents. Tar deposits may have to be softened first with P273-901 (BodyKleen) or a Detergent similar to this. Sliding scale warranty over 5 years.

Section 8
FAULT FINDING

Contents

This section covers a wide variety of components that are used on Montracon trailers. Not all components will appear on one vehicle, therefore certain instructions contained herein will not apply. Where special instruction beyond the scope of this section is required, this will be supplied as supplementary information.

IF IN DOUBT, ASK!

Use this section to assist in the diagnosis and rectification of common faults.

For more serious problems outside the scope of this information, contact Montracon Customer Services Department. Contact details can be found on page 61 (last page) of this handbook.

BRAKES

Brakes will not release

Probable cause	Remedy
Park valve set for parking	Reset park valve or handbrake applied release handbrake.
Insufficient air supply	Check emergency line (red) is connected and tractor is supplying sufficient air. Check for restricted or damaged pipe work. Check for leaks from valves or pipe work, replace as required. Open reservoir drain valve to eject any water.
Faulty or frozen valve(s)	Check system for correct pressures at test points and check valves for correct function replace or allow to defrost as required. Do not use methanol or other substances which may be corrosive.

Grabbing brakes

Probable cause	Remedy
Tractor unit	Check predominance from tractor unit.

Uneven braking

Probable cause	Remedy
Contaminated brake linings	Replace brake shoes, check for cause (e.g. worn seal) and rectify.
ABS / EBS fault	Refer to section covering ABS / EBS faults.

Brakes dragging

Probable cause	Remedy
Oval brake drum	Ovality should not exceed 0.12mm (0.005”).
Obstruction/insufficient air	Check valves for dirt and operation check for damaged pipe work.

Inefficient brakes

Probable cause	Remedy
Brakes require overhaul	Strip down brake assemblies, check components, replace as required and lubricate.
Non standard replacement brake linings fitted	Fit new exchange shoes.
Low brake (service) line pressure	Check for leaks in service line and at valves with brakes applied; replace as required. Check tractor system, i.e. brake valves and predominance.

Slow brake application

Probable cause	Remedy
Brakes require overhaul	Strip down brake assemblies, check components, replace as required and lubricate.

Anti-lock system fault

Probable cause	Remedy
Continuous ABS/EBS warning lamp above 10kph (6mph)	Check TIM/info centre (if fitted) for active faults. Contact manufacturer or Montracon customer services.
No ABS/EBS warning lamp	Check bulb and connections. Contact manufacturer customer services if fault persists.
Wheel sensor fault	Remove and clean sensors. Check voltage readings (see 'wheel sensing checking procedure' latter in this section.
No voltage to ecu	Check voltage readings at ISO 7638 (see 'ISO 7638 checks' latter in this section). Check voltage readings at ISO 1185 (24N) connector (see 'ISO 1185 checks' latter in this section).

Excessive water in reservoirs

Probable cause	Remedy
Reservoirs not drained often enough	Drain once a week or daily during freezing weather.
Tractor air drier faulty	Check drier and rectify.

Excessive oil in the air system

Probable cause	Remedy
Tractor compressor faulty	Service compressor; check seals.

RUNNING GEAR

Uneven tyre wear

Refer to Hard pulling 'crabbing', below, and also 'Care & Maintenance of Tyres' (page 71).

Hard pulling 'crabbing'

Probable cause	Remedy
Broken road spring/trailing arm	Replace.

Lift axle will not lift

Probable cause	Remedy
Insufficient air supply	Build tractor unit air pressure up to 6.0 bar.
Leak in system	Inspect for damage, leaks and rectify.
Faulty control valve	Check for dirt etc, clean or replace.
Electrical fault	Check wiring (check EBS diagnosis if fitted).

Lift axle will not lower

Probable cause	Remedy
Faulty control valve	Check for dirt etc, clean or replace.

AIR SUSPENSION

Air bags flat

Probable cause	Remedy
Insufficient air supply	Build tractor air pressure up to 6.5bar.
Pressure protection /charging valve faulty	Should be set to supply 6.0bar. Reset or replace valve.
Clogged in-line filter	Clean or replace element.
Leak in air lines, connections or air bag assembly	Inspect for damage and test for leaks, locate and repair or replace.
Faulty levelling valve	Inspect, test and replace, as required.
Faulty air load sensing valve	Inspect, test and replace, as required.
Faulty exhaust valve (if fitted)	Inspect, test and replace, as required.
Faulty raise/lower valve (if fitted)	Inspect, test and replace, as required.

Suspension deflates rapidly when parked

Probable cause	Remedy
Leak in air lines, connections or air bag assembly	Inspect for damage and connections or air bag test for leaks, repair or replace.

Excessively worn air bags

Probable cause	Remedy
Over extension of air bags	Adjust 'ride height.' Check variable height (raise/lower) valve and set to 'ride' position.
Operating with insufficient air pressure	Check items listed under 'air bags flat'.
Worn shock absorbers	Replace.

Trailer rides too high or too low

Probable cause	Remedy
Levelling valve linkage disconnected or broken	Repair or replace.
Incorrectly set levelling valve	Adjust 'ride height' ('see section 3 air suspension').
Incorrectly set variable height (raise/lower) valve, if fitted	Set to 'ride' position ('see section 3 air suspension').

Trailer rides too high or too low

Probable cause	Remedy
Incorrectly set dump valve	Push knob in.

Excessive shock absorber wear

Probable cause	Remedy
Faulty levelling valve	Replace valve.
Trailer running on bump stops	Reset variable height (raise/lower) valve, if fitted. Check items listed under 'air bags flat'.

Fault Finding

LANDING LEGS

Difficult to operate

Probable cause	Remedy
Leg set in high gear	Push shaft in for low gear, if it cannot be selected strip down gearbox and repair/lubricate as required.
Lack of lubrication	Remove top covers of leg, clean out old grease, inspect and overhaul if necessary. Lubricate on reassembly.
Bent leg	Replace leg.

ELECTRICAL SYSTEM

Any electrical fault

Probable cause	Remedy
Poor connection or broken wire	Check: wiring, junction boxes, connections. Ensure continuity, check the insulated earth return. Replace as required.

Low loader or tail lift ramps fail to operate

Probable cause	Remedy
No power	Is the switch in the cab, the main current switch and the battery switch in the control box switched ON? Check connections, broken wires, motor earth- connection and short circuits.
Blown fuse(s)	Is the main fuse still intact? Are the fuses in the control box intact? (Tail lifts only).
Electromotor overheated, the motor has been turned off	Thermal security has been activated the motor will automatically turn on again when cooled down, after approx 20 minutes.
Starter solenoid faulty due to low power	Replace starter solenoid and re-charge the batteries.
Motor burnt out due to low power	Replace or rewind motor armature.

HYDRAULIC SYSTEM

Fails to pump or is sluggish in operation

Probable cause	Remedy
Shortage of oil in supply tank	Fill tank to correct level (single acting rams must be retracted when filling). Check for leaks.
Air locked in system	Bleed system.
Oil blockage (i.e. damaged/ kinked)	Check for restriction in pipe work, check filter, check control valve.

Tipper ram fails to extend

Probable cause	Remedy
Overload valve not set high enough	Set to 103bar (1500psi) max.

Tipper/ramp ram creeps down slowly

Probable cause	Remedy
Dirt wedged in control valve	Attempt to clear by opening and quickly closing with pump running. If this does not cure the problem then remove and clean the valve.
Seized pivots	Grease pivots and service regularly.

PAINT FINISH

Streaky or matt appearance

Probable cause	Remedy
Attack on pigment by strong acids/alkalis	Check dilution of cleaning solution should not be above pH8 – 9 (see Section 8 'Appearance').
Caustic (burning chemical action) attack on synthetic resins	Too much free caustic present should be < 0.5% caustic.
Powdery residue when dry, allowing detergent to dry on paint surface	Rinse with plenty of clean cold water; do not let detergent dry on paint surface.

Section 9

USEFUL CONTACTS

Montracon has a dedicated network of service facilities backed by a comprehensive daily parts service, nationwide.

For Service and/or Parts
Telephone: **01302 732500**

and ask for Service or Parts.
Please have the trailer chassis number available.

The following table lists component suppliers contact details for servicing enquiries:

	Company	Website	Number
Axles	SAF	www.imslimited.com	01509 600185
	BPW	www.bpw.de	01162 816100
	Daimler-Chrysler	www.traileraxlesystems.daimlerchrysler.com	01244 394222
Brake Systems	Haldex	www.brake-eu.haldex.com	01325 311234
	WABCO	www.wabco-auto.com	01924 595400
	Knorr- Bremse	www.knorr-bremse.co.uk	01179 846222
Lamps	Trucklite	www.truck-lite.eu.com	01279 450555
	Aspoeck	www.aspoeck.co.uk	01279 655220
	Hella	www.hella.com/hella-uk	01295 272233
	Labcraft	www.labcraft.co.uk	01799 513434
Landing Legs & Kingpins	Jost	www.jost-world.com	0161 7630200
	AXN	www.axnheavyduty.com/	+1502 749 3200
Tail Lifts	D'Hollandia	www.dhollandia.be/GB	01480 435266
	DEL	www.hiab.com/en-GB/del/	01993 708811
	Zedpro	www.zepro.co.uk/	028 92689253
	Ratcliff Palfinger	www.palfinger.com/en-gb/products/tail-lifts	+43 662 2281 0
Curtains	Leech	www.wjleech.com	0151 9339334
	Stronghold	www.stronghold.co.uk	01992 479470
	Rolands	www.roland.eu	01274 589331
Shutter Doors, Fridge Bulkheads and Rear doors	JR Industries	www.jrindustries.co.uk	029 20857630
	Boyriven	www.boyriven.com	0845 862 7444
	Normanton	www.normanton.co.uk	01759 322160
	Pommier	www.furgocaruk.co.uk	01902 731106
Paint	PPG	www.ppg.com	01449 613161
	AKZO NOBEL	www.akzonobel.com/uk	01235 862226
Tyres	Goodyear	www.goodyear.eu/uk	0121 3066000

Should your vehicle become unserviceable during the stipulated warranty period of the affected component, you should proceed as follows:

a) Contact the Montracon Customer Services Team on 01302 732500 or at customer.services@montracon.com They will initially assess the problem and take whatever action is necessary

b) Out of office working hours, take vehicle to local service agent and inform customer service department the next working day.

NOTE: All parts must be returned to validate warranty.

c) When purchased from an authorised distributor or dealer, contact the establishment concerned. They will advise you accordingly.

IMPORTANT: ALWAYS QUOTE THE VEHICLE CHASSIS NUMBER DURING COMMUNICATIONS (refer to Vehicle Identification on previous page for further details).

Montracon

the trailer for road transport

01302 732500
www.montracon.com

Montracon Ltd, Carr Hill,
Doncaster, DN4 8DE

March 2020