

Safe System of Work (SSOW)

Cab Tilt Procedures

Summary of hazard headings:	Description of risks Fatality or serious injury resulting from:
The hazards is: Cab tilting Using hand tools Using a manual cab tilt system Using an electrical cab tilt system	The risks are serious injuries or fatality caused by: Crushing injuries: head, fingers, hands and upper limbs.

1.0 Introduction

- 1.1 The purpose of this safe system of work (SSOW) toolbox talk is to ensure that technicians are given information, instruction and training (if needed) to carry out the work safely.
- 1.2 The task covered by this safe system of work – toolbox talk is **cab tilting**.

2.0 Responsibility

- 2.1 **Branch Manager** shall be responsible for ensuring that technicians are issued with this SSOW toolbox talk and they carry out the task correctly and safely.
- 2.2 **Supervisor** shall be responsible for ensuring that only technicians who have been given a SSOW toolbox talk are assigned to carry out the work.
- 2.3 Supervisor shall check regularly that technicians carry out the task correctly and safely.
- 2.4 **Technician** shall:
 - a. Read and comply with the safety instructions stated in this SSOW.
 - b. Pre-use checks, carry out checks to ensure that all tools and equipment are safe to use.
 - c. Do not use tools and equipment which is unsuitable or damaged.

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3. Safe System of Work

3.1 Information and Instruction

3.1.1 **MANDATORY:** A Scania special tool cab support strut must be used when the vehicle is:

- a) On a slope/incline;
- b) At the Roadside;
- c) In a customer yard;
- d) During repair of cab suspension components;
- e) If any leaks are noticed on the cab tilt system;
- f) Cab is only partially tilted (extraordinary circumstances).

3.1.2 **MANDATORY:** A cab support strut must always be used:

- When working on cab suspension components which may mean working close to a partially tilted cab.
- When there is any problem with the cab tilt mechanism, pump or ram e.g. oil leak.

3.1.3 Do not raise or lower the cab if:

- The front cab suspension anti-roll bar is removed; as this will affect structural stability of the cab which may lead to damage or failure of components or mountings.
- The vehicle is raised on jacks or axle stands, or if the vehicle is raised on vehicle lifts as this may lead to instability and unintentional movement of the vehicle.

3.1.4 **MANDATORY:** Crew cab vehicles e.g. Fire Appliances have a reduced forward tilt angle due to design therefore have a cab tilt support strut permanently affixed to the vehicle; this support strut should be used at all times when the cab is tilted.

3.1.5 A cab support strut is **not** required when the vehicle is parked inside a workshop on firm and level ground so long as the cab is **fully** tilted to its end stop position and the technician has checked and confirmed there are no defects or leaks with the cab tilt mechanism.

3.2 Technician shall:

- Be competent and trained to carry out the cab tilting task.
- Have previous knowledge and experience of using the cab tilt mechanism fitted to the particular vehicle type, or if not should be supervised by a competent technician/supervisor during the procedure.
- Visually check all equipment to be used, ensure that it is in good condition. Do not use any defective, damaged or otherwise unsuitable equipment.
- Ensure you read and understand the latest Scania or other makes OEM manufacturer's procedures and technical information documents before the cab tilt task is carried out.
- Ensure the cab tilt task is carried out in accordance with Scania or other makes OEM manufacturer's procedures and technical instructions at all times.

3.3 In the lowered 'drive' position the cab must be locked in the fully lowered position by the cab tilt lock mechanism(s).

3.4 Before carrying out the cab tilt task, technician shall ensure:

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- a. Vehicle is safely parked on flat level ground.
 - b. Engine is switched 'OFF' and the ignition key removed. The technician assigned the task shall be responsible for ensuring the ignition key is strictly controlled to prevent inadvertent use.
 - c. Ensure parking brake is applied.
 - d. Ensure gear lever position is in 'Neutral'.
 - e. Check there are no loose objects, items, equipment, etc. inside the cab that could move and cause a hazard or danger. Remove any items, equipment, etc. that could move or inadvertently fall and cause a hazard during the task.
 - f. Cab doors are fully closed and latched.
 - g. Check there is enough roof height to tilt the cab safely and enough clearance at the front of the vehicle for when the cab is fully tilted forwards.
 - h. For vehicles with additional roof or body mounted equipment (e.g. car transporters, fire appliances, hay and straw carriers) ensure that there is sufficient clearance with surrounding components to allow the cab to be tilted safely. Supplier or manufacturers operating instructions and procedures should be followed for this type of additional equipment.
 - i. Ensure there are no pedestrian(s) in front of the cab before it is tilted.
 - j. There is adequate and sufficient lighting. If required use additional local lighting.
 - k. There are no visitors or contractors working in the same area where cab tilt will take place.
- 3.5 Open the front grille and corner panels and remove the cab tilt bar. Use the cab tilt bar end notch to turn the cab pump valve clockwise, this will set the cab tilt pump to the raise mode.
- 3.6 Use the cab tilt bar to pump the cab tilt pump and ram until the cab is fully tilted forwards. The cab tilt task must be carried whilst standing at the side of the vehicle at all times.
- 3.7 Lowering the cab is a reverse procedure; turn the cab tilt pump anti-clockwise and pump the cab tilt pump and ram until the cabs settles into the cab locks, keep pumping until the locks have fully engaged.
- 3.8 Some vehicles are equipped with electric cab tilting, whereby an n cab isolator switch must be turned ON before the remote control wander lead is used to raise or lower the cab. Always ensure that the remote control wander lead is fully stowed in its storage bracket when not being operated and that the cab tilt isolator switch is switched OFF after the cab has been fully raised or fully lowered to prevent any unintentional movement of the cab.
- 3.9 While the cab is being raised or lowered by tilting, all human body parts (hands, arms, legs and head) must be kept away from the cab area, as sudden cab movements may happen and can cause personal injury.
- 3.10 **MANDATORY:** Always tilt the cab to its 'end' stop position when the work permits this. If this is not possible due to e.g. working on cab suspension components then a partially tilted cab must have a Scania special tool support strut installed.
- 3.11 Do not go underneath a partially tilted cab, always raise the cab ram until the cab tilt lock mechanism is fully engaged and in the end stop lock position.
- 3.12 Before lowering the cab to its drive position, check the area around the vehicle to ensure that they are no other technicians or contractors working in the area. When there are co-

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workers assisting with the particular task, instruct them to stand clear well clear of the cab and to keep their hands, arms and body parts away from the cab and chassis whilst the cab is being lowered.

- Do not carry out the cab tilt task if you are unfamiliar with the vehicle type; seek a work procedure or supervisor instruction on the task before proceeding.
- Do not work under a partially tilted cab, unless there are extraordinary circumstances and if so carry out a full dynamic risk assessment and always use a Scania special tool cab support strut to fully support the cab.
- Do not tilt the cab if the vehicle is parked on an incline greater than 10% as this may overload the cab tilt cylinder and cab tilt pump and cause inadvertent movement of the cab.
- Do not stand in front or behind the cab during tilting operation.
- Do not continue with any work on the vehicle until the cab is fully tilted.
- Do not rock the cab side-to-side or forwards-backwards while it is tilted otherwise unintentional movement of the cab or failure of components may occur.

4. Equipment Safety

- 4.1 Ensure the cab tilt bar is in good condition before it is used.
Do not use and defective equipment or equipment that is otherwise unsuitable use.

5. Safety Procedure

- 5.1 Scania or other makes OEM manufacturer's cab tilt procedures and technical documents apply; these must be read and complied with. For Scania vehicles consult the Scania Multi Service Manual.
- 5.2 A cab support strut is not required when the vehicle is inside a workshop and parked on firm and level ground, so long as the cab is fully tilted to its end stop position.
- 5.3 Before carrying out any work, ensure the cab is fully tilted forward and past the point of its centre of gravity.
- 5.4 Cab tilt procedure is:

Always refer to the particular vehicle model type technical specifications to understand the correct cab tilt procedure.



The photographs shown in this document are an example only.

Photograph 1

This photo shows the cab pump valve.

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Use the notched end of the cab tilt bar/adaptor provided in the vehicle

Turn the cab tilt pump valve clockwise to its end stop when raising the cab.

Turn the pump valve anti-clockwise to its end stop position when lowering the cab.



Photograph 2

This photo shows the cab tilt bar and adaptor; this shall be used when carrying out the cab tilt task.

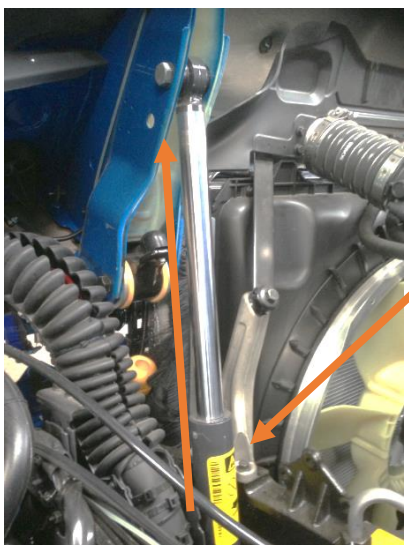
Do not use a damaged cab tilt bar or adaptor.



Photograph 3

This photo shows the cab tilt bar engaged in the cab tilt pump ready to tilt the cab.

Always stand at the side of the cab when using the cab tilt bar and never reach under a partially tilted cab. **This is mandatory.**



Photograph 4

This photo shows the cab tilt ram in the fully raised position.

If required, visually check the cab tilt ram and ensure it is fully raised, also check for any leaks around the ram; if a

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leak is found always install a cab tilt support strut before working under the cab - **mandatory**.



Photograph 5

This photo shows the mechanical end stop linkage fitted to the cab.

When the cab tilt ram is fully in the raised position the mechanical linkage will automatically lock and will prevent the cab from inadvertently moving.

Before working under the cab, always visually check and ensure that the mechanical end stop linkage is locked in position.



Photograph 6

This photo shows the mechanical end stop linkage in the locked position.

It is now safe to work under the cab.



Photograph 7

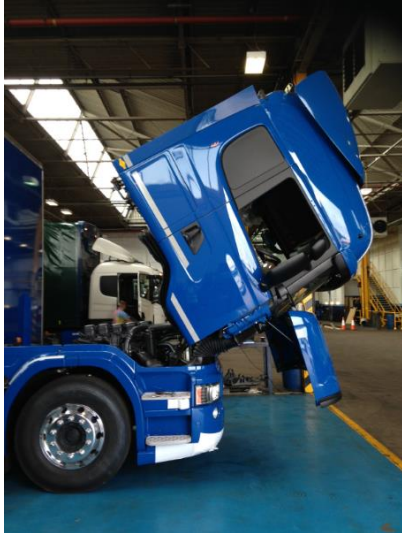
This photo shows a Scania special tool cab support strut used to support a fully tilted cab.

MANDATORY: A Scania special tool cab support strut must be used when the vehicle is:

- a) On a slope/incline.

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- b) At the Roadside.
- c) In a customer's yard.
- d) During repair of cab suspension components.
- e) If any leaks are noticed on the cab tilt system.
- f) Cab is only partially tilted (extraordinary circumstances)



Photograph 8

This photo shows a cab correctly and safely tilted, it is now safe to work in front of and under the cab.



Photograph 9

This photo shows a crew cab fire appliance with the cab fully tilted and with the on-board cab prop correctly installed (note: crew cabs have a reduced tilt angle due to design).

When working in front of the cab, there will be hazards (i.e. grille, cab components, metal parts, etc.) which could cause personal injury. Always check and avoid these hazards, a bump cap will help avoid injuries if you need to work in this area.

When working under the cab, i.e. in the engine compartment, always ensure that you use the steps fitted to the vehicle chassis to access and egress the engine compartment.

Do not jump off the chassis, always use the vehicle steps to egress from the engine compartment.

There are many hazards (e.g. hot engine components/manifolds, slipping risks like oil, grease also moving parts, belts and sharp features, etc.) present in the open engine compartment.

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Before you carry out any tasks in the engine compartment you shall carry out a dynamic risk assessment to ensure it is safe for you to do the required work.

If you need to start the engine while the cab is tilted, open the driver side door slowly to ensure the door check strap is fully engaged, supporting the weight of the door, use the vehicle steps and cab hand rails to climb up to the cab in order to start the vehicle.

Anytime the engine is running with the cab tilted, always work from ground level and not from inside the engine compartment.

Appendix 1 - Scania special tool cab support strut, part number 99431.

