

Welding on the chassis frame

IMPORTANT! All welding must be carried out professionally to a high degree of accuracy by trained personnel.

Avoid welding on the chassis frame as all welding increases the risk of fracture formation in the area around the weld. This applies particularly to areas on the frame with high requirements regarding strength and fatigue strength.

Weld areas

Welding between the front axle and 350 mm behind the last axle is only permitted on trucks with evenly distributed loads, for example box trucks.

Welding in the area 350 mm behind the last axle and further back is only permitted on trucks where the rear overhang is not subjected to high stresses. Welding in this area should therefore not be carried out on trucks that are equipped with any of the following:

- Rear-mounted crane
- Tail lift
- Trailer coupling
- Other rear-mounted equipment

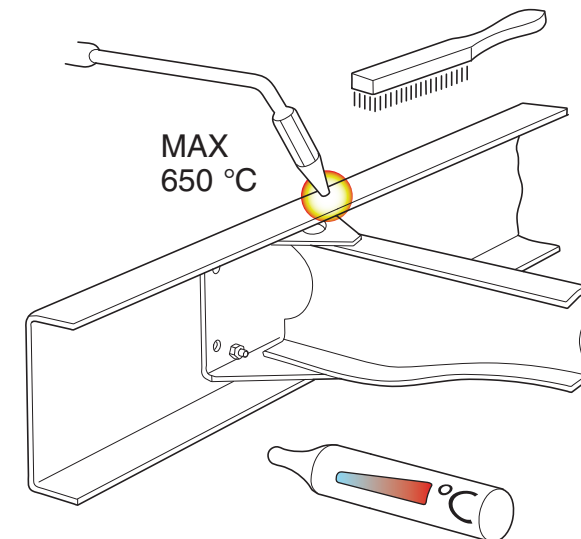
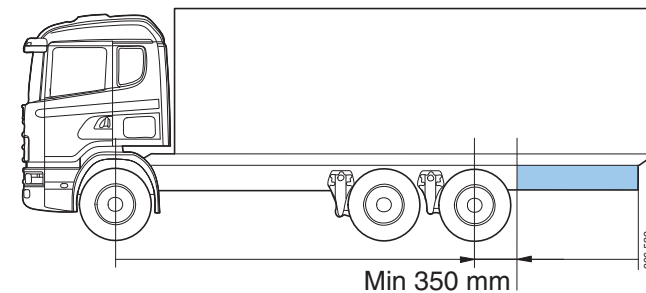
Risks

Material deterioration

Cracks and material brittleness lower the the frame's strength. The material characteristics of the frame deteriorate considerably if the frame member is heated to more than 650°C. Check that the temperature does not become too high, for example when straightening the frame.

IMPORTANT!

- Always check that the weld is of good quality without pores.
- Do not end a weld in an area with high voltages.



- It is not permitted to weld on the chassis frame for attaching the bodywork.
- Do not weld on draw beams and end plates.

Fire

Parts of the chassis are manufactured from flammable material. Noise shields, for example, are made of plastic-coated wool.



WARNING!

- All welding, cutting and grinding on the vehicle brings with it a great risk of fire, and plastic and other heat sensitive material can easily catch fire and melt.
 - Welding sparks and grinding sparks can be glowing hot and set fire to material long after welding has been carried out.
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IMPORTANT!

- Clean the area around the weld and remove any oil spill and dirt before welding work begins.
- Protect exposed parts of the chassis with fireproof mats or other measures.
- Protect the spring leaves against welding sparks when welding in the vicinity of the axle springs.
- Protect plastic brake lines and cable harnesses.
- Where possible carry out welding work outside the truck's risk area.

Electric welding

The vehicle's electrical systems are based on CAN technology with a large number of control units, electrical control drives and electronic components. This can be susceptible to electrical influences when welding, for example.

IMPORTANT!

- Earth the welding appliance as close to the welding point as possible.
- Disconnect the negative cable terminal from the battery to protect sensitive electronic equipment from current surges and overvoltage. Disconnecting electronic controls and components is in general not required.

Use the following electrodes for DC welding:

- Esab OK 48.00 or equivalent
- Oerlikon Super Cord
- FILARC 35

Use the following electrodes for AC welding:

- Esab OK 48.15
- Oerlikon Spezial or equivalent

For MAG welding:

- Flux material ESAB OK Autorod 12.51, Ø 1 mm
- AGA-MIX AK 20 (80% Ar + 20% CO₂) or FOGON 20 gas
- Gas quantity 10 dm³/min



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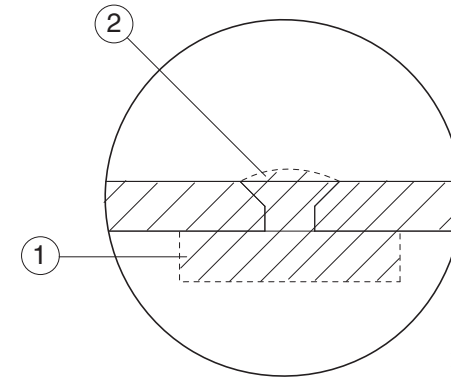
Work description

Filling welding holes

If holes are to be filled follow the work description below.

1. Bevel the hole.
2. Clamp a copper plate (1), for example, to the inside of the side member with a screw clamp or similar.
3. Weld the hole closed (2).
4. Remove the copper plate and finish-weld on the inside of the side member.
5. Grind the weld flat on both sides.
6. Apply anti-corrosion treatment to the area.

For larger holes, a washer can be used as filler when filling welding.



Further information about protection against corrosion is available in the document Painting, under Painting.

Chamfering weld joints

Chamfer the weld joints as illustrated.

A = Metal arc welding B = MIG welding

