

**SCANIA**

Supplier Letter

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SLA_374 - Heat Treatment_ Organizations

SLA_HT02_21

27/09/2021

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***Note: Valid for all Latin American suppliers only.**

ORGANIZATIONS AND HEAT TREATMENT SUPPLIERS

Dear Scania Supplier(Tier1),

As stated on **CVS-10** (Traton and Scania Customer Requirements), heat treatment of parts is classified as Special Processes acc. to item 1.4.2 (Special Requirements). Special Processes must be performed only by organisations, suppliers and/or sub-contractors(heat treaters), plants/sites, specific processes and furnaces/equipment approved by Scania. On Scania Supplier Portal, you can find the list of approved heat treatment suppliers located in Brazil and Argentina.

For Scania's suppliers of components and parts that require heat treatment, compliance to **STD 4259,STD 4126** and **CQI-9 4th ed. (new edition)** is a requirement.

Organisations (Tier 1) bear the responsibility for the quality of heat treated parts/components supplied to Scania, even if they are produced from other production sites or by subcontractors (2nd, 3rd and n-Tier). "Approved or interim approved heat treater" means that its processes, equipment and / or furnaces meet the minimum technical requirements for processing and delivery, and do not exempt the organisation's responsibility for the quality of the heat treated parts. Organisations shall ensure that all interfaces with their suppliers are robust enough to prevent any possible mixing, mismatches, divergent quantities, and nonconforming material that could reach Scania's production line.

When an audit is expired, or a heat treater is reclassified as "on-hold" status, the supplier/heat treater is not allowed to provide treatment services to new organisations, parts or projects, although is allowed to produce current parts temporarily until a new audit is carried out.

Audits are valid for 3 years and Scania can anticipate audits without prior notice if necessary. audit be scheduled. ***Note: During the pandemic, remote audits have been carried out annually using self-assessments.***

All heat treat suppliers that provide services for Scania's parts must be approved, and any change of heat treater, Scania's Commodity Supplier Quality Manager/SQA must be informed in advance, even if the new heat treater is already approved.

Organizations and suppliers must always inform in advance to heat treaters that the parts to be treated are from Scania, and forward all documents necessary , such as: drawings, standards, specs and steel quality certificates containing chemical composition, hardness, grain size, jominy tests, etc, especially when mechanical properties and/or hardenability are required. Organisations are responsible to

ensure that all Scania's documents sent to heat treaters are updated (Drawings, specs, STD 4259 and STD4126 , among others)

Organisations/Suppliers must prevent and avoid any production order split in the heat treater (Eg.: 1 original organisation batch into 2 , 3 or "n" heat treater batches). If any production order have to be split, so the heat treater must split the order and issue an specific quality certificate and invoice for each new production order.

Heat treatment of bolts and fasteners (E.g. 10.9 class bolts) must be done in continuous furnaces with controlled atmosphere (the furnace can't perform case hardening for other products), and requires tensile strength tests (hardness test conversion to tensile strength is not allowed). Heat treaters which provide services for bolts and fasteners must have tensile strength testing machine available and properly calibrated in their laboratories. Organisations/suppliers must check that before hire services from a heat treater.

Annual process audits must be carried out by organisations and suppliers in heat treaters based on STD 4259 and STD 4126 requirements. If any finding during the audit is considered a risk to the Scania product, it shall be informed immediately to the Supplier Quality Manager/SQA.

Each heat treatment has its own required tests acc. to the table 1. Please notice that the tests stated on the table are just a guide, and depending the part to be treated, additional tests must be requested by drawings and standards and accorded with the SQM/SQA responsible for the part during the APQP/PPAP. SQM/SQA has the autonomy to validate and add tests throughout the supply chain if necessary.

Organisations and Suppliers must check the list periodically in order to detect any recent change or Status, taking into account heat treaters, processes and approved furnaces.

Although the list contains only approved heat treaters, when electing a heat treater from the list, Scania recommends that organisations/suppliers hire services preferably from "Approved" instead of "Interim Approved" heat treat supplier due to quality issues.

If needed, organisations might recommend the inclusion of new heat treater to the list. To do so, a SCR(Supplier Change Request) must be issued to Scania Supplier Quality Manager/SQA, and if approved, a potential audit acc. to STD 4259 shall be scheduled.

Unlisted heat treaters are prohibited from supplying services to Scania. Treating Scania parts in non-approved heat treaters can imply in Step 2 Escalation at Scania and/or VW Group. If your organisation deliveries any heat treated part/component



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which process is not carried out by a supplier from the Heat Treatment Suppliers List, or have changed to another approved supplier without Scania's awareness you must contact immediately the Scania Buyer or Supplier Quality Manager/SQA, in order to rectify the situation.

Remarks: There is also an additional letter: "*Supplier Letter to all Tier 2...n Heat Treat Suppliers-2021*". Scania requests that all organisations (tier1) forward that letter to their suppliers.

Sincerely,

**PURCHASING | PRODUCT QUALITY POWERTRAIN
SCANIA LATIN AMERICA**

Table 1	Hardness	Metallography		Tensile Strength Machine	Impact	Hardenability Jominy(Steel 9XXXXH)	Magnetic particle	Leakage	Adherence/Joining	Length/ % of welding	Welding penetration
		Structure/ GS	layer								
Equipment	Hardness Tester	Microscope	Durômetro Vickers /Microscopia	Tensile Strength	Impact machine	Jomiy Tank	Equip.	Equip.	Microscope/ Stereoscope	-	-
STD 4259			STD 4126			Steelworks	cracks				
Hardening and Tempering	✓	✓		✓	✓	✓	✓	-	-	-	-
Hardening and Tempering (high Carbon)	✓	✓		✓	✓	✓	✓	-	-	-	-
Induction Hardening	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
Case Hardening	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
Carbontriding	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
Nitriding	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
Nitrocarburing	✓	✓	✓	✓	✓	✓	✓	-	-	-	-
Annealing	✓	✓		✓	✓	✓	✓	-	-	-	-
Normalization	✓	✓		✓	✓	✓	✓	-	-	-	-
Stress Relieving	✓	✓		✓	✓	✓	✓	-	-	-	-
Austempering (ADI)	✓	✓		✓	✓	✓	✓	-	-	-	-
Solution and Ageing (AI)	✓	✓		✓	✓	✓	✓	-	-	-	-
Controlled Cooling	✓	✓		✓	✓	✓	✓	-	-	-	-
Subsequent Op. (Straightening)	-	-		-	-	-	✓	-	-	-	-
Subsequent Op. (Grinding)	✓	✓		-	-	-	-	-	-	-	-
Hot Stamping	✓	✓		✓	✓	✓	✓	-	-	-	-
Forgings	✓	✓		✓	✓	✓	✓	-	-	-	-
Fasteners	✓	✓		✓	✓	✓	✓	-	-	-	-
Brazing	-	✓		✓	-	-	-	✓	✓	✓	-
Welding	✓	✓		✓	✓	-	✓	-	✓	✓	✓
✓	Required										
✓	Acc. to Drw/TB/STD										

GS = Grain Size