

CERTIFICATE

Welding of railway vehicles and components according to EN 15085-2

This is to certify that **SKODA ELECTRIC a.s.**
Tylova 1/57
Produktionsbetrieb Prumyslova 4
301 28 Plzen
CZECH REPUBLIC

is qualified to perform welding work within the range of certification of:

Certification level CL1 according to EN 15085-2

Field of application: • Welding of stator housings of traction motors,
 repair welding on cast stator housings of traction motors (manufacturing
 welding)
 • with construction

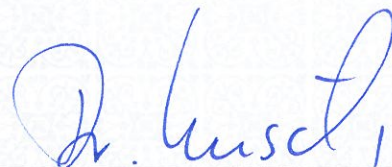
Range of certification

Welding process according to DIN EN ISO 4063	Material group according to CEN ISO/TR 15608	Dimensions	Comments
111	1.2 1.2 1.2/8	t = 5 - 20 mm t = 5 - 40 mm t = 10 - 40 mm	FW BW t2 = 4-16 FW-einlagig
135	1.2 8 1.2 1.2 1.2 1.2	t = 1.4 - 20 mm t = 3 - 5 mm t = 3 - 24 mm t = 3 - 80 mm t >= 5 mm t >= 5 mm	FW - einlagig - BW (ROB) BW FW FW (ROB)

(continuation: see reverse)

Responsible welding coordinator: Jaroslav Vejvoda (EWE) born: 17.07.1959
Deputy with equal rights: Lumir Jenik (IWE) born: 23.11.1974
Deputy: Milan Cinek (IWP) born: 03.12.1973
Comments: see reverse

Certificate no.: GSI/15085/CL1/7058/6A2/00
Valid: from 05.11.2013 to 05.11.2016
Issued on: 09.12.2014
Auditor: FLEGL
ID-Nr.: EBA - 09/09
 General regulations (see reverse)

Dr.-Ing. G. Kuschner
deputy of head of certification body

Certificate no.: GSI/15085/CL1/7058/6A2/00

Continuation of range of certification

Welding process according to DIN EN ISO 4063	Material group according to CEN ISO/TR 15608	Dimensions	Comments
135	1.2/8	t = 6 - 24 mm	t2=2.1-6 FW einlagig
135/141	1.2	t = 3 - 20 mm	BW, 135 Roboter
	1.2	t = 5 - 12 mm	FW, 135 Roboter
141	31	t = 2 - 6 mm	FW
21	1.2	t = 0.5 - 1 mm	-

Comments:

Following combinations are possible:

- 111 1.2/8 t = 5-12/8-18 FW
- 135 1.2/8 t = 4-10/10-24 FW
- 135 1.2/8 t = 3-5/10-22 BW Roboter
- 135 1.2/8 t = 4-10/10-24 FW Roboter
- 135 1.2/GS20MnQT t = 11-44/25/100 BW 1/2Y
- 135 1.2/20MnCr t = 5-44/3-20 BW 1/2Y
- 135 1.2/20MnCr t = 11-44/>=5 FW

916 brazing Cu-ETP-R240/Cu-ETP-R200 t = 10-15/25-45

Rod on ring, brazing on asynchron motors, braze material acc. to ISO 17672 CuP284
process combination 135R/141

