

SCANIA

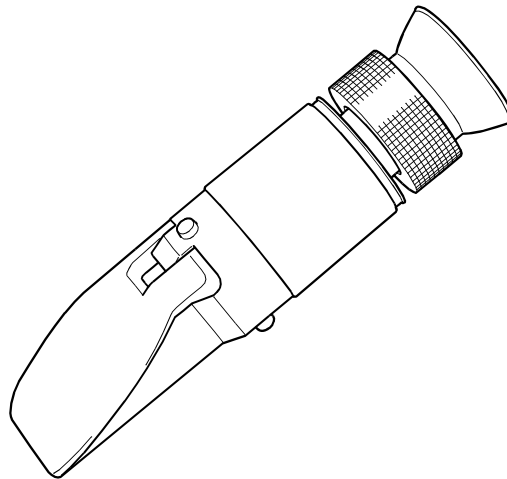
02:02-01

Issue 3.1 en

Cooling system

Anti-freeze

Checking



309 197

Contents

General	3
Tools	4
Measuring anti-freeze content	5
Dosage table for ethylene glycol.....		6
Topping up coolant	7

General

This description covers checking the anti-freeze (ethylene glycol) content (which contains corrosion inhibitor) in cooling systems of Scania vehicles and instructions for using tool 588 805.

IMPORTANT! Only use anti-freeze approved by Scania.

IMPORTANT! Too high a dose of anti-freeze or corrosion inhibitor will increase the amount of sludge and blockages accumulating in the radiator.

IMPORTANT! Do not mix Scania Corrosion Inhibitor with Scania Anti-Freeze.

Inadequate treatment of coolant and excessive dosage cause sludge and corrosion. Sludge will accumulate in the radiator and on hot surfaces causing inferior cooling and boiling.

- In order to ensure adequate corrosion protection, the content of Scania anti-freeze should not fall below 35% by volume.
- A content of 60% by volume of Scania anti-freeze with inhibitor is the maximum permitted dosage. Volumes in excess of this may damage the cooling system.

Tools

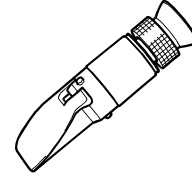
Number

588 805

Designation

Coolant and battery tester (hand refractometer).

Illustration



Checking the anti-freeze level



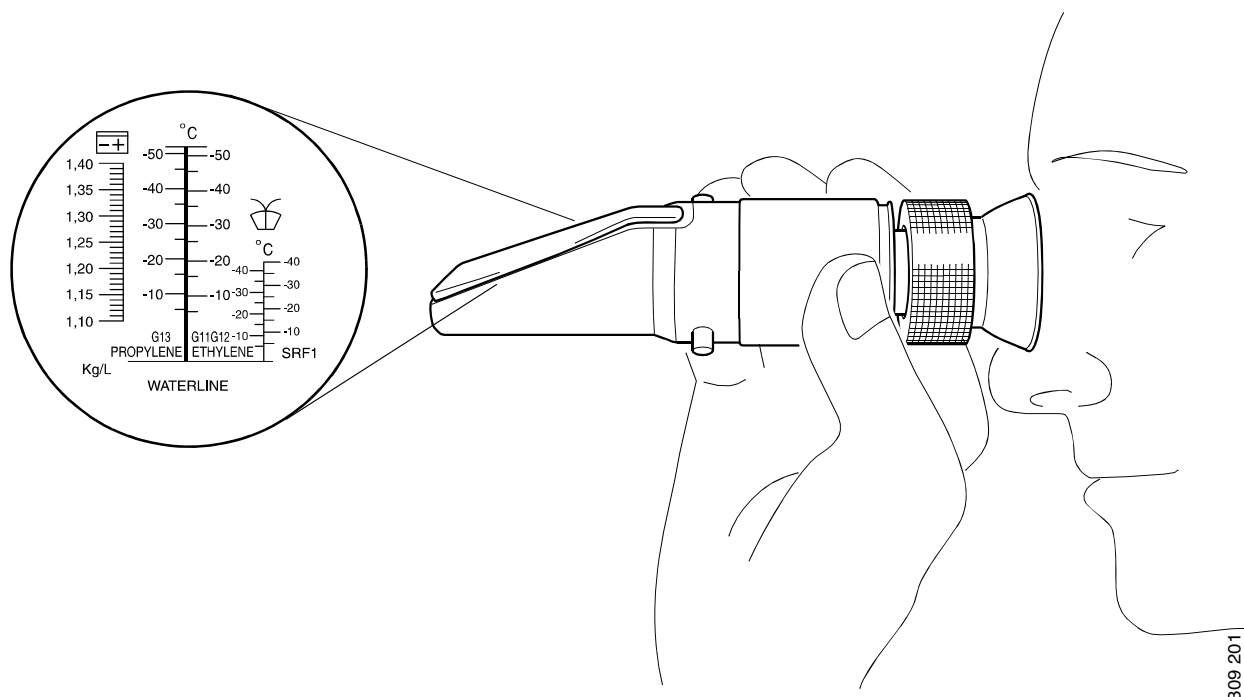
WARNING!

Hot coolant can cause burns. Ethylene glycol is highly dangerous if imbibed and can prove fatal. It has a toxic effect on the skin, particularly when the coolant is hot. Wear protective gloves.

IMPORTANT! Only use anti-freeze approved by Scania.

- 1 Measure the level of anti-freeze (ethylene glycol) with Coolant and battery tester 588 805.

Coolant should comprise water and 35-45% by volume of anti-freeze (ethylene glycol) in countries where the temperature can drop below 0°C. The content of Scania anti-freeze (ethylene glycol) must not exceed 60% by volume in pre-mixed coolant.



309 201

Dosage table for ethylene glycol

Example:

- 1 The total volume of the cooling system is 40 litres. ethylene glycol are required in the cooling system. Since there are already 6 litres in the cooling system, 8 litres of ethylene glycol must be added to the cooling system (14 - 6 = 8 litres).
- 2 The measured freezing point is -6°C (15% mixture by volume of ethylene glycol). According to the table there are 6 litres of ethylene glycol in the cooling system.
- 3 The measured freezing point is -21°C (36% mixture by volume of ethylene glycol). According to the table, 14 litres of

Freezing point °C	-6	-9	-12	-18	-21	-24	-30	-37	Cooling system
Ethylene glycol (vol %)	15	20	25	33	36	40	45	50	volume in litres
Ethylene glycol (litres)	5	6	8	9	11	12	14	15	30
	6	7	9	11	13	14	16	18	35
	6	8	10	12	14	16	18	20	40
	7	9	12	14	16	18	21	23	45
	8	10	13	15	18	20	23	25	50
	9	11	14	17	20	22	25	28	55
	9	12	15	18	21	24	27	30	60
	10	13	17	20	23	26	30	33	65
	11	14	18	21	25	28	32	35	70
	12	15	19	23	27	30	34	38	75
	12	16	20	24	28	32	36	40	80
	13	17	22	26	30	34	39	43	85
	14	18	23	27	32	36	41	45	90
	15	19	24	29	34	38	43	48	95
	15	20	25	30	35	40	45	50	100
	16	21	27	31	37	42	48	53	105
	17	22	28	32	40	44	50	55	110
	18	23	29	34	41	46	52	58	115
	18	24	30	35	42	48	54	60	120
	19	25	32	37	44	50	57	63	125

Topping up coolant

IMPORTANT! Top up only with ready-mixed coolant.

The coolant must contain 35-60% anti-freeze and freshwater without visible impurities.

