

Service Manual Supplement Trucks

Volvo Trucks North America, Inc.

Greensboro, NC USA

This Service Manual Supplement replaces Service Bulletin 171-500-02 "Erecting Roof Air Faring" (4.2002), Publication no. PV776-TSP170493.

This Service Manual Supplement is a supplement to Service Manual, 171–500 "Pre-Delivery Inspection, VN, VHD"

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Pre-Delivery Inspection

VN

Erecting Roof Air Fairing

When VN–series vehicles equipped with roof air fairings are shipped to the dealer, the fairing is not assembled. The front center part of the fairing is in place laying down on the roof. This is so the overall height of the vehicle is reduced when it is transported piggy-backed. Additional parts are shipped in a box strapped to the frame.

Note: If the vehicle is driven while the air fairing is still in its collapsed position, a vibration and wind sounds are heard. These noises are not heard when the air fairing is erected, however, this is normal and poses no problem.

After the vehicle is received, the roof air fairing needs to be erected. The fairings are designed for assembly with minimum aligning; however, make sure that the fairing does not touch the roof anywhere along the bottom edge.

For Parts information see:

VN-420, VN-Day Cab "Roof Air Fairing Parts" page 2

VN-420 "Parts List" page 3
VN-Day Cab "Parts List" page 9

For installation procedures see:

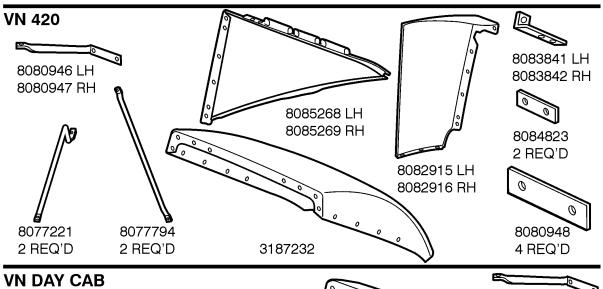
VN-420 "Roof Air Fairing, Installation" page 4

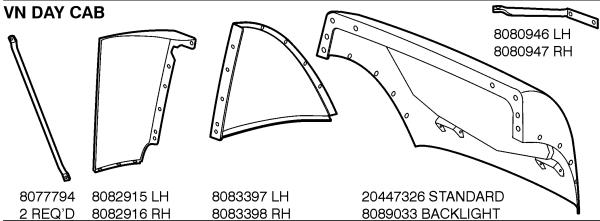
VN–Day Cab "Roof Air Fairing, Installation" page 10

You must read and understand the precautions and guidelines in Service Information, group 80, "General Safety Practices" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

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Roof Air Fairing Parts





COMMON HARDWARE KIT 20458333

			0
945444	946934	8002052	976944
FLANGE SCREW	FLANGE SCREW	POP RIVET	WASHER 28 REQ'D
22 REQ'D M8x25	6 REQ'D M6x20	4 REQ'D .19x.40	8,4x22x2
		(0)	(0)
983586	8142629	8081375	980479
FLANGE SCREW	6PT SOCKET SCREW	WASHER 12 REQ'D	WASHER 4 REQ'D
12 REQ'D M8x30 ss	2 REQ'D M6x19x20	8,6x22 8 1,5 ss	10,5x34x3
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9 46671	③ 948645	0 8397273	
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946671	948645	8397273	
946671 FLANGE SCREW	948645 FLANGE LOCK NUT	8397273 WASHER 4 REQ'D	
946671 FLANGE SCREW	948645 FLANGE LOCK NUT 28 REQ'D M8x9,4	8397273 WASHER 4 REQ'D 10,2x38x4,8	
946671 FLANGE SCREW 4 REQ'D M8x30	948645 FLANGE LOCK NUT 28 REQ'D M8x9,4	8397273 WASHER 4 REQ'D 10,2x38x4,8	

Parts List

VN 420

FIBERGLASS		
802915 - roof extender LH	8085268 - roof side LH	
8082916 - roof extender RH	8085269 - roof side RH	
3187232 - top center section		

BRACKETS		
8080948- brkt. (4)	8080946 - strut	
8083841 - brkt.	8080947 - strut	
8083842 - brkt.	8077794 - strut (2)	
8084823 - brkt. (2)	8077221 - strut (2)	

HARDWARE KIT Part # 20458333		
945444	22	Flange screw M8 x 25
948645	28	Flange lock nut M8 x 9,4
983586	12	Flange screw M8 x 30 x sst
8002052	4	Pop rivet 19 x 40
946934	6	Flange screw M6 *20
8081375	12	Washer 8,6 x 22 8 1,5 sst
949278	8	Flange lock nut M6 x 7,3
976944	28	Washer 8,4 x 22 x 2
947760	4	Flange screw M8 x 40
976943	4	Washer 6,4 x 18 x 2
8142629	2	Six pt. socket screw M6 x 19 x 20
946671	4	Flange screw M8 x 30
8397273	4	Washer 10,2 x 38 x 4,8
980479	4	Washer 10,5 x 34 x 3

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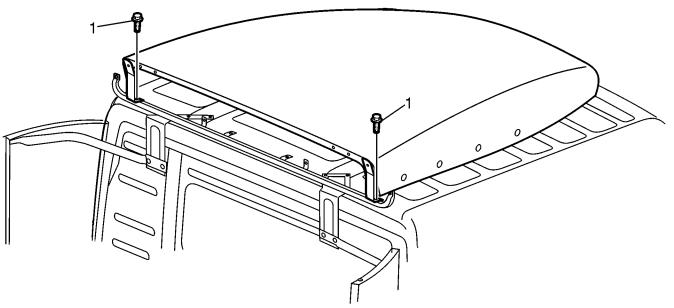
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1711-02-03-01 Roof Air Fairing, Installation

VN 420

For general information about erecting the air fairing, see "Erecting Roof Air Fairing" page 1.



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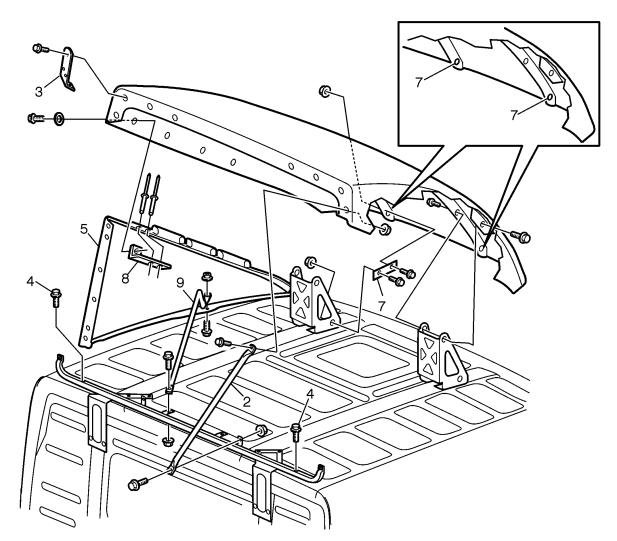
Note: All steps correspond to call-outs in illustrations.

Note: Discard unused parts in kit.

Lifting Fairing from Transport Position

1

To raise the fairing, remove the two bolts securing the top panel of the air fairing to the top of the transport brackets.



W8003045

Use part no. 945444. Connect the rear support rods to the cab bracket. Raise the top air fairing panel and connect each end of the two rods.

Remove the two rear transport brackets and the **six** angle brackets along the side of the top air fairing panel.

Installation

4

Use part no. 945444. Install the two bolts used to secure the transport brackets to the cab bracket. These bolts seal the hole and prevent water from entering.

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5

Use part no. 983586. Install the right and left air fairing side panels.

Note: Leave bolts loose.

Note: The bolt and washer used in this step is stainless steel.

6

Secure and torque all fasteners.

Note: Raise the fairing to its highest point when securing the rear supports.

 $24 \pm 4 \text{ Nm}$ (18 ± 3 ft-lb).

7

Layout and drill the two 7mm (9/32") holes in the left and right side top panel of the air fairing. Drill holes and secure the brackets. **Use part no. 946934.** See blown out illustration of step 7.

Note: The two holes in the front mounting bracket already exist.

8

Layout and drill four 5mm holes needed to secure the bracket connecting the top panel to the rear side panel. Secure the bracket to the side panel using rivets, **part no. 8002052.** Drill a 10mm hole in either side of the top panel using the secured bracket as a guide. **Using part no. 983586**, secure the top panel to the bracket.

Note: Use the bracket for the opposite side as a template for drilling. Secure the brackets with the supplied rivets. Swage the rivets to the bracket and not the fiberglass.

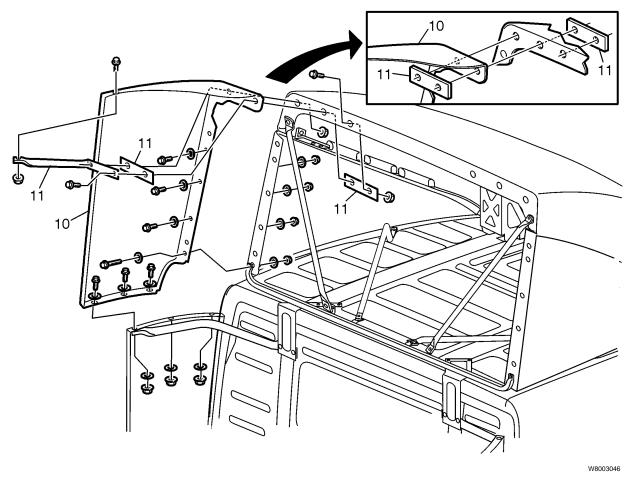
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Use part no. 949278 and 946934.
Install the two lower support rods that secure the cab bracket to the lower side panels.

Note: Install the bracket to the side panel before the cab bracket.



10 Use part no. 947760 (M8 x 40) and 945444. Install and secure the left and right side deflectors.

11 Use part no. 946671. Install and secure the left and right side deflector support rods and plates.

Note: These plates are not to sandwich the SMC. The plates are offset to provide more stability for the surface area. See blown out illustration showing steps 10 and 11.

Parts List

VN Day Cab

FIBERGLASS		
802915 roof extender LH	8083397 - roof side LH	
8082916 roof extender RH	8083398 - roof side RH	
20447326 top center section std		
8089033 top center section backlight		

BRACKETS	
8077794 - strut (2)	
8080946 — support bracket LH (1)	
80809467 — support bracket RH (1)	

HARDWARE KIT Part # 20458333		
945444	22	Flange screw M8 x 25
948645	28	Flange lock nut M8 x 9,4
983586	12	Flange screw M8 x 30 x sst
8002052	4	Pop rivet 19 x 40
946934	6	Flange screw M6 *20
8081375	12	Washer 8,6 x 22 8 1,5 sst
949278	8	Flange lock nut M6 x 7,3
976944	28	Washer 8,4 x 22 x 2
947760	4	Flange screw M8 x 40
976943	4	Washer 6,4 x 18 x 2
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8397273	4	Washer 10,2 x 38 x 4,8
980479	4	Washer 10,5 x 34 x 3

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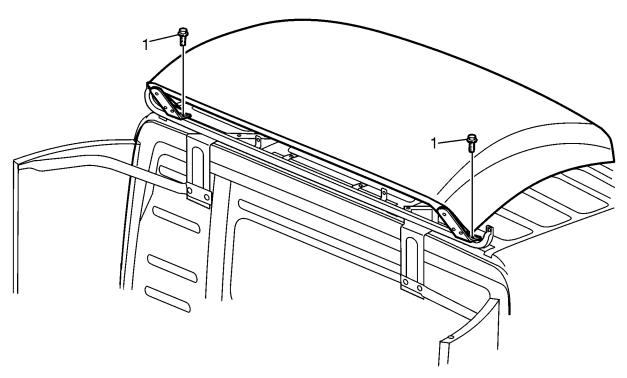
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1711-02-03-01 **Roof Air Fairing, Installation**

VN Day Cab

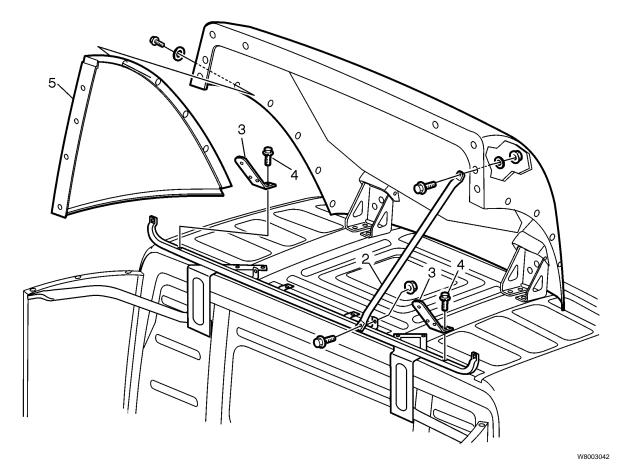


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Lifting Fairing from Transport Position

1 To raise the fairing, remove the two bolts securing the top panel of the air fairing to the top of the transport brackets.

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Use part no. 945444. Connect the rear support rods (that link the top panel) to the cab bracket. Raise the top air fairing panel and connect each end of the two rods.

Remove the two rear transport brackets and the **four** angle brackets along the side of the top air fairing panel.

Installation

4

Use part no. 945444. Install the two bolts used to secure the transport brackets to the cab bracket. These bolts seal the hole and prevent water from entering.

5 Use part no. 983586. Install the right and left air fairing side panels.

Note: The bolt and washer used in this step is stainless steel.

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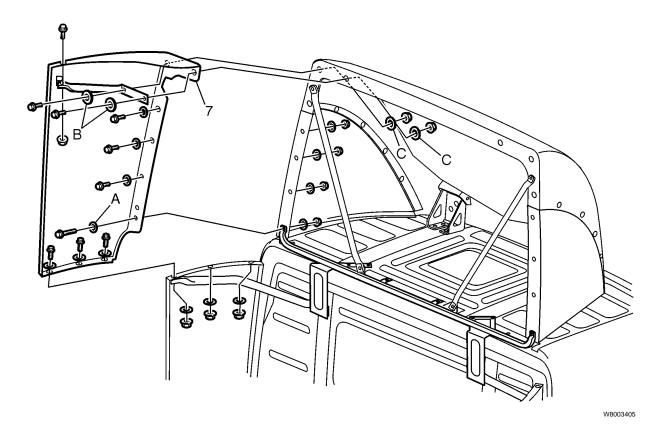
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6

Secure and torque all fasteners.

Note: Raise the fairing to its highest point when securing the rear supports.

24 ± 4 Nm $(18 \pm 3 \text{ ft-lb}).$



7 Install and secure the left and right side deflectors and support rods.

Note: The fastener that secures the cab bracket to the deflector and side panel is much larger than the other fasteners. **M8 x 40** as opposed to M8 x 25. All fasteners will use washer **A**, **part no. 976944**.

Note: When securing the top portion of the deflector use washer **B**, **part no. 980479**, (which is slightly smaller) on the outside.

Use washer C, part no. 8397273, on the inside.

8 Secure and torque all fasteners.

24 ± 4 Nm (18 ± 3 ft-lb).