

### Hydraulic Test Program – Test – Soft Top Up

#### CAUTION!

Injury hazard from pinching and crushing, in extreme cases extremities can even be severed when caught in the mechanism.

Do not allow any body parts to be in the general area of the moving components.

#### Notes for Hydraulic Test:

##### The following jobs are the same for all test steps:

- A. Connection of test equipment to hydraulic unit (Figure 1).  
Torque check valve 129 589 08 63 00 to 5 Nm.
- B. Build up and release test pressure (see example).
- C. Test hydraulic cylinder only at end position of piston (Observe soft top positions).
- D. If hydraulic lines need to be disconnected from the valve blocks during pressure tests, the appropriate soft top position (end position of the hydraulic cylinder) must first be ensured.

#### Preparation for Test:

1. Review entire 11.2 section, especially 32, prior to performing any of the following tests on the soft top.

Disconnected hydraulic lines should be held in a container (connect a transparent hose such as windshield washer hose).

Hydraulic components that leak should be replaced. During pressure tests, the valve block connections **must** be plugged with plug 129 589 00 91 01.

If hydraulic components need to be replaced, the disconnected hydraulic lines must be plugged with plug 129 589 00 91 07, while the connections of valve blocks, hydraulic cylinders and hydraulic manifolds must be plugged **immediately** using plug 129 589 00 91 11 to prevent the possible entry of dirt.

### Electrical Test Program – Test – Soft Top Up

**Example:** Building up and releasing test pressure.

#### Soft top

##### Ignition ON:

Activate power soft top switch (toward lower if the soft top is down, toward raise if the soft top is up) for 5 seconds. Have a second technician disconnect relay (A7/5k1, Figure 1).

Hold power soft top switch for 5 additional seconds. Read and record test pressure.

##### Release test pressure:

Briefly activate power soft top switch several more times.

#### Roll bar

##### Ignition ON:

Activate RB switch (toward lower if the roll bar is lowered, toward raise if it is raised) for 5 seconds. Have a second technician disconnect relay (A7/5k1, Figure 1). Hold roll bar switch for 5 additional seconds. Read and record test pressure.

##### Release test pressure:

Briefly activate power soft top switch several more times.

#### CAUTION!

Release established test pressure before beginning the next test step.

Electrical Test Program – Test – Soft Top Up

Connection Diagram - Check valve and Pressure Gauge to Hydraulic Unit

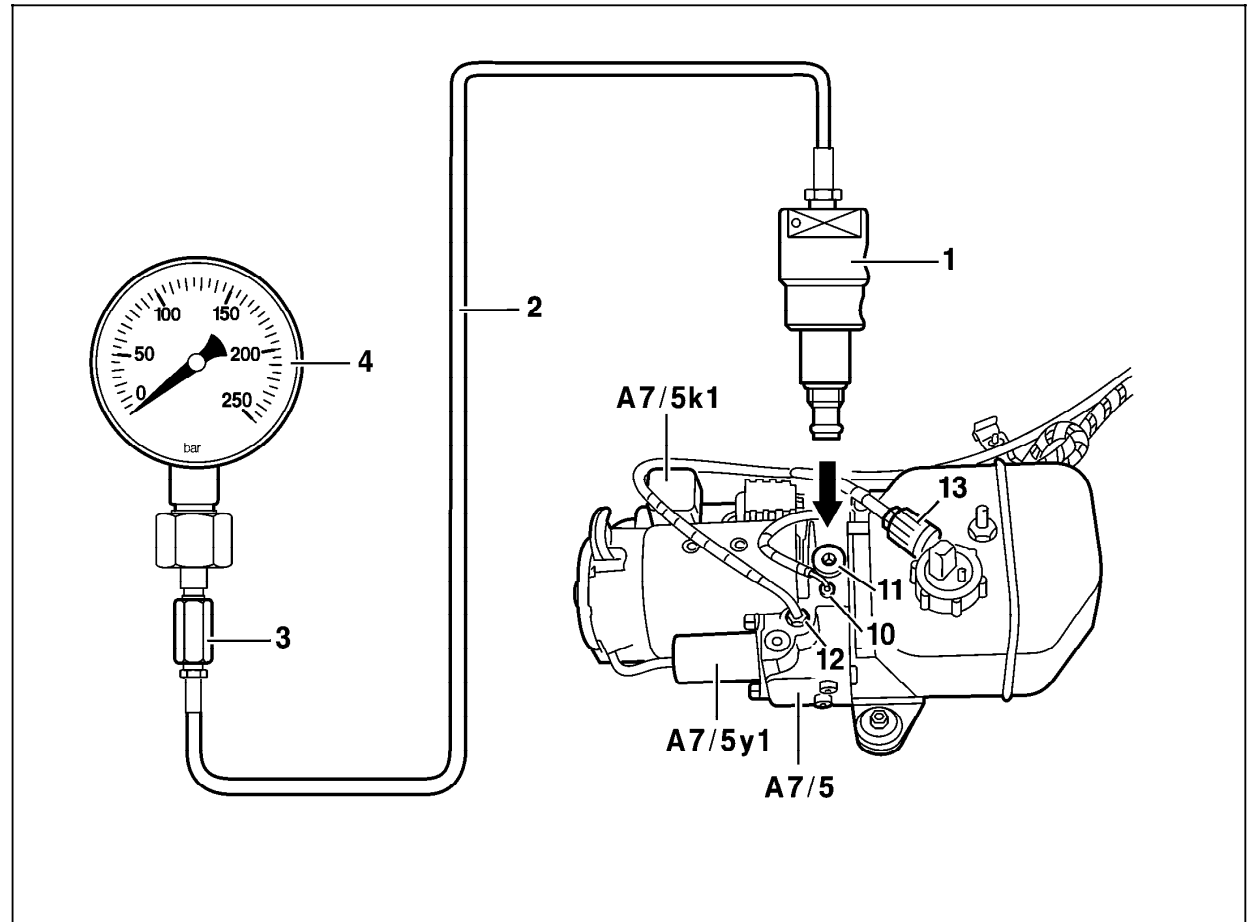


Figure 1

- 1 Check valve 129 589 08 63 00
- Adaptor kit 129 589 14 21 00
- 2 Test pressure line
- 3 Connector piece
- 4 Pressure gauge
- 10 Roll bar operation hydraulic line
- 11 Test connection
- 12 Soft top operation hydraulic line
- 13 Return line
- A7/5 Hydraulic unit
- A7/5k1 Relay
- A7/5y1 Main valve (deleted as of VIN 1F-083891)

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Y55 Left RST valve block  
(4 connections)

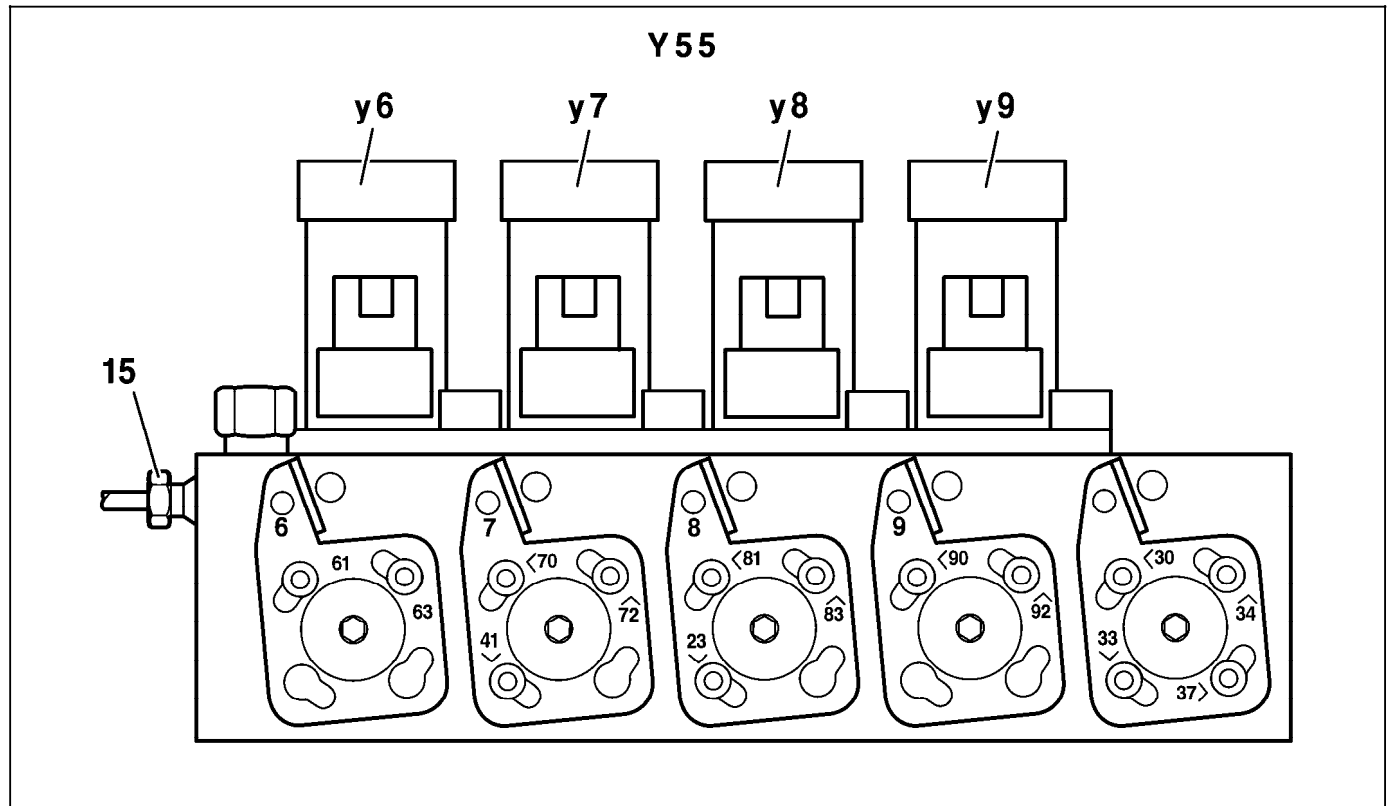


Figure 2

- Y55 Left RST valve block (4 connections)
- y6 Soft top "open" valve
- y7 Soft top "close" valve
- y8 Fabric bow "raise" valve
- y9 Fabric bow "lower" valve

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Y56 Right RST Valve Block  
(4 connections)  
and  
Y57 Roll bar Valve Block  
(2 connections)

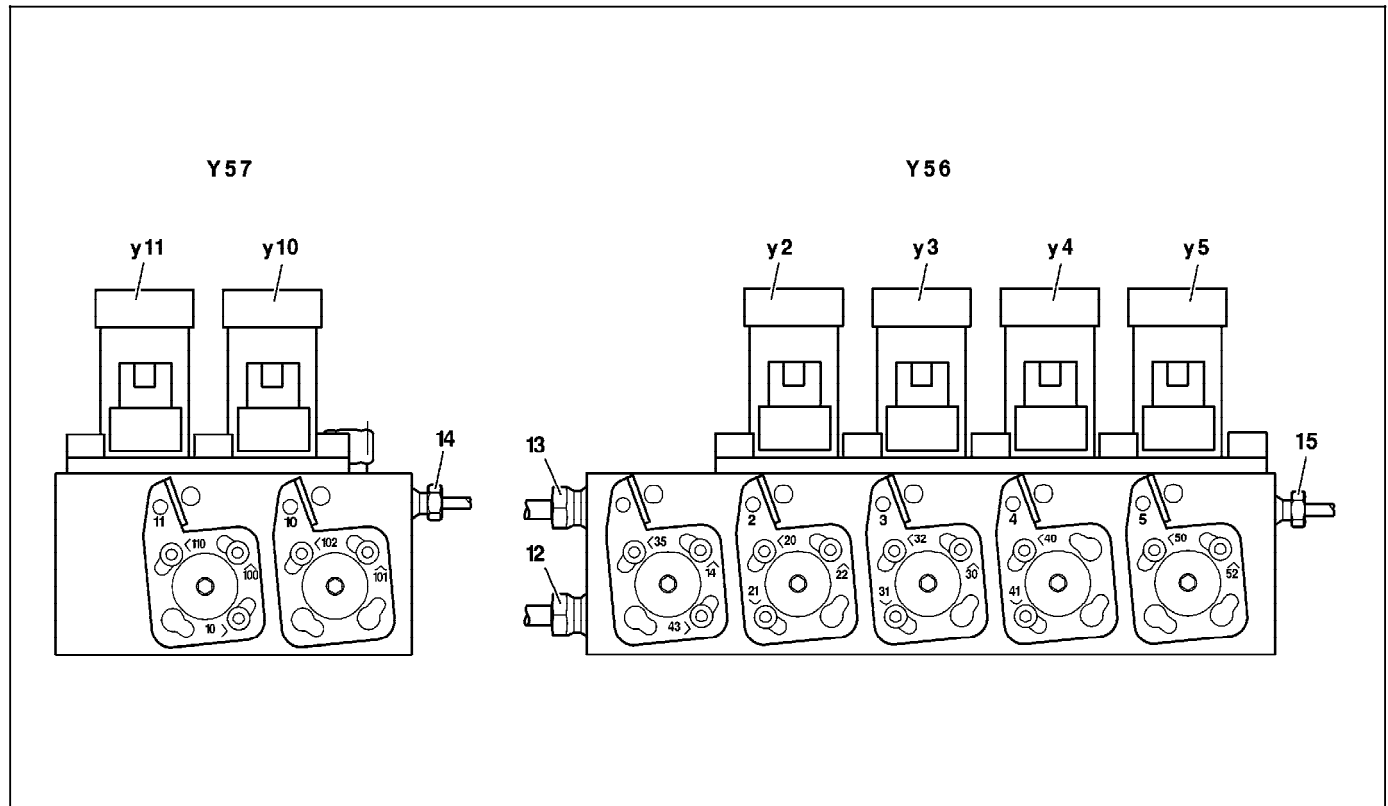


Figure 2

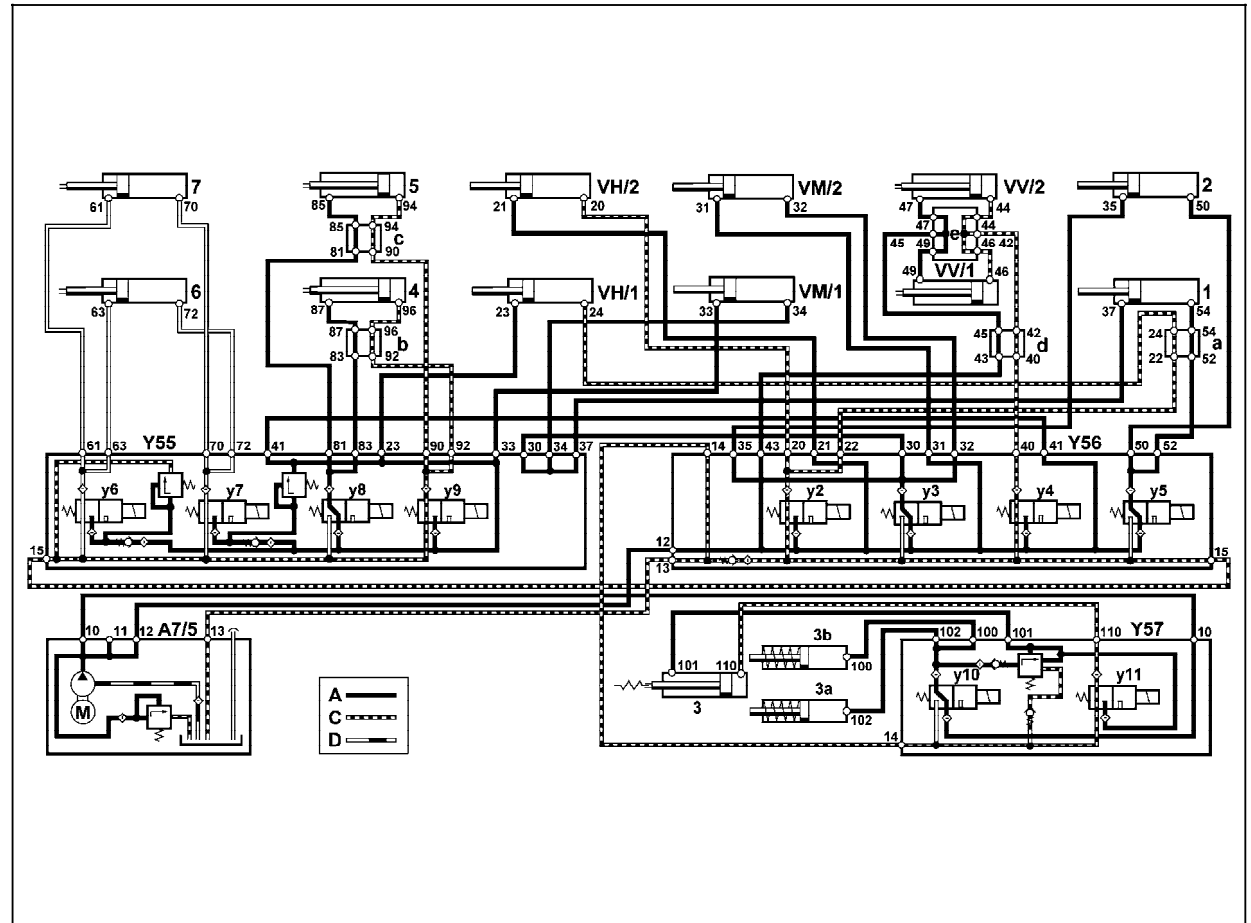
- Y56 Left RST valve block (4 connections)
- y2 Rear locks valve
- y3 Center locks valve
- y4 Front locks valve
- y5 Soft top compartment cover valve
- Y57 Roll Bar valve block (2 connections)
- y10 Roll bar "Lower" valve
- y11 Roll bar "raise" valve

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## Hydraulic Test Program – Test – Soft Top Up



Figure 4

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield cross member
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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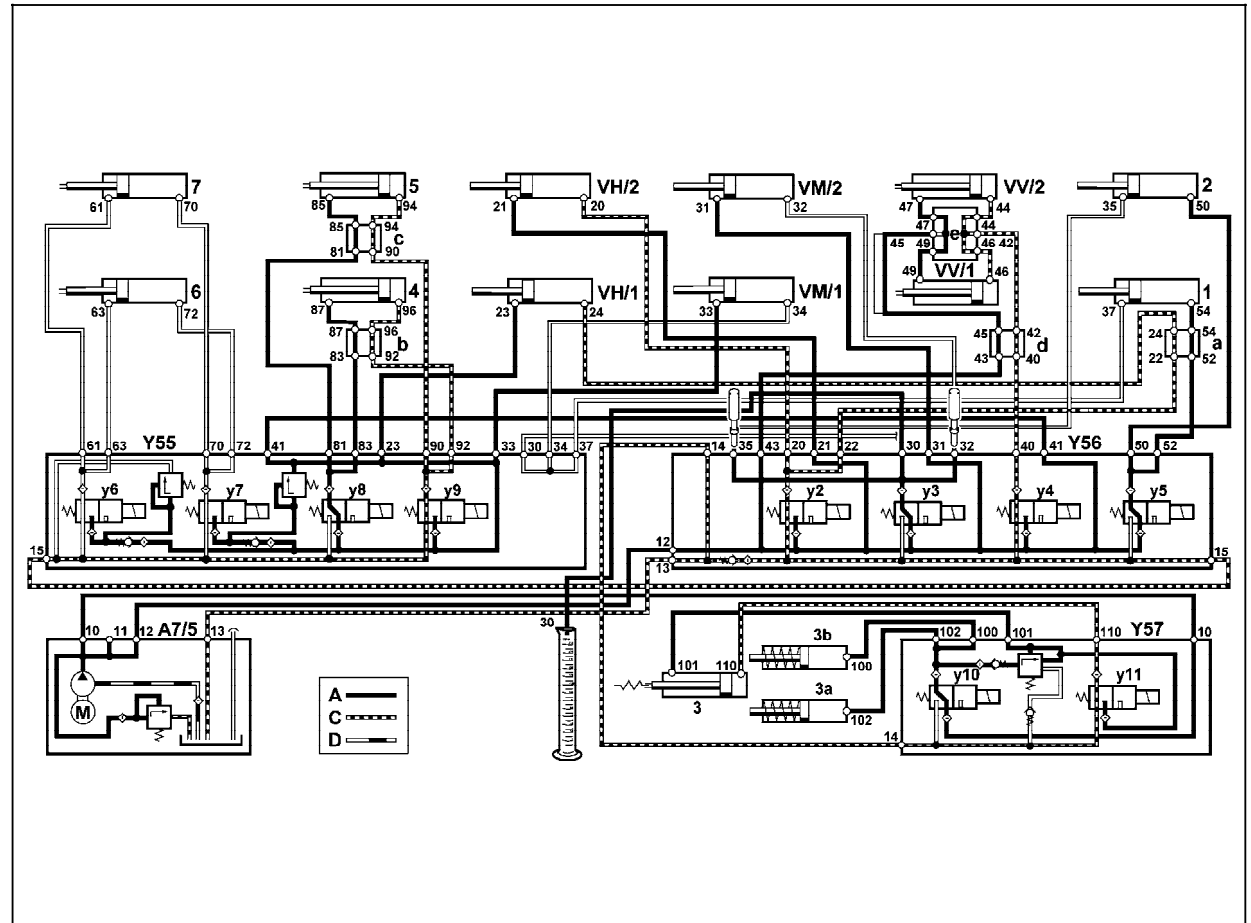
## Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		<b>Open center locks (VM/1, VM/2)</b> (Figure 4)	 Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector at valve block (Y56y4).	<b>Soft top closed.</b> <b>Fabric bow up,</b> <b>Center locks (VM/1, VM/2) manually open,</b> <b>Soft top compartment cover up.</b>  Ignition: <b>ON</b> Press and hold soft top switch to " <b>close</b> ". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b> <b>Read test pressure:</b>  <b>Release test pressure:</b> Press soft top switch briefly several times.	120 – 200 bar	<b>If nominal values ok:</b> If the center locks do not open, check the adjustment of the locking pins for the soft top compartment cover, See SMS, Job no. 77-0303  <b>&lt;120 bar:</b> 33 ⇒ 5.0, 33 ⇒ 7.0, If the opening of the center locks is still not possible using the soft top switch, see: ⇒ 1.1

## Hydraulic Test Program – Test – Soft Top Up

Figure 5


- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield cross member
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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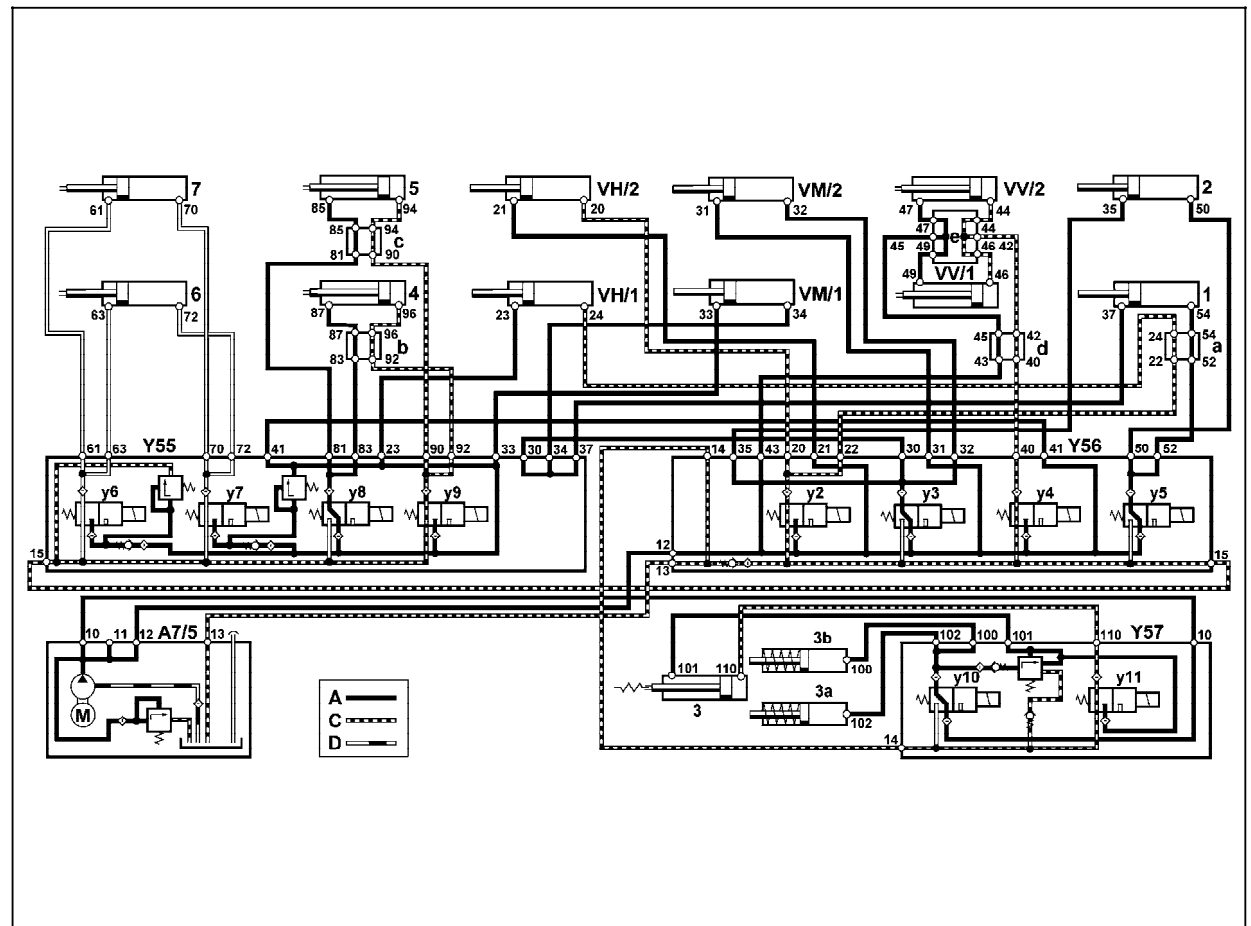
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.1		Open center locks (VM/1, VM/2) (Figure 5)	Disconnect hydraulic lines no. 30, 32, 50 from valve block (Y56) (Figure 5). Seal connections no. 32, 35 with threaded plugs 129 589 00 91 01. Install hydraulic line 129 806 34 83 to no. 30 on valve block (Y56) and place end of hydraulic line into clean container. Reconnect connector after test to valve block (Y56y4).	<p><b>Soft top closed, Fabric bow raised, Center locks (VM/1, VM/2) manually opened, Soft top compartment cover open.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>" for <b>2 seconds.</b></p>		<p><b>Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:</b> Replace valve (y3) at Y56, See SMS, Job no. 77-0385 If the opening of the center locks using the soft top switch is still not possible, replace the center locks, See SMS, Job no. 77-0320</p>

Hydraulic Test Program – Test – Soft Top Up



Figure 6

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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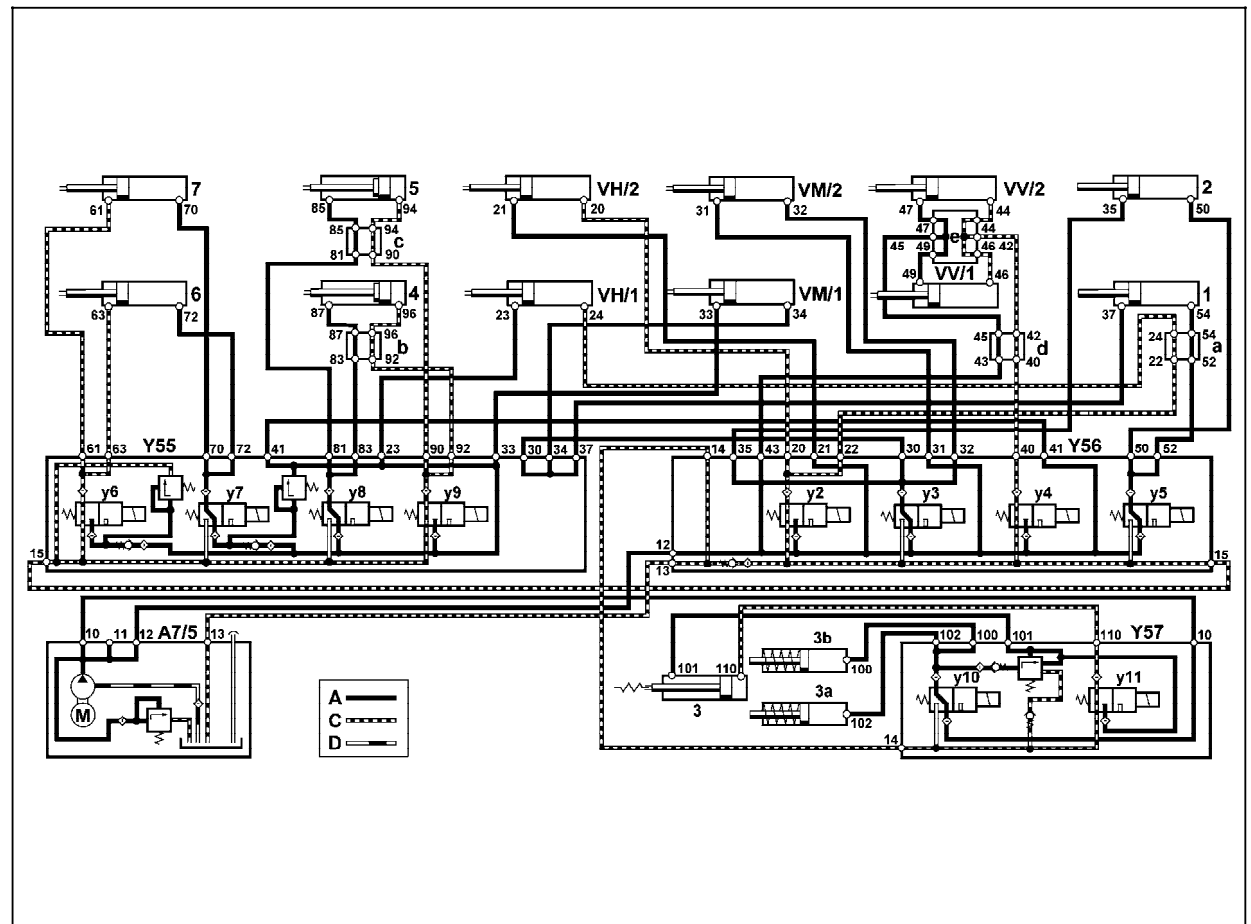
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		<p><b>Raise soft top compartment cover</b> (Figure 6)</p>	<p> Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector at valve block (Y56y4).</p>	<p><b>Soft top closed, Fabric bow raised, Center locks (VM/1, VM/2) manually opened, Soft top compartment cover raised.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch: “<b>close</b>“. Have a second technician unplug relay (A7/5k1, Figure 4) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	<p>120 – 200 bar</p>	<p><b>If nominal values ok:</b> Check for fault with soft top compartment cover hinges or gas pressure shock.</p> <p><b>&lt;120 bar:</b> 33⇒ 5.0 34⇒ 1.0</p>

Hydraulic Test Program – Test – Soft Top Up



Figure 7

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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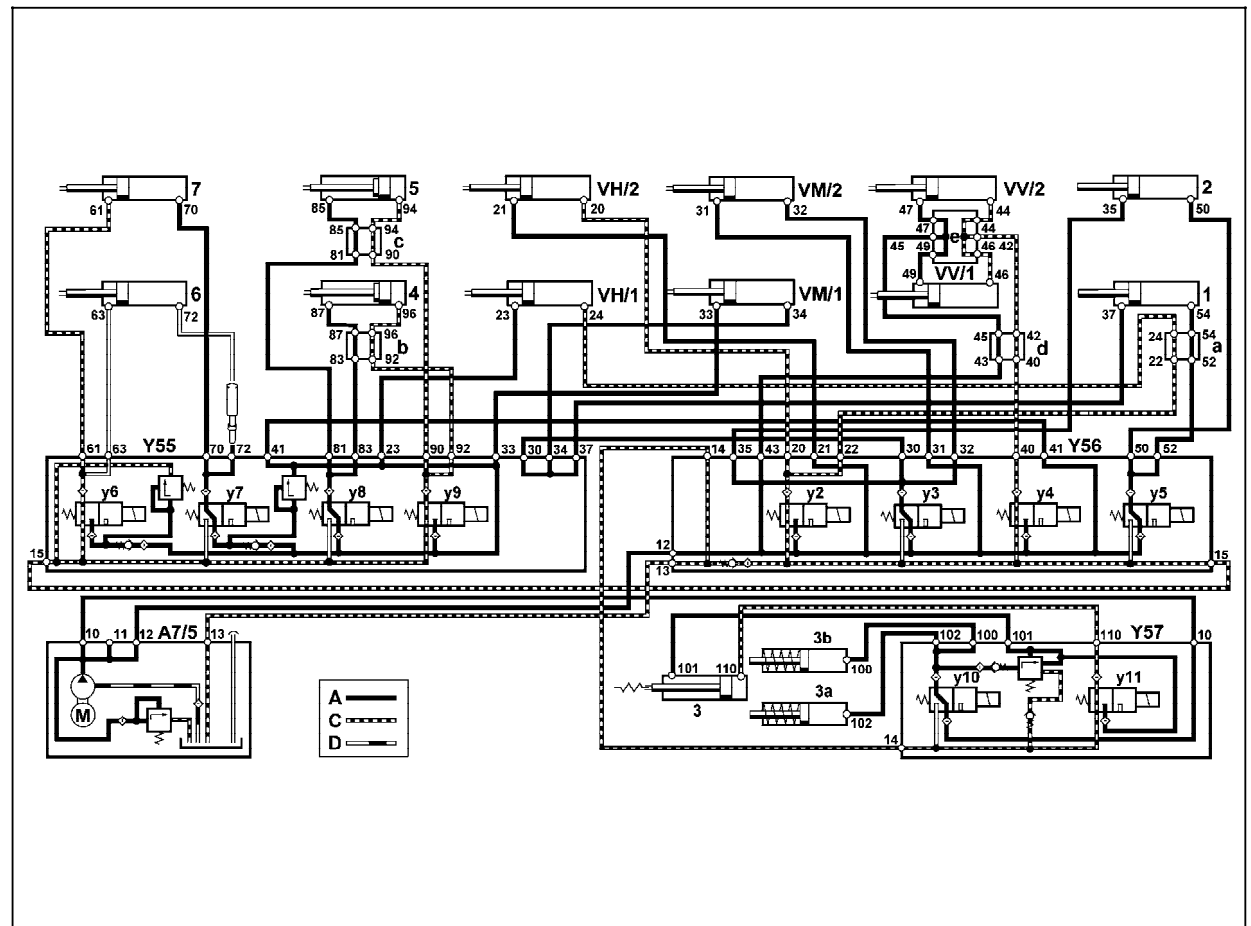
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0		<p><b>Close soft top</b> (Figure 7)</p>	<p> Connect pressure gauge according to connection diagram (Figure 1). Install shim between windshield crossmember and soft top so that latch pins <b>do not</b> engage into left and right front locks (VV/1, VV/2). Disconnect connector at valve block (Y55y6).</p>	<p><b>Soft top positioned over windshield crossmember, Soft top compartment cover raised, Fabric bow raised.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	<p>120 – 200 bar</p>	<p><b>If nominal values ok:</b> Check for mechanical fault within soft top frame. <b>&lt; 120 bar:</b> ⇒ 3.1</p>

Hydraulic Test Program – Test – Soft Top Up


Figure 8

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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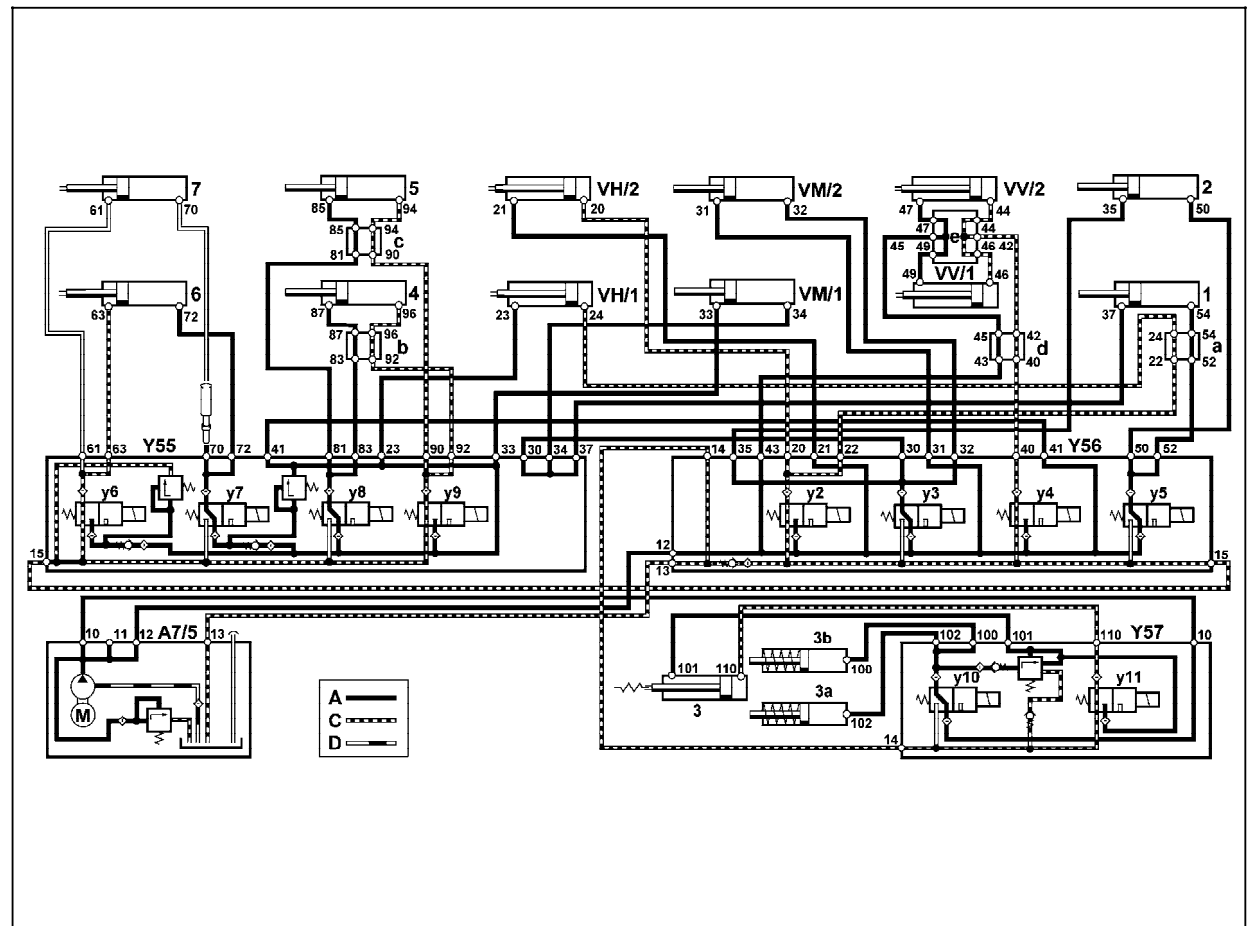
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.1		Close soft top (Figure 8)	<p><b>i</b></p> <p>Connect pressure gauge according to connection diagram (Figure 1). Install shim between windshield crossmember and soft top so that latch pins <b>do not</b> engage into left and right front locks (VV/1, VV/2). Disconnect hydraulic line no. 72 from valve block (Y55) (Figure 8). Seal connection with threaded plugs 129 589 00 91 02/03.</p>	<p><b>Close soft top, Soft top compartment cover raised, Fabric bow raised.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>If nominal values ok:</b> Left power soft top hydraulic cylinder(6, Figure 8) leaking: Replace hydraulic cylinder, See SMS, Job No. 77-0355</p> <p><b>&lt;120 bar:</b> ⇒ 3.2</p>

## Hydraulic Test Program – Test – Soft Top Up

Figure 9


- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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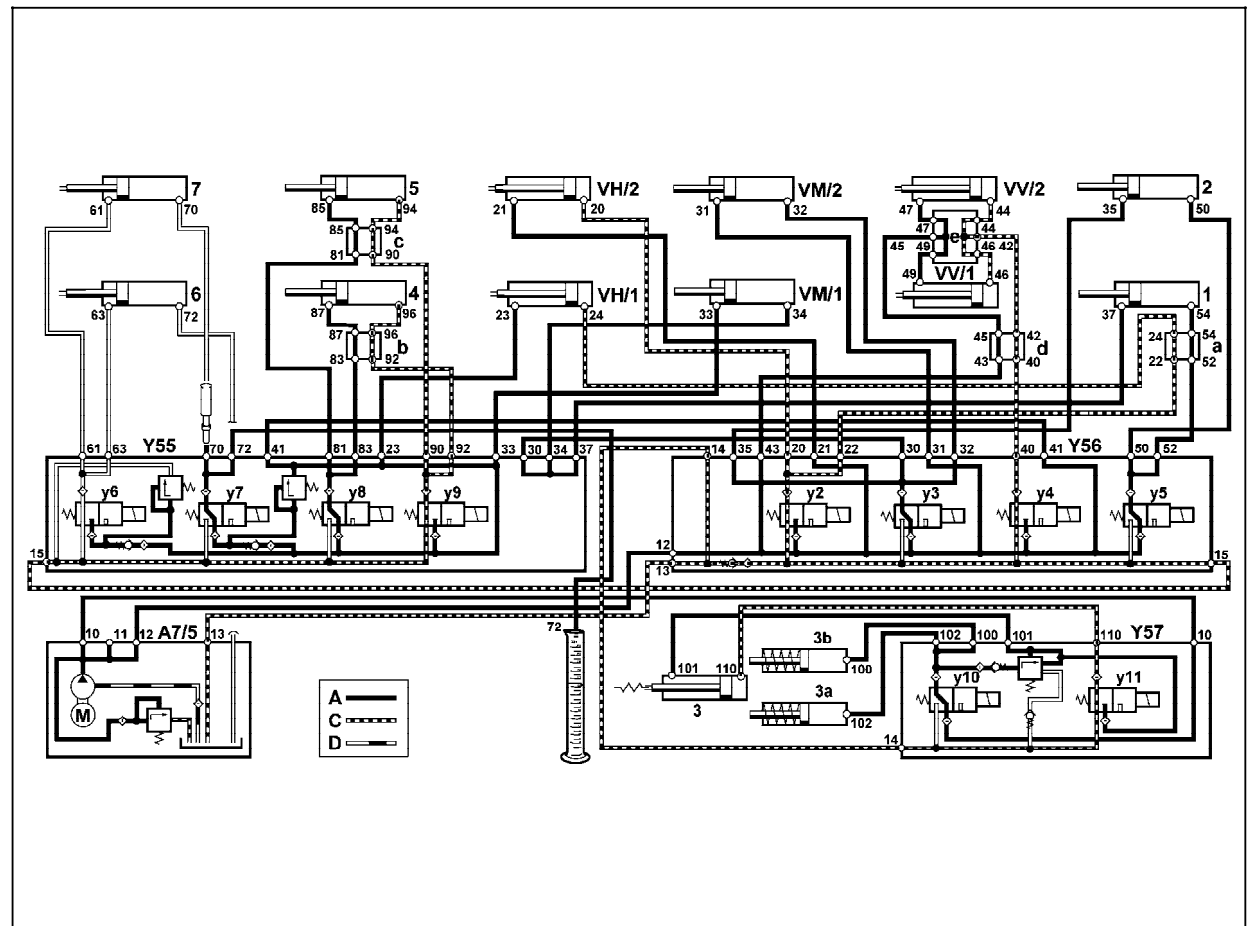
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.2		Close soft top (Figure 9)	<p><b>i</b></p> <p>Connect pressure gauge according to connection diagram (Figure 1). Install shim between windshield crossmember and soft top so that latch pins <b>do not</b> engage into left and right front locks (VV/1, VV/2). Reconnect hydraulic line no. 72 to valve block (Y55). Disconnect hydraulic line no. 70 from valve block (Y55). Seal connection with threaded plug 129 589 00 91 01.</p>	<p><b>Close soft top, Soft top compartment cover raised, Fabric bow raised.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch: “<b>close</b>“. Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>Nominal values ok:</b> Right power soft top hydraulic cylinder (7, Figure 9) leaking: Replace hydraulic cylinder, See SMS, Job No. 77-0355</p> <p><b>&lt;120 bar:</b> ⇒ 5.0, If the soft top continues not to close even after nominal values are met: ⇒ 3.3</p>

Hydraulic Test Program – Test – Soft Top Up


Figure 10

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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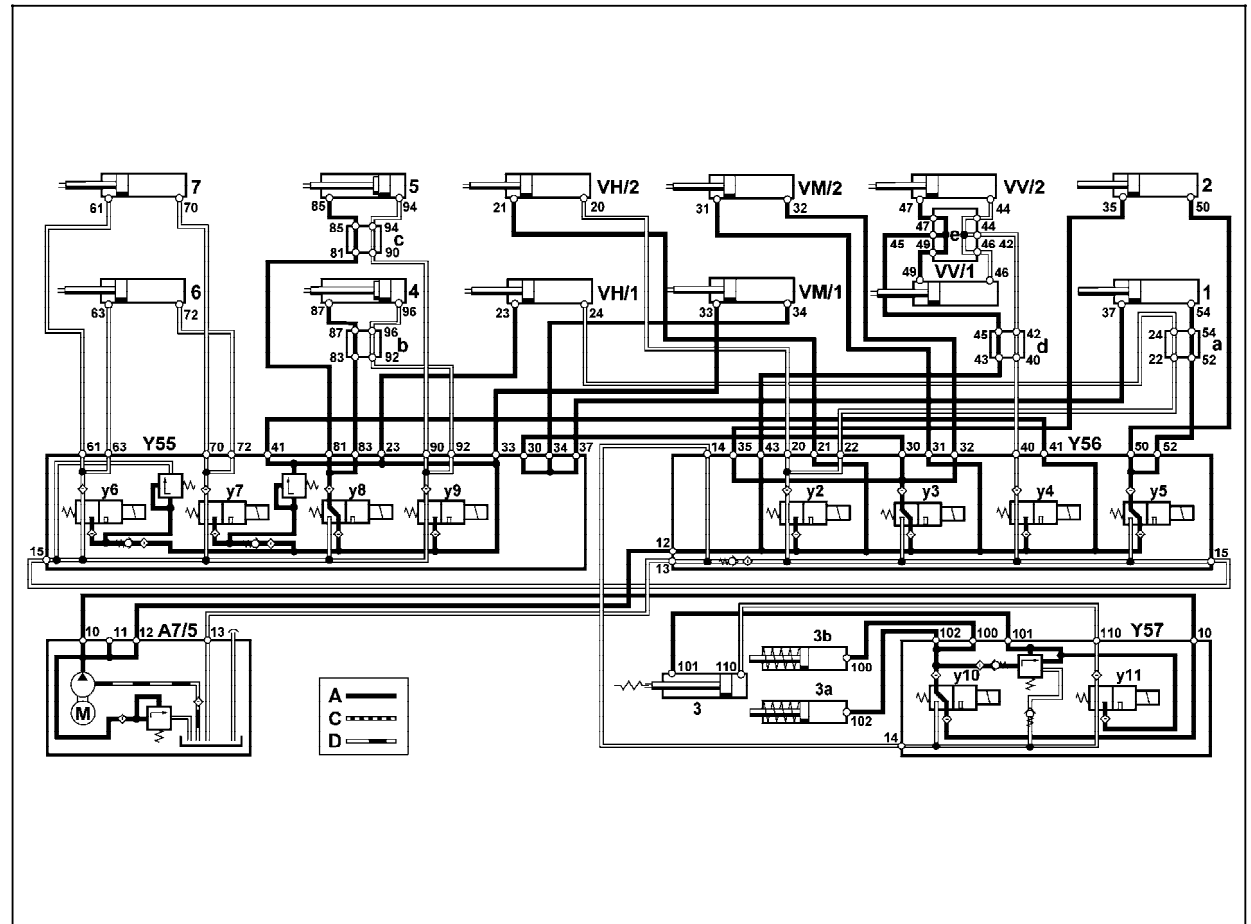
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.3		Close soft top (Figure 10)	Install shim between windshield crossmember and soft top so that latch pins <b>do not</b> engage into left and right front locks (VV/1, VV/2). Disconnect hydraulic lines no. 70, 72 from valve block (Y55). Seal connection no. 72 with threaded plug 129 589 00 91 01. Connect hydraulic line no. 129 806 34 83 to hydraulic line connection no. 70 at Y55 and hold into clean container. Reconnect connector after test to valve block (Y55y6).	<p><b>Close soft top, Soft top compartment cover raised, Fabric bow raised.</b></p> <p>Ignition: <b>ON</b>                      Press and hold soft top switch: “<b>close</b>“ for 2 seconds.</p>		<p><b>Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:</b>                      Replace valve (y7) at Y55, See SMS, Job no. 77-0385</p>

## Hydraulic Test Program – Test – Soft Top Up



Figure 11

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield cross member
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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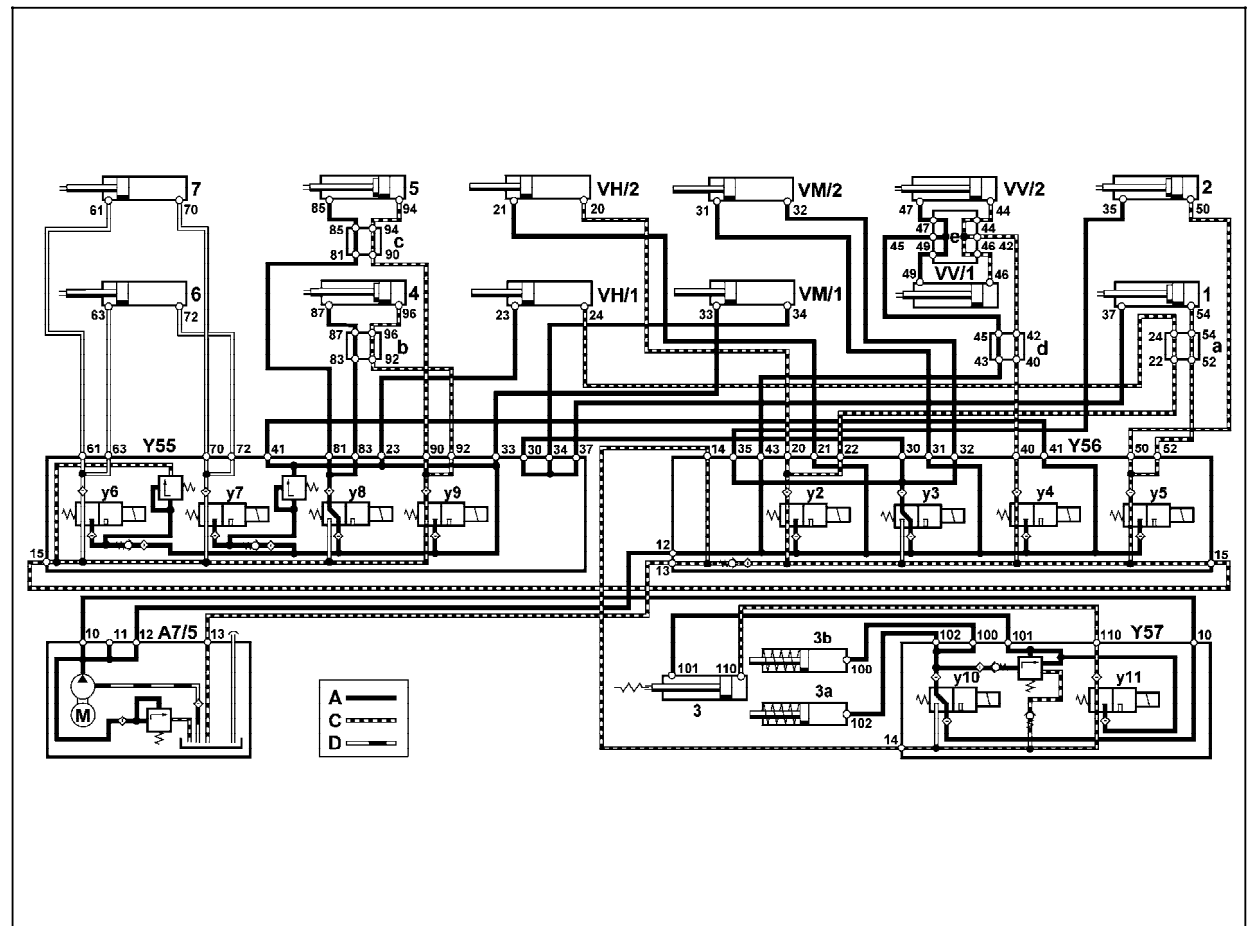
Hydraulic Test Program – Test – Soft Top up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		<p><b>Lock front locks (VV/1, VV/2)</b> (Figure 11)</p>	<p> Connect pressure gauge according to connection diagram (Figure 1).</p>	<p><b>Soft top lowered unto windshield crossmember, Engage lock pins into front locks (VV/1, VV/2), Soft top compartment cover raised, Fabric bow raised.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch: “close“. <b>Read pressure while pressing soft top switch.</b></p>	<p>180 – 200 bar</p>	<p><b>If Nominal values ok:</b> Check adjustment of lock pins on front soft top frame, See SMS, Job no. 77-0303 If the locking of the front locks is not possible even if the nominal values are met: Replace locks, See SMS, Job No. 77-0303</p> <p><b>&gt;180 bar:</b> 33⇒ 5.0</p>

Hydraulic Test Program – Test – Soft Top Up



Figure 12

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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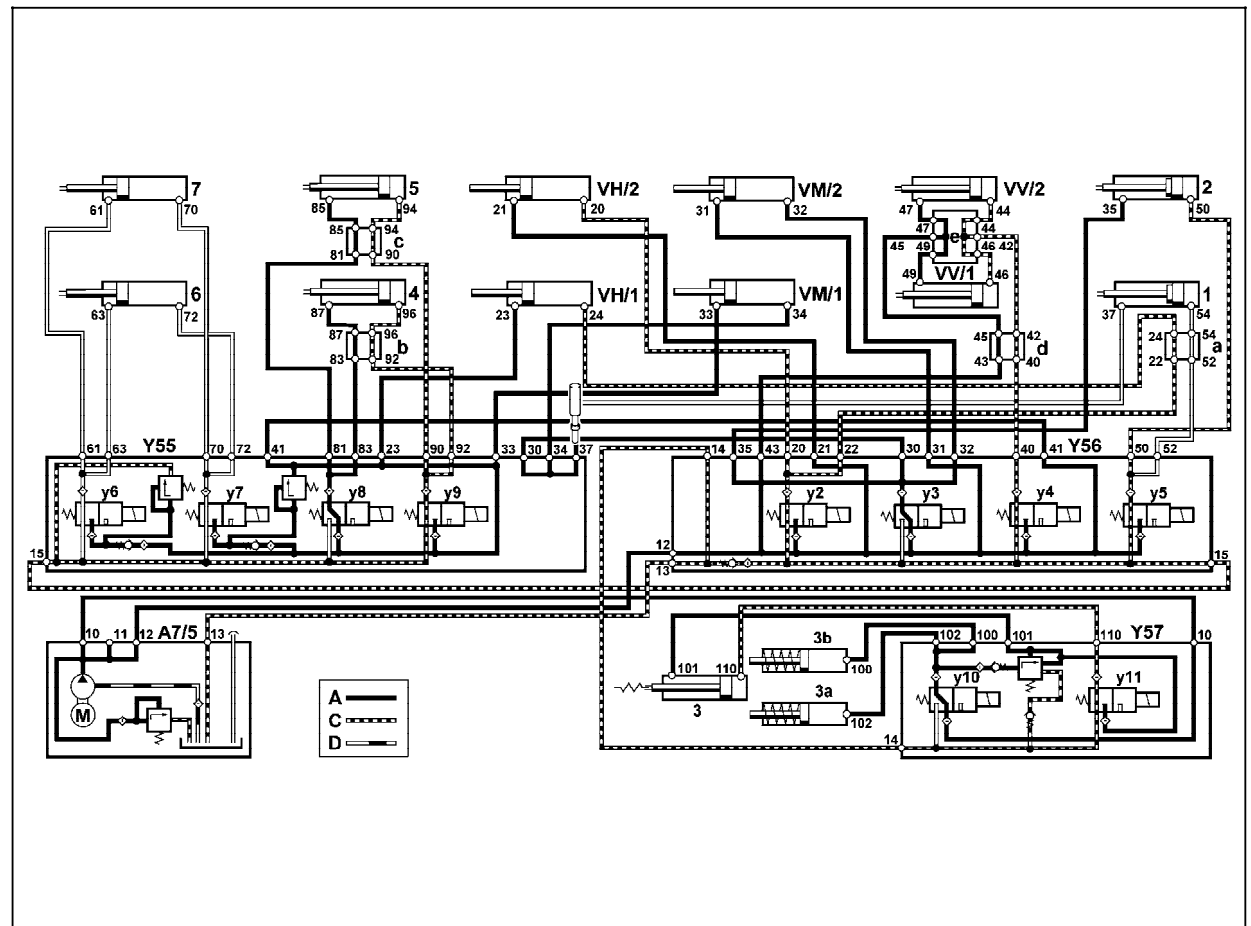
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.0		<p><b>Close soft top compartment cover, Lock center locks (VM/1, VM/2)</b> (Figure 12)</p>	<p> Connect pressure gauge according to connection diagram (Figure 1). Remove both lock pins on soft top compartment cover.</p>	<p><b>Soft top (front) closed, Fabric bow raised, Center locks (VM/1, VM/2) opened, Soft top compartment cover pressed closed by hand.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	<p>120 – 200 bar</p>	<p><b>If nominal values ok:</b> Check adjustment of soft top compartment cover lock pins. If the locking of the soft top compartment using the soft top switch still not possible: Replace locks, see SMS, Job No. 77-0320</p> <p><b>&lt;120 bar:</b> ⇒ 5.1</p>

Hydraulic Test Program – Test – Soft Top Up

Figure 13



- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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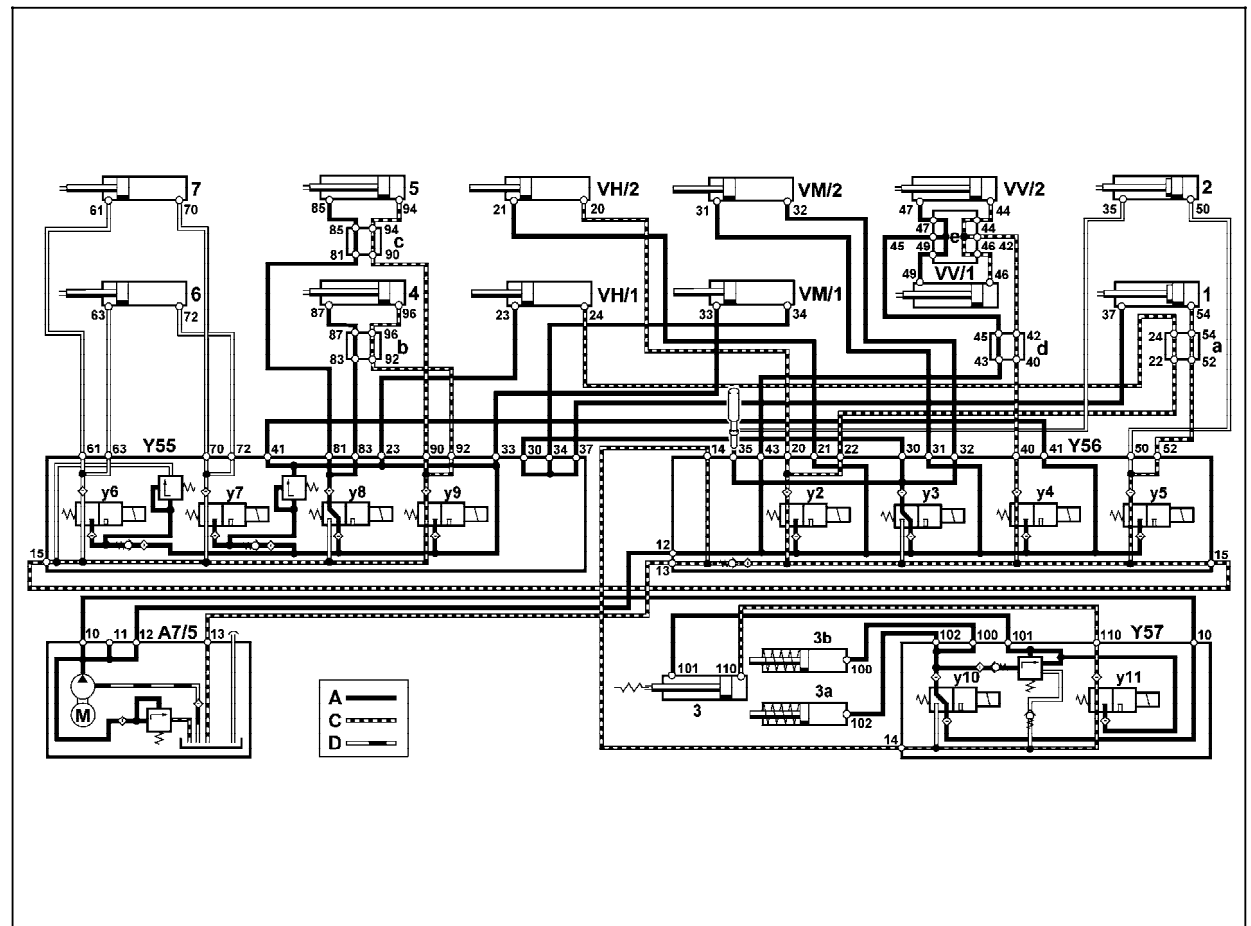
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.1		Close soft top compartment cover, Lock center locks (VM/1, VM/2) (Figure 13)	 Connect pressure gauge according to connection diagram (Figure 1). Disconnect hydraulic line no. 37 from valve block (Y55). Seal connection with threaded plug 129 589 00 91 01.	<p><b>Front of soft top closed, Fabric bow raised, Center locks (VM/1, VM/2) opened, Soft top compartment cover manually pressed closed by hand.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch: “<b>close</b>“. Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>If nominal values ok:</b> Left soft top compartment cover hydraulic cylinder (1, Figure 13) leaks, Replace hydraulic cylinder, See SMS, Job no. 77-0370</p> <p><b>&lt;120 bar:</b> ⇒ 5.2</p>

## Hydraulic Test Program – Test – Soft Top Up


Figure 14

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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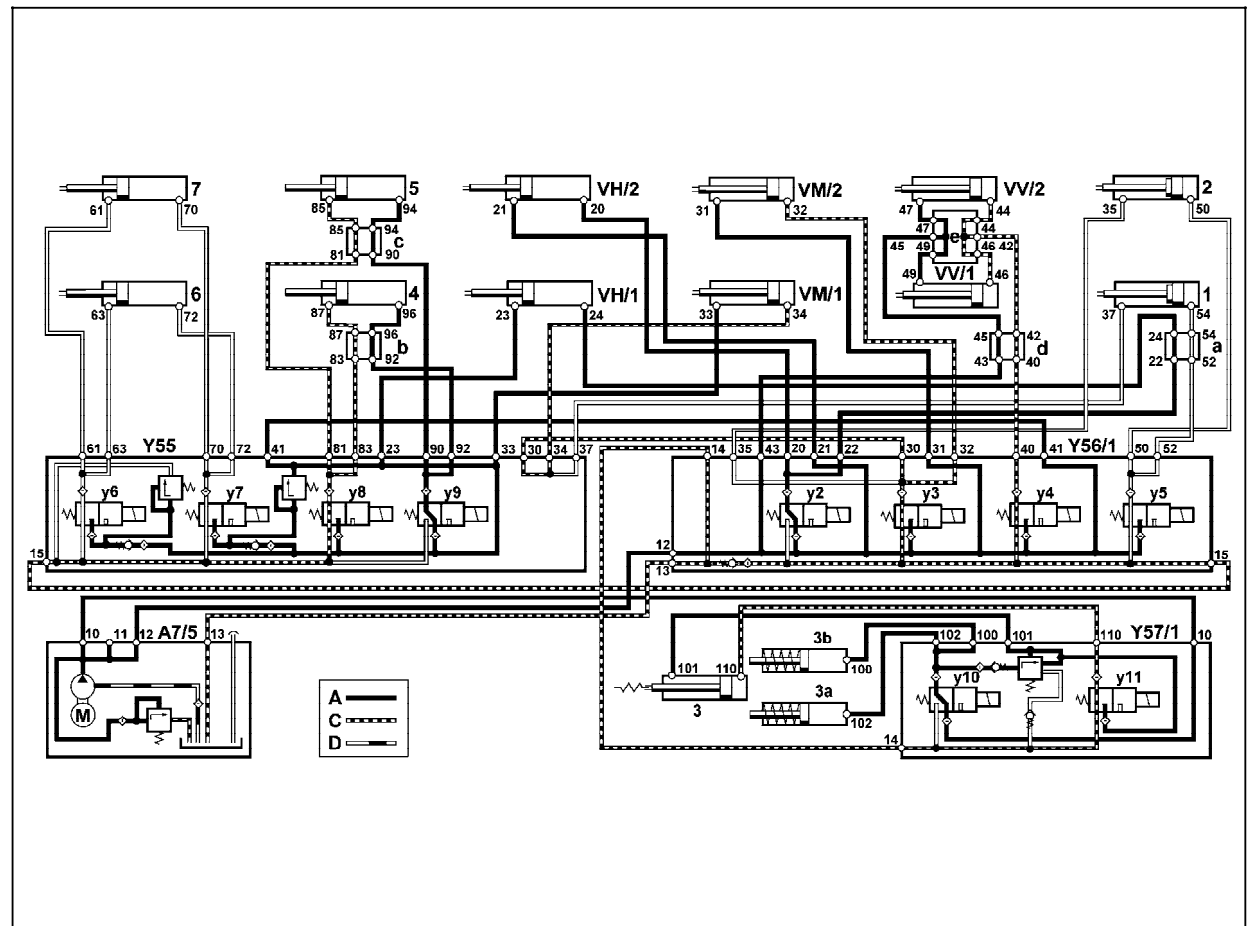
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.2		Close soft top compartment cover, Lock center locks (VM/1, VM/2) (Figure 14)	<p><b>i</b></p> <p>Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 37 to valve block (Y55). Disconnect hydraulic line no. 35 from valve block (Y56). Seal connection with threaded plug 129 589 00 91 01. Reinstall both locks on soft top cover <b>after</b> performing test.</p>	<p><b>Front of soft top closed, Fabric bow raised, Center locks (VM/1, VM/2) opened, Soft top compartment cover manually pressed closed by hand.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>If nominal vales ok:</b> Right soft top compartment cover hydraulic cylinder (2, Figure 14) leaks, Replace hyraulic cylinder, See SMS, Job No. 77-0370</p> <p><b>&lt;120 bar:</b> 33⇒ 5.0 34⇒ 1.0</p>

Hydraulic Test Program – Test – Soft Top Up



Figure 15

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield cross member
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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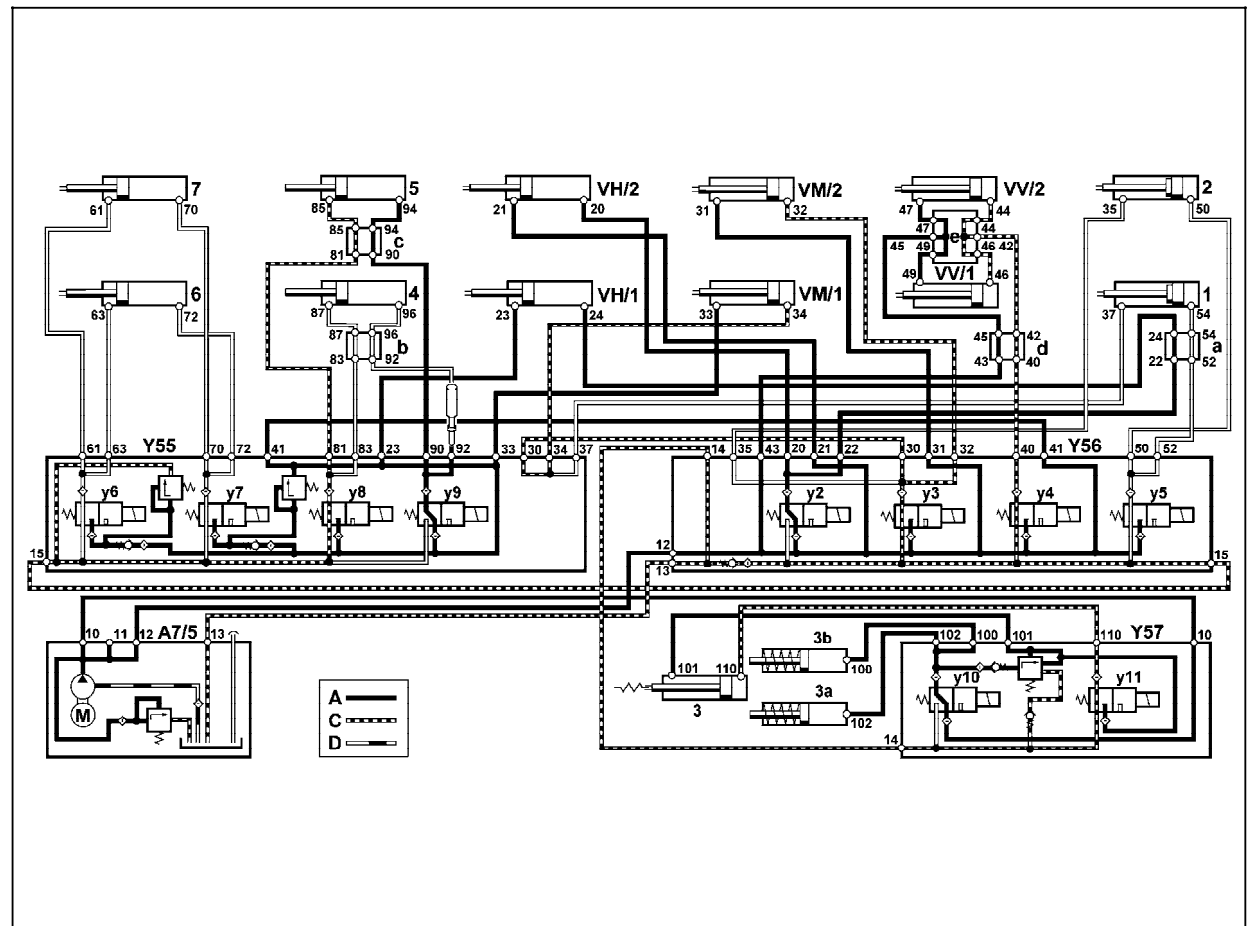
Hydraulic Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0		<p><b>Retract fabric bow</b> (Figure 15)</p>	<p> Connect pressure gauge according to connection diagram (Figure 1). Remove both locking pins from the fabric bow.</p>	<p><b>Front of soft top closed, Soft top compartment cover closed, Fabric bow manually lowered by hand.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>If nominal values ok:</b> Mechanical fault in soft top frame. <b>&lt;120 bar:</b> ⇒ 6.1</p>

Hydraulic Test Program – Test – Soft Top Up


Figure 16

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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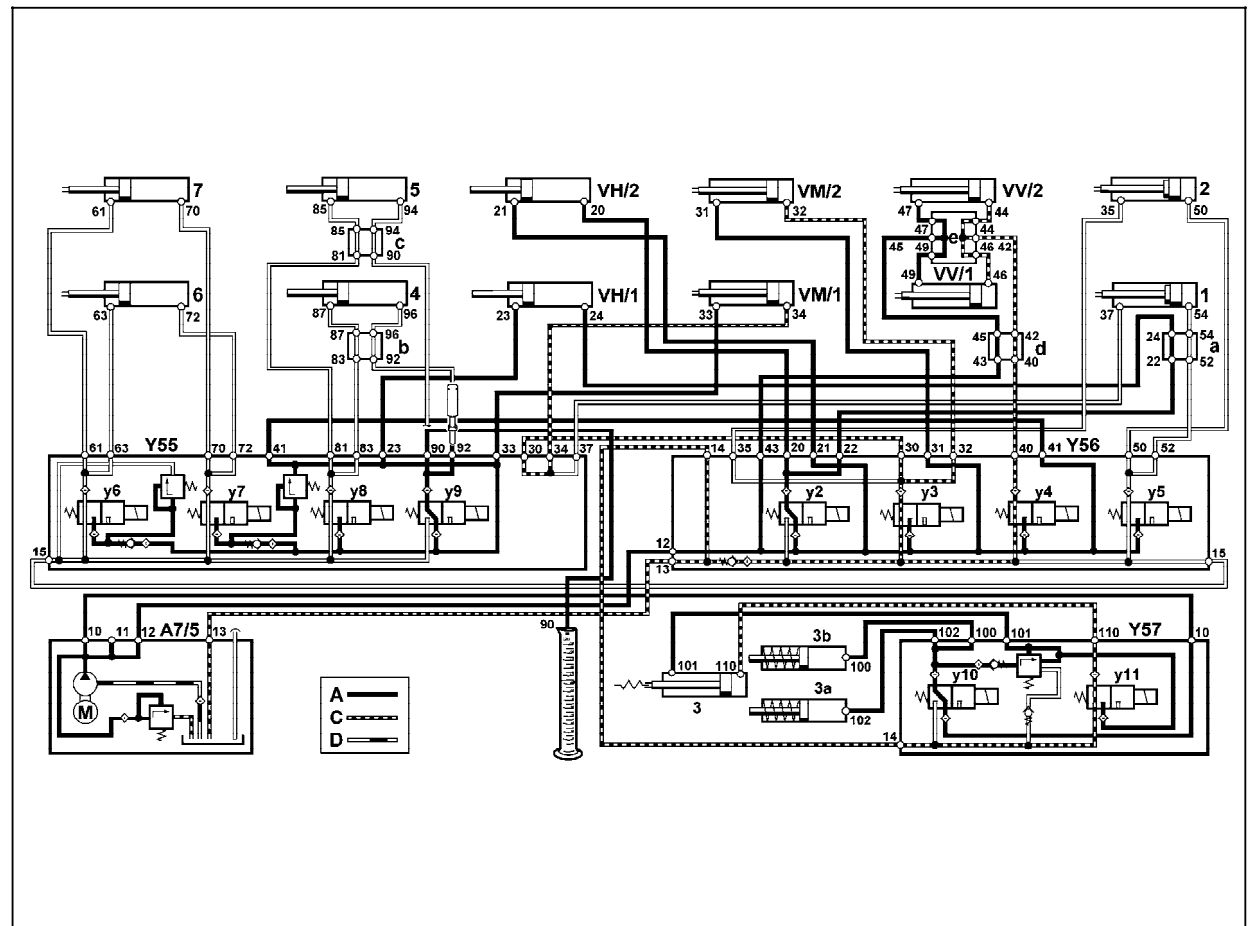
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.1		Retract fabric bow (Figure 16)	<p><b>i</b></p> <p>Connect pressure gauge according to connection diagram (Figure 1). Disconnect hydraulic line no. 92 from Valve block (Y55). Seal connection with threaded plug 129 589 00 91 01. <b>Do not reinstall</b> both locking pins of fabric bow at this time.</p>	<p><b>Front of Soft top closed, Soft top compartment cover closed, Fabric bow manually lowered by hand.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch to "<b>close</b>". Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>If nominal values ok:</b> Left fabric bow hydraulic cylinder (4, Figure 16) leaks: Replace hydraulic cylinder, See SMS, Job No. 77-0360</p> <p><b>&lt;120 bar:</b> Right fabric bow hydraulic cylinder (5, Figure 16) leaks: Replace hydraulic cylinder See SMS, Job No. 77-0360</p> <p>If the fabric bow cannot be lowered using the soft top switch, check: ⇒ 6.2</p>

Hydraulic Test Program – Test – Soft Top Up

Figure 17


- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield cross member
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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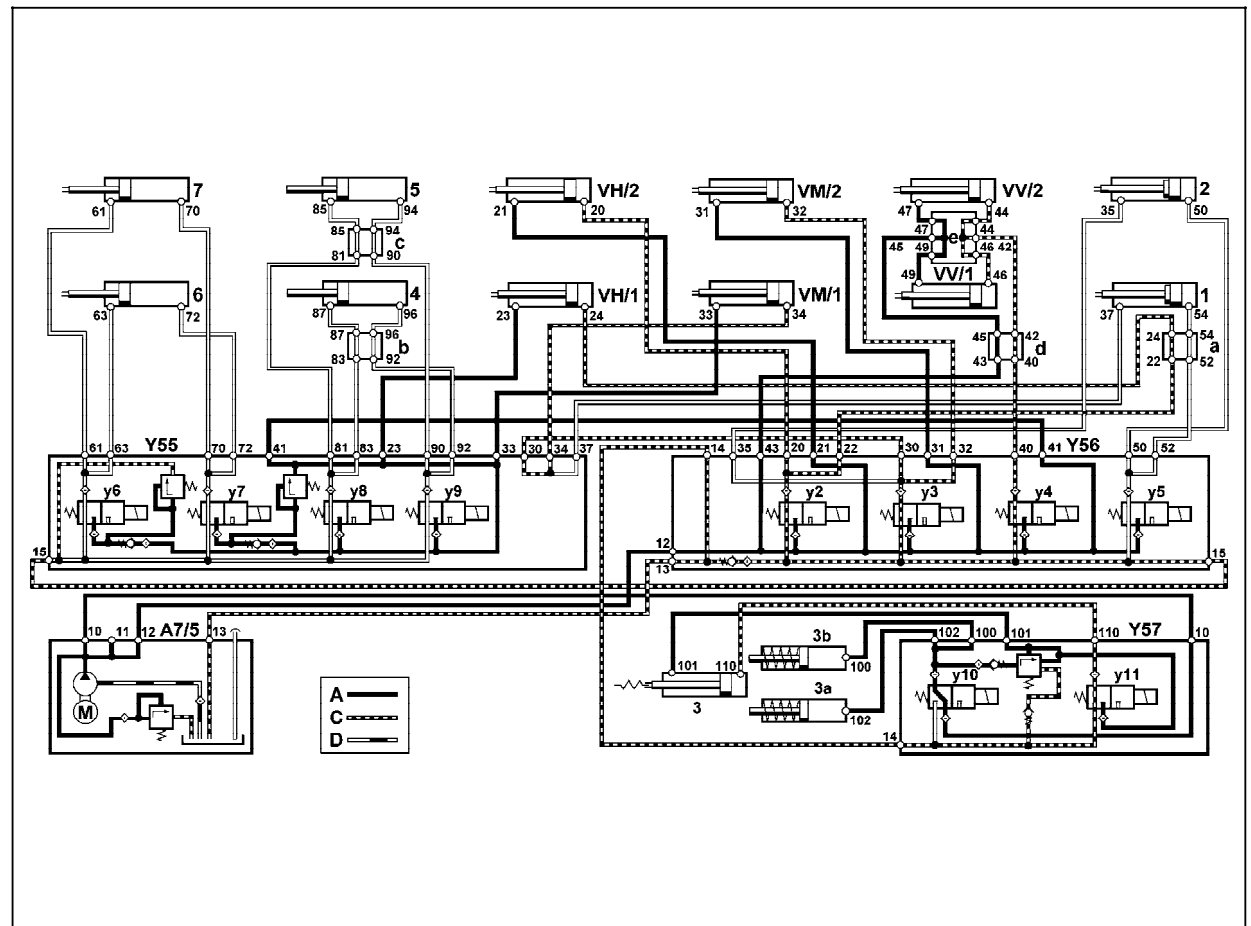
Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.2		Retract fabric bow (Figure 17)	Hydraulic line connection no. 92, on valve block (Y55) to remain plugged. Disconnect hydraulic no. 90 from valve block (Y55). Connect hydraulic line no. 129 806 34 83 to hydraulic line connection no. 90, from valve block (Y55) and hold into clean container. Locking pins for fabric bow to remain <b>removed</b> from fabric bow.	<b>Front of soft top closed, Soft top compartment cover closed, Manually by hand, retract fabric bow.</b>  Ignition: <b>ON</b> Press and hold soft top switch: “ <b>close</b> “ for 2 seconds.		<b>Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:</b> Replace valve (y9) at Y55, See SMS, Job no. 77-0385

Hydraulic Test Program – Test – Soft Top Up



Figure 18

- 1/2 Left/right soft top compartment cover hydraulic cylinder
- 3 Right roll bar support element
- 3a/3b Left/right locking pawl hydraulic cylinder
- 4/5 Left/right fabric bow hydraulic cylinder
- 6/7 Left/right power soft top hydraulic cylinder
- A7/5 RST/RB hydraulic unit
- A Soft top/roll bar operation hydraulic circuit
- C Return flow lines
- D Suction lines
- a Hydraulic distributor at left rear wall
- b Hydraulic distributor at lower left center pillar
- c Hydraulic distributor at lower right center pillar
- d Hydraulic distributor at right front pillar before crossmember
- e Hydraulic distributor at upper windshield crossmember
- VV/1 Left front lock
- VV/2 Right front lock
- VM/1 Left center lock
- VM/2 Right center lock
- VH/1 Left rear lock
- VH/2 Right rear lock
- Y55 Left RST valve block (4 connections)
- Y56 Right RST valve block (4 connections)
- Y57 RB valve block (2 connections)



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Hydraulic Test Program – Test – Soft Top Up

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0		<p><b>Lock rear locks (VH/1, VH/2)</b> (Figure 18)</p>	<p> Connect pressure gauge according to connection diagram (Figure 1).</p>	<p><b>Soft top completely closed.</b></p> <p>Ignition: <b>ON</b> Press and hold soft top switch: “<b>close</b>“. Have a second technician unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 200 bar	<p><b>If nominal values ok:</b> Check adjustment of locking pins for fabric bow, See SMS, Job No. 77-0303 If the locks do not lock properly, even after nominal values have been met: Replace locks, See SMS, Job No. 77-0328</p> <p><b>&lt;120 bar:</b> 33 ⇒ 5.0</p>