Hydraulic Test Program – Test – Soft Top Closed

⚠ 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 Closed

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.

⚠ **CAUTION!**
Release established test pressure before beginning the next test step.

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.

Electrical Test Program – Test – Soft Top Closed

Connection Diagram - Check valve and Pressure Gauge to Hydraulic Unit

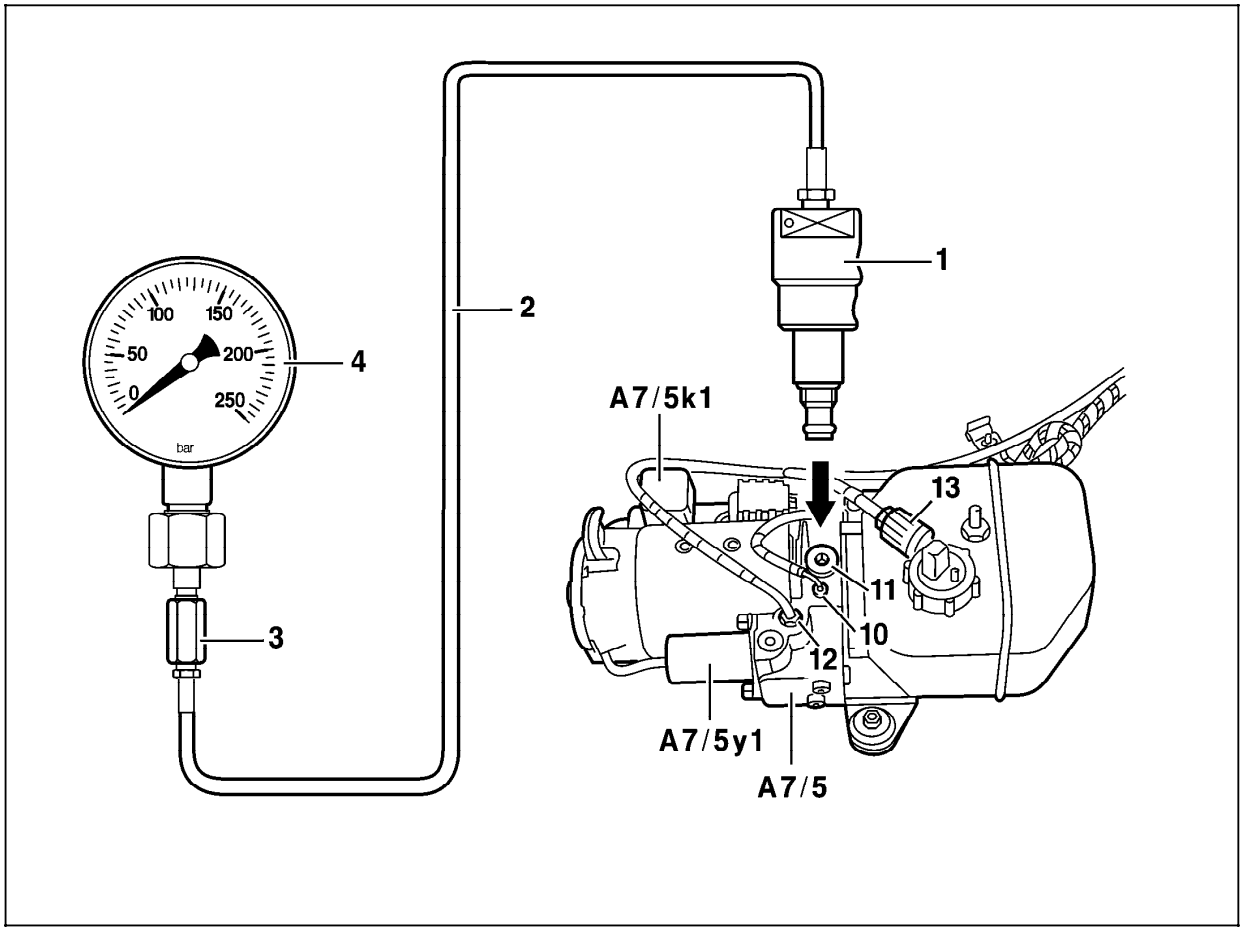

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Figure 1

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)

Electrical Test Program – Test – Soft Top Closed

Y55 Left RST Valve Block (4 connections)

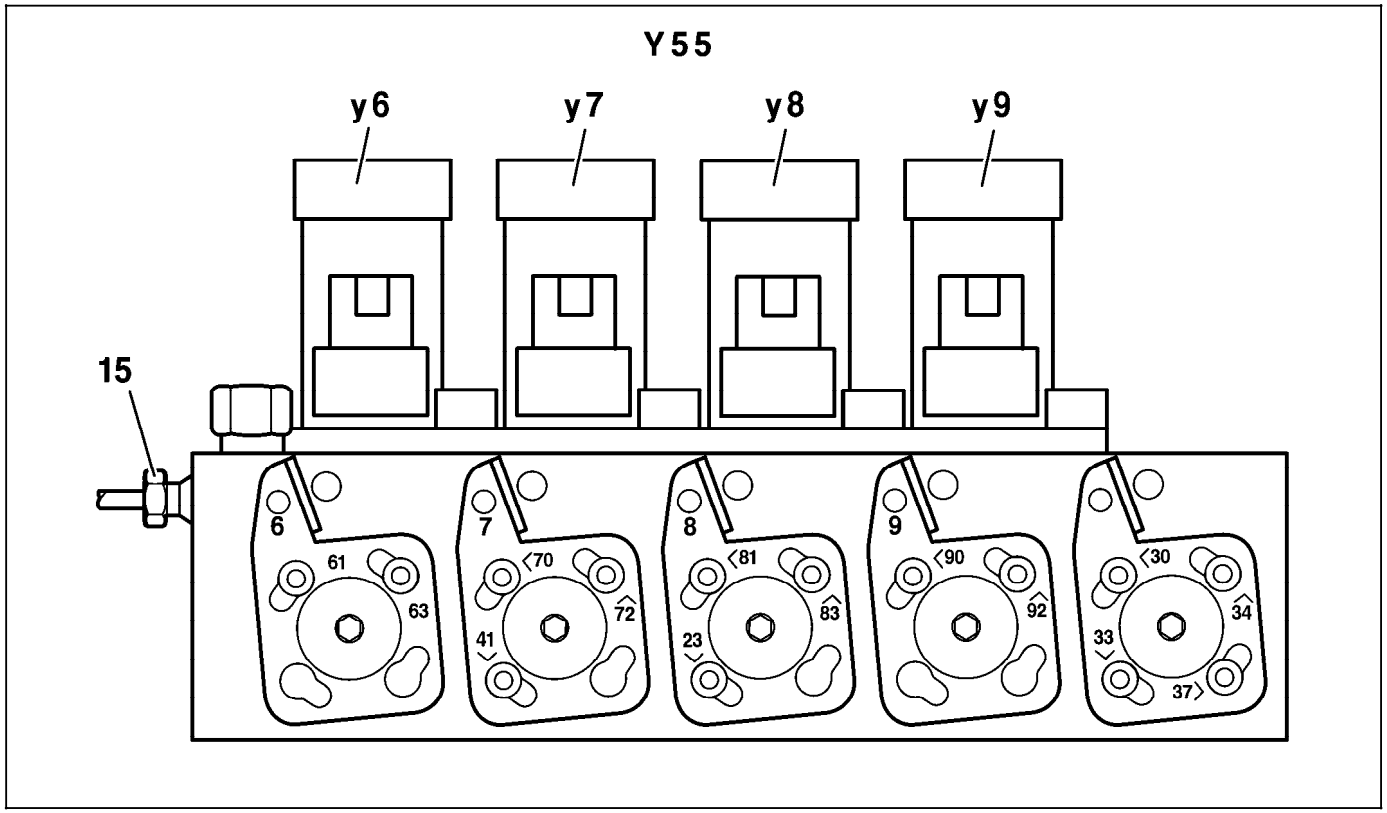

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Figure 1

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

Electrical Test Program – Test – Soft Top Closed

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

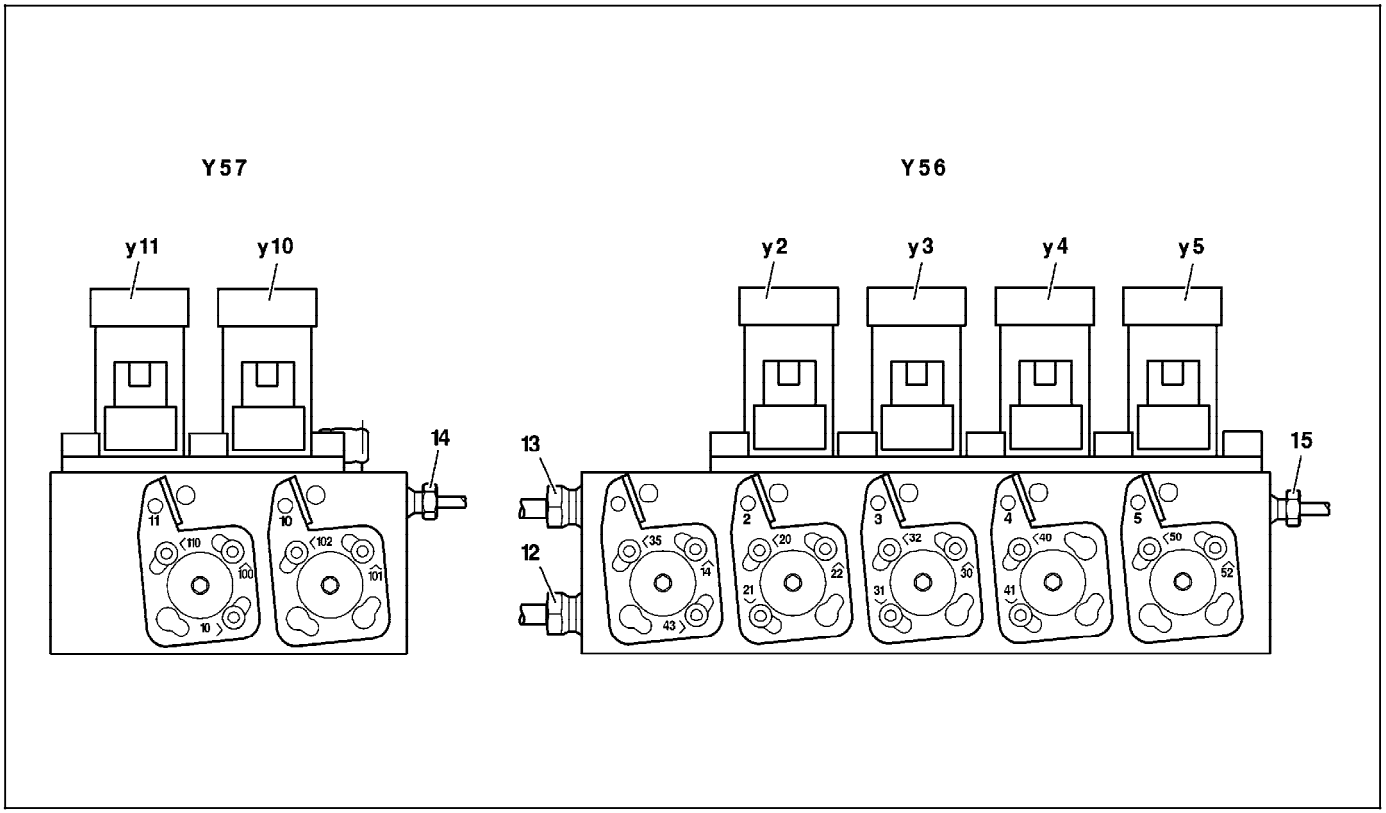

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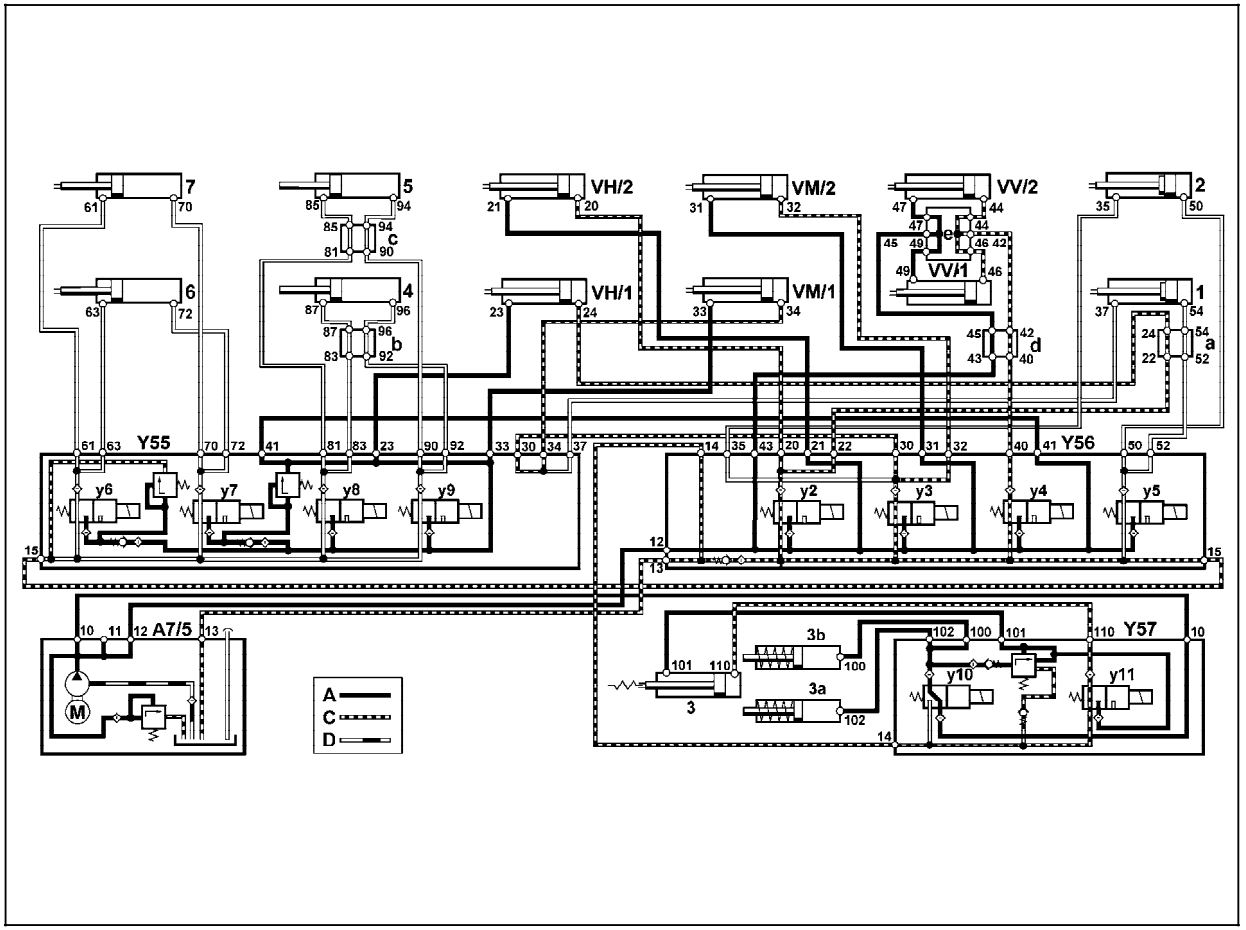
Figure 2

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

Hydraulic Test Program – Test – Soft Top Closed

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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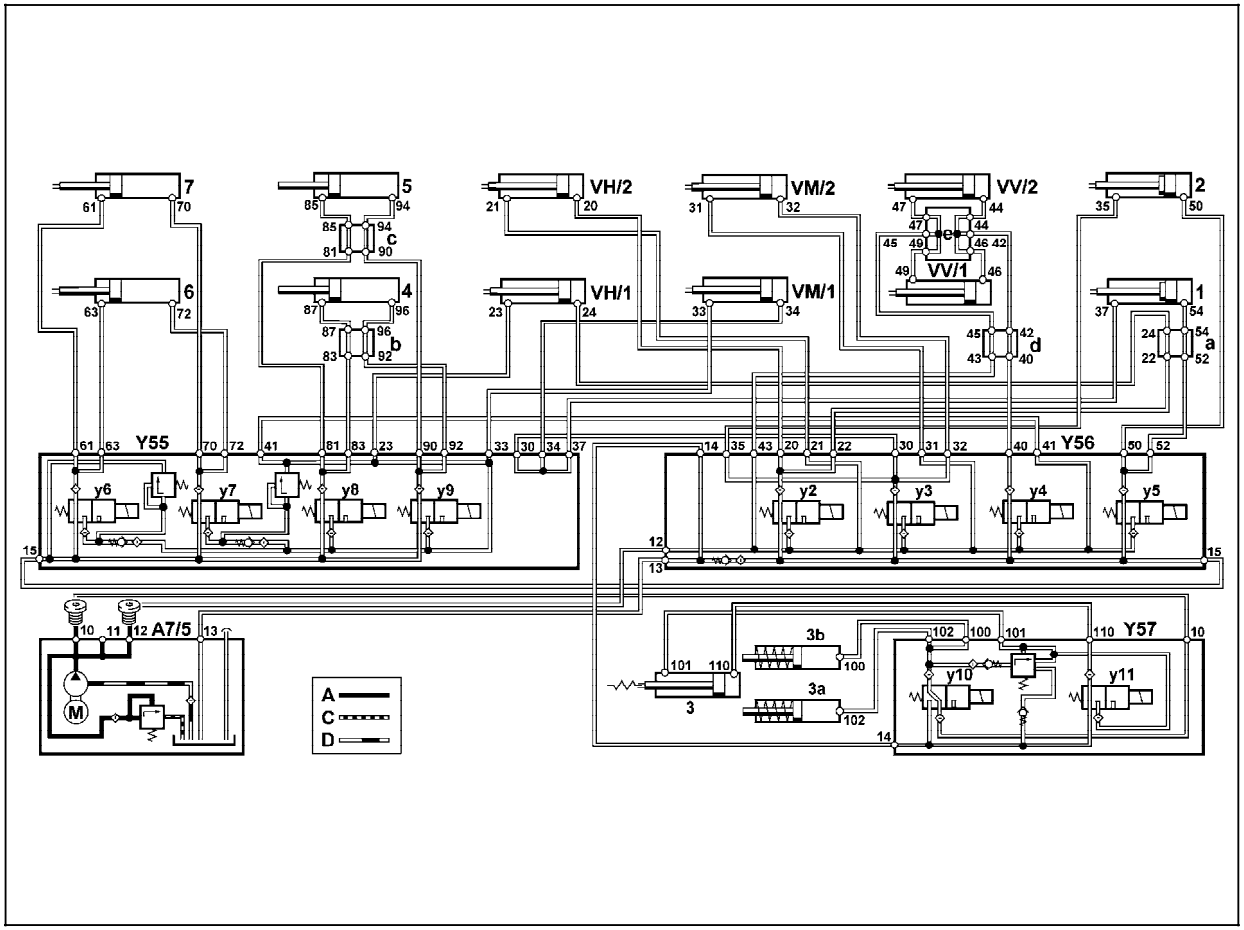
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		**Checking system pressure** (Figure 4)	Connect pressure gauge according to connection diagram (Figure 1).	**Starting point: soft top completely closed** Ignition: **ON** Press and hold RB switch to retract roll bar. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**<120 bar:** ⇒ 2.0

Hydraulic Test Program – Test – Soft Top Closed

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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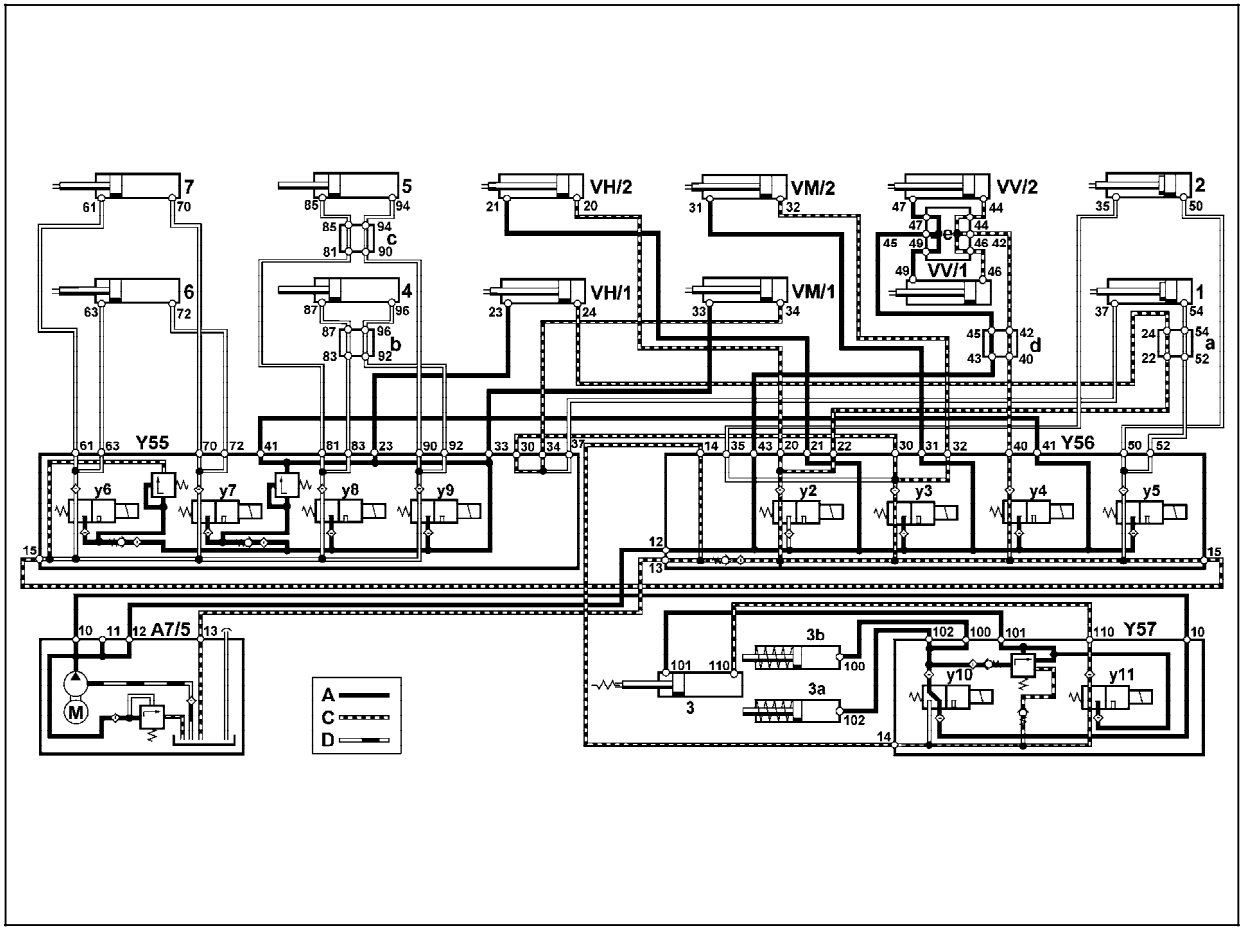
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		**Testing RST/RB hydraulic unit (A7/5)** (Figure 5)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect hydraulic lines no. 10 and 12 from hydraulic unit (Figure 5). Seal connection with threaded plugs 129 589 00 91 02/03.	**Soft top completely closed.** Ignition: **ON** Press and hold RB switch to retract roll bar. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	180 – 200 bar	**< 180 bar:** If the indicated pressure **does not decrease:** Replace hydraulic unit (A7/5), See SMS, Job No. 77-0350 **< 180 bar:** If the indicated pressure **does decrease:** Replace main valve (A7/5y1), (deleted as of VIN 1F-083891).

Hydraulic Test Program – Test – Soft Top Closed

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 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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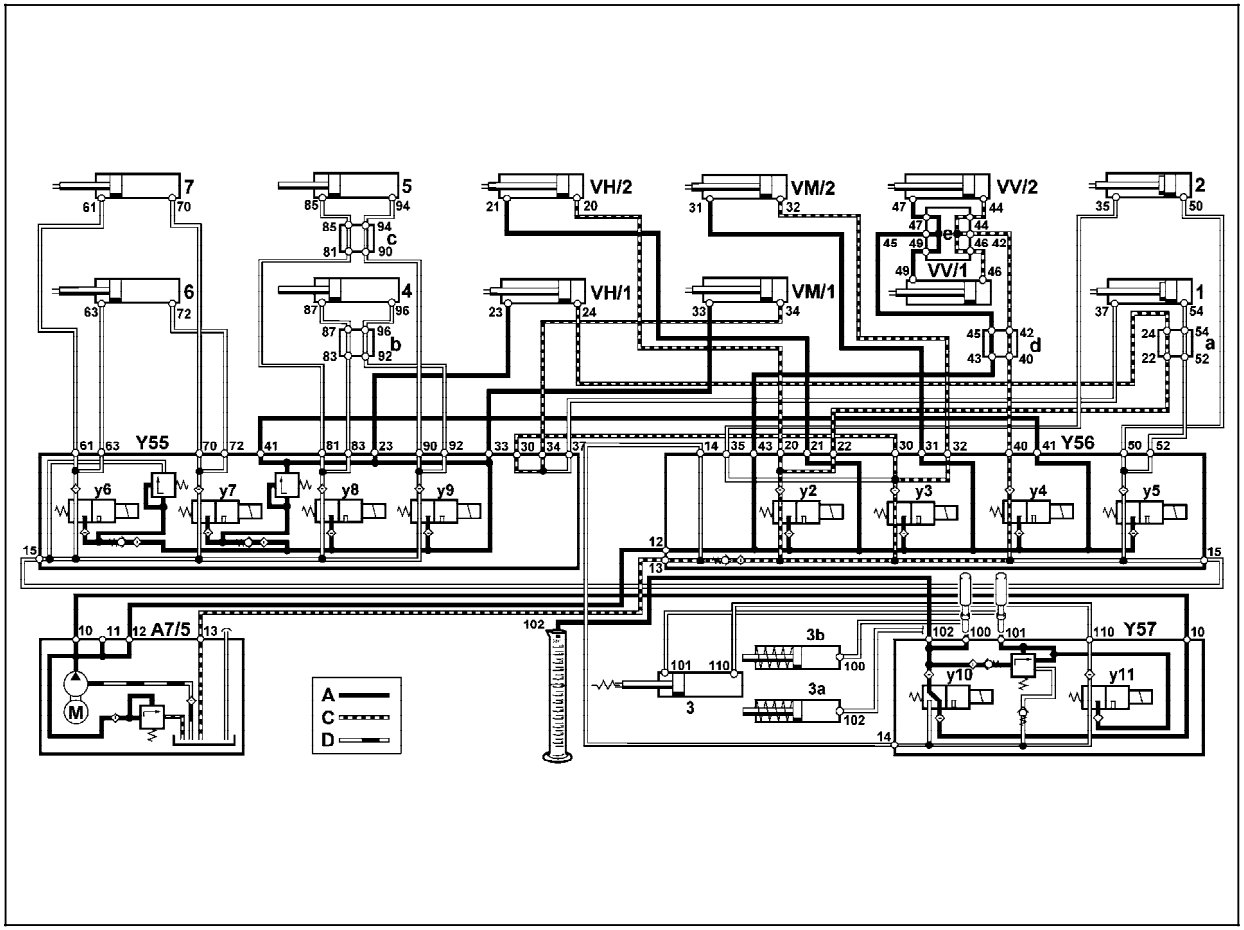
Hydraulic Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0		**Retract roll bar** (Figure 6)	Connect pressure gauge according to connection diagram (Figure 1).	**Soft top completely closed,** **roll bar raised.** Ignition: **ON** Press and hold RB switch for 5 seconds to retract. **Read and note pressure while pressing RB switch:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Locking pawls (3a or 3b, see Figure 6) are not releasing, replace locking pawls. Mechanical fault in support element (3, Figure 6), replace support element, see SMS, Job No. 91-920 **< 120 bar:** ⇒ 1.0, ⇒ 5.0 If the retracting the roll bar is still not possible with the RB switch: ⇒ 3.1

Hydraulic Test Program – Test – Soft Top Closed

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 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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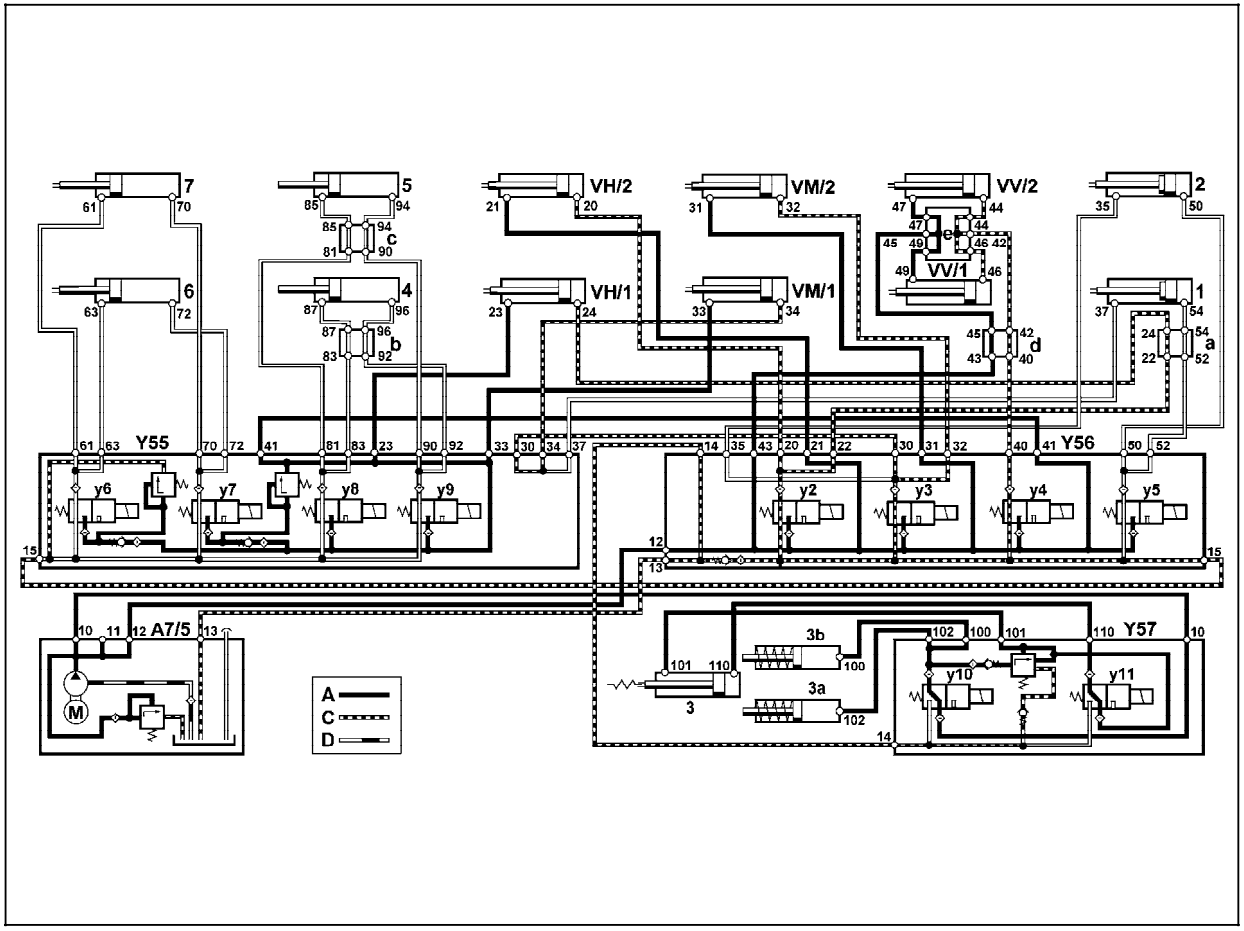
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.1		Retract roll bar (Figure 7)	Disconnect hydraulic line no. 102 from RB valve block (Y57). Install hydraulic line 129 806 34 83 to no. 102 in RB valve block (Y57) and place end of hydraulic line into clean container.	**Roll bar raised.** Ignition: **ON** Press and hold RB switch to **retract** roll bar for **2 sec.**		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, of no or a weak uneven hydraulic flow is noted:** Replace valve (y10) at Y57, See SMS, Job No. 77-0385

Hydraulic Test Program – Test – Soft Top Closed

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 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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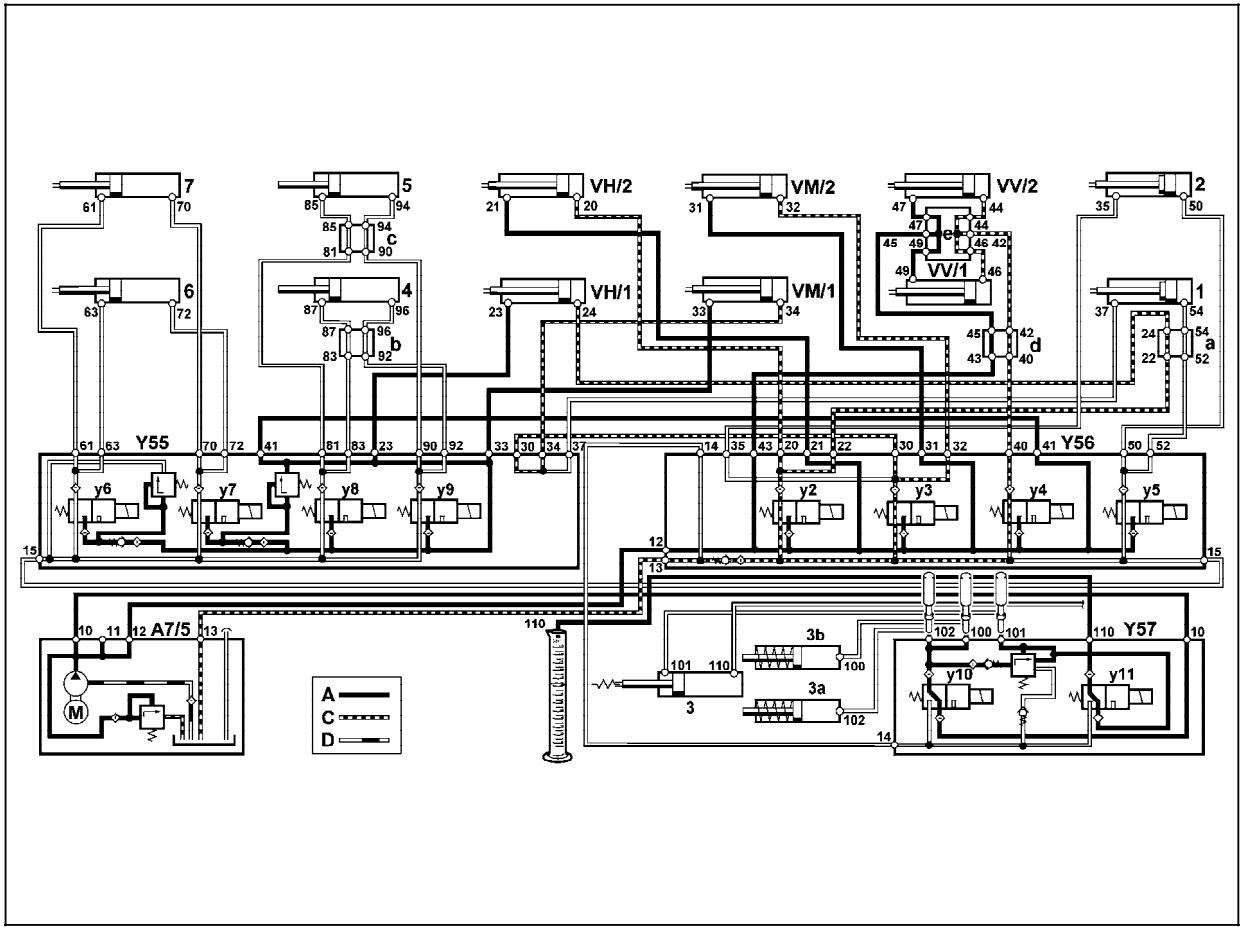
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		**Raise roll bar** (Figure 8)	Connect pressure gauge according to connection diagram (Figure 1).	**Soft top completely closed,** **Roll bar retracted.** Ignition: **ON** Press and hold RB switch to raise roll bar. for **5 seconds**. **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Lock for hydraulic cylinder in support element for roll bar (3, Figure 8) does not unlock. Replace support element, See SMS, Job No. 91-920 **<120 bar:** ⇒ 1.0, ⇒ 5.0, If raise roll bar using the RB switch still does not function check: ⇒ 4.1

Hydraulic Test Program – Test – Soft Top Closed

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 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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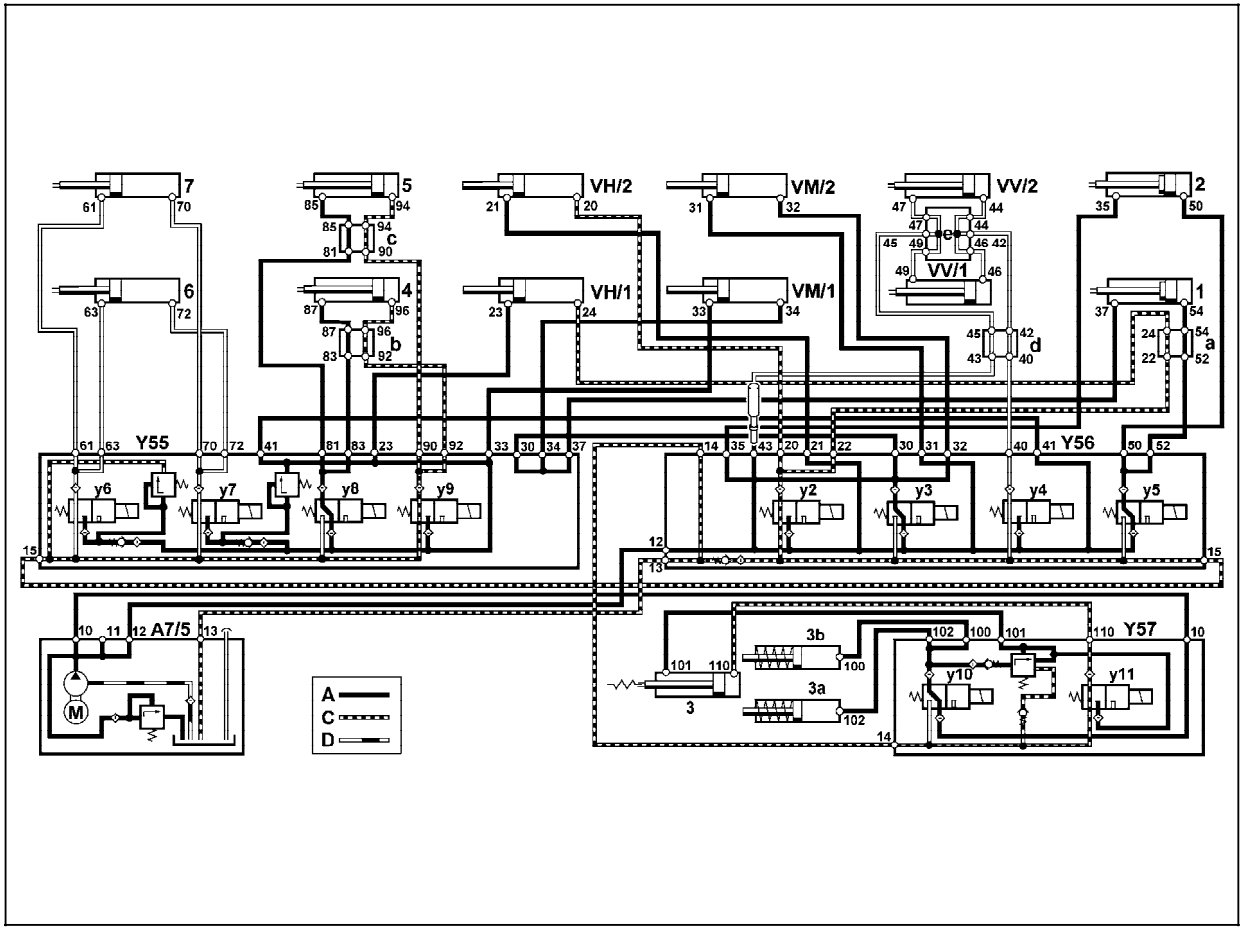
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.1		Raise roll bar (Figure 9)	Disconnect hydraulic line no. 100, 101, 102, 110 from valve block (Y57). Seal hydraulic line no. 100, 101, 102 connections with threaded plug 129 589 00 91 01. **When disconnecting Hydraulic line no. 101, cover valve block with shop towel since some pressure remains in the hydraulic cylinder (see 3, Figure 9).** Connect hydraulic line 129 806 34 83 to no. 110 on RB valve block (Y57) and place end of hydraulic line into clean container.	**Soft top completely closed,** **Roll bar retracted.** Ignition: **ON** Press and hold RB switch to raise roll bar for 2 seconds.		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or a weak uneven hydraulic flow is noted:** Replace valve (y11) at Y57, See SMS, Job No. 77-0385

Hydraulic Test Program – Test – Soft Top Closed

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 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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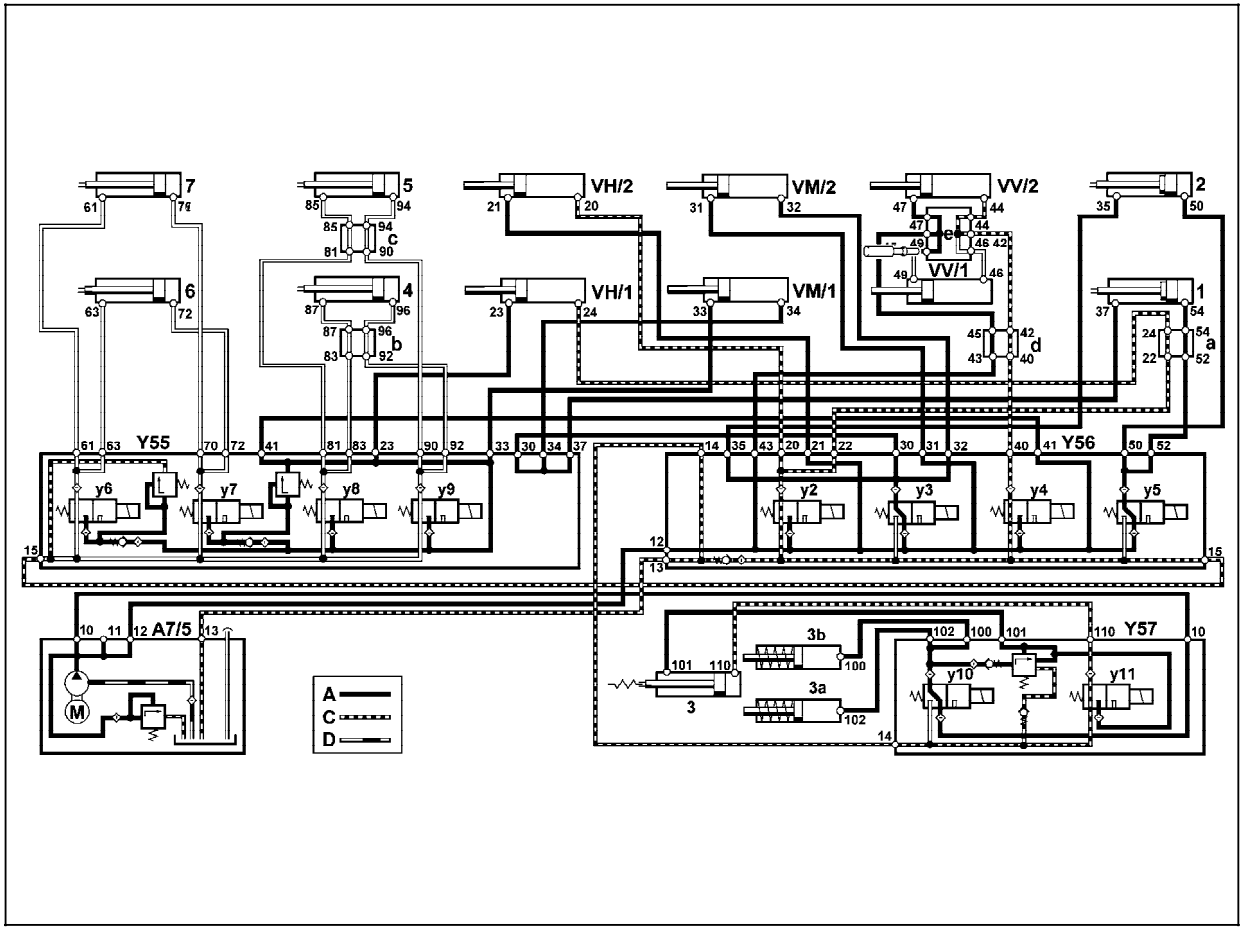
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.0		**Checking locks** (Figure 10)	Disconnect hydraulic line no. 43 from valve block (Y56). Seal connection with threaded plug 129 589 00 91 01.	**Soft top locked in front, roll bar raised, locks VM/1, VM/2 unlocked (soft top compartment cover not raised).** Ignition: **ON** Press S84/3 (open soft top) for 5 seconds.		**Soft top compartment cover opens with normal speed:** Hydraulic cylinder in left/right locks (VV/1) or (VV/2) leak: ⇒ 5.1, If the coft top compartment cover does not open or opens **up** only slowly: ⇒ 5.4

Hydraulic Test Program – Test – Soft Top Closed

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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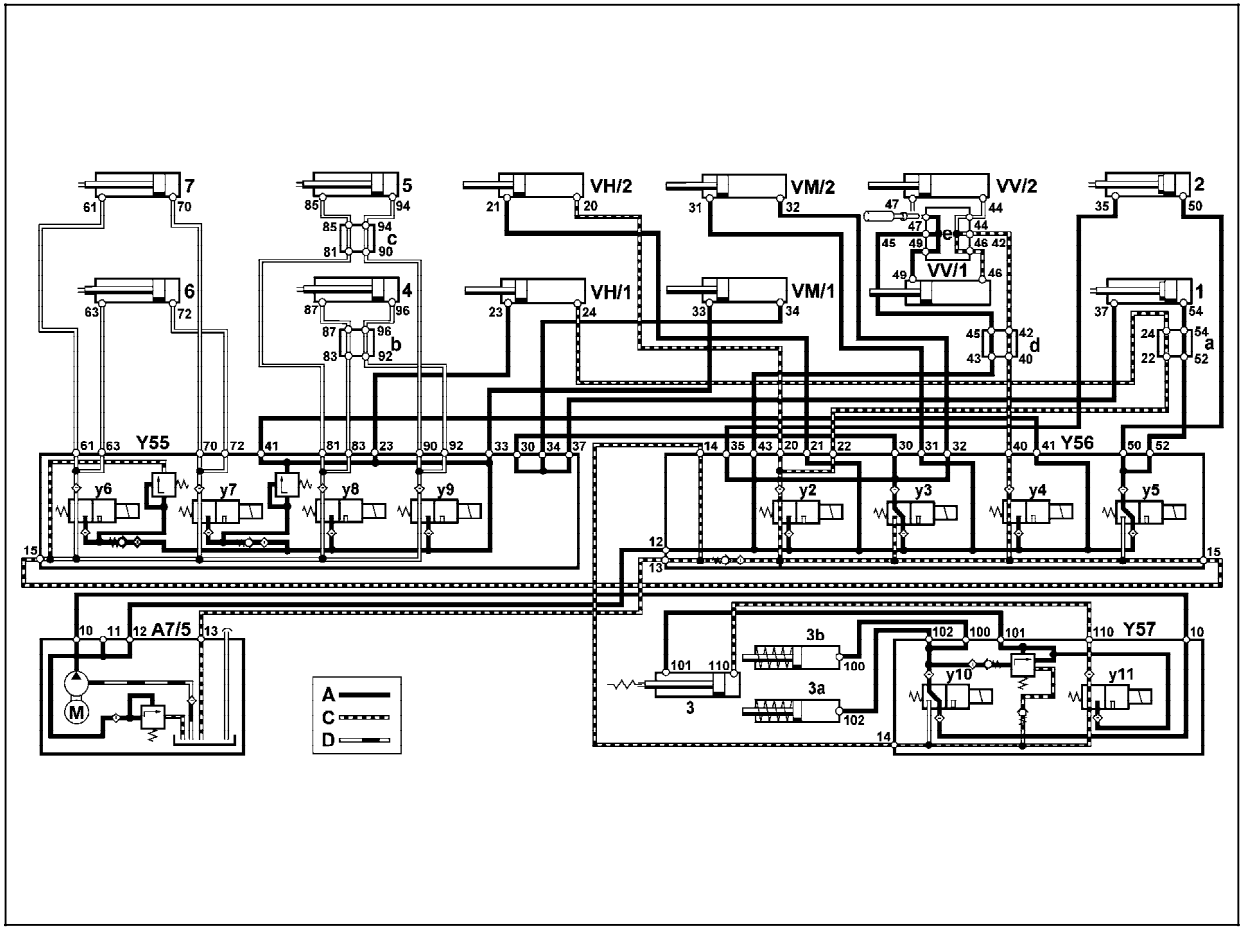
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.1		Checking locks (Figure 11)	Reconnect hydraulic line no. 43 from valve block (Y56). Disconnect hydraulic line no. 49 at hydraulic distributor (e, Figure 11) at upper windshield cross member. Seal connection with threaded plug 129 589 00 91 01.	**Soft top in soft top compartment,** **Center locks unlocked,** **(soft top compartment cover not raised).** Ignition: **ON** Press soft top switch (S84/3) (close soft top) for 5 seconds.		**Soft top compartment cover opens with normal speed:** Hydraulic cylinder in left lock (VV/1) leaks: Replace hydraulic cylinder, See SMS, Job No. 77-0335 If the coft top compartment cover does not open or opens **up** only slowly: ⇒ 5.2

Hydraulic Test Program – Test – Soft Top Closed

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 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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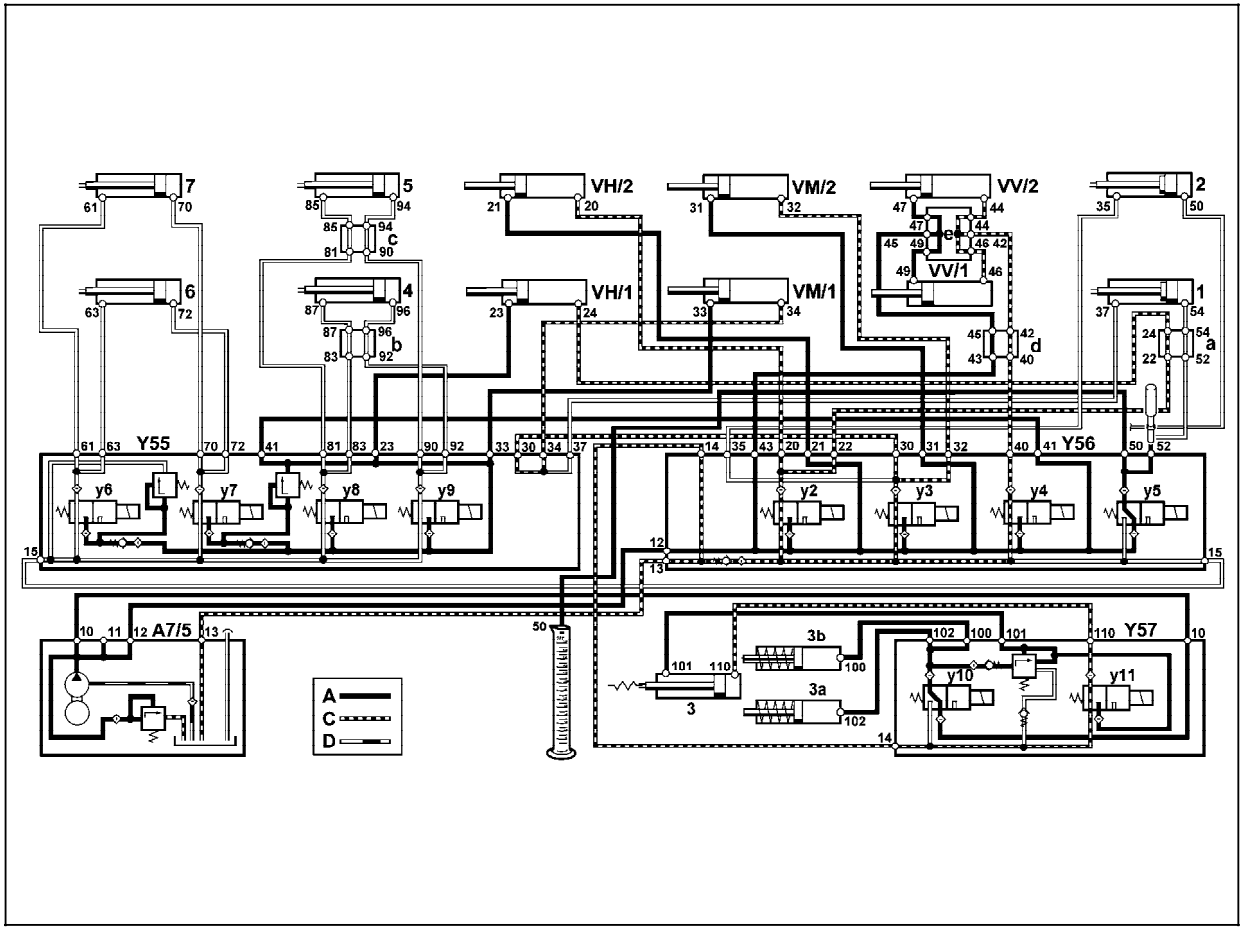
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.2		Checking locks (Figure 12)	Reconnect hydraulic line no. 49 from valve block (Y56). Disconnect hydraulic line no. 47 at Hydraulic distributor (e, Figure 11) at upper windshield cross member. Seal connection with threaded plug 129 589 00 91 01.	**Soft top in soft top compartment.** **Center locks unlocked, (soft top compartment cover not raised).** Ignition: **ON** Press soft top switch (S84/3) (close soft top) for 5 seconds.		**Soft top compartment cover opens with normal speed:** Hydraulic cylinder in right lock (VV/2) leaks: Replace hydraulic cylinder, See SMS, Job No. 77-0335 If the soft top compartment cover does not open or opens **up** only slowly: ⇒ 5.3

Hydraulic Test Program – Test – Soft Top Closed

Figure 13



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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)

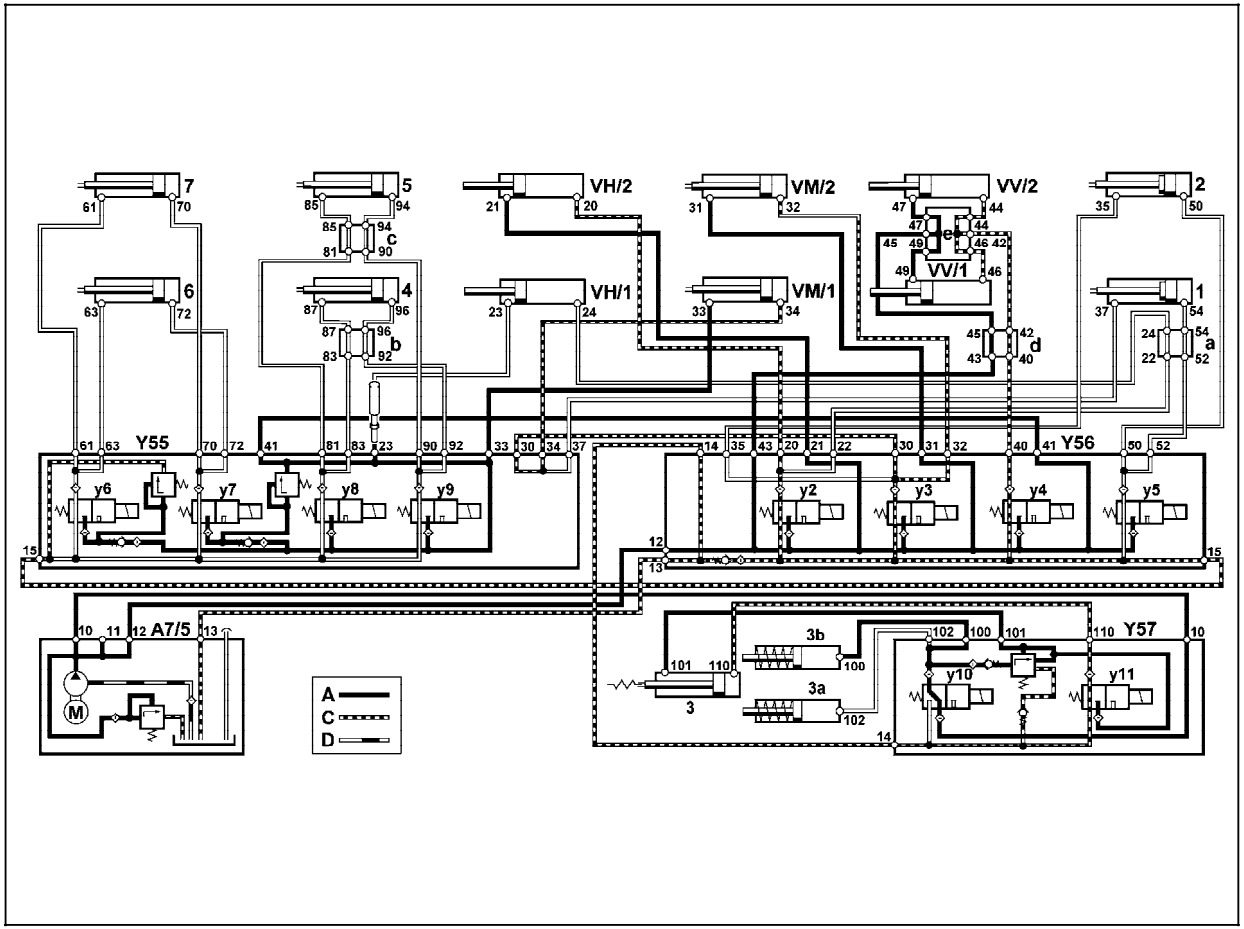
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.3		Checking locks (Figure 13)	Reconnect hydraulic line no. 47 at Hydraulic distributor (e, Figure 11) at upper windshield cross member. Disconnect hydraulic line no. 50 and 52 at valve block (Y56). Seal connection no. 52 with threaded plug 129 589 00 91 01. Connect hydraulic line 129 806 34 85 to connection 50 at valve block (Y56) and hold hydraulic line end into clean container. Disconnect connector at valve block (Y56y3).	**Soft top in soft top compartment, Center locks unlocked, (soft top compartment cover not raised).** Ignition: **ON** Press soft top switch (S84/3) (close soft top) for 2 seconds.		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if a steady even hydraulic flow is noted:** ⇒ 5.4 **Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:** Replace valve (y5) at Y56, See SMS, Job No. 77-0385

Hydraulic Test Program – Test – Soft Top Closed

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 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)



P77.37-0443-79

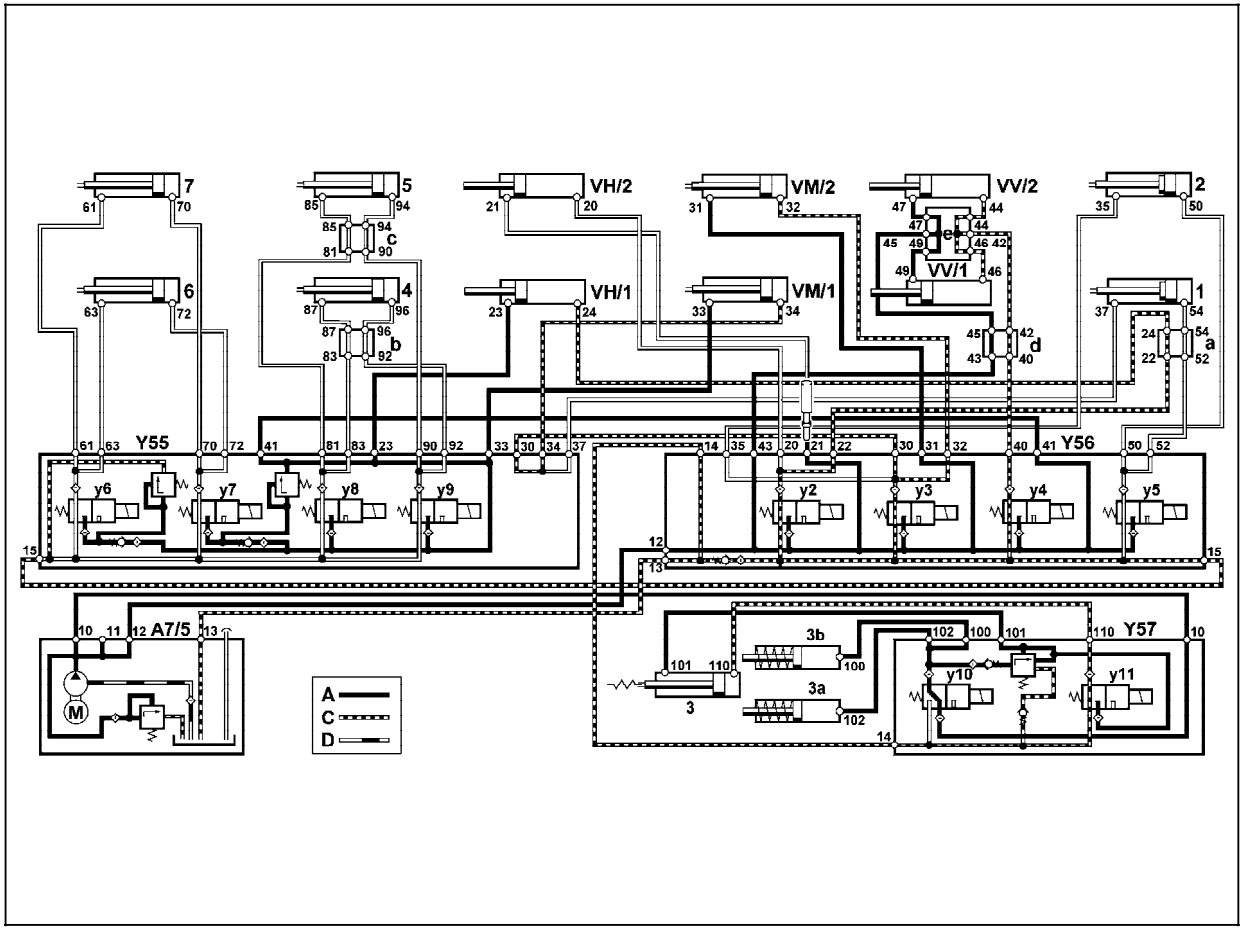
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.4		Checking locks (Figure 14)	Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 50 and 52 at valve block (Y56), reconnect connector at valve block (Y56y3). Disconnect hydraulic line no. 23 from valve block (Y55). Seal connection with threaded plug 129 589 00 91 01.	**Soft top completely open.** Ignition: **ON** Press and hold RB switch to retract roll bar. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Hydraulic cylinder of left lock (VH/1) leaking. Replace hydraulic cylinder See SMS, Job No. 77-324 **<120 bar**: ⇒ 5.5

Hydraulic Test Program – Test – Soft Top Closed

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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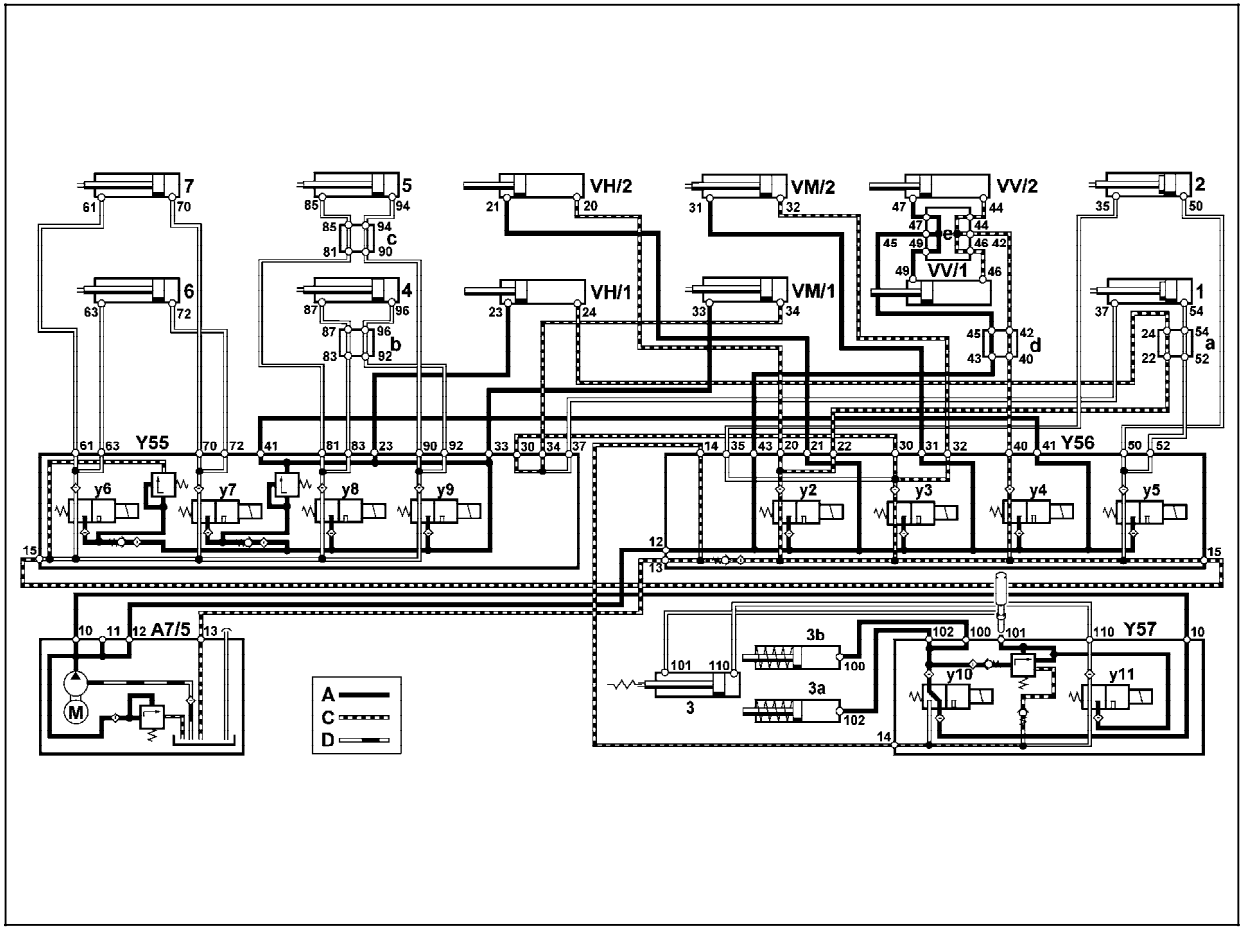
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.5		Checking locks (Figure 15)	Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 23 at valve block (Y55). Disconnect hydraulic line no. 21 from vlave block (Y56). Seal connection with threaded plug 129 589 00 91 01.	**Soft top completely open.** Ignition: **ON** Press and hold RB switch to retract roll bar. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Hydraulic cylinder of right lock (VH/2) leaking. Replace hydraulic cylinder See SMS, Job No. 77-324 **<120 bar**: ⇒ 5.6

Hydraulic Test Program – Test – Soft Top Closed

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 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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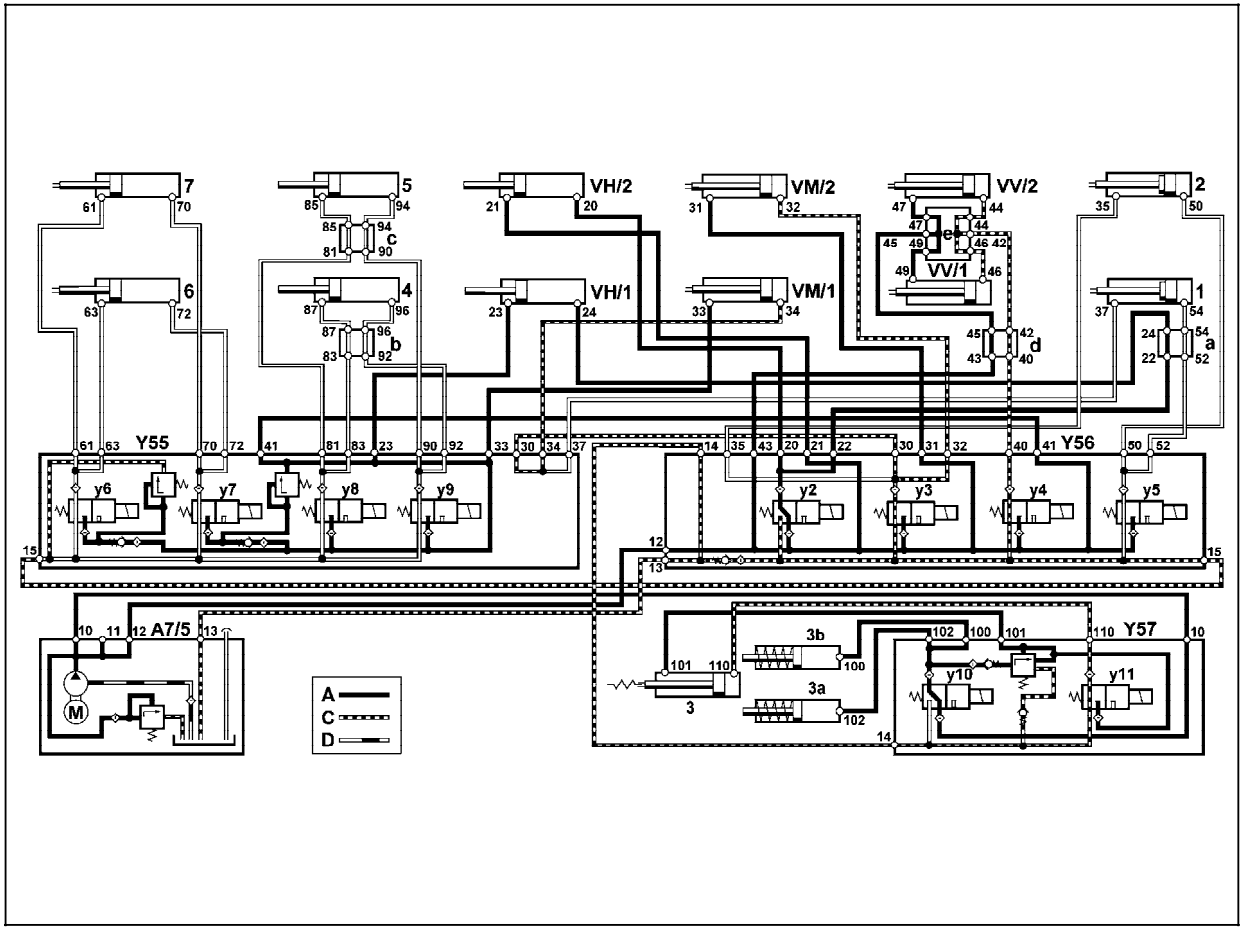
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.6		Checking locks (Figure 16)	i Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 21 at valve block (Y56). Disconnect hydraulic line no. 101 from vlave block (Y57). Seal connection with threaded plug 129 589 00 91 01. **When disconnecting Hydraulic line no. 101, cover valve block with shop towel since some pressure remains in the hydraulic cylinder (see 3, Figure 16).**	**Soft top completely open.** Ignition: **ON** Press and hold RB switch to retract roll bar. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	 120 – 200 bar	**If nominal values ok:** Hydraulic cylinder in roll bar support element (3, Figure 16) leaking. Replace roll bar support element, See SMS, Job No. 91-920

Hydraulic Test Program – Test – Soft Top Closed

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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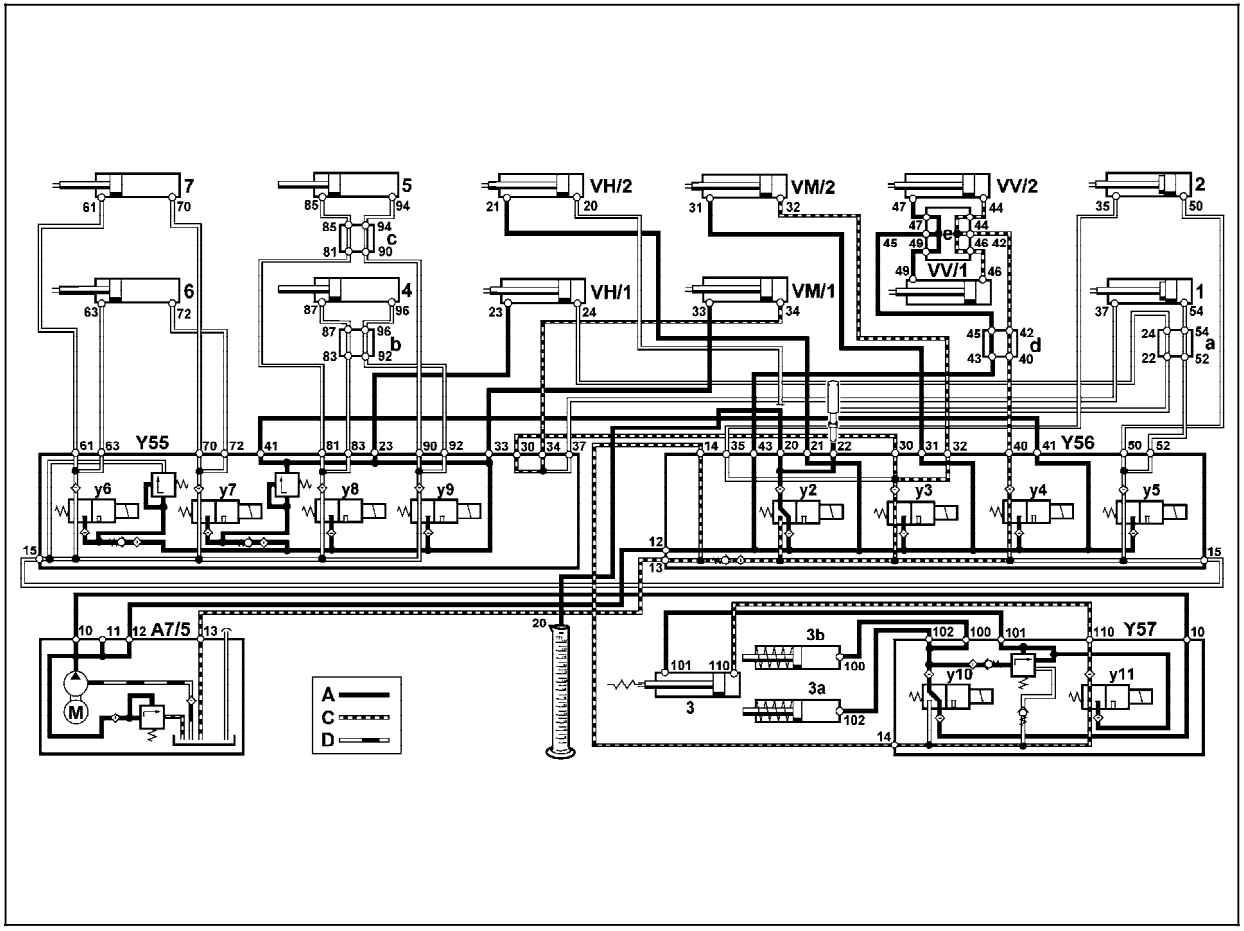
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0		**Open rear locks (VH/1, VH/2)** (Figure 17)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect connect at valve block (Y55y8).	**Soft top completely closed, Rear locks (VH/1, VH/2) maually opened.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Briefly activate power soft top switch several times.	120 – 200 bar	**If nominal values ok:** If the rear locks (VH/1, VH/2) do not open: Check adjustment of locking pins for fabric bow, See SMS, Job no. 77-0303 **<120 bar**: ⇒ 5.0 If opening the locks is still not possible using the soft top switch: ⇒ 6.1

Hydraulic Test Program – Test – Soft Top Closed

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 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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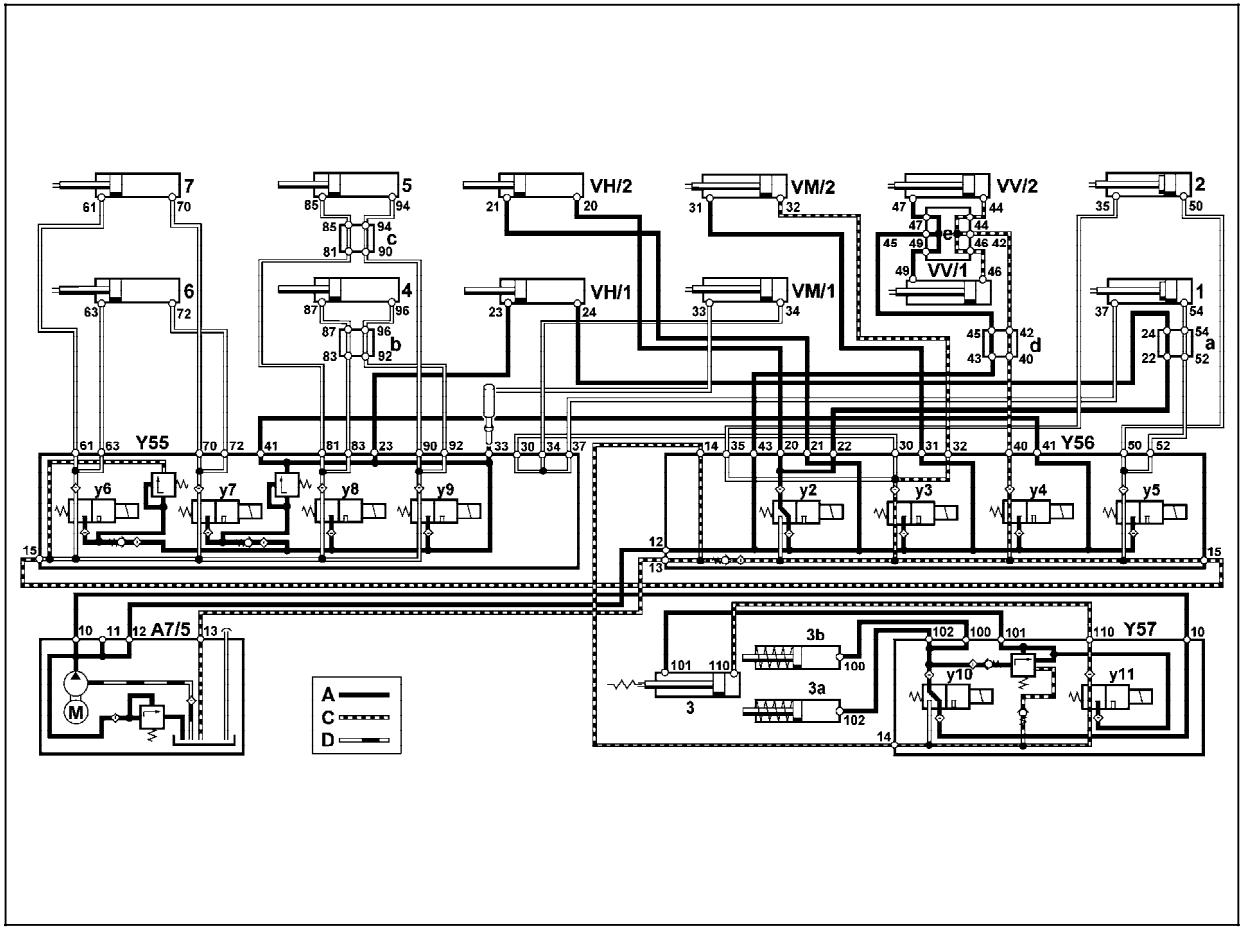
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.1		Open rear locks (VH/1, VH/2) (Figure 18)	Disconnect hydraulic line no. 20, 22 from valve block (Y56). Seal connection with threaded plug 129 589 00 91 01. Connect hydraulic line 129 806 34 85 to connection 20 at valve block (Y56) and hold hydraulic line end into clean container.	**Soft top completely closed.** Ignition: **ON** Press and hold soft top switch: **"close"** for 2 seconds.		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if a steady even hydraulic flow is noted:** ⇒ 6.2 **Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:** Replace valve (y2) at Y56, See SMS, Job No. 77-0385

Hydraulic Test Program – Test – Soft Top Closed

Figure 19

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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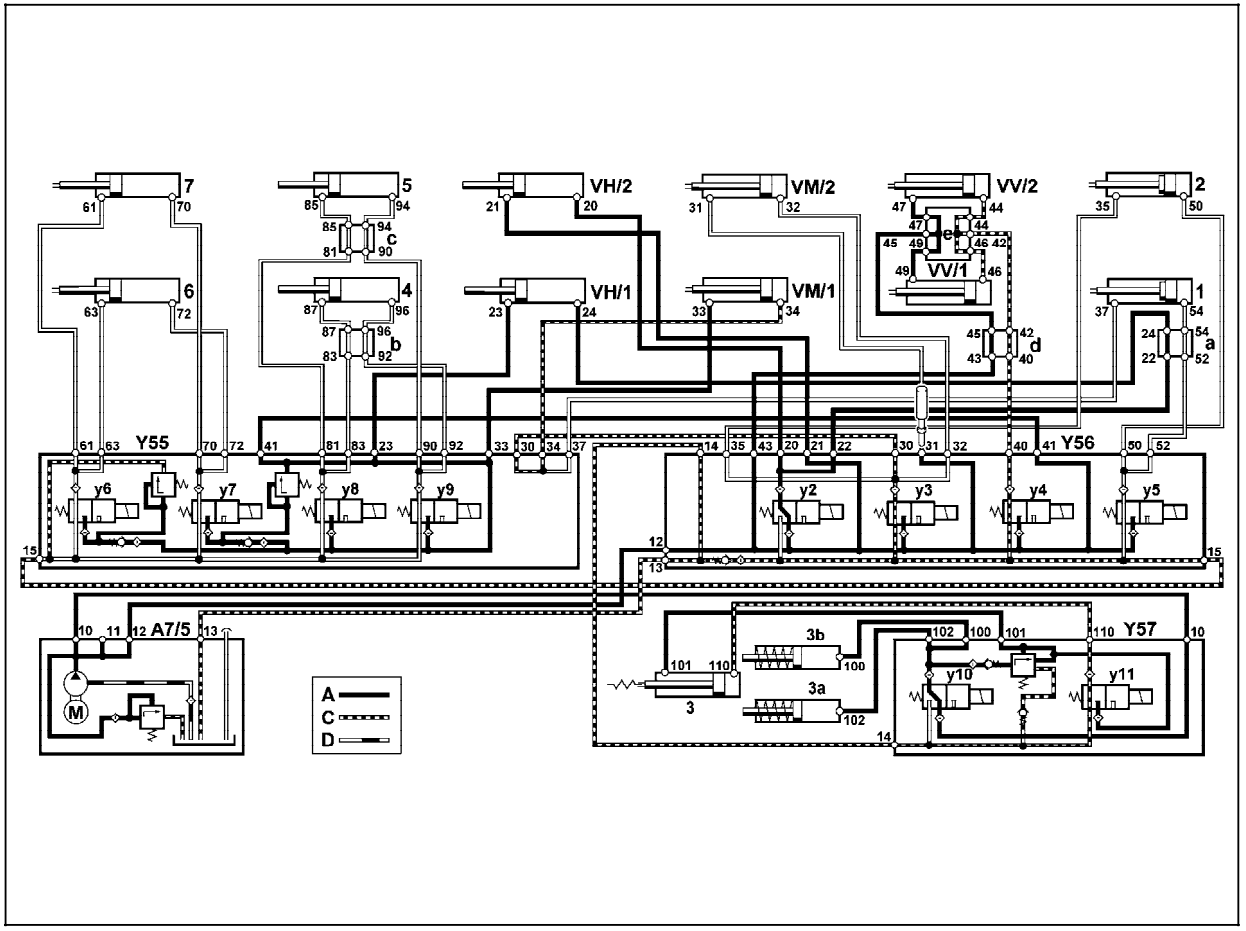
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.2		Open rear locks (VH/1, VH/2) (Figure 19)	Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 20, 21 at valve block (Y56), Disconnect hydraulic line no. 33 from valve block (Y56). Seal connection with threaded plug 129 589 00 91 01.	**Soft top completely closed, Rear locks (VH/1, VH/2) maually opened.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Briefly activate power soft top switch several times.	120 – 200 bar	**If nominal value ok:** Hydraulic cylinder in left center lock (VM/1) leaking. Replace hydraulic cylinder See SMS, Job No. 77-0324 **<120 bar**: ⇒ 6.3

Hydraulic Test Program – Test – Soft Top Closed

Figure 20

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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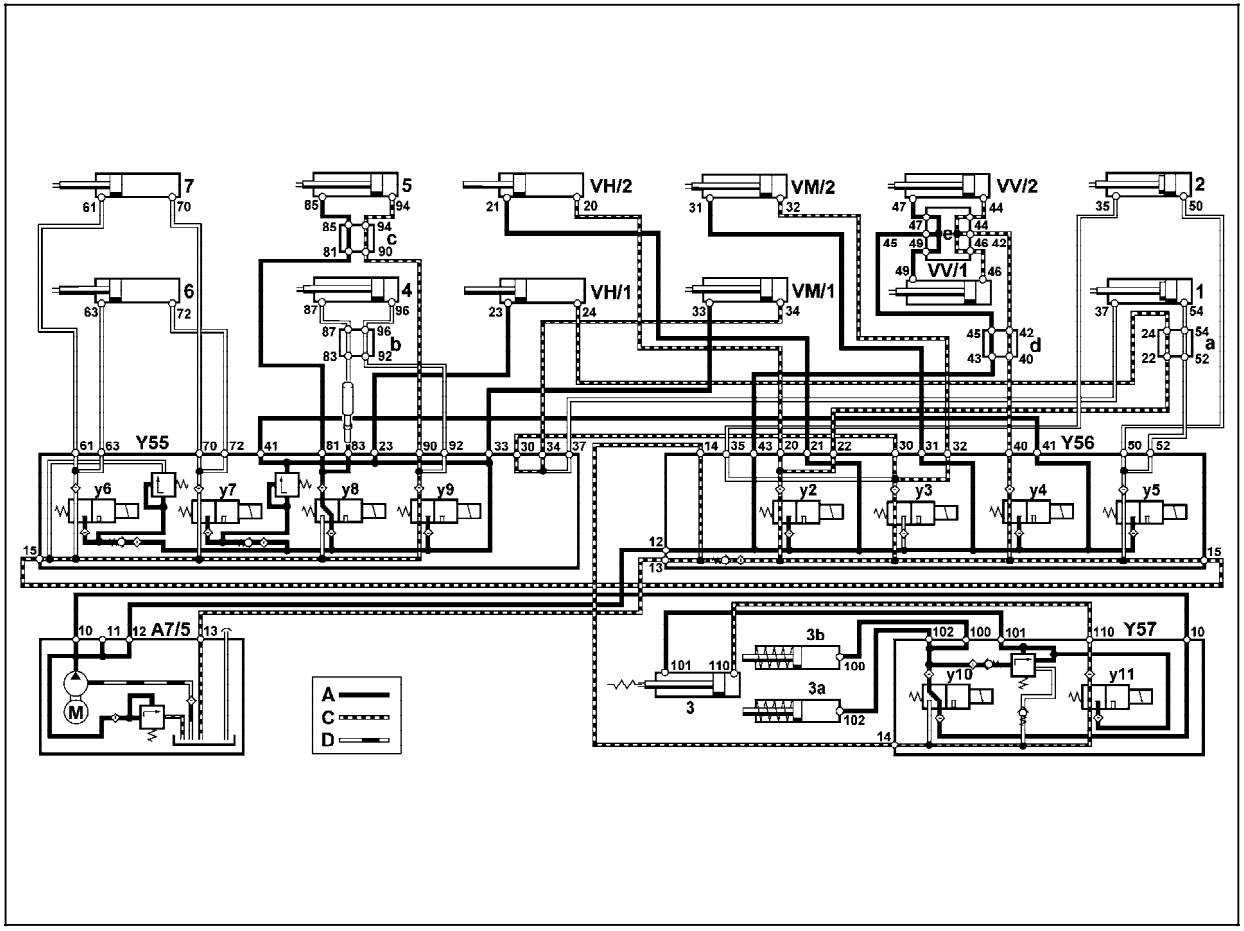
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.3		Open rear locks (VH/1, VH/2) (Figure 20)	Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 33 at valve block (Y55), Disconnect hydraulic line no. 31 from valve block (Y56). Seal connection with threaded plug 129 589 00 91 01. Reconnect connect after test at valve block (Y55y8).	**Soft top completely closed, Rear locks (VH/1, VH/2) maually opened.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 4) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal value ok:** Hydraulic cylinder for left center lock (VM/1) leaking. Replace hydraulic cylinder, See SMS, Job No. 77-0324 **<120 bar**: ⇒ 6.3, See SMS, Job no. 77-0325

Hydraulic Test Program – Test – Soft Top Closed

Figure 21

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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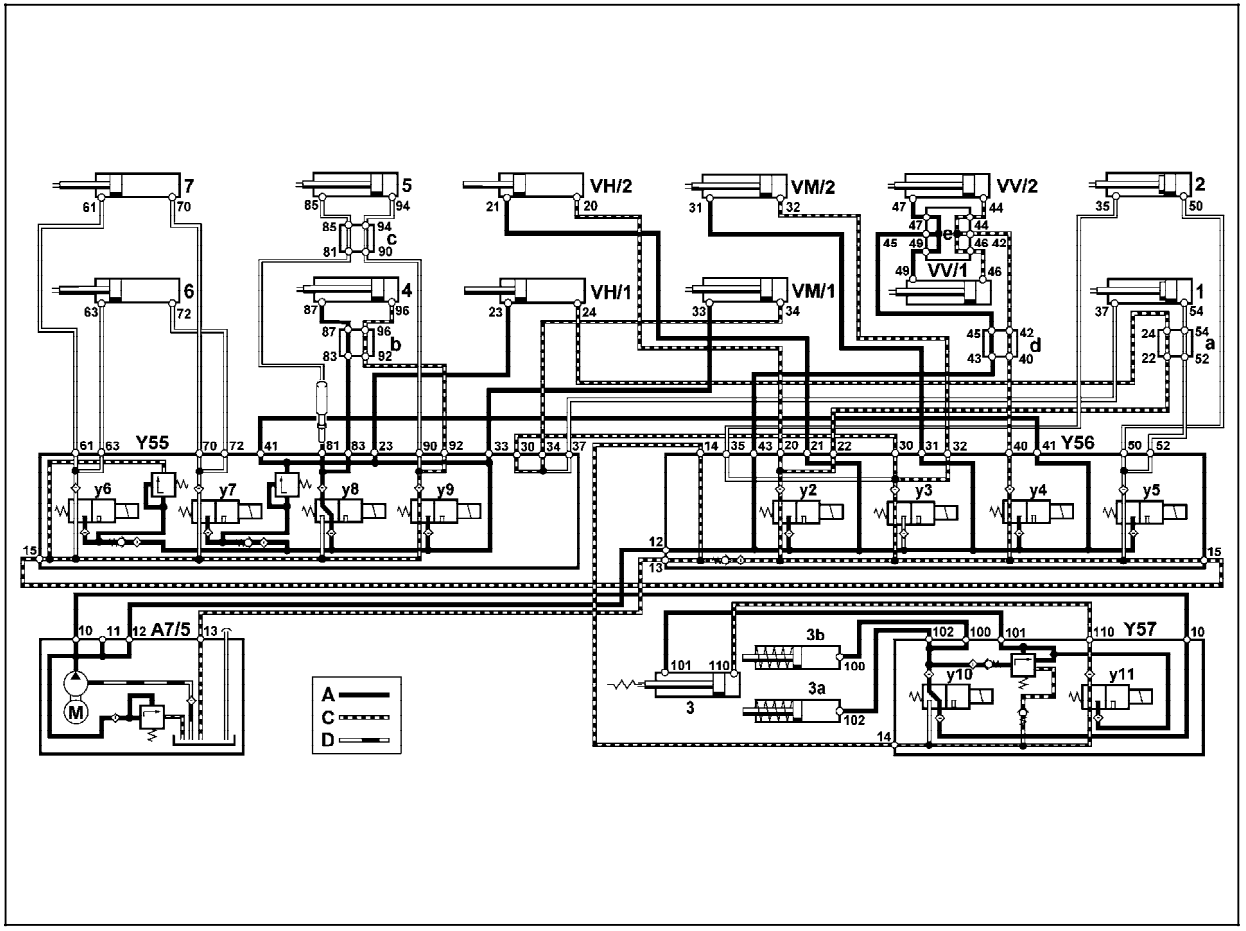
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0		**Raise fabric bow** (Figure 21)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector at valve block (Y56y3). Disconnect hydraulic line no. 83 from valve block (Y55). Seal connection with threaded plug 129 589 00 91 01.	**Soft top closed,** **Fabric bow up.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 4) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal value ok:** Left hydraulic cylinder (4, Figure 21) for fabric bow leaking. Replace hydraulic cylinder See SMS, Job No. 77-0360 **<120 bar**: ⇒ 7.1

Hydraulic Test Program – Test – Soft Top Closed

Figure 22

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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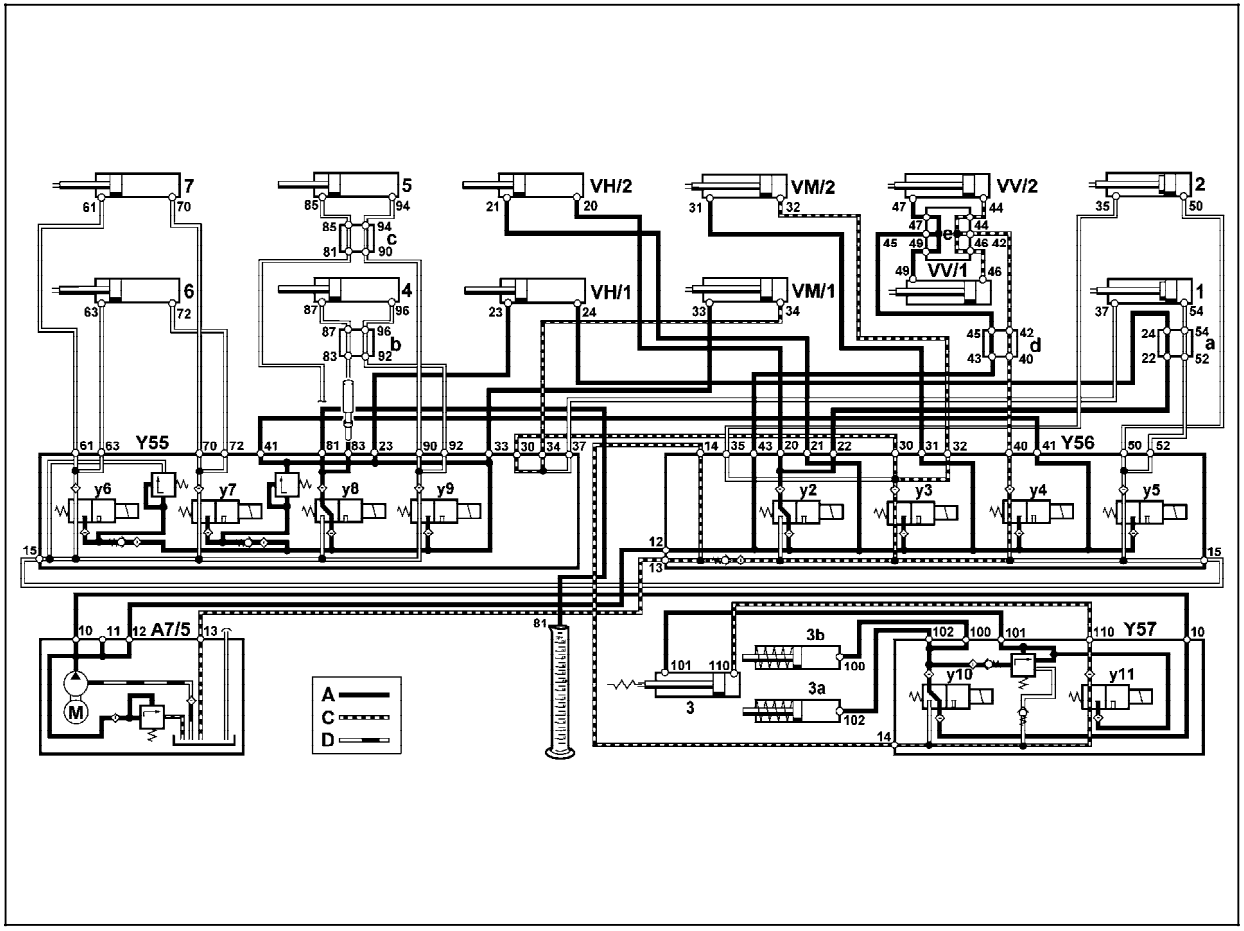
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.1		Raise fabric bow (Figure 22)	i Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 83 at valve block (Y55), Disconnect hydraulic line no. 81 from valve block (Y55). Seal connection with threaded plug 129 589 00 91 01.	**Soft top closed,** **Fabric bow up.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 4) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Right hydraulic cylinder (5, Figure 22) for fabric bow leaking. Replace hydraulic cylinder, See SMS, Job No. 77-0360 **<120 bar**: ⇒ 5.0 If the fasbric bow still can not be raised using soft top switch: ⇒ 7.2

Hydraulic Test Program – Test – Soft Top Closed

Figure 23

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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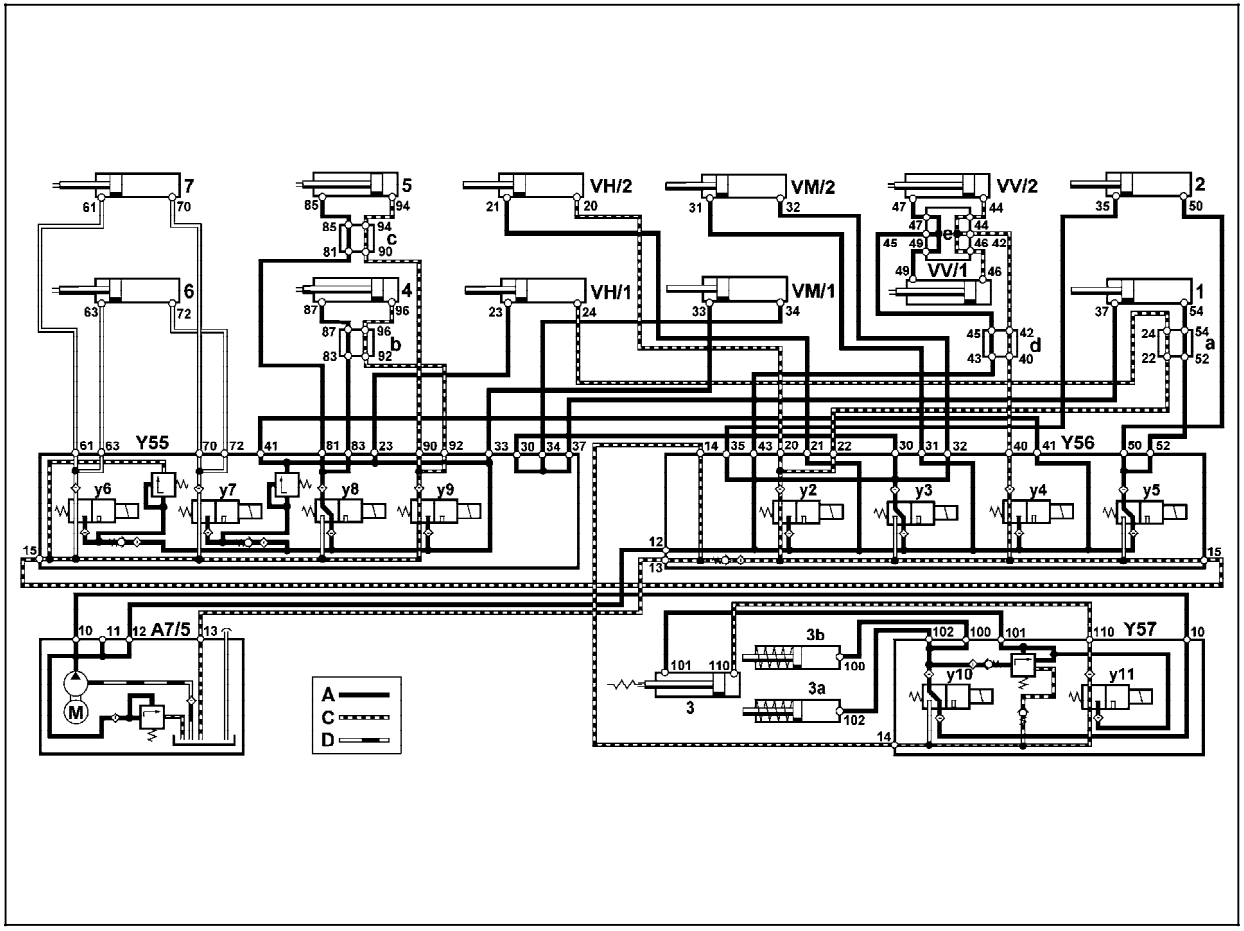
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.2		Raise fabric bow (Figure 23)	Disconnect hydraulic line no. 81, 83 from valve block (Y55). Seal connection at hydraulic line no. 83 with threaded plug 129 589 00 91 01. Connect hydraulic line no. 129 806 34 83 to hydraulic line connection no. 81 at Y55 and hold into clean container. Reconnect connector after test to valve block (Y56y3).	**Soft top closed,** **Fabric bow up.** Ignition: **ON** Press soft top switch: **“close“ for 2 seconds.**		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:** Replace valve (y8) at Y55 See SMS, Job no. 77-0385

Hydraulic Test Program – Test – Soft Top Closed

Figure 24

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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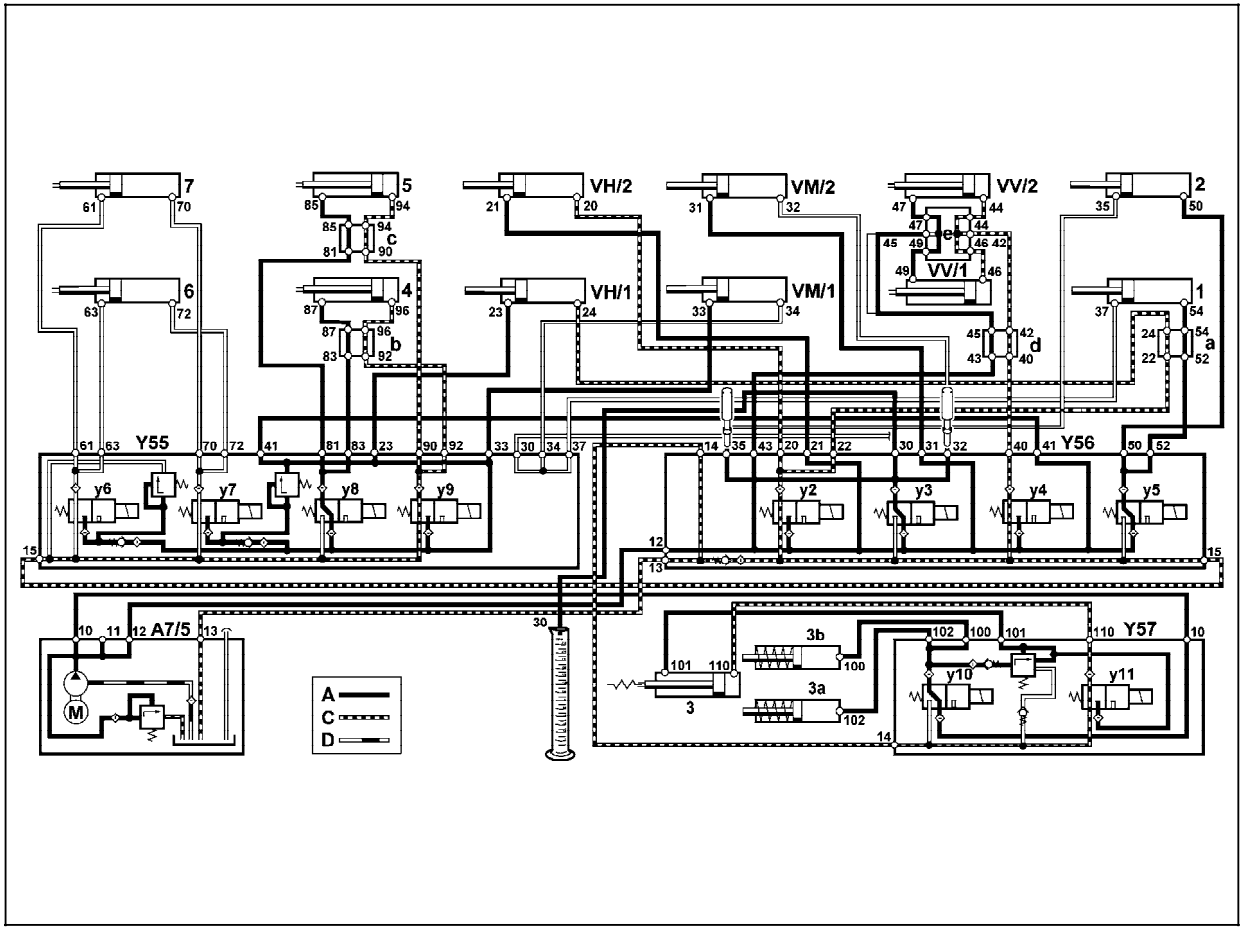
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0		**Open center locks (VM/1, VM/2)** (Figure 24)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector at valve block (Y56y4).	**Soft top closed,** **Fabric bow up,** **Center locks manually opened,** **Soft top compartment cover up** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 4) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	 120 – 200 bar	**If nominal values ok:** If the center locks (VM/1, VM/2)do not open: Check adjustment of lock pin on soft top compartment cover, See SMS, Job no. 77-0303 **<120 bar**: ⇒ 5.0, ⇒ 7.0, If the center locks still can not be opened using the soft top switch: ⇒ 8.1

Hydraulic Test Program – Test – Soft Top Closed

Figure 25

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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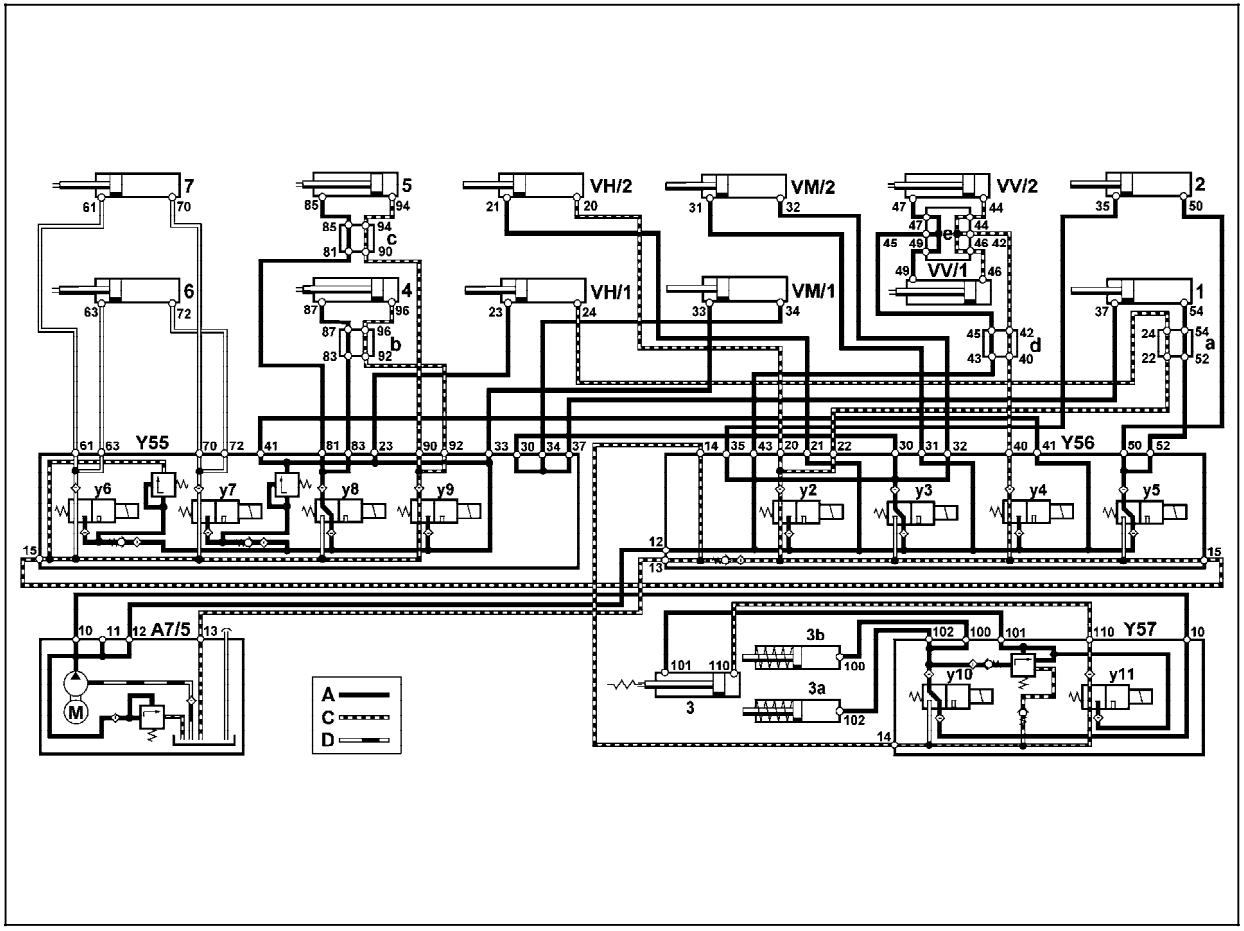
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.1		Open center locks (VM/1, VM/2**)** (Figure 25)	Disconnect hydraulic line no. 30, 32, 35 from valve block (Y56). Seal connections no. 32, 35 with threaded plug 129 589 00 91 01. Connect hydraulic line no. 129 806 34 83 to hydraulic line connection no. 30 at Y55 and hold into clean container. Reconnect connector after test to valve block (Y56y4).	**Soft top closed,** **Fabric bow up,** **Center locks (VM/1, VM/2) manually opened,** **soft top compartment cover open.** Ignition: **ON** Press soft top switch **"close"** for approx. 2 seconds.		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:** Replace valve (y3) at Y56, See SMS, Job no. 77-0385 If the unlocking of the soft top is not possible using the soft top switch then: Replace locks, See SMS, see Job no. 77-0320

Hydraulic Test Program – Test – Soft Top Closed

Figure 26



P77.37-0453-79

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)

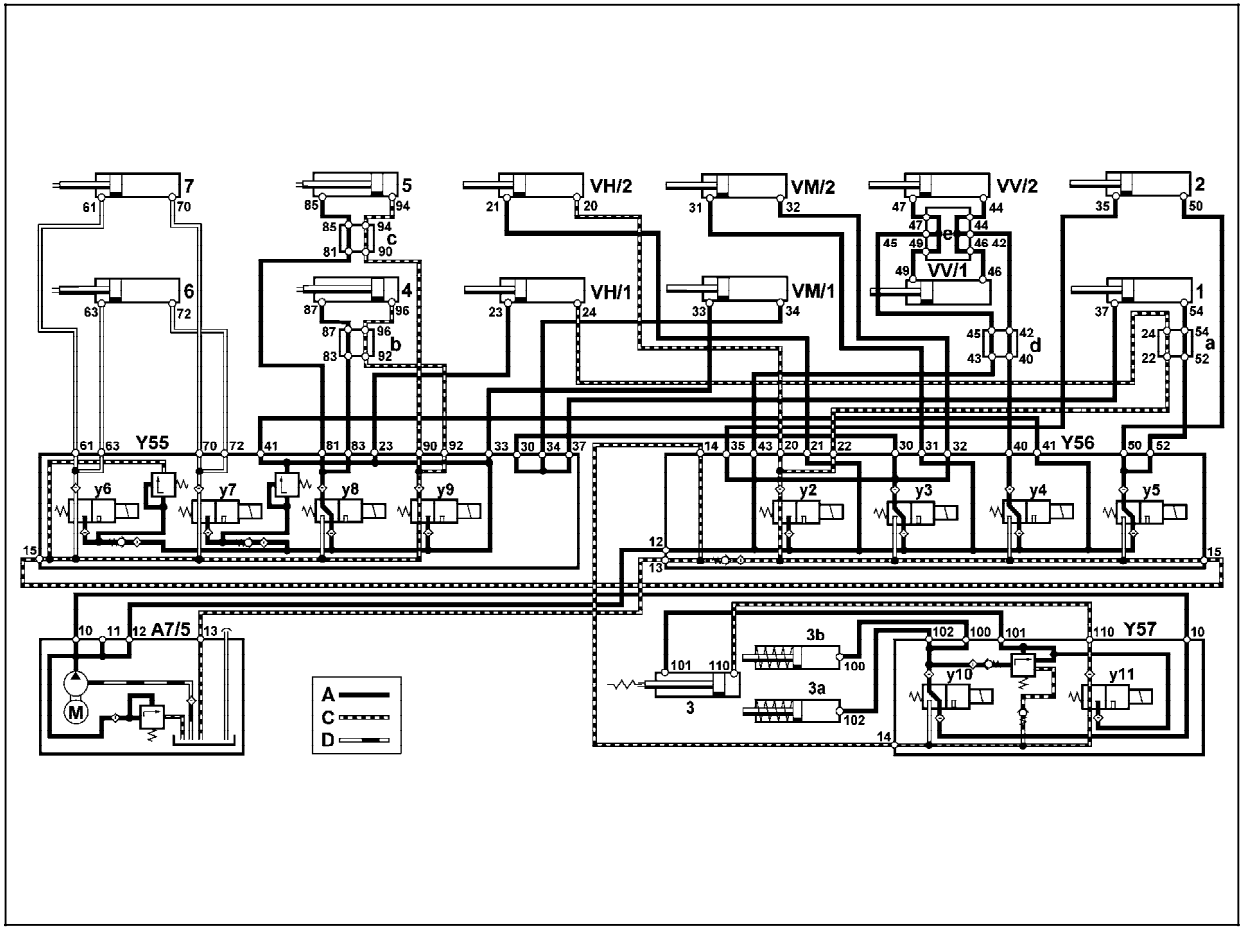
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
9.0		**Soft top compartment cover up** (Figure 26)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector at valve block (Y56y4).	**Soft top closed, Fabric bow up, Center locks (VM/1, VM/2) manually open, Soft top compartment cover up.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Fault is with soft top compartment cover hinges or gas pressure shock. **<120 bar**: ⇒ 5.0, ⇒ 8.0

Hydraulic Test Program – Test – Soft Top Closed

Figure 27

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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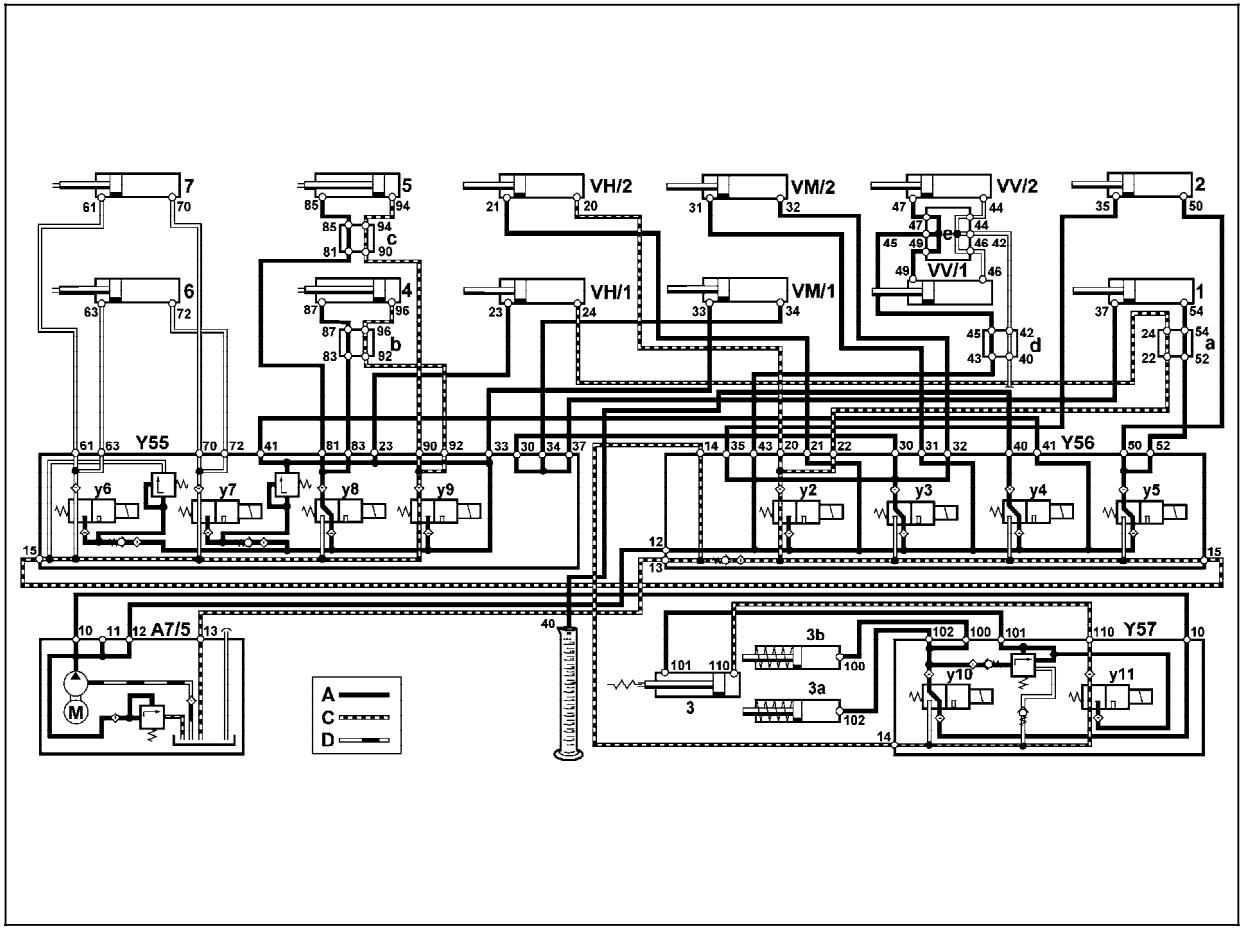
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
10.0		**Open front locks (VV/1, VV/2)** (Figure 27)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector at vlave block (Y55y6).	**Fabric bow up,** **Soft top compartment cover up,** **Front locks (VV/1, VV/2) manually open.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** If the front locks (VV/1, VV/2) do not open: Check adjustment of front locking pins at front of soft top compartment frame, See SMS Job no. 77-0303 **<120 bar**: ⇒ 5.0, ⇒ 8.0, If itis still not possible to open the front locks (VV/1, VV/2) using the soft top switch see: ⇒ 10.1

Hydraulic Test Program – Test – Soft Top Closed

Figure 28

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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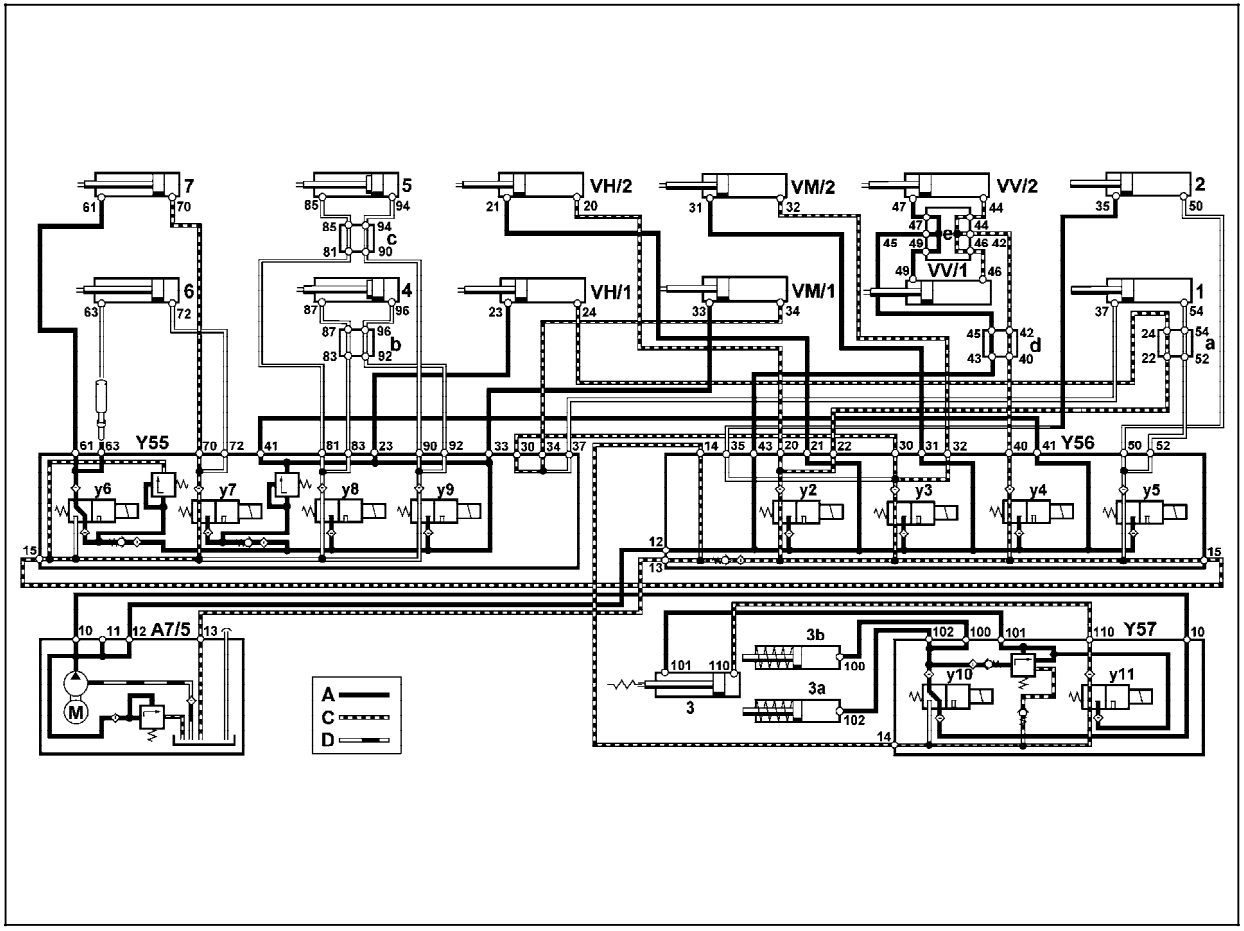
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
10.1		Open front locks (VV/1, VV/2) (Figure 28)	Disconnect hydraulic line no. 40 from valve block (Y56). Connect hydraulic line no. 129 806 34 83 to hydraulic line connection no. 40 at Y56 and hold into clean container. Reconnect connector after test to valve block (Y56y6).	**Fabric bow up,** **Soft top compartment open,** **Front locks (VV/1, VV/2) manually open.** Ignition: **ON** Press and hold soft top switch: **"close"** for 2 seconds.		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:** Replace valve (y4) at Y56, See SMS, Job no. 77-0385 If the unlocking of the soft top is not possible when using the soft top switch then: Replace locks, See SMS, see Job no. 77-0330

Hydraulic Test Program – Test – Soft Top Closed

Figure 29

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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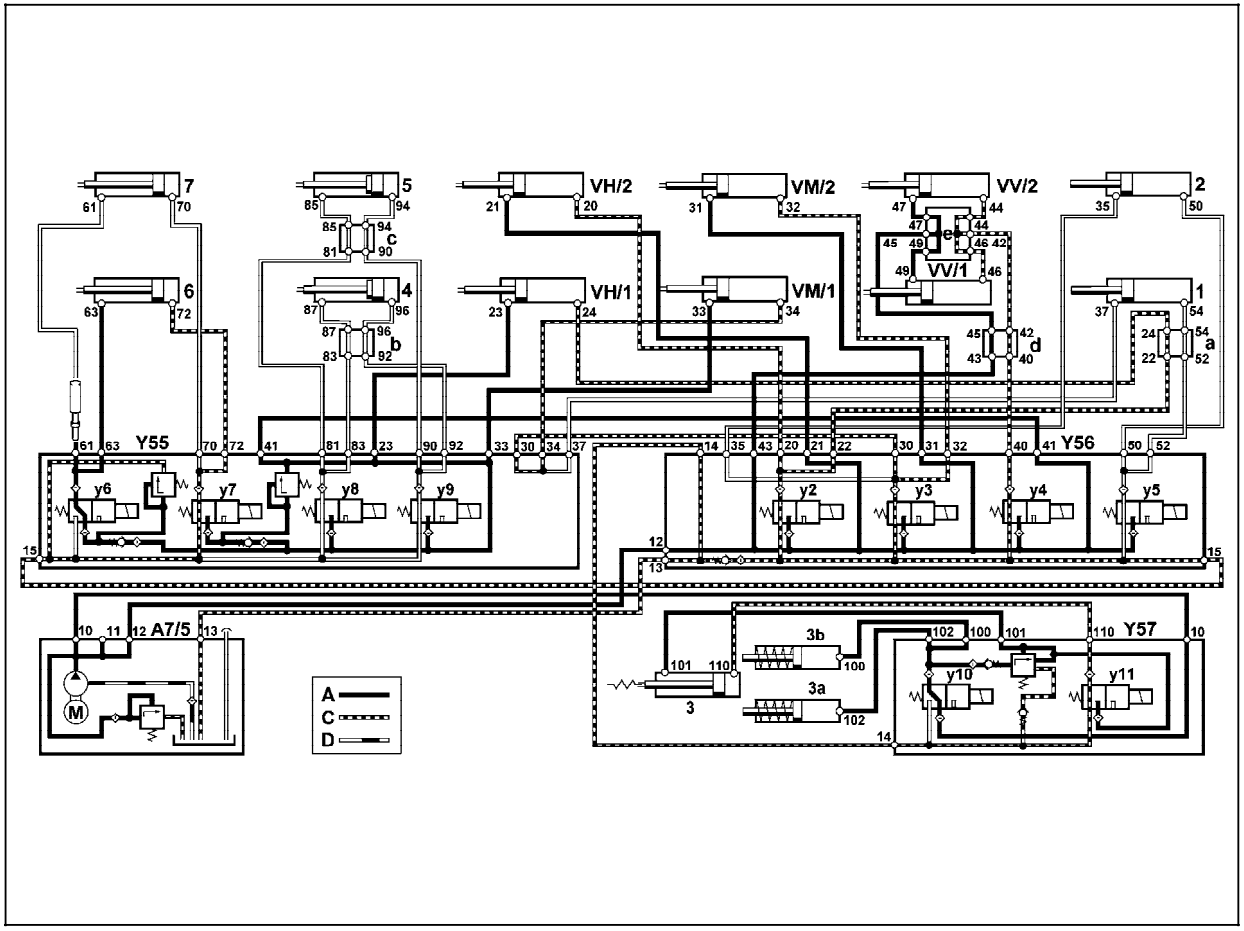
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
11.0		**Open soft top** (Figure 29)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect hydraulic line no. 63 from valve block (Y55). Seal connection with threaded plug 129 589 00 91 01. Disconnect connector at valve block (Y56y3).	**Soft top in soft top compartment,** **Soft top compartment cover up.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Left power soft top hydraulic cylinder(6, Figure 29) leaking: Replace hydraulic cylinder, See SMS, Job No. 77-0355 **<120 bar**: ⇒ 11.1.

Hydraulic Test Program – Test – Soft Top Closed

Figure 30



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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)

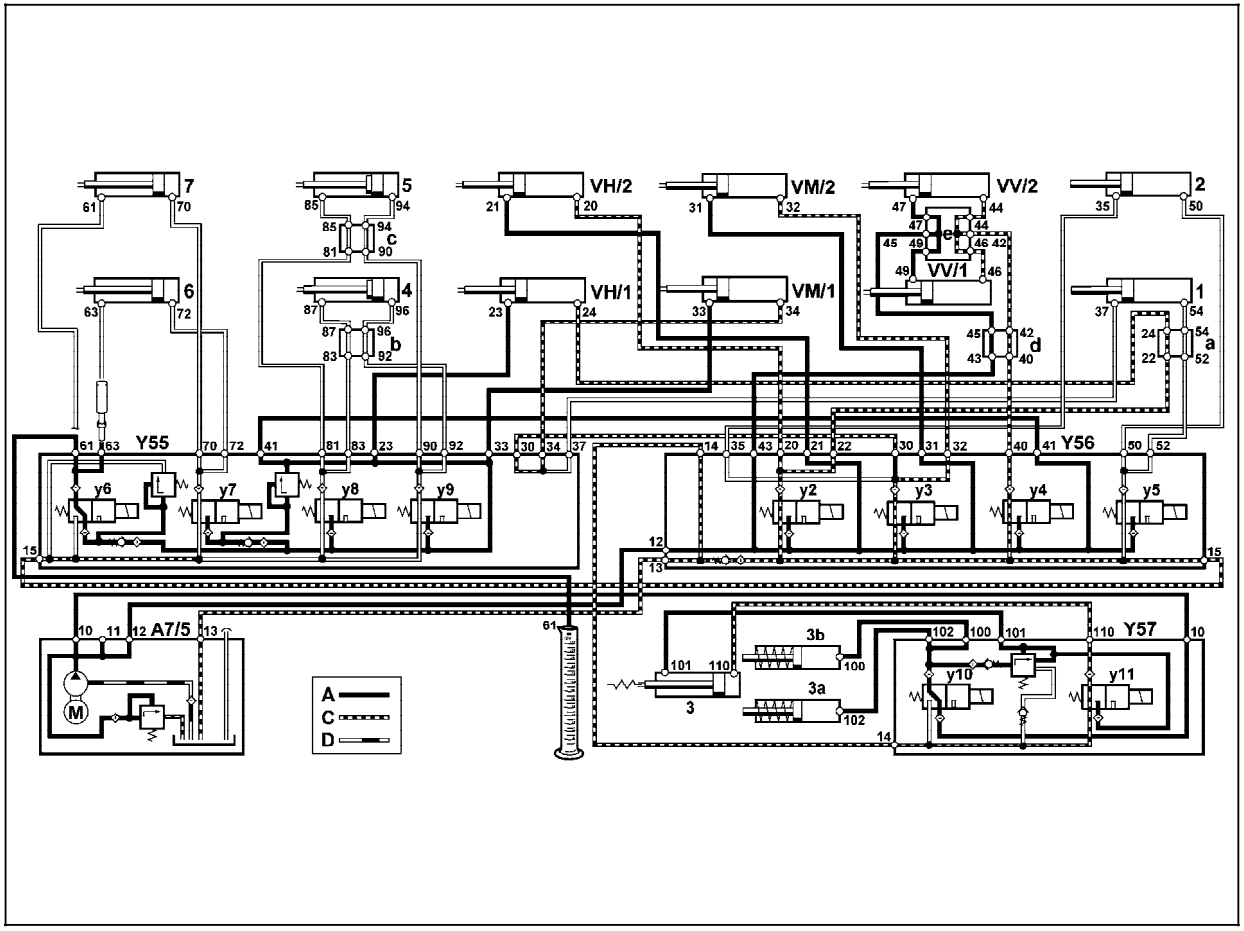
Hydraulic Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
11.1		Open soft top (Figure 30)	Connect pressure gauge according to connection diagram (Figure 1). Reconnect hydraulic line no. 63 to valve block (Y55). Disconnect hydraulic line no. 61 from valve block (Y56). Seal connection with threaded plug 129 589 00 91 01.	**Soft top in soft top compartment,** **Soft top compartment cover up.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 4) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Right power soft top hydraulic cylinder (7, Figure 29) leaking: Replace hydraulic cylinder, See SMS, Job No. 77-0355 **<120 bar**: ⇒ 5.0, If the soft top continues not to open or open slowly: ⇒ 11.2

Hydraulic Test Program – Test – Soft Top Closed

Figure 31

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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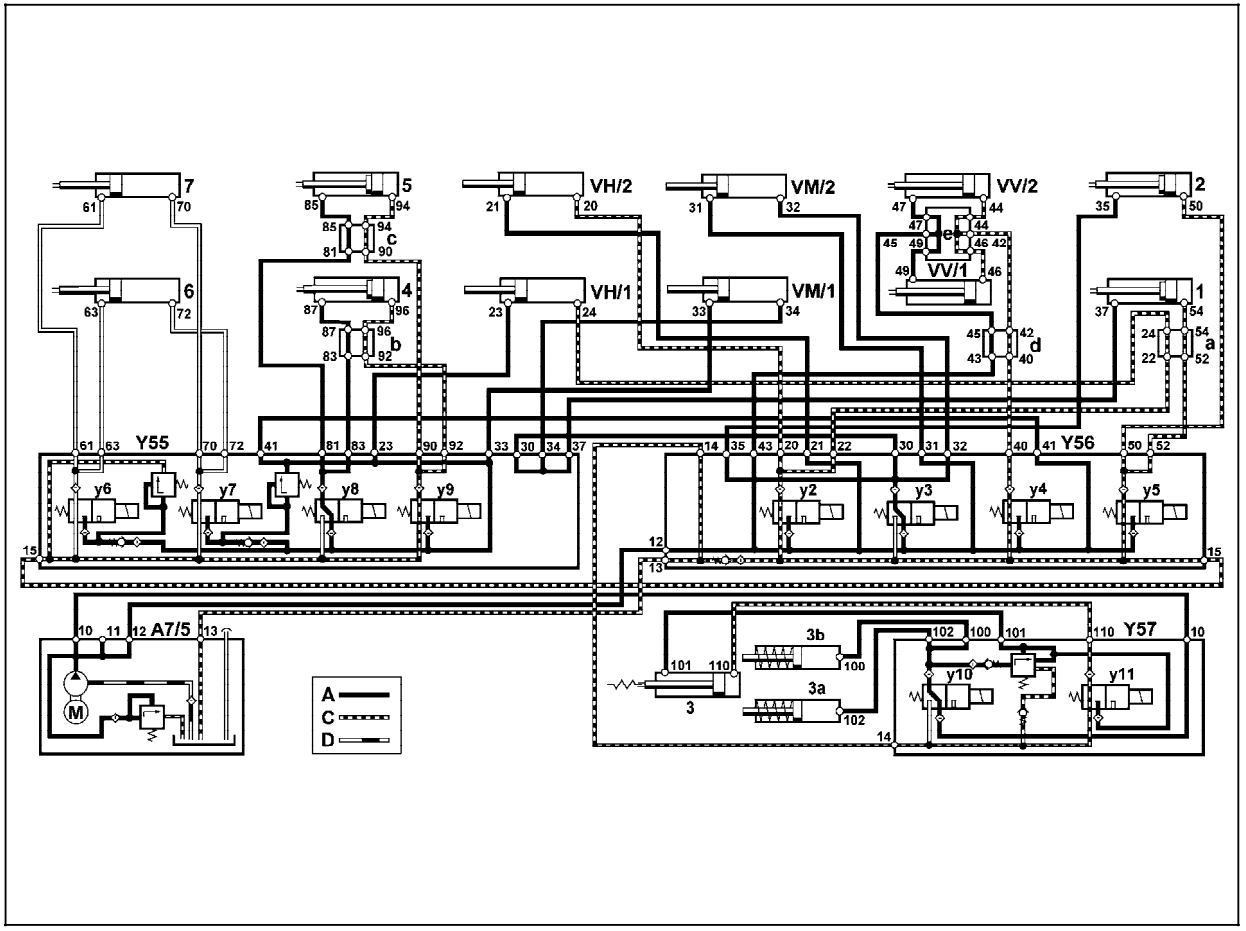
Hydraulic Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
11.2		Open soft top (Figure 31)	Disconnect hydraulic line no. 61and 63 from valve block (Y55). Seal connection no. 63 with threaded plug 129 589 00 91 01. Connect hydraulic line 129 806 34 85 to connection no. 61 at valve block Y55 and hold into clean container. Reconnect connector after test at valve block (Y56y3).	**Soft top in soft top compartment,** **Soft top compartment cover up.** Ignition: **ON** Press and hold soft top switch: **"close" for 2 seconds**.		**Observe hydraulic fluid flow from hydraulic line 129 806 34 83, if no or weak uneven hydraulic flow is noted:** Replace valve (y6) at Y55, See SMS, Job no. 77-0385

Hydraulic Test Program – Test – Soft Top Closed

Figure 32

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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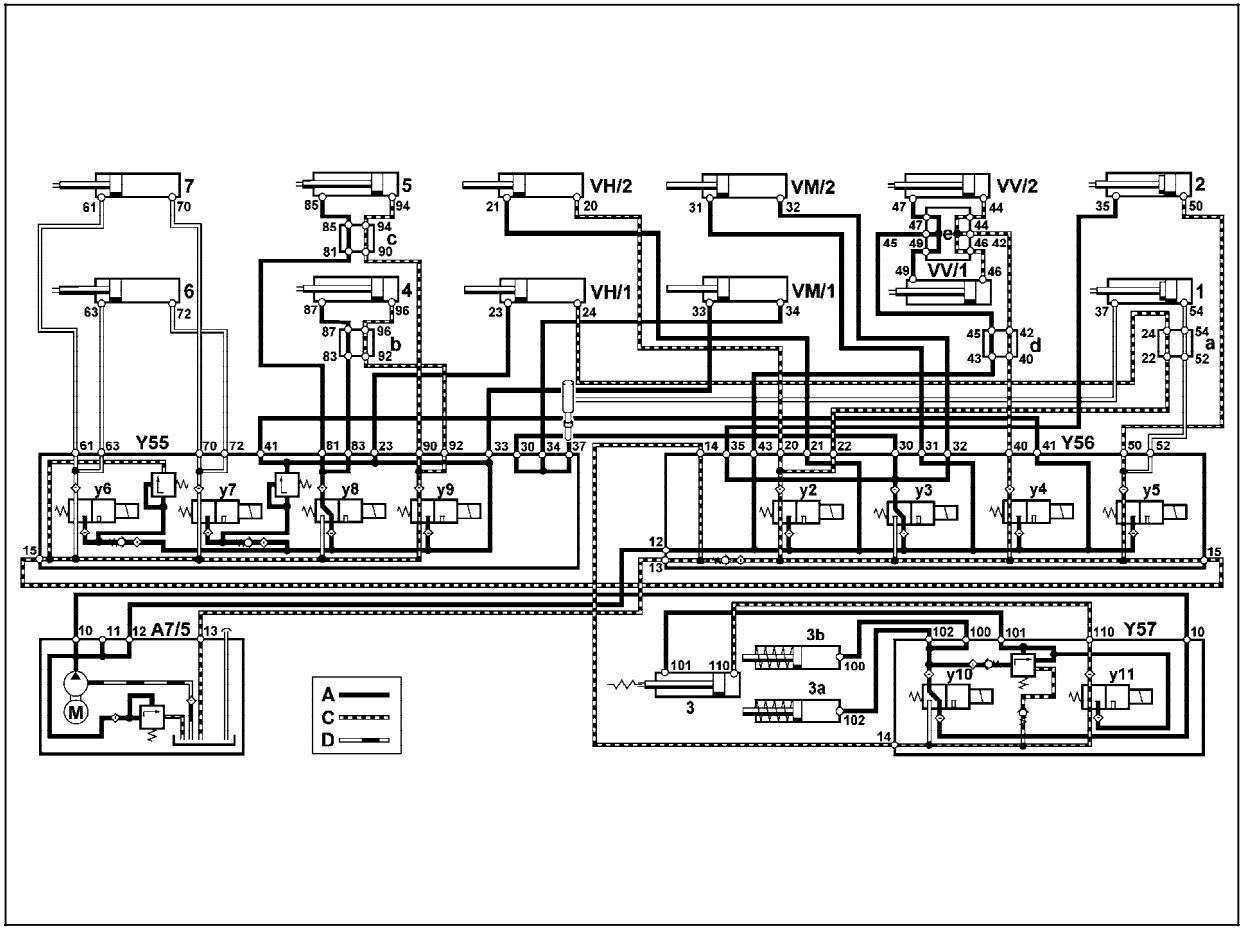
Hydraulic Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.0		**Close soft top compartment cover, Lock center locks (VM/1, VM/2)** (Figure 32)	Connect pressure gauge according to connection diagram (Figure 1). Remove both lock pins from soft top compartment cover.	**Soft top closed, Fabric bow up, Center locks (VM/1, VM/2) open, Soft top compartment cover manually pressed closed by hand.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	 120 – 200 bar	**If nominal values ok:** Check adjustment of locking pins for soft top compartment cover. If locking of the locks is not possible using the soft top switch, then replace the locks. See SMS, Job no. 77-0320 **<120 bar**: ⇒ 12.1.

Hydraulic Test Program – Test – Soft Top Closed

Figure 33



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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)

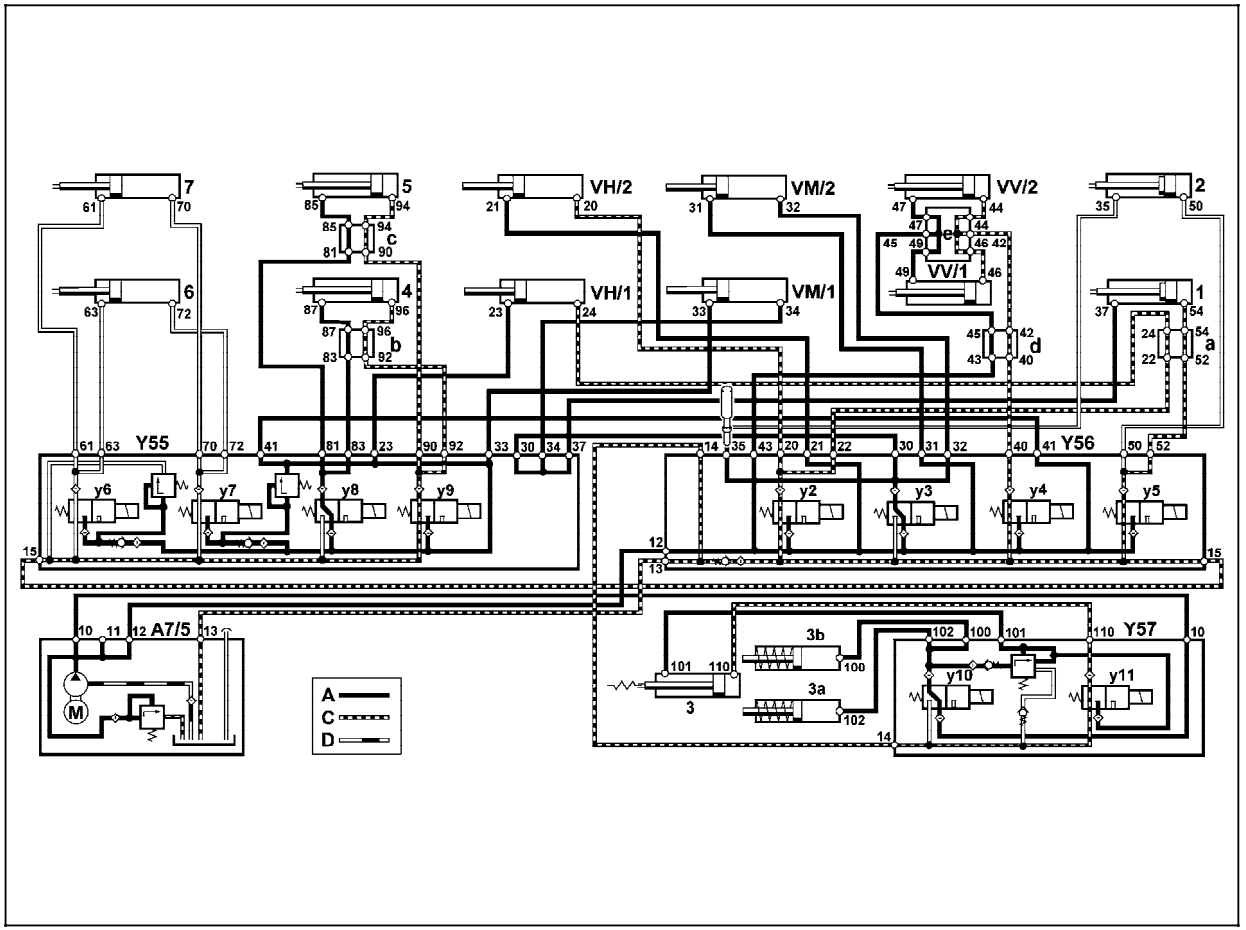
Hydraulic Test Program – Test – Soft Top Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.1		Close soft top compartment cover Lock center locks (VM/1, VM/2) (Figure 33)	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.	**Soft top closed,** **Fabric bow up,** **Center locks (VM/1, VM/2) open,** **Soft top compartment cover manually pressed closed by hand.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Left soft top compartment cover hydraulic cylinder (1, Figure 33) leaks. Replace hydraulic cylinder, See SMS, Job no. 77-0370 **<120 bar**: ⇒ 12.2

Hydraulic Test Program – Test – Soft Top Closed

Figure 34

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 Closed

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.2		Close soft top compartment cover Lock center locks (VM/1, VM/2) (Figure 34)	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. Install both locking pins for soft top compartment cover after testing.	**Soft top closed,** **Fabric bow up,** **Center locks (VM/1, VM/2) open,** **Soft top compartment cover manually pressed closed by hand.** Ignition: **ON** Press and hold soft top switch: **"close"**. Have a second technician unplug relay (A7/5k1, Figure 1) **after 5 sec.** Keep switch depressed an **additional 5 sec.** **Read test pressure:** **Release test pressure:** Press soft top switch briefly several times.	120 – 200 bar	**If nominal values ok:** Right soft top compartment cover hydraulic cylinder (2, Figure 33) leaks. Replace hydraulic cylinder, See SMS, Job no. 77-0370 **<120 bar**: ⇒ 5.0, ⇒ 8.0