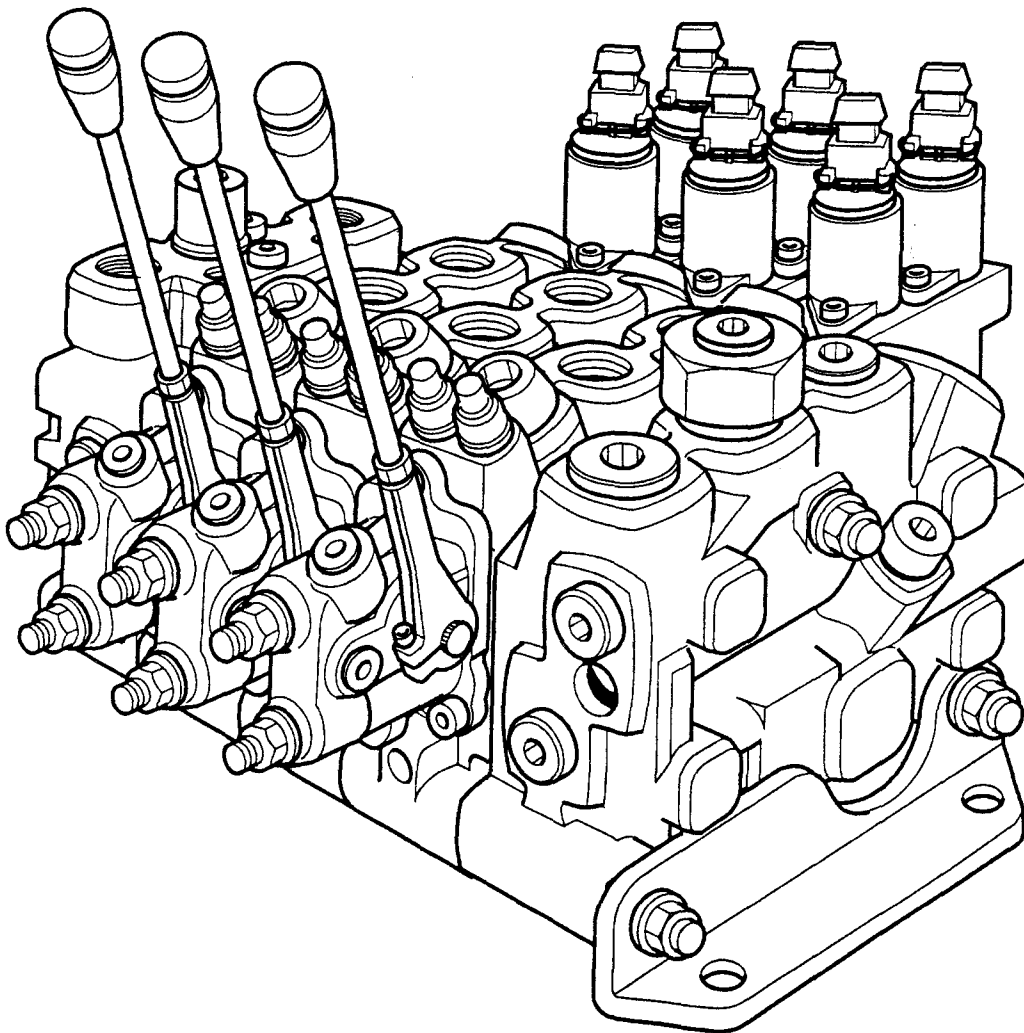


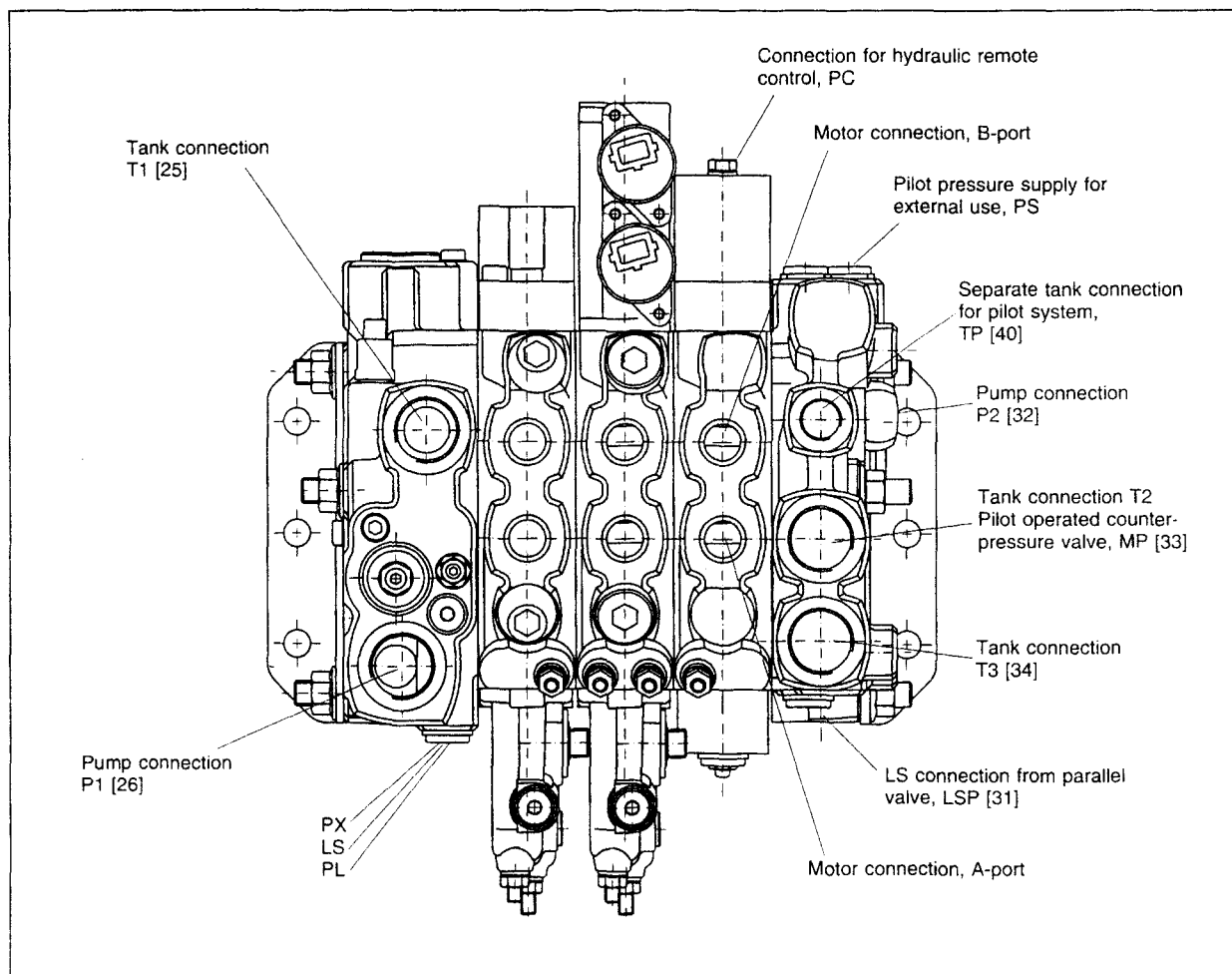
Service Manual

ASM 3.2 - tab 4

Installation & maintenance L90LS

Publication No 9129 8561 02 Edition 00





Pressures

Pump inlet	max. 320 bar*
Motor ports	max. 350 bar*
Tank connection	max. 20 bar

Flow rates, recommended

Pump connection	max. 150 l/min
Motor port, with compensator	max. 90** l/min
Motor port, without compensator	max. 125** l/min
Return from motor port	max. 150 l/min

* Stated pressures are absolute shock pressures at 10 bar tank pressure.

** Depending on spool variant.

Feed reducers

Setting range	50 - 330 bar
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Internal pilot pressure

Fixed setting	35 bar
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Filtration

Filtration must be arranged so that Target Contamination Class 18/14 according to ISO 4406 is not exceeded.

For the pilot system, Target Contamination Class 16/13 according to ISO 4406 is recommended.

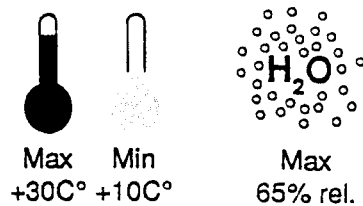
Connections

P1	inlet section	G 3/4" or 1 1/16"-12 UNF
P2	end section	G 3/4" or 1 1/16"-12 UNF
T1	inlet section	G 3/4" or 1 1/16"-12 UNF
T2, T3	end section	G 3/4" or 1 1/16"-12 UNF
A, B	spool section	G 1/2" or 7/8"-14 UNF
LS, PL	inlet section	G 1/4" or 9/16"-18 UNF
PX	inlet section	G 1/4" or 9/16"-18 UNF
PS	end section	G 1/4" or 9/16"-18 UNF
PS2	end section	G 1/8" or 7/16"-20 UNF
MP	end section	G 1/4" or 9/16"-18 UNF
PC	spool section	G 1/4" or 9/16"-18 UNF
LSA/B	spool section	G 1/8" or 7/16"-20 UNF
LSP	end section	G 1/4" or 9/16"-18 UNF

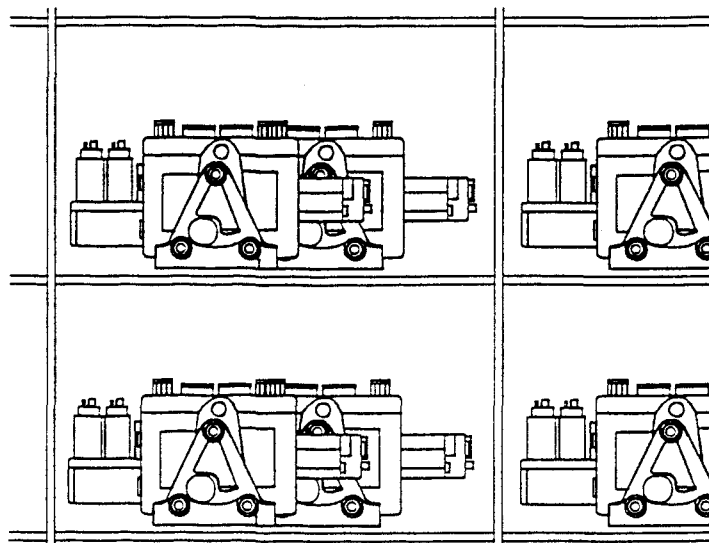
Weights

Inlet section	5.5 kg
End section	4.2 kg
Spool section with spool actuator type:	
C, B3	4.1 kg
ACE	5.2 kg
CH, CHX, PC	4.5 kg
PCH	4.7 kg
EC, EB	5.2 kg
ECH, ECHL, EBHL	5.4 kg

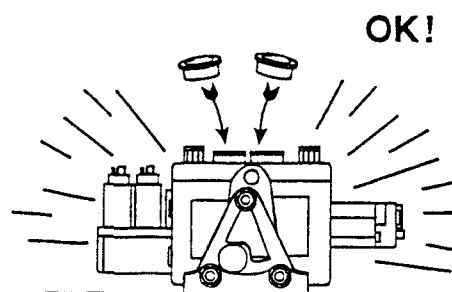
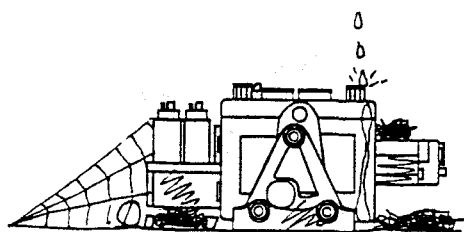
Storage



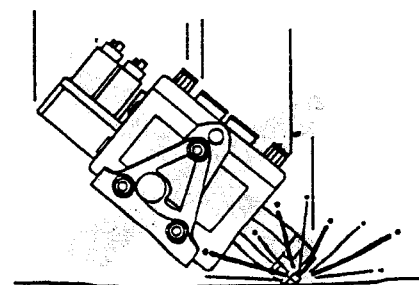
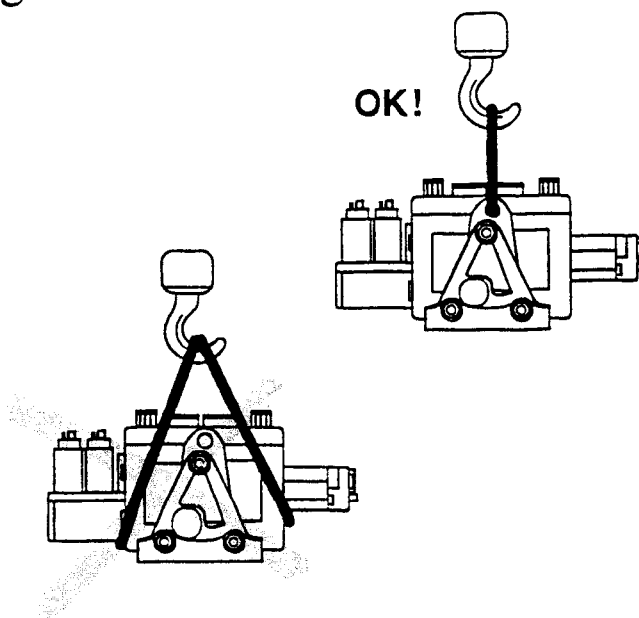
Max 6 Months



Environment



Handling

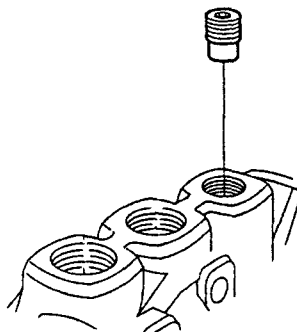


Installation

Connection

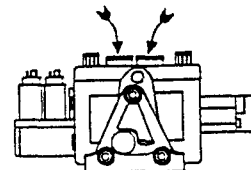
Important!

Function "TP" in the end section must be installed and connected with a *separate tank line* to the reservoir when L90LS is equipped with PVC solenoid valves.



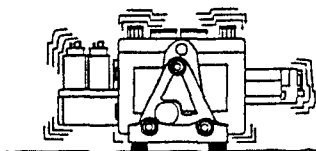
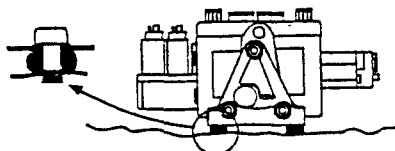
G 1/8"	10 Nm
UNF 7/16" - 20	10 Nm
G 1/4"	30 Nm
UNF 9/16" - 18	30 Nm
G 1/2"	60 Nm
UNF 7/8" - 14	60 Nm
G 3/4"	100 Nm
UNF 1"1/16" - 12	100 Nm
G 1"	100 Nm
UNF 1"5/16"	100 Nm

Threaded ports



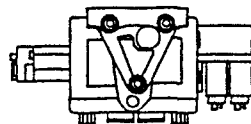
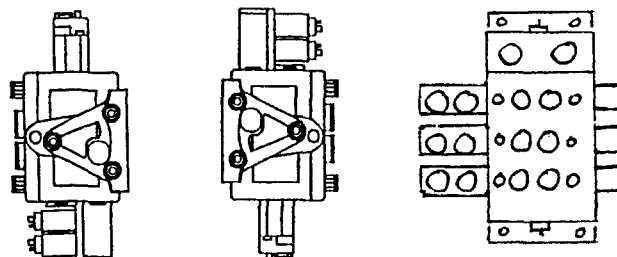
Installation

Recommended for satisfactory air-bleeding procedure



Information from VOAC

Not recommended installation orientations.



Other than in this leaflet described method of air-bleeding must be used if valve is installed according to the above.

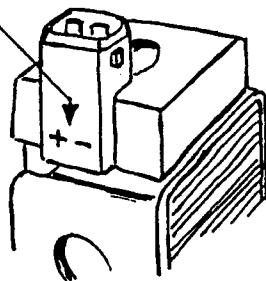
Installation information, emergency stop solenoid

Data

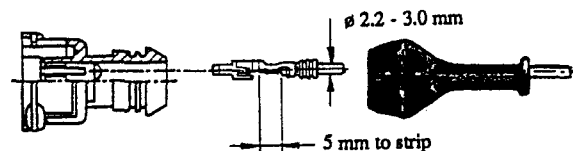
Energy consumption (100 % duty cycle): 19 Watts

The solenoid has a built-in quenching diode, polarity of pins therefor must be followed when wiring.*

Polarity marking



* Applies only to solenoids with polarity marking



Crimp tool: AMP Certi-Lok, 169400, Prespak kit: 734253-0

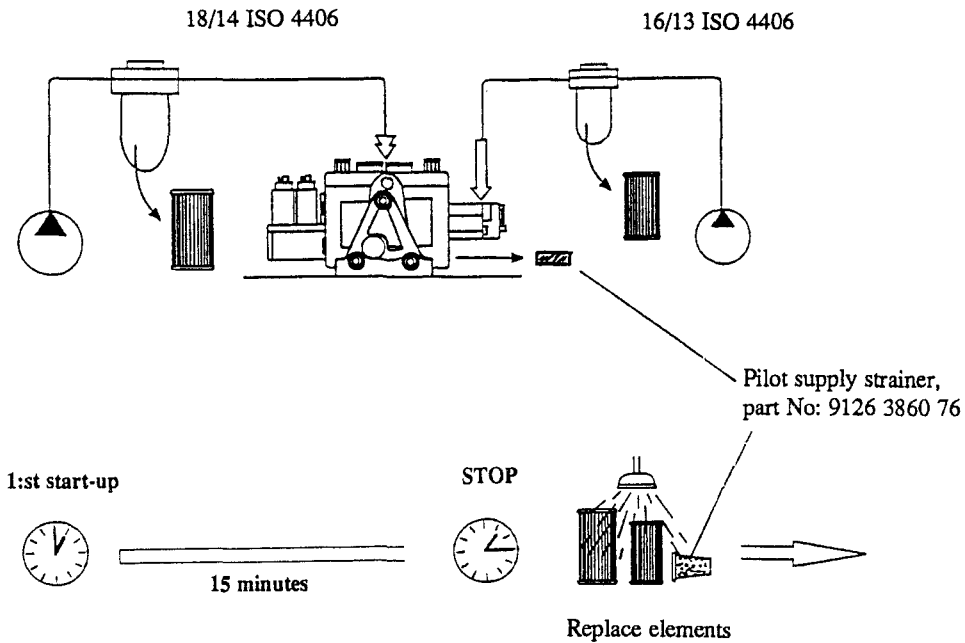
Important

Safety measures must be taken due to temperature of solenoid if running 100 % of application operating time.

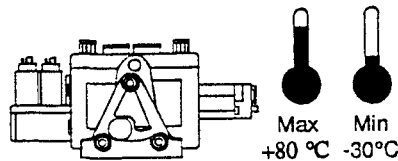
The solenoid can reach a surface temperature of 120 - 150 °C (248 - 302 °F).

A protection shield is recommended to prevent possible injuries.

System demands



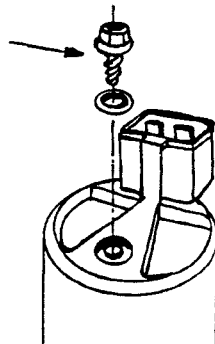
30 cSt / 50 °C



Bleeding of solenoid valves PVC25

1. Start system and leave idling
2. Unscrew the bleed-screw one full turn
3. Actuate the solenoid on - off, ten times
4. Check escaping oil for air content. If air bubbles, repeat point 3
5. Tighten the bleed-screw, NOTE max torque

Max 1.2 Nm



Tuning of IPS302 12/24 V used with EC/ECH spool-actuator fitted with PVC25 solenoid valves

Factory settings IPS302*

	12 V	24 V
Start current	375 mA	200 mA
Final current	725 mA	400 mA

Settings needed to run PVC25 solenoid valves*

	12 V	24 V
Start current	550 mA	260 mA
Final current	980 mA	510 mA

A slight increase of both start and final current from IPS302 factory setting is needed to run PVC25 solenoid valves.

* Data from EHC35 catalogue (ordering No 9129 8355 xx) and L90LS catalogue (ordering No 9129 8504 xx) respectively.

WARNING

This sign is used to indicate the presence of a hazard which *can* cause *severe* personal injury, death, or substantial property damage if the warning is ignored.

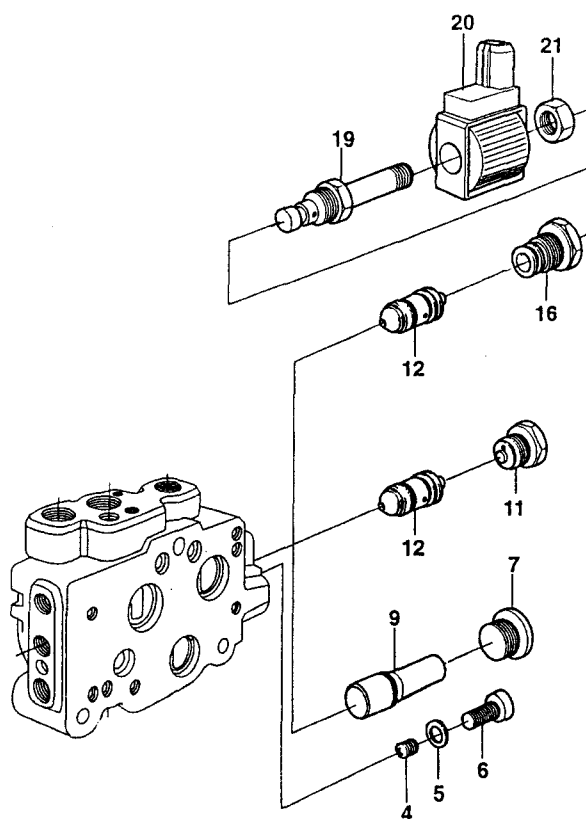
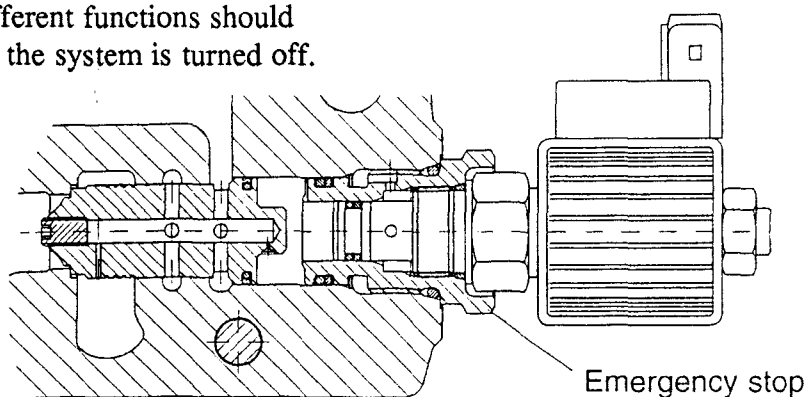
Emergency stop

Activating of the Emergency stop function

To guarantee the function of the emergency stop, at least one on-off actuation should be carried out per workshift.

When the emergency stop is activated (oil supply to all functions is off), different functions should be activated to verify that the system is turned off.

If any malfunctioning of the emergency stop, ***immediately contact authorized service personnel.***



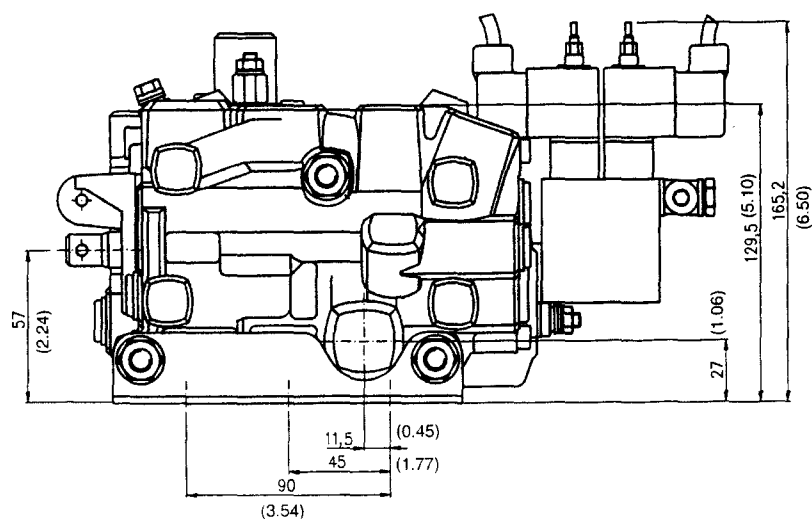
Assembly instructions when converting from plugged (BB) to emergency stop (BEN, BEA or BX) function.

WARNING

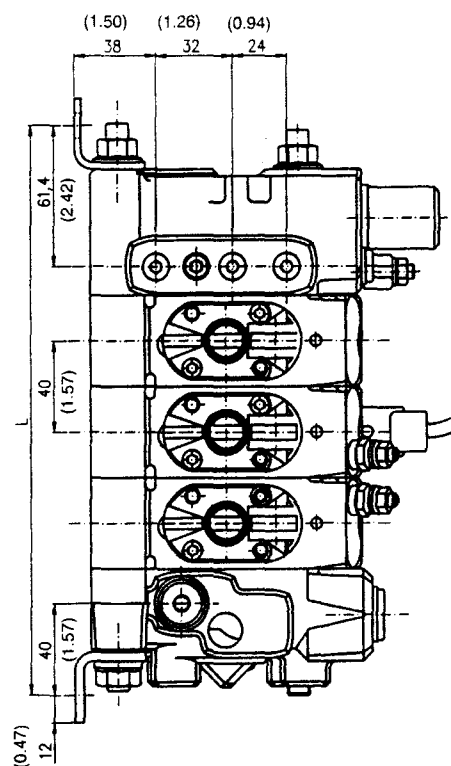
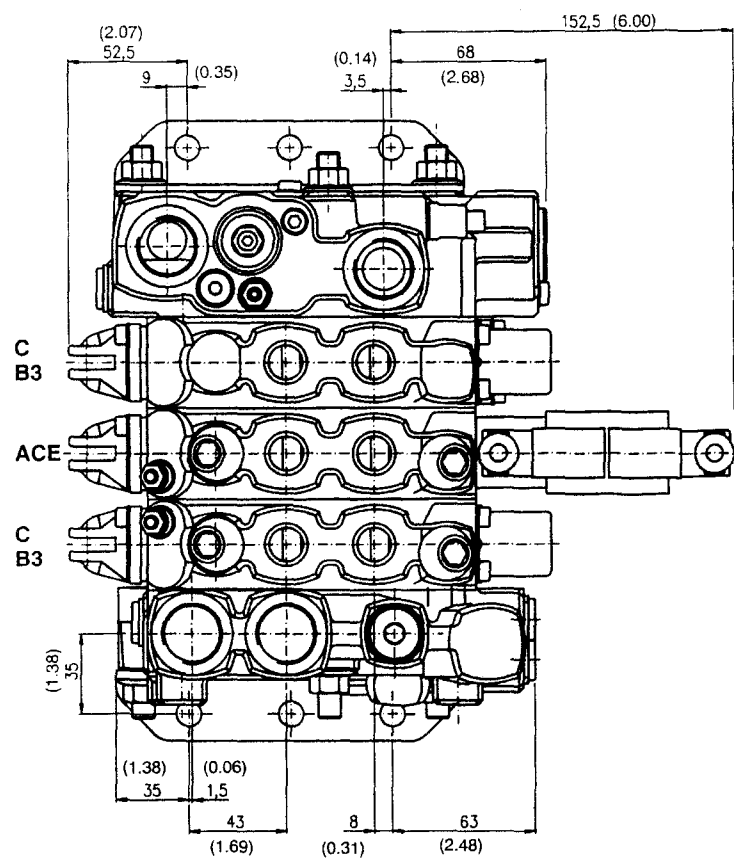
Only authorized service personnel.

For part numbers see Spare Parts Listing L90LS.

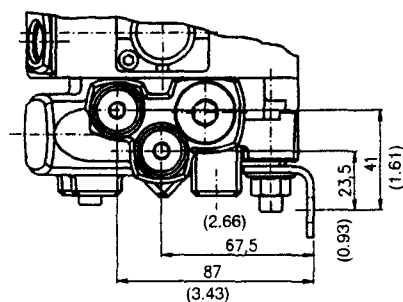
1. Determine colour code of poppet (12) needed (see marking on casting close to function opening), B = blue, G = green, R = red.
2. Remove plug (7), screw (6), seal (5), plug (4) and distance (9). For removing distance use service tool 393000T005.
3. Install seal (5) and screw (6) 10 Nm, leave plug (4) out!
4. Install a correctly sized poppet (12), use silicon oil to prevent seals from getting cut.
- 5a. BEA, BEN: install plug (16), silicon oil! MV = 100 Nm
- 5b. BX: install plug (11), silicon oil! MV = 100 Nm, go to 8.
6. Install solenoid valve, silicon oil! MV = 30 Nm
7. Connect electrical wires according to instructions on page 4.
8. Test the complete function according to "Activating of the Emergency stop function", page 6.
9. Periodically check the function acc. to information on page 6.



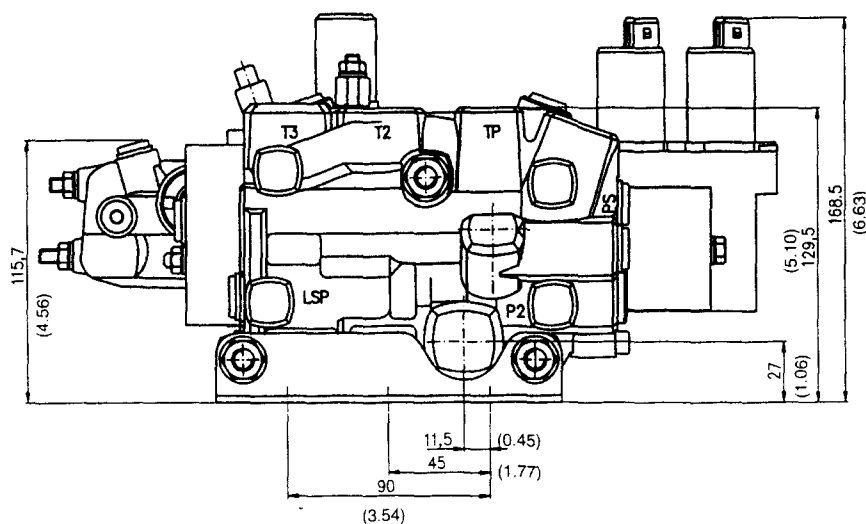
Spool actuators with open spool end.



No. of sections	L mm	L inch
1	169	6.65
2	209	8.23
3	249	9.80
4	289	11.38
5	329	12.95
6	369	14.53
7	409	16.10
8	449	17.68
9	489	19.25
10	529	20.83

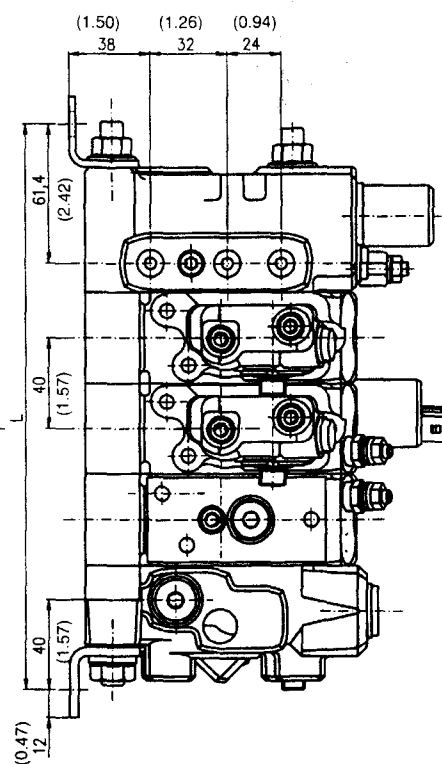
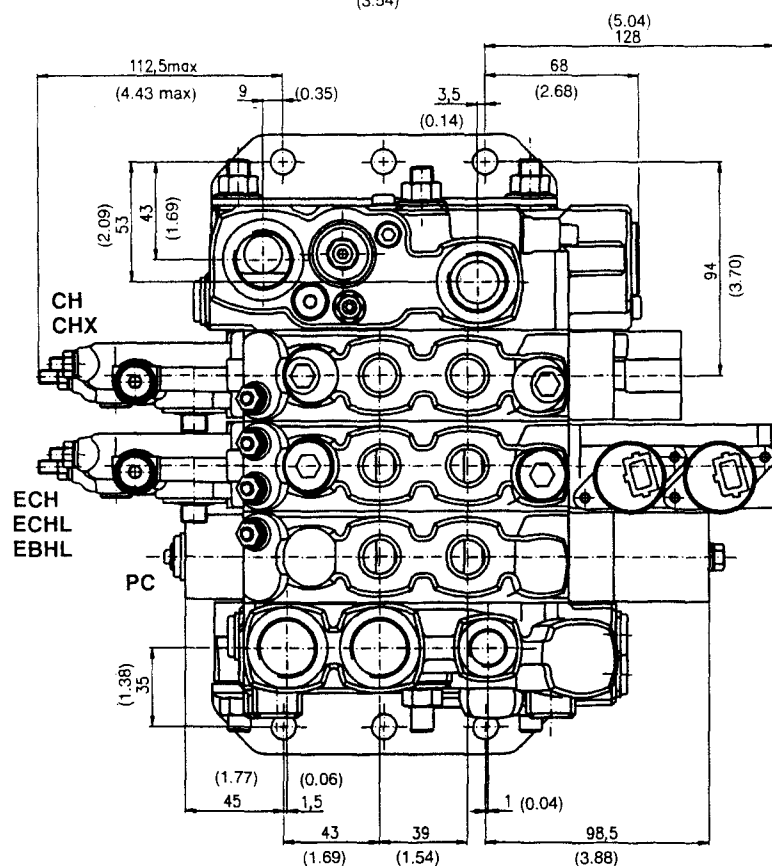


Dimensions



No. of sections	L mm	L inch
1	169	6.65
2	209	8.23
3	249	9.80
4	289	11.38
5	329	12.95
6	369	14.53
7	409	16.10
8	449	17.68
9	489	19.25
10	529	20.83

Spool actuators with enclosed spool end.



Allow free space for...
...maintenance, air bleeding etc

