



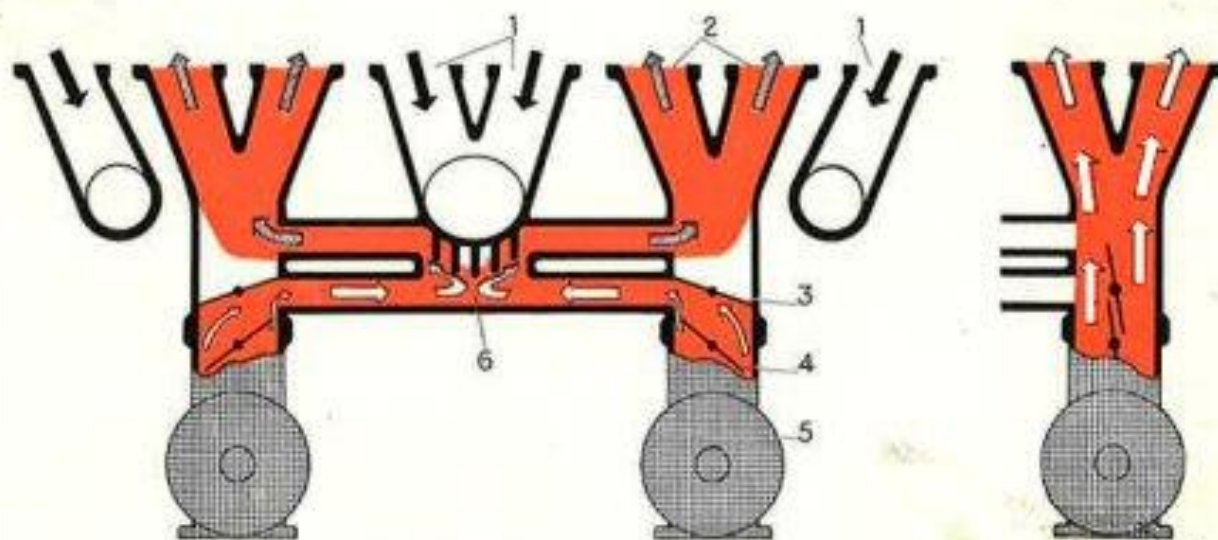
SUPPLEMENT TO INSTRUCTION BOOK

EXHAUST EMISSION CONTROL SYSTEM

Volvo has developed an exhaust emission control system in accordance with the principle of a more complete combustion which decreases the contents of carbon monoxide and hydrocarbon in the exhaust gases to an acceptable level. This is achieved mainly by a modified induction system that enables a more exact and leaner mixture ratio between fuel and air.

The figures below show how the system works in the B 18 B engine with dual carburetors.

DESCRIPTION



1 Exhaust manifold
2 Intake manifold
3 Intake manifold throttles

4 Carburettor throttles
5 Carburettor
6 Preheating chamber

The intake manifold has been equipped with two throttles (3). For normal driving and for speeds up to approx. 75 miles/hour, the throttles (3) are closed (left figure) thus forcing the mixture of fuel and air from the carburetors to a central preheating chamber (6) where the intake charge is heated and thoroughly mixed whereby a completely evaporated and homogenous mixture

is obtained. When higher output is required, the throttles (3) open up (right figure) and the mixture of fuel and air can pass more directly to the cylinders without passing the preheating chamber. In this way, the full engine output can be used without restrictions in the intake system. In other words, the engine has been furnished with a dual intake system, a low output system and a high output system. At city driving when normally only the low output is being used, a good fuel economy is also achieved.

The change from low output system to high output is automatically controlled as the carburettor throttles (4) and the intake manifold throttles (3) are connected by means of a simple cam system.

Servicing

The carburettors are already set at the factory and may only be adjusted by a skilled mechanic who has the necessary equipment.

With the exhaust emission control system the ignition timing is altered to 3–5° B.T.D.C. at 850 r.p.m.

Otherwise, the servicing instructions do not differ, as far as the customer is concerned, from those given in the instruction book for the various models.

SPECIFICATIONS

Engine

Type designation	B 18 B		
Output, h.p. at r.p.m.	Volvo 140	121/122 S	1800 S
DIN	100/5600	96/5600	103/5600
SAE	115/6000	115/6000	115/6000
Max. torque, lb.ft. at r.p.m.			
DIN	107/3500	106.5/3500	108.5/3800
SAE	112/4000	112/4000	112/4000
Compression ratio	10:1		
Idling speed	800–850 r.p.m. with manual gear shift 700–750 r.p.m. with automatic transmission		
Spark plugs	Bosch W 200 T 35		
Oil for the damper cylinder of the carburettor	ATF, Type A		