20-10-07 Flexible Hose

For the oil and fuel systems aft of the firewall the EXTRA 300SC is equipped with PTFE-hoses. For the brake system generally PA/high tensile synthetic fibre hoses are used, which are also installed as sense lines for engine instruments.

In the engine compartment PTFE hoses with integrated fire sleeves are used as fuel, oil and sensing lines.

Replacement of Flexible Hose

External forces can significantly reduce hose life or cause failure. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Any hose that has been kinked or bent to a radius smaller than the minimum bend radius, and any hose that has been cut or is cracked or is otherwise damaged should be removed and discarded. The entire hose assembly must be replaced, if damage or failure occurs within a flexible hose assembly.

Visual Inspection Hose/Fitting

Any of the following conditions require replacement of the hose assembly:
- Fitting slippage on hose,
- Damaged, cracked, cut or abraded cover (any reinforcement exposed);
- Hard, stiff, heat cracked, or charred hose;
- Cracked or damaged fittings;
- Leaks at fitting or in hose;
- Kinked, crushed, flattened or twisted hose; and
- Blistered, soft, degraded, or loose cover.

Installation of Flexible Hose Assemblies

In general hose assemblies should be handled with care to prevent excessive bending, twisting and kinking since this reduces the life of the hose assembly considerably. Particular attention must be given to preclude hoses from wear, snagging, kinking, bending smaller that minimum bend radius and

cutting, any of which can cause premature hose failure. Large diameter hoses and very short hose assemblies are more prone to kinking. Special care must be taken to prevent twisting of hose assemblies that do not incorporate assembly fittings with spanner flats to counteract while the nut is turned to the connection fitting (e.g. Parker/Statoflex PTFE hose type 101). Twisting of the hose can be determined from the identification markings running along its length.

The flexible hose should be installed so that it will be subject to a minimum of flexing during operation.

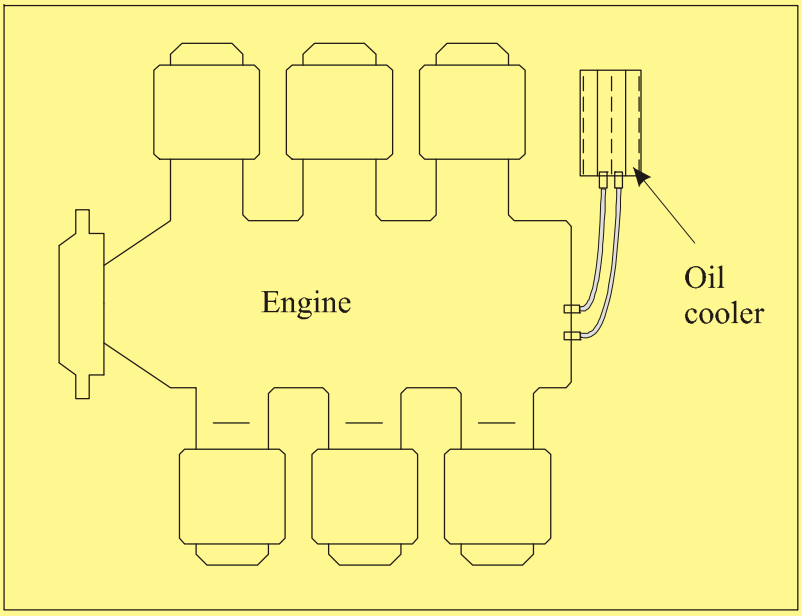
20-10-08 Fittings

For the oil lubrication, the fuel system, and the brake system only AN-fittings are used in the EXTRA 300/SC. All these fittings are made of aluminium alloy and are colored blue for identification purposes. The dash number following the AN number indicates the size of the hose for which the fitting is made, in 16ths of an inch. This size measures the inner diameter (I.D.) of the hose. The material code letter (Aluminum alloy: code D) follows the dash number.

Example: Elbow AN 822-8D

N O T E

Apply Loctite 577 on all National Pipe Threads (NPT) before installation.



Oil Cooling System
Figure 3

79-20-02 Fittings

General information concerning fittings used in the EXTRA 300/SC you find in Chapter 20-10-08.

79-20-03 Flexible Hoses

General information concerning flexible hoses you find in Chapter 20-10-07.