

Bulletin #:	2006-005	Date:	23/09/06
Product:	<input checked="" type="checkbox"/> Compressor	<input type="checkbox"/> Generator	<input type="checkbox"/> Tools
Subject:	Intake retention kit CPN80026164 for 7/20		

Models

7/20 SN before 121170

On the 7/20 the air filter is common to both compressor and engine. In some adverse conditions when the compressor is stopped with the service valve open some compressor oil could flow through the unloader valve back to the engine air intake manifold. This could result in oil ingestion by the engine and subsequent damage. To prevent this, the air intake pipe was upgraded with the addition of a retention box.

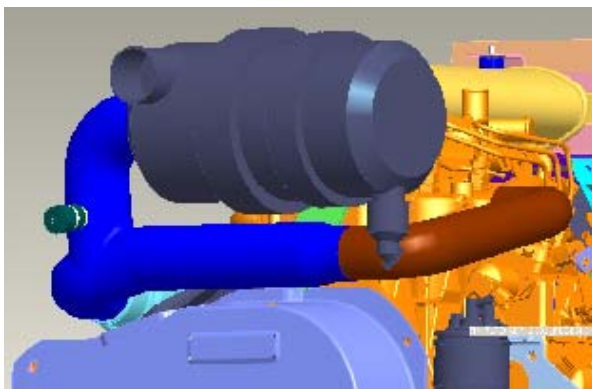


Figure 1 Original air intake

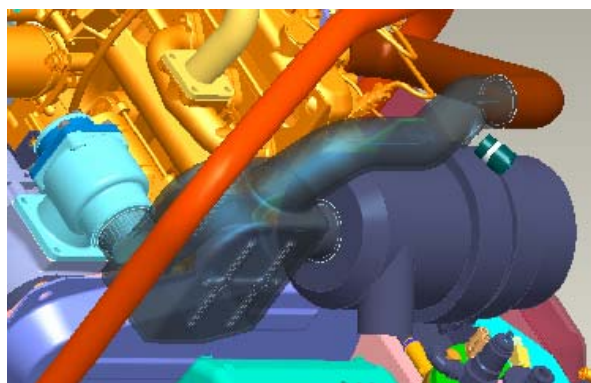


Figure 2 New air intake with retention box

The new air intake is fitted as standard in the machines after SN121170. A kit **CPN80026164** has been created to upgrade the older machines. This is NOT a campaign. Due to the low failure rate only machines with symptoms of oil/air backflow will be updated.

The kit includes the items shown in the table below. Please check if all the items are included before proceeding to the installation.

CPN	Description	Qty
22875686	AIR FILTER BRACKET	1
22875694	SERVICE HOSE BRACKET	1
22875702	AIR INTAKE HOSE	1
22932875	SPRING UNLOADER VALVE	1
54403209	ELBOW	1
92281427	CABLE TIES 200x3.5	3
92434315	CABLE TIES 100x2.5	2
92490358	POLYPIPE OD 6mm	5 m
92799378	POLYPIPE OD 8mm	1 m

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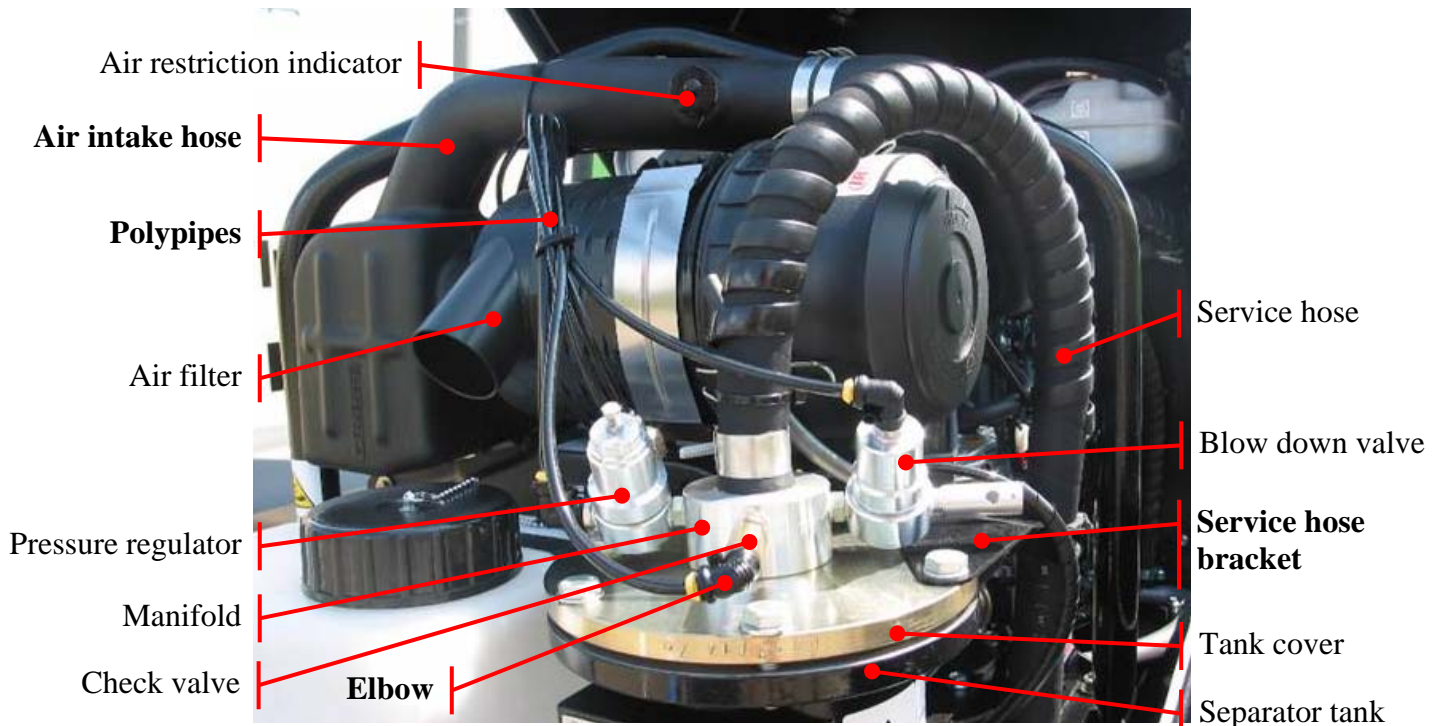


Figure 3 Nomenclature, in bold are the parts supplied in the kit

Refer to the figure above to identify the parts in the installation procedure.

Preparation

1. Disassemble the installed air filter, air filter bracket and air intake hose.
2. Recover the air restriction indicator from the air intake hose. Fit it on the new air intake hose.
3. Cut the following pipes from the 5 meters long polypipe OD 6mm and the 1 meter long polypipe OD 8mm provided in the kit. Use a sharp blade to avoid crushing the ends.

Pipe N°	Diam (mm)	Length (m)	Connections
1	6	1.15	Scavenge line from check valve to airend side
2	6	1.25	From pressure regulator to speed cylinder
3	6	0.75	From blow down valve to airend inlet
4	6	0.85	From pressure regulator to unloader valve
5	6	0.95	From tank to pressure gauge
6	8	0.65	From pressure regulator to orifice

4. Remove and discard the 6 existing pipes equivalent to the ones detailed above.
5. Disconnect the service hose clamped on the manifold.

Manifold rotation

In order to make space for the air filter the manifold has to be rotated a half-turn to have the check valve on the front side of the machine.

6. Unscrew the manifold from the separator tank.
7. Invert the position of the pressure regulator and blow down valve on the manifold.
8. Replace the manifold on the separator tank.
9. Remove the separator tank cover. Replace the service hose bracket with the one provided. Turn the separator tank cover a half-turn and replace it on the separator tank. Torque the bolts to 52 N.m.

Spring installation

The spring provided in the kit fits in the unloader valve. It is stiffer than the original one and allows the check valve to close quickly during the compressor shutdown. Figure 4 together with the numbers inside brackets are used to reference the unloader valve parts.

10. Remove the four bolts (18) at the back of the unloader valve and remove the piston assembly (2).
11. Remove the check valve (4,5,7,8) and inspect its shaft (8) for smoothness. If present, light scratches can be removed with fine sand paper to ensure a smooth slide between the check valve and piston (3).
12. Remove the old spring (10) from the piston bore and replace it with the new one.
13. Replace the check valve, piston assembly and torque the four bolts to 26 N.m.

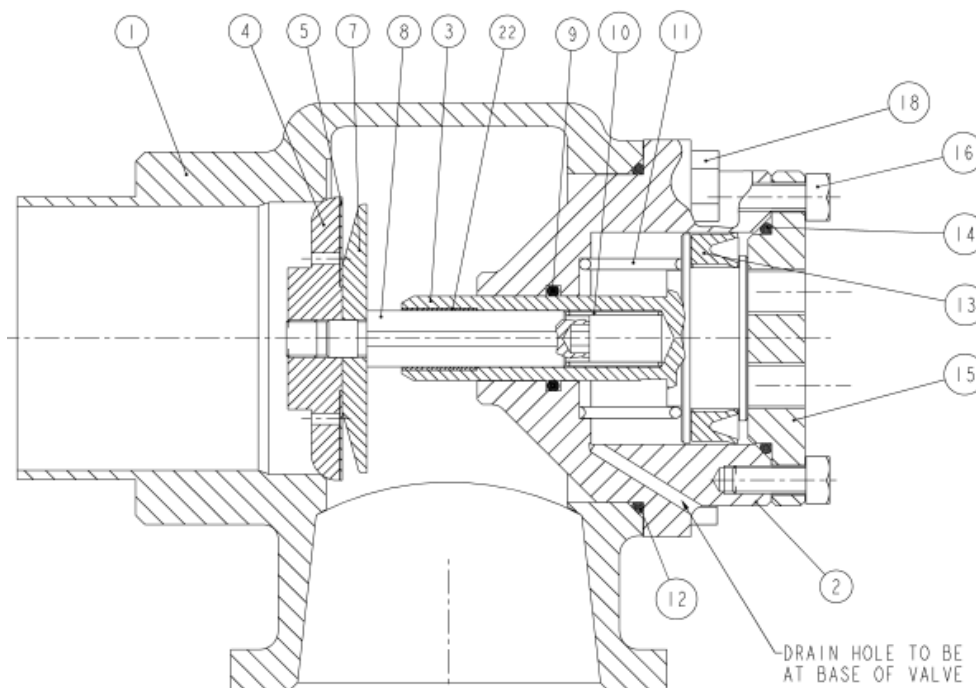


Figure 4 Unloader valve section

Air intake installation

14. Install the new air filter bracket, air filter and air intake hose reusing the existing band clamps.
15. Connect and route the six air pipes as per pictures below and using the table as reference. Use the elbow from the kit on the scavenge line check valve.
16. Use wire ties to secure the pipes as highlighted.

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1	6	1.15	Scavenge line from check valve to airend side
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