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www.sv-shocks.com



SV shock absorbers are extreme high quality heavy duty shock absorbers which have been made since almost 40 years. Shock absorbers design is twin-tube, oil filled low pressure absorbers which survives even with the harshest conditions. Used materials are very high quality, which gives for it unmatched lifetime. But if there is doubt for shock absorbers functionality or external damage occurs, it is crucial to know what and how to check the absorber. If required, contact the SV technical support. Next is general description to check the shock absorber.

Checkpoints in current application:

How does the shock absorber look like?

- Is there any sign of external damages? For example, dents in absorber body or shield tube or transformation in fastening bushes. If damage appears, then the shock absorber must be taken away and then make manual check for it.
- Fastening and bushes. Bushes and fasteners must be in good condition. Fastenings must not be in loose condition. Check by hand and with pry bar the shock absorber firmness in application. If shock absorber feels like loose, next thing is to check fastening bushes and mechanical fasteners. If there is any sign of deformation or irregular wear in bushes, you must replace bushes or whole shock absorber, depending on application.
- Are the shock absorbers mounting in the right tight? Wrong tightness may cause mechanical noise.
- Particularly with the pin mount, there can occur some mechanical noise due potential mounting error. To verify the mounting error, you must take away the shock absorber and check out for bush condition.
- Moisture at shock absorber body. Is the shock absorber body wet of oil? There can be remains of oil when the shock absorber was assembled and now it came into sight. This affects only for new shock absorber which had been in use less than 6 months. If it is older shock absorber, then you must take it away from application and make hand check, or renew it. Always pay attention to possible outside spilled oil.

Checking separated shock absorber.

- The only way for reliable check for shock absorber is proper test equipment and trained personnel.
- Shock absorber stiffness. When there is no resistant at all during shock absorber movement, shock absorber must be replaced. However, if shock absorber is giving resistance in movement with both ways, it is most likely in usable condition.
- Shock absorber cannot be reliable tested in hand velocity. In such test, speed is so low that you couldn't verify the shock absorbers real condition. Every damper has some difference compared to other same type in such speed.
- When the shock absorber is fully pulled out and then pressed down, there must not exist so called empty movement. Empty movement means, that there is no resistant at all during movement. If such movement exists more than 20 mm from the top, shock absorber must be renewed.
- There must not be variations in stiffness while moving shock absorber in whole stroke. If such things occur, shock absorber must be renewed.
- Shock absorber should not leak oil at any position. If you can see the oil spilling out from it, you must replace the shock absorber immediately.
- Shock absorber mountings. There must not be transformation or any kind of weariness in mounting eyes. Small movements in fastening bushes are usually acceptable, if there isn't mechanical contact between shock absorber and frame.
- Particularly in pin mounting, check the rubber bush inner shoulder. The shoulder should exist. If not, next thing is to replace worn out bushes. Otherwise there can be mechanical contact between shock absorber and frame and it can cause abnormal noises. Don't ever change the bushing material from original, because it doesn't have the same material characteristics like original does. If you still want to change non-original bushes, it voids warranty.

NOTE!

SV products, all our documents and instructions are subject to continual improvement and development. Consequently, although these instructions include the most up-to-date information available at the time of printing, there may be differences between, instructions, your shock absorbers, warranty and this manual. Please consult your SV dealer or manufacturer if you have any questions with regard to the contents of this information.

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Here are few examples for how to evaluate the shock absorber.

Leak in shock absorber. Absorber inner tube is covered with sand and oil.
It depends how old absorber is, do it have warranty. (Also misuse or other reason can void warranty.)
You must replace it any way



Replaceable leaking shock absorber



Leak causes no action

Mechanical fault. The dust cover tube has broken off from piston rod. If there isn't any other external damages, this is usually covered by warranty.



Mechanical fault

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Rubber shoulder premature wear.

This may also cause some strange noises, which comes through shock absorbers body to application's frame, because there is mechanical contact between shock absorber and frame..



Rubber shoulder premature wear

Steel bushing movement. Small movement is acceptable, but big movement is not.

Small movement is often only normal result of rubbers flexibility. Big movement is usually covered by warranty, if external damage does not exist and if shock absorber was used in correct application.



Small movement



Large movement

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Rubber bush is out of eye. This is usually covered by warranty, if the shock absorber was in correct application and any other external damage does not exist.



Rubber is out of eye

Eye distortion. Check the correctness of the shock absorber in current application. Shock absorber has been acting like the movement limiter. In this case, shock absorber was too short. Check the original movement limiters, if such exists. In this case, the warranty does not exist..



Eye or rubber distortion



Extreme eye distortion.

Information or assistance regarding warranty claims may be obtained by writing:

Customer care
Suomen Vaimennin Oy
Laurilantie 5
04400 JÄRVENPÄÄ
Finland

or by email

info@suomenvaimennin.fi

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