



WIAP®

MEMV®



Metal relax with vibration

information report MEMV_WM873_Transport Stress problems

Introduction:

Metal relax with vibration move not only delay tensions in the mechanical processing. An even unwanted reality is, when components in the factory were made in hundredths, but then after delivery to the end customer, the mass special are often not accurate in hundredths in tenths of a millimeter. These unwanted movements are generated during transport. The WIAP has little to report it.

Below Example 1:

A defense contractor manufactures vehicles for NATO. In delivering works all vehicles to be removed, everything was ok, all right:



Figure 1: From internet 02_2019
(Photo from Internet)

then transported through Europe to Ireland, there was half of the vehicles long cracks in the front and side walls. The WIAP AG negotiated with the manufacturer and the end user, NATO decision people it was said, it could be welded on site and repaired, relaxed with a WIAP MEMV system. There were then treated all vehicles abroad and in production organization WIAP MEMV. Of new cracks was not spoken. Special feature: Thanks to the WIAP MEMV process could be carried out on site the whole process. It has just the electronics of the gun turret to produce no damage caused by vibrations.



Figure 2: From internet 02_2019
(Photo from Internet)



Figure 3: Vibration relaxation from previous years (WIAP photo of FAWEM fair on the stand WIAP)



Figure 4: devices with cracks arrived abroad. treated before transportation MEMV prevents such cracks. Such topics are hushed. (Photo from Internet)

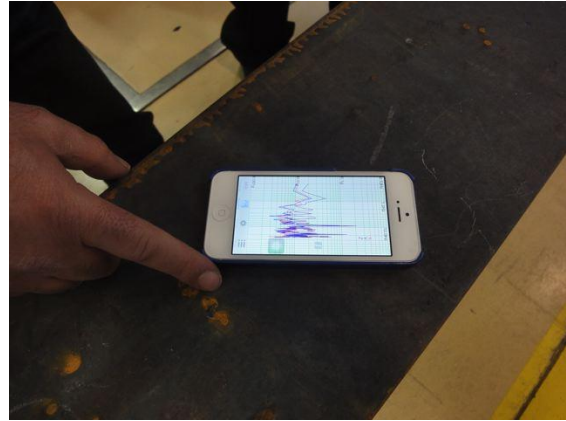


Figure 6: Even with a "mobile app" to measure the WIAP can be verified devices (WIAP photo)

Below Example 2:

The WIAP AG was commissioned to make a test in the largest international research institute in Switzerland, in Geneva. The Research Institute bought a carrier from Bulgaria, they were highly accurate. The buyer himself sent engineers to examine the manufacturing plant to ensure quality. It was all ok. In hundredths exactly was taken. Delivery by truck from Bulgaria to Geneva, where the inspection on entry into the workpieces were in tenths of a millimeter range warped after transport. At the time, WIAP AG made measurements at the Swiss end customers. The components should have been treated by the pre-processing prior to finishing WIAP MEMV, then this delay had not occurred.



Figure 7: WIAP conditioning, with log unit (WIAP photo)



Figure 5: Test in the largest International Research Institute in Geneva (WIAP photo)

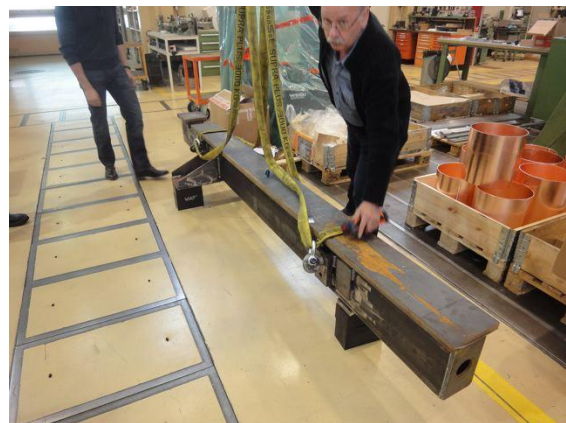


Figure 8: Test component which let pass through the WIAP MEMV process. (WIAP photo)

Below Example 3:

A big company makes, besides for itself its own products, and wage labor. The manufacturing plant is in an area with very bumpy roads, at least 200 km from the

motorway. The technical director tells us that he has measured exact structures in the factory and has protocol of the measuring machine. When re-measuring at the final customer, the components of tolerance. Such problems when WIAP MEMV is treated prior to finishing, not happen, something is prevented.

conclusion

That prior to finishing a vibration cycle, can solve subsequent delay problem is actually the one little technical thinking for anyone logical. it's us but not until well since 2014, aware of the vibration is not only relaxing vibrations relax. There are so many contingencies that must be observed. Just a vibrator tense and even let 30 minutes pass, probably brings something, but what it brings is not always comprehensible.

From the bottom of the WIAP AG, the multi-point measurement with the patent application in 2017 no. 1. The Patent Application No. 2017. 2 with many directions and the more zones can be stimulated in a part as it was a few years ago. And it's much more visible to the re-measuring.

What is certain is that the vibration MEMV relax much transportation eliminates problems away from the front. should make only one there. And who thinks that if the component is moved, it can be straightened again with vibration, is wrong. must be done before finishing vibration relax.

Very important: As we vibrate components? Which axis directions? What deflections in which areas? Where is attached to the stimulator so that no dead zones are caught? What and where the rubber be considered that the conditions zones reach deflections?

The WIAP AG completely surveyed hundreds of components since 2014, while the relaxation. It was determined that G shifts are reported in which zones achieved. It is important to know today that Cubic and rotational symmetric components, each with

its own characteristics. That if we do not MEMV relax, can also be achieved that too little is stimulated. This can have the consequence that then the results will not want what are.



WIAP® AG Ltd SA

Created: 02_2019 sw_jw_hp___iw

Phone: ++ 41 62 752 42 60

Fax: ++ 41 62 752 48 61

wiap@widmers.info

www.widmers.info / www.wiap.ch

Industriestrasse 48L

CH-4657 Dulliken