

# FIELD TEST EVALUATION REPORT

**TEREX TLB890, 2013**  
**CouplerTec 6COMM**

Ljubljana, 17. 10. 2017

# Introduction

**Company:** The Munalizzata company, Slovenia

**Vehicle:** **TEREX TLB890** Backhoe Loader, **2013**

Loader operates all year around. In summer it's engaged in construction and maintenance work (construction, roads). In winter it's engaged in winter road service: cleaning and loading snow from roads and objects (in contact with winter salt road spread).

**CouplerTecu:**

CouplerTec **6 COMM** system for commercial vehicles with 6 pads

**Installation date:**

**14. 12. 2013**

# About CouplerTec

- CouplerTec's patented capacitive coupling technology interferes with the electrical charge between iron and oxygen so it becomes hard for these elements to combine to form rust.
- By creating a negative (-) electrostatic surface charge on the metal surface of the protected structure, the (-) oxygen atom is now repelled. In other words, the technology interferes with the metal's ability to react with oxygen.
- Should a protected structure's paintwork become compromised (e.g. stone chip or scratch) resulting in exposed bare metal, then over time a very thin layer of surface rust may eventually form on the bare metal surface. This layer of surface rust takes the place of the paint work and becomes the dielectric, which in turn holds the charge static. The surface rust will turn a dark brown colour, this is non-active ferric oxide and will not progress any further.
- Even when vehicle is not new and already has some existing rust CouplerTec systems have been proven to slow the corrosion process. But remember, as good as this product is, it is not a miracle cure for badly rusted vehicles, as the more rust the vehicle has, the harder it is to stop. The results are best when CouplerTec installed in the new vehicle.

# METODOLOGY

## ***Purpose of Test:***

To evaluate the effectiveness of the CouplerTec Electronic Rustproofing System in reducing the effects of rust and corrosion on loader.

## ***Test Trial Period:***

min 4 years

(#1: 2014-11, #2: 2016-10)

## ***Vehicle Evaluation:***

Vehicle will be inspected through the time. A condition report will be completed with photographs.

# TIME INTERVAL: 3 YRS DEC 2013 VS. OKT 2016



# TEREX loader with CouplerTec

## BEFORE: AFTER

### 3 years

An area of damaged part (scratched paint) looks same. After time it only got darker, which indicates inactive ferric oxide as a consequence of CouplerTec rust protection.



**2013-12** (installation)



**2016-10**

# TEREX loader with CouplerTec BEFORE: AFTER 3 years

Heavily used and exposed cabin door area is very prone to rust. In this example the area haven't aged.



**2013-12 (installation)**



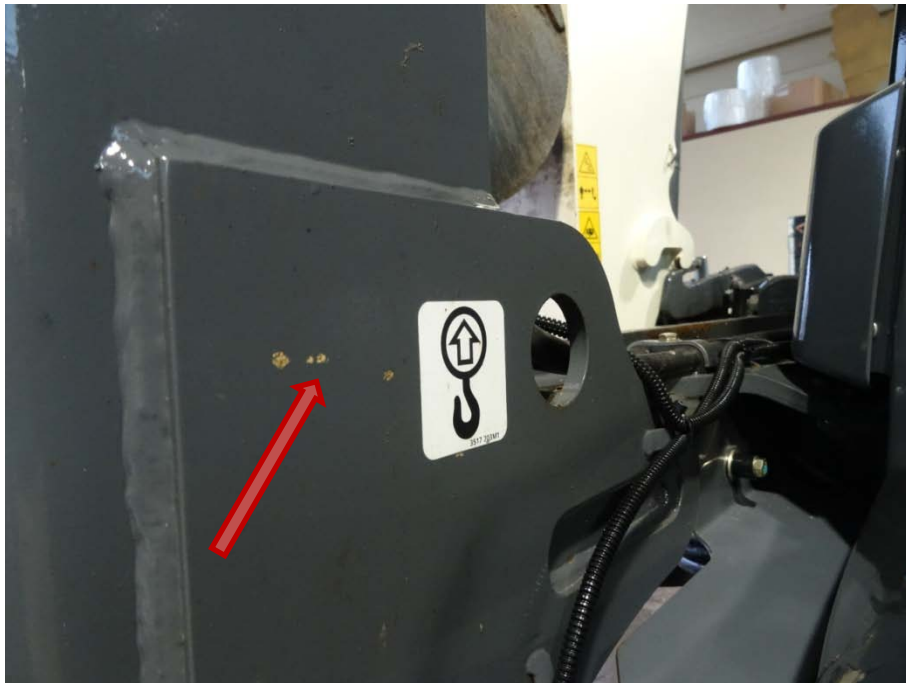
**2016-10**

# TEREX loader with CouplerTec

## BEFORE: AFTER

### 2 years

Damage (scratched paint) happened when loader was approximately one year old. In 2 years damaged area haven't aged.



**2014-11**



**2016-10**



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**2014-11**



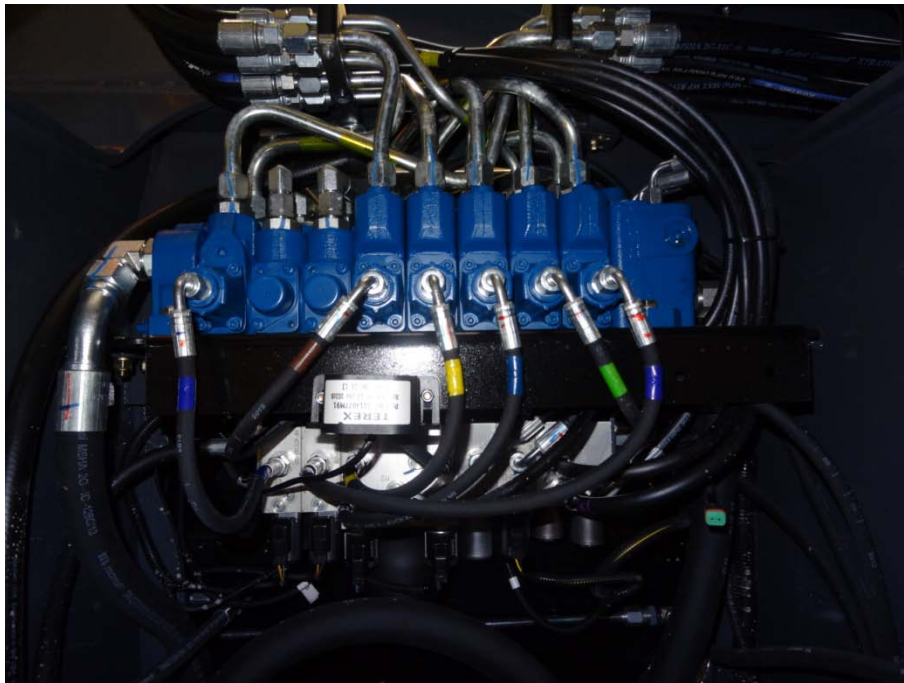
**2016-10**

# TEREX loader with CouplerTec

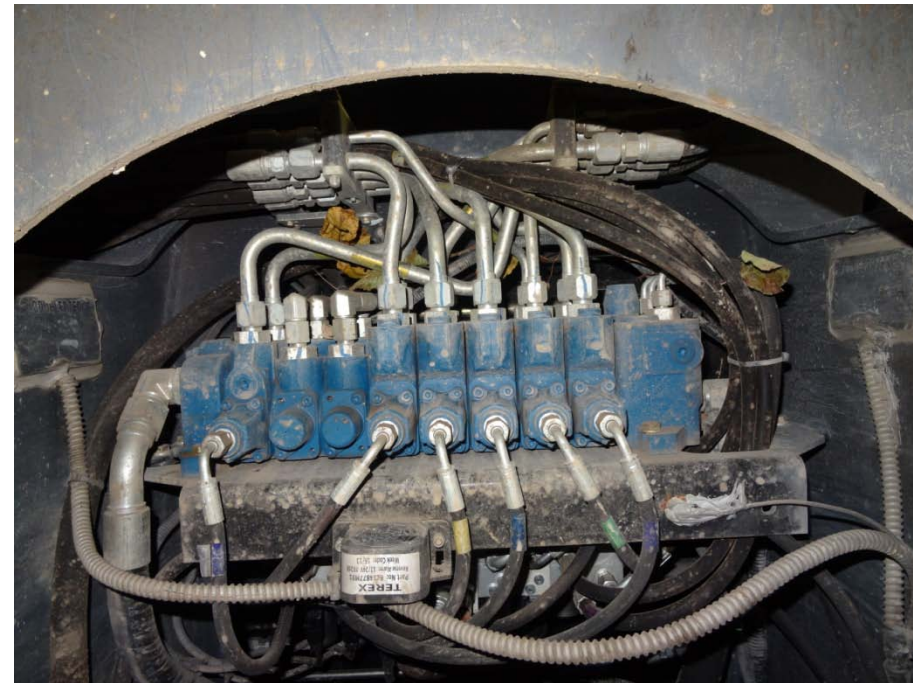
## BEFORE: AFTER

### 3 years

Chassis connections are constantly exposed to hard environmental elements. After 3 years they haven't aged.



**2013-12 (installation)**



**2016-10**

# TEREX loader with CouplerTec

## BEFORE: AFTER

### 3 years

A very illustrative example of integrated rust already in the new vehicle (photo on left).

Underbody parts are especially exposed to harsh environmental elements e.g. stone chips, scratches, rust accelerators (slat, soil, minerals) and are more prone to rust. Underbody of this CouplerTec protected loader is after 3 years of heavy duty work in a very good condition.



**2013-12 (installation)**



**2016-10**

# TEREX loader with CouplerTec

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**2016-10**

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**2013-12 (installation)**



**2016-10**

# Intermediate summary

CouplerTec rust protection tremendously benefits on a long term. In this report are presented some observations in time interval of 3 years on the same loader. Rust growth typically has exponent growth. More and more significant differences in advantage of CouplerTec Electronic Rustproofing will be seen through time.

At the time of installation CouplerTec to the new loader 2013 company had same but 4 years old loader that we photographed.

In the year of 2017 we'll have an opportunity to compare the condition of 2 loaders at age 4 years: one not protected with CouplerTec with the one protected with CouplerTec.