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## **Presentation**



**Single Drive Axles S190 and S590series**  
**Tandem Drive Axles D170 / D190 series**



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**KLAM Retarder KA 200/240 C**



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## 2. Why DANA Axle with Klam Retarder?

- ✓ **Improve and comply**
  - Delivery request of the V.O.E.M.
  - Add new features to the axle product
- ✓ **Reduce !**
  - Weight in relation to driveline retarder
  - Cost of installation on the production line
  - Environmental impact
- ✓ **Enjoy !**
  - The comfort of ordering from one supplier.
  - Improve warranty procedures !
  - Less cost to the V.O.E.M !



Reduction of wear  
saves money



Improve the safety of the  
vehicle and the passengers.



Environmental friendly



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### **3. Why Klam Retarder?**

✓ **Reduced installation cost !**

- The axle and retarder are one single piece.
- Less cost of installation.
- No more altering of the propshaft required.



✓ **Enjoy !**

- Integration of the additional axle support
- Free maintenance
- Full integration with EBS, ABS, ESP and CANBUS

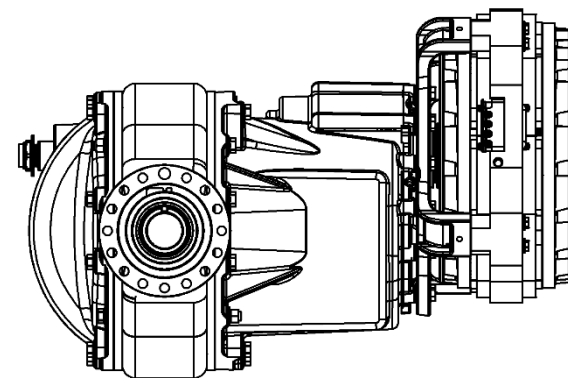
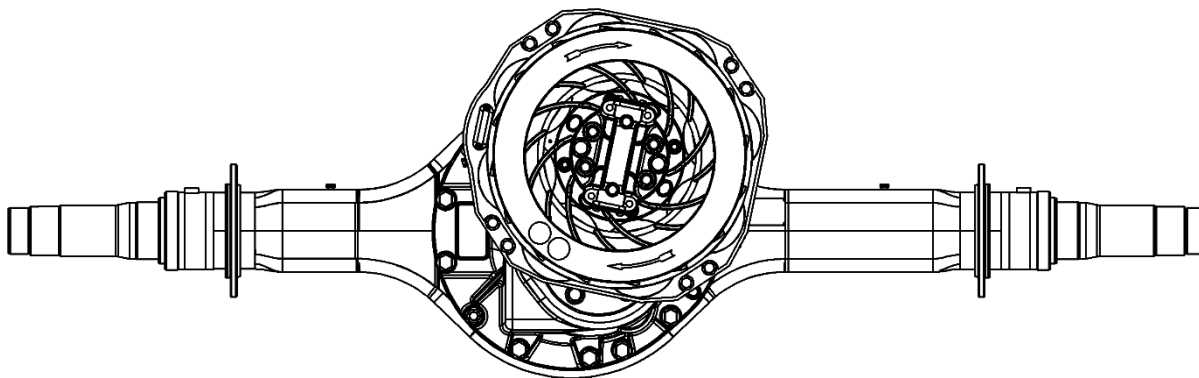
**Electromagnetic compatibility  
test pass.**



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## **4. The design of the DANA Single Drive Axles S190 and S590 series, Tandem Drive Axles D170 / D190 series & Klam Retarder KA 200/240 C**



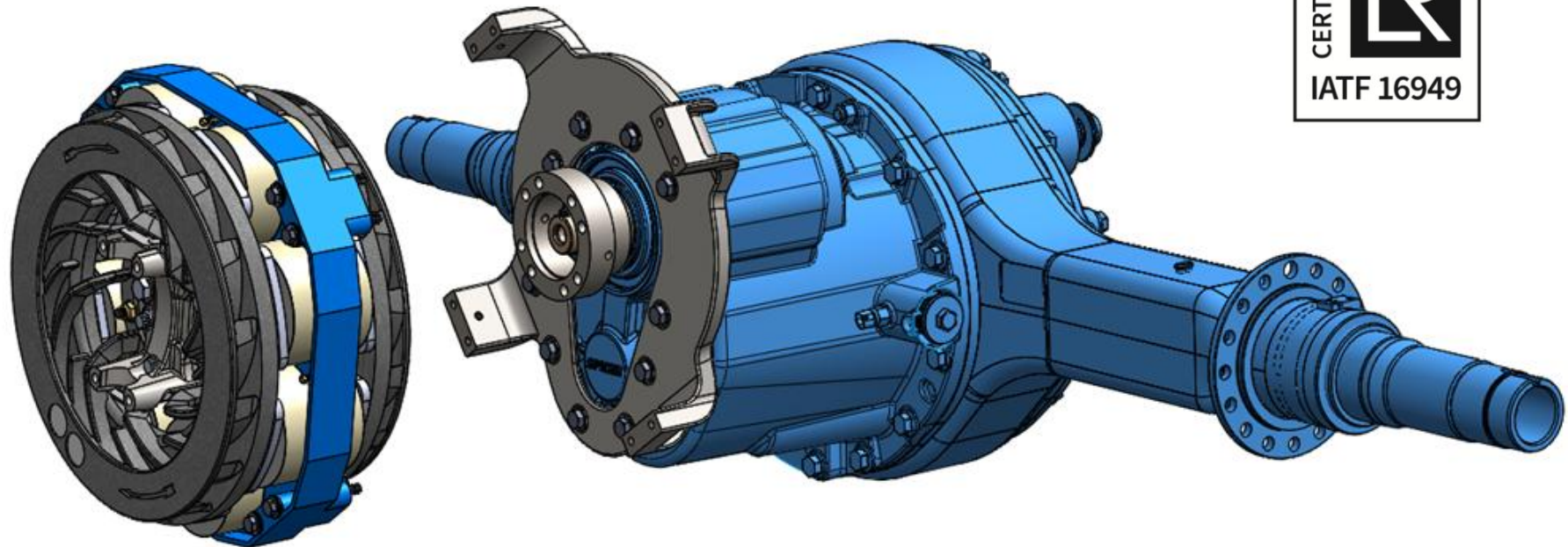


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## 5. The design of the Klam Retarder KA 220/240 C

- The companion flange is changed to fit the rotors.
- The adaptor bracket is retrofitteable.

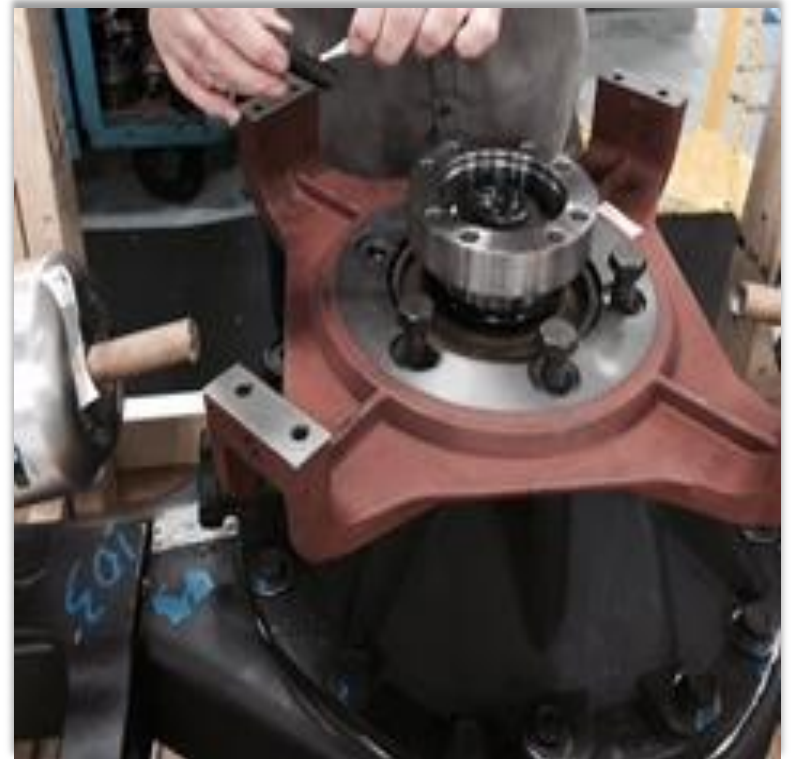




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## **6. Installation Klam Retarder KA 220/240 C**



**March 2018**

**Retarder Technology by Industrias Zelu, S.L.  
manufactured and designed in Spain**

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## **7. Installation Klam Retarder KA 220/240 C**



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**A PERFECT TEAM !!**

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## **8. Contact us**

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