

# Axles

## 4 WHEEL DRIVE

DYNAMIC LOAD

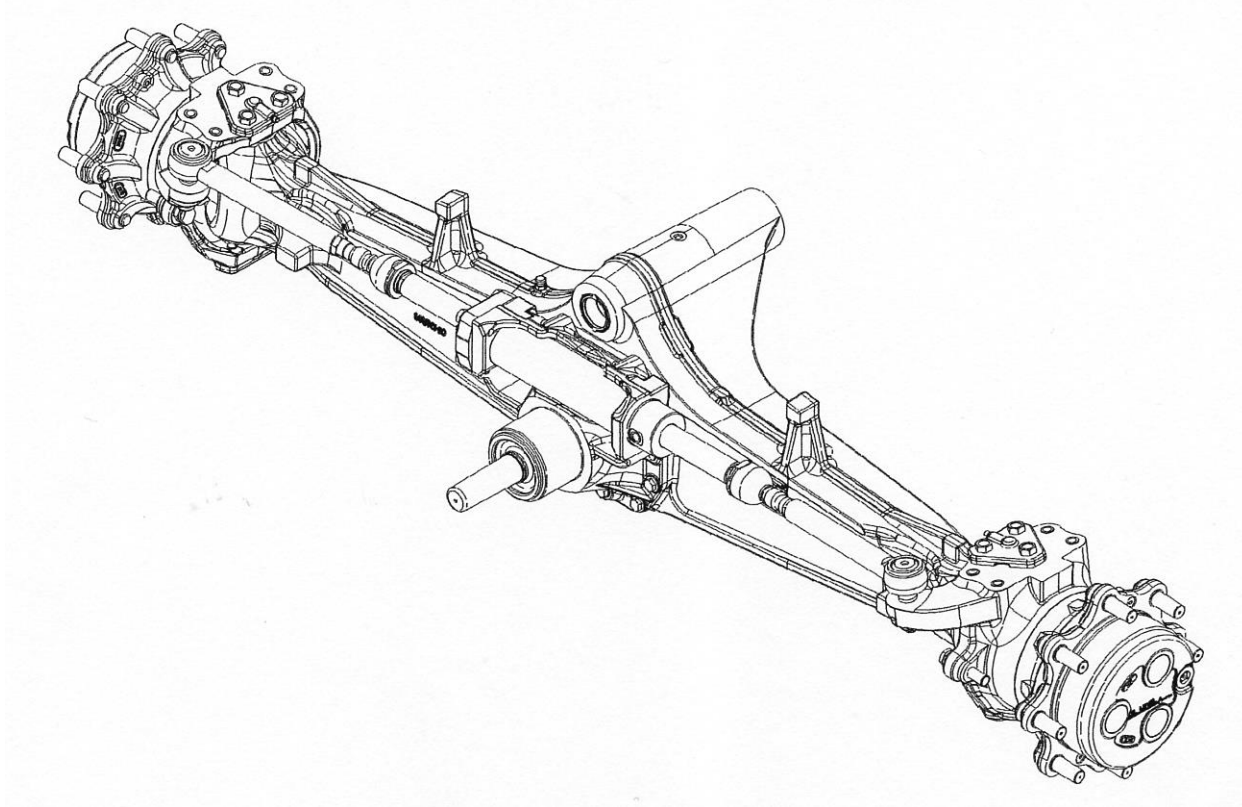
FRONT kg 8300

REAR kg 7600

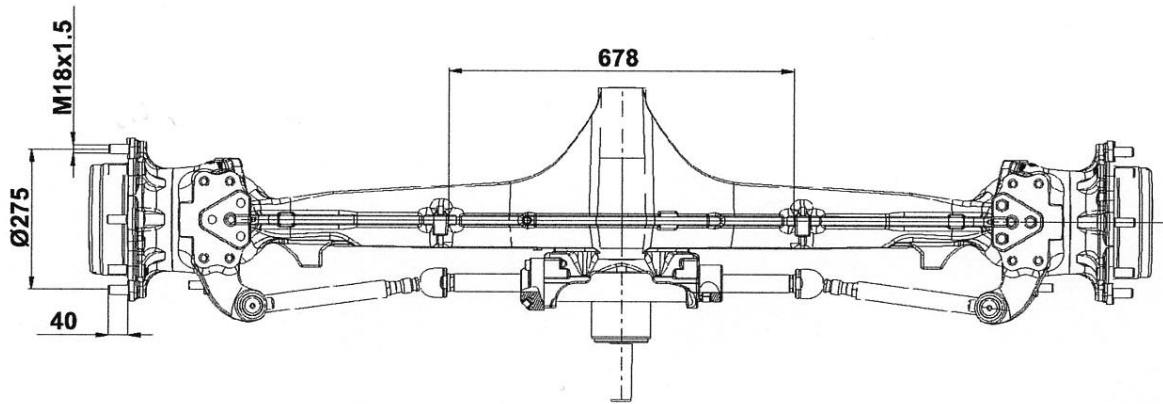
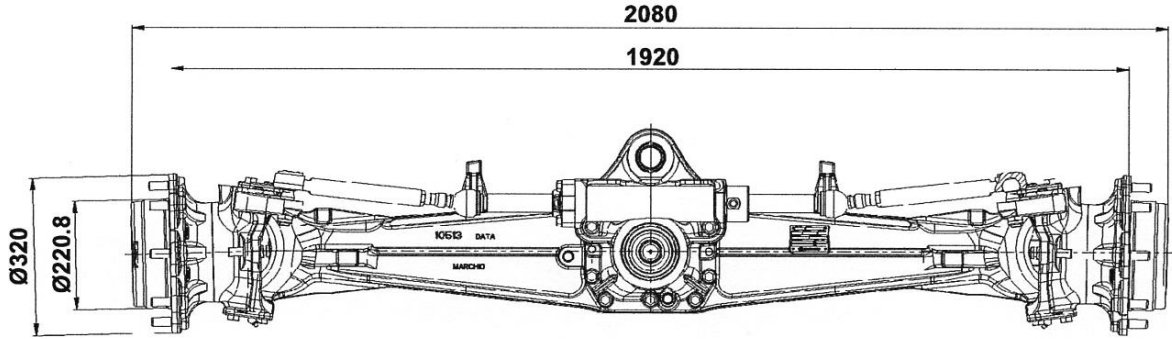
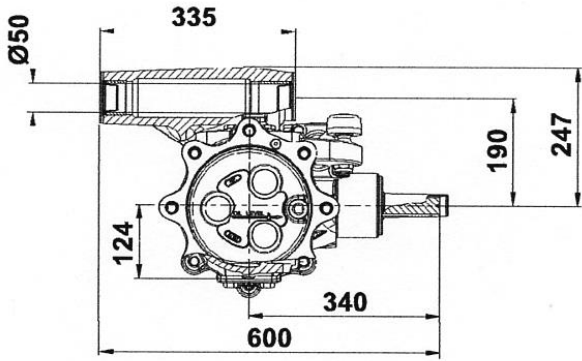
100% DIFFERENTIAL LOCK IN  
THE REAR AXLE ELECTRO-  
HYDRAULICALLY  
CONTROLLED



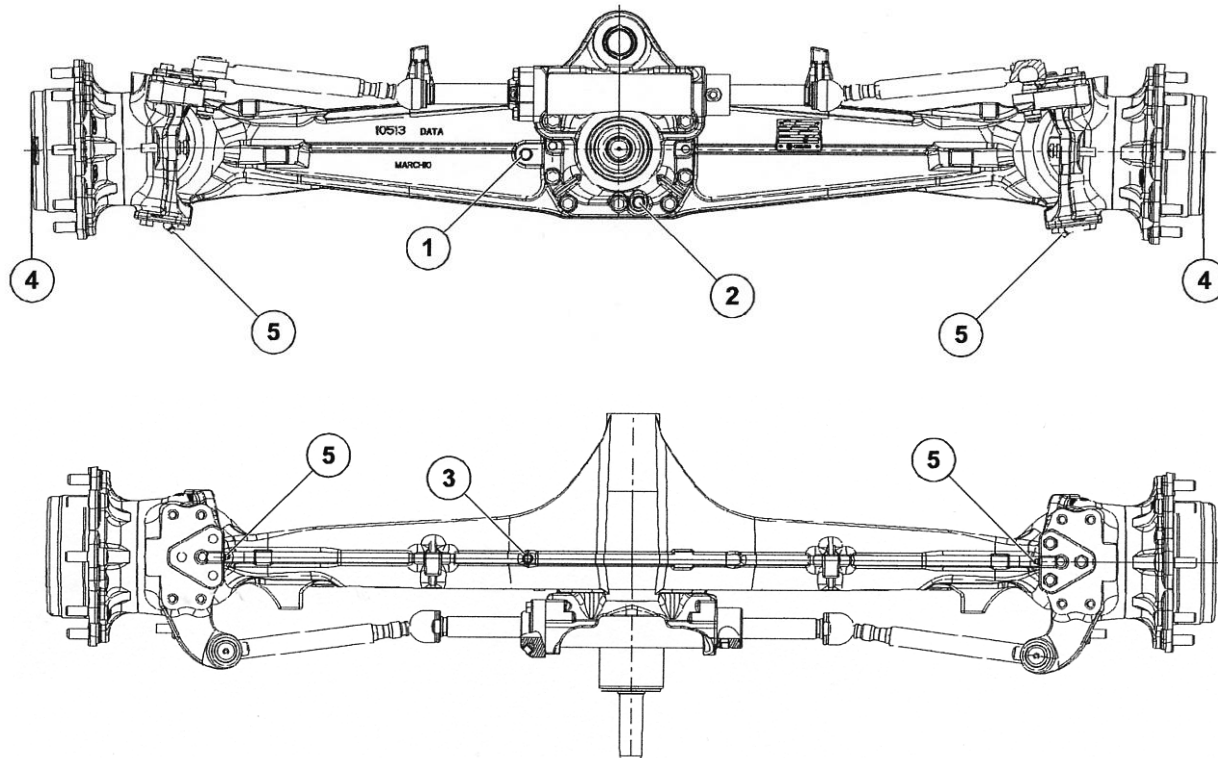
## FRONT OSCILLATION: +/- 10°



# Axle : Front Axle (Overall Dimensions)



## Axle : Front Axle (Lubrication & Controls)

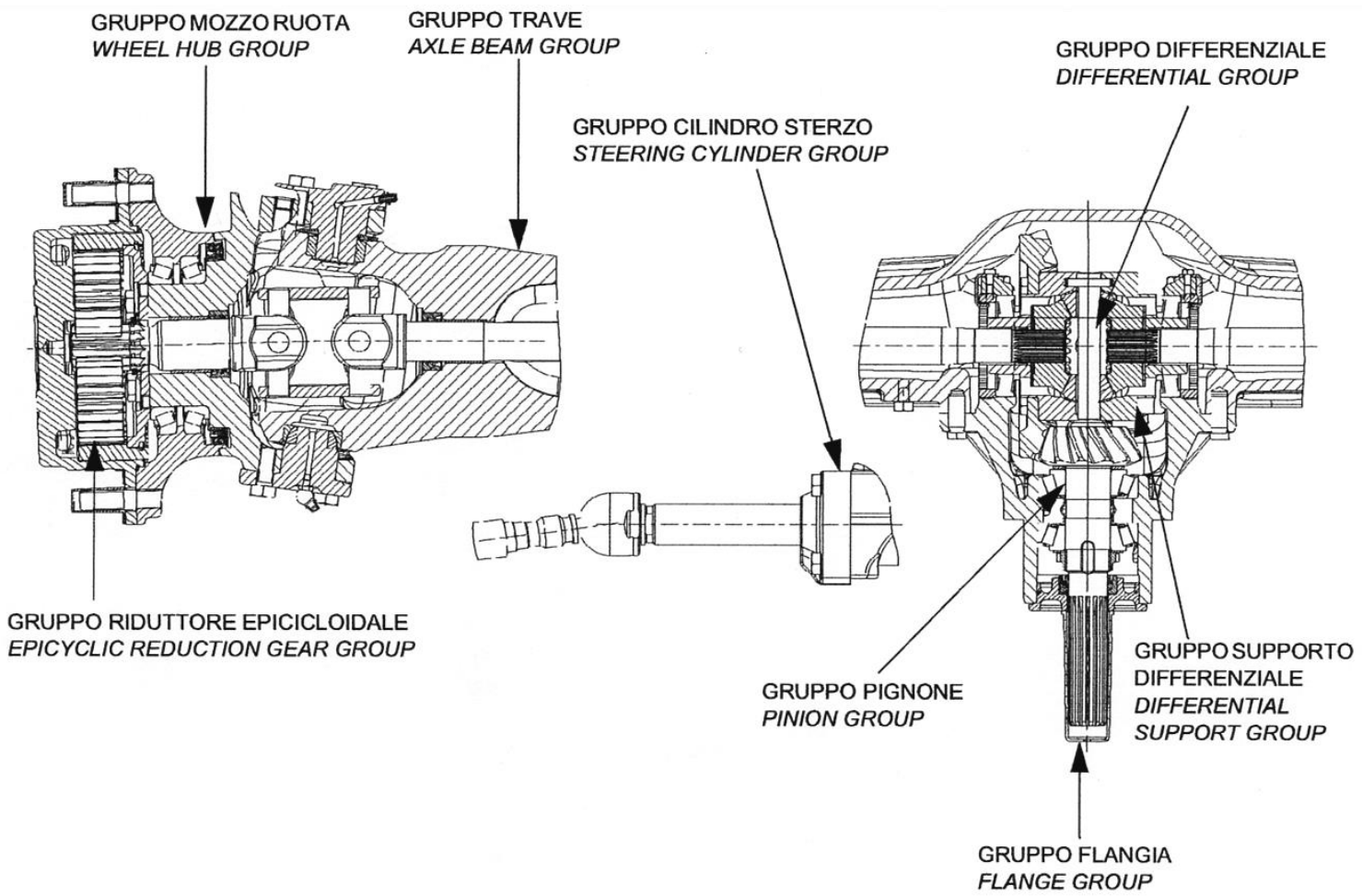


- 1 – Oil filling and level plug
- 2 – Oil drain plug
- 3 – Oil breather
- 4 – Filling lever and drain plug of epicyclic reduction gear oil
- 5 – Greasing point

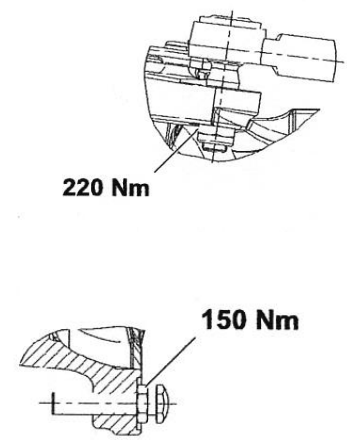
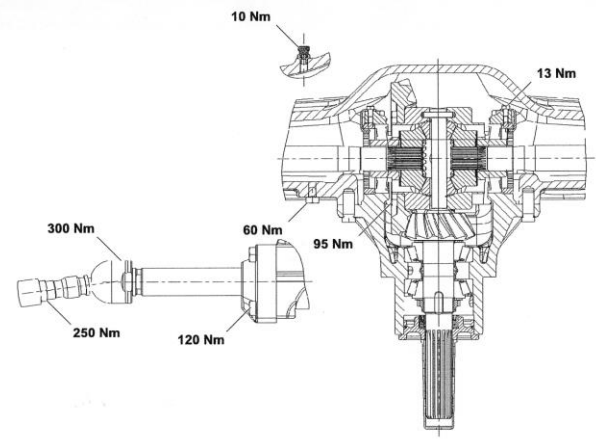
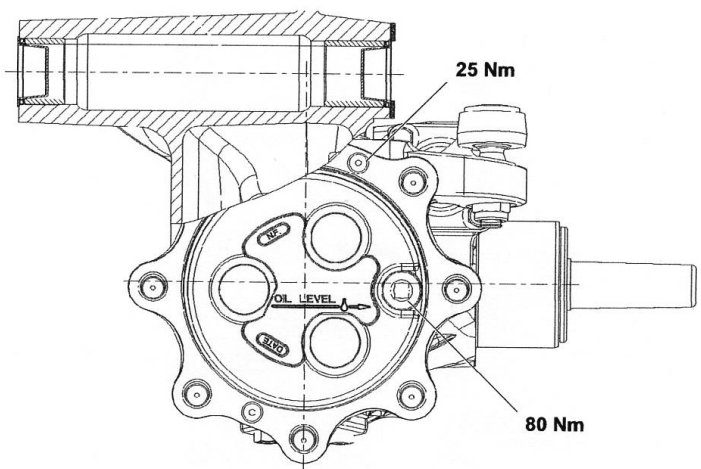
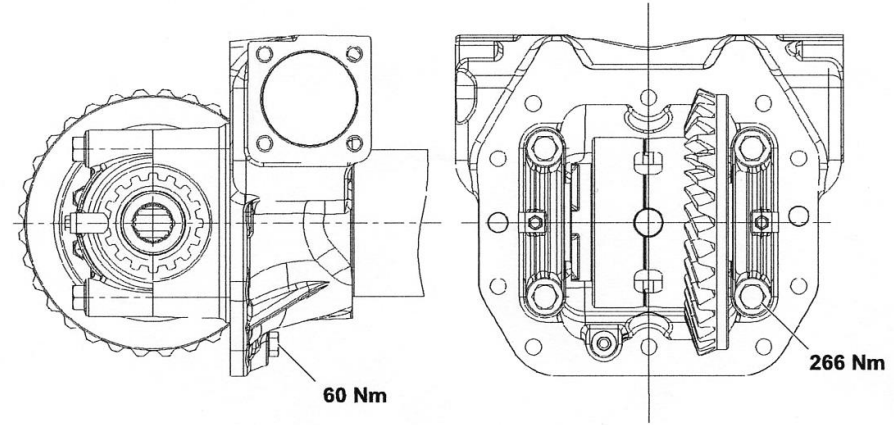
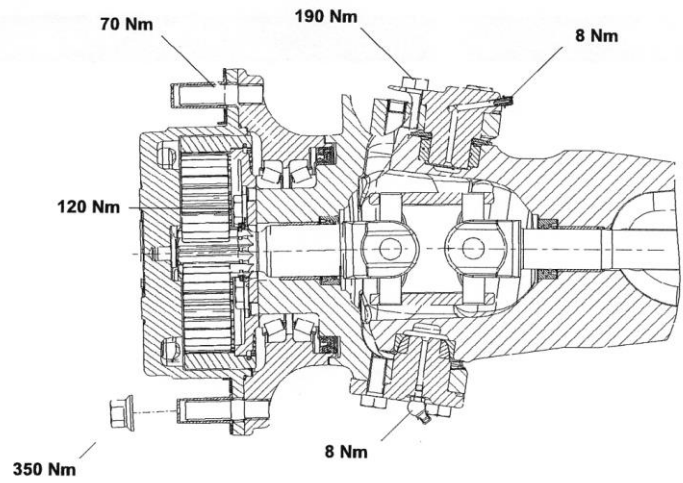
### **Periodical checks:**

Check the oil level to flush the level plugs (1) and (4).  
If not, top up with oil of the correct type.  
Any oil leaks should be repaired immediately to avoid the possibility of damage to mechanical parts.  
To drain the oil from the axle, unscrew plugs (4) and (2)

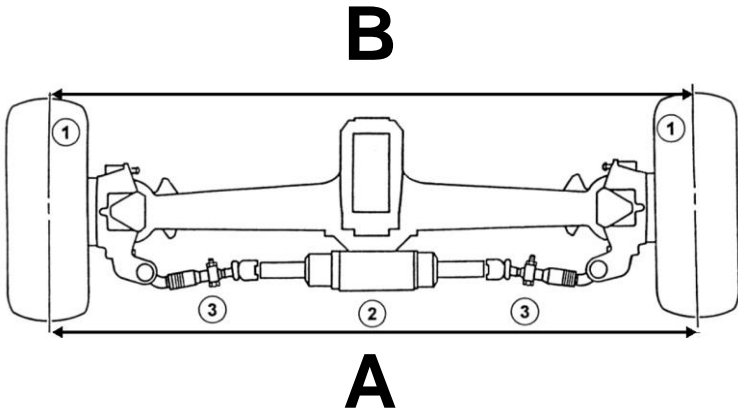




# Axle : Front Axle (Workshop Data)



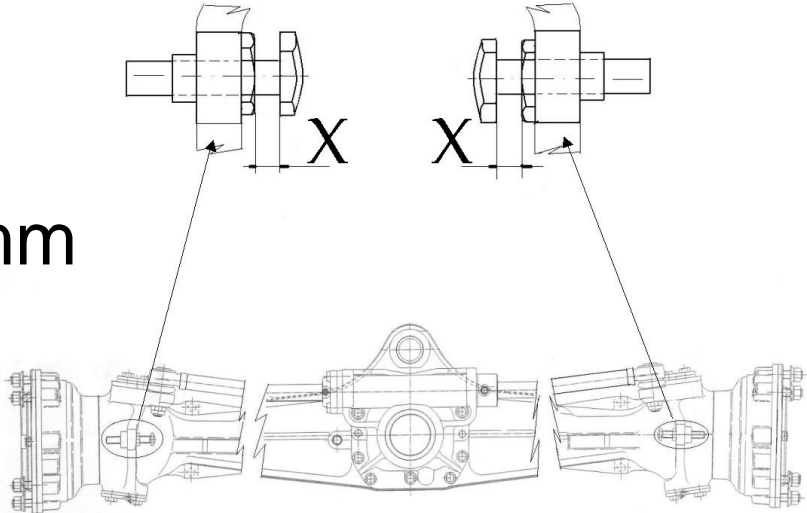
# Axle : Front Axle Steering Adjustment



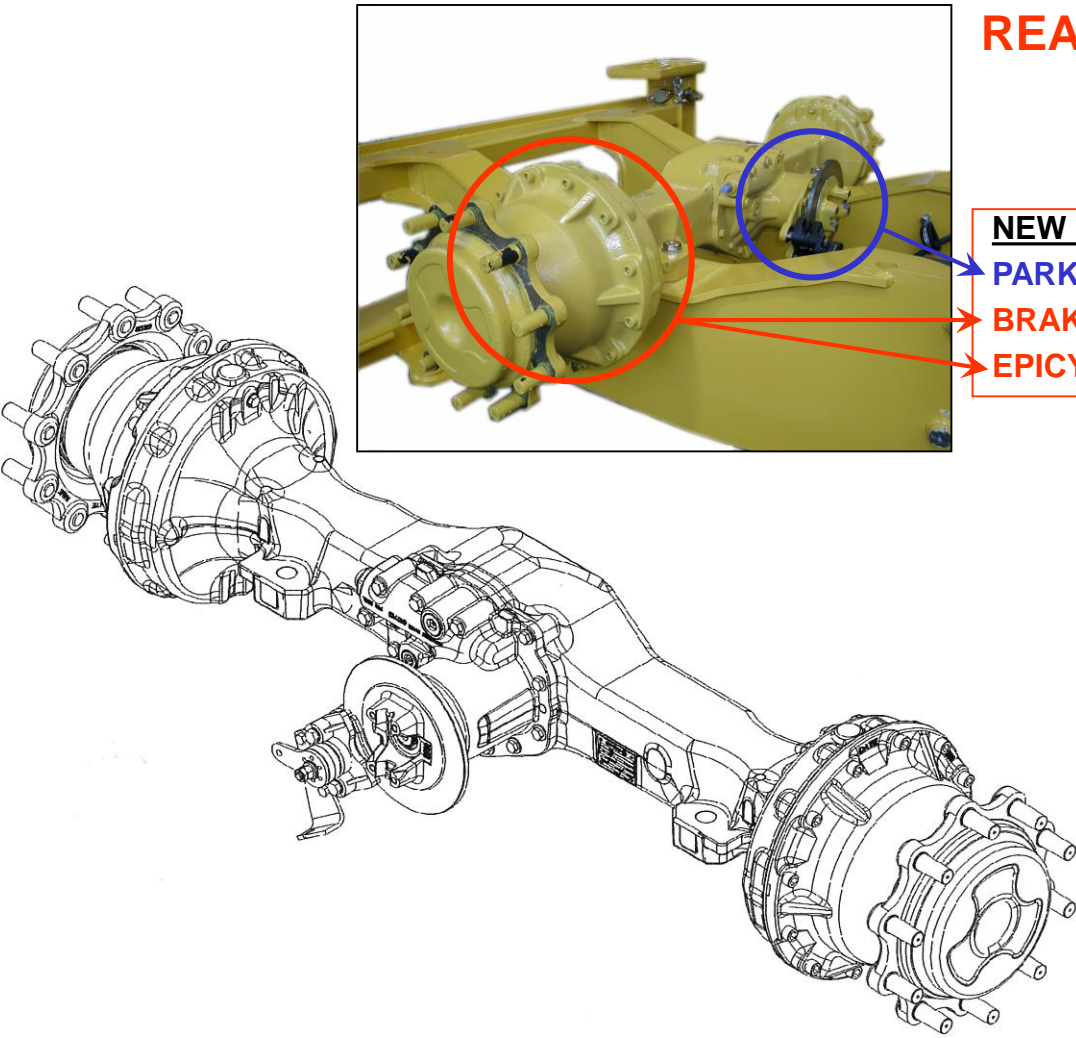
Measurement **B** must be equal to measurement **A**

- 1 – Tyres
- 2 – Steering cylinder
- 3 - Adjustment

$X = 25 \text{ mm}$





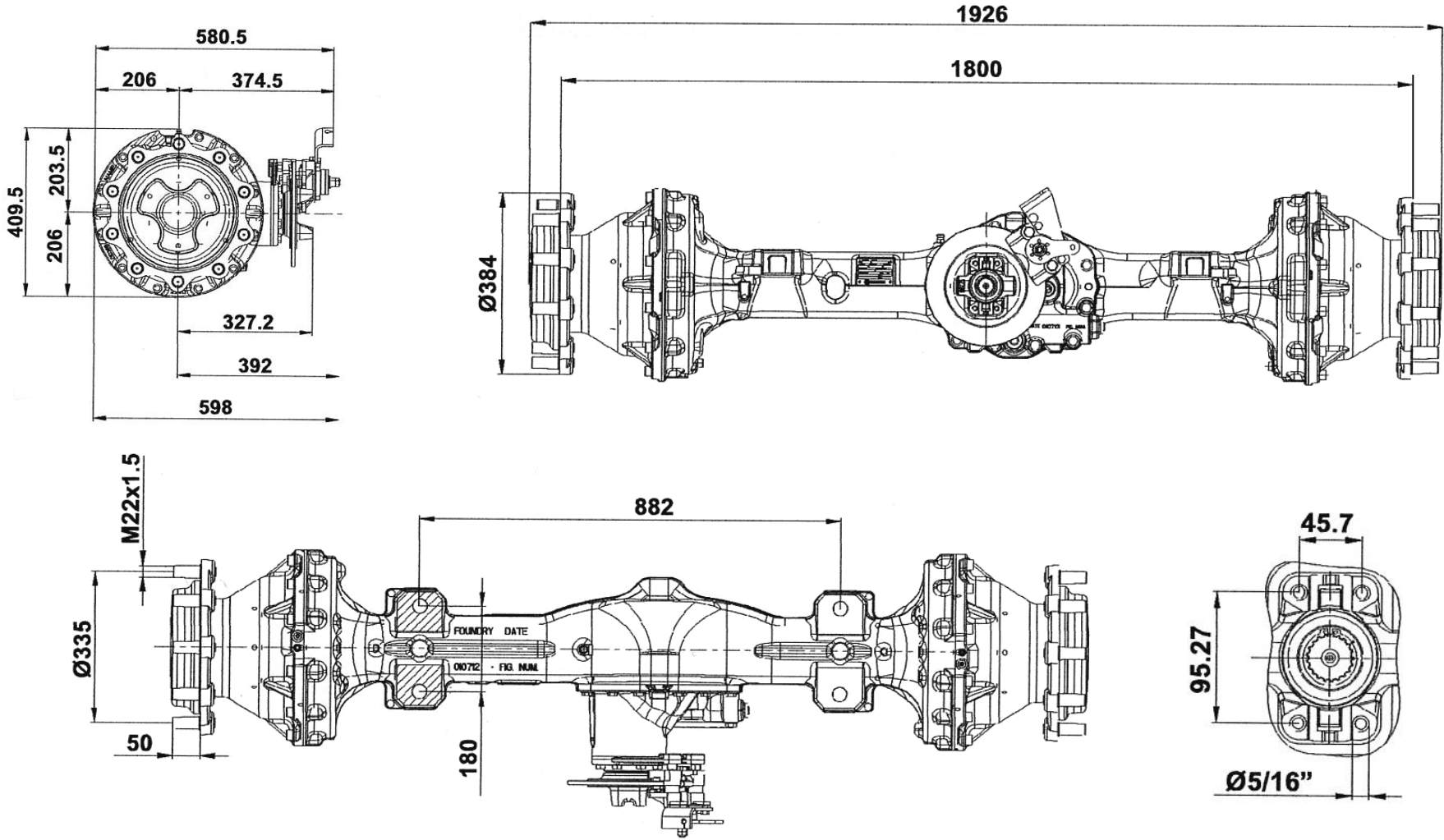


**REAR AXLE**

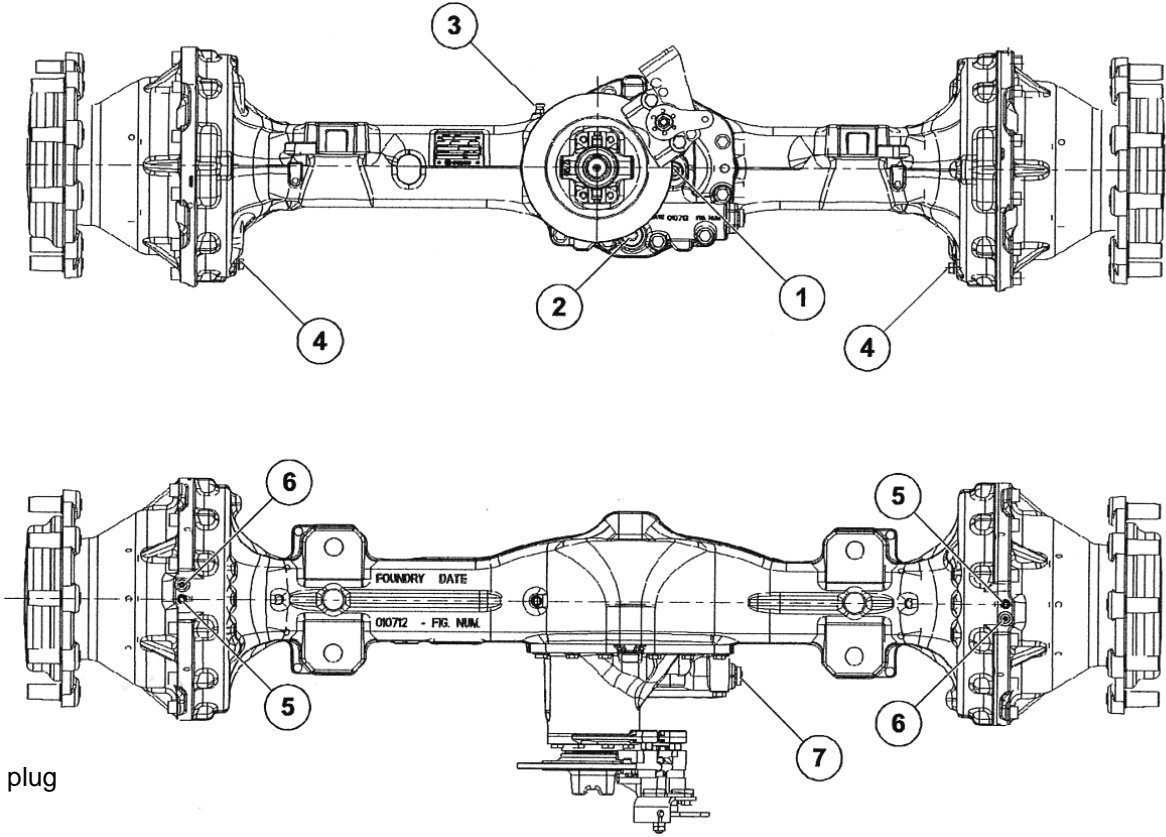


- NEW POSITION:**
- PARKING BRAKE**
- BRAKE GROUP**
- EPICYCLIC REDUCTION GEAR GROUP**

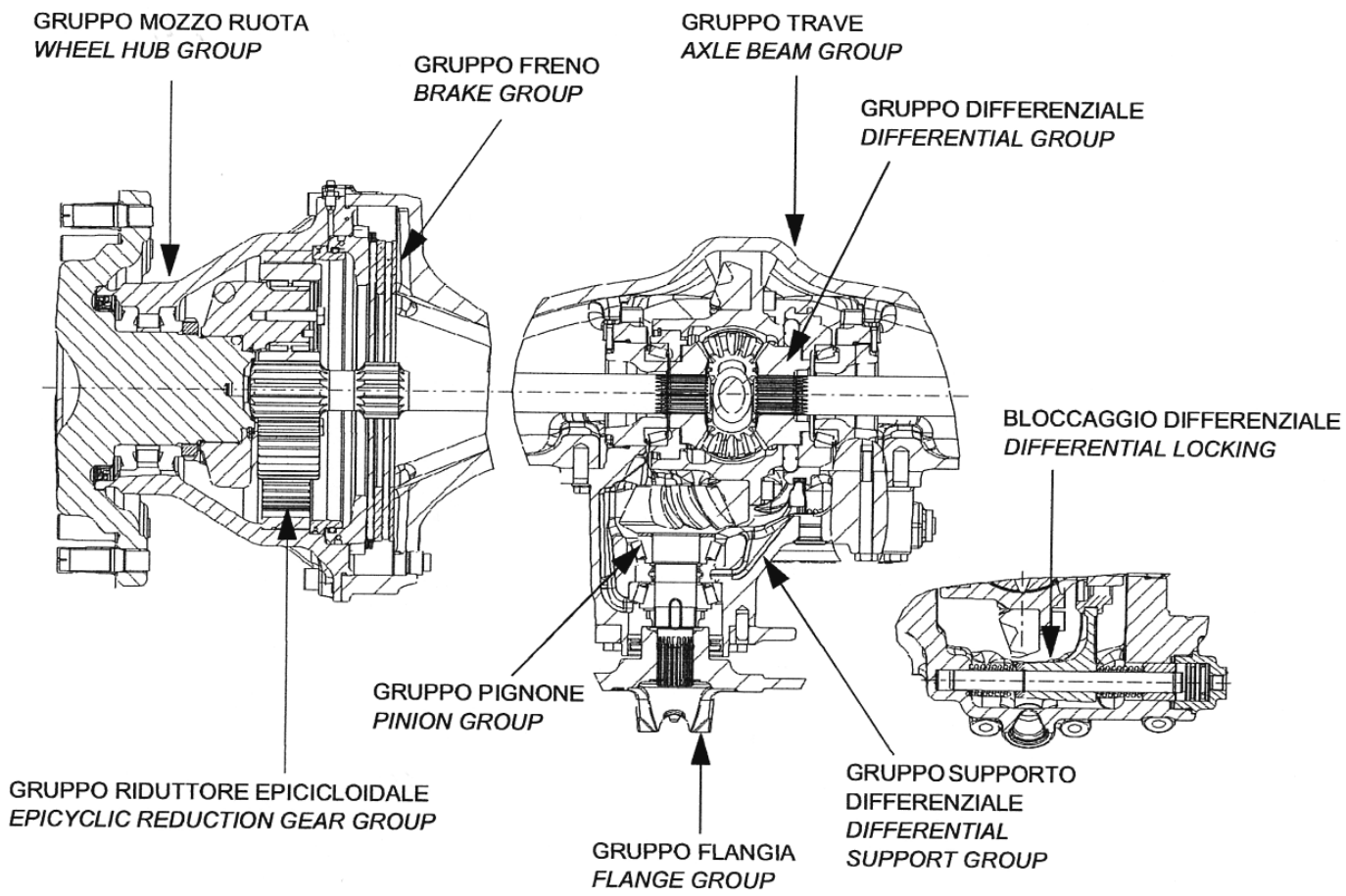
# Axle : Rear Axle (Overall Dimmension)



# Axle : Rear Axle (Llubrication & Controls)

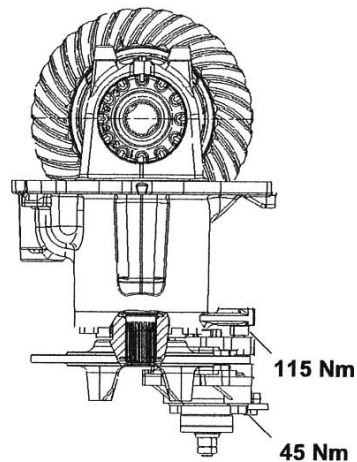
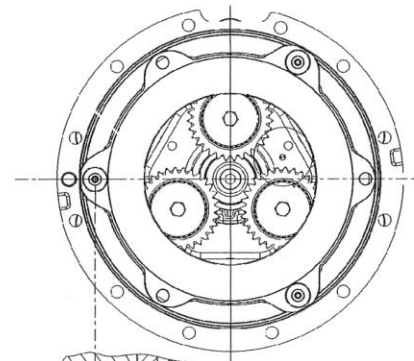
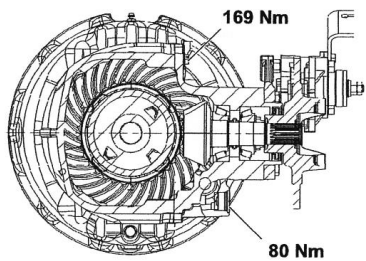
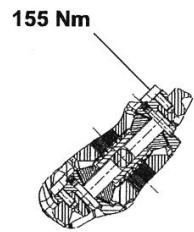
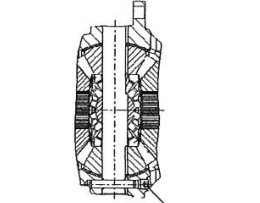
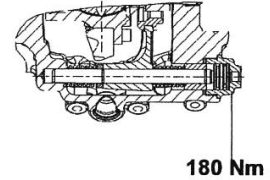
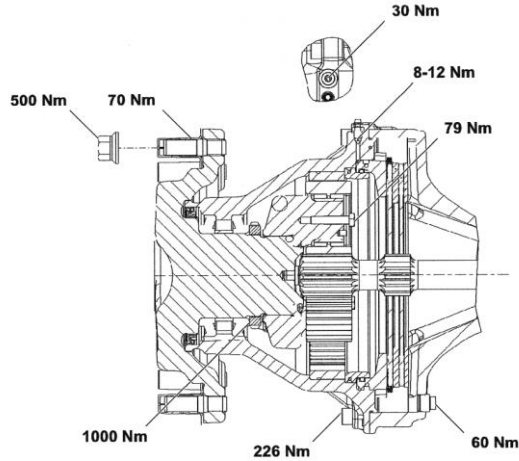
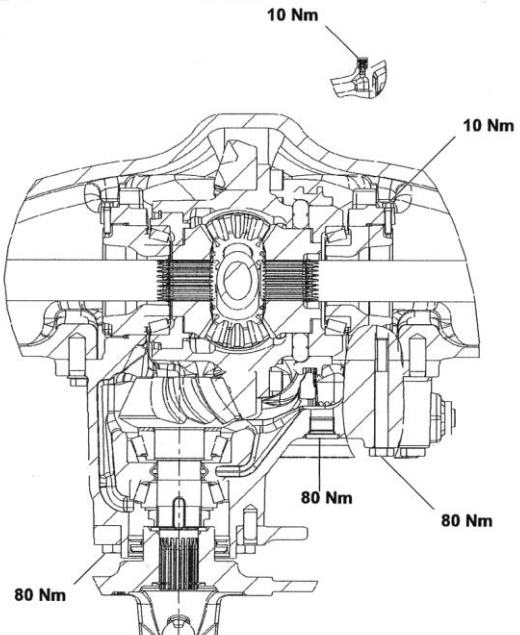


- 1 – Oil filling and level plug
- 2 – Oil drain plug
- 3 – Oil breather
- 4 – Drain plug on wheel side
- 5 – Brakes bleeding plug
- 6 – Service brake connection port
- 7 – Differential locking engagement feed port



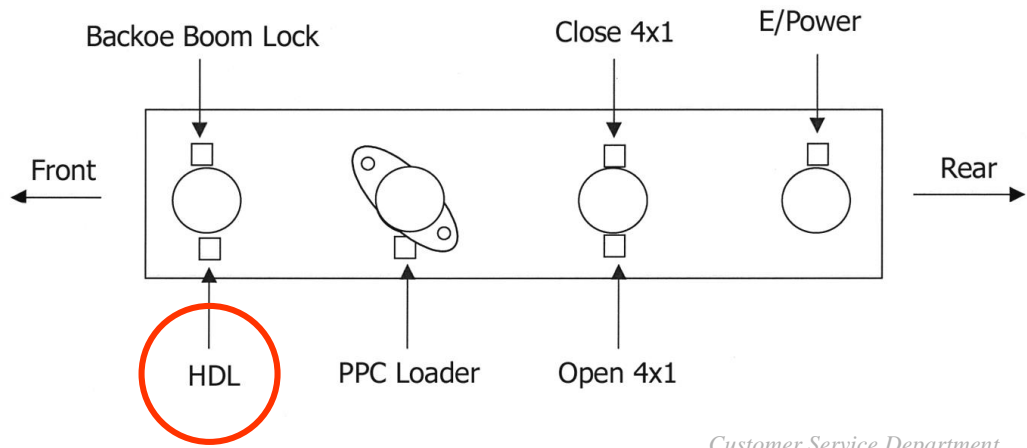
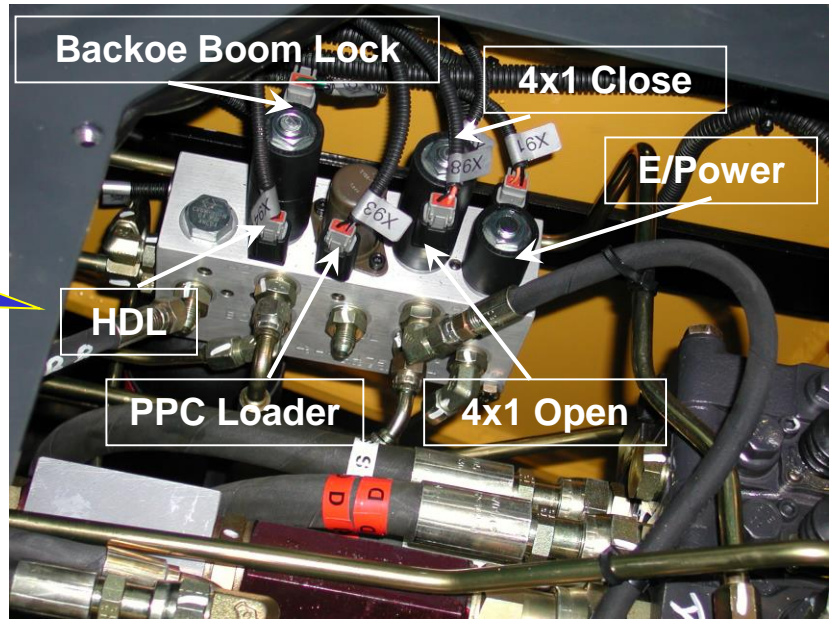


# Axle : Rear Axle (Workshop Data)



Customer Service Department

# HYDRAULIC DIFFERENTIAL LOCK



Spessore controdisco nuovo=  $8.0 \pm 0.1$  mm  
Spessore minimo controdisco usurato= 7.6 mm  
New separator plate thickness=  $8.0 \pm 0.1$  mm  
Worn separator plate minimum thickness= 7.6 mm

Spessore controdisco nuovo=  $5.0 \pm 0.1$  mm  
Spessore minimo controdisco usurato= 4.6 mm  
New separator plate thickness=  $5.0 \pm 0.1$  mm  
Worn separator plate minimum thickness= 4.6 mm

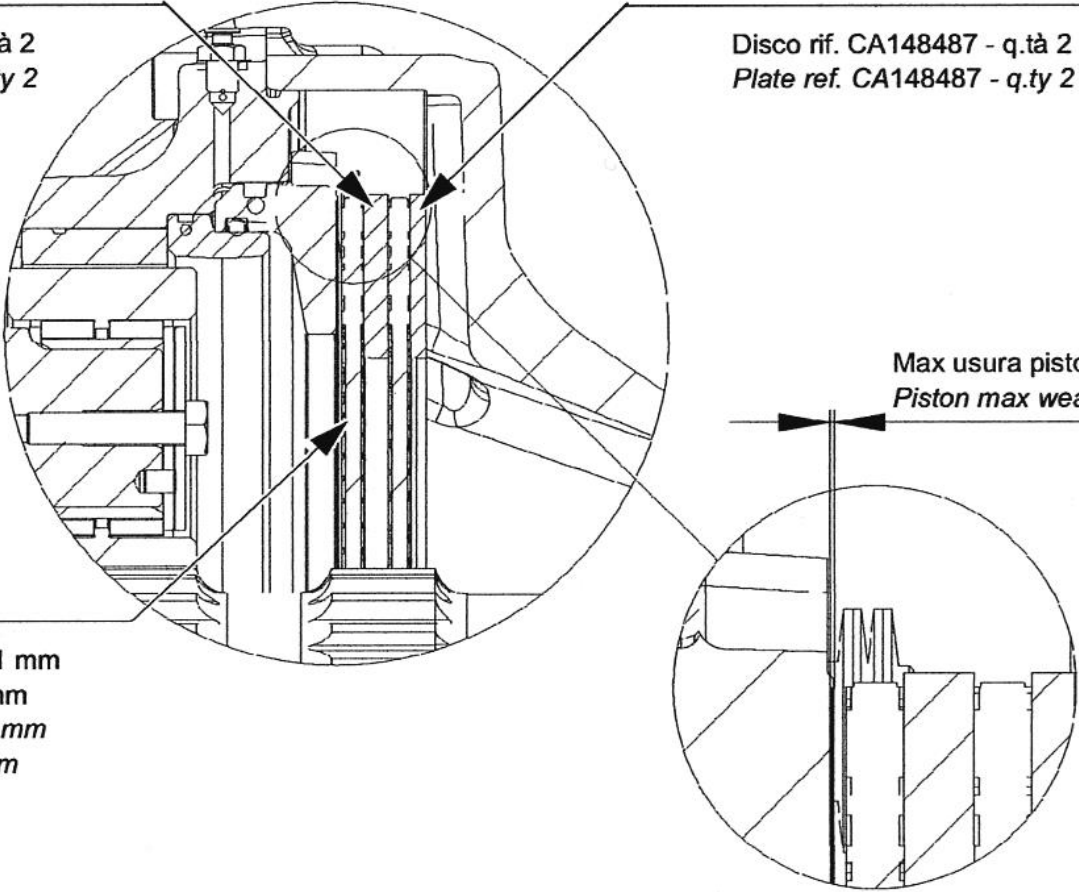
Disco rif. CA148488 - q.tà 2  
Plate ref. CA148488 - q.ty 2

Disco rif. CA148487 - q.tà 2  
Plate ref. CA148487 - q.ty 2

Disco rif. CA148795 - q.tà 4  
Plate ref. CA148795 - q.ty 4

Spessore disco attrito nuovo=  $6.73 \pm 0.1$  mm  
Spessore minimo disco usurato= 5.8 mm  
New friction plate thickness=  $6.73 \pm 0.1$  mm  
Worn plate minimum thickness= 5.8 mm

Max usura pistone= 0.4 mm  
Piston max wear= 0.4 mm





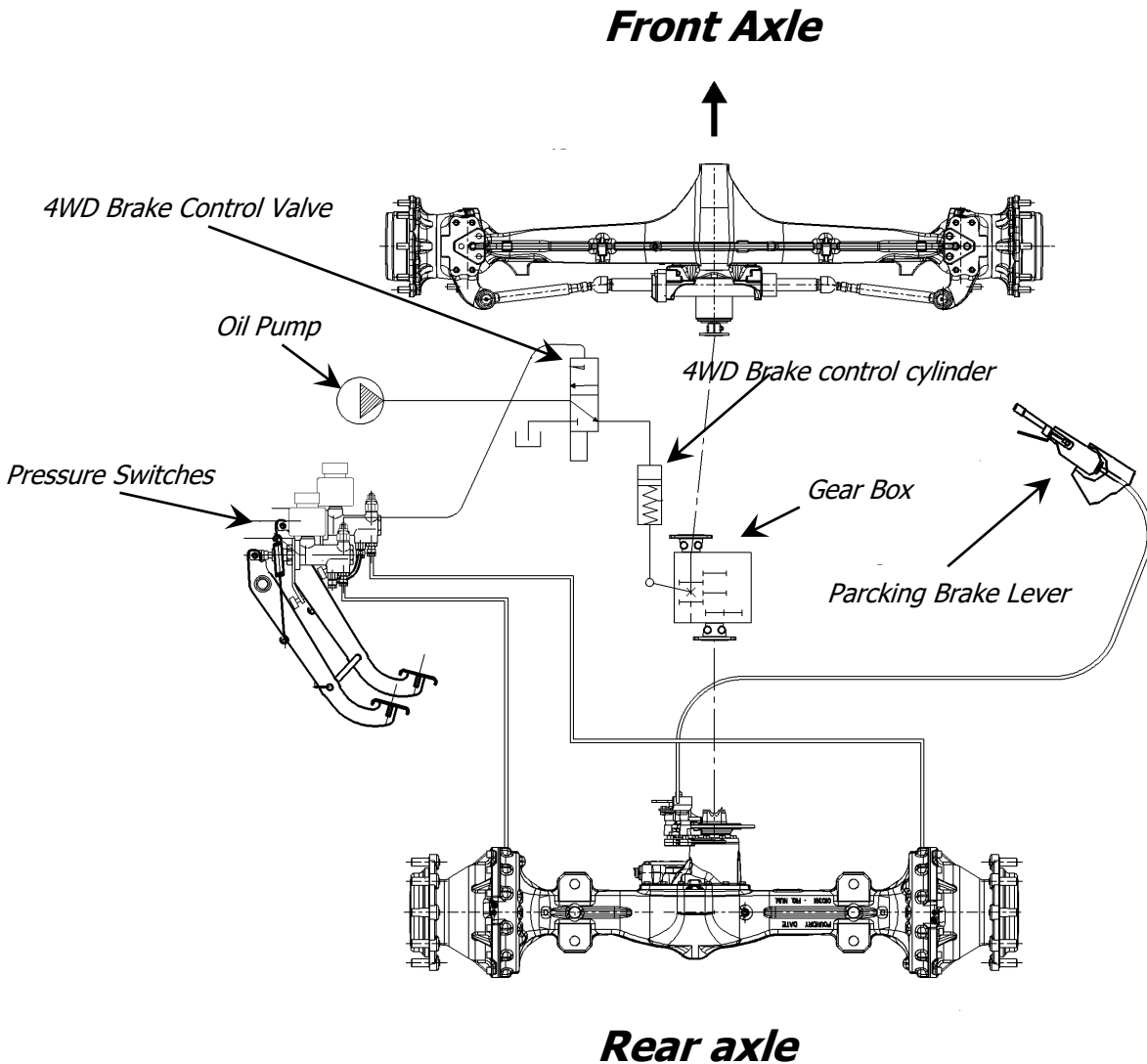
### Brakes:

- Oil immersed multi-discs Service brakes in the rear axle
- 2 separate circuits (right and left) and 2 separate brake pedals, that can be locked together
- Increased disc diameter (300 mm)
- Pushing both pedals together 4WD is automatically engaged, when travelling on 4th gear, assuring the **4 Wheels Braking Effect.**

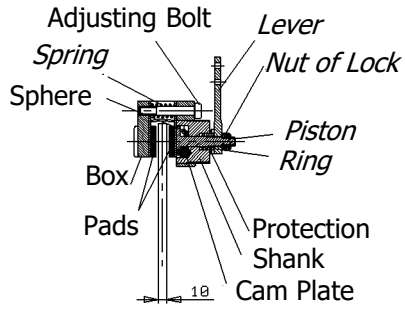
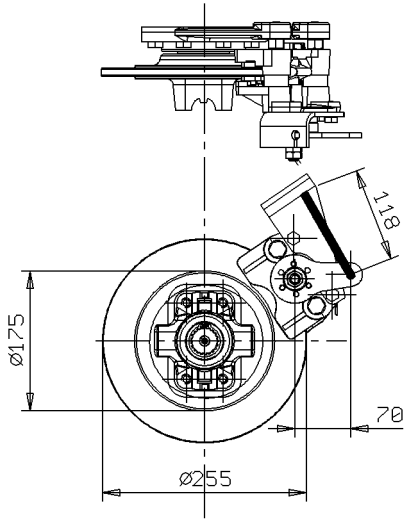


**NOTE:** When driving, pedals must be lock together for safety!

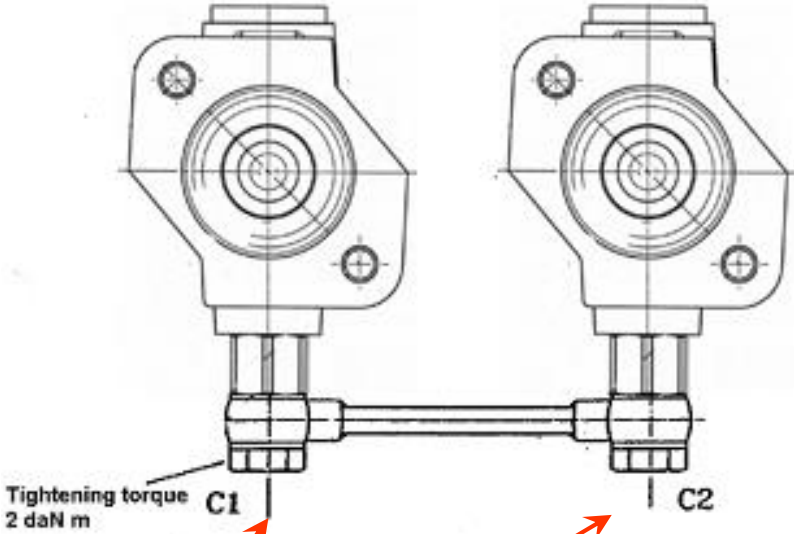
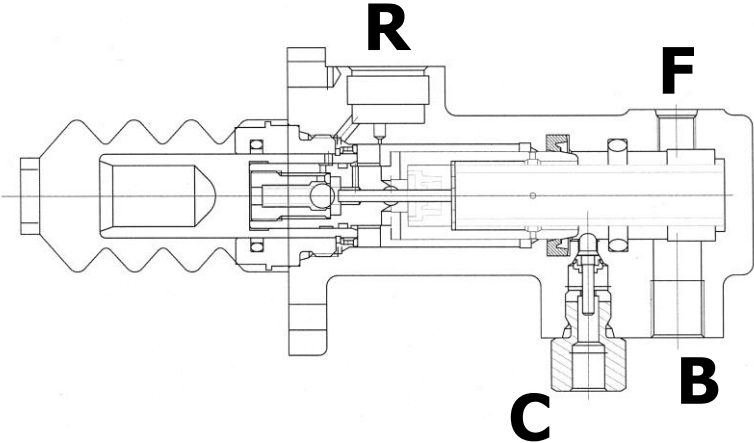




**Parking Brake**

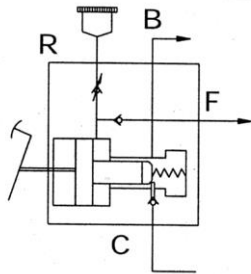


**Pumps:**  
**max pressure: 150 bar**

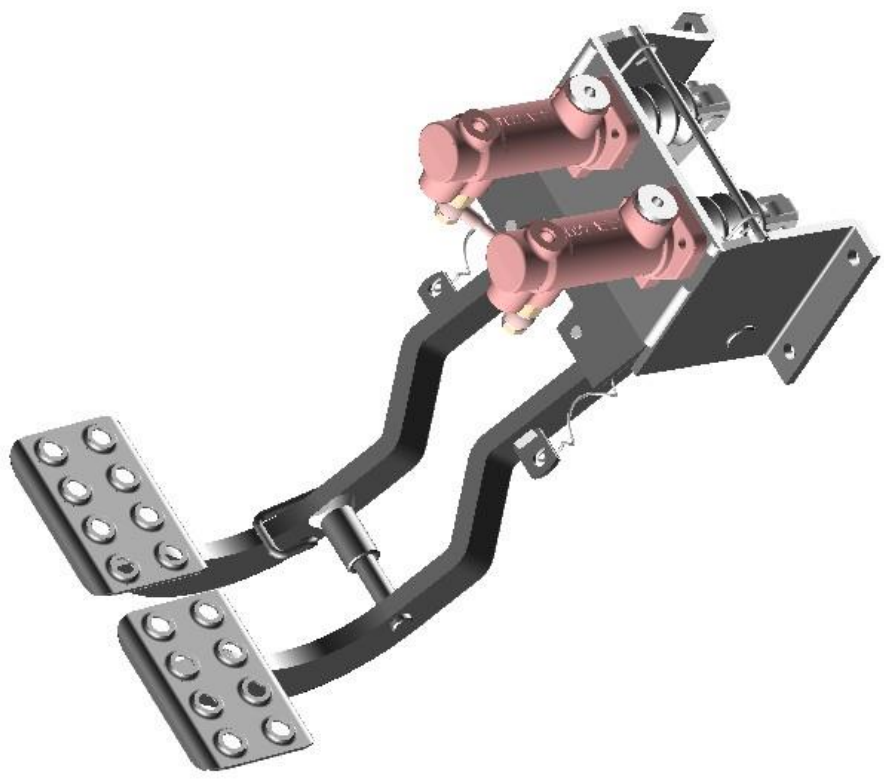
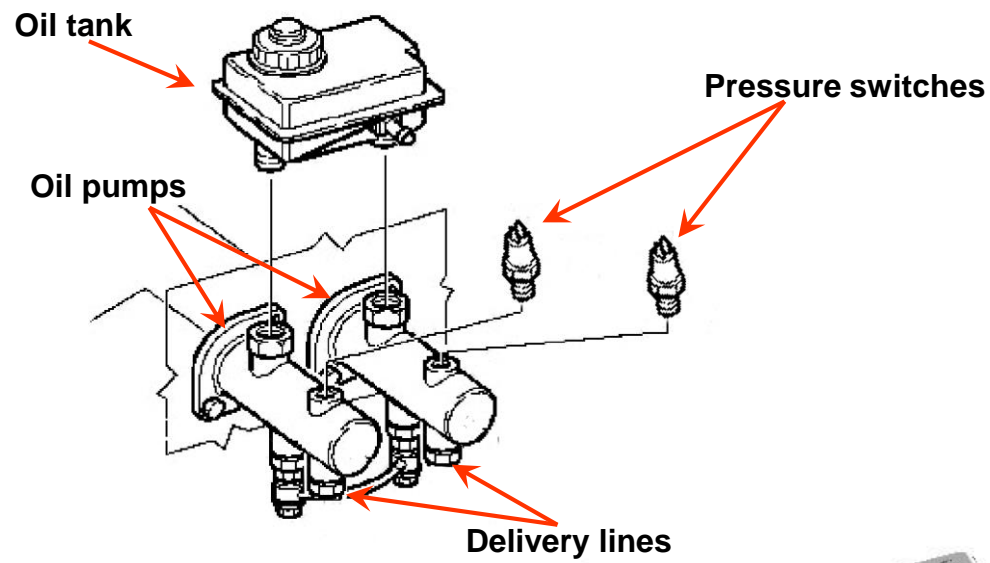


**C1, C2: Brake pressure compensation connections**

Hydraulic scheme



# Brakes : Brakes System



## 4WD Braking Effect:

Gear:	1°	2°	3°	4°
WB93R-5				X
WB97R-5			X	X

**The parking or safety brake, when engaged, disconnects the transmission, (important for safety).**