



# LHB COACHING STOCK

## ENROUTE TROUBLE SHOOTING

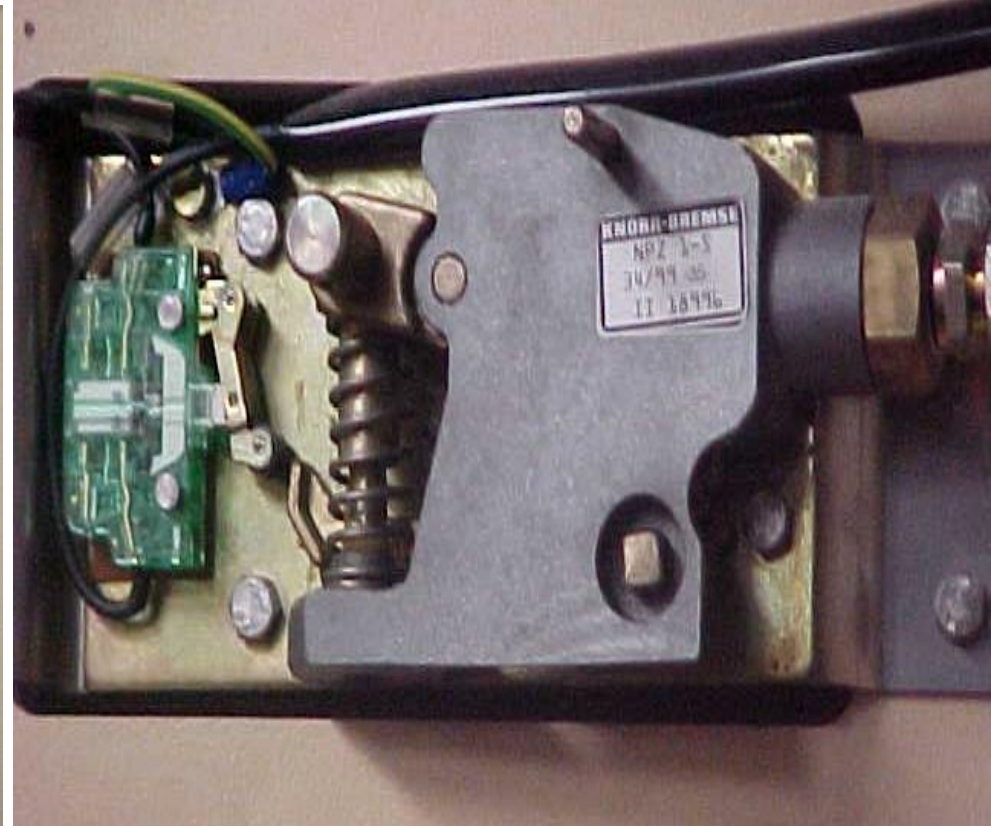
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STC/SC

# ENROUTE PROBLEMS

- ❖ Alarm Chain Pulling- resetting method
- ❖ Brake Binding-Sequence of operations for attending
- ❖ By Passing of Coach if BP/FP metallic pipe broken or Cut Off Angle Cock leakage.
- ❖ Ensuring proper coupling of 'H' Type tight lock CBC
- ❖ Isolating procedure if Air Suspension spring burst or Leakage.

# **ACP resetting method**

# PEASD (Passenger Emergency Alarm Signal Device)



# PEASD (Passenger Emergency Alarm Signal Device)



To stop the train, pull the PEASD handle down wards inside the cabin. After ACP, red light (LED) glows and BP pressure starts venting through 19 mm choke of PEAV, Emergency Brake Accelerator also activates and cause emergency brake application.



# PEASD (Passenger Emergency Alarm Signal Device)



**Normal Position**



**Pulled Position**

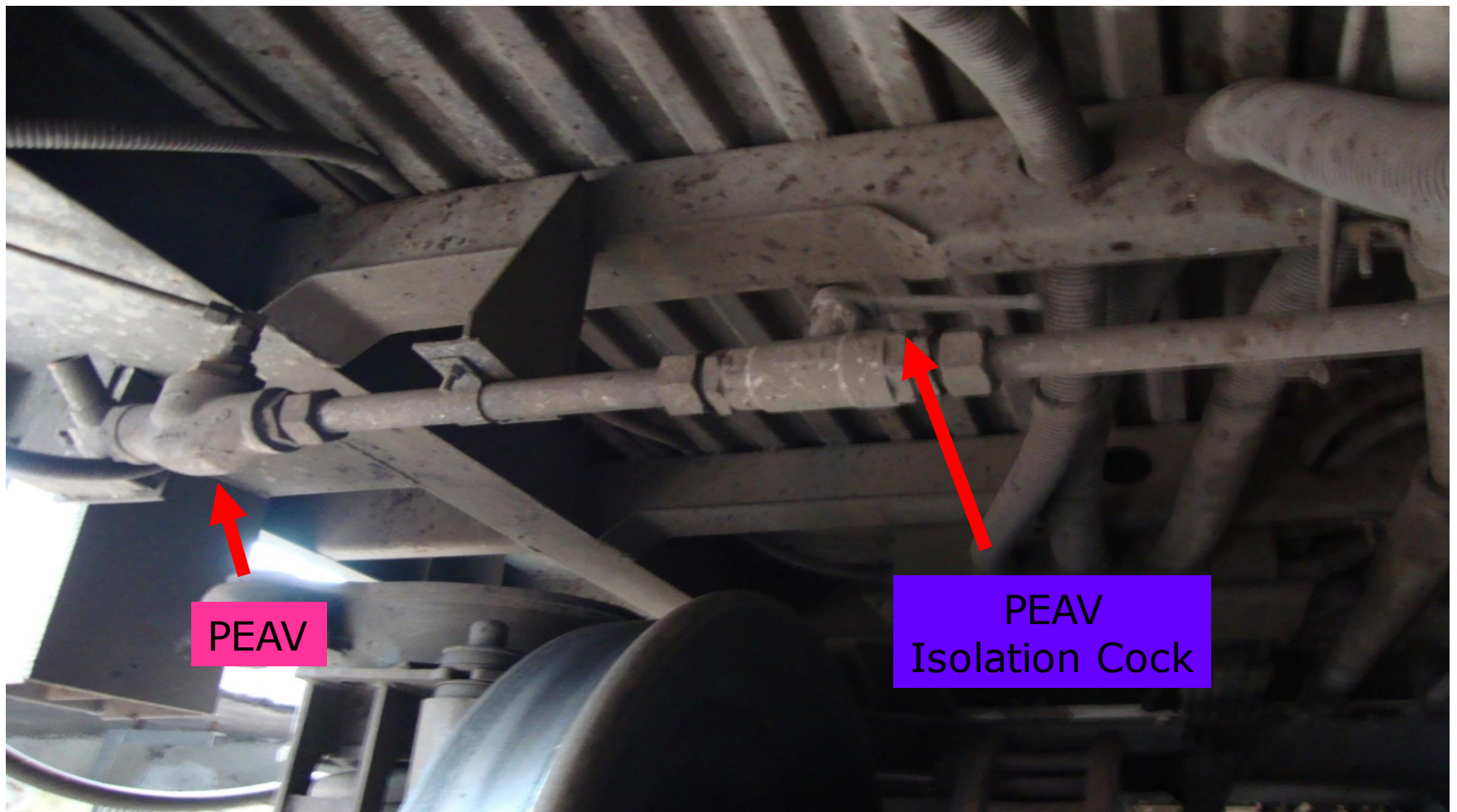
Simultaneously the red light provided out side the coach also glows after ACP.





For re-setting the PEASD, insert resetting key in the PEASD and rotate in clock wise direction.





PEAV

PEAV  
Isolation Cock

If BP air leakage does not stop even after resetting, then close the PEAV isolation cock provided under the coach.

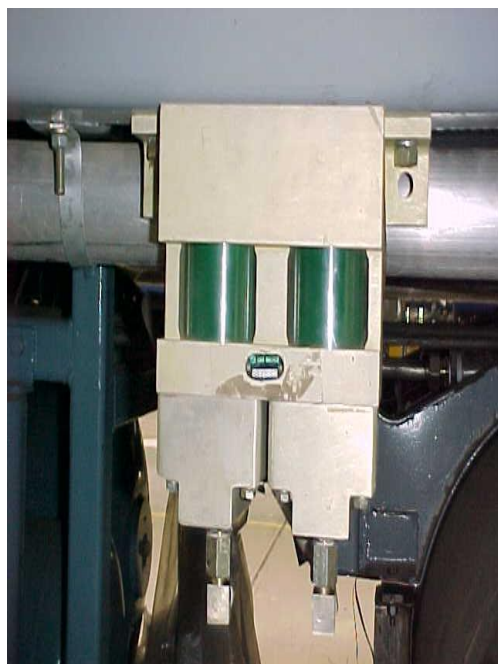
# For LHB Double Decker Coaches



**Attending brake binding of LHB**

**Coaches**

Check Brake Indicators provided on coach side body. If Brakes in binding, Indicators will show Red.



**LHB COACH**



**LHB GUARD COACH**

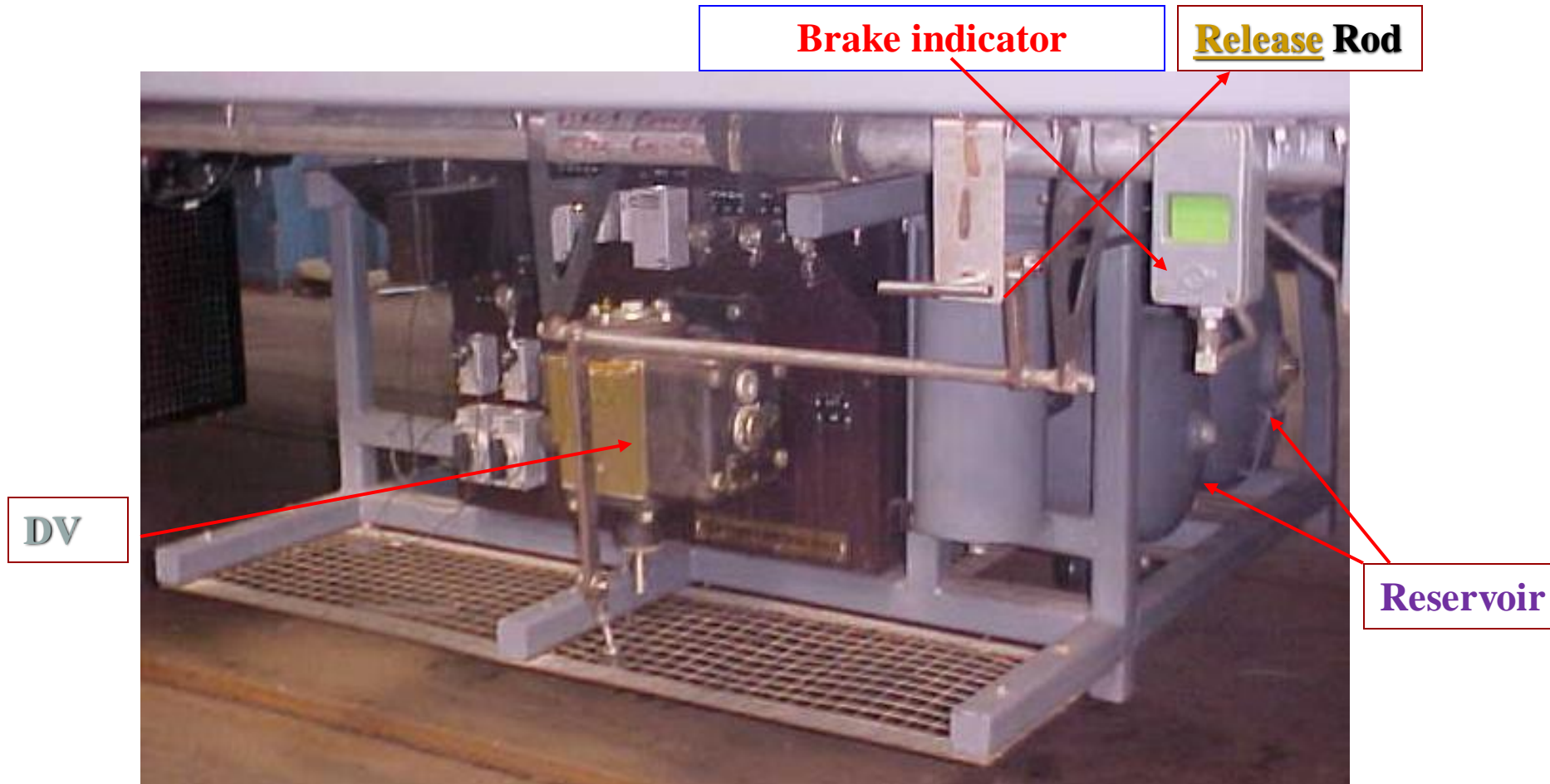


**DOUBLE DECKER COACH**

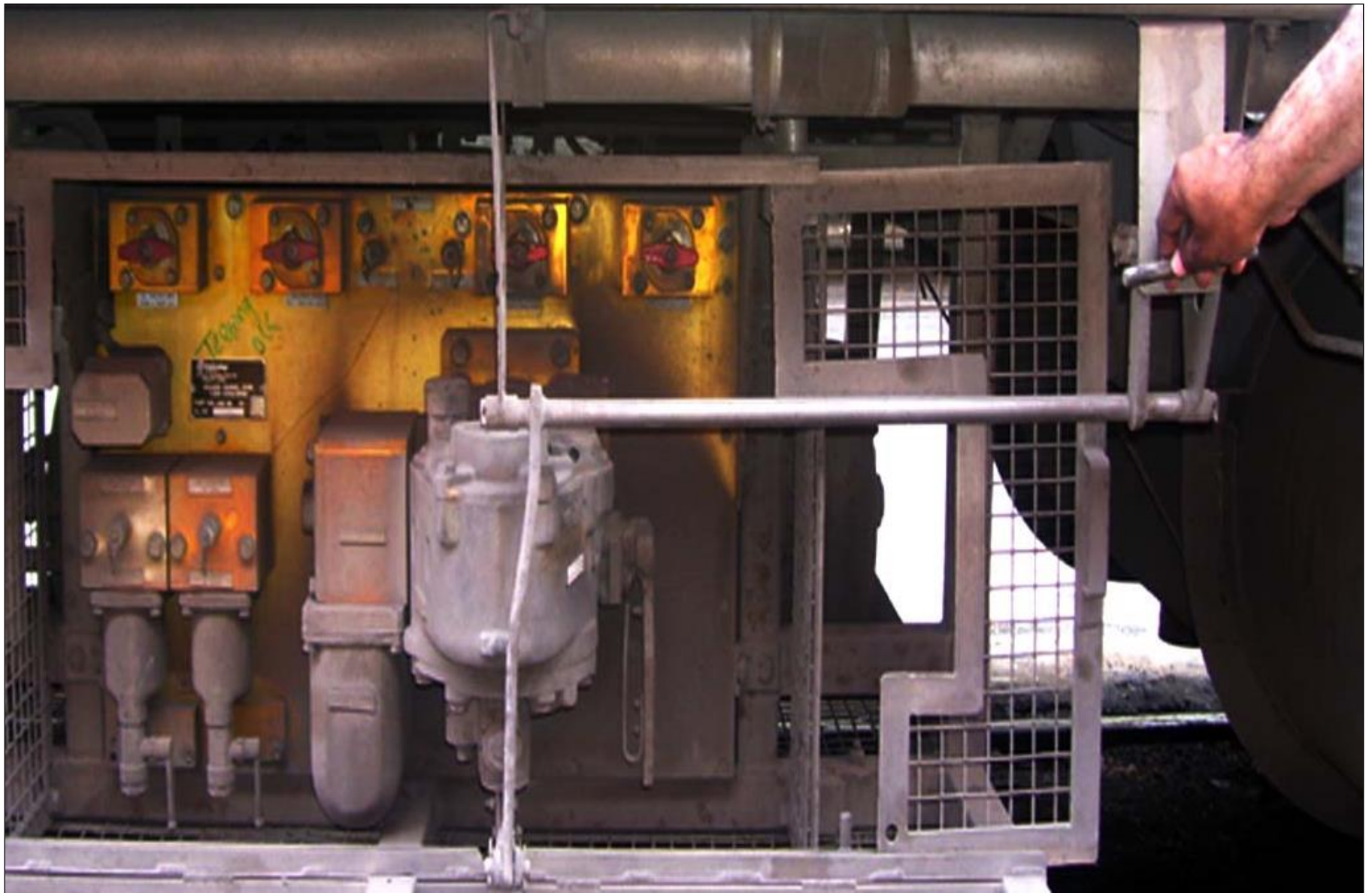


# Sequence of operations attending Brake Binding

Step-1: Pull Quick release rod / Wire of DV.



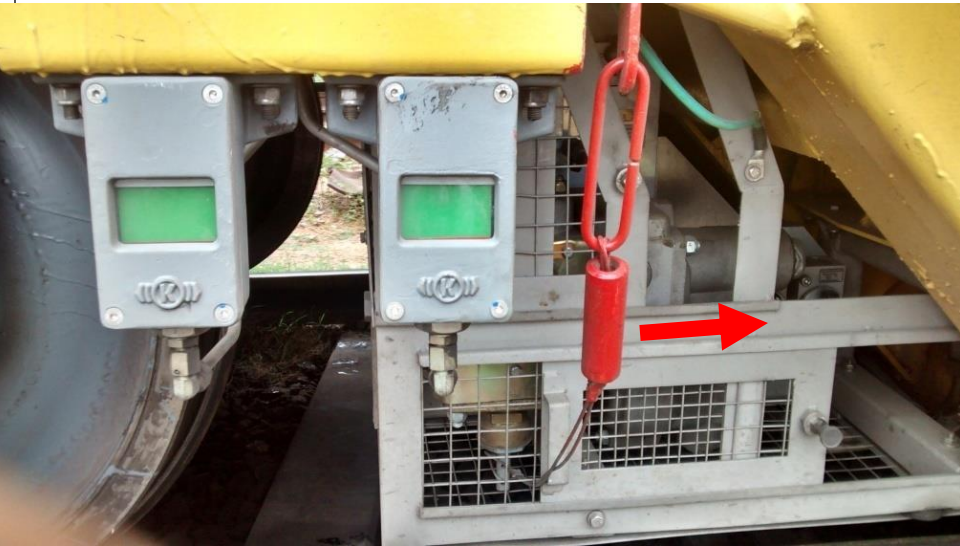
**KNORR BRAKE CONTROL PANEL AND INDICATOR UNIT**



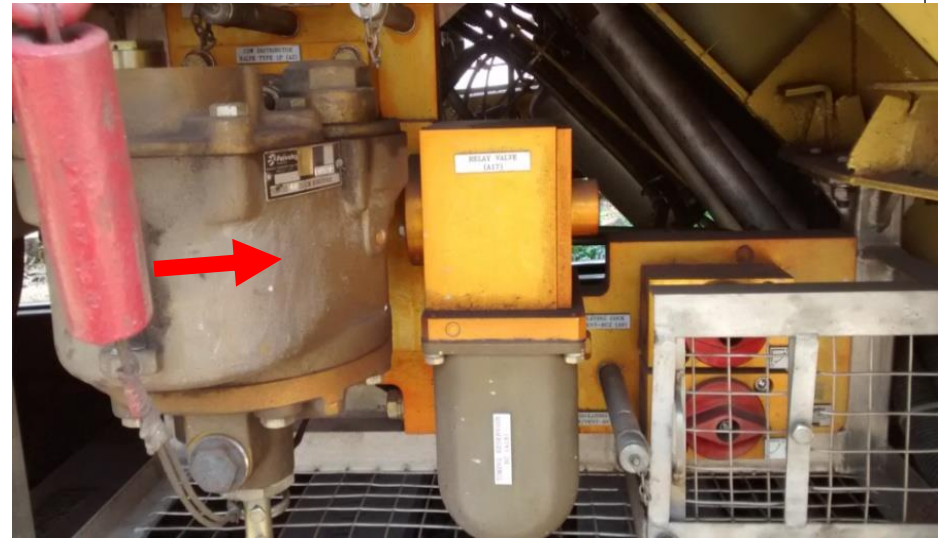
FAIVELY make BRAKE CONTROL PANEL



# LHB Double Decker Coaches



**KNORR  
PANEL**



**FAIVELY  
PANEL**

If Brakes are not released, follow Step-2

**Step-2:** Close the BC Isolation Cocks (switches) of one or both the trolleys having brake binding provided in the Brake control panel.

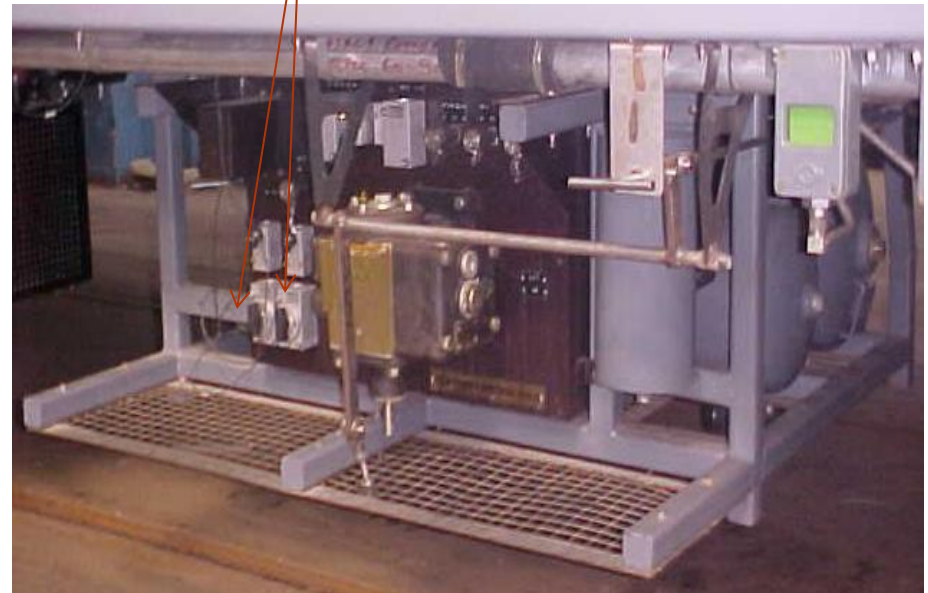
(Rotate anticlockwise to Horizontal position)

Orientation: Vertical – Working condition

Horizontal – Isolation condition



FTRIL CONTROL PANEL



KNORR CONTROL PANEL

## For LHB Double Decker Coaches

**Step-2:** Close the BC Isolation Cocks (switches) of one or both the trolleys having brake binding provided in the Brake control panel.



KNORR CONTROL PANEL



FTRIL CONTROL PANEL

**If brakes are not released with Step-2, follow Step-3.**



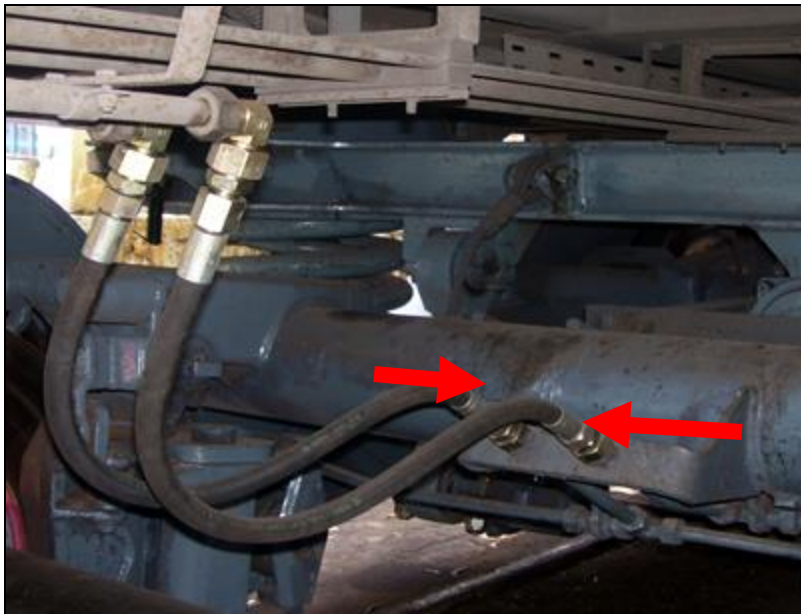
**Step-3:** Open flexible pipes of BC lines of one / both the axles of one / both trolleys having brake binding. After this Brake Indicators turn to GREEN and Brakes will be released.

**Suggestion: Remove flexible pipe nearer to BC.**

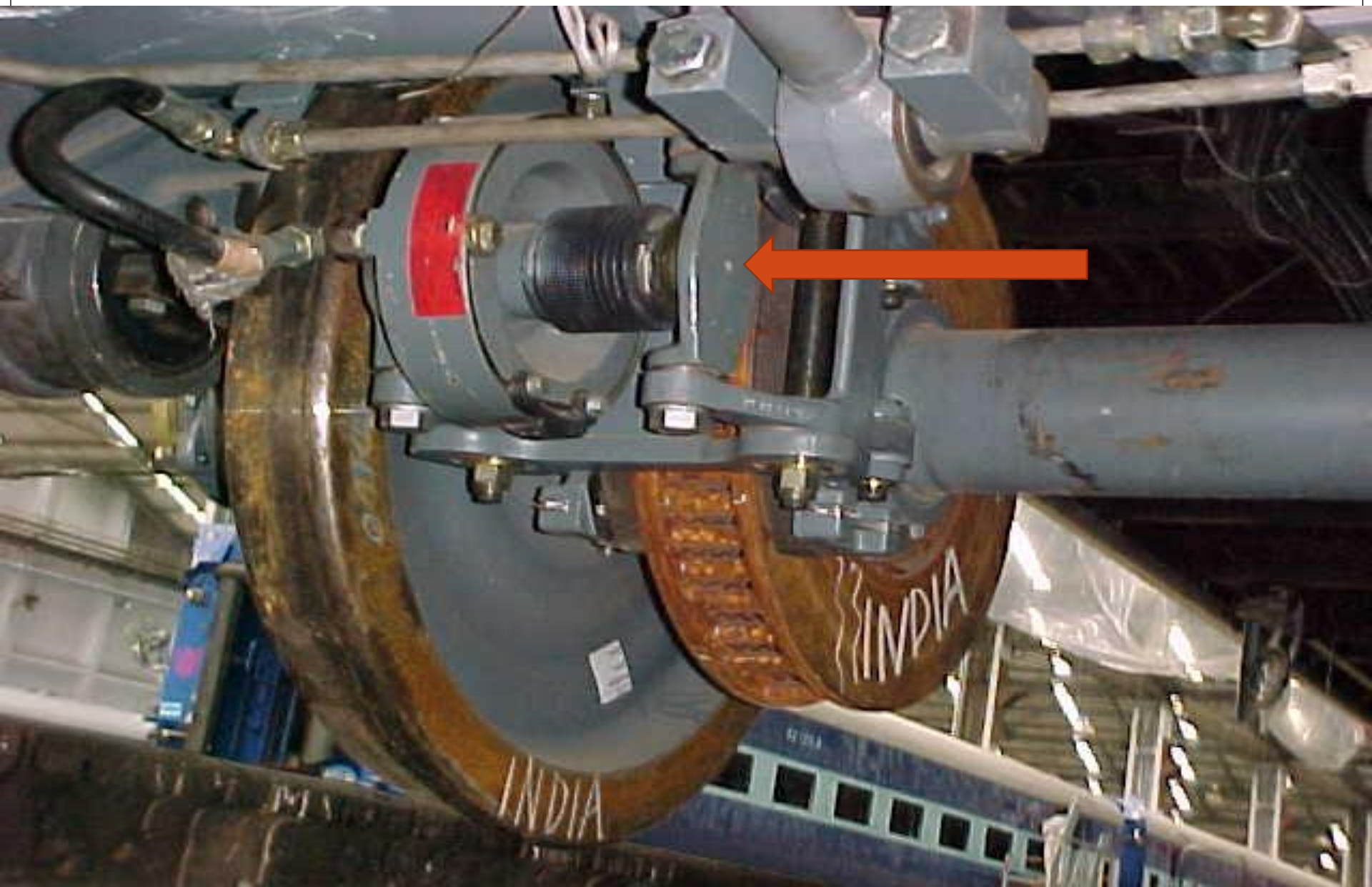
With this Brake Indicators turn to **GREEN**.

Ensure physically release of Brake pads by shaking.

If not free, loosen the 27mm nut of BC to get Brake pad gap.



**Rotate clockwise to slack Brake pads**



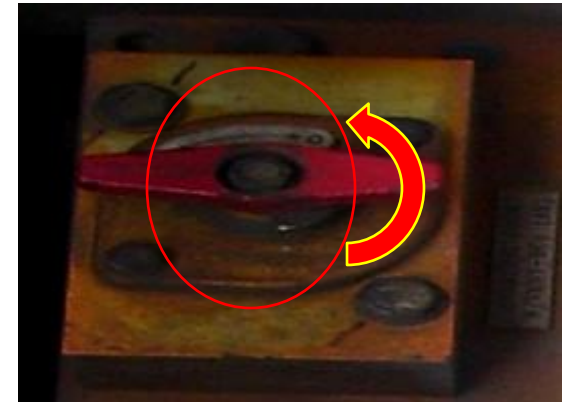
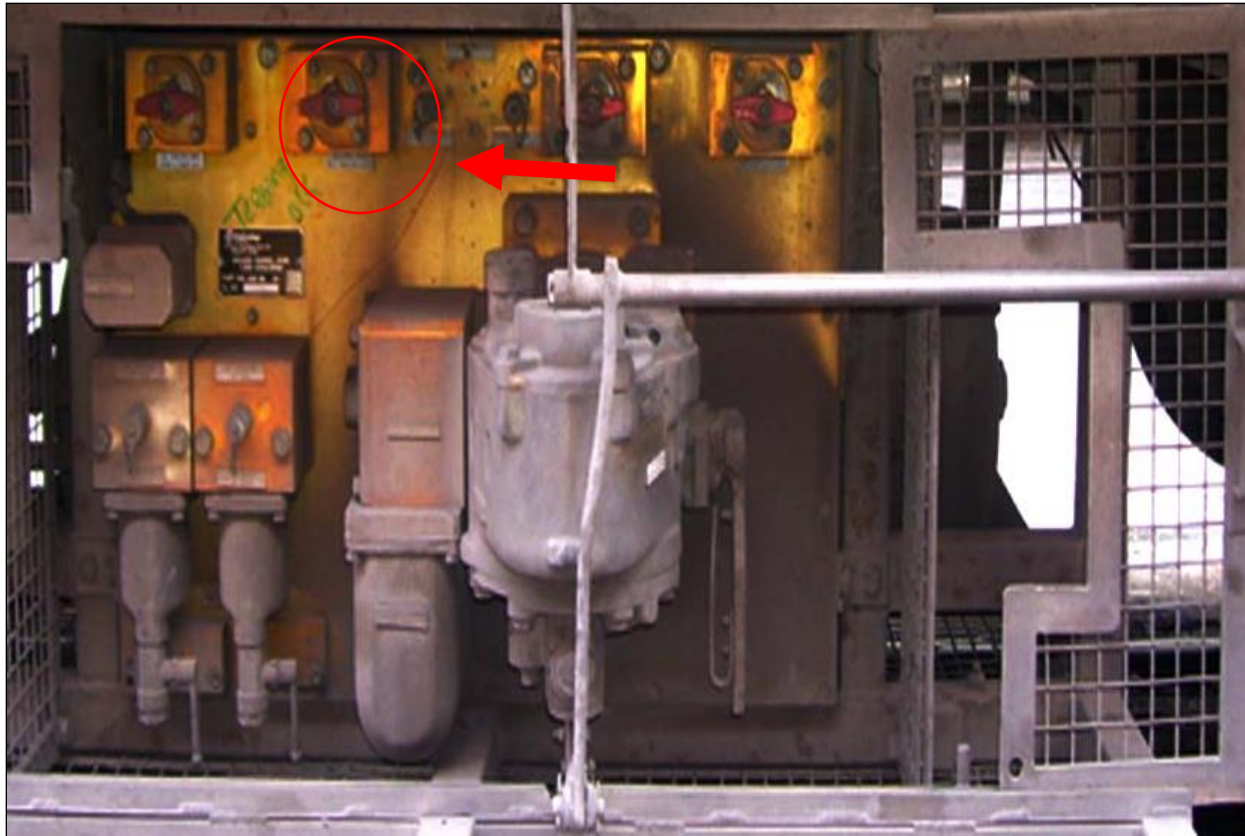
After ensuring releasing brakes, that is after 1<sup>st</sup> step or 2<sup>nd</sup> step or 3<sup>rd</sup> step...

Isolate / Dummy the affected coach and empty Air Brake system as follows..

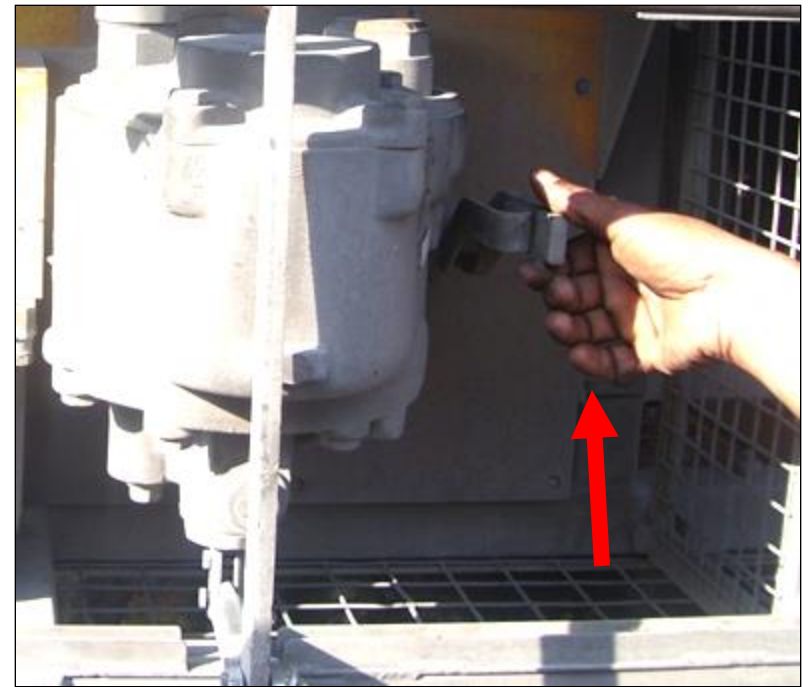
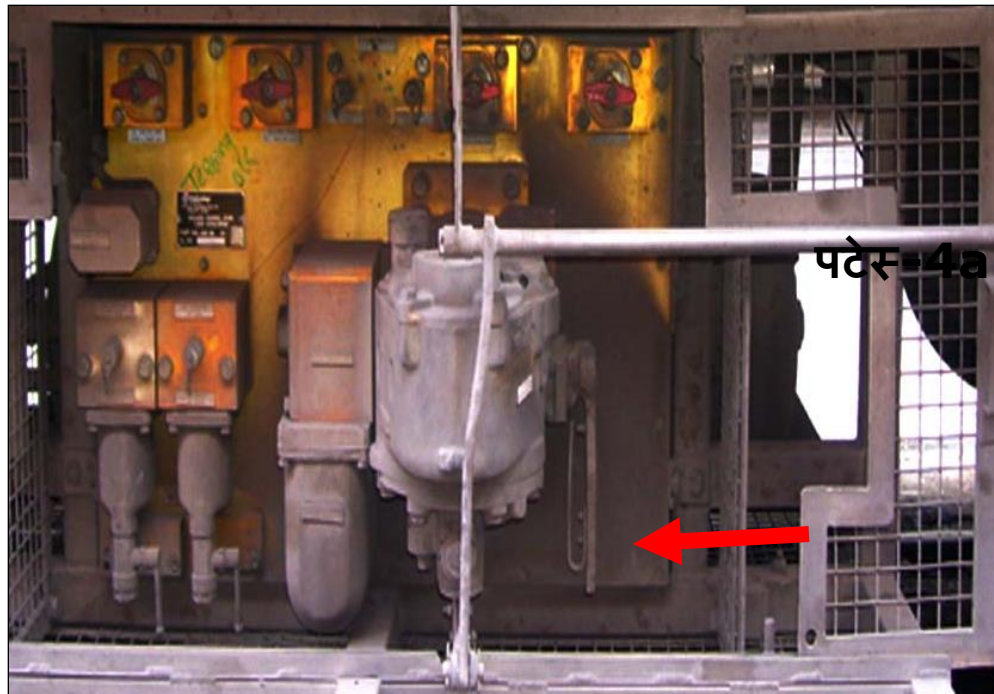
- Isolate FP to AR
- Isolate DV
- Isolate BCs
- Drain AR
- Pull QRV again to empty CR.



**Step-4a:** Isolate FP cock (switch) fitted in Brake panel.  
Rotate anticlockwise to **Horizontal position**.

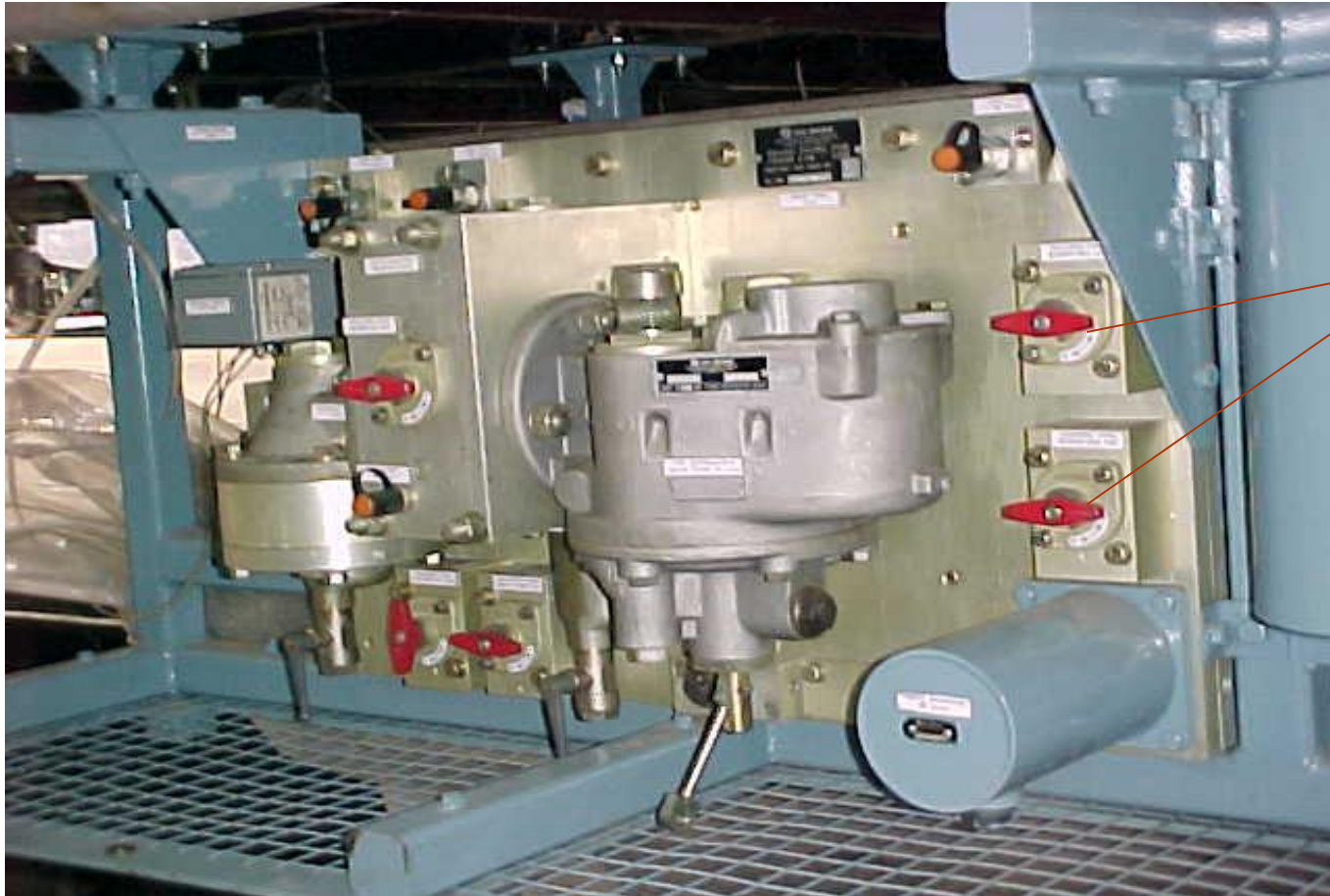


**Step-4b:** Isolate DV by lifting R-Charger Isolation handle from vertical to **Horizontal position**.



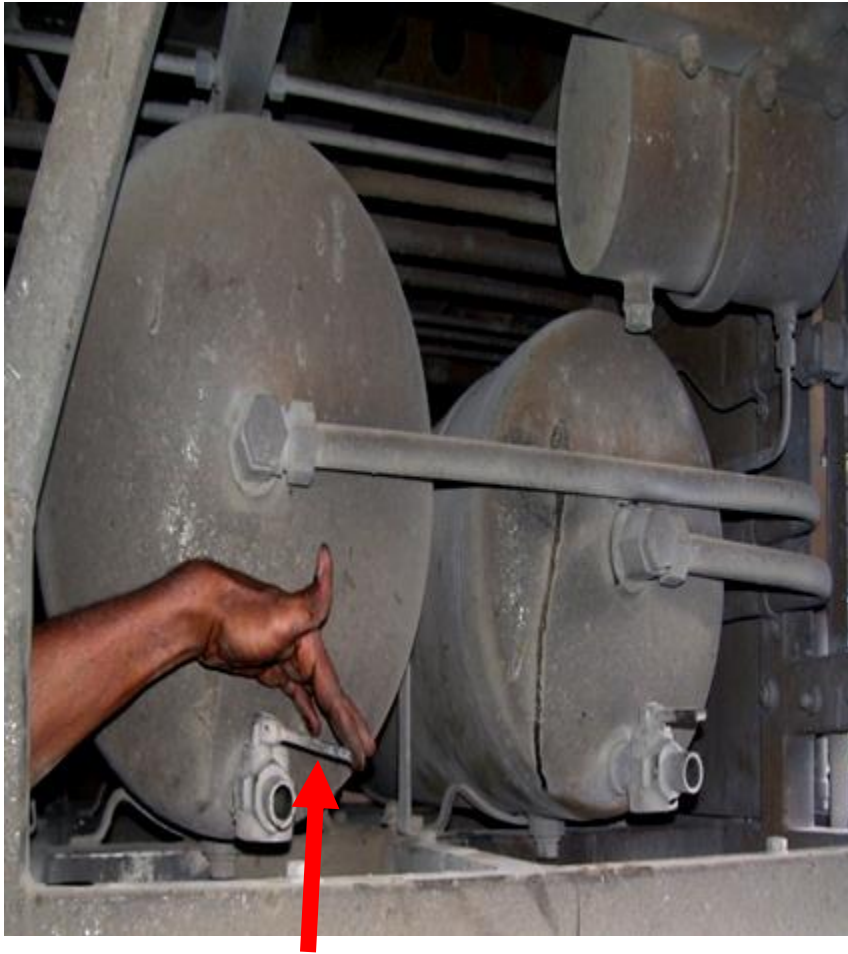
Isolation/Dummy

## Step- 4c: Isolate BC cocks if not done earlier

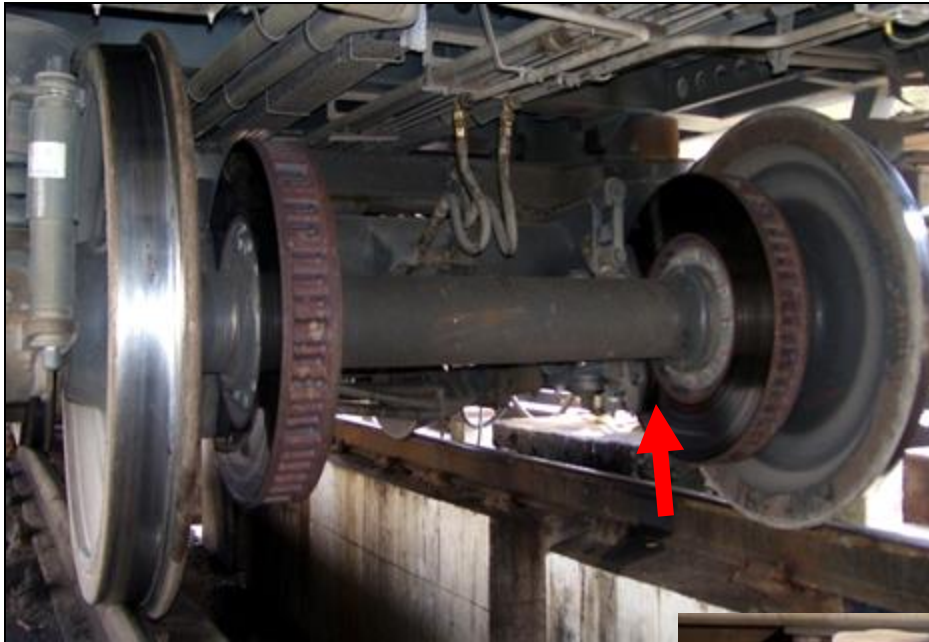




**Step-4d:** Drain out AR fully.  
Pull Quick release wire of DV to empty CR.



**Step - 4e:** Physically ensure the release of Brake Pads of all wheels by shaking & ensure Brake indicators in green colour.



# Double Decker Coach



**For C3W DV there is no DV isolating handle for isolation.  
The isolation cock above the DV to be turned vertical**



# For Double Decker Coach

Isolation/Dummy

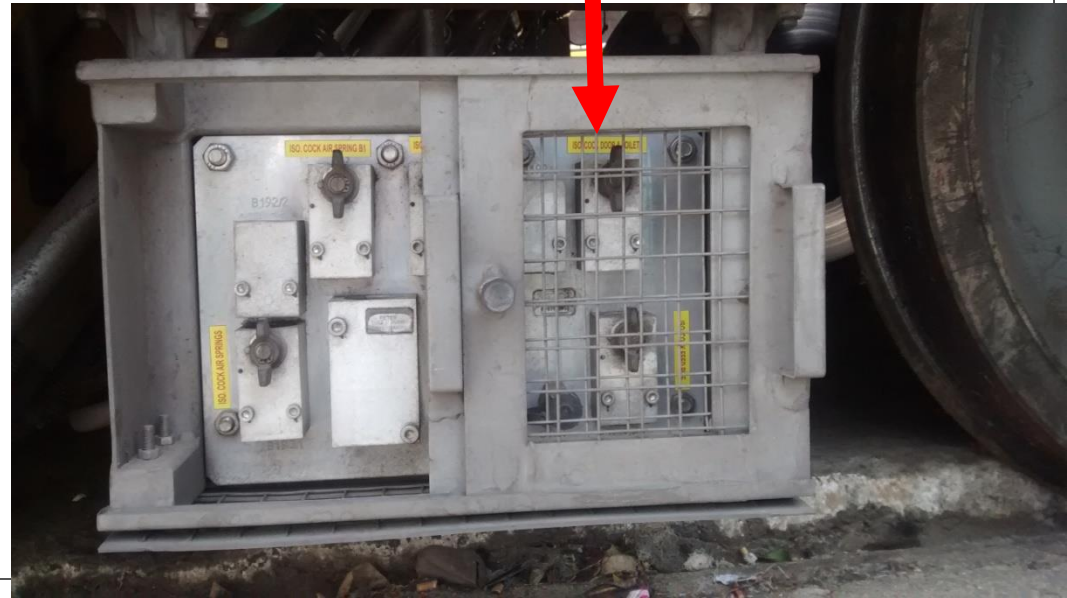


**C3W DV**

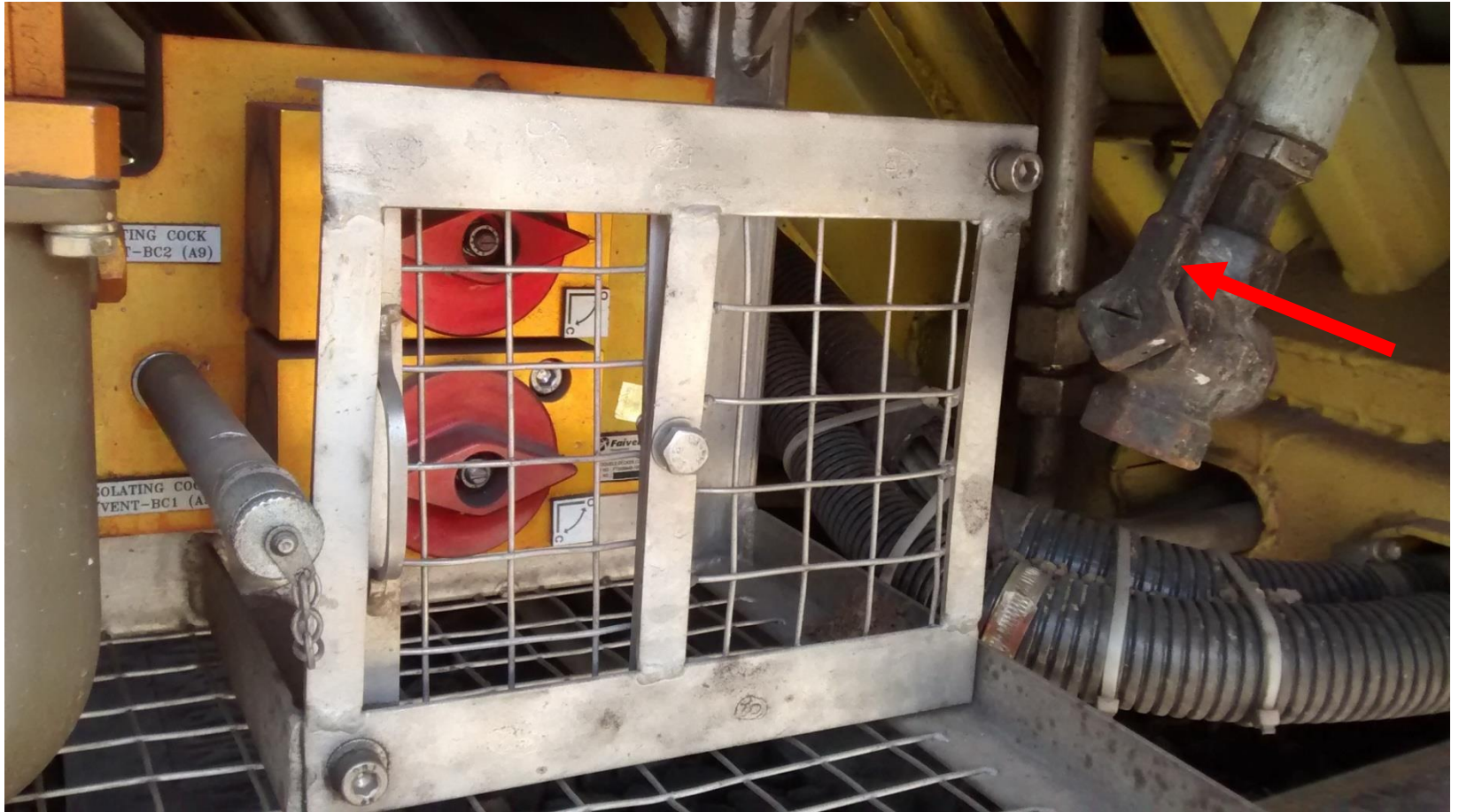
**FP SWITCH**

**KNORR DV**

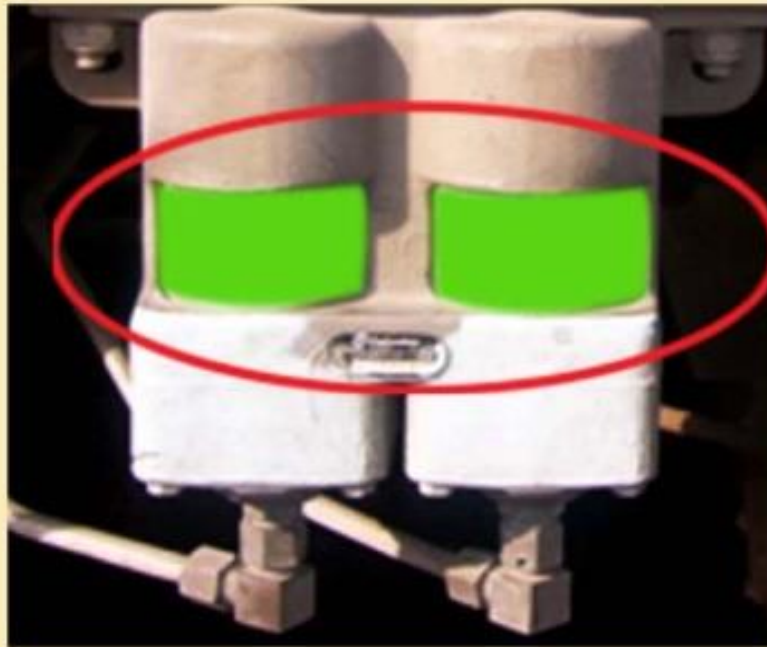
**FP SWITCH**



# For LHB DD - AR Drain Cock



**The final position of Brake indicators  
will be in green position**



**Now you can work the train  
up to the destination**



### 3. By-passing of BP/FP pipes of LHB Coaches



LHB /DURANTO COACH



**If BP/FP metallic pipe broken or Cut Off Angle  
Cock leakage..**

**Any Ferrule joint worked out..**

**By-pass the Air Brake system of that coach,**



**LHB coaches are not permitted to run with Single pipe Air Brake System because..**

**LHB coaches are provided with..**

- **Pressurised Bio-Toilets**
- **WSP system in Disc brake system and**
- **Air Spring suspension in some coaches**

**For by-passing, use coach length flexible pipe (length approx. 28m) and for converting BP flexible pipe to FP or FP flexible pipe to BP..**

**use BP/FP palm end couplers.**

# Coach Length BP, FP By-Pass Flexible pipes and BP/FP By-Pass converter couplers



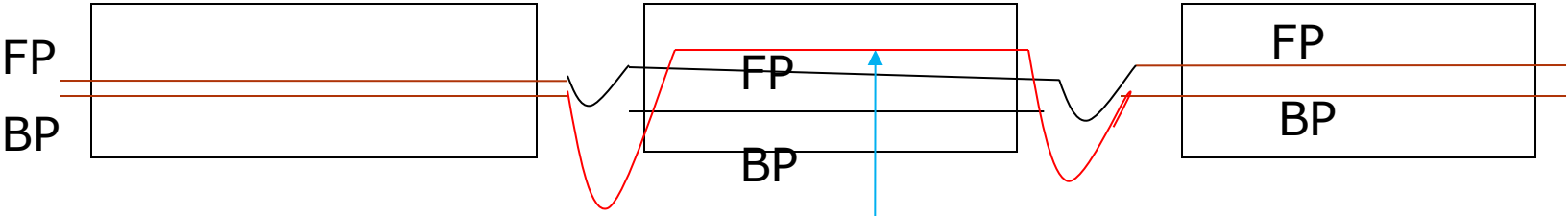
**BP by-pass Pipe (Coach length) FP by-pass Pipe (Coach length) BP/FP palm end Coupler**



Front potion

**Effected Coach**

Rear potion



Coach length flexible pipe



# Procedure of by-passing of BP/FP in LHB Coaches

- Close BP/FP cut off angle cocks on both ends of the affected coach.
- Close BP/FP cut off angle cocks of both the adjacent coaches.
- Un couple BP/FP air hoses between affected coach and adjacent coaches.
- Run coach length BP / FP by-pass flexible pipe inside the affected coach and tied properly.
- Connect coach length BP / FP by-pass flexible pipe to both the adjacent coaches and open BP/FP cut off angle cocks.

# Procedure of by-passing of BP/FP in LHB Coaches

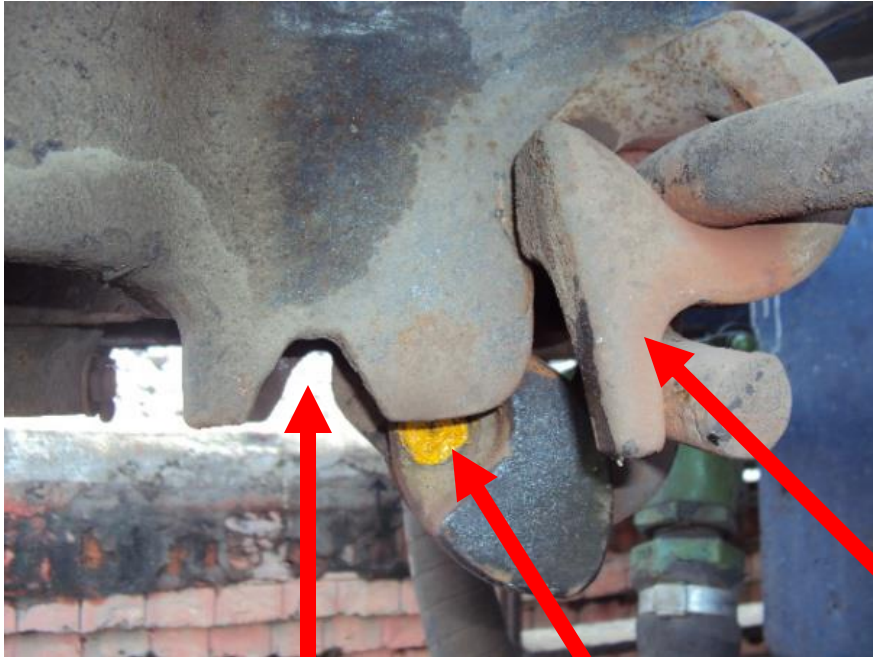
- Ensure manual release of affected coach and the adjacent coaches.
- Ensure brake indicators of all the coaches in Green colour.
- Check the BP/FP pressures in front and rear power cars.
- Ensure the air continuity and allow the train.

**NOTE:** In case FP pipe by-passing and if coach is of Air suspension, isolate Air Bellows and run the train with SR 60 KMPH.

In case BP By-Passed, Brake system and ACP of that coach will not work.



# Ensuring proper coupling / locking of 'H' type tight lock CBC



Lock lift Lever & rivet  
(Yellow mark) fully visible

Tell Tale slot (inverted 'V') is clear



Rotary Lock Lifter rib  
vertical downwards

# Partially Locked Lock Condition



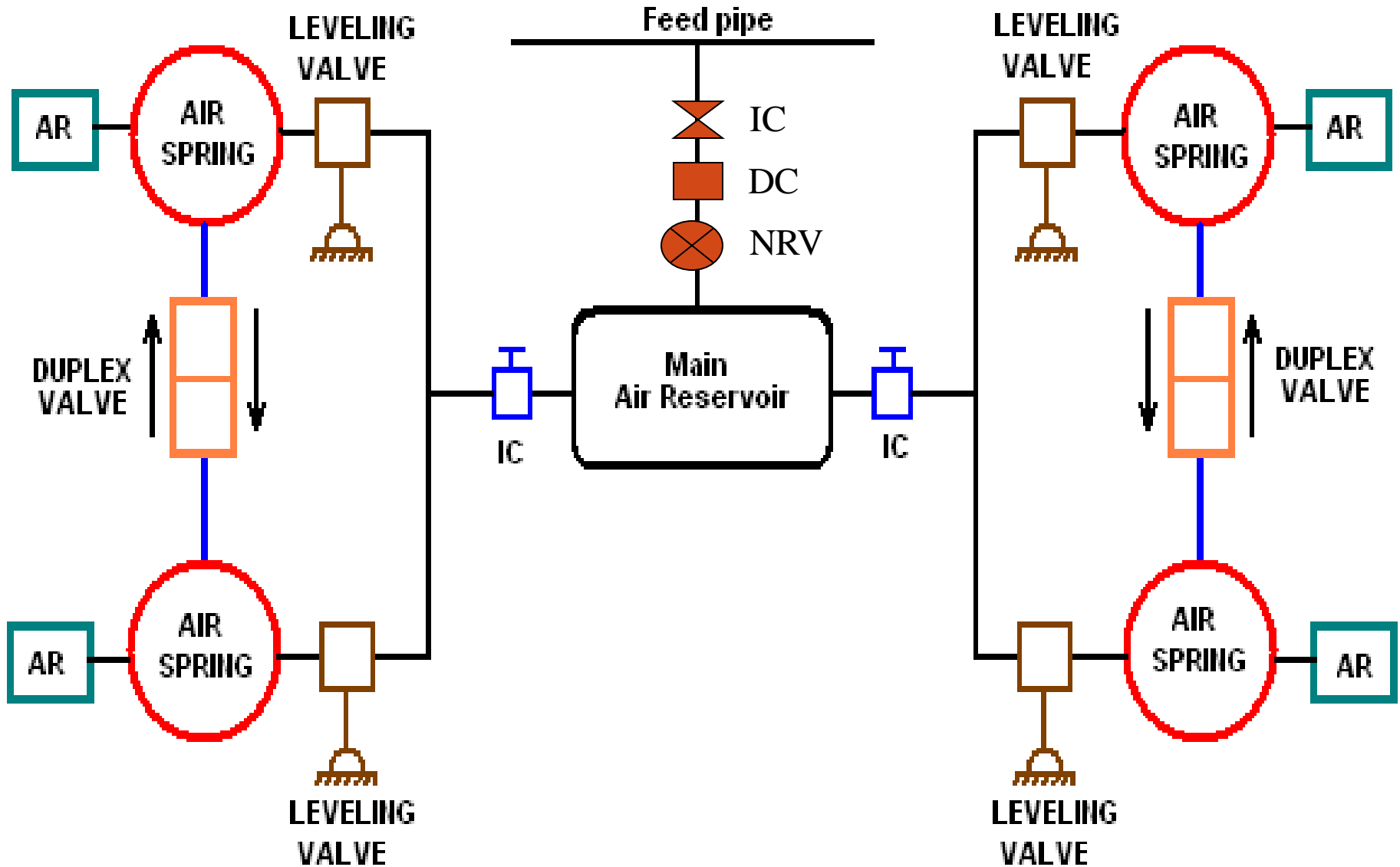


# Double Rotary Lock Lifter Rib Position





# Isolation of Air Spring suspension in case any air spring burst or heavy leakage





**FIAT BOGIE WITH AIR SPRING**



BOGIE  
VERHAAL  
BOGIE

L.C.F. CHEMIA  
BUILT IN 1920  
BOGIE N. 2







**Protective  
Shield**

**Lever should be in horizontal position**

*Thank you*