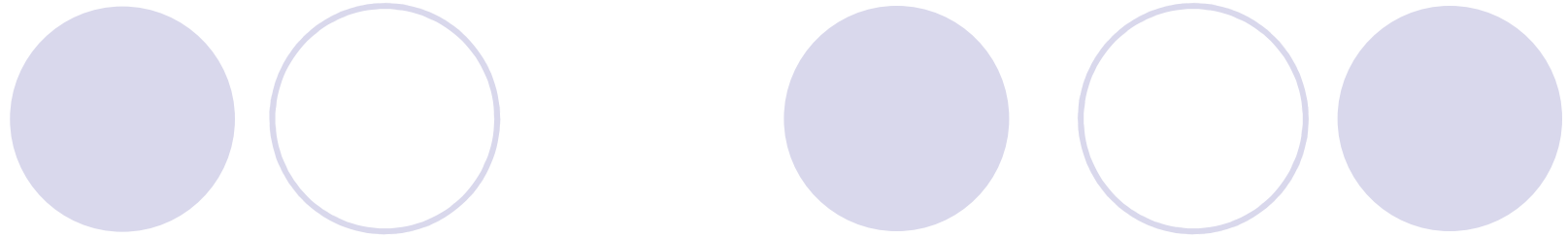


**APPLICATION OF CBC HEAD PROFILE GAUGES  
ON HIGH TENSILE AAR TYPE 'H' TIGHT LOCK  
CENTRE BUFFER COUPLER**

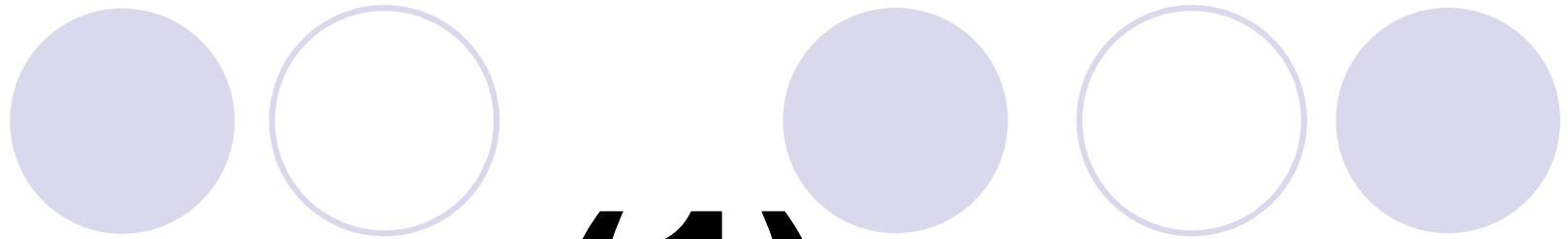




# **LIST OF CBC PROFILE GAUGES**

# LIST OF CBC PROFILE GAUGES

1. **Aligning wing limit gauge**
2. **Vertical height aligning wing pocket and guard arm gauge (go gauge)**
3. **Vertical height condemning limit aligning wing pocket and guard arm gauge (no-go gauge)**
4. **Contour maintenance gauge**
5. **Knuckle nose wear and stretch limit gauge**
6. **Contour condemning limit gauge**



**(1)**

**COUPLER WING LIMIT  
INSPECTION  
GAUGE**

# COUPLER WING LIMIT GAUGE



# COUPLER WING LIMIT GAUGE

Usage: This gauge is used to inspect for excessive distortion of aligning wing and/or guard arm of coupler head.

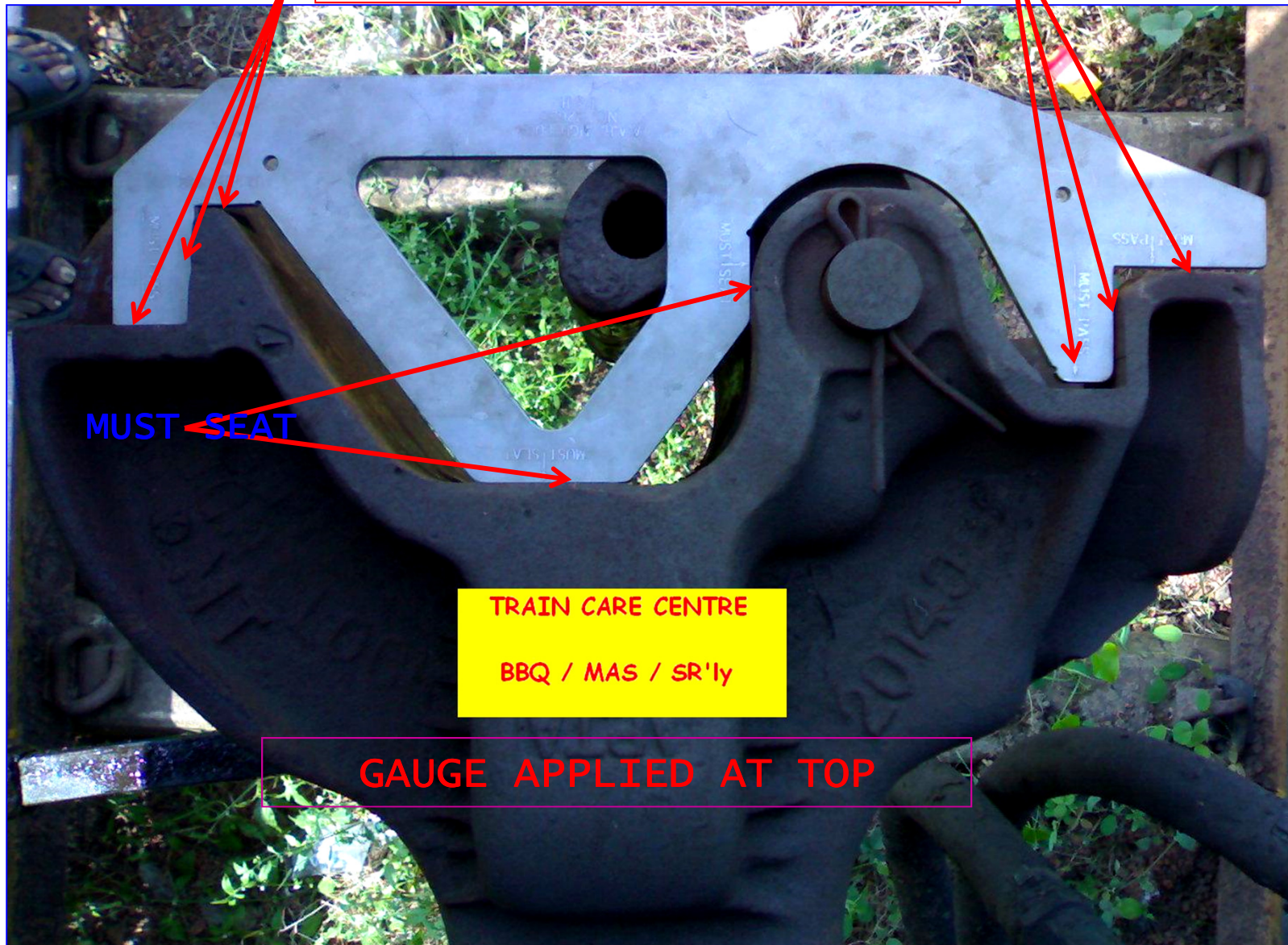
---

# COUPLER WING LIMIT INSPECTION



TRAIN CARE CENTRE  
BASIN BRIDGE

**MUST PASS**



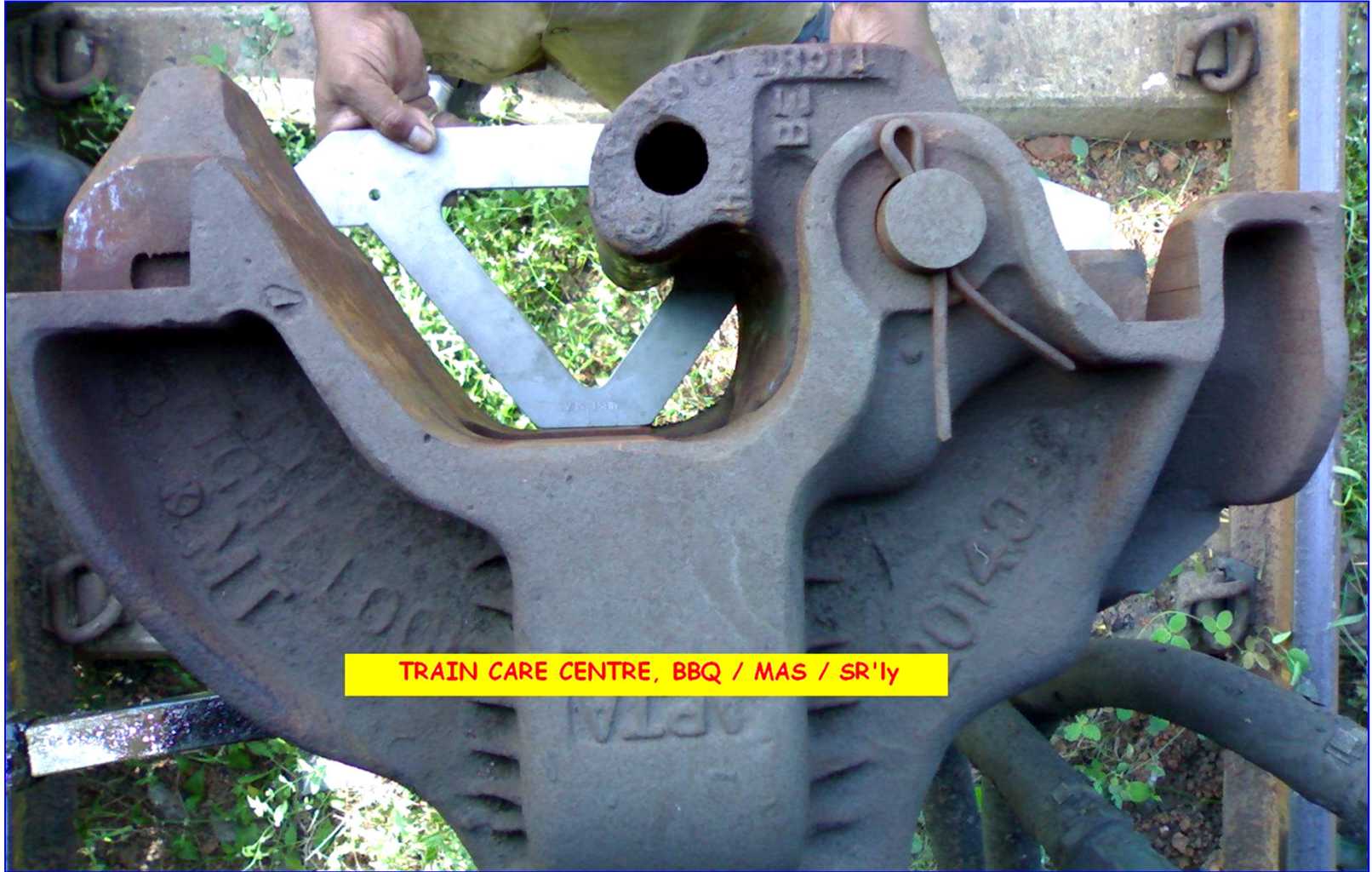
**MUST SEAT**

**TRAIN CARE CENTRE**  
BBQ / MAS / SR'ly

**GAUGE APPLIED AT TOP**



**GAUGE APPLIED AT BOTTOM**



**Description:** The gauge must seat against the front face of the coupler head and the pivot lug and clear at all points around the interlocking lug guard arm face and lateral aligning surface.

If the gauge does not seat or clear at the proper locations, there is excessive wear to the front face and pivot lug or distortion to the guard arm or interlocking lug.

**Remedy:** In this condition the coupler head must be replaced.



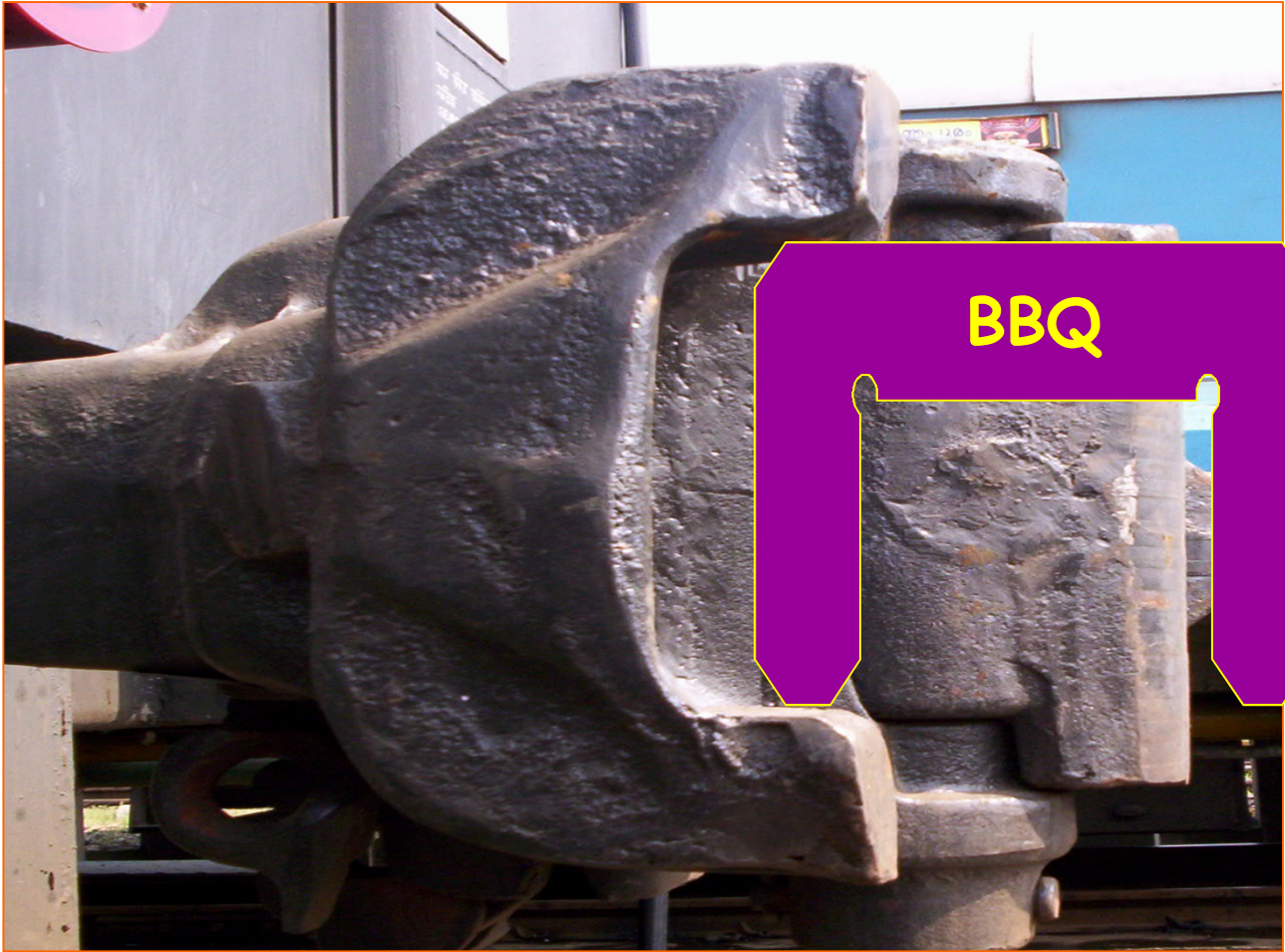
**(2)**

**VERTICAL HEIGHT ALIGNING WING POCKET  
AND  
GUARDARM GAUGE (GO GAUGE)**

## VERTICAL HEIGHT ALIGNING WING POCKET AND GUARDARM GAUGE (GO GAUGE)

**Usage:** This gauge is used to inspect for excessive distortion of vertical aligning wing and / or guard arm of the coupler head.

# VERTICAL HEIGHT ALIGNING POCKET GAUGE (GO GAUGE)



# VERTICAL HEIGHT GUARD ARM GAUGE (GO GAUGE)

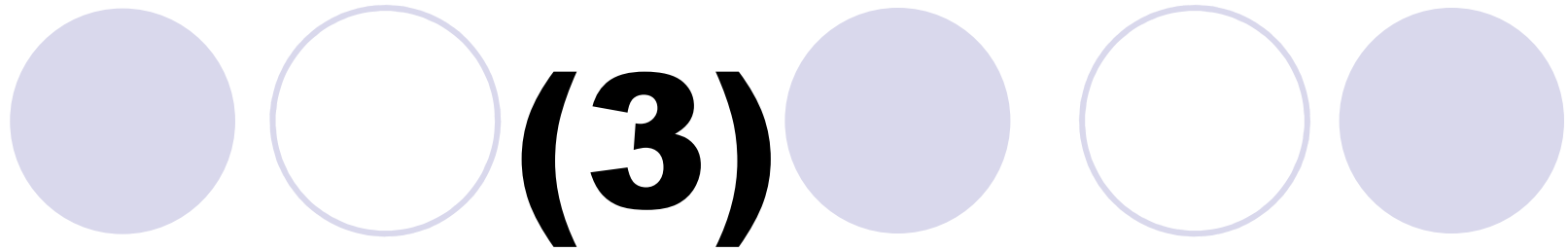


**GUARD ARM SIDE VIEW**

**Description:** The gauge must pass (slide into) the wing pocket and over the guard arm.

If the gauge does not pass, there is a vertical distortion to the wing pocket and / or guard arm.

**Remedy :** In such event, the coupler head must be replaced.



VERTICAL HEIGHT CONDEMNING  
LIMIT ALIGNING WING POCKET  
AND  
GUARD ARM GAUGE  
(NO-GO GAUGE)



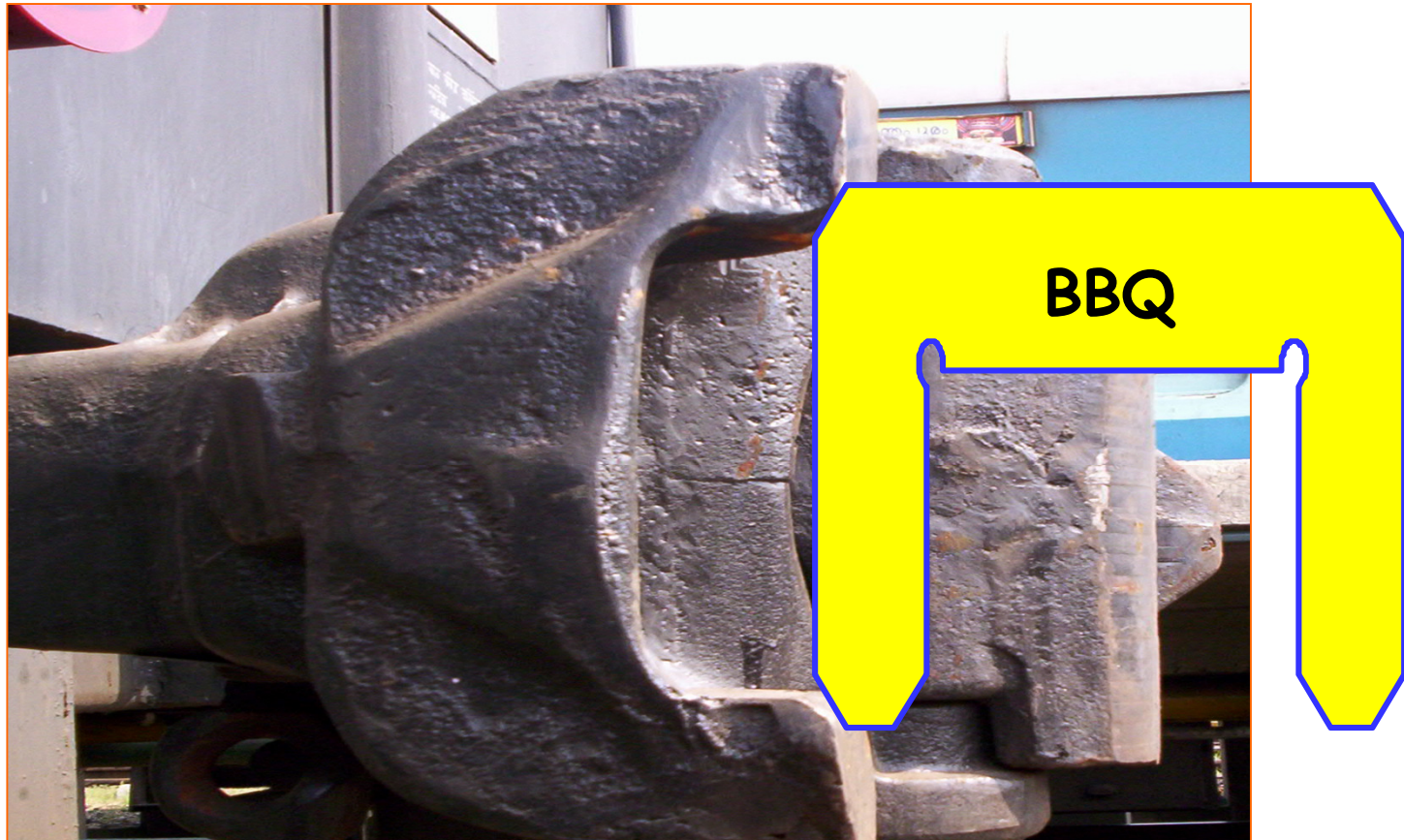
## VERTICAL HEIGHT CONDEMNING LIMIT ALIGNING WING POCKET AND GUARD ARM GAUGE

**Usage:** This gauge is used to check for wear of aligning wing and guard arm (but not distortion of the coupler head).

VERTICAL HEIGHT CONDEMNING LIMIT ALIGNING WING  
POCKET AND GUARD ARM GAUGE (NO-GO GAUGE)



# VERTICAL HEIGHT CONDEMNING LIMIT ALIGNING WING POCKET GAUGE (NO-GO GAUGE)



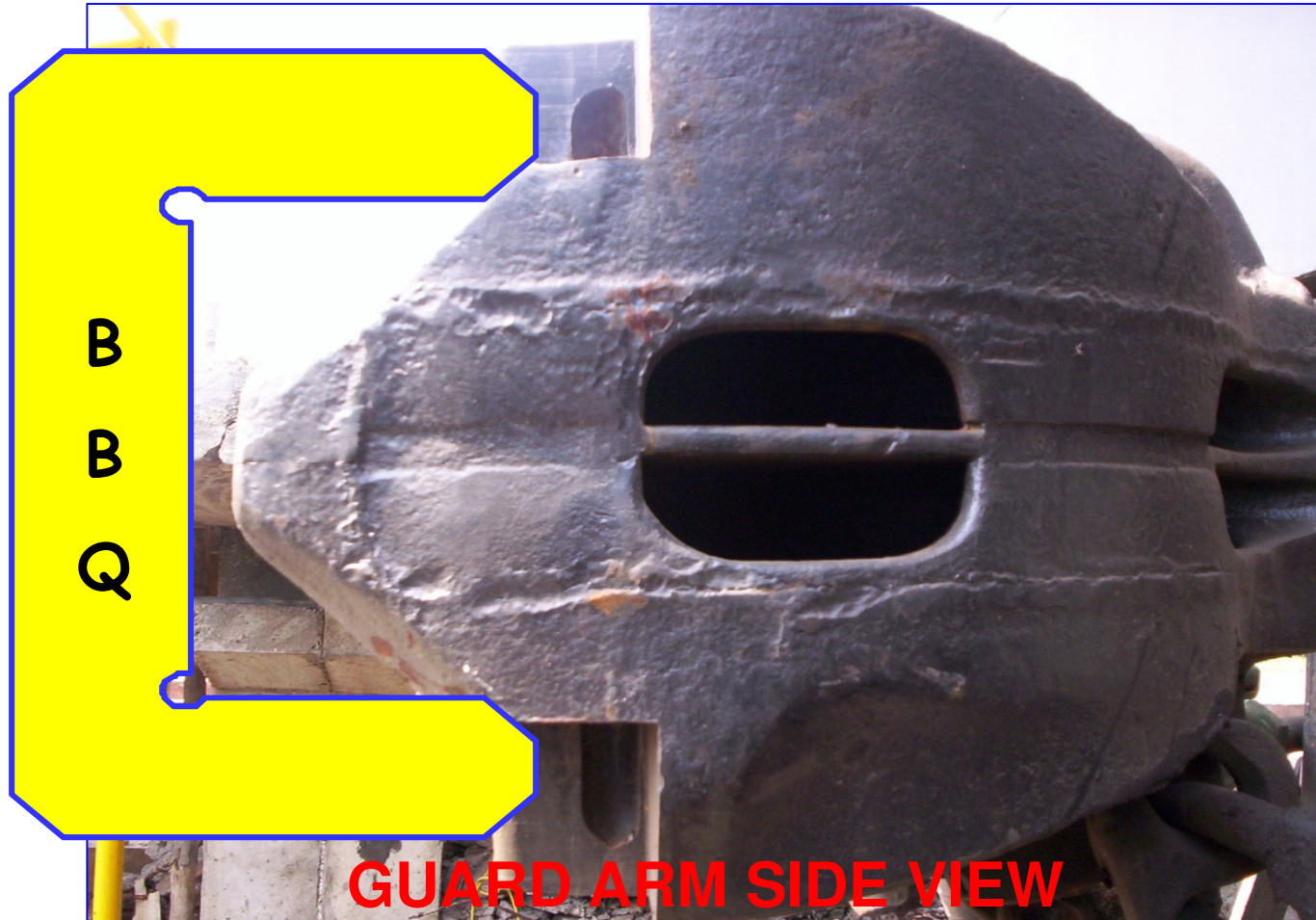
Elevation – aligning wing pocket side



BBQ / MAS / SR'ly

Elevation - aligning wing pocket side

# VERTICAL HEIGHT CONDEMNING LIMIT GUARD ARM GAUGE (NO-GO)



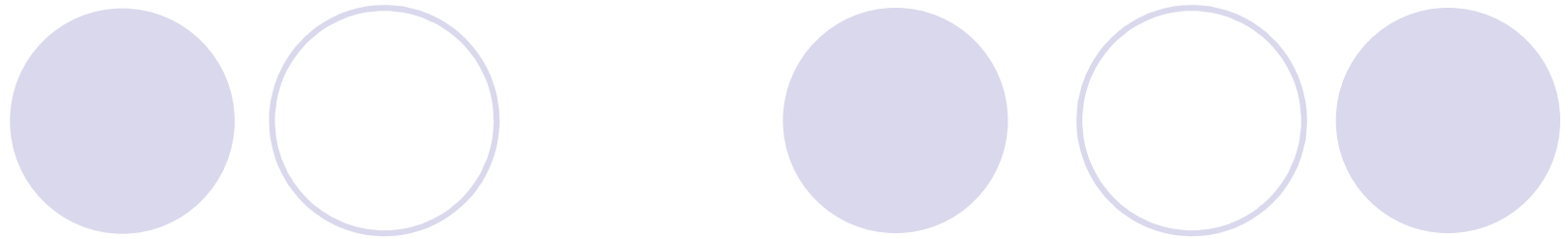


**GUARD ARM SIDE VIEW**

**Description:** The gauge must not pass into the wing pocket or over the guard arm.

Gauge passing is an indication of excessive wear to the interlocking surfaces of the wing pocket or over the guard arm.

**Remedy:** In this event the coupler head must be replaced.



**(4)**

**CONTOUR MAINTENANCE  
GAUGE**

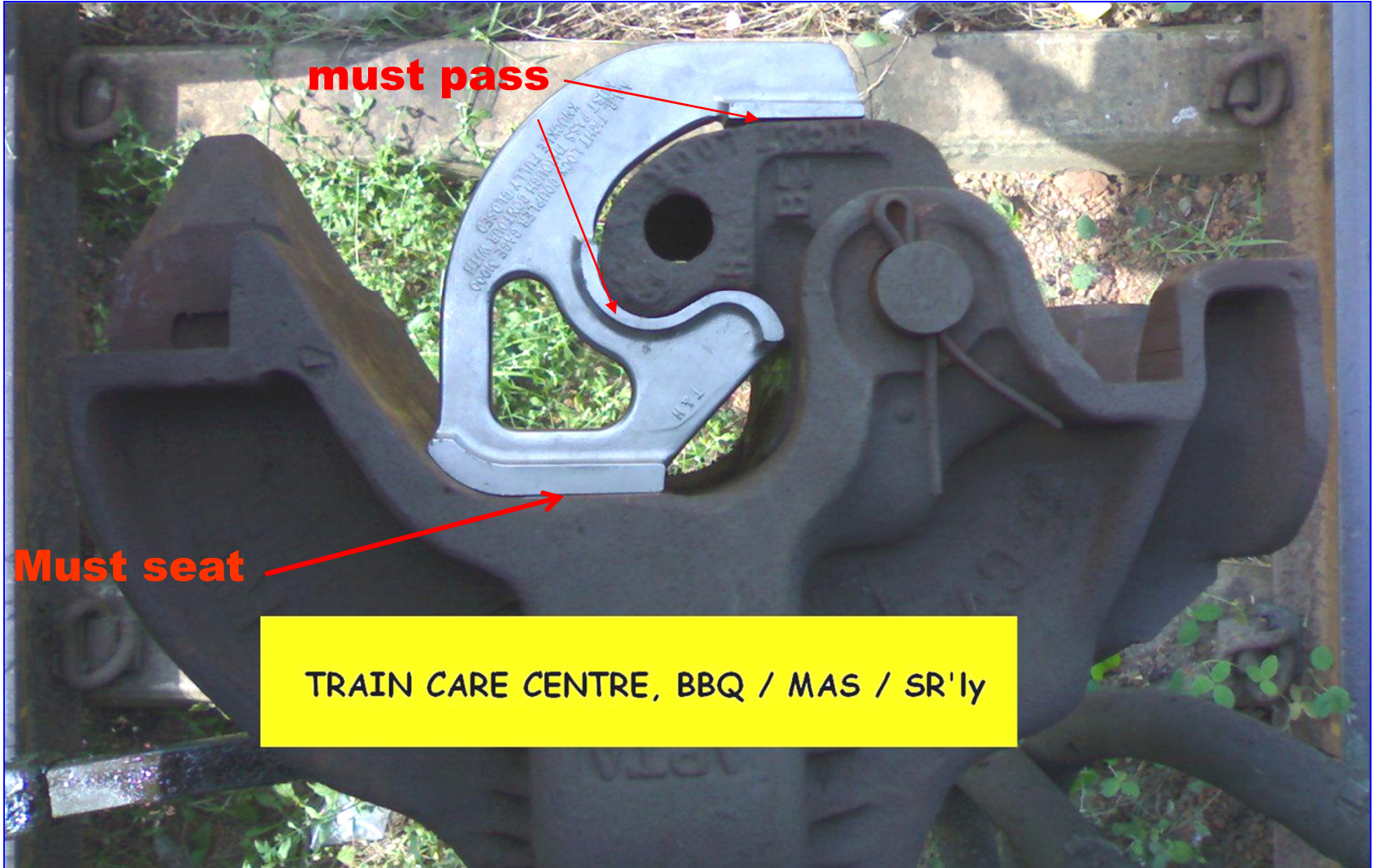


# CONTOUR MAINTENANCE GAUGE



# CONTOUR MAINTENANCE GAUGE

**Usage:** This gauge is used to inspect the correctness of the contour.



must pass

Must seat

TRAIN CARE CENTRE, BBQ / MAS / SR'ly

**Description:** This gauge must pass through the contour with the knuckle fully closed and locked.

The gauge must be seated against the front face of the coupler head.

If not it is an indication of excessive wear to the front face of the coupler or stretched knuckle .

**Remedy:** In this case remove and inspect the knuckle, using knuckle nose wear and stretch limit gauge.



**(5)**

**KNUCKLE NOSE WEAR**

**AND**

**STRETCH LIMIT GAUGE**

# KNUCKLE NOSE WEAR AND STRETCH LIMIT GAUGE

**Usage:** This gauge is used to check for excessive wear on the nose of the knuckle and for any stretch.





34100-2A

Fci #0179

**BBQ / MAS / SR'ly**

TIGHTLOCK COMPLETE  
KNUCKLE NOSE WEAR AND  
STRETCH LIMIT  
POINT D MUST NOT TOUCH OR CLEAR  
MORE THAN 1/4 IN. WITH ADJAC STAFF

A

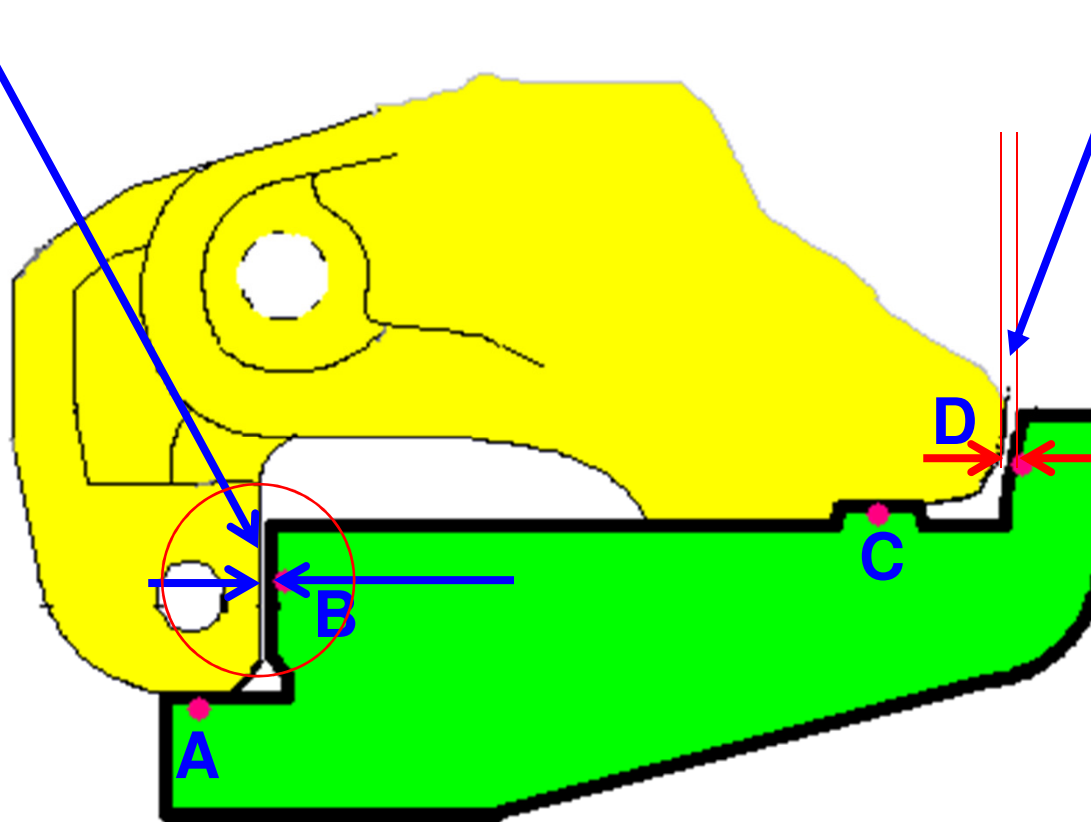
B

C

D



The permitted wear at the nose is 6.5 mm .

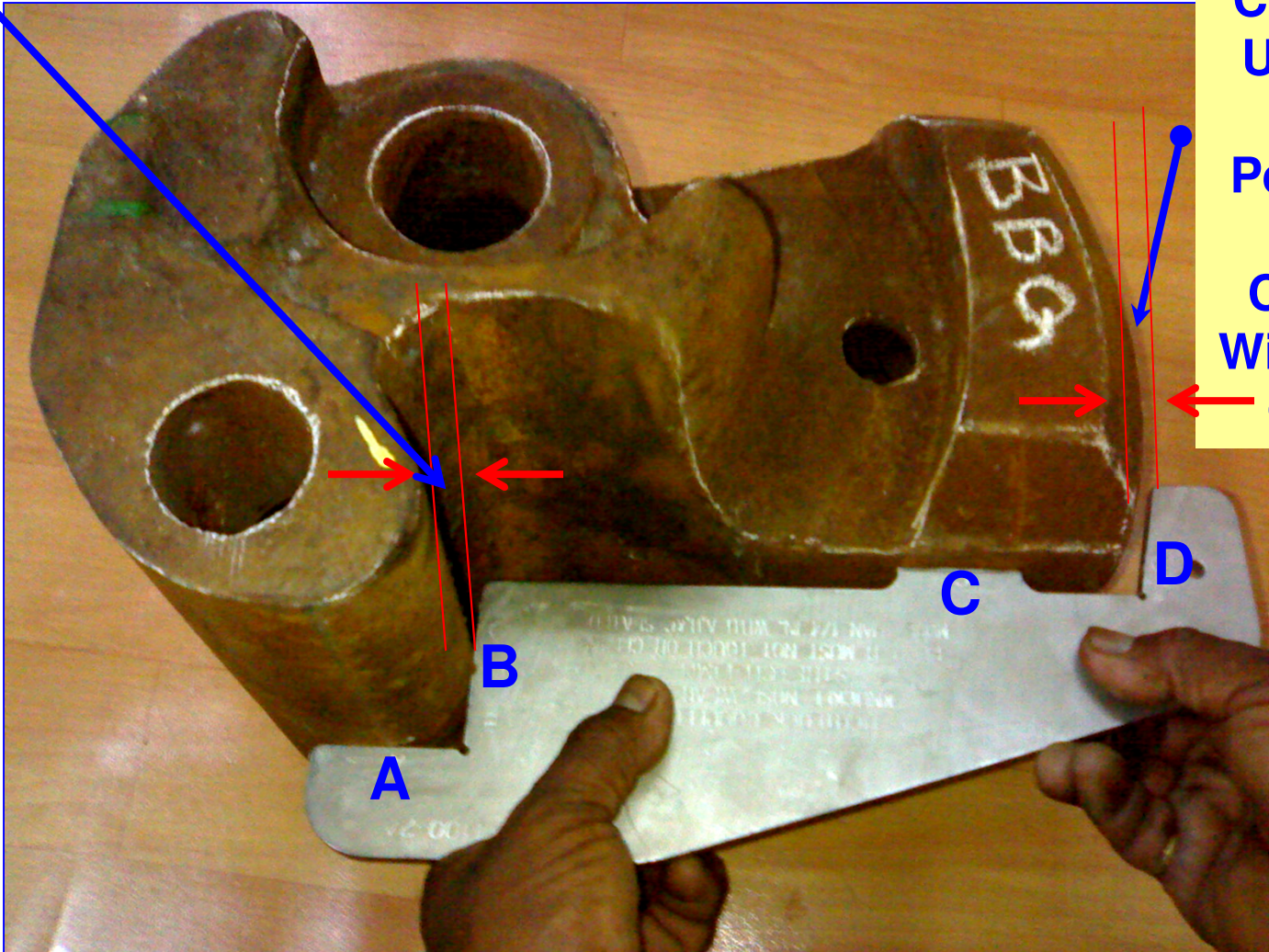


Clearance  
Up To 6.5  
mm  
Permitted.  
To Be  
Checked  
With Feeler  
Gauge.

D does not touch or clear more than  $\frac{1}{4}$ ". A,B and C seated

**D does not touch or clear more than 1/4". A,B and C seated**

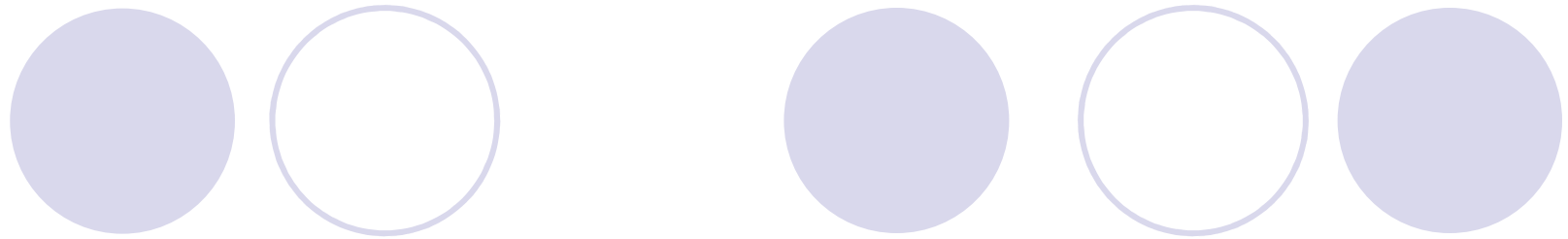
**The permitted wear at the nose is 6.5 mm .**



**Clearance  
Up To 6.5  
mm  
Permitted.  
To Be  
Checked  
With Feeler  
Gauge.**

**Description:** Verify that points A, B, C of the gauge seat on the knuckle and that point D does not touch or clear more than  $\frac{1}{4}$ ".

**Remedy:** If the points do not touch or clear properly, replace the knuckle.



**(6)**

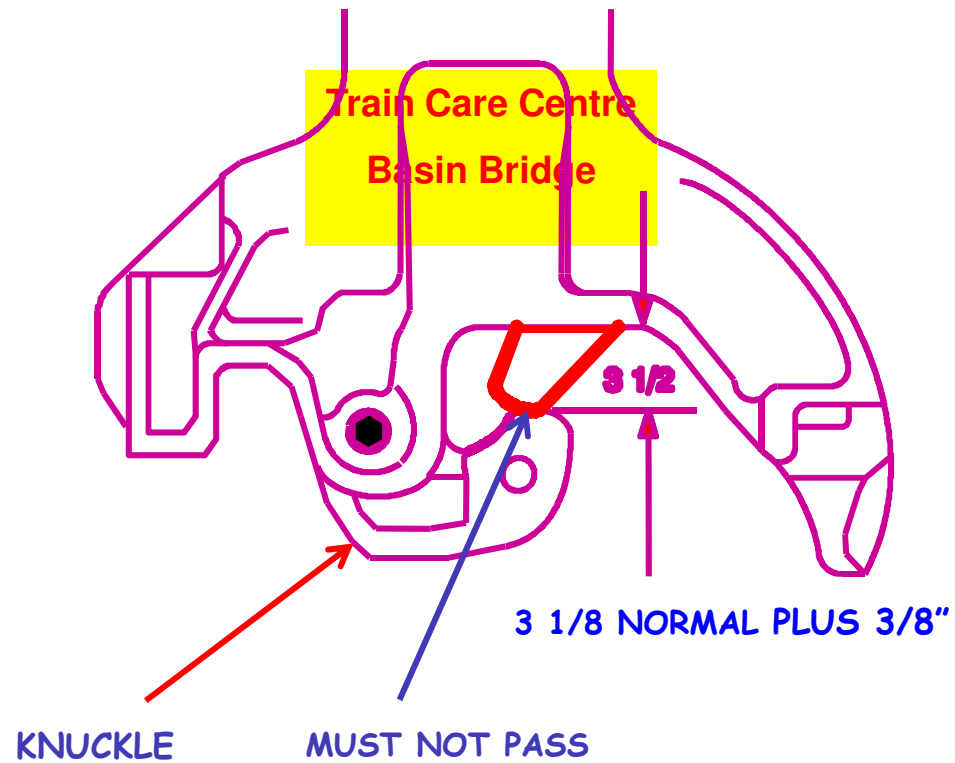
**CONTOUR**

**CONDEMNING LIMIT GAUGE**

# CONTOUR CONDEMNING LIMIT GAUGE

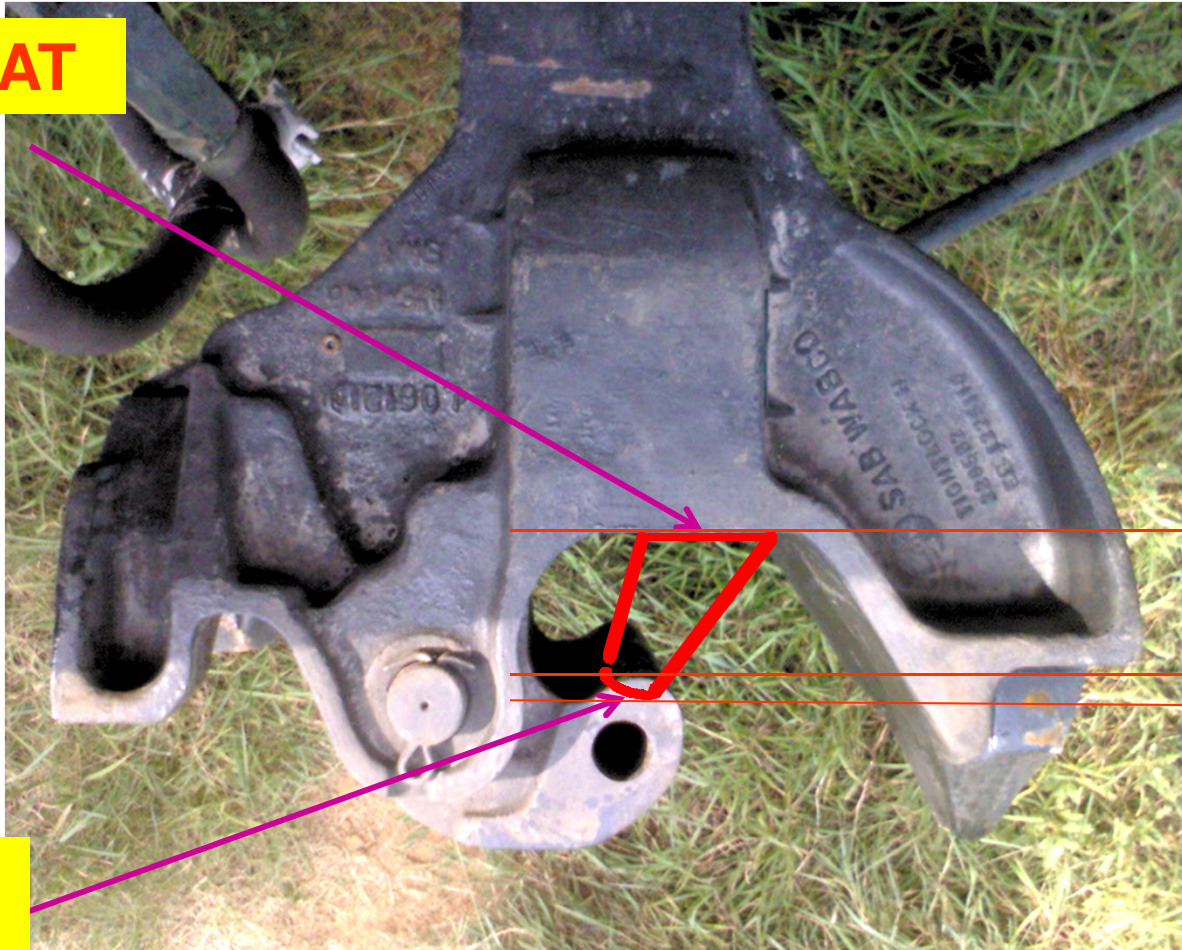
**Usage:** This gauge is used to inspect limit of contour slack (limit has been set at  $3/8''$ ).

# CONTOUR CONDEMNING LIMIT GAUGE



# CONTOUR CONDEMNING LIMIT GAUGE

**MUST SEAT**



**3 1/8"**

**3/8"**

**MUST NOT  
PASS**

**Description:** First close the knuckle and then pull slack of knuckle out towards you. Insert the gauge. The gauge must not pass between the front face of the coupler head and the pulling face of the knuckle.

**Remedy:** If the gauge does pass, remove the knuckle and inspect once more for wear.



- If the knuckle is worn, replace the knuckle.
- While the knuckle pin is out of the coupler, inspect the knuckle pivot pin and pivot pin hole for excessive wear.
- If the knuckle pivot pin is worn, replace it.
- If the knuckle, pivot pin and pivot pin hole are in acceptable condition, the lock could be worn and should be replaced.
- Also, the front face of the coupler could have excessive wear and coupler shank should be replaced if found.



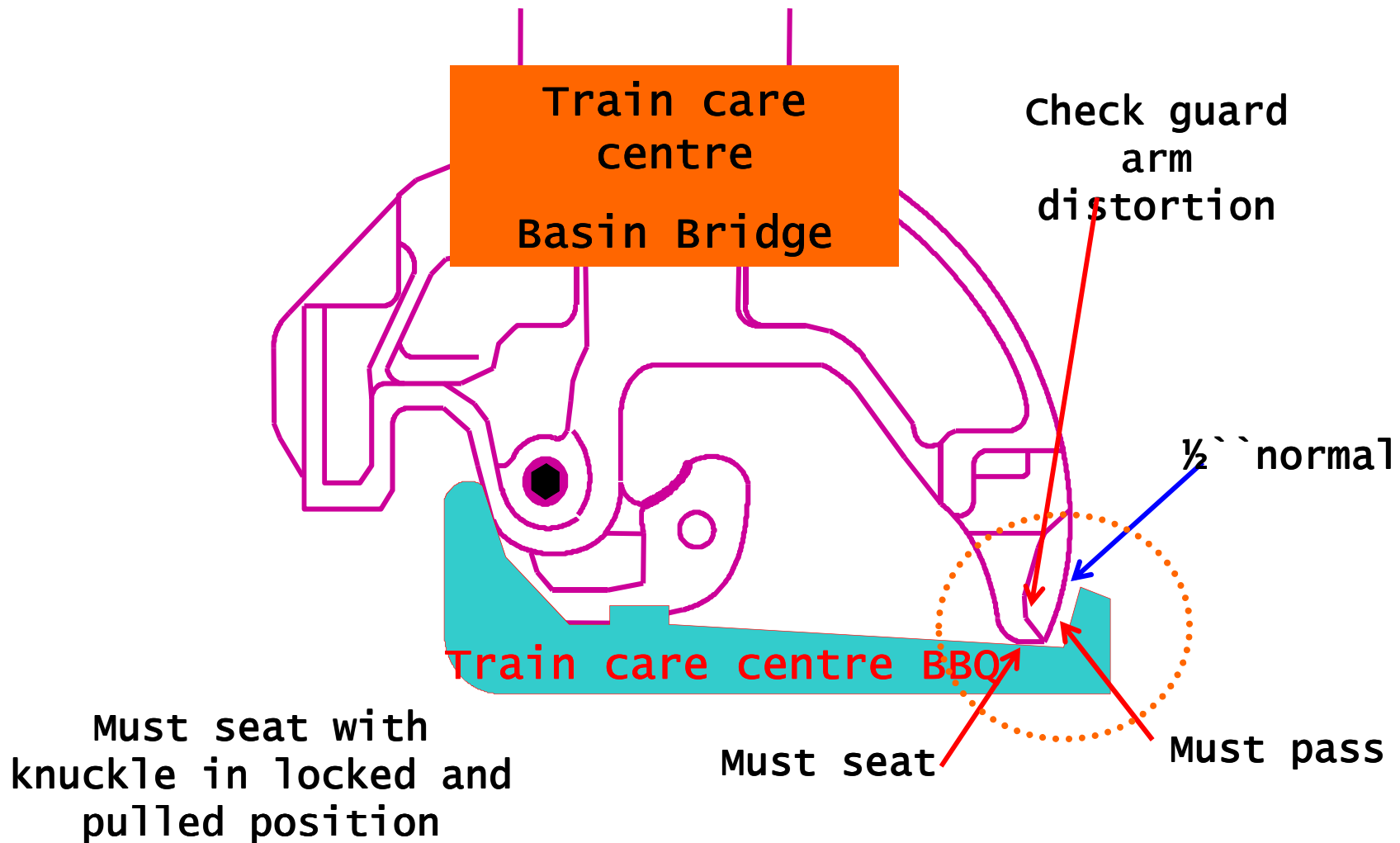
**(7)**

**GUARD ARM DISTORTION  
INSPECTION**

# GUARD ARM DISTORTION INSPECTION

**Usage:** The Guard Arm Distortion Gauge

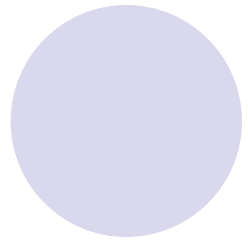
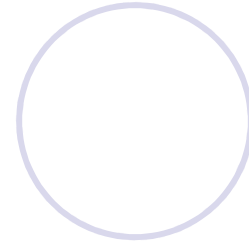
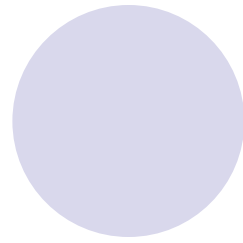
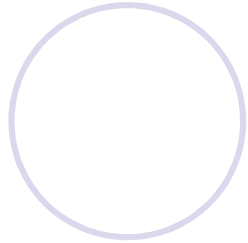
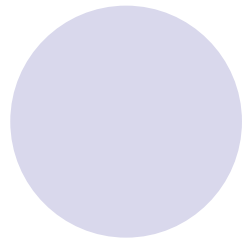
is used to check distortion of the  
guard arm.



## GUARD ARM DISTORTION INSPECTION

**Description:** To inspect for distortion of guard arm, the knuckle must be in pull position. When properly applied, the gauge must seat on the knuckle, and the front of guard arm. The right side of the gauge must clear the right side of the guard arm.

**Remedy:** If the gauge does not clear the right side of the guard, the guard arm or pin protector boss is distorted or bent, and the coupler should be replaced.



**THANK YOU**