



## **ANDRA Homologated Removable Rollcage Joints, as at 7<sup>th</sup> January 2020**

ANDRA undertakes a homologation program for removable rollcage joints. The homologation of rollcage joints is undertaken on a joint by joint basis, with each manufacturer requiring a separate homologation for each of their rollcage joints. ANDRA undertakes this program to ensure that its members are purchasing and using rollcage joints that are fit for purpose.

A newly constructed rollcage with removable components, that does not meet the ANDRA Removable Rollcage Specification, will not pass a Technical Inspection and therefore no Logbook will be issued to the vehicle. This document forms part of the Removable Rollcage Specification.

## **Homologated Joints**

The following is a list of homologated removable rollcage joints;

1. Pro9-R1000KIT – Etched with ANDRA RRJ001.
2. Brad Stacy 1 5/8" Joint – Non-etched, not for retail.
3. Billet Race Craft 1 5/8" Joint – Etched with ANDRA RRJ002 (etched and non-etched).
4. Billet Race Craft 1 3/4" Joint – Etched with ANDRA RRJ003.
5. Billet Race Craft 1 1/2" Joint – Etched with ANDRA RRJ004.
6. Billet Race Craft 1 5/8" Joint (left hand thread) – Etched with ANDRA RRJ005.
7. Billet Race Craft 1 5/8" Joint (right hand thread) – Etched with ANDRA RRJ006.
8. Billet Race Craft 1 5/8" Notchable Joint – Etched with ANDRA RRJ007.

## **Joint Manufacturer's Contact Details**

### **Billet Race Craft**

8 Sturt Reserve Road  
Murray Bridge  
South Australia 5253  
Australia

Phone: 0427 324 977  
Email: [sales@billetracecraft.com.au](mailto:sales@billetracecraft.com.au)  
Web: [www.billetracecraft.com.au](http://www.billetracecraft.com.au)

### **Pro9**

160 Thistlethwaite Street  
South Melbourne  
Victoria 3205  
Australia

Phone: 03 9699 4946  
Mobile: 0407 074 783  
Email: [pro9drag@gmail.com](mailto:pro9drag@gmail.com)

## 1. Pro9-R1000KIT – ANDRA RRJ001



Figure 1: Pro9-R1000KIT Rollcage Joint – ANDRA RRJ001.

Fitting of the Pro9-R1000KIT joint (ANDRA RRJ001) must adhere to the following regulations;

- RRJ001 may be used to connect all rollcage tube components.
- RRJ001 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ001 the head/tail of the bolts should point towards the driver's compartment.
- Bolts must be M8 SAE with a minimum grade of Grade 12.9.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ001 joints must not be modified from the original manufacture's specification.
- All removable tubing which RRJ001 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ001 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ001 joint should be left when welding to ensure appropriate weld penetration into the RRJ001 joint and tube.
- **NOTE: Owners of Pro9-R1000KIT joints without ANDRA RRJ001 etching are required to provide evidence of joint purchase from Pro9 and evidence of the joint's comparable specification to the ANDRA RRJ001 etched joints, (e.g. a statement from Pro9 that the joint purchased is identical as the ANDRA tested joint). Owners of these joints must comply with all regulations in this document.**

## 2. Brad Stacy 1 5/8" Rollcage Joint (non-etched)



Figure 2: Brad Stacy 1 5/8" Joint (non-etched).

Fitting of the Brad Stacy 1 5/8" joint must adhere to the following regulations;

- Brad Stacy 1 5/8" joints may be used to connect all rollcage tube components.
- Brad Stacy 1 5/8" joints must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting Brad Stacy 1 5/8" joints the bolts should be orientated perpendicular to the expected impact load.
- Bolts must be of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- Brad Stacy 1 5/8" joints must not be modified from the original manufacturer's specification.
- All removable tubing which Brad Stacy 1 5/8" joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- Brad Stacy 1 5/8" joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the Brad Stacy 1 5/8" joint should be left when welding to ensure appropriate weld penetration into the joint and tube.

### 3. Billet Race Craft 1 5/8" Joint – ANDRA RRJ002 (etched & non-etched)



Figure 3: Billet Race Craft 1 5/8" Joint – ANDRA RRJ002 etched and non-etched.

Fitting of the BRC 1 5/8" joint (ANDRA RRJ002) must adhere to the following regulations;

- RRJ002 may be used to connect all rollcage tube components.
- RRJ002 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ002, the bolts should be orientated perpendicular to the expected impact load.
- Bolts must of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ002 must not be modified from the original manufacture's specification.
- All removable tubing which RRJ002 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ002 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ002 joint should be left when welding to ensure appropriate weld penetration into the RRJ002 joint and tube.

#### 4. Billet Race Craft 1 3/4" Joint – ANDRA RRJ003



Figure 4: Billet Race Craft 1 3/4" Joint – ANDRA RRJ003.

Fitting of the BRC 1 3/4" joint (ANDRA RRJ003) must adhere to the following regulations;

- RRJ003 may be used to connect all rollcage tube components.
- RRJ003 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ003, the bolts should be orientated perpendicular to the expected impact load.
- Bolts must of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ003 must not be modified from the original manufacture's specification.
- All removable tubing which RRJ003 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ003 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ003 joint should be left when welding to ensure appropriate weld penetration into the RRJ003 joint and tube.



## 5. Billet Race Craft 1 1/2" Joint – ANDRA RRJ004



Figure 5: Billet Race Craft 1 1/2" Joint – ANDRA RRJ004.

Fitting of the BRC 1 1/2" joint (ANDRA RRJ004) must adhere to the following regulations;

- RRJ004 may be used to connect all rollcage tube components.
- RRJ004 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ004, the bolts should be orientated perpendicular to the expected impact load.
- Bolts must of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ004 must not be modified from the original manufacture's specification.
- All removable tubing which RRJ004 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ004 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ004 joint should be left when welding to ensure appropriate weld penetration into the RRJ004 joint and tube.

**6. Billet Race Craft 1 5/8" Joint (left hand thread) – ANDRA RRJ005**

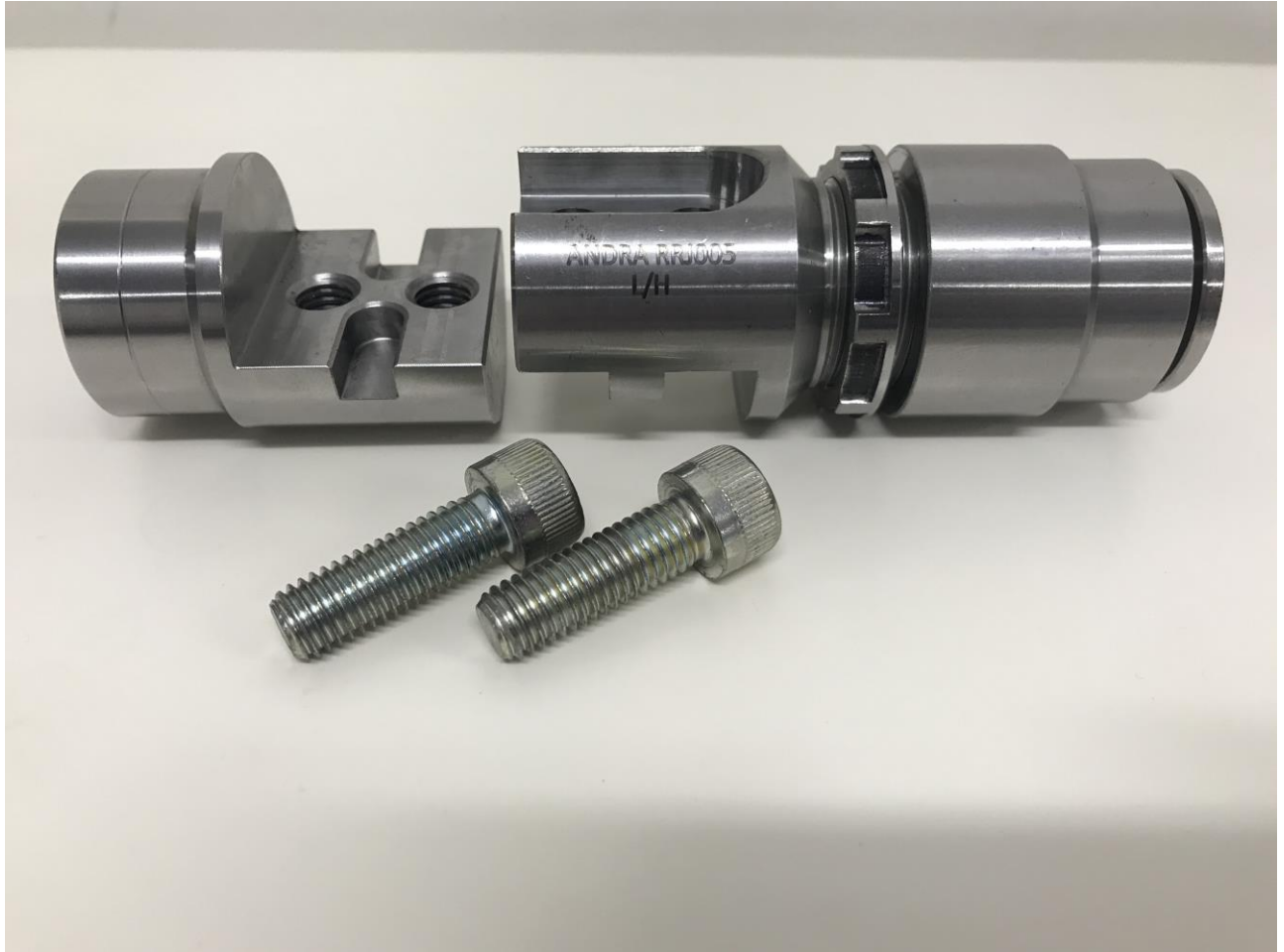


Figure 6: Billet Race Craft 1 5/8" Joint (left hand thread) – ANDRA RRJ005.

Fitting of the BRC 1 5/8" (left hand thread) joint (ANDRA RRJ005) must adhere to the following regulations;

- RRJ005 may be used to connect all rollcage tube components.
- RRJ005 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ005, the bolts should be orientated perpendicular to the expected impact load.
- Bolts must of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ005 must not be modified from the original manufacture's specification.
- All removable tubing which RRJ005 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ005 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ005 joint should be left when welding to ensure appropriate weld penetration into the RRJ005 joint and tube.

**7. Billet Race Craft 1 5/8" Joint (right hand thread) – ANDRA RRJ006**



Figure 7: Billet Race Craft 1 5/8" Joint (right hand thread) – ANDRA RRJ006.

Fitting of the BRC 1 5/8" (right hand thread) joint (ANDRA RRJ006) must adhere to the following regulations;

- RRJ006 may be used to connect all rollcage tube components.
- RRJ006 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ006, the bolts should be orientated perpendicular to the expected impact load.
- Bolts must of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ006 must not be modified from the original manufacture's specification.
- All removable tubing which RRJ006 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ006 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ006 joint should be left when welding to ensure appropriate weld penetration into the RRJ006 joint and tube.



## 8. Billet Race Craft 1 5/8" Notchable Joint – ANDRA RRJ007



Figure 8: Billet Race Craft 1 5/8" Notchable Joint – ANDRA RRJ007.

Fitting of the BRC 1 5/8" notchable joint (ANDRA RRJ007) must adhere to the following regulations.

- RRJ007 may be used to connect all rollcage tube components.
- RRJ007 must not be used to connect a rollcage tube to a Floor Mounting.
  - For Floor Mounting options please see the ANDRA Removable Rollcage Specification.
- When fitting RRJ007, the bolts should be orientated perpendicular to the expected impact load.
- Bolts must of Grade 12.9 or imperial equivalent.
- Bolts must be tightened to the manufacturer's specified torque.
- Bolts must not be over-torqued, as this may reduce the bolts tensile strength.
- RRJ007 must not be modified from the original manufacture's specification.
- All removable tubing which RRJ007 joints are fixed to must be 4130N Chromoly to MIL-T-6736B specification or 350 MPa minimum yield stress Mild Steel.
- All welds on 4130N Chromoly material must be by the Gas Tungsten Arc (TIG) welding process. MIG welding may be used on Mild Steel material.
- RRJ007 joints must be continuously (not stitched) welded to the tube withholding it 360 degrees around the tube.
- A 1mm gap between the end of the tube and the chamfer of the RRJ007 joint should be left when welding to ensure appropriate weld penetration into the RRJ007 joint and tube.