

Renault News

FOR THE NORTH AMERICAN RENAULT ENTHUSIAST | **SUMMER 2022** | 124

CARLISLE 2022



Renault Owners
Club **OF NORTH AMERICA**



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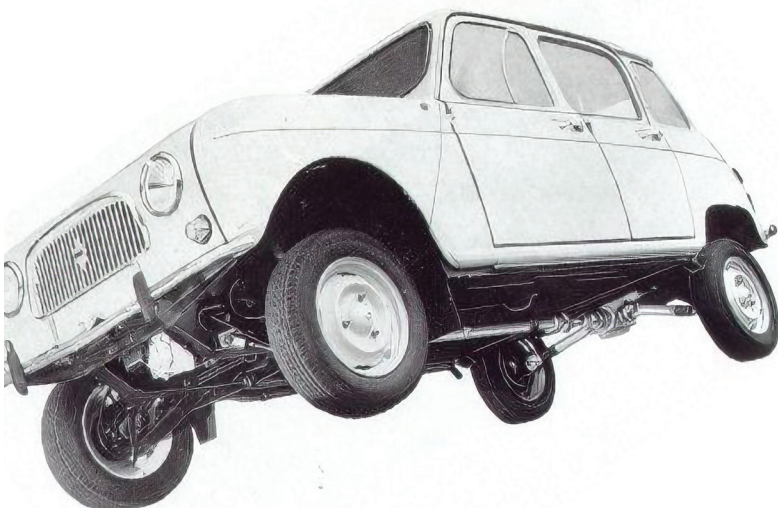
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Renault 4 Plein Air

by Marvin McFalls



The Renault 4L was introduced in 1961 and was the best-selling car in France from 1962 to 1965. While in 1966, it was briefly replaced by the Citroën Ami 6, mainly due to the addition of a station wagon version introduced that year. However it was not a position they could maintain, as the Renault 4 was back on top in 1967 and 1968.

Sinpar was originally a French automobile manufactured from 1907 until 1914. The name Sinpar was meant to suggest that the car was without equal or sans pareil in French. While the company had seemed to have disappeared following the outbreak of the First World War, but more than three decades later Léon Demeester, who had established the business back in 1907, resurrected it in Colombes near Paris. Sinpar began engaging in winch manufacturing and heavy-duty transmission sub-assemblies for four- and six- wheel drive trucks. These specialist items were provided to a range of industrial companies in France until 1975 when heavy equipment manufacturer, Saviem took over the company's activities.

In the autumn of 1962 Sinpar launched an all-terrain light vehicle based on the Renault 4L. Initial sales were not substantial, but in 1964 when the French Army requested them to develop a new jeep-like vehicle. This new vehicle was a door-less and roof-less version of the Renault 4 called the Sinpar 4x4 Torpedo. It was first shown in March of 1968 as a prototype at the Geneva Motor Show, equipped with Sinpar's four-wheel-drive system. While the French Military ultimately chose another design by rival Citroën, Sinpar was quickly given a contract to build a front-wheel-drive version for Renault.

Called the Renault 4 Sinpar Torpedo Plein Air, the term Plein Air translates to Open Air, as its name suggests, while the front of the vehicle remains identical to the 4L, they lowered the windshield, cutting off the roof, removed the hatchback and the door openings were profoundly modifying the overall appearance of the car. Renault and Sinpar were attempting to ride the buggy craze of the era by marketing it as a fun, beach car.

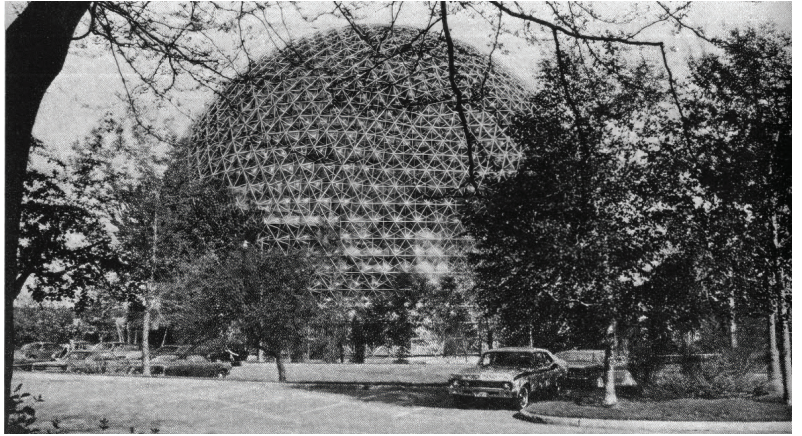
Approximately 500 Plein Airs were produced by Sinpar until it was withdrawn from the market in March of 1970. The lowest Sinpar production number known today and registered in the Plein Air Registry is 133, while the highest is 563. Each Sinpar Plein Air was

given a unique Sinpar production number, put on a round Sinpar identification plate as well as the Renault oval R1123 plate and next to the diamond VIN number plate under the hood. Only factory original Sinpar Plein Air are fitted with the round Sinpar plate. Unfortunately, the Plein Air records of Sinpar, have become lost over time which makes verification of information and production totals by no means a certainty. Starting in 1971, Sinpar began to offer Plein Air conversion kits for homebuilt Plein Airs, but it is not known the total number of kits sold either.

Following the incredible success of Expo 67, The City of Montreal decided to set up at the time what would be billed as a permanent summer exhibit which would continue to attract visitors to the islands of Notre-Dame and Sainte-Hélène. The new exhibit was called Terre des Hommes which translated means Land of Men, and it was inaugurated by Jean Drapeau on May 17, 1968. While only two days prior, Renault had had its official Launch of this unusual little beach car, whose history would soon become entwined with that of Terre des Hommes Exhibition.

Although the Plein Air was never officially sold in Canada, it was there, working to support the efforts of the Exhibition as well as transporting employees and VIPs around the park. While on the other side of the world, it seems to have had a similar life as primarily a work vehicle and not a pleasure craft as Renault had initially marketed it. Whether it be for the post office, the police or even the fire department, a large number of French municipalities had used these, utility vehicles over the years. Much like its donor, the 4L, was best known for its practicality and versatility, so was the Plein Air.

Some point after the Plein Air was first introduced, examples began finding their way to Montreal. Approximately twenty Plein Airs were exported into Canada over the next year or so to be used on the site of the Terre des Hommes World Exhibition in Montreal. However at the end of 1970, when exhibit, was ended, it appears that all but possibly six of the Plein Airs were returned to Renault of Canada. While these unusual looking vehicles must have caught the eye of many a spectator who visited, only a single photo has been discovered of one of the vehicles in service on site. So it did not appear that the Plein Air had left much of an impression on either the attendees of Terre des Hommes, or the residence of Montreal for that matter. That is until the day after the Montreal Canadiens won the Stanley Cup, on May 19th 1971, it appears that at least, six Plein Airs were photographed in a parade in Montreal helping to celebrate the team's championship victory.





Once these final remaining vehicles were returned to Renault Canada and then distributed throughout the sales network of Renault dealers, most of these vehicles stayed in the Province of Quebec, but at least one made it as far west as Victoria, British Columbia. While another remained on the islands of Notre-Dame and Sainte-Hélène in Montreal. Eventually renamed Parc Jean Drapeau, it was used around the site until it fell into a state of disrepair, and then remained there untouched for decades. It appears that most of the Canadian Plein Airs were not only used but often abused by their new owners primarily as utility vehicles. By the turn of the new millennium, it had been years if not decades since one had last been sighted on Eastern Canadian roads.

While this might have been the end of the Canadian Plein Air story. Renault had left the Canadian market in the 1980s leaving little to no resources locally. But as the internet began to make the world a smaller place, these once forgotten cars started to resurface. In 2010, Tim Koster, of The Netherlands, started an online registry attempting to find as many of the remaining Plein Airs as he could. Little did Tim know at the time, as he was discovering these lost relics, he was also building a community. One of the reasons for the registry, was because Tim had acquired and exported Sinpar #434 back across the Atlantic Ocean.

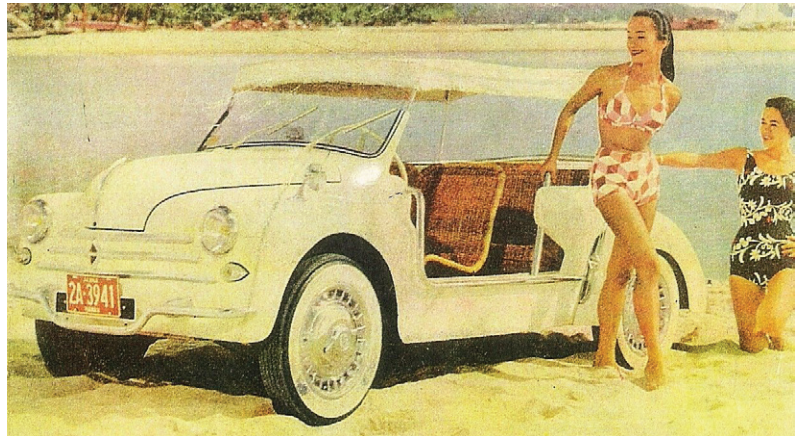
It was not long before the motoring press started to write about them. As this news began to spread, more and more cars began to turn up, particularly in Canada. Tim's registry is now up over sixty cars, of which nine of these are original Canadian models. It is relatively easy to identify a Canadian model from a French spec car. The Terre des Hommes examples had sealed beam headlights, solid red tail lights and 1968 Dodge Charger / Plymouth Satellite side marker lights.

With a production of most likely not more than 500 cars, the Plein-Air is generally not considered to be a commercial success. While, the now famous publicity photo of a Plein-Air on the beach, with an attractive young lady on it, speaks volumes to its intended audience. So, in 1968 the Plein Air was offered for sale as a beach or resort car, or a toy for the rich, rather than an everyday multi-purpose vehicle like some of its much more successful, direct competitors. This probably explains Renault's decision to discontinue production in March of 1970, and replace the Plein Air with the new cheaper fiberglass bodied Rodeo series.

Whether the Plein Air, was just a second attempt at the beach car movement, which Renault had taken an initial bite of in 1961 when they produced a modest

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run of fifty Renault 4cv Jollys, or if they had just taken advantage of Sinpar's failed bid for a new lightweight French military vehicle, by having them create a commercial version, in very short order, with little to no development costs. With more than eight million examples made, the Renault 4L had proven itself one of the most practical vehicles ever built. While the Plein Air had quickly proven not to be commercially viable like it's fully dressed older brother, as a stripped-down beach cruiser of sorts with no doors and no roof. That did not detract from the fun that the lucky few owners of these unique vehicles have had for more than a half century. 🍷



Carlisle 2022

by Marvin McFalls



Since 2011 we have had a display in Building R, but with Carlisle Events discontinuing the kids play area, we were given the opportunity to use both sides of Building R starting in 2017. So each year since we have had two unique invitational display areas as well as space for our charity activities without having to move out invitational vehicles. Also each year we have a show field display for Renault owners not participating in the invitational, and new this year we added a second show field exhibit billed: Cars of the Eastern Block.

Usually we leave home for the show on Friday, but with this added setup we decided to leave a day early to get the cars ready for the Invitational Display and all the Charity activities. So on Thursday morning I left Knoxville around 4:00 AM with my 1974 Renault 12L in tow, and arrived in Carlisle a little after 12:00 PM. Within a few minutes, Sandy Lea had his Renault 15 already parked in building and drove his five-door Encore, Brad Stevens arrived with his A310, and Nick and George Dimopoulos also arrived with Nick's Renault 17 TS and his Renault LeCar. While Don McLaughlin also had delivered his LeCar race car to the racecar paddock earlier that day.

It wasn't long before we had our first Citroën arrive, as this year we had chosen to feature the collective works of French designer, Robert Opron. Paul Anderson arrived in his beautiful Citroën DS. So we quickly put Paul's car as well as the A310, the Encore 5 door and the Renault Fuego of Nick Chennell. Next to arrive was Brett Melancon and John Montgomery, who brought the Lane Motor Museum's Alfa Romeo SZ. Then came Brent Bartley and his recently restored GS wagon, along with Dan Barton and their significant others who came in from Dayton, Ohio. By this time Paul Anderson had returned, with the Opron displays signature example, his incredibly original Citroën SM.

At that point, all the Opron cars were in place except for Antonio Conceicao's Citroën CX. Meanwhile, next door in the North American Renault display, with the addition of Garrick Costa's Eagle Premier joining the Renault 12, R15, R17 TS, and LeCar this exhibit now had all of its participants accept for one as well.

With nearly all the cars all in place we made our way to building T at 6:00PM for a Pizza Party. Ed B.

from Carlisle Events welcomed everyone and gave us some additional details for the weekend's activities to come. Once everyone was fed, we then had to get everyone into their hotels. While Brad, the two Nicks and myself were at one hotel, Brett, Brent, Dan, Garrick, John and Sandy were at another. Once everyone was settled, we all retreated to our rooms for the night.

Early the next morning, a group of nearly thirty met John Vogler for a nice meal and conversation at the Middlesex Diner, and then moved over to the fairgrounds. We had a few more Renaults arrive including: Hector Lopez and Shawn Kennedy from New Jersey in their Alliance convertible, as well as Tom Gross from nearby Reading in his GTA convertible, and Tom Ketchum, from Rochester, New York also in an Alliance convertible. Don McLaughlin, also joined the other three convertibles with his GTA coupe on the show field immediately after breakfast.

As the day went on the final two cars were added to the displays in Building R following the unveiling of Brent's Citroën GS wagon. First to be set in place was Antonio Conceicao CX, in the Opron Display, and then the crew from Renault Quebec arrived including Nicolas Reichenbach in his R4 Plein Air which was part of the North American Renault Invitational Display, Also displaying a Renault 4L Gendarmerie on the show field was Stephane Larivee. Sadly none of the other cars from Renault Quebec were able to participate. Hopefully some of those other Canadian Renaults will be a part of next year's event. Last but certainly not least to arrive was Steven Radovanovich. This year, Steven brought his three door Encore.

With all the Invitational cars now in place, it was time to focus on the Cars of the Eastern Block Display. Highlighting the exhibit was Eddie Palaghita's recently found Dacia 1304 pickup. Also on display were two more Dacia, a 1300 owned by Chris Gavra from Michigan and the 1310 wagon owned by Daniel Picu of Maryland. Besides the three Dacia there was also a Romanian build Olcit owned by Darie Manea and two Russian made vehicles, an export Lada 1500 driven by Tudor Stan and the other a domestic market AvtoVAZ 2106 owned by a gentleman name Kurt.

All week the weather forecasters were calling for around a fifty percent chance of rain both Friday and Saturday, but it was able to hold off until nearly 4:00PM before it finally arrived. However, after only a few minutes of down pouring, it quickly ended. To get a reservation big enough to meet our need, we were forced to take an early 5:00PM sitting, so a large contingent made their way to one of our fa-





favorite local haunts, the Gingerbread Man. Following another great meal, most folks returned to their hotels while a few stayed out to enjoy the downtown Carlisle nightlife.

As Saturday morning came, much to our surprise the temperature started out in the 50's on this day, and due to a number of clouds, barely made it into the 60's by the afternoon. However somehow the raindrops didn't find their way back over the fairgrounds and most folks enjoyed the cooler temperatures. As always the day began at the Middlesex Diner. Followed by a caravan to the fairgrounds. Once all the buildings were open, everyone was able to enjoy the rest of the morning and early afternoon checking out all the cars and visiting the swap meet area.

At 2:00PM everyone returned to Building R for the results of the car show. This year Sandy Lea had the honor of passing out the awards: for Best of Show which went to Paul Anderson for his Citroën SM, First Place went to Brent Bartley for his recently restored Citroën GS, Second was given to Nicolas Reichenbach for his Renault 4 Plein Air, Third Place fell to Eddie Palaghita's Dacia 1304 pickup as well as Honorable Mention to Nick Chennell for his Renault Fuego.

But first were the fun awards including: "Most Likely to Need a Tow" which went to Paul Anderson, due to the fact his DS refused to restart when we were ready to put in the building, forcing us to push it into place. The "Car Most Likely to Pick Up a Chick" went to Brett Melancon in the Lane Motor Museum's Alfa Romeo SZ. On the flip side, the "Car Most Likely to Pick Up a Dude" went to Garrick Costa for his Eagle Premier. The "Furthest Distance Driven" was also awarded to Nick Chennell who drove his Fuego from Rochester, New York, while the "Furthest Distance Travelled" was given to Nick Dimopoulos who had come from Danvers, Massachusetts.

For the Collective Works of Robert Opron Seminar, after Sandy Lea gave a brief introduction and individually thanked all those who had participated in making the exhibit possible. Dan Barton gave a short history of Robert Opron's early life in Africa, his educational background, as well as his significant works at Simca, Citroën, Renault, and Fiat. A large crowd attended the seminar and numerous positive comments were made.

Following the seminar, Brent Bartley led a team of volunteers collecting all the funds and toys from the Toys for Tots toy drive. When all the money raised was collected and counted, we had exceeded our goal. While we had failed to meet our toy collection

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goal for this year, overall the drive could only be described as a success.

After a full day of activities, for dinner most of the crew ate at Café Bruges a Belgian themed restaurant down town, while a smaller group travelled down to Baltimore for a traditional Greek dinner. Everyone planned to meet up early at the fairgrounds to tear down the displays, and get the cars ready for the drive home. Around 11:00AM most folks were packed up and loaded and ready to begin heading for home. It was time for everyone to say farewell and until next time. It was another very excited show, and we are all looking forward to returning to Carlisle next year. If you didn't make it this year, hopefully you will join us for next year's meet. We have already announced one of our displays for next year's display, where we plan to make Building R have the appearance of AMC/Jeep/Renault Dealership from the 1980s. So make your plans to attend May 12-13 2023. 🍷

















Alliance Convertible Window Regulator Repair

by Mark Bardenwerper

I finally got back to my window regulator problem. After trying several kinds of tubing last year, I gave the project a rest for the winter. A week ago, I received a 10 foot piece of soft aluminum tubing, 7/16" OD from McMaster Carr. I cut a piece that same length as the original tube, hammered spring nuts on each end. They go on hard, only move one direction and dig into the outside of the tubing. I left about 1/2" of tubing protruding on each end. Those ends slipped snugly into the lower end of the window guide and the crank housing, which I carefully reamed by hand to a depth of about 1/2" with a sharp 7/16" drill bit. I bent it into shape. Several holes were drilled in the webbing and 15 pound mechanic's wire was threaded and twisted around the washers and through the holes in the webbing. The result is a strong unit. Installing it was a bit tricky as it is not as flexible as the old one, and it took some last minute bending to adjust the parts to line up. But by golly, I have a working window!

Here are the step by step instructions:

You first must completely dismantle it. The cable is permanently attached to the window lift, but if you continue to crank upwards while it is out of the car, it comes out of the top of the guide. Pull the cable completely out of the mechanism. Wipe it thoroughly with a mineral spirits-soaked rag to get as much of the old, sticky grease off as possible. Then set aside to dry.

Next, carefully measure the length of the original tubing that needs to be replaced. Add about 1" to account for the tubing that will be inserted into the two parts, the crank and the guide. Use a hacksaw to cut the old tubing flush with the openings in the parts.

Holding the parts gently in a vice with the openings pointing upward, slowly cut about 1/2" inch of tubing out of the openings with a sharp 7/16" drill bit. Do not do it with a powered drill. It cuts very easily and it only takes a few turns. Go too deep or use too much force and you will break it. Do not go too deep, just 1/2". I clamped the end of the drill bit with a vice grip to provide leverage and to make it easier to keep it straight. When you are deep enough, turn the drill backwards and forwards, putting a tiny bit of upward pressure on it to cut it smooth and keep it from going too deep.

The tubing I used came from McMaster-Carr. I was able to fix two assemblies and have enough for a third. The cut piece is then held in a bench vice and a push-

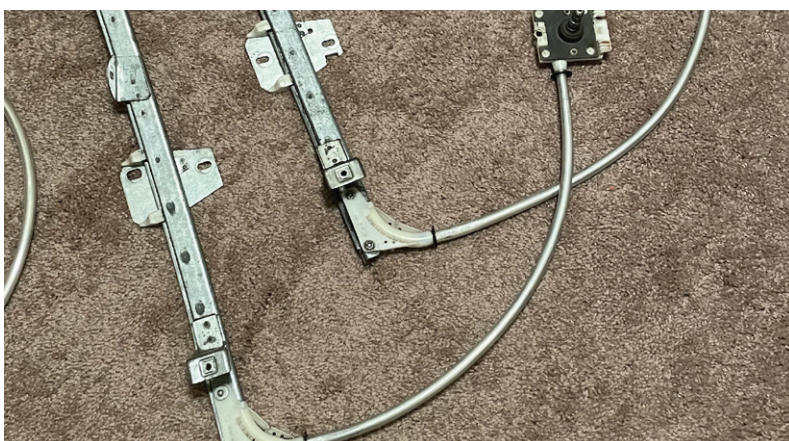




nut is pounded onto the end of the tubing until 1/2" is exposed. Do this with both ends.

The pushnuts are available at any hardware store. Take a piece of tubing along to test for proper diameter.

Wipe the window lift cable with motor oil and slip it back into the guide so it is halfway down the rail. The cable will protrude out the bottom. Using the old tubing as a guide, bend your new part to roughly the same curvature as the original. Slip it onto the protruding cable. Push the end into the lower hole in the crank mechanism and turn the crank shaft with a gently clamped vice grip. The cable will pull in and eventually go into the upper tube and draw your assembly together. You may have to rotate the parts a bit to get the ends to penetrate until the pushnuts are flush with the ends.



Using a small drill bit, make four holes in the webbing of the plastic part on the lower end of the window guide. Drill one hole in the crank assembly opposite from the existing hole, taking care not to go through the area where the tubing and cable ride. This part has a metal plate on one side. I drilled from that side. Using a length of 15 pound test mechanic's wire, tie the parts together tightly, first going through a pair of holes in the parts, then crossing the wires, wrapping around the backside of the pushnuts, twisting the wires, then going back up through the holes again from the opposite side, back down around the pushnuts a second time, wrapping a second time, then finishing off with tight twists with a smooth jawed pliers and cutting the ends short. You do not want the wires to stand out from the face of the crank assembly, because when it is installed, the part must lay flat against the hole in the door during final assembly. 💎



Pushnut



The Master Cylinder – How It Works, And How To Test It

by Philippe Loutrel. Translated and edited by Michael Muller

Replacing a master cylinder (MC) on any rear engined Renault is one of the worst jobs. Imagine once you're done with it, you discover it's impossible to bleed the system, and you look at the limp brake pedal stuck halfway down! You will kick yourself for not testing it first...

Consequently, bench testing before installing a new MC is a smart move, and it's still more important after rebuilding one with a seal kit it. Even if a newly purchased MC has been stored perfectly, i.e. dry and always with sealing plugs covering all port openings, it can prove faulty for several reasons:

- pitting on the cast iron inner wall due to oxidation
- aluminum corrosion between the piston and the cast iron wall: this deposit can obstruct the free movement of the piston considerably
- cracked seals – rare, but possible, especially on NOS parts
- worst case: a sloppily rebuilt MC! If during sleeving the intake/return ports were drilled slightly offset to the rear they can be blocked by the main cup seal with the piston in its normal position. If they're blocked bleeding becomes almost impossible!

If you want to avoid any problems later, build the test bench as shown below. It takes less than an hour!

Master Cylinder Explained

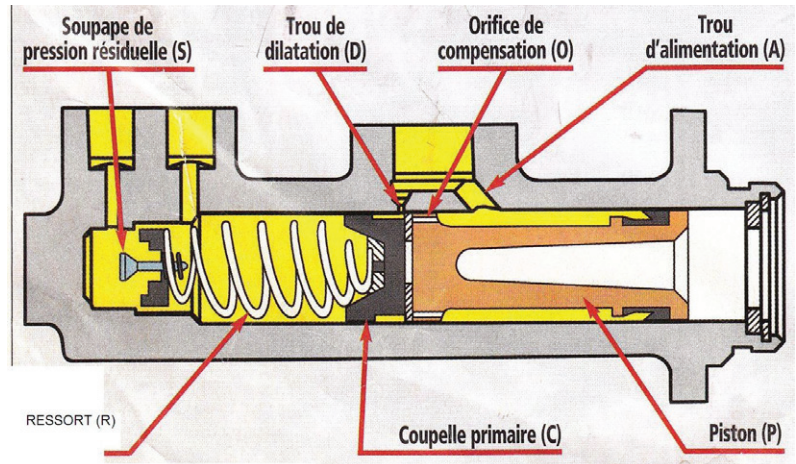
The following pictures are taken from the French magazine *Gazoline* (April 2011 issue). The first picture shows the piston with the brakes applied.

[Picture 1]

This is a single circuit MC for drum brakes. That's why it has a residual pressure valve at the bottom end of the spring. Just ignore it – disc brakes don't use residual pressure valves.

In the above picture the piston is depressed and past the intake/return port. The important role of this port is to fill the complete brake circuit (lines and calipers) with brake fluid after reassembly before the first bleeding.

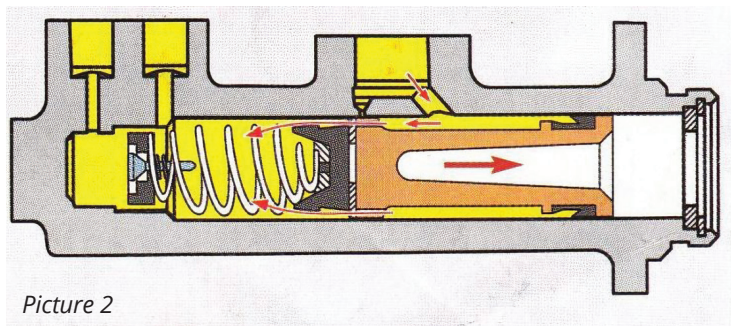
Note: in French the equalization port is called *trou d'alimentation* (= supply port), a name that is a bit too general because this port is only used to fill the cham-



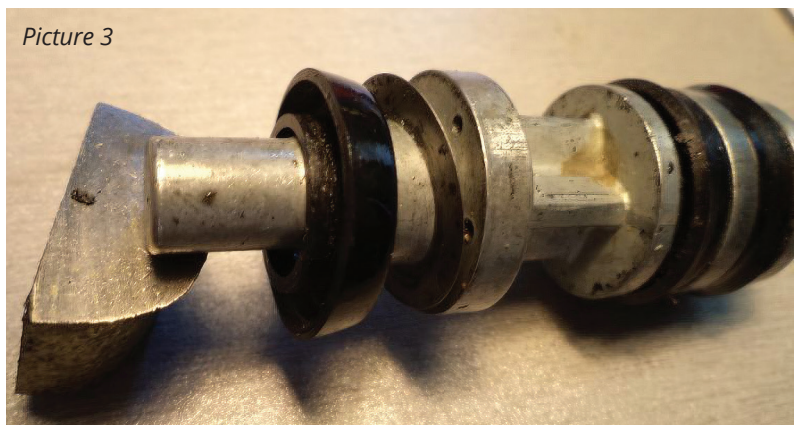
Picture 1

French terms used:

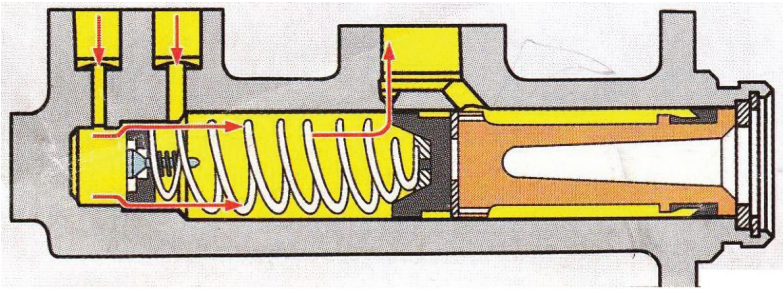
Soupape de pression résiduelle (S)	residual pressure valve
Trou de dilatation (D)	intake/return port
Orifice de compensation (O)	compensation hole
Trou d'alimentation (A)	equalization port
Coupelle primaire (C)	primary cup seal
Piston (P)	piston
Ressort (R)	spring



Picture 2



Picture 3



Picture 4

ber between the primary cup (the front seal which pushes the fluid when braking) and the sealing cup at the rear of the piston. The fluid contained in this small chamber will be used when you lift your foot from the pedal.

This situation is shown in the following picture:

[Picture 2]

When you release the pedal, the piston under spring pressure is quickly returning back. The fluid mass between the caliper pistons and the primary cup has a certain inertia. This creates a **low pressure** on the business side (left) of the primary cup.

[Picture 3]

The piston has **6 compensation holes** of approximately 1mm in diameter visible in the above picture. The brake fluid coming from the chamber moves to the left, pushing the washer between the piston and the cup away as it passes, and slips by the lip of the primary cup.

[Picture 4]

Any additional fluid injected when the piston returns will go back into the reservoir as soon as the main cup has cleared the intake/return **port**, that is, when the pedal has gone up completely. The picture above shows the MC in this rest position.

Note: the position of the primary cup at rest in relation to the intake/return port is *extremely important*. I've seen commercially rebuilt MCs where the intake/return port was too far to the right (or the piston too far to the left?) and therefore blocked by the seal. This makes filling the brake circuit with fluid next to impossible! Even worse, if this tiny port is only partially covered in the rest position it could create bleeding problems that are almost impossible to track down. That is also why the push rod freeplay is so important! If it is too tight, it can create the same problems by keeping the piston at rest in a position where it blocks the intake/return port!

As already mentioned, removing and installing the MC is not a pleasant job on our cars. If you do a bench test first, you'll discover any problems before you spend some long and painful hours getting the MC back in its place, and you won't have to do it all over again.

You can detect these potential problems with the test bench:

- poor sealing of the rear cup: fluid dripping at the rear of the MC
- faulty primary cup seal: the piston continues to move down when brakes are applied
- slow return of the piston to its rest position: either it is jammed internally (corrosion deposit rubbing on the aluminum piston), or the return spring is weak, or a combination thereof
- faulty brake light switch.

Dry Test

Before you even build the test bench, check if the intake/return ports are not obstructed by the main cups when the piston is at rest! Blow air through the feed nipple to test this while the MC is still dry. If the ports are blocked the cause could be a wrong cup seal. Otherwise, the best solution is to get another MC. Unfortunately, this is not always possible.

- You could try to enlarge the ports very carefully.
- Another, better way which does not cost anything is to try reducing the thickness of the washer under the snap ring: this will perhaps be enough to gain the few needed tenths of a millimeter to save the day.

The Test Bench

You probably have most of the parts needed floating around in your shop. Consider getting a small pressure bleeder (e.g. Motive Products – 0100 European Power Brake Bleeder Kit, or Vevor Brake Fluid Pressure Bleeder, \$40-50), if you don't already own one. Buy one w/ the correct cap (the stock glass bottle uses 48 mm, like most newer European cars). It makes the yearly brake bleeding ritual a breeze!

You can build a pressure bleeder yourself as well. Modify a fluid reservoir cap w/ a bolt-in tire valve stem so you can slightly pressurize the fluid in the reservoir. You only need a few pounds of pressure, otherwise the feed hose could pop off the fitting, so stay under 10 PSI. Of course, a simple bicycle pump works, too.

Main Parts Needed

- Board (1x6") or piece of 3/4" plywood, 1' long, 6" wide

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- Steel flat bar, 3/4"x1/8"x16"
- Brake flex hose and a short piece of brake line w/ 3/8-24 tube nuts on both ends
- Plugs for unused feed ports on MC (not needed for single circuit MC, dual circuit thread size 5/8-18 UNF), a drain plug from the parts store works well!
- Plugs for unused supply ports on MC (3/8-24 UNF)
- U-bolt 3/4" wide x 2-1/2" long
- 1/4" threaded rod, or 1/4" round rod (steel or aluminum), 6" long
- 1/4" nut
- Drill bits, hole saw 1-5/16" for the MC, 1/4" nuts and bolts
- Catheter tip syringe (w/ a long tip), 60ml size
- Vinyl tubing
- Brake fluid reservoir (if you use the one from your car think about replacing the bottom rubber seal!)
- Pressure bleeder kit w/ adapter for the reservoir you're going to use (48mm for stock glass reservoir), or modified cap w/ bolt-in tire valve stem to pressurize and bicycle pump
- Caliper, front or rear (single circuit, two calipers are needed for tandem MC!)

Building the Test Bench

The bench consists of a simple board (1x6 or plywood) to which you bolt the MC with two 1/4" bolts. A brake fluid reservoir is connected to the MC. Use your MC as template for drilling the necessary holes, the ones from the picture below may differ from your MC. A 1-5/16" bit works for the center hole, and two 1/4" holes 50mm center to center for mounting.

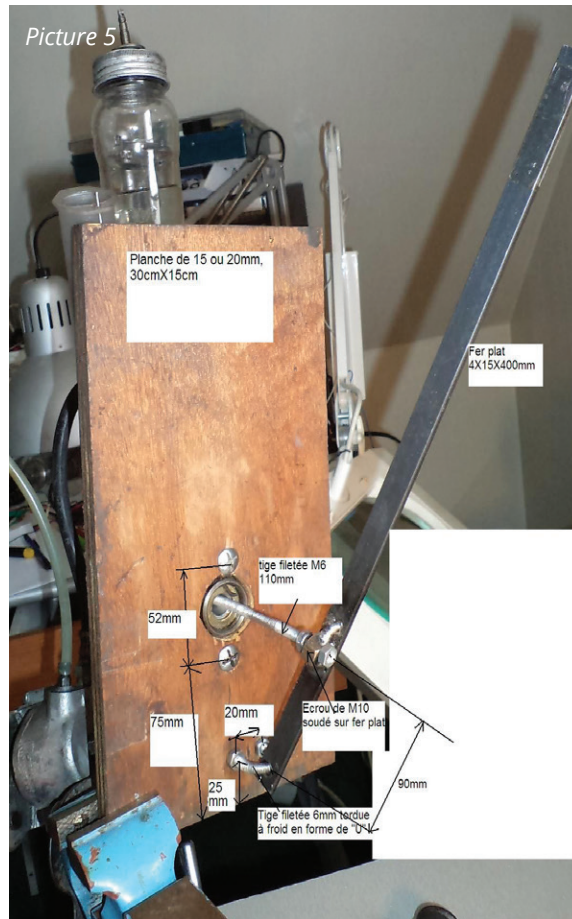
[Picture 5]

A rear caliper completes the test the brake circuit here.

[Picture 6]

It's super simple. quick to build, and really works great! Get a U-bolt at the hardware store, or bend a piece of threaded rod around a 3/4" dowel to form a U-bolt. Bend another piece at 90 degrees, long leg 4", short end 1" long to serve as push rod. File the long end round, like the stock push rod. Drill two 9/32" holes in the steel bar, about 3-3/8 inches (85mm) apart, to accept the U-bolt hinge and the pushrod. Secure the push rod w/ a nut, or use a simple rubber band to hold it in place. The board is clamped in a vice to hold it steady when you apply force to the lever.

Now test the assembly. The push rod should fit into the MC w/out any rubbing or binding.





paint or hands and eyes!! **Never use any mineral oil!** Any petroleum based fluid will swell up the seals and destroy them.

We will use a double acting bleeding setup. This method works **without adding any extra fluid!**

Unscrew the stop switch, fill it with denatured alcohol, and screw it back on the slightly inclined MC to keep the fluid in the switch.

Trap Ahead: Don't skip filling the switch! A perfectly stuck air bubble remains there, and you'll tear your hair out trying to bleed...

Fill the MC with alcohol using a brake port and mount it on the vertical board with two 1/4" bolts to complete the assembly. Then fill the caliper with alcohol. A 60ml catheter syringe (w/ a long tip, works better than a standard syringe) serves as receptacle for the fluid when bleeding. Once everything is hooked up, you can bleed the system. Make sure none of the connections leak before you proceed.



Mount a brake fluid reservoir at the top of the board (plumber's tape works great here) and connect it to the feed nipple on the MC. If you use a reservoir w/ two outlets on a single circuit MC don't forget to close off the unused outlet.

You can use a stock feed nipple with one or two copper gaskets on the MC, or modify an oil drain plug (5/8"-18). Drill a 13/64" hole (5mm, slightly larger than 3/16") in the drain plug and JB Weld a piece of 3/16" brake line in place.

[Picture 7]

Use a home made male to male adapter (a short length of brake line w/ two tube nuts on both ends) to connect a standard flex hose screwed into a caliper to a feed port on the MC.

[Picture 8]

You need to plug the unused ports on the brass manifold as well. Plugs (3/8"-24) are available at a local parts store, or make one by using a 3/8"-24 tube nut and a pinched copper pipe soldered shut.

Getting Ready To Bleed

Now you're ready to fill and bleed your brake circuit.

Note: For the test you can **use denatured alcohol instead of brake fluid**, it is cheap and doesn't attack

- **Slightly** pressurize the fluid in the reservoir via a cap fitted with a bicycle valve and a hand pump (or using the store-bought pressure bleeder). You only need a few pounds of pressure so the feed hose won't pop off the fitting, use less than 10 PSI!
- When you crack the bleed valve on the caliper open, fluid (and a lot of bubbles) will flow into the syringe. Pump the fluid to approximately 1/2 syringe height using the lever.
- Once the air bubbles are gone, open the reservoir cap and *push the fluid back* with the plunger on the syringe, towards the reservoir via the open bleed screw. You'll see bubbles rising in the reservoir.

After a few pumping cycles back and forth all the bubbles in the fluid should be completely gone. Close the bleed valve and release any remaining pressure from the reservoir.

[Picture 9 - Next Page]

A regular syringe (bottom) and a catheter syringe w/ a long nozzle.

The Actual Test

When you move the 'brake pedal' lever fully you should see the caliper piston move about 1/16" per stroke. Use a piece of wood (3/4" works) to block the caliper piston from moving too far and push the lever as hard as possible. **It should now hold its position!** If it moves slowly there is a leak somewhere in the lines,

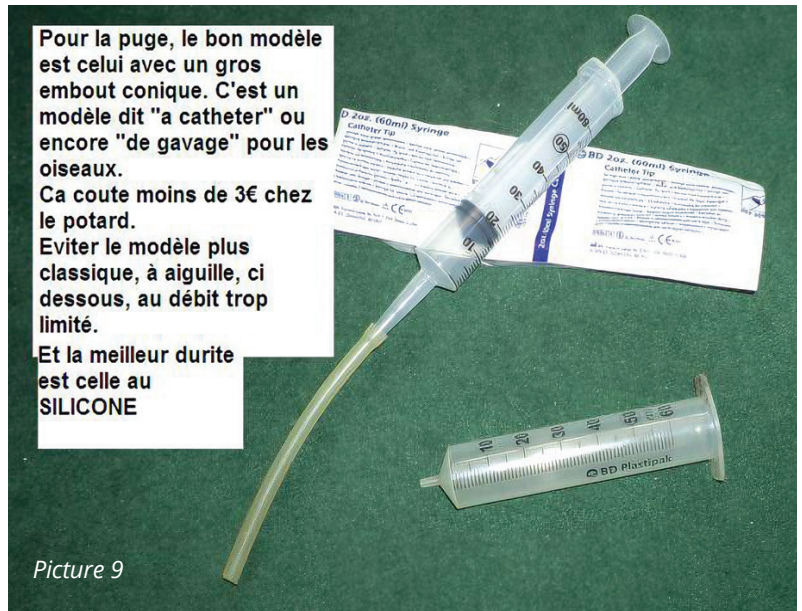
or the main cup seal is faulty.

If the MC holds the pressure, release the lever suddenly and check if the piston **quickly returns** to its rest position. It must hit the washer under the snap ring.

If the piston is slowed down, or even blocked, it could be due to a rough bore (possible corrosion) or to a small piece of crud jamming the aluminum piston, there isn't much clearance between the piston and the bore of the MC. You need to take it apart to check it out!

If you want you can also test the function of the brake light switch w/ a battery and test light. Get a new one if it doesn't work.

If everything checks out you're done, the MC can finally be installed! 💡



100 Renault Dusters for Ukraine Police

by Tom Bruinink

Renault provided 100 Dusters for various needs of the Ukrainian national police. This is the first delivery to the country since the beginning of the war. This event represents a great pride for all Renault Ukraine employees who did their best to restore new cars deliveries.

The Renault Duster has been used by the Ukrainian police for a number of years. Just last year over 500 of these vehicles were purchased by the government. These cars are equipped with a 1.6 petrol engine and the next orders will have a 1.5 turbo diesel power plant. The 1.6 was built in Renault Russian factory, which that plant has been sold by Renault due to the war. These latest cars were manufactured in Dacia factory in Mioveni, Romania.

Despite the violent attacks of Russian forces, a number of the Renault dealers are still operational. Besides maintenance on privately owned cars, Renault also does the service for some military vehicles of the Ukrainian army. Renault Ukraine PR & CRM Manager Natalia Toptun and Customer & Service Director Roman Afanasyev were very kind to provide Renault News this exclusive picture. 💡



Barossa Valley Mini-Muster, 9-10 April 2022

by John Waterhouse



Great line-up of 15 Renault 4CVs at Chateau Tanunda in the Barossa Valley



The Queensland group en route for the Barossa Valley (note the lovely R16TS, a perfect car for such a trip)



First morning at the Mini-Muster – the beginning of endless conversations!

At Easter every two years the Renault 4CV Register of Australia has a national 4-day “Muster” in the state of New South Wales. Our register is evolving to hold “Mini-Musters” in the “off” years, near one of the State capital cities. These 2-day events bring together more local owners who may not be able to get to a full Muster in another state and are proving very successful.

This year South Australian members Glenn and Cate Pauley, supported by others, organised a two-day Mini-Muster in the picturesque and historic Barossa Valley near Adelaide in South Australia. This pretty area that includes the Barossa Valley is known widely for its large wine industry and a history of 19th century German settlement, with great associated food traditions. The event was a great success with 15 4CVs participating in the first morning’s gathering outside one of the Barossa’s historic 19th century buildings, the famous “Chateau Tanunda”.

Our Register welcomes the “derivative” models, including early R4s, which adds to the size and diversity of our Musters. Happily, several derivative models were present, with two Caravelles, one Floride S, four R8s (one a Gordini) and Phil Harrison’s 1960 Dauphine that he and his wife Mirva drove all the way from Brisbane, some 2,000 km away. They drove on to Perth and then home to Brisbane, about 7,500 miles of trouble-free driving. Three Victorian 4CVs were driven from Melbourne too, a good 600 km away, keeping up owners’ tradition of driving the cars when practicable. Your author weakened and trailered the 4CV from Perth, in common with one other. For us, driving a 4CV 3,200 miles at slow speeds on roads with large truck traffic was a bit much!

The Queensland group en route for the Barossa Valley (note the lovely R16TS, a perfect car for such a trip)

Naturally the two 4CVs that were trailered from WA were towed by modern Renaults, a French-built Megane Scenic and the other a Koleos (a Renault overprint on the Nissan X-Trail, made in Korea).

Most of the group met for dinner on the Friday evening at Nuriootpa’s excellent Vine Inn. A good

meal was delivered promptly to some 50 people after gathering at our motel during the afternoon of Friday 8 April.

Over the weekend we visited various local venues, including a wonderful small farmers' market that featured the excellent produce from the Barossa Valley. Perhaps the main event was a drive through the Adelaide Hills to the National Motor Museum at the small town of Birdwood (a German settlement named Blumberg until World War One caused many such places to be renamed). Nearby, not visited this time, is the excellent Collingrove Hillclimb, run by the Sporting Car Club of South Australia, which is one of the world's oldest such clubs. One class record at Collingrove is still held by organiser Glenn Pauley's father Colin in his Renault '750', as the cars were known in Australia, and others have competed there.

Back in the 1980s, the author's 1950 4CV resided for some years in this museum until they focussed more on Australian cars and it was returned to us in 1989. I've always been surprised how many people I have met in the last 30 years who remember seeing it there!

In classic car circles, Birdwood is known for the "Bay to Birdwood" run from Adelaide's beach suburb of Glenelg up into the hills to Birdwood (Blumberg before WW1, when many German towns were renamed in a "more patriotic" way). The "Bay to Birdwood" is the largest continually-held motoring event for veteran, vintage and classic vehicles anywhere in the world. See Bay to Birdwood 2022 - Bay to Birdwood (history.sa.gov.au) and check out the links.

Finally, of the derivatives, several R8s came to the event, two of them belonging to members of the South Australian Hicks family. A recently restored R8 Gordini 1300 came from nearby Clare for the Chateau Tanunda display. Ian Turner, the President of the Renault Car Club of Queensland drove his immaculate 16TS from Brisbane too.

Our 4CV Register events aim to be social, not competitive. We have no prizes but rather rejoice in the diversity of our cars and our members. As usual for our events, cars ranged from completely un-restored but "maintained" through to superbly restored, also ranging from cars kept in very original specification to others greatly but tastefully modified. While many 4CVs have upgraded engine and transmissions these days, a few retain their original 747 cc, three-speed configurations, including the



Rear-engined Renaults arriving for the first Mini Muster gathering at historic Chateau Tanunda



The late Don Tozer's Renault 4CV at Collingrove Hillclimb in the 1960s



Some of the 4CVs at the National Motor Museum, including the Queensland Dauphine



The informal "6 moustaches club" of pre-1954 Renault 4CVs at the National Motor Museum in Birdwood (the preserved 19th century Birdwood Mill is in the background) —



The author's 1950 4CV "Luxe" - the car's first visit back to Birdwood in 32 years



4CVs at the 1902 Barossa Reservoir - perhaps the first concrete compound-arch dam in the Southern Hemisphere



Renault Caravelle from Adelaide, the Queensland Floride S (blue) behind it, with a Barossa Valley



Renault R8s at Chateau Tanunda, the Gordini at the frontbackdrop

two WA cars that attended the event.

After the event, we organised a 1,600 mile road tour over to Perth, Western Australia for those interested and with the time to spare. Three Queensland cars, including the Dauphine, joined with three more from Adelaide, including Dave Hicks' R8. We travelled to Perth over a 6-day period. But that is another story. 💎



Event organisers Cate and Glenn Pauley's superbly modified 4CV: its paintwork continues to "wow" all who see it!



Stef Brayley's original specification 1951 Western Australian car

Renault Duster Shines in the PARYS 400

by Tom Bruinink

Last year's South African National Cross Country Series (SACCS) will go down in the books as one of the most challenging seasons to date with title battle being finalized at the seventh and final round of the season. It will be remembered for the high number of extremely capable and technologically advanced vehicles that were pushed into the field by professional and amateur teams.

The famous PARYS 400 was the last race of 2021. In hands of Johan and Sean van Staden the Renault Duster of Moto-Netix KEC Racing took sixth place in this event, only 4 minutes from the third place. Overall Johan achieved a seventh place with only three points separated from the sixth position in the championship. Johan van Staden and his son was one of the only two teams who started and finished all seven races during the season. A brilliant job done by the KEC Duster. The manufacturer's award was won by Toyota, with Renault finishing fifth with 38 points. Johan and Sean, are now underway in the 2022 season. 🏆



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