



The Allard Register

No. 41

SPRING 2005

FREE

OZ Allards Gather at Phillip Island



From Left, Clockwise: Cris Lowth - P1X, Graham Sharley - J2, Lowth - PB, Sharley - K2, Steve Schuler - J2, David Rodd - J2, Clarrie Pearce - Special, Rod Calleja - K3, Dean Butler - J2R, Graham Smith - J2

It all started with an e-mail from Mike Knapman in the UK in mid-January, saying that Dean Butler's J2R was being prepared for shipment to Australia. He said that "Motorsnippets" website had also written about another Allard being prepared for an event "down under."

A speedy exchange of e-mails with Steve Schuler confirmed this other Allard was in fact his car. Both cars were entered for the Historic Race Meeting at Phillip Island at the end of February. A few more e-mails, and it was discovered another two J2's were entered. So the idea of an Allard gathering was born!

Phillip Island is a small island at the mouth to Western Port Bay, around 2 hours from Melbourne. It is the oldest motor race track in Australia, and one of

the oldest dedicated race tracks in the world. It was the original home to the Australian Grand Prix, and the Armstrong 500 (now Bathurst 1000). More recently, it is the home of the Australian Motor Cycle GP. It is one of the most picturesque circuits around, with great views over Bass Strait. It is a long sweeping track with a very long main straight, and with quite a few testing corners with such memorable names as MG Corner, Honda Corner and Siberia - which dates back to the days cars used to disappear out of sight of the main viewing area.

After a few discussions with the most helpful organisers, it was agreed to make Allard the featured marque. Quite an honour, when this was probably the largest historic race meeting in the world with over



Phillip Island marked the return of the J2 that Sydney Allard & Tom Cole drove to third place at LeMans in 1951

450 entrants. They range from small home-grown specials to Jack Brabham's World Championship-winning Repco Brabham, and ex-F1 Ferraris.

A bundle of e-mails between Steve and myself led to the decision "let's see if we can set the whole deal up in less than a month." Invitations were sent off to all Australian and NZ owners, and planning commenced to create an arena to justify "Marque of the Meeting." It worked! The Allards in attendance at the meeting even caught the attention of newspapers in Queensland – more than a thousand miles from where the event was being held. We immediately had eight cars which we thought was great. By the day before the event we had eleven cars, and another two owners coming without cars!

Friday 25th February

The Friday was practice day. It dawned with light rain (blast it!) as I travelled the one-hour trip to the Island towing the P on a trailer, with a mate driving the Palm Beach (well, at least I kept dry) but it quickly fined up.

With Steve Schuler's assistance we were able to create an "Allard Paddock" in the pit area - with flags, display signs, special edition posters, and Allard caps. By the end of the day things were ready for the display on Saturday & Sunday, which was to feature the following cars:

J2R	Dean Butler (UK)
J2	Steve Schuler (US)
J2	Graham Smith (Victoria)
J2	David Rodd (Victoria)
J2	Graham Sharley (S. Australia)
K1	Charles Wilkins (S. Australia)
K1	Peter Bick (Victoria)

K3	Rod Calleja (Victoria)
P1X	Chris Lowth (Victoria)
PB	Chris Lowth (Victoria)
Special	Clarrie Pearce (Tasmania)

Also attending without cars, were Derek & Lis Maude and Barry & Mary Ellison - who are both restoring P1's. Five of the cars were entered for the competitive events. In practice the J2R "blitzed the field" with the other J2's producing more than creditable performances.

Saturday 26th February

The serious stuff started on Saturday with the public streaming in. To say we created quite a lot of attention was an understatement. Probably the most notable comment came from a respected Australian motoring writer, who said he had seen an Allard now and then, but never the number and range we had on display. A visiting UK driver advised his pit crew to come across and have a look at a K3 and Palm Beach together, as this was a sight he had never seen before. About every half hour the organisers proudly broadcast the fact they had the largest assembly of Allards ever seen in the Southern Hemisphere."

During the day Dean Butler mentioned that the J2R was "down on power" - at least according to its driver. However it didn't look like it, by the way it went down the straight. Later in the day it started making strange noises. Steve Schuler mentioned that his car "went like a rocket," but was looking for a "drag chute" at the end of the straight.

The Saturday ended with a press photo shoot lasting nearly an hour, shuffling cars around to get the colour mix right, all in blazing hot sun!

"Cocktails" were then served from the Allard area. It appeared to be half pit crews at the event showed up to



Graham Sharley en route to winning his class



Dean Butler brought his J2R from the UK, but the engine did not like the Aussie fuel - blowing its top

taste the fruits of Steve's famous two-stroke drink maker - virtually a chain saw motor on a vitamiser. It certainly crushed the ice well!

Sunday 27th February

The Sunday saw glorious weather in the mid 20's Celsius, with racing on the track hitting fever pitch with over thirty scheduled events. By this time the J2R had sadly expired due to a fuel problem, which caused pistons to melt! Steve Schuler's immaculate ex-LeMans car, its first run after a total rebuild, wasn't going anywhere either. It had to be retired due to "the floorboards getting in the way of the brake pedal!" However, the marque reputation was upheld by Graham Smith's J2 winning its class. Steve then made amends by showing the field a clean pair of heels in his Iso Grifo.

Mid-afternoon Allards came into their own, as the track was closed for "Cars of the World." This featured around 30 cars, including ex- F1 GP cars and Can Am sports cars. Pride of place however, was given to the Allard contingent, who all made the track (except the J2 & J2R with mechanical problems). A bit of seat shuffling saw all the Allard owners get a ride (the first time the back seats of the P1 had been used!). Quite an experience mixing it with the likes of Jack Brabham's old Repco. You know it when that goes past! All the drivers and passengers returned to the pits on a great "high."

At the end of the day, we can quite safely say many thousand Aussie car racing fans now know what an Allard is! And all the Allard owners had a great time!

Now we have to arrange a 2006 event to top this one. Start planning your winter holiday in sunny OZ!

-Chris Lowth & Barry Ellison

Allards at OZ, January, 2005

Judy and I enjoy periodic trips to Australia to visit our daughter and son-in-law. Having another Australian visit planned for the 2004-05 Holiday season, I wanted to get to see as many Allard owners as possible - with their cars. My daughter, Margaret, and her husband, Greg, graciously offered their townhouse on Sydney Harbor as the venue for a party.

I contacted the members of the Australian Allard Register via email or phone well in advance of my trip. One keeps forgetting how big Australia is, and the distances involved. I was gratified to get the response that I did. A special treat was the attendance of Tom Fisk, who was Sydney Allard's co-driver in the 1960's. Tom and his son Graham, traveled a considerable distance to attend. Tom had many photos and tales of his time with Sydney. His presence insured the success of the day.

Allards and owners attending were:

- Nick Bolton – Green K2
- Philip Stanton – Blue J2
- Jim Firth – Red J2
- Tom Morrison – Green and white P1

Colin Russell, Roger Allard's agent for Australia, was also there with his pristine 1970 white Cooper S Mk2.

My son-in-law, Greg, obtained permission from the community association to park the Allards and the Cooper on the common green near by. What an attraction they were! Passers-by and residents were enthralled by the sight of these rare and unusual automobiles.

The whole day went very well, and the threatened showers did not materialize. The view of the harbor added to the ambiance, as did the meal prepared on the 'barbie.' It was well after dark that the last guest departed. Perhaps, my next time Down Under will be the occasion for me to meet more Allard owners and their cars. There is even talk of getting some of our Allards and owners over there for another Allard event.

-Andy Picariello



An Inside Look at Buying an Allard at Auction

Just after the Barrett-Jackson auction in Scottsdale this past January, The Allard Register was able to catch up with Phillip Shires via email. Phillip, along with his son Don “won” the auction for the red J2X #3042 with a winning bid of \$216,000. The Shires have purchased many cars at the major auctions so the experience was not new.

Phillip Shires: Let me begin by saying that generally speaking buying a car at an auction is not really the best way to buy a car because the prices are usually artificially high and you often have no way to check the car out in any detailed way. However, knocking around the country checking out cars that each owner is positively sure is a number one and perfect (very often to be severely disappointed) is time consuming and a little expensive. At the end of the day I generally take the easier route and buy cars at the auctions rather than “knocking around the country” to get the best deal. My knowledgeable car friends remain aghast at this approach but it seems to work for us.

AR: What led you to want an Allard?

PS: My southern California background gave me the opportunity to catch the racing action at the Pomona Fairgrounds and at Riverside and later, my son Don was taken to all of these same venues beginning at a very early age. We also go to the the Monterey Historics almost every year and have watched a lot of Allards in action there. But the over riding thing that led us to want to get an Allard was not just all of the memories of Allards in action but the fact that we “really needed” something different to run in the

Colorado Grand. Last year more than a dozen 300 SL’s were turned away because there were just too many in the applicant stack. There were too many Jags and there were even too many AC’s. We needed something more unique in the stable and we wanted something that could run with the 300 SL’s and Ferrari’s comfortably so we wouldn’t be late for lunch or cocktail time.

AR: Could you describe what you experienced while the car was being auctioned?

PS: Dread that the price would hit Barrett-Jackson levels and we would have to let the car go by. Having pestered Andrew Simpson extensively we were sure that it was the right Allard and was in great shape after the John Harden restoration.

AR: Were you interested in any other cars at the auction – or just the Allard?

PS: We went to Barrett-Jackson for this car. I would admit to an interest in the ‘32 Ford cabriolet hot rod that went for about \$88,000--and which had enough racing history to be a possible candidate for the Colorado Grand and other events. There will be the right ‘32 in the garage one of these days.

AR: What do you plan to do with the car?

PS: We intend to run it on the Colorado Grand and similar events. At the same time, if we had an opportunity to run the Allard at Monterey I don’t think we could resist as that is our favorite track.

AR: What are your driving impressions of the car?

PS: We had done our homework and read the usual books and articles and were very apprehensive about the steering and handling. However, this car is a delight to drive. While the turning radius is large and you have to pay attention rounding corners, we are delighted with the way it handles. I suspect that John Harden’s expertise at setting up the chassis, etc. may have a lot to do with this car performing so much better than any of the reviews we have read. We will probably disappoint the true Allard fans, but even though the car had old but entirely unused Dunlop racing tires, we put a new set of Michelin X radials on the car. My experience has been that all of my “old Beaters” as my wife calls them, run much more enjoyably on car tours and to the bagel shop with radials instead of the old bias plies. I think we will have a really good time with it and we are really looking forward to enjoying it.



Don Shires drives their new J2X out of the auction tent

Report from Coronado – October 2004

This is not another boring race report, but an account of a wonderful weekend at the Vintage Sports car races at Coronado Island, just over the bridge from San Diego.

Happened last October 7th to the 10th. As is normal with events put on by Steve Earle, we were given a bag of regalia at registration. You know, the usual dash plaques, baseball cap, and a most prestigious Polo shirt with beautiful embroidery on it. This year is the seventh time this race has been held on the Navy's North Island aeroplane base.

Let me tell you, they really know how to make a guy feel welcome. Started out with a big Hawaiian Luau in the backyard of the Base Commander's residence. We had been requested to wear a Hawaiian shirt to this gig so everyone looked in keeping with the theme. Upon arrival, we were given a Lei and directed to the nearest of the four bars where we serious drinkers helped to deplete the Navy's stock of wine. Did I mention the two pigs roasting on spits? Or how about the eight-piece band playing Dixieland music? Luckily the cooks lost their recipe for making Poi.

Let see, there was something about practice on Friday where everyone got to abuse their cars for 25 miles. Then on Saturday, after a sumptuous breakfast courtesy the Chrysler Corporation and others, we got to put another 25 miles of tire wear on the cars. That afternoon, after lunch provided by the cities of Coronado and San Diego and others, there was something called 'qualification races' to determine the starting positions for the main event on Sunday.

Among the 200 plus cars there were four of those Allards present. Guys like Jim Degnan, Bernard Dervieux, George Myers and Bob Lytle. Add another 25 miles of

driving around a course just 11 feet above the beautiful Pacific Ocean.

More partying in the Paddock area that nite

On Sunday we woke up to the PA system cranked up to 110 decibels playing that tune from South Pacific, "Oh What a Beautiful Morning." And it was.

Breakfast provided in the drivers' lounge by The Pacific Holiday Bowl people.

Then the Navy flew several vintage war planes overhead, plus a demonstration of the latest F-18 making a high speed pass just short of turning on that afterburner and disappearing into the clouds while the band played our national anthem. All very inspiring.

25 more miles of warm-up in the AM then more lunch. Then down to the serious races for the 20,000 spectators.

I was too busy watching the four Allards to see how anyone finished, but they all got back with nary a scratch so that makes them all winners as far as I'm concerned.

That evening we were invited onboard the brand new aircraft carrier, the USS Ronald Reagan, for the award ceremony. Again the Navy Cooks and Bakers went all out in setting up a LAVISH spread a-way up on the flight deck. That's 85 feet above the waterline ! It's hard to believe this ship at nearly a quarter of a mile long can zip through the water at nearly 50 MPH !!!!

Awards were given, not for finishing positions but for things like best appearance, best performance, or just for finishing in 13th position - or something like that.

That's all. See you next year, same place.

-Spur Gear



Bob Dunsmoore

George Meyers at speed in his K2

New Allard K2 1/43 Models



Pete Kenna, a well-known model maker in the UK, has recently started to produce hand made models of the K2 Allard. The attached photos show the first prototypes - the finished models will be better. The models are available by contacting Pete at models@petekenna.co.uk and can be had in various standard colors for around 90£. Models can also be produced with special interior and exterior colors of the buyer's choice for around 100£ each. The scale is 1/43, and can be had in either RH or LH drive. The models will be made with resin bodies with all metal parts in white metal, and all chrome parts nickel plated.

The Allard Register

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Euro Allard Group Develops

The informal Allard Continental Group had a very encouraging turnout for their first meeting at the Techno Classica in Essen, Germany (the largest classic car show in Europe). The meeting was held during lunch at the Blumenhof with 5 owners present – unfortunately without cars. In total, nine continental Allard owners, representing a wide range of Allards counting for 15 cars in total. The meeting was very encouraging. For more information, please contact Hans-Albert Oppenborn h_oppenborn@yahoo.com

In the photo, from left to right Hans Albert Oppenborn, Bernd Sgraja, Peter Reichle and his wife, Achim Rester and Stefan Flury.



ALLARD EVENT - GERMANY

September 2 - 4, 2005

Come join the Allard Continental Group for a scenic tour to the German Odenwald with castles and a lot of fun. The only price is for your hotel & food. To reserve your spot, contact Peter Reichle by phone at 00491716007172 or email kpreichle@tai-group.de. Overseas participants are welcome!

PLEASE NOTE

1. We appreciate the fine submissions from members of the Allard Register. Just a reminder - our publishing an issue depends heavily upon our having interesting, original Allard-related stories, articles, and photos. We depend on you to provide us with those items.
2. Allard-focused articles and photos are always welcomed. Please direct submissions to the Publisher, Chuck Warnes. MS Word submissions by disk or E-mail are appreciated. Due to space limitations, we may have to do some editing.
3. Please direct any additions or changes to our Mailing List to Bob Lytle at cottonwoodbob@wildapache.net

-Jim and Chuck



2006 Allard Northwest Tour & Races - Press Release

Bill Peden and I want to give you an update on the early enthusiasm and exceptional reception we have received since sending out our initial press release last month on the planned Allard Northwest Tour 2006.

We already have over thirty owners committing to present their Allard. From London to New Zealand and Canada to Mexico the reception is tremendous. All the K cars, 1, 2 and 3 will be represented. The J2, J2X, J2X Lemans and the JR models are signed up; we're missing only a J1 to have this category complete. We have at least one M car. Now wouldn't it be great to have a P1 and a Shooting Brake? The exciting thing is that we are just getting started, we have a year to go and we've already had such terrific response.

Our initial press release stated that we would be touring the beautiful, green Olympic Peninsula between the Seattle and Portland races. There is a reason it is so green - Washington's famous grey skies and rain get all the credit. Hotel and motel operators all said the same thing, "99% chance of rain that week." We can't thumb our nose at historical data when so many old cars would find it very rough going in the pouring rain, so we pulled a U-turn and headed to the eastern side of our wonderful state for warm weather and a 99% chance of sunshine. Fantastic scenery, wonderful roads and great activities are on the map.

Thursday, June 29, 2006: is check-in day at the Value Inn in Auburn, a small city less than an hour SE of Seattle. It is very close to the Pacific International Raceway.

Friday, June 30: Race festivities begin. Allard will be the featured marque for this three day weekend, there will be a special area for Allard participants with a tent for protection and chairs for comfort. Count on a featured race, a noon-time parade and other happenings. Weekend events are well attended by the public as it is a very successful fund raiser for the Children's Hospital in Seattle.

We encourage you to fill out the following TENTATIVE RESERVATION FORM. Filling out this form will insure you receive all information directly and it will give us some idea of the Allard owners that are interested in attending this event. In March, 2006 we will send out a reservation form with instructions, costs and a detailed schedule. Thank you for indicating your interest.

NAME _____ NUMBER OF PERSONS _____

ADDRESS _____ Need more information re: _____

Car: Year _____ Type _____ Racing? _____ Touring? _____ Both _____

Probability you will attend Tour: 100% 75% 50% 25% No

MAIL TO: ALLARD NORTHWEST TOUR 2006, 305 East Pine Street, Seattle, Washington 98122, USA

Saturday, July 1: At the end of the racing day, there is a great salmon BBQ for participants that is held at the race track. Allard owners will be included in this fun event. Look forward to a fun and busy three day weekend.

Monday, July 3: Patty and Ken McBride will host an afternoon tour of their car collection and museum. Motoring just a few blocks away, everyone will gather at the Lucurell family homes for cocktails and dinner on beautiful Puget Sound looking across at the Olympic mountains.

Tuesday, July 4: We will motor to the Washington wine country through beautiful scenery and wonderful vistas. The day is topped off with a private dinner at Hedges Winery. We are working on reserving a location near the winery for lodging that night. A flatbed tow vehicle and mechanic familiar with Allards will accompany all organized tours.

Wednesday, July 5: We will motor to the Columbia River Gorge and Mt. Hood where we will stay at the historic and memorable Timberline Lodge in Oregon.

Thursday, July 6: We will drive to Portland International Raceway where our accommodations are at the Marriot Residence Inn, next to the track.

Friday, July 7: Portland race officials have named the Allard the marque for the weekend events and we will again have a special corral with chairs and features like a parade, an Allard-only race, reserved parking, etc. M.J. and Bill Peden will welcome us to their home for dinner and festivities on Friday evening.

Saturday, July 8: Is another full day of track activities. There are many restaurants near the hotel where you can unwind and gather strength for another day.

Sunday, July 9: will be a day of good and welfare, packing up and saying goodbye.

ALLARD NEWS

Gathering the Clan – 2005

The annual Allard Gathering of the Clan will take place this October 20-23 in Knoxville, TN - featuring a drive thru "THE DRAGON". For those who are uninformed, the Dragon is a road from Knoxville to North Carolina across the mountains and back to Tellico Village - there are 135 curves in 17 Miles of driving! We'll stop for lunch and the trees should be in their prime fall colors. So far six Allards have confirmed and we're hoping for twelve. If you're interested, please contact Jere Krieg at JereKrieg@aol.com

CLASSIFIEDS


Original condition 1951 K2 #1986 with a light blue finish. The car has a Cadillac engine with a Mallory ignition and 4-speed automatic transmission. The car has been in the family since 1953 and was driven regularly until 1961, logging 36,000 miles. All registrations, including the original bill of sale are available. \$35,900. *John Bien, Fort Lee, NJ (917) 921-0099.*

- Allard bonnet alloy and steel, overall good condition. Not sure what it fits, but it's similar to a K-1 but wider at the firewall. Measures 51 1/2" X 46 1/2" might be for a drophead could be modified for a K-1 or L. Asking \$500 - if interested lets discuss.
- Carter AFB carb for 365-390 engine, as new, \$220 which includes S&H.
- Set of 4 Michelin tires (185R16) with tubes. Tires have about 4000 miles and are in excellent condition. Current list price is \$199 per tire and \$15.50 per tube. I will sell the set for \$400 plus S&H.

Howard Hogg: 505-344-3421 or hohogg@attglobal.net

Allards on TV

In case you missed it, the Allard J2X Mk1 was featured recently on the SPEED Channel TV show, Dream Car Garage. This feature was shot November 2004, on a cold and wet track in Canada. The program host, Tom Hnatiw is a big man, and with his ski jacket, he did fill a good half of the cockpit. However, because of the extended cockpit of the Mk1, he was able to handle it very well on the track. The 3 1/2 hours of shooting resulted in about 2 1/2 minutes being used in the feature. For those who missed it, I have taped the 2 min. 35 sec feature and should have this on DVD shortly for those who are interested. We will also be transferring some segments to our web site. For more information, please visit our web site at www.allardj2x.com.
-Roger Allard, The Allard Motor Works

We Need Your Email Address!

The Allard Register is in process of updating our records and we need your email addresses - *this information will be kept confidential*. Along with updating our records, you will also receive the email version of the Allard Register, with color pictures and additional content. Please send your updated information to info@allardregister.com

Allards in Yosemite


To test if his 'restored' BRG K3 (left) was finally road worthy, Chuck Warnes decided to see if the car could make it to Yosemite and back (190 miles). Jack Anderson agreed to tag along in his red K3 (right). The cars attracted just as much interest as the beautiful surroundings. Unfortunately the Warnes' K3 retired at the Awahnee Hotel with a mysterious electrical problem. What a place to get stranded!

 Visit us on the Internet

www.AllardRegister.org

MARLES STEERING GEARS

DOUBLE ROLLER TYPE 462

The major adjustments are accomplished by shims of which there are three.

1. Adjustment of the bearings between which the cam revolves.
2. Adjustment of rocker shaft end play.
3. Adjustment of the engagement between the roller and cam.

ADJUSTMENT 1

Inspection for proper cam bearing adjustment.

Jack up the front wheels. Turn the steering wheel about one turn to the right from the straight ahead driving position. Secure in this position to prevent any oscillation when the front wheels are shaken violently. This can be done by tying one spoke to a right side door column and holding the wheel against it as a brace. Grip the column with the other hand just below the steering wheel with the side of the finger barely touching the lower end of the steering wheel hub. Now have an assistant shake the front wheels hard sideways. This will enable any end play in the cam bearings to be felt by the up and down movement of the inner column at the wheel hub. Any end play must be removed by adjustment, but be sure the end play is felt, and

do not be confused with the play or give in the box nose rocker shaft bushes, 14. The cam bearing adjustment should be correct before any further adjustment of the gear is made.

Cam Bearing Adjustment.

It will be noted that between the box casting 2' and the bottom cap 5, is a number of thin shims 4. End play of the cam between its bearings, may, therefore, be taken up by taking out one or more of these shims, thus allowing the bearing outer race, backed up by the bottom cap 5, to enter further into the steering box and thus come closer to the cam. When this adjustment has been correctly made, it should be such that after the bottom cap is again fastened securely to the box casting by the screws 6, the cam and steering wheel should revolve freely, but there should be absolutely no end play.

Correction of gear alignment.

Loosen the frame bracket bolts just sufficiently to allow the gear to move in the frame to line up at the angle determined by the height of the instrument board bracket or the dash board bracket. Then

re-tighten the frame bracket bolts. Now loosen the instrument board bracket or the dash board bracket bolts to match the gear column position, and re-tighten all the bolts. This will have corrected any possible misalignment of the column.

ADJUSTMENT 2

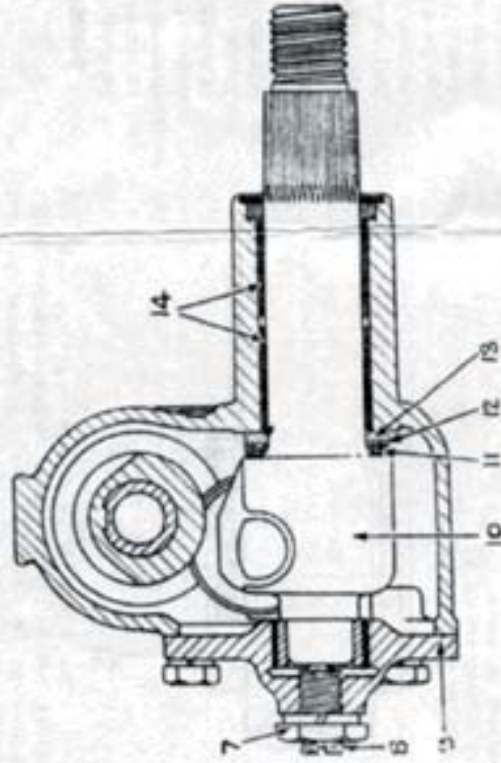
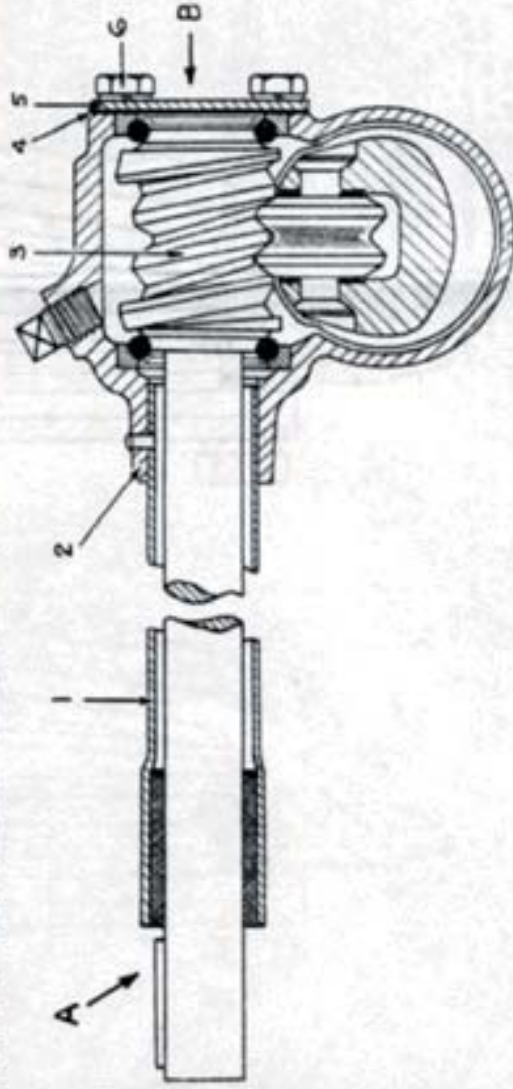
Inspection of end play on the rocker shaft.

Turn the steering wheel to either extreme and then back one-eighth of a turn. Grip the drop arm at the steering box nose, and the rocker shaft should rotate freely without any end play. If end play is present, adjust as follows:—Loosen the lock nut, 7, on the back of the cover plate, 9, and tighten the adjusting screw, 8, until all end play on the rocker shaft is removed.

Important—Do not forget to re-tighten the lock nut 7.

ADJUSTMENT 3

Inspection for proper mesh of the rocker shaft roller in the cam. (This inspection should never be made without first correcting adjustments 1 and 2).



Turn the steering wheel to the mid position of its complete travel from lock to lock (drag link previously disconnected). Shake the drop arm to determine the amount of slack or lost motion. If this lost motion exceeds one-thirty-second of an inch, adjustment should be made.

It will be seen that the position of contact between the roller, and the cam, 3, is offset from the centre line of the cam and that a number of thin shims, 12, are located behind the rocker shaft, and between the thrust washers, 11 and 13.

By removing one or more of these thin shims, 12, the rocker shaft 10, and the roller which is carried by it, are permitted to enter further into the steering box, 2, and to make closer contact with the cam.

The proper method of carrying out this adjustment is as follows:—

The type 502 is substantially the same in design as type 402. The major differences being in the top end of the steering column, and the lower end of the box. A and B on illustration of type 402 refers. Other references in text also refer to type 402 illustration.

The major adjustments are accomplished by shims of which there are three:—

1. Adjustment of bearings between which the cam revolves.
2. Adjustment of end play of the rocker shaft.
3. Adjustment of the engagement between the roller and cam.

ADJUSTMENT 1

Inspection for proper cam bearing adjustment.
Jack up the front wheels. Turn the steering wheel about one turn to the right from the straight ahead driving position. Secure in this position to prevent any oscillation when the front wheels are shaken violently. This can be done by tying one spoke to a right side door column and holding the wheel against it as a brace. Grip the column with the other hand just below the steering wheel with the side of the finger barely touching the lower end of the steering wheel hub. Now have an assistant shake the front wheels hard sideways. This will enable any end play in the cam bearings to be felt by up and down movement of the inner column at the wheel hub. Any end play must be removed by adjustment but be sure the end play is felt, and do not be confused with the play or give in the box nose rocker shaft bushes, 25. The cam bearing

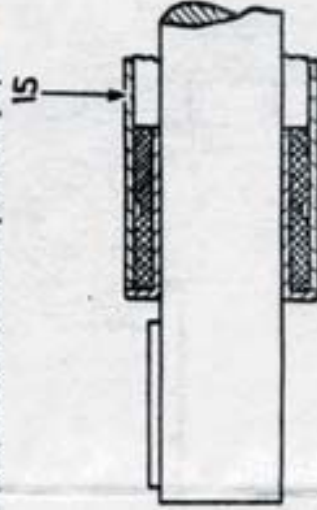
Remove the drop arm from the rocker shaft and the rocker shaft complete with the shims, 12, and the thrust washers, 11 and 13, from the steering box. Care should be taken to see that no shims or thrust washers are left behind in the box to cause interference with the operation of the gear. Select, by trial, the proper number of thin shims, 12 (keeping the inner thrust washer, 11, always in place on the rocker shaft, 10, with its chamfered side next to the rocker shaft) to produce not more than .006 of play measured at the end of the drop arm when the roller is passing over the centre of its travel, and without heavy drag on the steering wheel. Remove only one shim, 12, and insert the rocker shaft into the steering box. Now turn the steering wheel till the roller almost reaches the stop nearest the column, 1. Hold the rocker shaft in place with thumb pressure and revolve the

DOUBLE ROLLER TYPE 562

adjustment should be correct before any further adjustment of the gear is made.

Cam Bearing Adjustment.

It will be noted that between the box casting 16, and the bottom cap 19, is a number of thin shims 18. End play of the cam between its bearings may therefore be taken up by taking out one or more of these shims, thus allowing the bearing outer race, backed up by the bottom cap 19, to enter further into the steering box and thus come closer to the cam. When this adjustment has been correctly made, it should be such that after the bottom cap is again fastened securely to the box casting by the screws 6, the cam and steering wheel should revolve freely, but there should be absolutely no end play.

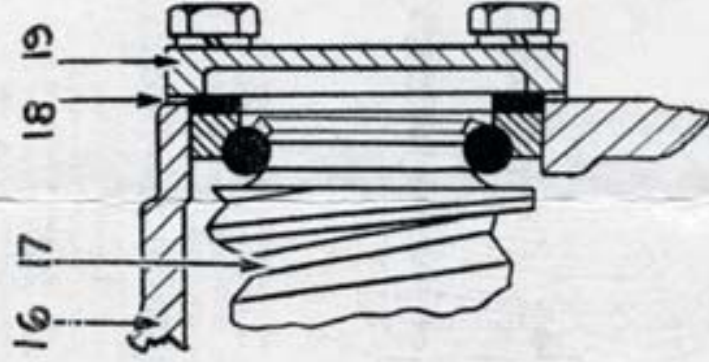


Part numbers 26, Side Cover; 21, Thrust washer; 21, Shims; 24, Thrust washer; 25, Bush are not shown, but they are similar to part Nos. 9, 11, 12, 13 and 14 shown in type 402 illustration.

steering wheel until the roller is in its central position. Still holding the rocker shaft in place with the thumb, test for play by gripping the splined end of the rocker shaft. If any play is felt, remove another shim, 12, and repeat the operation until all play is eliminated when the roller is in the centre of its travel.

When the proper number of shims has been selected, turn the steering wheel so that the roller comes close to either lock, replace the cover plate, 9, and tighten up the securing screws.

Note—After any or all adjustments have been made and before replacing the steering gear in the car or before connecting the drop arm to the drag link, test the gear for freedom of operation throughout its available movement and test also for absence of end play in the rocker shaft.



Correction of gear alignment.

Loosen the frame bracket bolts just sufficiently to allow the gear to move in the frame to line up at the angle determined by the height of the instrument board bracket or dash board bracket, then re-tighten the frame bracket bolts. Now loosen the instrument board bracket or dash board bracket bolts to match the gear column position, and re-tighten all the bolts. This will have corrected any possible misalignment of the column.

ADJUSTMENT 2

Inspection of end play on the rocker shaft.

Turn the steering wheel to either extreme and then back one eighth of a turn. Grip the drop arm at the steering box nose, and the rocker shaft should rotate freely without any end play. If end play is present adjust as follows:—Loosen the lock nut, 7, on the back of the cover plate, 20, and tighten up the adjusting screw, 8, until all end play of the rocker shaft is removed.

Important—Do not forget to re-tighten the lock nut, 7.

The major adjustments are two in number:

1. Adjustment of bearings between which the cam revolves.
2. Adjustment of engagement between the roller and the cam.

ADJUSTMENT 1

Inspection for proper cam bearing adjustment.

Cam bearing adjustment—It will be noted that between the box casting 1, and the bottom cap, 3, is a number of thin shims, 2.

End play of the cam between its bearings may therefore be taken up by taking out one or more of these shims, thus allowing the bearing outer race backed up by the bottom cap, 3, to enter further into the steering box and thus come closer to the cam.

When this adjustment has been correctly made, it should be such that, after the bottom cap is again fastened securely to the box casting by the screws,

ADJUSTMENT 3

Inspection for proper mesh of the rocker shaft roller in the cam. (This inspection should never be made without first correcting adjustments 1 and 2).

Turn the steering wheel to the mid position of its complete travel from lock to lock (drag link previously disconnected). Shake the drop arm to determine the amount of slack or lost motion. If this lost motion exceeds one-thirty-second of an inch, adjustment should be made.

It will be seen that the position of contact between the roller and the cam, 17, is offset from the centre line of the cam and that a number of thin shims, 23, are located behind the rocker shaft, and between the thrust washers, 22 and 24.

By removing one or more of these thin shims, 23, therefore, the rocker shaft and the roller which is carried by it, are permitted to enter further into the steering box and make closer contact with the cam.

The proper method of carrying out this adjustment is as follows:—

Remove the drop arm from the rocker shaft and the rocker shaft complete with the shims, 23, and the thrust washers, 22 and 24, from the steering box. Care should be taken to see that no shims or thrust washers are left behind in the box to cause interference with the operation of the gear. Select,

DOUBLE ROLLER TYPE 320

4, the cam and steering wheel should revolve freely, but there should be absolutely no end play.

ADJUSTMENT 2

Inspection for proper mesh of the rocker shaft roller in the cam. (This inspection should never be made without first correcting adjustment 1.)

Turn the steering wheel to the mid position of its complete travel from lock to lock (drag link previously disconnected). Shake the drop arm to determine the amount of slack or lost motion. If this lost motion exceeds one-thirty-second of an inch, adjustment should be made.

It will be seen that the position and contact between the roller assembly, 6, and cam, 5, is offset to the centre-line of the cam, and that 6 is linked to the cover plate, 7, by the adjusting screw, 8, and the plate 11.

by trial, the proper number of thin shims, 23 (keeping the inner thrust washer, 22, always in place on the rocker shaft, with its chamfered side next to the rocker shaft) to produce not more than .006 play measured at the end of the drop arm when the roller is passing over the centre of its travel, and without heavy drag on the steering wheel. Remove only one shim, 23, and insert the rocker shaft into the steering box. Now turn the steering wheel till the roller almost reaches the stop nearest the column, 15. Hold the rocker shaft in place with thumb pressure and revolve the steering wheel until the roller is in its central position. Still holding the rocker shaft in place with the thumb, test for play by gripping the spined end of the rocker shaft. If any play is felt, remove another shim, 23, and repeat the operation until all play is eliminated when the roller is in line in the centre of its travel.

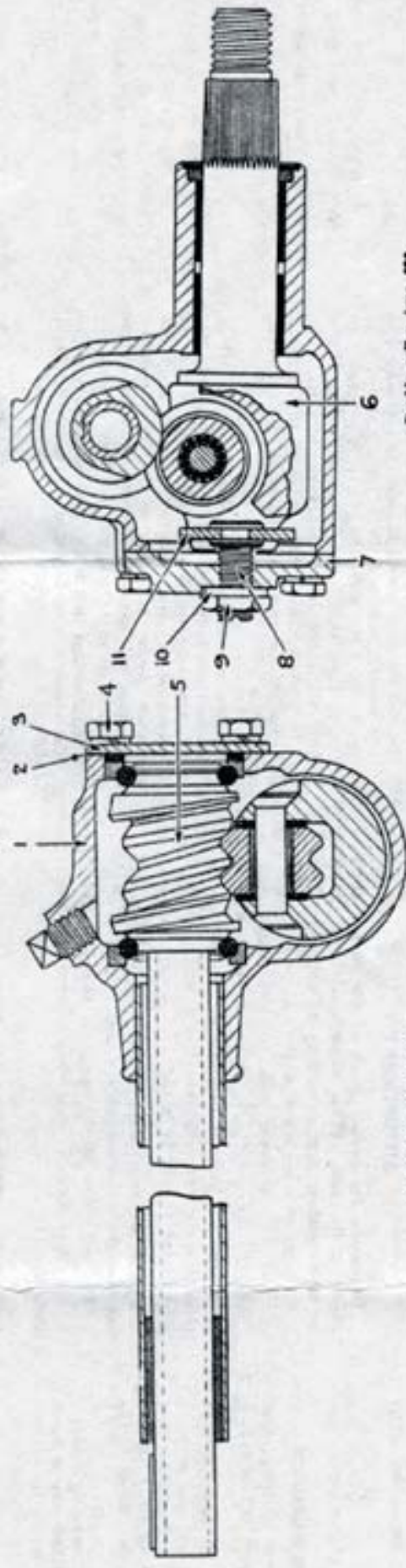
When the proper number of shims has been selected, turn the steering wheel so that the roller comes close to either lock, replace the cover plate, 20, tighten up the securing screws securely.

Note—After any or all adjustments have been made and before replacing the steering gear in the car or before connecting the drop arm to the drag link, test the gear for freedom of operation throughout its available movement and test also for absence of end play in the rocker shaft.

With the steering wheel in the straight ahead driving position, slacken the lock nut, 9, far enough back to ensure that the hexagonal lock washer, 10, is clear of the stop face on the cover plate, 7, then with a screwdriver turn the adjusting screw, 8, to the right until the roller is felt to be engaging in the cam, then slacken back the adjusting screw slightly until the lock washer engages with the stop face on the cover plate. Tighten the lock nut and check for correct adjustment in the following manner:—

The gear should be moved throughout the whole of its movement and at no point should it operate stiffly. On the other hand, when in the centre of its travel, no play should be felt when the drop arm is shaken. As the movement comes away from the centre, play will gradually develop until it becomes a maximum at each lock.

It is important that whilst making adjustment to 6, the steering wheel should be in the straight ahead position.



Double roller type 226.

Double roller type 229.

FITTING THE DROP ARM TO THE ROCKER SHAFT (all models)

If for any reason, it is necessary to remove the drop arm from the rocker shaft, we recommend that before doing this, both these items should be marked so that they can be fitted together again afterwards in the same relative position.

In case this marking has been omitted or in case the marking has become obliterated, we give below the correct method of securing this. Should this operation not be properly carried out, damage may result to the internal mechanism of the gear, and almost certainly the available lock will be limited in one direction.

The steering column, complete with the steering box, but without the drop arm, should first be fitted in place in the vehicle, taking care to tighten up all fixings holding the unit to the car, including that on the dashboard, the steering wheel being placed in its final position. Next, the lower end of the drop arm carrying the ball pin should be fixed correctly to the drag link, but the top end should not yet be connected to the rocker shaft of the steering box.

Now jack up the front wheels and place them approximately in the straight ahead position.

If the steering wheel is rotated gently, you will find that its movement is limited by internal stops in the steering box at each end of the travel of the

internal mechanism of the gear. The number of turns of the steering wheel required to bring the gear from one end of its travel to the other should be counted. Then commencing from one of these stops, take the wheel back half the complete number of turns available, which will bring the steering mechanism into its central position.

With the gear mechanism in the central position, set the front wheels pointing slightly as though the car were turning a left-hand corner, then fit the serrated cone in the top of the drop arm to the rocker shaft. The reason the front wheels are set in this position is because in the ordinary fore and aft system of steering, the steering wheel has always to be moved through a greater angle when going from straight ahead to full right lock than when going from straight ahead to full left lock.

Before tightening up, however, the following check should always be carried out.

With the steering wheel, pull the steering, the front wheels still being jacked up, right over to either right or left lock. With the steering wheel and front wheels in this position, drop the drag link off the drop arm, and see whether you can move the steering wheel any further in this same direction. If you can, everything is in order, and the same procedure should be followed on the other lock.

Should further movement of the steering wheel be unobtainable, it means the front axle stops are not operating, and adjustment must be made as follows:—

If there is movement of the steering wheel on one lock, but not on the other, the drop arm should be put on the next serration on the rocker shaft, which may put matters right.

If no serration will give free movement of the steering wheel at both locks, then the front axle stops must be checked and adjusted.

The amount of free movement available after dropping the drag link off the drop arm, should be the same at both locks, and this condition is what should be aimed at.

It will be appreciated that the movement of the rocker shaft and the drop arm is restricted by the internal stops fitted in the steering box, and it is therefore necessary to fix the drop arm and connect it to the front wheels, and to the steering box mechanism, so that the movement of the front wheels from lock to lock is obtained at the same time as the roller is travelling from end to end of the cam track, but not far enough in either direction to hit the internal stops in the steering box.