



VERDRIVE

The Newsletter of the Ottawa Valley Triumph Club

October, 1994

'T' is for 'Tasty'!



In This Issue:

- *OVTC Executive Elections*
- *Lots of Classic Car events attended*
- *"OIL DRIPS"*

Cover: This is a shot of those cars who made it to Hart Brewery for the tour on Sept. 11, taken from a ladder outside the plant. The 'T' stands for 'thirsty'.

also

Editor's Note: (Julio) -

By the time you read this, we'll be into the month of October. Where has the summer gone? Before you know it, it'll be time to put our cars away for the long winter sleep. What a depressing thought! But the good news is that there are still a few remaining weeks to enjoy our fall fun runs.

OVTC Executive Elections:

Nominations for the 94-95 executive will be made at the October meeting, with the vote in November. Let's have a good turnout for these meetings, so we can get a good vote.

Grass Creek Tour (by Derek Holbeche):

"UP THE GRASS CREEK!"

The day of the British Car Day at Grass Creek started off wet (well it did here in Perth), but by 9 a.m. the rain clouds had drifted away -- to Ottawa? I tried to contact the Thomases and the Popke's to ask how the weather was like, but like good scouts they were at the park early. Without more ado I started out with Daisy-Mae (no, Isobel and I are still together. That's the name of our Herald. Ask Clive).

I skirted the rain on Hwy 15. On route I noticed that the gas gauge was still showing full and that was from two outings ago. I know this is a small engine, but still! I stopped and "dipped" the tank, and sure enough there wasn't much gas. I'm not surprised as thinking back this tank had not been filled for over 7 years! Putting gas in at Gananoque revitalized the gauge. I was

passed on the way by a couple in an MGB. We both waved furiously!

On the road from Joyceville (no, I wasn't visiting!), I met up with Joe Lightfoot as he came off the 401 with his Commer Camper, and we entered the park together. There were a good number of cars there by the time we arrived (11:15). I parked with the other Triumphs, had a quick walk 'round, then went to the registration booth to get my bag of goodies.

I met many interesting people: one fellow had a BRG TR3 that was as nice as Bill Gray's. This same person had photos of his Healey rebuild. Another person there who hailed from Yorkshire originally, and used to own a Herald, gave me the number of a Herald for sale in the Rag Top. More Heralds!!

A number of cars there were for sale. A Ford Consul was trailered in; a Ford Zepher, which I'd seen a lot in Lanark, was another. During the a.m. hours we were encouraged to take part in the voting for the various vehicles and their parts. The awards started around 2 p.m. with Joe Lightfoot handing out door prizes. At this time the rain started, so some people scrambled to put up roofs while others sought shelter under the covered picnic area. The handing out of door prizes continued, taken over by Brian Thomas with some assistance by Joe's granddaughter Rachel.

Once again, John & Evelyn Carr hosted the TR, MG and Jag clubs to their corn roast and Chili Cook. Several folks from all 3 clubs turned out, making a very exotic-looking driveway and side yard. The rain continued to hold off as we partied the remainder of the day away! Thanks again to our congenial hosts!

Watkins Glen races: (by Joe Lashley)

On Friday, Sept. 9, Gord Robertson, my son Steve and myself headed off to Watkins Glen, New York for a weekend of vintage racing.

We arrived the evening and secured ourselves a campsite, right in the infield of the track, and settled in. Our wakeup call was the first practice lap that passed our tents, which was about 10 metres from the track, at 7:30 a.m.

After eating breakfast (cooked by Gord), we checked out the parking lots to find a lot of new & old vehicles. We then went to the car show lot. The show was open to 1974 & older classics (I guess my '8' isn't a classic yet), with a noticeable lack of Triumphs as we saw only about 3 TR6s all weekend. There were however 35 Datsun 1600s & 2000s, including a couple from Ottawa.

All the show cars did a lap of the track, which was quite impressive considering there was a total of about 300 cars. Between watching the practices and wandering around the pits the rest of the day flew by. We went down into the town for supper at a pub before returning to our 5-star tents.

Sunday morning brought our wakeup call again - lots of TR3s at 7:30 a.m. More watching and wandering was done, plus we got a preview of the new Jaguar XJ6 Sovereign in the Jag compound. We saw a few members of the Ottawa Jag Club.

The last race we saw was the vintage G.P. race, which featured a lot of G.P. cars including Lotus & Brabham. Interesting! We also bumped into Joe Lightfoot from Boot'n'Bonnet, and Jim Nunn from the Ottawa MG Club. Small world! We drove back Sunday night, savouring the weekend. Guess where we'll be next year?

Hart Brewery Tour:

Sunday, September 11 began with a thick veil of cloud in the sky. 'Just great', I thought to myself, having arranged the day's run to Hart Brewery in Carleton Place for a tour. Ever so slowly, the sky cleared, and by the time we all met at 2 at the clubhouse, the sky was blue, and we had a good group (11 cars) ready to go. This was also the first good run for my car since the overdrive 'box was put in, so I was a little nervous about the drive itself.

My worries about the overdrive were like my weather worries - unfounded. The transmission was working great, Lori liked how quieter it was - and we were off to Hart's! Life was good!

When the procession arrived at Hart Brewery, the Perth contingent (Derek & Bruce) were already there. To our surprise, the firm's owner, Lorne Hart, was on hand to personally provide the tour! I had been speaking with Lorne's wife, Linda, setting up the tour. I had understood that they (herself and Lorne) aren't around on Sundays for tours and that Jack Lalonde, another staffer, would be on hand to guide us (I'd met Jack on a previous tour with a friend of mine from Carleton Place, and he was a very entertaining host himself).



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We began our tour essentially at the end, entering the service bay door where the beer is bottled and shipped. Here there is a small draught trolley to dispense samples of the various Hart products - their Light Amber, Cream Ale, Stout and 'Dragon's Breath'. We began by each taking a sample as we began the tour.

Lorne took us through the various stages of their process, seeing the elaborate pieces of equipment needed to make their award-winning ales. It was especially interesting for those of us who have dabbled in home brewing, who think we're performing great feats by merely mixing water, sugar and kit concentrates. This is the true science of making a truly fine beverage, yessiree!

At the end of the tour, we found ourselves at the spot we started - at the pumps! While sampling the other Hart ales & stout, Lorne & Jack took the time to answer questions from the floor. Hart Brewery is careful to maintain its reputation as a Valley-based micro-brewery and not to attempt rapid expansion into other markets - a wise move, and a fortunate one for us! The beer industry is so competitive, what with 'ice' beers and the like. Hart prefers to establish itself in local pubs and restaurants, where people tend to be more experimental. That's where I first tried Hart beers, and I look for them when I go out.

The cover photo for this month's issue was taken by Mike Crawford, with creative choreography by J.B. Our thanks again to Hart Brewery for the tour and for making a fine local beer. Cheers, folks!!

British Car Day - Bronte Creek:

British Car Day has been a conflict with the Stowe weekend for the past 4 years. The OVTC has virtually always gone to Stowe,

but this year, some of us decided to go to Bronte Creek instead. Lori and I drove the 'Jap crap', as we took holidays to visit with friends in Toronto the following week.

Having taken the dog to Belleville the Friday night, we met up with the rest of the contingent - the Benco's, the Lashley's, plus Martin and his girlfriend Rosie - Saturday noon at Marmora, on Hwy. 7. From there, we took a liesurely tour along 7, 7a, and other little-travelled routes north of Metro. We stopped for a bite to eat at Port Perry, then continued along until we reached our destination.

But what WAS our destination? The show wasn't until the next day. That meant finding accommodation somewhere near the park, yet within our budgets (namely, cheap!). We stopped in at the Comfort Inn at Bronte Road and the Q.E.W., but they were booked solid. We checked the yellow pages and found some motel on Hwy. #2 nearby in Burlington. Off we went.

As we were driving down #2 to find this motel, Juliano suddenly hangs a hard left towards some other motel, forcing us all (especially Martin, who was nearly broadsided) to follow. Juliano spotted a motel with vacancies, and as luck would have it, this was the perfect choice. Double occupancy was \$35 per night, and one other room, with 3 double beds, was \$66 per night, including taxes! Not only that, but there was an excellent British Pub not 4 blocks away for dinner & drinks!

After a decent breakfast at a nearby diner, we struck off for the Park (not before gassing up, at 46.9¢/litre!). Lori and I had to ditch the Honda in the "Non-British" parking area (I mean, after all!). The sun was shining, the temperature was warm - this was going to be a good day!

The first sight of the British Car Day field was one to take your breath away - British cars were everywhere! It looked like a mall parking lot a week before Christmas, only British! Lori & I found the TR section where the others had parked, then we started to explore. I've never seen so many cars of all shapes and sizes in all my life. The numbers of TR6s, TR7, Spitfires etc. was astounding - there were even a pair of TR5s!! Lori wasn't disappointed either, as her favourite - Stags - were there also. Amongst the non-TR vehicles present, most memorable were the rarities - including a John Player Special' Lotus Europa, a Bond 3-wheeler, a Daimler Conquest, and (my favourite) an Aston Martin DB4 mk. IV that had been owned by this obstetrician in Belleville years ago. The doctor died several years back, and I never saw the car around town again. Lo and behold, it pulled into the area, and I recognized it right away. Turns out, the car was in the possession of the doctor's oldest son, who lived in nearby Milton. I was glad to see it remained in the family!

Lori and I remained for most of the afternoon, after which we departed for a BBQ at our friends' house and the rest of our holidays. British Car Day at Bronte Creek started them off with a bang!

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British Invasion IV - Stowe, Vt.:

(by Dave Huddleson)

Those who may have traveled to Stowe last year "in convoy" would have found a different adventure this year... (and for those out there that don't know what I'm talking about, consider a convoy of about 10 Triumphs winding their way through backroads, stopping at every major shopping mall... taking about 9 hours to cover only 250 miles!!!)

The 1994 Stowe convoy turned out to be 5 vehicles all driving independently from Ottawa. Clive and I had attempted and planned to drive down together ... (but remember, he owns a TR6!!!) Clive had carburettor problems which brought on a rather serious "backfire" which blew out the valve cover gasket and (WORSE!) the rear main seal on the crankshaft.

MINIMAN in Carp did in fact have Clive's car back together some time after noon on Friday and Clive hopped in and drove directly to Stowe. Paul Williams drove with a friend in his new (to him) gold 1982 TR8, Mike & Joan Stapleton drove to Montreal where Joan was dropped off and Mike hopped in with his son James in James' TR6 (I don't know why Mike didn't bring his "reliable" TR3 instead!). I drove down Friday morning through Montreal in my TR8. We also had another TR6 but I'm sorry I can't remember the name of the owner as I write this.

The journey down was uneventful for most of us with really only one item of note. As usual Mike Stapleton was involved in that event!!! As for myself, the drive was enjoyable and scenic with only one "nut" driving a late-model V8 Cougar who wanted to out-drag the "funny sports-car" along the Vermont backroads. Let's just say

that I shifted into 5th gear as I passed him at around 95MPH... Enough of that...

Mike and James drove in the TR6 from Montreal and were within 10 miles of Stowe (down the "other side" of the NOTCH) when they stopped at a bank to get some cash from the Automated Teller Machine. Hopping back into the car, they drove away with sudden grating, rattling sounds emanating from the transmission area. A local garage put the TR up on the hoist and they all convinced each other it might be a bearing, possibly a layshaft bearing. I was already in Stowe and had met Paul Williams "downtown" on Stowe's main street and planned to re-group later for dinner. I was waiting for Clive and Mike to arrive and happened to be at the Motel when Mike called looking for us. He recounted his situation and wanted to find a lift to transport James and himself to Stowe as the CAA had been contacted to arrange a flatbed transport back to Montreal for the TR6. As I was alone, I offered to "stuff" them both on the TR8's passenger seat... plus I could get not one, but TWO more "runs" over the "notch"!!! What fun!! Two not-so-short lads (both around 6') were stuffed in the TR8 and a rather leisurely return trip were driven back to Stowe.

Dinner was arranged upon arrival at the motel, as Paul was waiting in the other TR8. Five of us walked across the Mountain Road to a Bar/Restaurant for a hearty dinner (with beer!) Clive arrived on cue and the beer flowed... We now had 3 vehicles and six passengers. How perfect can life be?

The weather held out for us this year with only light showers around 6-7 AM on Saturday. Clive washed his TR6 at around 6:30 AM in the rain, while the rest of us

slept! Breakfast ended up being a group of six again (but no beer). The early-morning showers may have scared off some, but attendance at the Saturday car show was as good as last year, about 300-400 cars on the field. Vendors were about as abundant as last year (contrary to the rumours!) and I spent almost \$300. US on parts for my TR7 convertible. The group of six met again for lunch, no, sorry, I meant beer!! I finally left the field just before 6PM and at 7PM the group of six again gathered for dinner, and decided on pizza and (what else!) beer. A few brews were consumed at Angelo's Pizza with good pizza enjoyed by all. Our next stop was Ye Olde England Inne for some more beer and a bit of darts.

Sunday morning arrived with abundant sunshine. We returned to the same breakfast location (MacCarthy's?) where again we were 6. A short return to the Polo fields followed so that I could finish some financials with Ted Schumacher (I broke a \$50. bill into fives for him on the Saturday evening beer "tour"). Clive and I left together around 10, taking Mike and James with us. We drove through Montreal and dropped our passengers in Pointe Claire.

The return journey for me took 4 hours and 5 minutes for 237 miles, including the 1/2 hour break at James's house in Pointe Claire, so as you can gather, Clive and I "motored" rapidly on the return trip. If only the 1993 "convoy" could have kept pace...

Hope to see more of you next year for the 1995 edition of the British Invasion at Stowe!

September Meeting:

As you all know, last month's meeting was arranged by Randy Hildebrandt to take place at his "office", the RCMP Air

Services Facility, new the International Airport. I was pleased to see what must've been our largest turnout in some time for this, and we weren't disappointed. Randy began by taking us through the building, pointing out where various electrical, mechanical, paint & metallurgical operations are performed on the RCMP aircraft. Brian Mills was going from room to room as if he was previewing an upcoming auction: "Got it, got it, need it, got it, need it,....". Randy directed our attention to some of the high-tech equipment used by the air patrol, such as the heat-sensitive camera for finding missing persons. After we scavenged some chairs from the meeting room and hallways, we sat down to a brief bit of club business from Joe, including the upcoming executive elections. We then moved on to our guest speaker for the evening.

Randy arranged to have const. Andy Boucher of the Ottawa police give a talk on aspects of the Highway Traffic Act, such as graduated licensing, school bus regulations, high-speed pursuits, and (arrgh) photo radar. Andy is a very animated speaker who has obviously done this sort of presentation before - we were all soon enjoying his style and we still managed to be surprised by some statistics he mentioned. For instance, Andy mentioned that as of that day in Ottawa-Carleton, 13,708 traffic accidents had been reported to date in 1994! We all have seen the crazy ways some people drive, and some things as cellular phones, stereos, even make-up kits just add to the problem.

Before we know it, the night had flown by (the good times always do!). Thanks again to Andy Boucher for coming out to speak to us (hope he enjoys the OVTC ball cap we presented him), and to Randy for putting together a great evening!!

"OIL DRIPS" (by Julio)

(As the 'off-season' approaches, let us know what you're going to be up to with your cars, so others in the club can be tuned in. They might even be able to lend a helping hand!)

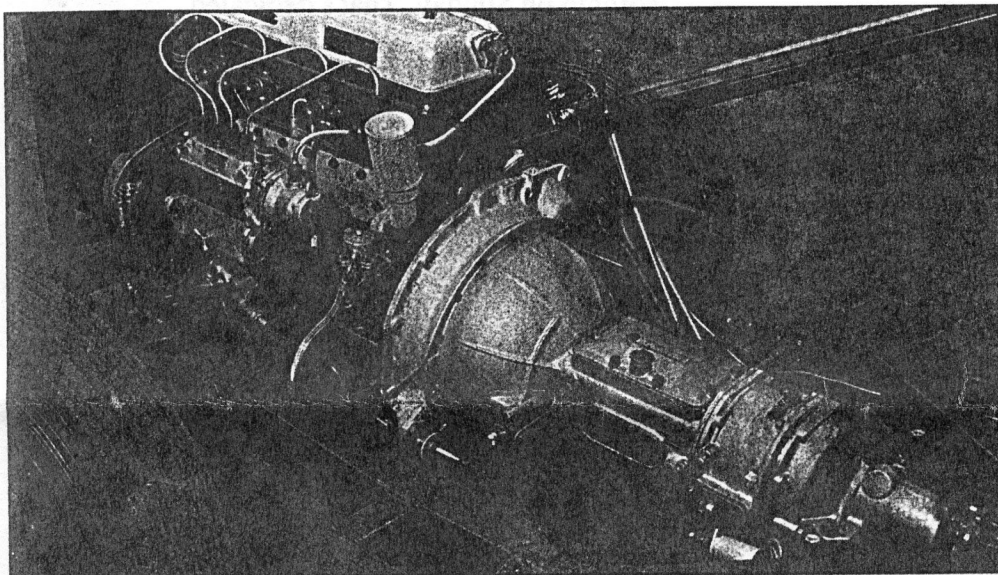
- Some club members (I mean A club member), went to the Invasion in Stowe for Saturday, drove home to Carleton Place that evening, and still made it to Bronte Creek west of Toronto on Sunday. That's dedicated driving! Atta go Al & Marie Manship!
- Sad to say that Clive didn't '3-peat' at Stowe this year. Compared with the Toronto Blue Jays, at least there was a chance for Clive this year, anyway!
- Jane & I attended the Bronte Creek show, and parked next to us was this TR3 with original paint and 25-year-old tires. And above all, it's still owned by the same original owner. That's aging gracefully! The owner's name is Margaret and is a good friend of member Judy Kingsford. Judy bought her TR3 at the same time, but unfortunately parted with hers some time ago.

Classifieds:

- Steve Challinor has some Spitfire parts for sale (call at 837-9317):
 - a gearbox for a 1500 - \$100
 - an overdrive unit and mainshaft - also for \$100.
- A TR6 frame, from a '75. Free to an enthusiast. Call Sandy Beveridge at 820-5577.

GOING INTO OVERDRIVE

The Laycock de Normanville overdrive is a simple yet brilliant invention that can completely transform a car. How does it work? Graham Robson explains



Laycock overdrive installed in a Vanguard drivetrain. One of the unit's great attractions was that it could be bolted onto most gearboxes without expensive mods

WHEN the Laycock de Normanville overdrive appeared in 1949 I wondered what the fuss was all about. It wasn't the world's first overdrive, not by any means, and it wasn't the first to offer a clutchless change. It was only when I first drove a Laycock-equipped car (a TR2, actually) that I realised this was a real breakthrough.

Until GM introduced the world's first fully automatic transmission, designers had been obsessed with the idea of making gear-changing easier. In particular, they tried to dispense with the clutch pedal, and also dabbled with the idea of getting rid of the gearlever itself.

The secret of Captain de Normanville's famous electrically-controlled overdrive was that it offered smooth, clutchless, power-on or power-off gearchanges. There was no question of dipping the clutch pedal, no question of lifting off and counting up to three before anything happened. This, as near as possible with the technology available, was a foolproof

piece of kit. Not only that, but it was easy enough to bolt it onto the back of most car makers' gearboxes without too many expensive modifications being involved. In addition, it allowed manufacturers to offer an extra 'cruising gear' without fitting a high axle ratio, ruining the acceleration, or re-designing the gearbox.

Let's not get confused with previous overdrives, which were used to reduce engine rpm at high road speeds. The so-called 'overdrive' 4½-litre Bentley of the Thirties merely had a geared-up fourth gear in the main gearbox. The Borg Warner overdrive from the Thirties was an automatically-operating device, usually not operative below 45mph (as in the 2½-litre Riley of 1937), and other 'overdrives' were actually incorporated in two-speed rear axles.

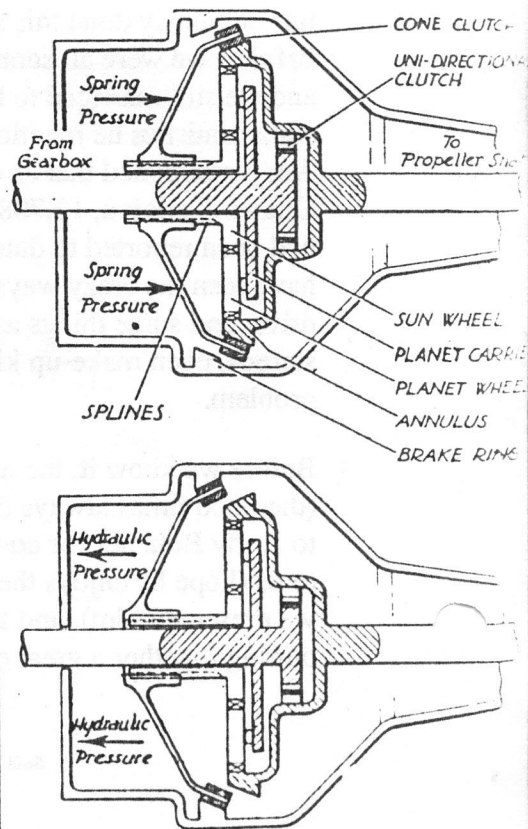
When it was revealed in 1949 (*The Autocar*, October 21, 1949) a complex commercial tie-up became clear. Captain de Normanville, who had developed various interesting transmissions in the Thirties, was the inventor, Auto

Transmissions Ltd of Coventry had done much design work, while Laycock Engineering of Sheffield proposed to make and sell the production units.

At this stage three different systems were on offer, all of them relying on epicyclic gearing, cone clutches to be engaged or disengaged and hydraulic circuitry for control. One was the overdrive which became famous, but there was also an 'underdrive' unit for lowering (not raising) overall gearing, and a complete four-speed epicyclic gearbox.

The core of the design was a train of epicyclic gears, where the outer (annulus) rim could be clamped to the input shaft from the gearbox by way of a friction-material-faced cone clutch. With the rim clamped to the annulus, the drive from gearbox to propshaft was direct, but when it was *not* clamped the drive went through a series of intermediate 'planet' gears to the annulus and thence to the tail shaft, gearing up the overall transmission in the process. The overdrive's cone clutch was clamped, or un-clamped, to the outer ring of the the epicyclic gear, by way of an electrical solenoid which operated the plunger working the clamping rim.

Simple electric wiring circuits, and detent switches on the gearbox selectors, meant that the overdrive could be arranged to work on top gear only (Jaguar MkII, for instance), on top and third (many cars), top, third and second (Triumph TR2/3/3A, for example) or on every forward gear in competition applications. The only thing it could *not* do was to work on reverse, as some



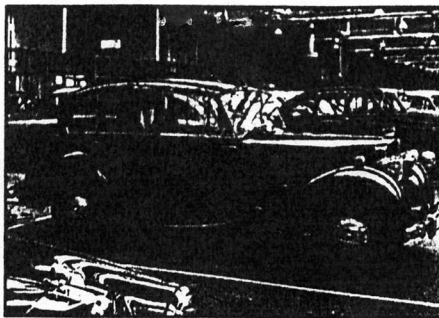
neur meddlers found to their cost . . . Although the underdrive and four-speed epicyclic gearboxes soon died of neglect, Laycock found a ready market for the overdrive itself, usually as an optional extra. The first cars to have it on offer were the 2.1-litre Standard Vanguard and Triumph Renown models, whose engines and three-speed gearboxes were identical, were it only operated on top gear.

It was years before engineers used the overdrive ratio (it was 0.82:1, or a 22 per cent step-down in engine revs, at first) to fill-in awkward gaps between top and third, third or second as well. Later versions of this design were smaller, and sometimes not as reliable. Ratios of 0.778 and 0.797 were also found on later models – but in general the step-down was always around 20 per cent.

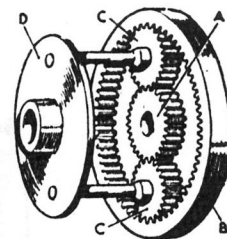
Laycock's overdrive assembly usually fitted neatly into the existing transmission tunnel, and in the first years there were many ways of actuating it. The early Vanguards and Renowns used an extra movement in the gear linkage, from top gear, on the steering column change; many cars used tumbler switches on the fascia panel; later the overdrive switch was to be found on the steering column; and in the Seventies it was often a sliding switch built into the gearlever knob itself.

Even though it was always desirable, it was never cheap. In 1950 Standard-Triumph charged £63.89 on top of the Vanguard's price of £658.80, which meant that it added 10 per cent to the customer's invoice. In later years Laycock held down its prices, and more and more customers found they could afford it.

By the Sixties the Laycock overdrive's popularity was at its height. Cars like the



Right, a simple epicyclic gear train, with sun wheel (A), annulus (B), planet wheels (C) and planet carrier (D)



Renown (left) and Vanguard had Laycock overdrive in 1950

Triumph TRs and the MGB were much better with overdrive than without, though it was strange that it was never offered on the E-type, where it would have been a boon; one reason was that it would have been difficult to install in the E-type's bodyshell, the other was that it would have had difficulty in dealing with all that engine power.

A quick glance at the market in 1960 shows that at least a dozen makes (and many more individual models) were using it – and that rival systems, like the Borg Warner found on Fords and big BMC models, were trailing in the sales stakes.

The best installations operated so smoothly that it was barely possible to detect a gear shift, even on the down-change, but overdrives built for racing changed gear so fiercely that the jerk could almost dislodge your fillings.

In motorsport, as on road cars, properly maintained units rarely gave trouble, but as they got older the friction bands on the clamping ring wore out, the oil got dirty, and the change (especially under power) became very sluggish indeed.

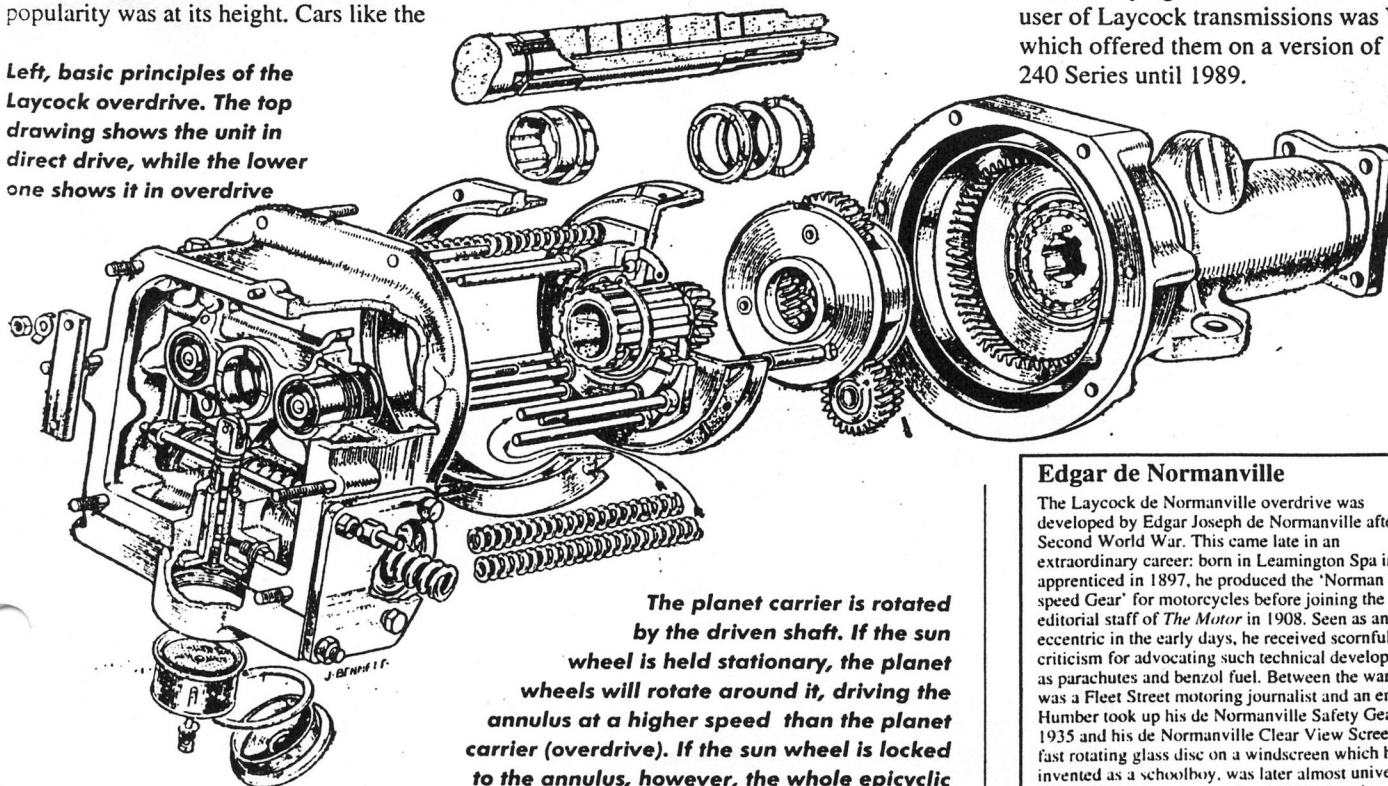
Most mechanics' swear words were usually reserved for solenoid failures,

though in fairness to that Lucas component, these had a very hard time as they sat out in the open, plastered by dirt and stones thrown up by the wheels of the car. If the solenoid failed this threw the transmission back into direct drive – with potentially embarrassing consequences . . .

For racing and rallying, the overdrives were thoroughly uprated, with heavier actuation springs inside, specially selected and moisture-sealed solenoids, and sometimes direct lever actuation of the solenoid plunger from alongside the driver's seat.

For Laycock the problem was that this design could only be used on front-engined/rear-drive cars, so as the world steadily turned to front-wheel drive the company won less and less new business. Even so, as more fast roads opened in the Sixties, overdrive-equipped cars came into their own, but this also caused car makers to study their 'own-brand' transmissions. Laycock built millions of overdrives, and introduced several different versions before the motor industry realised it should be making five-speed instead of four-speed gearboxes, and not buying overdrives at all. The last user of Laycock transmissions was Volvo, which offered them on a version of the 240 Series until 1989.

Left, basic principles of the Laycock overdrive. The top drawing shows the unit in direct drive, while the lower one shows it in overdrive



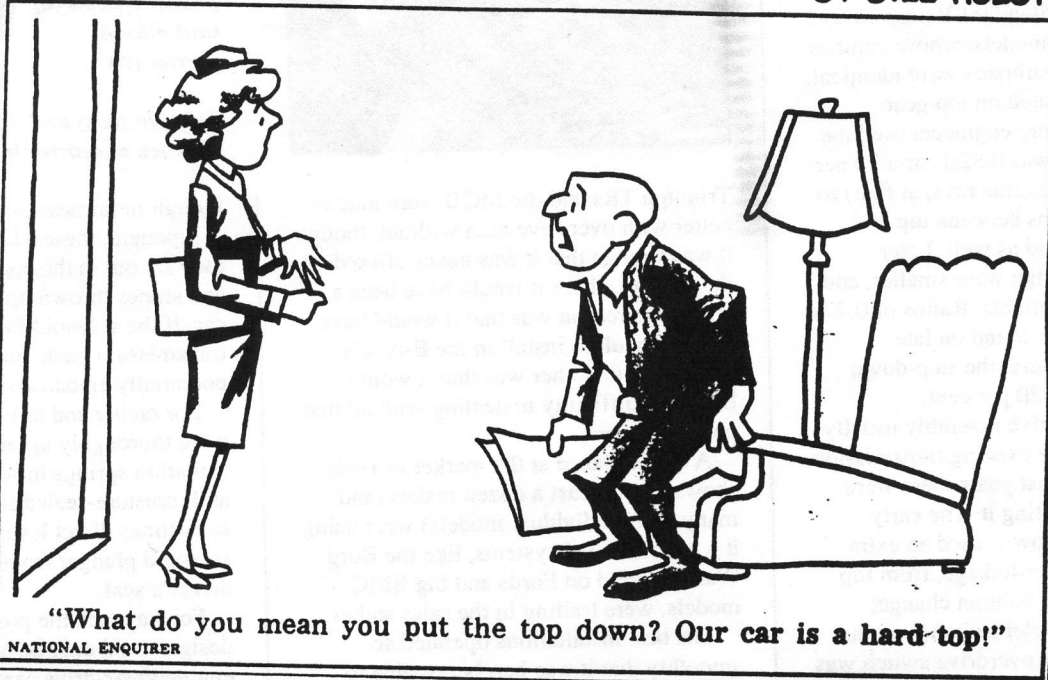
The planet carrier is rotated by the driven shaft. If the sun wheel is held stationary, the planet wheels will rotate around it, driving the annulus at a higher speed than the planet carrier (overdrive). If the sun wheel is locked to the annulus, however, the whole epicyclic train will rotate as a solid unit (direct drive)

Edgar de Normanville

The Laycock de Normanville overdrive was developed by Edgar Joseph de Normanville after the Second World War. This came late in an extraordinary career: born in Leamington Spa in 1882, apprenticed in 1897, he produced the 'Norman Two-speed Gear' for motorcycles before joining the editorial staff of *The Motor* in 1908. Seen as an eccentric in the early days, he received scornful criticism for advocating such technical developments as parachutes and benzol fuel. Between the wars he was a Fleet Street motoring journalist and an engineer. Humber took up his de Normanville Safety Gear in 1935 and his de Normanville Clear View Screen, a fast rotating glass disc on a windscreen which he invented as a schoolboy, was later almost universally adopted on ships to maintain visibility in rain.

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BY BILL HOEST



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