

ROVER OWNERS' ASSOCIATION

OF NORTH AMERICA



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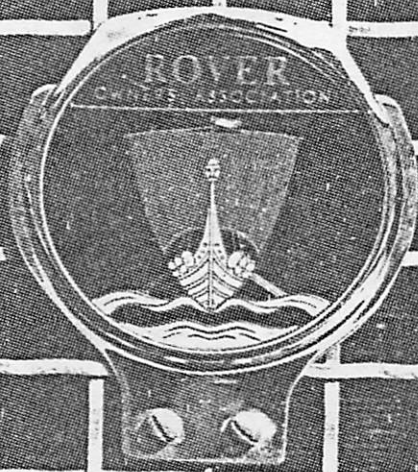


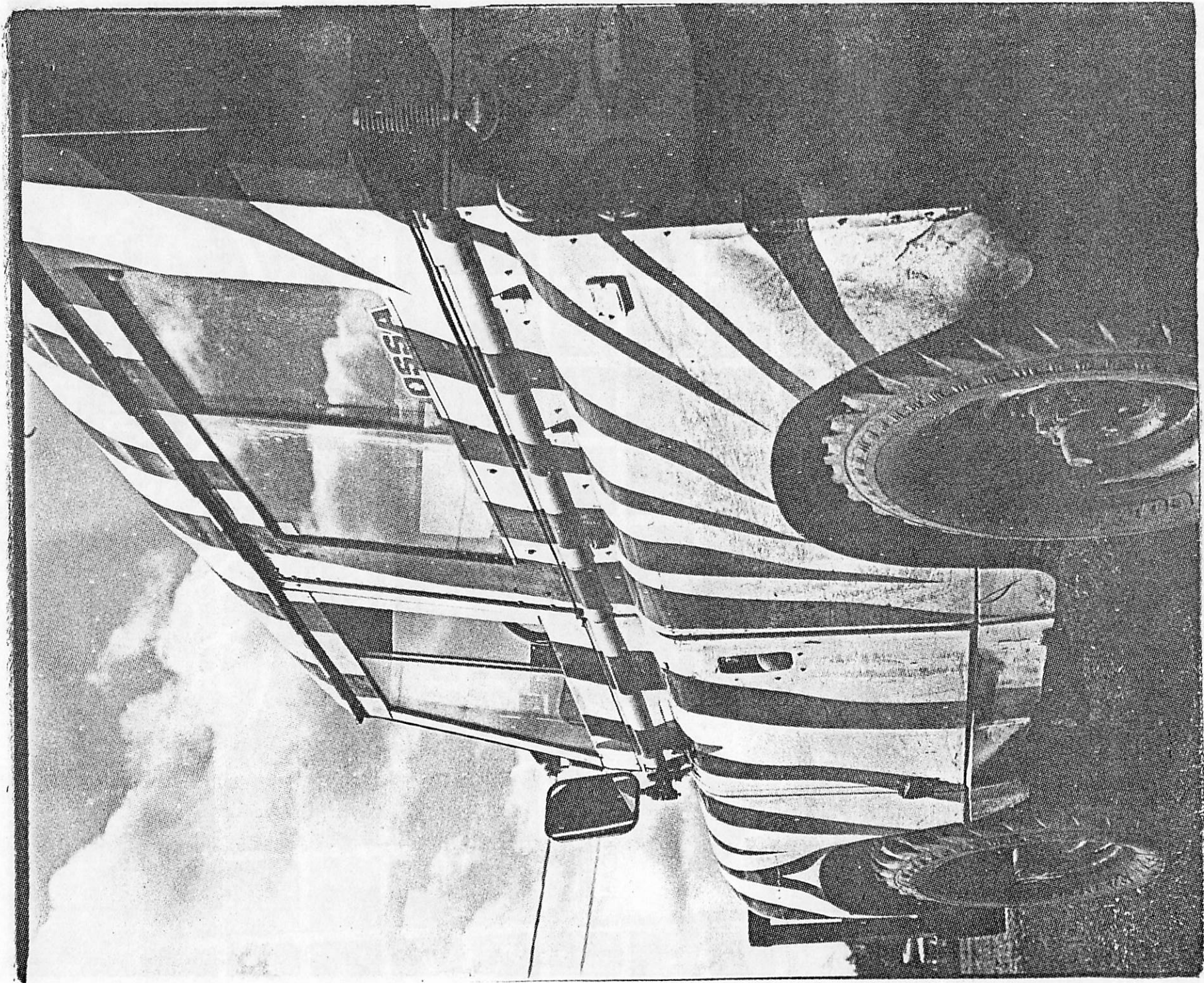
Some scenes from the 1976 Atlantic-British Rally provided by member Mark Fontanella:



LAND
ROVER

FOUR WHEEL DRIVE
STATION WAGON





Sputtering Auto Maker

British Leyland Strike Imperils Company, Nation's Economy—and the Government

By BOWEN NORTHRUP

Staff Reporter of THE WALL STREET JOURNAL

CASTLE BROMWICH, England — "We shall stay where we are—outside these gates," says Colin Wilcox, one of the toolroom engineers striking British Leyland Ltd. "We aren't going to be conned again."

That is going to take a lot of fortitude. The pressure to end the 18-day-old strike and return to work is tremendous. The dispute at the old-line auto company has reached such proportions that it:

—Imperils the future of the company, Britain's biggest exporter and the object of a massive two-year-long government rescue operation that has led to 95% ownership by the government.

—Unsettles the "social contract" between the government and the unions that is the linchpin of government strategy to break the inflationary spiral and return the nation to prosperity.

—Calls into question the credibility of a Labor government that has brought the unions into the exercise of power—but which may appear unable, even with help from the big labor federations, to control rebellious segments of the labor force.

"Bleeding to Death"

"British Leyland . . . is in danger of bleeding to death," Gerald Kaufman, minister of state for industry, told Parliament a few days ago. The toolroom dispute has progressively brought most auto making to a halt, because the strikers maintain the machines that are essential to production. Only four of some 18 Leyland models are still being turned out, and more than 30,000 of Leyland's 165,000 workers in Britain have been idled.

The strike also is costing the company about \$85 million a week in lost revenues. The cash-flow crisis, in turn, is imperiling funds provided for long-term investment under the government rescue plan, and bringing the whole rationale of the rescue into question.

Most in jeopardy at the moment is the \$428 million program to produce a successor to the Mini, the little automobile that has proved immensely popular but which is 17 years old now. If that project is axed, as many believe it may be, then Leyland may be on its way to leaving the "volume" car market and surviving only as a truncated maker of specialized vehicles such as the Jaguar, Land Rover and MG.

Government's Ultimatum

Even if the toolroom engineers go back to work shortly, Leyland's crisis will continue. The government has told Leyland that it must return to continuously profitable operations by the end of this month or lose funds earmarked for its development.

The 3,000 toolroom workers have dramatized many problems beyond their own case. Their protest suggests how little has been done to modernize Leyland, an unwieldy amalgam of many car companies that were consolidated in 1968. Indicative of the problems is a bewildering array of Leyland bargaining units—112 by one count.

Moreover, the engineers' complaints are those of millions of other Britons who feel underpaid and undervalued. Prime Minister James Callaghan met yesterday with representatives of aggrieved policemen. The miners are acting militant again. The railwaymen and various white collar unions are restive too. But Britain's current Phase Two program of wage restraint doesn't end until July 31, making it difficult to satisfy any demands before then.

What has brought the toolroom workers to such a state of defiance? They are generally solid-citizen types. "This is the second time in 30 years I've been out," says one veteran. The answer is pride and pay—pay in absolute terms and in relation to other workers.

Toolroom men in this plant on the outskirts of Birmingham get paid a basic wage of \$114 a week. They say they take home \$77 to \$85. All the engineers underwent a low-paid apprenticeship of four to seven years, and most are veterans. They know that men doing their job on the Continent get up to three times as much as they do, and they are angry.

Making Comparisons

"Our take-home pay is less than that of the man who delivers the milk or empties the dustbin (garbage can)," says John Lowe, one of the strike leaders. The picketers here spend much time trying to persuade truck drivers not to enter the Leyland plant. One of those drivers the other day turned out to be an engineer who had quit Leyland (and makes \$34 more a week in his truck).

"People are continually drifting away from this trade," Mr. Lowe says. "They are selling insurance, selling leather coats at street stalls, delivering milk, driving taxis, fixing washing machines and so on."

Wage restraint has held the toolroom men back, like everyone else. Phase One of the government policy gave everyone a flat \$10.29 weekly raise. Phase Two is giving them 5% a week up to \$137 a week, with a limit of \$6.86 for any worker. That means about \$8.30 per week for the engineers, with inflation running at an annual rate of 15% or more.

It is hardly a secret that Britain's workers are among Europe's lowest paid these days. What especially angers the toolroom workers is how unskilled workers have crept

up to—and often surpassed—them under across-the-board pay restraint. Production-line workers at Castle Bromwich get just \$2.14 a week less than the toolroom men as a basic wage—and the chance for much more overtime.

The toolroom engineers, who adjust and maintain the machines that make the vehicles, consider themselves a proud and special fraternity within the industry. "You can't put it on paper," says Mr. Wilcox. "It's know-how acquired in years of experience."

Resentment Builds Up

Resentment has been building up for 18 months. The engineers are demanding that Leyland recognize their "unofficial" committee as a separate bargaining unit and that the company promise to "erase the anomalies"—or restore their premium pay over unskilled workers—when government pay policy permits negotiations.

Leyland declined, saying that it was committed to reducing the number of bargaining units. But the unofficial committee points out that under Leyland's antiquated bargaining system, each locality is free to seek its own special adjustments. If all the engineers were on one pay rate, they say, it would be a reduction in bargaining units. (Indeed, rates for toolroom workers vary by as much as \$30 a week, partly explaining why nearly half of the 6,000 toolroom men haven't joined the strike.)

If the Leyland dispute demonstrates the strains building up under pay restraint and union-company tensions, it also points up bad intraunion relations. The toolroom men are members of the Amalgamated Union of Engineering Workers, a national federation with 1,160,000 members. But the toolroom men feel the union's chief, Hugh Scanlon, has ignored their interests in his effort to "play the numbers game"—inflate the membership of the union.

"The lady who makes the tea, the man who sweeps up the shop—they all can shout me down," says one bitter engineer. (Mr. Scanlon's political influence depends to a great extent on the numbers he represents.)

Union's Influence

Indeed, the union thus far has been as reluctant as the company to recognize the strikers. But union executives were scheduled to meet some of the strikers this week, possibly today, in a move that could lead to a compromise solution.

But Leyland's plight would remain as difficult as ever. The company was going broke in 1974. After agonizing appraisals about worsened British unemployment, the government laid out an immediate \$79 million to buy 95% of the shares for its National Enterprise Board, plus \$343 million to meet short-term debts and to provide working capital.

It also decided to earmark a massive \$2.4 billion over the next decade to restructure Leyland, create new models, and propel Leyland to the forefront of international volume-car makers. The stated condition of that support was that the labor force and management would abandon their fractious habits and help make the new program work.

Two years later, little seems to have improved. The company has a worker-participation program that it calls one of Europe's most advanced. (A disgruntled worker demurs, saying, "They give you a chance to agree with what they think.") Man-hours lost to strikes in the fiscal year ended Sept. 30, 1976, were a huge 6.3 million, although down from the 11.6 million of the previous fiscal year. The number of strikes, however, rose to 661 from 546.

The "Ryder Report" that formed the basis for the new Leyland pointed to its old and obsolescent manufacturing plant (where investment per man is only one-sixth of that at Ford Motor Co. in the U.S.) and recommended modernization of its model lines.

New Organization

The company since has introduced a much praised new sedan, the Rover 3500, and reorganized itself into four divisions (with Leyland Cars accounting for 60% of the sales), but its sprawling empire of 57 domestic plants remains essentially unchanged.

Moreover, the continuing bad labor relations and resulting cash-flow crisis have impeded the massive changes that Leyland was directed to undertake. In a recent message to the staff, Derek Whittaker, managing director of Leyland Cars, pointed out that the company is required to generate \$2.5 million for each \$1.7 million of government money it gets.

Of these expected profits, Mr. Whittaker said, "so far it (Leyland) hasn't made any." In the latest fiscal year, Leyland's loss, including extraordinary charges, totaled \$211.8 million, against a deficit of \$40.9 million the previous year.

The company is expected to report a profit of about \$120 million or so for the fiscal 15 months ended Dec. 31, but all of that came from the other three divisions—truck-and-bus, special products and the international division. Leyland Cars remained unprofitable.

One company problem is division of responsibility. The National Enterprise Board, which holds the government's 95% share ownership, oversees operations. Parliament scrutinizes and must approve each company request for more government funds. Leyland Cars has its own management, and British Leyland Ltd. functions as a holding company. Shop stewards at one Leyland union, the Transport and General Workers Union, yesterday demanded wholesale changes in senior management. They blamed many of the company's problems on a "neurotic management style."

Laying the Blame

The current crisis reflected the management strains. Focusing on the toolroom dispute, the government, the National Enterprise Board and Leyland management recently contended that new financing for the company is at risk. But Harry Unwin, a trade-union official, thereupon threatened to resign from the National Enterprise Board. He was critical of what he called the "ultimatum" to the workers and of the implication that all of Leyland's troubles lay with the workers.

Leyland is obligated to return to profitability by the end of March, and stay profitable. That means moving up from the current car production level of about 6,000 cars a week, to about 20,000 cars a week.

HANDY HINTS:

Wheelspin:

1. If wheels are spinning in mud or soft ground and skid chains are not available and the wheels are of the wire or perforated disc type, a length of thick rope wrapped in a spiral round the wheel and tire makes a good substitute. The rope should be wound as tightly as possible and latched securely at both ends.
2. Tightening the brake on the side of the spinning wheel will sometimes enable a vehicle to be moved away from the soft ground. The brakes must be readjusted as soon as the vehicle reaches firm ground.
3. In more severe cases, or if the rope is not effective, lash a log of wood to the wheel and drive out slowly. Stop before the wood comes in contact with the mudguard and repeat the process if necessary, filling the hole with stones as the vehicle is lifted out.
4. If the above methods do not work, jack up the vehicle using boards on which to stand the jack. Pack stones under the vehicle as it is lifted. Earth must be dug away from under the vehicle if necessary to allow the jack to be placed in position.

LIMITED-SLIP DIFFERENTIAL: Member Paul A. Wright, 619 E. Spring Street, Whitehall, Michigan, 49461, has the following to offer the membership. He writes: I am sure a great many Landy owners share my desire to obtain a limited-slip differential for their Landys. One that would be compatible not only in a rear axle installation, but also one that could be installed in the front end. Well, we can have our wish because Detroit Automotive has developed a gear-type torque-biasing differential which makes front axle application as easy and safe as the traditional rear axle installation. (See accompanying article for further details.) Now, all we have to do is to convince this company that there is enough interest and demand for a model to be developed for the Land-Rover. As of now, most applications are for the popular Dana/Spicer 44 axles, but new models are developed as market demand dictates. I was recently informed by Detroit Automotive that if I could present them with a market survey showing sufficient interest in a True-Trac model for the Land-Rover, they would initiate development of that program. I need to present them with a survey indicating interest sufficient for 500 of these units. To give you some idea of what the price might be: their other models range from \$225.00 to \$241.25. Anyone interested in this unit should contact me so that I will be able to compile a report. Remember, this does not obligate you to purchase a unit, but only shows an interest in the product. I will keep you informed through the Newsletter.

DETROIT AUTOMOTIVE TRUE-TRAC DIFFERENTIAL: All sorts of traction-adding devices for the rear axles have been around for years now, but such is not the case for front axles. Some of the rear axle limited-slip or locking devices can be physically installed in some front axles but this is not advised. In fact, this sort of installation can be downright dangerous in some cases since a traction device in the front axle could cause difficult or erratic steering, especially on hard surfaces (highway) where traction is good.

But now help has arrived in the form of a positive traction device from Detroit Automotive, designed for either front or rear axle use. Detroit Automotive calls their limited-slip differential True-Trac. It is a gear-type torque-biasing differential that eliminates the chattering common to friction-clutch units. The True-Trac in a steering axle provides true differential action and is unnoticeable to the driver on hard surfaces. As either front wheel breaks traction, though, the True-Trac develops a controlled spin resistance automatically between the pinion gears and the case so smoothly the driver doesn't feel it in the steering wheel.

The True-Trac can be installed in place of either the standard or clutch-type differential. No special maintenance is required and normal axle lube is used.

With matched tire footing under each drive wheel in straight ahead driving or during normal turns the new differential behaves like a standard unit. Under slip conditions torque is biased to the wheel with the most solid footing, with no spin-out on the opposite wheel. True-Trac units are fully operable in either forward or reverse.

The True-Trac eliminates springs, cams, clutches and friction plates normally required in limited-slip differentials. Two interrelated planetary helical gears are used to provide the differential action and the proper power distribution as needed. The helical pinion gears resist the speed difference because they tend to cock in the case pockets, and also push axially against either the center case body or the thrust washers and then into the case. This action develops friction between the pinion gears and the case pockets and provides the force transfer that reduces the torque to the slipping wheel and increases the torque to the wheel with the best footing.

Installation is very simple and straightforward. How does it work? The following demonstration was done with a Blazer-equipped front and rear with True-Trac: The rear axle was raised off the ground and placed on jackstands. One wheel of the front axle was jacked up, leaving the one remaining wheel on the asphalt. The Blazer was then started, four-wheel drive engaged and was then promptly driven off the jackstands. Try that with your present set-up!

*The above information was taken from a reprinted article contained in the May 1976 issue of OFF-ROAD magazine.

THE ROVER OFF-ROAD TRIALS: Member A. P. Grice of Norfolk, Virginia would like to announce the Rover Off-Road Trials to be held the third weekend in May in Charles City County, Virginia. (Rain date is the following weekend.) The Rover Owners' Association of Richmond, who are putting on the event, have access to several large farms (one was originally patented in the early 1700's) for both on and off-road work. Several events are planned, including the 4WD version of a timed road rallye. There is more than adequate room for camping along the James River and space to sleep indoors at River's Edge Farm. The trials are being sponsored by R.O.A.R., or the Rover Owners' Association of Richmond.

Also, Land-Rover T-shirts are available through the club, and new T-shirts will be available for the outing. These are \$3 or \$4 (depending upon whether one wishes a pocket on the shirt) and several styles are available. Non-R.O.A.R. members please add 50¢ for postage. These are available by mailing checks or money orders to: Sandy Grice, 420 W. Bute Street, Norfolk, Virginia, 23510. Make checks payable to R.O.A.R. Please specify size (medium or large; small is all sold out); check will be returned if other sizes sell out.

For more information on the spring trials, write: Mike McCabe, President, Rover Owners' Association of Richmond, Route 1, Box 209, Ashland, Virginia, 23005.

Past events have been received well locally, but with only sporadic support from out-of-state owners. We hope to see all of you down for the trials.

TRANSPORTATION THROUGH THE AGES: Mark Slater of the Ticonderoga Area Chamber of Commerce asked us to inform the membership that they are organizing a show called "Transportation Through the Ages." This event will take place on Saturday and Sunday, August 13, 14, 1977. All forms of transport will be encompassed: road, rail, water and air. The show will be held in conjunction with their 4th Annual Arts and Crafts Festival. Mark writes:

I should like to invite your members to exhibit their vehicles here in Ticonderoga. The diversity of this event will make it a colorful, informative and memorable occasion. Every entry will receive a plaque. There will be trophies for winners and a schedule of events. Members wishing to utilize our show for publicity purposes, to sell their vehicle, swap and sell parts, flea market or organize something special are also invited to participate. I shall be pleased to assist in any way possible.

Ticonderoga is situated between two lakes - Lake George and Lake Champlain in the Adirondack Park. Not only is this area famous for its scenic beauty but also its historic significance. Fort Ticonderoga was the scene of America's First Victory in the War of Independence. Today, Fort Ticonderoga is restored and attracts a quarter of million visitors each year.

'Transportation Through the Ages' will take place at the Lower Falls of the LaChute River through which Lake George flows North into Lake Champlain. Through a series of water falls, the waters from Lake George empty into Lake Champlain over a total drop of 200 feet. This total drop exceeds that of Niagara Falls.

The site of this event was formerly occupied by the International Paper Mill. Paper-making here dates back to 1878. Last year the International Paper Company generously donated this large area of land to the Town of Ticonderoga and it is now called the Bicentennial Park. The Ticonderoga area offers the visitor many scenic, historical and recreational facilities which make this location an ideal setting for 'Transportation Through the Ages.'

Please contact me for registration forms or any further information. I look forward to hearing from your group soon. Contact: Mark Slater, Chairman, Transportation Through the Ages, Ticonderoga Area Chamber of Commerce, Inc., P.O. Box 70, Ticonderoga, New York, 12883.

Recently, member Richard Boylan of New York, New York spoke with a British-Leyland representative at the New York Auto Expo and spoke with him concerning his predisposition towards Rovers. Richard asked of the possibility of the 3500 being marketed over here. He said that they were contemplating bringing them over for the 1978 model year, but that this was dependant on whether production can be spared for the North American market, as European demand is very heavy. He also said that there was a prototype North American 3500 in this country which was, at that time, undergoing Federal tests. When asked the possible price the rep said that it would be "demand-priced" and would be therefore a bit high - around \$10,000. Clearly, they will be aiming at the Mercedes/Volvo/Peugeot/BMW market. Richard was initially taken aback by the price, but it was pointed out to him later that inflation over the last ten years has nearly doubled prices, and that the price of the new 3500 is only slightly higher than the \$4200 asked for a 2000TC ten years ago, inflation adjusted.

Richard provides the following from the British magazine MOTOR for April 30, 1977:

Rover 3500	Manual	Automatic
top speed	122 mph	120 mph
0-60mph (sec)	8.9 seconds	9.6 seconds
30 to 50 mph in top gear	7.9 seconds	
in kickdown		3.4 seconds
average mpg	22.5	20.6
highway mpg	23.6	21.1
Price (w/tax) in GB	5490 Pounds Sterling	5660 Pounds Sterling

Richard also found a supplier of fiberglass fenders for his Rover 2000. It is Smith & Deakin Plastics, 292 Tolladine Road, Worcester, WR4 9BA, England. His prices are reasonable, but shipping to the U.S. is high. Front Fenders are L.16.50; rear fenders, 18.75, sill, L.4.60; front valence, L.6.50; rear valence, L.5.50. Shipping for 4 fenders is 160 Pounds Sterling over and above the cost of the parts.

Richard would like to put in a good word for the place which works on the family Rover: Reynolds Garage in Hamburg Cove, Connecticut. They are the ones who were said to be "seventy miles up the road" in their New York Times article last Spring. Although Richard got mail recommending all sorts of places closer, his family continues to go and see them because their charges are reasonable, and their work is good. They aren't quick, but they do take the time to do a good job. Their 2000 now has 85,000 miles on it. Richard says that only three times in two years have they failed to have a required part in stock. Only once did they ever goof, cracking the head cover after a valve overhaul. They replaced it without fuss thereupon. And their charges are quite reasonable. The most recent bill was the first one where the labor charges were higher than the parts charges. This, combined with the excellent rapport he has had ever since getting the 2000 has brought Richard back there every time.

Richard would also like to provide some hints gleaned from various work done over the past six months:

The pre-1968 2000's had a special American light set-up, although it used the same wiring harness as the International left-hand-drive vehicles. Richard prefers the International set-up, which is the same as newer cars here anyway. The main differences are that the front side-lights stay on when switching on the main beam, and the parking lights (side-lights, driver's side only) are available by throwing the right hand switch up. Once I obtained that switch, the rest was simply a matter of changing connections. The big step is pulling out the connection between the headlight switches, which is an X with flat and Lucar connectors all around it, then re-connecting it according to the LHD circuit diagram in the manual. There's a single wire from this X to the tail lights which runs outside the harness - this is the sloppiest part of the N.A. modification - and gets disconnected. The original tail light wires are still inside the harness, and can be found by carefully lifting the Lucar connectors, one-by-one, trying not to disconnect them, out of the hole where they duck in, in front of the right-front

door. The tricky thing is not to short the exposed ends of the Lucas connectors - they will cause the wire to heat up and incinerate its insulation, which is irreparably inside the harness.

The fog lamp wires are standard, I presume everybody knows, and it's only a matter of finding them. I mounted two lamps on angle brackets cut out of aluminum, attached to the bumper mounting bracket bolts. I put them below the bumper, to the outside of the bumper bracket, where they won't block airflow or the main beams. They use H-3 halogen bulbs and seem just fine.

There are two accessory lugs on the ignition switch for radio, etc. connection. The lower right one comes on only in the IGN and START positions, while the upper left one comes on in the IGN and ACC positions, i.e. the same supply as the wiper and blower motors.

Member King Waters of Houston, Texas recently wrote the following to the Association:

I was just glancing through some old Rover Association newsletters and thought I would toss out a line or two of observations on our situation. We are owners of automobiles which are no longer imported to this country. Their parts are expensive and hard to find except by mail or freight from a few major suppliers in America. We bought these imports from some of the most incredibly poor outlets in the retail automotive world. We have wound up working on them ourselves because neither the local dealers nor most mechanics know how to work on them, much less care to. The question which everyone of us is asked at least once is, "Why did we buy them?"

For me, the answer is not too hard to come up with. I own a 1973 '88' which my wife and I bought new in May, 1974. We bought it for a very good reason. It was the cheapest four-wheel-drive vehicle in town, bar none, and we tried them all. No other could offer its features, which are completely suited to our taste, at its price. It gets better gas mileage than any of its comparable competitors. It is rugged. And, admittedly, it needs repairs. As for parts and expenses, I have this observation. All cars cost a lot today. Parts cost a lot, too. But we have made our repairs with few gripes. The car has been worth it. It starts up every morning. We just installed four new exhaust valves at considerable expense in time and money. But even needing four new valves, it still started up every morning. We had a Mercedes Benz that wouldn't do that well, good valves or not. We have about 30,000 miles on the car now, pretty low mileage for needing a valve job, but the dealer had put 250 miles of highway speeds on it before we got it. That probably screwed up the break-in period pretty well. Plus, we have put hard miles on it, driving to Yucatan, Belize, and Tikal. I drive it every day. I would not be without it, for all the Jeeps in Detroit.

Sure, it's nice to drive a car that people notice. But that wears off about the third repair bill unless you have a lot more going for you than cheap thrills. It is nice, though, to have a car that you can work on, once you find the parts. And I have managed to find the parts. Sure, I got worried when the dealer took six months to receive a repair manual that I had to pay for in advance. So I shopped around and found the usual suppliers. I found a mechanic, too, for the times when help was really needed. I joined this Association of Rover Owners, read up a lot on the cars, as much as I could find, and even wrote a couple of articles on options that you can install yourself. We have owned seven cars in five years of marriage and have put up with more frustrations with the Rover than any other. But I think it will continue running, despite my erratic effort at preventative maintenance. I intend to keep it, perhaps because it would be hard to buy even similar quality at today's prices. But I think there is an even more compelling reason.

I think I like it.

A VERY INTERESTING ROVER 3500S: New member Philip Hedley of Rancho Palos Verdes, California recently wrote to us about his very special Rover 3500S. Phil has been interested in Rover cars for quite some time and he recently built and raced a 3500S.

Phil writes: My interest began with this car after learning something about their technical specifications and always having respect for the aluminum V-8 engine. I bought the car in 1974 as a road car, but was rather disappointed at the lack of performance. I then began a slow, but methodical engine improvement program beginning with the distributor change with a good advance curve, then an American manifold and carb and, later, a better camshaft.

Now the car was beginning to have some useable performance, so much so, that it snapped the transmission mainshaft! This was repaired, but it never seemed to be a smooth transmission so I decided to fit an American 4-speed manual gearbox. Well, it seemed like a good idea at the time, but it took two months to fit and required a new pedal assembly and a new floor and transmission tunnel.

At this time I also found an Oldsmobile F85 5 litre race engine, so naturally it ended up in the Rover with the close ratio Borg-Warner T-10 transmission. Needless to say, the Rover had now lost its "Auntie" image. I found that there were off road rallies in California that I could enter the Rover in, so I decided to change the spring rates front and rear, fitted Koni shocks and made a few modifications to strengthen the suspension pick-up points.

The car began to handle with much better response, but still had not lost the smooth ride which the car is famous for. The brake system was removed and a complete new system was put in, mainly because of my lack of understanding of the Rover system. The new system still had the 4 wheel discs, but all the hydraulics were changed and inside the car was a valve which changed the front to rear brake ratio for different road surfaces.

There were, of course, many other small detail jobs which took place, including a whole new electrical system, roll cage, sump shield, etc., but the basic Rover qualities were still there: excellent suspension, brakes, and structural strength. The car performed well and had more than enough power. It was not unusual to be travelling through the air at 70 mph and land on the front wheels and front crossmember; very frightening, but always the Rover carried on without any body rattles or squeaks.

The downfall of the whole project was the transmission of power to the road. There is no limited slip differential available for the Rover axle, so as we were always driving off road, I made a spool for the axle. That is a solid driving member instead of a differential. With all the power available and the wide 60 series Dunlops, I could still light the tires in 3rd gear with a solid drive axle.

Late one night while testing some changes made to the car that day, we were travelling at a very illegal speed through a long left hand bend sideways with tires smoking when suddenly the tires took a grip of the road and I couldn't correct the slide in time. The car hit a concrete curb, fire hydrant and a beautiful garden. The car was destroyed, but the occupants entirely unharmed, thanks to the solid Rover body. That ended my love affair with the 3500S, but it was fun and I found many Rover admirers during my travels.

We still own a 2000TC and I have made several modifications which have greatly improved the handling and braking. I do not intend to do as much work on this already excellent car, but I am working on a better cam for the TC and thinking about a turbo kit for the SC head or, perhaps, a 450 hp Range Rover :

Pictures of Phil's highly unusual 3500S follow.



EZ GRIP

4 WHEEL DRIVE

ROVER

RALLY ROVER

P5B

Specialty of the
on Two Wheel
HEART PROTECTIVE
P5B

Land-Rover Comments: Member Hollis Austin of Holliston, Massachusetts has the following suggestions for Landy owners.

Regarding Andrew Goldfine's question concerning windshield wiper contact and performance, J.C. Whitney sells windshield wiper hold-down wind vanes (#88-7363P, \$.99 per pair) which clip on to the wiper arms and may help the problem of lifting at high speeds. A more satisfactory solution is to replace both the blades and the arms. The small 10" blades can be replaced with heavier blades, such as 12" Anco turtleback "Rain Master" #800 type (about \$5.20 per pair). The arms can be replaced with adjustable ones using heavier springs, such as Trico #AL-60 heavy-duty type (about \$3.00 each). The 12" blade is the largest which can be used on the split windshield and the arm has more contact pressure.

The set screws used to secure the gear, which the wiper arm plugs into, to the end of the $\frac{1}{4}$ " diameter wiper spindle tends to slip and must be occasionally straightened. To eliminate this problem, put the gear on the spindle and, with the set screw removed, mark the hole location on the spindle. The hole center should be approximately $\frac{13}{32}$ " from the end of the shaft. Using about a $\frac{1}{16}$ " drill, carefully make a shallow pilot hole at this location. Then enlarge this hole with a #30 (.128") drill to a depth of $\frac{3}{32}$ ". The end of the set screw will now seat itself in this hole, preventing further gear movement.

I would highly recommend the use of Doug Richardson's "spin-on oil filter adapter" to anyone who is tired of leaky filter cannisters. It is both well-made and easy to install.

Judgin from the power I lost when I switched from 28" to 32" diameter tires on my 88, I'd suggest consideration of the Rochester carburetor conversion kit sold by Atlantic-British Parts, along with the Clifford headers, if you use 36" tires. The larger carburetor will use more fuel, but the headers should help to regain some of this lost mileage.

Concerning the installation of the Rochester carburetor kit on Zenith-equipped engines: The instructions I received said to replace the stud on the driver's side of the vehicle with the shorter stud provided. It should read, ". . . passenger's side . . ." (the side nearer the engine block). This is because the original stud interferes with the mixture screw by about $\frac{1}{8}$ " and the carburetor will not seat. Don't forget to save the old carburetor to manifold gasket since none is provided in the kit (be careful when removing the original carburetor.).

Volkswagen Bus assist straps (part #221-857-607) make better door handles than the original metal ones.

J.C. Whitney sells a rear window defroster grid (part #88-6130U) which is a good size ($9\frac{1}{2}$ x $27\frac{1}{2}$) for the window in the rear door, and it costs only \$6.98.

Does anyone know of a company which makes an auxilliary gas tank kit for the 88 which will mount between the frame rails under the rear of the body?

More Land-Rover Comments: Member Peter J. Cull responds to Andrew Goldfine's queries in Volume V, Number 4: With regard to 3rd question: I rearched my springs to specs and added an extra leaf to each spring. This raised the vehicle 2" or so. Also, I'm running Gabriel Air Shocks and this enables one to raise the rig as much as you would want when hauling loads. Gabriel Air Shocks for Plymouth Charger fit the front of 109 and 88 models with a bushing switch. Press out the busjings that come with these shocks and put in the Rover shock bushings. Take a wood rasp and file down to fit a new shock. Rear 109 shocks mount like those on Chevy station wagons.

6th question: Spin-on oil filter conversion kit is available from: Doug Richardson, Dept. P, P.O. Box 363, Malibu, California, 90265. This unit replaces 15 Rover parts of which 6 are potential leaky seals. Cost is about \$37.50.

7th question: Positraction? You don't want to do this!

9th question: A friend of mine, Jerry Brown of Bradenton, Massachusetts, used military tires on his 88, raised the suspension with air shocks and had no trouble with the tires or related gearing, etc.

Land-Rover Comments (continued):

11th question: Clifford Research Headers. I'm running them, they are easily installed and the engine runs cooler.

12th question: Rolled? I have a 1962 109 and once while hauling wood up a hill I rolled it. I had my rig packed to the maximum from the back of the front seat to the rear and up to the ceiling. I forgot to look out and, as I made it up to the crest of a hill and started backing down the other side and turned sideways, I didn't see an area of ground that had eroded away. The Landy was about 1½' lower of the driver's side as I hit that spot and I rolled onto the driver's side. I broke a transmission mount and dented the door where a rock hit, but that's all. No broken windows or bones. I winched it up right and cranked it over.

Member Ed Judge of Sunderland, Massachusetts has the following comments after reading the February 1977 issue of the Newsletter.

Concerning "88" brakes: The big 109 brakes (complete: backing plate, cylinder, shoes and drum) can be placed on the 88 with little or no modifications. I am in the process of doing this since I have installed larger tires.

Concerning tires: My everyday tires are Michelin 225R15's on O.E.M. rims and they are a great all around tire; they have great traction and a relatively smooth ride, but they have thin sidewalls and cannot be used in icy or rocky terrain. (Dick Cepek now has two lines of thick-wall radials.) For off-road use I purchased from Dick Cepek his 12-15LT wide, gumbo muddies on 8' rims. The outer diameter (29 to 32") change gives a rolling circumference change of 20% so high range performance is mediocre and clutch abuse is high in the city. However, off-road, in low range, with the overdrive in or out, the performance is astounding. Traction in any situation (except ice) is unbelievable, as is flotation. The 10-15LT version (at 30" O.D.) should be an ideal all around tire since even with the aggressive tread noise is low at correct pressure (because of tread design).

I am installing Posi front and rear to see how much stock units can help with a marginal traction situation. I am prepared to fabricate a rear "locker" type if the clutch type performs poorly in the rear.

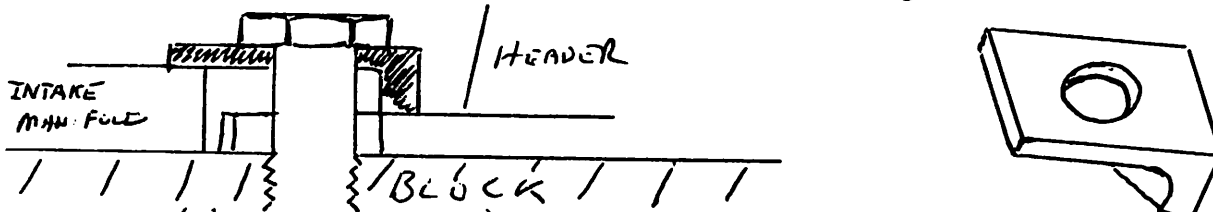
For super-duty shocks certain Divco truck shocks fit and are valved correctly for Land-Rovers. Cost is right and wear is very good (I haven't replaced them yet).

In order to use the big wheels more effectively, I have performed certain modifications to extract more horsepower and reliability from the 2½ litre petrol engine. I have others planned, but at the moment the following have been accomplished:

First, a fiberglass fan with specially machined spacers to optimum spacing (an easy lathe job). Better cooling, more horsepower, quieter.

Second, I have installed a Delta Mark 10-C Capacitive Discharge ignition (with manual override switch) and a Mallory Voltmaster Mark II coil with metallic suppression wire and ignition water-proofing kit. From previous experience (8 years) this setup has proved to be superb and extremely reliable. Cold, cold starts with very low battery voltage are common with this unit and misfire is nonexistent. There are many types of good suppression wire on the market so that using the fragile, erratic, carbon core wire is asking for trouble, even with the stock ignition. C.D. units do eat up wires, caps and rotors faster than stock systems (in direct reaction to the "power" of the coil; a Mallory is fine: don't go overboard with "supercoils"), but you do carry spares, don't you? The difference in performance is more than worth the slightly greater wear in the correctly operating vehicle, an in marginal situations, it may get you home where other systems wouldn't.

Finally, I installed Clifford Research Headers. We have fabriacted the holddowns that Clifford left out using angle iron to bridge the differing manifold thicknesses:



The exhaust (2 1/4 H.D. Midas pipe) sticks down from the collector like a keel, but it will be coorrected later with a specially-fabricated fitting and minor re-routing.

CAUTION! Whenever stock exhaust is replaced, either partially or totally, the carb must be re-jetted or valves will burn and you will actually lose power and get a rough midrange. There are correct procedureds to follow, but a rule of thumb is: for just header replacement a 4-5% jet increase; for a total low restriction system an 8-10% jet increase. This increase is in AREA (or flow) not diameter of jet.

To calculate new jet size, the following formula is used:

$$\text{new jet size} = (\text{old jet size})^2 \times 1.05 \text{ (for 5\%)} \text{ or } 1.10 \text{ (for 10\%)}$$

I have a Holley carb for the correct cubic inch engine with 60 jets (.060 in diameter). I have a completely new exhaust system, therefore I need approximately 10% bigger jets. So,

$$\begin{aligned} \text{new jet} &= \sqrt{(60)^2 \times 1.10} \\ &= \sqrt{(3600) \times 1.10} \\ &= \sqrt{3960} \\ &= \text{approximately } 63 \text{ or } .063 \end{aligned}$$

The first try should be a 63 jet. There should be no stumble on acceleration (assuming there was none before and nothing is wrong with the accelerator pump) and the engine should pull smoothly up the rpm band. If you get a "soupy" idle which you cannot adjust out with the idle adjusting screw, reduce jet size by one. If you get a "stumble", increase accelerator pump throws slightly. If this is done, the difference in performance should be quite noticeable, especially when coupled with better acceleration.

I am about to try to fit a Weber carb on the engine, or if I can get the parts, a turbo-charger. The turbo would be ideal for this type of engine, if the bugs could be worked out. Horsepower gain in incredible and reliability is high. Any info (other than Corvair similarities) would be appreciated.

Finally, after installing new valve guides I deecided the stock type are just plain poor: soft, lousy quality control, short life, etc. I have installed new ones made out of custom steel, precision-made with reamed bores and somewhat harder than stock. They seem to be working perfectly. Valve to guide clearance is .005" and they control valve position perfectly, thus reducing valve shaft and seat wear. I'm curious to see when I'll need my next valve job.

Has anyone milled the head? How much can be taken off to raise ompression beofre water-jacket breakthrough occurs? This will be my next engine modification if I can get either the info or a scrap head to dissect.

Enough for this letter, except to say that parts (and info, if a self-addressed, stamped envelope is included) mentioned are usually available, along with a large number of new and used parts from:

Black Wyvern Motors, LTD.
RFD 1, Box 197A
Westfield, Massachusetts, 01085
c/o J. Harrington

Also any inquiries for Ed Judge should be fowarded to him at: C-4 Cliffside, Sunderland, Massachusetts. -1375.

More Land-Rover Comments: Member A.A. Kamishlian writes: Please warn members about front seal replacement in Series III Land-Rovers. Put a magnet in after putting a rag in front of the timing chain and gear before punching screws. Time for operation: about $1\frac{1}{2}$ hours.

Concerning the Fairey overdrive. It is very hard to shift because of road salt, ice, etc. There should be better lubrication. Over a year ago I bought a used Lucas alternator for \$15. The rebuilding cost \$25 - because the most expensive part, i.e. the voltage regulator was bad. Now I have a spare 18ACR (40 amp) alternator. I put an ammeter between the alternator and the solenoid. It only shows charge. Why?

I put large deck tread on the front floor boards to keep the mats from slipping. There are ensolite pads there and condensation collects. I would never glue anything that could possibly absorb moisture. The back has aluminized asbestos, which stopped condensation there.

The 90 Castrol is a hypoid gear oil. Make sure the replacement is at least as modern a gear oil. In my experience as a hydraulic mechanic these oils can be marginal in some cases.

Warning: Make sure your new rocker shaft is as hard as your old one. My new one tested 25 Rockwell. The old one was 52 Rockwell.

Any answers to Mr. Kamishlian's question, please write to: A.A. Kamishlian, 1338 A. Dana Avenue, Kittery, Maine, 03904.

LAND-ROVER T-SHIRTS FOR SALE: Member Peter J. Cull of 607 E. Capitol Drive, Hartland, Wisconsin, 53029 has Land-Rover T-Shirts for sale, yellow with green lettering. Sizes: Small-Medium-Large. Price \$6.00 each postpaid.

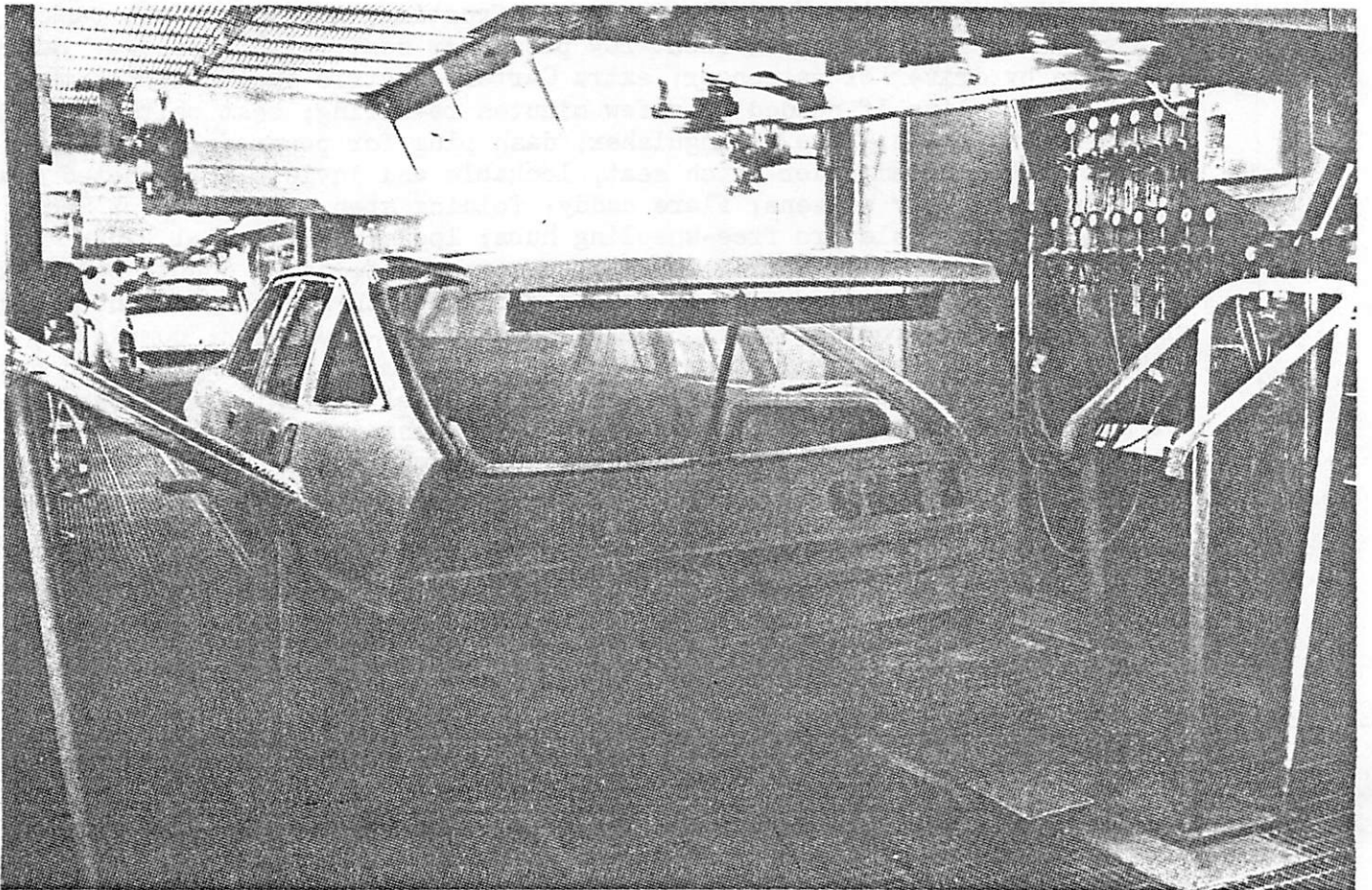
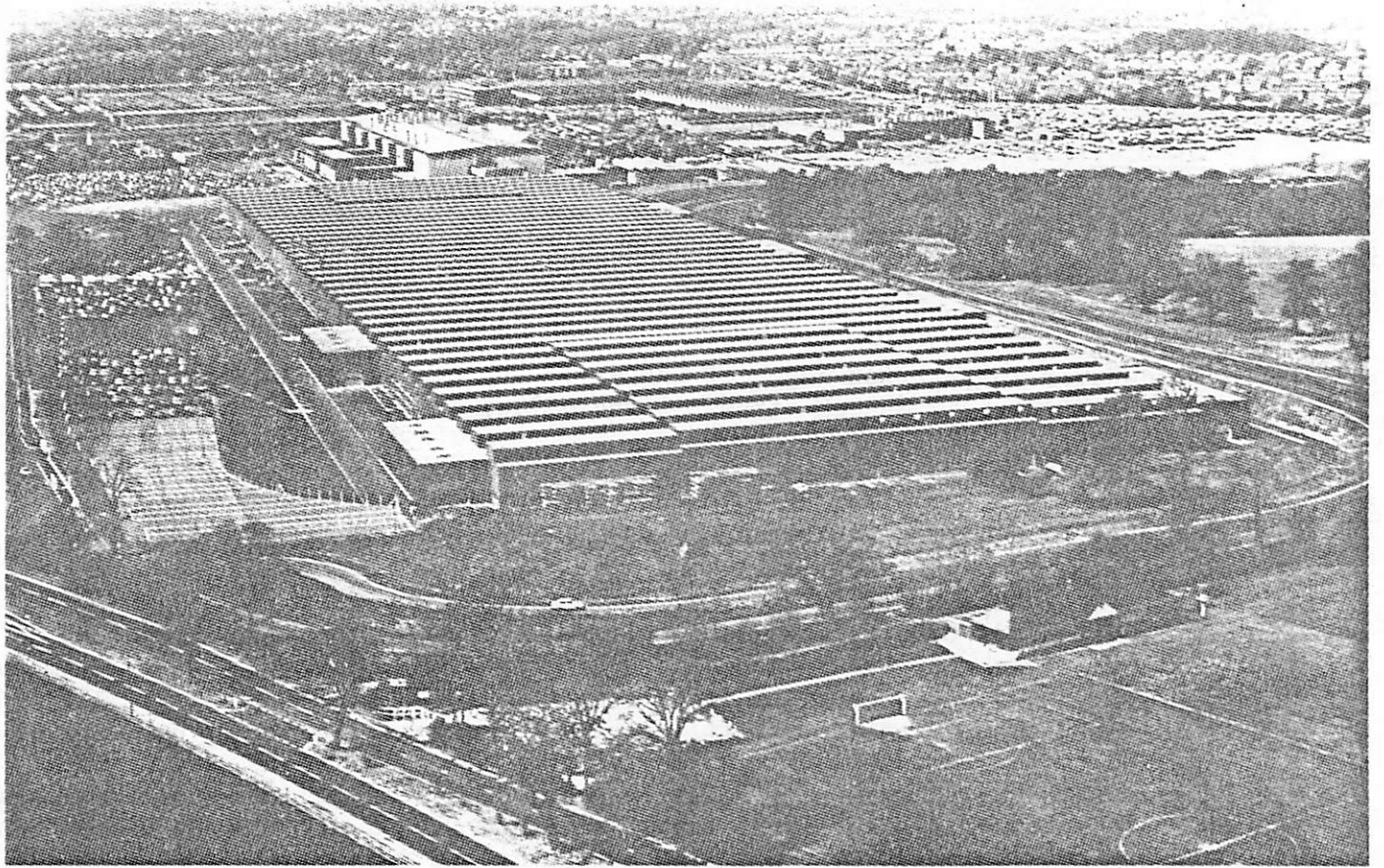
Member Bill Keienburg has a question for the membership. Has anyone ever purchased from England a Land-Rover, dealing with the company "R and R Service."? (58 Battersea Road, London). I would appreciate hearing from anyone concerning 1- quality of wares; 2- details of payment; 3- problems in shipping from England. Contact Bill at: P.O. Box 1312, College Station, Texas, 77840.

Member Iain A. Thompson of Mountain Grove, Missouri offers the following advice concerning leaking oil filter replacement on Land-Rovers. The Rover 3-litre I had had a similar canister type oil filter. On that one had to ensure that the old rubber ring had been removed before the new one was put in. The easiest way to do that was to take a pin and run it around the groove. If the old ring was there one would feel resistance.

Photos on the following page:

top: The all-new, 100 acre, \$56 million Rover plant at Solihull, near Birmingham, England, where the new 3500 hatchback model is made. The new Rover factory is said to be the most modern in Europe and is the largest single investment in auto-making in Great Britain in forty years. The new Rover 3500 will be sold only in Great Britain initially, but British-Leyland will be evaluating it in terms of its potential contribution to full-line British-Leyland dealerships in the U.S.A.

bottom: A new hatchback Rover 3500 is hown going through the ultra-modern paint shop at the new \$56 million plant at Solihull. The paint shop alone cost clos to \$12 million. Note the 2200 preceding the new 3500 down the line.



FOR SALE: Several Rover 2000TC's from 1967 to 1971. All restored, all running and ready to drive away. Prices from \$1000.

Special: 1971 2000TC Mark II. \$2300.

Write: Dyer, P.O. Box 64, Bedford, Nova Scotia.

FOR SALE: All new and used spares for Land-Rovers 1951 to 1974.

All new and used spares for Rover 2000 and 3500, 1964 to 1972.

Write Dyer, P.O. Box 64, Bedford, Nova Scotia.

WANTED:

Land-Rover 109 Station Wagon or Camper in any condition. Please contact: Dermot Harvey, 17 Church Street, Garnerville, New York, 10923. Phone: 914-947-3126.

FOR SALE:

1967 Land-Rover 109 Series IIa, vehicle number 34300262A, engine number 34300257A. This is a five-door station wagon, green, with folding bench seat behind the driver's seat, and side-facing benches behind that, for a total nominal seating capacity of 10 (9 is more realistic). The vehicle mileage is 53,859. It has been well maintained with most work done at either British Pacific in Pasadena or Scotty's Foreign Car Service in Concord. The car is in good shape and is currently being used for occasional light hauling; it has spent very little time off the road. The only problems or deficiencies are some leaky oil seals along the drive train, and a slight leak where the exhaust pipe joins the manifold. The car is equipped with a great number of extras: front bumper extended forward with neatly welded inserts, making room for jerry-can holders between it and each front fender (metal straps for securing jerry cans included); Bosch quartz-iodine headlights, windshield incorporates buried wires for defrosting; auxiliary fuel tank (ten gallons) installed under front row passenger seat, with three-way valve reachable by driver or passenger; extra Carter electric fuel pump mounted, switchable on line if needed by a few minutes re-wiring; seat belts for all forward-facing seats; Fire extinguisher; dash plug for powering accessories; Hi-lift jack mounted under bench seat, lockable and invisible; carpeted rear deck; dash vent fly screens; flare caddy; folding step at rear door; Heco steering damper; Selectro free-wheeling hubs; lockable main fuel tank; towing ball and trailer wiring socket; custom-made foldable double bed fits rear deck; Wink wide rear view mirror; fender mirrors both sides with convex, wide-angle stick-ons; tropical roof; powerful heater, two-speed fan; completely rebuilt brake system, generator, differential; US-made headlight switch and panel light rheostat; rationalised instrument panel wiring; ganged terminals for switched power, unswitched power, and grounding (makes adding further instruments or accessories much easier); 5 Norseman steel-belted radial off and on road tires (4 with about 1200 miles on them, 1 never used) on 15" road wheels, plus five 16" road wheels with badly worn Dunlop tires. The asking price is \$3500; offers of not less than \$3000 will be considered. The car may be driven and inspected by appointment. Write or call: Mark Halpern, 3800 El Centro Street, Palo Alto, California, 94306. Phone: 415-493-8509 (home) or 408-446-6533 (work).

FOR SALE:

1969 Land-Rover 88 Series IIa, AM/FM, new shocks, 2 new tires, good running condition, but needs tranny work. \$1400. Victor Guarino, 71 Payson Avenue, New York, New York, 10034. Eves: 212-569-2607.

Land-Rover Series IIA Generator to Alternator Changeover: Member Ernie Thor of San Bruno, California offers the following advice on a generator to alternator changeover for the Land-Rover Series IIA.

A fellow in Canada named George Munro discovered that a Chrysler Corp. alternator will fit into a Land-Rover with minor modification. Here is the way to do it, with some minor modifications of my own to make for a quicker installation:

First, specify the heavy-duty alternator which is rated at 60 to 62 amps output. Tell the counter-jockey that you want an alternator for a 1969 Dodge Polara with power-every thing, including air conditioning. If they ask for engine size tell them it's a 440 cu. in. V-8. Actually, many more Chrysler models will work, but the counter-jockey usually can't cooperate with something to go on. This is the one I bought and it fits perfectly.

Remove your generator and fan belt. This will expose the mounting bracket, which is a two piece affair with one smaller bracket mounted inside the other. A close quarters hack saw will make short work here. The bracket is bolted on; however, it cannot be unbolted unless the timing chain cover is removed. After this inner bracket has been cut away you are ready to mount the alternator unless you have an older Series IIA, as I do. The difference between the old and new is this: The older IIA's have a small bracket which is mounted on the inside of the frame member just above where the shock absorber mount comes thru the frame. This bracket has to be cut off, as it will interfere with mounting the large alternator. When this bracket is removed you can mount the alternator.

You will need some washers for spacers and a longer bolt, or you can use two short bolts, as I did, one for each part of the mounting bracket. You will notice that on the alternator bracket one mounting hole is sleeved. This sleeve can be easily drifted for a more critical alignment of pulleys. I had to drift mine all the way inboard.

A second thought here: I also bought the alternator that has a double pulley rather than a single - I thought that this might give me more leeway as to mounting the alternator. The alternator fits perfectly and with perfect belt alignment too. So, the single pulley alternator might have its pulley mounted further in or out, which might make for a more difficult mounting. I know for sure that the double pulley works.

Mounting the Regulator: Yes, regulator. This alternator has an exterior regulator, and I prefer it because if the regulator goes out it can be replaced easily, cheaply and quickly, especially if you carry a spare one. The alternator with built-in regulator is much more trouble and who wants to carry a spare alternator?

The new regulator will mount in the same holes as the old generator regulator and it is easy to wire. From the generator you have two wires: a fat one and a skinny one. The skinny one should be the "field" wire. Trace this back to your old regulator and mark it. This skinny field wire will be attached to the "field" terminal of the new regulator. All of the other wires save one should be connected together. The one wire that is not connected is the wire that is connected to the red jelly bean idiot light on your dash. I haven't figured out how to connect that yet. Now, you can bring a hot wire over from the fuse terminal and attach it to the terminal on the regulator marked "ignition." (Upper right hand corner of the fuse terminal block is a good place to run your hot wire from.)

A neat way to connect the remaining wires is to cut the old terminal section off the old regulator and short all their terminals together and then mount this on the firewall next to the new regulator.

The old fan belt won't fit; you'll have to fit a new one. It's about 42 to 43 inch belt circumference. I used a Continental SPZ #1060 BMW Bavaria power steering belt. It's a tight fit because there is not a lot of adjustment (9.5x1075). Which reminds me. The upper adjustment bracket with the slot has to be moved to a different location

because it won't be long enough to reach the alternator at all. I used one of the lower bolts used to hold the water pump on. The water pump and timing chain housing come to a triangular point just above the alternator; three bolts form a triangle - use the lower bolt. This bolt can be used to replace the stud that is necessary to use with the upper adjustment bracket.

Adjust the fan belt with about $\frac{1}{2}$ inch of slack as a tight belt could cause undo wear on the water pump and alternator bearings.

Now, you can run all the electrical goodies you want providing that you have a battery with a large capacity. I plan to run two batteries so I'll have plenty of juice for my 400 watts of lights and extra winching time.

I bought the alternator as a rebuilt for \$30.00 including the core charge. The regulators cost me \$6.95 each. This system is cheaper and better than the Lucas system, and did you ever try to buy a Lucas part in Podunk, Idaho?

Soon I'll be dropping a small block Chevrolte V-8 into my 109. It's as easy as stealing candy from a baby. No hodge-podge adaptor that has to be further adapted. You can buy an adaptor from Scotty's Foreign Car, 1121 Detroit Avenue, Concord, California, 94520. This adaptor is a perfect fit and will adapt any small block Chevrolet V-8 or 6-cylinder to your four or six Landy engine. The V-8 will fit in my four cylinder 109 with minor adjustments. So, stay tuned to this Newsletter and I'll give you details on how to do it. Any body wanna buy my four cylinder engine?

WANTED: New or used parts for my Land-Rover: 4 roof vents, 4 roof vent bubbles for the tropical roof, 2 alpine lights with rubber gaskets (roof windows), 8 bladed fan with double pulley system, engine tie-rod set-up, Series III engine speed control. Contact: Walter C. Banta, 1566 W. 158th Street, Gardena, California, 90247 or phone: 213-324-4516.

FOR SALE: 1974 Land-Rover Series III 88. Body condition very good; mechanical condition excellent. This Land-Rover has rarely been taken off the road. Color: Limestone. Extras: factory repair manual, factory optional parts manual, literature on Rover, Rover Owners' Newsletters, Parts catalogs, parts interchange list, Rochester carburettor, towing cable. Maintenance: new Monroe shocks and complete brake job (7-77), rust proofed (Tuff-Kote) (10-76), Suburbanite Goodyear L78-15 tires (9-76), Sears Die-Hard battery (12-77), radiator removed and boiled out (7-76), alternator replaced because of theft of Landy (7-76), engine heater, Husky hubs, and new stick-shift lever (w/steel ball instead of hard rubber) (12-76). Price: \$3950 firm. Contact: Dennis Staffne, 1216 High Street, Marquette, Michigan 49855.

FOR SALE: 1974 Land-Rover 88. Limestone green, 16,500 miles, steps all the way around, AM/FM/Cassette player. Must sell for \$3700. Financial difficulty. Contact: Daniel R. Simons, P.O. Box 7512 F.E. Warren AFB, Cheyenne, Wyoming, 82001.

FOR SALE: 1964 Land-Rover Series IIa four cylinder engine. In perfect running condition. Recent and very thorough valve job. Recent starter, water pump and timing chain idler gear and cylinder. Never bored. Also: Land-Rover 88 roof with complete lining and insulation including the sliding, station wagon windows and frames, in near perfect condition. Contact: Ernie Thor, 260 Castleton Way, San Bruno, California, 94066 or phone: 415-355-5690.

- FOR SALE: Myers snow plow, complete, to fit Land-Rover. Used very little and in excellent shape. \$250 or will trade for winch which will fit. Contact: Dan Wasmund, Route #1 Box 41A, Huxley, Iowa, 50124. Phone: 515-597-2038.
- FOR SALE: Rover 3500S, 1970. V-8 model, Dark green with black interior, automatic transmission, power windows, power brakes, air conditioning, power steering, AM/FM radio, rear defroster, luggage rack, steel-belted radials, 53,000 miles. Starter needs solenoid, take the car as is for \$2000.00. Contact: Dorothy Raimondi, 122 Sheldon Street, Wyckoff, New Jersey, 07481 or call 201-891-1569.
- FOR SALE: Numerous spare parts from a 1967 2000TC and an air conditioning unit from a 1968 2000TC. Contact: Hal Meredith, Tourist Village Motel, Route 6 and 209, Milford, Pennsylvania, 18337.
- FOR SALE: 1966 Land-Rover 109 Station Wagon 12 passenger. Four cylinder petrol 2½ litre engine. New paint. \$2000.00. Contact: Jim Wolf, 3624 Essex Circle, Norfolk, Virginia, 23513 or phone 804-853-3170.
- WANTED: Will swap a Land-Rover 88 rear body for a Land-Rover cab top. Contact: John Kirk, 31-45 102 Street, East Elmhurst, New York, 11369.
- WANTED: Hydraulically damped A6 bucket seat for Land-Rover 88. Contact: Ira Strauss, Schooleys Mountain, New Jersey or phone 201-852-0972.
- FOR SALE: 1965 Rover 3-litre Mk IIa Saloon. Body perfect: no rust, but could use new paint. 60,000 miles. Engine needs new rings and is apart. Fresh valve job. Numerous brand new spares including: rebuilt front brake calipers, 2 sets new brake pads, new master cylinder, servo rebuild kit, new rear wheel cylinders, exhaust and inlet valves, new valve springs, camshaft bearings, standard con rod bearings, new ignition harness, hoses, lenses, suspension parts and ball joints. Interior is good. \$250 complete for car and all spares. The spares alone were worth more than \$250 in 1973. Contact: C. Brian Kapalin, 167 Oakland Road, Maplewood, New Jersey, 07040 or phone 201-763-7048.
- FOR SALE: 1967 Land-Rover 88. This is a very low mileage unit with full compression; starts and runs like a dream. Lock hubs on front wheels, new starter motor, new exhaust system, 4 air lift shocks, frame fishplated with heavy-duty steel, new heavy duty battery. Extras include: electric ram plow and direct drive Koenig winch. Tires are good. I think the car is easily worth \$1500 and that's what I'll hold for it. Douglas Thornsjo 212-581-5800 during the week or 207-437-2345 weekends. (Car located in Maine; will drive as far as New York to deliver; from there it's your responsibility.)
- FOR SALE: 1970 Land-Rover 88. This unit has approximately 10,000 miles more on it than the 1967 above. However, it's an overdrive unit with steel-belted tires and a hydraulic 3-way plow. Lock-out front wheel hubs. Of the two Landys, I'd prefer to keep this one because of its flexibility as an over the road car. Front and rear springs recently rebuilt. I'm selling one but not both of these units. This one has to bring at least \$2750. Douglas Thornsjo. (see above)
- FOR SALE: Two 1966 88 Land-Rovers for sale with a 1967 109 pick-up being repaired for resale in the future. One of the 88's has just had the engine rebuilt (2,000 miles ago), trans rebuilt and clutch and pressure plate replaced. It has a slight crinkle in the left front fender and bumper. \$1550 is the price. The second one has 48,000 miles and a slight crinkle in the same fender. Its price is \$1400.

- FOR SALE:** 1966 Land-Rover 109 Diesel, 25,000 miles, capstan winch, Fairey overdrive, auxiliary fuel tank, Warn lock-out hubs, Browning CB radio, H-C Daylighters, all seats, manuals, and spare parts. In excellent condition. \$4500.00. Contact: Dennis R. Jereb, 5830 S. Western Avenue, Clarendon Hills, Illinois, 60514. Phone: 312-887-1896.
- FOR SALE:** Rover and Land-Rover parts for sale. Contact: Peter J. Cull, 607 E. Capitol Drive, Martland, Wisconsin, 53029 or phone: 414-367-2352.
- WANTED:** Land-Rover diesel engine. Contact: Peter J. Cull.
- WANTED:** Five 15" wheels for Land-Rover. Drop a postcard with cost, shipping, etc. to Paul A. Grayce, 528 Whitehall Road, Norristown, Pennsylvania, 19401 or phone: 215-539-3283 or 215-631-2308.
- FOR SALE:** Six cylinder engine, transmission and transfer case from my 1967 Land-Rover 109. The mileage is approximately 53,000 and everything is in good shape. Write: Donald L. Hickman, 432 Palmary, El Paso, Texas, 79912 or call: 915-581-0214.
- WANTED:** Land-Rover diesel engine, new or used, but in good condition. For repowering a 1973 petrol Land-Rover 88 (23,000 miles). Will trade petrol engine for diesel. Contact: Edwin L. Sherrill III, 789 Hither Lane, East Hampton, Long Island, New York, 11937. Phone: 516-324-0278.
- WANTED:** Rover 2000TC Parts Catalog. Write to: Reginald D. Manwell, Syracuse University, Dept. of Biology, 209 Lyman Hall, 108 College Place, Syracuse, New York, 13210. Phone: 315-423-2321.
- WANTED:** Parts for early Land-Rovers. Contact: Jim Trogdon, P.O. Box 1525, Placerville, California, 95667.
- FOR SALE:** 2.6 litre 6 cylinder petrol engine, complete with air cleaner, starter, dynamo, oil temperature gauge, carburettor, radiator and almost new muffler. Any offer for these items considered; redundancy due to engine transplant. Write: David Goodson, Route 1, Box 83D, Roy, Washington, 98580.
- FOR SALE:** Front bumper and rear jump seats for 1973 Land-Rover 88. Write: Mark Malosiec, 29659 Van Laan, Warren, Michigan, 48092.
- WANTED:** 4 cylinder Diesel Land-Rover engine to replace my present 4 cylinder petrol unit. Mexico has diesel fuel for 12.5¢ per gallon - I burn it all the time in my 1976 Mercedes-Benz 300D - 41 gallons at \$5.13 "ain't" bad. Write: H.W. Lineback, 666 Gilbert Place, Chula Vista, California, 92010.
- FOR SALE:** Land-Rover 2.6 litre 6 cylinder engine with radiator, starter, generator, rear adaptor, flywheel, excellent clutch, etc. All in good shape - \$250. Also: transmission from same 6 cylinder 109 Landy; disassembled, with all new parts to reassemble - for price of new parts alone. Please write to: Steve Gaseau, Box 75, Ithaca, New York, 14850.
- WANTED:** Windshield for Rover 2000.
- FOR SALE:** Factory air conditioning unit for Rover 2000. Various body parts for Land-Rover 88. Write to: Jack E. Sullivan, 550 N.E. Territorial Road, Canby, Oregon, 97013.
- WANTED:** Rear PTO unit to fit '66 Series IIa 109 Station Wagon. Any condition, but complete. Write: Dan Wasmund, Rte #1 Box 41A, Huxley, Iowa, 50124.