

TRUCKS and TRACTORS

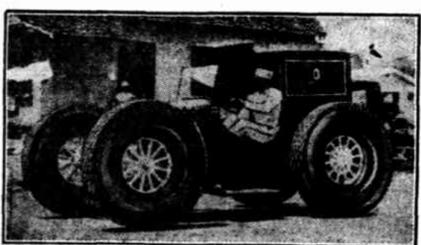
OUR PAGE FOR THE COMMERCIAL MOTOR VEHICLE

GERMAN POWER UNIT

Great Britain and the Diesel

Much prominence was gained at the recent International Motor Show by the agents for German diesel-motor tractors and trucks and the assumption was that Great Britain was behind in this advance in motor engineering. English newspapers have also been giving prominence to this type of German power unit. In this connection "The Commercial Motor" says:—

On several occasions lately we have drawn attention to Continental developments in connection with the production of Diesel motors for commercial vehicles and have referred to the Bosch injector pump as having proved particularly suitable for use with such engines. We have also criticised British makers for permitting foreign manufacturers to get ahead of them to the extent of being able to sell a practically complete set of Diesel-gined vehicles in this country.



NO FEAR OF A PUNCTURE

An unusual vehicle which took part in a procession of motor cars at the Old Settlers' Parade at Hollywood. The combined weight of the tires was greater than that of the chassis. The vehicle attracted much interest.

The Brockway 50wt. Junior is upholding the good name Brockway enjoys throughout the world. Two recent deliveries of this model are to I. H. Nicholas, of Osborne Park, and to Messrs. Toome and Sons, Karridge, via Dalwallinu.

In connection with these various points, William Beardmore and Co. Ltd., has pointed out that it should not be associated with this criticism. Although not an actual maker of heavy commercial vehicles, it has been perfectly willing during the past two or three years to supply engines which could be put into immediate service for vehicle use and of a class the performance of which could be guaranteed. For some time past the company has been busy on the production of Diesel motors, ranging from 750 h.p. to 1,200 h.p. for various purposes. For instance some years ago, it produced an aeroplane engine of 750 h.p. having six cylinders and running at 1,400 r.p.m., also another type of 450 h.p. with eight cylinders and a speed of 1,000 r.p.m. for aircraft work the bore and stroke being 5 1/2 in. and 11 in. respectively.

Following on these lines, the company has built a number of Diesel units for Canadian railcars, these being in various sizes of 200, 300 and 400 h.p. Already these motors have driven railcars over 1,500,000 miles. Until the Canadians were entering enough to give this order, the company received very little encouragement in England. The engine of these railcars does not give the same trouble as the petrol engine has a bore of 5 in. and a stroke of 8 in., and can be controlled to speeds between 200 r.p.m. and 1,400 r.p.m. Rights for the manufacture of such units suitable for railcars and motor lorries have been sold to America and they were first offered to British lorry makers, but without the negotiations coming to fruition, America is particularly interested in the development of Diesel-electric buses of 150 h.p. in which units embodying Beardmore patents are being incorporated.

The injector pump utilized several years ago by the Beardmore Co. closely resembled the Bosch type, and embodied the same method of consideration to be an improvement on the Bosch arrangement has been included. In this the control valves are separate from the plungers instead of being formed in one with them.

It is mentioned by our informant that with the Diesel unit very little trouble is experienced with over-heating and whereas in the petrol engine running the engine above a certain temperature is apt to rattle the mixture through expansion, this does not occur with the quick-running oil engine and actual tests have been carried out with the cooling water at a temperature of 240 F., this being effected by keeping it under pressure so that boiling did not occur. Under this condition of service it was found that the power developed did not fall appreciably.

TRACTOR LUBRICATION

Insurance Against Defects

Fred Saunders writes in "Power Farming in Australia":—

Most of your tractor men know that if a tractor squeals like a "stuck pig," and won't pull, it's only what the big dogs—protesters against rough treatment—thereof put the oil in first. Unfortunately, many parts of a tractor can suffer from want of lubrication, but they don't let you know about it. It may wear out slowly or quickly or perhaps "burst" a part without notice. Proper lubrication is your insurance against these hidden causes of defects.

The tractor engine is a hard-working, plugging, and constant power unit. Every part of it is "fat out" on farm work, and it wants plenty of good oil to help it on its way. There is a set time when the oil can give good service to the heavily loaded parts; after that time clean it out and start it afresh with good clean oil.

When tractors were in their developmental stage, many of the oil used—it was all they had. To-day, you may purchase the exact oil proved by experiment and use for the particular make and model you are using, and this has come about because the vital success of your engine depends on the oil you use.

The transmission—principally the final drive—and differential also must be kept properly lubricated, and again, owing to the great and constant pressure, generating heat, a heat resisting oil has been developed, which will lubricate all the transmission parts over long periods. But oil evaporates under great heat, and must be replenished. There is a subtle on every gearbox, transmission case to show the oil level—always keep the oil up to those levels.

Tractors of the crawler or caterpillar type have lower track wheels, which, being of small diameter, run at fairly high revolutions. There is a central lubricating system to these, and they need plenty of oil, mainly because they work in the most exposed position, take the first "bumps" and are not so well protected as the other parts.

A few gallons of good lubricant can guarantee a huge amount of useful work, yet the want of a little oil can do wholesale damage—and no work. Kingsford Smith and his pals got to Australia on the careful study of engine lubrication—they would have come to "Kineadome Com" on the neglect of this most important point. Aero and tractor men get similar work—they are running all out from the word "go."

Gear Box Maintenance

Dismantling and Reassembling of the Sturmev-Archer Type

Many types of Sturmev-Archer gear boxes are in existence, ranging from small units for 250 cc. machines right up to the heaviest pattern used on twin-cylinder machines of the largest capacity, but the same general design applies to the whole series, and it is therefore possible to give general instructions for maintenance and overhaul.

Internally, the Sturmev-Archer gear box is a very simple arrangement having six pinions which are in constant mesh. There are, of course, three shafts, and it is situated below the layshaft, which is actuated below the former. Gear change is effected by dog clutches formed integrally with the ball bearings, both of which move together under the action of a common control fork.

The two plain bearings, which consist of a pair which engage with an internal ratchet in one of the layshaft gear pinions. The shaft runs on ball bearings, and the main shaft takes a bearing in the hollow sleeve pinion to which the final drive is attached. There are two plain bearings in the gear box; the main shaft takes a bearing in the hollow sleeve pinion to which the final drive is attached. There are two plain bearings in the gear box; the main shaft takes a bearing in the hollow sleeve pinion to which the final drive is attached.

When the end plate comes away it will bring with it the complete kick-starter mechanism, and it can be seen once whether the pawl is damaged, whether its spring is functioning, or whether the ratchet in the low gear is chipped or broken. Naturally, if chipped and broken parts are found, the whole of the gear box should be washed out with paraffin and fresh lubricant inserted.

Reassembly Points.

Incidentally, the whole of the interior mechanism of the gear box is now exposed, and it is a good opportunity to check the two middle gear wheels, and the layshaft complete can be withdrawn if necessary. There should be no dirt on the clutch and end plate, and these parts in their correct order if it is remembered that the layshaft middle gear wheel has a splined end, whereas the main-shaft middle gear wheel has splines over the whole length of its bore.

the pawl back to the proper side of the cam which it has overshot. All that is necessary is to knock the pawl out of the kick-starter crank and remove the pawl. The kick starter spindle can then be turned forward by means of a spanner on the outer flange until the pawl can be felt to have come round again to meet the cam; then the pawl is replaced, and a new stop is put in the kick-starter.

Should the kick starter refuse to return to the top after it has been depressed, a weak or broken return spring may be the cause, but lubrication in the lash is more likely.

Should the kick starter fail to work (that is to say, when pressure is applied to the pawl, the pawl does not jump without rotating the engine) the trouble will be in the pawl and ratchet mechanism. Remedy this by the following steps:—

1. Simply remove the clutch control wire and disconnect the gear box from the crank. Naturally, the control is carried on the gear box end plate. Remove the nuts retaining the end plate, and screw it off. A few light blows given to the inner side of the kick-starter crank. On no account to be driven in the aluminium joint itself.

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The low gear pinion which fits on the splined end of the main shaft has a slight shoulder on the outer end, and care should be taken to replace it in its correct position.

Excessive slackness in any of the ball bearings in the gear box will result in very noisy running, and this is a point which should be inspected. If the pinion, the layshaft bush in the hollow spindle of the kick starter is badly worn, the kick starter spindle must be replaced, and the end plate, as separate replacement bushes are not available.

If there is any reason to suspect trouble in the drive pinion bearings of the main shaft, more complete dismantling of the gear box will be necessary, and before removing the kick starter and end plate, etc., it is advisable to take off the clutch and final drive sprocket while the shafts are still supported by the bearings in the end plate.

Motor Cycling

The Speedway Riders and Their Doings

Latest News from the Track

The largest crowd that has ever witnessed electric light motor cycling sports in this State was that which attended on Wednesday evening at the Show Grounds. The attendance was assessed at 25,000. Many thousands who had attended the show in the afternoon stayed for the evening's sport, and there were many country cyclists witnessing the sport for the first time.

Proceedings opened with the B Grade Handicap, for which there was the excellent entry of 25 riders. The early heats, when the track was firm, produced two fast races won by A. McDonough and G. Scott respectively. Both men figured on the back marks.

Slipping the field early in the sidecar event, in which he had been handicapped at 18 seconds, Kinnear won his second race for the evening. He never looked like being overhauled and won as he pleased. The race between the other three competitors, Kinnear, E. Page and Ford, for the popular applause was very interesting. Ford was in the lead for the greater part of the journey but trouble to his engine caused him to slacken speed and Kinnear showed too much pace for Page in the run home. By completing the double, Kinnear obtained prize money to the extent of £25.

There's no place like home, and shortly Sig Schlam, Ben Johnson and Charlie Eaton will return to this State. The news was made public during the week by Speedways Ltd., who have written a letter from one of the riders. They are leaving England on November 10, and should appear at the big Christmas meetings on the local track. The Australian programme is a profitable time in England, where they have several track records to their credit. They have new motors which have proved very reliable. Eaton broke an arm on a recent record-breaking attempt, but it has since mended, and the popular applause is on the tracks again. Accompanying the Western Australians is John F. Deiver-Draughton, a nephew of Lord Somerset, who has had several successes on the dirt track. He holds seven world records at Brooklands. What an added attraction for Christmas!

Winning their heats in the scratch race, Stan Callett, C. Walker (both Harley and E. Barnes (Velocette) met in the final. Callett opened up a gap on his opponents early, and his machine hummed its tune to victory in 1.21.1.5. This was good time, but when defeating Walker in a special match race Callett carved out the journey in 1.30.4.5. This is the fastest time on the track this season, and is an average speed of about 52 m.p.h. The Hunbury rider had a most profitable evening, earning £30 by his two wins. Speedway fans would appreciate a more regular appearance of the track of Dick C. who is one of our best speed men.

Four heats in the Grade Handicap seeded out Ewing (12sec.), Taylor (12sec.), Reeves (12sec.), Parker (12sec.), Dunne (12sec.), and Kinnear (12sec.) for the final. All riders got away well and Taylor was the first to drop out, crashing in front of the grandstand. Kinnear, Taylor and Reeves made a merry pace, with Dunne gradually making up ground. Kinnear entered the home stretch clear of his field, but Reeves, with Dunne, whose machine was literally flying over the closing half lap, were almost upon him at the line. As it was, only lengths separated the three riders. Had Dunne stepped on it earlier he must have nearly won, as he was making such speed at the finish. The watches showed 2.11.4.5 for the journey or an average of 48 m.p.h.

Speedways' next meeting will be on Saturday evening next, October 20, when a big programme of A and B grade handcaps, sidecar races and match races will be staged. The meeting will be a farewell to Sid Parsons, who has sailed for home to the States on an exchange of riders system. Parsons and his A.J.S. will enjoy a six or eight weeks' tour which will include a visit to the States, where he will be a well-known sidecar and solo exponent, and has beaten the best riders in Australia.

Appearing soon in Perth is Frank Brown, who was so popular here on a previous visit. Brown is not on the interstate tour of the States, but West so much that he will probably see the season out. With such an array of talent likely to be in Perth the following Saturday evening should be something out of the ordinary.

On Friday, 19th inst., a club social is being held in the new Masonic Hall, Midland Junction. Members are especially asked to come along, and bring their lady friend, and help make this function a success.

Owing to unforeseen circumstances, the scramble which was to have been held to-day has been postponed until the following Saturday. Notice of date will be advised.

SCOUTS

WORLD'S RECORD ENDURANCE TEST

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Spectacular 505th climb in Record Time!



Romps up & Down with 4 up!

Longest Known Official Test Sealed Against Replacements or Adjustments. 5,300 Miles.

With power plant and transmission sealed by V.M.C.C. Officials, the standard Scout completed 2015 miles of road travel in three States. Then, still sealed, made 108 laps of the Black's Spur, a notoriously steep 3 miles climb in Victoria. After this the seals were officially broken and cylinder heads, pistons, valves, etc., examined. There was a minimum of wear, and the engine was in perfect condition that it was assembled, officially resealed and set at the task of climbing the Black's Spur 500 times.

After 401 climbs were notched—the 401st a record and sealed in top gear—a sidecar was fitted and Scout thus completed 500 climbs.

When partially dismantled, afterwards, Scout's engine showed absolutely no signs of wear.

RIDE A SCOUT TO REBEL. Own the motor cycle which the world's record endurance test failed to harm.

Scouts from £75/0/0

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CLUB COMMENT

Matters of Moment to Members

MIDLAND JUNCTION CLUB

The club conducted a run to the Naval Base site on Sunday, and despite the very inclement weather, 30 members and their lady friends made the journey. After lunch the events for the points competition were run off with the following results:—

Acceleration Test (75yds.).—H. Wansborough, time 5.2-sec.; I. C. Anson, 6.2-sec.; S. A. Duffin, 6.2-sec.; J. Point to Point Race—G. Enderby and S. Day tied for first, time 4.1-sec. In the 100 yds. sprint, the winner was J. Point to Point Race—G. Enderby and S. Day tied for first, time 4.1-sec. In the 100 yds. sprint, the winner was J. Point to Point Race—G. Enderby and S. Day tied for first, time 4.1-sec.

In the ladies' stepping competition Miss Grimmond proved the victor. Various games filled in the remainder of the afternoon until tea, after which a departure for home was made.

The next club outing is to the combined association run to Wanneroo on Sunday. The ladies' stepping competition will be held at Wanneroo on Saturday. The club's final dance will take place on Wednesday evening, October 24.

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METROPOLITAN CLUB

Owing to unforeseen circumstances, the scramble which was to have been held to-day has been postponed until the following Saturday. Notice of date will be advised.

VICTORIA PARK CLUB

The ladies' outing to Morley Park to-day will leave Thornoodon at 10.30. The British Imperial Oil Company have arranged to give members a picture show on the manufacture of their products at the annual meeting to-morrow evening. Members are requested to attend.

HARLEY-DAVIDSON CLUB

On Monday last, a social was held in the Premier Theatre, at which the ladies' stepping competition was presented. Items were rendered by Messrs. Jennings and Burnard, and various prizes were proposed and honored by the company.

Next Sunday the club will join in the association run to Wanneroo. Members should assemble at Morlock's not later than 10.30 a.m. A good attendance is desired.

Arrangements for the reliability trial are being finalised, and full information will be available by the end of the month.

INDIAN CLUB

The run to-day (Sunday) is to Darling, leaving Schiller's Garage, Hay-street Perth, at 10.45 a.m. sharp. A full programme of sporting events has been drawn up.

The Name of Brockway stands for substantial motor trucks, built to successfully endure the daily grind, and combining more advantages than will be found in any other truck

You owe it to yourself to investigate the Brockway Line of Quality Motor Trucks — and the right time is to-day—NOW!

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Special Announcement

We beg to advise all present and prospective truck owners that we have been appointed SOLE DISTRIBUTORS in W.A. for the—

MANCHESTER TRUCKS

25-30 Cwt. and 30-35 Cwt. Capacities

These trucks are BRITISH BUILT and designed specially for Overseas conditions. The following specifications will give some idea of this wonderful new truck:—

- Bore and Stroke 3 1/2 in. x 5 in.
- R.A.C. Rating, 22.5 H.P.
- 5 Main Bearings, all 2 1/2 in. diameter.
- 4 Bearing Camshaft.
- Silicone Steel Exhaust Valves.
- Water Pump.
- Internal Expanding Brakes, 16 in. x 2 1/2 in.
- Worm and Sector Steering, 1 1/2 in. to 1 ratio.
- Wheelbase, 126 in.
- Steel Wheels and Full Forced Feed Lubrication.

These Trucks will be offered at exceptionally keen prices. Intending purchasers would be well-advised to wait until these prices are announced.

Knight Motors (W.A.) Ltd.

Phone A5385. 438-40 MURRAY-STREET, PERTH.

Agents Wanted Everywhere

Externally there is nothing that can be done to adjust the gear pinions in any way; in fact, they do not call for any adjustment at all. It is taken for granted that the rider is already capable of maintaining the correct adjustment of the external control mechanism.

The palms and penitents of neglected lubrication with its attendant squeaks, rattles, and rars, go hand-in-hand with a heavy repair bill and a dissatisfied tractor user.

In conclusion, may I suggest that you always keep a good store of the right oil on the property; it doesn't deteriorate, but it's there when the big job comes along.

Dirt-Track Telepathy

Somewhat of a sensation was caused among the patrons of a certain English dirt track recently, when a French rider named Overin took a blindfold around the track. A helmet with a face-mask attached prevented Overin from seeing, but nevertheless he did three laps, avoiding obstacles strewn in his path and passing through the hands of the unsteady skill, but he himself attributed it to mental telepathy, his wife sitting in the stand and giving him instructions by his nose.

NEW REGISTRATIONS

For Week Ended Oct. 11

- 2531: H. Goff, 7 Tern-st., Claremont, Norton.
- 2536: A. G. Birkin, 150 Athlete-st., South Fremantle, Ariel.
- 2537: Clarence Road Board, Claremont, Douglas.
- 2538: J. N. Matthews, 20 Howard-st., Fremantle, Ariel.
- 2541: R. Sinclair, Beatrice-rd., Dalkeith, B.S.A.
- 2575: J. Stevenson, Railway-st., Queen's Park, Royal Enfield.
- 2544: A. H. Pearson, Dumbarton-terrace and Clyde-rd., Mt. Lawley, Velocette.
- 2554: H. T. Ingles, 40 Park-st., North Perth, Indian.
- 2561: Robertson Bros., 81 St. George's-terrace, Perth, Douglas.
- 2562: H. Haddon, 25 Duncan-st., Victoria Park, Harley.
- 1236: H. Egglestone to R. E. Howe, 126 Hay-st., Subiaco, A.J.S.
- 4679: A. V. Eckert to J. Koen, 7 Eglar-st., North Fremantle, Ariel.
- 4680: "Daily News" Ltd. to E. G. Phlegwood, 25 Mount-st., Perth, Harley and sidecar.
- 2412: A. A. Wodrup to A. Adams, Prusey-st., Swanbourne, Douglas.
- 2725: P. W. Quinn to J. Koen, 7 Eglar-st., Victoria Park, Indian and sidecar.
- 467: J. Gray to C. C. Reid, 126 5/8th-ave., Inglewood, Triump.
- 1924: P. W. Page to R. P. Howie, 4 Avonmore-terrace, Cottesloe Beach, Chester Law.
- 1216: W. Brian to J. Barlow, 16 Pilmara-st., East Perth, A.J.S.
- 4602: H. H. Seelinger to N. G. Linko, 11 Austin-st., Subiaco, Ariel.
- 2560: H. Graham to L. B. Anderson, 42 Park-st., North Perth, Indian.
- 2281: J. H. Rowley to J. S. E. Neill, Nedlands, to A. B. Crabb, 21 Caporn-st., Nedlands, Omega.
- 2524: R. G. Hamilton to F. E. Davis, 51 River-st., South Perth, Matchless and sidecar.
- 2760: E. B. McDonald to F. Symes, 24 Leota-st., Claremont, Ariel and sidecar.
- 4614: A. Dean to R. Tindale, Curcyst-st., Coim. B.S.A.
- 2771: From Arthur Burgess to John Hear, A.A. Extracars, Durt-street, Fremantle, Triumph.

ism should this be disturbed at any time.

On those gear boxes which have disc control mounted on the end of the gear box, it is desirable to note that the fixed disc is kept quite firm; the nut at the back must not become slack, if it does, the disc will be liable to wobble, and this will result in the dog clutches not always being fully in mesh, but otherwise there is very little to trouble about in the control mechanism providing one sees to it that when the control lever is in the neutral position there is no noise due to the dog clutches failing to disengage.

Adjustment of the clutch more often needs attention than this is quite simply done. Adjustment of the small operating lever and quick-thread screw in the mainshaft bearing cap on the kick starter end of the box obviates and common knowledge to most riders.

Perhaps of all the external parts the kick starter may call for attention before anything else, as it is a piece of mechanism which is very liable to be abused, strong as it is. If a kicking action is applied literally, as a many people do apply it when exasperated by an unwilling engine, damage is almost bound to follow. It should be remembered when operating the starter that a quick but progressive pressure is required, when all the parts are felt to be in mesh, and the kick is applied against the pedal when the whole of the mechanism is stationary must cause trouble to follow.

Externally, the point to watch on the kick starter is that the spring stop which catches the pedal as it returns from the bottom of its stroke is in good order and firmly screwed up to the end cover of the gear box.

Kick Starter Waywardness.

Inside the gear box on recent models is another stop which prevents the pedal going further forward than its normal vertical position. Apparently, the makers now consider that the inside stop alone is sufficient for many of the latest boxes are supplied without the external spring stop.

On the older boxes there have no internal stop it may be found that if the top spring is broken or removed the pedal will go past the vertical and refuse to return. If this happens, they are not to be dismantled the box to get

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