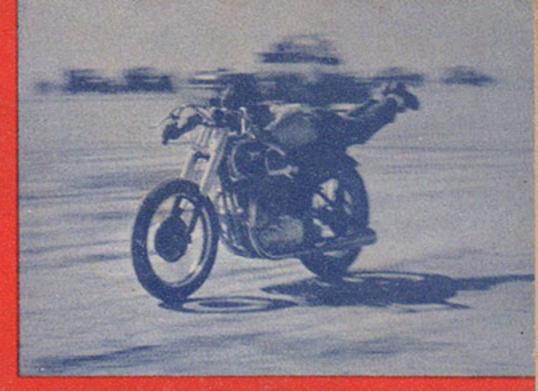
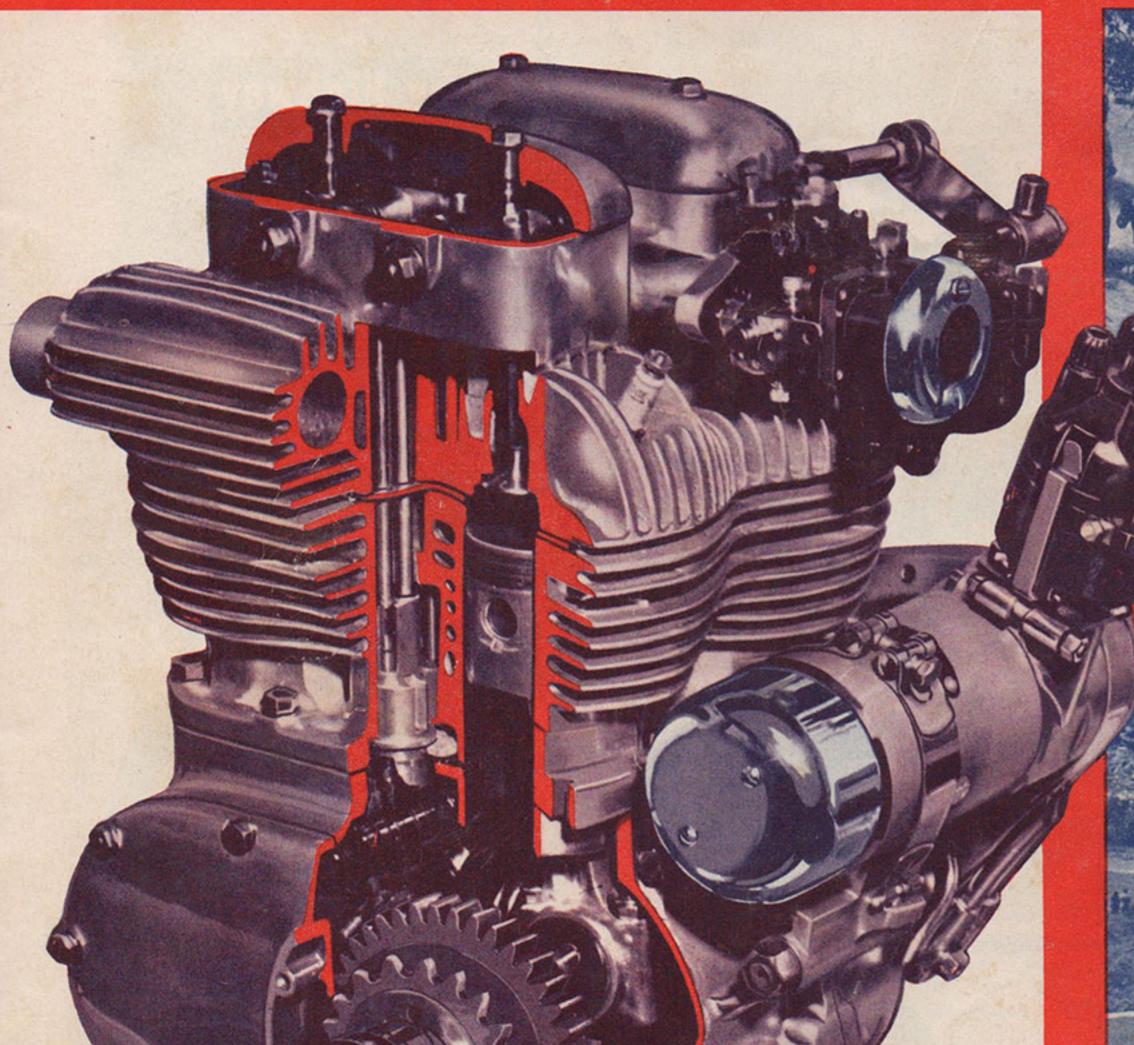
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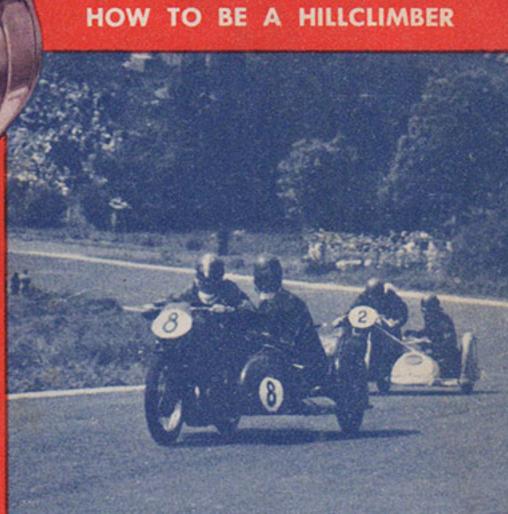


DRY LAKES SPEED TRIALS

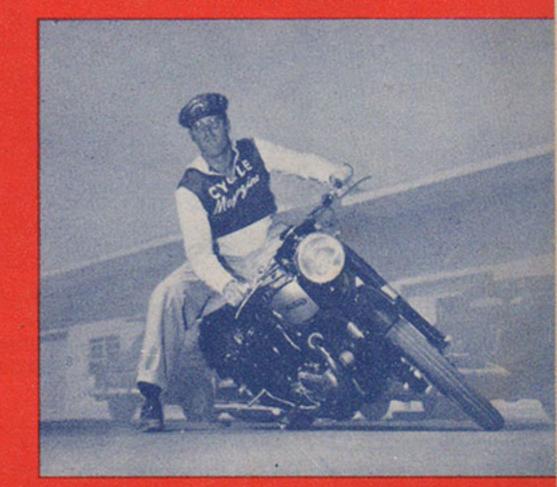


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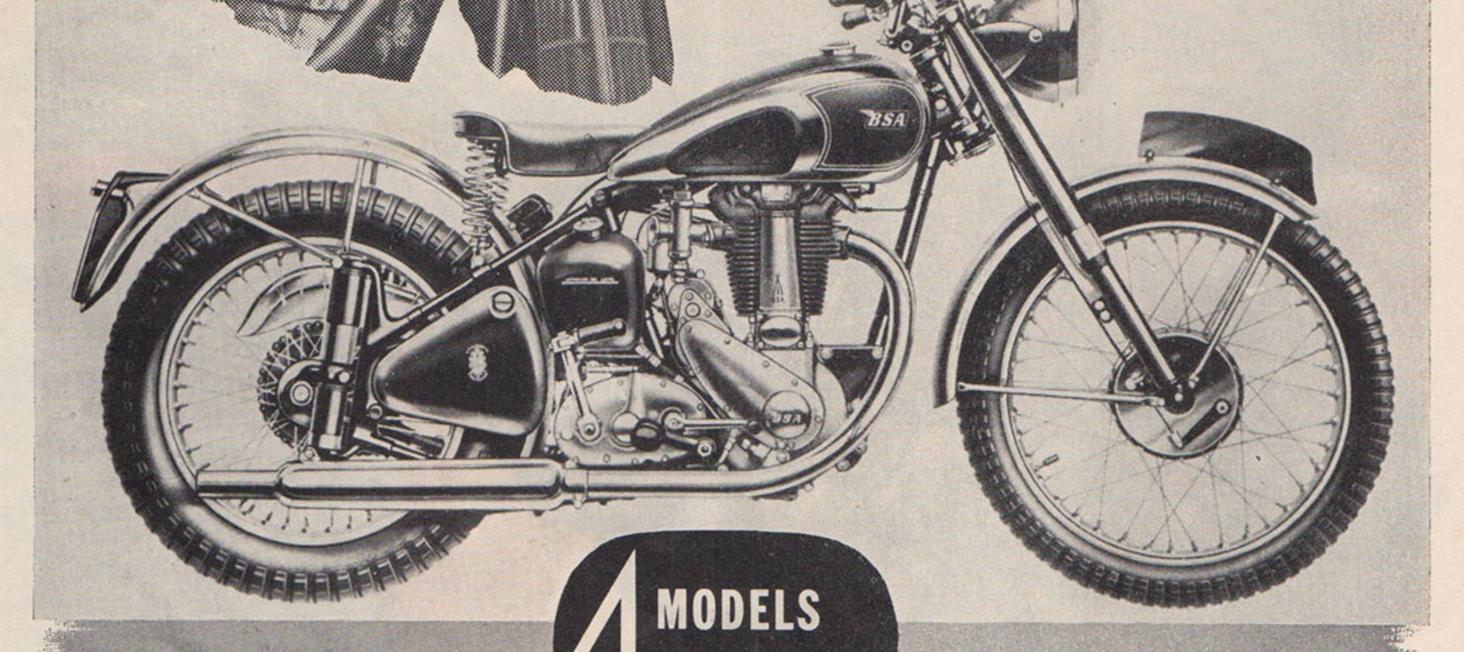


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tion at a nice discount. If you already subscribe, that's OK too. We'll extend your present subscription for a year. Any way it goes, your editors would like to know you better and the only way they can do it is to ask questions. By the way-you don't have to subscribe to answer the questions, but it is a \$4.20 item available for \$3. So sharpen your pencil, and dive in.

- 1) WHICH OF THE FOLLOWING COLOR CLASSIFICATIONS DO YOU PREFER ON A MOTORCYCLE?
 - (A) Black, (B) Blue, (C) Green, (D) Red, (E) Yellow.
- 2) WHICH CHASSIS STYLE DO YOU PREFER?
 - (A) Western Bob, (B) Full Dress, (C) Stock, (D) Strictly Competition.
- 3) (a) DO YOU PLAN TO PURCHASE A NEW MOTORCYCLE IN 1952?
 - (A) Yes, (B) No, (C) Undecided.
 - (b) IN WHICH ONE OF THE FOLLOWING CLASSES WOULD YOU BUY?
 - (A) 7.5" to 21", (B) 30.50" to 45", (C) 61" to 80".
- 4) WHICH OF THE FOLLOWING FIVE ARTICLES IN THIS ISSUE OF CYCLE DID YOU LIKE BEST? (SELECT ONE ONLY.)
 - (A) "I'd Climb the Highest Mountain"
 - (B) "Norton Road Test"
 - (C) "Rosamond Dry Lakes"
 - (D) "Ariel Square Four Cut-A-Way"
 - (E) "Belgian Grand Prix"

- 5) WHICH OF THE FOLLOWING FEATURES HOLDS YOUR PRIMARY INTEREST IN CYCLE?
 - (A) Technical-Mechanical, (B) Road Tests, (C) Track Event Coverage, (D) Field Event Coverage, (E) General Interest Features.
- 6) ARE YOU A REGULAR MONTHLY READER OF CYCLE? (A) Yes, (B) No.
- 7) HOW MANY PEOPLE, BESIDES YOURSELF, READ YOUR COPY OF CYCLE?
 - (A) 1, (B) 2, (C) 3, (D) 4 or more.
- 8) HOW MANY MOTORCYCLES DO YOU OWN? (A) None, (B) 1, (C) 2, (D) 3, (E) 4 or more.
- 9) (a) DO YOU FEEL THAT YOU SPEND MORE THAN THE AVERAGE OWNER ON MOTORCYCLE PRODUCTS, MAINTENANCE, UPKEEP AND ACCESSORIES?
 - (A) Yes, (B) No.
 - (b) IF SO, HOW MUCH MORE THAN AVERAGE?
 - (A) 10%, (B) 25%, (C) 50%, (D) 80% or more.
- 10) INTO WHICH INCOME BRACKET DO YOU FALL? (A) Under \$3,500 per year, (B) Over \$3,500 per year.
- 11) WHAT IS YOUR AGE? (A) Write answer in on Answer Sheet.

ANSWER SHEET

Here's how you can help your CYCLE editors to make your magazine more enjoyable for you. Simply read each question, circle the letters and fill in the blanks below to indicate your answers and mail the Answer Sheet to CYCLE. If you like, you can take advantage of the special subscription offer by using the coupon below. However, you needn't subscribe to answer the questions.

1) A B C D E

2) A B C D 3) (a) A B C

(b) A B C 4) A B C D E

5) A B C D E

6) A B

7) A B C D

8) A B C D E

9) (a) A B (b) A B C D

10) A B

11)yrs. (your age)

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"World's Largest Monthly Motorcycle Circulation"

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ON THE COVER

Because of the engineering triumph represented by the perfection of the Ariel Square Four, and the many meaty details that can be seen from Johnson Motor's actual engine cut-a-way, it was selected as the highlight for this month's new format . . . Photo by Felix Zelenka

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"Bus" Schaller says:
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Speaking

BY THE TIME these words are in print, it is easily possible that several long established AMA speed records may have talten by the wayside. Under ordinary circumstances such a statement might be considered bold or a bit wishful, but an unusual and fortunate turn of events gives cause for sound speculation that motorcycle speed history is in the making. I am speaking of the Southern California Timing Association's (recognized hot rod organization) invitation to our fraternity to attend their third annual Bonneville National Speed Trials, held through the week of August 27th to September 2nd.

Invitations were sent to ten of America's foremost speed contenders with the thought in mind that if this first event is successful, challenging cyclists will undoubtedly be asked to return to the Bonneville Salt Flats each year in a mass record assault. In the past years, the cost for an individual to go to the salt flats and hire the services of a certified timer has been prohibitive, and consequently there have been few attempts to push national speed marks higher by some of the top tuners for lack of cold, hard cash.

From the cyclist's viewpoint, this offers an opportunity to experiment day after day on a centrally located course, that is prepared each year by the Utah State Road Commission under the direction of Ab Jenkins, with the authorization and cooperation of the Bonneville Speedway Association and Salt Lake City Chamber of Commerce. It is also a chance for the fastest tuners and riders to check and recheck their theories through a trial and error system under the most absolute ideal conditions, for a maximum timing cost of ten dollars per rider for the entire period.

Working in close cooperation with the AMA, this offer is also open to the participation of their officials to supervise, observe, and actually operate the timing controls if they so desire, and thereby certify any records that might be established.

The course is five miles in length overall, with a measured quarter mile and one mile timing traps set up in the center. Spectators will be kept one thousand feet from the course and most extreme safety measures will be taken at all times, with adequate liability insurance in force.

The SCTA, sponsors of this annual event, has acquired the expert timing services of Mr. J. Otto Crocker, who is also chief timer for the American Power Boat Association, authorized to establish world speed boat records in this country. Mr. Crocker's timing equipment is rated second to none in the United States.

There, in brief, is the foundation for my optimism and speculation. Whether or not national records are established this year is not a critical point. Our association will have been successful only if we are asked to return again in the years to come. With this incentive our national records will rise as steadily as the coming season.

RIDER WRITINGS

Sir:

Your comments in the August issue of CYCLE regarding motorcyclists crossing the Atlantic and touring Europe on their own privately owned bikes was excellent. . . .

One exception I did find, and that was the mention that motorcycles be crated. This is not the case on most trans-Atlantic ships, as these vessels all have "garage space" and to have a motorcycle in a crate means it will be unloaded by slower methods than merely rolling it down the gangway from a side-port. Autos are moved off a ship arriving in Europe within minutes, whereas crates must pass customs inspection as "unpackaged goods." Also, a crate can never be counted upon to be handled "this side up" and the result of oil leakage, battery acid, to say nothing of what little gas might still be in the tank, could be very damaging. . . .

. . . A rider who is budget minded and wants space on a ship at \$165 each way, which is a bargain, should apply for space in January or February. First Class space is always to be had, but the rates are \$365 upwards in summer season. Europe is the most travelled to continent in the world and in spite of more ships each year, larger planes and more flights, the demand for space far exceeds that which is available, and this condition applies from June 1st through to October 1st, especially in the more modest priced classes. As the most ideal touring weather is during this period, the motorcyclist who can afford the time and money for a really wonderful vacation should start in mid-winter to get his reservation.

Actually the best possible "buy" for the rider who is not interested in having clothes problems and who wants to tour Europe much as he would the United States is to plan on taking Tourist Class on one of the express liners—the two "Queens," the "America" or the "Liberté." It is well to take a ship that will dock in the country the rider will be taking his motorcycle ashore and not anchor in the stream for auto, express cargo, and mail discharge (to say nothing of the passengers!). By that, for disembarking in England take either an English ship or American, for they dock in Southampton or Liverpool. For travel from the continent, take either the French, Dutch, or American ships, as they sail from a dock and then make a courtesy call at English and Irish ports, but seldom tie up to a dock. Watching your motorcycle being loaded from a barge to the hold of a ship is not known to please the average rider . . . By loading at the dock you can watch the bike rolled up the gangway and possibly help to "tie her down."

> W. B. Smith Los Angeles 14, California

Sirs:

Just when I had most of my friends convinced that we motorcyclists weren't a bunch of characters, you have to come out with THAT picture!!! And on the front cover, yet! How am I to explain that to my friends?

When is the road test on a Norton bike due? And I don't mean a Manx model.

Richard A. William

San Francisco, California (THAT picture you refer to seems to be causing more comment than any cover shot to date, mostly good natured—Ed.) Gentlemen:

In the August issue of CYCLE you have a picture of Don Johns on the track at Portland. The picture was taken on May 30, 1916. I believe that at this time Johns was still riding the Cyclone which he made famous, although I am not too sure of it as the Cyclone Company had ceased to operate the year previous. On the Cyclone in 1915 he turned a practice lap at Dodge City (2 miles) in 1:20 or 90 mph. He quit the racing business in 1916 and went to work in the oil fields.

Richard E. Ponshock Seattle 4, Washington

Sirs:

From the cycle riders of our battalion, a big thanks for publishing a swell magazine.

It has given myself and the boys many hours of enjoyment. I still have all the copies, although the March and April ones are about due for rotation.

We all hope to be back on our bikes soon, but until that day, we can only read CYCLE and dream.

Pfc. Bill Fariss

U.S. Armed Forces, Korea (A true G.I. cyclist can usually be told by the double-sized barracks bag he totes—half-full of government issue, the other half a complete selection of motorcycle literature—Ed.)

Sirs:

In 1940 I purchased a very nice Villiers, 350 cc engine, in almost new condition. This is designated a Mark X1V B.

I've made every effort possible to locate some information about this engine, such things as its developed hp and at what rpm. Also, I've tried to locate a few parts for it.

I've written the factory several times, and they won't even answer my letters. Can you put me in touch with someone, or some company, who can give me some dope on this engine or locate some parts?

Richard O. Julian Danville, Illinois

(Hap Jones, distributor for the Villiers powered Ambassador Motorcycle, at 235 Valencia Street, San Francisco, should have all the answers—Ed.)

Sirs:

I've just finished the August issue, which is about up to your usual fine level except for the cover. I think that the cover would have been much more effective if the Moto Guzzi had been shown without the unshorn Baron aboard it. If Mr. Leone wishes to wear his hair long, that is fine with me, but I think we all realize that the public sees too many riders as it is who could be, shall I say, neater and quieter. Incidentally, I am not bald.

Jim Thixton Tipton, Missouri

(The Baron Leone cover shot was quite impromptu. Some of the CYCLE staff were at Santa Monica beach with the Guzzi and forced an acquaintance with the Baron as he was noticed emerging from his daily dip in the surf. My brief personal experience with the mat king found him to be very unassuming, generous, and pleasant to talk with—Ed.)

SPEED TRIALS PAY OFF

Pasadena Club Tells

How to Make Trials

a Profitable Proposition

Text and Photos by Bob Behme

DIGGING INTO the hard crust of California's Rosamond Dry Lake, the bike screamed toward the traps. The huge crowd watched the rider expectantly. Dust clouded the early morning sun as the rider flattened against his hurtling mount and roared past the timers. It looked as if this might be the fastest run of the day and the crowd was excited. Speed records had been broken in the 40 cubic inch class and if this was to be the fastest time, the crowd wanted to know about it. They watched the judges excitedly. "138 mph." The word began to spread. "138.99. Bus Schaller's bike almost broke 140."

Irwin Lee had gotten a special pass from the Army to ride Schaller's bike, a supercharged Harley-Davidson. After the race Lee was scheduled to leave for Korea. 138.99 broke no records for the 80 inch class but it was good time for the day and the crowd cheered Lee as he headed toward the pits.

In many ways the Rosamond Speed Trials were making history. Over 300 riders had entered the Pasadena Club's 4th annual run. The work of the club in staging past events had earned the trials the title of "the most perfect speed trials in America" and riders from many of the western states were competing. "I never miss one of Pasadena's runs," one rider said, "they go like clockwork."

There is a lot of work in staging a speed trial such as the Rosamond Dry Lakes run. The work on the Rosamond run started ten months ago when the club elected Jack Fiddament chairman of the event. Immediately Fiddament selected his committees. He set up groups for registration, communications, starters, judges and pit stewards.



Jack Fiddament, left, sparked his first big event, swaps number plates for dollars through night preceding the big day. Clubman's help was vital

When the committees were selected and briefed, Fiddament and Earl Flanders began searching for a spot to hold the trials. According to Flanders the spot had to have a minimum of 2½ miles of straight, level surface. The riders need 1½ miles to get their bikes up to top speed. The club needs ½ mile to time the run and the riders who scream along at speeds well over 100 mph need at least 1 mile to slow down. There has to be room for pits and equipment as well.

Altitude was another serious consideration. A spot too far above sea level slows down the performance of the bikes. The riders want top performance. They found it at Rosamond which is only 1300 feet above sea level.

They needed markers, phones, trucks, timers, clocks, and first aid equipment. The Club owns 148 rubber pylon markers in partnership with the Glendale M/C. The two clubs bought the pylons from a manufacturer who had rejected them as unfit for highway use. Pylon markers are nice but not necessary, Fiddament points out. They are the easiest method of marking the course, but wood lath can be used instead. The lath is driven into the ground along the course of the path. String is tied to the lath and colored cloth is tied to the string to make it visible. Heavy asphalt base oil is laid alongside of the lath

to mark the course on the ground.

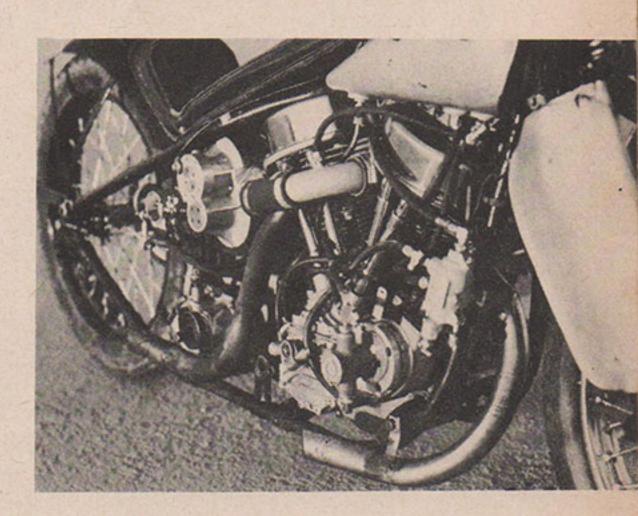
Communication is the backbone of the speed trial. To coordinate field meets, the group has a complete assortment of equipment. They have several two-way radios but atmospheric conditions at the lake make their use impossible and the club had to use voice-powered phones. The club purchased their phones at a war surplus store cheaply. They have two miles of wire; enough to keep pit stewards, judges and emergency crews in touch.

When it came to timers, the club did a lot of dollar and cents figuring before they rented them. At first they wanted to build their own, but once they checked the cost of construction, transportation and upkeep, they found it was cheaper to rent. Frank Christian, owner of the timing unit, received 25 cents for each rider through the traps. For that price he transports the equipment, sets it up, and hires two assistants to work the devices during the meet. Frank assumes all responsibility for upkeep and accuracy.

While equipment arrangements were underway Fiddament's committees were arranging for concessions. The club feels it is best for them to lease concession rights rather than operate them as a club project. If buying and selling were the only considerations the club would run their own stands, but they found

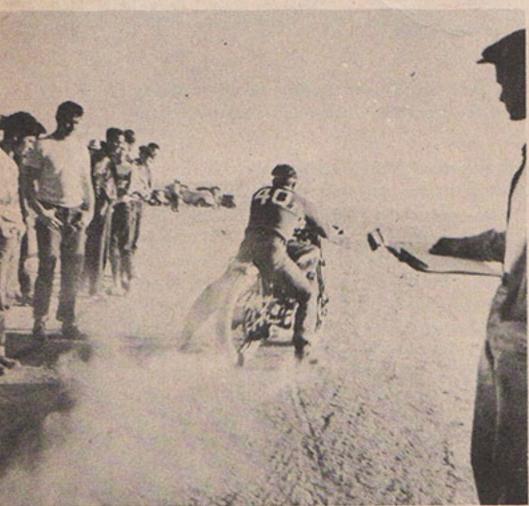


Spotting riders through field glasses, relaying numbers to timing stand, was Bill Bitters' job. Little black box is electric eye at start of traps



Schaller's blown 61 Har.-Dav. showing Hilborn fuel injector set-up. Blower is Roots type off a 1000 cc Mercedes-Benz. Behind blower is fuel mixing block. Fuel pump sets against timing gear case and fuel filter is above it along frame

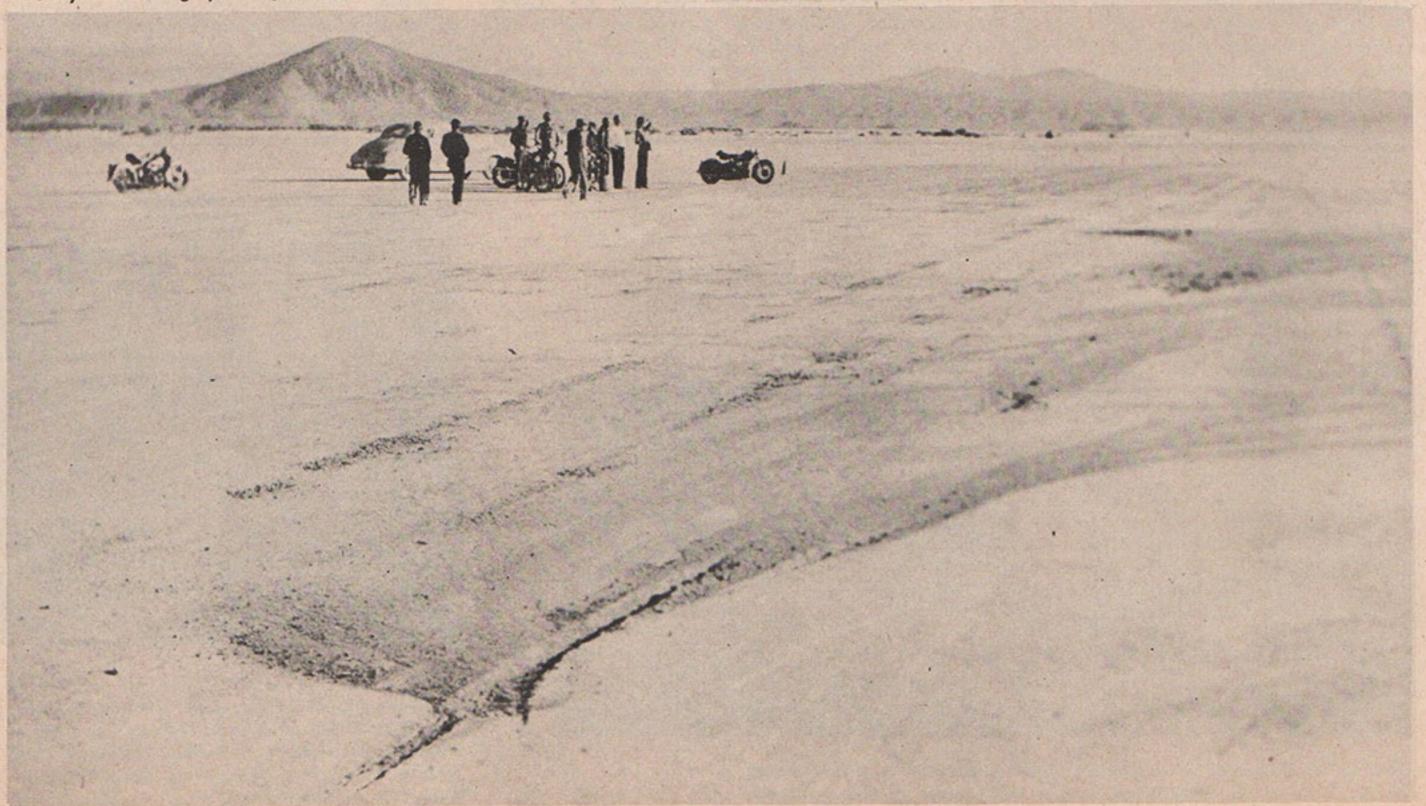


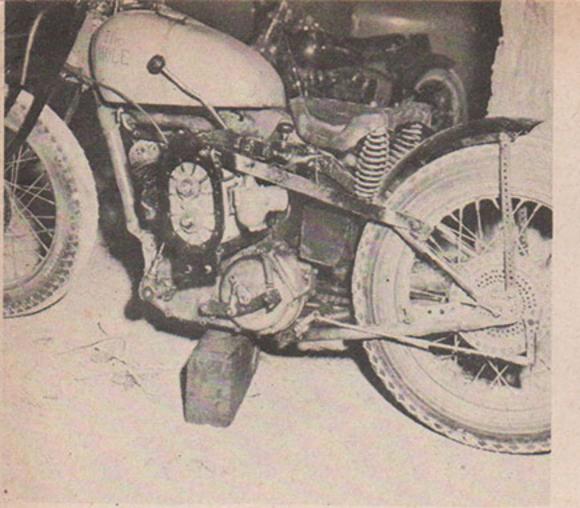


ABOVE, Jim Opp, starter, fires another missile down the trap. This happened 669 times in 5 hr., 55 min., averaging a ride every 31.8 sec.

BELOW, A big one that got away, left tracks in the sand as it bounced and gouged every few yards. Strangely enough, the rider was O.K.







ABOVE, Nicknamed "The Hole" because of its sieve-like appearance, the owner of this super-charged Indian shed pounds by drilling holes

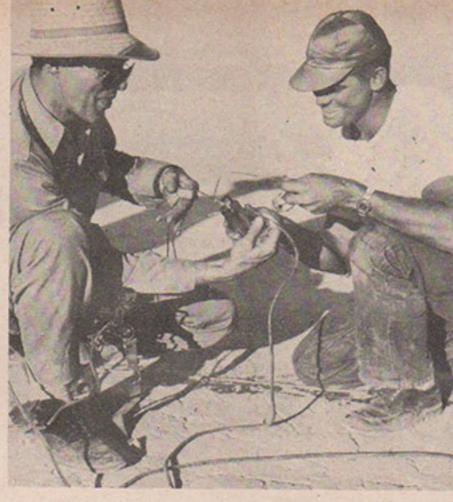
(Continued from Page 7)

that no matter how closely they watched their food budget they ended up with a lot left over. When they tried to dispose of the left-over they lost money. By leasing concession rights to Rolly Harper and Cliff Onan they get 20% of the sales without any worry.

As the various committees finished their jobs, Fiddament and Flanders began to plan publicity. News of speed trials must reach the prospective riders at least two months before the event. It takes time to get a bike in shape and two months is a short time.

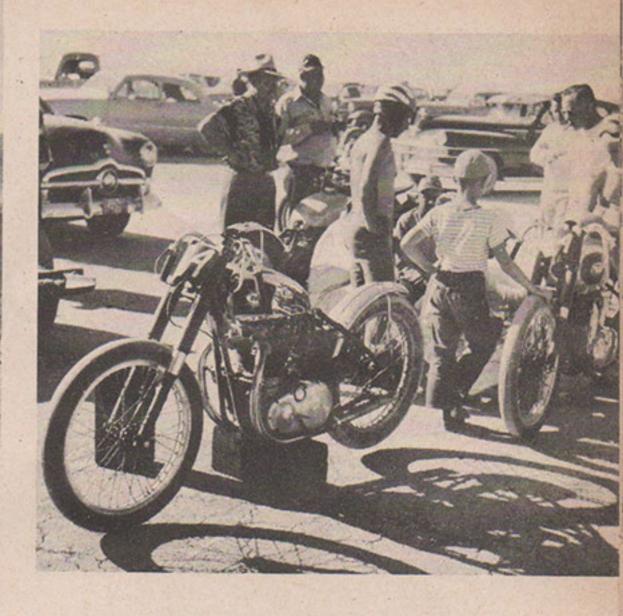
The club gets a mailing list giving all of the addresses of clubs and dealers in the western states from their AMA referee. The AMA charges one dollar for a roll of gummed stickers, with the address printed on individual stickers. These stickers need only be separated and glued on the envelopes. The club feels it couldn't address the envelopes by hand for that price. Each envelope contains a printed letter telling about the run. They list the classes offered and the rules to be used. In each letter to a club or dealer

(Continued on Page 31)



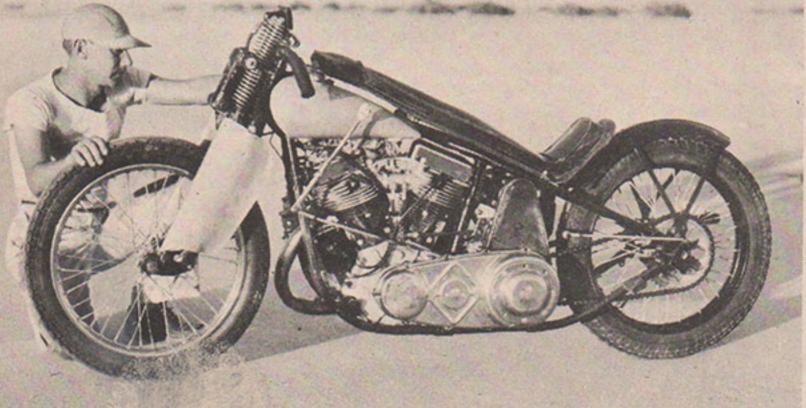
Earl Flanders and Jack Fiddament splice lines and set up sound-powered communications from starting pits to timing traps, 11/2 miles away

ABOVE-RIGHT, Hap Alzina had three factorytuned Beezers on the spot. One Flash took the 40 cu. in. cup at 137.30 but his 30.50 job couldn't keep pace with Bud Parriott's hot Triumph tuned by A. J. Lewis—speed, 122.03

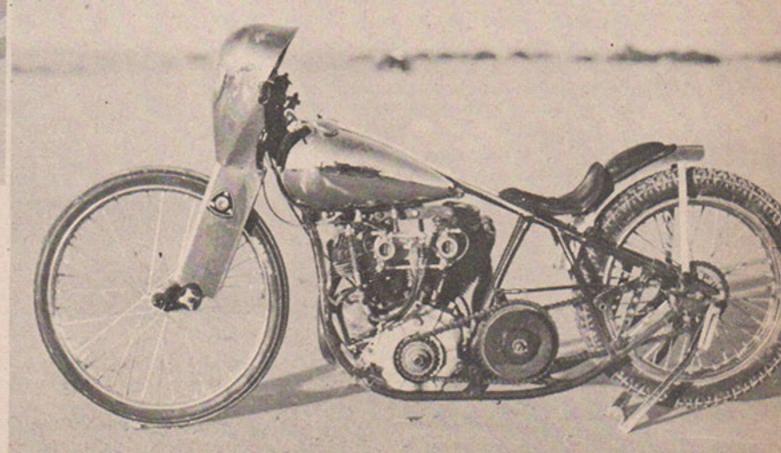




ABOVE, Larry Tindall and his bike both smoke after a piston let go, came out the side of the barrel and severed a gas line. Before going down in flames, Larry hit 101.98 on his 74



ABOVE, Bus points out his blown 61 should develop 125 to 150 hp, claims as actually been clocked at over 160 mph. "The feel of its acceleration is even hard for me to believe. It's just like sitting astride a rocket." The engine is a 1951 with standard bore and stroke, gets 2½ mpg when under full load. RIGHT, Schaller's 80 incher also uses Hilborn fuel injector (made in Culver City, Calif.), but no blower. This is Joe Petrali's old 136 mph AMA record holder bike, given to Bus by the Harley-Davidson factory. It weighs 290 lbs., and uses an old 1927 1-gear hillclimb gearbox. Narrow forks will not permit larger wheel



IF YOU BUY IT USED ...

TRY IT FIRST-IT MIGHT BE ABUSED

"E VERYBODY rides a used motorcycle" is one of the truisms of the sport. Most of you also buy it used. One dealer estimates that his shop sells at least two second-hand machines to each new one. Private-party transactions and the activities of the small operators who do not have dealer franchises, . up the used-new ratio to a solid 3:1. Most neophytes are introduced to the saddle on an older bike because they want to start with a low investment.

If you are a beginner or a low-budget enthusiast you're probably in the market right now. With a little patience and study, you may be able to save yourself dollars and

nerve-strain.

There is no used-motorcycle "racket" in existence. The Better Business Bureau has no complaints on file, and nothing comparable to the Demented Dutchmen of used-car fame has appeared on the scene. Motorcycle shops are usually of the friendly, neighborhood type, depending on the goodwill of their customers for future success. Only if you become involved with a fast-buck hustler or a private party trying to unload a lemon do you need to be careful. When you're in that kind of company, know the condition of the machine, terms of the contract, worth of guarantee, and fair market price.

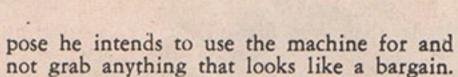
Whether the beginner deals with an established firm or a private party, he needs preliminary knowledge. To save future grief he should understand the types of motorcycles offered and their ranges of usefulness.

You're a beginner. You've saved enough for a down-payment and you have enough income to keep up the monthly obligation. You've been on your cousin's Harley a few times, and you've cruised at the controls of somebody else's imported job. Now you're ready to take off on your own.

Certain makes are not popular anywhere. One powerful, road-hugging machine costs quite a lump of bills when new, but on the second-hand market it sinks to less than half its original value after one year. One of the most successful imported racing jobs can't keep its depreciation down in the used market. If you like one of these less common varieties, your initial investment will be lower but check the cost of parts and repairs.

Guarantees on used machines are usually verbal. The buyer is expected to return if anything unusual happens and the shop will use its own discretion about free repairs. If the frame was faulty and suddenly snapped in your face, the store will take the rap. But if you've been out spinning a track and a piston seizes, you'll pay for your own racing bills. Some verbal guarantees are stated in specific terms. Others are left purposely vague. Neither kind is worth the air it was spoken into unless the dealer is honest. Courts don't recognize unwitnessed, verbal contracts.

When you've decided on make, consider displacements. The veteran rider usually knows his own desires perfectly, but the novice may be dazzled by the unexpected array of different sizes. Dealers emphasize that the buyer should know exactly the pur-



For economy, the 125 or a similar lowpowered model is ideal. These are the "commuters" specials and they've been designed for city and suburban use. The top speed of 40-50 mph will be plenty for traffic and the 80-100 mpg will save enough gasoline to make the payments. Used 125's are easy to find, and if the owner feels like taking a sedate fling at competition, there is a special class for his bike. About the only thing he can't do is join the local club for a highway trip and always expect to stay with the crowd.

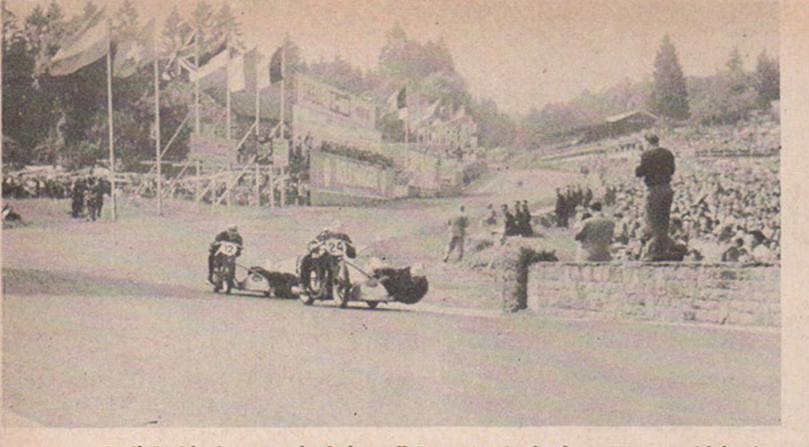
At the opposite end of the scale, the 80, 74 and 61 cu. in. bikes are designed to be used for long distance, speed cruising. Top speed is on the fast side of 100 mph but gas mileage runs 35-50 mpg. These jobs are lovely to handle because they are supremely comfortable and the heavy engines turn out all the low speed torque you'll need for acceleration. If you like cow-trailing, you can do a creditable job on these, but you may have trouble lifting yourself out of a tight spot if your forward momentum should cease.

designs. Top speed will be a good, solid 80 and may pass 100 on the more expensive models. Gasoline consumption, even for the heavy handed, should be 50 mpg and a little tact and patience can raise that figure to 75 mpg. Comfort and acceleration are close to the big jobs and as is also true of the 74's and 61's, there are plenty of used models available everywhere. Almost any sporting event may be entered with these machines, though extensive modification is necessary for serious work in many cases.

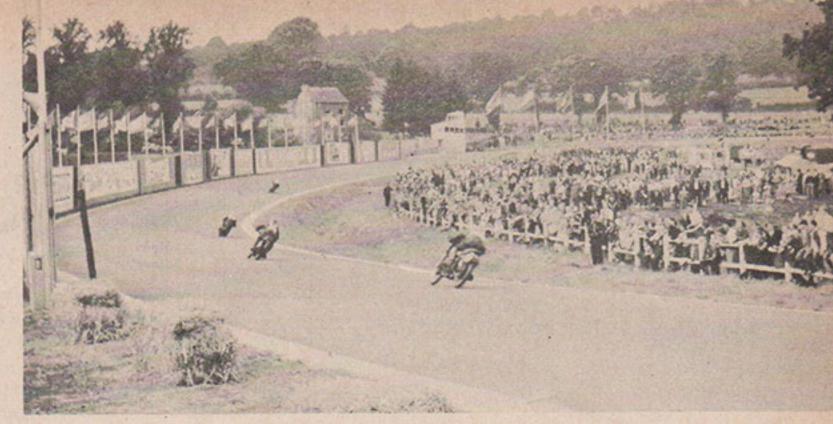
By now you should have a size selected and you have probably settled on a make you like. If you've landed in the compromise size range, you'll have a choice between a single or twin. Now this is entirely up to you, but you should realize that the single can be trying to novice nerves. It is harder to start, for one thing, and for another some have a healthy thump that may startle the beginner at first. The twin is less crotchety and smoother to ride. If you want to spend a lot of time cow-trailing, then the single may be your

(Continued on Page 33)





Cyril Smith desperately fights off Pete Harris, both on Norton sidehacks, but eventually relinquished third spot to him before the race was over



The fast Stavelot right hand half circle. Corners such as this make it easy to understand why the Belgian course is called "World's Fastest"

DUKE AND OLIVER OUTWIT INTERNATIONAL SUPERMEN ON WORLD'S FASTEST CIRCUIT

Text and Photos by Wm. H. Onslow

BELGIAN GRAND PRIX

TN 1950 this heart-shaped course near Spa, pleasure ground of the Belgian Ardennes, wrestled the title of the "World's fastest circuit" from Northern Ireland, home of the "Ulster Grand Prix," when the dapper little Italian, Umberto Masetti, wafted along on his Gilera four to win at 101.09 mph. Remember the tragedies of last year which resulted in the death of David Whitworth and injuries that put that fine Irishman, Artie Bell, out of the game forever? Some of us were prone to put the blame to high speeds, but this year Geoff Duke won the Senior at a speed of 106.66 with a record lap of 107.8 mph. In completing the double on the 350 cc machine, he would no doubt have beaten the 500 winning speed of last year, had he not purposely slowed in the last four laps. Despite this, his speed for the 96.5 miles was 100.52 mph.

THE 350 CC RACE

Before possibly the gayest and largest crowd to ever visit this beautiful course in its wooded surroundings, a field of thirty-two riders came to the grid to battle for their country's prestige. The Duke was a strong favorite, and a keen struggle was expected between the three factory teams, AJS, Velocette, and Norton, in order to gain points for the Championship. Les Graham, looking rather strange on a "Feather-bed" Norton, could upset the book with his fine riding qualities to atone for a slight lack of speed.

From start to finish the contest ran almost true to form. Duke was away to the lead like a scalded cat with a pack of hounds on his tail, but in each of the eleven laps the cat increased the margin of safety until a first lap lead of six seconds became forty-one at

Alfredo Milani, hunched low over his hot Gilera four, averaged 106.20 mph but was still blown off by the Duke and his Norton banger, who eased him out by four-tenths mph average



the end of the chase. Riding out alone, the style of the Norton "Number One" could be studied in deliberation, and though he seems to move along smoothly, each action is performed with deliberate suddenness. He appears to brake sooner than many riders, but the sudden heel-over at a bend leaves one gasping. On leaving a bend he smacks flat on the tank with almost military precision and is away at full bore in the batting of an eye. Meanwhile, behind this flying, scudding, black-clad demon, an exciting "Tear-up" was taking place with no quarter asked or given at speeds around 100 per. The first lap found Johnnie Lockett backing up Geoff with the two AJS riders Bill Doran and Mick Featherstone in 3rd and 4th spots in front of the "Velo Fellows" Foster and Sandford. Les Graham was holding a comfortable 9th with the first Belgian rider, "Erge" (un nom de plume) two spots behind.

Doran put in a second lap of 5 min. 18 sec. and took second spot from Lockett, who had taken four seconds longer. Bob Foster, in perhaps his last season of racing, had struck a spot of machine trouble causing him to retire; but to even things up a little, Sandford ousted the Ajay of Featherstone from fourth position. How close these boys were racing, almost shoulder to shoulder. The only change among the leaders in the fourth turn was that Lockett had gained a second on Featherstone, who had identical time to teamster Doran. Duke turned this lap in 5 minutes 11 seconds, which not only gave him a lead of 22 seconds, but created a record of 101.29 mph.

At about the fifty-mile mark, a startling change appeared among the leaders. Bill Lomas had moved a Velocette into second with a show of brilliant riding, only to have his partner wrest it away next lap, the 7th.

Both Duke and Lockett evidently received instruction of opposite nature in the ninth turn, for the former slowed down and Johnnie "turned up the wick" to regain 2nd place, but lost it again to Sandford next time round. With only four retirements, seventeen riders completed the eleven laps, and ten were flagged off, having completed ten. Duke's elapsed time of 57 min. 34 sec., and only three seconds separated 2nd and 6th place riders as they swept over the finish.

Results

Kesuits	
1. G. E. Duke-Norton	100.52 mg
2. J. Lockett-Norton	99.35
3. W. A. Lomas-Velo	
4. C. Sandford-Velo	99.30
5. W. Doran-AJS	99.29
6. M. Featherstone-AJS	
7. J. Brett-Norton (3rd str	

8. R. Armstrong—AJS (works team)

R. Coleman—AJS (New Zealand)
 L. Graham—Norton

SIDECAR RACE

Eric Oliver repeated his success of last year, and with a 500 cc Norton exceeded last year's winning speed by almost four miles per hour, despite the fact that the last race was for 600 cc plots. With fifteen entries, the titanic struggle would be between Ercole Frigerio with a Gilera four and the wily Eric Oliver with a slightly slower machine, the craft of a fox, and the determination of a terrier. In contrast, Ercole uses the strength of a bull to hurtle the four around, but has been forced into a mistake more than once by the Englishman's cunning.

Perhaps the memory of his bad start on the water-cooled job last year had put the Italian on his mettle, for he streaked past the Norton that had pride of place on the starting grid. Oliver, however was close upon his tail and would be expected to use the draft of the faster machine to save his engine until the last lap before calling upon his more skillful method of cornering to collect the plum. Surprisingly enough, he decided to fight it out from scratch, and they were tooth and nail throughout the first five laps. It was always the Norton jockey who came first out of a bend, but Ercole seldom failed to pass before the next one. At La Source hairpin, the Black and Silver took the lead in every lap, though it was not until the fourth that he was able to hold it through the Eau Rouge Bends. In order to do this he had to break the lap record by half a second that his adversary had established previously.

The sixth lap saw a definite gap between them for the first time, for not only did Eric clip the fourth lap record from 6 min. 4.2 sec. to 6 min. 1.7 sec., but Ercole's power plot had definitely tired and he was losing speed.

Results

100	1(031111)		
1.	E. Oliver-Norton	86.36	mpl
	(Record)		
2.	E. Frigerio-Gilera	85.75	
	P. Harris-Norton		
4.	C. Smith—Norton	82.61	
5.	F. Vanderschrick-Norton	79.93	
	(Belgian rider)		
6.	A. Milani—Gilera	79.85	
	(Italy, single cylinder)		

THE SENIOR RACE

A buzz of excitement came from the crowd prior to the battle of the giants, for the finest riders in Europe and the British Commonwealth were out to renew the battle between single, twin, and four-cylinder machines. Again interests were centered upon the factory entries. Nortons were the sole (Continued on Page 28)

MEET WINDY LINDSTROM . . .

He's called "Windy" and he likes the name. Like any good Swede, he loves to talk, and he'll walk a mile for a good cup of coffee. It just happens that this affable exterior belongs to a man who is generally conceded to be the finest bill-climber on the Pacific Coast and one of the top men in the country. Since 1927, when he placed third to Joe Petrali's first in a Pacific Coast climb, Windy has been the man to beat at more than 300 uphill sprints. By 1942, he had racked up 150 wins in Class A competition. Since then he has demonstrated his adaptability by winning most of the Class C events he has entered.

Windy is now 45, still a top contender whenever he digs in at the starting board. He's ridden Harleys steadily, though the motorcycle shop he now owns in partnership with Clifford Self stocks BSA. As good at the workbench as he is in the saddle, Windy has

built himself a large following.

Early in his career, Windy spent two years on the short tracks. In 1949, he tried another form of competition when he switched to Enduros and he managed to cop the Pacific

Coast championship.

Windy's hobby is the same as his business -motorcycles. He'd rather bench-race than eat, and on weekends he spends his spare time at nearby tracks, watching other experts ride. With him is his wife, also a fan. The two Lindstrom youngsters, aged 14 and 12, are beginning to bound dad for machines of their own and prospects look bright.

YOU'LL BE scared to death on your first hill and it may be several climbs before you can keep your nerves quiet. I remember the first big climb I won at Franklin Canyon. Swede Matson was there and he was one of the best on the Pacific Coast in the late 1920's. He was easily the class of this particular run.

I'D CLIMB THE HIGHEST MOUNTAIN

By Windy Lindstromas told to Eugene Jaderquist

When I started my first timed sprint, Swede had taken his bike and already lashed it to his trailer. His runs were over and he had the best time. I was just a youngster, not worth worrying about. But the 2-cam Harley 61 and I hit it off right and beat Swede's best time. He patiently unstrapped his Indian and tried again. I sweated out every second of that try. Swede couldn't quite cut his own time under mine so I was judged winner for the day. And from that event I gained confidence in myself, confidence in my machine.

That was almost 25 years ago. Everybody tells me I'm an old man now. The nervousness has disappeared while my confidence has remained steady. But the excitement will never die for me. I still get just as much kick out of a climb as I did when I was breaking my way into the winner's circle. If I were starting all over again I'd still special-

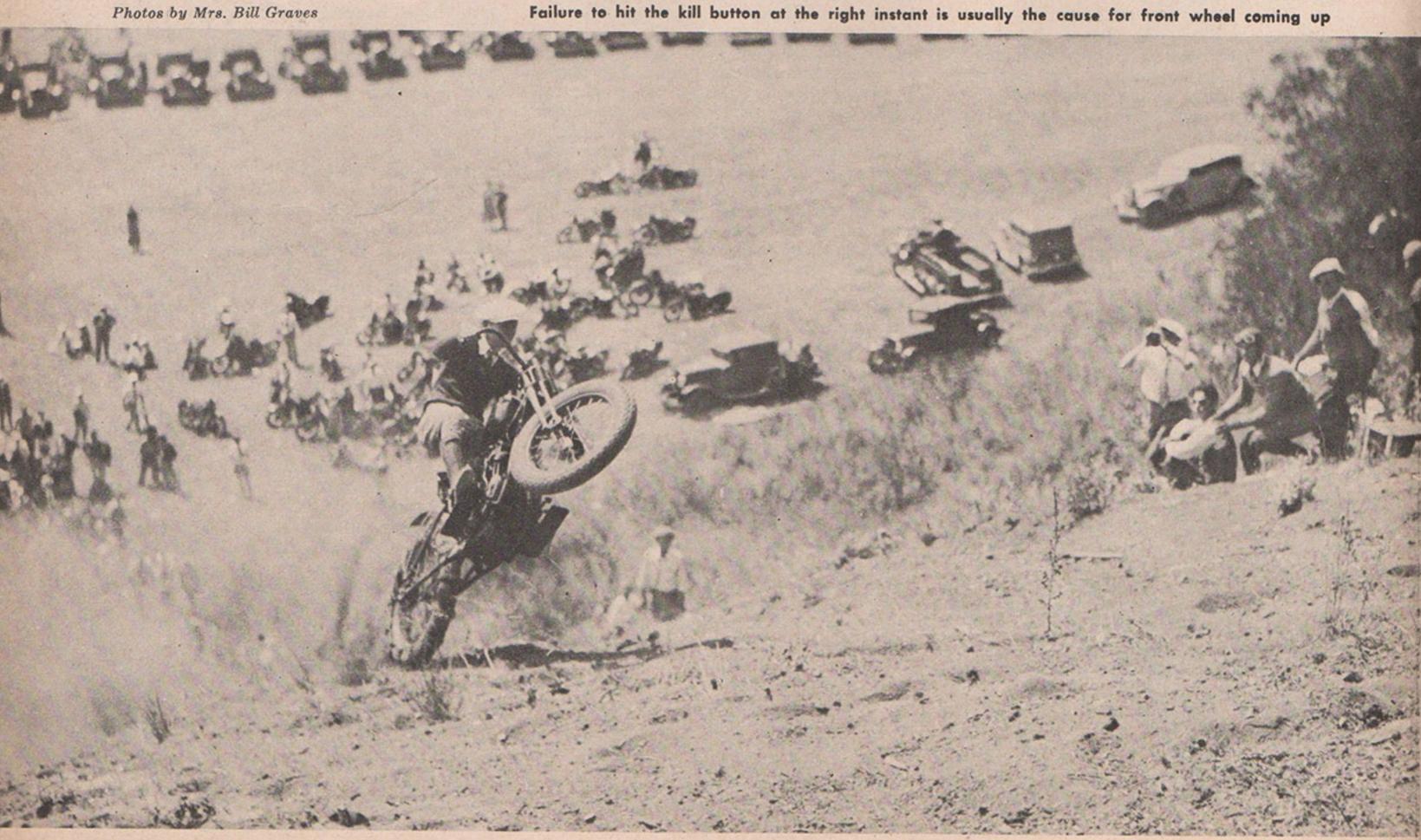
ize in that form of competition.

Hill-climbing is about as safe as competition can be. When you make mistakes (if you're anything like me you'll make plenty of them) and hit the dirt, you're all alone up there with nobody riding in your draft to compound the error into a serious accident. Speeds are slower, too. You can get cut up on sharp rocks or burn your hands sliding on gravel when you go down, but chances are you won't be seriously injured.

Hill-climbing is less expensive than some other forms of competition. You don't need much extra equipment—a special sprocket, chain for the rear wheel, extra wiring for the kill button. Only when you move up in class will you want to go into the engine and switch a few parts on the frame. Experts strip as much weight as possible under the strict Class C limitations and do all they can to the engine, short of altering the stock dimensions. I ride a 1940 45-cu.-in. job with newer barrels, improved head design, faster cam design, stock magneto. The compression ratio is between 6.5:1 and 7.0:1. You are allowed up to 8.0:1 but that's too much for a side-valve engine. The intake ports are restricted too much and you can't get enough mixture in the cylinder to fire at the high ratio. It's like trying to fill a barrel through a nail hole. On a 30.50 overhead set-up, mill your heads to 8.0:1. It is safer to cut under this figure to be sure to pass inspection if you win. Plan on cutting to 7.8:1 or 7.9:1.

I take off weight by using '29 Harley 45 forks which are about ten pounds lighter than late ones. My stock saddle has been replaced by racing gear. Stock exhaust is bent to miss the ground. It is illegal to cut or drill the frame, so I use the stock equipment.

Since you'll be using a chain on the rear wheel, tires are unimportant.



The required kill button is not difficult to install. It consists of a spring switch on the handlebar and a leather strip fitted between the contact points. The leather strip is tied to your wrist so that when you guess wrong on a hump or a sharp rise and the machine bucks you into the air, you will automatically jerk the leather strip from between the contact points and the spark-plug circuit will ground out on the frame, killing the engine.

You also need another kill button for your own use on the run. Most experts ride the hill flat out, never varying throttle opening until the top has been reached. Slowing down is done by tapping the extra button.

Now you're ready to ride. Of course you will wear leather boots and breeches to protect yourself, and regulations require a crash helmet. I never wear gloves because I once tried to close my kill button at a critical moment and caught part of the glove between

the contact points. If you're dressed for the ride and your machine is ready, it's time to study the hill. Walk it up and down, studying the terrain carefully, trying to pick the fastest path. Test the ground for softness or hardness of surface. Spot the sharp rocks and the holes—these will give you more trouble than anything else. A rock can ruin a tire and a hole can throw you without warning. Remember that grass can hide serious trouble. When you reach the top of the hill, you should have your route well in mind. On the way back down, try to locate the good and bad areas by landmarks that can be seen as you ride up. Estimate the distance of a sharp rock from the sideline; pinpoint a hole by remembering the patch of grass nearby. When you reach the bottom, turn around and try to ride the course in your mind. Pick out a landmark on the course, about half-way up or less, that you can aim at from the starting board so you won't have to keep lifting your eyes from the ground to aim at the finish line.

The start is the single most important part of the ride. In the few feet of straight provided, you must build up maximum speed with the rear sprocket you have decided to use. This will depend on the hill. For a short, steep run you will need more power and traction—about 12.75 or 13.50 to one. If the hill is long and more gradual, drop the ratio to 9.50 or 10.00 to one. If you are heavy, you'll need a lower gear to pull your weight.

When you are ordered to get ready for the start, put your rear wheel right up against the backstop. Rev up your engine a couple of times to test engine and carburetor. Just before the signal, wind up to peak rpm. At the instant the signal is given, pop your clutch and hit the kill button lightly. Let your rear wheel dig in and spatter the backboard with gravel and dirt, and hang on tight. Keep your right foot on the ground if you're riding a foot clutch and both feet on the pegs if you're English mounted. When you start to move, put both feet on the boards or pegs and keep them there for the rest of the run. Don't skid-that costs you both speed and time-but head straight for the low landmark you've already picked out. And keep your weight forward at the instant you start. If you are too far back the rear wheel may run right out from under you and leave you sprawling at the starting run.

Ten feet before you reach the actual starting line, shift your weight to the rear as far as you can. From here to the top you need all the traction you can get.

On your way up, keep your eyes on the ground. Trouble can spring from nowhere, or so it seems, and I've been caught plenty of times on hills I thought I knew pretty well. Perhaps the hill has been chewed badly since

you walked it and you will be forced to improvise a new route to stay out of the mushy patches. When you see soft gravel or loose earth, get far back to keep your traction greatest. If you find you're geared too high, be extra careful of bumps and humps because you may be thrown easily.

There are two entirely different kinds of bump. A short, square-topped obstacle is most dangerous because it will throw you off frontwards over the forks if you don't handle it properly. The front wheel noses over a small hump quickly and gets back on the ground before the rear wheel goes over. If you leave the power turned on full blast, the rear wheel will grab traction suddenly and pitch the rear into the air, sending you forward. I hit one of these all undone at the San Jose National in 1948 and came down on the front forks with my stomach. Just before the rear wheel grabs the hump, you should tap your kill button so the power will be off until the rear wheel clears the top of the bump. Never use your throttle—response is too slow.

On the other kind of bump, the long, gradual variety, the problem is exactly the opposite. Your front wheel aims upwards, you slide back automatically and weight shifts to the rear wheel. If you don't cut off, the rear wheel suddenly pulls so much more traction that it runs right out from under you for a sensational flip in the air. These flips are easy to handle if you keep your head. Your feet will be on the ground when the rear wheel scoots away so you stand there, keeping your grip on the bars, and let the machine flip where it will, taking care to stay out from under it. But there is no reason why you should flip at all. If you pat the kill button when your front wheel gets to the bump, your weight won't shift so suddenly and the rear wheel will lose enough traction to put the nose of the bike over the rise gently. Then when traction returns, you have control.

If you suddenly find yourself on the brink of a hole you didn't remember, grit your teeth and take it. Never try to turn through a hole. I did that in Modesto this year and slid halfway back down the hill on my belly and hands, with the bike sliding right behind me. If you can avoid the hole in plenty of time, do it, but don't take chances if in doubt.

Never use your feet unless you're slowed down to a crawl. The engine has more speed than you have.

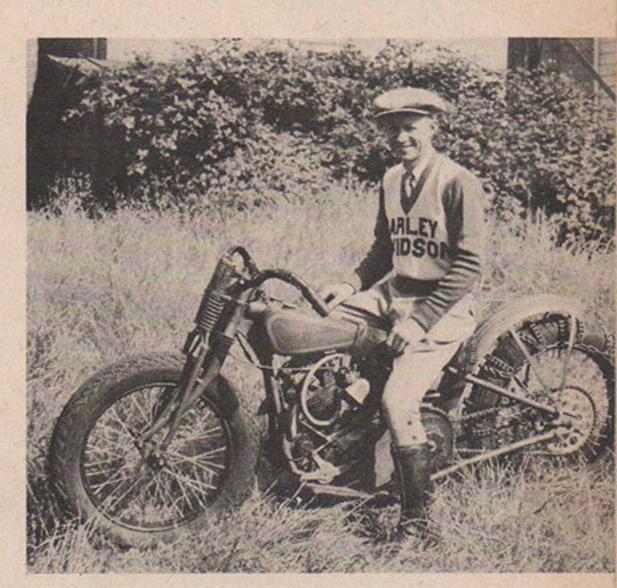
As you approach the top, begin to watch for spectators. They love to hang over the finish line and get in your way. And be sure you have already seen what is on the other side of the finish. On a good course there should be enough room to turn and shut off safely, but don't count on that. The mountain may drop off suddenly on the other side and special care must be taken to come to a fast stop. Or there may be rocks or trees at one point that must be avoided.

If you've got to go back down the same slope you rode up, don't try to ride. Just walk, dipping your footboard into the ground if the bike tries to run away. Only if the downslope is quite gradual is it safe to straddle the bike to walk or ride it down.

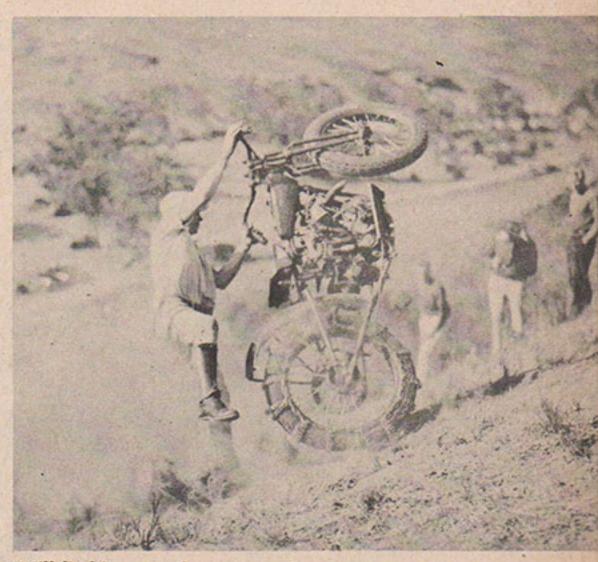
After you're back down, get ready for your next try. Remember the trouble spots and avoid them this time. If you can't push your time low enough to win the event, try again at another meet. If you can't spot any improvement in your work after a season of hard practice, get one of the experts to help you. I think I speak for most of the other riders when I say that you'll get the help you ask for. At least I can guarantee you that Windy Lindstrom will never refuse a man who really wants to learn.



Six feet in the air and still going up at a San Diego climb in Murphy Canyon, 1933. A sharp, short bump causes this type of airborne antics



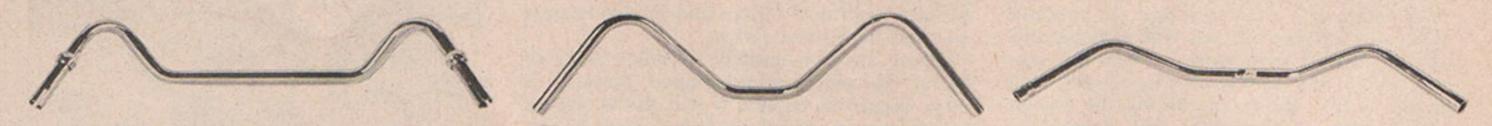
Windy and one of his special Class A Harley-Davidson factory machines. Note the odd trailing link front fork being tested at that time



"Hillclimbing is about as safe as competition can be." Lindstrom demonstrates the proper way to step off a bike and guide her down

THE STORY OF THE THREE BARS

Photos by E. Rickman



WHICH WILL IMPROVE YOUR RIDING

THE LONG HORN, HIGH HOOKS OR STUBBY BAR?

W AS THERE EVER a motorcycle sold that perfectly suited each individual rider, completed its existence without alteration, and so passed on to the scrap heap in anywhere near its original state? A few minutes spent kicking around the two-wheeled graveyard in back of your local shop will give, you a good cross section of some of the home-bred changes, many practical, some a bit incomprehensible, but all reflecting one definite fact; most all of us like a tailor-made bike.

Once in our garage, the first thing we can get our mitts on is, of course, the han-

dling tubes. Since bars have such a marked influence on the "feel" of a cycle, and since the human structure takes so many varied shapes and bends, our first problem is that of wedding the two in such a position that all-around riding comfort is achieved.

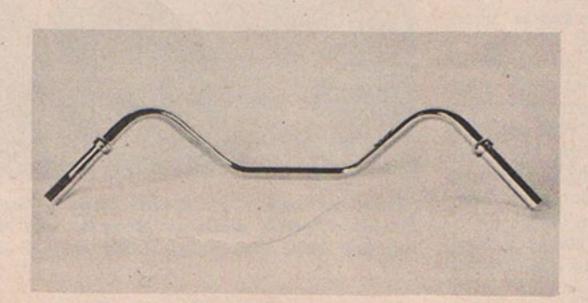
Here we find that "one man's meat is another man's poison," but even so there are certain facts that must be observed. Let's assume that our composite rider is one who spends the better part of his riding time in the dense jungles of present day traffic during the week, takes an occasional severalhundred-mile jaunt over the week-end, riding FAR LEFT, Flanders' No. 8. A wide bar for big twins, with more of a straight back type bend CENTER, Flanders' model J. Extreme high loop design to replace the standard British bar ABOVE, Hellings' S2 short track racing tubes are comparatively low but not too brief in this case

double, and supplements his cycle diet with a go at hare and hounds, English trials, etc.

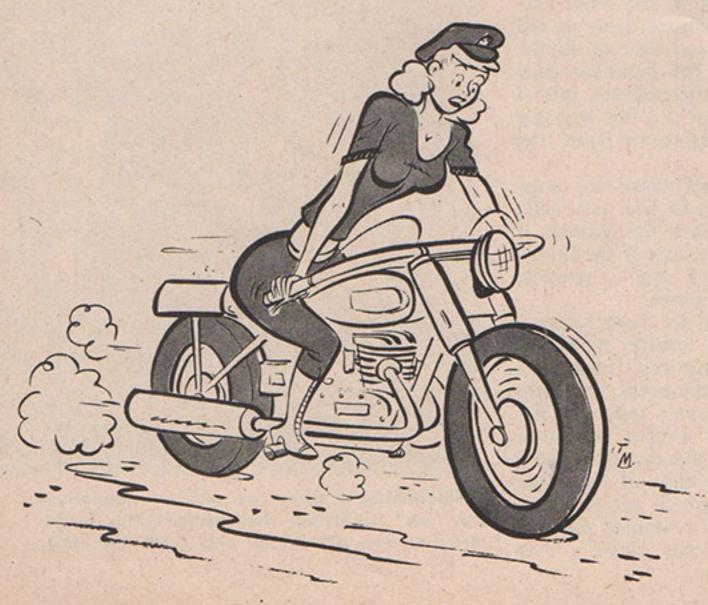
There's one thing sure; whether you're skating around a half-mile track or booming through town on a three-wheel servi-cycle, your natural riding position must not be stilted. Sitting straight in the saddle and without bending forward, hands should fall naturally on the bar grips with very little deflection at the wrists. Any other position, though it may feel right momentarily, is likely to tie your arms, neck and back in a knot after many hours on the road.

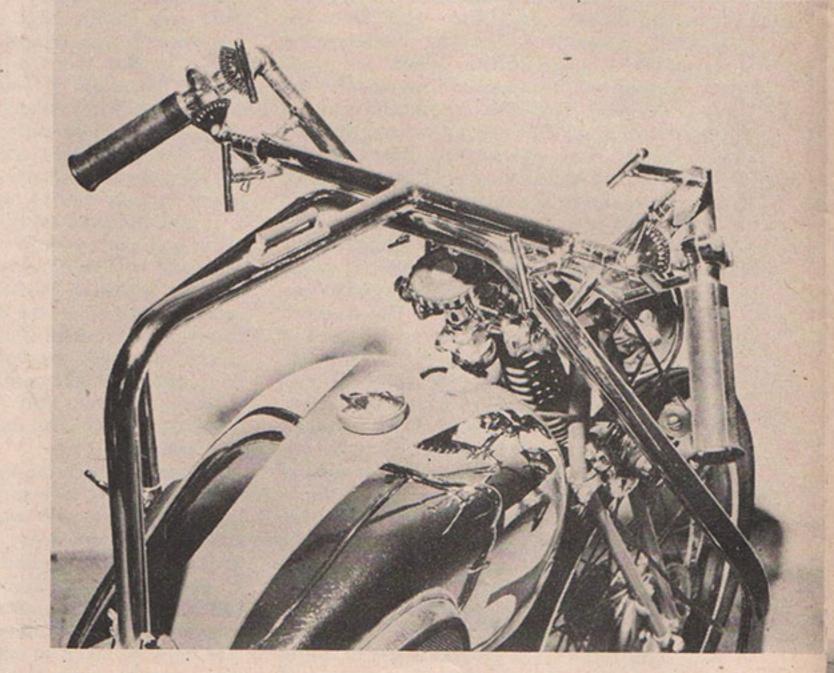
Too low a bar, forcing the rider's weight

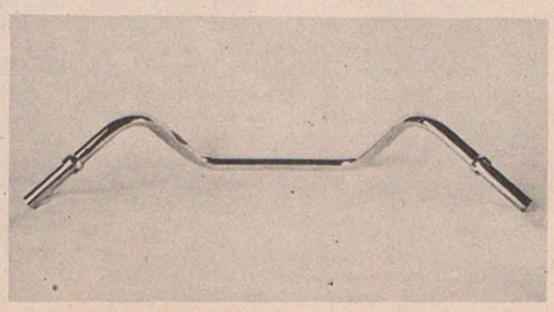
RIGHT, Mack Hellings decided that there must be some way to fit a prescribed bar to the individual's machine. With this intricate, calibrated, adjustable jig he can duplicate any bend and consequent riding position by setting the device on a given machine without the usual guesswork



ABOVE, The Hellings N1, especially made for the Indian Chief; high loop, perfect spread







The Flanders No. 1 bar for use on Harley-Davidson Hydra-glide models has extreme height



BEFORE, Latest standard Triumph touring bar has low elevation, medium spread. Is right in relation to stock seating arrangement and riding position. This model looks well and gives ample steering leverage, but . . .

forward, has quite a negative effect on allaround balance and quick recovery, under general circumstances. This is especially true in the case of all cross-country travel where broken ground and unknown obstacles lie ahead. Track or road racing over a smooth, familiar course is something else again; but even here, the relative position of the body is much the same. Bars are usually lower, it's true, but so have footpegs been moved rearward with the result that arms and legs are at very near the angle of the average tourist.

Height of bar tips is of course governed by the individual's physical proportions and



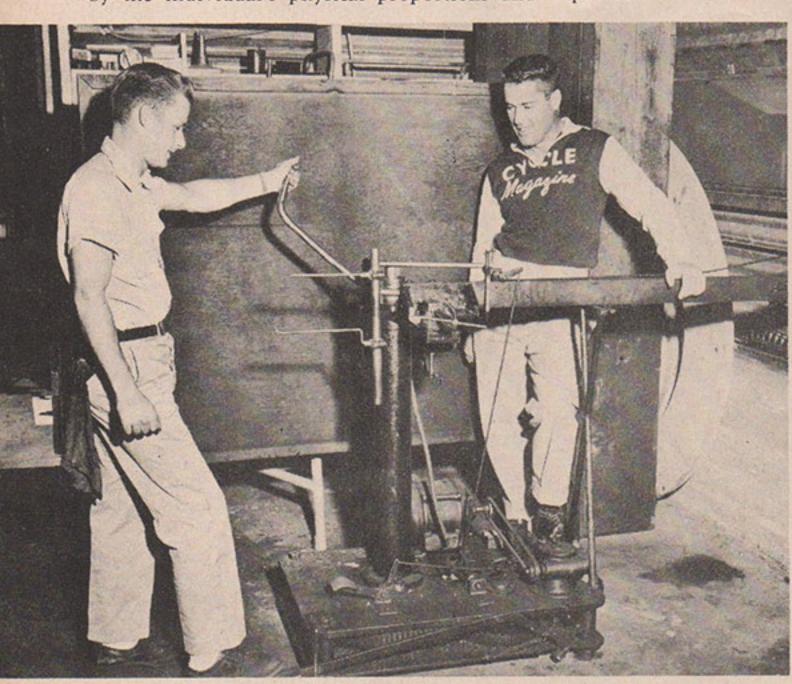
AFTER substituting this set of western high hooks, many riders claim that their riding ability has been improved because of more relaxed position and better feel, especially when frequent cross-country touring is done

the relative saddle position, the easiest way to raise the bars being to lower the seat. Watch that yours are high enough so that they don't pin your legs to the tank in a full lock turn. Much fun has been poked at the American enthusiast by his continental counterpart because of the skyscraper handlebars that seem to be typically Yankee, and we in turn usually muster a chuckle at their stubby, straight tubes; the oddest part of it all being that we're both right. The British cyclist for example has naturally come to prefer the short, straight bar for navigating his 350 pound bike about the twisting lanes of his

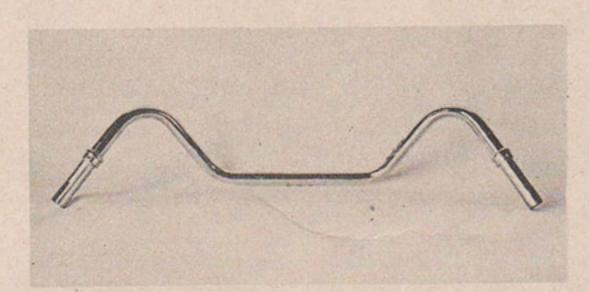
homeland, while we have found that the high hooks or longhorn style are more adaptable to the wide open spaces and prove mighty comforting to brace against when the old bus is gaining two feet of altitude for every foot of forward motion, as is often the case in some of our more rustic backwoods runs.

Handlebar width has three main determining factors: fork angle, weight of machine, and rider's size. The farther out your front wheel sits, the more leverage is required, just as in the case of a heavier bike with its

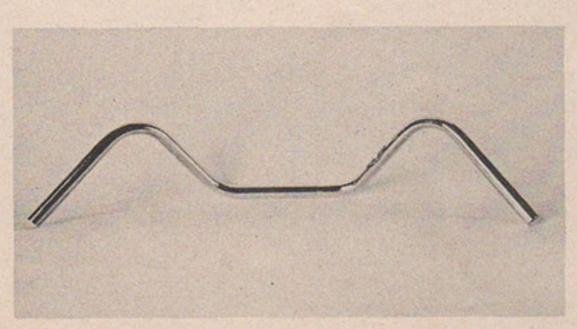
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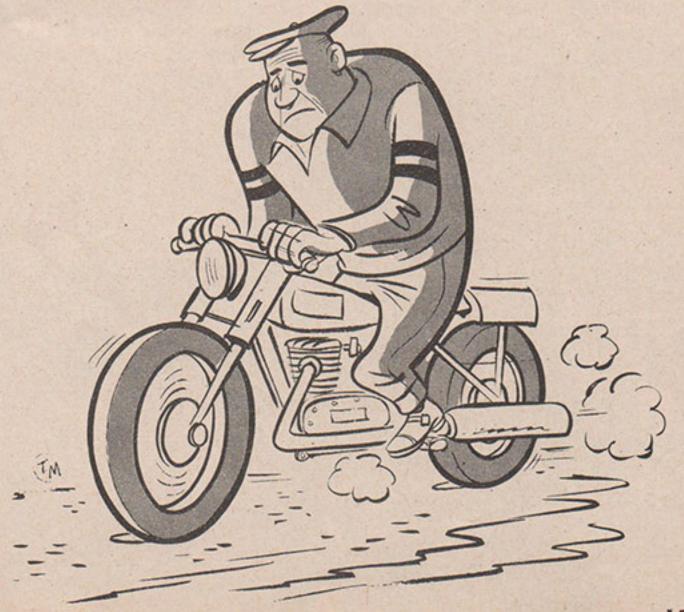
LEFT, Earl Flanders' original bar bending machine, built by him in 1946, is still in operation. At one time it was a two-man, hand worked operation. Now it's motorized and capable of 200 bars a day. They produce 35 different bends



ABOVE, The Hellings HY1, especially made for Harley-Davidson big twin Hydra-glide models



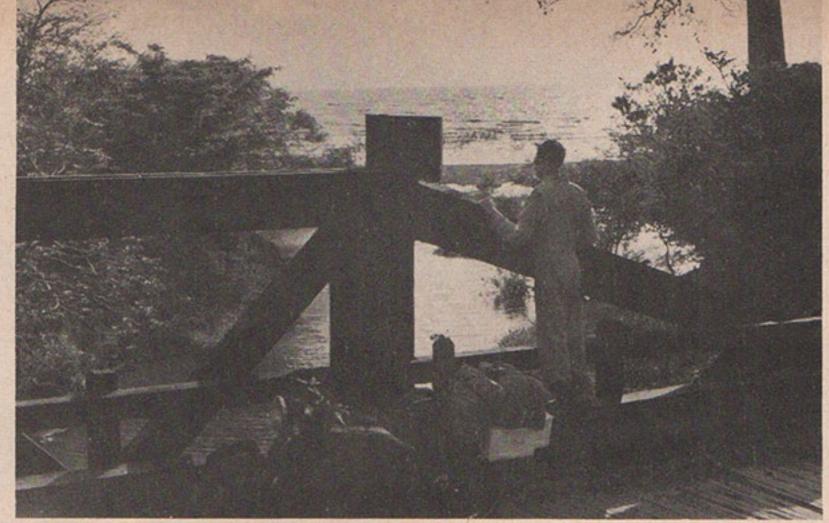
The Hellings English V1 bend is of medium height, small tubing, has a wide center spread



PANAMANIAN CONQUEST

Bill Carroll's Formula for Fun—
Two Hundred Bucks, a Cycle
and the Urge to Go!

Text and Photos by Bill Carroll



The highway from Nicaragua to Costa Rica runs near largest fresh water lake in world, Lake Nicaragua, a lovely sight early in the morning

PERMISSION TO LEAVE Nicaragua on the last leg of my Panamanian hop was accomplished by short visits to two government offices, the clerks all shaking their heads sadly when told I was going to Costa Rica on a motorcycle. Concensus of opinion was: I was crazy, and would never get there, as the Costa Rica road just did not exist. However, brighter conversation with private citizens gave me hope of riding all the way.

At least arrival at the border station proved one thing—my informants had not been fooling. The Nicaraguan road was wide, and all weather dirt, but it stopped at the monument marking Costa Rica's frontier.

Almost instantly a small stream was in the way, through which we splashed without stopping, but the thirty-foot bank was so steep that it was not topped on the first try. The second attempt was better and over the top I went to ride into a jungle of waist high grass. The road, such as it was, went over a series of rolling hills that required standing on the pegs and shifting all weight to hold the front wheel on the ground while fighting up the rutted track. Down slopes were not so bad with the bike in low, rear brake hard on, and letting the front binder maintain a gradual descent. About five miles along, at the bottom of a medium-steep slope, a converted truck-bus had left the road after losing a portion of its body to a vehicle traveling in the opposite direction. I stopped to push and photograph the action when two jeeps, connected together, finally tugged the bus loose. The balance of the road was just one continual series of up and down hills, with turns of trials sharpness. Twenty-one miles later at the interior guard station of La Cruz, I was warned of two very deep rivers ahead that would be impassable for the cycle. The land was now completely flat, with only an occasional small hill rising on the horizon.

Farther along another of many rivers was forded without any trouble except for wet feet that would not stay on the pegs. More rocks and trials experience, dodging timber, ruts, and just staying somewhere near the road, when the biggest river yet arrived so unexpectedly I just managed to stop with the front wheel in the water. Thinking it best to explore a little, I parked and walked across at what seemed to be the shallow area where the water came to slightly below my knees (18"). This did not seem impossible, so luggage was left on the bank and we started through. About halfway across a replica of the Rock of Gibraltar stopped me for a moment, and water began rushing over the mag. In spite of this, the motor was still running, and I was able to ride another five feet forward before dropping into a deep hole. The kick stand was lowered and the machine parked in the river when I noticed three horsemen about ten feet away quietly laughing at my troubles. One had a rope attached to his saddle, which was soon uncoiled and fastened to the steering damper. Then the three took turns tugging me to shore. Not one of them would accept a penny.

In a few minutes the motor was restarted with a nautical spray of water jetting from the exhaust. Then I took the wrong turn, and entered a cow pasture. It was obvious the Beeza was no bull, and the cows were none too happy at having such strange company. Soon the farmer appeared to lead me back to the proper pair of ruts leading to Liberia. My arrival in town ended 6½ hours of riding, 50 miles, and ten rivers from the Nicaraguan border.

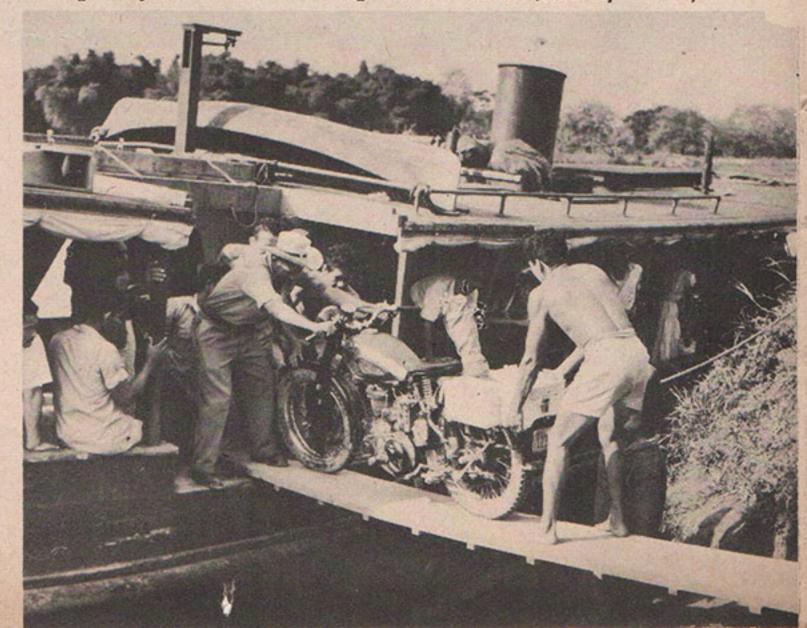
The next morning's sun was a pleasantly warm alarm clock. After an early breakfast and gasoline from the town's only pump, I bumped out of town on another lap of this strange journey. The surrounding country was slightly rolling hills covered with beautiful forests loaded with game birds, but the earth pulverized under tires and turned to a powdery dust that flowed like water, raising into a cloud at the slightest touch.

I finally arrived at a short section of the Inter-American Highway. This passed a small village where lunch was obtained and a short rest taken before leaving on the second section of the day's ride. This, too, proved to be a succession of ruts loaded with dust and rocks that shook the entire machine when accidentally striking the case or frame. One of them tore the muffler out and another ripped a spring loose from the center stand. Several miles farther another section of the Inter-American Highway permitted travelling at 30 miles an hour to the next big town

Just outside of the Panama town of David, this traffic control policeman stopped me for an inspection of the motorcycle ownership papers. Everything was in order, and he then took time to give me road information



At Puerto Cortes, Costa Rica; the motorcycle was swiftly unloaded over this narrow plank. No other facilities were available, but the men took great pains to avoid damage to the finish (and my nerves)





This section of road is typical of the first 21 miles into Costa Rica, with its steep hills. This truck-bus was sideswiped in the dark and ran into the ditch. Two jeeps finally pulled it out

for a Coke. While resting, a check of the speedometer showed exactly 90 miles travelled in 7½ hours riding time. One thing that particularly impressed me on the improved sections of roadway was the many choices of route open to drivers. In those locations on the road where a bridge may be built someday, the grading leads up to a gap you might want to leap or perhaps detour.

Near the town of San Ramon, where I spent the night, the pavement begins into the capital city of San Jose, Costa Rica, 21/2 hours away. The capital's BSA dealer serviced my machine, and assisted greatly in finding my way about the city. Inquiry at the police department disclosed that Costa Rica has 485 motorcycles registered, about 3/4 of which are American, the rest English. Again, as usual, there are no sport activities. The one club had to disband some time ago when some of its members became involved in a revolutionary movement. There are many paved roads here, plus interesting scenery, but the High average rainfall of 11.9 inches each month dampens the spirits of those who ride.

I had a pleasant visit in San Jose, but before leaving it was necessary to obtain a permit to export the motorcycle, as well as have the government offices stamp my passport and collect \$3.00 toward balancing the local budget. Because there is absolutely no vehicular road farther south, arrangements had been made to travel both by boat and



On the bank of one of the two Costa Rica tivers I failed to make, the lone horseman who pulled me out waited long enough for me to take his picture, while the BSA dried out in the warm tropical noon-day sun

railway to the next section of the highway in the Republic of Panama.

My afternoon arrival at the wharf brought some misgivings at the seemingly small boat being loaded for the coming sea journey. However, the cycle was casually hoisted by four men and dropped into the bow of the launch, where it caused no trouble during the entire journey. Our cargo was most unusual, consisting of ice in burlap bags, school desks, fruit, metal drain spouts, canned goods, the motorcycle, and three parrots. Passengers were 18 adults and 10 children from Costa Rica, three Belgians who spoke nothing but French, and yours truly speaking little more than English. Loading was finally completed, and we chugged out of the harbor toward high seas at 3:30 p.m. Crew members soon had fishing lines rigged with good results forthcoming.

The following morning about 8 a.m., the pilot turned his small craft toward what seemed like certain trouble. All of the passengers and crew held on tightly as the launch hurled itself through pounding surf to enter a wide tropical river. Another hour chugging up river through huge banana plantations brought us to the mud bank landing at Puerto Cortes, unfortunately on the wrong side of the river for me. Two native boatmen looked rather dubiously at the motorcycle, but finally agreed to ferry us across the river in their dugout canoe. The

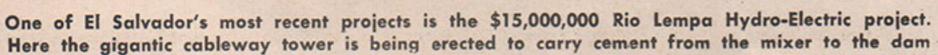
RIGHT, A portion of the trip was via flat car, in company with automobile travelers from the central section of Mexico. This is the change of gauges at the Panama, Costa Rica border

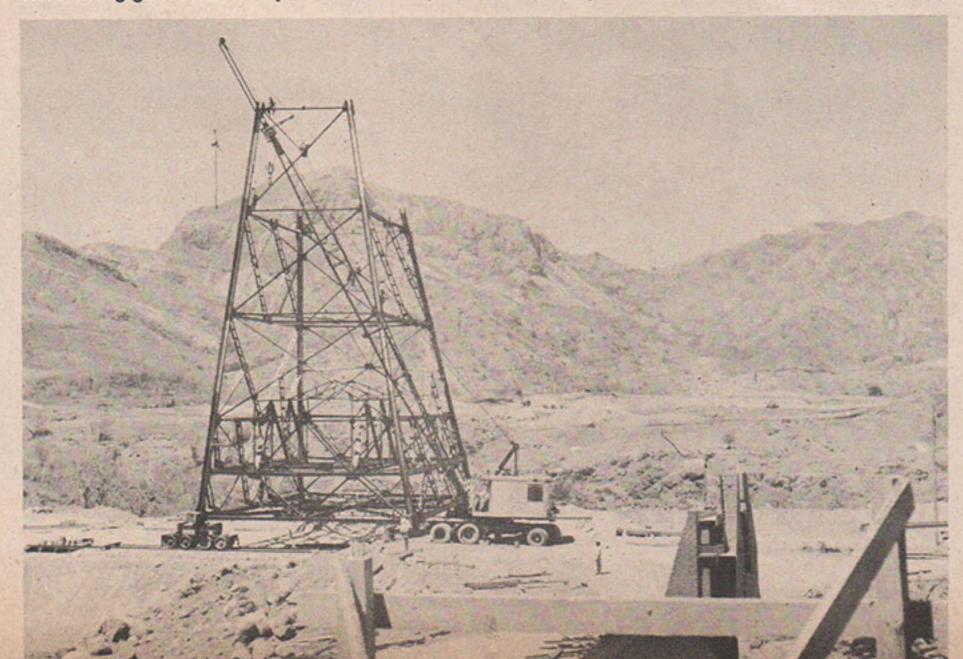
swaying of the light craft in the river stream, plus knowledge that motorcycles don't float, was enough to turn my remaining hair grey.

From the opposite bank, a gravel road led six kilometers to a railway station of the United Fruit Company. A box car was available, and the five hour train ride to Golfito began. There the news was, "No trains farther for three days;" so I settled down to watch bananas being loaded aboard ship, drink cool drinks, play golf, drink cool drinks, read books, drink cool drinks, and take three cold showers each day.

Early Monday morning the cycle was pushed into a baggage car for the trip to Puerto Armuelles. Unfortunately, the clerks forgot to tie it down, and the first wild curve threw the machine onto a box of doughnuts. This, plus leaking gasoline, made quite a mess out of the baggage car but luckily for me, no one seemed to mind a great deal. Near the Panama border, our train stopped and the cycle was loaded onto a flat car of the narrow gauge railroad going farther toward my destination. A smaller locomotive pushed us to the border inspection station, where papers were stamped by guards living in a large two-story building -half of which is in Costa Rica, and the other half in Panama. The center partition is not exactly on the border line, and the

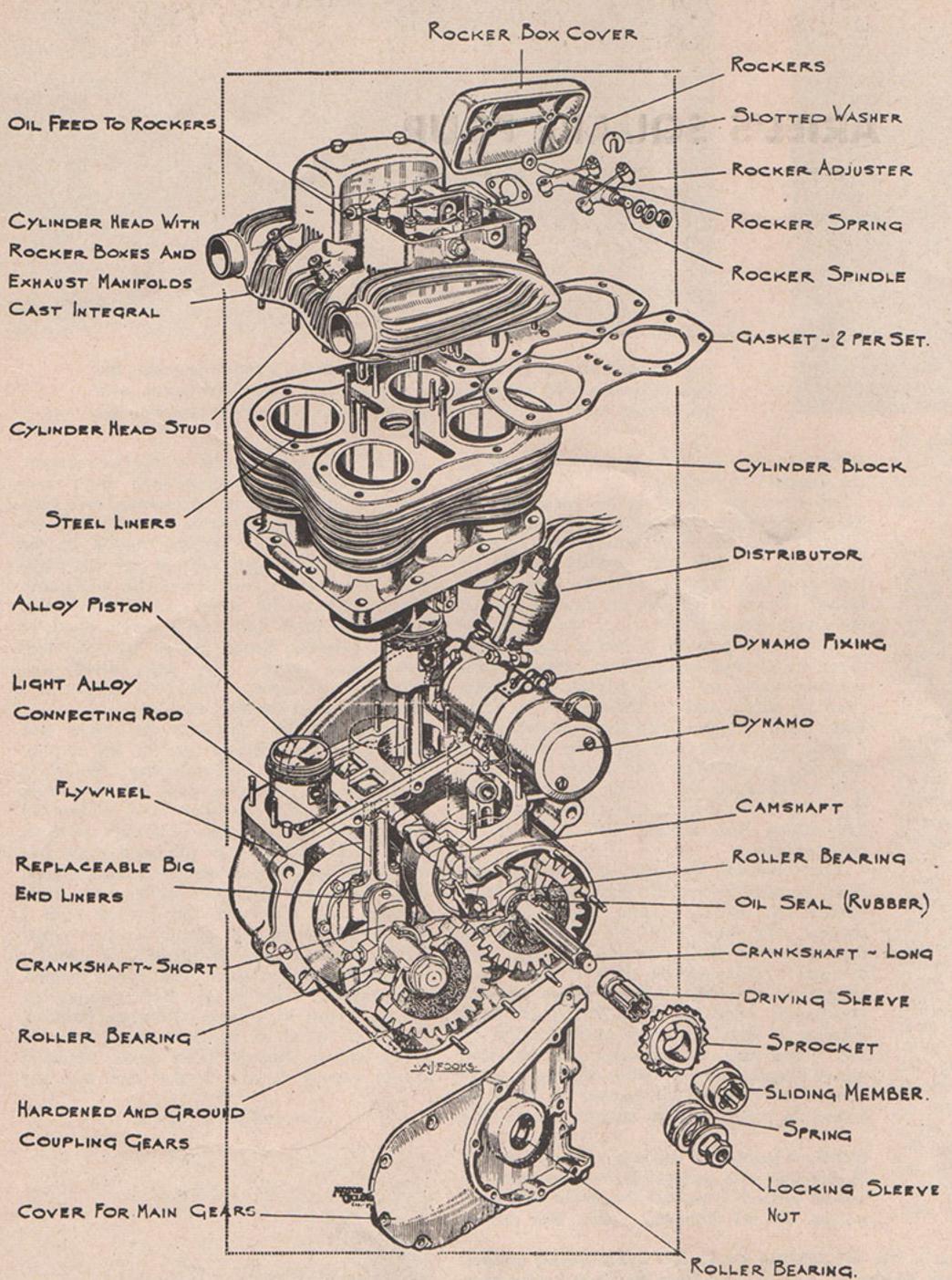
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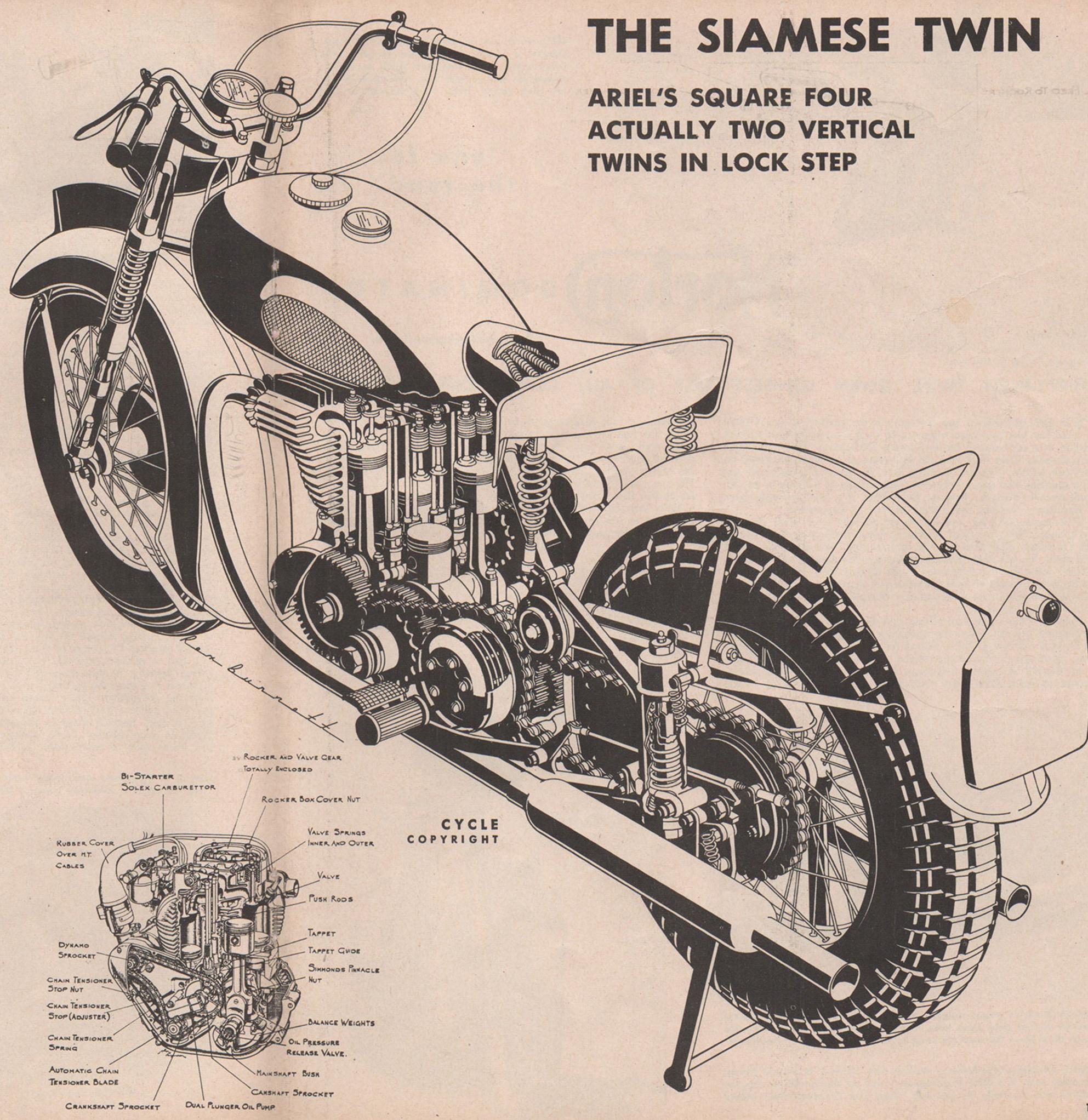
CYCLE OCIOBER 1951



ABOVE, A. J. Fooks, artist for Briton's "Motor-Cycling" appears to have used an overdose of nitro to obtain his excellent conception of an exploded Ariel. Left front three-quarter view gives complete lower end and camshaft detail

ABOVE-RIGHT, Vastly different from any other engine because of its square cylinder positioning and two separate crankshafts, this unusual but potent 61 cu. in. powerplant can be thought of as two engines in one, served by a common camshaft running between them; their power impulses coordinated through two large coupling gears. CYCLE'S artist, Rex Burnett, shows the relative position of pistons and valve mechanism

RIGHT, Chain driven camshaft sprocket, dual plunger oil pump, and generator drive are the main points of interest on timing side so capably illustrated by Artist John Ferguson through the courtesy of "The Motor Cycle" magazine. This model has undergone many refinements since its origination as a 500 cc job back in '31





LEFT, Watch out for those "Road-holder" forks. They're so terrific that it's easy to get overly cocky within just a few short miles, but if you should get into a tight one, trust them to the last and they'll hold, as they did for me

"one for the road"

Norion DOMINATOR

By Bob Greene—Editor

Photos by Pete & E. Rickman

THIRTY-INCH TWIN, GIVEN LONGEST TEST OF ALL, COMES OUT SWINGING

IT IS DOUBTFUL if any machine in the history of our CYCLE road test has ever been subjected to such a merciless and lengthy trial as was encountered by the Norton Dominator 30½ cubic inch vertical twin. Over four hundred blistering miles were registered on its clock within a period of three days. In spite of a torturous test on a machine that wasn't afforded the privilege of a break-in period, I am sincere in saying that the Dominator is a very desirable piece of machinery, and one that I don't hesitate to recommend.

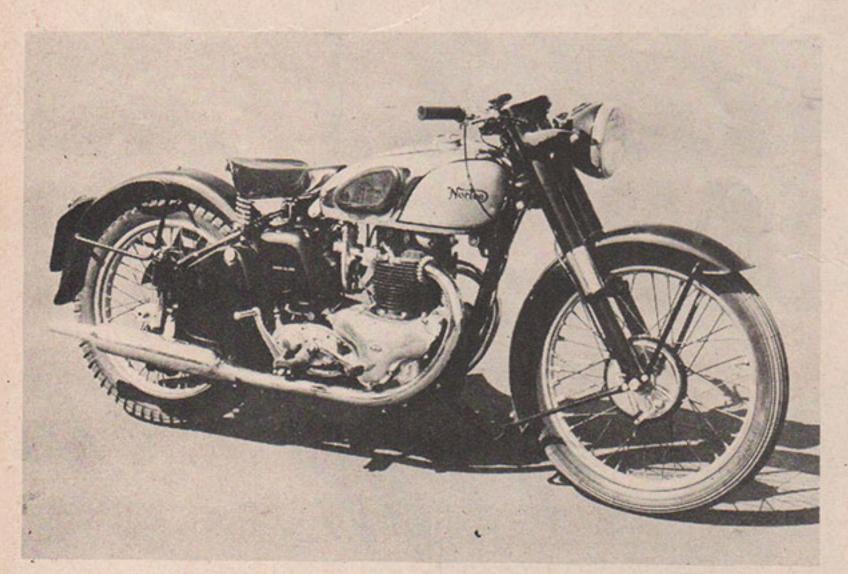
This particular bike was chosen at random from Dale Brown's Cycle Shop, 2441 American Avenue in Long Beach, who is the Southern California distributor for the Norton line. Too much cannot be said about the handling qualities made possible through their "Roadholder" telescopic, oil dampened, front forks, which are undoubtedly a worthy by-product of their tremendously successful racing machines, that have received special recognition this year in such races as Daytona and the Isle of Man.

Frankly, I don't mind admitting that my hopes of staying upright throughout the test failed me upon first glimpse of the stubby, low handlebars, narrow 3.00x21 ribbed front tire, and high saddle position, especially in view of the rugged cross-country weekend that had been planned. At once the spacious tool kit was opened and several alterations were made. Bars were raised a couple of inches, while

the seat and foot pegs were lowered about an inch. Another adjustment, one that can't usually be made so easily, is that of the turning stops at the front forks. In this case, the stops are detachable knobs that can be screwed in or out of the frame, adjustment being made by the addition or subtraction of ordinary steel washers. The Norton tool kit is one of the most complete yet found, and its double purpose metal case also serves as novel housing for the voltage regulator.

Early the next morning the CYCLE test crew, which had this time expanded to include Publisher Pete Petersen, Advertising Managers Floyd Wheeler and Ray Bowles, and myself, after taking on many

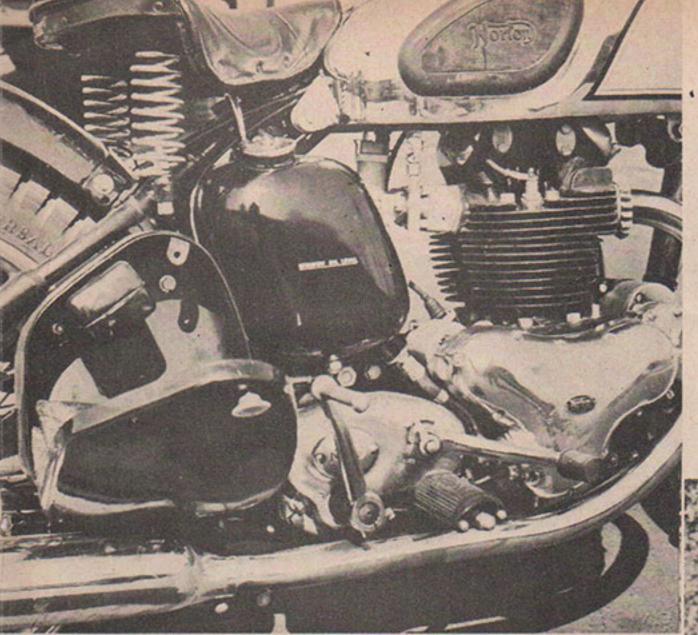
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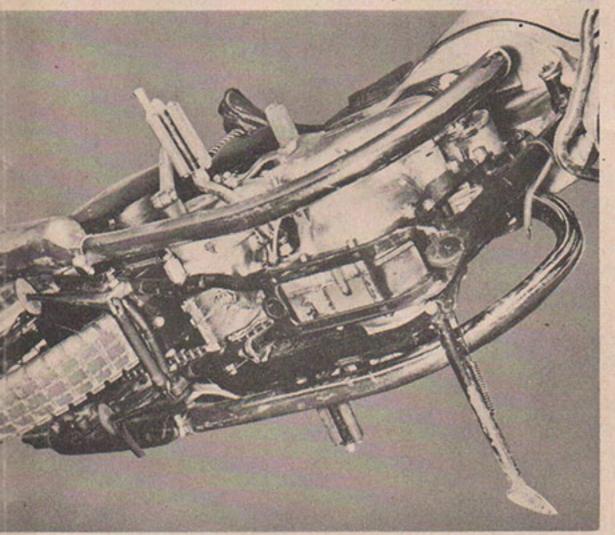
ABOVE, Norton's unique sculptured tank offers ample capacity, yet gives you the feel of small trials tank. Elliptical, rather than round foot pegs mean three times the usual standing room. Note handrails on rear fender

RIGHT, All done at the halfway mark on "Mt. Vincent" at Vincent Siding; no mean task. Few have ever topped it and on this particular day the ground was especially dry and soft. Larger rear tire would have helped





Those stubby, low bars make for nimble cornering but were tough to take after several hundred miles. Conversely, the pinched rear section of the tanks eases leg fatigue, aids control



ABOVE, Excellent frame design is apparent here with a large diameter single down-tube that rigidly embraces and protects engine cases by cradling them in its one piece loop construction

LEFT, That extra "tool" in the tool box is the voltage regulator and there's still space left. In the timing case, chain drive with constant tensioner is substituted for many gears, meaning less friction. Transmission gears are husky, look more like those of big American bike

BELOW, Caught with my "snorkel" down. Our trigger-happy photographer would have to pop out of the bushes just as the Dominator wetted out and pitched its tormentor into the drink. The engine was re-started quickly however, indicating that only the plugs had shorted out; nothing that a little ignitionite wouldn't cure. Note compression of front forks



General Specifications

ENGINE. 30.366 cu. in. (497 cc) vertical twin OHV design; 2.59 in. bore x 2.85 in. stroke (66 cc x 72.6 cc). Compression ratio of 6.7 to 1. Rod bearings have replaceable inserts. Lower end assembly is built up type; single flywheel, roller bearing on drive side, ball bearing on timing side. Single cam in front operates all four push rods. Intake and exhaust valves are both same size, 1 5/16 in. head diameter. Cylinder heads are cast iron. 1" Amal carburetor

CLUTCH. Fibre insert plates running in oil. Built-in rubber cushion shock absorber in clutch hub

DRIVE. 5/8" Pitch x 1/4" wide rear chain. 1/2" Pitch x .305" wide front chain running in sealed bath primary case

TRANSMISSION. Four speed box actuated by foot control. Shifts up for low. Gear ratios: low 14.88, second 8.85, third 6.05, high 5. Extremely heavy gears in Norton's own designed box

LUBRICATION. Dry sump; gear type oil pump.
Pressure to enclosed overhead valve mechanism
IGNITION. Lucas magneto

ELECTRICAL. Lucas generator and equipment including battery and voltage regulator, 6 volt system

FRAME. Single piece, complete loop with plunger type rear springing of approximately 3" travel

EXHAUST. Twin headers and mufflers, low swept; quality chrome plating

FORK. Patented "Road-holder" telescopic tube type. Coil springs are hydraulically dampened

HANDLEBAR. Low, short spread; adjustable, rigid mounts. Left bar contains clutch, dimmer switch and horn. Right bar has front brake lever, kill button and choke

TANKS. Fuel tank capacity 33/4 gallons. Oil tank capacity 7 pints

FENDERS. Ample length with moderate valance SADDLE. Lycett with two coil springs, leatherette covered. Height is 30"

BRAKES. Both 7" diameter x 11/4" width. Left foot pedal operates rear, right hand lever front TIRES. Avons, 3.00x21 rib front. 3.50x19 block rear

STARTER. Right side kick pedal has completely silent return mechanism

EQUIPMENT. Huge right side tool box with generous tool supply. Both center and side stands. Horn and complete lighting

WEIGHT. 413 lbs.

WHEELBASE. 541/2"

OVERALL LENGTH. 841/2"

OVERALL WIDTH. 28"

GROUND CLEARANCE. 51/2"



Text and Photos by Wm. H. Onslow

GILERA FOUR BLAZES RECORD LAP AT 97.29 MPH

THE DUTCH TT is the most colorful and best attended meeting in the International Series for the World Championship, a surprising fact in a country that does not manufacture a complete motorcycle. This does not deter the enthusiasm of thousands of riders astride either Dutch cycles powered with foreign 125 cc plants or the many hundreds who prefer lusty imports.

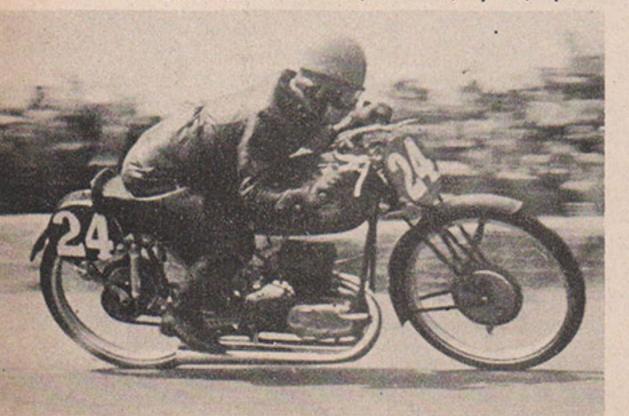
The town of Assen, once more transformed to a fairy land with flags, streamers, and a multitude of colored lights, seemed to be the home of thousands of ants scurrying along with no ultimate purpose in view. It is, indeed, the day of days for thousands of the most hospitable race on the continent, who will not permit the language snag to prevent a foreigner from sharing their all. The cafes were full to overcrowding throughout most of the night previous to the race, though by 3 a.m. a steady trickle was making a way to the course to obtain a vantage point before 150,000 other fervent fans arrived.

Owing to the string of traffic, I was unable to halt to obtain a picture of what must have been the greatest concentration of cycles in the world. Tens of thousands of them in the most orderly lines imaginable.

The approximate ten-mile circuit, perhaps the narrowest in the International series, is partly lined with tall trees giving an appearance that seems to reduce the width even more. Beneath these trees, despite the scream of the four bangers, were many middle-aged Dutchmen blissfully in the land of nod.

The meeting began at 11 a.m. when 35 of the original entry of forty-five 350 cc riders began the first of 154 miles of hectic motor-

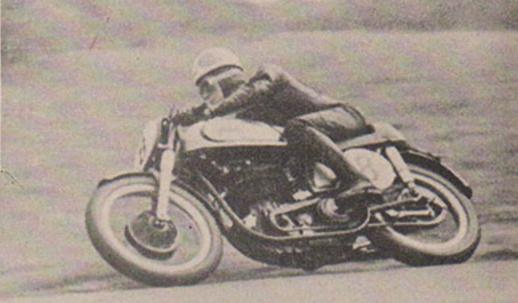
Zijlaard of Holland clings to Italian MV. Other 125's: Norman, Mondial, Eysink, Sparta





LEFT, Geoff Duke, at rest, receives the customary winner's wreath after the big 500 road race

BELOW, Duke at work. He surprised them all by crashing in the 350 event, but came back in the 500 race to battle the field to a standstill



ing. Holland, with six starters, five astride Velocettes, had exactly two-thirds of its entry competing against a strong contingent of twenty-one Britishers, three New Zealanders, and sole representatives from Finland, Australia, Switzerland and Rhodesia.

Six minutes fifty-four seconds ticked by before the first rider took the last fast right-hander (Knee Bend) and swept past the packed stand, a hurtling figure with the now familiar blue and white bowler. Duke had flashed by seven seconds ahead of second man Bill Doran, Ajay's "number one." Next in line, Johnie Lockett and Reg Armstrong were having a real bash for the umteenth time, for so evenly matched are these two that a struggle between them is a classic in any race. Jack Brett, the Bracebridge Street newcomer, has taken the first of his three tosses and lies well back in the field.

The second lap had hardly started before the sensational happened. Geoff Duke, with seemingly an uncatchable start, had crashed almost in sight of the stands, and though he was unhurt the machine was damaged too much to continue. Returning to the pits, he expressed his regret to "Professor" Joe Craig with a "Sorry, I just fell off!" Later, an eye witness informed me that the front forks were sluggish in action, causing the megaphone to hit when, banked over, he came out of a decisive dip in the bend.

Doran was by now out on his own with a lead of 8 seconds, but shortly after half distance Reg Armstrong and Johnie were even closer together, both on Ajays. Reg had, for an uncountable number of times, passed Johnie with everything under control but was surprised to find both wheels slide from under him at the most treacherous section of the course, Hooghalen. John just dropped the Norton and was over the wire barrier in double quick time. Reg, spreadeagled on the ground, meanwhile endeavored to keep his motor going, but upon seeing the Dutch rider G. Poel disappear head first through the wooden fencing, decided that he would be better off if he joined his late adversary. In this lap, Brett, Amm, and two of the New Zealand boys, also adapted the prone position usually associated with a boxing ring. Likable Bill Doran, comedian of British sport, did not seem unduly worried by the conditions and picked a careful way around the patches of oil. Later, following the final spill of the remaining Norton rider when, for the first time in history the whole team of that marque had fallen, Jock West was able to give Bill the ease-off signal; for with Petch well ahead of the Velocette rider, Sandford, who retired towards the end, the London factory had the points in the bag.

The surprise of the race, however, was the magnificent riding of S. Sandys-Winch, who, from being badly left at the start, cajoled a rather potent Velocette into fifth spot. Neither the press or competitors seemed to have heard of him before. This young fellow, who transpired to be an airman stationed in Germany, will quickly make a name for himself, and is worthy of factory recognition. Results

W. Doran-AJS

1 hr. 44 min. 18.1 sec.—88.60 mph C. Petch—AJS

1 hr. 44 min. 43 sec.—88.24 mph

K. Kavanaugh—Norton

1 hr. 46 min. 32.2 sec.—86.95 mph

R. Coleman-AJS

S. Sandys-Velocette

R. Mathews-Velocette

THE 125 CC RACE

No less than eight different marques were shared among the 22 riders in this event. Each one in itself a little jewel of engineering, especially the single or double ohe machines that Italian engineers have brought to near perfection. Considering the falls in the previous race, the narrow tires and high riding position of most of the two-strokes seemed to spell danger.

One lap served to prove the superiority of the "Knockers." The first two-stroke, a water cooled Puch in ninth spot, made more noise than the rest put together. Two of the amazing Mondial double knockers in the capable hands of Ubbiali and Leoni, were well out in front as they raced side by side with over an eight-second lead from third man Mendogni on one of the single camshaft Morinis. A third Mondial in fourth spot was racing alone, while some yards behind the two other Morinis managed to keep the double camshaft MV plots at bay with the aforementioned Puch mixed up in the fray.

Leoni then really proceeded to pour on the coal, for his second lap at the astonishing pace of 78.17 put him out on his own. Ubbiali, unable to keep up with his compatriot, found his motor sickening and had dropped back three spots by the end of the third circuit. Mondial still held the first two notches and the MV machines were now making a bid for honors holding 5th, 8th and 9th places; Englishman, Les Graham, on the leading bike.

The little single cam Morini's were having

slightly the better of the fray holding 3rd, 4th, and just behind Ubbiali's faltering Mondial, 7th spot. Behind the third MV, which, incidentally, is one of the four two-stroke models favored by Dutch private owners, the lone British machine, a Villiers powered Norman piloted by W. Weirda, one of the round dozen Dutch riders buzzed along at number ten.

The second half of the race surprisingly brought trouble to two of the usually reliable Mondials. Second spot man Alberti was out with cog trouble, and Ubbiali rode his faltering machine to a standstill a lap later. There was not the least sign of falter about the third little jewel, for he flashed on to win at a speed in excess of 3 miles per over the second man Zinzani. Strangely enough, not one of the factory teams really finished intact; Zinzani paddled his little Morini home over the last few yards to just beat Graham on the MV to second place. By this rather strenuous action, Morini gained the day with a 100% finishing card.

Results

G. Leoni-Mondial

56 min. 20.5 sec. 76.57 mph

L. Zinzani-Morini

59 min. 2.9 sec. 73.03 mph

L. Graham—MV

59 min. 6.8 sec. 72.97 mph

V. Zanzi—Morini F. Bertoni—MV

E. Mendogni-Morini

Despite this eclipse of two-stroke machines, it should be recorded that the eleven machines still circulating behind Mendogni were poppers; two retirements from spills.

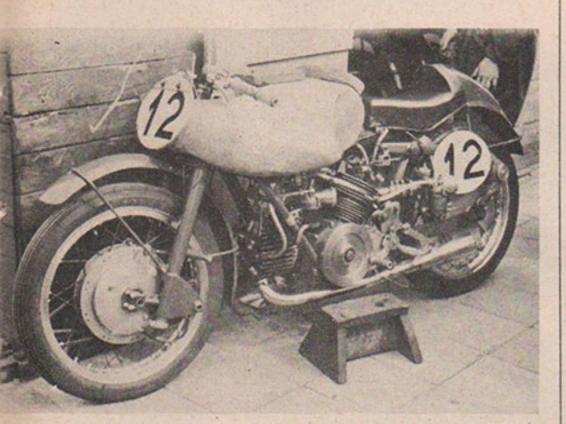
THE 500 CC RACE

Four new MV fours were among the thirty machines that were to contest the coming 18 lap, 185 mile race. Closely resembling the Gilera machines in color and shape, one has difficulty in recognizing one from the other at high speeds. The chief power plant difference is in carburetion; the Gilera sporting four of those instruments all actuated by a single master rod, while the MV machines were content with two.

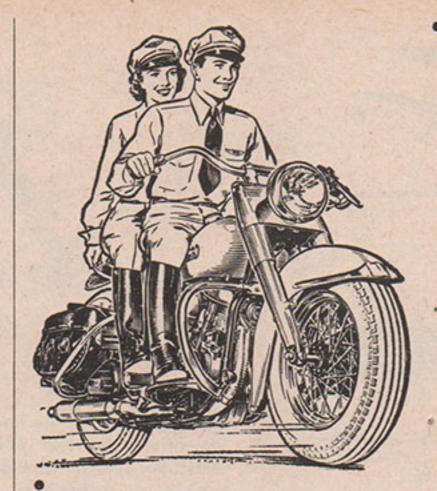
Considering that many of the riders competing had already bit the dust in the junior event, it is not surprising that the pre-starting atmosphere was charged with even more nervous tension than usual. I crouched alone behind the too-low straw bales, with camera ready for the rush at the first S bend. Suddenly, with an ear shattering roar, the whole pack was heading straight for me. I tripped the shutter in double quick time and fell back into a convenient ditch, wondering if it was Duke or Anderson that was up front.

The first right hander before the Bartelds Bocht caused the early downfall of Doran,

(Continued on Page 29)



A wide angle Guzzi twin makes a smooth running V type set-up. The super sensitive brakes on these jobs are efficient to the Nth degree and rear spring action is really amazing



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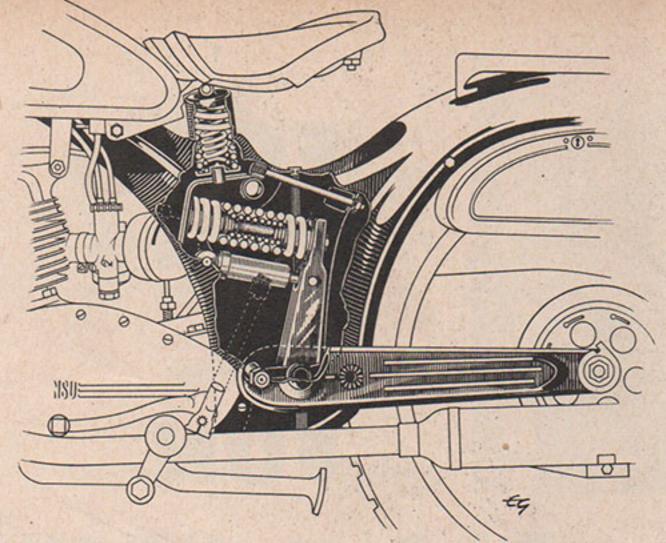
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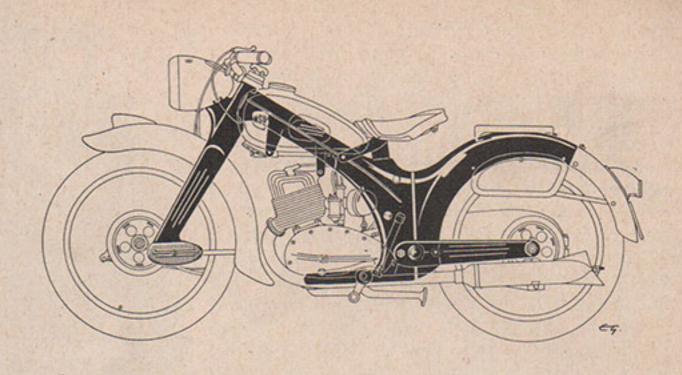
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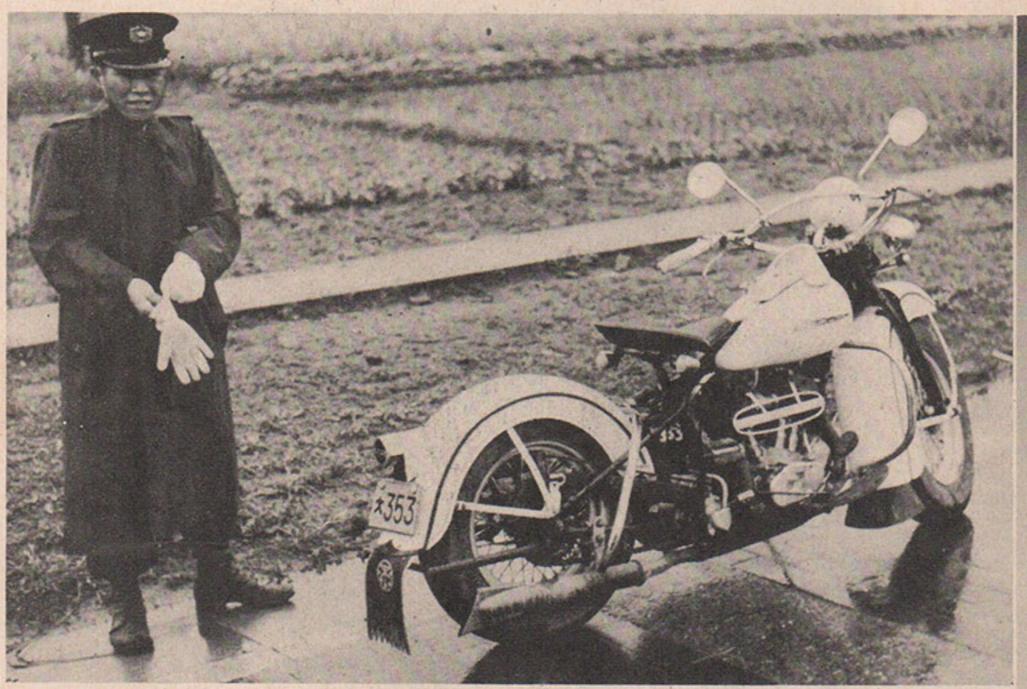
BELOW, This Japanese highway patrolman seems well pleased with his "Rikuo" (not a Harley). Notice the amazing similarity to our American product. Many JD's, in fine shape, are still in daily use pulling sidecars. BELOW-LEFT, This minion of the law pursues them on a Matchless



ABOVE, All of frame and part of rear fender with the buddy seat benefits from this neat swinging suspension. Both wheels are hung on telescopic springs and are interchangeable. This cycle was designed for ruggedness rather than speed and every thought was given to comfort

ABOVE-LEFT, Rider and passenger are both within springing range on the latest German NSU "Lux," a 200 cc two-stroke considered powerful and strong enough for sidecar work. Springs front and rear, hydraulic shocks and saddle springs compensate for most road bumps

HERE, THERE AND EVERYWHERE



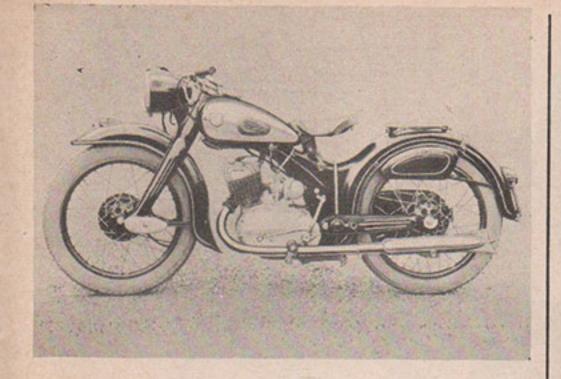
Photos by Sgt. George Stick

BELOW-RIGHT, A pee-wee built by Jimmy Calonico of Gustine, Calif., stands only 17 in. high, has 22 in. wheelbase, weighs 92 lbs., has speed of 50 mph. Engine is 125 cc Har-Dav. Frame is built from Ford Steering shafts. Bike cost, \$257. Brake fittings, throttle cables, etc. are aircraft

the second residual second second



Photo by Eleanor Petersen



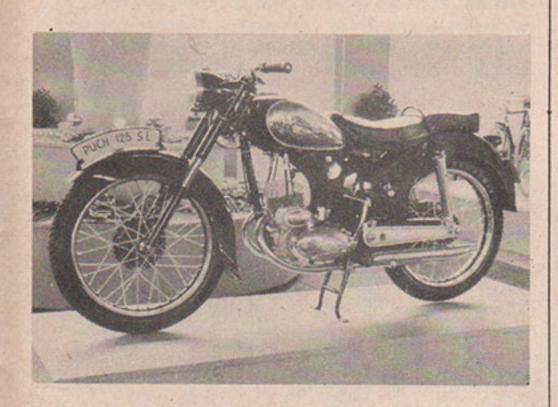
Shell frames of pressed steel, such as featured on the NSU Lux, seem to indicate a trend in modern European design. First the Puch with its revolutionary 150 cc model, then the Italian Motom, and now with little publicity comes the NSU, an entirely re-designed bike. This nifty job develops nearly 9 hp, hits 60 mph at 5250 rpm, has 4 speed box and enclosed chain

By Herbert G. Schwarz

ROM GERMANY come the first reports I regarding motorcycle production in the Russian zone. While much of the production is based on carbon copies of pre-war German models, there are some interesting new constructions. One is the new 350 cc IFA, a two cycle opposed twin with shaft drive of striking design, being built in the former factory of DKW in Saxony. The two cylinders are horizontal with a common crankshaft housing, firing at the same time. One cylinder sits slightly ahead of the other to compensate for the triple crankshaft bearings. The twin tubular frame has been patterned after the DKW racers; front and rear wheels sprung. Its engine develops 15 HP at 4500 rpm. The western factory, still named DKW, has just recently added the RT 200, a 200 cc two-cycle single to its program, a heavier version of the RT 125, which does not used mixed oil and gas, but has an oil pump delivering the right amount of oil as the engine is accelerated.

From Holland comes the DMF 175, a clean looking bike powered with the German 1L0 engine, which develops 7.6 hp at 5000 rpm. This is one of the first post war motorcycles to be assembled in that country.

(Continued on Page 26)



A refreshingly new approach to motorcycle design has been made by Puch of Austria with their new model 125 SL. Battery, coil and tools are protected within the pressed steel frame, mufflers and rear springs have been streamlined, the chain is completely covered and both fenders are mounted without additional support, adding to the clean lines. A 150 cc model is at present built along very similar lines



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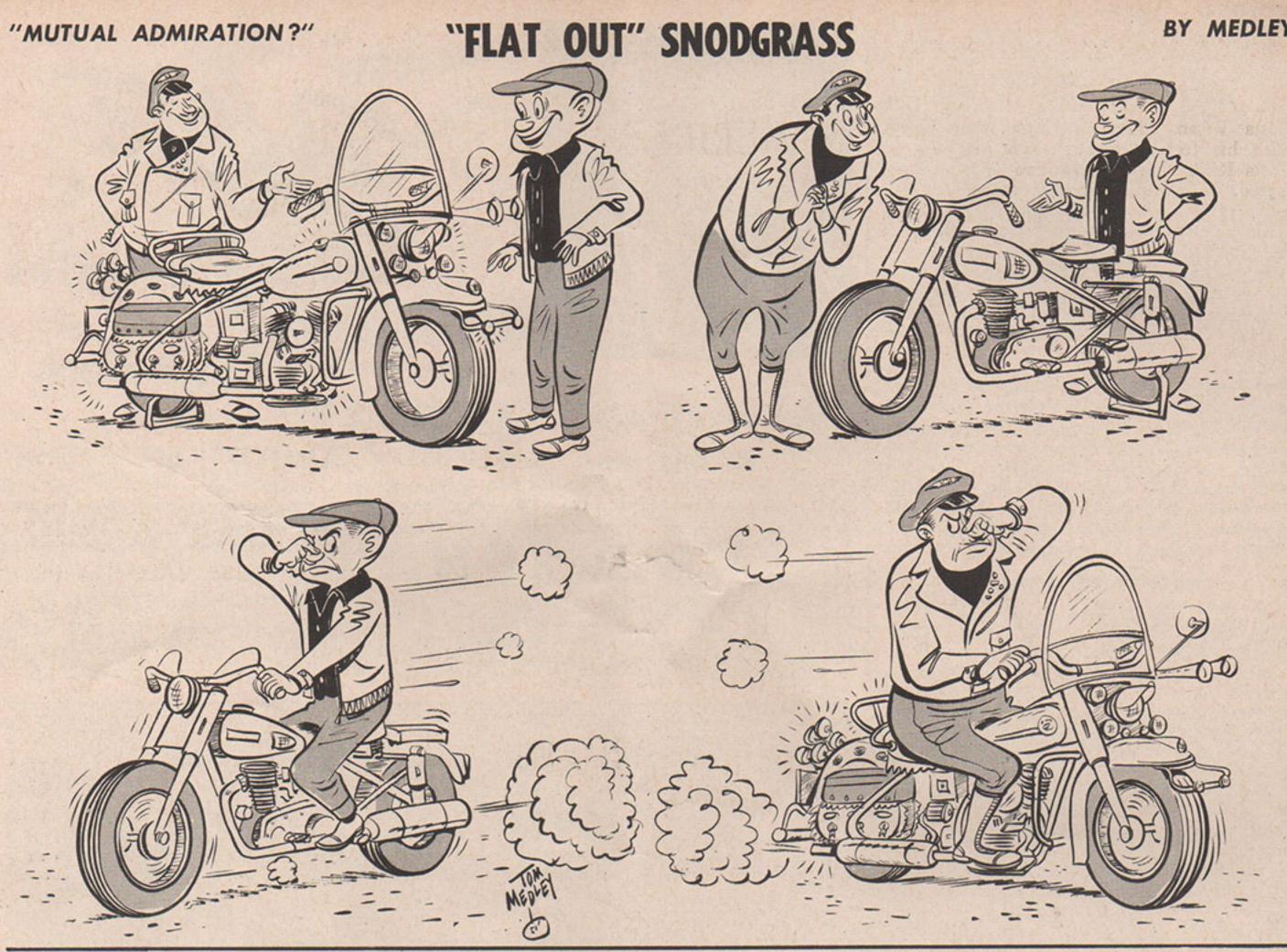
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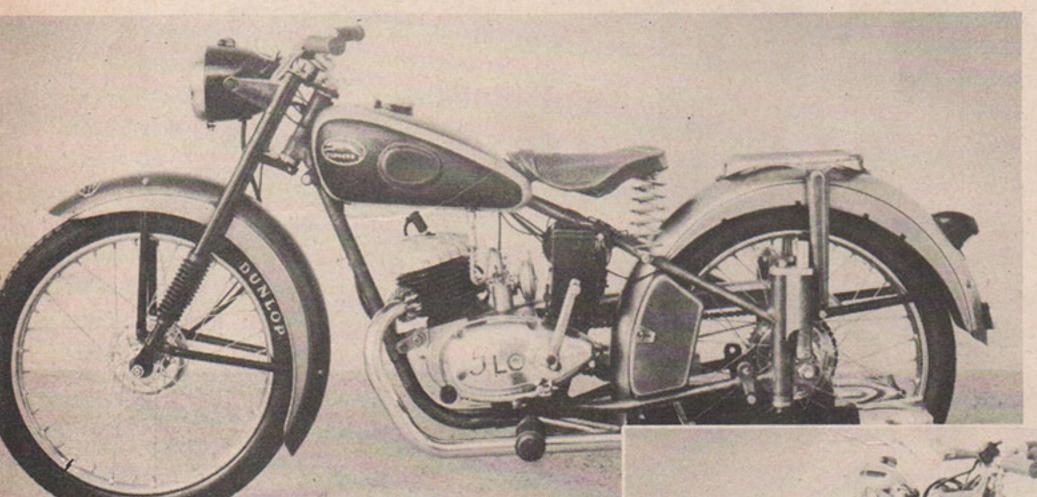
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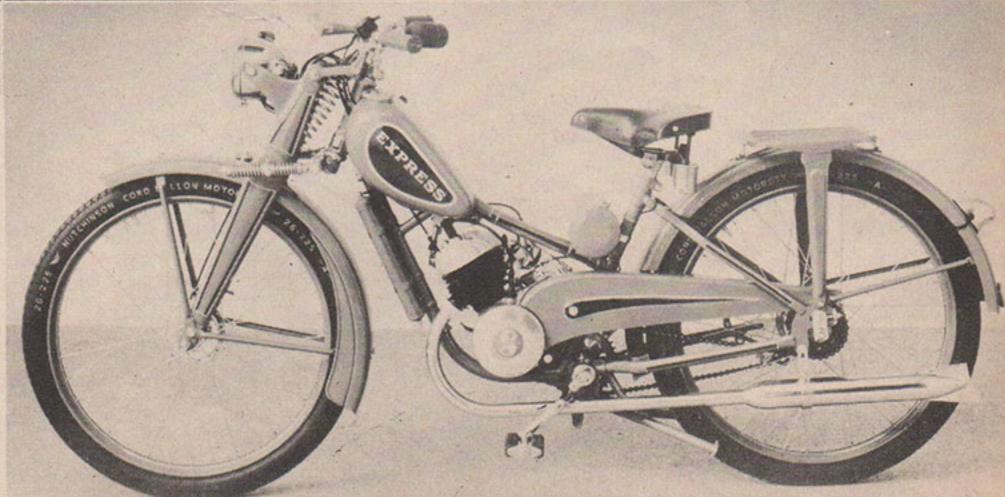
LEFT, German built 125 cc Express uses the sturdy llo engine, proven practical for nearly two decades. Rear springing is especially interesting because of a double spring arrangement whereby second spring acts as a shock-absorber

BELOW, At last a cycle built for the girls alone another German Express. This time the engine is a Sachs single. Front fork construction is noteworthy since five coil springs are used to neutralize both vertical and horizontal shock

Photos by Herbert G. Schwarz

The well known Jawa 250 cc engine is now being used in Belgium in the assembly of the new "Socovel." Some other Jawa parts are also used to complete the new Belgian model and it is planned to produce a 350 cc motorcycle under similar conditions.

"Motocykl," from behind the iron curtain, has a feature article on the all-Russian 125 cc "Moskva." At first glance at the pictures, you think it a DKW RT 125. The second glance makes you certain. They have not changed one screw from the original (1932) design. Other Russian makes now being produced are "Serpuchov," a 250 cc two-cycle, "Charkow," a 600 cc twin, "Rostov" with two models similar to the BMW 500, and 750 cc, "Podolsk" 600 cc and several models of the "Moskva" up to 750 cc.



PANAMANIAN CONQUEST

(Continued from Page 17)

Costa Rican officer on night duty sleeps with his feet in Panama and his head in Costa Rica. When the formalities were completed, the same locomotive pushed our flat car a mile farther into Panama and parked it on a siding, leaving us to await the next regular fruit train. Three hours later, a train with 41 box cars of bananas (approximately 16,000 big stems) arrived, stopped to couple the flat car, then towed us all the way to Puerto Armuelles. Staying overnight in another fruit company town was pleasant, and the following day I arranged a ride on the Panama government's railroad to the Inter-American Highway at David.

The same rain was still coming down when I arrived in David, but luckily it was only a short distance to the nearest hotel. First thing next day as I left town was a Police traffic check station to inspect my motorcycle ownership papers. Then I was free to slip and slide through the mud for nearly three hours. By then the sun dried the dirt well enough to permit more rapid travelling, but about 2 p.m. dark clouds began suggesting rain, and the first hotel in sight

had another customer.

Leaving Santiago the next morning began an easy ride to the Panama Canal, marred by only one incident. A rough area of paving caused the lower section of my underwear to become unsnapped. I attempted to replace the erring clothing while standing astride the idling motor, but the task was too great. Overbalanced, the machine tipped and I was standing by the highway uncomfortably bare. First job was to conserve gasoline and raise the motorcycle upright, then set the prop stand; and finally raise my fallen dignity. All of this was successfully completed without any traffic passing by and I was congratulating myself on having preserved a bit of modesty when my eyes caught a family of natives nearby just laughing their heads off at the funny American losing his pants on the highway.

This embarrassment increased my desire to depart, and the machine flew by the family in a cloud of smoking rubber. A little after noon the Panama Canal ferry was boarded, completing the first solo motorcycle trip from Los Angeles, California to Panama, with no breakdown of any kind. This was indeed a trip well worth its slight cost, taken to have fun, and perhaps demonstrate that you or your friends would enjoy

doing the same thing.

TECHNICAL INFORMATION The motorcycle was a BSA Model B33

with spring frame delivered from Caspary Brothers of Culver City, California.

Serial No. B-33 4449.

The rider: William Carroll. Age: 35. Weight: 170 lbs. Cargo: 125 lbs. of film, cameras, and clothes.

Break-in mileage prior to departure, 755. Trip mileage from Los Angeles to Panama, 7772.

Actual riding time, 32 days. Average miles per day, 240.

Cost of food, hotels, gasoline, for 32 days, \$178.38.

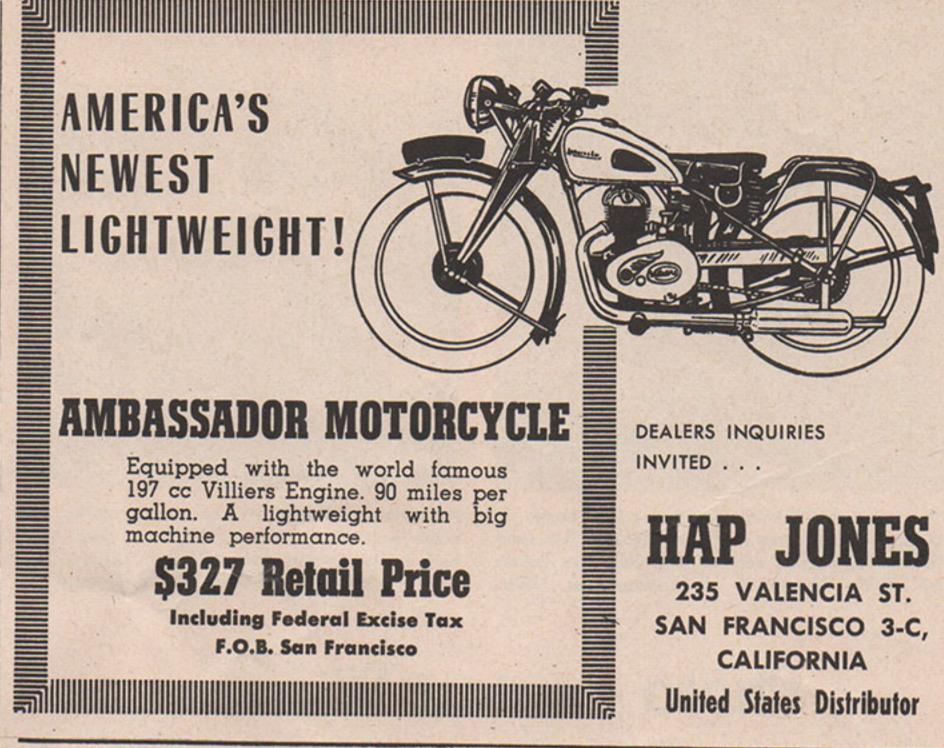
Boat and railroad transportation, \$23.91. REPAIRS-flat tire in El Salvador, 75c. NOTE—This motorcycle was tested shortly after its arrival in the Canal Zone

and still gets up to 80 miles an hour with ease. No higher speeds were attempted because of road conditions. Tires are in good condition with tread depth of 1/8 inch on the front, and 32 inch on the rear.

(50c is the average price for a gallon of gasoline or a quart of oil in

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1ST PRIZE PROFESSIONAL Shows Joe Suesko of Youngstown Pirates M/C fording the first mud hole in the Pirates' annual endurance run. Taken by Philip Blackford of Youngstown, Ohio



HONORABLE MENTION An embarrassing moment in the Corn Belt M/C's Bunny Run. Hack had to be towed out, but Bob Dillion, left, won 1st solo. Photo-Lois Dillion, Normal, III.



Ist PRIZE AMATEUR Louie Piekarski punches his Indian Warrior through a blazing wall of flame. Photo by James Walter, Janesville, Wisconsin, using a Speed Graphic at 1/100 with flash



HONORABLE MENTION Terror motivates this Lakeland Park competition rider in an interesting shot by Bill Bagnall, Huntington Park, Calif. Bill used a 4x5 Speed Graphic, 1/500 at F8

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BELGIAN GRAND PRIX

(Continued from Page 11)

representatives in the singles and again had Duke, Lockett and Brett in the saddles. Twins were six in number; F. Anderson, S. Geminiani, and E. Lorinzetti astride huge tanked but formidable looking Guzzi's opposed to W. Doran, R. Armstrong and M. Featherstone on the modified Porky's. In the four cylinder class the lone MV ridden by Carlo Bandirola had stiff opposition from the Gileras of Masetti, Milani, and Pagani.

National feeling was also a parallel to the excitement, for no less than ten nations were represented by the thirty-one starters, giving promise of a great struggle. The riders were more than usually tense at the start. Umberto Masetti, the rather slender World Champion, was alone on the front grid by reason of his win last year, and every vein in his face and hands could be seen while he gripped the red monster.

The field, with the exception of Fergus Anderson, was away to a good start, and once again it was Duke who set the pace. Fergus grinned at the various gestures given by the Velocette team who had no mounts in the 500 class and had settled down in a group just past the pits. Duke was first past the pits, having a five second lead over Geminiani, and inside three more seconds

Pagani, Doran and Lockett had screamed or bellowed past in a prelude to a rush from the remainder of the pack. One or two were missing, including the only MV. This concern was having wretched luck this year, since only one of their entries survived the practice period. This does not discredit the make, for all machines have teething troubles in the early years, and new machines will be seen in Holland and perhaps change their luck. Duke made a record in the 2nd lap at 106 mph and increased his lead by four seconds. Masetti, Pagani, and Milani, riding in line, were hot on the heels of the Guzzi piloted by new man Geminiani, who was putting up a wonderful show. Anderson, who had moved rather rapidly through the field during the first two laps, retired with engine trouble at La Source in the third. AJS jockey Featherstone toured around the hairpin to the pits and Eric Oliver, grinning all over his face, pulled in beside the watching Anderson and called it a day.

At the half, after seven laps, the order was Duke, Geminiani, Milani, Lockett, Pagani, Armstrong, Masetti, Lorenzetti, and Brett. Doran had to retire with a dead engine, and as if to make amends for this, Armstrong moved up to fourth spot within the next two laps. In the tenth, with only four laps to go, Milani slowly but surely contested for second spot; and despite the praiseworthy

efforts of Geminiani to fight the challenge, the four passed the twin in the twelfth with opposite reactions from Count Johny Lurani and Fergus Anderson, who were sitting at La Source with the retired MV representative, Bandirola. The leader had established a 26second lead and, as in the Junior, his lap speed was slower as he nursed the engine to the end. Many engines were fading a little, and there was no fear of his fastest lap at 107.8 mph being beaten at this stage. Riding strictly to instructions from the pits, he received the checkered flag after 1 hr., 9 min., 3 sec., 25 seconds ahead of Milani, who in turn was four ahead of Geminiani. The race of the century was over, and again we asked ourselves "Is it the man or the machine?" Probably both, with greater credit to the man, but we shall never know the answer. I recall the words of Mr. Gilera last year, "Give me Duke and I will beat the world."

4. R. Armstrong—AJS

N. Pagani—Gilera
 J. Lockett—Norton

J. Brett—Norton
 E. Lorenzetti—Guzzi
 U. Masetti—Gilera

10. R. Coleman-Norton

THE DUTCH TT

(Continued from Page 23)

and Bandirola on one of the MV fours. Black lines of rubber on the road marked their progress, when with locked wheels, they plunged into the straw bales; the evidence remaining a mute story throughout the event. Hurtling along the five mile straight between Bartelds Bocht and Hooghalen, two of the Guzzi twins assumed a slight command with Duke sandwiched between them and the Gilera multis of Pagani and Milani. The next three miles to Laaghalerveen, trouble patch of the 350 race, had the boys on their toes, and first to come down was Bill Petch. A second Ajay porky was out owing to brakes that failed to free. Entering the home leg from this section, Duke succeeded in passing Ruffo and was a machine's length behind Fergus Anderson as the three of them entered Knee Bend in a string. Some three seconds behind them, showing the most beautiful display of team riding, came the complete Gilera team; Pagani, Masetti, and Milani, in that order, showing a confidence strangely foreign to Italian riders who usually take extreme risks.

Though fighting all the way, the leader was forced to hand his spot over to Geoff Duke in the next lap, and by the third circuit he had fallen back to fourth. The Guzzi twins seemed to be loosing the horses, for Ruffo had dropped three spots and now lay 6th. The new MV machines were badly placed, and their riders were having difficulty in cog swapping and at times went through

the whole box at one go.

Tragedy struck a devastating blow to Italy in the tenth when Englishman, Anderson, striving to keep within striking distance of the three scudding leaders, stepped off at Bartelds Bocht Hairpin, remounted but repeated the performance at Laaghalerveen, threw in the sponge. His retirement left the field in this order at the completion of the first 100 miles: Duke, Pagani, Masetti, Milani (the Gilera trio together again); Lockett and Brett, Nortons, Lorenzetti on the sole remaining Guzzi followed by the last hope of the MV concern, Artesiani.

This order was but slightly changed during the next forty-odd miles. Then within another twenty the plot became completely altered. The Gileras had swapped places with abandon throughout the race, but two of them were most definitely in trouble. First Nello Pagani in fourth spot and Umberto Massetti in second spot at the end of the fourteenth came to a halt with mechanical troubles in the fifteenth. Their misfortune enabled the still only complete factory team, Norton, to assume positions 1, 3, and 5 with a Gilera, Milani, 3rd and a Guzzi, Lorenzetti, 4th.

Barring further troubles the race was, with three laps still to go, virtually decided for only the first five riders were competing in the same lap, some indeed having been passed twice were riding with the object of just to keep going till the end. Lorenzetti, however, spoiled the book by slipping ahead of Lockett in the last lap after having made a steady gain throughout.

Results

G. E. Duke-Norton

1 hr. 56 min. 3.9 sec.—95.55 mph A. Milani—Gilera

1 hr. 56 min. 14.4 sec.—95.40 mph E. Lorenzetti—Guzzi

1 hr. 57 min. 55.7 sec.—94.04 mph J. Lockett—Norton

1 hr. 57 min. 55.9 sec.—94.03 mph J. Brett—Norton

1 hr. 58 min. 48 sec.—93.34 mph L. Perry —Norton—completed 17 laps Record Lap. Unberto Masetti. (Gilera) 97.29 mph. MOTORCYCLE COMPETITION

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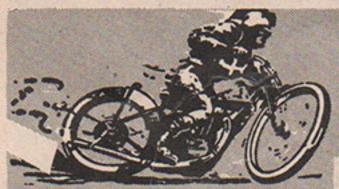
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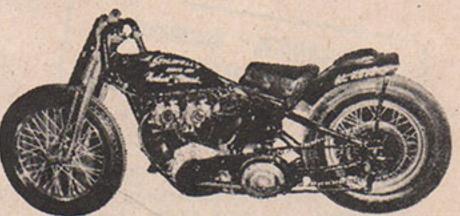
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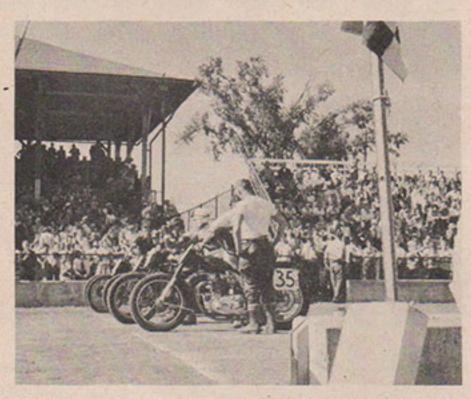
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SPORT SCENE U.S.A.

MICHIGAN STATE RALLY



Lining up for amateur elimination race. Ronnie Aitken, 35 E, dusted them off on a Triumph

A RECORD CROWD of over ten thousand enthusiastic contestants and spectators on hand for the 32nd annual Michigan State Motorcycle Rally and Championship race, saw a very capable and determined rider, Ernie Beckman, Battle Creek, mounted on a 45 in. Indian, cover himself with glory and trophies by winning three firsts, including the state championship.

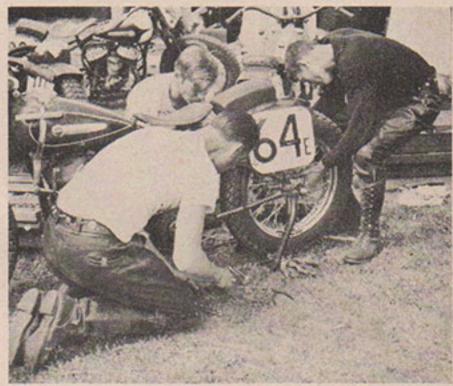
If Ernie had used an ounce less of gas in blazing down the stretches and sliding around the turns, Ray Goff, of Flint, and his Harley, would have passed him almost anytime after the fourth lap of the championship race. These two masters really thrilled the crowd as they battled it out all the way, with Ray riding just a few feet out of the number one spot, practically in Ernie's hip pocket. In the last few laps, as they came roaring into the

dusty curves, they would hold their throttles open just a bit more each time, sliding all the way around.

Ernie Beckman's time in winning the 10-mile Michigan Championship race was 10:31.81. He also won in 1948.

The five-mile long parade Sunday morning of the seventeen hundred cyclists from Crystal Lake to Ionia was a thrilling spectacle. The parade was judged at different points along the route by the Ionia Chamber of Commerce, who donated a trophy for the Iron Mustang's club for presenting the best appearance in the parade.

As usual, many family picnics and gatherings were seen on the well kept grounds and infield, further evidence that cycling is a family participation sport.



Photos by D. W. Shortridge

Racing time, Burt Lovejoy, Dick Hidey install transmission in Dick's bike for novice final

CACTUS DERBY



Photo by Ray Porter

All cycle mounted desert rats are invited to saddle up that bucket o' bolts—it's Derby time

HERE IT IS AGAIN, meaning Cactus Derby time. The outstanding question among others is—who will be the winner of the Cactus Derby this year?

All motors must have mufflers and good lights. Motors without or with poor lights will be disqualified. We wish to impress upon you the great importance of each rider carrying a canteen of water. This is a must for your safety. All motors must be capable of traveling at least 100 miles between gas checks. The course is 350 to 400 miles.

The Cactus Derby will begin Saturday, September 22nd, at midnight and will start and finish at the Bombers' new clubhouse in West Riverside. There will be lime from Highway 60 in West Riverside and Highway 99 in Bloomington directing you to club house. Entrance will be marked by lime.

Entry fee will be \$2.00, Post entry \$4.00. Entries close Saturday night September 16th, at which time drawing for riding position will take place at our club house. You may choose your own riding partner, but both entries must be in by September 16th in order to ride together. To avoid confusion at the last minute, we want both partners' entries in at the same time. This insures a faster drawing.

Saturday night, September 22nd at 10:00 pm all route cards and other information will be given riders, and each contestant will receive a Cactus Derby Pin.

Famous Last Words—"I meant to bring a canteen of water."

ILLINOIS CHAMP TRIALS

Won by Bill Cottew on Ariel



Photo by Dorothy Puffpaff

Judges watch Max Eichmeier, 3rd in 45 class,
closely as he gives his Ajay hard right rudder

SPEED TRIALS PAY OFF

(Continued from Page 9)

they include a colored poster that may be posted on the bulletin board. They also send a copy of the letter to each rider who was at the last year's run. Information is sent to the local radio stations, newspapers and magazines. This way the event receives the

widest possible publicity.

While this is going on, the club arranges for an official AMA sanction. The AMA requirements for events are only that the sponsoring club be reliable and that proper safety precautions be taken to protect the riders. AMA sanction for speed trials require that the rider go both ways through the traps within a half an hour. At first, the Pasadena club tried this, but it took such a long time to put the riders through, they limited the run to one direction. They added another trap this year to give even more riders a chance, and to sanction an event such as this they have to take out an AMA field meet sanction. Any speeds recorded at these events are not considered official by the AMA.

They have a unique contract with the ambulance which would work for any club. Instead of hiring the ambulance for a day at a minimum guarantee they contract for the equipment on a standby basis only. Any injured rider must pay his own expenses for transportation. This insures the rider of transportation to the hospital of his choice. By contracting for standby services, the riders receive first aid on the field free of charge.

Charges for riding are nominal. The club asks \$1.00 for one ride or offers three rides for \$2.50. For this money, the rider gets supervised, sanctioned, racing. He gets the services of judges, computers, trap guards as well as accurate timing and first aid.

"We provide pit stewards at the start of the traps" Earl Flanders said. "It's their duty to check each bike and to recommend any changes they feel would increase safety."

At first the club had a number of different classes. They had events for gasoline, fuel, stock bikes, cut down jobs and many other groups. Checking the type of fuel and telling which bikes were stock was impossible and they removed them this year. "Then we tried checking gasoline," Jack Fiddament said. "That wasn't practical either. The only way we could tell was by smelling fuel. We sniffed so many tanks we got drunk on fumes."

A record of 115.12 for the 45 cu. in. class was broken by Jack Dale on a Harley. He was clocked by Christian's timer at 119.20 mph. The 40 inch A record, held by Johnson Motors of Pasadena, was previously recorded at 129.45 but this day they hit 135.14, felt they had it cinched and had their bike in the trailer when Eugene Theissen, riding Hap Alzina's BSA, was timed at 137.30. Soon after, Theissen rode through the traps on gasoline to break the record of 118.40 by rushing the timers at 130.90. Topping the 40 inch A record was not easy. It was an all-morning fight between Johnson's Triumph and Theissen's BSA, before Theissen clocked a speed Johnson didn't hit.

Only through careful club planning can a speed trial such as Rosamond be successful. It is efficient management that makes it possible to break records. It makes the riders want to ride again and that means profit for a club treasury. "Any club can earn money the same way," Fiddament says, "all it takes is the cooperation and help of every club member. It's worth the effort because speed trials are a lot of fun and a lot of profit."

STATISTICS OF PREVIOUS EVENTS

21 Cu. In. Class

Average Speed	Entries	over 100
1948 77.37	16	1
1951 90.68	10	2

30.50	Cu. In. Class	
Average Speed		over 100
1948 87.66	78	4
1951 94.99	85	27
40 (cu. In. Class	
Average Speed	Entries	over 100
1948	0	0
1951 99.92	49	26
The state of the s	Cu. In. Class	
Average Speed	Entries	over 100
1948 90.95 1951 101.95	41	9
		0
	Cu. In. Class	over 100
Average Speed 1948 96.55		over 100 17
1950 108.20	23	16
	Cu. In. Class	
Average Speed		over 100
1948 97.60	62	30
1948 97.60 1950 100.91	43	27
	Open Class	
Average Speed		over 100
1948 107.13		12
1950 110.38	13	9
195	1 RESULTS	
	Cu. In. Class	
Irwin Lee	Har-Dav.	138.99 mph
Al Keys	Har-Dav.	136.06 mph
Bud Hood	Har-Dav.	125.53 mph
	Cu. In. Class	120.05
Robert E Kucera	Har-Dav.	128.85 mph
J. E. Caffey Robert W. Melton		124.75 mph 123.97 mph
		125.97 mpn
	Cu. In. Class Vincent	135.33 mph
Joe H. Simpson Irwin Lee	Har-Dav.	131.38 mph
Willie Soe	Vincent	127.57 mph
	Cu. In. Class	
Jack E. Dale	Har-Dav.	119.20 mph
J. D. Walthall	Har-Dav.	109.69 mph
Bobby Michael	Indian	108.10 mph
	Cu. In. Class	
Eugene Theissen	BSA	137.30 mph
Blackie Bullock	Triumph	135.14 mph
Eugene Theissen	BSA	130.90 mph
30.50		122.02
Buddy Parriott	Triumph	122.03 mph
Eugene Theissen		119.20 mph
Fred Asadiarian	Triumph Cu. In. Class	118.42 mph
Lloyd Bulmer	Velocette	103.15 mph
Richard Welsh	BSA	101.69 mph
Allan R. Dalo	BSA	98.36 mph

CYCLES SHARE SPOTLIGHT IN MOTORAMA

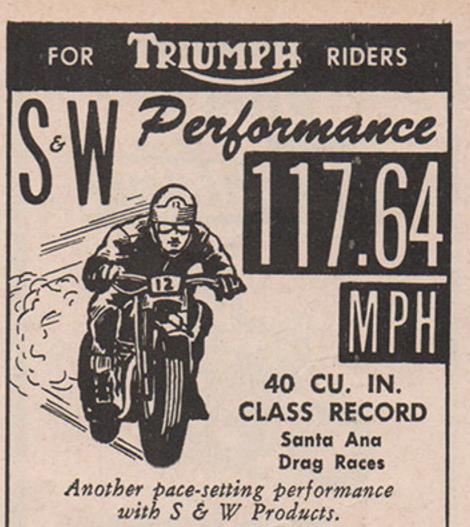
THE FASTEST, the most unusual, and the most historic motorcycles available will be prominently featured in the 2nd annual Motorama at the Pan-Pacific Auditorium in Los Angeles, November 7-11, 1951.

Assured of full scale participation on the part of manufactures, distributors, and dealers, the management of *Motorama* is planning a very colorful and interesting display which will give motorcycles equal prominence with the automotive displays.

European exhibits will share space with American products in a glittering atmosphere designed to tell the story of cycling in its true light and to make converts for the sport.

Recent word from Europe indicates that several of the most famous continental racing machines may be available for the show. The November issue of CYCLE will carry more details on this aspect of the exposition.

Many riders from northern California and surrounding states are expected to attend Motorama, based on the volume of correspondence received at the show office. A special entertainment program, in which leading figures from the motorcycle world will participate, will be conducted at intervals during every day of the exposition.



Ward Gilpin of 11349 Bombardier St, Norwalk, California, established this new competitive class record (June 3rd, 1951) over a quarter mile course from a standing start. Ward's high performance S & W equipment was all self-installed and tuned.

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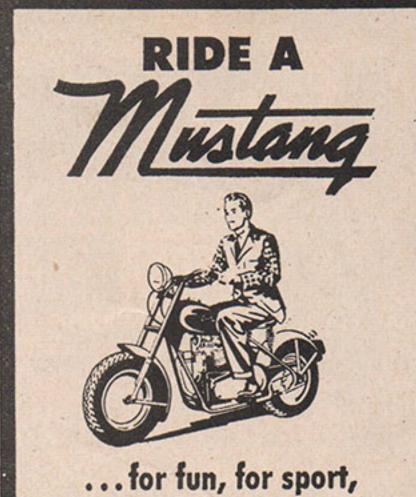
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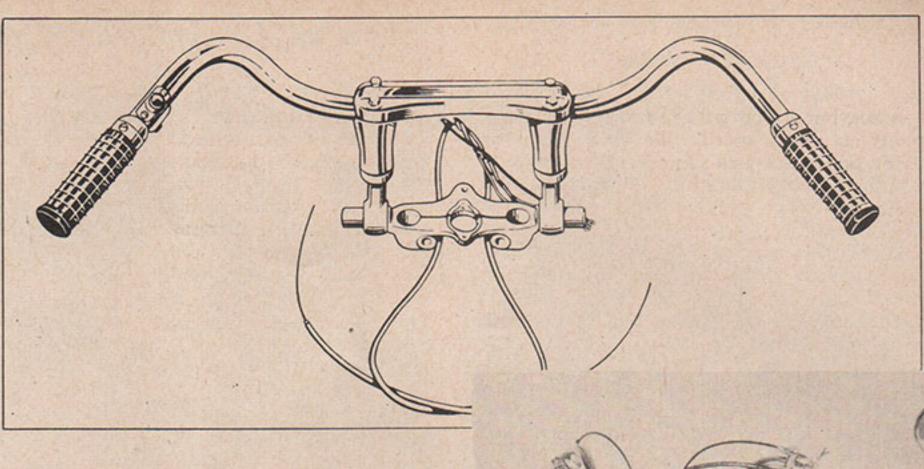
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PAN-PACIFIC AUDITORIUM NOV. 7-11



ABOVE, The Harley-Davidson triple clamp, rubber mounted risers and late bars. The rubber, of special design, bonded to inner and outer steel tubes of rubber mounted bushing inside riser, absorbs road shock. Two rubber bumpers at bottom of riser stop undue movement

RIGHT, Indian's new Western style bars add both comfort and appearance to the latest Scout. Bars are adjustable in rubber mounted risers that are at right angles to the forks

STORY OF THREE BARS

(Continued from Page 15)

broader surfaced tires. As a perfect illustration of this, try sitting on a short-track racer sometime. The forks are practically straight up and down, and steering is near effortless despite their short bars. Greek mathematician Archimedes must have had the lighter weight pilots in mind when he advised "Give me a long enough pole and I'll move the world." That's going a trifle overboard in our case, it's true, but girl riders especially may require a little longer tiller to keep up with the boys. Sidecar drivers will reach for a long bar everytime, for they alone have learned the true meaning of leverage. Hacks require a wide, flat model at near right angles to the cycle for the best control, and will let you know in a hurry should you fit the wrong bend. Actually, however, bars on solo mounts should be kept to a minimum practical working length, since the shorter the span, the more sensitive the control. To accent this feeling of decreased leverage and intensified control, try steering with your hands gripping the bars down next to the forks.

As a final test when figuring width, turn your front wheel as far to one side as it will go, assume a balanced upright riding position, and reach for the grips. If you can make connections without moving bodily forward or stretching, they are set within reason.

Most of us can recall the day, just a few years back, when there were no such servants to our personal whimsey as Flanders or Hellings, and the individualist who wanted a special kink in his steerhorns was obliged

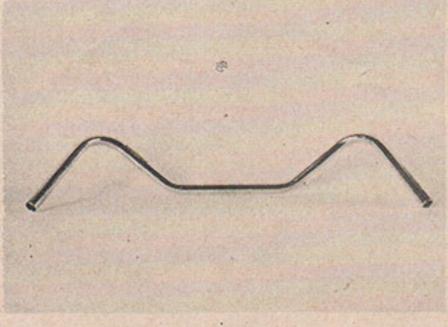
to search out a cycle shop or "smithy" who specialized in this particular art.

Such jobs, if done right, were usually quite expensive, running as high as thirty-five of those "good ol' day" dollars—and no wonder! A smooth bend, without flat spots, meant a day's work. All controls, wires, and accessories had to be stripped off and the bars packed with sand before even lighting the torch. After heating the metal to a workable state, getting just the right spread, lift and drop-off, the bars had to be retempered, repainted, or plated, and finally reassembled. Then there was the poor man's twist that could usually be done for free with the help of a strong friend and a six-foot bending bar.

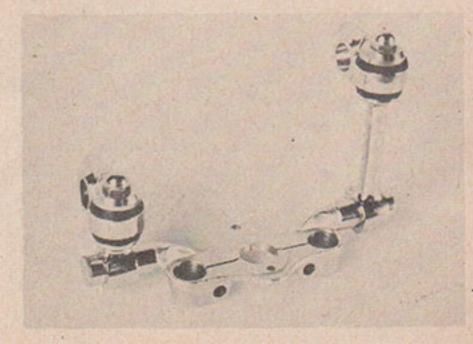
Apart from the obvious advantage of variable positions that can be had with our present day bar and riser set-up, there is yet one more blessing. You have probably already discovered that a hard tumble will rarely break either the bar or its mounts, but instead will only knock things akimbo. A quick readjustment usually sets things right and the price of a new bar has been saved.

Just a final word to you who have yet to thrill to the sport of a sidecar rig. If you plan to push a hack to any extent, don't invest in a high set of handlebar mounts. Risers in this case should never be over 3 inches high and preferably even shorter. The terrific strain while cornering at speed will often cock the whole assembly at a bad moment.

So good luck in that search for the ideal, all-around bar. Some claim they have found it, but I, for one, wonder-was there ever any such animal?



Flanders' D bar for British bikes compares in feel to their No. 8 for bigger American jobs



A contrast in risers. The shortest 2-inch size on the left as against the Flanders' 51/2-inch job

IF YOU BUY IT USED

(Continued from Page 10)

best bet, but if you will be touring the pavements at higher speeds, the twin might be better. So make your decision and go hunting. You'll find several that fulfill all your requirements and it is up to you to choose. At this point the complete novice begins to lose ground. When it comes down to the slow, painstaking business of judging condition, there is no substitute for experience.

You begin by just looking. There are many signs of hard and unusual usage that may be detected by a trained eye. Check the paint on gas tank, frame and fenders. Examine the small, chromed parts. If the paint is dull, especially in the less accessible places, the former owner probably didn't keep it up. Look for dents in the gas tank. These cost too much for the sharp operator to fix. They give evidence of a bad spill or careless cowtrailing. If you buy the machine, it will cost you a minimum of \$15.00 to repair the dents. Look at the skid plate, if there is one. If there isn't, try the bottom of the engine case or check underneath the frame for dents and scratches. Brush scratches might show up on other parts of the machine, namely tanks and forks. These are good evidence of cow-trailing which wears a machine harder than careful pavement riding.

Tires can tell a complete story. If the rear tire is spun smooth on one side, you are looking at a track job and you should look at it no longer. You don't want to get mixed up with one of those unless you intend to enter that kind of competition soon. Pavement usually wears a tire evenly, just like an automobile tire. Cow-trailing will chew up sections of the tread and sidewall. Rocks and gravel and sudden holes and bumps will

gouge and cut and bruise.

On the front of the machine, the angle between frame and forks is a critical item. Only if you are thoroughly experienced will you be able to pass judgement just by looking. Better save this part of it for the road test if you are a newcomer to motorcycles. But examine the frame tubes for any unusual bends or twists and inspect the forks carefully. It will cost you about twenty-five dollars to have the frame re-shaped to factory specifications if the damage is not severe. Fork tubes can be straightened for fifteen dollars, but if they are obviously too far out of line they must be replaced, which is more expensive.

On the rear, the points of most wear are chain and sprocket. To test the chain, grab it between the thumb and forefinger and pull. Best place to apply the pull is at the rear of the rear sprocket where chain and sprocket mesh. On a new machine you won't be able to see any daylight between the parts; on a partly worn machine there will be as much as a quarter-inch of play; on a bike crawling with age, the chain will come free of the teeth and pull back for an inch or more. Sprockets wear quickly, so look at the teeth while you're back there. They may be worn to sharp points or have deep concavities in the pulled surfaces. If so, you will need a new sprocket. Then try turning the sprocket on the brake drum. If you can turn it at all, you will need the part riveted in place. Finally, check the brake adjustment. If it is at the last notch, count on paying for that soon.

When you're satisfied with the results of these investigations, start the engine and listen while it warms up. Idle it down low and try to diagnose the symptoms you hear.

All the words I can put on paper won't tell your ear how a loose piston sounds, or just which kind of noise signifies a faulty rod or main bearing. Someday you'll hear them, if you haven't already, and then you'll know. But until your ear has been trained to

pick up subtle flaws in the sound of an engine, you'll have to content yourself with listening for obvious trouble.

Don't be frightened by a noisy engine. A single-cylinder mill, for example, may sound noisy to an ear accustomed to automobile engines or even one familiar with the rap of a twin. Singles are just that way—they're set up with more clearance, and some twins are louder and looser than others. Unless you know just how the engine should sound, give it the benefit of the doubt.

A dull regular thudding from the region of the lower part of the engine can mean bad bearings. A sharper rap from the same area might signify that the rod bearings are loose. Rattles emanating from the cylinder may signify piston slap. If the evidence is unmistakable, don't bother with the machine unless the price is cheap.

If you're in doubt about the engine, examine the exterior condition and try to estimate how far the bike has been ridden. A ring and valve job will last, ordinarily, about 18,000 miles. This figure may go as high as 31,000 miles if the owner is careful, or it may drop as low as 500 miles if the bike is misused. Lower end repair (bearings) is usually necessary after 40,000 to 50,000 miles. Don't be impressed by what the odometer says because any slightly resourceful mechanic can

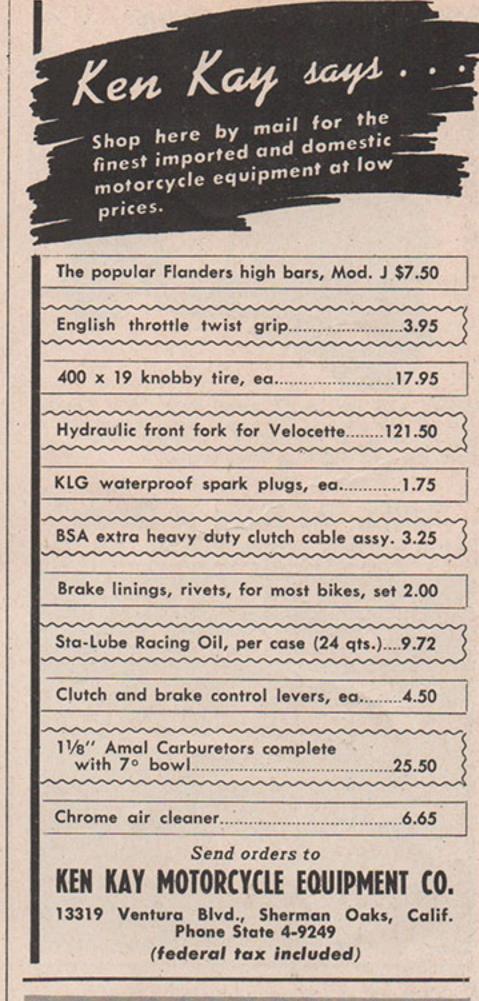
By now the engine should be thoroughly warm and you can take your demonstration ride. If you aren't allowed to take the ride, don't buy. Find a deserted street because you will want to make a few tests.

Don't spend your test ride trying to blow off everybody in sight. You already know the speed you can expect. Try fast acceleration because that furnishes a clue to compression and encourages blow-by if the rings are worn or the cylinder is too large. Feel out the clutch for grabbing and slippage. See that your gears may be engaged easily and listen for whine. Here again the beginner is in trouble. It is perfectly all right for some gears to whine in a certain way. In general, a high, tight whine is safe but a loose, growling sound is not. For a final check, lug the engine down to a crawl in each gear-all the way down to the point where the bike begins to jerk. There will be some jerk even on a new bike because the chain coupling has elasticity. When the gears are loose, however, the jerk will be excessive.

Controls and handling qualities must be tested on the street. Here you can test frame, forks and wheels for distortion. Begin by riding slowly and feeling the response of the bike to steering, braking, and shifting. Take your hands off the bars for a moment. If the front wheel dives to right or left, something is out of line. If the machine lurches into corners like a drunk, that is another indication of poor alignment. If the front feels hinged, rather than tight, head cups or bearings may need replacement. Most important of all-if all seems to be well mechanically but you still don't like the bike, it may not suit you. Never buy something you don't like, regardless of price.

Now you can drive back to the shop. If there is nothing radically wrong and you like the feel of the ride, open contract negotiations. Since banks are loathe to take any motorcycle, new or used, as security, the dealer will usually finance you himself. Interest rates, or carrying charges as they are more accurately termed, vary with the dealer but they usually run about 1% per month or slightly under twelve dollars a hundred. If the charge is more, don't accept the contract but check other dealers to see if their charges are as high.

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BE SURE TO READ ALL ABOUT THE BONNEVILLE SPEED TRIALS IN THE NOVEMBER ISSUE-ON SALE OCTOBER 5TH

ONE FOR THE ROAD

(Continued from Page 20)

cups of java at my shack at the foot of Angeles Crest, fired up our vertical twins and were soon smoking over the mountain. The Angeles Crest highway, in case you haven't been over it, is a thirty-some mile mountain pass extending from La Cañada to Vincent, California. The road is high gear all the way with a little better than average surface and turns that generally permit speeds above 50.

Now here's my first reason for putting in with the Dominator twin. Although I was on a strange bike, and a 30.50 at that as compared to the other three bigger twins, the Norton kept me well up with the pack at all times. Steering and springing in the corners were terrific, giving a very sensitive feeling of positive traction. The only other way I can describe this culmination of well-figured frame geometry and fork action is to say that it gives the rider an immediate sense of assurance at times when it is most needed.

Once over the hill, the road straightens out into a long gradual decline and I decided to choose-off Ray Bowles in a two mile flatout sprint. All went well up to 75, then the Norton quit cold. When the throttle was backed off she would return to life, but above that—no go. At the time, things looked dark but a later check-over before the speed trial showed a large bubble of water in the carburetor to be the culprit.

We swooped into Vincent just in time to see the start of the Three Point M/C's annual Powder Puff Derby for girls and decided to follow up the fair sex, along with a couple of their hubbies, as part of the test.

To say that we kept up with the girls is not quite sufficient, for we would boom over the dirt trails full on, stop to overhaul one of the lassies carburetors, then get under way only to stop again to refuel another, who had been hitting the throttle a little too often, then be off once more. After many miles of these full bore antics it occurred to me that the Norton had been whisking its 200 pounds of strange cargo over rock-strewn, twisting dirt trails at a pretty rapid pace.

Here again I marvelled at the manner in which those "Road-holder" forks were handling their end, and the rear coils were doing equally well. Whether it be a series of slight ripples or a real wham-bang gully, these amazing forks are set for the occasion.

De-acceleration in the dirt, coming into a fast turn, was smooth and rapid despite the fact that the Norton box has a little extra travel between gears and pulls up for low. All shifting could be done quickest by applying pressure on the foot lever just a split instant before popping the clutch rather than working both simultaneously. Fourth gear could be had in a hurry by using this technique and just barely tapping the clutch.

At Little Rock more friends were met. The San Gabriel M/C was out in force plotting their annual hound chase and asked us to ride along, but we declined in favor of refreshments back at Vincent and stroked off for a few miles of pavement before lunch.

Up until now there had been little time to glance at the oil gauge built into the Dominator's tank but a slight loss of power at about fifty per was occasion for a quick check which proved a bit startling. The pressure dial which had always registered above 60 pounds was now hovering in the low twenties. Alongside the road we checked the oil level, which seemed high enough, and tried to diagnose the trouble. No pinging or hard starting had been noticed. In fact there had been no signs of overheating but we had been laying it on pretty hot and heavy for a bike with such few miles. After a few minutes of mingled speculation and

silent prayer the Norton was kicked through once more and came to life with no signs of ailment. Pressure was back up and we

high-tailed it to our noon stop.

It just so happens that outside the cafe door at Vincent is one of the most popular hills in Southern California and, as might be suspected, this is where we chose to settle our lunch and a few other things. The best mark, about half way up, was made by Bowles on a stripped down forty inch twin fitted with an oversized 4.00 rear tire. The 30.50 Norton Dominator, with full stock equipment, a 3.50 rear shoe and a 40 lb. heavier rider, came within a very few feet of reaching the same height on the hill.

All of these gyrations had proven too much for the main battery bracket bolt which had loosened and fallen out, causing the battery to whip about. A few strands of bailing wire held the accumulator in place for the rest of the test, but there was no temporary relief for some damage that had been done previously by battery acid that had sprayed back onto my pants leg and the left muffler. Both chrome and material disappeared in a wink. It seems that a full cover for the battery would be a wise addition.

From the hill, our party went off in search of a new speed test strip, failed to find it, and finally wound up doing a little river bottom research. Here again, in sandy footing, the bike seemed to "have it," and with some fancy peg standing, came through with flying colors. Sand was navigated well when care was taken not to over-rev, an easy thing to do with

this glass-smooth power plant.

Three days later a speed trap was selected and photographer Rickman and I knuckled down to some intense acceleration and braking tests. Though still quite tight for its four hundred miles, the Dominator was made to sing in each gear. No engine failures were encountered nor were any structural weaknesses evident. The bike was exceptionally smooth throughout the entire range and felt as safe as any I have ever ridden at top speed.

At no time during the test did the brakes show signs of fading, and both binders were very progressive. From the front brake stopping figures and the fact that the wheel could not be locked at speeds in excess of 5 mph, I suspected a spot of grease on the front drum, since the rear brake had plenty of bite and both drums are the same size.

All in all the Norton Dominator impressed me as a machine well worth owning at \$850.00 plus tax and license. I enjoyed the ride thoroughly, was surprised to feel so much at ease on a strange bike in such a short time, and am happy to say that it kept my preponderant hulk intact through many a thrilling moment.

PERFORMANCE SUMMARY

	Speen	
Maximum	in low	40 mph
Maximum	in second	62 mph
Maximum	in third	80 mph
Maximum		88 mph

Braking

From 25 to stopped, rear brake only 45'5" From 25 to stopped, front brake only 33' 4" From 25 to stopped, both brakes 23'2"

Acceleration

*1/10 Mile Drag (10.25 sec.) 35.12 mph average

**1/4 Mile Drag (18.25 sec.) 49.31 mph average

*Low and second **Low, second, third Slow Running 12.5 mph High gear without snatch

Turning Circle 13' Minimum Diameter

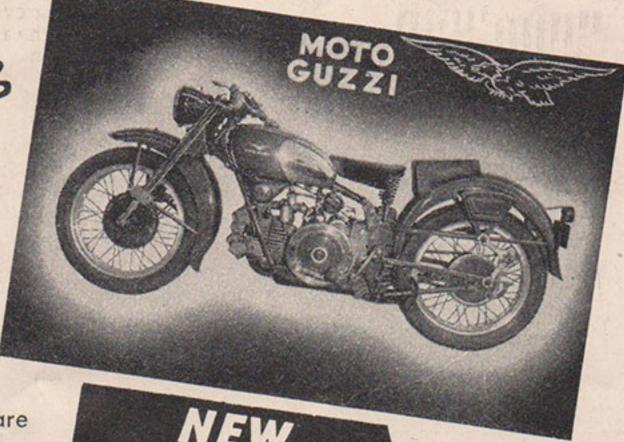
Mileage

Per gallon of gas (including speed trial and acceleration tests) 35 mpg



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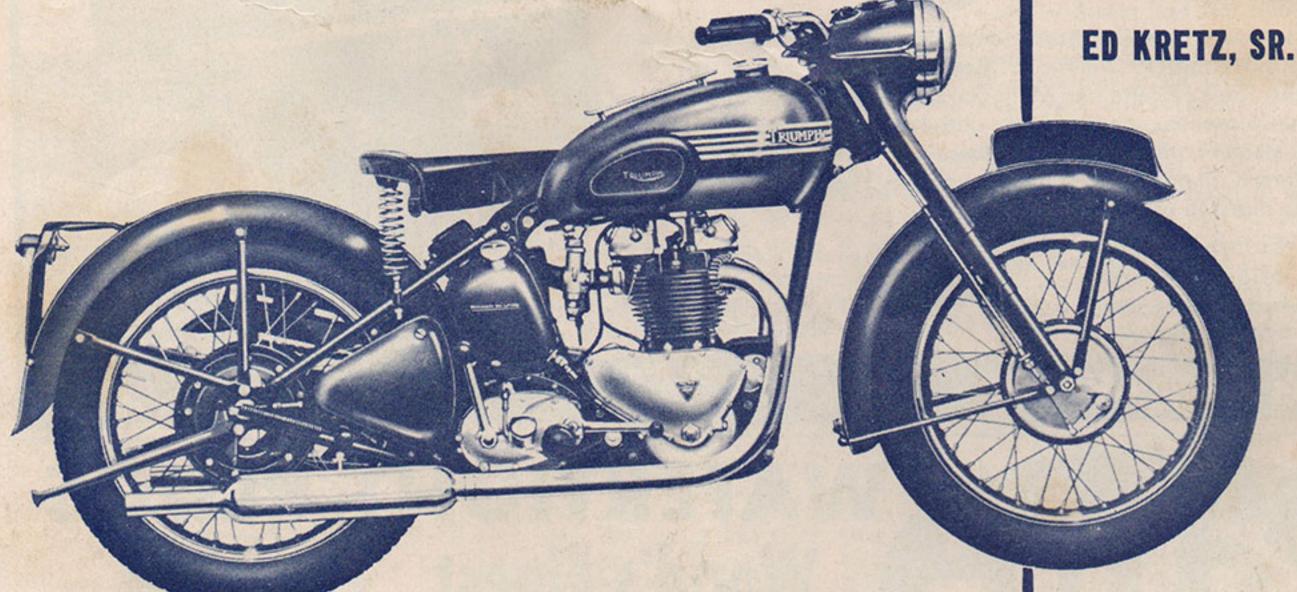
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