

Bradshaw Omega

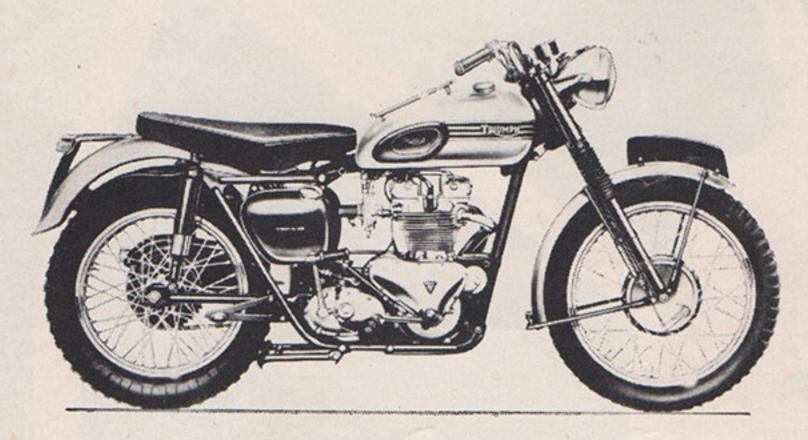
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MARCH, 1956

VOL. VII No. 3

"World's Largest Monthly Motorcycle Circulation"

CYCLE is the only motorcycle magazine officially audited by ABC—The Audit Bureau of Circulation—an organization of impartial circulation experts. It is the advertiser's assurance of accurate circulation figures on CYCLE Magazine.



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SAFETY CAMPAIGNS ARE IN VOGUE—A large number of automobile manufacturers have at last taken cognizance of the increasing number of accidents to automobile drivers of modern high-powered cars on our highways. They are doing something about the problem, for in the past few months practically every car manufacturer has cooperated in offering safety features in their new cars. Safety belts are now available for all cars, and certain makes are offering a new and improved type of door latch designed to prevent car doors from flying open in the event of a crash. Others are offering padded dashes and sun visors designed to protect the driver and passengers in case of a crash. Ford, Lincoln, and Mercury are offering dished steering wheels to reduce chest injuries in the event of a crash. The car people are admitting there is some danger, even in pleasure driving.

Airplane passengers have always been required to use safety belts while the plane takes off and lands. Since the recent tragic Santa Fe train wreck in Los Angeles, in which 30 passengers were killed and over 100 injured, there has been a movement started to

require train passengers to use safety belts.

MOTORCYCLE SAFETY—As a result of this nationwide safety movement sponsored by the National Safety Council and thousands of newspapers and organizations, motorcycle dealers and riders should take into consideration any advancement that will increase the safety of motorcycling. Experienced motorcyclists know that a motorcycle is no more dangerous than any other method of transportation providing the operator uses common sense and good

judgment.

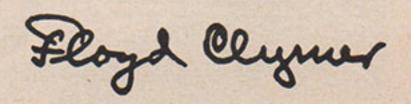
Too many motorcycle dealers, distributors, and manufacturers have been ducking the accident problem, and somewhat like the ostrich who sticks his head in the sand, feel that the less said about the matter of motorcycle accidents the better. We believe that this subject should be brought out in the open, discussed, and every possible effort be made to increase the safety of motorcycling in any manner possible. Years ago, Harley-Davidson came out with safety bars which in the earlier days were called "crash bars" by some riders. The word "crash" doesn't sound too good to a motorcycle rider or dealer, and "safety bars" sounded a lot better than "crash bars," but the bars serve the same purpose in the event of an accident.

We believe that the subject of motorcycle accidents has been taboo for too long in our own fraternity, although many newspapers seem to play up any motorcycle accidents that do occur. Apparently the same "out-of-sight, out-of-mind" situation existed in foreign countries until recent months. During my last visit to Europe (where motorcycles are far more popular than in our country), I found the majority of motorcyclists riding on city streets and highways wearing some type of safety helmet. Until recently, these were the heavier competition type of helmet-not exactly suitable for everyday use. We prefer to call the new highway type of helmet a "safety helmet." In recent months in England, the wearing of safety helmets by both the laymen and police officers has become customary and commonplace. The Los Angeles Police Dept. has recently made the lightweight safety helmet a part of the regular motorcycle officer's gear. It is now a part of his standard equipment, the same as his radio, safety bars, red light, leather jacket, and boots. We have sold quantities of our own helmet to the California Highway Patrol for use of the new motorcycle officer recruits at their training school.

The competition type helmet is usually too heavy and cumbersome to be worn comfortably by the pleasure rider on the city streets or highways. There are now, however, medium-weight helmets offering excellent head protection that are attractive and add to the appearance of any motorcyclist. We predict that the wearing by cyclists of suitable medium-weight protective helmets will soon be-

come commonplace in the United States.

As pioneer helmet distributors (we were the first ones to introduce crash helmets in this country, and have sold thousands to leading motorcycle competition men, car drivers, motorboat racing men, bob-sledders, aviators and others where head protection should be considered), we are happy to announce our new helmet on another page of this issue. We believe dealers and riders alike will find our new model attractive, desirable, and certainly practical. We can make immediate delivery with a liberal discount to dealers.



DEADLINE DATA

late news at presstime

Permit Necessary to Stage Field Meet in New Jersey

According to the New Jersey Cycle Safety and Public Relations Committee, laws enacted in that state are being used to greatly hinder motorcycle sporting activities in that area.

It all began when an officer of the New Jersey Motor Vehicle Department, arrested Mr. Bill Jacobs, a member of the Metropolitan Harley-Davidson Dealers Association, for promoting a "motor vehicle contest of skill", without a permit.

Apparently the arrest was the direct result of laws enacted several years ago when a stock car crashed a guard wall, killing and injuring several persons.

The event in question was not a contest of speed—it was in fact a "slow" race where the last man across a predetermined line is the winner. However, existing laws make the promotion of a motor vehicle "contest of skill", illegal without the procuring of a \$75.00 permit from the state.

The N. J. C. S. P. R. C. have engaged the services of Assemblymen Arnold Smith and Charles Gant, both of whom are attorneys. They will present the motorcyclist's side of the controversey to the Motor Vehicle Dept. and the State Legislature.

The Committee has requested that all interested parties concerned with the advancement of motorcycling as a sport, make whatever contribution they can. The Committee points out that laws of this kind could be extended to other states if something is not done immediately.

For further information, address your inquiries to J. Sherman Cooper, Secretary, N.J.C.S.P.R.C., R.D. 3, Youngs Rd., Trenton, New Jersey.

NSU Confirms Record Assault

The seriousness with which the NSU

factory is preparing its attack on present speed records was made clear by an announcement just received from the Butter and Smith Trading Corp.

One of NSU's most successful aces, H. P. Mueller, who became World Road Racing Champion on the 250cc NSU Sport-Max in 1955, has retired from road racing. Instead, he will join Wilhelm Herz in an extensive program of record attempts to be undertaken by NSU in 1956. These record attempts will take place on the Bonneville Salt Flats in Utah where recent tests have shown conditions to be ideal. It can safely be assumed that our German visitors will prepare for the trials with typical thoroughness.

Attention Putt Mossman

Jim Davis, 453 Furnace St., Columbus, Ohio wants to get in touch with you regarding Motorcycle Thrill Show scheduled for June.

Palo Duro Event in March

The 6th annual Texas Palo Duro championship enduro has been scheduled for March 4th. Promoted by the Amarillo MC, the course is said to be shorter than last year's rugged "go."

There will be trophies for most of the classes as well as one for distance and team. A big feed will be held immediately follow-

ing the event.

Arthur Humphreys Again Wins A.C.U. Star

His consistent riding throughout the 1955 trials seasons has again won for Arthur Humphries of Birmingham, England, the A.C.U. Sidecar Trials Driver's Star—the Championship of Britain in this branch of the sport—this being the second year in succession in which he has gained the honor. Arthur ended the season with a total of 72 points collected in this, his most successful year yet. His victories include the Colmore, Victory, Cotswold Cups, Kickham, John Douglas, Southern and Manville events.

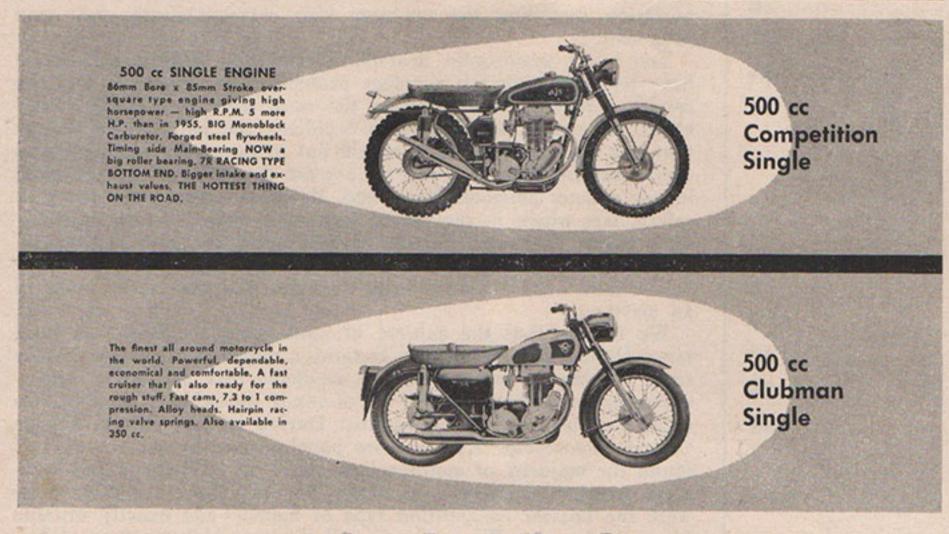
The Manville Cup trial held in the Atherstone area of Warwickshire and the Southern Experts event at Beedon, Berkshire, ended the list of events counting towards the A.C.U. competition. But in addition to winning the sidecar trophies at both meetings, Arthur went on to win the George Buck Trophy in the Wolverhampton Club's New Year's Day meeting at Bridgnorth, the Vic Brittain Trophy Trial. A feature of this trial is the special award presented to the passenger of the winning sidecar outfit. So for once the "ballast" — Arthur's brother Harry, came in for a share of the silverware on his own account!

Bear State Motorcycle Club Gives. Television Set to Boys Home for Christmas

The Bear State Motorcycle Club of North Hollywood, California, presented a check for the purchase of a television set to the McKinley Home for Boys as their annual Christmas remembrance to boys less fortunate than themselves. The 120 boys of the home seemed as pleased to have the 27 members of the club visit them on their motorcycles, as they were with the check which would provide them with entertainment.

The McKinley Home, for boys from broken families, is largely supported by the Community Chest. Its staff, under the administration of George Swartzott, does everything possible to provide the boys under their care with the elements of normal home influence. Residents are boys from 8 years

(Continued on page 6)

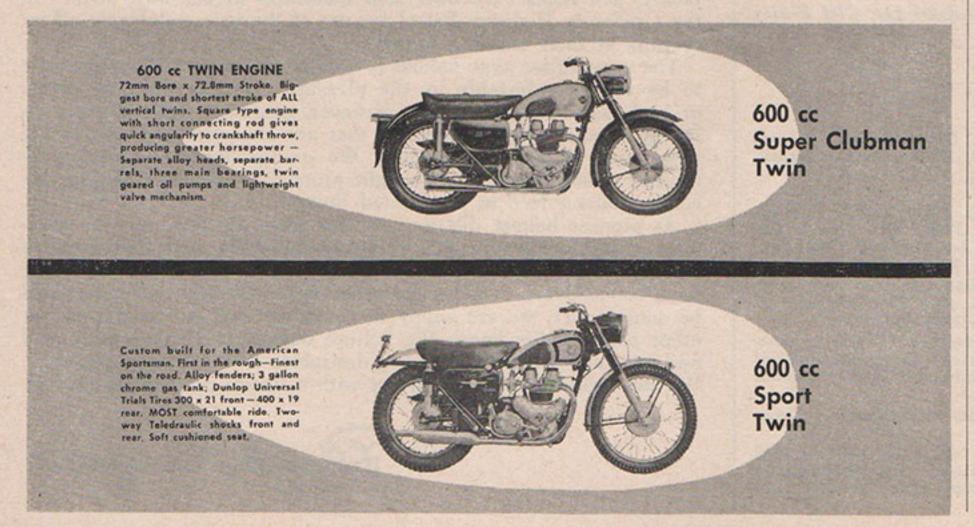


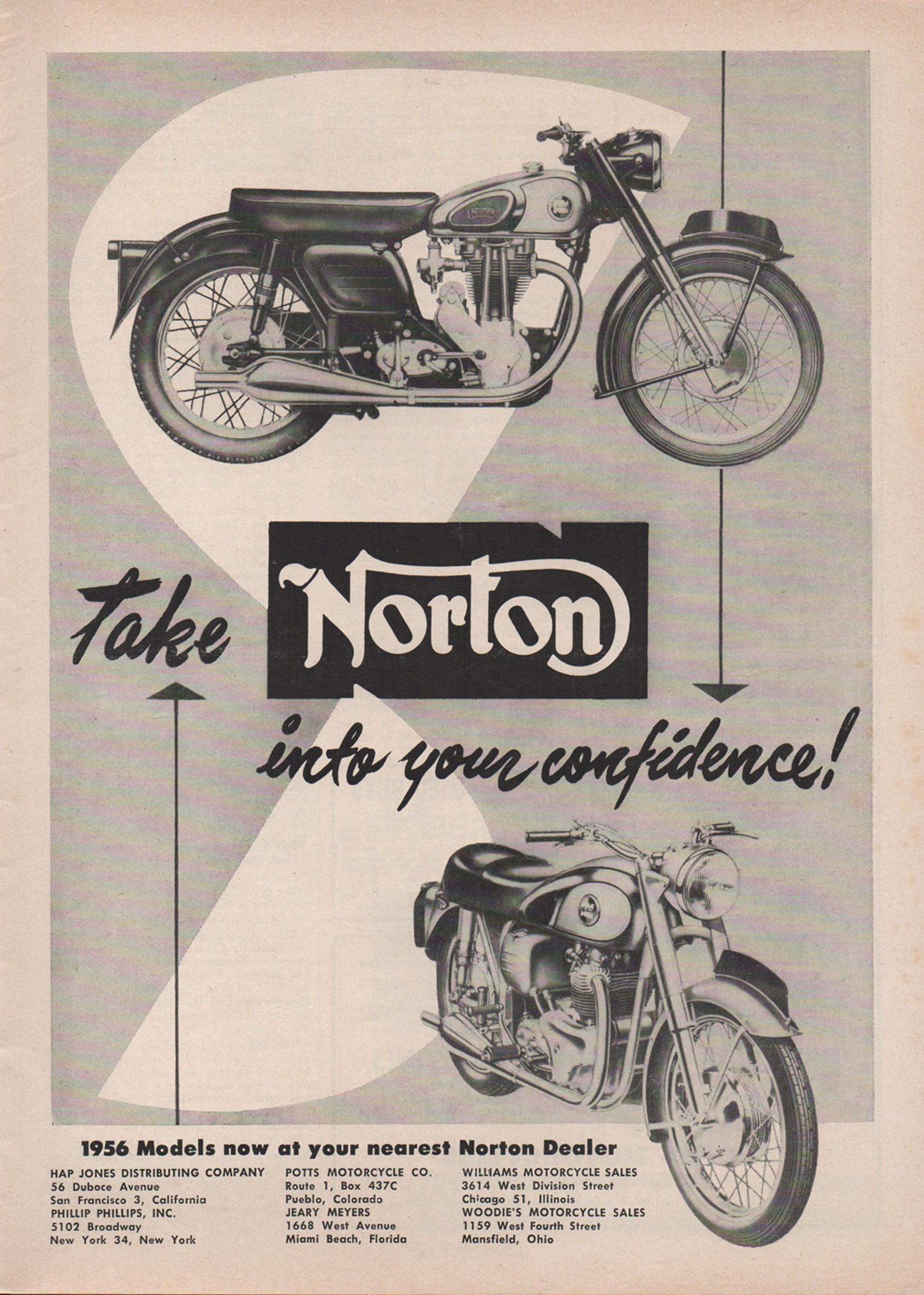


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LATE NEWS

(Continued from page 4)

old through high school. The 55 acre tract, and a plant of over a dozen buildings, offer opportunities for small farm animal projects, crafts, directed athletics, band and choral groups, and hobbies as well as a study hall and library. The boys attend classes in nearby public schools. Religion, patriotism, principles of right living, and the sturdy virtues of honor, integrity, thrift, and effort are encouraged.

Daytona Scheduled For March 10-11

Daytona Beach, Fla.—A man who should know, predicts a new record for motorcycling's biggest race, the Daytona 200, feature of the 19th annual Handlebar Derby here March 6-11.

He is E. C. Smith of Columbus, Ohio, who is in his 28th year as executive secretary of the American Motorcycle Assn. Writing Bob Palmer, director of the Handlebar Derby, Smith predicted; "The machines are even faster this year. Every man will be shooting for that record set up last year and if the weather and beach are right, we'll have a new mark in 1956." The record holder is Brad Andres, San Diego, Calif., who rode a Harley-Davidson to victory in the 1955 Daytona 200 with the new speed average of 94.57 mph.

Official A.M.A. Bulletin

The Daytona 200 mile Handlebar Derby will be held on March 11th and is limited to "A" riders only who can qualify. The Daytona 100 mile Class B Road race will be held on March 10th and is limited to those "B" riders who will be listed in the 1956 Riders Supplement. All "B" riders who will be listed have been notified by the AMA office. All riders must qualify on Friday, March 9th. 75 Class A riders will be eligible

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to ride in the 200 miler and 45 Class "B" riders will be eligible to ride the 100 miler. Daytona is not a national.

1956 applications for Competition licenses are now available. The fee will be \$10.00 per year. All applicants between 18 and 21 years of age, must again furnish a notarized letter of permission from his parents or legal guardians. 1956 Competition licenses will be gray. Riders in 1956 must list a phone number on their license for emergency pur-

poses.

Those "B" riders (amateurs prior to 1956) will start the 1956 racing season with the points scored in 1955. For example, if an old "B" rider scored 38 points in 1955, he will begin the 1956 season with 38 points. When he therefore scores a total of 60 points, he will become a Class "A" rider in 1957. No rider will be advanced during the year.

Note on Crash helmets: the Mehal "Mchal", Mchal "Tourist", Mchal "Highwayman" and Mchal "Sportsman" are all acceptable for Sportsman use. However, only the Mchal "Mchal" helmet has been approved for use in events where riders are required to have a competition license.

For 1956, there were only 43 amateur riders advanced to Class "A" and 90 novice riders advanced to Class "B". These will be listed in the 1956 Riders Supplement. Only listed riders will be eligible to ride in 1956 Nationals.

This past year many machines were competing in Class C club events which have never been approved for use in AMA sanctioned events. For example, the Dot, All State and Maico have never been approved.

Riders who were injured in 1955 in competition and have never received their 1955 license back from this office, will be required to furnish a doctor's release stating that rider is again physically fit to compete in motorcycle competition. This is a must before a 1956 license can be issued.

Eeffctive now, all Class "A" endurance riders when applying for AMA renewal, will note that their new AMA membership card will be stamped with a green "Enduro "A"

1956 applications for competition license must be filled out completely. This means machine and motor number. Over 75% of the 1955 applications were held up due to this neglect. The 1956 applicatons also carry a new requirement: date of birth. This must also be filled in.

Floyd Clymer Is New President of Horseless Carriage Club

Los Angeles, Calif.—Floyd Clymer, publisher of CYCLE and automotive books, has been elected National President for 1956 of the Horseless Carriage Club of America.

Other elected officers are: Vice President Joe Goodell; Chairman of the Board Herb Prentice; Treasurer Bob Gottlieb; Secretary Les Barnett. Two newly elected Directors are G. C. Coffee of Lafayette, Calif., and Herman Bear of Dinuba, Calif. Incumbent director Herb Prentice of Downey, Calif., was re-elected.

The National membership includes 6041 enthusiasts dedicated to the preservation of historical automobiles. (Many members also own antique motorcycles.) The organization was established in 1937. There are now three Regional Groups scattered throughout the United States and Canada.

Dr. Kenneth McFarland, nationally-known lecturer on the staff of General Motors Corporation, spoke to the 500 members and delegates at the annual convention held here, which ended with a banquet Saturday evening. Member who traveled the longest distance was Charles Lytle of Sharon, Pa.



Dear Editor-

Just a few comments in response to your editorial on motorcycle public relations; with only one factory doing any advertising on a national scale, how could the public possibly be correctly informed? Especially when this factory spends its advertising allotment in trying to put over the idea that motorcycling in its most enjoyable form is to put on a stupid looking cap and climb aboard a twenty years' obsolete monstrosity loaded down with shiny useless trinkets. This sort of deal does not appeal to people of average or above intelligence

above intelligence.

I realize that manufacturers of practical motorcycles advertise extensively in your magazine. I hate to disillusion you, but the general buying public doesn't read your magazine. While it is an unexcelled medium for reaching the riding public, that is as far as it goes. Did you ever see a televisian program thaat was put on by a motorcycle manufacturer? Or a radio program? There are in the neighborhood of 35 makes of motorcycles available in this country today. I doubt if Mr. or Mrs. Average Citizen can name three.

How many electric shavers, washing machines, automobiles, or deep freezers would be in use today if their manufacturers advertised no more than the motorcycle industry?

Another bottleneck to progress is high first cost and upkeep. Motorcycles cost too much to begin with and parts are outrageous. The only thing economical about a motorcycle is the fuel consumption.

Financing is another detriment. Automobiles may be purchased for as little as 20% down, while 40% is customary for motorcycles.

Until Mr. and Mrs. Average Citizen can sit down in their living room and see a person of intelligence clothed in normal attire ride a full sized \$500 motorcycle across the screen, I'm afraid the dealers will continue to fare on short rations. It's the factories that have fallen down on the job. The motorcycle dealer just doesn't get the support that dealers in other lines of merchandise get. If washing machines cost \$900 at 40% down, and you had to buy a washing machine magazine to find out about them, and you had to wear a stupid looking cap when you use one, I'm afraid the wash-board business would have held its own.

BERT SCHORLEMMER San Antonio, Texas

Possibly you are right on come of the points. However, for your information, Johnson Motors Inc., Western distributor for Triumph and Ariel motorcycles recently sponsored a television report of a Jr. College football game. Also, I have personally seen television advertisements by Ed Kretz, Triumph dealer in Monterey Park, California.—Ed.

Dear Editor-

I am a regular subscriber and reader of your fine magazine, and appreciate your open non-prejudiced approach to all problems of motorcycling, both for the road and competition rider. In recent issues I have been particularly interested in some of the letters from teen-agers in regard to their problems with their parents in obtaining motorcycles because I had the same when younger. I had to wait until I was through college and working on my own before I

could get a cycle. I now own a BSA Golden Flash and a Triumph Cub and really love the sport. Late this summer I took a trip on my BSA from D.C. to the Rocky Mountains in Colorado—it was a wonderful experience.

It is beginning to concern me about some of the bad publicity that some of our "would-be" cycle enthusiast entertaining stars are giving motorcycling. I am referring to Marlon Brando in the movie "The Wild One" and most recently Vaughn Monroe in his hit song "Black Denim Trousers and Motorcycle Boots." It is understood that both of these stars as well as many other movie and TV stars are themselves motorcycle riders. Why do they allow themselves to be the source of such degrading publicity for a sport they enjoy themselves? Vaughn Monroe here in a recent radio interview stated that he was a motorcyclist and hopes to continue riding safely for many years to come.

These famous personalities could do so much to give good positive publicity to the sport which it certainly needs and deserves. Movies, TV shows, and hit songs could be made about the many good and romantic aspects of motorcycling instead of these awful degrading things that have been coming out. Let's all of us, rich or poor, do our part to raise the attitude toward motorcycling through careful safe riding and a good word for our sport.

John W. Funk Washington, D. C.

Dear Editor-

I am relating my parental experiences especially for the younger generation of the motorcycling fraternity who are struggling for parental consent in order to purchase their first motorcycle.

At age 14, after working a summer, I bought a used Cushman scooter. This purchase occurred as the result of very much persuasive talking by me to my parents. They finally reluctantly agreed to the purchase. Unfortunately after I had had the scooter about two weeks a Nebraska State (Continued on page 10)

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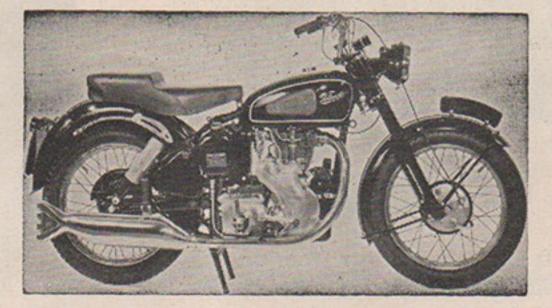
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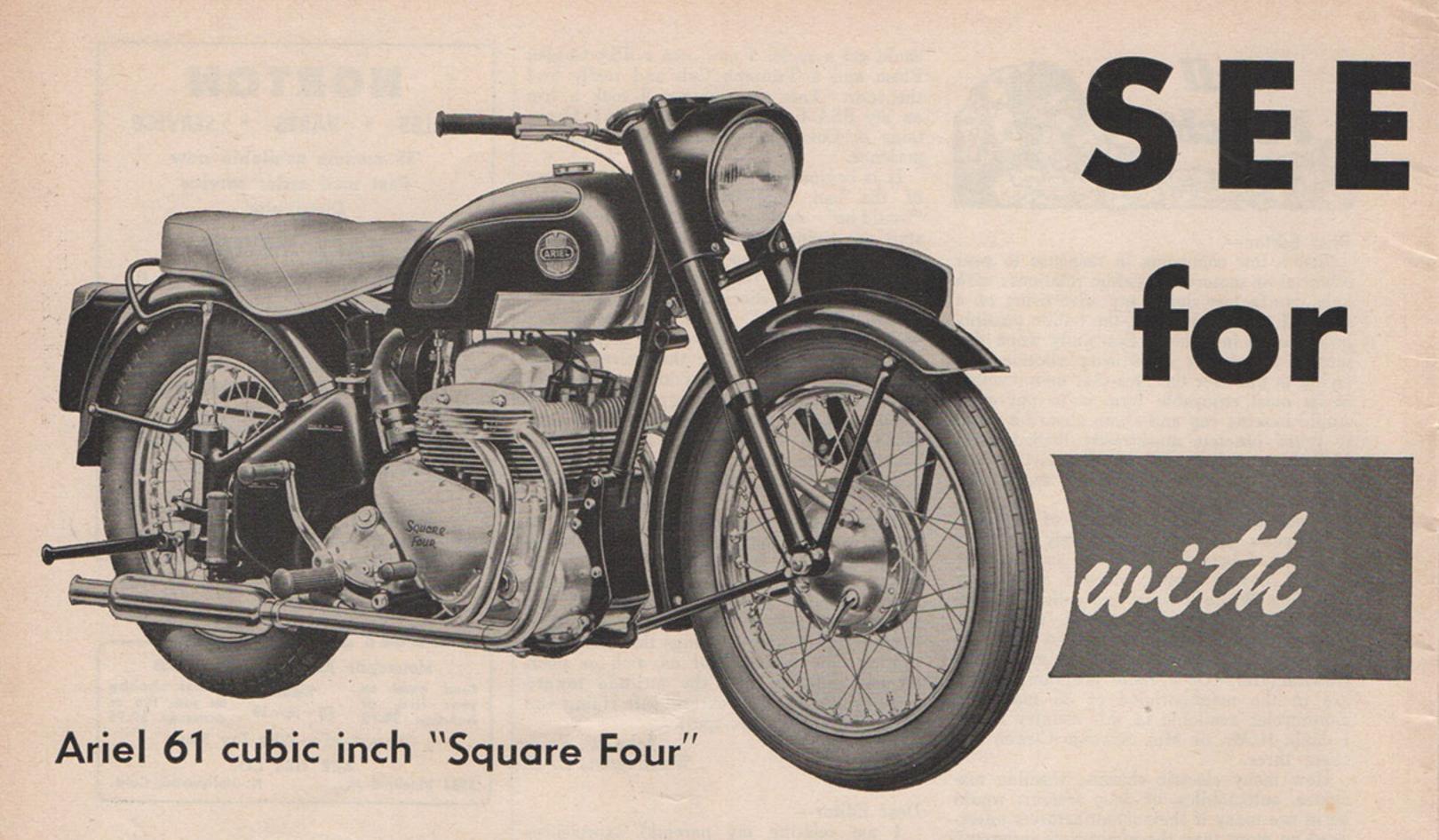


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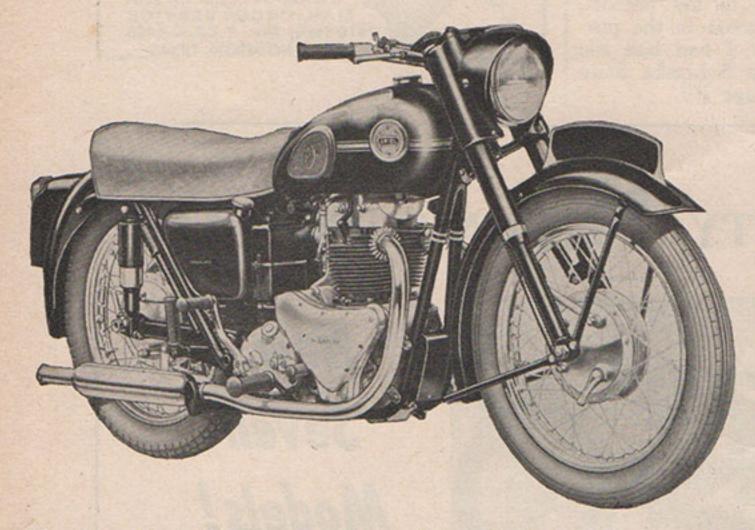
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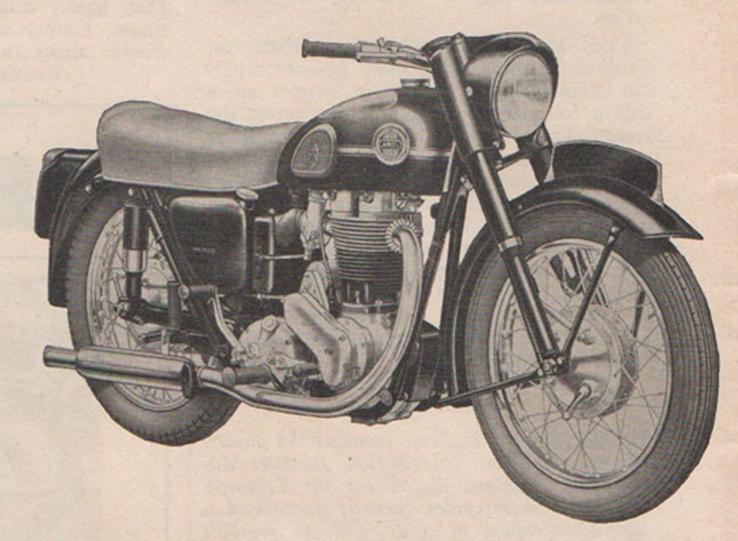
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See the mighty 61 cubic inch "Square Four," the big, fast "Huntmaster" Twin, the "RED Hunter" Single, the "Colt" lightweight. A Complete line of fine, high performance motorcycles.



The big, fast "Huntmaster"—a 40 cubic inch o.h.v. touring mount now comes finished in brilliant Ariel red, with many parts in gleaming chrome plate and with many mechanical improvements. Full width hubs are included in the standard specifications. Outstanding in appearance and performance, the "Huntmaster" offers unexcelled reliability and comfort.



The "Red Hunter"—a big, robust 30.50 cubic inch single with new Ariel red finish, lavish use of chrome, alloy cylinder head and new full width hubs. The perfect road single for the rider who wants fine performance with minimum running and upkeep costs.

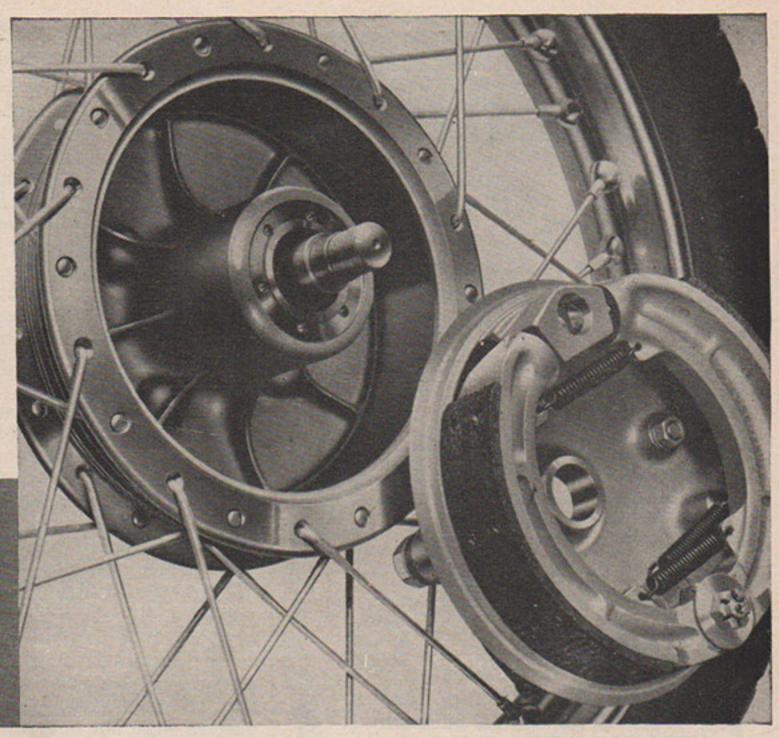
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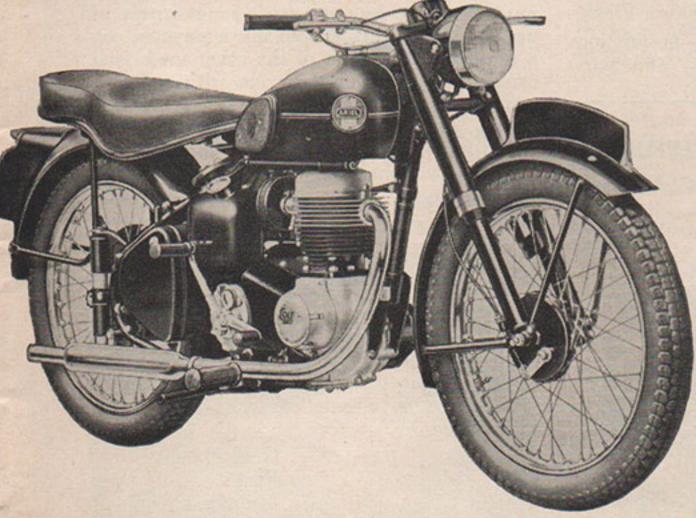
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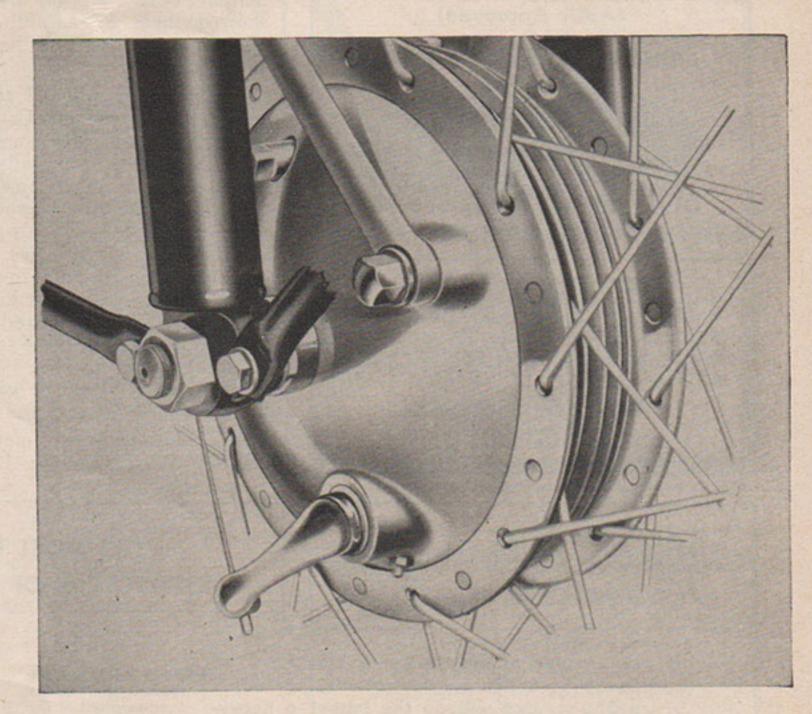




New ultra modern cowl and headlamp adds to attractive appearance of larger Ariel models.



Light and lively is Ariel's 200 c.c. o.h.v. "Colt." Built to big motorcycle standards with spring frame, hydraulically controlled forks, four speed gearbox. Attractive Brunswick green enamel with lots of sparkling chrome.



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ARIEL SCRAMBLER: The 1956 Ariel Scrambler model will be announced soon. Watch for details of this exciting competition mount!

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MAIL POUCH . . .

(Continued from page 7)

Safety Patrolman stopped me, requested to see my registration and driver's license. I showed him the registration, but I was not old enough to have a driver's license. He did not give me a ticket, but he did make it very clear to me that I would receive one if he found me riding again. A friend and I pushed the scooter a few blocks to my home. For the next two years it set in the garage practically untouched. When I was 16 and received my driver's license I began riding again much to my enjoyment. In order to make another purchase, I sold the

Just after I had turned 17 I purchased a used Czech 125cc. lightweight motorcycle. This I rode almost constantly, including nearly everyday last winter and a trip of at least 100 miles every weekend between what was then my home town, Sterling, and Lincoln to work. I met with all types of weather and road conditions, however, by purchasing some surplus flight clothing I managed to remain quite comfortable; and by staying as much as possible to back country gravel roads I licked the snow and ice problem characteristic to concrete, brick, and tar roads. As I mentioned above my parents were not in favor of my first scooter, neither were they in favor of the Cz. I showed them by careful riding that twowheelers were safe. I have never had an accident.

Last summer when I told my parents I would like to sell my Cz and buy a larger motorcycle, they also were not in favor of this. My father, especially, did not like to see me have so much power under my control. When he was a young man, and the roads were practically cowpaths, many of his friends made it a practice to overdrive their machines, thus in many instances they ended up in ditches, gullies, or barbed wire fences, oftentimes fatally injured or maimed for life. It was my father's fear that the same would happen to me. So it was with much reluctancy that he gave his permission for me to buy a used B.S.A. Golden Flash.

With his and my mother's permission granted, I sold the Cz 125 cc., and purchased the B.S.A. 650 cc.

I rode the Golden Flash to Dodge City to the National motorcycle rally and race meet last July. I had a lot of fun there and met several swell guys, among which are three boys from Montreal, Canada, Alf Malin, Colin Perks and Tom Marshall. These boys received one of your trophies for traveling the farthest distance to the meet. Rod Davis from Tulsa, Okla. and Edwin Ritter from Rogers, Ark., also lived with the three Canadians and me in the basement apartment we rented in Dodge City during our stay there. We all thought the meet was great, enjoyed our stay in Dodge City, and were especially glad for the additional enjoyment from new friends and experiences motorcycling had brought us.

When the meet at Dodge City ended we said goodbye to each other, and we headed our respective ways, three to Canada, one to Arkansas, one to Tulsa, and I on to the West Coast. I had many new and wonderful experiences because of my motorcycle in route to California, and during my three week stay there. In order to attend college this fall, I sold my B.S.A. while in California, and rode back to Nebraska with one of my brother's classmates in the Air Force. They are both Observers, and received their wings while I was in California. My parents and younger brothers came to California via Greyhound lines to see the ceremony and to have a vacation.

At this time the boy (Lyle Beckers) I rode back to Nebraska from Glendale with, is stationed in England. He expressed the desire that he buy a bike while he was stationed in England. This has been one of his wishes for some time.

I have shown my parents by my example of safe riding that motorcycles are not dangerous. They believe this now. In fact, because I never had an accident with my first scooter, my second Cz 125 cc. or my powerful B.S.A. 650 cc. and because I never drove over 60 at any time on my trip to California, I arrived safe and sound without even having a close call. My parents have now offered to buy me a used motorcycle of up to \$350 or furnish the down payment on a new one. All three of the other motorized cycles were purchased by me with my own wages and my own money.

This only shows what safe riding can accomplish. For you boys and girls who would like to buy a bike, but who can not receive your parent's permission, remember this, if they do give you that final OK be sure to show them that you are mature enough to handle with consideration that motorcycle to which your life is entrusted. You may have the urge to see how fast it will go some time. I can't think of a reason in the world to do this. Can you? The bike you're riding is your trust. Protect it. Show your parents you're a safe rider. They'll soon believe you.

> Gene Stewart, Fresh., N. W. U. Lincoln, Nebr.

Good advice, Gene and lots of happy cycling years.—Ed.

Dear Mr. Clymer—

I am fairly new to the cycling world, but have been a reader of CYCLE for quite awhile. I now own a 1951 Harley 74, and my brother has a 1951 BSA Golden Flash.

In the Mail Pouch, I don't believe I have ever heard from college or university students who have cycles. I am a graduate student at the Pennsylvania State University working for my Master's Degree. My brother is a junior here at the University, and we



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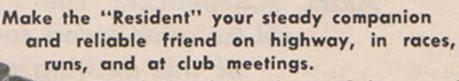
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have quite a few buddies up here who have cycles. We have great times riding around in our spare time. My fiance, who graduated from State with me last June, also enjoys riding, so I always have a companion. We think there is nothing quite like motorcycling. It's tops!

Could some of the other fellows and gals going to college and enjoying motorcycling write in to CYCLE once in awhile, and let us know if you exist. I hope we hear from

some of you soon.

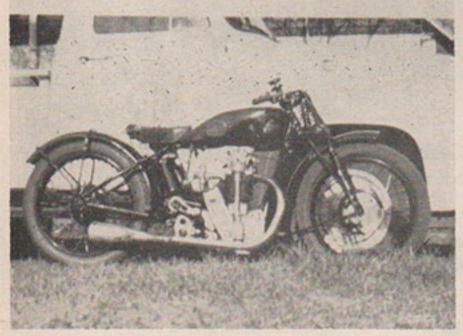
I hope you can add this letter to your Mail Pouch section, because we're interested in hearing from fellow students. Happy Motorcycling!

> Bob "Mo" Moyer The Pennsylvania State University University Park, Pa.

Dear Don-

Here is a shot of my very old and rare 1928 Velocette KTT factory road racer.

It's a 21" overhead cam job with exposed valve springs. It also has one of the first



foot operated gear change levers. It was noted that this arrangement decreased lap times by two and three seconds over the

old hand shift arrangement.

I plan to have this job ready for some good road race in the future—I was even thinking in terms of Catalina, but after checking the ground clearance (less than four inches) I changed my mind.

Just thought this might be of interest to

you and your readers.

Lakeside, Calif. Jack Adams

Have you thought of changing frames?— Ed.

Dear Editor-

I'd like to add my little beauty to your fine magazine column, my daughter, Karen,



age 11. She rides with me on my 54 B.S.A. Bantam everyplace and anyplace.

I only recently began to ride, but words fail to express the enjoyment we both receive from this fine machine.

We are both saving toward the day we can purchase a B33 model as our dream is to see the races at Laconia.

Our Conn. winters restrict year round riding somewhat but in good weather I commute to and from work on my cycle, a round trip of 60 miles a day.

Here's to your next fine issue and an early spring.

Raymond Watt Sandy Hook, Conn.

Dear Editor-

Been an ardent fan of CYCLE ever since I stepped walking and started riding; and



believe me, now that I'm stationed over here in Europe with Uncle Sam, it's the only link I have with the Real World. I recommend it for anyone who wants to give their boy a little bit of home while he's away.

By the way, here's a photo of a club of French cyclists on German BMW's in Moroco, I encountered on one of my more recent jaunts around this hemisphere. Thought you readers might enjoy it.

Robert A. Malone APO 39-C. P. M. New York City

Dear Editor-

I would like to interest people in cycling. Out of the six hundred people that attend my school only I ride a motorcycle. There are about four people that ride motorscooters. In fact there are only about twenty-five or thirty in the whole county that own a motorcycle.

I have just acquired a Harley-Davidson 61. Before I got the Harley I had a Allstate 175. I agree with Darrell Rasmusson that the Allstate cycles are very good and the one that I had was very fast. After all didn't the 175's finish 1st and 2nd in the 200 c.c. class for the Canadian championship. I am fifteen years old and very fond of my Harley and would like to see everyone on a cycle.

Thomas Tyner -Hattiesburg, Miss.



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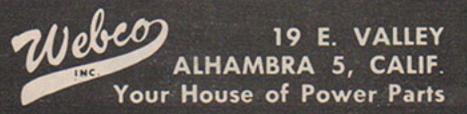
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Here some of the riders confer with the track manager. Note heavy leather suits.

Ice Racing in Sweden

By JAN SODERSTROM

Ice Racing has become a very popular sport in Stockholm, Sweden (and Norway also) and many Speedway riders turn to this fascinating sport in between seasons. When the winter season sets in, the speedway riders get to work on their bikes and modify them for the fascinating sport of racing motorcycles on ice.

The circuit used for ice racing is usually

an ice-covered Speedway track or any other suitable course frozen over. The track is shaped like an oval and is 300 to 400 meters long. Usually three-lap heats are run.

To guard against sliding out on the very slick surface, spiked tires are used and this enables the rider to take the corners at seemingly impossible speeds. It is very unlike normal track racing and a special rider technique has to be developed to counterbalance the centrifugal force, one of the factors that gives this sport its fascination and charm.

In the middle thirties one of our most famous Speedway riders was Torsten Sjoberg; he had his own special technique of ice-racing which he later taught other riders. His style is still the basis for modern, fast ice racing.

The bike is laid very flat in the curves with an angle of about 35 degrees with respect to the icy surface, and the rider supports himself by trailing his left leg (on a counter-clockwise run) on the ice. Some clever riders even go so far as to trailing their hip. For protection, steel knee covers are used and a heavy leather suit.

At present the track record is held by "Ice King" Tord Larsson at the Stockholm Stadium with an average speed of 80 km/h (approximately 50 mph) for the three hundred meter track.

Particularly colorful are the events held on frosty, starlit nights, with a dazzling color display of the orchestra members with their red uniforms and the track managers in white, while hundreds of stars are reflected on the ice from many spotlights.

FOREIGN MOTORCYCLE PORTION P

A New Book — Just Out! FOREIGN MOTORCYCLE SCRAPBOOK

Floyd Clymer Publications, Dept. CY 1268 S. Alvarado Street Los Angeles 6, Calif.



Riders vie for position in one of the most thrilling of all competition—racing on ice.

It is not at all unusual to see 20,000 fans in the grandstands, most of them being young enthusiasts.

There is a fully organized national league and many of the competing teams when on tour, are followed by a gang of ardent supporters.

Races are usually run in heats of three; three riders are lined up on the starting line. Then the rope is raised and they are off. There is rarely any overtaking; the one who has snatched the lead tries to stay in front and he usually does. It is quite a spectacular sight and one cannot blame the riders for feeling slightly apprehensive to be amidst these churning wheels resembling so many spinning circular saws.

Speeds go up very high on the straightways and the corners are approached at seemingly impossible speeds. Then the "ship" is laid flat in a manner that never fails to mystify the uninitiated. However by some magic formula the rider manages to negotiate the bend safely much to the surprise of many of the spectators. The winner flashes over the finish line to the accompaniment of a pistol shot.

Let's walk into the pits and have a look at the equipment these riders are using. As mentioned before the appearance of the bikes as used on the ice tracks is not too different from their cousins of the speedway. However, we notice a slightly longer frame about 138 cm in length and it is obvious that the center of gravity is moved ahead by the forward engine position. The fork inclination also is greater with less trail.

And now something about the spikes used on the tires, probably the most important equipment for ice racing. The number used vary, but 150 on the front tire and 200 on the rear is considered just about ideal. Every individual steel spike is about one inch long and riveted in the inside of the tire in three or four rows. The rivet is covered with a coat to protect the inner tube and inflation pressures are doubled to give the spike adequate support. All these modifications enable the machine to sail through the corners at unheard of speeds.

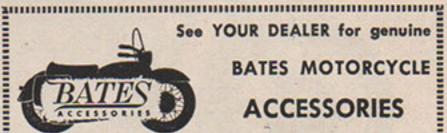
With specially bent handlebars and lowered seat the rider lies almost flat on the machine in the straightaways and going through the bends he practically lies on the

A safety arrangement for protection of competitors and spectators alike is the steel tube "fender guard" which surrounds the greater part of the spiked wheel. The throttle twist grip is also provided with a strong return spring so that it is forced shut should the rider loose his grip.

The most dangerous spot on the track are those sections where the riders come out of the bends into the straightaways as many a novice has found out the hard way, and on many circuits these spots are made considerable wider.



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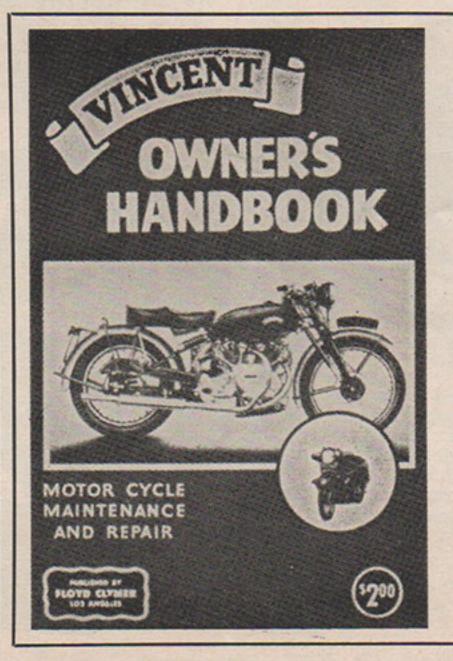
San Francisco Enduro

NEARLY 500 people were at the San Francisco M/C club house, as the first 2 men pulled out at 7:01 amidst a thick fog and heavy downpour of rain. With Officer Bill Porter of the California Hiway Patrol checking motors, directing traffic, and keeping order, the men got off on time and in good order.

Approximately 90 miles of the total 150 miles of dirt, was mud now, and only 1 man of 6 man pilot team was still going at the final. The wind was so strong some riders were actually blown off the trails.

Wind, rain, high tide and beach sand took their toll. At the noon check 70 miles out, only 64 riders were still going. With 40 miles of bottomless mud through the Butoino Forrest facing them, only 36 were still going at the top of Sartoga Gap.

The first man was due in at 1:46 PM with Rose Wells checking in only 26 worn and weary riders who are eligible for the "Frisco Enduro Pin" for 1955-one enduro they will never forget.—Bob Meadows



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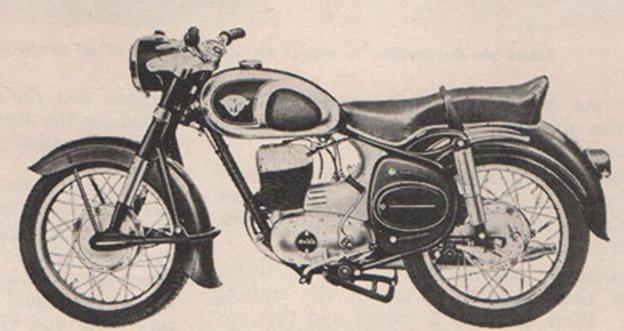
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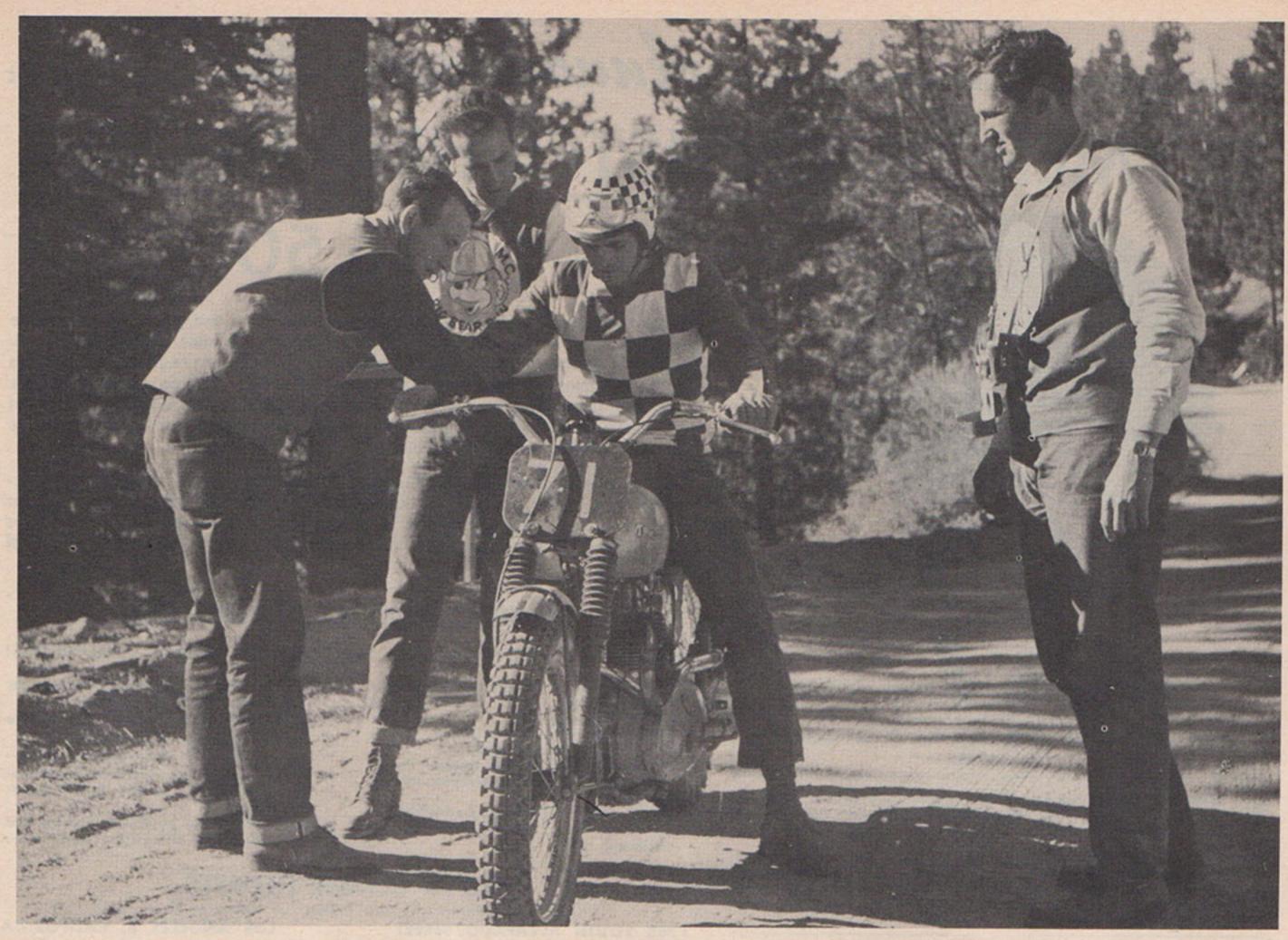
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Bill Postel arrives at final check to win National Championship title.

Postel Leads 4-in-a-row Triumph Victory to Win National Championship



Bill Postel and Bud Ekins discuss race experiences.

Big Bear Run

By Don J. Brown

Photos by Car Craft Magazine, Bob Bates and Don Brown Generally conceded to be the "largest race in the world," Southern California's Big Bear Run held January 8th, was the "daddy" of them all. Over 650 riders lined the Mojave desert starting area to vie for national championship cross-country honors. However, only 90 tired riders were able to continue on to the finish at Fawnskin, high in the San Bernardino mountains, and collect their official finisher's pin.

By the time the fourth check was closed, only half of the 650 riders remained; the closing 6th check reported only 25% of the entrants were left; and of course at the finish, only

90 weary riders appeared.

Almost immediately after the huge mass start the lead position in the open class became a battle between two talented Triumph riders, Bill Postel and Bud Ekins. For once those whose prognosis included the favorites were rewarded by a 160 mile duel that

defies full description. During the first leg of the rugged desert course, these two Californians swapped the lead spot many times. Both, however were seldom over 100 yards apart. There is little doubt that Ekins was generally looked to for the win since Postel had been known to tire over the longer "go." Bud on the other hand, had shown tremendous "staying" ability in the past. However, to the disbelief of those listening to the progress reports at Lucerne (halfway mark) and at the finish, the loud speakers told the story: "Postel is through the last (emergency) gas check and Ekins is nowhere in sight. No sooner than seven minutes later another report was heard, "Ekins just picked up gas and is heading on course."

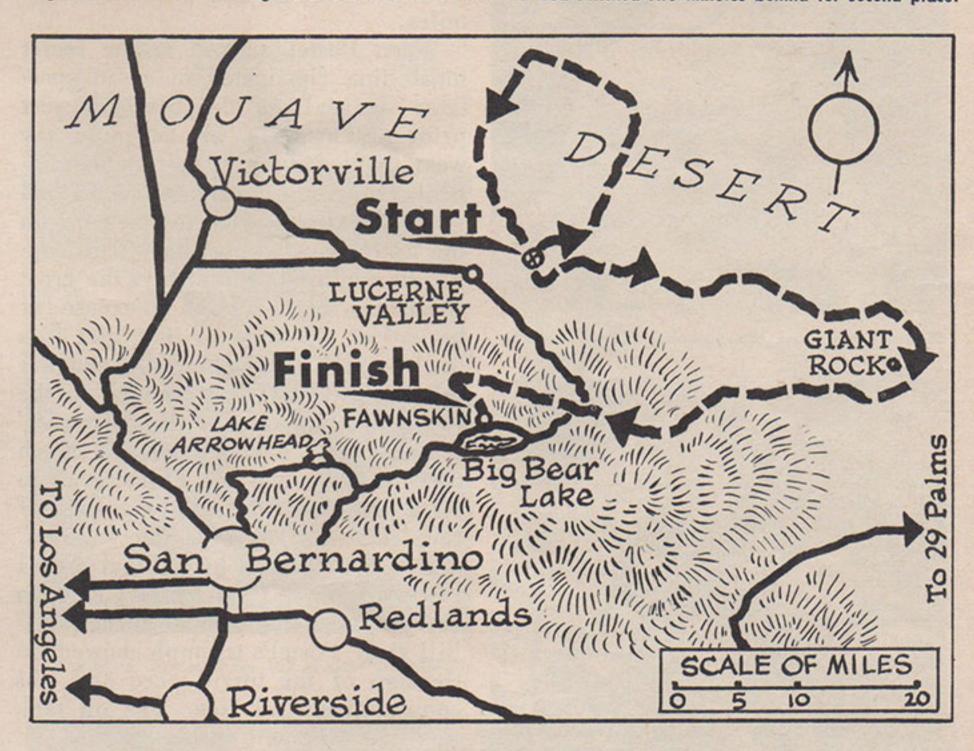
Seven full minutes behind the leader! Many of the veteran riders who were on the sidelines as spectators exchanged looks reflecting utter amazement. Surely Bud had experienced trouble—but he had not. Postel had actually gained seven minutes on the "scrambles master" in a very rough and deeply sanded part of the 160 mile course.

Still the race was not over—there was still that long stretch of fireroad leading up through the mountains to Fawnskin. Half of the trip to Lake Baldwin was rough stuff, and from Baldwin to the finish it was just 21 miles. Postel was still over 6 minutes ahead of Bud at Lake Baldwin, and it looked very much like Bud could do no better. But then, calling on every trick he had learned in seven years of racing, Ekins made one last desperate attempt to catch the flying Postel.

Ekins literally "exploded' 'over the

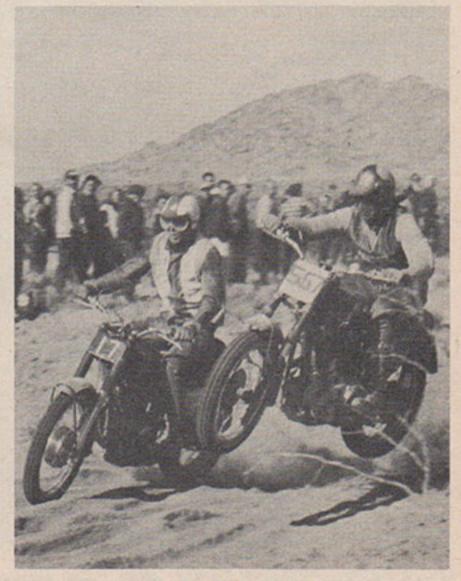


Right to Left: Bud Ekins congratulates Bill Postel on his win. Bud finished two minutes behind for second place.

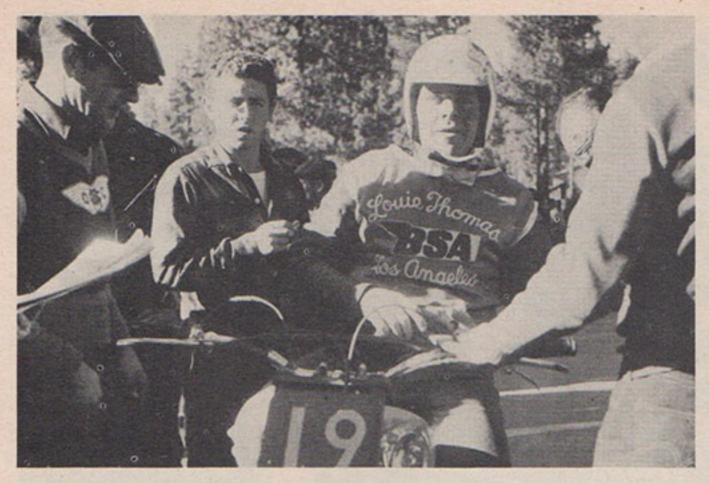




Bill Postel nears the finish at Fawnskin.



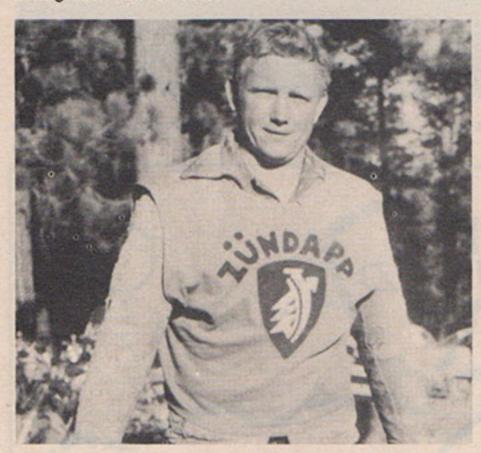
Just like the Hollywood Freeway!



Walt Axthelm (BSA), arrives in 5th spot. Walt gained over forty positions during last half of race.



Left to right: Larry Hester (Tri), Pat Zaremba (Tri), Bob Sandgren (BSA) pose here before the start. Hester finished fourth, Zaremba had trouble, Sandgren finished sixth.



Glenn Clinton poses after winning 250 cc class on a Zundapp.



Well known H-D rider, Billy Meier, seen here on a new BSA Clubman Gold Star.

remaining 21 miles, and at the finish he was just over 2 minutes behind—he had made up four minutes in 21 miles.

When Postel arrived at the secret finish line (instigated to avoid spectator danger) on the fireroads just prior to Fawnskin, all he could say was: "Did I win?" "Is this the finish?" He could hardly believe he had won. "I expected Bud to catch me on the fireroads—he must have had trouble' he ventured. But always the great sportsman, Ekins offered no excuse for his defeat. "I tried to stay with him in the rough but he was too much. I felt I could stay close enough in the rough to catch him on the fireroads."

But Postel had gained too much time in the rough for Ekins' plan to work. He had ridden the one kind of race necessary to beat the "master" and won. "When I hit all that sand I just made myself get mad—I held on and just kept the machine turned on." Bill said. Postel's triumph showed little sign of the torrid pace and was comparatively oil free. The oil tank was still over half full.

Arvin Cox, also a localite arrived at Fawnskin on another Triumph, a very warm third spot. Short, but wiry, Arvin's enthusiasm while riding has to be seen to be appreciated. Another Triumph rider Larry Hester took 4th spot and the always amazing Wilbur Lamoreaux placed 8th on an Ariel Scrambler.

Walt Axthelm, who won enough points during the 1955 season to become District 37's top sporting rider came from behind to place 5th in the long race aboard a BSA Clubman Gold Star.

Last year's champion Roy Burke failed to show for the contest. He did, however, keep close tabs on the weather. If the forecast of clear weather had turned to snow, then Roy would have probably closed his business to enter. Burke, an Oregon BSA dealer is an expert in deep snow. He ploughed his way to victory in the snowy 1955 Big Bear on a BSA Gold Star.

Triumph placed 8 of their riders in the first 15 in the open class, as well as winning the 165 cc class—Bobby Skipstead doing the honors on a Terrier.

Maping out a course that is as safe as possible—one that will accommodate 6 or 7 hundred riders, is certainly not easy. Loyd Bulmer and Aub Le



Skip Fordyce (with hand on mike), and brother worked long and hard to relay information to spectators with their sound system.



Arvin Cox (Triumph), third place winner.

Bard of the sponsoring Orange County MC led the layout crew over rough desert and mountain terrain seven full weekends in a row. They poured out over 1 ton of lime and used 1,000 stake markers to ensure against riders becoming lost.

After the race, those who finished praised the Orange County Club as having one of the best marked courses of the season. The combination stake and lime markings were very popular.

Another point of interest was the amateur radio operators who helped to relay information about the leaders. Stationed at each check, members of the Fullerton Amateur Radio Club would send information to a central listening post near Lucerne. In turn the receiver would pass the news to Skip Fordyce and Billy Martin who in turn relayed the information to the spectators by way of loud speakers. In this manner crowds of spectators waiting both at Lucerne and at the finish were kept right up to the minute insofar as the leaders progress was concerned.

The Orange County MC presented each member of the Fullerton group with a plaque signifying the club's appreciation for a job well done.

Every year the Orange County MC has trouble with a few individuals who wish to continue up the mountain after the last check closes. Many times these individuals become irate, stating they will continue anyway-or that they cannot understand why they cannot go on if they so desire. The explanation is simple. Aub Le Bard, spokesman for the Orange County group, puts it this way: "Our club, in order to expedite 600 or more riders across desert roads etc., must enlist the aid of the Highway Patrol. We must furnish them with detailed plans as to the approximate time of road crossings, etc. Our entire race schedule is figured down to the last minute; our pickup crew leaves the last check in the desert just in time to reach the finish before dark. If someone were to go on after the pickup crew had gone he would be risking sub-zero weather in a vast and rugged terrain. Therefor it is absolutely necessary for the Big Bear Run to start precisely on time and for the last check before the climb to Lake Baldwin to close as scheduled.

One of the most difficult races to plan, it is necessary to lay alternate courses in case of a change in weather. This year, however, the weather was clear and cold, but no snow. Despite the dust problem, riders felt the run was a good one—this brings to mind also—how many riders will try for the "Bear" next year?



They're off! 651 riders leave starting line near Lucerne.



Don Watkins, winner of the 125 cc class on a Ducati.



Dig that crazy sand!



Aub Le Bard removes finisher Bud Ekin's check sheet from his petrol tank. Experts say Ekins' refusal to use 19 inch front wheel was reason for loss of time through the rough.

For the past several dirt track racing seasons, there has existed a need for greater availability of dependable, fast, and good handling motorcycles, set up for dirt track, and available to racing riders.

BSA is now prepared to fill this need with the BSA Gold Star Dirt Tracker. Available in limited numbers, this track-equipped model will be sold through authorized BSA Dealers, and orders are now being accepted for delivery in ample time for the start of the racing season.

Here is a light and powerful model, already proved in competition over the past season or two by many top notch riders—a model that has previously been approved by the A.M.A.

Included in dozens of wins registered over the past season by BSA Gold Star models are the 1955 7 Mile National, the Illinois State Championship, the Florida State T.T. Championship, Indiana State T.T. Championship, and many others.

The Gold Star engine used in these machines is the same as the internationally famous power plant that has consistently won such events as the Senior Clubmans T.T. in the Isle of Man, the European Moto-Cross championship, and literally hundreds of other important British and European racing events.

Equipment Specifications

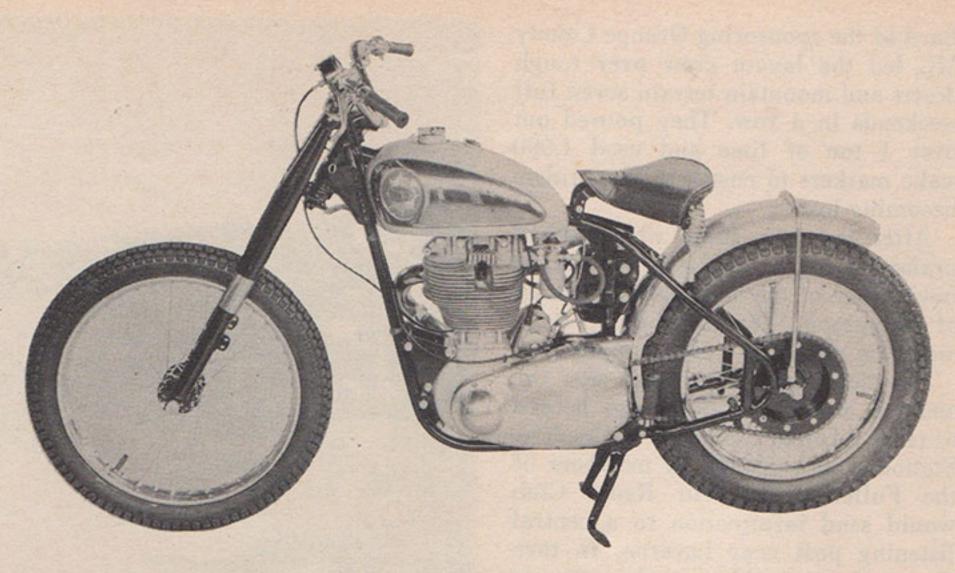
The new Dirt Tracker is set-up especially for dirt track competition, with equipment modification conforming to AMA rules governing dirt track machines.

The frame is the well known BSA double tube rigid type, and the machine is furnished with small front hub and no braking equipment. Extra sprockets are provided for the quickly detachable rear wheel sprocket set-up. Gear ratio changing to suit track condition is thus made easy. The gearbox is provided with ratios designed to provide utmost "digout" and acceleration through the gears.

Racing equipment includes solo saddle, folding footrests, Smith's 8000 RPM tachometer, 2 gallon gas tank, megaphone type exhaust system, short rear fender, Lucas racing magneto, Amal racing carburetor of large bore, racing cams, racing valves and springs.

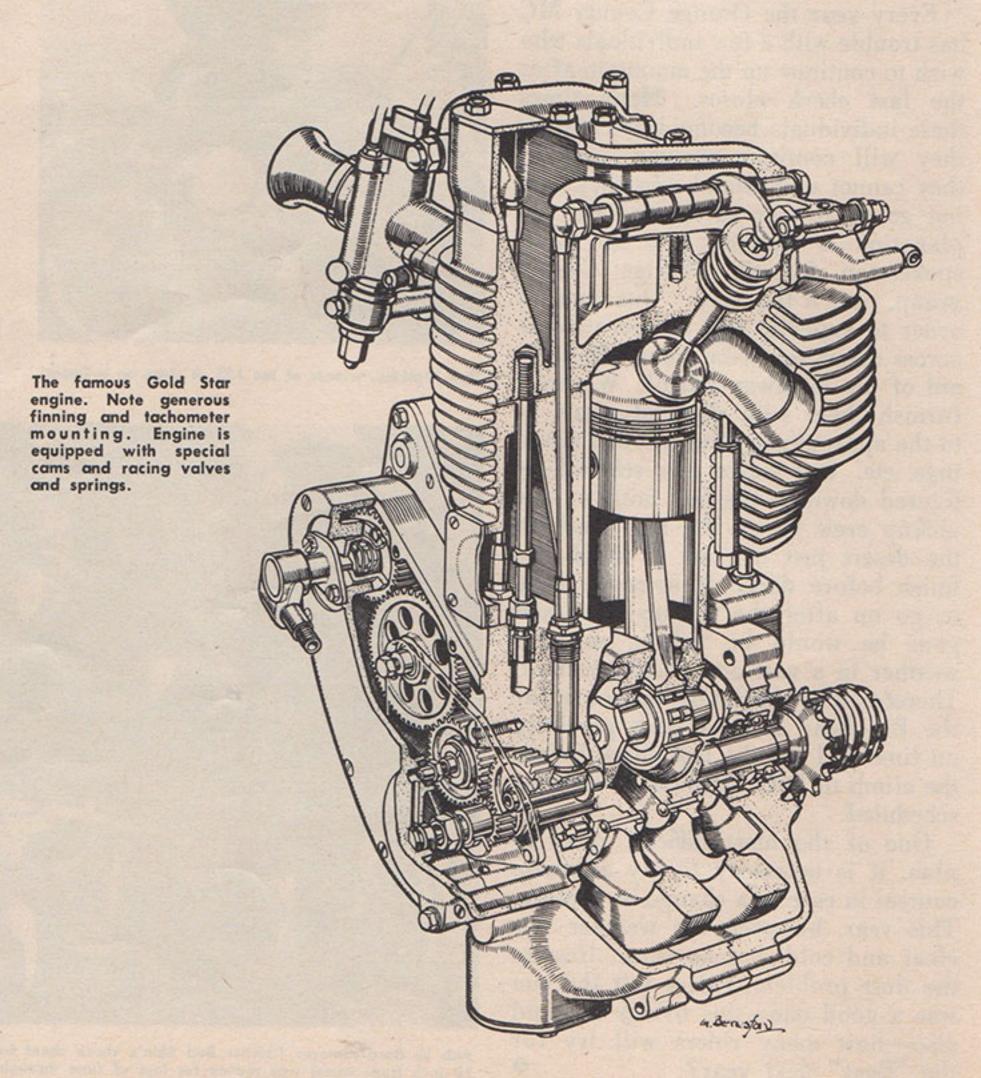
Noted for its excellent cooling qualities, the Gold Star engine employed in the Dirt Track model is provided with an amply finned aluminum alloy cylinder barrel with cast-in iron liner and an elaborately finned cylinder head, also of light alloy with cast-in valve seats.

Orders for the Dirt Track models are being accepted now by authorized BSA dealers.



1956 BSA Gold Star Dirt Tracker.

From BSA A Production Racer



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Kinney Lake in California's Sierras is the kind of place where a lover of the great open spaces can spend several days fishing, resting or exploring. An adequate food supply is a necessary ingredient to an enjoyable stay.

Cruising & Camping with a Motorcycle Can be Fun



Camp cookery can be a simple affair. I prefer a small fire confined between stones which support a folding grill. A #10 can holds sufficient water for coffee and dish water for one or two persons. As rain was anticipated, in this case, my woodpile was covered with a light canvas.

By Cliff Boswell

DREAMING about warm sunny days and vacation time when you can roll out the iron steed for a carefree jaunt into the hinterland? Pull your chair closer to the fire, and let's do some planning.

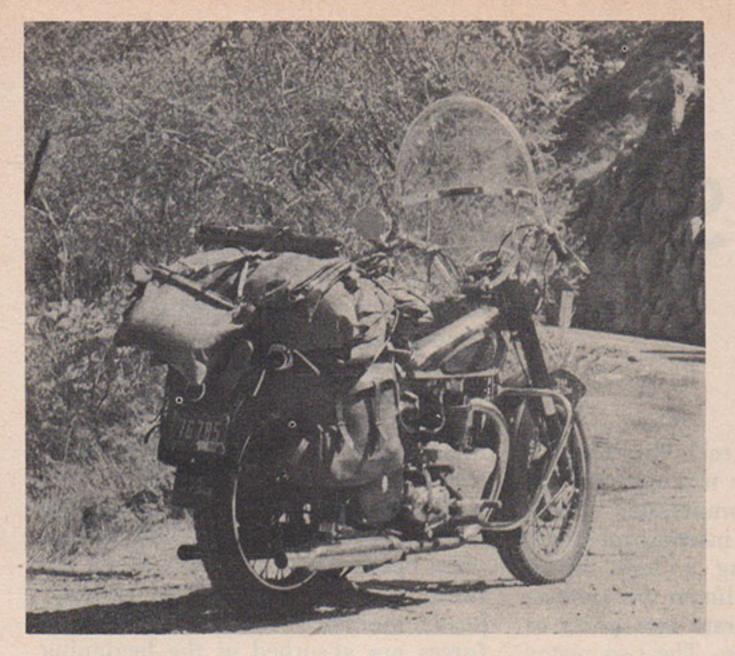
Much has been said on the merits of cruising and camping with a motorcycle—in fact I have been guilty of expounding at some length on that subject—but when it comes time to eat, what then!

The answer is a simple one if you go loaded, and stay on the main highway. But some of us get the urge, at times, to assert our independence and renounce all reliance upon customary tourist facilities. This is cheaper, too.

Normally, on a trip of several days' duration a rider will take some meals in roadside beanries and in addition will carry the makin's for a few snacks beside the road. Some of us even pack cooking utensils for preparing hot meals over an open fire. This I like to do if I can find a suitable camping spot off the highway.

If you plan to cook your own food, it can be picked up at any convenient time during the day. Buy enough for supper and breakfast. If you enjoy eggs for breakfast you will be happy to know they can be carried on a cycle minus the scrambling. Wrap individual eggs in quarter sheets of newspaper; then pack them loosely in a #10 can or kettle. Place a lid over the container, or carry it on top of the other food.

To test the practicability of carrying several day's rations I loaded up with supplies pictured in this article, and spent five days in and around Death Valley. Aside



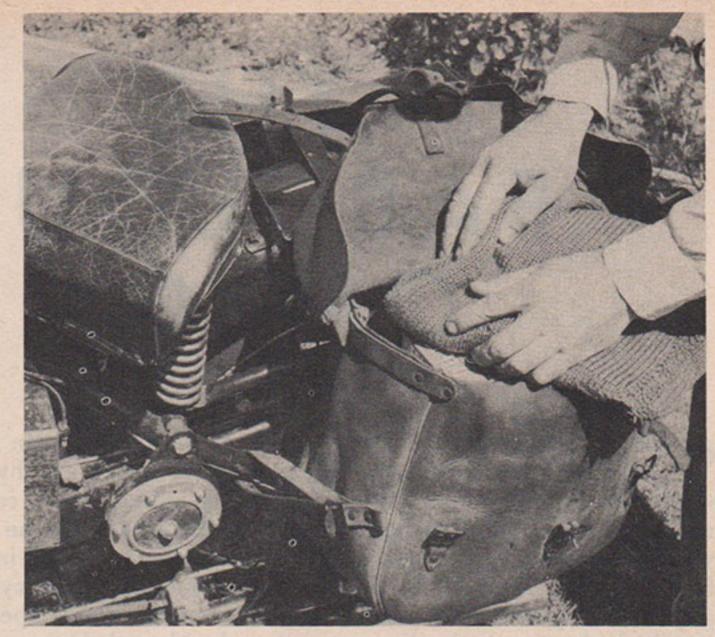
The motorcycle pack shown here consists of sleeping gear, light tent, extra clothes, water bag, cooking utensils, axe, tire pump, tools, and a five day food supply. Total weight is approximately 90 pounds. Rider's weight was 160. Rear tire carried 28 pounds pressure, front tire 20 pounds.

This photo was taken in the Kern River Canyon, California.

from one restaurant meal I adhered strictly to a preplanned menu, and came out with a few items left over.

One is not likely to carry this quantity of food, however, unless he intends to remain in the vicinity of a base camp for several days. Such a place could be Kenney Lake in California's Sierras, shown here, visited by Al Speirling and myself.

Regardless of whether you prepare many meals or just a few, a well-planned menu can be of great help. Don't forget that a balanced and adequate diet is as important



Articles of clothing, clean wipe cloths or wadded newspapers can be stuffed into odd openings to prevent food parcels from rattling against each other. This illustration shows a light sweater being used to take up the slack.

to the health of motorcyclist adventurers as to any person in the every-day pursuit of making a living. In fact more so!

When you jump right out of the daily routine you've grown accustomed to for the past year and suddenly begin rolling down the highway on your bike you can get "off your feed" in a hurry.

So, while we plan for next summer's cruise let's not forget that beans are good—but not for every meal yet! And, brother, don't forget the can opener!

Menu for five-day Camping trip by Motorcycle



Here's plenty of food for one man for a five-day ttrip. Cellophane bags contrain French bread, fig cookies, bacon, dried prunes, rolled oats, cheese and smoked sausage. Foods will stay freseh and dry in these bags.

BACK ROW: French bread, cheese, crackers, powdered milk, sugar, dried soup.

MIDDLE ROW: Jell-o, hash, tomatoes, pork and beans, corn, brown bread, peas, peaches, soap (powdered), lunch meat, beef stew, concentrated lemon juice, asparagus, powdered coffee, dried cream.

FRONT SECTION: Tenderoni dinner, apples, oranges, cookies, banana, salt-pepper, boullion cubes, smoked sausage, bacon, tea bags, cheese, dried prunes, rolled oats with raisins, eggs.

	Breakfast	Lunch	Supper
	Sausage	Boiled egg	Beef hash
	Eggs	Banana	Asparagus
1st day	Orange	Boullion cube	Bread
	Bread	Crackers	Coffee
	Coffee	Tea or milk	Cookies
	Orange	Dehydrated-sup	Spaghetti &
	Rolled oats with	Cheese	meat
2nd day	raisins	Crackers	Instant pudding
	Sausage	Tea or milk	Peas
	Coffee		Coffee
			Bread
			Dried prunes
	Bacon	Boullion cube	Macaroni &
	Eggs	Apple	cheese
3rd day	Prunes	Boiled egg	Beans
ord day	Bread	Tea or milk	Canned peaches
	Coffee		Bread
			Cookies
			Coffee
	Canned peaches	Spam	Beef hash
	Dry cereal	Apple	Canned corn
4th day	Bacon	Crackers	Boston brown
4III day	Milk for cereal	Boullion cube	bread
	Coffee	Teg or milk	Canned apricots
	Comec	ica or min	Coffee
	Canned apricots	Boston brown	Beef stew
	Rolled oats	bread	Canned
5th day	Spam	Dehydrated soup	tomatoes
Jili day	Coffee	Cheese	Instant pudding
	Correc	Tea or milk	Bread

NOTE: Concentrated lemon juice may be carried instead of bulk oranges, or lemon powder is good. Try the small soup cracker instead of the large soda cracker that breaks up so easily. Supper and breakfast are usually eaten at the same place; so, some items may be held over from one meal to the other, i.e., cook prunes for supper, and save some for breakfast.

FABULOUS OMEGA

Illustrated by The Motor Cycle, London

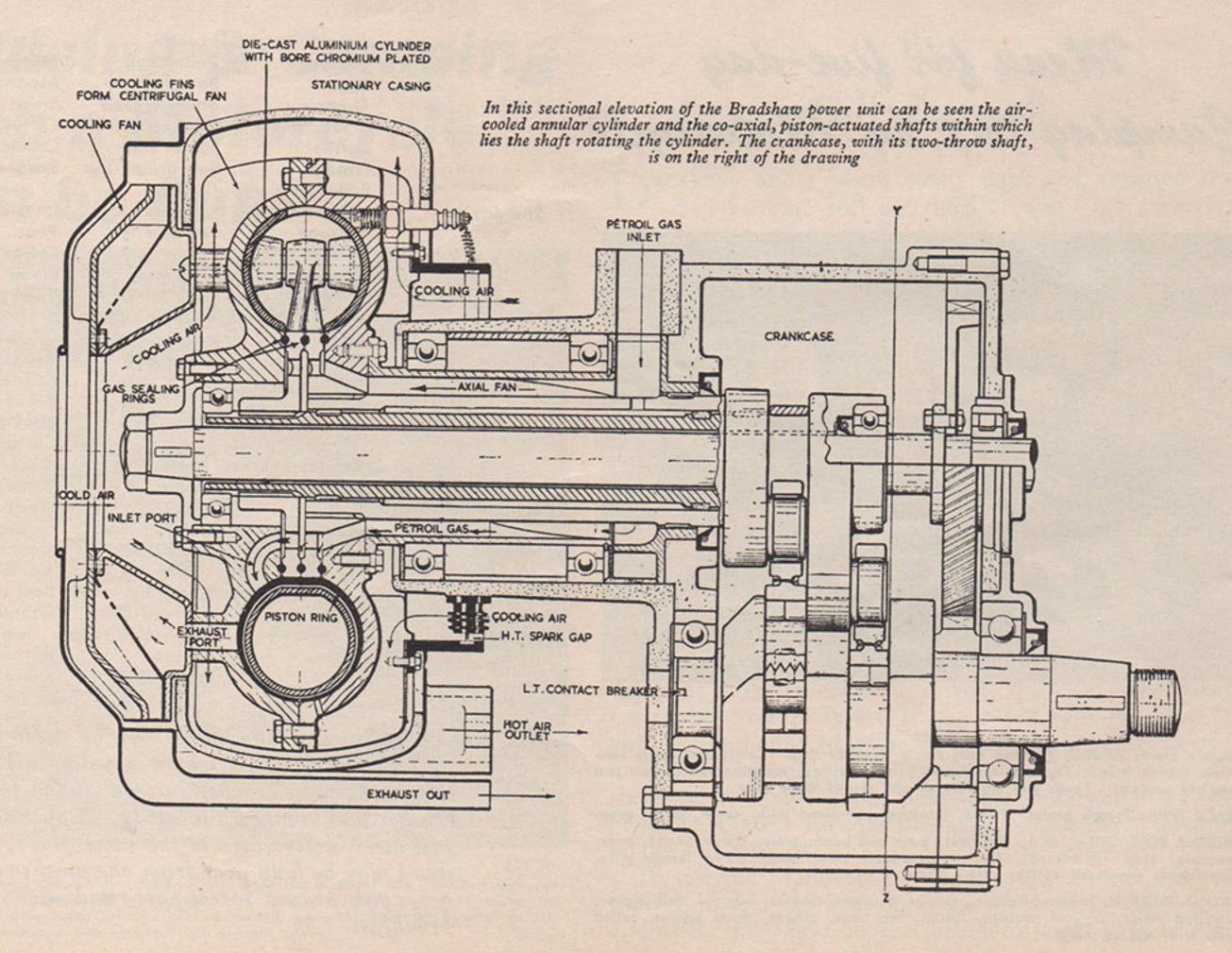
Granville Bradshaw, famous British engine designer, has come up with something revolutionary in the way of modern engine design. The inventor claims that by rearranging the familiar components of the piston engine he has produced a prime mover in which the inertia loadings are almost completely eliminated.

The inertia forces in the conventionpiston engine arise from the acceleration and deceleration of the piston and, since they increase as the square of the rotational speed, they place a limit on the performance obtainable. Bradshaw says the peak inertia loads in a typical sporting engine at 6,000 r.p.m. are five times as great as the mean useful thrust exerted on the connecting rod. The arrangement of the Omega is such as to minimize the inertia forces by making every stroke of each piston (in each direction) a firing stroke and by making each firing stroke also a compression stroke.

In the Omega the inertia problem is overcome by having a light alloy, chromium-plated cylinder of annular form in which operate two pairs of double-ended pistons. The two piston units of each pair are disposed at 180 degrees in the cylinder and are rigidly coupled to a central disc. Each disc is splined to one of two hollow coaxial shafts (one shaft lies within the other). The other ends of the two shafts emerge into a crankcase and each carries an integral arm. Below these arms is a crankshaft with two throws at 180 degrees. Short connecting rods are used to link the pins on the outer ends of the arms to the crank journals. The rods have roller bearPiston movement gives an angular motion to the shaft and arm concerned; this motion is converted into rotation of the crankshaft by the connecting rod. Angular travel of the pistons is 30 degrees and, since the cranks are diametrically opposed, the pistons oscillate in opposition. Thus, of the four volumes between adjacent pistons, two opposite volumes are increasing during half a revolution of the crankshaft, while the other two—at right angles to the first two—are diminishing. On the other half-revolution the position is reversed.

The theory of the arrangement is that the gases are compressed and expand between two pistons and not between a piston and a fixed cylinder head, therefore the normal inertia forces are absorbed at the beginning of each stroke by ignition pressure and at the end by compression pressure. An 80 percent load reduction is claimed. Also since the connecting rods drive the crankshaft on each stroke by alternately pushing and pulling, main bearing loading is greatly reduced.

The ignition system is unusual in that poppet valves are eliminated by having the complete cylinder casing revolve around the pistons at half crankshaft speed, but in the opposite direction to the crankshaft.



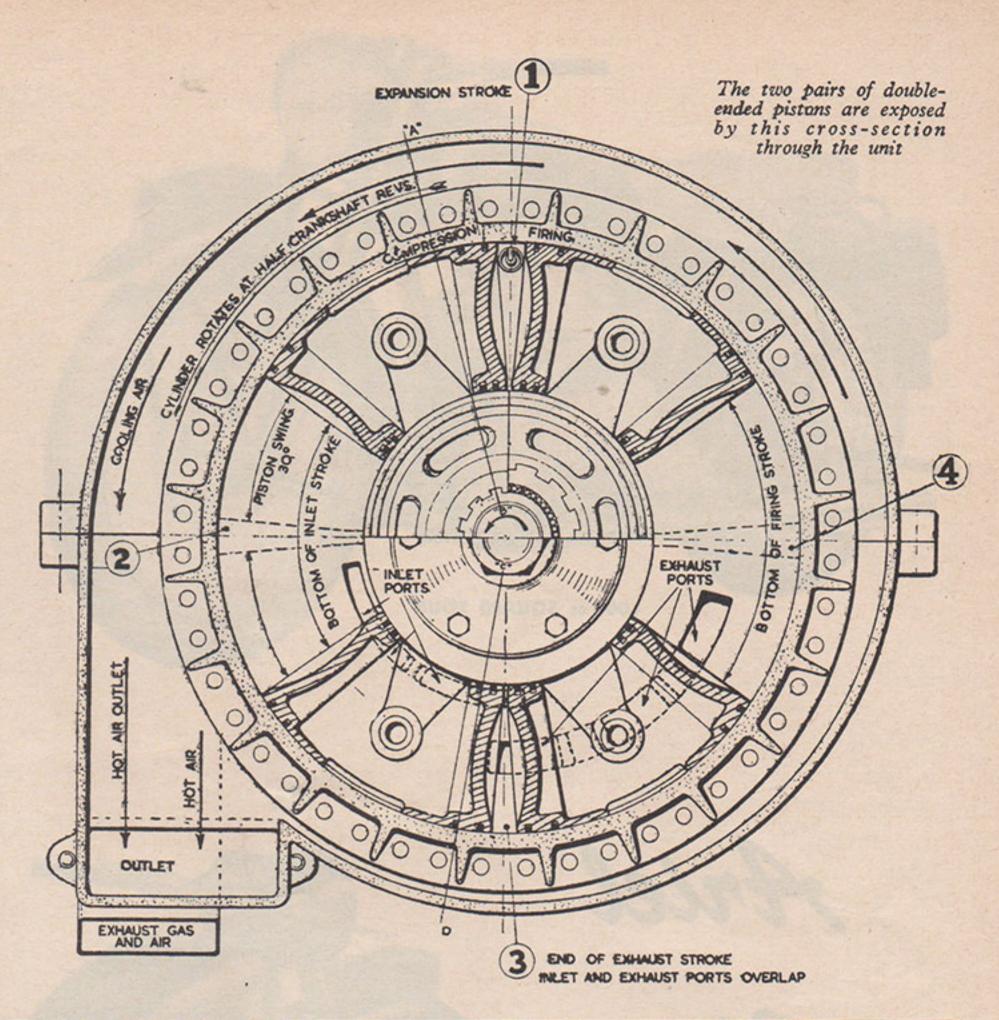
Inlet and exhaust ports are formed in the cylinder wall. Also located in the wall of the cylinder is the spark plug which is fired four times per crankshaft revolution. The stress of frequent firing is offset by the fact that by the time ignition temperatures are high the plug has moved past the combustion chamber concerned. Lubrication of piston and cylinder is by oil and gasoline mixture. The cool-running separate crankcase has its own lubrication system. An induction fan assists air intake in the crankcase housing.

The exhaust gases are ducted into an expansion chamber formed by covers on the front of the cylinder casing. In the outer edge of the chamber is a series of outlets which feed to atmosphere. The centrifugal effect will as-

sist scavenging.

The Bradshaw engine is air-cooled with an axial intake in the outer housing. Flow is divided over the outer and inner surfaces of the exhaust chamber and then over the cylinder. A casing around the cylinder leads the heated air out to atmosphere.

This is an interesting design with a great deal of originality. Reduction in loading is its main attraction. It remains to be seen if manufacturing and thermal-expansion problems can be overcome.





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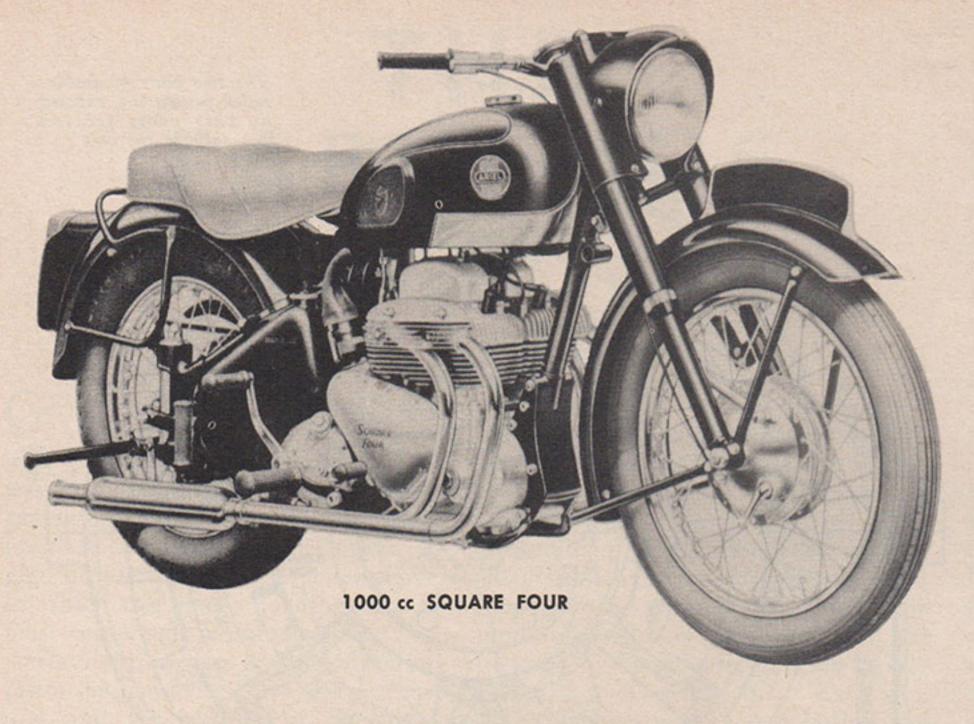
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DEPARTMENT OF PERIODICALS



With new features, new colorful finishes and general improvements throughout the range, Ariel goes into 1956 with a five model program based on well proven and well accepted motorcycles. Available in the U.S.A. will be the 200 c.c. "Colt", the 500 c.c. "Red Hunter", the 650 c.c. "Huntmaster" twin and the increasingly popular 61 cubic inch "Square Four". Also included in the 1956 range is the high performance "Scrambler" model in competition trim.

Alloy Full Widths Hubs and New

Brakes-Red Hunter, Single Huntmaster and Twin and Square Four models feature a new full width aluminum alloy front hub with cast-in alloy iron brake drum. Extremely neat in appearance, this new unit incorporates a centrally positioned 7" diameter brake with 11/2" wide linings. Internally, the hub has stiffening webs and externally it is finned for brake cooling. Wheel bearings are housed in steel sleeves which are also cast-in. A fulcrum type adjustment is provided as well as finger operated cable adjusters. This new hub and brake are also used on the rear wheel of the "Red Hunter" and "Huntmaster" models.



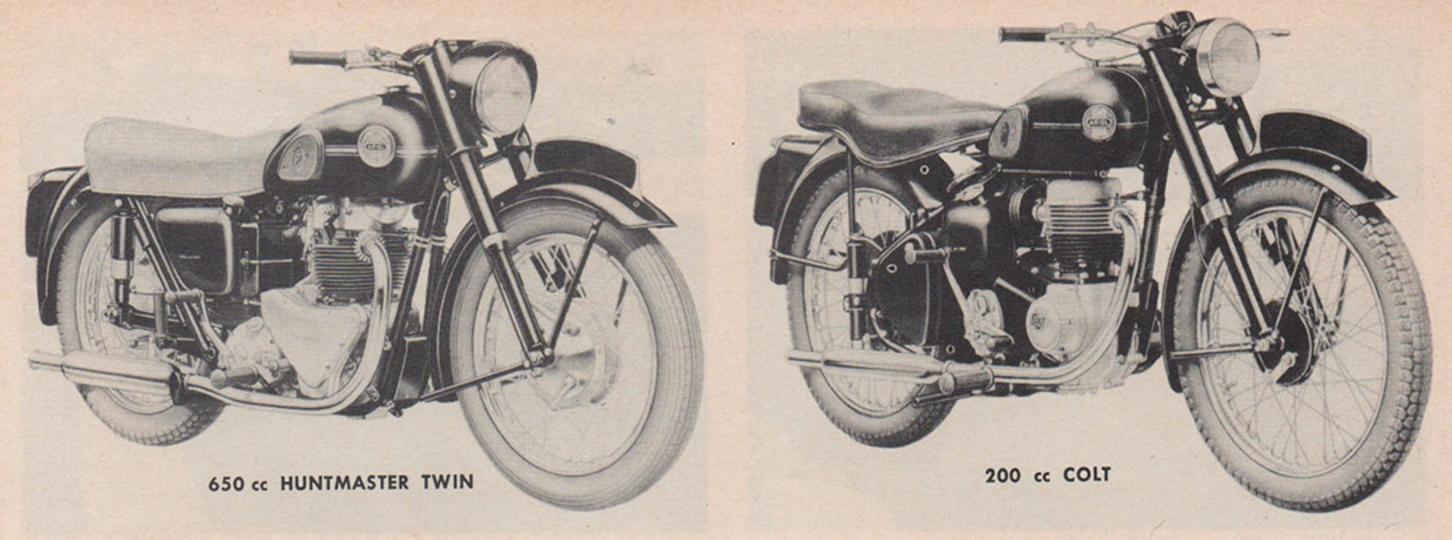
500 cc RED HUNTER

An entirely new appearance is given to "Red Hunter" and Huntmaster" models by the bright Ariel Red baked enamel finish and restyled chrome tank panels and contrasting white tank striping.

Quickly Detachable Rear Wheels— The rear wheel on "Red Hunter," "Huntmaster" and "Square Four" models is quickly detachable for easy

500 cc SCRAMBLES RED HUNTER

CYCLE/MARCH, 1956



service and maintenance operations.

Optional at extra cost is the new full enclosure for the rear chain which is available on both Red Hunter and Huntmaster models. This new feature insures a clean, well lubricated rear chain which makes for long chain life and smooth running. Chain lubrication is provided by a special oil feed from the oil tank.

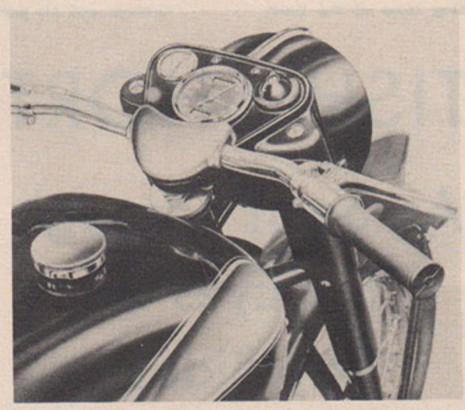
New Instrument Panel and Headlamp Cowl—A brand new headlamp cowl of modernistic and pleasing appearance replaces the former brackets on the larger Ariel models. This cowl is a steel pressing and incorporates a new 7" diameter pre-focus Lucas light unit. A parking light is built into the reflector.

Adding greatly to the neat appearance of the larger Ariel is the new instrument panel which provides a well placed mounting for the speedometer, ammeter and lighting switch. Snap connectors are used on all wiring leads to the headlamp. A new one piece handle bar clamp and a combined horn and dip switch help to clean up the assembly. All U.S. model Ariels, except the "Colt" have Western type handle bars.

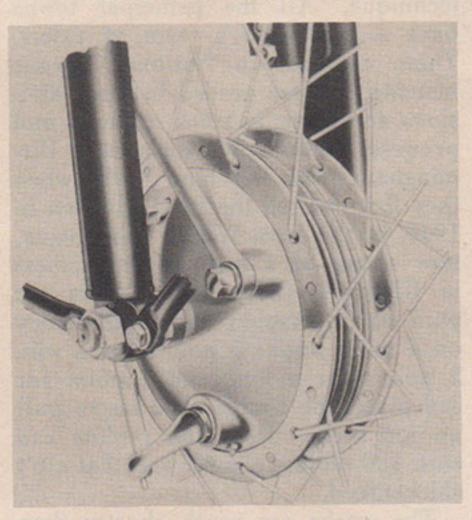
Colt Features—Popular 200cc lightweight, the "Colt" is continued with an unusually complete specification which includes a lively ohv power plant, four speed gearbox, spring frame and hydraulically controlled telescopic front fork.

Finish of the Colt is Brunswick green baked enamel with chrome tank panels and chrome plated wheel rims, exhaust system, handle bars and many other chrome plated parts.

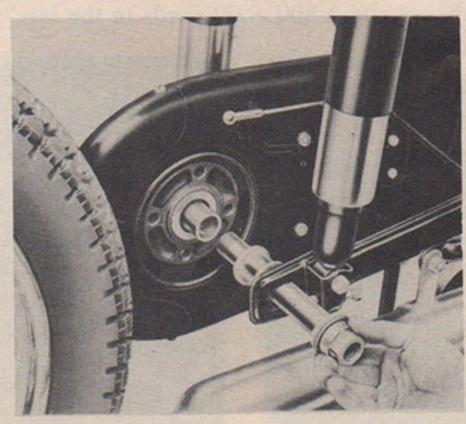
The "Red Hunter" and "Huntmaster"—The 1956 "Red Hunter' is an improved version of the 500 cc ohv single famous for good performance and reliability, while the "Huntmaster" is a big, fast 650cc twin capable of extremely high speeds. Both machines incorporate all 1956 improvements as specified above and both are very



Cowl and Instrument Panel



Full width front hub



Removal of rear wheel

handsome in their new, bright Ariel red finish. Chrome plating is employed on wheel rims, handle bars, exhaust system, and clutch cover plate. Many other parts are also finished in heavy chromium plating. The deeply cushioned Ariel dual seat is padded with foam rubber and covered with durable light tan vynide.

The Square Four—Ariel's pride, the big 61 cubic inch "Square Four" also shares in 1956 improvements. The Four is fitted with the new full width front hub and brake, new instrument panel and headlamp cowl. The popular link controlled plunger type spring frame is retained on this model. New for 1956 is a large 2 gallon oil tank which, by keeping more oil in circulation makes for cooler running and better performance.

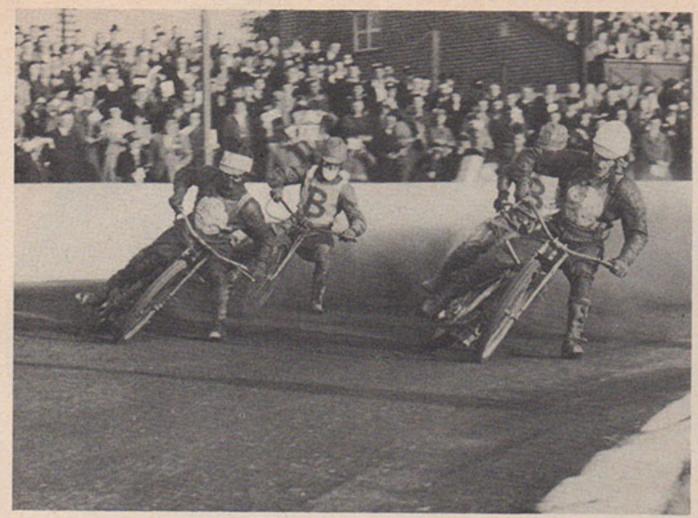
Always famous for fine appearance, the 1956 version of the "Square "Four" fully lives up to its reputation. Finished in gleaming black baked enamel with lavish use of chrome, and polished alloy, the Square Four is one of the most unusual and imposing motorcycles in the world.

The Ariel Scrambler—Already well known and popular whenever scrambles and cross country events are held, the 500 c.c. alloy engine Scrambler will also be available in 1956.

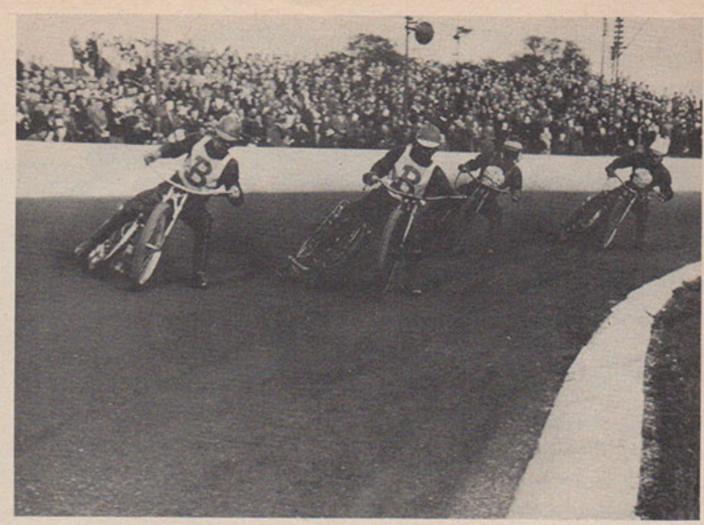
This competition type mount is equipped with a specially tuned engine with alloy cylinder barrel and iron liner, alloy head, super-sports cams, high compression ratio and Amal racing carburetor. All Ariel Scrambler engines are internally polished for maximum horsepower output.

Scrambler gear ratios, sports fenders, sports tires and many other items of equipment make this a ready-foraction competition type motorcycle.

Ariel motorcycles are distributed throughout the Eastern U.S.A. by BSA Incorporated 639 Passaic Ave. Nutley, N.J., while Western U.S. distribution is through Johnson Motors 267 W. Colorado St., Pasadena, California.



A perfect example of the tactics for keeping the opposing team at the back.



Graham and his partner circle the track keeping the opposition at bay.

THE BRITISH SHORT TRACK

The crackle of open exhausts rises to a crescendo; the gate flies up and the four machines are projected forward like rockets, front wheels pawing the air. They bunch together rapidly and take the first corner riding in each others pockets. The loose shale flung up by the broadsliding rear wheels beats a hellfire tattoo on the outside boards. One gleaming machine shakes itself free of the bunch as they come out of the corner. Thirty thousand people rise to their feet in a scream of frenzied encouragement. Graham Warren is in the lead.

This good looking blonde Australian has what it takes to get to the top. Out of leathers he looks more like a bank clerk than a rider in one of the toughest games ever. It is only when he shakes your hand that you sense the powerful grip and notice the slim athletic figure. Constant racing night after night does not give the fat much time to form, but keeps the muscles keyed up to the job.

Speedway racing in Great Britain has been firmly established for a number of years and has evolved its own

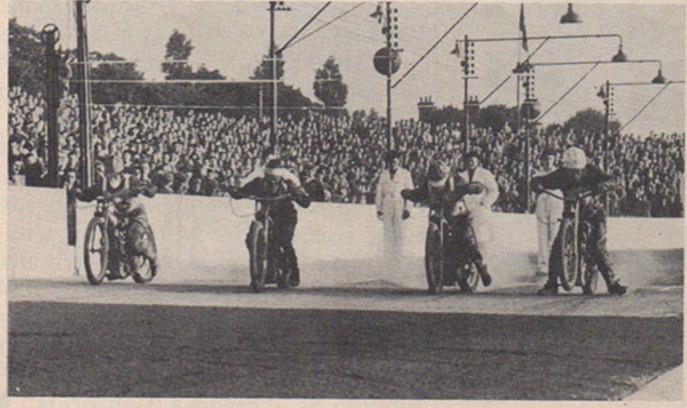
As Seen Through the Eyes of Ray Biddle

technique. All the principal towns have a track and a team of riders. These compete in National League matches and are graded in three divisions according to track capacity and prowess. Graham Warren's team, Birmingham, was led into battle when they first entered the First Division in 1949, by the great Wilbur Lamoreaux, now owner of a motorcycle business in Glendale, California. Riders are paid starting money and prize money on a point basis. 3 points for a win, 2 points for a 2nd, and 1 point for 3rd place, the fourth man has to pull up his socks. Even the rabbits can earn 120 dollars a week and that ain't chickenfeed.

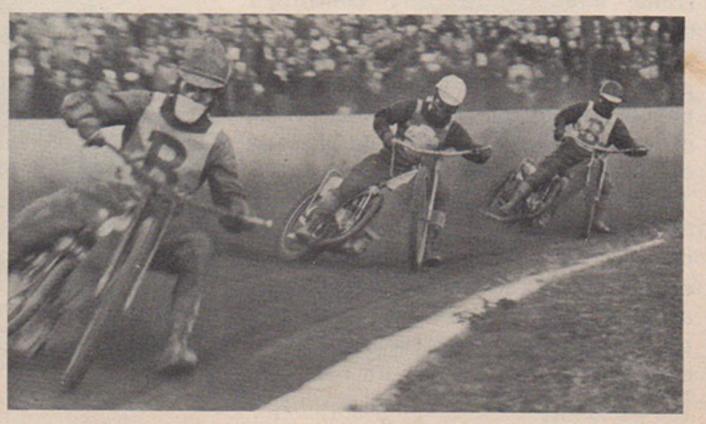
The tracks are much shorter than those in Australia or America, usually being about 300 - 400 yards to the lap,

with no banking. The starting area alone has a hard tarmac surface, the rest is covered to a depth of 3.4 inches with red shale which is usually packed down hard with only about 1 inch loose on top. Starting is by means of a gate which rises smartly in front of the riders. Three white tapes are stretched across to make the gate and any rider who tries to fudge and breaks the tape is disqualified immediately.

Many cycles are built especially for the individual rider and Graham Warren's is one of these. The one thing it has in common with the others is that it has a 500 c.c. (30-50 cu. in.) J. A. P. engine. These turn out 42 B.H.P. as delivered but these boys usually 'breathe' on them to a greater or lesser extent and so the B.H.P. is almost always nearer to 45-50. The diamond shaped butt welded frame is hand built around the engine from Reynolds 531 tube with a 50 ton tensile strength. Wheel base is 52 inches, with an inch either way for chain adjustment. The head angle is very steep and the forks which are specially built have only about 2 inches movement.



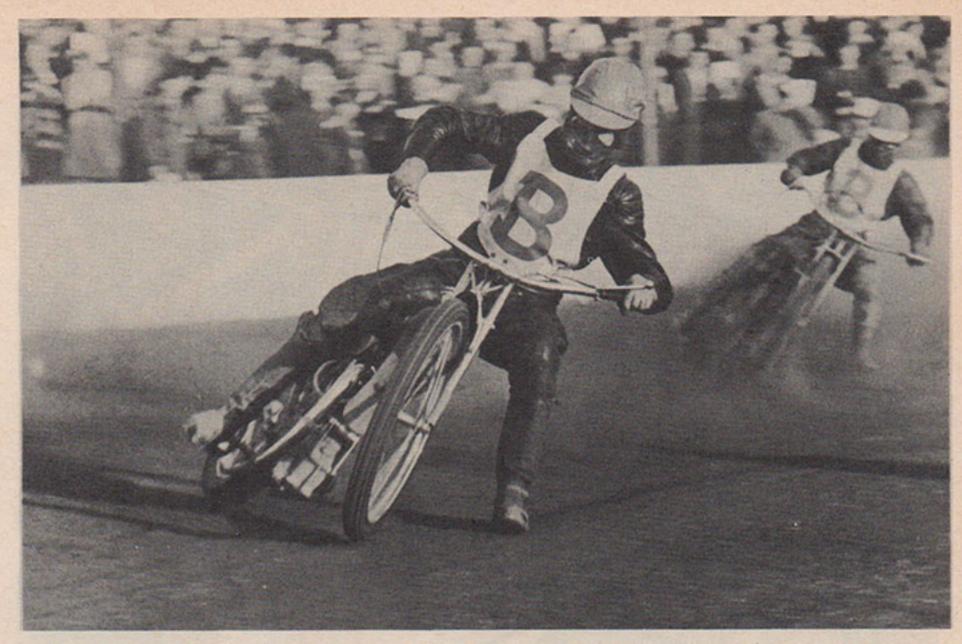
The gate goes up and the riders rocket off the grid and battle for the lead.



These three "hot shoes" fight it out for the inside position.

The front wheel spindle is only about l inch in front of the head centre-line so that there is a considerable amount of trail. This results in good self centering but requires a fair amount of effort to throw the machine into a corner. The position of the engine in the frame has a good deal of effect on the sliding performance. An engine placed too far back will slide easily but will not straighten up quickly enough, and so it is placed about 1 inch to the rear of the center of the wheels. Ground clearance is only about 2-3 inches as most tracks are comparatively smooth. The whole conception of the machine is one of simplicity and fitness for the job. No single part or nut and bolt is there unless it serves a purpose. Even the fenders and petrol tank are reduced to essentials. The front fender is fastened to the frame downtube and the rear one is only sufficient to protect the rider from self damage on the tyre. The petrol tank is only large enough to hold just the amount needed for the race. The saddle too is only a name for a 7 inch long padded strip of quite slim proportions and no footrest is fitted on the left side. The wheels are built specially in light alloy and the tires are 23 inches by 2.75 inches on the front and 22 inches by 2.75 inches on the rear. Tread width and pattern on these tires is considerably different however. Front tread width is only about 23/4 inches and the form is in alternately placed blocks carried well down the sides of the walls. Rear tread width is 4 inches and the form is in the shape of broken bars going slightly diagonally across the width. No gear box is fitted, instead there is a counter-shaft carrying a clutch. Changes in gearing are effected on the rear sprocket and usually rear wheels are kept set up with different sprockets as it only takes about 30 seconds to change wheels. Ratios vary little however, being in the order of 8.5 to 1 on a 400 yard track down to 9.5 to 1 on a 260-300 yard one. No chain guards are fitted. The handle bars are very long for leverage and sweep slightly upwards. There are only two controls, a quickaction twist grip and a clutch lever. The latter has a 1 inch ball fitted to the end to prevent rider damage in the event of a spill. No brakes are fitted.

The engines run on Methanol metered through an AMAL straight-through needleless carburetor. Warren's machine sports a single spongerubber-mounted remote float chamber off a T. T. type carb. instead of the more usual double bowl types. The air intake features a large trumpet-like



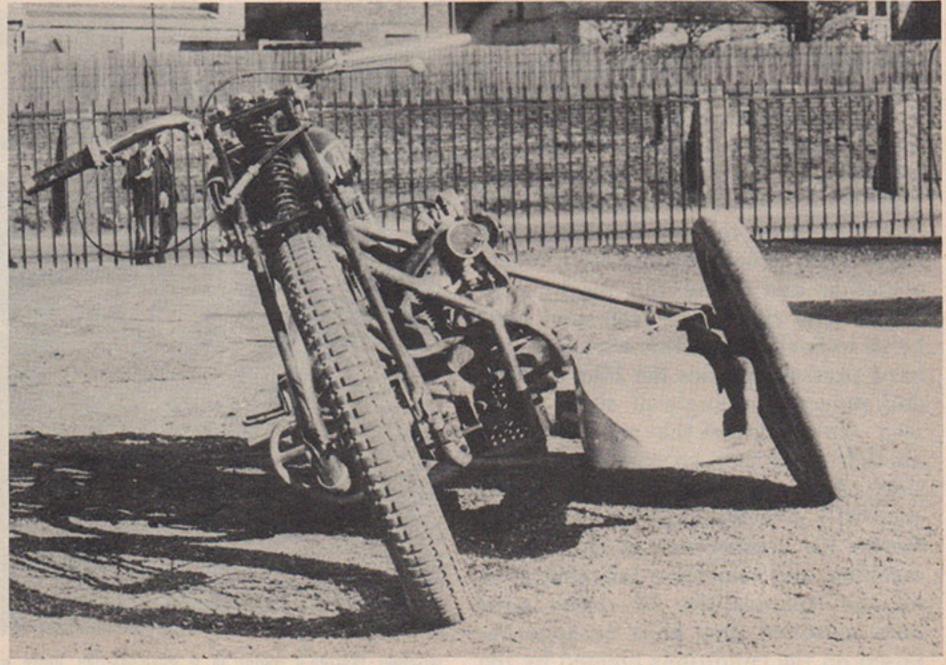
Graham takes the lead in a terrific slide that is typical of his riding.

scoop 7-8 inches long to avoid the riders leathers getting sucked in and to pick up the air from out of the dust zone, and for extra precaution a nylon stocking is taped over the mouth. The inlet valve is standard but the exhaust is made from NIMO-NIC 90, a special British steel created for jet turbine blades. Compression ratio is 15 to 1 on Methanol. Castor based oil is used exclusively. The plugs are shrouded aircraft types Lodge WR 49.

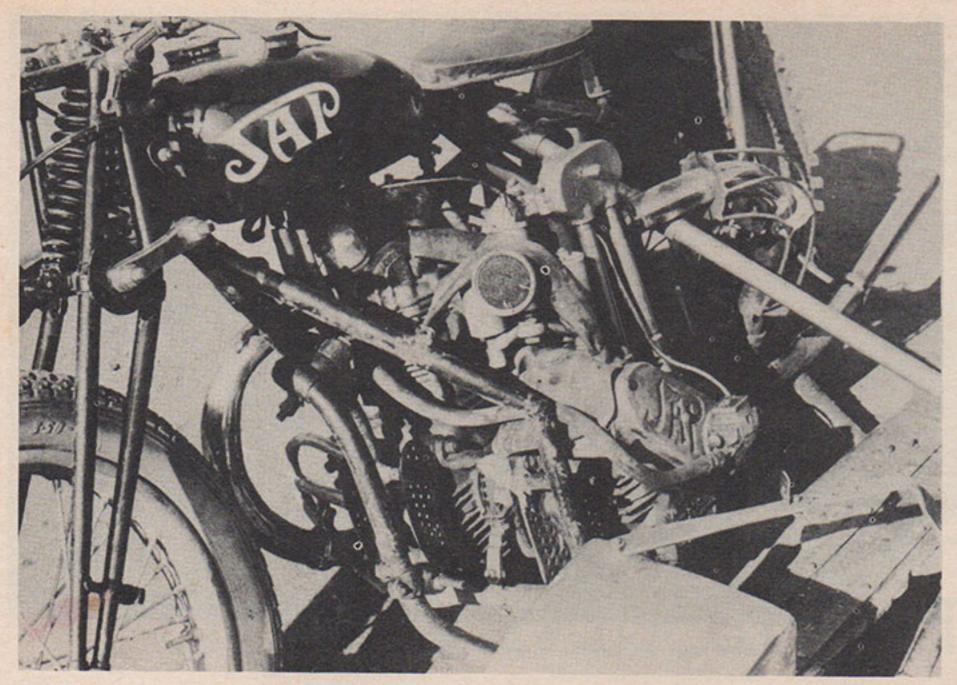
Now we've built ourselves a machine how do we start to ride it? Graham here can give us the benefit of his long experience. The riders come out of the pits and circle the track up to the gate. The starter lines them up and then moves off the track. Before the gate goes up all the en-

gines are turning over at very nearly peak revolutions. You hope and pray that your motor won't burst before the gate goes up. As the clutch goes home you throw your weight forward to keep the front of the bike down. If you can make a good start the outside position is the best because you can cut across the track to place your machine about one third out from the line into the first bend.

Graham likes this position 'cos it scares the daylights out of the others if you can get in front of them. That is if they don't get you first! But if you can come out of the bend right on the inside line, then boy! you've only got to stay on to win. Starting right is one of the most important lessons to learn. More engines fly to pieces on the gate and more races are



Designed specially for clockwise circling of speedway tracks this banked outfit belonging to Peter Speering has two J. A. P. engines coupled together.



The inboard motor faces backwards in its sub-frame and is geared to its normally mounted counterpart. Passenger accommodation is somewhat limited!

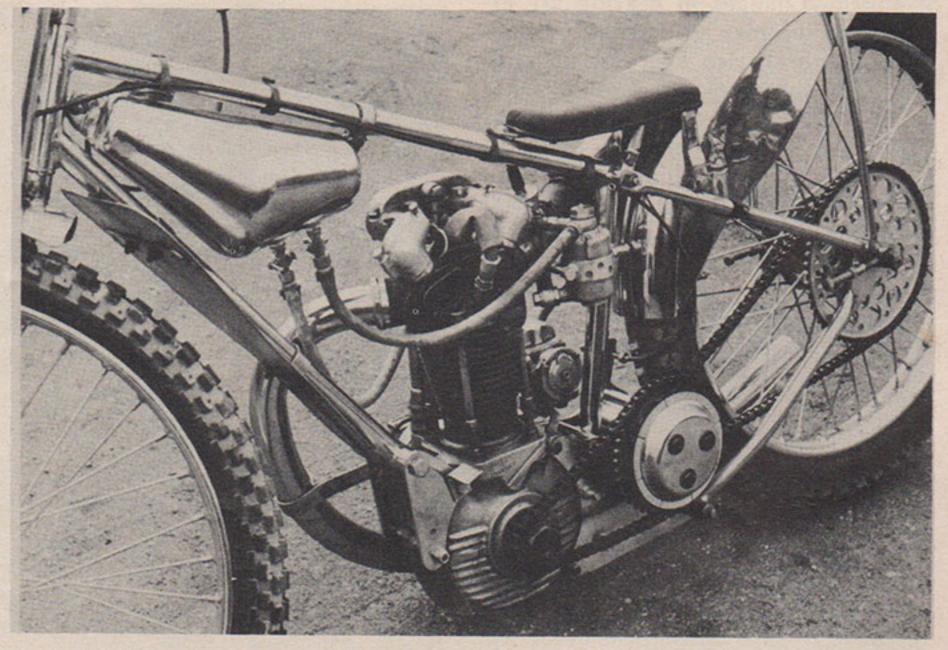
won or lost there than anywhere else. With a 15 to 1 C. R. a few hundred revs over the limit means that the piston touches a valve and your engine has had it for that evening at least. If it is raining and the start grid is wet, it will be slippery and therefore you will have to sit further back to keep the back wheel biting. In fact the position of the rider is critical and the correct position for all conditions can only be achieved at the expense of experience. At almost every meeting someone will turn turtle on the grid through not realizing the amount of grip there is

amount of grip there is. After you are out of the gate and round the first bend safely, what then? The straight may be 150 yards long and full speed must be achieved along here. As there are no brakes the retardation of the machine is effected by leaning it over until the back end breaks away into a slide. This slows the machine and starts it into the corner on a very pronounced slide. The throttle must be controlled to a nicety in order to keep the angle just right. Too much throttle will create overslide and bring the machine to earth. The riders left iron-shod boot helps to control the slide within limits, hard pressure pushes the bike upright and reduces the angle of slide, but it also slows down the machine and another rider may go past on the outside. Again, only prolonged experience will give the rider the ability to master the correct way to control the machine, and remember too, that after all the technicalities of riding have been mastered they must be superimposed on the conditions created by the other riders circulating. Four riders

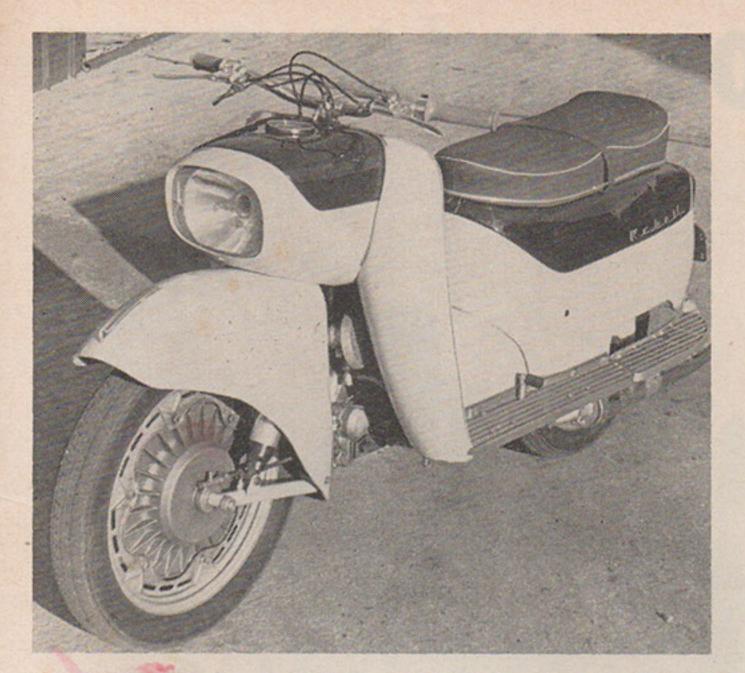
start together, two from each team and as it is team results that count it follows that where possible they will help each other on the track. If team mates are fortunate enough to be in the lead out of the first bend the first man will wait for the second and they can ride together round the track leaving little or no room for the other two to get through. Usually there are two opposing members who are both skilful and the leader of these two will try to hold the other at bay until his team mate can get up with them. As all this takes place under the watchful eye of several thousand people including a Steward appointed by the Auto-Cycle Union. Any unfair pressure applied by one rider to another

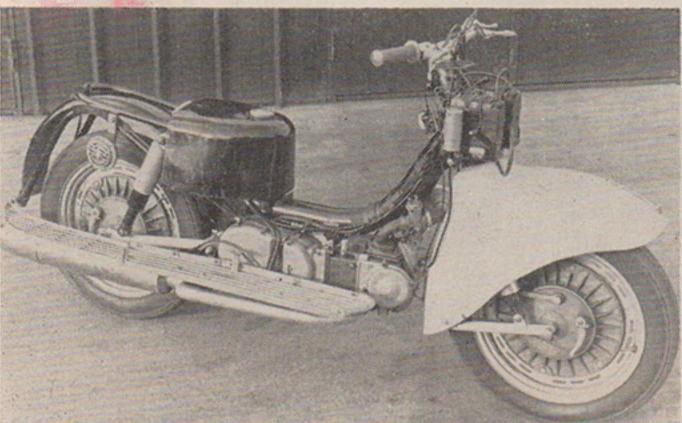
will not only come in for a great deal of criticism but may lead to the exclusion of the rider at fault. Deliberate bumping or shutting off in front of another rider is not only dangerous but can even lead to the suspension of the offender for the remainder of the season.

Introduced by two Australians, Jim Davies and Peter Speering, who have brought their own banked outfits with them, sidecar speedway racing is another phase of the sport that is becoming popular. Because they circulate clockwise the chairs and machines are banked over to the right at about 30 degrees. This is adjustable within small limits to suit different size tracks. Peter's outfit too is interesting in that it is powered by two 500 c.c. J.A.P. engines mounted side by side. The inboard one is slung on a subframe between the chair and bike and faces backwards so that large spur gears can connect the two crankshafts together. The primary chain drive is taken from the original engine sprocket in the normal way. Contrary also to the usual practice here in Britain a four speed gear box is fitted to cope with the wider variety of speeds necessary on their own much longer Australian tracks. Jim Davies' outfit has a comparatively rare V-twin J.A.P. engine mounted normally in the frame. With these high powered motors the passenger remains a pillion rider on the small British tracks and the amount of cinders these boys remove from the track has to be seen to be believed. Several British lads are building outfits to compete with these Aussies but it will be next season before this angle of the sport really gets under way.



Graham Warren's motor is a business-like piece of hardware. Notice the twin fuel line to the remotely mounted float chamber, the small tank and the glistening chrome which helps keep the bike clean so that any emergency repairs can be carried out with the minimum loss of time.





NEW 'REBEL'' BY HOREX

Details of an interesting new design by the Horex company have just been released. The Horex company has broken fresh ground in designing their Rebell (rebel) model which is appropriately named since the new design is actually a cross between a motorcycle and a motor scooter.

There are many unconventional features in this new design, notably the sturdy tube frame and the alloy disc wheels.

Main member of the frame is a central tube of large diameter also serving as an oil reservoir (approximately ½ gallon). Front and rear suspension is by swinging arms which operate in conjunction with tubular shockabsorbers. These shockers have an adjustment for altering the spring rate. The 16 in. wheels are cast in light alloy and fitted with 16 x 3.25 tubeless tires.

The rear wheel is driven by a fully enclosed chain and is equipped with a rubber shockabsorber. The brakes are claimed to

be extremely powerful.

Not the least interesting part of the Rebell is the power unit which is a single cylinder with a chain driven overhead camshaft. With a bore and stroke of 72 x 61 mm, it has a cubic capacity of 250 cc. It develops 18 hp at 3000 rpm.

The engine and four-speed gearbox are built as a compact unit. The low position of the engine is clearly indicated in the photo-

graphs.

The battery, generator regulator and ignition coil are situated in front and are normally covered by the headlamp cowling. Lighting is provided by a 9.5 in. headlamp.

Most important engine adjustments can be accomplished with dismantling the metal panelling. Fuel tank capacity is over 3 gallons. Top speed is reported to be approximately 75 mph.

The Horex Rebell is equipped with an electric starter and a transmission neutral indicator.

MEXICO MOTORCYCLE PARADISE

MOTORCYCLING in this land of Manaña is generally speaking a mode of transportation the sport of it being secondary.

Motorcycles are used for many purposes here in Mexico by many large concerns, but mostly as side car delivery vehicles.

It is not uncommon to see refrigerators or T.V. sets whizzing through the streets at break neck speeds astride large Harley-Davidsons or Indians, only to be delivered safely at their destination minutes later.

Motorcycles are used for this purpose primarily because the operational cost is less and also because the traffic situation there, is terrible. Motorcycles can cope with the latter and thus speed up deliveries to a great extent.

Mexico City's traffic department "Transito" is composed solely of motorcycles and do a very efficient job. They can be compared with the best as far as riding ability and equipment is concerned.

Mexico City is very much alive with lightweight machines which are primarily of European design, as Mexico has no motorcycles of her own. The lightweight machines range mostly from 125cc to 350cc. These are primarily used for transportation to and from work. Getting back to the traffic problem, these lightweights prove to be just the thing as parking facilities are very bad; parking meters are an unknown item here in Mexico.

Floyd Mitchell, another North American, and myself have competed in many of the races this last year here in sunny Mexico and have successfully placed in four of them.

In our estimation there is much room for improvement in management and facilities.

One of the best managed races that we participated in, was the Mount Popocatepetl race sponsored by the Mexico City Motorcycle Club. This race can be compared to our own Pikes Peak race though more climatic changes are encountered as the race starts in semi-desert and ends at the snow line approximately 30kms (18 miles) away. This cleary shows that the assent was great. This race and all the others are divided into six classes; 0 to 125cc, 126 to 250cc, 251 to 350cc, 351 to 500cc, 501 to 750cc, 751 to open. This set up clearly gives anyone with motorcycle racing spirit a chance to participate.

The enduros and the scrambles are very good but track racing is bad as there are very few tracks and almost no racing equip-

ment in Mexico for motorcycles. If any racing equipment is desired, it has to be shipped in directly from which ever country produces the machine. If any equipment is procured this way you more than likely have to install it yourself as specialized maintenance is unheard of on motorcycles here in Mexico.

Drag racing is another type of racing unheard of in Mexico even though they have time races timed solely by watches, but this can lead to arguments which greatly hinders sportsmanship. As a general rule the judges rule is law and is accepted by all.

This type of racing without speed equipment has its advantages also as it gives the average person as much chance with his street machine as the next person. This type of racing does not produce any great speed as the highest average is about 117 km (73 miles) on the fastest track in Mexico. This track is at Puebla Mexico.

Motorcycle racing popularity is fair as far as spectators are concerned with track racing being the biggest draw.

Mexico is good, the weather is swell and the people as a general rule are very friendly and hospitable as I'm sure any of these motorcycle tourists will tell you; Pete and Teacy Graham, Route 5, Box 3, Roanoke, Va.; George Hays, 1013 Ave D, Redondo Beach, Calif.; C. E. (Ed) Schoonmaker, 1418 Harrison Ave., Panama City, Fla.

Mexico is great and will, I'm sure, accept you in its motorcycle world as it has me and many others before me.

Donald Marquis

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The four big winners of the 35th Annual Big Bear Run are, left to right, Bill Postel (1st), Bud Ekins (2nd), Arvin Cox (3rd) and Larry Hester (4th). All rode on Dunlop Tires.

Another great victory for Dunlop Tires! At the 35th Annual Big Bear Run, 651 entrants started this 150-mile cross-country race. Only 92 riders finished.

The run started at Lucerne Valley (elevation, 3,000 feet) and finished at Fawnskin (elevation, 7,000 feet).

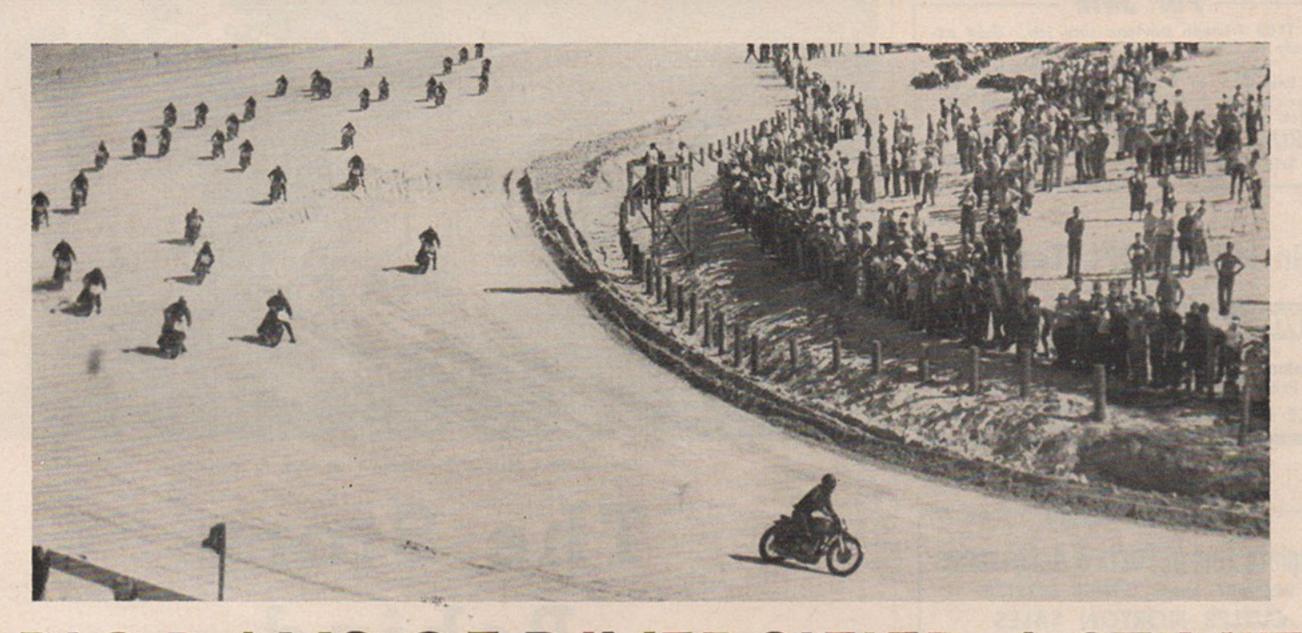
Bill Postel won first place. Bud Ekins took second. Arvin Cox roared in third. All three rode new 1956 "Trophy-Bird" TR-6 Triumphs, using Dunlop Tires. Fourth place went to Larry Hester, riding a T-110 Triumph—also equipped with Dunlop Tires.

Here's proof again that, whether you race or ride for fun, your best bet is Dunlop Tires.

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The Story Behind the Headline

THE picture of "World's Fastest Three- with fuel injection. BMW does all the wheeled Motorcycle" and comment published in "Time" magazine of October 17th, 1955 is only a quick glance at the activity of this great German firm, the Bayerische Motoren Werke—the products of which carry the blue and white badge (colors of Bavaria) with the three white letters on background: BMW. Let us take a close look at the story behind the headline and the history of said firm.

Concerning this super-streamlined, recordbreaking BMW sidecar outfit, it is of special interest that it was equipped with fuel injection but no supercharger. It is a 500 cc (30.05 cu. in.) twin with shaft drive, i.e., a two-cylinder horizontally opposed engine driving the rear wheel by a prop-shaft like they use on cars. Previous world records were only possible by means of a supercharger or an engine of twice this size.

Fuel injection, i.e., direct injection of gasoline into the combustion chamber of an engine instead of the use of carburetors, has been the subject of discussion among automotive engineers for many years. Most American automobile concerns have been working on fuel injection but up to now did not get beyond the experimental stage. The advantages of fuel injection: knockproof running of gasoline engines on cheaper low-octane gasoline with high compression ratios for better efficiencies are in fact quite tempting. Practical applications, however, have only been made by German firms, the first of which was on a Messerschmitt fighter plane in the last war. Since then, the Borgward concern has introduced fuel injection on a small two-stroke cycle engine for the "Goliath" car and Daimler-Benz equips their Mercedes 300 SL sports car and the 300S

factory team racing on motorcycles in the big European championships with fuel in-

The fact that the aforementioned recordbreaking BMW with solid gasoline injection was able to beat previous records which had been performed with supercharged engines or engines of twice that displacement clearly shows what fuel injection can do. With this pioneer work, BMW was able to secure the sidecar world championship in 1954 and since then all possible sidecar records from 1 km to 24 hours.

Originally, the Bavarian Motor Works at Munich was an aircraft engine producer in the days of the First World War. After Germany's surrender in 1918, Germany was not allowed to build aircraft engines. Therefore, BMW went into the production of motor vehicles. In 1923, they built the first shaft-driven flat-twin motorcycle, a conception which BMW never abandoned. Later, they produced the Austin Seven car under license and in 1928 the first BMW car came out.

From the very beginning, BMW motorcycles were successful in the big road races in Europe and made friends in many countries because they were of outstanding design and quality; they have been able to constantly maintain and improve this situation.

In 1929, Ernest Henne put up a new asbolute world record for motorcycles with a speed of 216 km/h (134 mph) on a 750 cc supercharged BMW which made same the "world's fastest motorcycle". In 1937, the same rider raised that figure on a fully streamlined BMW to 279 km/h (173 mph). This record remained unbeaten throughout a large number of attempts with various machines until 1952 when NSU was able to

improve on it.

In the meantime, BMW sport-cars were also more successful. 1940 saw a 2 litre BMW car victorious in the Mille Miglia race in Italy. In 1938, George Meier won the Tourist Trophy motorcycle race on the Isle of Man and the European Road Race Championship. This series of successes in both fields, sport-cars and motorcycles, made BMW a well-known and appreciated producer of fine cars, sport-cars, and motorcycles.

In these years, BMW also pioneered telescopic front forks and rear springing on motorcycles as well as hemispheric combustion chambers on their car engines and torsion bar suspension and other advanced features. (Actually the British Bristol sports car is directly developed from the BMW

328 engine and 327 body.)

After Germany's collapse in 1945, the Bayerische Motoren Werke was partly destroyed and after the distribution of the remaining machinery and equipment among 16 nations for war damage payment, a handful of faithful workers and employees started production from scratch. Before other new vehicles could be manufactured, the pre-war BMW motorcycles were again successful in all classic events in Germany, winning the German Champion Title in all three big motorcycle classes in 1949. A special victory

that year was the record average of George Meier in the Grenzland-Ring race with 130 mph and the fastest lap of 135 mph on a supercharged BMW.

Production of BMW motorcycles after the way started in 1949 and 1950 and the first BMW cars followed in 1953 and 1954 with a traditional sport-car style with little concession to the common trend; these were the first European sedans available with 6-cylinder or V8. Now at the Frankfurter Messe, BMW has displayed its comeback in the sports car field with the first and so far only German sports car with short-stroke V8 engines of 2.6 and 3.2 liter displacement, the latter being capable of 140 - 145 mph. No doubt these new sports car from the Munich factory will soon restore the great name BMW had acquired before the war.

The fact in itself that BMW is producing cars and motorcycles in the same plant is somewhat unusual. Only DKW of Auto-Union duplicates this in the field of 2-stroke engined vehicles. And yet, recently BMW has extended its activity into the production of a low-cost cabin-scooter by building the "Isetta" under license equipped with the 250 cc ohy single cylinder BMW motorcycle engine. With this, BMW is the first firm of any importance to take up this newly-created vehicle for production which will give it a high standard of quality and service.

Middle Atlantic Dealers' Meeting

The Middle Atlantic Motorcycle Dealers Association, wound up the past year with a very successful and informative meeting on December 6th in Reading, Pennsylvania.

"Wop" Varesio, Vice-President of MAMDA, and spark plug of the annual Winter Tour, got the meeting off to a fine start with a discussion and plans for the Winter Tour, which was held in Atsion, new Jersey, on January 28th and 29th.

The Williams Grove Gypsy Tour was talked over, and the members agreed that it could be held with or without the annual race.

A full A.M.A. discussion was held, and everyone stated that what they knew about how that organization was run. Several of the dealer members present later approached President Red Wolverton and stated that they were glad they attended the meeting, as they had been A.M.A. members for many years, and never knew what they learned at this meeting.

In the nomination and election of officers for the coming year, and the '55 officers

were all voted in again for 1956.

Time was alloted to the American Committee for the Promotion of Motorcycle Sports, and a full discussion of their aims was held.

The New Jersey Safety & Public Relations Committee gave a report on the progress regarding that state's laws against motorcycling activities. (The MAMDA group is the "daddy" of this fight against prejudiced and uninformed legislature, and are doing all within their power to bring about justified changes in those laws).

As can be seen, the Middle Atlantic Motor-cycle Dealers' Association promote motor-cycling—fight for public relations—with all money for these campaigns coming directly out of the members' pockets.

WEBCO EXPANDS PARTS PRODUCTION

Webco, Inc. of Alhambra, California, has just revealed a portion of their expansion plans in announcing the purchase of the complete inventory, stock, tooling, and business rights of Frenchies Engineering, San Bernardino, California. The entire production facilities will be moved to the Webco plant in Alhambra.

Among the outstanding products acquired are the high compression two-stroke cylinder heads, ultra lightweight alloy push rods for all popular motorcycles, aluminum dual intake manifolds, light weight valve discs, and alloy front wheel hubs for Triumph.

This important step has been made to increase production facilities and to improve the calibre of cycle products offered. This will allow Webco's many dealers higher quality and a more profitable line of merchandise from one source.

Dealers are already stocking and selling such Webco merchandise as air cleaners, batteries, ignition wire, tappet covers (Triumph), handlebars, mufflers, exhaust pipes, racing fuel, degree wheels and skid plates.

Webco has been appointed distributor for Lodge and Champion spark plugs, and they do precision boring and balancing for their regular dealers.

Ernie Hirsch Dies

Word has just been received from Seattle of the death recently of Ernie Hirsh. Ernie was a pioneer in the cycle industry and operated as the Hirsch Cycle Co. for many years, many of those years as Harley-Davidson dealer.

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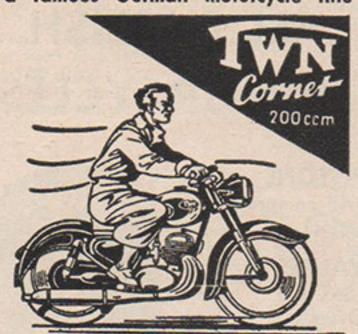


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(Story on Page 16) OPEN CLASS

2000	O. Eli CENSS	
1.	Bill Postel	
2.	Bud Ekins	Tri.
3.	Arvin Cox	Tri.
4.	Larry Hester	
5.	Walt Axthelm	
6.	Bob Sandgren	
7.	Howard Nicholson	
8.	Wilbur Lamoreaux	
9.		
	Buck Smith	
10.	Bill Brokaw	
11.	Dalton Holladay	
12.	Ken Guio	
13.	Paul Grimes	Tri.
14.	Harry Pelton Jr	Ariel
15.	Marvin Hall	BSA.
16.	Bud Baummer	
17.	Don Jones	
18.	Lee Strickland	
19.	Cal Bottum	
20.	Harry Wilson	
21.	Gene Hirst	
22.		
I Constitute to	Richard Hallen	
23.	John Marcotte	
24.	Frank Lewis	
25.	Jim Atkins	
26.	Vern Forsythe	BSA.
27.	Glenn Clinton	Zundapp
28.	George Darnell	Match.
29.	Dud Moen	Match.
30.	Gene Lindley	
31.	Joe Munkoff	
32.	George Flagel	
33.	Wayne Sumner	
34.	Ruben Jackson	
35.	Frank Bruno	
55.	SPECIAL CLASSES	
"		
	and over	
	Homer Drown	H.D.
350c	c	
	1. George Walker	BSA.
	2. Ronald Still	Velo.
250c		z
	1. Glenn Clinton	Zundapp
	2. Frank Heacox	
200c		
2000	1. Gene Monnich	Dot.
	3. Corky Pennington	
	4. John Bruno	
	5. John Collins	
	6. Eddie Williamson	
	7. Terry Griebel	F.B.
	8. Nick Nicholson	James
165c	C	
	1. Bob Skibsted	Tri
	2. Donn K. Luduigson	
125c		
	1. Tom Watkins	Ducati
	First Rider Out of District 37 — KEN GUIO—BIG PINEY — Wyoming	- Contraction
	This rider out of bisiner of — Ref out — bio Title — Wyoming	



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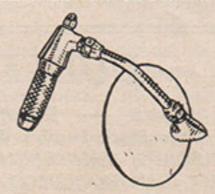
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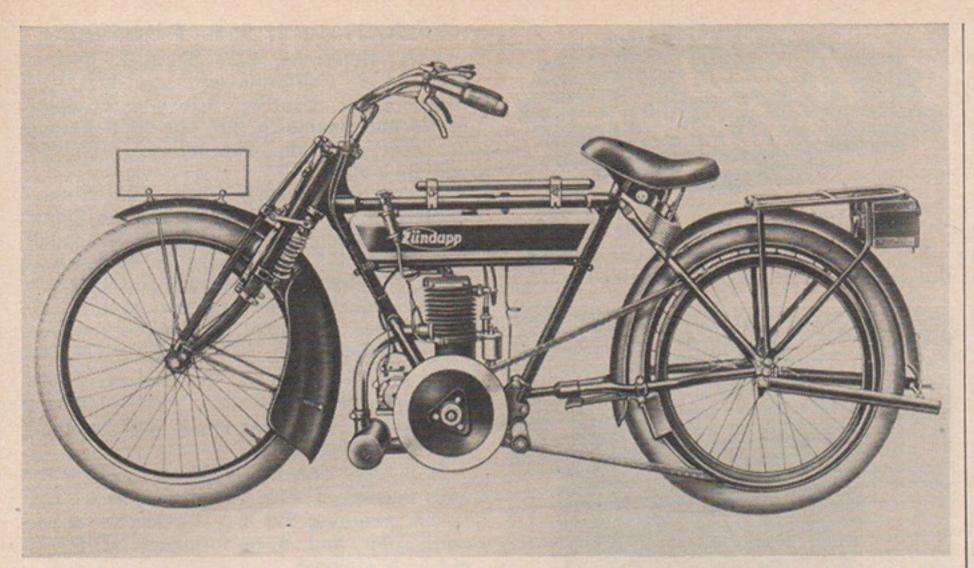
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The first Zundapp was this Z 22 model which was put in production in October 1921. The Z 22 had a 211 cc two-stroke motor developing 2½ hp. There was no gearbox and drive to the rear wheel was by belt. Top speed was approximately 35 mph.

35 Years of Zundapps

THE Zundapp company was founded in 1917 but the initial activities did not include motorcycles and it was not until 1921 that the first Zundapp motorcycle was produced. The first model, known as the Z 22 was powered by a 211 cc two-stroke engine. The design of the first model was typical of contemporary designs with an engine having an outside flywheel, a hand operated oil pump and belt-drive. There was no gearbox, power being taken directly from the crankshaft pulley to the rear wheel by belt. The illustration shows the wedge type footbrake which operated on the rear wheel pulley and the rim brakes on the front wheel. 24 x 21/4 in. tires were fitted. Top speed of this machine was approximately 25 miles per hour. The Z 22 found wide acceptance and in October 1922 the 1000th machine left the factory.

Two years later a new model, the K 249 was developed. This machine was a great improvement on the previous model. The 250 cc two-stroke engine developed 3½ hp and it operated in conjunction with a clutch and three-speed gearbox. This machine was also fitted with a kickstarter. Chain drive was used throughout. The rear wheel was fitted with a drum-type brake. This machine sold well and in November 1924 the 10,000th K 249 left the factory.

A considerable step forward designwise was the model Z 300 which was announced early in 1929 with a patented extra rigid steel frame construction and new type front fork. This machine was powered with a 298 cc two-stroke engine which developed around 8 hp, sufficient to give the machine a top speed of 55 mph. The Z 300 had a three-speed transmission with kickstarter and was shod with 26 x 2.85 balloon tires.

In 1933 the Zundapp company shook the motorcycle world when they announced their revolutionary new model the K 500. This machine was powered with a very modern 500 cc four-stroke flat twin engine which was mounted transversely in the frame operating in conjunction with a four-speed gearbox with hand shift. Power transmission to the rear wheel was by propeller-

shaft. The pressed steel frame and front fork construction was completely new in the motorcycle field.

In October 1938 the 200,000th Zundapp machine left the works and by this time Zundapps were sold not only in Europe but in every part of the world.

This 200,000th machine was the new DS 350 model which was a fast and reliable machine in the medium price class. The 350 cc ohv engine developed 17.5 hp which gave the machine a top speed of over 70 mph. The DS 350 had a four-speed transmission with footshift and conventional chain drive to the rear wheel.

Motorcycle production which was interrupted during the war years commenced again in 1947 and since then famous Zundapp models such as the KS 601, Norma, Comfort, Enduro, etc. have found ready acceptance all over the world.

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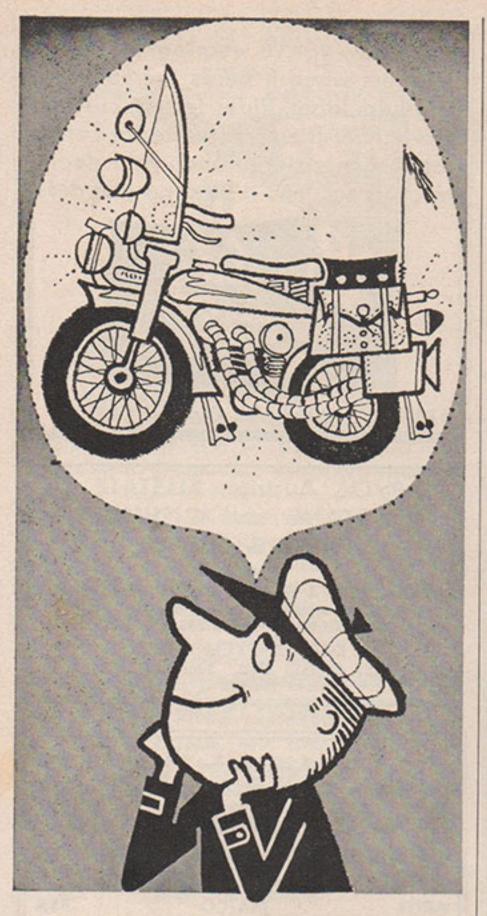


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For winning first place (dealer division), Bill and George Knuth, Harley-Davidson



dealers in Milwaukee, Wis., won this Triumph Cub in addition to \$300. in cash and a Trophy. CYCLE purchased this machine from Johnson Motors, Inc., Triumph U.S. Western distributors, of Pasadena, Calif. The machine arrived in Milwaukee too late to be photographed for the last issue of CYCLE.

Sitting on the machine is George Knuth, Manager of The Knuth Co. Southside store, and Edward Axel, Manager of their Northside store. Both men participated (with Bill Knuth) in the dealer division as instructors.

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York Motors, U.S. Distributor

York Motors of 4529 Shattuck Avenue, Oakland 9, California are now U.S. Distributors for Panther British-built motorcycles and announce that the 1956 Pathers are now available. The following changes will be noted:

Model 100: Known as the "Big Single" because of its 600 cc. engine has the following changes—a new headlight and tank, large (8 x 1½") alloy hubs, and brakes with quick detachable and interchangeable wheels. New two-phase Armstrong rear shocks have been added and color is black or maroon. Performance of 95-100 m.p.h. is claimed.

Model 75: This is the 350 cc. sports single, weighing 340 lbs., with a claimed performance of 75-80 m.p.h. and comes in Sherwood Green color.

Model 65: This is the 250 cc. sports model with four-speed wide range gear box. This model, weighing 330 lbs. is available in maroon color and a performance of 65-70 m.p.h. is claimed.

Model 10/4: This is the two-cycle sports model powered by a 200 cc. Villiers engine. This model has a wide range, four speed gear box and Earl's fork suspension. Weight is 245 lbs. with 60 m.p.h. approximate speed. Color is Mexican red. This model is unique in that the rear frame section is semi-closed. All models are equipped with dual seats.

Joe Craig to Leave Norton

Mr. Joe Craig, technical director of Norton Motors, Ltd., Birmingham, England, and one of the world's leading experts in the development and preparation of racing motor cycles, is retiring from the company, with which he has been associated since 1915.

He is to be married in Birmingham on December 20 to Mrs. van Wijngaarden, of Rotterdam, and his intention is, at least temporarily, to settle abroad.

A statement from the company says that Mr. Craig does not intend to go into complete retirement, but to have what he describes as a well-earned rest, after which he may be available to act in a consultative capacity to further the interests of British industry in the engineering field. He has been engaged for a long period in the development of motorcycle racing engines and has contributed much to Norton's racing successes in all parts of the world.

Triumph Offers New Racer

For those interested in the best possible 500 c.c. 30.5 cu. in. performance with a modified set-up to bring the machine as near as possible to be ready for road racing, and for such high speed events as Daytona, Laconia, Windber, etc., etc., the Triumph factory is producing a limited quantity of motorcycles to the following specifications; the basic machine is similar to the TR5 Trophy; 9:1 pistons (to suit the recent change in A.M.A. specification); latest racing camshaft and tappets; modified cylinder head; racing magneto; tuned dual racing carburetors; racing exhaust system; racing folding type footrests; the large 8" front brake with air scoop; twinseat; and many, many detailed items are being specially incorporated.

A major advantage also is the incorporation of a "Red Seal" engine which will be built to high performance specification and 100% bench tested before fitment.

It will be noted that the machine in question incorporates the detachable lighting set which can be quickly removed for racing purposes, yet makes the machine usable on the road.

To assist the racing and competition en-

BMW and NSU Dealers Fly to Germany



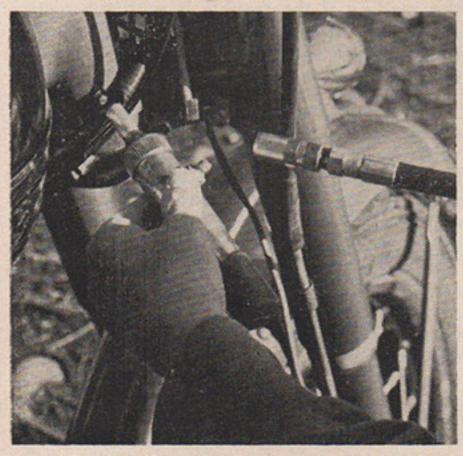
The first large contingent of U.S. franchised motorcycle dealers representing the two largest firms in Germany depart by RLM chartered plane from New York City for Stuttgart and Munich, Germany. The group, under the direction of Albet Bondy, General Agents for the N.S.U. Werke Aktiengesellschaft in Neckarsulm and th Bayerische Motorenwerke in Munich, will attend training courses at the two firms for a two-week period.

thusiast, the price of the complete machine despite its high performance specifications, has been kept to a minimum. Price complete, F.O.B. Baltimore (in usual packing box) \$959, suggested retail. Deliveries commencing February, in time for Daytona.

Limited quantities only will be available and those wishing to secure should immediately place their firm orders at Baltimore, Maryland.

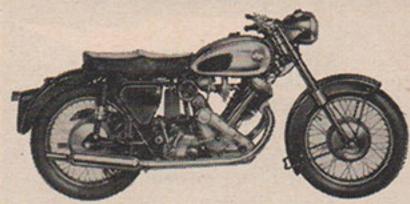
Zerk Fitting Simplifies Filling of Small Grease Gun

The grease gun included in the tool kit of most English motorcycles is almost im-



possible to fill with grease. A simple solution to this problem is to drill 11/32" hole in the barrel of the gun, close to the nozzle, thread it with a ½" pipe tap, and screw in an ordinary Zerk grease fitting. The gun may then be filled either with a large pumptype gun (as shown in the illustration), or at any filling station or garage equipped with pressure lubricating pumps.. (From E. R. McCafferty, Star Routh, Naches, Washington).

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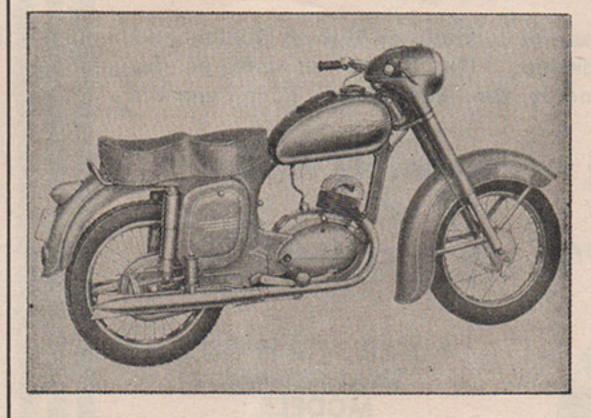
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CYCLE Service Tips

By J. B. Nicholson

To maintain near peak performance, valve servicing is generally necessary on motorcycle engines at mileage intervals of 5,000 to 20,000, dependent upon operating conditions, engine characteristics, and particularly whether there is a predisposition to exhaust valve stem sticking.

Premature Valve Trouble—Causes and Symptoms—Operating with insufficient exhaust valve tappet clearance is one of the most common causes of premature valve trouble, resulting in excessive valve head temperature. This in itself not only impairs engine performance but quickly leads to valve burning and warping with consequent loss of compression and ultimate valve failure.

Valve stem sticking, resulting from combustion residue adhering to the exhaust valve stems and deposits forming from oil that runs down the valve guide and burns on the stems, is a common cause of valve trouble on some engines. Early model B.S.A. 650 Twin motors suffered considerably from this trouble. It was found to be largely due to oil working down the exhaust guides and burning on the stems. These guides were

provided with a slight lead-in at the top end to provide for adequate valve stem oiling. Subsequently it was found that eliminating this lead-in by finishing the valve guides off square across the top generally overcame this trouble and yet the valve stems did not suffer from under-lubrication. On other machines such as Matchless and A.J.S. Single models with adjustable valve oil feed, it is recommended that the supply be adjusted to a minimum if exhaust valve stem carbon build-up and sticking has been encountered.

In the advance stages of valve trouble, loss of compression is often such that it is readily noticed by reduced pressure required for kick-starting. A compression test also will confirm the condition. The actual compression pressure that should be obtained on a test varies with the compression ratio, carbon deposits in the engine and to some extent with the type of cams fitted and cranking speed. Average compression readings should run close to these figures:

7:1 ratio -- 120 lbs. 8:1 " -- 140 lbs. 8.5:1 " -- 150 lbs. 9:1 " -- 160 lbs.

Make compression test with throttle fully open and with uniform cranking on each cylinder tested. Three fast spins will usually give maximum pressure build-up.

Readings 15 lbs. or more lower, almost certainly point to valve trouble. Loss of compression of course can be due to a piston, ring or cylinder condition but this can usually be distinguished from valve trouble by adding a small amount of oil through the sparkplug hole. This will generally improve the reading if the trouble is with the piston rings but it seldom provides perceptible improvement in the reading if the trouble is due to valve fault.

Valve sticking in the early stages is not always revealed by a compression test as valves may close properly at kick-over speed but stick at high revs and elevated temperature. A clue to this trouble may be the occurrence of misfiring and considerable valve clicking noise after a short burst of speed This often indicates a deposit building up on the exhaust stems reducing guide clearance and preventing valve springs closing valves fast enough to keep in contact with the tappets.

This condition indicates a valve job with particular attention to cleaning and polishing valve stems. It is seldom that special preparations sold for relieving valve sticking will have sufficient effect on the hard deposits on stems to overcome this condition.

Valve Parts Examination. When a head has been removed it is advisable to service all valves, but in many cases only one valve may be leaking and whatever valve or valves are at fault may be quickly determined by pouring a small amount of gasoline or solvent into the port and observing for leakage around the valve head. If leakage is suf

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FLANDERS COMPANY 200 W. Walnut St., Pasadena 3, Cal. ficient to result in a drip in the matter of a few seconds, it is a sure sign of fault, and such valves should be given close examination.

Parts Cleaning—Carbon should be removed from the head and ports with suitable scrapers taking care not to scratch the combustion chambers. A portable electric drill and wire wheels are useful for this purpose. The valve heads and stems are best cleaned against a wire wheel. An alternative method is to revolve valves at high speed in an electric drill, applying emery cloth of sufficiently fine grade so as not to leave any scratches on the stems. A highly polished surface on the exhaust stem is desirable, reducing the adhesion of deposits.

Valve Replacements—Before wasting too much time cleaning the valves it is wise to determine whether they are going to be replaced or not. The valve stems should be cheeked with a micrometer to determine the maximum amount of wear. If the low measurement is .004" or more below standard, replacement is recommended. Standard stem diameter for the popular 5/16 size used on most ohy Twins is .308-"-.309" exhaust, and .310"-.311" inlet. The standard diameter is easily determined by measuring at the top end of the stem above the guide travel area. If the stem is within limits and the head refaces so that it does not come out to a feather edge, further service is indicated.

Valve Guides—Replacement is recommended when worn in excess of .002". A simple method of gauging is to check with an oversize pilot from a valve refacing set, if available. If a .002" or smaller oversize pilot is not snug in the guide, replacement is indicated. In the absence of suitable pilots for gauging guide wear, the valve stem clearance in the guide should be checked visually or with narrow strips of feeler gauge. Standard clearances on most types are .002"-.003" inlet and .004"-.005" exhaust. Guide replacement should be made if clearances are .002"-.003" in excess of these figures.

Valve guides are easily removed and replaced using a double diameter drift. On alloy heads, it is advisable to heat to at least boiling water temperature and before drifting guides out to carefully remove all burned on deposits from the end of guide that extends into the exhaust port so the hole in head is not enlarged when removed. It is essential that valve guides be snug in the head to provide adequate heat transfer.

Valve Springs—The simplest method of determining whether valve spring replacement should be made or not is to compare with new springs of the same type. For average use, if the free length has not shortened more than ½", further service is feasible. On high performance jobs, this allowance should be cut to 1/16".

Valve Reseating and Refacing—The average owner doing his own dismantling and reassembling work is well advised to have this done at a shop equipped with both electric valve refacer and seat grinding equipment. When accurately done with this equipment, no hand grinding in is necessary or desirable. 45-degree is the standard seat angle on practically all motorcycle valves. The following are a few rare exceptions:

Indian V-Twins motors.......35 degrees Vincent Twins.......30 degrees

Porting and Oversize Valve Installing.— This is a broad subject that can only be lightly touched on in this article. Oversize head valves, generally 3/32" or an ½" larger than standard, are obtainable for some engines, notably Triumph Twins, and have two applications. For ordinary service they serve a useful purpose where inlet valve seats have become deeply pocketed, enabling a new seat to be used outside the original and restoring the original valve position. In such cases it is optional whether or not the port throat be opened out at the seat, a proportionate amount. If it is done, slight improvement in efficiency will be realized.

On motors that are modified for maximum performance, to get the desired improvement from the oversize valve installation, it is of course necessary that the port throats be opened out proportionately. Valve seat grinder stones, dressed to suitable curvature are useful for porting work. A seat width on the inlet of 1/16" is recommended, as anything narrower will result in rapid wear and ultimate pocketing. It should be noted that where oversize valve heads are installed, in some instances it is necessary to open out the cutaways on the piston crown to provide clearance. This is a point that should be checked on carefully before assembling. A simple method is to fit valves in head without springs, set pistons at top of stroke and note that valves can drop the full amount of lift without binding on piston cutaways.

Special Valve Springs—On some engines, higher pressure valve springs are beneficial in conjunction with special cams, but as a general rule for all-round use, the standard springs are most suitable with standard cams. Unnecessarily strong springs may overload the valve gear and cause accelerated cam follower and cam wear. It is wise to ascertain the suitability of special springs before installing.

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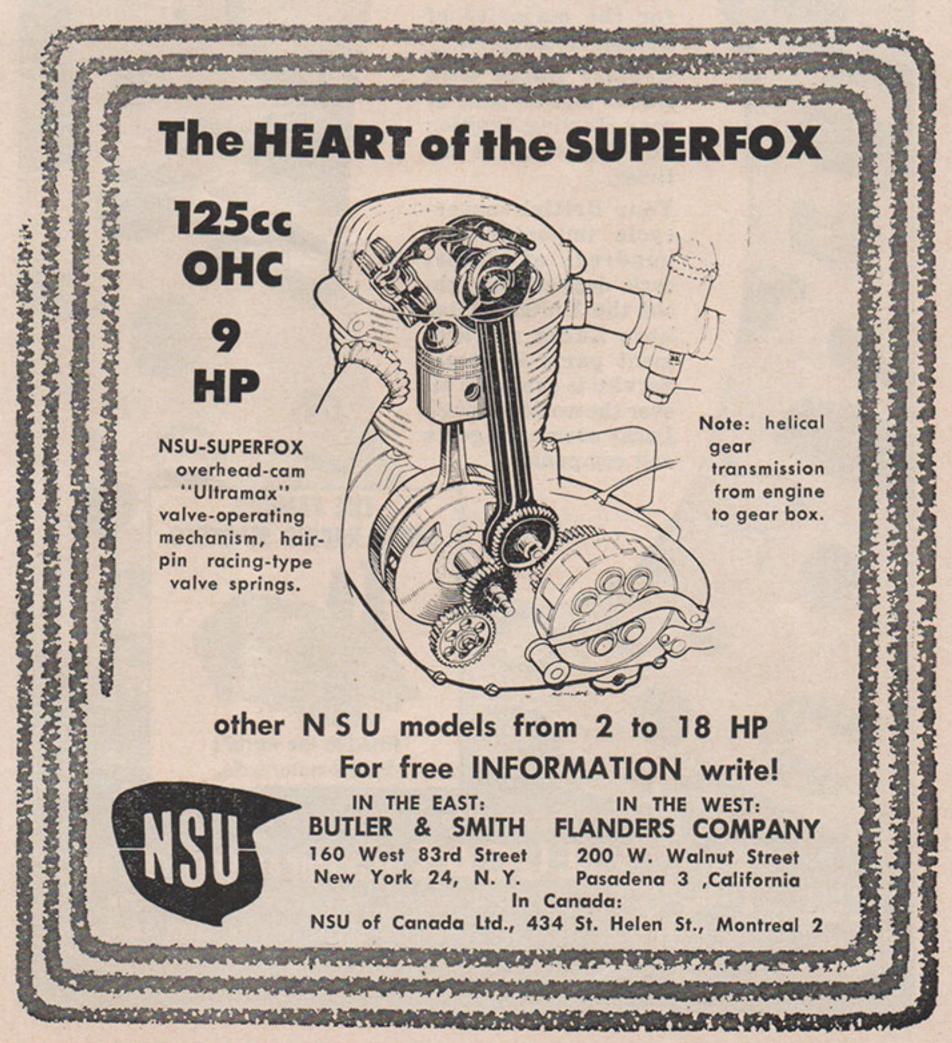
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Our Mistake

We regret an error that appeared in the February issue of Swapping Post. G. Taylor of Ottsville, Penna., advertised a 1952 Norton. Through a typographical error a \$75.00 price appeared. It should have been \$675.00 which Mr. Taylor stated to us. It was our fault, not his. Sorry.

SELL—1956 Triumph "Tiger Cub." Absolutely brand new. Includes splash guards, windshield hardware, extra set foot rests, side kick stand and rear view mirror. \$475.00 George R. Woodring, 6201 S. Dixie Highway, West Palm Beach, Florida. Ph. 34179.

SELL—1948 Tiger, big valves, manifold, carburetors, polished "Q" cams, 8-1 pistons. Small gas tank. Extra spring hub wheel and sprockets. Like new. \$275.00. George Mack, 3555 N. Normandy, Chicago 34, Illinois.

BMW RIDERS ATTENTION—Mature owners interested in forming an information association and exchange. Please contact me to receive questionaire. A. J. Farmer, Box 81, Azusa, California.

WANTED—Four cylinder Indian, 1939 or later. 1944 in good condition preferred. Also interested in one in poor condition for spare parts. Near here. Donald W. Morris, 435 Panoramic Way, Berkely 4, California. Phone Thornwall 3-7700. WANTED—Service manual for Indian Shaft Drive.

WANTED—Service manual for Indian Shaft Drive. George Hays, 1013 Avenue "D," Redondo Beach, California.

SELL—1955 Triumph T 100R track racer. Run five races only. Mileage, including break-in, is less than 300. Perfect shape. \$625.00, trailer included. Donald R. Dickinson, 4626 S. E. Naef Road, Milwaukie, Oregon.

SELL—Used '53 Villiers engine, needs piston and trans., gear. Also few minor bolts. Sell to best offer. Will send disassembed. (197). Tom Dilling, Apt. 11 A FHP, Eureka, California.

WANTED—Companion for extensive tour of Mexico. Leaving April 1. George Hays, 1013 Avenue "D," Redondo Beach, California.

SELL—Stocked up on Indian 45 racing parts.
One Indian racer complete with gearing. Will sell parts separately. Robert Kleiman, YMCA, Evansville, Indiana.

SELL—Indian 4 parts. New unnumbered tophalf crankcase. Two new sets main and transmission bearings. One new set bearing caps. Other new and used parts. E. F. McCumber, 4363 Verdugo Road, Los Angeles 65, California. SELL—1955 Triumph T100R factory racer. Raced 4 times. Guaranteed like new. \$750.00. 1955 Maico 250cc. Swing arm, Earles fork. 14 HP. Only 350 miles. \$500.00. Richard A. Lowe, 743 Arlington Avenue, Columbus, Ohio. Phone AM 2-9731.

SELL or TRADE—1955 Harley KH. Windshield, buddy seat, saddle bags etc. Looks and runs like new. No reasonable offer refused. Vernon Springer, 502 Walnut Street, Washington, Illinois.

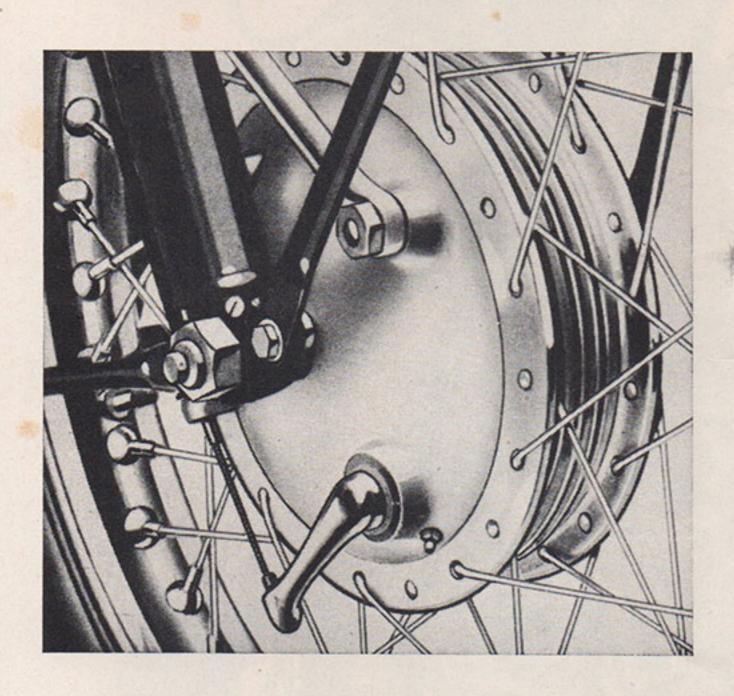
SELL—Triumph T110. 1954. Cost \$900.00 new. Will sell for \$400.00 or best offer as being shipped overseas. Write A/2c Robert J. Ver-Pault, 584 Linden Street, West Hempstead, Nassau, Long Island, New York.

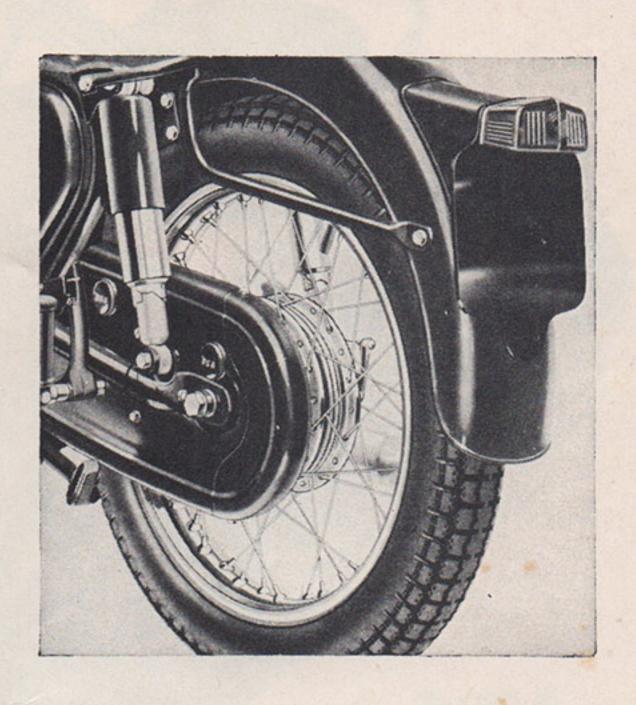
SELL—1955 Harley KR. Full set of gears. Large lower end and late type cams. Only used 1/2 season. Very reasonable. Write Warner Welshans, 728 "B" Pilgrim Terrace, Santa Barbara, California. Phone WOodland 5-3572.

WANTED—Light model, box side-car for model 165 Harley, prepaid to this town. F. E. Bell, 616 West Tremont, Massillon, Ohio.

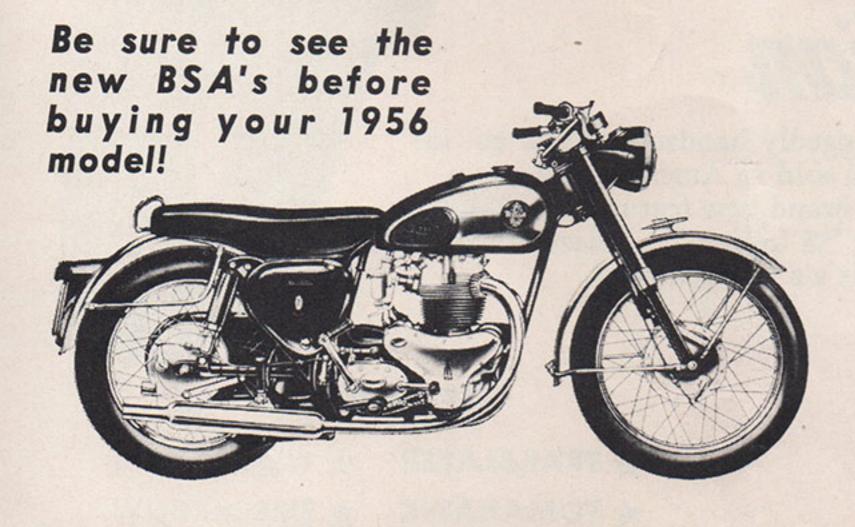
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