

DESIGNED BY TURIN LAWYER ALDO FARINELLI, THE CUCCILO ("PUPPY") ENGINE WAS DUCATI'S FIRST MOTORCYCLE PRODUCT, ORIGINALLY MANUFACTURED BY SIATA (IN 1945) AND THEN BY CANSA AT NOVARA. IN 1946 THE CUCCILO ENTERED PRODUCTION AT DUCATI AND BECAME THE BASIS FOR THE COMPANY'S POST-WAR REVIVAL. COMPARED WITH ITS TWO-STROKE COMPETITORS, THE CUCCILO WAS MORE POWERFUL AND CONSUMED LESS. IN IDEAL CONDITIONS CONSUMPTION WAS 100 KM/LT.



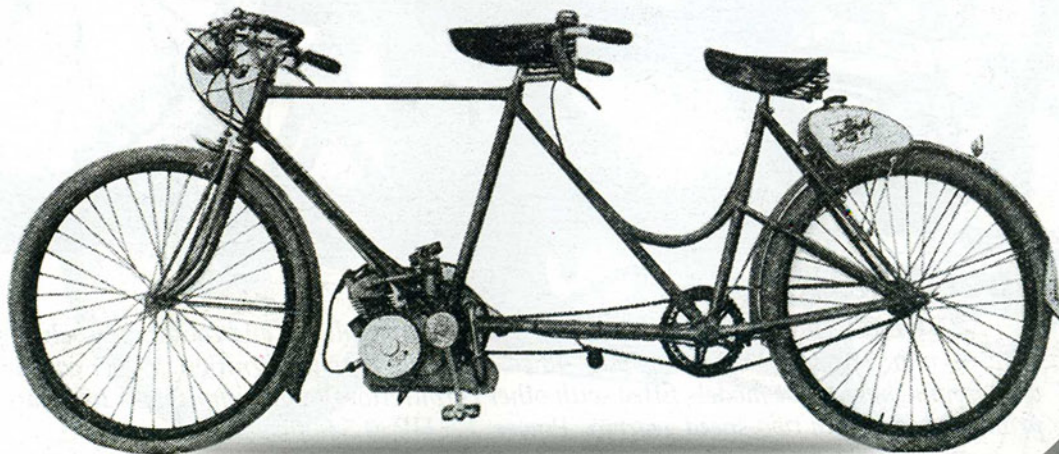
# 1946/1950

## The Cucciolo years

Ducati successfully revived the fortunes of its Borgo Panigale works with the moped engine - the first step in mass motoring for post-war Italy. Initially Ducati produced the original four-stroke Cucciolo moped engine under license from SIATA in Turin. The engine was a success which relaunched the Marque and provided bike builders with the basis for a wide variety of applications, some of them very interesting



ITALIANS HAVE NEVER BEEN SHORT OF IMAGINATION. IN THE DIFFICULT POST-WAR YEARS MANY SMALL BIKE BUILDERS USED THE CUCCILO. ABOVE, THE SPORTY DONDOLINA WITH SPRING SUSPENSION ON BOTH WHEELS AND A STRAIGHT-THROUGH EXHAUST.



### A TORINO E' NATO UN "CUCCILO"

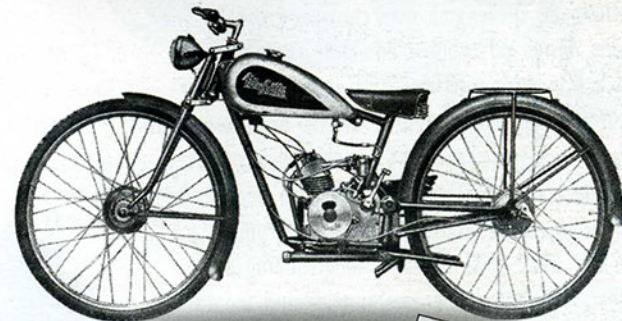
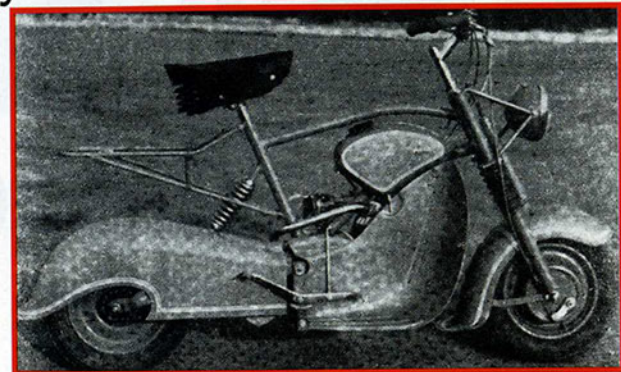
A Torino è nato un "Cucciolo", un "Cucciolo" che si abita fra le gambe non per infelicità o chiardità una carezza (la classica solletta di qualcuno da una scossa o il percuotere più di affetto) immemorato al più "cubello" dei cuccioli non per curiosità di intuire nel percorso un pericolo della sua libertà. Il "Cucciolo" s'è nato a Torino non è un caso ma semplicemente un periodo motore analizzato per bilanciare: come è contenuto dalla S.I.A.T.A., come è quella "Società Italiana Applicazioni Tecniche Auto-Aviazione", che è diventata famosa nel mondo automobilistico in virtù di questo "Cucciolo" che aveva - ed ha - la prerogativa di far andar forte anche le macchine create per andare adagio. Chi non conosce, almeno per intanto dire, la "S.I.A.T.A."? Aveva una Radice e un'altra manderà dal genere con la testa "S.I.A.T.A." significa per gran tempo essere una specie di "Giggi" in Italia e del paese automobilistico. La sua "S.I.A.T.A." è il quanto di più di "C.I." che il mondo dei vari "Giggi". La "S.I.A.T.A." è diventato un solo fiamma un unico progetto. Tanto perché da diventare una lunga mano delle maggiori fabbriche di automobili e di motori d'automobili, e tanto comunemente attraverso da essere oggi una delle più rispettate industrie che fanno bene parlare i fatti italiani della necessità di non rinviare. Completatevi di leggere a tal

proprio quando è scritto nella pagina che precede. La "S.I.A.T.A." è alle prese con i suoi cronometri ed ha creato il "Cucciolo" che qui presentiamo. Sembra il bambino di un altro mondo, ripresentato, forse un po' più vecchio, ma è un "Cucciolo" che si abita fra le gambe non per infelicità o chiardità una carezza (la classica solletta di qualcuno da una scossa o il percuotere più di affetto) immemorato al più "cubello" dei cuccioli non per curiosità di intuire nel percorso un pericolo della sua libertà. Il "Cucciolo" s'è nato a Torino non è un caso ma semplicemente un periodo motore analizzato per bilanciare: come è contenuto dalla S.I.A.T.A., come è quella "Società Italiana Applicazioni Tecniche Auto-Aviazione", che è diventata famosa nel mondo automobilistico in virtù di questo "Cucciolo" che aveva - ed ha - la prerogativa di far andar forte anche le macchine create per andare adagio. Chi non conosce, almeno per intanto dire, la "S.I.A.T.A."? Aveva una Radice e un'altra manderà dal genere con la testa "S.I.A.T.A." significa per gran tempo essere una specie di "Giggi" in Italia e del paese automobilistico. La sua "S.I.A.T.A." è il quanto di più di "C.I." che il mondo dei vari "Giggi". La "S.I.A.T.A." è diventato un solo fiamma un unico progetto. Tanto perché da diventare una lunga mano delle maggiori fabbriche di automobili e di motori d'automobili, e tanto comunemente attraverso da essere oggi una delle più rispettate industrie che fanno bene parlare i fatti italiani della necessità di non rinviare. Completatevi di leggere a tal

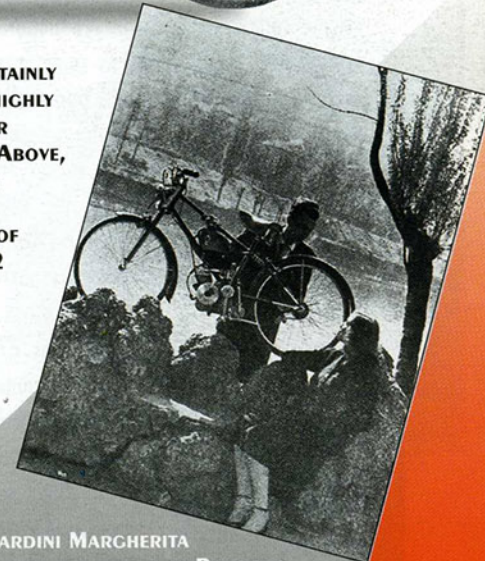


L'espansionista del "Cucciolo", non oltre per nulla l'aspetto della comune bicicletta.

BELOW, A CUCCILO-POWERED TANDEM FOR THOSE SPRING-TIME JAUNTS IN THE COUNTRY. THIS UNUSUAL VEHICLE HAD A RECORD WHEELBASE FOR A "POWERED BICYCLE".



TODAY'S MOPEDS ARE CERTAINLY NOTHING NEW. TOP, THE HIGHLY ORIGINAL Z-48 WITH REAR CANTILEVER SUSPENSION. ABOVE, MUCH MORE ELEGANT, THE MUsETTA "LIGHT CYCLE" PRODUCED BY M.U.S.A. OF MILANO FITTED WITH A T2 SERIES ENGINE.



THE GIARDINI MARGHERITA PUBLIC GARDENS IN BOLOGNA ON AN IDYLIC DAY. A YOUNG COUPLE CAPTIVATED BY A CUCCILO. THE SLOGAN "POWER YOUR CYCLE" ACCOMPANIED THIS ADVERT FOR THE FIRST CUCCILO PRODUCED BY SIATA IN TURIN.



# 1946/1950

The motorcycles that made history

## Cucciolo and its variants

The first Cucciolo ("Puppy"), the T1 manufactured by SIATA, had the cylinder head, block and part of the casing all in one piece. In 1948 Ducati redesigned the engine now christened the T2. The basic design philosophy remained unchanged: to provide a strong, reliable and economical power unit that could be fitted to bicycle or custom-built frames and thus meet the growing demand for private transport. The Ducati redesign bore fruit. Power increased from 1 hp at 4.500 rpm to 1,5 on the 1952 M SS model, a long-running best seller. Maintenance became simpler and separating engine componentry made production easier. Technically, the Cucciolo has some interesting features. Rather than an oil pump, the lubrication system used the much simpler splash lubrication. Valve actuation was by twin rocker arms and pull rods. As an alternative to the two-speed gearbox there was also the T0 automatic. Other versions followed. The 55, 66 and 65, available in various trim from the spartan standard models to sportier

racing jobs. Production sports versions were raced in the lightweight bike class. These bikes had T3 series engines with grease-lubricated covered valve gear and three-speed gearboxes

La motoleggerissima "DUCATI 60,"



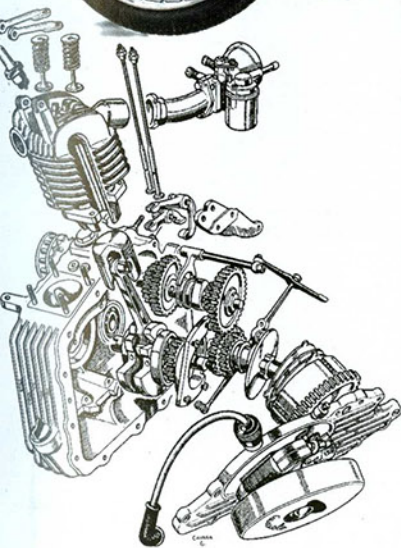
### Specifications

*ENGINE: Single cylinder four-stroke, air-cooled. Pull rod and rocker arm valve operation. Bore: 39 mm. Stroke: 40 mm. Capacity: 48 cc. Magneto flywheel ignition. Weber carburettor with 9 mm choke (first models fitted with other carburettors). Oil sump splash lubrication. Gear primary drive, with two-speed gearbox. Power: 1,5 HP at 5.500 rpm.*

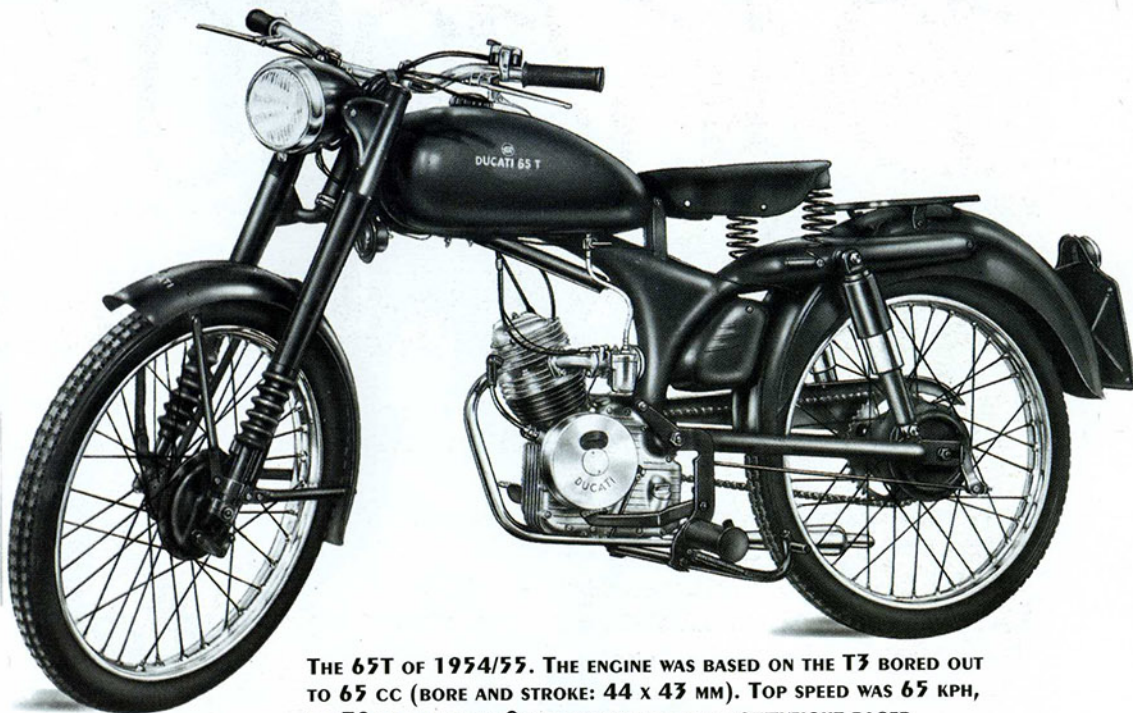




ABOVE, THE 55R OF 1954 HAD A TWO-SPEED GEARBOX WITH HANDLEBAR CHANGER AND LINK FRONT FORKS. THERE WAS NO REAR SUSPENSION BUT SUSPENSION WAS AN OPTIONAL EXTRA. THE ENGINE WAS AN M55, THE LAST VERSION OF THE FIRST CUCCIOLLO TYPE.

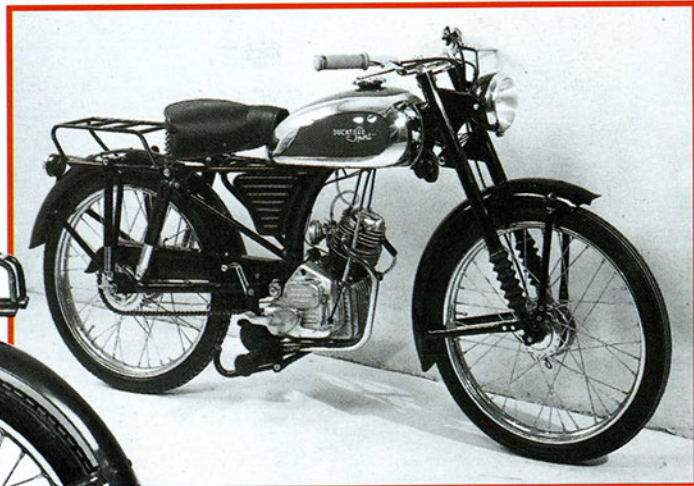


OPPOSITE PAGE, THE 65 TS, TECHNICALLY THE MOST DEVELOPED CUCCIOLLO. A MORE FULLY EQUIPPED VERSION OF THE T (ON WHICH IT WAS BASED) WITH TRIM INCLUDING A SMALL WINDSCREEN. ABOVE, THE EXPLODED DRAWING BY CAVARA REVEALS THE SECRETS OF THE T2 VERSION WHICH STILL HAS THE CYLINDER HEAD AND CYLINDER IN A SINGLE BLOCK.



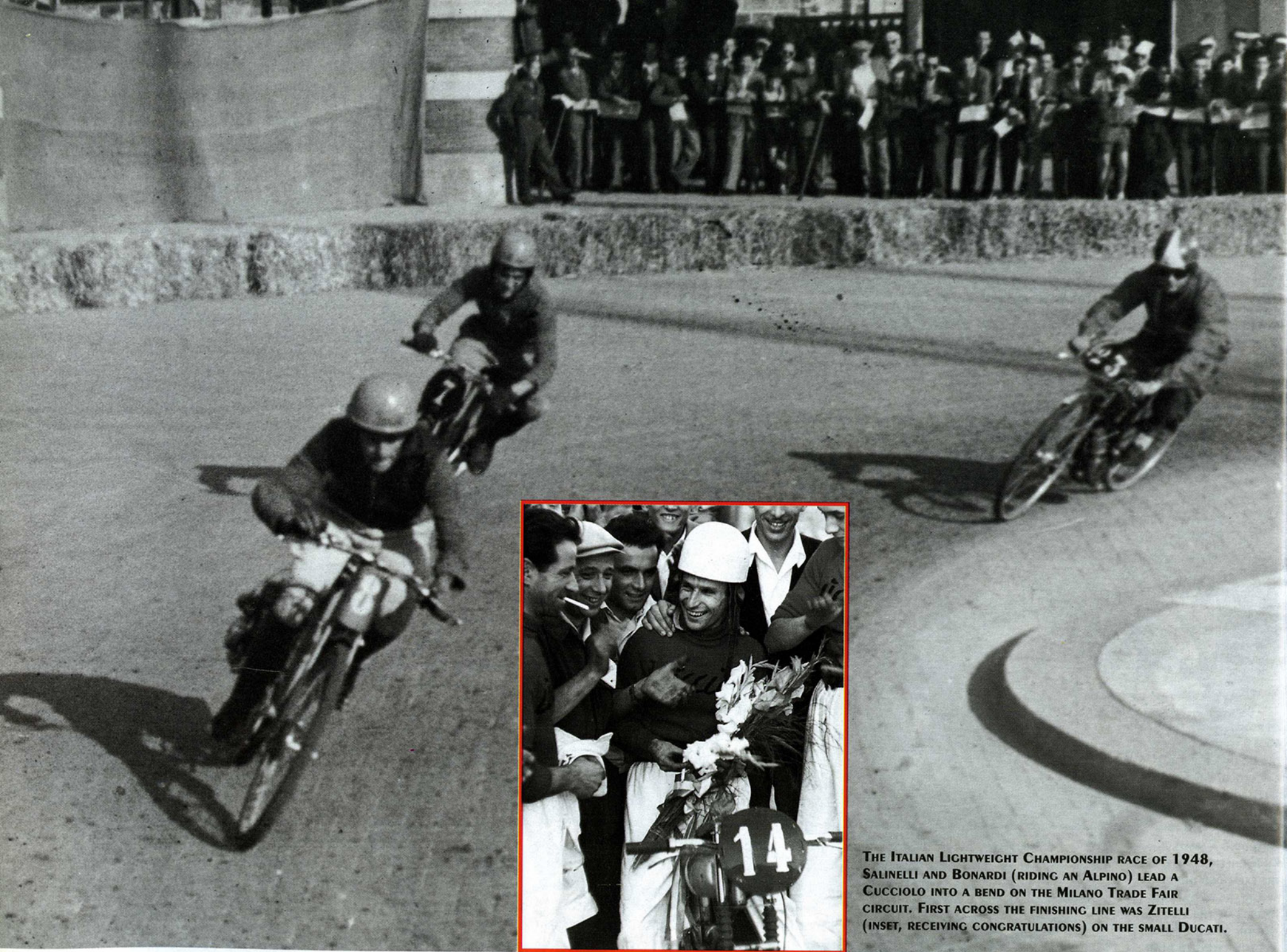
THE 65T OF 1954/55. THE ENGINE WAS BASED ON THE T3 BORED OUT TO 65 CC (BORE AND STROKE: 44 x 43 MM). TOP SPEED WAS 65 KPH, OR 70 KPH FOR THE SPORT MODEL USED IN LIGHTWEIGHT RACER COMPETITIONS.

BELOW, THE 60 TURISMO OF 1950 HAD MONOCROSS SUSPENSION WITH TELESCOPIC FORKS AND FRICTION DAMPERS.



ABOVE, PROBABLY THE FIRST DUCATI SPORTS BIKE, THE 60 SPORT. SPECS FOR THE T3 ENGINE INCLUDED BORE AND STROKE 42 x 43 MM, 2,25 HP AT 5.000 RPM AND A TOP SPEED OVER 60 KPH. NOTE THE THREE-SPEED PEDAL GEAR CHANGER.





THE ITALIAN LIGHTWEIGHT CHAMPIONSHIP RACE OF 1948, SALINELLI AND BONARDI (RIDING AN ALPINO) LEAD A CUCCIULO INTO A BEND ON THE MILANO TRADE FAIR CIRCUIT. FIRST ACROSS THE FINISHING LINE WAS ZITELLI (INSET, RECEIVING CONGRATULATIONS) ON THE SMALL DUCATI.



# 1951/1954

## Records and race wins

These small lightweight "microbikes" were the only way to go racing cheaply in the hard post-war years. Works teams were already fighting it out on town circuits watched by enthusiastic crowds. Alpino and Cucciolo were the two Marques to beat. In 1950 the small Ducati Cucciolo, with Ugo Tamarozzi riding, set 12 world records. A year later the team went from strength to strength with the arrival of Farné, Miani, Pennati, Caroli and Sozzani, setting one record after another

**Ugo Tamarozzi col "Cucciolo" Ducati 49, stabilisce dodici records mondiali della classe 50 cmc.**

Alpino di Milano è il primo al mondo a stabilire dodici records mondiali della classe 50 cmc. Ugo Tamarozzi, che ha guidato il "Cucciolo" Ducati 49, ha stabilito dodici records mondiali della classe 50 cmc. I records sono stati stabiliti il 10 settembre 1950 a Milano. I records sono stati stabiliti in 12 prove diverse. I records sono stati stabiliti in 12 prove diverse. I records sono stati stabiliti in 12 prove diverse.

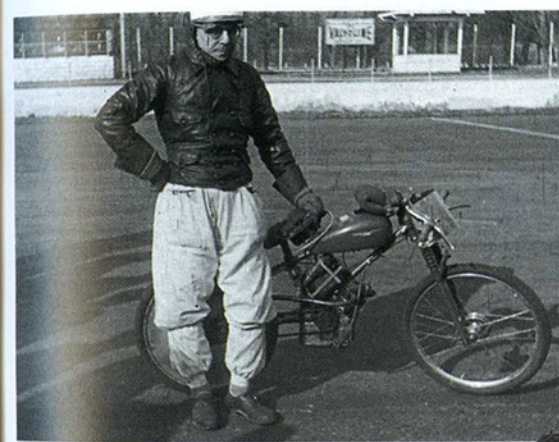
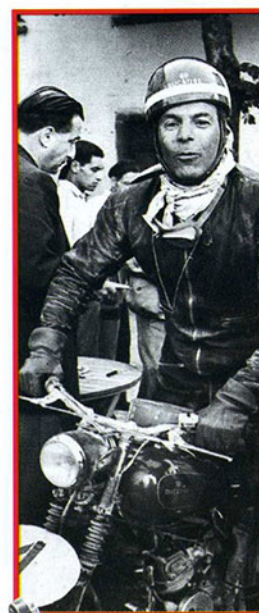
500 m. in 1' 10"	1000 m. in 2' 30"
1000 m. in 2' 30"	1500 m. in 3' 45"
1500 m. in 3' 45"	2000 m. in 4' 45"
2000 m. in 4' 45"	2500 m. in 5' 45"
2500 m. in 5' 45"	3000 m. in 6' 45"
3000 m. in 6' 45"	3500 m. in 7' 45"
3500 m. in 7' 45"	4000 m. in 8' 45"
4000 m. in 8' 45"	4500 m. in 9' 45"
4500 m. in 9' 45"	5000 m. in 10' 45"
5000 m. in 10' 45"	5500 m. in 11' 45"
5500 m. in 11' 45"	6000 m. in 12' 45"

Il primo Ugo Tamarozzi, acciolo alla velocità di 100 km/h, stabilisce un record.

La motocicletta del Cucciolo del 49 cmc, di Ugo Tamarozzi, per il mondo, di cui si vede una copia al museo di Milano, riprodotto per l'occasione.



ABOVE, AN EXCITING STAGE OF A HOTLY DISPUTED 50 CC RACE. LEFT, ALBERTO FARNÉ CROSSING THE FINISHING LINE WITH HIS DUCATI 65. A CAPTION TO THE PHOTO AT THE TIME RECORDS HIS LABOURS: "STOPPED AT 16 KILOMETRES FROM THE FINISHING LINE DUE TO A MAGNETO FAULT, THIS INTREPID RIDER PUSHED HIS MACHINE TO THE FINISHING LINE TO FINISH EQUAL FIRST IN THE RIDER CLASSIFICATION".



IN 1951 THE CUCCILO RAN FOR 48 HOURS NON-STOP SETTING 27 WORLD RECORDS, ALSO ESTABLISHING THE 24 HOUR RECORD IN THE 100 CC CLASS.



MAKESHIFT RACE OVERALLS FOR UGO TAMAROZZI. IN 1950, AT THE VENERABLE AGE OF 46, HE SET 12 WORLD RECORDS IN THE 50 CC. CLASS RIDING HIS CUCCILO 48. TAMAROZZI, A SKILLED TRADESMAN, PREPARED HIS BIKE IN THE CELLAR AT HOME IN MILANO. TUNING WAS LIMITED TO A FEW INEXPENSIVE CHANGES. ENGINES RAN ON A MIXTURE OF PETROL, BENZOL AND ACETONE.

**DUCATI M55**

**MOTORE** - 4 tempi, con lubrific. in secco.  
**Cilindrata** - 48 cc.  
**Supervelocità** - 135 Km/h.  
**Potenza di compressione** - 6,7.  
**Accensione** - a bobina magnetica con bobina.  
**Cambio** - 1 e 2 velocità di precisione del tipo con comando a pedale.

**Trasmissione** - a cardani con lubrific. in olio.  
**Valvole** - 2 per cilindro, a per la bobina, a carburatore, a pedale.  
**Comando** - 1 e 2 velocità, comando per 90 Km/h.  
**Velocità massima** - 30 Km/h.

**DUCATI MECCANICA S.p.A. BOLOGNA - BORGO PANIGALE**

THE TWO-SPEED GEARBOX OF THE M55 ENGINE HAD A CHOICE OF THREE TYPES OF GEAR CHANGER.



# 1954

## The motorcycles that made history

# The "98"

The history of this single-cylinder mirrors that of the Ducati Company. Certainly not a sporting bike, the 98 was pressed into competition service by Giuseppe Montano, managing director of the Company since 1953. Tuned up, the bike competed successfully in trials (two silvers at the 1954 Welsh Six Days) and long distance events (third place in the '54 Motogiro with Gandossi riding). The 98 was clearly designed as an economy, low performance model. Rocker arm and pushrod valve gear and a pressed steel frame leave no doubt about this. The 98 appeared in 1952 and was improved year after year. 1956 saw a changeover to a single tube frame. The engine was bored out to 55,2 mm in 1956 for a 125 cc version. Oil coolers were fitted to the S and SS models. The last series produced had the enlarged 125 cc engine. Models were renamed "Bronco" (with American styling) and "Aurea" (with the classic look) and continued in production until the Seventies



THE 98 FIRST SERIES HAD A THREE-SPEED GEARBOX AND A PRESSED STEEL FRAME. A TOP SPEED OF 75 KPH COULD EASILY BE REACHED WITH THE DELLORTO MA 16 B CARBURETTOR. SPORTS VERSIONS WERE FITTED WITH THE 18 VERSION CARBURETTOR AND HIT 85 KPH TOP SPEED.

### Specification

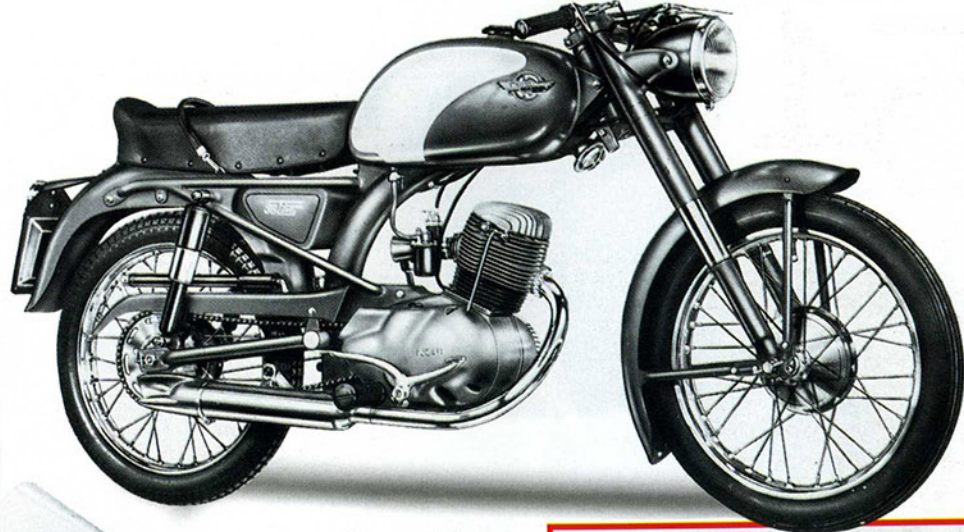
**ENGINE:** Four-stroke single-cylinder, with 25° forward angle configuration. Air cooled. Bore: 49 mm. Stroke: 52 mm. Capacity: 98 cc. Compression ratio: 7:1. Pushrod and rocker arm valve gear with camshaft in the sump. Dellorto MB 16 B carburettor. Maximum power: 4.5 HP at 6.200 rpm. Magneto flywheel ignition. Lubrication: forced wet sump. Gearbox: primary reduction by gears. Chain final drive. Wet, multi-plate clutch. Kick-start (could also be operated with a gear engaged). Fuel tank capacity: 10 litres. **FRAME, FORKS AND RUNNING GEAR:** Pressed steel frame with overhung engine. Front telescopic forks. Swinging arm rear suspension with twin telescopic shock absorbers. Brakes: front and rear side drums. Tyres: 2.75 x 17" (front and rear). **WEIGHT (dry):** 72 kg. **PERFORMANCE:** top speed 82 kph (head down position).







ABOVE, THE 98 T2 PRESENTED IN 1953 WAS THE MOST LUXURIOUS VERSION OF THE FIRST TYPE 98. TRIM INCLUDED LIGHT ALLOY WHEELS, CRASH BARS EITHER SIDE OF THE ENGINE, A SPRUNG SEAT AND WIDE OPEN HANDELBARS. BELOW, A 98 SS WITH THE CHARACTERISTIC SMALL FAIRING AND OIL COOLER MOUNTED TO THE FRONT OF SUMP. THIS BIKE REALLY WAS DESIGNED TO GO. EQUIPMENT INCLUDED A 20 MM CARBURETTOR, A 10:1 COMPRESSION RATIO AND A TOP SPEED OF OVER 90 KPH.



THE TURISMO LUSO MODEL OF 1956-58. A TUBULAR FRAME REPLACED THE ORIGINAL PRESSED STEEL VERSION BUT THE ENGINE KEPT THE OVERHUNG CONFIGURATION.

RIGHT, A 98 USED SUCCESSFULLY IN ENDURANCE EVENTS DURING THE 1954 SEASON.



THIS CUTAWY ENGINE VIEW SHOWS THE ROCKER ARM AND PUSHROD VALVE GEAR WITH THE STEEPLY ANGLED ROCKER ARMS TO THE REAR OF THE CYLINDER PRACTICALLY TOUCHING THE INLET MANIFOLD.

