



TECHNICAL NETWORK LEADERSHIP

100 CC ACI 100

Datasheet

Reference : 754650

GENERAL CHARACTERISTICS

SPECIFICATIONS :

Company name : Speedfight 100 cc  
Mines type \*\* : S2A variant B  
(\*\* official French body responsible for regulating weights and measures and changes made to motor vehicles)

DIMENSIONS (in mm) :

Length : 1730  
Width : 700  
Height (without rear-view mirrors) : 1155  
Ground clearance : 155  
Wheel base : 1225

WEIGHT (in kg) :

Laden weight : 101

STEERING :

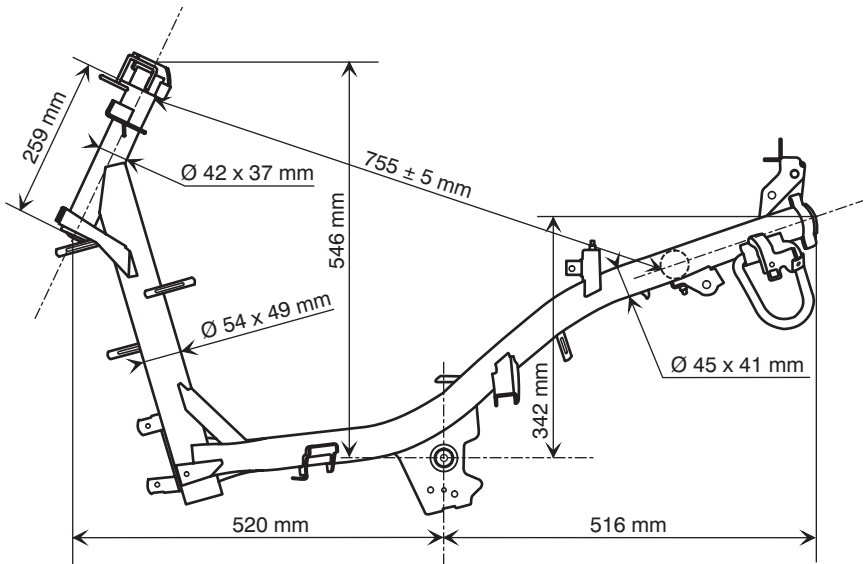
Steering column mounted with ball-bearing cone and cup.

CAPACITIES (in litres) and RECOMMENDATIONS :

Fuel tank (including reserve) : 7 : super unleaded petrol (95 or 98) only  
Oil sump : 1,3 : semi-synthetic or synthetic for two-stroke engines with separate oiling. Complies with API TC or JASO FC standards  
Crankcase : \*  
Cooling system : \*  
Relay box : 0,12 . SAE 80W90  
Fork : \*  
Braking circuit : DOT 3 or DOT 4

LUBRICATION :

Separate lubrication by piston pump, either variable delivery synchronised with the throttle grip, or constant delivery (depending on model). Driven by hobbed pinion on the right shank of the crankshaft. The oil is injected directly into the carburettor.



\* : not completed -

COOLING :

By air circulation forced by a turbine fixed on the rotor of the flywheel magneto.

ENGINE :

2-stroke single-cylinder  
Direct intake via reed valve into the crankcase.  
Scavenging by 5 transfers  
Cylinder capacity : 99,9 cm³  
Bore 1 shore : 50,6 x 49,7  
Max power : 6,4 KW  
Max power rating : 7000 rpm  
Max torque rating : 6000 rpm

TRANSMISSION :

By variable pulleys and V-type belt. 6-roller type drive pulley mounted on the left shank of the crankshaft. Fixed flange of the pulley equipped with cooling fins to cool the belt.  
Driven/centrifugal 3-block lined clutch pulley mounted on the end of the relay box input shaft.

RELAY BOX :

By shaft and pinions. Double set of pinions

- 1<sup>st</sup> gear teeth set : helical
- 2<sup>nd</sup> gear teeth set : helical

SUSPENSION :

Front suspension type: single arm fork with hydraulic spring shock absorber unit  
Travel : 85 mm  
Rear suspension type : single spring hydraulic shock absorber unit  
Travel : 68 mm

FRONT BRAKE :

Single disc type, hydraulic control.  
Diameter of the brake piston : 30 mm  
Disc diameter and thickness : 180 - 3,5 mm  
Min thickness : 3 mm  
Diameter of the master-cylinder : 11 mm

REAR BRAKE :

Single disc type, hydraulic control.  
Diameter of the brake piston : 30 mm  
Disc diameter and thickness : 180 - 3,5 mm  
Min thickness : 3 mm  
Diameter of the master-cylinder : 11 mm

WHEELS AND TYRES :

Integral aluminium wheels an tubeless tyres.

Rim dimensions :	3'' x 12''	3,5'' x 12''
Tyres dimensions :	120/70 - 12	130/70 - 12
Pressures (bar) :	1,3	1,6
Max wheel disc :	0,8 mm	0,8 mm
Balance :	*	*

TIGHTENING TORQUES (Nm) :

ENGINE :

Cylinder head : 12 to 15  
Exhaust mounting on the cylinder : 15 to 18  
Crankcase : 8 to 12  
Spark plug : 20

CYCLE PART :

Engine mounting on connecting rod : 57 to 70  
Front wheel : 60 to 70  
Upper nut on the steering column : 70 to 80  
Rear wheel : 100 to 120  
Shock-absorber mounting. front, upper : 43 to 50  
Inner : 20 to 25  
Shock-absorber mounting. rear, upper : 43 to 50  
Inner : 20 to 25  
Front brake calliper : 25 to 35  
Rear brake calliper : 27 to 32  
Front brake disc : 25 to 35  
Rear brake disc : 27 to 32

ADJUSTEMENTS AND CHECKS :

CYLINDER / PISTON :

Ring gap clearance.  
Upper : 0,3 to 0,45 mm  
Lower : 0,3 to 0,45 mm

CONNECTING ROD / CRANKSHAFT :

Crankshaft run-out : 0,12 mm

CARBURATION :

Carburettor.  
Make : type : DELL'ORTO PHVA 17,5 ES  
Adjustment n° : 1434  
Main jet : 83  
Idle jet : 30  
Needle (type and adjustment step) : A11 2<sup>nd</sup> position  
Starter jet : 65  
Mixture screw : 1 rev 3/4  
Idle adjustment : 1600 rpm ± 100  
CO² % adjustment : \*

IGNITION :

Ignition unit : ACI 100 MAGNETI MARELLI  
Spark plug : NGK BR8ES or EYQUEM R1000L  
Electrode gap : 0,6 to 0,7 mm  
Ignition advance : variable  
Ignition coil : TEC MP11 or T11C X7A  
Primary winding resistance : 0,26Ω ± 20%  
Secondary winding resistance : 3KΩ ± 20%  
Spark plug cap resistance : 5KΩ ± 10%  
Pick-up resistance : 120Ω ± 10%

ELECTRICAL EQUIPMENT :

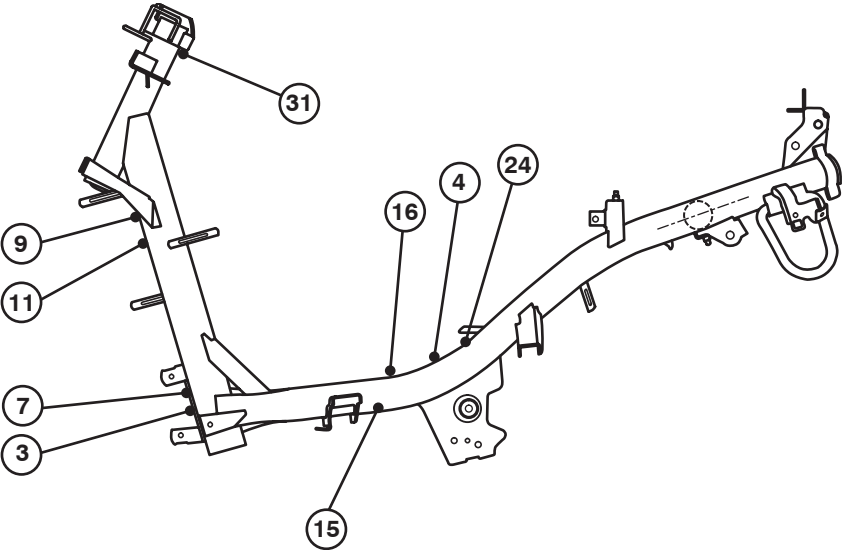
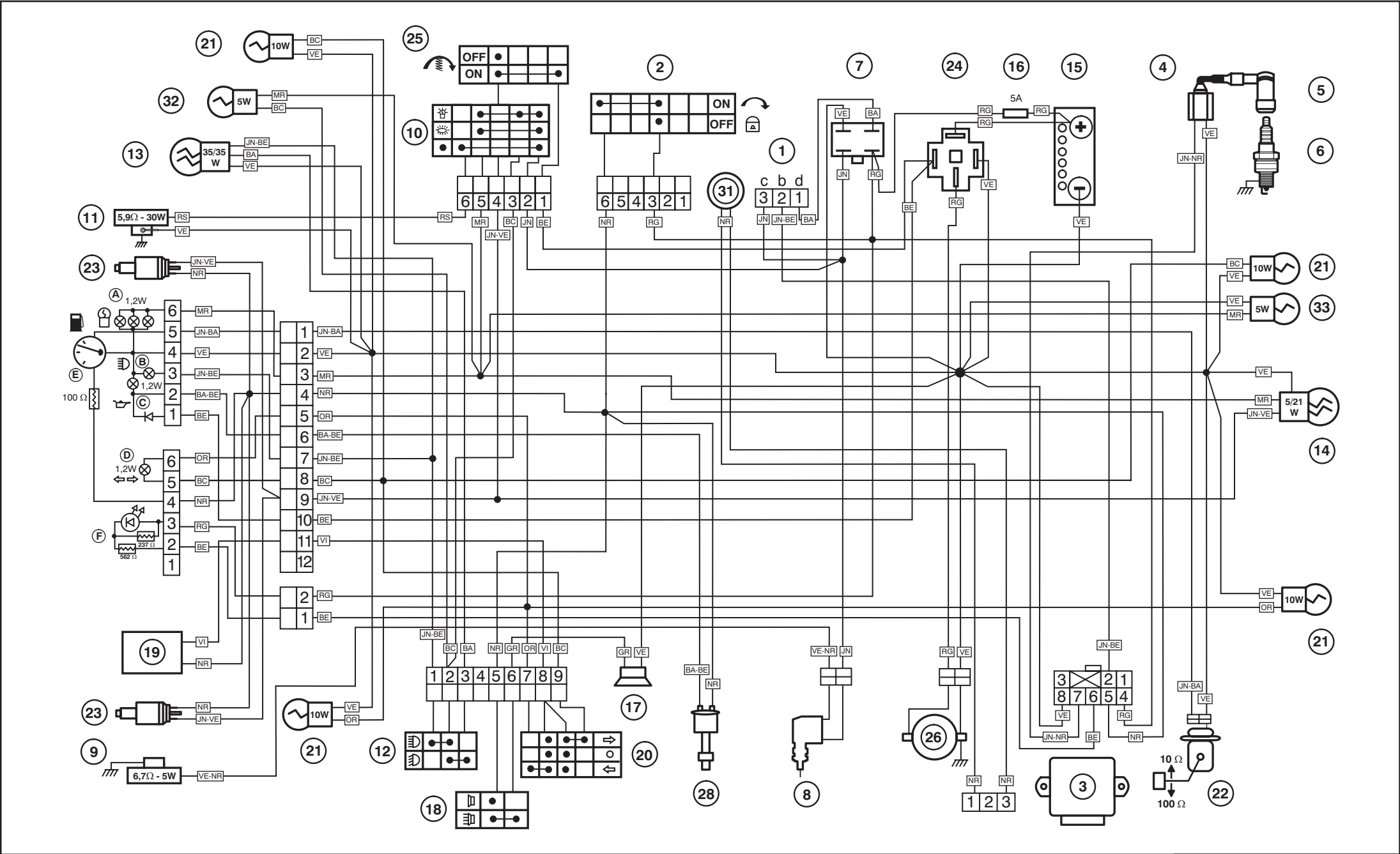
Current generator (type and power) : GF10 - 232 - 90W  
Make : MITSUBA  
Stator resistance : yellow wire 0,6Ω ± 25% -  
white wire 0,7Ω ± 25%  
Battery regulation voltage : 14,5 ± 0,5V  
Battery (type and capacity) : YT5L-BS 12V 4Ah  
Lighting voltage : alternating current regulation at : 13,1 ± 0,5V

STARTER :

Power and type : 300W SM 5  
Make : MITSUBA

LIGHTING AND FUSES :

Headlamp (code light) :	1	12V - 35/35W
Rear stop lamp :	1	12V - 21/5W
Indicator lamps :	4	12V - 10W
Number plate lightning :	1	12V - 5W
Dash board lighting :	3	12V - 1,2W
Instrument panel indicator lamps :	3	12V - 1,2W
Main fuse :	1	5A
Signalling fuse :	*	*
“Side light” bulb :	1	12V - 5W



- A Instrument panel lightning

B Main beam control

C Oil level warning light

D Indicator control light

E Fuel gauge

F LED “Anti-theft device”

G Temperature gauge

H Warning light “Reserve”

J Oil-pressure warning light
- 1) Generator

a : Ignition coil (inner)

b : Pickup

c : Alternating current

d : Battery charge current
- 2) Ignition switch

3) CDI Unit

4) Ignition coil (high voltage)

5) Spark plug socket (resistive) 5 KΩ

6) Spark plug (resistive) 5 KΩ
- 7) Regulator - rectifier

(A): Regulator AC

(B): (Regulator) - rectifier DC

8) Automatic choke

9) Resistor (in line with choke)

6,7 Ω - 5 W

10) Light switch

11) Resistor (parallel to lightning)

5,9 Ω - 30 W

12) Dip switch (main / low headlight)

13) Headlight

14) Stop- / tail-light

15) Battery

16) Fuse

17) Horn

18) Horn switch

19) Indicator relay

20) Indicator switch

21) Indicator bulb

22) Fuel gauge pickup
- 23) Stop light switch

24) Starter relay

25) Starter switch

26) Starter motor

27) Current limiter

28) Oil level switch

29) Temperature sensor

30) Immobilizer

31) Antenna for anti-theft device

32) “Side light” bulb

33) Number plate light

34) Lateral stand switch

35) Emergency switch (ignition)

36) “Neutral” switch (gearbox)

37) Oil pressure switch

38) Cooling fan

39) Thermo-switch cooling fan

40) Electrical carburettor heating

41) Power supply unit

42) Switch “Reserve”

- BA :

BA-BE :

BA-NR :

BC :

BE :

GR :

JN :

JN-BA :

JN-VE :

JN-NR :

JN-VE :

MR :

NR :

OR :

RG :

RG-NR :

RS :

VE :

VE-NR :

VI :
- White

White/Blue

White/Black

Light Blue

Blue

Grey

Yellow

Yellow/White

Yellow/Green

Yellow/Black

Yellow/Green

Brown

Black

Orange

Red

Red/Black

Pink

Green

Green/Black

Purple