



TECHNICAL NETWORK LEADERSHIP

50 CC AEC 400

Datasheet

Reference : 754642

GENERAL CHARACTERISTICS

SPECIFICATIONS :

Company name : Speedfight

Mines type ** : S1B100 variant A (air) and variant B (liquid)

(** 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 : variant A - 95

variant B - 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 : 1,2 . -25°

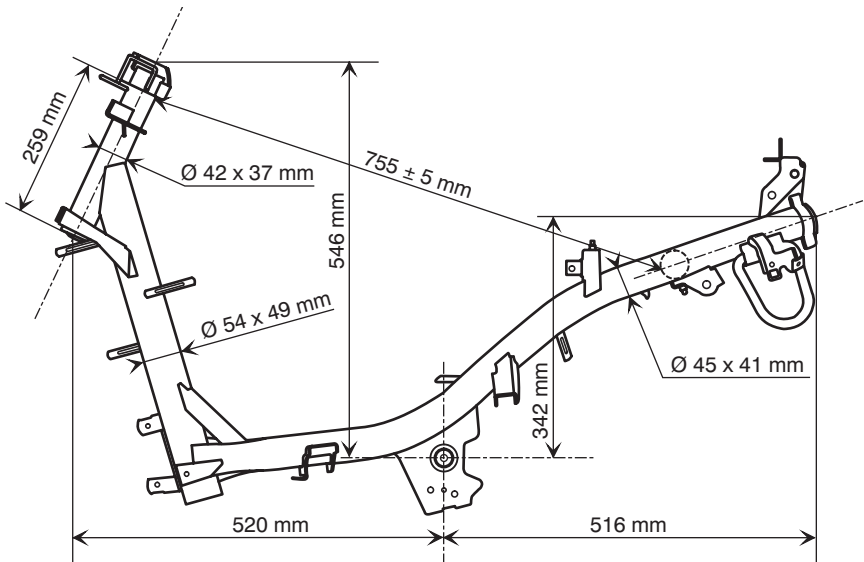
Relay box : 0,12 . SAE 80W90

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 hobbled 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. Variant A

By water circulation forced by a pump driven by the rotor on the flywheel magneto.

Pressurised closed circuit with pump, radiator, thermostat and expansion tank. Variant B

ENGINE :

2-stroke single-cylinder

Direct intake via reed valve into the crankcase.

Scavenging by 5 transfers

Cylinder capacity : 49,1 cm³

Bore 1 shore : 40 x 39,1

Max power : 3,5 KW

Max power rating : 7000 to 7200 rpm

Max torque rating : 6600 to 6900 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

- 1st gear teeth set : helical
- 2nd gear teeth set : straight

SUSPENSION :

Front suspension type : single arm fork with hydrtaulic 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 (depending on model) :

Single cam drum type controlled by cable.

Brake drum diameter : 110 mm

Brake lining thickness : 4 mm

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 : 0,2 to 0,35 mm

Lower : 0,2 to 0,35 mm

CONNECTING ROD / CRANKSHAFT :

Crankshaft run-out : 0,12 mm

CARBURATION :

Carburettor.

Make : type : GURTNER PA

Adjustment n° : variant A : 360 variant B : 370

Main jet : 72

Idle jet : 36

Needle (type and adjustment step) : L3035H first notch

Starter jet : 50

Mixture screw : 1 rev 1/8

Idle adjustment : 1500 rpm \pm 100

CO₂ % adjustment : *

IGNITION :

- Ignition unit : AEC 400 MAGNETI MARELLI
- Spark plug : NGK BR7HS or EYQUEM R 850
- 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 :

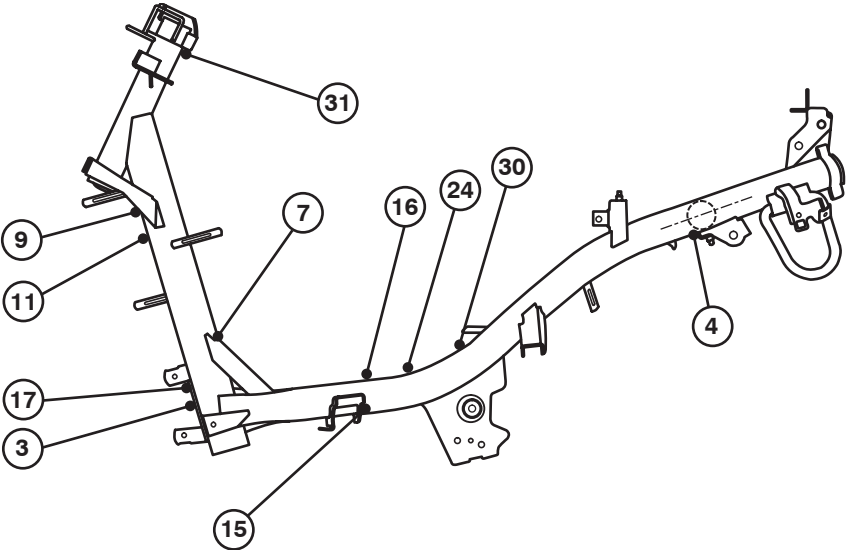
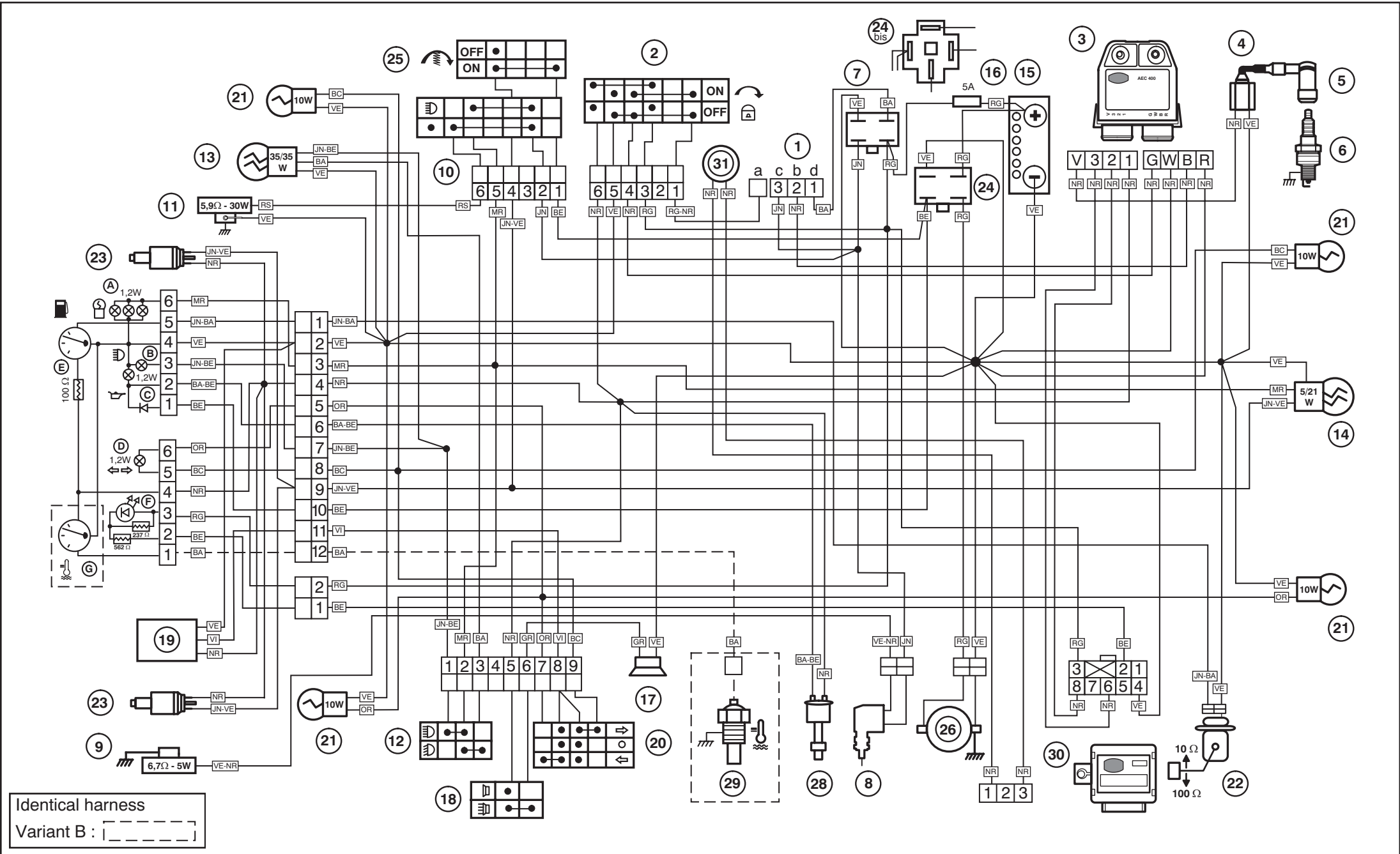
- Current generator (type and power) : GF4 - 276 - 55W
- Make : MITSUBA
- Stator resistance : yellow wire 0,6Ω ± 25% - white wire 0,7Ω ± 25%
- Battery regulation voltage : 14,5 ± 0,5V
- Battery (type and capacity) : YT4 - LB 12V 4Ah
- Lighting voltage: alternating current regulation at : 13,1 ± 0,5V

STARTER :

- Power and type : 150W SM10254
- 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 :	*	*
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) 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 : White
- BA-BE : White/Blue
- BA-NR : White/Black
- BC : Light Blue
- BE : Blue
- GR : Grey
- JN : Yellow
- JN-BA : Yellow/White
- JN-VE : Yellow/Green
- JN-NR : Yellow/Black
- JN-VE : Yellow/Green
- MR : Brown
- NR : Black
- OR : Orange
- RG : Red
- RG-NR : Red/Black
- RS : Pink
- VE : Green
- VE-NR : Green/Black
- VI : Purple