



TECHNICAL NETWORK LEADERSHIP

50 cc TSDI SBC2/Racing

Datasheet

Reference : 756598

GENERAL CHARACTERISTICS :

SPECIFICATIONS :

Company name : Jet Force 50cc
Mines type **: A1AAJA (Racing)
A1AAJB (SBC2)
(*official French body responsible for regulating weights and measures and changes made to motor vehicles).

DIMENSIONS (in mm) :

Length : 1914
Width : 740
Height (without rear-view mirrors) : 1172
Ground clearance : 137
Wheel base : 1314

WEIGHT (in kg) :

Laden weight : 115

STEERING :

Steering column mounted with ball-bearing cone and cup.

CAPACITIES (in litres) and RECOMMENDATIONS :

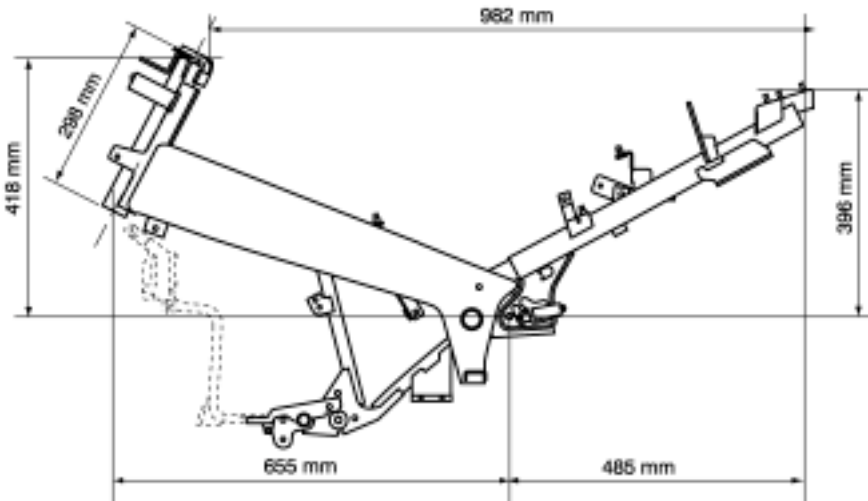
Fuel tank (including reserve) : 8 : super unleaded petrol (95 or 98) only.
Oil sump : 1,2 : semi synthetic for two stroke engines with separate oiling. Complies with API TC or ISO EGC or ISO EGD.
Crankcase : *
Cooling system : 1,3
Relay box : 0,12 . SAE 80W90
Fork : 0,12 per tube (ESSO UNIVIS 46 or AGIP H LIFT 46)
Braking circuit : DOT 4

LUBRICATION :

Separate lubrication by electric pump
MIKUNI ESOP-03 driven by the control
unit. The oil is injected directly into the
inlet hose.

COOLING :

Cooling by pump driven water circulation
driven by the rotor of the flywheel magneto.
Pressurized, sealed circuit with pump, radiator,
expansion tank and thermal switch.



* : Not completed

ENGINE :

2 stroke single-cylinder. Direct injection and catalyser.
Direct intake via valves into the crankcase.
Scavenging by 5 transfers.
Cylinder capacity : 49,9 cm³
Bore 1 shore : 39,9 x 39,8
Max power : 3,75 kW
Max power rating : 7500 rpm
Max torque rating : 6500 rpm

TRANSMISSION :

By 2 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 : helical.

SUSPENSION :

Front suspension type : hydraulic telescopic fork.
Travel : 85 mm
Rear suspension type : 1 central combined hydraulic spring-
shock absorber.
Travel : 95 mm

MAIN BRAKE :

Integral braking with hydraulic control actuated from the left
hand lever. Equipped with a double exit master cylinder, it
controls simultaneously the front calliper's circuit and one of
the rear calliper's circuit through a pressure limiter.
Diameter of brake pistons :
Front calliper : 30 mm
Rear calliper : 30 mm
Discs diameter and thickness :
Front disc : 226–4 mm
Rear disc : 190–3,5 mm
Mini thickness :
Front disc and rear disc : 3,5–3 mm
Diameter of the master-cylinder : 14,25 mm
Pressure limiter : 22 bars

EMERGENCY BRAKE :

Brake with hydraulic control actuated from the right hand
lever. It's a conventional brake hand lever with a master
cylinder which controls one of the rear brake's calliper.
Diameter of the brake piston : 30 mm
Diameter of the master cylinder : 12mm

FRONT BRAKE :

Single disc type, hydraulic control.
Diameter of the brake pistons : 32 mm
Disc diameter and thickness : 226 – 4 mm
Mini thickness : 3,5 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 : 190 – 3,5 mm
Mini thickness : 3 mm
Diameter of the master-cylinder : 12 mm

WHEELS AND TYRES :

Integral aluminium wheels and tubeless tyres.

	Front	Rear
Rim dimensions :	3" x 13"	3,5" x 13"
Tyres dimensions :	130/60 - 13	130/60 - 13
Pressures (bar) :	2	2,2
Maxi 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 rear, upper : 43 to 50
Lower : 20 to 25
Front / rear brake calliper : 25 to 35
Front / rear brake disc : 27 to 32

ADJUSTMENTS AND CHECKS :

CYLINDER / PISTON :

Ring gap clearance.
Upper : 0,025 ± 0,01 mm
Lower : 0,025 ± 0,01 mm

CONNECTING ROD / CRANKSHAFT :

Crankshaft run-out : 0,05 mm

SUPPLY CIRCUIT :

Gas pump : Synerject 5,2 l/h : 358
Pressure regulator to 2,5 bar driven by air pressure
Gas injector : green Siemens 37.028 0,67 g/s to 2,5 bar
Air injector : blue Synerject 37.073
Compressor : Synerject
Disc box : Bing 235
Temperature probe : Synerject

IGNITION :

Ignition and injection control unit : Synerject
Spark plug : NGK CPR8E
Electrode gap : 0,55 mm
Ignition advance : cartographic
Ignition coil : Synerject
Primary winding resistance : 0,63 Ω ± 20%
Secondary winding resistance : *
Spark plug cap resistance : 5 kΩ ± 20%
Pick-up resistance : 120 Ω ± 10%

ELECTRICAL EQUIPMENT :

Current generator (type and power) : three-phase Ø 102 - 162W
Make : MITSUBA
Stator resistance : 0,9 Ω between the phases
Battery regulation voltage : 14 ± 0,5V
Battery (type and capacity) : 6B3P or YBZA . 12V 8Ah

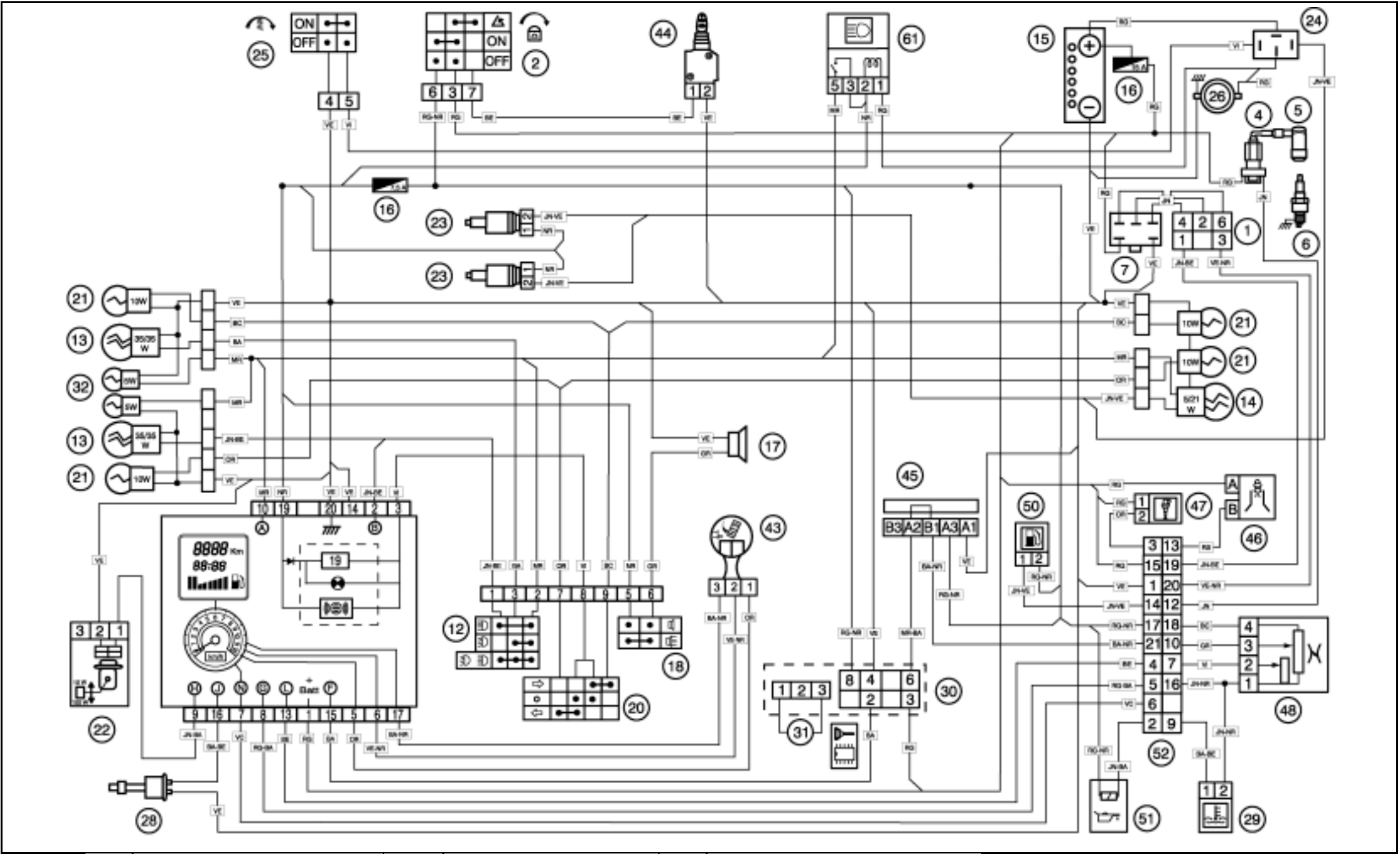
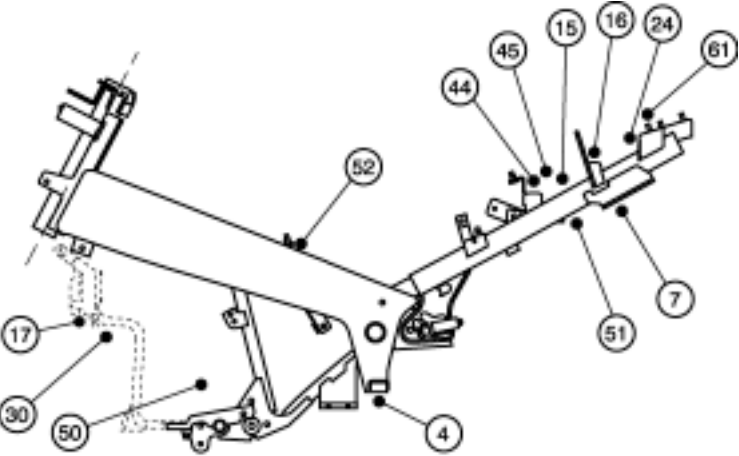
STARTER :

Power : 250W
Make : MITSUBA

LIGHTING AND FUSES :

	Quantity	Power
Headlamp (code light) :	2	12V – 35/35W
Red stop lamp :	1	12V - 21/5W
Indicator lamps :	4	12V - 10W (1)
Number plate lightning :	*	*
Dash board lighting :	*	Leds
Instrument panel indicator lamps :	*	Leds
Main fuse :	1	15A
Signalling fuse :	1	7,5A
"Side light" bulbs :	2	12V - 5W

(1) Yellow bulb



A	Instrument panel lightning	14)	Stop /tail light	38)	Cooling fan
B	Main beam control	15)	Battery	39)	Thermo-switch cooling fan
D	Indicator control light	16)	Fuses	42)	Switch "Reserve"
E	Fuel gauge	17)	Horn	43)	Speed sensor
F	LED "Anti theft device"	18)	Horn switch	44)	Saddle actuator
G	Temperature gauge	19)	Indicator relay	45)	Diagnostic plug
H	Warning light "reserve"	20)	Indicator switch	46)	Air injector
J	Oil pressure	21)	Indicator bulb	47)	Fuel injector
K	Watch	22)	Fuel gauge pickup	48)	Disc box
L	EFI diagnostic light	23)	Stop light switch	50)	Fuel pump
M	ABS/PBS light	24)	Starter relay	51)	Oil pump
N	Revolution counter	25)	Starter switch	52)	Ignition and injection control unit
1)	Generator	26)	Starter motor	53)	Idle valve
2)	Ignition switch	28)	Oil level switch	54)	Air temperature and altimetric sensor
4)	Ignition coil (high voltage)	29)	Temperature sensor	55)	Blinking light relay
5)	Spark plug socket (resistive) 5 kΩ	30)	Immobilizer	56)	Warning relay
6)	Spark plug (resistive) 5 kΩ	31)	Antenna for anti-theft device	57)	ABS/PBS relay
7)	Regulator, rectifier	32)	"Side light" bulb	58)	Fuel pump relay
10)	Light switch	33)	Number plate light	59)	Warning control
12)	Dip switch (main/low headlight)	36)	"Neutral" switch (gearbox)	60)	ABS/PBS
13)	Headlight	37)	Oil pressure switch	61)	Light relay

BA :	White	VE :	Green
BA-BE :	White/Blue	VE-NR :	Green/Black
BA-NR :	White/Black	VI :	Purple
BC :	Light blue		
BE :	Blue		
GR :	Grey		
JN :	Yellow		
JN-BA :	Yellow/White		
JN-BE :	Yellow/Blue		
JN-NR :	Yellow/Black		
JN-VE :	Yellow/Green		
MC :	Light Brown		
MR :	Brown		
MR-BA :	Brown/White		
NR :	Black		
OR :	Orange		
RG :	Red		
RG-BA :	Red/White		
RG-JN :	Red/Yellow		
RG-NR :	Red/Black		
RS :	Pink		
VC :	Light Green		