

**vespa of america corporation**  
**PIAGGIO GROUP**



# **Assembly and Preparation Manual**

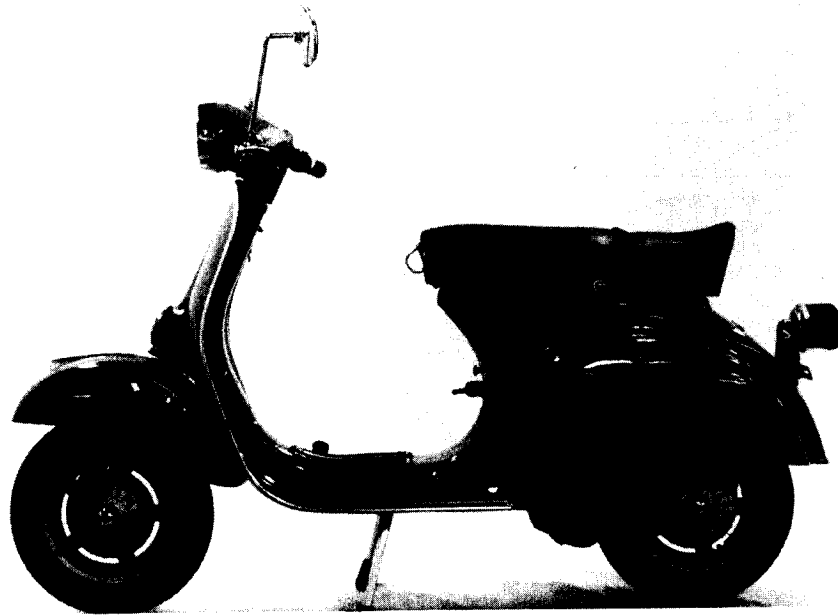
**Vespa Motorscooter:**

50

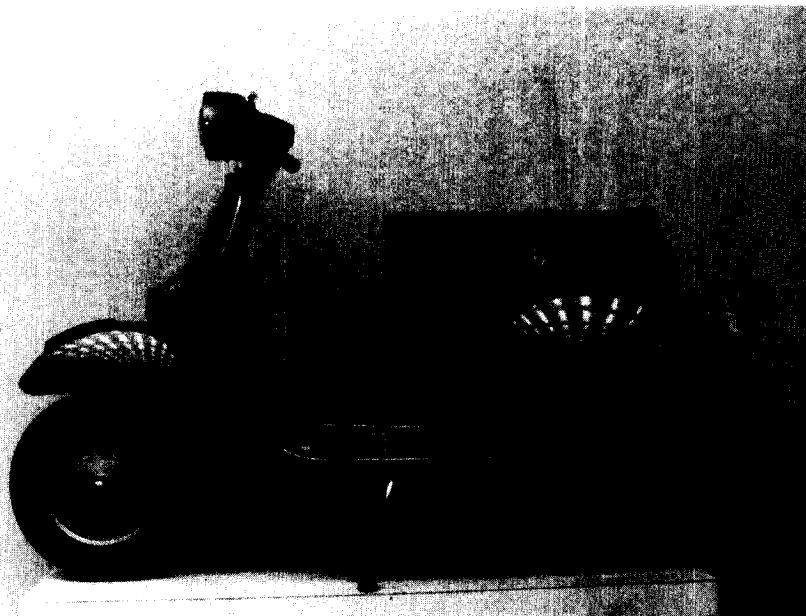
*special*

P125X

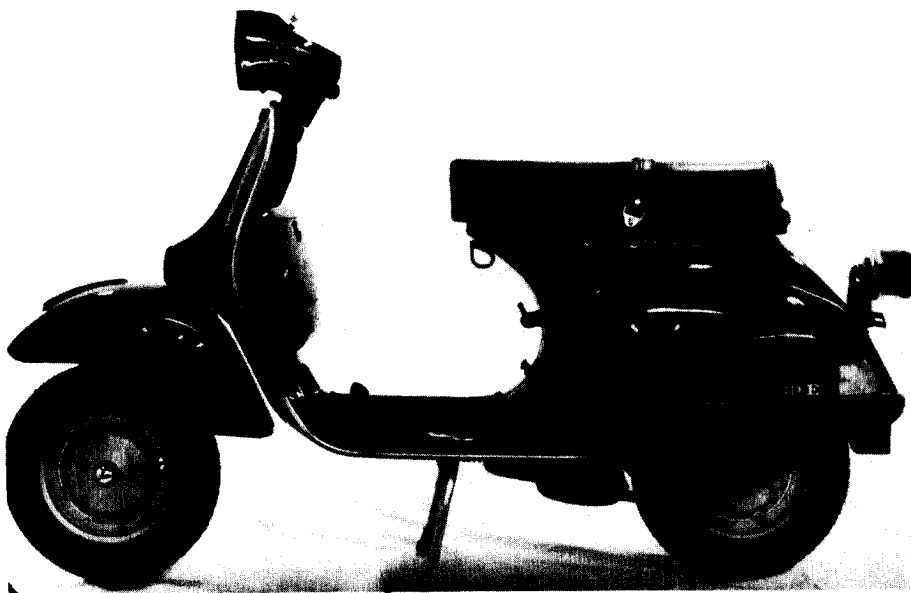
P200E



■ V5B3T



■ VNX1T



■ VSX1T

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# I. VEHICLE IDENTIFICATION

All Vespa Scooters have prefixes that precede both the frame and engine numbers. These prefixes correspond to the following commercial identification:

	FRAME PREFIX	ENGINE PREFIX
Vespa 50 special	V5B3T	V5A4M
Vespa P125X	VNX1T	VNL3M
Vespa P200E	VSX1T	VSE1M

Each model of scooter will be referred throughout this manual by the corresponding Frame Prefix. Vehicle application for each Section is indicated by ■ .

### III. FRAME AND ENGINE NUMBER LOCATION

#### ■ V5B3T

The **frame number** can be found stamped on the body, on the right side just above the engine. It is necessary to remove the engine side cover to see the number. (Fig. 2)

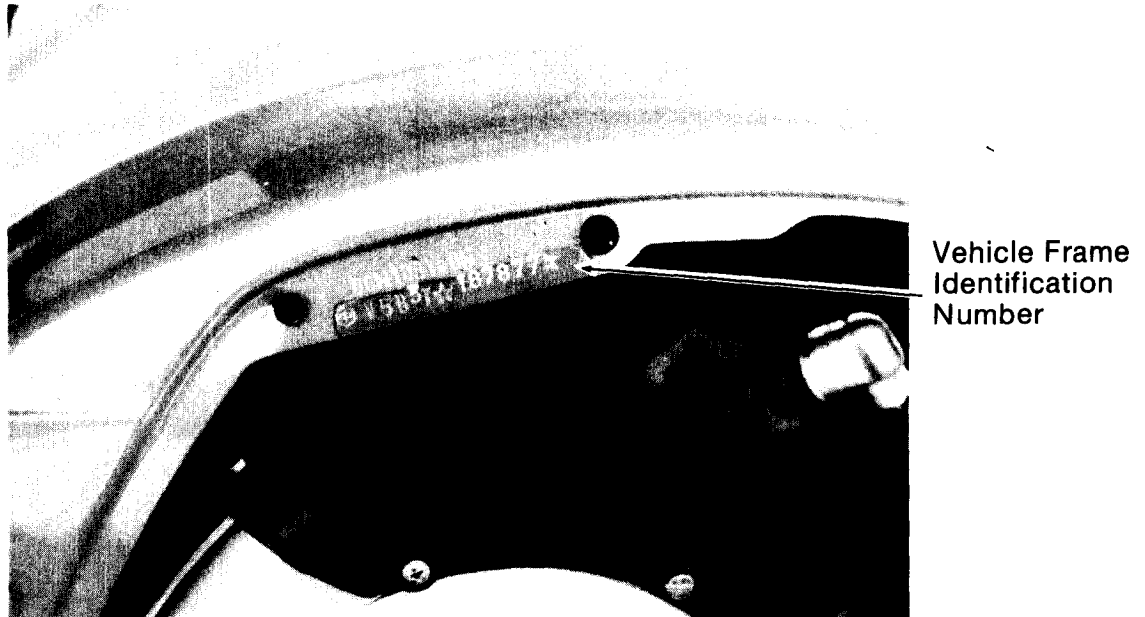


Fig. 2

#### ■ V5B3T

The **engine number** is stamped on the rear of the crank case, next to the oil fill plug, and just below the shock absorber mount. (Fig. 3)

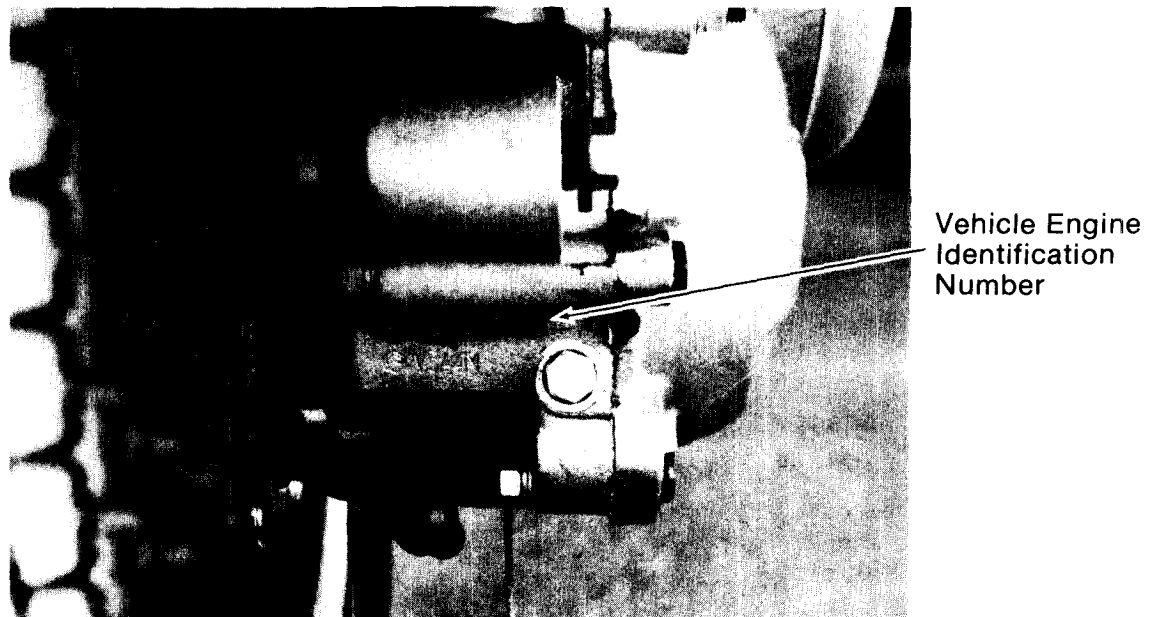
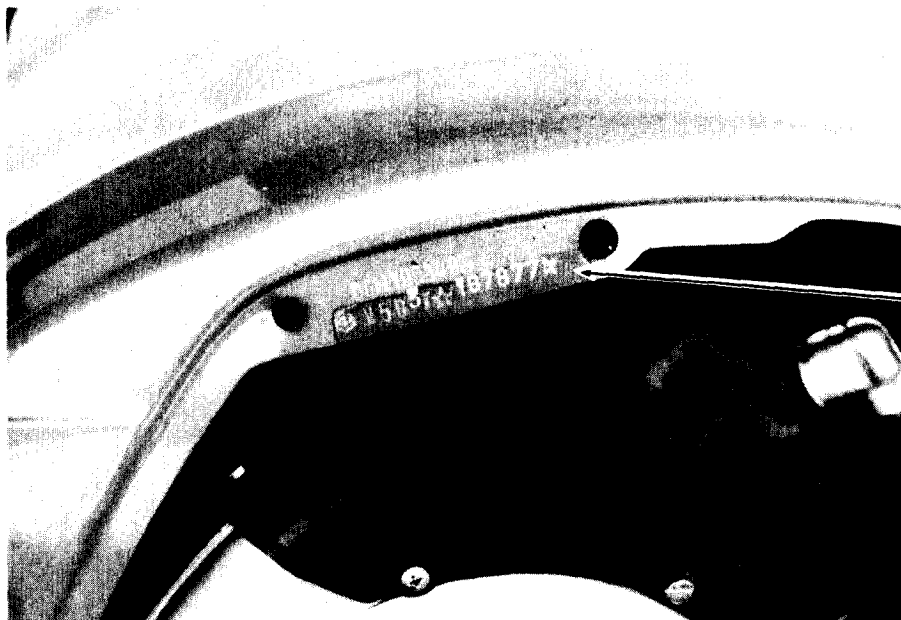


Fig. 3

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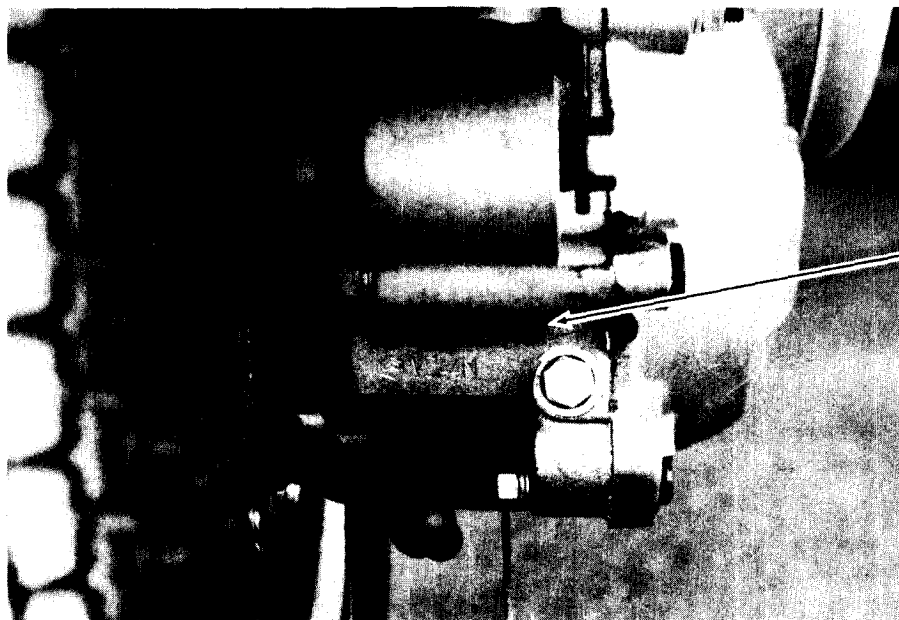


Vehicle Frame  
Identification  
Number

Fig. 2

#### ■ V5B3T

The **engine number** is stamped on the rear of the crank case, next to the oil fill plug, and just below the shock absorber mount. (Fig. 3)



Vehicle Engine  
Identification  
Number

Fig. 3

## IV. ASSEMBLY AND PREPARATION

### FRONT WHEEL

#### ■ VNX1T    ■ VSX1T

- Step #1. Insert the inner tube into the tire and inflate with just enough air so the tube fills the inside of the tire.
- Step #2. Locate the half of split rim assembly that has a hole provided for the inner tube valve stem. Mount this half of the rim to the tire, so the valve stem goes through the hole and crosses over the rim pointing to the opposite side of the tire.
- Step #3. Mount the other half of the rim to the tire, aligning the notch for the valve stem and the holes for the lugs.
- Step #4. Bolt the two halves together with a lock washer and nut, and cross tighten to 40 foot pounds. Inflate the tire to 17 psi.
- Step #5. Mount the tire-wheel assembly to the drum with a lock washer and nut, and cross tighten to 40 foot pounds.

#### ■ V5B3T

- Step #1. Vehicle arrives with front wheel assembly fully intact and mounted on front wheel hub.
- Step #2. Check tire pressure.



If wheel lug nuts are not tightened as specified, damage to components or personal injury could result.

### TAIL LIGHT

#### ■ V5B3T    ■ VNX1T    ■ VSX1T

- Step #1. Mount the tail light to the bracket with the wiring sequence as follows: (see Fig. 6)
  - a. blue wire to the (S) terminal.
  - b. green wire to the (T) terminal.
  - c. black wire to the (G) terminal, with opposite end fastened underneath a mounting bolt.

## IV. ASSEMBLY AND PREPARATION

CONTINUED

### BATTERY CHARGING

■ V5B3T    ■ VNX1T    ■ VSX1T

- Step #1. Fill battery to proper level with electrolyte solution and let stand for one hour. If level drops, top off with electrolyte solution to required level.
- Step #2. Charge battery at charge rate of 1/10 of capacity for a minimum of 8 - 10 hours. (Refer to battery instruction sheet for proper charging period.)
- Step #3. If after charge level of electrolyte solution has dropped, top off to required level with distilled water.
- Step #4. Reinstall battery in vehicle and attach red lead to positive terminal and black lead to negative. Coat terminals with vaseline for protection.

**WARNING**

During charging of battery, hydrogen forms, which can ignite if exposed to any type of flame.

### OIL/FUEL RATIO

■ V5B3T

This model of scooter requires a pre-mix of oil and gasoline at a ratio of 2% (2.6 ounces oil per one gallon of gasoline). It is recommended that all mixing of gasoline and oil be accomplished in a secondary container and vehicle fuel tanks should be filled from that source. **DO NOT MIX THE OIL AND GASOLINE IN THE VEHICLE GAS TANK.**

■ VNX1T    ■ VSX1T

These two models of scooters have automatic oil injection, that mixes 2 cycle motor oil with gasoline at a ratio of 2%.

We recommend using "Power Stroke" synthetic 2-cycle oil. This oil is formulated to give minimum piston ring varnish and carbon deposits, along with excellent lubrication qualities.

**WARNING**

Gasoline fumes are heavier than air and can become explosive if exposed to a pilot light from a furnace, hot water heater, clothes dryer, etc. Mix fuel and fill the fuel tank only in an area that is well ventilated and free from pilot lights and sparks.

## IV. ASSEMBLY AND PREPARATION

CONTINUED

### ADDITIONAL ITEMS

Final steps for vehicle set-up:

- Step #1. Check vehicle appearance.
- Step #2. Check all cables and their adjustments.
- Step #3. Check tire pressure (17 psi — front and 35 psi — rear).
- Step #4. Mount mirror on L.H. side.
- Step #5. Check for oil cup (V5B3T), Owner's Manual, and tool box.
- Step #6. Road test vehicle for performance and handling.

When test riding the vehicle, make the following operational checks:

**ENGINE:** The engine, once warm, should start easily. There should be good throttle response without any hesitation. Listen for any unusual noises that may need attention (ex: knocking, rattles, etc.).

**CABLES:** All control cables, throttle, and brakes, should operate freely and return without binding. Make this check with the steering in all positions.

**SWITCHES:** Emergency stop switches, key switches, etc., should be checked in both on and off positions.

**BRAKES:** With the cables adjusted properly, the brakes should give smooth, sure stopping when applied. It may be desirable to readjust the brakes by taking in any slack in the cables, so as not to leave excessive play in the brake levers.

**LIGHTS, TURN SIGNALS, HORN:** Make sure high and low beam of headlight is operational. Check to see that the tail light works and that the stop light is activated when brakes are applied. Make sure horn functions properly.

**RIDE POSITION:** Check the seat and handlebar positions, so that the rider has easy access to all controls, and can assume a safe and comfortable riding position.



Do not maintain full throttle during break-in period, as engine damage may result.

## VII. VEHICLE SPECIFICATIONS

		V5B3T	VNX1T	VSX1T
<b>ENGINE:</b> 2-cycle, Single Cylinder, Rotary Valve Induction				
Displacement	49.28 cc	X		
	123.4 cc		X	
	197.97 cc			X
Bore	38.4 mm	X		
	52.5 mm		X	
	66.5 mm			X
Stroke	43 mm	X		
	57 mm		X	X
Lubrication	2% oil premix	X		
	2% oil mix (automatic)		X	X
Piston/Cylinder Clearance	.004"	X		
	.005"		X	
	.008"			X
Compression/Ratio	128/7.2 to 1	X		
	110/8.2 to 1		X	
	10.5 to 1			X
Piston Ring End Gap	.003" to .009"	X		
	.007" to .009"		X	X
Head Bolt Torque	130 to 156 in. lbs.	X		
	156 in. lbs.		X	X
Carburetor	SHA 16	X		
	SI 20		X	
	SI 24			X
Main Jet	51	X		
	100		X	
	112		X	
<b>ELECTRICAL SYSTEM:</b> Flywheel Magneto				
Point Gap	.022"	X		
	.011" to .019"		X	
Timing	19° BTDC	X		
	21° BTDC		X	
	23° BTDC			X
Spark Plug (Bosch)	W225T1	X	X	
	W225T2			X

## VII. VEHICLE SPECIFICATIONS

CONTINUED

**FUEL CONSUMPTION:** (CUNA Standard)

Mileage may vary according to riding conditions, rider's weight, and the condition of the scooter.

up to: 165 mpg.  
128 mpg  
78 mpg

**RANGE:** (CUNA Standard)

Range may vary according to riding conditions: rider's weight, and the condition of the scooter

up to: 226 miles  
250 miles  
165 miles

V5B3T	VNX1T	VSX1T
X	X X	
X	X	X