| California Environmental Protection Agency AIR RESOURCES BOARD | ASIAN VENTURES, INC. | EXECUTIVE ORDER U-M-023-0001 New Emission-Compliant All-Terrain Vehicles Certified Using The Optional Engine Test Procedure |
|---|---|---|

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the engine and exhaust emission control system produced by the manufacturer are certified as described below for all-terrain vehicles. Production vehicles, and engines that power such vehicles, shall be in all material respects the same as those for which certification is granted. **The manufacturer shall ensure that character "C" or "3" is not used in the eighth (8th) position of the vehicle identification number (VIN) of all vehicles in the engine family listed below. Violation of this VIN provision may result in incorrect registration of the vehicles.**

| MODEL YEAR | ENGINE FAMILY | ENGINE DISPLACEMENT (cc) | VEHICLE TYPE | FUEL TYPE | SPECIAL FEATURES & EMISSION CONTROL SYSTEMS |
|---|---|---|---|---|---|
| 2005 | 5AVIX.150SB1 | 150, 169 | ATV | Gasoline | EM |

ATV=all-terrain vehicle OFMC=off-road motorcycle EM=engine modification TWC=three-way catalyst OC=oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection SPI=single point injection TC/SC=turbo/super charger CAC=charge air cooler 2 (prefix)=parallel (2) (suffix)=in series

| VEHICLE MODELS / ENGINE CODES (rated engine power in horsepower, hp) | Overland (10.2 hp)<br>Summit (10.2 hp)<br>Cobra (10.2 hp) |
|---|---|

The following are the exhaust hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) standards, or designated HC+NOx standard as applicable, and certification levels in grams per brake horsepower-hour (g/bhp-hr) for this engine family. The designated HC+NOx standard, as applicable, shall be displayed on the permanent emission control label. Vehicles within this engine family, and engines that power such vehicles, shall not discharge any crankcase emissions into the ambient atmosphere in conformance with Title 13, California Code of Regulations, (13 CCR) Section 2412(i).

| HC+NOx (g/bhp-hr) | | | | CO (g/bhp-hr) | | * = not applicable |
|---|---|---|---|---|---|---|
| CORPORATE AVERAGE STANDARD | DESIGNATED STANDARD | (DIRECT) STANDARD | CERTIFICATION LEVEL | STANDARD | CERTIFICATION LEVEL | |
| * | * | 12.0 | 10.8 | 300 | 120 | |

**BE IT FURTHER RESOLVED:** That pursuant to 13 CCR Section 2412(e), the listed vehicles, and engines that power such vehicles, were tested in accordance with the incorporated small off-road engine test procedures, and have demonstrated compliance with the applicable emission standards.

**BE IT FURTHER RESOLVED:** That certification to the designated HC+NOx standard listed above, as applicable, is subject to the following terms, limitations and conditions:

The designated standard shall be the exhaust limit for this engine family for the model year and cannot be changed by the manufacturer. It serves as the exhaust standard applicable to this engine family for determining engine family compliance, and compliance with the corporate average HC+NOx standard in accordance with 13 CCR Sections 2412(b), (d) and (e) and 2414.

**BE IT FURTHER RESOLVED:** That the listed vehicles, and engines that power such vehicles, shall be subject to 13 CCR Section 2414 (enforcement and recall provisions).

**BE IT FURTHER RESOLVED:** That the listed vehicles, and engines that power such vehicles, shall comply with 13 CCR Sections 1965 and 2413 (emission control labels).

Vehicles, and engines that power such vehicles, certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Vehicles, and engines that power such vehicles, in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 8TH day of March 2005.

Allen Lyons, Chief
Mobile Source Operations Division

| CERTIFICATION SUMMARY | California Environmental Protection Agency **AIR RESOURCES BOARD** | EMISSION COMPLIANT OFF-ROAD MCs & ATVs |
|---|---|---|

**MODEL-YEAR** 05 **MANUFACTURER:** Asian Ventures, Inc. **EXECUTIVE ORDER:** U-M-023-0001

1. **EPA-Standardized Family Name:** 5AVIX.150SB1.
2. **Vehicle Category:** OFF ROAD ATV.
3. **All Sales Codes within Engine Family:** 50State
4. **All Engine Displacement(s) in Engine Family** (units in cubic centimeters, (cc)):

| 1) 150 | 2) 165 | 3) | 4) |
|---|---|---|---|

5. **Emission Standards Compliance:** [redacted]
6. If Corporate Averaging, list **Designated Standard:** _____ for _____.
7. **Engine Design:**

| | |
|---|---|
| a. Combustion Cycle: | 4 |
| @ Oil/Fuel Ratio | / |
| b. Engine Type: | |
| c. Valvetrain: | OHV |
| d. Total Number of Intake and Exhaust Valves (Ports) per Cylinder: | 2 |
| e. Type of Engine Cooling: | Air |
| f. Number of Cylinders: | 1 |
| g. Cylinder Arrangement: | Horizontal |

8. **Intake, Fuel and Emission Control Systems (ECS):**

| | |
|---|---|
| a. Aftertreatment(s): | / |
| b. Sensor(s): | / |
| c. Fuel System: | Carb. |
| d. Exhaust Gas Recirculation: | / |
| e. Method of Aspiration: | Air |
| f. Air Injection Reaction: | / |
| g. Others: | / |

9. **Deterioration Factors (DFs):** a. New Durability Testing: _____; Carryover from EF: 5AVIS.150SB1;
b. Durability Engine Model: 150SB ID: 3E0023; c. Durability Test Distance (km or hr): 125 hr;
d. Exhaust DF Values (no less than 1.000): HC+NOx: 1.37 _____; CO: 1.0.
10. **Certification Test Engine Information**: New Test: ____; Carryover from Engine Family: 5AVIS.150SB1
a. Test Vehicle or Engine: Model 150SB ID: 3E0023 Rated Power, hp: 10.2 @7200 rpm; Test Date: 11/25/03
b. Equivalent Inertia Mass (kg): / RLF(Nt): / Trans: / MPG: /.
c. Test Fuel Type: Indolene.
d. Special Test Equipment (e.g., cooling fans, special couplings, etc.): Yes/No: _____. If Yes, describe below:

11. **Certification Emission Levels**: HC: / HC+NOx: 10.823 CO: 120.37.

| Test No. and Type | Official Test Results in (G/BHP-hr): (raw data) (i.e., no DFs) | | | Certification Emissions in (G/BHP-hr): (i.e., with DFs applied) | | | |
|---|---|---|---|---|---|---|---|
| | HC | NOx | CO | HC | NOx | HC+NOx | CO |
| 1. Zero | 3.46 | 2.31 | 160.14 | / | / | 10.823 | 120.37 |
| 2. mid | 5.65 | 3.73 | 140.02 | / | / | / | / |
| 3. End | 5.15 | 2.75 | 120.37 | / | / | / | / |
| Standard: | | | | | | | |

**Remarks:**

**Issue Date:**_____ **Revision Date(s):**_____

**ARB USE ONLY**
Processed by: [signature] Date: 3-1-05 Reviewed by: K. Pryor Date: 3-1-05