

Joseph J.



California Environmental Protection Agency

**AIR RESOURCES BOARD**

**REWACO-TRIKES, LLC.**

**EXECUTIVE ORDER M-51-1**  
New On-Road Motorcycles

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

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 2001 model-year engine and emission control systems (ECS) produced by the manufacturer are certified as described below for four-stroke gasoline-powered motorcycles:

Engine Family   Evaporative Family   Displacement (cm<sup>3</sup>)   Class   ECS & Special Features

1RTLC01.6RWC   1RTLE0051RWC   1584   III   EM

Vehicle Models (Equivalent Inertia Mass):   HS4 Chopper A2S, HS4 Chopper A2H (each 560 kg)  
HS5 Family A2S, HS5 Family A2H (each 570 kg)

Production motorcycles shall be in all material respects the same as those for which certification is granted.

The exhaust emission standards and certification values in grams per kilometer for hydrocarbons (HC) and carbon monoxide (CO), and the HC evaporative (Evap) standard and certification value in grams per test for this engine/evaporative family are as follows:

	<u>HC</u>	<u>CO</u>	<u>Evap HC</u>
<u>Standard: (Effective Standard)</u>	1.4	12	2.0 (1.8)
<u>Certification:</u>	1.1	7	1.8

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That because the listed motorcycles are certified to 0.2 grams per test or more below the applicable evaporative emission standard, the vehicles are exempt from complying with the Air Resources Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" pursuant to Executive Order G-70-16-E.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 21<sup>st</sup> day of February 2001.

R. B. Summerfield, Chief  
Mobile Source Operations Division

## Motorcycle Engine Family Information Form

1. Manufacturer: Rewaco-Trikes llc.
2. Certification Contact Person, address, phone, and fax:

Hanspeter Dubach  
Rewaco-Trikes llc.  
8585 Commerce Ave # A  
San Diego, CA 92121

Phone: 858 577 0585  
Fax: 858 577 0586

3. Model Year: 2001
4. Process Code: New  
(new, correction, revision, r/c, f/f, etc)
5. Engine Family:  
50s Engine Code: RE 1.6 001  
49s Engine Code: RE 1.6 001  
Calif. Engine Code: RE 1.6 001
6. Emission Control System: 2 OC
7. Calif. Designated Standard: 1.4gr HC
8. Projected Annual Sales:
10. Displacement: 1584
11. Number of Cylinders: 4
12. Cylinder Arrangement: Flat 4
13. Cylinder Head Configuration: 2 Valves
14. Type of Cooling: Air
15. Combustion Cycle: Otto 4 stroke
16. Method of Aspiration: NA
17. Fuel System: Carbureted
18. Number of Catalytic Converters: 2

### CONFIDENTIAL

9. New Technology      Yes X NO  
If yes, cite the correspondance of reference  
the submittal document:

19. Adjustable Parameters:

Parameter(s)	Adjustable Range (or NA)	Tamper Resistance Method (or NA)	Method Approved
Ignition Timing	7.5 BTDC		
Idle speed	850+/- 50min <sup>1</sup>		

20. AECDs In the Emission Control System

Exhaust System	Evaporative System
AECDs in System: <u>None</u>	AECDs in System: <u>None</u>
<u>                    </u>	<u>                    </u>
<u>                    </u>	<u>                    </u>



(Model Year)/(Manufacturer)Motorcycle  
2001 Rewaco-Trikes llc.

Section: 7 Page:4

Issued:

Revised:

E.O. #: M-51-1

Engine Family: 1RTLCO1.6RWC

### Motorcycle Test Information

27. Are you carrying over test results from a previously certified family? Yes X No

0.03

a) If yes, indicate family name: \_\_\_\_\_

b) Is the family being certified identical to the family from which the data is being carried over? \_\_\_\_\_

28. Model Designation of Test Vehicle: HS5

36. Road Load: 193N

29. Test Information Number: 001

37. Inertia Mas: 570kg

30. Vehicle ID: RE 1.6K

38. N/V: 31.21

31. Service Accumulation Duration: 15'000 (km)

39. EVAP Bench Test Method Approved:

32. Maximum Rated Power: 37KW@ 4000 RPM

Date: \_\_\_\_\_

33. Displacement: 1584 cc

Reference: \_\_\_\_\_

34. Certification Fuel: RON Indolene

40. Unscheduled Maintenance: Yes X No

35 Test Data Set: 001

41 If yes, Vehicle Log provided: \_\_\_\_\_

42. Exhaust Emission Deterioration Factors:

Test Number	System Kilometers	Emission Values	
		HC	CO
1	321	0.263	0.786
2	5034	1.014	10.792
3	10035	0.404	2.059
4	15061	0.772	5.511
5			
6			
7			
Interpolated Values at 15'000km:		HC = 0.7471	CO = 5.5475
Extrapolated Values at 30'000 km:		HC = 1.0190	CO = 7.0917

Check one:

Regular DF X

Modified DF \_\_\_\_\_

If different vehicle  
specify vehicle ID

43. Emission Test Results:

Official Test Results		Test 1	Test 2	Test 3	Test 4
g/km	CO	0.786	10.792	2.059	5.511
g/km	CO2	239.96	219.25	213.19	226.48
g/km	HC	0.263	1.014	0.404	0.772
g/km	Evap	1.796	1.021	1.336	1.552

Deterioration  
Factors

(X)

1.2784

(X)

1.3639

(-)

0.2500

44. Certification Levels:

g/km	CO				<u>7.0453</u>
g/km	HC				<u>1.0529</u>
g/km	Evap				<u>1.802</u>

Application Processed by: Joseph Tegede Date: 2/16/01

Reviewed by: [Signature] Date: 2/20/01