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PRODUCT INFORMATION SUPPLEMENT No.5 PRODUCT NOISE INFORMATION SERIES JUNE, 1980

# INFORMATION ON NOISE LEVELS, NOISE MEASUREMENT METHODS AND "BUY QUIET" EXPERIENCES ASSOCIATED WITH MOTORCYCLES



# AN INFORMATION SUPPLEMENT FOR GOVERNMENTAL PURCHASING AGENTS IN DEVELOPING "BUY QUIET" PROGRAMS

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# Preface

This packet contains information for the use of government purchasing officers and other officials in purchasing quieter Motorcycles. It is a companion document to the <u>Guide to Purchasing Quieter Products and Services</u><sup>1</sup> which describes in general terms how noise considerations can be incorporated into purchasing decisions. 'Together, these documents and others available through the Quiet Product Data Bank maintained by the National Institute of Governmental Purchasing (NIGP) can help you develop a "Buy Quiet" Program for your government.

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# CONTENTS

# Introduction

Section 1. Description of the Product

Section 2. Noise Level Output Information

Section 3. Preparation of the Product Specification

Section 4. A Suggested Method of Award

# Appendices

- A. List of Manufacturers
- B. Buy Quiet Experience
- C. Sources of Additional Information

#### INTRODUCTION

The "Buy Quiet" Program is a new concept in which governments cooperate with each other to buy quiet models of equipment. It is being extended with the help of the National Institute of Governmental Purchasing, the National League of Cities, other national organizations and various local and state agencies. This type of local noise control:

. costs very little;

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- . requires little additional effort;
- . begins the community quieting process;
- . establishes market pressures.

Surveys have shown that noise is the most frequently identified undesirable neighborhood condition in urban areas. Scientists and the medical profession now tell us that noise is no longer a mere irritant, but that in fact it has a very adverse impact on our health and well being. You as a purchasing officer can reduce noise in your community by purchasing quieter products. State and local governments and large private organizations spend billions of dollars each year on equipment such as compactors, chain saws, typewriters, lawnmowers, trucks, motorcycles, pneumatic drills, and buses. If these governments can become more selective so as to purchase quieter products, cities and neighborhoods will be quieter.

#### Section 1. DESCRIPTION OF THE PRODUCT

For the purposes of this supplement there are two broad categories of motorcycles: street motorcycles and off-road motorcycles.

# STREET MOTORCYCLES

"Street" motorcycles are defined as all motorcycles which are designed and marketed for on-road operation. This category includes street and highway motorcycles, on-road/off-road combination motorcycles, Enduro motorcycles intended for limited street operation, minicycles intended for street operation, and motor-driven cycles.

This street motorcycle category encompasses vehicles having the following charcteristics:

- Approximately 50 to 100 c.c. engines, developing from 1 to 100 horsepower.
- 2. Two-stroke, four-stroke, and rotary engines.
- 3. One to six cylinders.
- 4. Liquid, fan and air cooling systems.
- 5. Two and three wheels.
- 6. Light and heavy weight.
- 7. Shaft and chain drive.
- 8. Manual and hydraulic torgue converter automatic transmission.

### OFF ROAD MOTORCYCLES

"Off-road" motorcycles are defined as all motorcycles which are designed and marketed for off-road recreational and off-road competition use, with the exception of motorcycles designed and marketed <u>solely</u> for use in closed-course competition events. This off-road category encompasses vehicles having the following characteristics:

- 1. 50 to 500 c.c. engines.
- 2. Two-stroke and four-stroke engines.
- 3. Single cylinder.
- 4. Air cooled.
- 5. Two and three wheels.
- 6. Light weight.
- 7. Chain drive.
- Manual, centrifugal clutch and continuously variable (belt) automatic transmission.

# Section 2. NOISE LEVEL OUTPUT INFORMATION

# Definitions of Terms

NOISE: Any undesired sound.

SOUND LEVEL METER: An instrument, consisting of a microphone, an amplifier, an output meter, and frequency-weighted networks, that is used for the measurement of sound levels in a specified manner.

DECIBEL: The intensity of a sound often abbreviated dB. The decibel scale was devised to measure the smallest difference in sound which is detectable by the human ear. Its graduations move up not in a simple arithmetic progression but in a multiple progression based on logarithmic calculations. This means that each increase of one decibel represents a much larger change of intensity than might be expected. Because of the logarithmic progression of the decibel scale, an increase of ten decibels, for example, reflects a ten-fold increase in sound energy, but is perceived as being approximately twice as loud. Thus a sound which is measured at 80 dB contains ten times the sound output and is perceived as being twice as loud as a sound that is measured at 70 dB.

dBA:

An expression of sound level taking into account the response of the human ear to sound.

## Noise Level Output Information - continued

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Noise level information is given in Table 1. When using it, please note:

- the noise level range given for commercially available models of the product is for use as a <u>quide</u> only. It is not a definitive statement of noise measurements taken on all models currently available. Lower noise levels, for some models, are likely to be found.
- 2) when making comparisons among the noise levels of different products, it is very important that a single noise measurement method<sup>1</sup> is used. If this is <u>not</u> adhered to, very different noise levels will result and comparisons which are made may not be meaningful. Thus, in the chart the range of noise levels is expressed using one method from the known ones that are listed, to insure consistency when comparing noise level information. Selection of that particular method in no way constitutes NIGP endorsement of that method.
- the table implies nothing in terms of product pricing. A quieter product does not necessarily cost more; in many cases, it may be less.

#### Measurement Procedures

Sound level measurement procedures generally prescribe <u>instrumentation</u> (e.g., the type of sound level meter to be used, other devices required), a description of the <u>test site</u> and measurement zone, a description of <u>equip-</u> <u>ment operation</u> (e.g. traveling on stationary mode, rpm setting), how <u>mea-</u> <u>surements</u> are to be made (e.g., setting of sound level meter, height and location of microphones), and <u>general requirements</u> (e.g., such as who should select testing equipment and conduct the tests).

1. See discussion in Section 3.

TABLE 1. MOTORCYCLE NOISE DATA SUMMARY

MOTORCYCLE TYPE	APPROXIMATE RANGE OF SOUND PRESSURE LEVELS (Using SAE J-331a) AT 50 FT.	NOISE MEASURFMENT METHODS
<u>Street</u> <u>Motorcycles</u> <sup>1</sup> 50cc - 99cc 100cc - 169cc 170cc - 349cc 350cc - 749cc 750cc and over	65 dBA – 82 dBA 78 dBA – 88 dBA 77 dBA – 97 dBA 73 dBA – 89 dBÅ 74 dBA – 93 dBA	<ol> <li>U.S. EPA Motorcycle Noise Measurement Methodology<sup>1</sup></li> <li>SAE J-331a<sup>2</sup></li> <li>CHP Variation Of J-331a<sup>3</sup></li> <li>SAE J-986a<sup>4</sup></li> <li>SAE J47<sup>5</sup></li> </ol>
<u>Off Road</u> <u>Motorcycles</u> 1 50cc - 99cc 100cc - 169cc 170cc - 349cc 350cc - 749cc 750cc and over	75 dba - 81 dba 78 dba - 100 dba 79 dba - 100 dba 88 dba - 95 dba	

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1. The U.S. EPA will soon issue maximum levels (using the EPA motorcycle noise measurement methodology) that manufacturers will be required to meet which will lower the upper limits for commercially available motor-cycles of each type. The EPA motorcycle noise measurement method is slightly different than SAE 331a.

2. Most commonly used method in U.S. as of 1979;

3. Used by California highway patrol;

4. Used in Canada;

5. Slightly different than SAE J-331a

#### Section 3. PREPARATION OF THE PRODUCT SPECIFICATION

A good specification for any product will identify minimum performance and design requirements; list the reproducible test methods that may be used to determine compliance with these requirements; allow competitive bidding; permit an equitable contract award at the lowest possible evaluated price.

Therefore, a government seeking to purchase a quieter product should be • sure that its specification describes a product that can be bid at a reasonable price by at least two, and preferably, three or more suppliers.

### Noise Level Specification

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The noise level portion of the product specification should contain the following three elements.

- A <u>maximum</u> noise level referenced to a single measurement methodology.
- 2. A verification requirement, and
- 3. An <u>incentive</u> for offering products quieter than the maximum level established.

# Maximum Noise Level

The maximum level should be low enough to disqualify the noisiest models on the market but high enough to insure competition among 2 or nore suppliers.

In the absence of a firmly established specification, the buyer is encouraged to contact NIGP for a recommended maximum level based on an updated Table 1.

# Section 3. Preparation of the Product Specifications-Continued

# Including Sound Level Measurement Procedures in the Specifications

A buyer <u>must</u> reference a reproducible sound level measurement procedure whenever it specifies a noise level requirement or any other performance requirement. For example, the noise level requirement in a specification for a quieter motorcycle might say:

NOISE LEVEL: Noise level shall not exceed — decibels (A Scale) when measured in accordance with the U.S. EPA Motorcycle Noise Methodology.

A copy of the complete specification will be available in the near future from NIGP.

# Verifying Compliance With Specifications

There are at least two ways that governments can assure themselves that they have been offered or sold products which conform to specified requirements. One involves laboratory and field testing. The other involves vendor submission of "certified" test data.

In some instances, it may be necessary for the government or its agent (e.g., a commercial laboratory) to actually test items when they are submitted for evaluation or when received after purchase. In most instances, however, it is more practical for the government to ask a vendor to submit, with his bid, an approved third-party's written certification that the vendor's product conforms with a specified requirement. There are hundreds of private sector laboratories which could be approved to perform testing and certification services for manufacturers.

If a buyer must actually test the noise levels of product models offered in response to a "noise-conscious" invitation for bids, he or she should contact the Buy Quiet Program director at the NIGP national office for assistance, who may be able to arrange for essential testing through various cooperative programs.

### INCENTIVES FOR QUIETER PRODUCTS

### Section 4. A SUGGESTED METHOD OF CONTRACT AWARD

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NIGP has developed an optimal method of contract award which allows a buyer to encourage a bidder to offer a product that is even quieter than required by the specification. In effect, it tells the bidder: "For each decibel<sup>1</sup> that your product is quieter than the loudest product bid (in conformance with the specification), we will subtract a fixed percentage of the <u>average actual</u> bid price from your <u>actual</u> bid price. The difference will be your <u>evaluated</u> bid price."

Evaluated bid prices, rather than actual bid prices, are compared in the selection of the contract recipient. As in Life Cycle Costing, the bidder with the lowest actual bid price may not necessarily be the bidder with the lowest "evaluated" bid price.

To insure against paying an excessive premium for increased quietness, buyers using this optimal method of contract award can state: the purchaser will not pay a contract price more than X percent in total above the average of the actual bid prices.<sup>2</sup> This amount represents the maximum additional amount that the government is willing to pay above the average actual bid price, for each guieter product.

1. Usually (but not always) A scale. A few product methodologies may use the C scale.

2. Not to be confused with the per decibel incentive in the formula.

#### Formula For Determining

#### Evaluated Bid Price

The formula for determining the Evaluated Bid Price (EBP) is:

EBP = P - Y% ( $P_{AV}$ ) ( $N_N$ -N) where:

EBP = Evaluated Bid Price

P = Actual Bid Price

- Y% = The percentage weight designated by the purchasing activity to "reward" the bidder <u>for each decibel</u> that his model is quieter than the noisier model bids.
- $P_{\rm AV}$  = Average (actual) bid price of all models bid in response to the IFB
- $N_{\!N}$  = The noise level (in decibels) of the noisiest model bid in response to the IFB
- N = The noise level (in decibels) of the model whose EBP is being determined

# Sample Bid Tabulations

In order to illustrate the working of the formula, the hid tabulations for a purchase of quieter product X might look like this:

#### BIDDERS:

Bidder	Actual Bid Price	Noise Level (dBA)	(EBP) Evaluated Bid Price:
(A) Smith Co.	\$145.00	76	\$145.00
(B) Robert Co.	\$154.00	75	\$151.02
(C) Jones Co.	\$147.00	72	\$135.08
(D) Watkins Co.	\$150.00	71	\$135.10

#### Calculation of Evaluated Bid Price (EBP)

Assuming that the Purchasing Activity used a 2% "reward" factor for each decibel of increased quietness, the EBP for each bidder would be determined as follows:

(A) Smith Co. EBP = \$145. - .02 (\$149) (76-76) = \$145. - \$2.98 (0)= \$145. Calculation of Evaluated Bid Price (EBP) continued

- (B) Roberts Co. EBP = \$154. - .02 (\$149) (76-75) = \$154. - \$2.98 (1) = \$151.02
- (C) Jones Co. EBP = \$147. - .02 (\$149) (76-72) = \$147. - \$2.98 (4) = \$147. - \$11.92= \$135.08

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(B) Watkins Co. EBP = \$150. - .02 (\$149) (76-71)= \$150. - \$2.98 (5)= \$150. - \$14.90= \$135.10

# Contract Award

Based on an evaluated bid price (EBP) of \$135.08, the contract should be awarded to Jones Co. (bidder "C") at its actual bid price of \$147 per unit for furnishing guieter product X with a (maximum) noise level of 72 decibels (A Scale).

#### APPENDIX A

#### LIST OF MANUFACTURERS

#### MANUFACTURER

#### Mr. Hideo Sugiura Managing Director Honda Motor Co., Ltd. 6-27-8, Jingumae, Shibuya-Ku Tokyo, 150, Japan

Mr. Yuhei Chijiiwa General Manager Asaka R&D Center Honda R&D Co., Ltd. 2177, Hizaori Asaka-Shi Saitama, 351, Japan

Mr. Tadao Kobayashi Staff Engineer Center for Environmental and Safety Activities Honda Motor Co., Ltd. 1-4-1, Chuo, Wako-Shi Saitama, 351, Japan

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Mr. Itanı Aono, Director Kawasaki Heavy Industries, Ltd. 1-1, Kawasaki-Cho. Akashi-City Hyogo-Pref. Japan

Mr. Seiichi Inagawa, Director Suzuki Motor Co., Ltd. P.O. Box Hamamatsu-NISHI 432-91 Hamamatsu Japan

Mr. Takehiko Hasegawa, Director Yamaha Motor Co., Ltd. 2500 Shingai Iwata-Shi Shizuoka-Ken P.O. Box l Iwata Japan

### U.S. DISTRIBUTOR

Mr. C.L. Hale, Assistant Director American Honda Motor Co., Inc. 100 W. Alondra Boulevard Gardena, CA 90247

Mr. Roger Hagie Kawasaki Motors Corporation, USA 2009 E. Edinger St. Santa Ana, CA 92705

Mr. John B. Walsh, Supervisor Sound Level Research Safety and Legislative Dept. US Suzuki Motor Corp. Santa Fe Springs, CA 90670

Mr. Kenneth K. Ito, Manager Governmental Affairs Dept. Engineering Division Yamaha Motor Corporation, USA P.O. Box 6620 6600 Orangethorpe Buena Park, CA 90620

#### MANUFACTURER

Mr. Bernd Anderson EMW Motorrad Gmbll Postfach 40 03 60 8000 Munchen 40 West Germany

Mr. George Riess Cberingieur Nurnberger Hurecules-Werke GmbH Nopitschasse 70 Postfach 1805 8500 Nurnberg West Germany

Ingenieur Hanns Hilber Chefkonstrukteur Kreidler Werke GmbH Fahrzeugwerke Stuttgart-Zuffenhausen West Germany

Mr. A. Morawetz Chief Engineer KIM-Motorfahrzeugbau Kronreif & Trunkenpolz 5230 Mattighofen Austria

(Maico)

Dipl.-Ing. Dr. tech. Peter E. Resele Chief Engineer, R&D Moped/Motorcycle Division Steyr-Daimler-Puch-AG Werke Graz A-8011 Graz Austria

#### U.S. DISTRIBUTOR

Mr. Karl-Heinz Ziwica Manager Safety Engineering EMW of North America Montvale, NJ 07645

Butler & Smith Walnut St. & Hudson Ave. Norwood, NJ 07648

Sachs Motor Corp. of USA 909 Crocker Road Westlake, Ol 44145

Kreidler Import Corp. 2132 Cathedral Ave., NW Washington, DC 20008

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KIM Imports, USA 9825 Mason Avenue Chatsworth, CA 91311

Mr. Don Rosine, Manager KTM America, Inc. 1906 Broadway Lorain, OH 44052

Maico Motorcycles, Inc. 109 Electric Avenue Lewistown, PA 17044

Steyr-Daimler-Puch of America Corporation Greenwich Office Park Box 7777 Greenwich, CT 66830

#### MANUFACTURER

Dipl.-Ing. Karl-Heinz Menzl

#### U.S. DISTRIBUTOR

Mr. Leonard A. Fink Steyr-Daimler-Puch Suite 880 1700 Pennsylvania Ave. NW Washington, DC 20006

None

Leiter der Technichen Entwicklung Zundapp-Werke GmbH Anzinger Str. 1-3 8000 Munchen 8 West Germany

Mr. J. Chalamanch CEMOTO SA P.O. Box 31 San Andrian de Besos Barcelona, Spain

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Mr. J. Canellas Monset Executive Director Montesa Motorcycles Av. Virgen de la Paloma, 21 Esplugues de Llobregat Barcelona, Spain

Mr. Eduardo Giro Barella General Manager Maquinara Cinematografica SA Poligona Industrial - Zona Franca Calle B - Sector B Barcelona - 4, Spain

Ing. Benso Marelli G.I. Agrati-Garelli S.p.A. 22068 Monticello Brianza (Co) Italy

Mr. Guido Ranalli F'lli Benelli, S.p.A. Viale Mamili, 22 Pesaro, Italy

Ing. Enrico Santoro Ducati Meccanica S.p.A. Via A.C. Ducati, 3-40100 Bologna (Borgo Panigale) Italy Mr. John Grace Bultaco International, Ltd. 5447 Greenwich Road Virginia Beach, VA 23462

Viva Distributing Co. 10625 Vanowen Burbank, CA 91505

OSSA Sales Corporation 2910 Cambell Avenue Schenectady, NY 12301

American Garelli 1211 Cadsden St. Columbia, SC 29201

Mr. Lawrence Wise Cosmopolitan Motors, Inc. Jacksonville and Meadowbrook Rd. Hatboro, PA 19040

#### MANUFACTURER

Mr. Giovanni Floci Fantic Motor S.p.A. Via Statale, 1-22061 Barzago (Co.) Italy

Dr. Ing. A. Columbo Innocenti Via Pitteri 81 20100 Milano, Italy

(Italjet)

(Lambretta)

(Laverda)

M.d.L. Umberto Todero Capo Servizio Disegno Prodotti SEIMM - Moto Guzzi Via E.V. Parodi 57,22054 Mandello Lario (Como) Italy

Mr. Paolo Zaghi Moto Morini Via A. Bergami, 7-40133 Bologna, Italy

Mr. Tiziano Matteini Motori Minarelli Via S. Vitalino, 19-40012 Calderara di Reno (Bologna) Italy

Ing. Giuseppe Bocchi M.V. Agusta S.p.A. Viale Adriatico, 50-21010 Verghera (Varese) Italy

### U.S. DISTRIBUTOR

None

None

Italjet USA 7471 Greenbush Avenue North Hollywood, CA 91605

International Sportcycles, Inc. 4000 Kennedy Boulevard Union City, NJ 07087

Yankee Corporation P.O. Box 36 Schenectady, NY 12301

Mr. Michel Berliner Berliner Motor Corp. Railroad St. and Plant Rd. Hasbrouck Heights, NJ 07604 2910 Cambell Avenue

Mr. Hennan Baver Hendan Corp. Route 61 Port Clinton, PA 19549

None

Garyville Corporation 200 Clearbrook Road Elmsford, NY 10523

A-4

#### MANUFACTURER

#### U.S. DISTRIBUTOR

Ing. Roberto Castelli Off. Mecc. Lafranconi S.p.A. via C. Baltisti, 19-22054 Mandello Lario (Como) Italy

Ing. Giovanni Batoni Piagglo & C.S.p.A. 56025 Pontedera (Pisa) Italy

Mr. W.B. Colqhoun Managing Director NVT Motorcycles, Ltd. Lynn Lane, Shenstone Lichfield, West Midlands WS14 OEA England

Reliant Motor Company, Ltd. Tamworth Staffordshire B77 1HN England

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(Triumph Motorcycles)

Mr. Rubin Helmin Mr. Tommy Malm Engine Product Division Husqvarna A B Huskvarna, Sweden S-56101

Mr. David Price Mr. Robert Fisher Bombardier, Ltd./Can-Am Valcourt, Quebec Canada None

Mr. Bruno Poratti Vespa of American Corp. 322 E. Grand Avenue So. San Francisco, CA 94080

Mr. Roger Stange NVT America, Inc. 1261 S. State College Pkwy. Anaheim, CA 92806

None

Target Products (see exhaust system manufacturers)

Ms. Brenda Price Triumph Motorcycles America, Inc. P.O. Box 1060 Placentia, CA 92670

Mr. Nils-Arne Nilsson Husqvarna Motorcycle Co., Inc. 4935 Mercury Street San Diego, CA 92111

Mr. Warren Daoust President Bombardier Corporation Can-Am Division 4505 W. Superior Duluth, MN 55806

MANUFACTURER	U.S. DISTRIBUTOR
(CCM)	CCM Imports America, Inc. 4452 West Idyl Dell Road McNenry, IL 60050
(MZ)	East Europe Import/Export 440 Park Avenue South New York, NY 10016
(JAWA/CZ)	American Jawa, Ltd. 185 Express Street Plainview, Long Island, NY 11803
(PANTHER)	Kowasho International, Inc. 1543 West Olympic Boulevard Los Angeles, CA 90015
(Gemini)	Fun Center Distributors Route 2, Box 68 BD Ozark, MO 65721
(Carabela)	Carabela Motorcycle Corp. 781 Factory Road Xenia, OH 45385
(Tomos)	United Trade Representatives 1459 West Evans Florence, SC 29503
(Velosolex)	Mr. Sid Schwartz Velosolex America, Inc. 86 Orchard Street Hackensack, NJ 07601
Mr. W. Thomas York President AMF Incorporated World Headquarters 777 Westchester Ave. White Plains, NY 10604	Mr. Roger Bascom Harley-Davidson Motor Company, Inc. 3700 West Juneau Ave. Milwaukee, WI 53201
	Mr. Laimonis T. Embrekts Director, Environmental Control and Energy Resource Planning AMF, Incorporated 777 Westchester Avenue White Plains, NY 10640

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#### MANUFACTURER

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Mr. Mark Hamilton Rokon, Inc. 160 Emerald Street Keene, NH 03431

Mr. Don Jones AMEX Apache Ltd. 20872 Currier Road Walnut, CA 91789

Arco E-Z Rider Alexander-Reynolds 123 South Newman Street Hackensack, NJ 07601

Mr. Jim Hoverson President Chapparal Motorcycles Imex, Inc. P.O. Box 645 Highway 210 East Brainerd, MN 56401

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The Charger Auranthetic Corp. 828 No. Lake Street Burbank, CA 91502

Mr. Fred Rolloff President Cheetah Motorcycles Rec. Technology Inc. 1000 South Fifth Milwaukee, WI 53204

Commuter Ind. P.O. Box 309 Cascade, IA 52033

Dragon Fly Motorcycles Quasar P.O. Box 131 Sterling, VA 22170

Eagle Motorcycles Galaxy Wholesale 12811 Main Street Garden Grove, CA 92640

# MANUFACTURER

# U.S. DISTRIBUTOR

Explorer International Owosso, MI 48867

Flandiria Motorcycles Pan Commercial 108 Grove Street Worcerster, MA 01605

Mr. Scott W. Grafft Fox Corporation 1111 West Racine St. Janesville, WI 54545

Mr. Ken Fox Gem Products 496 E. St. Charles Rd. Carol Stream, IL 60187

Mr. Karl Heald President Heald, Incorporated Box 1148 Benton Harbor, MI 49022

Holder Motorcycles Westam Corporation P.O. Box 15971 Salt Lake City, UT 84115

HPE Muskin 225 Acacia Street Colton, CA 92324

Husky Dunecycle Corp. 266 Pacific Park Drive Whittier, CA 90601

Toyoda America, Inc. KAMI 13924 Bettencourt St. Cerritos, CA 90701

Mr.L.H. Shuck Lorenco International Box 1055 Danville, IL. 61832

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#### MANUFACTURER

# U.S. DISTRIBUTOR

Motion Development Inc. 101 S. Main Street Almont, MI 48003

Nero Equipment, Inc. 1370 County Road 8 Box C-51 Canadaigua, NY 14424

MTD Products 5389 W. 130th St. Cleveland, OH 44111

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Number One Motorcycles Track & Trail Motors 3845 Ste. Catherine St. Montreal, Quebec Canada

Otis Elevator Company Material Handling Division 8000 Baker Avenue Cleveland, OH 44102

Mr. R.H. Lincoln Outboard Marine Corp. P.O. Box 663 Milwaukee, WI 532 Ol

PABATCO P.O. Box 327 Athena, OR 97813

Pacesetter Enterprise Highway 151 Cascade, IA 52 033

Power Dyne Vehicles Inc. 100 Jenckes Hill Road Lincoln, RI 02865

Promark Products of Ohio, Inc. P.O. Box 738 15 Franklin Street Norwalk, OH 44857

#### MANUFACTURER

Simplex Manufacturing 4000 Toulouse Street New Orleans, LA 70119

Stihl Oil Inc./Malaguti Sayner, WI 54560

Suitcase Cycle 3013 Airport Avenue Santa Monica, CA 90405

Taylor-Dunn 2114 West Ball Street Anaheim, CA 92804

Tri Rod Motorcycles BGW Industries, Inc. 150 Distl Avenue Mansfield, OH 44903

Mr. M.R. Bader Westcoaster Co. Box 8600 Stockton, CA 95204

Mr. Mark Enochs Xenoah Company 24144 Sumac Drive Golden, CO 80401

# U.S. DISTRIBUTOR

June, 1980

# APPENDIX B

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# Governments Known to Have Had Buy Quiet Experiences Associated With Motorcycles

The Buy Quiet concept is new and the program is just starting. It should not be surprising, therefore, that the NIGP Data Bank, as yet, has no experiences to report for these products. When experiences become known to us, the governments will be listed in this section.

June, 1980

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# APPENDIX C

# Sources of Additional Information

Information on any aspect of the Buy Quiet Program is available from:

Director Buy Quiet Program National Institute of Governmental Purchasing, Inc. 1001 Connecticut Avenue, N.W. Suite 922 Washington, DC 20036 Tel: 202/331-1357

For additional information on technical and programmatic matters rela-

ting to product noise, you may wish to contact your local or state noise

control official.

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