

APPENDIX A**PROCUREMENT OF TEST MATERIALS**

Throughout the text, references are made to necessary hardware, reagents, materials and apparatus. In many cases, for the sake of uniformity and ease of acquisition, certain suppliers are named. If substitutions are deemed appropriate for the specified suppliers, permission in writing must be obtained from the Test Monitoring Center and/or General Motors Research and Environmental Staff before such will be considered to be "equivalent". The following entries of this appendix represent a consolidated listing of the ordering information necessary to complete the references found in the text.

A.1 GENERAL COMMUNICATIONS CONCERNING SEQUENCE IID REFERENCE TESTS

ASTM Test Monitoring Center
4400 Fifth Avenue,
Pittsburgh, Pennsylvania 15213
Attn: Administrator
Telephone: (412) 268-3316
FAX for Test Reporting: (412) 683-4138 [(412) 268-3350 Confirming No.]

A.2 GENERAL COMMUNICATIONS CONCERNING SEQUENCE IID PROCEDURAL QUESTIONS AND CANDIDATE TEST

General Motors Research and Environmental Staff
Fuels and Lubricants Department
Warren, Michigan 48090,
Attn: S.P. Bergin
Telephone: (313) 986-1923

A.3 REFERENCE OILS

Reference oils may be purchased by contacting:

ASTM Test Monitoring Center
4400 Fifth Avenue,
Pittsburgh, Pennsylvania 15213
Attn: Operations Manager
Telephone: (412) 268-3314

A.4 TEST ENGINES

To be valid, Sequence IID tests must be conducted utilizing a 1977 350 cid (5.7 L) Oldsmobile V-8 engine:

Bowden Manufacturing Corp.
4590 Beidler
Willoughby, OH 44094
Attn: Dwight Bowden
Telephone: (216) 946-1770
FAX: (216) 946-1789

A.5 SPECIAL SEQUENCE IID TEST PARTS

Special parts may be made by any capable independent machine shop or may be obtained by contacting:

General Motors Research and Environmental Staff
Fuels and Lubricants, Department 21
Warren, Michigan 48090,,
Attn: S.J. Clark
Telephone: (313) 986-1929

A.6 EXTERNAL OIL PUMP

Viking Model GX 4154, 6 ± 0.5 gpm (0.38 ± 0.03 L/s) at 1150 rpm, no relief valve. Available through local Viking distributors or:

Viking Pump Division, Houdaille Industries, Inc.,
George and Wyeth Street
Cedar Falls, Iowa.50613
Telephone: (319) 266-1741

A.7 EXTERNAL OIL SYSTEM HEAT EXCHANGER

Bowden Manufacturing Corp.
4590 Beidler
Willoughby, OH 44094
Attn: Dwight Bowden
Telephone: (216) 946-1770
FAX: (216) 946-1789

A.8 EXTERNAL OIL SYSTEM AND OTHER QUICK DISCONNECT FITTINGS

Aeroquip products are available through local distributors or:

Aeroquip Corporation, Industrial Division
1225 W. Main St.,
Van Wert, Ohio 45891
Telephone: (419) 238-1190

A.9 FUEL PRESSURE REGULATOR

A suitable regulator may be obtained from:

Fisher Governor Company
1900 Fisher Building,
Marshalltown, Iowa 50158
Telephone: (515) 754-3556

A.10 FUEL SHUT-OFF VALVE

A satisfactory fuel shut-off valve (XSD30280) may be obtained from:

Skinner Electric Valve Division, Skinner Precision Industries, Inc.
100 Edgewood Avenue
New Britain, Connecticut 06050
Telephone: (203) 225-6421

A.11 HUMIDITY MEASURING EQUIPMENT

Alnor 7300 Dewpointer; available through local distributors or:

Alnor Instrument Co.
97301 N. Caldwell Ave.,
Niles, Illinois 60648.
Telephone: (312)-647-7866.

A.12 THERMOCOUPLES AND PACKING GLANDS

Thermocouples and packing glands are obtainable from:

Conax Corporations
2302 Walden Avenue,
Buffalo, New York 14225
Attn: Sales Dept.
Telephone (716)-684-4500.

A.13 EXHAUST PIPES

Flexonic Corporation, part #RT10E; available from local distributors or:

Flexonic Division UOP, Inc.
300 E. Devon Avenue
Bartlett Illinois 601239
Telephone: (201)-751-5050.

A.14 CRANKCASE PRESSURE GAUGE (MAGNEHELIC)

A suitable crankcase pressure gauge may be obtained from:

Dwyer Instrument Company,
P.O. Box 373-T
Michigan City, Indiana 46360
Telephone: (219)-872-9141.

A.15 TEST FUEL

For ordering GMR 995 test fuel, purchase orders should be directed to:

Phillips 66 Company
Philter Marketing Service
P.O. Box 968
Borger, TX 79008
Telephone: 1-800-858-4327

A.16 GLYCOL

Dow regular grade ethylene glycol; available through:

Dow Chemical Co.
2020 Dow Center
Midland, Michigan 48640.
Telephone: (517)-636-1000

A.17 SODIUM METABORATE

Eight mole technical grade; available through local distributors or:

United States Borax and Chemical Company,
3075 Wilshire Boulevard
Los Angeles, California 90010.
Telephone: (213)-381-5311.

A.18 NACAP

Available through local distributors or:

Vanderbilt Chemical Corp.
30 Winfield St.
Norwalk, Connecticut 06855
Telephone: (203)-853-1400.

A.19 CALCIUM NITRATE

Analytical reagent grades Mallinckrodt Code No. 4236; available through local distributors or:

Mallinckrodt, Inc.
1675-T Brown Road
St. Louis, Missouri 63134.
Telephone: (314)-885 0123.

A.20 SODIUM NITRITE

Specify DuPont Flaked (U.S.P. grade); available in 50 or 100 lb bags and 100 and 400 lb drums:

Ashland Chemical Company
P. O. Box 2219
Columbus, Ohio 43216.
Telephone: (614)-889-3333.

A.21 PLURONIC L-61

"Regular grade for GM-MS test" must be specified and may be ordered from:

Wyandotte Chemicals, Surfactant Sales Departments,
1500 Eureka, P. O. Box 319
Wyandotte, Michigan 48192.
Telephone: (313)-284-3636.

A.22 DECYL ALCOHOL

Commercial grade Eastman Kodak Item 30 obtainable through local suppliers or:

Eastman Organic Chemicals
343 State Street,
Rochester, New York 14650
Telephone: (716)-724-4000.

A.23 COOLANT HYDROMETER

ASTM Hydrometer, model #112-H, with 1.0 to 1.100 ranges may be obtained from:

H-B Instrument Company
4303 N. American Street
Philadelphia, Pennsylvania 19140.
Telephone: (215)-329-6300.

A.24 OAKITE 811

Oakite Products, Inc.
50 Valley Road
Berkeley Heights, New Jersey 07922
Attn: W. J. Wittke.
Telephone (201)-464-6900

A.25 OAKITE 77, OAKITE II , OAKITE RUST STRIPPER*, OAKITE DRYCID

Oakite Products, Inc.
50 Valley Road
Berkeley Heights, New Jersey 07922
Attn: W. J. Wittke.
Telephone (201)-464-6900

Order must specify "Rust stripper O.F. for GM Engine Oil Sequence Tests"

A.26 SOVASOL #5

Available from local suppliers of Stoddard Solvent.

A.27 PERFECT SEAL NO. 4 SEALING COMPOUND

Part #1050026 (available in 40 oz, pint, or gallon containers) must be used and may be ordered from:

Allied Technology, Inc.
P.O.B. Sealants Division
11102 Kenwood Road
Cincinnati, Ohio 45242.
Attn: Order Department
Telephone: (513)-793-6332.

A.28 PERMATEX, NO. 2 NON-HARDENING AND PERMATEX 6BR

Available from local distributors of Permatex which may be found by contacting:

Permatex Co.,Inc., (Loctite Corp.)
18731-T Cranwood Parkway, P. O. Box 7183
Cleveland, Ohio 44128.
Telephone: (216)-475-3600.

A.29 3M SUPER WEATHERSTRIP ADHESIVE

#051135-08001 must be specified and may be ordered from:

Minnesota Mining and Manufacturing Co.
AC&S Division, Dept. TR
3M Center 223-6 N. E.
St. Paul, Minnesota 55101
Telephone: (612)-733-1110.

A.30 ANTI-SEIZURE COMPOUND

Fel-Pro, Inc.
7450 N. McCormick Boulevard
Skokie, Illinois 60076
Telephone: (312)-674-7700.

or

E/M Lubricants, Inc.
6940 Farmdale
N. Hollywood, California 91605

A.31 3M CLOTH

400 grit 3H cloth or 3M Elek-tro-Cut Cloth 400J or equivalent.

A.32 BREATHER TUBE GASKETS

Part #2G-3A, 901 must be used and may be ordered through:

American Standard, Industrial Products Division,
P. O. Box 76
Dearborn, Michigan 48121
Telephone: (313) 931-4000

A.33 ENGINE TEST ASSEMBLY FLUID, EF 411

Refer to "Engine Test Assembly Fluid, EF 411" #PN 47503-8 and purchase from:

Mobil Oil Corporation
Illinois Order Board
P. O. Box 66940
AMF-O'Hare, IL 60666
Telephone: 800-662-4574

A.34 DESICCATOR FOR PAINT ROLLER

A Sargent-Welch #S-25140 desiccator may be ordered from:

Sargent-Welch Scientific Co.
7300 N. Linder Avenue,
P. O. Box 1026
Skokie, Illinois 60077
Telephone: (312) 677-0600

A.35 INTAKE AND EXHAUST MANIFOLD GASKETS

McCord Gasket Company, Sales Department
191-T Labodie Street
Wyandotte, Michigan 48192
Attn: J. McNamee
Telephone: (313)-284-3600

Orders should be placed by March 1 and September 1 of each year and should be sufficient to ensure a six-month supply.

A.36 PISTON RINGS

Muskegon Piston Ring Company
1939 6th
Muskegon, Michigan 49443
Attn: Roger Knop, Manager, Special Products Division
Telephone: (616)-726-5226

A.37 PISTONS

Bowden Manufacturing Corp.
4590 Beidler
Willoughby, OH 44094
Attn: Dwight Bowden
Telephone: (216) 946-1770
FAX: (216) 946-1789

A.38 VALVE LIFTERS

Bowden Manufacturing Corp.
4590 Beidler
Willoughby, OH 44094
Attn: Dwight Bowden
Telephone: (216) 946-1770
FAX: (216) 946-1789

A.39 PERFECT CIRCLE TOOLS AND SEALS

The following Perfect Circle Tools and Seals:

<u>Designation</u>	<u>Part Number</u>
4.0625 inch ring expander tool	P401-K
Valve stem seals	55A396
Valve stem seal installation tool	55A396

may be ordered from:

Engine Products Division, Dana Corporations
P.O. Box 1166
Richmond, IN 47374
Attn: Marvin Stohler
Telephone: (317)-966-8111

A.40 ROCKER COVER GASKETS

Rocker cover gaskets, part #393573, will be manufactured semi-annually (order cut-off dates are January 1 and July 1) and must be ordered from:

Crotty Corporation
848 W. Chicago
Quincy, Michigan 49082
Attn: R. J. Pickering.
Telephone: (517) 639-8787.

A.41 VALVE SPRINGS

Associated Spring Corporation, BGR Division
East Stadium Boulevard
Ann Arbor, Michigan 48103
Attn: J. Tucker or D. H. Poike.
Telephone: (313) 665-8686.

A.42 CYLINDER HONE

Sunnen honing machine model CV-616, Sunnen honing oil CK 50, and Sunnen honing stones JHU525 and 820 may be purchased from:

Sunnen Products Company
7910 Manchester Avenue,
St. Louis, Missouri 63143
Telephone: (314) 781-2100

A.43 RING GAP FEELER GAUGE

Range 0.020 in. or smaller to 0.050 in. (0.508 to 1.27 mm) by 0.001 in.(0.0259 mm) increments, Part #X467X:

Sterling Supply Company
1220 East Nine Mile Road
Ferndale, Michigan 48220
Attn: Paul DeFaun
Telephone: (313) 546-3200

A.44 RING GRINDER

Sanford SG-48 (with Oldsmobile 350 head) may be ordered from:

Sanford Manufacturing Co.
P.O. Box 318,
Roselle, New Jersey 07203
Attn: Jon Meadows
Telephone: (201) 245-0505

A.45 CAM BEARING INSTALLATION TOOL

A Burroughs cam bearing installation tool, Part #BT6409, may be ordered from:

Burroughs Tool and Equipment Co.
2429 N. Burdick St.
Kalamazoo, Michigan 49002
Telephone: (616) 345-5163 or (616) 345-2700

A.46 VALVE GUIDE CUTTER FOR VALVE STEM SEALS

TRW #VP-503 for 11/32 in. may be ordered from:

TRW Valve Division
8001 E. Pleasant Valley,
Cleveland, Ohio 44131
Attn: R. M. Burt
Telephone: (216) 383-5746

or

Crane #97017 for 11/32 in. may be ordered from:

Crane Cams, Inc.
100 N.W. 9th Terrance
Hallandale, Florida 33009
Attn: H. C. Crackstetter
Telephone: (305) 457-8888

A.47 SPARK PLUG WIRE REMOVAL TOOL

Spark plug removal tool OTC 7078 may be ordered from:

Owatonna Tool Co.
376 North Street
Owatonna, Minnesota 55060
Telephone: (507)-451-5813.

or

BT 7604 may be ordered from:

Burroughs Tool and Equipment Co.
2429 N. Burdick Street
Kalamazoo, Michigan 49007
Telephone: (616)-345-5163 or (616)-345-2700.

A.48 DRIVESHAFT

Dana Corp.
Spicer Universal Joint Division,
P. O. Box 986
Toledo, Ohio 43696
Telephone: (419)-476-3200.

A.49 THERI-TOWELS

Available from local suppliers of Kimberley Clark products.

A.50 RATING LIGHTS

Rating lamps meeting specification are available from:

Dazor Manufacturing Corp.
4455 Duncan Avenue
St. Louis, Missouri 63110.
Telephone: (314)-652-2400.

A.51 CRC RATING MANUAL

Rating Manual #7 may be ordered from:

Coordinating Research Council, Inc.
219 Perimeter Center Parkway, Suite 400
Atlanta, Georgia 30346.
Telephone: (404)-396-3400.

A.52 STRIPPABLE COATING

Systems and materials suitable for coating parts may be obtained from:

Western Coating Manufacturers (formerly "Seal-Peel"),
611 E. Elmwood
Troy, Michigan 48084.
Attn: Mr. Morris
Telephone: (313)-588-3311.

A.53 PUSHRODS

IID pushrods Part No. 385100 available from:

Bowden Manufacturing Corp.
4590 Beidler
Willoughby, OH 44094
Attn: Dwight Bowden
Telephone: (216) 946-1770
FAX: (216) 946-1789

IID pushrods Part No. 398687 are available from your local GM dealer.

A.54 CENTRAL PARTS DISTRIBUTOR

Bowden Manufacturing Corp.
4590 Beidler
Willoughby, OH 44094
Attn: Dwight Bowden
Telephone: (216) 946-1770
FAX: (216) 946-1789

APPENDIX B

B-1 Numerical

PRINT LISTING**GENERAL MOTORS
PRINT NUMBER****TITLE OF PRINT**

RX-116169-C	Flow Meter (Multiple Orifice Plate)
RX-116415-B	Adapter/Carburetor Inlet
(Print Nos RX-11664,5-D through RX-116649-A are detail prints of Print No. RX-116650-D)	
* RX-116645-D	Sharp Edge Orifice Water Flow Meter, Upper Tube
Section	
* RX-116646-D	Sharp Edge Orifice Water Flow Meter, Lower Tube
Section	
* RX-116647-A	Sharp Edge Orifice Water Flow Meter, Bottom
Support	
* RX-116648-B	Sharp Edge Orifice Water Flow Meter, Top Flange
* RX-116649-A	Sharp Edge Orifice Water Flow Meter, Plate
RX-116650-D	Sharp-Edge Orifice Water Flow Meter
RX-116680-C	Oil Temperature Control System
RX-116681-D	Schematic, Cooling Water to and from Engine
RX-116728-C	Piston Ring Grinder Assembly, Alteration
(Print Nos RX- 116729-C through RX- 116733-A are detail prints of Print No. RX- 116728-C)	
* RX-116729-C	Piston Ring Grinder, Bracket
* RX-116730-B	Piston Ring Grinder, Shaft
* RX-116731-B	Piston Ring Grinder, Back-up Plate
* RX-116732-A	Piston Ring Grinder, Screw
* RX-116733-A	Piston Ring Grinder, Retaining Ring
RX-116903-B	Rework Oil Pump
RX-116924-C	Flushing Tank
RX-11693-E	Piston Ring Grinder Assembly
(Print Nos RX-1 16934-C through RX-1 16957-A are detail prints of Print No. RX-1 16933-E)	
* RX-116934-C	Piston Ring Grinder, Base Plate
* RX-116935-C	Piston Ring Grinder, Top Plate
* RX-116936-C	Piston Ring Grinder, Rotating Table

* RX-116937-B	Piston Ring Grinder, Supports
* Denotes detail print	
* RX-116938-D	Piston Ring Grinder, Motor Shield
* RX-116940-B	Piston Ring Grinder, Table Mechanism Assembly
* RX-116941-B	Piston Ring Grinder, Slide
* RX-116942-A	Piston Ring Grinder, Slide Bar
* RX-116943-A	Piston Ring Grinder, Locking Plate
* RX-116944-A	Piston Ring Grinder, End Plate
* RX-116945-A	Piston Ring Grinder, Cover
* RX-116946-A	Piston Ring Grinder, Rod
* RX-116947-A	Piston Ring Grinder, Crank
* RX-116948-A	Piston Ring Grinder, Handle
* RX-116949-A	Piston Ring Grinder, Washer Adapter
* RX-116951-A	Piston Ring Grinder, Locating Pin
* RX-116952-A	Piston Ring Grinder, Inner Flange
* RX-116953-A	Piston Ring Grinder, Ring Supports
* RX-116954-A	Piston Ring Grinder, Ring Clamp
* RX-116955-A	Piston Ring Grinder, Stop
* RX-116956-B	Piston Ring Grinder, Drive Gear Assembly
* RX-116957-A	Piston Ring Grinder, Table Locator
* RX-117052-C	Piston Ring Grinder, Wheel Guard
RX-117152-C	Valve Calibration Fixture
RX-117157-B	Coupling Adapter
RX-117161-C	Auto-Water Flow Circuit
RX-117162-C	Auto-Carburetor Air Circuit
RX-117167-E	Engine Flywheel Guard
RX-117168-D	Safety Housing-Flywheel Housing
RX-117224-D	Engine Front Cover
RX-117225-C	1967 and 1977 Olds Flywheel Rework
RX-117227-A	Oil Filter Mounting Block
RX-117228-A	Rework-Bolt-Camshaft Gear, 1967 Olds
RX-117230-E	Flushing Tank System Piping Layout
RX-117231-C	Flushing Tank Schematic

* Denotes detail print

RX-117257-C	Valve Lifter Plunger Remover, Assembly
(Print Nos RX-117258-B through RX-117260-A are detail prints of Print No. RX-117257-C)	
* RX-117258-B	1967 Olds Lifter Plunger Remover, Handle
* RX-117259-B	1967 Olds Lifter Plunger Remover, Head
* RX-117260-A	1967 Olds Lifter Plunger Remover, Plug
RX-117261-A	Water Outlet
RX-117262-A	Fuel Pump Plate, 1967 Olds
RX-117284-A	1967 Olds Exhaust Collar
RX-117286-C	Exhaust Manifold Pressure Top Location, 1967 Olds
RX-117287-A	Spacer Washer, 1967 Olds Rocker Cover Bolt
RX-117288-A	Stanchion, Rocker Cover Deflector Stanchions
RX-117289-B	Rocker Cover Deflectors, Stainless Steel
RX-117290-C	Schematics Rocker Cover System, 1967 Olds IIB
RX-117294-A	Bushing, Blowby Adapter, IIB-IIIC
RX-117319-B	Front Cover Deflector, 1967 Olds
RX-117326-B	Dipstick Tube Gauge, 1967 Olds
RX-117329-B	Ring Depth Gauge, 1967 Olds
RX-117348-B	Dipstick Guide Driver
RX-117349-A	Dipstick Cap
RX-117350-D	Coolant Mixing Tank
RX-117364-B	CRC Rust Scale Holder
RX-117370-B	1967 Olds Front Seal Driver
RX-117374-R	Flushing Tank-Oil Heat Exchanger and Rocker Cover
RX-117375-C	Automatic Dew Point Control
RX-117376-C	Automatic Carburetor Air Temperature Control Schematic
RX-117377-A	Driver-Cup Plug, 1967 Olds. Cylinder Head
RX-117379-D	Front Support, (Part of RX-117379-D) IIB, IIC and IIIC
RX-117382-A	Oil Slinger Spacer Washer Modification
RX-117431 -C	Blowby Gas Surge Tank
RX-117462-C	Auto- Exhaust Back Pressure Circuit, 1967 Olds
RX-117464-A	Washer-Retainer, 1967 Olds Timing Gear Deflector
RX-117470-D	Water Cooled Rocker Arm Cover, 1964-1967 Olds
(Print Nos RX- 117506-B and RX-117507-B are detail prints of Print No. RX-116933-E)	

* Denotes detail print

* RX-117506-B	Piston Ring Grinder, Upper Gear
* RX-117507-B	Piston Ring Grinder-Lower Gear
RX-117520-D	Cylinder Block Honing Adapter Plate
RX-117529-D	Engine Dynamometer Installation
RX-117552-D	Parts Sample Board Used for Rust Ratings
RX-117593-C	Flushing Tank
RX-117622-B	Cup Plug Driver, 1967 Olds MS Engine
RX-117636-A	Washer, Cylinder Head Honing Plate
RX-117726-C	Assembly Automatic Blowby, RX-117727-1967 Olds. IIIC
RX-117727-C	Automatic Blowby Measurement
RX-117729-C	Breather Tube, 1967 Olds
RX-117730-C	Mounting Plate and Blowby, 1967 Olds. IIIC
RX-117731-C	Schematic, Breather Tube Temperature Control System, IIID
RX-117802-C	Intake Manifold Flushing Adapter
RX-117813-A	Exhaust Crossover Coolant Adapter
RX-117814-C	Dual Rocker Cover System (Manual)
RX-117815-C	Dual Rocker Cover System (Pneumatic)
RX-117928-C	Dual Rocker Cover and Breather Tube Air Operated Valve Control Schematic (Optional)
RX-117936-A	Oil Pump Screen Positions 1967 Olds
RX-117990-B	Engine Mount (Front Support Bracket)
RX-118135-D	Water Inlet Adapter
RX-118136-A	Lock Clip (Evertite Connector)
RX-118137-C	Water In and Out Coolant and Flushing Tank-Evertite, 1967 Olds
RX-118209-B	2 x 4 Barrel Adapter Carburetor Adapter
RX-118211 -C	Modification of Engine Block for Camshaft Thrust Washer
RX-118212-B	Camshaft Thrust Surface Cutter Guide Shaft
RX-118213-A	Thrust Washer
RX-118301 -A	Lifter Ball Magnetic Holder
RX-118304-D	Rocker Cover Spacers
RX-118305-D	Rework 1977 350 cid Olds Oil Pan
RX-118306-A	Timing Gear Deflector, 1967 Olds

* Denotes detail print

RX-118315-D	350 Olds Intake Manifold Exhaust Crossover and Coolant Schematic, Seq.IID
RX-118316-A	350 Olds EGR Opening Cover
RX-118317-B	350 Olds Harmonic Balancer Mod
RX-118318-A	350 Olds Engine Timing Indicator
RX-118319-D	2 Barrel Carburetor Modifications for Seq. Test IID and IIID
RX-118322-B	Camshaft Thrust Washer Pilot
RX-118332-B	Oil Pan Baffle
RX-179649-D	Carburetor Air Supply Systems, Schematic of Controlled
RX-179650-D	Layout of Controlled Carburetor Air Supply System
RX-179651-D	Humidity Cabinet for Carburetor Air Supply System
RX-179652-D	Spray Nozzle Plumbing for Carburetor Air Supply System
RX-179653-D	Miscellaneous Details for Carburetor Air Supply System

* Denotes detail print

B.2 Alphabetical

PRINT LISTING

TITLE OF PRINT	GENERAL MOTORS PRINT NUMBER
Adapter/Carburetor Inlet	RX-116415-B
Assembly Automatic Blowby, RX-1 17727-1967 Olds. IIIC	RX-117726-C
Auto-Carburetor Air Circuit	RX-117162-C
Auto-Exhaust Back Pressure Circuit, 1967 Olds	RX-117462-C
Automatic Blowby Measurement	RX-117727-C
Automatic Carburetor Air Temperature Control Schematic	RX-117376-C
Automatic Dew Point Control	RX-117375-C
Auto-Water Flow Circuit	RX-117161-C
Back-up Plate, Piston Ring Grinder	* RX-116731-B
Blowby Gas Surge Tank	RX-117431-C
Bracket, Piston Ring Grinder	* RX-116729-C
Breather Tube, 1967 Olds	RX-117729-C
Bushing, Blowby Adapter, IIB-IIIC	RX-117294-A
Camshaft Thrust Surface Cutter Guide Shaft	RX-118212-B
Camshaft Thrust Washer Pilot	RX-118322-B
Carburetor Air Supply System, Schematic of Controlled	RX-179649-D
Coolant Mixing Tank	RX-117350-D
Coupling Adapter	RX-117157-B
CRC Rust Scale Holder	RX-117364-B
Cup Plug Driver, 1967 Olds MS Engine	RX-117622-B
Cylinder Block Honing Adapter Plate	RX-117520-D
Dipstick Cap	RX-117349-A
Dipstick Guide Driver	RX-117348-B
Dipstick Tube Gauge, 1967 Olds	RX-117326-B
Driver-Cup Plug, 1967 Olds. Cylinder Head	RX-117377-A
Dual Rocker Cover and Breather Tube Air Operated Valve Control Schematic (Optional) IIC	RX-117928-C

* Denotes detail print

Dual Rocker Cover System (Manual)	RX-117814-C
Dual Rocker Cover System (Pneumatic)	RX-117815-C
Engine Dynamometer Installation	RX-117529-D
Engine Flywheel Guard	RX-117167-E
Engine Front Cover	RX-117224-D
Engine Mount (Front Support Bracket)	RX-117990-B
Exhaust Crossover Coolant Adapter	RX-117813-A
Exhaust Manifold Pressure Top Location, 1967 Olds	RX-117286-C
Flow Meter (Multiple Orifice Plate)	RX-116169-C
Flushing Tank	RX-116924-C
Flushing Tank	RX-117593-C
Flushing Tank-Oil Heat Exchanger and Rocker Cover	RX-117374-R
Flushing Tank Schematic	RX-117231-C
Flushing Tank System Piping Layout	RX-117230-E
Front Cover Deflector, 1967 Olds	RX-117319-B
Front Support, (Part of RX-I 17379-D) IIB, IIC and IIIC	RX-117379-D
Fuel Pump Plate, 1967 Olds	RX-117262-A
Humidity Cabinet for Carburetor Air Supply System	RX-179651-D
Intake Manifold Flushing Adapter	RX-117802-C
Layout of Controlled Carburetor Air Supply System	RX-179650-D
Lifter Ball Magnetic Holder	RX-118301-C
Lock Clip (Evertite Connector)	RX-118136-A
Miscellaneous Details for Carburetor Air Supply System	RX-179653-D
Modification of Engine Block for Camshaft Thrust Washer	RX-118211-C
Mounting Plate and Blowby, 1967 Olds. IIIC	RX-117730-C
Oil Filter Mounting Block	RX-117227-A
Oil Pan Baffle	RX-118332-B
Oil Pump Screen Position, 1967 Olds	RX-117936-A
Oil Slinger Spacer Washer Modification	RX-117382-A
Oil Temperature Control System	RX-116680-C
Parts Sample Board Used for Rust Ratings	RX-117552-D
Piston Ring Grinder Assembly	RX-116933-E
Piston Ring Grinder Assembly, Alteration	RX-116728-C

Piston Ring Grinder, Base Plate	* RX-116934-C
Piston Ring Grinder, Cover	* RX-116945-A
Piston Ring Grinder, Crank	* RX-116947-A
Piston Ring Grinder, Drive Gear Assembly	* RX-116956-B
Piston Ring Grinder, End Plate	* RX-116944-A
Piston Ring Grinder, Handle	* RX-116948-A
Piston Ring Grinder, Inner Flange	* RX-116952-A
Piston Ring Grinder, Locating Pin	* RX-116951-A
Piston Ring Grinder, Locking Plate	* RX-116943-A
Piston Ring Grinder, Lower Gear	* RX-117507-B
Piston Ring Grinder, Motor Shield	* RX-116938-D
Piston Ring Grinder, Ring Clamp	* RX-116954-A
Piston Ring Grinder, Ring Supports	* RX-116953-A
Piston Ring Grinder, Rod	* RX-116946-A
Piston Ring Grinder, Rotating Table	* RX-116936-C
Piston Ring Grinder, Slide	* RX-116941-B
Piston Ring Grinder, Slide Bar	* RX-116942-A
Piston Ring Grinder, Stop	* RX-116955-A
Piston Ring Grinder, Supports	* RX-116937-B
Piston Ring Grinder, Table Locator	* RX-116957-A
Piston Ring Grinder, Table Mechanism	* RX-116940-B
Piston Ring Grinder, Top Plate	* RX-116935-C
Piston Ring Grinder, Upper Gear	* RX-117506-B
Piston Ring Grinder, Washer Adapter	* RX-116949-A
Piston Ring Grinder, Wheel Guard	* RX-117052-C
Retaining Ring, Piston Ring Grinder	* RX-116733-A
Rework-Bolt-Camshaft Gear, 1967 Olds	RX-117228-A
Rework Oil Pump	RX-116903-B
Rework 1977 350 cid Olds Oil Pan	RX-118305-D
Ring Depth Gauge, 1967 Olds	RX-117329-B
Rocker Cover Deflectors, Stainless Steel	RX-117289-B
Rocker Cover Spacers	RX-118304-D
Safety Housing-Flywheel Housing	RX-117168-D

* Denotes detail print

Schematic, Breather Tube Temperature Control System, IIID	RX-117731-C
Schematic, Cooling Water to and from Engine	RX-116681-D
Schematic, Rocker Cover System, 1967 Olds IIB	RX-117290-C
Screw, Piston Ring Grinder	RX-116732-A
Shaft, Piston Ring Grinder	* RX-116730-B
Sharp-Edge Orifice Water Flow Meter	RX-116650-D
Sharp-Edge Orifice Water Flow Meter, Bottom Support	* RX-116647-A
Sharp-Edge Orifice Water Flow Meter, Lower Tube Section	* RX-116646-D
Sharp-Edge Orifice Water Flow Meter, Plate	* RX-116649-A
Sharp-Edge Orifice Water Flow Meter, Top Flange	* RX-116648-B
Sharp-Edge Orifice Water Flow Meter, Upper Tube Section	* RX-116645-D
Spacer Washer, 1967 Olds Rocker Cover Bolt	RX-117287-A
Spray Nozzle Plumbing for Carburetor Air Supply System	RX-179652-D
Stanchion, Rocker Cover Deflector Stanchions	RX-117288-A
Thrust Washer	RX-118213-A
Timing Gear Deflector, 1967 Olds	RX-118306-A
Valve Calibration Fixture	RX-117152-C
Valve Lifter Plunger Remover, Assembly	RX-117257-C
Washer, Cylinder Head Honing Plate	RX-117636-A
Washer-Retainer, 1967 Olds Timing Gear Deflector	RX-117464-A
Water Cooled Rocker Arm Cover, 1964-1967	RX-117470-D
Water In and Out Coolant and Flushing Tank-Evertite, 1967 Olds	RX-118137-C
Water Inlet Adopter	RX-118135-D
Water Outlet	RX-117261-A
2 Barrel Carburetor Modifications for Seq. Test IID and IIID	RX-118319-D
2 x 4 Barrel Adapter Carburetor Adapter	RX-118209-B
350 Olds EGR Opening Cover	RX-118316-A
350 Olds Engine Timing Indicator	RX-118318-A
350 Olds Harmonic Balancer Mod.	RX-118317-B
350 Olds Intake Manifold Exhaust Crossover and Coolant Schematic, Seq. IIID	RX-118315-D
1967 Olds Exhaust Collar	RX-117284-A
1967 Olds Front Seal Driver	RX-117370-B

1967 Olds Lifter Plunger Remover, Handle
1967 Olds Lifter Plunger Remover, Head
1967 Olds Lifter Plunger Remover, Plug
1967 and 1977 Olds Flywheel Rework

* RX-117258-B
* RX-117259-B
* RX-117260-A
RX-117225-C

* Denotes detail print

APPENDIX C

SEQUENCE IID TEST PARTS

**C-1 TEST PARTS AVAILABLE THROUGH SERVICE PART OPERATIONS (SPO)
OLDS 5.7 L ENGINE**

LAST UP-DATE: APRIL 28, 1992

<u>PART NUMBER</u> <u>SERVICE</u>	<u>PART NAME</u>
12329430	Bearing
12329996	Bearing
390300	Bearing, Camshaft
390301	Bearing, Camshaft
390303	Bearing, Camshaft
12339842	Bearing, Camshaft
12351407	Bearing, Camshaft (Replaces 390302)
18008494	Bearing, Connecting Rod
5466089	Bearing, Pkg.
546211	Bearing, Pkg.
271630	Bolt, Balancer Crankshaft
382570	Bolt, Connecting Rod
392190	Bolt, Crankshaft Main Cap
398659	Bolt, Crankshaft Main Cap
22510579	Bolt, Cylinder Head
22510580	Bolt, Cylinder Head
22510585	Bolt, Cylinder Head Stud
9423490	Bolt, Intake Manifold
9440033	Bolt, Oil Pan
9442184	Bolt, Oil Pan Corner
9442339	Bolt, Oil Pump Mount
9423842	Bolt, Rocker Arm Pivot
1906945	Brush
562299	Camshaft
1974408	Cap, Distributor
12332666	Capacitor
401584	Chain, Timing
3835505	Clamp, Distributor
1985473	Coil
10470770	Coil, Comp. Field Assy.(Replaces 1877306)
1876210	Coil, Dist. Pick-Up
1927849	Collar
231829	Crankshaft
25010469	Filter, Oil Base
398071	Flywheel
1974157	Frame
25511809	Gasket, Carb. Air Horn
22508038	Gasket, Carb. Base
555201	Gasket, Cylinder Head
22547852	Gasket, EGR Valve (Replaces 412485)

PART NUMBER
SERVICE

PART NAME

22547856	Gasket, Front Cover
22505998	Gasket, Fuel Pump
22527229	Gasket, Oil Filter Mount
22519181	Gasket, Oil Pan Pkg.
382169	Gasket, Oil Pump Cover
573398	Gasket, Rocker Cover
22547855	Gasket, Water Outlet
381263	Gear, Camshaft
382880	Gear, Crankshaft
417090	Guide, Oil Level Indicator
1940477	Holder
1988414	Holder
1876207	Housing
419242	Indicator, Oil Level
403902	Indicator, Timing
588526	Key, Crankshaft Sprocket
1927848	Lockring
1875990	Module, Distributor Ignition
1109022	Motor, Starter
395921	Nut, Engine Connecting Rod
555137	Pan, Engine Oil
455862	Pin
585927	Pin
22527956	Pivot, Rocker Arm
380254	Plug, Cup Cyl. Head
22527026	Plug, Oil Gallery
22527021	Plug, Oil Gallery
404199	Plug, Oil Gallery Inner Passage
557319	Plug, Oil Gallery Outer Passage
390919	Plug, Oil Pan Drain
554976	Rod, Connecting
406996	Rotators, Valve
552711	Seal, Crankshaft Front
382572	Slinger, Crankshaft
10498866	Spring, (Replaces 1926622)
333959	Stud
1928015	Support
555456	Valve, Exhaust
553396	Valve, Intake
401384	Valve, Rocker Arm
3899696	Washer, Intake Man. Bolt
1893888	Weights, Dist. Shaft

C-2 SEQUENCE IID CRITICAL PARTS LIST
AVAILABLE THROUGH THE CENTRAL PARTS DISTRIBUTOR

<u>PART NUMBER</u>	<u>PART NAME</u>
BX-150-1	Electronic Fuel Mixture Control W/555 Timer
BX-201-1	Valve Oil Pump Relief #5557238
BX-202-1	Test Lifter #5232640
BX-208-1	Cylinder Head Assembly #556281
BX-210-1	Pushrod
BX-211-1	Oil Pump Assembly #22524583
BX-212-1	Breather Tube
BX-213-1	Valve Spring
BX-214-1	Piston
BX-215-1	Piston Ring Set
BX-216-1	Intake Valve Seal
BX-217-1	Filter, Test Oil, PF-24
BX-250-1	Bowden IID Oil Heat Exchanger Assembly

NON-PRODUCTION PARTS ALSO AVAILABLE THROUGH THE CPD

BX-203-1	Sequence IID Test Block #557838
BX-204-1	Intake Manifold Gasket, L.H.
BX-205-1	Intake Manifold Gasket, R.H.
BX-209-1	Exhaust Manifold
BX-218-1	Crankshaft, Casting
BX-219-1	Intake Manifold, Remanufactured
BX-220-1	Gear, Distributor
BX-260-1	Carburetor Adaptor Plate
BX-309-1	Packing Rear Main Rope #9772831 (Pkg/100)