CHAPTER 1
GENERAL INFORMATION

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Polaris Industries Inc.  1.3  10/98
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### Standard Torque Specifications

The following torque specifications are to be used as a general guideline when torque value is not specified. There are exceptions in the steering, suspension, and engine areas. Always consult the torque chart and the specific manual section for torque values of fasteners.

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*To convert ft. lbs. to kg/m multiply foot pounds by .138.
*To convert kg/m to N/m move the decimal to the right one position.
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Polaris Industries Inc. 1.7 10/98
# SAE Tap Drill Sizes

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# Metric Tap Drill Sizes

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</tr>
<tr>
<td>km</td>
<td>x .6214</td>
<td>mile (mi.)</td>
<td></td>
</tr>
<tr>
<td>Ounces (oz)</td>
<td>x 28.35</td>
<td>Grams (g)</td>
<td></td>
</tr>
<tr>
<td>Grams (g)</td>
<td>x 0.035</td>
<td>Ounces (oz)</td>
<td></td>
</tr>
<tr>
<td>cc</td>
<td>x 0.03381</td>
<td>Fluid Ounces (oz)</td>
<td></td>
</tr>
<tr>
<td>lb.</td>
<td>x .454</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>kg</td>
<td>x 2.2046</td>
<td>lb.</td>
<td></td>
</tr>
<tr>
<td>Cubic inches (cu in)</td>
<td>x 16.387</td>
<td>Cubic centimeters (cc)</td>
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</tr>
<tr>
<td>Cubic centimeters (cc)</td>
<td>x 0.061</td>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
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<tr>
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<td>Liters (l)</td>
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<td>Pounds - force per square inch (psi)</td>
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<td>Kilograms - force per square cm</td>
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<td>x 98.1</td>
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°C to °F: 9 (°C + 40) + 5 - 40 = °F
°F to °C: 5 (°F + 40) - 9 - 40 = °C
FOREWORD

This catalog has been produced to assist Polaris dealers and distributors in ordering Polaris Service tools from Victor Specialty Tool Company (VST). To keep the information contained in this catalog current and accurate, Tool Catalog Update pages will be mailed annually. Information on new service tools will be included in the General section of the monthly Service Team Tips dealer newsletter.

Tools listed in this catalog as “commercially available” cannot be ordered through VST. The suggested tool or an equivalent can be purchased through most automotive tool suppliers or tool manufacturers.

Note to new Dealers or Distributors: Suggested new Dealer / Distributor tool kit contents for each product line (or combination thereof) are listed separately in the Index/Addendum section of this catalog. Contact VST for a current tool price list. Inquiries regarding tool availability, suggestions or usage should be directed to VST at the phone number listed below.

Information, photographs, and illustrations contained in this manual are general representations and actual tools may differ. All information subject to change without notice.

TO PLACE AN ORDER

(Canadian Dealers order directly from Polaris Winnipeg)

TOLL FREE ORDER FAX #

(ORDERS ONLY)

1-800-716-3938

PHONE ORDERS OR INFORMATION

1-716-742-1790

Service Tool Catalog Part Number 9914681
ACS: Alternator control switch.
ACV: Alternating current voltage.

Air Gap Spark Test: A good check for ignition voltage and general ignition system condition. Spark should arc 3/8" (1 cm) minimum from end of high tension lead to ground. Several testers are available commercially.

Alternator: Electrical generator producing alternating current voltage.

Bore: Diameter of cylinder.

BTDC: Before Top Dead Center.

Bump Steer: When skis toe in and toe out through suspension travel.

CDI: Capacitor Discharge Ignition. Ignition system which stores voltage generated by the stator plate exciter coil in a capacitor or condenser (in CDI box). At the proper moment a voltage generated by the stator plate pulser coil closes an electronic switch (thyristor) in the CDI box and allows the voltage in the capacitor to discharge into the primary windings of the ignition coil.

Center Cylinder: On three cylinder engines, the cylinder between Mag and PTO ends.

Center Distance: Distance between center of crankshaft and center of driven clutch shaft.

Chain Pitch: Distance between chain link pins (No. 35 = 3/8" or 1 cm). Polaris measures chain length in number of pitches.

Clutch Buttons: Plastic bushings which transmit rotation of the clutch to the movable sheave in the drive and driven clutch.

Clutch Offset: Drive and driven clutches are offset so that drive belt will stay nearly straight as it moves along the clutch face as the engine torques back.

Clutch Weights: Three levers in the drive clutch which relative to their weight, profile and engine RPM cause the drive clutch to close.

Coil: A winding of wire around an iron core which has the ability to generate an electrical current when a magnetic field passes through it.

Combustion Chamber: Space between cylinder head and piston dome at TDC.

Compression: Reduction in volume or squeezing of a gas.

Condenser/Capacitor: A storage reservoir for electricity, used in both E.T. and CDI systems.

Crankshaft Run-Out: Run-out or "bend" of crankshaft measured with a dial indicator while crankshaft is supported between centers on V blocks or resting in lower half of crankcase. Measure at various points especially at PTO. Maximum allowable run-out is .006" (.02 cm).

DCV: Direct current voltage.

Detonation: The spontaneous ignition of the unburned fuel/air mixture after normal spark ignition. Piston looks "hammered" through, rough appearance around hole. Possible causes: 1) lean fuel/air mixture; 2) low octane fuel; 3) over-advanced ignition timing; 4) compression ratio too high for the fuel octane.

Dial Bore Gauge: A cylinder measuring instrument which uses a dial indicator. Good for showing taper and out-of-round in the cylinder bore.

Displacement: The volume of the cylinder displaced by the piston as it travels from BDC to TDC. The formula is: \[ \frac{\text{Bore}^2 \times \text{Stroke} \times 3.1416}{4} = \text{Displacement in CCs} \]

Effective Compression Ratio: Compression ratio measured from after the piston closes the exhaust port.

Electrical Open: Open circuit. An electrical circuit which isn't complete. (i.e. poor connections or broken wire at hi-lo beam switch resulting in loss of headlights.

Electrical Short: Short circuit. An electrical circuit which is completed before the current reaches the intended component. (i.e. a bare wire touching the snowmobile chassis under the seat resulting in loss of taillights and brake lights).

End Seals: Rubber seals at each end of the crankshaft.

Engagement RPM: Engine RPM at which the drive clutch engages to make contact with the drive belt.
Flat Head Bolt: To be used where finished surfaces require a flush fastening unit. Countersunk.

Foot Pound: Ft. lb. A force of one pound at the end of a lever one foot in length, applied in a rotational direction.

g: Gram. Unit of weight in the metric system.

Head Volume: Cylinder head capacity in cc, head removed from engine with spark plug installed.

Heat Exchanger: A device used to transfer heat. Mounted under running boards, they dissipate engine heat to the atmosphere.

Hex Head Bolt: Standard type of wrench-applied hexagon head, characterized by clean, sharp corners trimmed to close tolerances. Recommended for general commercial applications.

Hi-Fax: Trademark of Himont Advanced Materials. The special slide material which fits onto the bottom of the suspension rails.

High Side: Sled pushes or tips up.

High Tension Wire: The heavy insulated wire which carries the high secondary voltage from the coil to the spark plug.

Hole Shot: A term used when machine starts a race from a dead stop.

Holed Piston: Piston in which a hole has formed on the dome. Possible causes: 1) detonation; 2) pre-ignition.

Ignition Coil: A type of transformer which increases voltage in the primary windings (approx. 200V) to a higher voltage in the secondary windings (approx. 14KV - 32KV) through inductions. Secondary voltage is high enough to arc the air gap at the spark plug.

Ignition Generating Coil: Exciter coil or primary charge coil. Stator plate coil which generates primary ignition voltage. CDI system uses one ignition generating coil.

Inch Pound: In. lb. 12 in. lbs. = 1 ft. lb.

Kg/cm2: Kilograms per square centimeter. Metric equivalent of PSI.

Keystone Ring: A piston ring with bevel on upper surface.

Kilogram/meter: A force of one kilogram at the end of a lever one meter in length, applied in a rotational direction. Metric equivalent of ft. lbs.

L Ring: A wide face piston ring with an "L" shaped cross section. Leg of "L" goes up when installing on piston.

Labyrinth Seal: A pressure type center seal identified by series of grooves and lands. Polaris engines us this type of seal to separate the cylinders in the crankcase halves.

Left Side: Always referred to based on normal operating position of the driver.

Lighting Coil: Generates voltage for lights, battery charging, etc by electromagnetic induction.

Loose: When the rear of the vehicle slides outward in a turn. The track does not grab sufficiently.

mm: Millimeter. Unit of length in the metric system. 1mm = .040".

Mag End: Flywheel side of engine.

Magnetic Induction: As a conductor (coil) is moved through a magnetic field, a voltage will be generated in the windings. This is how mechanical energy in our engines is converted to electrical energy in the lighting coil, ignition generating coils and trigger coil.

Ohm: The unit of electrical resistance opposing current flow.

Oval Head Screw: Fully specified as "oval countersunk", this head is identical to the standard flat head, but possesses a rounded upper surface for attractiveness of design.

PTO End: Power Take Off drive (clutch side).

Pan Head Screw: Provides a low, large diameter head, but with characteristically high outer edges along the outer edge of the head where driving action is most effective. Slightly different head contour when supplied with Phillips Recess. See dotted line.

Piston Clearance: Total distance between piston and cylinder wall.

Piston Erosion: Piston dome melts. Usually occurs at the exhaust port area. Possible causes: 1) lean fuel/air mixture; 2) improper spark plug heat range.
**Pre-Ignition:** A problem in combustion where the fuel/air mixture is ignited before normal spark ignition. Piston looks melted at area of damage. Possible causes: 1) incorrect spark plug heat range; 2) spark plug not properly torqued; 3) "glowing" piece of head gasket, metal burr or carbon in the combustion chamber; 4) lean fuel/air mixture; 5) incorrect ignition timing.

**Primary Circuit:** This circuit is responsible for the voltage build up in the primary windings of the coil. Parts of this circuit include the exciter coil, points and condenser, wires from the stator plate to the small primary winding in the ignition coil. In the CDI system the parts include the exciter coil, the trigger coil, the wires from stator plate to CDI box and to the low resistance primary windings in the ignition coil.

**Primary Clutch:** Drive clutch on engine.

**Primary Compression:** Pressure built up in the crankcase of a two stroke engine.

**ps.i.:** Pounds per square inch.

**Pushing:** When the front of the vehicle does not steer as much as the driver desires. The skis do not grab sufficiently.

**R & R:** Remove and replace.

**RFI:** Radio Frequency Interference. Caused by high voltage from the ignition system. There are special plug caps and spark plugs to help eliminate this problem. Required in Canada.

**RPM:** Revolutions Per Minute.

**Resistance:** In the mechanical sense, friction or load. In the electrical sense, ohms. Both result in energy conversion to heat.

**Right Side:** Always referred to based on normal operating position of the driver.

**Round Head Screw:** The familiar head most universally used for general application. Good slot depth, ample underhead bearing surface and finished appearance are characteristic of this head.

**Running Time:** Ignition timing when fully advanced or at specified RPM.

**Secondary Circuit:** This circuit consists of the large secondary coil windings, high tension wire and ground through the spark plug air gap.

**Secondary Clutch:** Driven clutch on chaincase or jackshaft.

**Seized Piston:** Galling of the sides of a piston. Usually there is a transfer of aluminum from the piston onto the cylinder wall. Possible causes: 1) improper lubrication; 2) excessive temperatures; 3) insufficient piston clearance; 4) stuck piston rings.

**Self Steer:** Pulling the machine to the inside of the track.

**Spark Plug Reach:** Length of threaded portion of spark plug. Polaris uses 3/4" (2 cm) reach plugs.

**Static Timing:** Ignition timing when engine is at zero RPM.

**Stator Plate:** The plate mounted under the flywheel supporting the primary ignition components and lighting coils.

**Stroke:** The maximum movement of the piston from bottom dead center to top dead center. It is characterized by 180° of crankshaft rotation.

**Surge Tank:** The fill tank in the liquid cooling system.

**TDC:** Top Dead Center. Piston's most outward travel from crankshaft.

**Transfer:** The movement of fuel/air from the crankcase to the combustion chamber in a two stroke engine.

**Trigger Coil:** Pulser coil. Generates the voltage for triggering (closing) the thyristor and timing the spark in CDI systems. Small coil mounted at the top of the stator plate next to the ignition generating coil.

**V Regulator:** Voltage regulator. Maintains maximum lighting coil output at approx. 14.5 ACV as engine RPM increases.

**Venturi:** An area of air constriction. A venturi is used in carburetors to speed up air flow which lowers pressure in venturi to below atmospheric pressure, causing fuel to be pushed through jets, etc., and into the venturi to be mixed with air and form a combustible air/fuel mixture.

**Volt:** The unit of measure for electrical pressure of electromotive force. Measured by a voltmeter in parallel with the circuit.

**Watt:** Unit of electrical power. Watts = amperes x volts.
In order to perform service work efficiently and to prevent costly errors, the technician should read the text in this manual, thoroughly familiarizing him/herself with procedures before beginning. Pictures and illustrations have been included with the text as an aid. Notes, cautions and warnings have also been included for clarification of text and safety concerns. However, a knowledge of mechanical theory, tool use and shop procedures is necessary to perform the service work safely and satisfactorily. Use only genuine Polaris service parts.

⚠️ Cleanliness of parts and tools as well as the work area is of primary importance. Dirt and foreign matter will act as an abrasive and cause damage to precision parts. Clean the snowmobile before beginning service. Clean new parts before installing.

⚠️ Watch for sharp edges which can cause personal injury, particularly in the area of the tunnel. Protect hands with gloves when working with sharp components.

⚠️ If difficulty is encountered in removing or installing a component, look to see if a cause for the difficulty can be found. If it is necessary to tap the part into place, use a soft face hammer and tap lightly.

⚠️ Some of the fasteners in the snowmobile were installed with locking agents. Use of impact drivers or wrenches will help avoid damage to fasteners.

⚠️ Always follow torque specifications as outlined throughout this manual. Incorrect torquing may lead to serious machine damage or, as in the case of steering components, can result in injury or death for the rider(s).

⚠️ If a torquing sequence is indicated for nuts, bolts or screws, start all fasteners in their holes and hand tighten. Then, following the method and sequence indicated in this manual, tighten evenly to the specified torque value. When removing nuts, bolts or screws from a part with several fasteners, loosen them all about 1/4 turn before removing them.

⚠️ If the condition of any gasket or O-Ring is in question, replace it with a new one. Be sure the mating surfaces around the gasket are clean and smooth in order to avoid leaks.

⚠️ Some procedures will require removal of retaining rings or clips. Because removal weakens and deforms these parts, they should always be replaced with new parts. When installing new retaining rings and clips use care not to expand or compress them beyond what is required for installation.

⚠️ Because removal damages seals, replace any oil or grease seals removed with new parts.

⚠️ Polaris recommends the use of Polaris lubricants and greases, which have been specially formulated for the top performance and best protection of our machines. In some applications, such as the engine, warranty coverage may become void if other brands are substituted.

⚠️ Grease should be cleaned from parts and fresh grease applied before reassembly of components. Deteriorating grease loses lubricity and may contain abrasive foreign matter.

⚠️ Whenever removing or reinstalling batteries, care should be taken to avoid the possibility of explosion resulting in serious burns. Always disconnect the negative (black) cable first and reconnect it last. Battery electrolyte contains sulphuric acid and is poisonous! Serious burns can result from contact with the skin, eyes or clothing. **ANTIDOTE:** External - Flush with water. Internal - Drink large quantities or water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately. Eyes - Flush with water for 15 minutes and get prompt medical attention.

10/98 1.14 Polaris Industries Inc.
## MODEL NUMBER IDENTIFICATION

### 1999 MODEL DESIGNATION

<table>
<thead>
<tr>
<th>YEAR DESIGNATION</th>
<th>ENGINE DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>E=European Model</td>
<td>Color Option</td>
</tr>
</tbody>
</table>

### 0 99 L B 3 A S (A)

**MODEL / CHASSIS DESIGNATION**

- S= North American Model
- U= European Model

### MODEL LINE (4TH DIGIT) MODEL TYPE (5TH DIGIT)

- A= Aggressive
- B= Basic
- S= Standard Indy
- U= Utility
- E= Evolved
- D= Deluxe
- L= Lite
- P= Performance
- R= RMK
- X= Racer
- T= Touring
- S= SKS

### 1999 MODEL DESIGNATION NUMBERS (Chassis)

- LB - Indy 340
- LD - Indy 340 Deluxe
- LT - Indy 340 Touring
- SU - Transport/WideTrak LX
- ST - Sport Touring
- SB - Sport/Supersport/500 XC/600 XC/700 XC
- SP - XCF
- ER - 500 RMK
- EB - Indy 500/Trail/XLT LTD
- ED - Indy 500 Classic/XLT Classic
- ET - Classic Touring/Trail Touring/XLT Touring
- SR - Trail RMK/600 RMK/700 RMK
- AB - XLT Special/700 XCR/800 XCR
- SX - 440 XCR
- SP - 500 XC SP/600 XC SP/700 XC SP
- SS - 700 SKS

### 1999 ENGINE DESIGNATION NUMBERS

- 3A - 340 F/C Piston Port
- 4A - 440 F/C Cylinder Reed
- 4B - 488 L/C Piston Port
- 4C - 440 L/C Case Reed (domestic)
- 4D - 440 F/C Piston Port
- 4E - 488 F/C Piston Port
- 5A - 497 L/C Case Reed 2 Cylinder (domestic)
- 5B - 544 F/C Cylinder Reed
- 6A - 597 L/C 3 Cylinder
- 6D - 593 L/C Case Reed 2 Cylinder (domestic)
- 7A - 700 L/C Case Reed 2 Cylinder (domestic)
- 7B - 700 VES L/C Case Reed 3 Cylinder
- 8A - 800 VES L/C Case Reed 3 Cylinder

### PATENT NOTICE

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Made in U.S.A.</th>
<th>V.I.N. No.</th>
<th>MFD. Date</th>
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<td>3,613,810</td>
<td>3,616,364</td>
<td>3,613,811</td>
</tr>
<tr>
<td>3,580,647</td>
<td>3,867,991</td>
<td>3,483,766</td>
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<td>3,533,662</td>
<td>5,038,641</td>
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<td>5,050,644</td>
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**POLARIS Pats. by Polaris Industries Inc., in Roseau, MN under one or more of the following patents:**

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<thead>
<tr>
<th>U.S. Patents</th>
<th>Patented Canada</th>
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</tr>
<tr>
<td>3,613,811</td>
<td>3,613,811</td>
</tr>
</tbody>
</table>

**POLARIS PATENT NOTICE**

These numbers should be referred to in any correspondence regarding warranty, service or replacement parts.

The machine model and serial number identification decal is located on the right front side of the tunnel. The serial number is permanently stamped into the tunnel. The model number is embossed on the decal.

Whenever corresponding about an engine it is important that the engine model and serial numbers be called out. Laser engraved model and serial numbers are located on the crankcase (intake side).
GENERAL
1999 Model Specifications

MODEL: ............ INDY 340 / INDY 340 DELUXE / INDY 340 TOURING
MODEL NUMBER: . 099LB3AS / 099LD3AS / 099LT3AS
ENGINE MODEL: . EC34-2PM051

CARBURETION
Type ........... VM30SS Mikuni
Main Jet .......... 150
Pilot Jet .......... 35
Jet Needle ...... 5DP7-2
Needle Jet ...... 0-6(169)
Cutaway .......... 2.5AL
Air Screw ..... 1.5 Turns
Valve Seat ......... 1.5
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ...... .219"(5.55mm)
Idle Sync Gap
Under Cutaway ...... .240"(6.1mm)

JETTING CHART

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<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below -20°F</td>
</tr>
<tr>
<td></td>
<td>-29°C to -12°C</td>
</tr>
<tr>
<td>Meters</td>
<td>(0-3000)</td>
</tr>
<tr>
<td>(Feet)</td>
<td></td>
</tr>
<tr>
<td>0-900</td>
<td>150</td>
</tr>
<tr>
<td>900-1600</td>
<td>145</td>
</tr>
<tr>
<td>1800-2700</td>
<td>130</td>
</tr>
<tr>
<td>2700-3700</td>
<td>115</td>
</tr>
</tbody>
</table>

| XXX      | #X                  | #1           | #1             |             |
|          |                     |              |                |             |

- # refers to the clip position from top of jet needle.
- X Production Setting

CLUTCH
Type ........... P-90
Belt ............ 3211058
Belt Width (Projected) . 1.250"(31.75mm)
Side Angle (Overall) . 28°
Outside Circumference 43.313
Center Distance ...... 11"(280mm)
Shift Weights ...... 10
Primary Spring ..... Silver/Gold
Secondary Spring  . Silver
Driven Helix ...... 36.5° A-1

CLUTCH CHART

<table>
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<tr>
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<th>DRIVE</th>
<th>DRIVEN</th>
</tr>
</thead>
<tbody>
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<td>Shift Weight</td>
<td>Clutch Spring</td>
</tr>
<tr>
<td></td>
<td>(Feet)</td>
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</tr>
<tr>
<td>0-900</td>
<td>10</td>
<td>Silver/Gold</td>
</tr>
<tr>
<td>900-1600</td>
<td>10MB</td>
<td>Gold</td>
</tr>
<tr>
<td>1800-2700</td>
<td>10MW</td>
<td>Gold</td>
</tr>
<tr>
<td>2700-3700</td>
<td>10MW or 10MR</td>
<td>Blue Gold</td>
</tr>
</tbody>
</table>

ENGINE
Type ........... Fan Cooled Piston Port
Displacement ...... 339 cc
Bore ............ 2.4528"(62.3mm)
Stroke .......... 2.1889" (55.6mm)
Piston / Cylinder Clearance .. 0.0031" - 0.0055" (0.08 - 0.14mm)
Service Limit .... 0.0078" (0.20mm)
Piston Marking .... 34A
Piston Ring Marking .. RN
Piston ring end gap ... .008"-.014" (.20mm-.36mm)
Head cc's (Uninstalled) ..... 21.1cc
Head cc's (Installed) .... 17.3cc
Operating RPM±200 ...... 7000 RPM
Idle RPM±200 ...... 1600 RPM
Engagement RPM±300 ...... 4100 RPM
Cylinder Head Torque ...... 18-19 ft.lbs (2.5-2.8 kgm)
Cylinder Base Nut Torque .. 24-28 ft.lbs (3.3-3.9 kgm)
Crankcase Torque (8mm) ... 17-18 ft.lbs (2.2-2.3 kgm)
Crankcase Torque (10mm) ... 23-25 ft.lbs (3.2-3.5 kgm)
Flywheel Torque .......... 60-65 ft.lbs (8.3-9 kgm)

10/98 1.16 Polaris Industries Inc.
MODEL: INDY 340 / INDY 340 DELUXE / INDY 340 TOURING
MODEL NUMBER: 099LB3AS / 099LD3AS / 099LT3AS
ENGINE MODEL: EC34-2PM051

ELECTRICAL
Flywheel I.D............ FP-5439
CDI Marking........... CU6409
Alternator Output ... 180 Watts
Ignition Timing ...... 26.5° BTDC@3000RPM±1.5°
                      .145° BTDC (.129°-.161°)
                      3.67mm BTDC (3.28-4.08mm)
Operating Timing 15.5° @ 7000 RPM
Spark Plug / Gap .... NGK BR8ES / 0.028" (0.7mm)
Lights: Head ......... Halogen 75/60 watts
         Tail ........ 2@3 watts (9 watts Touring)
         Brake ....... 18 watts (18 watts Touring)
Voltage Regulator ... LR9 All (LR9 and LR2 for Deluxe)*
Electric Start ...... Option (Std. on Deluxe)
*LR9= Half wave voltage regulator
*LR2=Rectifier only for battery charging

SUSPENSION / CHASSIS
Body Style ........... Indy 340
Front Suspension ..... 37 IFS
Maximum Width ...... 37.25"(94.62cm)
Camber .............. 0°±5/16"(8mm)
Toe Out ............. 1/8"-1/4"(3-6.35mm)
Front Shocks ....... Nitrex
IFS Spring Rate .... 105#/in.
Front Spring Preload 3 shims
Front Vertical Travel 7 in.(17.78cm)
Rear Suspension .... XTRA Lite (121", 133.5")
Rear Travel .......... 10.0 in.(25.4cm) / (10.875 in.(27.62cm)Touring)
Front Track Shock .. Nitrex
Spring Rate .......... 80#/in.
Rear Track Shock ... Nitrex
Rear Springs ....... .393"/80° (340/340 Dlx)*
Rear Springs ....... .359"(sq.) / 84° (Touring)
Track Type .......... 15"x121"x.66"(15"x133.5"x.82"Touring) / 38.1x307.34x1.68cm (38.1x339.09x2.18cmTour)
Track Tension ...... 3/8"-1/2" (9.65-12.7mm) slack with 10#/4.54kg weight 16"(40.64cm) ahead of rear idler shaft
* The stock springs are the softest available for the Indy 340 and Indy 340 Deluxe.

CHAINCASE
Sprockets / Chain .... 17-41, 66 P 3/4 HYVO
Reverse ............. Option
Brake Pads ........... Std Mechanical
Chaincase Center Dist.6 5/8"(16.83cm)
Driveshaft Sprockets .2 drivers
Brake Type .......... Mechanical Disc

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th>MEDIUM</th>
<th>FIRM</th>
<th>SOFT</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.393&quot; diameter / 77°</td>
<td>.406&quot; diameter / 82°</td>
<td>.347&quot; diameter / 77°</td>
<td>.359&quot; diameter / 77°</td>
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<tr>
<td>L.H. - 7041555-067</td>
<td>L.H. - 7041521-067</td>
<td>L.H. - 7041627-067</td>
<td>7041629-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.17

Capacities
Fuel Tank ........... 8.8 gallons (33.3 liters)
Oil Tank ............ 2 quarts (1.9 liters)
Coolant ............ N / A
Chaincase Oil ...... 7 fl.oz(210cc)
GENERAL
1999 Model Specifications

MODEL: ........... INDY SPORT
MODEL NUMBER: 099SB4DS
ENGINE MODEL: . . EC44-3PM025

CARBURETION
Type .......... VM34SS Mikuni
Main Jet .......... 185
Pilot Jet .......... 35
Jet Needle .......... 6FJ6-3
Needle Jet .......... P-8(166)
Cutaway .......... 2.0
Air Screw .......... 1.0 Turns
Valve Seat .......... 1.5
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Jetting Chart

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below 20°F</td>
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<tr>
<td>Meters</td>
<td>(Foot)</td>
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<tr>
<td>1.250</td>
<td>6000</td>
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<tr>
<td>1.375</td>
<td>9000</td>
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<tr>
<td>1.500</td>
<td>12000</td>
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<tr>
<td>1.625</td>
<td>15000</td>
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<tr>
<td>1.750</td>
<td>18000</td>
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<tr>
<td>1.875</td>
<td>21000</td>
</tr>
<tr>
<td>2.000</td>
<td>24000</td>
</tr>
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</table>
| THROTTLE GAP
| Under Cutaway | .180" (4.57mm) |
| Idle Sync Gap | .200" (5.1mm) |

CLUTCH
Type .......... P-90
Belt .......... 3211059
Belt Width (Projected) . 1.250" (31.75mm)
Side Angle (Overall) . 28°
Outside Circumference 45.125
Center Distance . . . 12" (305mm)
Shift Weights . . . . . 10 AL
Primary Spring . . . . . Red/White
Secondary Spring . . . . Red
Driven Helix .......... 36.5° B-2

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shift Weight</td>
<td>Clutch Spring</td>
</tr>
<tr>
<td>Meters</td>
<td>(Foot)</td>
<td>0-900</td>
</tr>
<tr>
<td>1.250</td>
<td>6000</td>
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<td>1.625</td>
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<td>7500</td>
</tr>
<tr>
<td>1.750</td>
<td>18000</td>
<td>9000</td>
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</table>

ENGINE
Type .......... Fan Cooled Piston Port
Displacement .......... 432 cc
Bore .......... 2.6661" (67.72mm)
Stroke .......... 2.3622" (60mm)
Piston / Cylinder Clearance ... 0.0035" - 0.0055"(0.09 - 0.14mm)
Service Limit .......... 0.0078" (0.20mm)
Piston Identification Marking .. M-6
Piston Ring Marking .......... R
Piston Ring End Gap ........... .008"-.019"(.20-.49mm)
Head cc's (Uninstalled) .... 28.6cc
Head cc's (Installed) .... 23cc
Operating RPM±200 ........ 7000 RPM
Idle RPM±200 ........ 1600 RPM
Engagement RPM±300 .......... 4000 RPM
Cylinder Head Torque ........ 18-19 ft.lbs(2.5-2.8 kgm)
Cylinder Base Nut Torque .... 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) .... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) .... 23-25 ft.lbs(3.2-3.5kgm)
Flywheel Torque .......... 60-65 ft.lbs(8.3-9 kgm)
MODEL: ............ INDY SPORT
MODEL NUMBER: . 099SB4DS
ENGINE MODEL: . EC44-3PM025

ELECTRICAL
Flywheel I.D. ....... FP-5446
CDI Marking ....... CU6416
Alternator Output .... 200 Watts
Ignition Timing .... 26° BTDC@3000RPM±1.5°
.150° BTDC (.133"-.167")
3.81mm BTDC (3.39-4.25mm)
Operating Timing . . 16° @ 6500 RPM
Spark Plug / Gap . . NGK BR8ES / 0.028" (0.7mm)
Lights: Head ...... Halogen 75/60 watts
Tail ........ 2@3 watts
Brake ......... 18 watts
Voltage Regulator ... LR9
Electric Start .......... Option
*LR9= Half wave voltage regulator

CAPACITIES
Fuel Tank .......... 11.8 gallons (44.7 liters)
Oil Tank ............ 2 quarts (1.9 liters)
Coolant ............. N / A
Chaincase Oil ...... 7 fl.oz(210cc)

SUSPENSION / CHASSIS
Body Style ......... Gen II
Front Suspension .... 41 IFS
Maximum Width ...... 41.00"(104.14cm)
Camber ............. 9/16"±5/16"(14±8mm)
Toe Out ............. 0-1/8"(0-3mm)
Front Shocks ......... Nitrex
IFS Spring Rate .... 105#/in.
Front Spring Preload 1 shims
Front Vertical Travel 7.56 in.(19.20cm)
Rear Suspension ...... XTRA Lite
Rear Travel .......... 10.00 in.(25.40cm)
Front Track Shock ... Nitrex
Spring Rate .......... 80#/in.
Rear Track Shock ... Nitrex
Rear Springs ...... .406" / 82°
Track Type .......... 15"x121"x.71"(38.1x307.34x1.80cm)
Track Tension ....... 3/8" - 1/2" (9.67-12.7mm) - slack with 10#/4.54kg) weight16"(40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain .... 19-39, 66 P 3/4 HYVO
Reverse ......... Option
Brake Pads ........... Type 69
Chaincase Center Dist.6 5/8"(16.83cm)
Driveshaft Sprockets . 2 drivers
Brake Type ......... Polaris HPB

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM (STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.393&quot; diameter / 77°</td>
<td>.406&quot; diameter / 82°</td>
<td>.406&quot; diameter / 77°</td>
</tr>
<tr>
<td>L.H. 7041555-067</td>
<td>L.H. 7041521-067</td>
<td>L.H. 7041463-067</td>
</tr>
<tr>
<td>R.H. 7041556-067</td>
<td>R.H. 7041522-067</td>
<td>R.H. 7041464-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.19 10/98
GENERAL
1999 Model Specifications

MODEL: ............ INDY SPORT TOURING
MODEL NUMBER: 099ST4DS
ENGINE MODEL: . EC44-3PM025

CARBURETION
Type ............... VM34SS Mikuni
Main Jet ........... 185
Pilot Jet .......... 35
Jet Needle ........ 6FJ6-3
Needle Jet .......... P-8(166)
Cutaway .......... 2.0 CH
Air Screw .......... 1.0 Turns
Valve Seat .......... 1.5
Fuel Octane (R+M/2) 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ...... .180" (4.57mm)
Idle Sync Gap
Under Cutaway ...... .200" -(5.1mm)

CLUTCH
Type ............... P-90
Belt ................ 3211059
Belt Width (Projected) .1.250" (31.75mm)
Side Angle (Overall) .. 28°
Outside Circumference 45.125
Center Distance ...... 12" (305mm)
Shift Weights .......... 10
Primary Spring ........ Brown
Secondary Spring ...... Red
Driven Helix .......... 36.5° B-2

ENGINE
Type ................ Fan Cooled Piston Port
Displacement ......... 432 cc
Bore ................. 2.6661" (67.72mm)
Stroke ............... 2.3622" (60mm)
Piston / Cylinder Clearance ... 0.0035" - 0.0055"(0.09 - 0.14mm)
Service Limit ........ 0.0078" (0.20mm)
Piston Marking ........ M-6
Piston Ring Marking .... R
Piston Ring End Gap .... .008"-.019"(.20-.49mm)
Head cc's (Uninstalled) ... 28.6cc
Head cc's (Installed) .... 23cc
Operating RPM±200 .... 7000 RPM
Idle RPM±200 ......... 1600 RPM
Engagement RPM±300 .... 3500 RPM
Cylinder Head Torque ...... 18-19 ft.lbs(2.5-2.8 kgm)
Cylinder Base Nut Torque ... 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) ... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) ... 23-25 ft.lbs(3.2-3.5kgm)
Flywheel Torque .......... 60-65 ft.lbs(8.3-9 kgm)

Polaris Industries Inc.

10/98 1.20
MODEL:  INDY SPORT TOURING
MODEL NUMBER:  099ST4DS
ENGINE MODEL:  EC44-3PM025

ELECTRICAL
Flywheel I.D.  FP-5446
CDI Marking  CU6416
Alternator Output  200 Watts
Ignition Timing  26° BTDC@3000RPM±1.5°

Fuel Tank  11.8 gallons (44.7 liters)
Oil Tank  2 quarts (1.9 liters)
Coolant  N/A
Chaincase Oil  7 fl.oz(210cc)

Operating Timing  16° @ 6500 RPM
Spark Plug / Gap  NGK BR8ES / 0.028” (0.7mm)
Lights:  Head  Halogen 75/60 watts
Tail  2@3 watts
Brake  18 watts
Voltage Regulator  LR9
Electric Start  Option
*LR9= Half wave voltage regulator

SUSPENSION / CHASSIS
Body Style  Gen II
Front Suspension  41 IFS
Maximum Width  41.00”(104.14cm)
Camber  29/16”±5/16”(14±8mm)
Toe Out  0-1/8”(0-3mm)
Front Shocks  Nitrex
IFS Spring Rate  105#/in.
Front Spring Preload  0.13” Thread Adjust
Front Vertical Travel  7.56 in.(19.20cm)
Rear Suspension  XTRA Lite
Rear Travel  10.875 in.(25.40cm)
Front Track Shock  Nitrex
Spring Rate  80#/in.
Rear Track Shock  Nitrex
Rear Springs  .359”(sq.) / 84°
Track Type  15”x133.5”x.82”(38.1x339.09x2.08cm)
Track Tension  3/8” - 1/2” (9.65-12.7mm)slack with 10# (4.54kg)weight 16” (40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain  17-41, 66 P 3/4 HYVO
Reverse  Option
Brake Pads  Type 69
Chaincase Center Dist. 6 5/8”(16.83cm)
Driveshaft Sprockets  .2 drivers
Brake Type  Polaris HPB

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM (STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.347” (sq.) diameter / 77°</td>
<td>.359” (sq.) diameter / 84°</td>
<td>.359” (sq.) diameter / 77°</td>
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<tr>
<td>L.H.  7041627-067</td>
<td>L.H.  7041763-067</td>
<td>L.H.  7041629-067</td>
</tr>
<tr>
<td>R.H.  7041628-067</td>
<td>R.H.  7041764-067</td>
<td>R.H.  7041630-067</td>
</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: ........... INDY TRANSPORT
MODEL NUMBER: .... 099SU4DS
ENGINE MODEL: .... EC44-3PM025

CARBURETION
Type ................. VM34SS Mikuni
Main Jet ............. 185
Pilot Jet ............. 35
Jet Needle .......... 6FJ6-3
Needle Jet .......... P-8(166)
Cutaway ............. 2.0 CH
Air Screw .......... 1.0 Turns
Valve Seat .......... 1.5
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway .... .180" - (4.57mm)
Idle Sync Gap
Under Cutaway .... .200" - (5.1mm)

CLUTCH
Type ................. P-90
Belt .................. 3211059
Belt Width (Projected) . 1.250" (31.75mm)
Side Angle (Overall) . . 28°
Outside Circumference 45.125
Center Distance ...... 12" (305mm)
Shift Weights ...... 10
Primary Spring ...... Brown
Secondary Spring ... Red
Driven Helix ...... 36.5° B-2

ENGINE
Type ................. Fan Cooled Piston Port
Displacement ....... 432 cc
Bore ................. 2.6661" (67.72mm)
Stroke ................. 2.6222" (60mm)
Piston / Cylinder Clearance . 0.0035" - 0.0055"(0.09 - 0.14mm)
Service Limit ........ 0.0078" (0.20mm)
Piston Marking ...... M-6
Piston Ring Marking .. R
Piston Ring End Gap .. .008"-.019"(.20-.49mm)
Head cc's (Uninstalled) .... 28.6cc
Head cc's (Installed) ... 23cc
Operating RPM±200 .... 7000 RPM
Idle RPM±200 ....... 1600 RPM
Engagement RPM±300 .... 3500 RPM
Cylinder Head Torque .... 18-19 ft.lbs(2.5-2.8 kgm)
Cylinder Base Nut Torque ... 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) .... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) .... 23-25 ft.lbs(3.2-3.5kgm)
Flywheel Torque .......... 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below -20°F</td>
</tr>
<tr>
<td>Meters (Feet)</td>
<td>0-900</td>
</tr>
<tr>
<td>0-3000</td>
<td>0-3000</td>
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<tr>
<td>#3</td>
<td>#3</td>
</tr>
<tr>
<td>195</td>
<td>185</td>
</tr>
<tr>
<td>XXX</td>
<td>XXX</td>
</tr>
</tbody>
</table>

- # refers to the clip position from top of jet needle.
- Production Setting

Polaris Industries Inc.
MODEL: ................ INDY TRANSPORT
MODEL NUMBER: 099SU4DS
ENGINE MODEL: . EC44-3PM025

ELECTRICAL
Flywheel I.D. ........ FP-5446
CDI Marking ........ CU6416
Alternator Output ... 200 Watts
Ignition Timing ..... 26° BTDC@3000RPM±1.5° .150° BTDC (.133"-.167")
3.81mm BTDC (3.39-4.25mm)
Operating Timing ... 16° @ 6500 RPM
Spark Plug / Gap ... NGK BR8ES / 0.028" (0.7mm)
Lights: Head .......... Halogen 75/60 watts
Tail ............... 8 watts
Brake ............. 29 watts
Voltage Regulator .. LR9
Electric Start ...... Option
*LR9= Half wave voltage regulator

CAPACITIES
Fuel Tank .......... 11.8 gallons (44.7 liters)
Oil Tank .......... 2 quarts (1.9 liters)
Coolant .......... N / A
Chaincase Oil ...... 9 fl.oz(265cc)

SUSPENSION / CHASSIS
Body Style ........ Gen II
Front Suspension ... 41 IFS
Maximum Width ...... 41.00"(104.14cm)
Camber ............... 9/16°±5/16" (14±8mm)
Toe Out .............. 0-1/8"(0-3mm)
Front Shocks ....... Nitrex
IFS Spring Rate ...... 105#/in.
Front Spring Preload 5 shims
Front Vertical Travel 7.56 in.(19.20cm)
Rear Suspension .... 141 GT
Rear Travel .......... 7 in.(17.78cm)
Front Track Shock ... Nitrex
Spring Rate .......... 181#/in.
Rear Track Shock ... Nitrex
Rear Springs ....... .406" / 75°
Track Type .......... 15"x141°x1.125" (38.1x358.14x2.86cm)
Track Tension ..... 3/4" - 1" (19.05 - 25.4mm)slack with 10# (4.54kg)weight 16" (40.64cm)ahead of rear idler shaft

CHAINCASE
Sprockets / Chain .... 16-39, 64 P 3/4 HYVO
Reverse ............ Standard
Brake Pads ........ Type 69
Chaincase Center Dist.6 5/8"(16.83cm)
Driveshaft Sprockets . 2 drivers
Brake Type .......... Polaris HPB

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM (STD)</th>
<th>FIRM</th>
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<tbody>
<tr>
<td>.375&quot; diameter / 75°</td>
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<td>.468&quot; diameter / 74°</td>
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<td>L.H. 7041320-067</td>
<td>L.H. 7041239-067</td>
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<tr>
<td>R.H. 7041319-067</td>
<td>R.H. 7041321-067</td>
<td>R.H. 7041240-067</td>
</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: XCF
MODEL NUMBER: 099SP4AS
ENGINE MODEL: EC45PM011

CARBURETION
Type: VM34SS Mikuni
Main Jet: 270
Pilot Jet: 40
Jet Needle: 6DP1-3
Needle Jet: P-(8(480))
Cutaway: 3.0
Air Screw: 1.0 Turns
Valve Seat: 1.5
Fuel Octane (R+M/2): 87 Non-Oxygenated or 89 Oxygenated

Jetting Chart

<table>
<thead>
<tr>
<th>Altitude (Meters)</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -29°F</td>
<td>Below -29°C</td>
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<td>0-900 (0-3000)</td>
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<td>900-1800 (3000-6000)</td>
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<td>1800-2700 (6000-9000)</td>
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<tr>
<td>2700-3700 (9000-12000)</td>
<td>180</td>
</tr>
</tbody>
</table>

Throttle Gap
Under Cutaway: .218" (5.54mm)
Idle Sync Gap
Under Cutaway: .240" (6.11mm)

CLUTCH
Type: P-85
Belt Width (Projected): 1.375" (34.93mm)
Side Angle (Overall): 28°
Outside Circumference: 47.25
Center Distance: 12" (305mm)
Shift Weights: 10-58
Primary Spring: Dark Blue
Secondary Spring: Silver
Driven Helix: 36° #2

Clutch Chart

<table>
<thead>
<tr>
<th>Altitude (Meters)</th>
<th>DRIVE</th>
<th>DRIVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shift Weight</td>
<td>Clutch Spring</td>
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<td>0-900 (0-3000)</td>
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<td>900-1800 (3000-6000)</td>
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<td>1800-2700 (6000-9000)</td>
<td>10-56</td>
</tr>
<tr>
<td></td>
<td>2700-3700 (9000-12000)</td>
<td>10-54</td>
</tr>
</tbody>
</table>

ENGINE
Type: Fan Cooled Cylinder Reed
Displacement: 431 cc
Bore: 2.559" (65mm)
Stroke: 2.559" (65mm)
Piston / Cylinder Clearance: 0.0039" - 0.0053" (0.10 - 0.135mm)
Service Limit: 0.0078" (0.20mm)
Piston Marking: 4MB
Piston Ring Marking: N
Piston Ring End Gap: .009"-.017" (.24-.45mm)
Head cc's (Uninstalled): 26.2 cc
Head cc's (installed): 23.2 cc
Operating RPM±200: 6500 RPM
Idle RPM±200: 1600 RPM
Engagement RPM±300: 4000 RPM
Cylinder Head Torque: 18-19 ft.lbs (2.5-2.8 kgm)
Cylinder Base Nut Torque: 24-28 ft.lbs (3.3-3.9 kgm)
Crankcase Torque (8mm): 17-18 ft.lbs (2.2-2.3 kgm)
Crankcase Torque (10mm): 23-25 ft.lbs (3.2-3.5 kgm)
Flywheel Torque: 60-65 ft.lbs (8.3-9 kgm)

10/98 1.24 Polaris Industries Inc.
MODEL: .......... XCF
MODEL NUMBER: . 099SP4AS
ENGINE MODEL: . EC45PM011

ELECTRICAL
Flywheel I.D. .......... F004T32971
CDI Marking .......... F6291A
Alternator Output ... 240 Watts @ 4000 RPM
Ignition Timing ...... 27° BTDC @ 3000 RPM ±1.5°
                      0.175" BTDC (0.157"-0.195")
                      4.45mm BTDC (3.97-4.93mm)
Operating Timing ... 17° @ 6500 RPM
Spark Plug / Gap .... NGK BR9ES / 0.028" (0.7mm)
Lights: Head ...... Halogen 75/60 watts
         Tail .......... 2 @ 3 watts
         Brake ......... 18 watts
Voltage Regulator .. LR9
Electric Start ...... Option
*LR9= Half wave voltage regulator

CAPACITIES
Fuel Tank .......... 10.5 gallons (39.7 liters)
Oil Tank .......... 3 quarts (2.8 liters)
Coolant .......... N / A
Chaincase Oil ...... 7 fl.oz (210cc)

SUSPENSION / CHASSIS
Body Style .......... Gen II
Front Suspension ... XTRA-10 CRC
Maximum Width ...... 41.00" (104.14cm)
Camber ............. 3/4"±5/16" (19.05±8mm)
Toe Out ............. 3/8"-1/2" (9.65-12.7mm)
Front Shocks ...... Indy Select
IFS Spring Rate ...... 80#/in.
Front Spring Preload .06" Thread Adjust
Front Vertical Travel 9.30 in. (23.62cm)
Rear Suspension ... XTRA-10
Rear Travel .......... 10.0 in. (25.4cm)
Front Track Shock ... Ryde FX
Spring Rate .......... 200#/in. variable
Rear Track Shock .... Ryde AFX
Rear Springs ...... .406" / 77°
Track Type .......... 15"x12"x.82" (38.1x30.7x2.08cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain ... 19-40, 66 P 3/4 HYVO
Reverse .......... Option
Brake Pads .......... Type 69
Chaincase Center Dist. 6 5/8" (16.83cm)
Driveshaft Sprockets ... 2 Drivers
Brake Type .......... Polaris HPB

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th></th>
<th>SOFT(STD)</th>
<th>MEDIUM</th>
<th>FIRM</th>
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<tr>
<td>L.H.</td>
<td>7041463-067</td>
<td>L.H. 7041461-067</td>
<td>L.H. 7041465-067</td>
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<tr>
<td>R.H.</td>
<td>7041464-067</td>
<td>R.H 7041462-067</td>
<td>R.H. 7041466-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.25 10/98
GENERAL
1999 Model Specifications

MODEL: ........... 440 XCR
MODEL NUMBER: . 099SX4CS
ENGINE MODEL: .. S44-44-96A1

CARBURETION
Type .................. VM34SS Mikuni
Main Jet .................. 360
Pilot Jet .................. 45
Jet Needle ................. 6DH7-3
Needle Jet ................. P-4(286)
Cutaway .................. 2.0 CH
Air Screw ................. 1.25 Turns
Valve Seat ................. 1.5 Viton
Fuel Octane (R+M/2) ....... 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway .......... .189" - (4.80mm)(3/16")
Idle Sync Gap
Under Cutaway .......... .208" - (5.3mm)(13/64")

CLUTCH
Type .................. P-85
Belt .................. 3211074
Belt Width (Projected) .......... 1.438" (34.93mm)
Side Angle (Overall) ....... 28°
Outside Circumference .......... 47.625
Center Distance ........... 12" (305mm)
Shift Weights .............. S-53 Red
Primary Spring .......... Almond Gold
Secondary Spring ........ Silver/Blue
Driven Helix ............... R-8 #2

JETTING CHART

<table>
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<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
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<tbody>
<tr>
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<td>Below -20°F</td>
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<td>Meters</td>
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<tr>
<td>0-900</td>
<td>380 #3</td>
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<tr>
<td></td>
<td>390-1800</td>
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<td>1800-2700</td>
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<tr>
<td></td>
<td>2700-3700</td>
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</tbody>
</table>

- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH CHART

<table>
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<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
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<tbody>
<tr>
<td></td>
<td>Shft Weight</td>
<td>Clutch Spring</td>
</tr>
<tr>
<td></td>
<td>S-53 Blue</td>
<td>Almond Gold</td>
</tr>
<tr>
<td>0-900</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S-53 Blue</td>
<td>Almond Gold</td>
</tr>
<tr>
<td>1800-2700</td>
<td>10M Blue</td>
<td>Bushed</td>
</tr>
<tr>
<td></td>
<td>10M White</td>
<td>Bushed</td>
</tr>
<tr>
<td>2700-3700</td>
<td>10M White</td>
<td>Bushed</td>
</tr>
</tbody>
</table>

ENGINE
Type .................. Liquid Cooled Case Reed
Displacement .............. 438 cc
Bore .................. 2.598" (66mm)
Stroke .................. 2.520" (64mm)
Piston / Cylinder Clearance .. 0.0023" - 0.0037"(0.06 - 0.095mm)
Service Limit ........... 0.0059" (0.15mm)
Piston Marking .......... EK2185B
Piston Ring Marking ..... "o" faces upward
Piston Ring End Gap ...... .008"-.020"(.20-.51mm)
Head cc's (Uninstalled) .... 19.6 cc
Head cc's (Installed) .... 18.5 cc
Operating RPM±200 ...... 8250 RPM
Idle RPM±200 ............ 1600 RPM
Engagement RPM±300 ...... 5000 RPM
Cylinder Head Torque ...... 20-24 ft.lbs(2.8-3.3 kgm)
Cylinder Base Nut Torque ... 30-34 ft.lbs(4.15-4.7 kgm)
Crankcase Torque (8mm) ..... 20-24 ft.lbs(2.8-3.3 kgm)
Crankcase Torque (10mm) ... N/A
Flywheel Torque .......... 90 ft.lbs(12.4 kgm)

10/98 1.26 Polaris Industries Inc.
MODEL: 440 XCR
MODEL NUMBER: 099SX4CS
ENGINE MODEL: S44-44-98A1

ELECTRICAL
Flywheel I.D. 4060141
CDI Marking 4060190
Alternator Output 280 Watts
Ignition Timing 25° BTDC@3500RPM±1.5°
  0.146° BTDC (±0.017°)
  3.72mm BTDC (±0.435mm)
Operating Timing 16° @ 8250 RPM
Spark Plug / Gap Champion RN-2C / 0.028° (0.7mm)
Lights: Head Halogen 75/60 watts
  Tail 2@2 watts
  Brake 1@17 watts
Voltage Regulator LR7
Electric Start N/A
*LR7= Full wave voltage regulator

CAPACITIES
Fuel Tank 10.5 gallons (39.7 liters)
Oil Tank 3 quarts (2.8 liters)
Coolant 3 Quarts (2.8 liters)
Chaincase Oil 7 fl.oz (210cc)

SUSPENSION / CHASSIS
Body Style Gen II
Front Suspension XC-10, CRC
Maximum Width 41.00"(104.14cm)
Camber 1.05°±5/16"(26.67±8mm)
Toe Out 0-1/8°(0-3mm)
Front Shocks Fox™ IFP
IFS Spring Rate 74-120#/in.
Front Track Shock 0.75° Thread Adjust
Front Vertical Travel 9.0 in.(22.86cm)
Rear Suspension XTRA-10
Rear Travel 8.0 in.(20.32cm)
Front Track Shock Fox™ IFP
Spring Rate 190#/in.
Rear Track Shock Fox™ IFP with Remote Reservoir
Rear Springs .359" (sq.) / 77°
Track Type 15"x121"x.82" (38.1x307.34x2.08cm)
Track Tension 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM (STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.347&quot;(sq.)</td>
<td>.359&quot;(sq.)</td>
<td>.375&quot;(sq.)</td>
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<tr>
<td>diameter/77°</td>
<td>diameter/77°</td>
<td>diameter/77°</td>
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<tr>
<td>L.H 7041627-067</td>
<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
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<tr>
<td>R.H. 7041628-067</td>
<td>R.H. 7041630-067</td>
<td>R.H. 7041632-067</td>
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</tbody>
</table>

Polaris Industries Inc. 1.27 10/98
GENERAL
1999 Model Specifications

MODEL: TRAIL
MODEL NUMBER: 099EB4ES(A)
ENGINE MODEL: EC50PM044

CARBURETION
Type ............... VM34SS Mikuni
Main Jet ............ 230
Pilot Jet ............ 40
Jet Needle .......... 6DH7-3
Needle Jet .......... P-8(166)
Cutaway ............ 3.0 CH
Air Screw .......... 1.0 Turns
Valve Seat .......... 1.5
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ........ .219" -(5.55mm)
Idle Sync Gap
Under Cutaway ........ .240" -(6.1mm)

CLUTCH
Type ............... P-85
Belt .................. 3211070
Belt Width (Projected) . 1.375" (34.93mm)
Side Angle (Overall) .... 28°
Outside Circumference 47,250
Center Distance ...... 12" (305mm)
Shift Weights .......... 10 AL Bushed
Primary Spring ...... Red/White
Secondary Spring .... Silver
Driven Helix ........ 36° #2

JETTING CHART

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<td>9000-12000</td>
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- # refers to the clip position from top of jet needle.
- # Production Setting

CLUTCH CHART

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<th>DRIVEN</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Shift Weight</td>
<td>Clutch Spring Red/White</td>
</tr>
<tr>
<td>Meters</td>
<td>Feet</td>
<td>10 AL Bushed Red/White</td>
</tr>
<tr>
<td>0-900</td>
<td>0-3000</td>
<td>10 AL Bushed Red/White</td>
</tr>
<tr>
<td>900-1800</td>
<td>3000-6000</td>
<td>10 M Bushed Red/White</td>
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<tr>
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</tr>
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<td>2700-3700</td>
<td>9000-12000</td>
<td>10 MB Bushed Red/White</td>
</tr>
</tbody>
</table>

ENGINE
Type ............... Fan Cooled Piston Port
Displacement .......... 488 cc
Bore .................. 2.8346" (72mm)
Stroke ................ 2.3622" (60mm)
Piston / Cylinder Clearance .. 0.0039" - 0.0063"(0.10 - 0.16mm)
Service Limit .......... 0.0078" (0.20mm)
Piston Marking .......... M-1
Piston Ring Marking ....... R
Piston ring end gap .......... .008"-.019"(.20-.49mm)
Head cc's (Uninstalled) .... 26.7cc
Head cc's (Installed) ...... 24.1cc
Operating RPM±200 ....... 7000 RPM
Idle RPM±200 ........ 1600 RPM
Engagement RPM±300 ....... 3600 RPM
Cylinder Head Torque ...... 18-19 ft.lbs(2.5-2.8 kgm)
Cylinder Base Nut Torque ... 30-34 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) .... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) .... 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque .......... 60-65 ft.lbs(8.3-9 kgm)

10/98
MODEL: ............ TRAIL
MODEL NUMBER: . 099EB4ES(A)
ENGINE MODEL: .. EC50PM044

ELECTRICAL
Flywheel I.D. ........ FP5441
CDI Marking ........ CU6413
Alternator Output ... 200 Watts
Ignition Timing ..... 26° BTDC@3000RPM±1.5°
                   . 0.150° BTDC (±0.017")
                   . 3.81mm BTDC (±0.43mm)
Operating Timing . . 16° @6500 RPM
Spark Plug / Gap ... NGK BR8ES / 0.028" (0.7mm)
Lights: Head ........ Halogen 75/60 watts
        Tail ........ 2@3 watts
        Brake ...... 18 watts
Voltage Regulator .. LR9
Electric Start ...... Option
*LR9= Half wave voltage regulator

CAPACITIES
Fuel Tank .......... 11.8 gallons (44.7 liters)
Oil Tank .......... 2 quarts (1.9 liters)
Coolant .......... N/A
Chaincase Oil ...... 7 fl.oz(210cc)

SUSPENSION / CHASSIS
Body Style ......... Evolved
Front Suspension .. XTRA-10
Maximum Width .... 42.50"(107.95cm)
Camber ............ 0°±5/16"(0±8mm)
Toe Out ........... 1/8-1/4"(3-6.35mm)
Front Shocks ...... Nitrex
IFS Spring Rate . . 80#/in.
Front Spring Preload 0.5" Thread Adjust
Front Vertical Travel 10.0 in.(25.4cm)
Rear Suspension ... XTRA-10
Rear Travel ....... 10.0 in.(25.4cm)
Front Track Shock .. Nitrex
Spring Rate ....... 200#/in. variable
Rear Track Shock .. Indy Select
Rear Springs ...... .406" / 77°
Track Type ........ 15"x12"x.82" (38.1x307.34x2.08cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain .... 22-41, 68 P 3/4 HYVO
Reverse ............ Option
Brake Pads ........ Type 69
Chaincase Center Dist. 6 5/8"(16.83cm)
Driveshaft Sprockets . 2 drivers
Brake Type ........ Hydraulic Disc

OPTIONAL REAR TORSION SPRINGS

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</tr>
</tbody>
</table>

Polaris Industries Inc.

1.29

10/98
GENERAL
1999 Model Specifications

MODEL: TRAIL TOURING
MODEL NUMBER: 099ET4ES(A)
ENGINE MODEL: EC50PM044

CARBURETION
Type: VM34SS Mikuni
Main Jet: 230
Pilot Jet: 40
Jet Needle: 6DH7-3
Needle Jet: P-8(166)
Cutaway: 3.0 Ch
Air Screw: 1.0 Turns
Valve Seat: 6DH7 -3
Needle Jet: P-8(166)
Cutaway: 3.0 CH
Throttle Gap: .219" (-5.55mm)
Idle Sync Gap: Under Cutaway

CLUTCH
Type: P-85
Belt: 3211070
Belt Width (Projected): 1.375" (34.93mm)
Side Angle (Overall): 28°
Outside Circumference: 47.250
Center Distance: 12" (305mm)
Shift Weights: 10 Bushed
Primary Spring: Red/White
Secondary Spring: Silver
Driven Helix: 36° #2

ENGINE
Type: Fan Cooled Piston Port
Displacement: 488 cc
Bore: 2.8346" (72mm)
Stroke: 2.3622" (60mm)
Piston / Cylinder Clearance: 0.0039" - 0.0063" (0.10 - 0.16mm)
Service Limit: 0.0078" (0.20mm)
Piston Marking: M-1
Piston Ring Marking: R
Piston Ring End Gap: .008" - .019" (.20 - .49mm)
Head cc's (Uninstalled): 26.7cc
Head cc's (Installed): 24.1cc
Operating RPM±200: 7000 RPM
Idle RPM±200: 1600 RPM
Engagement RPM±300: 3600 RPM
Cylinder Head Torque: 18-19 ft.lbs (2.5-2.8 kgm)
Cylinder Base Nut Torque: 30-34 ft.lbs (3.3-3.9 kgm)
Crankcase Torque (8mm): 17-18 ft.lbs (2.2-2.3 kgm)
Crankcase Torque (10mm): 23-25 ft.lbs (3.2-3.5 kgm)
Flywheel Torque: 60-65 ft.lbs (8.3-9 kgm)

10/98
1.30
Polaris Industries Inc.
MODEL: TRAIL TOURING
MODEL NUMBER: 099ET4ES(A)
ENGINE MODEL: EC50PM044

ELECTRICAL
Flywheel I.D. FP5441
CDI Marking CU6413
Alternator Output 200 Watts
Ignition Timing 26° BTDC @ 3000 RPM ± 1.5°
Operating Timing 16° @ 6500 RPM
Spark Plug / Gap NGK BR8ES / 0.028" (0.7mm)
Lights: Head Halogen 75/60 watts
Tail 2@3 watts
Brake 18 watts
Voltage Regulator LR9, LR2
Electric Start Standard
*LR9= Half wave voltage regulator
*LR2=Rectifier only for battery charging

CAPACITIES
Fuel Tank 11.8 gallons (44.7 liters)
Oil Tank 2 quarts (1.9 liters)
Coolant N/A
Chaincase Oil 9 fl.oz (265cc)

SUSPENSION / CHASSIS
Body Style Evolved
Front Suspension XTRA-10
Maximum Width 42.50" (107.95cm)
Camber 0°±5/16" (0-8 mm)
Toe Out 1/8-1/4" (3-6.35mm)
Front Shocks Nitrex
IFS Spring Rate 80#/in.
Front Spring Preload 0.13" Thread Adjust
Front Vertical Travel 10.0 in. (25.4cm)
Rear Suspension XTRA-10
Rear Travel 11.5 in. (29.21cm)
Front Track Shock Nitrex
Spring Rate 200#/in. variable
Rear Track Shock Indy Select
Rear Springs .437" / 77°
Track Type 15"x133.5"x.82" (38.1x339.09x2.08cm)
Track Tension 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR TORSION SPRINGS

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</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: TRAIL RMK
MODEL NUMBER: 099SR5BS
ENGINE MODEL: EC55PM021

CARBURETION
Type: VM34SS Mikuni (ACCS)
Main Jet: 270
Pilot Jet: 35
Jet Needle: 6DH7-3
Needle Jet: Q-0(480)
Cutaway: 3.0
Air Screw: 1.5 Turns
Valve Seat: 1.5
Fuel Octane: 87 Non-Oxygenated or 89 Oxygenated

THROTTLE GAP
Under Cutaway: .218" - (5.54mm)
Idle Sync Gap: .242" - (6.15mm)

CLUTCH
Type: P-85
Belt Width: 321mm
Outside Circumference: 47.250
Center Distance: 12" (305mm)
Primary & Secondary Spring: Dark Blue/Silver/Blue
Driven Helix: R-32 #2

ENGINE
Type: Fan Cooled Reed Assist
Displacement: 544 cc
Bore: 2.874" (73mm)
Stroke: 2.559" (65mm)
Piston/Cylinder Clearance: 0.0041" - 0.0055"(0.104 - 0.139mm)
Service Limit: 0.0078" (0.20mm)
Piston Marking: 5MB
Piston Ring Marking: N
Piston Ring End Gap: .015"-.022" (.40-.55mm)

Head cc's (Uninstalled): 33.8 cc
Head cc's (Installed): 27.7 cc
Operating RPM±200: 6800 RPM
Idle RPM±200: 1600 RPM
Engagement RPM±300: 3600 RPM
Cylinder Head Torque: 18-19 ft.lbs(2.5-2.8 kgm)
Cylinder Base Nut Torque: 30-34 ft.lbs(3.3-3.9 kgm)
Crankcase Nut Torque (8mm): 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm): 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque: 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

CLUTCH CHART

10/98 1.32 Polaris Industries Inc.
MODEL: TRAIL RMK
MODEL NUMBER: 099SR5BS
ENGINE MODEL: EC55PM021

ELECTRICAL

Flywheel I.D. ........ F004T32971
CDI Marking ........ F6291A
Alternator Output ... 240 Watts @ 4000 RPM
Ignition Timing ...... 27° BTDC @ 3000 RPM ± 1.5°
                      0.175° BTDC (0.157-0.195°)
                      4.45 mm BTDC (3.97-4.93 mm)
Operating Timing .... 17° @ 6500 RPM
Spark Plug / Gap ... NGK BR8ES / 0.028" (0.7 mm)
Lights: Head ........ Halogen 75/60 watts
         Tail .......... 2@3 watts
         Brake ......... 18 watts
Voltage Regulator ... LR9
Electric Start ...... Option
*LR9= Half wave voltage regulator

CAPACITIES

Fuel Tank ........... 11.8 gallons (44.7 liters)
Oil Tank ............ 3 quarts (2.8 liters)
Coolant ............. N/A
Chaincase Oil ...... 7 fl. oz (210 cc)

SUSPENSION / CHASSIS

Body Style .......... Gen II
Front Suspension ... 38 RMK
Maximum Width ...... 38.00" (96.52 cm)
Camber .............. 0° ± 5/16" (0-8 mm)
Toe Out ............. 1/8"-1/4" (3-6.35 mm)
Front Shocks ....... Nitrex
IFS Spring Rate ... 80#/in.
Front Spring Preload 0.3" Thread Adjust
Front Vertical Travel 8.18 in. (20.78 cm)
Rear Suspension ... XTRA-Lite 136
Rear Travel ........ 12.0 in. (30.48 cm)
Front Track Shock ... Hydraulic
Spring Rate .......... 181#/in.
Rear Track Shock ... Indy Select
Rear Springs ........ .359" (sq) / 77°
Track Type .......... 15" x 136" x 1.25" (38.1 x 345.44 x 3.175 cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7 mm) slack with 10# (4.54 kg) weight 16" (40.64 cm) ahead of rear idler shaft

OPTIONAL REAR TORSION SPRINGS

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<td>.347&quot; (sq) diameter / 77°</td>
<td>.359&quot; (sq) diameter / 77°</td>
<td>.375&quot; (sq) diameter / 77°</td>
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<tr>
<td>R.H. 7041628-067</td>
<td>R.H 7041630-067</td>
<td>R.H 7041632-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.33 10/98
GENERAL
1999 Model Specifications

MODEL: ........... SUPER SPORT
MODEL NUMBER: . 099SB55S
ENGINE MODEL: . EC55PM011

CARBURETION
Type ............... VM34SS Mikuni
Main Jet ........... 310
Pilot Jet ........... 35
Jet Needle ........ 6DH7-3
Needle Jet .......... Q-2(480)
Cutaway ........... 3.0
Air Screw .......... 1.5 Turns
Valve Seat ........ 1.5
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ...... .218" - (5.54mm)
Idle Sync Gap
Under Cutaway ...... .242" - (6.15mm)

CLUTCH
Type ............... P-85
Belt ............... 3211070
Belt Width (Projected) . 1.375" (34.93mm)
Side Angle (Overall) .. 28°
Outside Circumference 47.250
Center Distance ...... 12" (305mm)
Shift Weights ...... 10-60 Bushed
Primary Spring ...... Dark Blue
Secondary Spring ... Silver/Blue
Driven Helix ...... 36° #2

ENGINE
Type ............... Fan Cooled Reed Assist
Displacement .......... 544 cc
Bore ............... 2.874" (73mm)
Stroke ............... 2.559" (65mm)
Piston / Cylinder Clearance . 0.0041" - 0.0055"(0.104 - 0.139mm)
Service Limit ........ 0.0078" (0.20mm)
Piston Marking ........ 5MB
Piston Ring Marking .... N
Piston Ring End Gap ...... .015"-.022"(.40-.55mm)
Head cc's (Uninstalled) . . 33.8 cc
Head cc's (Installed) . . 27.7 cc
Operating RPM±200 ......... 6500 RPM
Idle RPM±200 ........ 1600 RPM
Engagement RPM±300 .... 3600 RPM
Cylinder Head Torque .... 18-19 ft.lbs(2.5-2.8 kgm)
Cylinder Base Nut Torque . . 30-34 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) . 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) .. 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque .......... 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below -20°F</td>
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<tr>
<td></td>
<td>-29°C to -12°C</td>
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<tr>
<td>Meters (Feet)</td>
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<td>600-900</td>
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- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH CHART

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<tr>
<td>10200-10500</td>
<td>8-0 Bushed</td>
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10/98 1.34 Polaris Industries Inc.
MODEL: ........  **SUPER SPORT**  
MODEL NUMBER: . 099SB5BS  
ENGINE MODEL:  EC55PM011

**ELECTRICAL**

Flywheel I.D. ......  F004T32971  
CDI Marking ......  F6291A  
Alternator Output ...  240 Watts @ 4000 RPM  
Ignition Timing ......  27° BTDC @ 3000 RPM ± 1.5°  
                      0.175° BTDC (0.157°-0.195°)  
                      4.45mm BTDC (3.97-4.93mm)  
Operating Timing ...  17° @ 6500 RPM  
Spark Plug / Gap ...  NGK BR8ES / 0.028" (0.7mm)  
Lights: Head ...... Halogen 75/60 watts  
         Tail ...... 2 @ 3 watts  
         Brake ...... 18 watts  
Voltage Regulator .. LR9  
Electric Start ...... Option  
*LR9= Half wave voltage regulator

**CAPACITIES**

Fuel Tank ........... 11.8 gallons (44.7 liters)  
Oil Tank ............ 3 quarts (2.8 liters)  
Coolant ............. N/A  
Chaincase Oil ...... 7 fl.oz (210cc)

**SUSPENSION / CHASSIS**

Body Style ........ Gen II  
Front Suspension .. XTRA-10  
Maximum Width .... 42.50" (107.95 cm)  
Camber ............. 0°±5/16" (0±8 mm)  
Toe Out ............. 1/8"-1/4" (3-6.35 mm)  
Front Shocks ...... Nitrex  
IFS Spring Rate .... 80#/in.  
Front Spring Preload 0.5" Thread Adjust  
Front Vertical Travel 10.0 in. (25.4 cm)  
Rear Suspension ... XTRA-10  
Rear Travel ........ 10.0 in. (25.4 cm)  
Front Track Shock .. Nitrex  
Spring Rate ......... 200#/in. variable  
Rear Track Shock .. Indy Select  
Rear Springs ...... .406" / 77°  
Track Type ........ 15"x121"x.82" (38.1x307.34x2.08 cm)  
Track Tension ...... 3/8" - 1/2" (9.65-12.7 mm) slack with 10# (4.54 kg) weight 16" (40.64 cm) ahead of rear idler shaft

**CHAINCASE**

Sprockets / Chain .... 19-39, 66 P 3/4 HYVO  
Reverse ............ Option  
Brake Pads .......... Type 69  
Chaincase Center Dist. 6 5/8" (16.83 cm)  
Driveshaft Sprockets . 2 Drivers  
Brake Type .......... Polaris HPB

**OPTIONAL REAR TORSION SPRINGS**

<table>
<thead>
<tr>
<th></th>
<th>SOFT(STD)</th>
<th>MEDIUM</th>
<th>FIRM</th>
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</tbody>
</table>

Polaris Industries Inc.  
1.35  
10/98
**GENERAL**

**1999 Model Specifications**

**MODEL: ** INDY 500
**MODEL NUMBER: ** 099EB4BS(A)
**ENGINE MODEL: ** EC50PL172

**CARBURETION**

Type .................. VM38SS Mikuni
Main Jet ............... 350
Pilot Jet ............. 45
Jet Needle .......... 6F9-3
Needle Jet .......... P-6(247)
Cutaway ............. 2.5 CH
Air Screw .......... 3/4 Turn
Valve Seat .......... 1.5 Viton
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ...... .219" - (5.55mm)
Idle Sync Gap
Under Cutaway ...... .240" - (6.1mm)

**CLUTCH**

Type .................. P-85
Belt ..................... 3211070
Belt Width (Projected) . 1.375" (34.93mm)
Side Angle (Overall) .... 28°
Outside Circumference . 47.250
Center Distance ........ 12" (305mm)
Shift Weights .......... 10M Bushed
Primary Spring ....... Gold
Secondary Spring .... Gold
Driven Helix .......... 36° #2

**JETTING CHART**

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -20°F</td>
<td>Below -29°C</td>
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<tr>
<td>Meters (Foot)</td>
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<tr>
<td>0-900 (0-3000)</td>
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<tr>
<td>900-1500 (3000-6000)</td>
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<tr>
<td>1500-2000 (6000-9000)</td>
<td>290</td>
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<tr>
<td>2000-2500 (9000-12000)</td>
<td>250</td>
</tr>
</tbody>
</table>

* # refers to the clip position from top of jet needle.

- Production Setting

**CLUTCH CHART**

<table>
<thead>
<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meters (Foot)</td>
<td>Shift Weight</td>
<td>Clutch Spring</td>
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<tr>
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<td>Gold</td>
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<tr>
<td>900-1500 (3000-6000)</td>
<td>10M Blue Bushed</td>
<td>Gold</td>
</tr>
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<td>1500-2000 (6000-9000)</td>
<td>10M White Bushed</td>
<td>Dark Blue</td>
</tr>
<tr>
<td>2000-2500 (9000-12000)</td>
<td>10M Red Bushed</td>
<td>Dark Blue</td>
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</tbody>
</table>

**ENGINE**

Type .................. Liquid Cooled Piston Port
Displacement .......... 488 cc
Bore ................. 2.8346" (72mm)
Stroke ............... 2.3622" (60mm)
Piston / Cylinder Clearance .... 0.0035" - 0.0049"(0.09 - 0.125mm)
Service Limit .......... 0.0078" (0.20mm)
Piston Marking ......... 5B
Piston Ring Marking .... 5B
Piston Ring End Gap .... .008"-.016"(.20-.40mm)
Head cc's (Uninstalled) .... 28cc
Head cc's (Installed) .... 23.6cc
Operating RPM±200 .... 7800 RPM
Idle RPM±200 ........ 1600 RPM
Engagement RPM±300 .... 4000 RPM
Cylinder Head Torque .... 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque ... 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) .... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) ... 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque .......... 60-65 ft.lbs(8.3-9 kgm)

10/98 1.36  
Polaris Industries Inc.
MODEL: ........... INDY 500
MODEL NUMBER: . 099EB4BS(A)
ENGINE MODEL: .. EC50PL172

ELECTRICAL
Flywheel I.D. ....... FP5445
CDI Marking ....... CU6417
Alternator Output ... 200 Watts
Ignition Timing ...... 28° BTDC @ 3000 RPM ± 1.5°
                   0.173° BTDC (±0.0175°)
                   4.40mm BTDC (±0.48mm)
Operating Timing ... 16° @ 7500 RPM
Spark Plug / Gap ... Champion RN-3C / 0.028" (0.7mm)
Lights: Head ...... Halogen 75/60 watts
         Tail ......... 2 @ 2 watts
         Brake ...... 1 @ 17 watts
Voltage Regulator .. LR9
Electric Start ...... Option
*LR9= Half wave voltage regulator

CAPACITIES
Fuel Tank .......... 11.8 gallons (44.7 liters)
Oil Tank .......... 2 quarts (1.9 liters)
Coolant .......... 3 quarts (2.8 liters)
Chaincase Oil ...... 7 fl.oz (210cc)

SUSPENSION / CHASSIS
Body Style ........ Evolved
Front Suspension ... XTRA-10
Maximum Width ...... 42.50" (107.95cm)
Camber .............. 0°±5/16" (0-8mm)
Toe Out .............. 1/8-1/4" (3-6.35mm)
Front Shocks .... Nitrex
IFS Spring Rate ..... 80#/in.
Front Spring Preload 0.5" Thread Adjust
Front Vertical Travel 10.0 in. (25.4cm)
Rear Suspension ... XTRA-10
Rear Travel .......... 10.0 in. (25.4cm)
Front Track Shock .. Nitrex
Spring Rate .......... 200#/in. variable
Rear Track Shock ... Indy Select
Rear Springs ....... .406" / 77°
Track Type .......... 15"x121"x.82" (38.1x307.34x2.08cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain ... 22-41, 68 P 3/4 HYVO
Reverse .......... Option
Brake Pads ......... Type 69
Chaincase Center Dist.6 5/8" (16.83cm)
Driveshaft Sprockets . 2 Drivers
Brake Type .......... Hydraulic Disc

OPTIONAL REAR TORSION SPRINGS

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<tr>
<th>SOFT(STD)</th>
<th>MEDIUM</th>
<th>FIRM</th>
</tr>
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</table>

Polaris Industries Inc. 1.37 10/98
GENERAL
1999 Model Specifications

MODEL: 500 CLASSIC
MODEL NUMBER: 099ED4BS
ENGINE MODEL: EC50PL172

CARBURETION
Type: VM38SS Mikuni
Main Jet: 350
Pilot Jet: 45
Jet Needle: 6F9-3
Needle Jet: P-6(247)
Cutaway: 2.5 CH
Air Screw: 3/4 Turn
Valve Seat: 1.5 Viton
Fuel Octane (R+M/2): 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap: .219" 7/32" (5.55mm)
Idle Sync Gap: .240" 15/64" (6.11mm)

CLUTCH
Type: P-85
Belt: 3211070
Belt Width (Projected): 1.375" (34.93mm)
Side Angle (Overall): 28°
Outside Circumference: 47.250
Center Distance: 12" (305mm)
Shift Weights: 10M Bushed
Primary Spring: Gold
Secondary Spring: Gold
Driven Helix: 34° #2

ENGINE
Type: Liquid Cooled Piston Port
Displacement: 488 cc
Bore: 2.8346" (72mm)
Stroke: 2.3622" (60mm)
Piston / Cylinder Clearance: 0.0035" - 0.0049" (0.09 - 0.125mm)
Service Limit: 0.0078" (0.20mm)
Piston Marking: 5B
Piston Ring Marking: 5B
Piston Ring End Gap: .008" -.016" (.20 -.40mm)
Head cc's (Uninstalled): 28cc
Head cc's (Installed): 23.6cc
Operating RPM±200: 7800 RPM
Idle RPM±200: 1600 RPM
Engagement RPM±300: 4000 RPM
Cylinder Head Torque: 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque: 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm): 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm): 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque: 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

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</tr>
<tr>
<td>#3</td>
<td>50</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>#3</td>
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</tr>
<tr>
<td>#3</td>
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<td>0</td>
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</tr>
<tr>
<td>#3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- # refers to the clip position from top of jet needle.
- Production Setting

10/98 1.38 Polaris Industries Inc.
MODEL: 500 CLASSIC
MODEL NUMBER: 099ED4BS
ENGINE MODEL: EC50PL172

ELECTRICAL
Flywheel I.D. FP5445
CDI Marking CU6417
Alternator Output 200 Watts
Ignition Timing 28° BTDC @ 3000 RPM ±1.5°
Operating Timing 16° @ 7500 RPM
Spark Plug / Gap Champion RN-3C / 0.028" (0.7mm)
Lights: Head Halogen 75/60 watts
Tail 2@2 watts
Brake 1@17 watts
Voltage Regulator LR9, LR2
Electric Start Standard
*LR9= Half wave voltage regulator
*LR2=Rectifier only for battery charging

CAPACITIES
Fuel Tank 11.8 gallons (44.7 liters)
Oil Tank 2 quarts (1.9 liters)
Coolant 3 quarts (2.8 liters)
Chaincase Oil 9 fl.oz (265cc)

SUSPENSION / CHASSIS
Body Style Evolved
Front Suspension XTRA-12
Maximum Width 42.50" (107.95cm)
Camber 0° ±5/16" (0±8mm)
Toe Out 1/8" - 1/4" (3-6.35mm)
Front Shocks Nitrex
IFS Spring Rate 65# / in.
Front Spring Preload 0.5" Thread Adjust
Front Vertical Travel 10 in. (25.4cm)
Rear Suspension XTRA-12
Rear Travel 12.0 in. (30.48cm)
Front Track Shock Indy Select
Spring Rate 75/125# / in.
Rear Track Shock Nitrex with 85# Spring
Rear Springs .406" / 55°
Track Type 15"x12" x 0.82" (38.1x307.34x2.08cm)
Track Tension 1/2" (12.7mm) free hang 2" (5.08cm) behind rail bumper with no weight attached

OPTIONAL REAR TORSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT(STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.406&quot; diameter/55°</td>
<td>.421&quot; diameter/55°</td>
</tr>
<tr>
<td>L.H 7041394-067</td>
<td>L.H. 7041406-067</td>
</tr>
<tr>
<td>R.H. 7041395-067</td>
<td>R.H. 7041407-067</td>
</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: ............ INDY 500 RMK
MODEL NUMBER: . 099ER4BS
ENGINE MODEL: . EC50PL162

CARBURETION
Type ................. VM34SS Mikuni (ACCS)
Main Jet ............ 260
Pilot Jet ............ 55
Jet Needle ........... 6FJ43-3
Needle Jet .......... P-0(480)
Cutaway ............ 2.5 CH
Air Screw .......... 1.25 Turns
Valve Seat .......... 1.5
Fuel Octane (R+M/2) 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ...... 0.203" - (5.16mm)
Idle Sync Gap
Under Cutaway ...... 0.228" - (5.8mm)

CLUTCH
Type ................. P-85
Belt .................. 3211070
Belt Width (Projected) . 1.375" (34.93mm)
Side Angle (Overall) . 28°
Outside Circumference 47.250
Center Distance ........ 12" (305mm)
Shift Weights ....... 10MR Bushed
Primary Spring ...... Gold
Secondary Spring .... Red
Driven Helix ........ 34° #2

ENGINE
Type .................... Liquid Cooled Piston Port
Displacement ........... 488 cc
Bore .................. 2.8346" (72mm)
Stroke ................. 2.3622" (60mm)
Piston / Cylinder Clearance . 0.0024" - 0.0037" (0.06 - 0.095mm)
Service Limit ........ 0.0078" (0.20mm)
Piston Marking ....... 5W
Piston Ring Marking ... 51A
Piston Ring End Gap .... .008"-.016" (.20-.40mm)
Head cc's (Uninstalled) ... 28cc
Head cc's (Installed) ... 22cc
Operating RPM±200 .... 7800 RPM
Idle RPM±200 .......... 1600 RPM
Engagement RPM±300 ... 3800 RPM
Cylinder Head Torque ... 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque ... 24-28 ft.lbs (3.3-3.9 kgm)
Crankcase Torque (8mm) ... 17-18 ft.lbs (2.2-2.3 kgm)
Crankcase Torque (10mm) ... 23-25 ft.lbs (3.2-3.5 kgm)
Flywheel Torque ....... 60-65 ft.lbs (8.3-9 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below -20°F</td>
</tr>
<tr>
<td>Meters (Feet)</td>
<td></td>
</tr>
<tr>
<td>0-900 (0-3000)</td>
<td>290 #4</td>
</tr>
<tr>
<td>900-1800 (3000-6000)</td>
<td>290 #4</td>
</tr>
<tr>
<td>1800-3700 (6000-9000)</td>
<td>290 #3</td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>290 #3</td>
</tr>
</tbody>
</table>

- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
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<tbody>
<tr>
<td></td>
<td>Shift Weight</td>
<td>Clutch Spring</td>
</tr>
<tr>
<td>Meters (Feet)</td>
<td>10M</td>
<td>Gold</td>
</tr>
<tr>
<td>0-900 (0-3000)</td>
<td>10M</td>
<td>Bushed</td>
</tr>
<tr>
<td>900-1800 (3000-6000)</td>
<td>10M</td>
<td>Bushed</td>
</tr>
<tr>
<td>1800-3700 (6000-9000)</td>
<td>10M</td>
<td>Bushed</td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>10-40</td>
<td>Bushed</td>
</tr>
</tbody>
</table>
MODEL: .......... INDY 500 RMK
MODEL NUMBER: . 099ER4BS
ENGINE MODEL: . EC50PL162

ELECTRICAL
Flywheel I.D. ........ FP5445
CDI Marking .......... CU6417
Alternator Output ... 200 Watts
Ignition Timing ....... 28° BTDC@3000RPM±1.5°
0.173° BTDC (±0.0175°)
4.40mm BTDC (±0.48mm)
Operating Timing ... 16° @ 7500 RPM
Spark Plug / Gap ... Champion RN-3C / 0.028" (0.7mm)
Lights: Head ....... Halogen 75/60 watts
Tail ........ 2@3 watts
Brake ........ 18 watts
Voltage Regulator .... LR9
Electric Start ...... Option
*LR9= Half wave voltage regulator

CAPACITIES
Fuel Tank .......... 11.8 gallons (44.7 liters)
Oil Tank .......... 2 quarts (1.9 liters)
Coolant .......... 3 quarts (2.8 liters)
Chaincase Oil ..... 7 fl.oz(210cc)

SUSPENSION / CHASSIS
Body Style .......... Evolved
Front Suspension ... 38 RMK
Maximum Width ...... 38.00"(96.52cm)
Camber ............... 0°±5/16"(0-8mm)
Toe Out ............. 3/8"-1/2"(9.65-12.7mm)
Front Shocks ....... Nitrex
IFS Spring Rate ...... 80#/in.
Front Spring Preload 0.6" Thread Adjust
Front Vertical Travel 8.18 in.(20.78cm)
Rear Suspension ... XTRA-10
Rear Travel .......... 11.5 in.(29.21cm)
Front Track Shock .... Nitrex
Spring Rate .......... 200#/in. variable
Rear Track Shock .. Indy Select
Rear Springs ......... 359"(sq.) / 77°
Track Type .......... 15"x133.5"x1.25" (38.1x339.09x3.175cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.347&quot;(sq.) diameter/77°</td>
<td>.359&quot;(sq.) diameter/77°</td>
<td>.375&quot;(sq.) diameter/77°</td>
</tr>
<tr>
<td>L.H 7041627-067</td>
<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
</tr>
<tr>
<td>R.H. 7041628-067</td>
<td>R.H. 7041630-067</td>
<td>R.H. 7041632-067</td>
</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: CLASSIC TOURING
MODEL NUMBER: 099ET4BS
ENGINE MODEL: EC50PL192

CARBURETION
Type VM34SS Mikuni
Main Jet 250
Pilot Jet 40
Jet Needle 6EJ26-3
Needle Jet P-2(480)
Cutaway 3.0 CH
Air Screw 3/4 Turn
Valve Seat 1.5
Fuel Octane (R+M/2) 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway .218" - (5.54mm)
Idle Sync Gap
Under Cutaway .240" -(6.1mm)

CLUTCH
Type P-85
Belt 3211070
Belt Width (Projected) 1.375" (34.93mm)
Side Angle (Overall) .28°
Outside Circumference 47.250
Center Distance 12" (305mm)
Shift Weights 10MB Bushed
Primary Spring Gold
Secondary Spring Silver
Driven Helix 34° #2

ENGINE
Type Liquid Cooled Piston Port
Displacement 488 cc
Bore 2.8346" (72mm)
Stroke 2.3622" (60mm)
Piston / Cylinder Clearance 0.0024" - 0.0037"(0.06 - 0.095mm)
Service Limit 0.0078" (0.20mm)
Piston Marking 5W
Piston Ring Marking 51A
Piston Ring End Gap .008"-.016"(.20-.40mm)
Head cc's (Uninstalled) 28cc
Head cc's (Installed) 23.6cc
Operating RPM±200 7800 RPM
Idle RPM±200 1600 RPM
Engagement RPM±300 4000 RPM
Cylinder Head Torque 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude (Meters)</th>
<th>Below -20°F</th>
<th>Below -10°F</th>
<th>Below 0°F</th>
<th>-12°F to +4°F</th>
<th>Above +2°F</th>
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</thead>
<tbody>
<tr>
<td>Below -20°F</td>
<td>-10°F</td>
<td>-9°F to -12°F</td>
<td>-12°F to +4°F</td>
<td>Above +2°F</td>
<td></td>
</tr>
<tr>
<td>0-900 (0-3000)</td>
<td>260 #3</td>
<td>250 #3</td>
<td>240 #3</td>
<td>230 #3</td>
<td></td>
</tr>
<tr>
<td>900-1800 (3000-6000)</td>
<td>240 #3</td>
<td>230 #3</td>
<td>220 #3</td>
<td>210 #2</td>
<td></td>
</tr>
<tr>
<td>1800-2700 (6000-9000)</td>
<td>220 #3</td>
<td>210 #3</td>
<td>195 #2</td>
<td>185 #2</td>
<td></td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>200 #3</td>
<td>190 #2</td>
<td>180 #2</td>
<td>175 #2</td>
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</tr>
</tbody>
</table>

- # refers to the clip position from top of jet needle.

- Production Setting

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude (Meters)</th>
<th>Drive</th>
<th>Clutch Springs</th>
<th>Clutch Springs</th>
<th>Driven Helix</th>
<th>Chaincase Gearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-900 (0-3000)</td>
<td>10MB</td>
<td>Gold</td>
<td>Silver</td>
<td>34° #2</td>
<td>19-40 66 P</td>
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<tr>
<td>900-1800 (3000-6000)</td>
<td>10MB</td>
<td>Blue</td>
<td>Silver</td>
<td>34° #2</td>
<td>19-40 66 P</td>
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<tr>
<td>1800-2700 (6000-9000)</td>
<td>10MB</td>
<td>Blue</td>
<td>Silver</td>
<td>34° #2</td>
<td>19-40 66 P</td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>10MR</td>
<td>Blue</td>
<td>Silver</td>
<td>34° #2</td>
<td>19-40 66 P</td>
</tr>
</tbody>
</table>

Polaris Industries Inc.
GENERAL
1999 Model Specifications

MODEL: CLASSIC TOURING
MODEL NUMBER: 099ET4BS
ENGINE MODEL: EC50PL192

ELECTRICAL
Flywheel I.D. FP5445
CDI Marking CU6417
Alternator Output 200 Watts
Ignition Timing 28° BTDC @ 3000 RPM ± 1.5°
              0.173° BTDC (±0.0175°)
              4.40 mm BTDC (±0.48 mm)
Operating Timing 16° @ 7500 RPM
Spark Plug / Gap Champion RN-3C / 0.028" (0.7 mm)
Lights: Head Halogen 75/60 watts
         Tail 2 @ 9 watts
         Brake 2 @ 18 watts
Voltage Regulator LR9, LR2
Electric Start Standard
*LR9= Half wave voltage regulator
*LR2= Rectifier only for battery charging

CAPACITIES
Fuel Tank 11.8 gallons (44.7 liters)
Oil Tank 2 quarts (1.9 liters)
Coolant 3 quarts (2.8 liters)
Chaincase Oil 9 fl. oz (265 cc)

SUSPENSION / CHASSIS
Body Style Evolved
Front Suspension XTRA-12
Maximum Width 42.50" (107.95 cm)
Camber 2° ± 5/16" (0 ± 8 mm)
Toe Out 1/8" ± 1/4" (3 ± 6.35 mm)
Front Shocks Indy Select
IFS Spring Rate 100#/in.
Front Spring Preload 0.43" Thread Adjust
Front Vertical Travel 10.0 in. (25.4 cm)
Rear Suspension XTRA-12
Rear Travel 12.0 in. (30.48 cm)
Front Track Shock Indy Select
Spring Rate 90/150#/in.
Rear Track Shock Indy Select with 275# Spring
Rear Springs .437" / 77°
Track Type 15" x 13.35" x .82" (38.1 x 339.09 x 2.08 cm)
Track Tension 1-1 1/8" (2.54-2.86 cm) free hand 16" (40.64 cm) ahead of rear idler shaft with no weight

CHAINCASE
Sprockets / Chain 19-40, 66 P 3/4 HYVO
Reverse Standard
Brake Pads Type 69
Chaincase Center Dist. 6 5/16" (16.83 cm)
Driveshaft Sprockets 2 Drivers
Brake Type Hydraulic Disc

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM</th>
<th>FIRM(STD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.406&quot; diameter/77°</td>
<td>.421&quot; diameter/77°</td>
<td>.437&quot; diameter/77°</td>
</tr>
<tr>
<td>L.H. 7041394-067</td>
<td>L.H. 7041406-067</td>
<td>L.H. 7041487-067</td>
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<tr>
<td>R.H. 7041395-067</td>
<td>R.H. 7041407-067</td>
<td>R.H. 7041488-067</td>
</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: .......... XLT SPECIAL
MODEL NUMBER: . 099AB6AS
ENGINE MODEL: . EC58PL160

CARBURETION
Type .................. 3 TM38 Mikuni
Main Jet .............. 360
Pilot Jet .............. 35
Jet Needle .......... 9DH3-54-4
Needle Jet .......... 0-6
Cutaway .............. 3.0
Idle Mixture Screw . 1.5 Turns
Valve Seat .......... 1.5 Viton
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated
Starter Jet ........ 155
Pilot Air Jet ...... 1.0

CLUTCH
Type .................. P-85
Belt .................. 3211070
Belt Width (Projected) . 1.375" (34.93mm)
Side Angle (Overall) . 28°
Outside Circumference 47.250
Center Distance ...... 12" (305mm)
Shift Weights ...... 10M Bushed
Primary Spring ...... Dark Blue
Secondary Spring .. Silver
Driven Helix ........ R-32 #2

ENGINE
Type .................. Liquid Cooled Piston Port Triple
Displacement ............ 598cc
Bore .................. 2.5600" (65.025mm)
Stroke .................. 2.3622" (60mm)
Piston / Cylinder Clearance .. 0.0035" - 0.0049"(0.09 - 0.125mm)
Service Limit ........... 0.0078" (0.20mm)
Piston Marking .......... 58F
Piston Ring Marking ....... 3N
Piston ring end gap ....... .012"-.020"(.30-.50mm)
Head cc's (Uninstalled) .... 20.5cc
Head cc's (Installed) ....... 17.1cc
Operating RPM±200 ....... 8300 RPM
Idle RPM±200 ........ 1900 RPM
Engagement RPM±300 ...... 4200 RPM
Cylinder Head Torque ...... 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque .. 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) .... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) .... 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque ........ 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

AMBIENT TEMPERATURE

<table>
<thead>
<tr>
<th>Altitude</th>
<th>Below 20°F</th>
<th>-20°F to -10°F</th>
<th>-10°F to 5°F</th>
<th>Above 5°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meters (Foot)</td>
<td>0-900</td>
<td>360</td>
<td>340</td>
<td>330</td>
</tr>
<tr>
<td>900-1800 (3000-6000)</td>
<td>350</td>
<td>330</td>
<td>320</td>
<td>300</td>
</tr>
<tr>
<td>1800-2700 (6000-9000)</td>
<td>320</td>
<td>300</td>
<td>290</td>
<td>270</td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>290</td>
<td>280</td>
<td>270</td>
<td>250</td>
</tr>
</tbody>
</table>

- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>Shift Weight</th>
<th>Clutch Spring</th>
<th>Clutch Spring</th>
<th>Driven Helix</th>
<th>Chaincase Gearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meters (Foot)</td>
<td>0-900</td>
<td>10M Bushed</td>
<td>Dark Blue</td>
<td>Silver</td>
<td>R-32 #2</td>
</tr>
<tr>
<td>900-1800 (3000-6000)</td>
<td>10MB Bushed</td>
<td>Dark Blue</td>
<td>Silver</td>
<td>#2</td>
<td>22-41 68 P 3/4 HYVO</td>
</tr>
<tr>
<td>1800-2700 (6000-9000)</td>
<td>10MR Bushed</td>
<td>Dark Blue</td>
<td>Silver</td>
<td>R-32 #2</td>
<td>21-41 68 P 3/4 HYVO</td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>10MR Bushed</td>
<td>Dark Blue</td>
<td>Silver</td>
<td>R-32 #2</td>
<td>21-41 68 P 3/4 HYVO</td>
</tr>
</tbody>
</table>

Polaris Industries Inc.
MODEL: ............. XLT SPECIAL
MODEL NUMBER: . 099AB6AS
ENGINE MODEL: . EC58PL160

ELECTRICAL
Flywheel I.D. ........ FP9102
CD1 Marking ......... CU2552
Alternator Output ... 280 Watts
Ignition Timing ....... 28° BTDC@3000RPM±1.5°
                      0.173° BTDC (±0.0175°)
                      4.40mm BTDC (±0.48mm)
Operating Timing ... 20° @ 7500 RPM
Spark Plug / Gap ...... Champion RN-2C / 0.028" (0.7mm)
Lights: Head .......... Halogen 130/110 watts
        Tail .......... 2@9 watts
        Brake .......... 2@18 watts
Voltage Regulator ... LR7
Electric Start ....... Option
*LR7= Full wave voltage regulator

CAPACITIES
Fuel Tank ............ 11.8 gallons (44.7 liters)
Oil Tank ............. 2 quarts (1.9 liters)
Coolant ............. 3 quarts (2.8 liters)
Chaincase Oil ...... 7 fl.oz(210cc)

SUSPENSION / CHASSIS
Body Style ........... Aggressive
Front Suspension ... XTRA-10, CRC
Maximum Width ...... 41.00"(104.14cm)
Camber ............... 3/4"±5/16"(19.05±8mm)
Toe Out ............... 3/8"-1/2"(9.65-12.7mm)
Front Shocks ......... Indy Select
IFS Spring Rate ...... 100#/in.
Front Spring Preload 0.13" Thread Adjust
Front Vertical Travel 9.30 in.(23.62cm)
Rear Suspension ...... XTRA-10
Rear Travel .......... 8.25 in.(20.4cm)
Front Track Shock ... Ryde FX
Spring Rate ........... 200#/in. variable
Rear Track Shock .... Polaris Position Sensitive Shock
Rear Springs ........ .359"(sq.) / 77°
Track Type ........... 15"x121"x.82" (38.1x307.34x2.08cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
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<tbody>
<tr>
<td>.347&quot;(sq.) diameter/77°</td>
<td>.359&quot;(sq.) diameter/77°</td>
<td>.375&quot;(sq.) diameter/77°</td>
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<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
</tr>
<tr>
<td>R.H. 7041628-067</td>
<td>R.H. 7041630-067</td>
<td>R.H. 7041632-067</td>
</tr>
</tbody>
</table>
GENERAL
1999 Model Specifications

MODEL: XLT CLASSIC
MODEL NUMBER: 099ED66AS
ENGINE MODEL: EC58PL131

CARBURETION
Type VM34SS Mikuni
Main Jet 250
Pilot Jet 40
Jet Needle 6DP17-2
Needle Jet Q-4(480)
Cutaway 2.5 CH
Air Screw 1 Turn
Valve Seat 1.5 Viton
Fuel Octane (R+M/2) 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway .210" - (5.53mm)
Idle Sync Gap
Under Cutaway .234" (5.94mm)

CLUTCH
Type P-85
Belt Width 1.375" (34.93mm)
Side Angle 28°
Outside Circumference 47.250
Center Distance 12" (305mm)
Shift Weights 10M Bushed
Primary Spring Silver/Gold
Secondary Spring Silver
Driven Helix #2 3/4

CLUTCH CHART

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below -20°F</td>
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<tr>
<td></td>
<td>Below -29°C</td>
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<tr>
<td></td>
<td>Meters (Feet)</td>
</tr>
<tr>
<td></td>
<td>900-1800(3000-6000)</td>
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<td></td>
<td>1800-2700(6000-9000)</td>
</tr>
<tr>
<td></td>
<td>2700-3700(9000-12000)</td>
</tr>
</tbody>
</table>

ENGINE

Type Liquid Cooled Piston Port Triple
Displacement 598cc
Bore 2.5600" (65.025mm)
Stroke 2.3622" (60mm)
Piston / Cylinder Clearance .0035" - .0049"(0.09 - 0.125mm)
Service Limit .0078" (0.20mm)
Piston Marking 58F
Piston Ring Marking 3N
Piston Ring End Gap .012"-.020"(.30-.50mm)
Head cc's (Uninstalled) 19.9cc
Head cc's (Installed) 19.5cc
Operating RPM±200 8000 RPM
Idle RPM±200 1900 RPM
Engagement RPM±300 4000 RPM
Cylinder Head Torque 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque 24-28 ft.lbs(3.3-3.9 kmg)
Crankcase Torque (8mm) 17-18 ft.lbs(2.2-2.3 kmg)
Crankcase Torque (10mm) 23-25 ft.lbs(3.2-3.5 kmg)
Flywheel Torque 60-65 ft.lbs(8.3-9 kmg)
MODEL: XLT CLASSIC
MODEL NUMBER: 099ED6AS
ENGINE MODEL: EC58PL131

ELECTRICAL
Flywheel I.D. FP9102
CDI Marking CU2552
Alternator Output 280 Watts
Ignition Timing 28° BTDC@3000RPM±1.5°
Operating Timing 20° @ 7500 RPM
Spark Plug / Gap Champion RN-3C / 0.028" (0.7mm)
Lights: Head Halogen 75/60 watts
Tail 2@2 watts
Brake 1@17 watts
Voltage Regulator LR7, LR2
Electric Start Standard
*LR7= Full wave voltage regulator
*LR2=Rectifier only for battery charging

CAPACITIES
Fuel Tank 11.8 gallons (44.7 liters)
Oil Tank 2 quarts (1.9 liters)
Coolant 3 quarts (2.8 liters)
Chaincase Oil 9 fl.oz (265cc)

SUSPENSION / CHASSIS
Body Style Evolved
Front Suspension XTRA-12
Maximum Width 42.50"(107.95cm)
Camber 0°±5/16"(0±8mm)
Toe-Out 1/8-1/4"(3-6.35mm)
Front Shocks Indy Select
IFS Spring Rate 75#/in.
Front Spring Preload 0.25" Thread Adjust
Front Vertical Travel 10.0 in.(25.4cm)
Rear Suspension XTRA-12
Rear Travel 12.0 in.(30.48cm)
Front Track Shock Ryde AFX
Spring Rate 75/125#/in.
Rear Track Shock Ryde AFX with 85# Spring
Rear Springs .406" / 55°
Track Type 15"x121"x.82" (38.1x307.34x2.08cm)
Track Tension 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT(STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.406&quot; diameter/55°</td>
<td>.421&quot; diameter/55°</td>
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<tr>
<td>L.H 7041394-067</td>
<td>L.H. 7041406-067</td>
</tr>
<tr>
<td>R.H. 7041395-067</td>
<td>R.H 7041407-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.47 10/98
GENERAL
1999 Model Specifications

MODEL: ............ XLT TOURING
MODEL NUMBER: . 099ET6AS(A)
ENGINE MODEL: .. EC58PL131

CARBURETION
Type .................. VM34SS Mikuni
Main Jet ............... 250
Pilot Jet ............... 40
Jet Needle ............. 6DP17-2
Needle Jet ............. Q-4(480)
Cutaway ............... 2.5 CH
Air Screw .............. 1 Turn
Valve Seat ............. 1.5 Viton
Fuel Octane (R+M/2) . 87 Non-Oxygenated or
89 Oxygenated
Throttle Gap
Under Cutaway ........ .210" - (5.53mm)
Idle Sync Gap
Under Cutaway ........ .234" (5.94mm)

CLUTCH
Type .................. P-85
Belt .................... 3211070
Belt Width (Projected) .1.375" (34.93mm)
Side Angle (Overall) . . 28°
Outside Circumference 47.250
Center Distance ........ 12" (305mm)
Shift Weights .......... 10M Bushed
Primary Spring ......... Silver/Gold
Secondary Spring ...... Silver
Driven Helix ........... 34° #2

ENGINE
Type .................. Liquid Cooled Piston Port Triple
Displacement ........... 598cc
Bore .................... 2.5600" (65.025mm)
Stroke .................. 2.3622" (60mm)
Piston / Cylinder Clearance .0035" - 0.0049"(0.09 - 0.125mm)
Service Limit ........... 0.0078" (0.20mm)
Piston Marking ......... 58F
Piston Ring Marking ... 3N
Piston Ring End Gap .... .012"-.020"(.30-.50mm)
Head cc's (Uninstalled) ........ 19.9cc
Head cc's (Installed) .... 19.5cc
Operating RPM±200 ......... 8000 RPM
Idle RPM±200 ............ 1900 RPM
Engagement RPM±300 ...... 3800 RPM
Cylinder Head Torque ...... 8mm 17-20 ft.lbs, 10mm 24-26 ft.lbs
Cylinder Base Nut Torque ... 24-28 ft.lbs(3.3-3.9 kgm)
Crankcase Torque (8mm) ... 17-18 ft.lbs(2.2-2.3 kgm)
Crankcase Torque (10mm) .. 23-25 ft.lbs(3.2-3.5 kgm)
Flywheel Torque ........... 60-65 ft.lbs(8.3-9 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
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<tbody>
<tr>
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<td>Below -20°F</td>
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<td>(Foot)</td>
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<tr>
<td>0-900</td>
<td>250</td>
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<tr>
<td>(0-3000)</td>
<td>250</td>
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<tr>
<td>200-2700</td>
<td>210</td>
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<tr>
<td>(6000-9000)</td>
<td>190</td>
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<tr>
<td>2700-3700</td>
<td>190</td>
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</table>

- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
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<tbody>
<tr>
<td></td>
<td>Drive Weight</td>
<td>Clutch Spring</td>
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<tr>
<td>Meters</td>
<td>0-900</td>
<td>10MB Bushed</td>
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<tr>
<td>(Foot)</td>
<td>(0-3000)</td>
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<tr>
<td>900-1800</td>
<td>(3000-6000)</td>
<td>10M Blue Bushed</td>
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<tr>
<td>1800-2700</td>
<td>(6000-9000)</td>
<td>10M White Bushed</td>
</tr>
<tr>
<td>2700-3700</td>
<td>(9000-12000)</td>
<td>10M Red Bushed</td>
</tr>
</tbody>
</table>
MODEL: XLT TOURING  
MODEL NUMBER: 099ET6AS(A)  
ENGINE MODEL: EC58PL131

**ELECTRICAL**
- Flywheel I.D. .... FP9102  
- CDI Marking .... CU2552  
- Alternator Output ... 280 Watts  
- Ignition Timing ....... 28° BTDC @ 3000 RPM ± 1.5°  
  - 0.173° BTDC (±0.0175")  
  - 4.40mm BTDC (±0.48mm)  
- Operating Timing ... 20° @ 7500 RPM  
- Spark Plug / Gap ... Champion RN-3C / 0.028" (0.7mm)  
- Lights:  
  - Head ....... Halogen 75/60 watts  
  - Tail .......... 2 @ 3 watts  
  - Brake ....... 18 watts  
- Voltage Regulator ... LR7, LR2  
- Electric Start ....... Standard  
*LR7= Full wave voltage regulator  
*LR2=Rectifier only for battery charging

**CAPACITIES**
- Fuel Tank .......... 11.8 gallons (44.7 liters)  
- Oil Tank ........... 2 quarts (1.9 liters)  
- Coolant ............ 3 quarts (2.8 liters)  
- Chaincase Oil ...... 9 fl.oz (265cc)

**SUSPENSION / CHASSIS**
- Body Style ........... Evolved  
- Front Suspension ... XTRA-12  
- Maximum Width ...... 42.50" (107.95cm)  
- Camber ............... 0°±5/16" (0±8mm)  
- Toe Out ............... 1/8"-1/4" (3-6.35mm)  
- Front Shocks ....... Indy Select  
- IFS Spring Rate ...... 120#/in.  
- Front Spring Preload 0.13" Thread Adjust  
- Front Vertical Travel 10.0 in. (25.4cm)  
- Rear Suspension ...... XTRA-12  
- Rear Travel .......... 12.0in. (30.48cm)  
- Front Track Shock ... Ryde AFX  
- Spring Rate .......... 90/150#/in.  
- Rear Track Shock ... Indy Select with 275# Spring  
- Rear Springs ......... 437° / 77°  
- Track Type ............ 15" x 133.5" x 0.82" (38.1 x 339.09 x 2.08cm)  
- Track Tension ....... 1-1 1/8" (2.54-2.86cm) free hand 16" (40.64cm) ahead of rear idler shaft with no weight

**OPTIONAL REAR SUSPENSION SPRINGS**

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM</th>
<th>FIRM(STD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.406&quot; diam. / 77°</td>
<td>.421&quot; diam. / 77°</td>
<td>.437&quot; diam. / 77°</td>
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<tr>
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<td>L.H. 7041406-067</td>
<td>L.H. 7041487-067</td>
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<tr>
<td>R.H. 7041395-067</td>
<td>R.H. 7041407-067</td>
<td>R.H. 7041488-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.49 10/98
GENERAL
1999 Model Specifications

MODEL: ........... INDY 500 XC / 500 XC SP
MODEL NUMBER: . 099SB5AS / 099SP5AS
ENGINE MODEL: .. S50-44-99A2

CARBURETION
Type .................. TM38 Mikuni
Main Jet ................ 370
Pilot Jet ................ 45
Jet Needle .......... 9FH4-57-3
Needle Jet .......... P-6
Cutaway ........... 1.5
Air Screw ........... 2 Turns
Valve Seat ........... 1.5 Viton
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated
Starter Jet .......... 155
Pilot Air Jet ........... 1.0

CLUTCHES
Type .................... P-85
Belt ................ 3211074
Belt Width (Projected) . 1.438" (36.52mm)
Side Angle (Overall) . 28°
Outside Circumference . 47.625
Center Distance ...... 12" (305mm)
Shift Weights ....... 10-56
Primary Spring ...... Dark Blue
Secondary Spring .. Silver
Driven Helix ........ R-32 #2

ENGINE
Type .................. Liquid Cooled Case Reed
Displacement .......... 500 cc
Bore .................. 2.776" (70.5mm)
Stroke ................ 2.520" (64mm)
Piston / Cylinder Clearance . 0.0023" - 0.0037"(0.06 -0.095mm)
Service Limit .......... 0.0059" (0.15mm)
Piston Marking .......... 70.38, ELCO 2205
Piston Ring Marking ....... "o" faces upward
Piston Ring End Gap ...... 0.12"-.018"(.30-.46mm)
Head cc's (Uninstalled) ..... 28.6cc
Head cc's (Installed) .... 25.4cc
Operating RPM±200 ...... 8000 RPM
Idle RPM±200 .......... 1500 RPM
Engagement RPM±300 .... 4200 RPM
Cylinder Head Torque .... 20-24 ft.lbs(2.8-3.3 kgm)
Cylinder Base Nut Torque .. 30-34 ft.lbs(4.15-4.7 kgm)
Crankcase Torque (8mm) .... 20-24 ft.lbs(2.8-3.3 kgm)
Crankcase Torque (10mm) ... N/A
Flywheel Torque .......... 90 ft.lbs(12.4 kgm)

10/98 1.50 Polaris Industries Inc.
MODEL: INDY 500 XC / 500 XC SP
MODEL NUMBER: 099SB5AS / 099SP5AS
ENGINE MODEL: S50-44-99A2

ELECTRICAL
Flywheel I.D. 4060141
CDI Marking 4060198
Alternator Output 280 Watts
Ignition Timing 12° BTDC@3000RPM ± 1.5°
0.034° BTDC (±0.008°)
0.872mm BTDC (±0.208mm)
Operating Timing 15° @ 7500 RPM
Spark Plug / Gap Champion RN-2C / 0.028" (0.7mm)
Lights: Head Halogen 75/60 watts
Tail 2@8 watts-XC (2@2 watts SP)
Brake 2@8 watts-XC (1@17 watts SP)
Voltage Regulator LR7
Electric Start N/A
*LR7= Full wave voltage regulator

CAPACITIES
Fuel Tank 11.8 gal.(44.7L)/10.5(39.7)
Oil Tank 3 quarts (2.8 liters)
Coolant 3 quarts (2.8 liters)
Chaincase Oil 7 fl.oz(210cc)

SUSPENSION / CHASSIS
Body Style Gen II
Front Suspension XC-10, CRC
Maximum Width 41.00"(104.14cm)
Camber 1.05°±1/16"(26.67±8mm)
Toe Out 0-1/8"(0-3mm)
Front Shocks Indy Select(XC) / Fox™ IFP(SP)
IFS Spring Rate 100#/in.(XC) / 74/120#/in.(SP)
Front Spring Preload 0.20" Thread Adjust(XC) / 1.13" Thread Adjust(SP)
Front Vertical Travel 9.0 in.(22.86cm)
Rear Suspension XTRA-10
Rear Travel 8.25 in.(21cm)
Front Track Shock Ryde FX(XC) / Fox™ IFP(SP)
Spring Rate 200#/in. variable(XC) / 190#/in.(SP)
Rear Track Shock Polaris Position Sensitive Shock
Rear Springs .359"(sq.) / 77°
Track Type 15"x121"x.82" (38.1x307.34x2.08cm)
Track Tension 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain 22-41, 70 P 3/4 HYVO
Reverse Option
Brake Pads Type 69
Chaincase Center Dist. 7.05"(17.91cm)
Driveshaft Sprockets 2 Drivers Wide
Brake Type Polaris HPB

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.347&quot;(sq.) diameter/77°</td>
<td>.359&quot;(sq.) diameter/77°</td>
<td>.375&quot;(sq.) diameter/77°</td>
</tr>
<tr>
<td>L.H. 7041627-067</td>
<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
</tr>
<tr>
<td>R.H. 7041628-067</td>
<td>R.H 7041630-067</td>
<td>R.H. 7041632-067</td>
</tr>
</tbody>
</table>
1999 Model Specifications

MODEL: INDY 600 XC / 600 XC SP
MODEL NUMBER: 099SB6DS / 099SP6DS
ENGINE MODEL: SN60-70-99A2

CARBURETION
Type: 2-Kehin PWK 39
Main Jet: 185
Pilot Jet: #38
Jet Needle: R1368G-3
Needle Jet: 2.9mm fixed
Cutaway: 5.5
Air Screw: 1.0 Turn
Valve Seat: .5
Fuel Octane (R+M/2): 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway: .028" - (.7mm)
Idle Sync Gap
Under Cutaway: .059" - (1.5mm)

CLUTCH
Type: P-85
Belt: 3211065
Belt Width (Projected): 1.438" (36.53mm)
Side Angle (Overall): 28°
Outside Circumference: 48.375
Center Distance: 12.5" (317.5mm)
Shift Weights: 1.0-58 Bushed
Primary Spring: Dark Blue
Secondary Spring: Silver
Driven Helix: R-32 #2

ENGINE
Type: Liquid Cooled Case Reed
Displacement: 593 cc
Bore: 2.9930" (74.5mm)
Stroke: 2.6772" (68.0mm)
Piston / Cylinder Clearance: .0043" - .0059" (.11 - .15mm)
Service Limit: .0078" (.2mm)
Piston Marking: EK2202
Piston Ring Marking: "o" faces upward
Piston Ring End Gap: .012" - .018" (.30 - .46mm)

Cylinder Head Torque: 20 ft.lbs (2.8kgm)
Cylinder Base Nut Torque: 35-40 ft.lbs (4.8-5.5 kgm)
Crankcase Torque (8mm): N/A
Crankcase Torque (10mm): 35-40 ft.lbs (4.8-5.5 kgm)
Flywheel Torque: 55 ft.lbs (7.4 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below -20°F</td>
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<tr>
<td>Meters (Feet)</td>
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<tr>
<td>0-900 (0-3000)</td>
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</tr>
<tr>
<td>900-1800 (3000-6000)</td>
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<td>1800-2700 (6000-9000)</td>
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</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>158</td>
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</tbody>
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XXX ex
- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Shift Weight</td>
<td>Clutch Spring</td>
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<td></td>
<td>10-58 Bushed</td>
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<tr>
<td>Meters (Feet)</td>
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<td>900-1800 (3000-6000)</td>
<td>10-54 Bushed</td>
<td>Almond Gold</td>
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<td>1800-2700 (6000-9000)</td>
<td>10AL Bushed</td>
<td>Almond Gold</td>
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<tr>
<td>2700-3700 (9000-12000)</td>
<td>10AL Bushed</td>
<td>Almond Gold</td>
</tr>
</tbody>
</table>

Polaris Industries Inc.
MODEL: .......... INDY 600 XC / 600 XC SP
MODEL NUMBER: . 099SB6DS / 099SP6DS
ENGINE MODEL: .. SN60-70-99A2

ELECTRICAL
Flywheel I.D. ........ 4010130
CDI Marking ........ 4060209
Alternator Output ... 280 Watts
Ignition Timing ...... 6°BTDC@1750RPM±1.5°
0.009° BTDC (±0.005°)
0.22mm BTDC (±0.105mm)
Operating Timing ... 13° @ 7500 RPM
Spark Plug / Gap ... Champion RN-2C / 0.028" (0.7mm)
Lights: Head ......... Halogen 75/60 watts
Tail ........... 2@8 watts-XC (2@2watts SP)
Brake ........... 2@8 watts-XC (1@17 watts SP)
Voltage Regulator . LR7
Electric Start ...... Optional
*LR7= Full wave voltage regulator

CAPACITIES
Fuel Tank ............ 11.8 gal (44.7L)/10.5(39.7)
Oil Tank ............. 3 quarts (2.8 liters)
Coolant ............. 3 quarts (2.8 liters)
Chaincase Oil ...... 7 fl.oz (210cc)

SUSPENSION / CHASSIS
Body Style .......... Gen II
Front Suspension ... XC-10, CRC
Maximum Width ... 41.00" (104.14cm)
Camber ............. 1.05°±5/16" (26.67±8mm)
Toe Out ............. 0-1/8" (0-3mm)
Front Shocks ...... Indy Select(XC) / Fox™ IFP(SP)
IFS Spring Rate ... 100#/in.(XC) / 74/120#/in.(SP)
Front Spring Preload 0.20" Thread Adjust(XC) / 1.13" Thread Adjust(SP)
Front Vertical Travel 9.0 in (22.86cm)
Rear Suspension ... XTRA-10
Rear Travel .......... 8.25 in (21cm)
Front Track Shock ... Ryde FX(XC) / Fox™ IFP(SP)
Spring Rate .......... 200#/in. variable(XC) / 190#/in.(SP)
Rear Track Shock ... Polaris Position Sensitive Shock
Rear Springs ........ .359" (sq.) / 77°
Track Type .......... 15"x121"x.91" (38.1x307.34x2.31cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
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<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
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<tr>
<td>R.H. 7041628-067</td>
<td>R.H. 7041630-067</td>
<td>R.H. 7041632-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.53

10/98
GENERAL
1999 Model Specifications

MODEL: .......... INDY 700 XC / 700 XC SP
MODEL NUMBER: . 099SB7AS / 099SP7AS
ENGINE MODEL: .. SN70-70-99A2

CARBURETION
Type .................. 2-Keihin PWK 39
Main Jet ............... PTO 185/MAG 190
Pilot Jet ............. #38
Jet Needle ........... R1368G-3
Needle Jet .......... 2.9mm fixed
Cutaway ............... 5.5
Air Screw ............ 1.0 Turn
Valve Seat ........... 1.8
Fuel Octane (R+M/2) . 87 Non-Oxygenated or
89 Oxygenated
Throttle Gap
Under Cutaway ...... .059" - (1.5mm)
Idle Sync Gap
Under Cutaway ...... .063" - (1.6mm)

CLUTCH
Type .................. P-85
Belt .................. 3211065
Belt Width (Projected) 1.438" (36.53mm)
Side Angle (Overall) .. 28°
Outside Circumference 48.375
Center Distance ...... 12.5" (317.5mm)
Shift Weights ......... 10-60 Bushed
Primary Spring ...... Dark Blue
Secondary Spring ...... Silver
Driven Helix .......... 36° Mod #-2

ENGINE
Type .................. Liquid Cooled Case Reed Twin
Displ .................. 700 cc
Bore .................. 3.1889" (81mm)
Stroke ................ 2.6772" (68mm)
Piston / Cylinder Clearance .... .0043" - .0053" (.11 -.135mm)
Service Limit ........... .0078" (.2mm)
Piston Marking .......... EK2108
Piston Ring Marking .... "o" faces upward
Piston Ring End Gap ...... .014"-.020" (.36-.51mm)
Head cc's (Uninstalled) ... 40.2cc
Head cc's (Installed) .... 32.5cc
Operating RPM±2000 .. 8000 RPM
Idle RPM±200 ......... 1500 RPM
Engagement RPM±300 .... 4200 RPM
Cylinder Head Torque .... 20ft.lbs(2.8kgm)
Cylinder Base Nut Torque ... 35-40 ft.lbs(4.8-5.5 kgm)
Crankcase Torque (8mm) ... N / A
Crankcase Torque (10mm) ... 35-40 ft.lbs(4.8-5.5 kgm)
Flywheel Torque ........ 55 ft.lbs(7.4 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
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<tr>
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<td>900-1800</td>
<td>MAG 182 PTO 178 #3</td>
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<td>MAG 175 PTO 170 #3</td>
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CLUTCH CHART

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<td>Shift Weight</td>
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<tr>
<td></td>
<td>2700-3700</td>
<td>10.64 Bushed</td>
</tr>
</tbody>
</table>

# refers to the clip position from top of jet needle.

- Production Setting
MODEL:  INDY 700 XC / 700 XC SP
MODEL NUMBER:  099SB7AS / 099SP7AS
ENGINE MODEL:  SN70-70-99A2

ELECTRICAL

Flywheel I.D.  4010139
CDI Marking  4060212
Alternator Output  280 Watts
Ignition Timing  6° BTDC @ 1750 RPM ± 1.5°
Operating Timing  17° @ 7500 RPM
Spark Plug / Gap  Champion RN-2C / 0.028" (0.7mm)
Lights:  Head Halogen 75/60 watts
Tail  2@8 watts-XC (2@2 watts SP)
Brake  2@8 watts-XC (1@17 watts SP)
Voltage Regulator  LR7
Electric Start  Optional
*LR7= Full wave voltage regulator

CAPACITIES

Fuel Tank  11.8 gal.(44.7L) / 10.5 (39.7) gal.
Oil Tank  3 quarts (2.8 liters)
Coolant  3 quarts (2.8 liters)
Chaincase Oil  7 fl.oz (210cc)

SUSPENSION / CHASSIS

Body Style  Gen II
Front Suspension  XC-10, CRC
Maximum Width  41.00" (104.14cm)
Camber  1.05° ± 5/16" (26.67 ± 8mm)
Toe Out  0-1/8" (0-3mm)
Front Shocks  Indy Select(XC) / Fox™ IFP(SP)
IFS Spring Rate  70# in.(XC) / 74# in.(SP)
Front Spring Preload  0.20" Thread Adjust(XC) / 1.13" Thread Adjust(SP)
Front Vertical Travel  9.0 in. (22.86cm)
Rear Suspension  XTRA-10
Rear Travel  8.25 in. (21cm)
Front Track Shock  Ryde FX(XC) / Fox™ IFP(SP)
Spring Rate  200# in. variable(XC) / 190# in.(SP)
Rear Track Shock  Polaris Position Sensitive Shock
Rear Springs  .359" (sq.) / 77°
Track Type  15" x 12" (38.1 x 30.5cm)
Track Tension  3/8" - 1/2" (9.5 - 12.7mm) slack with 10# (4.5kg) weight 16" (40.6cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM( STD)</th>
<th>FIRM</th>
</tr>
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<tr>
<td>.347&quot; (sq.)</td>
<td>.355&quot; (sq.)</td>
<td>.375&quot; (sq.)</td>
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<td>diameter/ 77°</td>
<td>diameter/ 77°</td>
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<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
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<tr>
<td>R.H. 7041628-067</td>
<td>R.H. 7041630-067</td>
<td>R.H. 7041632-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc.  1.55  10/98
GENERAL
1999 Model Specifications

MODEL: ........ INDY 600 RMK
MODEL NUMBER: 099SR6DS(A)
ENGINE MODEL: SN60-70-99A1

CARBURETION
Type ............... 2-Keihin PWK 39 (ACCS)
Main Jet ........... 185
Pilot Jet ............ 50
Jet Needle .......... R1367G-2
Needle Jet .......... 2.9x4.6x1.5mm fixed
Cutaway ............ 6.0 Notched
Air Screw .......... 1.0 Turn
Valve Seat .......... 1.8
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated

Throttle Gap
Under Cutaway ...... 0.102" (2.6mm)
Idle Sync Gap
Under Cutaway ...... 0.118" (3.0mm)

CLUTCH
Type ............... P-85
Belt ............... 3211065
Belt Width (Projected) . 1.438" (36.53mm)
Side Angle (Overall) . 28°
Outside Circumference 48.375
Center Distance .... 12.5" (317.5mm)
Shift Weights ...... 10-54 Bushed
Primary Spring ..... Dark Blue
Secondary Spring .. Silver/Blue
Driven Helix ...... R-8 #2

CLUTCH CHART

ENGINE
Type ............... Liquid Cooled Case Reed Twin
Displacement ......... 593 cc
Bore ............... 2.9930" (74.5mm)
Stroke ............. 2.6772" (68mm)
Piston / Cylinder Clearance .0043" -.0059"(.11 -.15mm)
Service Limit ........ .0078" (.2mm)
Piston Marking ...... EK2202
Piston Ring Marking .. "o" faces upward
Piston Ring End Gap .012"-.018"(.30-.46mm)
Head cc's (Uninstalled) 34.00cc
Head cc's (Installed) 26.00cc
Operating RPM±200 ..... 8000 RPM
Idle RPM±200 ......... 1500 RPM
Engagement RPM±300 .... 4200 RPM
Cylinder Head Torque .... 20ft.lbs(2.8kgm)
Cylinder Base Nut Torque ... 35-40 ft.lbs(4.8-5.5 kgm)
Crankcase Torque (8mm) .... N/A
Crankcase Torque (10mm) ... 35-40 ft.lbs(4.8-5.5 kgm)
Flywheel Torque ........ 55 ft.lbs(7.4 kgm)

10/98

Polaris Industries Inc.
MODEL: .......... INDY 600 RMK
MODEL NUMBER: . 099SR6DS(A)
ENGINE MODEL: . SN60-70-99A1

ELECTRICAL
Flywheel I.D. .... 4010139
CDI Marking .... 4060209
Alternator Output ... 280 Watts
Ignition Timing ... 6° BTDC@1750RPM±1.5°
                   0.0086° BTDC (±0.0045°)
                   0.22mm BTDC (±0.105mm)
Operating Timing ... 13° @ 7500 RPM
Spark Plug / Gap ... Champion RN-2C / 0.028" (0.7mm)
Lights: Head ...... Halogen 75/60 watts
         Tail ....... 2@3 watts
         Brake ...... 18 watts
Voltage Regulator .. LR7
Electric Start .... Optional
*LR7= Full wave voltage regulator

CAPACITIES
Fuel Tank .......... 11.8 gal.(44.7L)
Oil Tank .......... 3 quarts (2.8 liters)
Coolant .......... 3 quarts (2.8 liters)
Chaincase Oil .... 7 fl.oz(210cc)

SUSPENSION / CHASSIS
Body Style ........ Gen II
Front Suspension ... RMK CRC
Maximum Width ... 38.00"(96.52cm)
Camber .......... 11/32±5/16"(9±8mm)
Toe Out .......... 3/8-1/2"(9.65-12.7mm)
Front Shocks ..... Nitrex
IFS Spring Rate ... 100#/in.
Front Spring Preload 0.13" Thread Adjust
Front Vertical Travel 8.05in.(20.54cm)
Rear Suspension ... XTRA-10
Rear Travel ....... 11.5 in.(29.21cm)
Front Track Shock . Nitrex
Spring Rate ........ 200#/in. variable
Rear Track Shock ... Indy Select
Rear Springs ........ .359" (sq.) / 77°
Track Type ........ 15"x136"x1.75/2.0" (38.1x345.44x4.44/5.08cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>.347&quot;(sq.)</td>
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<td>R.H. 7041630-067</td>
<td>R.H. 7041632-067</td>
</tr>
</tbody>
</table>

Polaris Industries Inc. 1.57 10/98
GENERAL
1999 Model Specifications

MODEL: ............. INDY 700 RMK
MODEL NUMBER: .... 099SR7AS(A)
ENGINE MODEL: .... S70-70-99A3

CARBURETION
Type ................. 2-Keihin PWK 39
(ACCS)
Main Jet ............. 190
Pilot Jet .............. 48
Jet Needle ............ R1368G-2
Needle Jet ............ 2.9x4.6x1.5mm fixed
Cutaway .............. 6.0 Notched
Air Screw ............. 1.0 Turn
Valve Seat ............ 1.8
Fuel Octane (R+M/2) . 87 Non-Oxygenated or
89 Oxygenated
Throttle Gap
Under Cutaway ........ 0.102" - (2.6mm)
Idle Sync Gap
Under Cutaway ........ 0.118" - (3.0mm)

CLUTCH
Type .................. P-85
Belt ................... 3211065
Belt Width (Projected) . 1.438" (36.53mm)
Side Angle (Overall) . 28°
Outside Circumference 48.375
Center Distance ....... 12.5" (317.5mm)
Shift Weights .......... 10-58 Bushed
Primary Spring ......... Dark Blue
Secondary Spring ...... Silver/Blue
Driven Helix ........... R-11 #2

ENGINE
Type ..................... Liquid Cooled Case Reed Twin
Displacement .......... 700cc
Bore .................... 3.1889" (81mm)
Stroke .................. 2.6772" (68mm)
Piston / Cylinder Clearance .0043" -.0053"(.11 - .135mm)
Service Limit ........... .0078" (.20mm)
Piston Marking .......... EK2108
Piston Ring Marking ...... "o" faces upward
Piston Ring End Gap ...... .014"-.020"(.36-.51mm)
Head cc’s (Uninstalled) ... 40.2cc
Head cc’s (Installed) .... 32.5cc
Operating RPM±200 ...... 8000 RPM
Idle RPM±200 .......... 1500 RPM
Engagement RPM±300 ... 4200 RPM
Cylinder Head Torque .... 20ft.lbs(2.8kgm)
Cylinder Base Nut Torque .. 35-40 ft.lbs(4.8-5.5 kgm)
Crankcase Torque (8mm) .. N/A
Crankcase Torque (10mm) . 35-40 ft.lbs(4.8-5.5 kgm)
Flywheel Torque ........ 55 ft.lbs(7.4 kgm)

JETTING CHART

<table>
<thead>
<tr>
<th>Type</th>
<th>AMBIENT TEMPERATURE</th>
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<tbody>
<tr>
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<td>Altitude</td>
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<td>1800-2700</td>
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CLUTCH CHART

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<th>DRIVEN</th>
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<td>2700-3200 (9000-12000)</td>
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</table>

- # refers to the clip position from top of jet needle.
- Production Setting
GENERAL
1999 Model Specifications

MODEL: ............... INDY 700 RMK
MODEL NUMBER: . 099SR7AS(A)
ENGINE MODEL: . S70-70-99A3

ELECTRICAL
Flywheel I.D. ........ Ducati 4010139
CDI Marking ........ 4060211
Alternator Output ... 280 Watts
Ignition Timing ...... 12° BTDC @ 3000RPM ± 1.5°
                    0.037° BTDC (±0.004")
                    0.93mm BTDC (±0.22mm)
Operating Timing .... 16° @ 8250 RPM
Spark Plug / Gap ... Champion RN-2C / 0.028" (0.7mm)
Lights: Head ......... Halogen 75/60 watts
         Tail ........... 2 @ 3 watts
         Brake .......... 18 watts
Voltage Regulator ... LR7
Electric Start ....... Optional
*LR7= Full wave voltage regulator

CAPACITIES
Fuel Tank ............ 11.8 gal.(44.7L)
Oil Tank ............. 3 quarts (2.8 liters)
Coolant ............. 3 quarts (2.8 liters)
Chaincase Oil ...... 7 fl.oz (210cc)

SUSPENSION / CHASSIS
Body Style ........... Gen II
Front Suspension .... RMK CRC
Maximum Width ..... 38.00" (96.52cm)
Camber ............... 11/32"±5/16" (9±8mm)
Toe Out .............. 3/8"-1/2" (9.65mm-12.7mm)
Front Shocks ......... Nitrex
IFS Spring Rate ...... 100#/in.
Front Spring Preload 0.13" Thread Adjust
Front Vertical Travel 8.05" (20.45cm)
Rear Suspension .... XTRA-10
Rear Travel .......... 11.5" (29.21cm)
Front Track Shock .. Nitrex
Spring Rate .......... 200#/in. variable
Rear Track Shock ... Indy Select
Rear Springs ........ .359" (sq.) / 77°
Track Type .......... 15"x136"x1.75"/2.0" (38.1x345.44x4.44/5.08cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

CHAINCASE
Sprockets / Chain .... 21-41, 70 P 3/4 HYVO
Reverse ............... Option
Brake Pads ........... Type 69
Chaincase Center Dist. 7.05" (17.91cm)
Driveshaft Sprockets . 2 Drivers Wide
Brake Type .......... Polaris HPB Liquid Cooled

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
</tr>
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<tbody>
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<td>L.H. 7041629-067</td>
<td>L.H. 7041631-067</td>
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<td>R.H. 7041628-067</td>
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</tr>
</tbody>
</table>

Polaris Industries Inc. 1.59 10/98
GENERAL
1999 Model Specifications

MODEL: ........... INDY 700 SKS
MODEL NUMBER: 099SS7AS
ENGINE MODEL: .. SN70-70-99A1

CARBURETION
Type ............... 2-Keihin PWK 39
Main Jet ........... PTO 185/MAG 190
Pilot Jet .......... #38
Jet Needle .......... R1368G-3
Jet Needle ........ 2.9mm fixed
Cutaway ............ 5.5
Air Screw .......... 1.0 Turn
Valve Seat .......... 1.8
Fuel Octane (R+M/2) 87 Non-Oxygenated or 89 Oxygenated
Throttle Gap ...... .051" - (1.3mm)
Idie Sync Gap ...... .063" - (1.6mm)

CLUTCH
Type ............... P-85
Belt ................ 3211065
Belt Width (Projected) 1.438" (36.53mm)
Side Angle (Overall) . 28°
Outside Circumference 48.375
Center Distance ..... 12.5" (317.5mm)
Shift Weights ..... 10-60 Bushed
Primary Spring ..... Dark Blue
Secondary Spring ... Silver/Blue
Driven Helix ...... R-11 #2

ENGINE
Type ............... Liquid Cooled Case Reed Twin
Displacement ....... 700 cc
Bore ................ 3.1889" (81mm)
Stroke ............. 2.6772" (68mm)
Piston / Cylinder Clearance .0043"-.0053"(11-.135mm)
Service Limit ....... .0078" (.2mm)
Piston Marking ..... EK2108
Piston Ring Marking "o" faces upward
Piston Ring End Gap .014"-.020"(.36-.51mm)
Head cc's (Uninstalled) 40.2cc
Head cc's (Installed) 32.5cc
Operating RPM±200 ........ 8000 RPM
Idle RPM±200 ........ 1500 RPM
Engagement RPM±300 ........ 4200 RPM
Cylinder Head Torque ...... 20ft.lbs(2.8kgm)
Cylinder Base Nut Torque . 35-40 ft.lbs(4.8-5.5 kgm)
Crankcase Torque (8mm) .... N/A
Crankcase Torque (10mm) . 35-40 ft.lbs(4.8-5.5 kgm)
Flywheel Torque .......... 55 ft.lbs(7.4 kgm)

10/98

Polaris Industries Inc.
**MODEL:** INDY 700 SKS  
**MODEL NUMBER:** 099SS7AS  
**ENGINE MODEL:** SN70-70-99A1

### ELECTRICAL
- **Flywheel I.D.** 4010139  
- **CDI Marking** 4060212  
- **Alternator Output** 280 Watts  
- **Ignition Timing**  6° BTDC@1750RPM±1.5°  
  - 0.009° BTDC (±0.005°)  
  - 0.22mm BTDC (±0.105mm)  
- **Operating Timing** 17° @ 7500 RPM  
- **Spark Plug / Gap** Champion RN-2C / 0.028” (0.7mm)  
- **Lights:**  
  - Head: Halogen 75/60 watts  
  - Tail: 2@3 watts  
  - Brake: 18 watts  
- **Voltage Regulator** LR7  
- **Electric Start** Optional  
*LR7= Full wave voltage regulator*

### CAPACITIES
- **Fuel Tank** 11.8 gal. (44.7L) / 10.5 (39.7)  
- **Oil Tank** 3 quarts (2.8 liters)  
- **Coolant** 3 quarts (2.8 liters)  
- **Chaincase Oil** 7 fl.oz (210cc)

### SUSPENSION / CHASSIS
- **Body Style** Gen II  
- **Front Suspension** XTRA-10 CRC  
- **Maximum Width** 41.00” (104.14cm)  
- **Camber** 3/4”±5/16” (19.05±8mm)  
- **Toe Out** 3/8”-1/2” (9.65-12.7mm)  
- **Front Shocks** Nitrex  
- **IFS Spring Rate** 100#/in.  
- **Front Spring Preload** 0.38” Thread Adjust  
- **Front Vertical Travel** 9.30 in. (23.62cm)  
- **Rear Suspension** XTRA-10  
- **Rear Travel** 9.5 in. (24.13cm)  
- **Front Track Shock** Nitrex  
- **Spring Rate** 200#/in. variable  
- **Rear Track Shock** Indy Select  
- **Rear Springs** .359” (sq.) / 77°  
- **Track Type** 15”x136”x1.25” (38.1x345.44x3.175cm)  
- **Track Tension** 3/8” - 1/2” (9.65-12.7mm) slack with 10# (4.54kg) weight 16” (40.64cm) ahead of rear idler shaft

### CHAINCASE
- **Sprockets / Chain** 23-40, 70 P 3/4 HYVO  
- **Reverse** Option  
- **Brake Pads** Type 69  
- **Chaincase Center Dist.** 7.05” (17.91cm)  
- **Driveshaft Sprockets** 2 Drivers Wide  
- **Brake Type** Polaris HPB Liquid Cooled

### OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
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<th>SOFT</th>
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<th>FIRM</th>
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</tbody>
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Polaris Industries Inc.  
1.61  
10/98
1999 Model Specifications

MODEL: INDY 700 XCR
MODEL NUMBER: 099AB7BS
ENGINE MODEL: EC70PL011

CARBURETION
Type: TM38 Mikuni
Main Jet: 430
Pilot Jet: 50
Jet Needle: 9CG1-54-3
Needle Jet: P-4(825)
Cutaway: 2.0
Idle Mixture Screw: 1.5 Turn
Valve Seat: 1.5
Fuel Octane (R+M/2): Adjustable with key switch
Starter Jet: 145
Pilot Air Jet: 1.0

JETTING CHART

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<tbody>
<tr>
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<td>Meters (Foot)</td>
<td>#3</td>
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<td>900-1800 (3000-6000)</td>
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<td>2700-3700 (9000-12000)</td>
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</table>

- # refers to the clip position from top of jet needle.
- Production Setting

CLUTCH
Type: P-85
Belt: 3211075
Belt Width (Projected): 1.438" (36.52mm)
Side Angle (Overall): 28°
Outside Circumference: 47.625"
Center Distance: 12" (305mm)
Shift Weights: 10-58 Bushed
Primary Spring: Almond
Secondary Spring: Silver/Blue
Driven Helix: R-12 #2

CLUTCH CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>DRIVE</th>
<th>DRIVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meters (Foot)</td>
<td>Shift Weight</td>
<td>Clutch Spring</td>
</tr>
<tr>
<td>0-900 (0-3000)</td>
<td>10-58 Bushed</td>
<td>Silver/Blue</td>
</tr>
<tr>
<td>900-1800 (3000-6000)</td>
<td>10-56 Bushed</td>
<td>Silver/Blue</td>
</tr>
<tr>
<td>1800-2700 (6000-9000)</td>
<td>10-56 Bushed</td>
<td>Silver/Blue</td>
</tr>
<tr>
<td>2700-3700 (9000-12000)</td>
<td>10-54 Bushed</td>
<td>Silver/Blue</td>
</tr>
</tbody>
</table>

ENGINE
Type: Liquid Cooled Case Reed Triple with VES
Displacement: 700 cc
Bore: 2.6614" (67.6mm)
Stroke: 2.5591" (65mm)
Piston/Cylinder Clearance: .0027" - .0041" (.070 - .105mm)
Service Limit: .0059" (.15mm)
Piston Marking: 70A
Piston Ring Marking: 70A
Piston End Gap: .012"-.018" (.30-.45mm)
Head cc's (Uninstalled): 25.3cc
Head cc's (Installed): 21.2cc
Operating RPM: 8500 RPM
Idle RPM: 2000 RPM
Engagement RPM: 4000 RPM
Cylinder Head Torque: 8mm-17-20 ft.lbs, 10mm-24-26 ft.lbs
Cylinder Base Nut Torque: 24-28 ft.lbs (3.3-3.9 kgm)
Crankcase Torque (8mm): 17-18 ft.lbs (2.2-2.3 kgm)
Crankcase Torque (10mm): 23-25 ft.lbs (3.2-3.5 kgm)
Flywheel Torque: 60-65 ft.lbs (8.3-9 kgm)
MODEL: INDY 700 XCR
MODEL NUMBER: 099AB7BS
ENGINE MODEL: EC70PL011

ELECTRICAL
Flywheel I.D. FP9104
CDI Marking K7A08
Alternator Output 280 Watts
Ignition Timing 20° BTDC@1750RPM±1.5°
0.098" BTDC (±0.007")
2.476mm BTDC (±0.018mm)
Operating Timing 18° @ 8100 RPM
Spark Plug / Gap Champion RN-2C/0.028" (.7mm)
Lights: Head Halogen 130/110 watts
Tail 2@9 watts
Brake 2@18 watts
Voltage Regulator LR7
Electric Start N/A
*LR7= Full wave voltage regulator

SUSPENSION / CHASSIS
Body Style Aggressive
Front Suspension XTRA-10 CRC
Maximum Width 41.00"(104.14cm)
Camber 3/4"±5/16"(19.05±8mm)
Toe Out 3/8"-1/2"(9.65-12.7mm)
Front Shocks Fox™ IFP
IFS Spring Rate 120#/in.
Front Spring Preload 1.063" Thread Adjust
Front Vertical Travel 9.30 in.(23.62cm)
Rear Suspension XTRA-10
Rear Travel 10.2 in.(25.91cm)
Front Track Shock Fox™ IFP
Spring Rate 200#/in. variable
Rear Track Shock Fox™ IFP
Rear Springs .359" (sq.) / 77°
Track Type 15"x12"x.91" (38.1x307.34x2.31cm)
Track Tension 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

<table>
<thead>
<tr>
<th>SOFT</th>
<th>MEDIUM(STD)</th>
<th>FIRM</th>
</tr>
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<tbody>
<tr>
<td>.347&quot;(sq.) diameter/77°</td>
<td>.359&quot;(sq.) diameter/77°</td>
<td>.375&quot;(sq.) diameter/77°</td>
</tr>
<tr>
<td>L.H 7041627-067</td>
<td>L.H 7041629-067</td>
<td>L.H 7041631-067</td>
</tr>
<tr>
<td>R.H 7041628-067</td>
<td>R.H 7041630-067</td>
<td>R.H 7041632-067</td>
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</table>

CAPACITIES
Fuel Tank 11.8 gal.(44.7L)/10.5(39.7)
Oil Tank 2.4 quarts (2.3 liters)
Coolant 3 quarts (2.8 liters)
Chaincase Oil 7 fl.oz(210cc)

CHAINCASE
Sprockets / Chain 24-40, 68 P 3/4 HYVO
Reverse Option
Brake Pads Type 69
Chaincase Center Dist.6 5/8"(16.83cm)
Driveshaft Sprockets 4 Drivers
Brake Type Liquid Cooled Hydraulic Disc

Polaris Industries Inc.

10/98
### GENERAL

**1999 Model Specifications**

**MODEL:** INDY 800 XCR  
**MODEL NUMBER:** 099AB8AS  
**ENGINE MODEL:** EC79PL011  

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#### CARBURETION

- **Type:** TM38 Mikuni  
- **Main Jet:** 450  
- **Pilot Jet:** 50  
- **Jet Needle:** 9DH6-54-3  
- **Idle Mixture Screw:** 1.25 Turn  
- **Valve Seat:** 2.0  
- **Fuel Octane (R+M/2):** Adjustable with key switch  
- **Starter Jet:** 145  
- **Pilot Air Jet:** 1.0

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#### ENGINE

- **Type:** Liquid Cooled Case Reed Triple with VES  
- **Displacement:** 794 cc  
- **Bore:** 2.8346" (72mm)  
- **Stroke:** 2.5591" (65mm)  
- **Piston / Cylinder Clearance:** .0027" - .0041" (.07 - .105mm)  
- **Service Limit:** .0078" (.20mm)  
- **Piston Marking:** 79B  
- **Piston Ring Marking:** 79B  
- **Piston Ring End Gap:** .012" - .018" (.30 - .45mm)  
- **Head cc's (Uninstalled):** 28.7  
- **Head cc's (Installed):** 23.9  
- **Operating RPM ±200:** 8500 RPM  
- **Idle RPM ±200:** 1500 RPM  
- **Engagement RPM ±300:** 4000 RPM  
- **Cylinder Head Torque:** 17-20 ft.lbs  
- **Cylinder Base Nut Torque:** 24-28 ft.lbs (3.3-3.9 kgm)  
- **Crankcase Torque (8mm):** 17-18 ft.lbs (2.2-2.3 kgm)  
- **Crankcase Torque (10mm):** 23-25 ft.lbs (3.2-3.5 kgm)  
- **Flywheel Torque:** 60-65 ft.lbs (8.3-9 kgm)

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#### JETTING CHART

<table>
<thead>
<tr>
<th>Altitude</th>
<th>AMBIENT TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below +20°F</td>
</tr>
<tr>
<td>Meters (Feet)</td>
<td>#3</td>
</tr>
<tr>
<td>0-900 (0-3000)</td>
<td>0</td>
</tr>
<tr>
<td>900-1500 (3000-5000)</td>
<td>0</td>
</tr>
<tr>
<td>1500-2700 (5000-8000)</td>
<td>0</td>
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<td>0</td>
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- # refers to the clip position from top of jet needle.

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#### CLUTCH

- **Type:** P-85  
- **Belt:** 3211075  
- **Belt Width (Projected):** 1.438" (36.52mm)  
- **Side Angle (Overall):** 28°  
- **Outside Circumference:** 47.625"  
- **Center Distance:** 12" (305mm)  
- **Shift Weights:** 10-60 Bushed  
- **Primary Spring:** Almond  
- **Secondary Spring:** Silver/Blue  
- **Driven Helix:** R-12 #2

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#### CLUTCH CHART

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MODEL: ........... INDY 800 XCR
MODEL NUMBER: 099AB8AS
ENGINE MODEL: EC79PL011

ELECTRICAL
Flywheel I.D. ........ FP9103
CDI Marking ....... CU7311
Alternator Output ... 280 Watts
Ignition Timing ..... 26° BTDC @ 3250 RPM ±1.5°
                  0.163° BTDC (±0.008")
                  4.138mm BTDC (±0.021mm)
Operating Timing ... 15° @ 8300 RPM
Spark Plug / Gap ... Champion RN-2C/.028" (.7mm)
Lights: Head ........ Halogen 130/110 watts
        Tail .......... 2@9 watts
        Brake ......... 2@18 watts
Voltage Regulator .. LR7
Electric Start ...... N/A

CAPACITIES
Fuel Tank ........... 11.8 gal. (44.7L)/10.5 (39.7)
Oil Tank ............ 2.4 quarts (2.3 liters)
Coolant ............. 3 quarts (2.8 liters)
Chaincase Oil ...... 7 fl.oz (210cc)

SUSPENSION / CHASSIS
Body Style .......... Aggressive
Front Suspension .. XTRA-10 CRC
Maximum Width ..... 41.00" (104.14cm)
Camber ............. 2/4°±5/16" (19.05±8mm)
Toe Out ............ 3/8°-1/2" (9.65-12.7mm)
Front Shocks ...... Fox™ IFP
IFS Spring Rate .... 120#/in.
Front Spring Preload 1.063° Thread Adjust
Front Vertical Travel 9.30 in. (23.62cm)
Rear Suspension ... XTRA-10
Rear Travel .......... 10.2 in. (25.91cm)
Front Track Shock .. Fox™ IFP
Spring Rate .......... 200#/in. variable
Rear Track Shock .. Fox™ IFP
Rear Springs ........ .359" (sq.) / 77°
Track Type .......... 15" x 121" x .91" (38.1 x 30.7 x 2.31cm)
Track Tension ...... 3/8" - 1/2" (9.65-12.7mm) slack with 10# (4.54kg) weight 16" (40.64cm) ahead of rear idler shaft

OPTIONAL REAR SUSPENSION SPRINGS

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Polaris Industries Inc. 1.65 10/98
GENERAL
1999 Model Specifications

MODEL: WIDETRAK LX
MODEL NUMBER: 099SU4BS
ENGINE MODEL: EC50PL202

CARBURETION
Type ............... VM34SS
Main Jet ........... 195
Pilot Jet .......... 35
Jet Needle ......... 6EJ26-2
Needle Jet ........ P-6(166)
Cutaway .......... 3.0 CH
Air Screw ........ 0.5 Turn
Valve Seat .......... 1.5
Fuel Octane (R+M/2) . 87 Non-Oxygenated or 89 Oxygenated
Throttle Gap
Under Cutaway ....... .219" - (5.55mm)
Idle Sync Gap
Under Cutaway ....... .240" - (6.11mm)

CLUTCH
Type ............... P-85
Belt .................. 3211070
Belt Width (Projected) . 1.375" (34.93mm)
Side Angle (Overall) . 28°
Outside Circumference . 47.250"
Center Distance ....... 12" (305mm)
Shift Weights ......... 10 Bushed
Primary Spring ....... Brown
Secondary Spring ...... Silver
Driven Helix .......... 36° #-2

ENGINE
Type ............... Liquid Cooled Piston Port Twin
Displacement .......... 488 cc
Bore ............... 2.8346" (72mm)
Stroke ............. 2.3622" (60mm)
Piston / Cylinder Clearance ...... .0023" - .0037" (.06 -.095mm)
Service Limit .............. .0078" (.20mm)
Piston Marking ....... 5W
Piston Ring Marking .... 51A
Piston Ring End Gap ........ .008"-.016" (.20-.40mm)
Head cc's (Uninstalled) . 28.8cc
Head cc's (Installed) ... 23.6cc
Operating RPM±200 .... 7000 RPM
Idle RPM±200 .......... 1600 RPM
Engagement RPM±300 .... 3800 RPM
Cylinder Head Torque .... 8mm-17-20 ft.lbs, 10mm-24-26 ft.lbs
Cylinder Base Nut Torque . 24-28 ft.lbs (3.3-3.9 kgm)
Crankcase Torque (8mm) . 17-18 ft.lbs (2.2-2.3 kgm)
Crankcase Torque (10mm) ... 23-25 ft.lbs (3.2-3.5 kgm)
Flywheel Torque .......... 60-65 ft.lbs (8.3-9 kgm)
MODEL: WIDETRAK LX
MODEL NUMBER: 099SU4BS
ENGINE MODEL: EC50PL202

ELECTRICAL
Flywheel I.D. FP5445
CDI Marking CU6417
Alternator Output 200 Watts
Ignition Timing 28° BTDC @ 3000 RPM ± 1.5°
Operating Timing 16° @ 7500 RPM
Spark Plug / Gap Champion RN-3C/.028” (.7mm)
Lights: Head Halogen 75/60 watts
Tail 8 watts
Brake 29 watts
Voltage Regulator LR9, LR2
Electric Start Standard
*LR9= Half wave voltage regulator
*LR2= Rectifier only for battery charging

CAPACITIES
Fuel Tank 11.8 gal. (44.7L)/10.5 (39.7)
Oil Tank 2.4 quarts (2.3 liters)
Coolant 3 quarts (2.8 liters)
Chaincase Oil 20 fl. oz (590cc)

SUSPENSION / CHASSIS
Body Style Gen II
Front Suspension 38 IFS
Maximum Width 38.00” (96.52cm)
Camber 25/32”±5/16” (20±8mm)
Toe Out 0-1/8” (0-3mm)
IFS Spring Rate 105#/in.
Front Spring Preload 3 Shims
Front Vertical Travel 7.25 in. (18.42cm)
Rear Suspension Slide Rail
Rear Travel 9 in. (22.86cm)
Front Track Shock Nitrex
Spring Rate 181#/in.
Rear Track Shock Nitrex
Rear Springs .468” (sq.) / 74°
Track Type 20”x156”x1.0” (50.8x396.24x2.54cm)
Track Tension 3/4” - 1” (1.90-2.54cm) slack with 10# (4.54kg) weight 16° 40.64cm ahead of rear idler shaft

CHAINCASE
Sprockets / Chain 19-41, 66 P 3/4 HYVO
Reverse Standard Hi/Low
Brake Pads Type 69 Widetrak
Chaincase Center Dist. N/A
Driveshaft Sprockets 4 Drivers Widetrak
Brake Type Mechanical Disc

Polaris Industries Inc.
1.67
10/98