

## MODEL IDENTIFICATION



**Intruder ST440-A4A**

# FOREWORD

## CAUTION

This Intruder ST440-A4A Shop Manual Supplement is designed to be used in conjunction with the Intruder ST440-A4 Shop Manual (P/N 99963-3513). The maintenance and repair procedures described in this Supplement are only those that are unique to the ST440-A4A model. Most service operations for these models remain identical to those described in the base Shop Manual. Complete and proper servicing of the ST440-A4A model therefore requires both this Supplement and the base Shop Manual.

The base Shop Manual and this Supplement are designed primarily for use by snowmobile mechanics in a properly equipped shop. However, they contain enough detail and basic information to make them useful to the snowmobile owner who desires to perform his own basic maintenance and repair work. A basic knowledge of mechanics, the proper use of tools, and workshop procedures must be understood in order to carry out maintenance and repair satisfactorily. Whenever the owner has insufficient experience or doubts his ability to do the work, the adjustments, maintenance, and repair should be carried out only by qualified mechanics.

In order to perform the work efficiently and to avoid costly mistakes, the mechanic should read the text, thoroughly familiarize himself with the procedures before starting work, and then do the work carefully in a clean area. Whenever special tools and equipment are specified, makeshift tools or equipment should not be used. Precision measurements can only be made if the proper instruments are used, and the use of substitute tools may adversely affect safe operation of the snowmobile.

Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.

## WARNING

*This warning symbol identifies special instructions or procedures which, if not correctly followed, could result in personal injury, or loss of life.*

*This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to, or destruction of equipment.*

**NOTE:** Indicates points of particular interest for more efficient and convenient operation.

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Illustrations in this publication are intended for reference use only and may not depict actual model component parts.

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# QUICK REFERENCE GUIDE

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Specifications .....	<b>1</b>
Maintenance and Theory .....	<b>2</b>
Repair .....	<b>3</b>

This quick reference guide will assist you in locating a desired topic or procedure.

- Bend the pages back to match the black tab of the desired section number with the black tab on the edge of each table of contents page.
- Refer to the section table of contents for the exact pages to locate the specific topic or procedure required.



# SPECIFICATIONS

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# GENERAL SPECIFICATIONS

Refer to the specifications found under GENERAL SPECIFICATIONS in the Intruder Shop Manual, except for:

## DRIVE CONVERTER

Weight - Total gram weight (standard) ..... 60.1 grams

DRIVE CONVERTER COMPONENT WEIGHT CHART (STANDARD)			
Part Number	Quantity (each ramp)	Component	Gram Weight
13042-3002	3	Weight, 0.062 in. (1.6 mm) thick	1.0
92019-008	1	Nut, special, 6 mm	2.3
110G0628	1	Bolt, steel, 6 x 28 mm	7.3
39152-3005	1	Weight Assembly E	47.5

## ELECTRICAL COMPONENTS

Headlight Bulb Part Number ..... 12V 60/55W Quartz-92069-3507

# TORQUE CHART AND LOCTITE TABLE

Refer to the TORQUE CHART AND LOCTITE TABLE in the Intruder Shop Manual, except for:

Description	Quantity	Torque
DRIVESHAFT Bearing Housing - bolts	3	12 ft. lb. (1.7 kg-m)

# MAINTENANCE AND THEORY

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# Fuel System

Fuel System Service is as described beginning on page 2-36 in the Intruder Shop Manual, except for fuel filters.

## Fuel Filters

1. In-line Filter - Refer to Intruder Shop Manual, page 2-36.
2. Internal Filter - Refer to Intruder Shop Manual, page 2-36.
3. Fuel Tank Filter - Refer to Intruder Shop Manual, page 2-36. Three washers are added to the fuel tube to keep the tube submerged.



# REPAIR

## Table of Contents

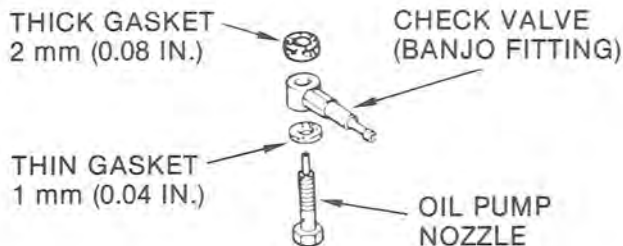
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## Oil Injection System

Oil Injection System service is as described beginning on page 3-77 in the Intruder Shop Manual, except for oil pump nozzle installation.

### Nozzle Installation

1. When assembling the check valves (banjo fittings) and oil pump nozzles, install the thin gasket in the lower position, and the thick gasket in the upper position.



### Oil Filter Inspection

1. If filter shows any signs of leakage or has foreign particles accumulated on screen, replace the filter.
2. Replace the filter at the beginning of each season as a precautionary measure.

### Oil Filter Installation



*Failure to install filter in proper direction will cause oil pump failure. Foreign particles trapped in screen will be released during use, entering the oil pump and causing pump failure.*

1. Attach supply tube coming from oil tank to filter fitting marked IN.
2. Attach supply tube leading to oil pump to filter fitting marked OUT.



## Idler Wheels (Suspension Rail)

Idler wheel service is as described in the Intruder Shop Manual on page 3-123, except for:

1. Correct the legend for Figure 3-195B (page 3-122). Legend numbers 28 and 30 should be **6.25 O.D.**
2. Correct the legend for Figure 3-196 (page 3-123). Legend number 3 should be **6.25 O.D.**

**NOTE:** This correction applies to the 1981 Intruder (ST440-A4) as well as the 1982 Intruder (ST440-A4A). Mark this correction in your Intruder Shop Manual.

## Seat

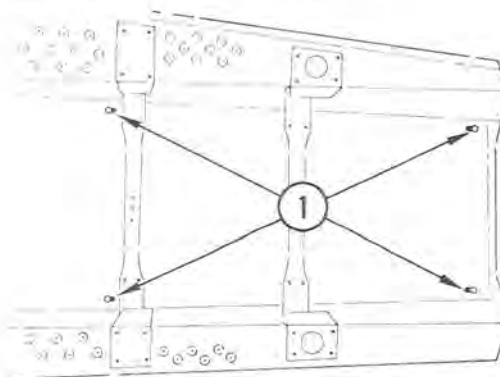
### Removal

1. Unfasten tail lamp-to-main harness connector, located in front of fuel tank.



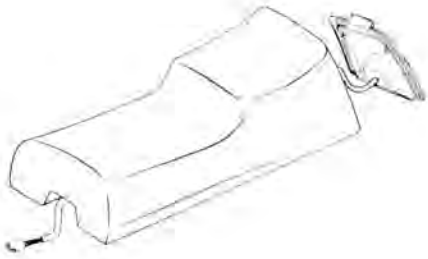
1. Tail Lamp Connector.

2. Remove seat mounting bolts



1. Seat Mounting Bolts

3. Lift seat assembly from snowmobile. Carefully pull tail lamp wiring from under fuel tank.



## Installation

1. Slide connector under fuel tank and connect tail lamp wiring to main harness.
2. Position seat assembly on snowmobile. Be certain tail lamp wiring is not pinched between seat frame and tunnel.
3. Secure seat. Torque mounting bolts to 35 in. lb (0.4 kg-m). If "blind nuts" become stripped, replacements are available (P/N 92015-3543).

