



# 2018 RANGER XP 1000 Service Manual

## FOREWORD

The information printed within this publication includes the latest product information at time of print. The most recent version of this Service Manual is available in electronic format at [www.polarisdealers.com](http://www.polarisdealers.com).

This Service Manual is designed primarily for use by certified Polaris Master Service Dealer® technicians in a properly equipped shop and should be kept available for reference. All references to left and right side of the vehicle are from the operator's perspective when seated in a normal riding position.

Some procedures outlined in this manual require a sound knowledge of mechanical theory, tool use, and shop procedures in order to perform the work safely and correctly. Technicians should read the text and be familiar with the service procedures before starting any repair. Certain procedures require the use of special tools. Use only the proper tools as specified. If you have any doubt as to your ability to perform any of the procedures outlined in this Service Manual, contact an authorized dealer for service.

We value your input and appreciate any assistance you can provide in helping make these publications more useful. Please provide any feedback you may have regarding this manual. Authorized dealers can submit feedback using 'Ask Polaris'. Click on 'Ask Polaris', and then click on 'Service Manual / Service Literature Question'.

Consumers, please provide your feedback in writing to: Polaris Industries Inc. ATTN: Service Publications Department, 2100 Hwy 55, Medina, MN 55340.

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## **SAFETY WARNINGS**

Throughout this manual, important information is brought to your attention by the following symbols:



SAFETY ALERT WARNING indicates a potential hazard that may result in severe injury or death to the operator, bystander or person(s) inspecting or servicing the vehicle.



SAFETY ALERT CAUTION indicates a potential hazard that may result in minor personal injury or damage to the vehicle.



CAUTION indicates special precautions that must be taken to avoid vehicle damage or property damage.



NOTE provides key information by clarifying instructions.



IMPORTANT provides key reminders during disassembly, assembly and inspection of components.

# **2018 RANGER XP 1000**

## Service Manual

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# CHAPTER 1 GENERAL INFORMATION



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### REFERENCE INFORMATION

#### SERVICE RULES

In order to perform service work efficiently and prevent costly errors, technicians should read the text in this manual and familiarize themselves with the procedures before beginning. Notes, Cautions and Warnings have been included for clarification of text and safety concerns. Knowledge of mechanical theory, tool use and shop procedures are necessary to perform some procedures in this manual safely and correctly.

Use only genuine Polaris service parts, including fasteners that require replacement if removed. Do NOT substitute fasteners or hardware.

Cleanliness of parts and tools as well as the work area is of primary importance. Dirt and foreign matter will cause damage to precision parts. Clean the vehicle before beginning service. Clean all parts before installing.

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.

Always follow torque specifications as outlined throughout this manual. Incorrect torquing may lead to serious machine damage or in the case of steering, driveline, and chassis components, can result in loss of control during operation of the vehicle, which may result in severe personal injury or death.

If a torquing sequence is indicated for nuts, bolts or screws of a certain component, start all fasteners and hand tighten. Following the method and sequence indicated, tighten evenly to the specified torque value. When removing nuts, bolts or screws from a component with several fasteners, loosen them all about 1/4 turn before removing them to prevent distortion of that component.

Replace all oil seals, sealing washers, gaskets, and O-rings with new ones during assembly. Be sure the mating surfaces for the gasket are clean and smooth to avoid leaks and maintain specified tolerances.

Some procedures require removal of retaining rings or clips. Removal can weaken and deform these parts, therefore, 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.

Polaris lubricants and greases have been specially formulated to provide maximum performance and protection when applied properly. In some applications, warranty coverage may be void if improper lubricants are used.

Parts requiring grease should be cleaned thoroughly and fresh grease applied before reassembly. Deteriorating grease loses lubricity and may contain abrasive foreign matter. Always replace locking hardware such as lock nuts or lock washers, fasteners that have pre-applied locking agent, or any other fasteners as noted in this service manual with genuine Polaris hardware from an authorized Polaris dealer. Working with batteries can be hazardous. Review all battery warnings and cautions.

**PUBLICATION PART NUMBERS**

Some vehicle publications, such as the Owner's Manual and Parts Manual are available on-line and can be downloaded from the Polaris website ([www.polarisindustries.com](http://www.polarisindustries.com)).

MODEL	MODEL NUMBER	OWNER'S MANUAL
2018 RANGER XP 1000	R18RRE99AS / BS, R18RRU99AS / BS	9928300
2018 RANGER XP 1000	R18RRS99C1 / CS	9928195
2018 RANGER XP 1000	R18RRE99F1 / N1, R18RRS99F1	9928196

NOTE
When ordering service parts be sure to use the correct parts manual.

**REPLACEMENT KEYS**

Replacement keys can be made from the original key. To identify which series the key is, take the first two digits on the original key and refer to the chart to the right for the proper part number.  
(i.e. In this example, the first two digits are 31 which would use key blank PN 4110141.

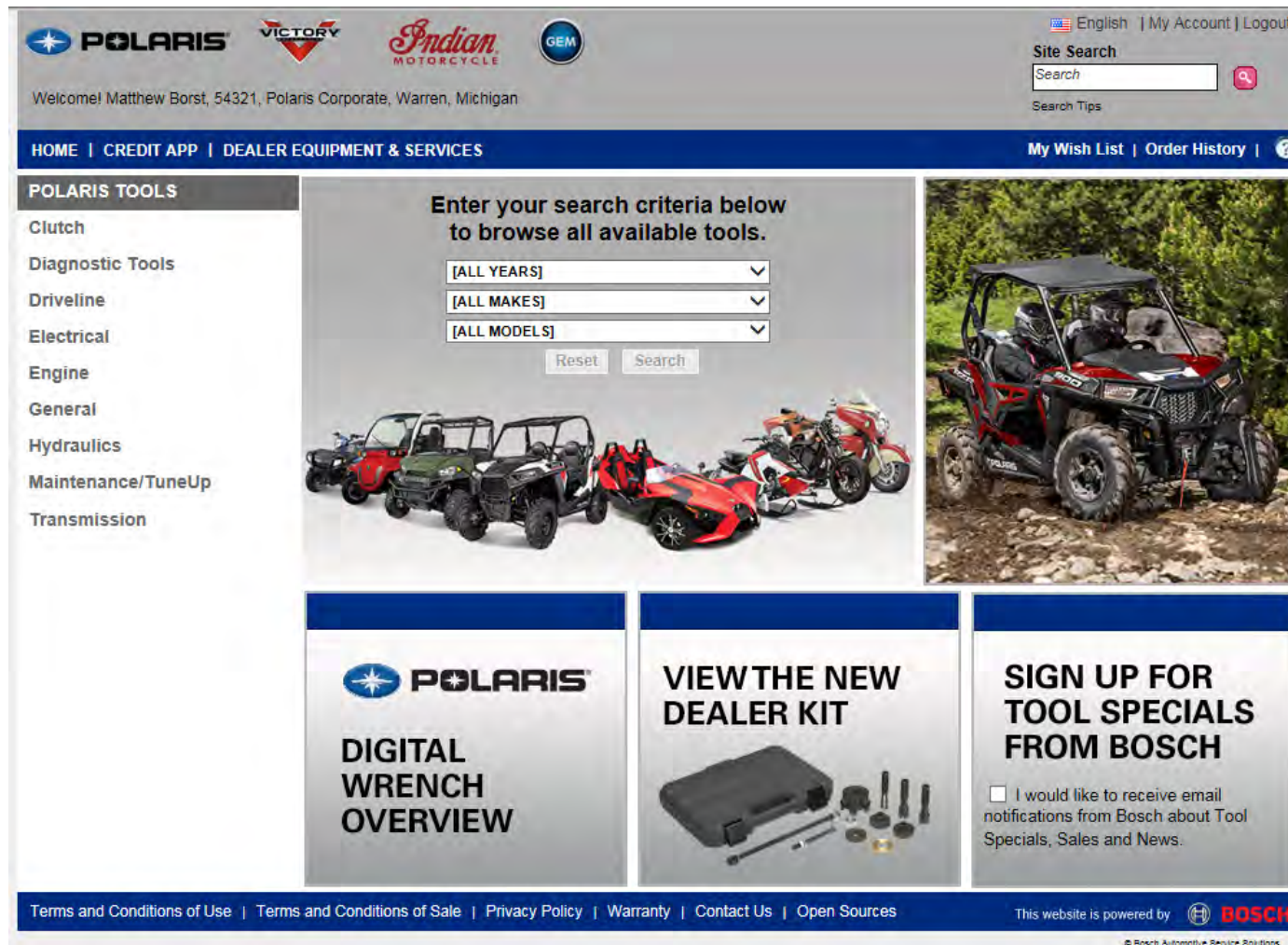
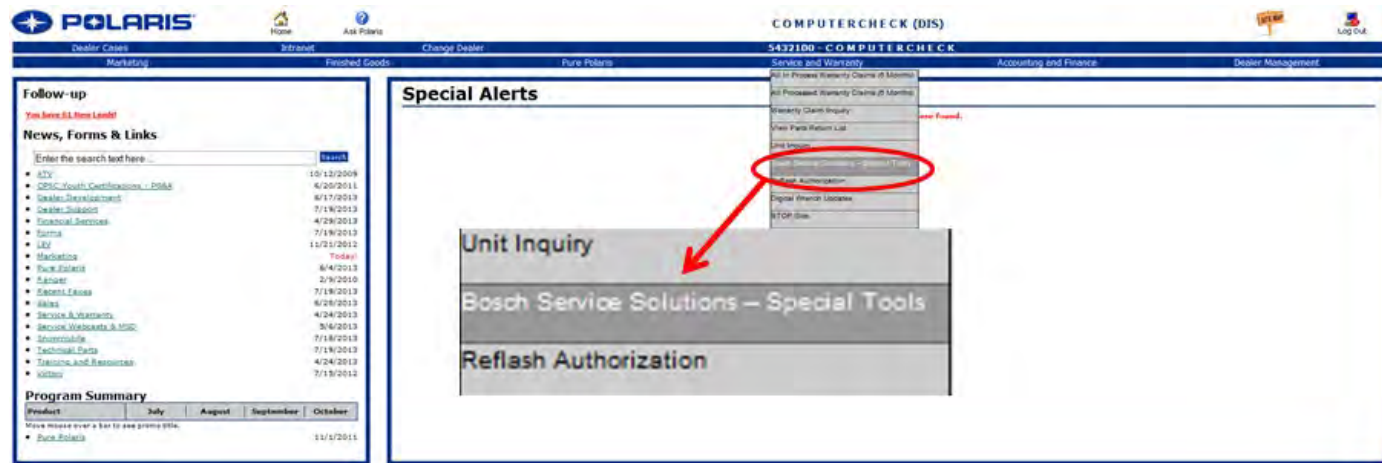


SERIES#	PART NUMBER
20	4010278
21	4010278
22	4010321
23	4010321
27	4010321
28	4010321
31	4110141
32	4110148
67	4010278
68	4010278

# GENERAL INFORMATION

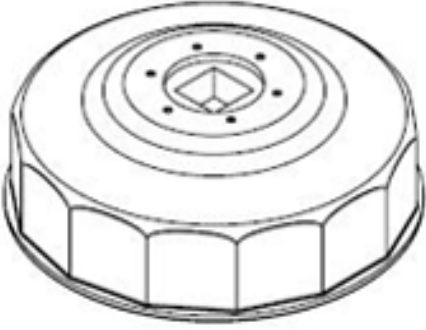
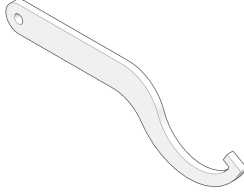
## SPECIAL TOOLS WEBSITE

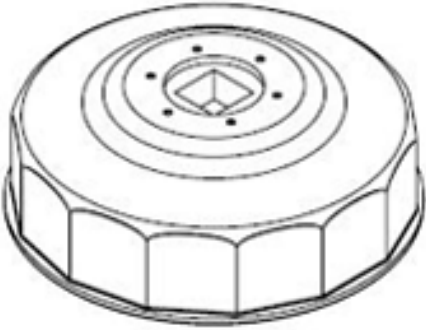
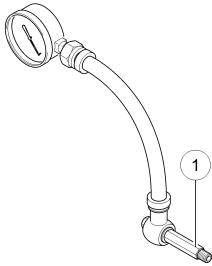

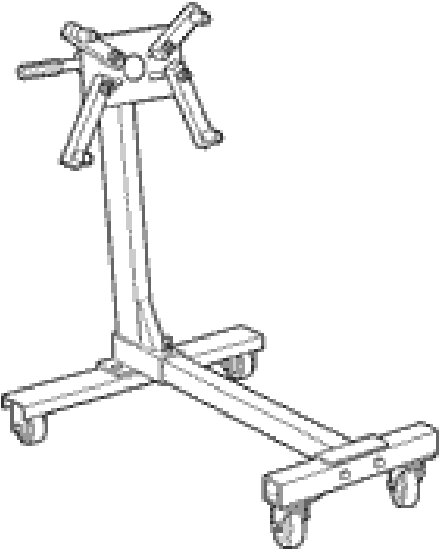
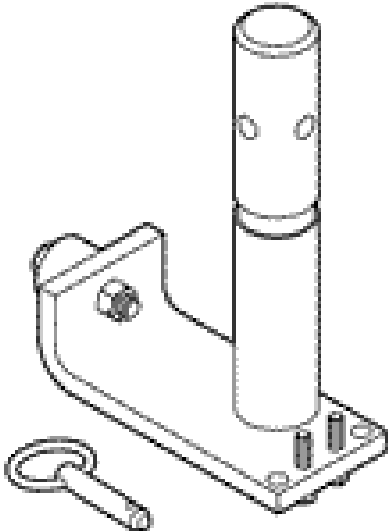
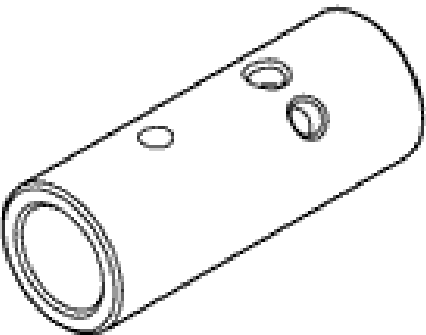
Special tools may be required while servicing this vehicle. Some of the tools listed or depicted are mandatory, while other tools may be substituted with a similar tool, if available. Polaris recommends the use of Polaris Special Tools when servicing any Polaris product. Dealers may order special tools through Polaris' official tool supplier, Bosch Automotive Service Solutions, by phone at 1-800-345-2233 or on-line at <http://polaris.service-solutions.com/>



**SPECIAL TOOLS INDEX**


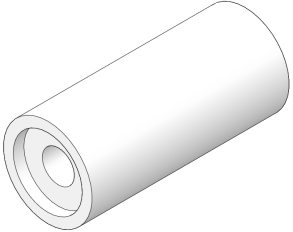
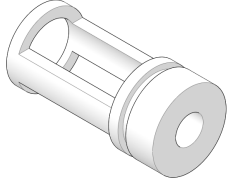
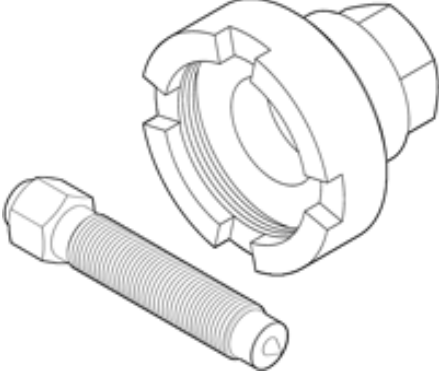
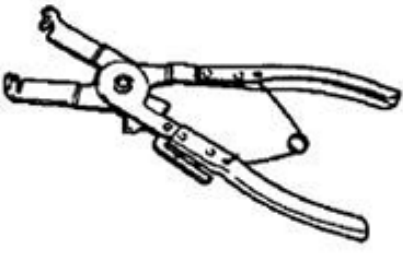
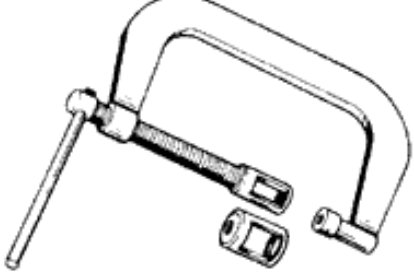
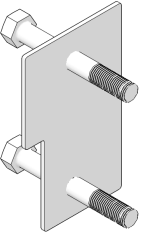


<b>MAINTENANCE</b>		
<p>Oil Filter Wrench <b>PU-50105</b></p> 	<p>Shock Spanner Wrench <b>2877408</b></p> 	


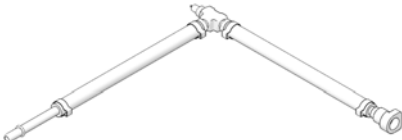
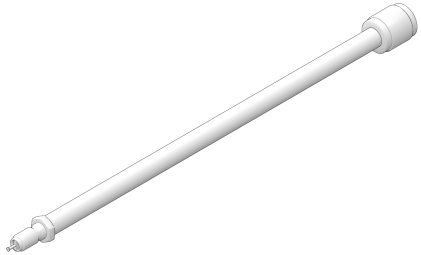
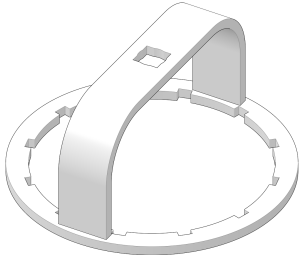
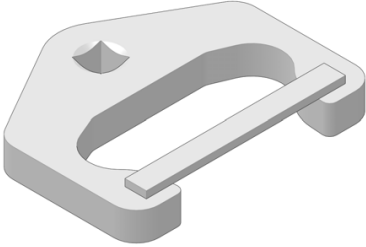
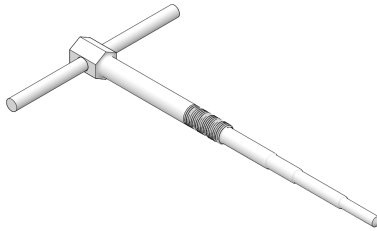
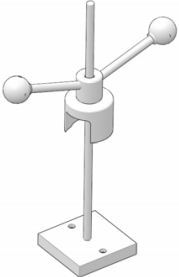
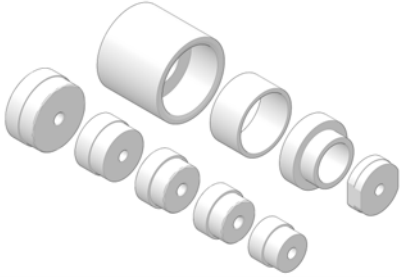
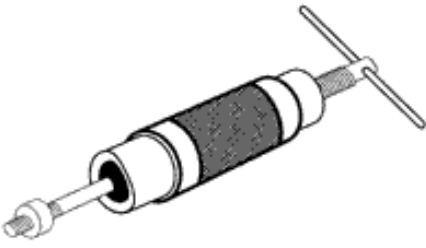

<b>ENGINE / COOLING / EXHAUST</b>		
<p>Oil Filter Wrench <b>PU-50105</b></p> 	<p>Oil Pressure Gauge <b>PV-43531</b></p> 	<p>Oil Pressure Gauge Adapter <b>PU-52492</b></p> 
<p>Engine Stand (2" Bore) <b>PU-50624</b></p> 	<p>Engine Stand Adapter (Mounts To The Engine) <b>PU-50562</b></p> 	<p>Engine Stand Sleeve Adapter (Use With 2" Bore Stand) <b>PU-50625</b></p> 




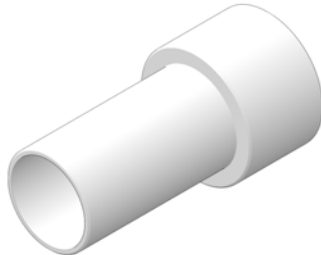
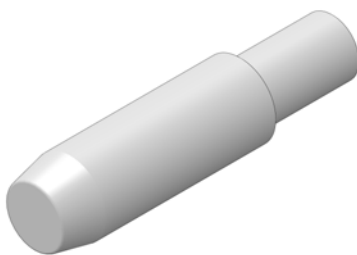
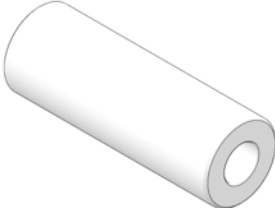
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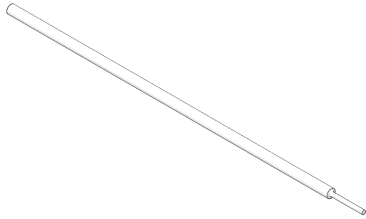


ENGINE / COOLING / EXHAUST		
<p>Engine Stand Sleeve Adapter (Use With 2.375" Bore Stand) <b>PW-47054</b></p> 	<p>Water Pump Mechanical Seal Installer <b>PU-50564</b></p> 	<p>Valve Spring Compressor Adapter <b>PV-43513-A</b></p> 
<p>Flywheel Puller <b>PA-49316</b></p> 	<p>Piston Ring Compressor Pliers <b>PV-43570-1</b></p> 	<p>Valve Spring Compressor <b>PV-1253 or PV-4019</b></p> 
<p>Cylinder Holding &amp; Camshaft Timing Plate <b>PU-50563</b></p> 	<p>Crank Seal Installation Tool <b>PU-52493</b></p>	

1

<b>FUEL SYSTEM</b>		
<p>Fuel Pressure Gauge Kit <b>PU-43506-A</b></p> 	<p>Fuel Pressure Gauge Adapter <b>PA-48838</b></p> 	<p>Fuel Pressure Gauge Adapter <b>PS-48762</b></p> 
<p>Fuel Pump Service Tool <b>PU-50326</b></p> 		
<b>PVT SYSTEM</b>		
<p>Drive Clutch Holding Fixture <b>PU-52430</b></p> 	<p>Drive Clutch Puller <b>PU-52422</b></p> 	<p>Clutch Compressor Tool <b>PU-50518-A</b></p> 
<p>Clutch Bushing Replacement Kit <b>2871226-A</b></p> 	<p>Piston Pin Puller <b>2870386</b></p> 	<p>Driven Clutch Separator Tool <b>2875911</b></p> 

GENERAL INFORMATION

TRANSMISSION		
<p>Snorkel Tool <b>PU-52547</b></p> 	<p>Rear Driveshaft Seal Guide <b>2871699</b></p> 	<p>Rear Output Seal Driver <b>2871698</b></p> 
<p>Bearing Seal Driver (50 mm) <b>2871282</b></p> 	<p>Crankcase Sealant <b>2871557 (3 bond)</b> or <b>3233901 (Loctite® 680)</b></p>	

FINAL DRIVE		
<p>Roll Pin Removal Tool <b>2872608</b></p> 	<p>Axle Boot Clamp Tool <b>PU-48951</b></p> 	<p>CV Boot Clamp Pliers <b>8700226</b></p> 

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