

	Doc or ECO #:	ECO-70910-002	Date:	9/1/2020	Author:	MW
	DOC Rev. #:	A				
MSS TOOL KIT BOM	Engineering Approval:	AEG	Date:	9/1/2020	Quality Approval:	aeg

P/N #:	BOM-70910	Effective Date:	September 8, 2020
Title:	Tool Kit, MSS		

1.0 Purpose / Summary

Improvements to the tool kit to add the new prop tool and collet removal tool.
Additionally all magnets have been removed from the kit.

2.0 Parts Affected

Part Number	Notes	Removed	Added	Modified	REV
71412	MSS Tool Bag	☒	☐	☐	n/a
70850	Thruster Prop Tool	☐	☐	☒	A
72298	7/16" Nutdriver; 4" Shaft	☐	☒	☐	A
50252	Tool Bag	☐	☒	☐	A
72975	SOG Q4 Multitool, Complete Bit Set	☐	☒	☐	A
72967	Ball-End Hex L-Key 3mm	☐	☒	☐	A
72937	Prop Collet Extractor Collar	☐	☒	☐	A
72196	M5 Prop Collect Puller Screw	☐	☒	☐	A
71448	Bit Organizing Caddy for 9 Bits , added another caddy	☐	☐	☒	A
71441	7/16" Hex bit nut driver deep	☒	☐	☐	A

3.0 Detail

The shafts on the thrusters break too easily when using the prop tool to change out the prop. The prop tool (70850) has been redesigned to make it harder to put lateral stress on the shaft and cause damage when replacing the prop.

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In the past, the p/n 71441 was put into the SOG tool, placed through the prop tool, and used to change the thruster. This allowed the user to put too much lateral stress on the shaft, causing them to break in the field. 71441 has been replaced by a nut driver (72298) and 70850 has been modified to include a coned support so that the driver cannot be forced laterally.

Also, an old part number was being used for the tool bag (71412) which we did not use. This tool bag has been updated to 50252 which is the bag currently in use

The collet tool and 3mm hex key were added.

The SOG case and tool caddy were removed to reduce magnetic signature.
An additional caddy was added to hold the stock bits.

4.0 Disposition of Material

Update all tool kits to new revision

5.0 Action Items

Action	Department	Acknowledgement Initials
Purchase updated prop tools, 70850 R-05, and nut drivers 72298	PUR	RS
Purchase collet tools	PUR	RS
Update BOM, and WI	ENG	AEG

6.0 Modified / Referenced Documents:

Document	Current Revision

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7.0 Revision History

Date Revised (mm-dd-yyyy)	Location of Change (section, paragraph no., step no., etc.)	Description of Change Made	Name of Person making the Change
03/17/2020		Initial draft	Mike Willis
9/1/2020		Add collet tool and allen key	aeg
9/9/2020		Added removal of case	aeg