## North Dakota State University: MSPR Report

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## **ABSTRACT**

Production costs in a recreational sport such as snowmobiling are often the driving factors for a company's popularity and success. While it is possible to have highly advanced systems in any machine, making these advancements cost effective and marketable to consumers is an obstacle faced by all production companies. To account for design improvements or advancements in the production of a product, companies need to weigh the pros and cons of the situation and determine whether or not the change in production will be money-making when compared to other products on the market.

## INTRODUCTION

North Dakota State University's design approach was based on concept of developing system designs which could be implemented to stock snowmobiles without

significant modification to the original snowmobile and its components.

The MSRP Report developed by NDSU's CSC Team took into affect all modifications made to the stock components of the snowmobile which would affect Polaris's retail cost of the snowmobile (i.e. items such as battery box, clutch guard and bumper modifications are not included in the retail price because Polaris did not feel these items were necessary on a stock product). All modifications to the snowmobile have been priced per section 9.5.7 "Estimated increase in MSRP must be based on one or more of the following," pg. 33 of 2010 SAE Clean Snowmobile Challenge Rules, but only those deemed necessary will be accounted for in the final MSRP.

## **MSRP Spreadsheet**

Item	Materia	alCost	Manufacturing (\$25.00 /hr)	Item '	Total added	Retail
Polaris IQ Dragon FST (Stock)	\$	-	\$ -	\$	-	\$10,999.00
Exhaust Modification (Catalyst)	\$ 2	15.00	\$ 150.00	\$	365.00	
Sound Treatment	\$ 2	250.00	\$ 250.00	\$	500.00	
Battery Box	\$	25.00	\$ 50.00	\$	-	
Reinforced Bumper	\$	50.00	\$ 150.00	\$	-	
Fuel Pump	\$ 2	20.00	\$ 50.00	\$	270.00	
Fuel Regulator	\$ 1	95.00	\$ 50.00	\$	295.00	
Fuel Lines	\$	10.00	\$ 50.00	\$	60.00	
Clutch Cover	\$		\$ -	\$	-	
Tail Lights	\$		\$ -	\$	-	
Misc. Hardware	\$	50.00	\$ -	\$	-	
			Additional Modification Total	\$	1,490.00	
			Additional Modifications Retail (+50%	\$	2,235.00	
			Manufacturer's Sugested Retail Price	rer's Sugested Retail Price		