

# ***BoonDocker***

## **Technical Bulletin**

Polaris Pro-RMK 800 - Intercooled / Non-Intercooled Turbo

Date: 11/30/12

With the first 2012 Polaris Pro-RMK BoonDocker Turbo Kits now on the snow we would like to share some feedback on tuning the machines. We have received good reports that the new kits are building great power and improved throttle response. To help customers get the best performance out of their machine we like to share some technical tuning notes.

### **Clutching** - Over-Reving causing sputtering at max rpms

The 2012 BoonDocker turbos are running more power causing some the machine to over-rev and hitting the rev limiter. The factory rev-limiter is at 8500 rpm and it is recommended to run the machine at 8250-8300 rpm. We have found that the tachometer doesn't react quick enough so when the tach is displaying 8400 it is possible that the engine is actually running 8500 and hitting the rev-limiter. For customers experiencing over-rev while running high boost here are some clutching suggestions.

#### Primary Spring

- Almond/Red Polaris Spring 165-310 BoonDocker Part# 7041988
- Or Orange Team Spring 165-3-0 BoonDocker Part# 30-210-135-009

Secondary Helix, use the 42-48 angle on the Helix provided in the BoonDocker kit

### **Fuel Pick-Up Issue** - Sputtering at max throttle under load

There is an issue with the engine running out of fuel due to a pick up issue in the tank. This problem arises on machines that have ¼ tank of fuel or less and is more likely to occur on an incline. This problem is inherent to the stock machine but is more of an issue on turbo machine due to the higher fuel demands of the turbo system.

**Continued on next page....**



**Control Box Tuning – Sputtering**

The 3D Tuning in the 2012 Control Box controls the fuel both on and off-boost. These fuel adjustments are made in different sections of the Control Box. The On-Boost fuel adjustments are made in the FUEL screens on the Control Box. Off-Boost fuel can be adjusted in the XTRA screen on the Control Box. The Control Box blends these two fuel adjustments together as the machine builds boost.

The following charts show fuel numbers for the Control Box. The chart on the left has been tested at 10,000 feet to working well. The chart on the right shows the numbers that come pre-programmed in the Control Box. Depending on the situation and set-up the tuning numbers for specific machines will likely be somewhere in between these two set-ups.

High-Altitude Tuning				Factory Tuning			
EXTRA	LO	MD	HI	EXTRA	LO	MD	HI
	0	-4	-14		004	000	-05
4300	12	12	0	4300	08	10	00
5100	18	12	0	5100	09	11	13
5900	20	25	28	5900	20	25	31
6700	25	34	32	6700	25	34	32
7500	25	34	35	7500	25	34	35
8200	25	34	34	8200	25	34	34
8500	25	34	37	8500	25	34	37