



# Product Support Bulletin 2007-010

245 W. Forest Hill Avenue  
Oak Creek, WI 53154

**Contact:** Gary D. Van Deluyster, Service Manager – Phone: 800-445-9258 – Fax: 414-766-2266

## Maintenance of Way ~ Work Equipment Bulletin

**DATE:** November 18, 2007

**SUBJECT:** High Volume Propel Valve Kit – 660197  
Anti-turbulence Washer – 500765

**RATING:**  **DIRECTIVE** (Action is required)  **ALERT** (Potential Problem)  
 **INFORMATION** (Action is optional)  **PRODUCT IMPROVEMENT** (Enhance Product)

**MACHINE MODEL(S):** SP2R Spike Puller

**SERIAL NUMBER(S):** 310001-310083, 310098, 310101-310103

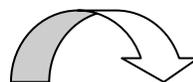
**SUMMARY:** The original 1699042 Propel Valve would restrict oil flow under certain conditions. This would result in a slower top speed of the machine during track travel. The valve may also stick on occasion, particularly if the hydraulic oil is hot and valve is cold.

To solve these problems, the original Propel Valve is being replaced with the **High-Volume Propel Valve, p/n 660197.**

**OPERATIONAL IMPACT:** The new 660197 High-Volume Propel Valve Kit replaces the original D05 size Propel Valve with a larger D07 size Propel Valve. This larger valve allows increased oil flow to improve the top speed of the machine. In addition, the larger valve spool is less likely to stick in the valve bore because of temperature extremes.

**ACTION:** The original 1699042 Propel Valve must be removed from the machine and replaced with the new D07 High-Volume Propel Valve, p/n 500743. See Figure 1 on Page 2.

A new 500744 Adapter Block to adapt the original D05 valve hole pattern to the new D07 valve hole pattern is installed on top of the Flow Control Module Block. The new 500743 Propel Valve is installed on top of the Adapter Block as shown in Figure 2 on Page 2.



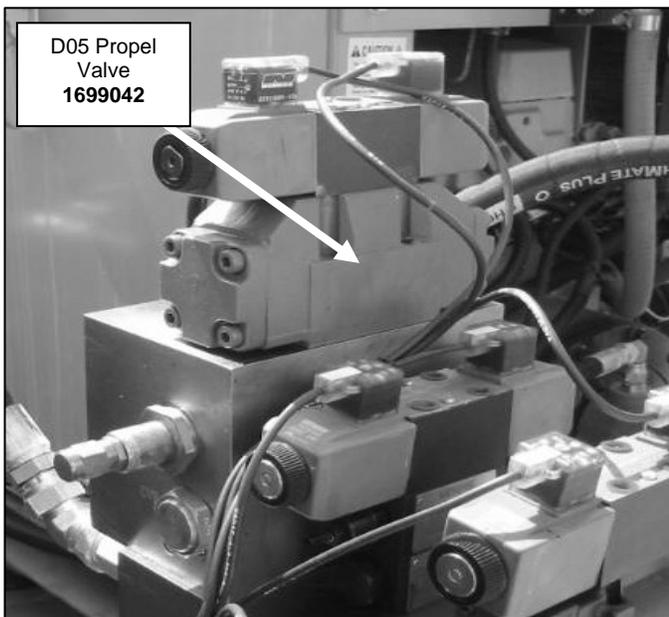
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In addition, the **500765 Flow Control Anti-turbulence Washer** must be installed in the Propel Flow Control Module. Remove the Propel Flow Control Valve, install the Anti-turbulence Washer in the Flow Control Valve Cavity and replace the Flow Control Valve. This washer eliminates turbulence at the inlet of the flow control and prevents travel speed surging. See Figure 3 on Page 3.

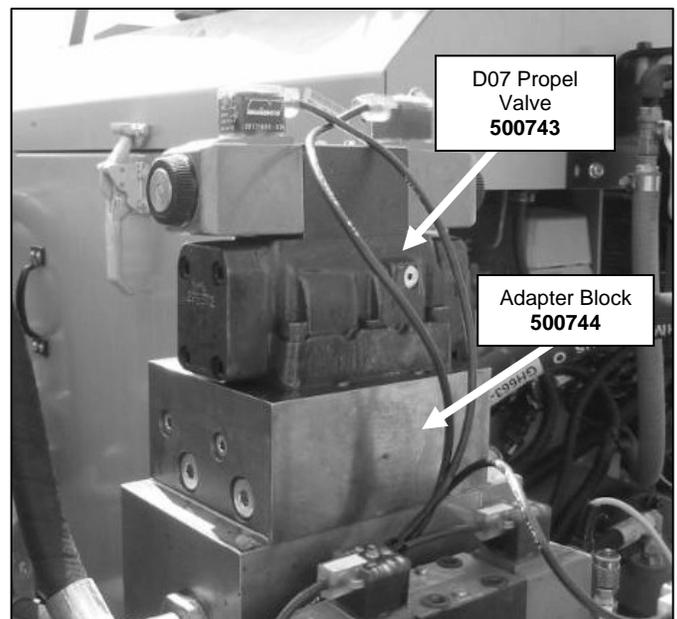
A **Propulsion Conversion Kit P/N 660197**, containing the 500743 D07 High-Volume Propel Valve, 500744 Adapter Block, 500765 Anti-turbulence Washer and all hardware and o-rings is available from Nordco.

**WARRANTY:** The Propel Valve Replacement Kit will be supplied under warranty for all SP2R machines 310001-310083, 310098 and 310101-310103. The kits may be ordered by contacting the Nordco Service Department at 1-800-445-9258. Please have the machine serial number available when ordering.

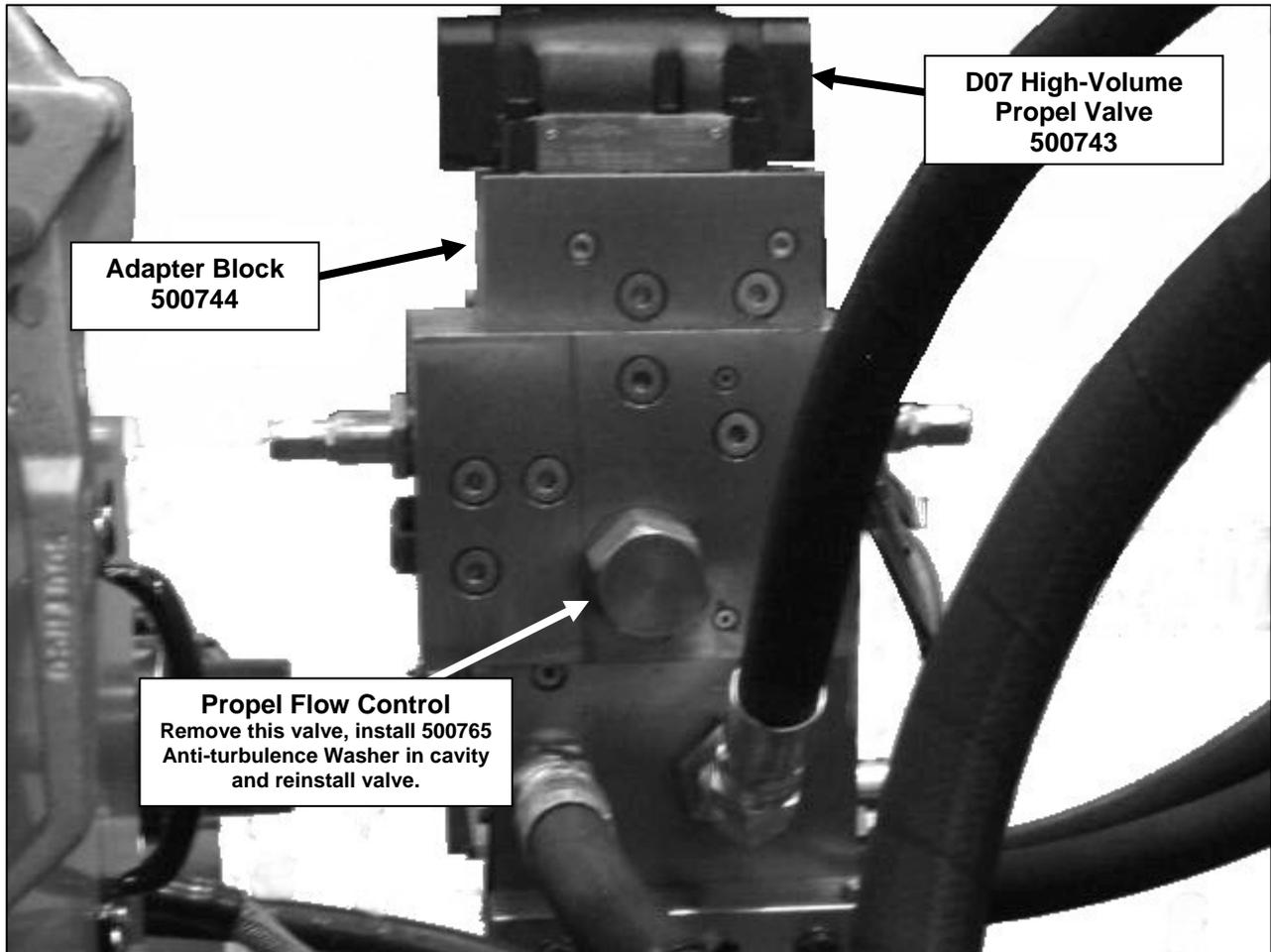
Machines 310084-310097, 310099-310100 have had the 500743 D07 Travel Valve installed at the factory. However, these machines will require the 500765 Anti-Turbulence Washer to be installed. This washer will also be provided by Nordco under warranty.



**Figure 1**  
Original 1699042 D05 Propel Valve



**Figure 2**  
New 500743 D07 High-volume Propel Valve



**Figure 3**  
Installation of 500765 Anti-turbulence Washer in the Propel Flow Control Valve Module