



Winter Maintenance Truck (WMT) Build-Up Discussion

**2013 Northeast/Midwest Region
Joint Equipment Management Meeting**

**Sonja J. Scheurer, Administrator
D. Scott Ratterree, Manager
Daniel E. Smith, Fleet Specialist
Andrew W. Bannasch, Analyst**

WMT Build-Up History

- From early 1960 to 1987, WMT build-up occurred at various garages throughout the State of Michigan
- From 1988 to 1998 WMT build-up was outsourced to the private sector – ineffective bid process and award to multiple vendors resulted in a lack of consistency and standardization statewide plus workmanship issues
- In 1998 vendor could not meet contract requirements resulting in poor workmanship issues which were corrected by MDOT technicians

WMT Build-Up History (continued)

- In 1999 MDOT assumed in-house WMT build-up duties again

- All phases of build-up operations were performed at the Lansing, Michigan Garage
 - Mounting of underbody scraper
 - Mounting of dump/DVS body
 - Mounting of mid-mount wing
 - Mounting of front plow jack assembly
 - Installation of hydraulic system
 - Installation of wiring & emergency lighting
 - Installation of ground speed oriented material spreader system
 - Manufacture of steps and various brackets

WMT Build-Up Efficiencies

- ❑ Established contract for build-up components
- ❑ Ground speed oriented salt distribution systems
- ❑ Installation of mid-mount wings
- ❑ Installation of dumping “Vee” Spreader (DVS) Body
- ❑ Closed center hydraulic system
- ❑ Stainless steel dump bodies

WMT Build-Up Efficiencies

- Use of “pre-punch” holes for accessories installation
- Pre-installation of cab guard by vendor
- Use of wiring studs to secure wiring in critical areas
- Statewide Pilot Model Inspection
- Shop equipment purchases (i.e. ironworker)
- Efficiencies reduced build-up time on single and tandem axle trucks by 29.9% (382 to 268 hours)

WMTs produced since 1999

- FY 1999 = 13
- FY 2000 = 22
- FY 2001 = 29
- FY 2002 = 32
- FY 2003 = 22
- FY 2004 = 30
- FY 2005 = 34
- FY 2006 = 22
- FY 2007 = 24
- FY 2008 = 20
- FY 2009 = 30
- FY 2011 = 20
- Total = 298

In-House WMT Build-Up (Pros)

- ❑ In-house experience provides a better ability to evaluate the quality of build-up components
- ❑ Use of contracts reduces administrative costs
- ❑ Improved customer support in regards to response time and the ability to make changes mid-build
- ❑ Improved access to trouble shooting data, parts pricing, supply issues, and historical information
- ❑ Improved quality control & workmanship
- ❑ Improved control of standardization & consistency
- ❑ Develop experienced work force familiar with customer needs
- ❑ Improved ability to “pilot” new ideas & technologies

In-House WMT Build-Up (Cons)

- ❑ Dedicated staff required for WMT build-up
- ❑ Dedicated facility space required for WMT build-up
- ❑ Limited size of staff impacts research & development
- ❑ Less access to improved technology/equipment
- ❑ Commercial costs in some cases may appear more competitive
- ❑ Government policies/procedures can be more restrictive
- ❑ Still “could” have issues with consistency and standardization -- internal issue

Questions