



## SERVICE BULLETIN

Ref No.: 2009/1094

### 3000 & 4000 SERIES ALLISON TRANSMISSIONS – REDESIGNED SPEED SENSORS

#### NEW MACHINES EX-FACTORY WITH THIS CHANGE:

Machine	DATE	VIN	Part Manuals Affected
B50D	-	N/A	872107 / 872159
B35D/B40D		N/A	872068 / 872141
AH350/400		N/A	872068 / 872141
350/400		N/A	872068 / 872141
4206D		N/A	872093 / 872142

#### INTERCHANGEABILITY (ICA)

YES = New and Old parts are interchangeable		NO = New and Old parts are not interchangeable		SU = Supersedes	→ = New part can be used instead of Old part but not vice-versa	
NEW P/NO.	DESCRIPTION	QTY	ICA	OLD P/NO.	DESCRIPTION	QTY
AL200446	ENGINE SPEED SENSOR	-	-	AL200004	-	-
AL200447	TURBINE SPEED SENSOR (INTERNAL)	-	-	AL200071	-	-
AL200448	RETARDER OUTPUT SPEED SENSOR	-	-	AL160525	-	-
AL200426	TURBINE SPEED SENSOR	-	-	AL200017	-	-
AL200449	OUTPUT SPEED SENSOR – STRAIGHT CONNECTOR	-	-	AL200449	-	-

Allison Transmission has introduced redesigned speed sensors on all 3000 & 4000 Product Families Transmissions. The current and former sensors are fully interchangeable.

The external sensor assemblies include a Viton O-ring with blue Teflon coating. This O-ring is not serviced. The serviceable O-ring continues to be P/N AL140001

The transfer case internal output sensor is not affected by any of these changes.

The following table is a summary of the former and current speed sensor P/Ns and features which are included in the current design sensors.

AFFECTS VALIDITY	YES	NO
Warranty:		✗
On repair/as requested:	✓	
Special equipment required:		✗
P/No change/addition/supersession:	✓	
Use up stock on hand:		✗
Scrap stock on hand:		✗
Return stock for credit:		✗
Mod into Production:	✓	
Lubrication affected:		✗
Safety:		✗
Urgency:		✗

Implementation Date: JULY 2009


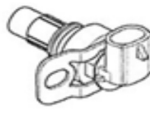

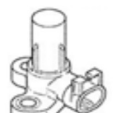



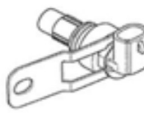


OPERATION CIRCULATION	YES	NO
Hitachi:		✗
John Deere:		✗
Bell Customers:	✓	
Bell Dealers:	✓	
Parts Team:	✓	
Sales Team:		✗
Service Team:	✓	

REASON FOR BULLETIN	YES	NO
Improvement:	✓	
Reactionary:	✓	



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Description	Former P/N	Current P/N	S/N Breaks (Used Beginning With S/N...)			
			3000 Product Family		4000 Product Family	
Engine Speed Sensor			6510633307	6520058755	6610189595	6620001732
	AL200004	AL200446				
Turbine Speed Sensor (Internal)			6510630072	6520057386	NA	NA
	AL200071	AL200447				
Retarder Output Speed Sensor			6510630089	6520057820	NA	NA
	AL160525	AL200448				
Turbine Speed Sensor			NA	NA	6610189838	6620001711
	AL200017	AL200426				
Output Speed Sensor - Straight Connector			6510623319	6520055898	6610186251	6620001414
	AL200004	AL200449				
	<u>Used on</u> 191073 191886 191303					

When performing any resistance checks for troubleshooting, the new sensors will have a nominal coil resistance value of 340 Ohms (+/- 25 Ohms) at an ambient temperature of 20°C as compared to the former sensors, which had a nominal resistance value of 300 Ohms. Refer to table below

Resistance Current Design	Resistance Former Design	Temp °C	Temp °F
250 Ω	200 Ω	-40	-40
340 Ω	300 Ω	20	68
450 Ω	400 Ω	110	230