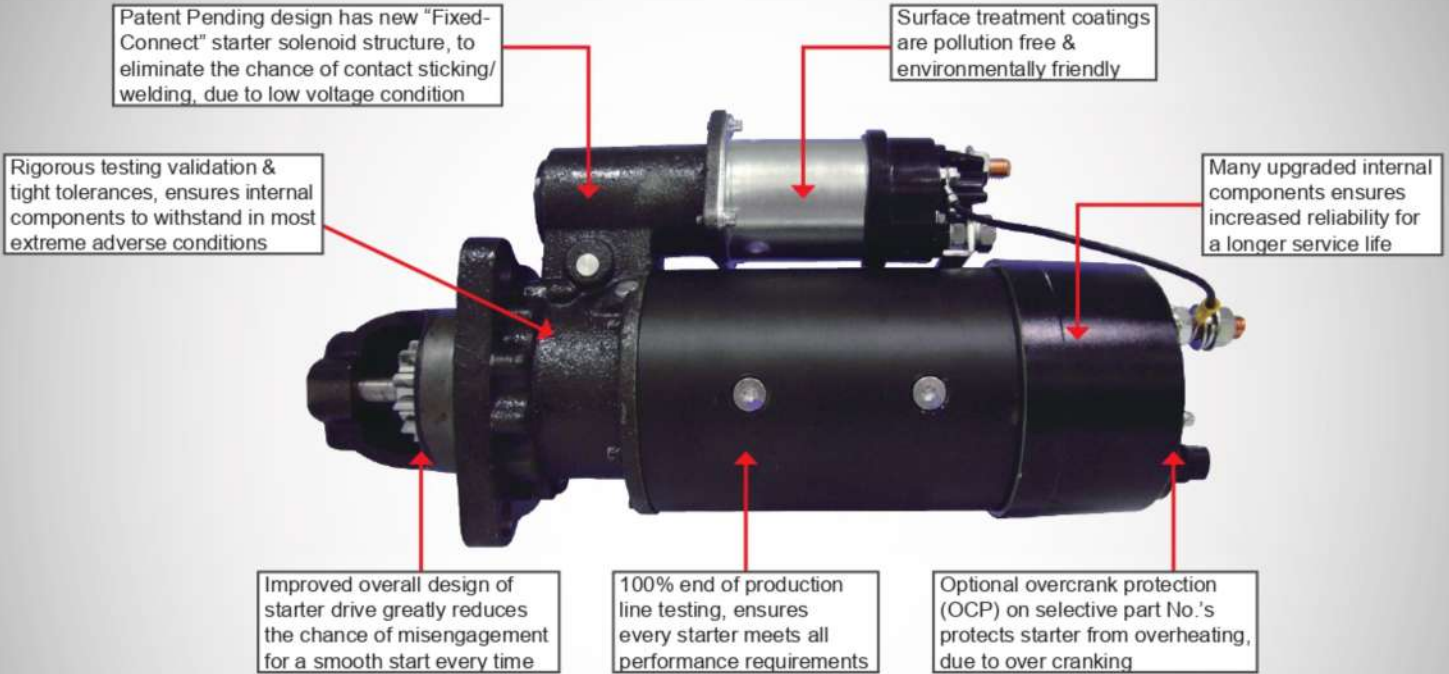


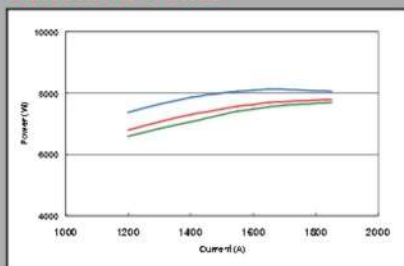
Unipoint Improved Design **42 Series** Heavy Duty Starter Motor For Enhanced Durability & Performance



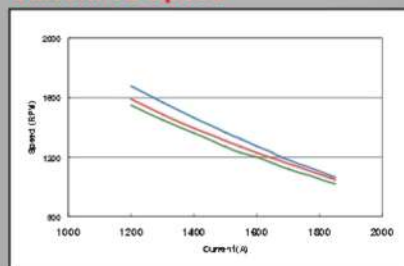
Unipoint's Improved **42 Series** Design Out Performs All Competitor Brands

Starter Performance	Unipoint #42 Series	OE Competitor Starter
Torque Power	42.7 Nm → (+7%)	40.0 Nm
	Results: Unipoint generates a higher torque to ensure successful startups in the most adverse conditions	
Output Power	7371 Kw → (+9%)	6799 Kw
	Results: Unipoint generates greater output power for reduction in fuel consumption & enhanced working efficiency	
Rotating Speed	1678 RPM → (+6%)	1589 RPM
	Results: Unipoint generates greater RPM speed for quicker engine starts, to enhance starter service life	

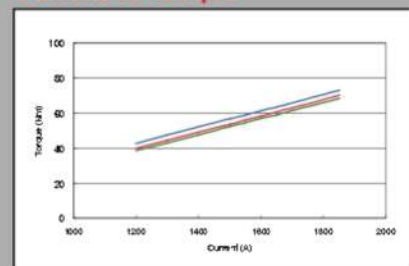
Current vs Power



Current vs Speed



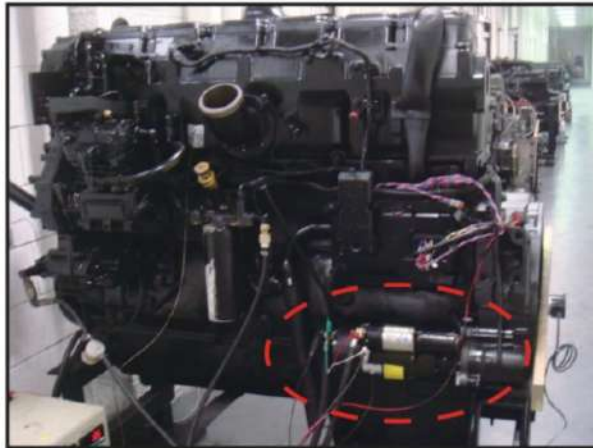
Current vs Torque



UNIPONT
OE Reman.
42MT
China Made
42 series

Unipoint 42 Series Starters Endure Rigorous Life Cycle Testing

- ▶ Unipoint starters undergo numerous in house testing on state of the art computerized test equipment as well as live engine cells.
- ▶ Unipoint starters endure hundreds of hours of testing for extreme heat & cold, vibration & start cycles.
- ▶ Live engine cell testing is performed on Cummins & Caterpillar 10.9 & 15L Engs.



Unipoint starter solenoid shows even wear pattern after testing

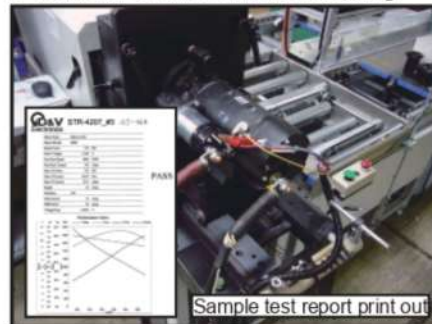


OE competitor starter testing experienced 10 consecutive mis-starts. Upon inspection due to excessive wear, moving solenoid contact disk was no longer rotating causing starter failure

Unipoint 42 Series Starters have Proven Enhanced Service

- ▶ Unipoint starter passed over 30,000 start cycles on live Cat C-15 lab test engine.
- ▶ In the unlikelyhood a highway transport truck started 8 times per day, that calculates to over 2,900 starts per year
- ▶ If Unipoint starter can achieve 30,000 + start cycles, that's potentially over 10 year service.

100% End-Of-Line Performance Testing



Sample test report print out

Vibration Testing Machine



Unipoint #42 Series Starter fitted on vibration testing machine

Heat Cycle Test with Temperature Impact Chamber



Interior view of the temperature impact chamber

Solenoid / Pinion Engagement Test on CAT C-15 Engine



Close up view of the solenoid enclosure during testing

楊生實業股份有限公司 委託測試報告	
Report NO : 10070603	
實驗項目	引擎測試
機種	STR-4200
測試日期	2010/05/31-07/05
規格	
機台	引擎再進壽命測試機(Q-9013)
數量	1PC
測試條件	一般壽命 測試STR-4200聯合器組壽命 ON 2秒 OFF 25秒 測試30000次
測試結果	OK-總測31016次, 測試正常
審核	主管 測試員 葉雲堂

In-house laboratory certificate showing starter completed 30,000 cycles!