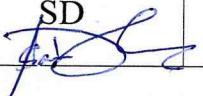
	SARA SAE ENGINEERING SPECIFICATION		
	Section: SES 26 - 783		
	Issue: "A"	Rev No.: "0"	
	Eff. Date: 04/05/2015	Page:	1 of 3

### MATERIAL SPECIFICATION FOR ALLOY C86500

Rev	Reason of Change	Date	Made By	Reviewed By	Approved By	Status
0	---	04-05-2015	ND	USR		RELEASED



	SARA SAE ENGINEERING SPECIFICATION		
	Section: SES 26 - 783		
	Issue: "A"	Rev No.: "0"	
	Eff. Date: 04/05/2015	Page:	2 of 3

## MATERIAL SPECIFICATION FOR ALLOY C86500

### **1.0 SCOPE**

- 1.1 – This specification covers the castings done in Alloy C86500.
- 1.2 – Alloy C86500 belongs to the Bronze Family : Manganese Brass

### **2.0 REQUIREMENTS**

**2.1 Chemical Composition** – Chemical composition limits are listed below. The manufacturer shall carry out an analysis of each heat of the alloy preferably from a ladle sample taken at or near the time of pouring.

Elements	Composition Range (%)
Copper (Cu)	55.00 – 60.00
Tin (Sn)	1.00 (max)
Lead (Pb)	0.40 (max)
Zinc (Zn)	36.00 – 42.00
Iron (Fe)	0.40 – 2.00
Aluminium (Al)	0.50 – 1.50
Manganese (Mn)	0.10 – 1.50

The manufacturer shall provide a TC from an NABL certified lab for the same.

**2.2 Mechanical Properties** – Mechanical properties required are listed below. The manufacturer shall carry out a test of each and report the same.

Properties	Range
Tensile Strength, MPa (Min.)	483
Yield Strength, MPa (Min.)	172
Elongation in 2in % (Min.)	25

The manufacturer shall provide a TC from an NABL certified lab for the same.



	<b>SARA SAE ENGINEERING SPECIFICATION</b>		
	<b>Section: SES 26 – 783</b>		
	<b>Issue: "A"</b>	<b>Rev No.: "0"</b>	
	<b>Eff. Date: 04/05/2015</b>	<b>Page: 3 of 3</b>	

**NOTE:**

- 1) The castings shall be free from cracks, shrinkage, blowholes, porosity or other defects.
- 3) The castings shall be in shot blast and in cast condition.

