

## STARTING SYSTEM

Starter	Rated voltage and output power		12 V 1.0 kW	12V1.4kW, 12V1.6 kW	
	No-load characteristic	Current	90 A or less at 11.5 V	←	
		rpm	3,000 rpm or more	3.500 rpm or more	
	Brush length	STD	13.5 mm 0.531 in.	15.5 mm 0.610 in.	
		Limit	8.5 mm 0.335 in.	10.0 mm 0.394 in.	
	Commutator	Outer diameter	STD	30.0 mm 1.181 in.	←
			Limit	29.0 mm 1.142 in.	←
	Undercut depth	STD	0.6 mm 0.024 in.	←	
		Limit	0.2 mm 0.008 in.	←	
	Circle runout	Limit	0.05 mm 0.0020 in.	←	
Spring installed load		18-24 N (1.79 - 2.41 kgf, 3.9-5.3 lbf)	←		

## CHARGING SYSTEM

Drive belt tension		See page A-2	
Battery specific gravity when fully charged at 20°C (68°F)		1.25-1.27	
Alternator	Rated output	12 V-70 A, 12V-80 A	
	Rotor coil resistance	2.8-3.092	
	Slip ring diameter	STD	14.2 - 14.4 mm 0.559 - 0.567 in.
		Limit	12.8 mm 0.504 in.
	Brush exposed length	STD	10.5 mm 0.413 in.
Limit		1.5 mm 0.059 in.	
Alternator regulator	Regulating voltage	at 25°C (77°F)	13.9 - 15.1 V
		at 115°C (239°F)	13.5 - 14.3 V