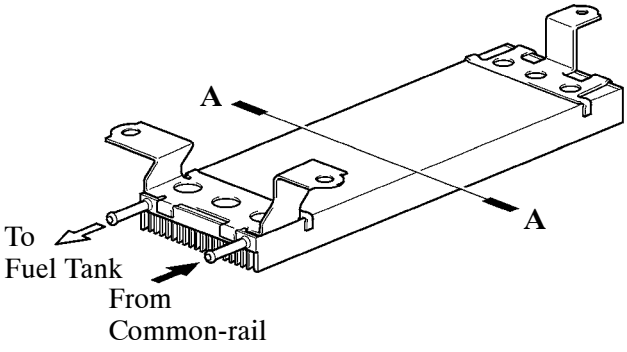
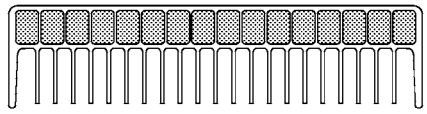
4. Fuel Cooler

- On the models with 1KD-FTV engine and models with 2KD-FTV High Version engine with intercooler, a fuel cooler is used.
- The fuel cooler, which is provided in the fuel return path, cools the return fuel that has reached a high temperature as a result of the pumping of the supply pump. This prevents the reduction in fuel viscosity that is caused by the rise in fuel temperature, and improves the reliability of the fuel system.





A – A Cross Section

271EG130

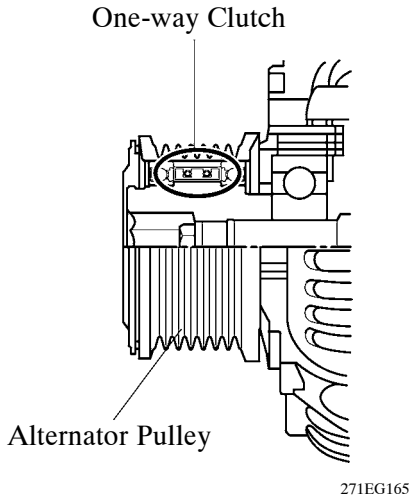
■CHARGING SYSTEM

- A conventional type alternator (KCB1) made by Bosch or a compact and lightweight segment conductor type alternator (SE08) made by DENSO is used.
  For the type of alternator used, see the table below:

Vehicle Model	Supplier	Alternator Type
TMT made (except KUN25L-CRMDHW, KUN25L-CRMDHW3 and KUN25L-CRMSHW)	DENSO	SE08
Models for Pakistan		
Models for Malaysia		
Models for Europe with 1KD-FTV engine with cold area specification		
Extra cab models for South Africa		
KUN25L-CRMDHW, KUN25L-CRMDHW3 and KUN25L-CRMSHW	BOSCH	KCB1
TSAM made (except extra cab models for South Africa and except models for Europe with 1KD-FTV engine with cold area specification)		
TASA made		
TDV made		

- For details of the segment conductor type alternator, see page EG-28.

- A one-way clutch function has been provided in the pulley of 2 type alternators to absorb the fluctuations in the engine speed, thus significantly reducing the damage sustained by the drive belt.



Service Tip

SST (09820-63020) has been established due to the use of a pulley with the one-way clutch function. For details, refer to the Hilux Repair Manual.

■STARTING SYSTEM

- A planetary reduction type starter with an interpolar magnet (DW2.2 type) or a conventional reduction type starter (RA2.0, R2.2 and R2.7 types) is used.
  For the type of starter used, see the table below:

Vehicle Model	Starter Type
TMT made models with 2KD-FTV and 2KD-FTV High Version engines (except models with cold area specification)	RA2.0
Models for Pakistan	
Models for Malaysia with manual transmission	
Extra cab models for South Africa with 2KD-FTV engine	
TMT made models with 1KD-FTV engine	R2.2
TSAM made extra cab models with 1KD-FTV engine	
TSAM made double cab models with 1KD-FTV engine with automatic transmission	
TASA made models with automatic transmission	
Models with cold area specification	R2.7
Models for Malaysia with automatic transmission	
TSAM made single cab and double cab models with manual transmission (except models with cold area specification)	DW2.2
TDV made	
TASA made models with manual transmission	

- For details of the interpolar magnet, see page EG-30.