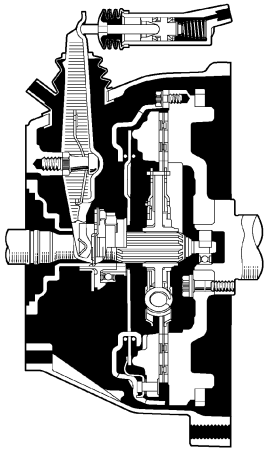
CHASSIS

CLUTCH

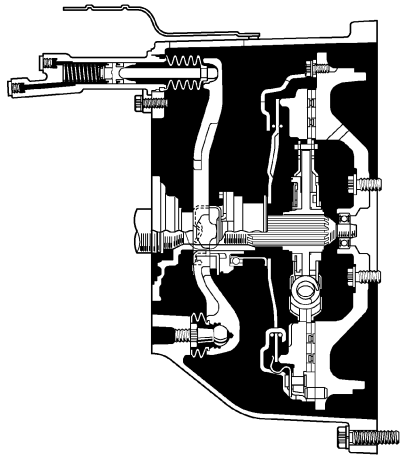
■ DESCRIPTION

The new Fortuner/Hilux SW4 has a clutch system with the following features.

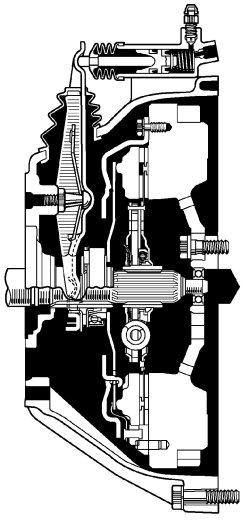
- A dry type single plate clutch operated by hydraulic pressure is used, which is matched to the performance of each engine.
- A clutch master cylinder made of plastic is used except in models with the 1GR-FE, 1KD-FTV and 2KD-FTV High Version engine.
- A clutch disc that uses an organic solvent-free material is used to help protect the environment. In addition, the components of the clutch damper have been optimized to achieve wear resistance and reduce noise and vibration.
- A clutch accumulator is used to reduce the noise and vibration on models with the 1GR-FE, 5L-E, 1KD-FTV or 2KD-FTV High Version engine.
- A turnover mechanism, which reduces clutch pedal effort, is used on models with the 1GR-FE, 1KD-FTV or 2KD-FTV High Version engine.



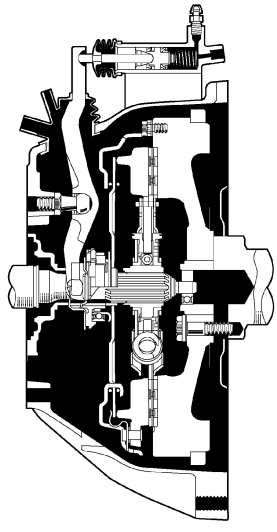
Models with 2TR-FE Engine



Models with 1GR-FE Engine



Models with 5L-E Engine



Models with 1KD-FTV or 2KD-FTV High Version Engines

00MCH22Y

▶ Specifications ◀

Engine Type			2TR-FE	1GR-FE
Clutch	Type		Dry Type Single Plate Clutch, Diaphragm Spring	←
	Operation		Hydraulic	←
Clutch Cover	Type		DST*1	←
	Size	mm (in.)	250 (9.85)	275 (10.83)
	Installed Load	N	5880	7350
Clutch Disc	Facing Size*2	mm (in.)	250 × 160 × 3.5 (9.85 × 6.30 × 0.14)	275 × 175 × 3.5 (10.83 × 6.89 × 0.14)
	Facing Area	cm^2 ($in.^2$)	289 (44.8)	353 (54.7)
Master Cylinder	Type		Plunger	Conventional
	Cylinder Diameter	mm (in.)	15.87 (0.62)	19.05 (0.75)
Release Cylinder	Type		Non-adjustable	←
	Cylinder Diameter	mm (in.)	22.2 (0.87)	19.05 (0.75)
Clutch Accumulator			-	With
Clutch Pedal			Conventional	Turnover

*1: DST (Diaphragm Spring Turnover)
*2: Outer diameter × Inner diameter × Thickness

Engine Type			5L-E	1KD-FTV
Clutch	Type		Dry Type Single Plate Clutch, Diaphragm Spring	←
	Operation		Hydraulic	←
Clutch Cover	Type		DST*1	←
	Size	mm (in.)	236 (9.29)	260 (10.24), 275 (10.83)*2
	Installed Load	N	4900	7350
Clutch Disc	Facing Size*3	mm (in.)	236 × 150 × 3.5 (9.29 × 5.91 × 0.14)	260 × 172 × 3.5 (10.24 × 6.77 × 0.14), 275 × 175 × 3.5 (10.83 × 6.89 × 0.14)*2
	Facing Area	cm^2 ($in.^2$)	260 (40.3)	298 (46.2), 353 (54.7)*2
Master Cylinder	Type		Plunger	Conventional
	Cylinder Diameter	mm (in.)	15.87 (0.62)	←
Release Cylinder	Type		Non-adjustable	←
	Cylinder Diameter	mm (in.)	20.64 (0.81)	19.05 (0.75)
Clutch Accumulator			With	←
Clutch Pedal			Conventional	Turnover

*1: DST (Diaphragm Spring Turnover)
*2: Models for Thailand and General Countries
*3: Outer diameter × Inner diameter × Thickness

(Continued)

Engine Type			2KD-FTV High Version
Clutch	Type		Dry Type Single Plate Clutch, Diaphragm Spring
	Operation		Hydraulic
Clutch Cover	Type		DST*1
	Size	mm (in.)	260 (10.24)
	Installed Load	N	6374
Clutch Disc	Facing Size*3	mm (in.)	260 × 172 × 3.5 (10.24 × 6.77 × 0.14)
	Facing Area	cm^2 ($in.^2$)	298 (46.2)
Master Cylinder	Type		Conventional
	Cylinder Diameter	mm (in.)	15.87 (0.62)
Release Cylinder	Type		Non-adjustable
	Cylinder Diameter	mm (in.)	19.05 (0.75)
Clutch Accumulator			With
Clutch Pedal			Turnover