Clutch System

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Service data

Service Data

Items		Specifications
Clutch operation method		Hydraulic type
Clutch cover	Type	Diaphragm spring strap
Clutch disc	Type	Single dry with diaphragm
	Facing diameter (Outer × inner)	Ø235 × Ø155 mm (Ø9.2520 × Ø6.1024 in.)
	Thickness [When free]	Ø8.3 ± Ø0.3 (0.3268 ± 0.0118 in.)
	Rivet depth	Min 1.1 mm (0.0433 in.)

Service Standard

Item	Specification
Clutch disc rivet depth	0.3 mm (0.0118 in.)

Tightening torque

Tightening Torques

Item	N·m	kgf·m	lb·ft
Clutch pedal mounting bolt & nut	16.7 - 25.5	1.7 - 2.6	12.3 - 18.8
Clutch release cylinder mounting bolt	14.7 - 21.6	1.5 - 2.2	10.8 - 15.9
Concentric slave cylinder assembly mounting bolt	19.6 - 26.5	2.0 - 2.7	14.5 - 19.5
Ignition lock & clutch switch mounting bolt	2.0 - 5.9	0.2 - 0.6	1.4 - 4.3
Clutch tube bracket mounting bolt	7.8 - 9.8	0.8 - 1.0	5.8 - 7.2
Clutch release cylinder bleed plug	7.8 - 13.7	0.8 - 1.4	5.8 - 10.1
Clutch release cylinder assembly mounting nut	14.7 - 21.6	1.5 - 2.2	10.8 - 15.9
Concentric slave cylinder assembly mounting bolt	19.6 - 26.5	2.0 - 2.7	14.5 - 19.5
Clutch cover mounting bolt (Gasoline 1.6)	24.5 - 35.3	2.5 - 3.6	18.1 - 26.0
Clutch cover mounting bolt (Gasoline 2.0)	11.8 - 14.7	1.2 - 1.5	8.7 - 10.8

Lubricant

Lubricants

Items	Specified lubricants	Quantity
Clutch release cylinder assembly	Brake fluid DOT 3 or DOT 4	As required
Clutch pedal shaft and bushings	Chassis grease SAE J310a, NLGI No.1	0.2 - 2.0 g
Input shaft spline	CASMOLY L9508	0.2 g
Release bearing & Fork		0.3 - 0.5 g
Release Fork & Fulcrum		0.5 - 1.0 g
Release Cylinder & Fork		0.4 - 0.8 g
Clutch Release Bearing & Clutch Housing		0.5 - 1.0 g

Special service tools

Special Service Tools

Tool Name / Number	Illustration	Description

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Clutch disc guide 09411-1P000		Installation of the clutch disc.

Troubleshooting

Troubleshooting

Trouble symptom		Suspect area	Remedy
Clutch slipping • Car will not respond to engine speed during acceleration • Insufficient vehicle speed • Lack of power during uphill driving		Insufficient pedal free play	Adjust
		Clogged hydraulic system	Correct or replace parts
		Excessive wear of clutch disc facing	Replace
		Hardened clutch disc facing, or oil on surface	Replace
		Damaged pressure plate or flywheel	Replace
		Weak or broken pressure spring	Replace
Difficult gear shifting (gear noise during shifting)		Excessive pedal free play	Adjust
		Hydraulic system fluid leaks, air trapping or clogging	Repair or replace parts
		Unusual wear or corrosion of the clutch disc spline	Replace
		Excessive vibration (distortion) of the clutch disc	Replace
Clutch noisy	When the clutch is not used	Insufficient play of the clutch pedal	Adjust
		Excessive wear of the clutch disc facing	Replace
	A noise is heard after the clutch is disengaged	Unusual wear and/ or damage of the release bearing	Replace
	A noise is heard when the clutch is disengaged	Insufficient grease on the sliding surface of the bearing sleeve	Repair
		Improperly installed clutch assembly or bearing	Repair
	A noise is heard when the car suddenly	Damaged pilot bushing	Replace

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	rolled up with the clutch partially engaged		
Hard pedal effort		Insufficient lubrication of the clutch pedal	Repair
		Insufficient lubrication of the spline part of clutch disc	Repair
		Insufficient lubrication of the clutch release lever shaft	Repair
Hard to shift or will not shift		Excessive clutch pedal free play	Adjust the pedal free play
		Faulty of the clutch release cylinder	Repair the release cylinder
		Clutch disc out of place, runout is excessive or lining broken	Inspect the clutch disc
		Spline on the input shaft or clutch disc dirty or burned	Repair as necessary
		Faulty of the clutch pressure plate	Replace the clutch cover
Clutch slips		Insufficient clutch pedal free play	Adjust the pedal free play
		Clogged of the hydraulic system	Repair or replace parts
		Clutch disc lining oily or worn out	Inspect the clutch disc
		Faulty pressure plate	Replace the clutch cover
		Binding of the release fork	Inspect the release fork
Clutch grabs/chatters		Clutch disc lining oily or worn out	Inspect the clutch disc
		Faulty the pressure plate	Replace the clutch cover
		Bent clutch diaphragm spring	Replace the clutch cover
		Worn or broken torsion spring	Replace the clutch disc
		Engine mounts loose	Repair as necessary
Clutch noisy		Damaged the clutch pedal bushing	Replace the clutch pedal bushing
		Loose part inside housing	Repair as

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		necessary
	Worn or dirty release bearing	Replace the replease bearing
	Sticking release fork or linkage	Repair as necessary

- Clutch Cover And Disc
- Ignition Lock Switch
- Clutch Switch
- Clutch Pedal
- Clutch Master Cylinder
- Clutch Regulator
- Clutch Tube
- Clutch Release Cylinder
- Clutch Release Fork and Clutch Release Bearing
- Concentric Slave Cylinder Assembly

High Pressure Fuel Pump

Repair procedures Removal & Installation When removing the high pressure fuel pump, high pressure fuel pipe, del ...

Clutch Cover And Disc

Components and components location Components [Gasoline 1.6 / Diesel 1.6 / Gasoline 1.6 T-GDI] 1. Manual transaxle assembly 2. Clutch cover assembly ...

Other information:

Kia Forte 2019-2023 (BD) Service Manual: Fuel Filler Cap

Description and operation Description A ratchet tightening device on the threaded fuel filler cap reduces the chances of incorrect installation, which seals the fuel filler. After the gasket on the fuel filler cap and the filler neck flange contact each other, the ratchet produces ...

Kia Forte 2019-2023 (BD) Service Manual: Parking Distance Warning (PDW)

Specifications Specification Item Specification Ultrasonic sensor Voltage rating DC 12 V Detecting range 11.8 - 47.2 in. (30 - 120 cm) Operation voltage DC 9 - ...

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