

Clutch disk assemblies for automobiles

1. Scope

This standard covers dry, single-plate clutch disk assemblies for automobile (hereinafter referred to as clutch disks). Motorcycles are not included within the scope of this standard.

Remarks: In this standard, units and numerical values given in { } are conventional units, shown for reference.

1. Purpose

This standard has been established for the purpose of standardizing clutch disks, promoting rationalization, and preserving proper quality.

2. Classification

Clutch disks are classified by the presence of a shock absorbing device in rotating and axial directions and by shape as shown in **Table 1**.

Table 1

Classification by rotating direction shock absorber	Classification by axial direction shock absorber	Abbreviation	Remarks
Solid type	Rigid type	SR	See Appended Fig. 1*
	Plate cushion type	SP	See Appended Fig. 2*
	Separate cushion type	SS	See Appended Fig. 3
	Console cushion type	SC	See Appended Fig. 4*
Spring type	Rigid type	CR	See Appended Fig. 5*
	Plate cushion type	CP	See Appended Fig. 6
	Separate cushion type	CS	See Appended Fig. 7
	Separate cushion type	CC	See Appended Fig. 8
Rubber type	Rigid type	RR	See Appended Fig. 9*
	Plate cushion type	RP	See Appended Fig. 10
	Separate cushion type	RP	See Appended Fig. 11
	Separate cushion type	RC	See Appended Fig. 12

Remarks: 1. The solid type is a disk without a shock absorber in the rotating direction.
 2. Abbreviation indicating method: Suffix applicable facing outside diameter to the abbreviation as follows:

CS-200: Indicates spring form, segment cushion type with 200 mm outside diameter facing.

3. The * mark in the Remarks column in **Table 1** indicates that the product is not in current use.

4. Names and materials of main component parts

The names and materials of main component parts shall, as a general rule, conform to **Table 2**.

Table 2

No.	Name	Material	Reference	
			Product Hardness	Hardness Depth(mm)
1	Hub	S43C~S58C	Harden & temper H _R C18~35 Heat treat	—
		SCr21~22 or SCM21~22	Hv 550min.	0.2min.
2	Disk plate	SPC, SPH or SCM21~22	Hv 400min.	0.1min.
		SK or S-C	H _R C18~47	—
3	Sub-plate	SPC, SPH or SCM21~22	Hv 400min.	0.1min.
		SK or S-C	H _R C18~47	—
4	Facing	Conform to JISD4311	—	—
5	Cushion plate	SK5~7	Hv 345~590	—
6	Torsion spring	SWP, SWOCV-V or SWOSC-V	—	—
		Rubber	—	—
7	Friction spring	SK5~7	Hv 345~590	—
8	Friction plate	SPC or SPH	Hv 400min.	0.1min.
9	Friction washer	SPC or SPH	—	—
		Fiber or asbestos product	—	—
10	Stopper pin	SV, SS or S-C	H _R B 97max.	—
11	Stud pin	SV, SS or S-C	H _R B 97max.	—
12	Facing rivet	BsW1~2	—	—
		SWRM or SV	—	—
13	Cushion plate rivet	SWRM or SV	H _R B 95max.	—
14	Hub rivet	SWRM or SV	—	—
15	Torsion spring washer	SPC or SPH	Hv 400min.	0.1min.

Remark: 1. Materials shall conform to following JIS.

S-C to **JIS G4051** SK to **JIS G4401** BsW to **JIS H3521**
 Scr to **JIS G4104** SWP to **JIS G3522** SV to **JIS G3522**
 SCM to **JIS G4105** SWRM to **JIS G3505** SS to **JIS G3101**
 SPC to **JIS G3141** SWOSC-V to **JIS G3566**
 SPH to **JIS G3131** SWOCV-V to **JIS G3565**

2. Item Nos. are related to those in **Appended Fig. 1-12**.

Normative references: Refer to Page 9.

Old standard: JASO 6407