
DIFFERENTIAL SYSTEM

PRECAUTION

1. Before disassembling the differential assembly, thoroughly clean it to remove any sand, mud or foreign matter. This will help prevent contamination during disassembly and reassembly.
2. When removing the rear differential carrier cover or any other light alloy part, do not pry it off with a screwdriver or other tool that may cause damage. Instead, tap the part with a plastic-faced hammer.
3. Always arrange disassembled parts in the order they were removed and protect them from foreign matter.
4. Before installation of each part, thoroughly clean and dry it. Then apply hypoid gear oil LSD to it. Do not use alkaline chemicals to clean aluminum parts, rubber parts or ring gear set bolts. Also, do not use white gasoline or other cleaning oils to clean O-rings, oil seals or rubber parts.
5. Coat sliding surfaces or rotating parts with hypoid gear oil LSD.
6. Do not fix a part directly in a vise. Place aluminum plates between the part and vise.
7. Be careful not to damage the contact surfaces of the case. Such damage may cause oil leakage.
8. Before applying sealant, remove deposited oil sealant and clean the part to be sealed using white gasoline.
9. After sealing parts, do not allow oil to come into contact with the seal for at least an hour.
10. Do not allow scratches on surfaces which contact an oil seal, O-ring or gasket. Scratches may lead to oil leakage.
11. When press-fitting an oil seal, be careful not to damage the lip of the oil seal or its outside periphery.
12. When replacing a bearing, replace the inner and outer races as a set.

PROBLEM SYMPTOMS TABLE

Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Differential system

Symptom	Suspected area	See page
Oil leak from front differential	1. Oil (level too high or wrong grade)	DF-3
	2. Front differential side oil seal (worn or damaged)	DF-23
	3. Front differential rear oil seal (worn or damaged)	DF-24
	4. Companion flange (loose or damaged)	DF-22
Oil leak from rear differential	1. Oil (level too high or wrong grade)	DF-3
	2. Rear differential front oil seal (worn or damaged)	DF-9
	3. Companion flange (loose or damaged)	DF-48
Oil leak from front drive pinion shaft	1. Oil (level too high or wrong grade)	DF-3
	2. Front differential side oil seal (worn or damaged)	DF-13
	3. Front differential rear oil seal (worn or damaged)	DF-5
	4. Companion flange (loose or damaged)	DF-22
Oil leak from rear drive pinion shaft	1. Oil (level too high or wrong grade)	DF-3
	2. Rear differential front oil seal (worn or damaged)	DF-9
	3. Companion flange (loose or damaged)	DF-48
Differential lock does not operate	1. Differential lock switch	DF-102
	2. Rear differential lock actuator	DF-102
	3. Four wheel drive control ECU	DF-101
	4. Differential carrier (Faulty)	-
	5. Wiring or ground (Faulty)	-