

PROBLEM: Oily facings

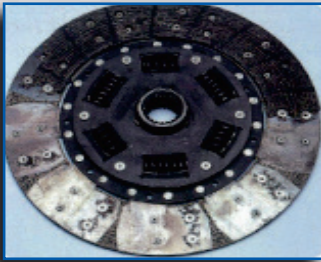
SYMPTOM: Slipping clutch/Shuddering clutch

CAUSE: Excessive grease or low viscosity grease causes this problem

Melted grease on the friction material will affect the friction coefficient causing facing failure

SOLUTION: Lightly grease the spline, wipe off excessive grease and ensure there is smooth sliding of the clutch disc on the main drive shaft

Use grade of grease specified by vehicle manufacturer



PROBLEM: Broken facings

SYMPTOM: Slipping clutch/Shudder/Judder/Noisy clutch. Unable to drive

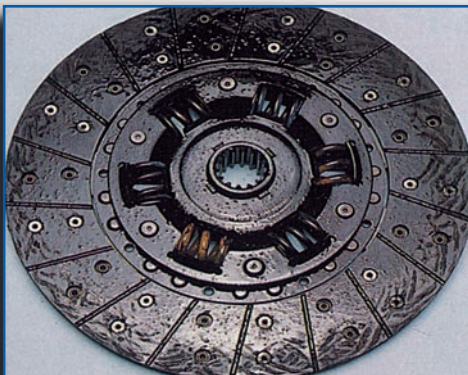
CAUSE: Following factors lead to high temperature of friction surface, resulting in this problem

1. Driving with a foot on the clutch pedal
2. Overloading vehicle
3. Improper starting gear
4. Clutch pedal height or free play maladjustment
5. Oil/grease contamination

SOLUTION: 1.~ 3. Driver education

4. Adjust pedal free play according to the service manual

*Do not over grease input shaft or disc during installation



PROBLEM: Oily Facings

SYMPTOM: Slipping clutch/shuddering/juddering clutch

CAUSE:

1. Faulty main drive oil seal
2. Faulty rear main bearing oil seal

SOLUTION:

1. Replace clutch disc
2. Replace faulty oil seals

PROBLEM: Melted grease on clutch disc side plate

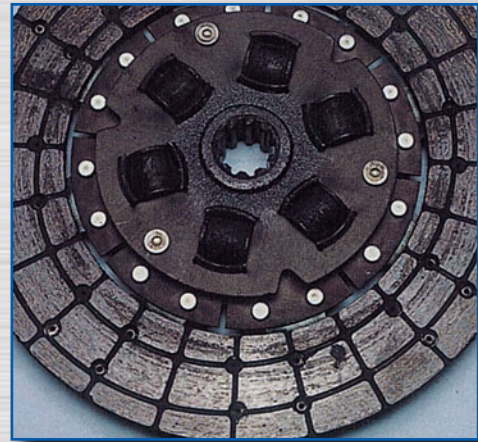
SYMPTOM: Clutch shudders/Judders and/or slips

CAUSE:

1. Excessive grease on transmission input shaft.
2. Melted grease on the friction material will affect friction coefficient of disc facing

SOLUTION:

1. Lightly grease spline, wiping of excessive grease and ensure there is smooth sliding of clutch disc on main drive
2. Replace clutch disc with new disc unit
3. Use only high melting point grease



PROBLEM: Mirror finish on pressure plate friction surface

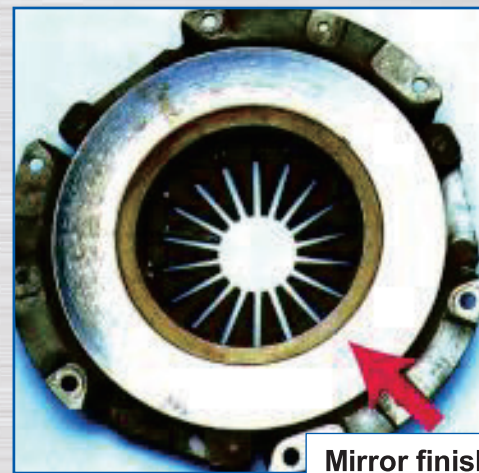
SYMPTOM: Judder

CAUSE:

1. Prolonged slipping of clutch
2. Clutch slave cylinder corroded or worn and piston not returning freely

SOLUTION:

1. Driver education not to activate the clutch in an excessive semi disengagement position
2. Replace slave cylinder



Mirror finish

Mirror finish on pressure plate

PROBLEM: Oil or grease contamination on friction surface

SYMPTOM: Slipping clutch/Judder

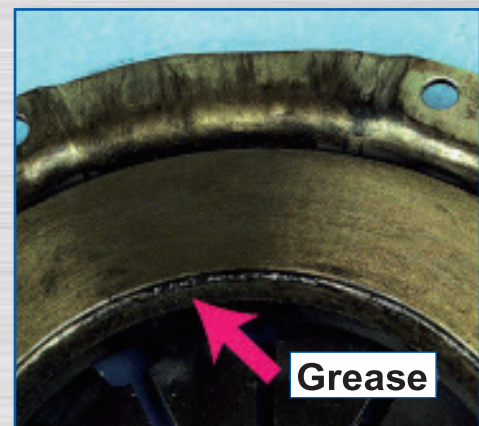
CAUSE:

Excessive grease or low viscosity grease causes this problem

Melted grease on the friction material affects the friction coefficient and causes slipping or judder

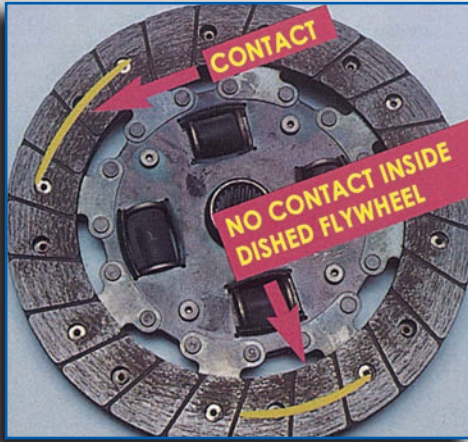
SOLUTION:

1. Remove excess grease from spline prior to installing clutch
2. Replace leaking engine or transmission oil seals



Grease

Grease on friction surface



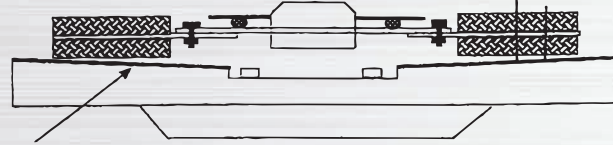
PROBLEM: 1. Vehicle vibrates/shakes when clutch is being released (at take off)

SYMPTOM: Clutch shudder/Judder/Chattering

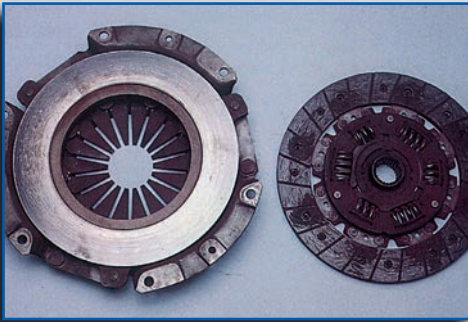
CAUSE:

1. Flywheel not even/warped
2. Deep scoring indentations from previous worn clutch

SOLUTION: Always resurface flywheel before installing new clutch. Refer to figure below



Belled out surface might look smooth but uneven



PROBLEM: Excessive scoring on clutch cover pressure plate running surface

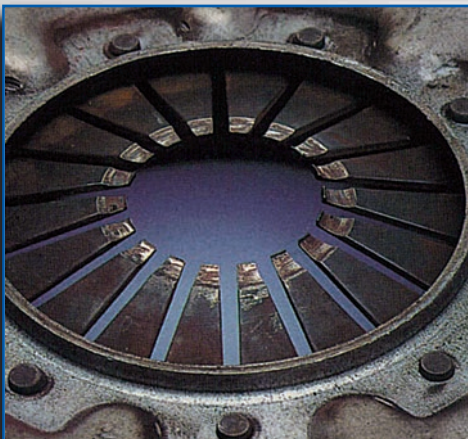
SYMPTOM: Shuddering/Juddering clutch

CAUSE:

1. Installation error/misalignment (refer to misalignment tips on page 78)
2. Inferior clutch facings
3. Diaphragm spring load not to specification

SOLUTION:

1. Replace complete clutch and pilot (spigot) bearings
2. Avoid misalignment on installation



PROBLEM: Excessive wear on diaphragm tips and a highly glazed pressure plate casting

SYMPTOM: Slipping clutch/Shudder/Judder

CAUSE:

1. Lack of free travel/bearing riding on diaphragm
2. Driver resting foot on the clutch pedal
3. Nose cone worn/bearing stuck on a worn spot and not returning to original position
4. Clutch slave cylinder corroded or worn and piston not returning to allow free travel
5. Stretched or sticky cable

SOLUTION:

1. Adjust free play in clutch to the manufacturer's specification
2. Driver education
3. Replace nose cone (gearbox main drive nose cone)
4. Replace clutch slave cylinder and check pressure build up in clutch master cylinder
5. Replace cable. (Do not re-oil old cable)