

# Tech Bulletin



# MAZDA

Technical Services Department, Mazda Australia Pty. Limited.

Subject: NS042\_06

Issued: 19/Jul/2006

Revised:

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Title: **ROTARY ENGINE OIL RECOMMENDATIONS**

Model(s): **ALL ROTARY MODELS**

Category: **Frontline Advice**

Distribution:  Dealer Principal  Service Manager  Parts Manager  Sales Manager

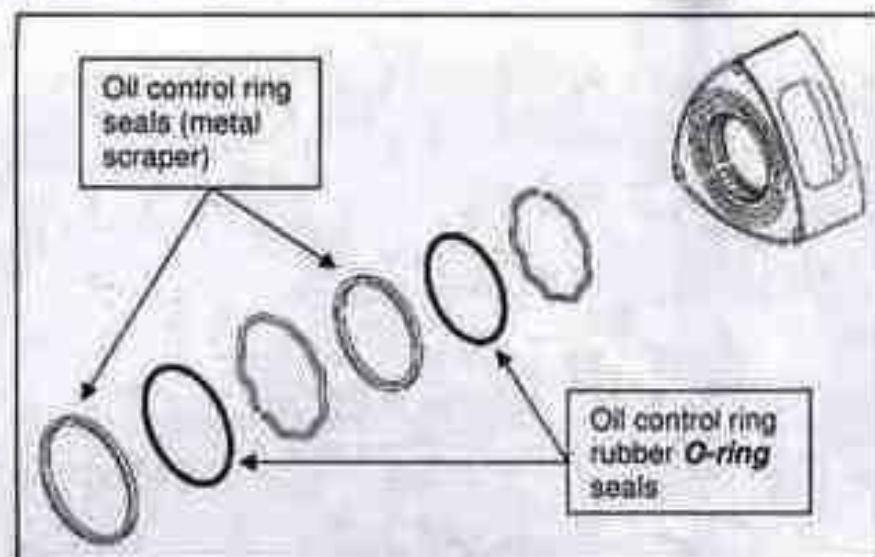
Technician Initials: \_\_\_\_\_

This Technical Bulletin relates to the application of correct engine oil types in Rotary engines.

**Synthetic oils or blends are prohibited in all Mazda rotary engines including Renesis in RX-8.**  
**Only mineral oils must be used.**

All Pre-Renesis engines (i.e. in vehicles other than RX-8) have a set of internal rubber o-ring seals (refer diagram below), which are designed to keep the oil from the lubrication system out of the combustion chambers. Synthetic oils (or synthetic/mineral blends) can attack the material in the o-rings, causing them to break down and deteriorate. This may lead to high oil consumption, smoke from the exhaust, fouled spark plugs and reduced engine life.

Renesis Engines (i.e. in RX-8): Using synthetic oils in these engines can cause undesirable carbon deposits to accumulate in the inlet ports within the engine, adversely affecting engine operation.



# Service Information

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Category <b>C</b>	<b>Technical</b>	Part No. E017/05	Page 1 of 1
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued August 10, 2006	
Please convey this information to your <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input type="checkbox"/> Director <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> General Manager <input type="checkbox"/> Field Rep.		Date Revised	
Applicable Model  RX-8, RX-7		Applicable Countries or Specifications  European Market	

## Subject: Rotary Engine Oil (Prohibition of Use of Synthetic Engine Oil)

### DESCRIPTION

If synthetic engine oil is used on rotary engine, there is a possibility that carbon deposit may accumulate, which will cause some trouble in the engine.

**Please advise your customers to use only Mazda genuine mineral engine oil or equivalent mineral oil on the rotary engine. Mazda do not recommend that our customers use synthetic or semi-synthetic engine oils that our R&D has not evaluated.**

**Mazda recommends DEXELIA ULTRA 5W30 (ACEA A5/B5) for use in Mazda rotary engines.**

The following is an example of carbon deposits that appear on the rotary engine in which synthetic engine oil is used.



A large amount of sticky carbon deposit is accumulated in the inlet port on the side housing. If the carbon deposit is accumulated in the combustion chamber, it will get to the plug hole and seal, resulting in misfire and/or knocking.

As for the Owners Manual of RX-8, it will be revised by adding this notation as per the following schedule. (The revised section is "Owner Maintenance", Section 8 "Engine Oil".)

The Owners Manual will not be revised, but leaflet has been included since July 1, 2006 production vehicles.

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