U.S. Department
of Transportation
National Highway
Traffic Safety
Administration

Memorandum

Subject: Meeting with American Honda Motor Corp, EA04-027, Honda CR-V Engine Fires

Date: December 3, 2004

From: Scott Yon

To: File for EA04-027

American Honda Motor Company Attendees:
Mr. Hiroshi Murakami, AHM
Mr. Aki Yasuoka, AHM
Mr. William Willen, AHM
Mr. David Speck, AHM
Mr. Hiroki Yamamoto, Honda R&D Japan
Mr. Kazutaka Yokoyama, Honda R&D Japan

NHTSA Attendees:
Mr. Jeffrey Quandt, Division Chief, VCD, ODI
Mr, Richard Body, Office Director (acting), ODI
Mr. Michael Kido, Attorney, OCC
Mr. Otto Matheke, Attorney, OCC (late arrival)
Mr. Ken Weinstein, Associate Administrator, Vehicle Safety (late arrival)
Mr. Scott Yon, Investigator, ODI

American Honda Motor Company (AHM) visited ODI on November 19, 2004 to discuss Engineering Evaluation 04-027. AHM presented information concerning the material used in the production of original equipment oil filters, discussed market oil filter characteristics, and discussed service activities undertaken by Honda in connection with this investigation. The meeting commenced at about 10:00 AM and was held in the ODI conference room. A PowerPoint presentation prepared by AHM was used to accompany verbal presentations. A general discussion followed the presentation and questions were raised by ODI, which were answered by AHM as possible. The meeting lasted for about one and half hours. On November 22, 2004Honda submitted a copy of the presentation material for the ODI investigative file, a copy of which is attached to this memo.

HONDA

American Honda Motor Co., Inc.

November 22, 2004

NVS-213dsy
EA04-027

Ms. Kathleen C. DeMeter,
Director
Office of Defects Investigation
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, DC 20590

Dear Ms. DeMeter:

Enclosed are documents presented during the November 19, 2004 meeting.

If you have any questions, please contact me at (310) 783-3280.

Sincerely,

AMERICAN HONDA MOTOR CO., INC

William R. Willen
Managing Counsel
Product Regulatory Office

WRW:ke

Enclosures

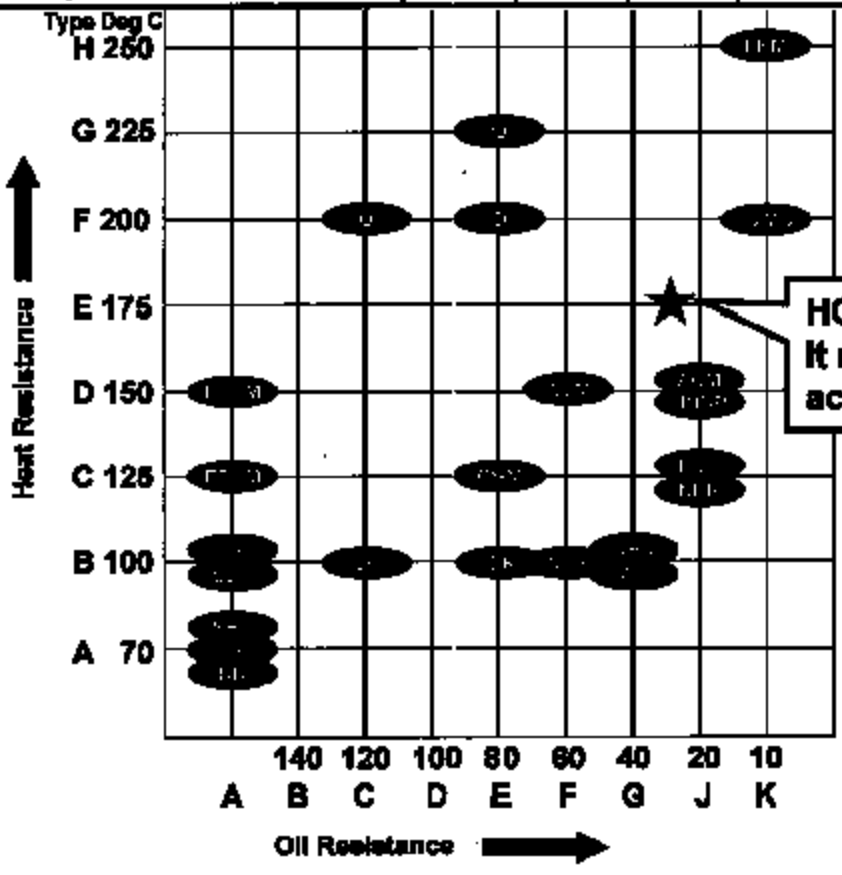
Acrylic Rubber for Engines

HONDA R&D

Kind of Rubber for Engines

Rubber Material	ACM	NBR	EPDM	FKM
Heat Resistance	●	○	●	●
Oil Resistance	●	●	○	●
Low Temperature Characteristics	●	●	○	●

Blue: Excellent
Green: Very Good
○ : Good
Red: Fair

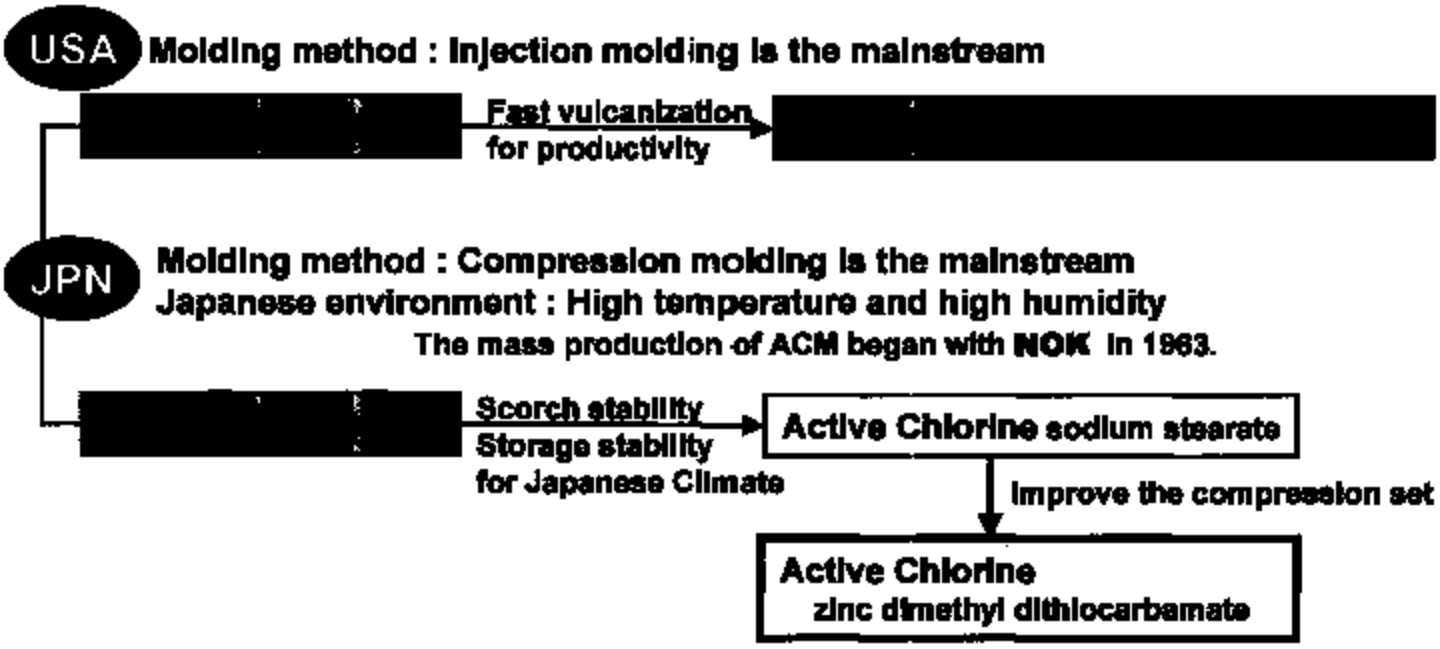


HONDA Oil Filter Gasket
It requires high quality
acrylic rubber

Reason for US and Japanese rubber difference

[Development of ACM rubber]

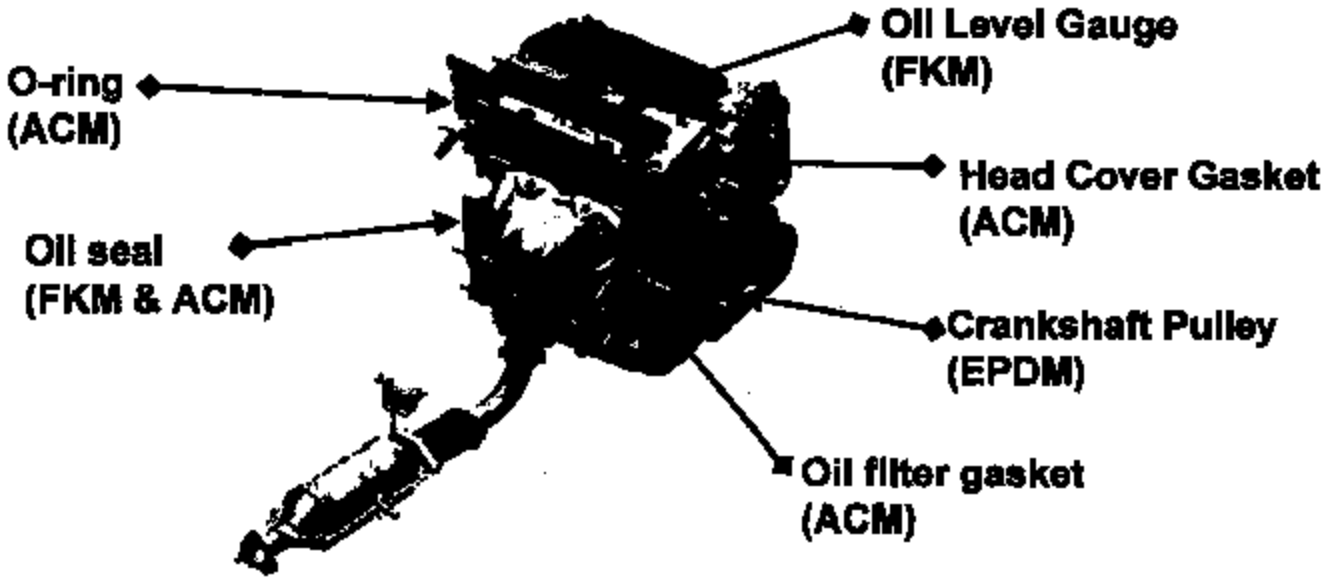
The mass production of ACM began with B.F.Goodrich Chemical in 1948.



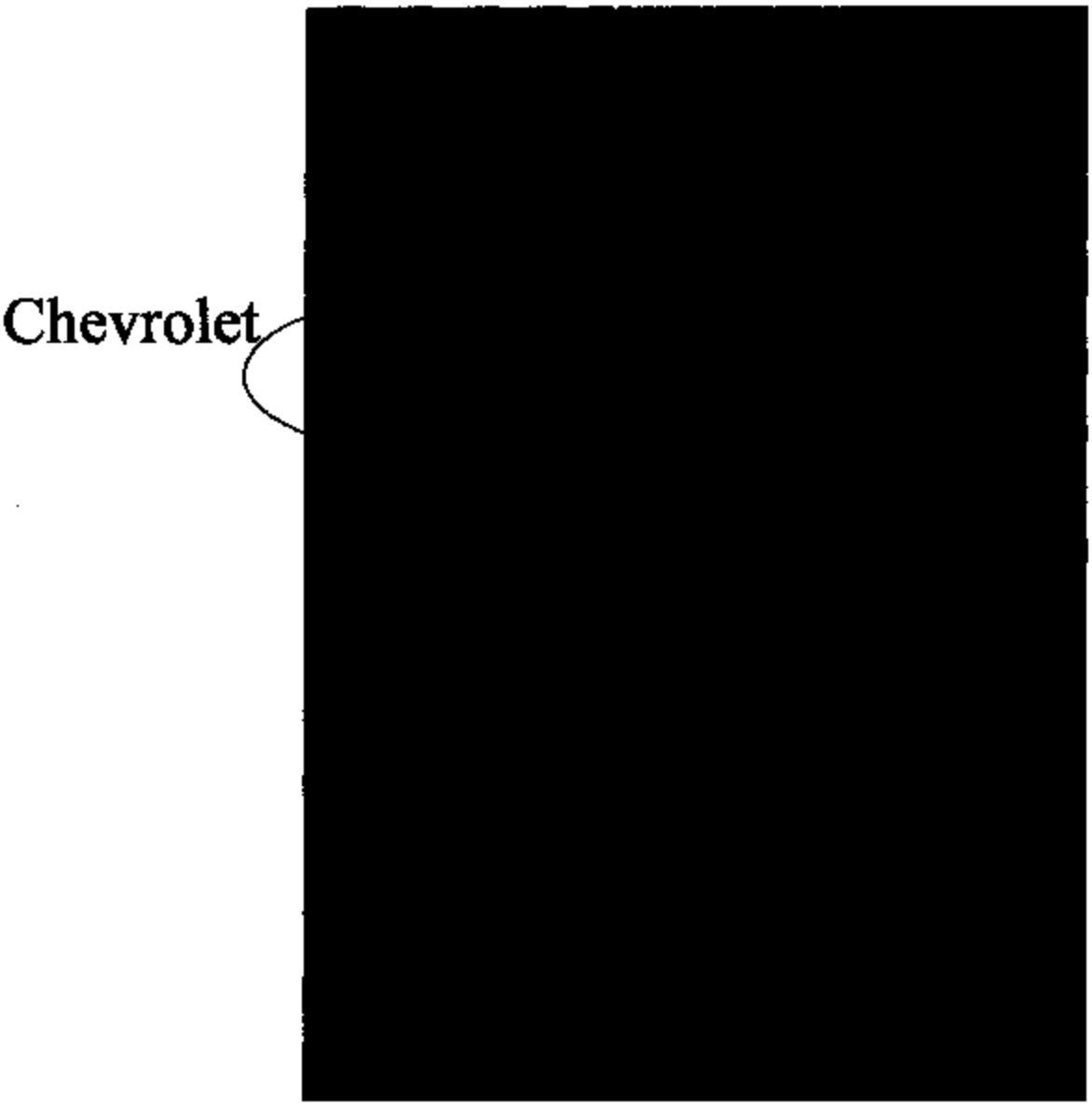
A current material supplier of ACM is only 4 (3) companies in the world.

ZEON CORPORATION	JPN
ZEON CHEMICAL L.P.	USA
UNIMATEC Co., Ltd . (NOK)	JPN
TOHPE	JPN

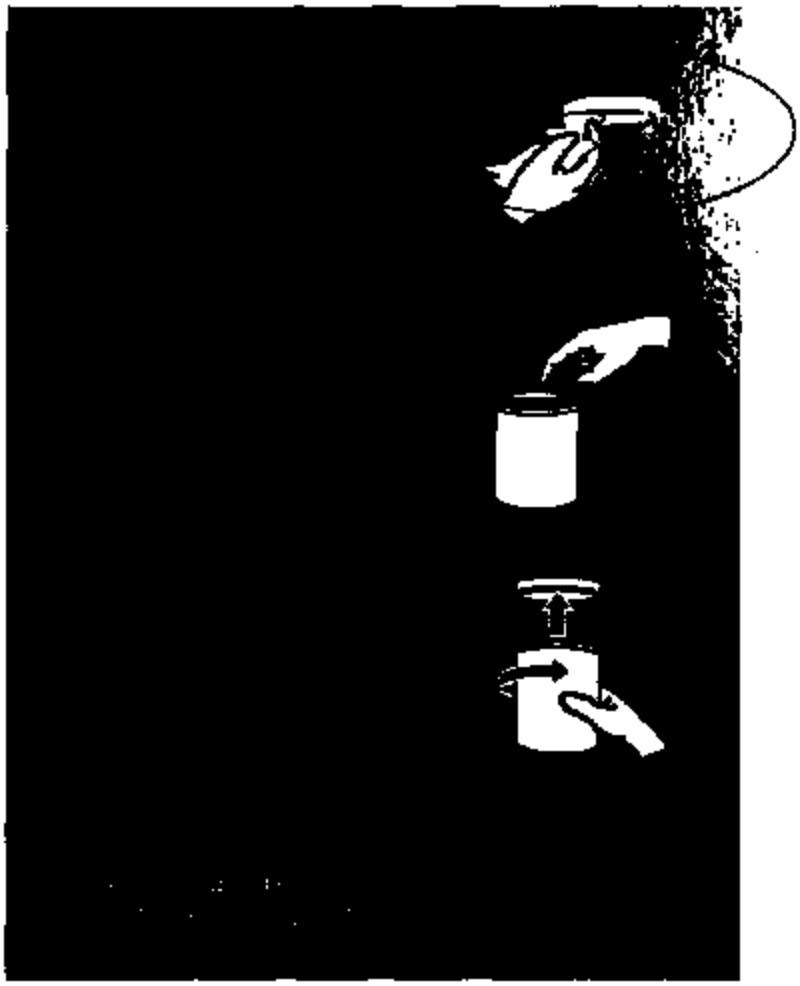
Kind of Rubber for HONDA Engines



Market Oil Filters

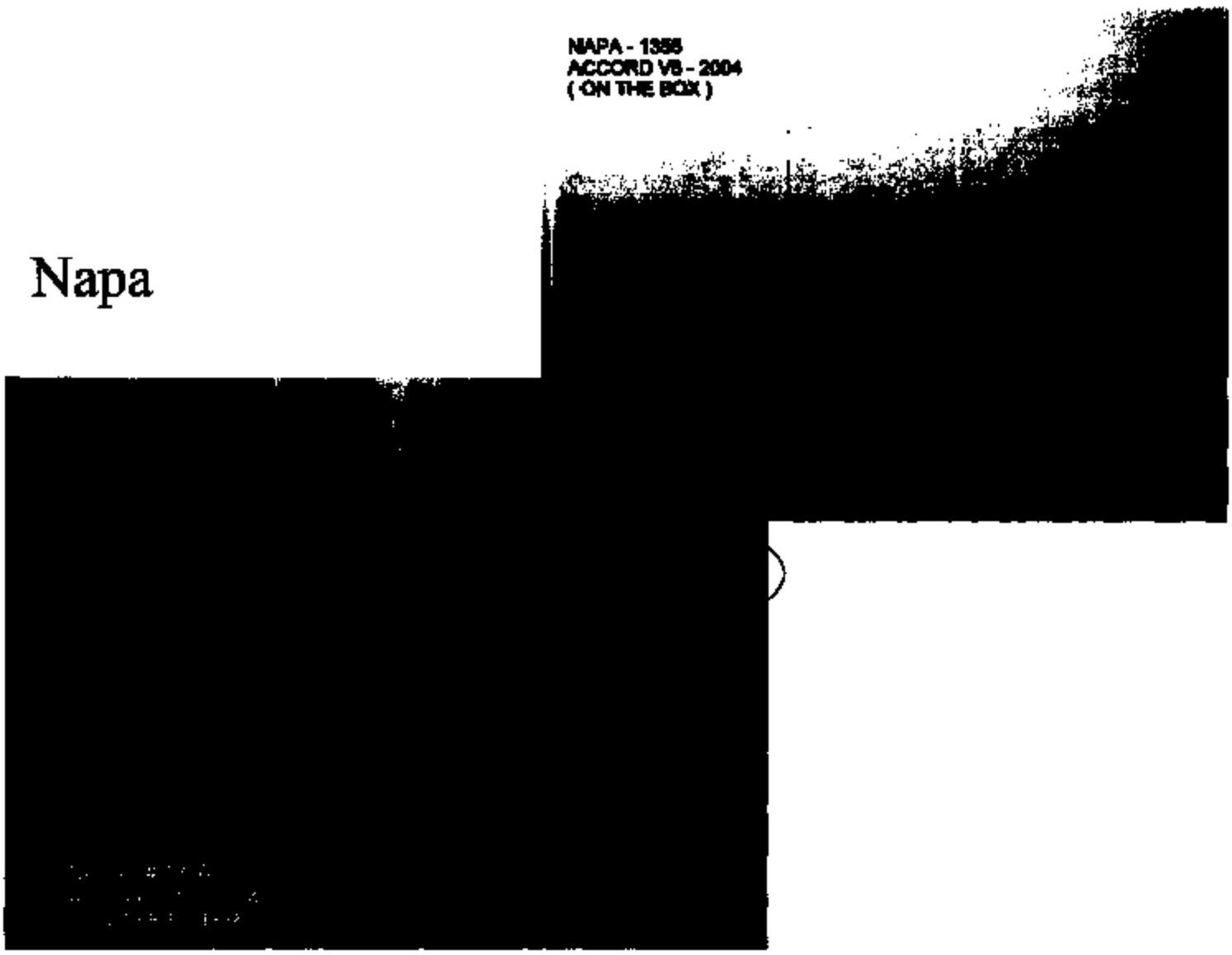

Chevrolet

Fram

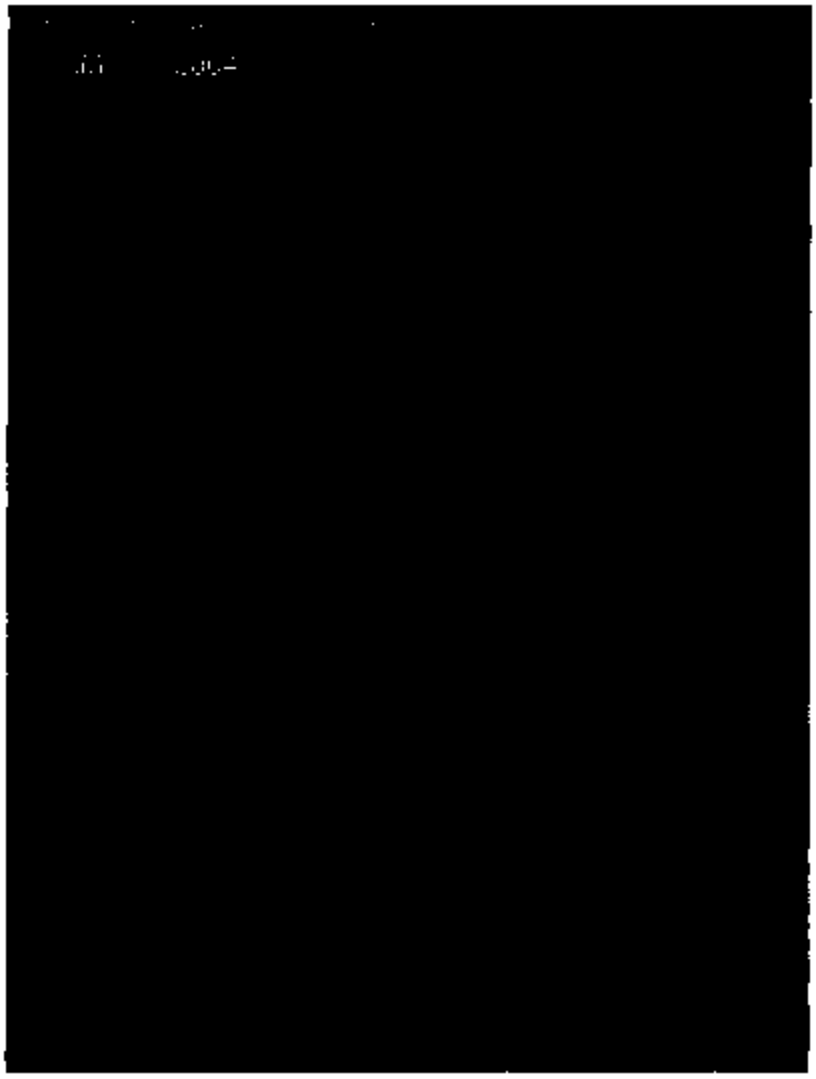


NAPA - 1355
ACCORD V6 - 2004
(ON THE BOX)

Napa

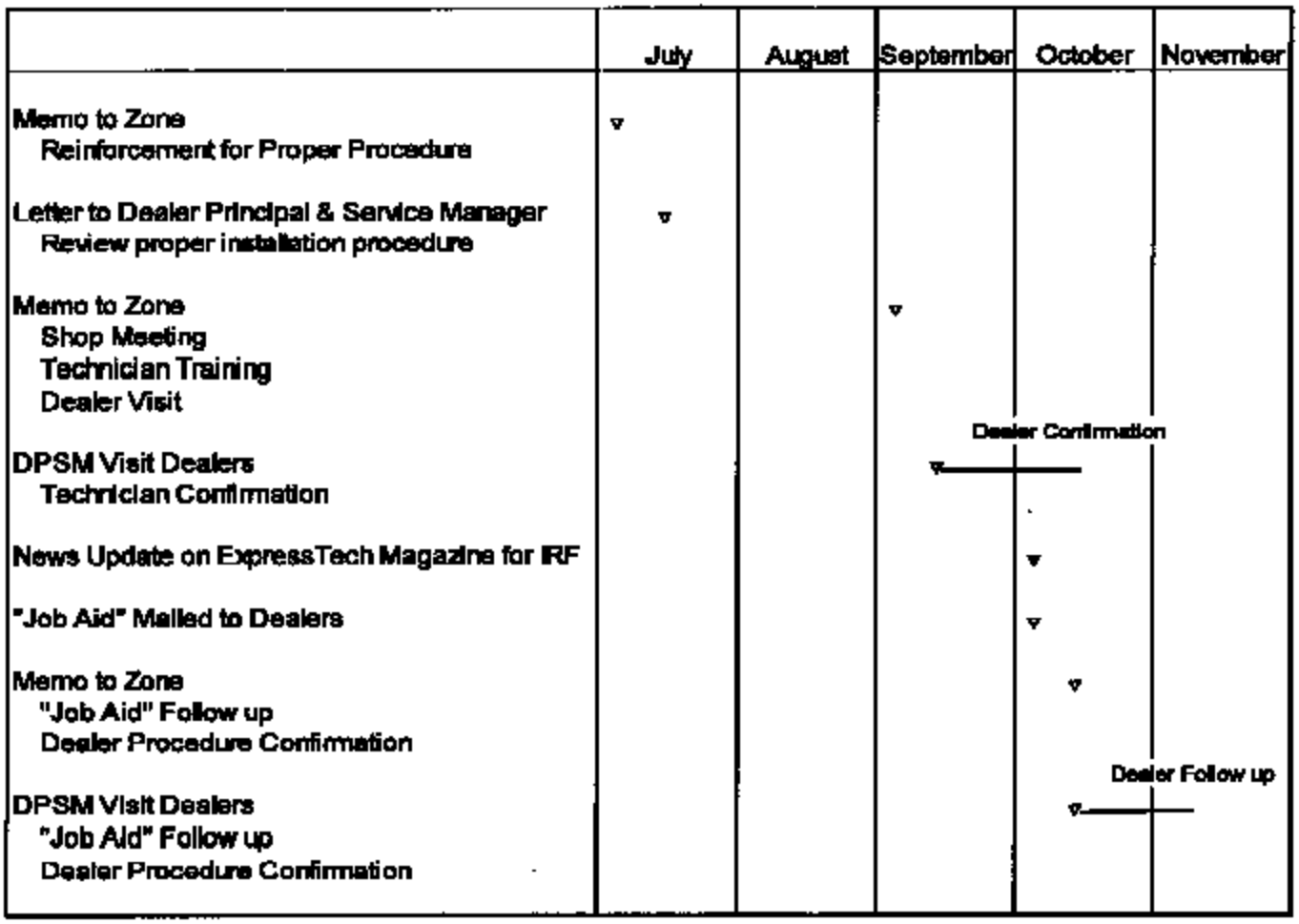


Toyota



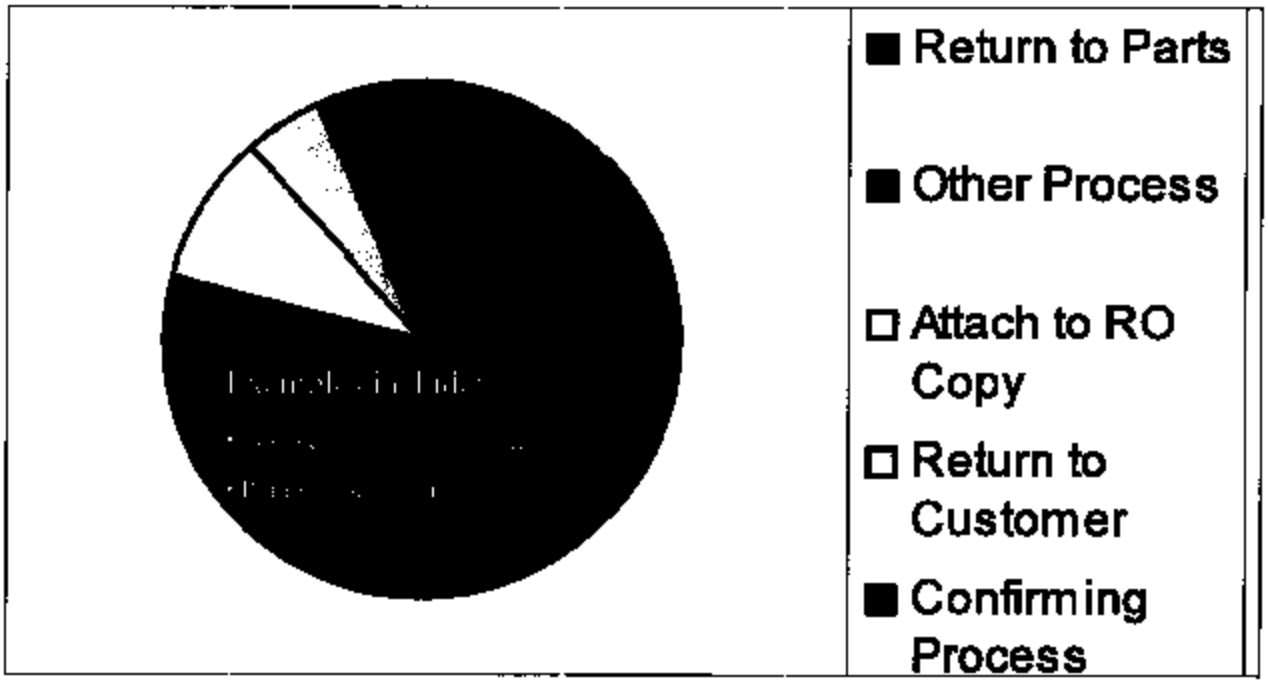
Service Activities

Dealer and AHM Joint Field Activity for Proper Procedure of Oil Change



Process Confirmation Result

How to manage the filter gasket



Market Awareness

ENGINEERING BULLETIN 99 – 4

July 28, 1998

Installation Instructions for Spin-On Filters

The spin-on filter is replaced more often than any other service part on your vehicle or equipment. To ensure normal filter service life and prevent leakage or possible damage to the application, proper filter installation is very important. However, filter replacement is often considered to be a minor service procedure and proper installation may be overlooked.

The following procedure should be followed when replacing spin-on filters.

1. Remove the installed filter using a filter wrench, if necessary.
2. Clean mounting base, making sure the old filter gasket is not stuck to the base.
3. Apply a light film of clean oil to the new gasket. Note: Never use grease to lubricate the gasket.
4. Spin the new filter on carefully, avoiding cross threading. Some engine manufacturers may recommend pre-filling the filter.
5. After the sealing gasket contacts the mounting base, tighten the filter the required number of turns per the instructions found on the filter, box, or service manual.

If there is any uncertainty about how much the filter needs to be turned, the use of an index mark may be beneficial. The procedure would be as follows:

1. Spin the filter on by hand until the gasket makes contact with the surface of the mounting base.
2. Place an aligned index mark on the mounting base and the filter.
3. Turn the filter to the proper amount specified on the filter box, or service manual.

Example: If one full turn is recommended after gasket contact, tighten the filter until the index mark on the filter is re-aligned with the index mark on the mounting base. This will ensure that the filter is properly tightened to the mounting base. Keep in mind that on some applications (especially heavy-duty applications) a filter wrench may be necessary. DO NOT OVER TIGHTEN. Over tightening is not necessary or beneficial.

Occasionally, there are concerns about damaging the threads on the stud or the mounting base. This condition could occur if extreme force is applied and the filters are over tightened over a period of service intervals. When using a filter wrench, utilize caution to prevent damaging the filter canister.

2. Clean mounting base, making sure the old filter gasket is not stuck to the base.

call our Service Engineering Team at (308) 237-4789

Universal Underwriters Group

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Loss Prevention Bulletins

Routine vehicle maintenance - your opportunity for profit ... or loss

Oil changes and tire repairs are routine vehicle maintenance operations that are relatively simple procedures. Yet all too frequently, a technician will forget to replace an oil filter or to replace oil that was just drained. Improper or ill-advised tire repairs are even more dangerous due to the potential for a serious vehicle accident where the repaired tire is determined to be a contributing factor.

Oil Changes: Goal is to Prevent "Oil Outs"
Oil changes are often not taken seriously enough and are rushed through. This leads to poor customer service due to negative feedback from customers and, worse yet, engine damage. Engine damage is preventable and generally paid for out of your own pocket – depending on insurance deductibles, etc. Management personnel should be held accountable for mishaps that result in losses, especially when company policies are not being followed.

The primary message of this section is twofold:

1. Develop a standard procedure for changing oil and ensure that all employees follow it.

2. Implement a "double check system" as both a quality control and loss prevention measure.

1. Develop a standard procedure for changing oil and ensure that all employees follow it.

2. Implement a "double check system" as both a quality control and loss prevention measure.

The following procedure offers a "blueprint" for a company policy on proper

1. Get customer's vehicle in the shop and set up for job.

2. Open hood.

3. Place cone or other marker under the hood (reminds employees to check oil level

4. Place lift arms under the vehicle (as/when able) and raise until tires will clear the floor.

5. Ensure that the vehicle is firmly on the lift arms and is stable.

6. Raise the lift to working height and set the lift locks.

7. Place oil drain pan under drain plug.

8. Use correct size wrench a [illegible]

9. While the oil drains, loose [illegible]

10. Inspect the oil drain plug [illegible] used engines. Do not try to replace plug if damaged.

11. Drain plugs in poor condition could cause damage to threads in the pan.

12. Position the oil drain pan under the oil filter and remove

13. Look up correct oil filter from computer or manual. Later model vehicles or specialty vehicles may need further research. If in doubt – ask!

14. Once the correct oil filter is identified, wipe clean film of oil on the new filter gasket and check to make sure the old filter gasket is not stuck to engine (very important). Not performing this simple step has resulted in damage to many engines (so encourage your employees to be careful).

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15. Install filter as per [illegible] instructions on filter

16. Wipe off any excess oil from plug and engine.

17. Grease all fittings if necessary

Filter Manufacturers Council

Technical Service Bulletin 94-5R6

About the Council

Established in 1971, the Filter Manufacturers Council represents manufacturers of vehicular and industrial filtration products. Initially developed to monitor regulatory and technological developments that affect the industry, the Council has since expanded its activities substantially. For example, representatives of member companies provide technical expertise in order to develop bulletins explaining particular filtration products and their uses. The Council also obtains and disseminates to its members information regarding industry statistics, technical concerns and cataloging activities. The Council conducts regular meetings to discuss issues of interest. Standing committees include the Catalog, Technical, Quality, Environmental, Heavy Duty Catalog and Marketing Committees.

Established in 1971,

The Council has undertaken several environmental initiatives including producing the most comprehensive study of used oil filters to date. This study served as the impetus to the easing of regulatory requirements issued by the U.S. Environmental Protection Agency. The Council continues to undertake activities to encourage the proper management of used oil filters including operation of a toll-free hotline and online database at www.filtercouncil.org. Information available through the website includes a summary of each state's used oil filter regulations and a list of companies providing filter management services in each state. Business and government generators of used oil filters can also access additional resources on the website. Current members of the FMC include:

Ahlstrom Engine Filtration, LLC	Freudenberg Nonwovens, NA
Allomatic Products Company	Gonher de Mexico, S.A. DE C.V.
ArvinMeritor Light Vehicle Aftermarket - Purolator	Hollingsworth + Vose Company
Baldwin Filters	Interfil, S.A. DE C.V.
Carrier Fan Company	K & N Engineering
Caterpillar, Inc.	Kaydon Corporation
Central Illinois Manufacturing	MAHLE, Inc.
Champion Laboratories, Inc.	Mann + Hummel Automotive
Dana Corporation / Wix Global Filtration	Manufacturas y Conversiones S.A. de C.V. (formerly Walms)
DENSO Sales California, Inc	North American Filter Corporation, Inc.
Donaldson Company, Inc	Parker Hannifin Corporation - Filtration Group
Filertek, Inc.	SOGEFI North America - Filter Division
Filtrec North America Ltd.	SPX Filtran
Fleetguard, Inc.	Stanadyne Automotive Corporation

Filter Manufacturers Council

Technical Service Bulletin 93-3

Installation Instruction for Spin-On Filters

Back to Technical Service Bulletins

The spin-on oil filter is replaced more often than any other service part on your vehicle. To insure normal oil filter service life and prevent oil leakage or possible internal engine damage, the following procedure should be followed when replacing spin-on oil filters.

1) Open hood, remove the oil fill cap and place cap on air filter cover or any other flat visible surface. (This will serve as a reminder that oil has not been added to the crankcase).

2) Raise the vehicle and remove the oil drain plug(s), drain the oil and replace the drain plug(s). If drain plug(s) has a crush ring or gasket, check it for serviceability. If unserviceable, replace the ring or gasket

3) Remove the oil filter using an oil filter wrench, if necessary.

4) Clean mounting base, making sure the old oil filter gasket is not stuck to the base. Apply a light film of clean oil to the new filter gasket. Note: Never use grease to lubricate the gasket.

making sure the old oil filter gasket is not stuck to the base.

5) Screw the new filter on carefully, avoiding cross-threading. On turbocharged engines, it may be necessary to fill the filter with clean engine oil prior to installation. Check engine manufacturer's recommendations. After the sealing gasket contacts the mounting base, tighten the filter per the instructions found on the filter or filter box. DO NOT OVER TIGHTEN.

6) Lower the vehicle, and fill the crankcase to the recommended level with oil as per the manufacturer's specifications and install the oil fill cap. Start the engine and insure that the engine oil pressure light goes out or the oil pressure comes up to normal on the oil pressure gauge.

7) Turn off the engine and check the dipstick reading. Add additional oil, if needed.

8) Start engine, raise the vehicle and check for oil leakage around the oil filter and drain plug.

Change Oil and Filter

Print | Email

Changing your oil and filter is one of the simplest car-care operations you can perform. Not only can you save money, but changing oil regularly can be one of the most beneficial services your car can receive.

Most vehicle manufacturers recommend oil replacement usually every 3,000 to 10,000 miles or more frequently if it's stop and go driving. To be sure, consult your car's recommendation. There are also some extended life motor oils available that will go well beyond normal motor oil life. Even so, be sure to consult your car warranty requirements for compliance.

1. Raise front of car and support it on jack stands unless working clearance under car is adequate. Place pan beneath drain plug. Loosen plug with wrench, then remove plug by [illegible]
2. Let old oil drain into pan. [illegible] plugs are magnetized to trap [illegible]
3. The old filter must be loosened [illegible] should be removed carefully [illegible] gasket of the new filter is then lubricated with clean engine oil, and the filter is threaded on by hand. Follow the filter manufacturer's instructions for proper tightening procedures.
4. Replace plug and washer as soon as the oil has drained. Start plug by hand and tighten it as far as possible. When plug is seated, tighten a small or half-turn with a wrench.
5. Fill with oil. Add amount of oil given in owners manual. [illegible] filter is not changed. Start engine and check for leaks at drain plug. Lower car. Check oil level; adjust if necessary.
6. Start engine and check for oil leaks. (Note: the engine oil warning light might stay on for a few seconds.) Stop engine and check oil level.

TIPS

Don't over tighten oil filter and be sure old oil filter gasket has not stuck to engine.

Tips

Don't over tighten oil filter and be sure old oil filter gasket has not stuck to engine. It is best to always change the oil filter. A used oil filter contains about a quart of dirty oil. Reusing it quickly adds its load of contaminants to the fresh oil. Check where you can deposit your old oil; many states and local governments have strict laws on disposing of waste oil.

Back

eHow

Clear Instructions on How To Do just about Everything

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How to Change Your Motor Oil

Plan to change your motor oil every 3,000 miles or every 3 months. However, you may want to do it more often if you've been driving in very hot and or dusty conditions.

Related eHows:
- Clean a Carburetor
- Tune Up a Car
- Check and Add Freon
- Jack Up a Car Safely
- Remove Grease and Car's Interior
- ...

Getting Ready

Steps

1. Gather necessary tools and materials (refer to Necessary Items list). If you plan to change your oil regularly, consider investing in jack stands, a socket set and an oil drain pan.
2. Run the car's engine for 10 minutes before you drain the oil. Warm oil drains faster than cold oil.
3. Park the car on a level surface, engage the parking brake and turn off the engine. If your car has a low clearance, raise it by driving it onto a ramp or by jacking it up and supporting it securely.
4. Open the hood and place the new oil and funnel on top of the engine to ensure that you won't forget to add oil afterwards (an expensive mistake that many do-it-yourselfers make!).

Tips:
- Consult your owner's manual or an automotive parts specialist to find out the weight of oil and type of oil filter your car needs.
- You'll need the year, make, model and mileage ... go to an auto parts store.

Warnings:
- Make sure the car is securely supported before you crawl underneath.
- You will need two jack stands to support the front of your car after jacking it up. Never get under a car that is supported only by a jack! A pair of jack stands costs less than $20.

Draining the Oil and Changing the Oil Filter

Steps

1. Crawl under the car once it is securely supported.
2. Locate the oil drain plug on the underside of the engine, usually near the front center of the car. Consult your owner's manual for the exact location.
3. Place the oil drain pan under the plug and loosen the plug with a socket wrench. Remember: Turn counterclockwise to remove bolts.
4. Remove the plug by hand. Be prepared for the rush of hot oil.
5. Let the oil drain into the pan. Hold onto the plug.
6. Reposition the pan, if necessary, to catch all the dripping oil.
7. Wipe off the drain plug and the plug opening when the oil finishes draining.
8. Replace the drain plug gasket.
9. Reinstall the plug. Always start threading any bolts or screws by hand to prevent cross threading.
10. Tighten with a wrench or socket. Be careful not to overtighten the plug.
11. Locate the existing oil filter. Oil filters are usually on the side of the engine.
12. Position the oil pan under where the filter to catch any remaining oil.
13. Use an adjustable oil filter wrench to unscrew the old oil filter.
14. Use a rag to wipe the area where the filter mounts to the engine. Make sure the rubber seal of the old filter is not stuck to the engine.
15. Use some new oil to lightly coat the rubber seal of the new filter ...
16. Screw the new filter into place by hand. It's usually not necessary to tighten the oil filter with the oil filter wrench, but have it at the ready if your grip's not strong (or large) enough.

Make sure the rubber seal of the old filter is not stuck to the engine.

Tips:
- Wear gloves to remove the plug if it's hot.
- It's always best to replace the oil drain plug gasket.
- Use the right size wrench or socket. Don't use an adjustable wrench you can strip the bolt.

Service News: August 1996

Don't Replace Original Engine Oil Too Soon

On all Hondas (except Passport), the original engine oil contains additives to protect the engine during its break-in period. These additives aren't in over-the-counter oils, so change the oil at the recommended mileage/time interval, not before.

End