Committee D-2 ON PETROLEUM PRODUCTS AND LUBRICANTS

Chairman: N. DAVID SMITH, North Carolina Dept. of Agric., 2 West Edenton St., P.O. Box 27647, Raleigh, NC 27611 (919-733-3313) FAX: 919-715-0524

First Vice-Chairman: SUSAN E. LITKA, UOP Research Center, 50 East Algonquin Rd., P.O. Box 5016, Des Plaines, IL 60017-5016 (708-391-3390)

Second Vice-Chairman: KURT H. STRAUSS, 69 Brookside Rd., Portland, ME 04103 (207-773-4380) FAX: 207-775-6214

Secretary: KENNETH O. HENDERSON, Castrol North America, Automotive Div., 240 Centennial Ave., Piscataway, NJ 08854 (908-980-3630) FAX: 908-980-9519

Assistant Secretary: W. JAMES BOVER, Exxon Biomedical Sciences, Inc., Mettlers Rd., CN2350, East Millstone, NJ 08875-2350 (908-873-6318) FAX: 908-873-6009

Staff Manager: EARL R. SULLIVAN (215-299-5514)

October 1, 1999

Reply to:
Jeff Clark
ASTM Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412)365-1032

UNAPPROVED MINUTES

OF THE

T-10 OPERATIONS AND HARDWARE

TASK FORCE MEETING #3

CONFERENCE CALL

Chairman Jim Collum convened, by conference call, the third meeting of the T-10 Operations and Hardware Task Force at 10:00 am Central time. The attendance roster is included as Attachment 1.

OIL TEMPERATURE AND PRESSURE MEASUREMENTS (AFTER FILTER)

After much discussion, Riccardo Conti agreed to provide photos of the setup (included as Attachment 2) and Ken Goshorn agreed to review the setup for acceptability. POST MEETING NOTE: Ken believes this setup is acceptable, please review the setup carefully, and bring any concerns to the next meeting/conference call.

INLET AIR RESTRICTION AND TEMPERATURE MEASUREMENTS

The configuration of the inlet air system is to be the same as the T-8/T-9, with the exception of the pipe diameter.

EXHAUST O_2 SENSOR

The original recommendation for the O_2 sensor was two feet downstream of the turbo. The labs indicated that two feet would exceed the length of some of the exhaust pipes that already exist. Could the sensor be moved closer to the turbo? Concern was expressed regarding the durability of the sensor if it is to close to the turbo. The question was asked if the Bosch smoke tap would be an appropriate location for the sensor. The group finally settled on 14 to 17 inches downstream of the turbo. Ken Goshorn will confirm the acceptability of this location with Mack.

AIR FILTER / RESTRICTION

The air filter and housing are to be the same as the T-9. After much discussion concerning labs' ability to maintain 10 inches of water inlet air restriction, the group approved moving the target to 16 inches of water.

COMPRESSOR(S) DISCHARGE PRESSURE MEASUREMENTS

Ken Goshorn stated that Mack doesn't consider the pressure tap after the first compressor to be essential. However, the pressure tap after the second compressor is to be within 6 inches of the compressor.

INTAKE MANIFOLD PRESSURE

After much discussion, any action was tabled until the procedure is available and some data can be generated. During the course of discussion, there was general consensus that intake manifold pressure will affect test results. The group believed that intake manifold pressure, possibly as a ranged parameter, may need to be a validity requirement.

INTERCOOLER

The group agreed to specify the use of the Modine. There was discussion of dropping the intercooler delta p spec, but this was tabled for the same reason as the intake manifold pressure discussion.

BLOWBY

The blowby is to be taken from the canister with the filter element on the front cover. Change the filter every test. The blowby measurement system configuration is to be the same as the T-9, i.e. the blowby line shall have a downward slope to a collection bucket (min. volume of 5 gal) prior to the blowby meter.

NEXT MEETING

The next meeting will likely take place after the release of the procedure. The timetable for the lab visit group is tentatively set for mid or late November.

Attachment 1

T-10 Operations and Hardware Task Force
**Conference Call Attendance: October 1, 1999**

Name	Company	Mailing Address	Phone	Fax	E-mail
Jeff Clark	ASTM TMC	6555 Penn Ave., Pittsburgh, PA 15206	412-365-1032	412-365-1047	jaclark@andrew.cmu.edu
Jim Collum	EG&G Automotive Research Inc.	5404 Bandera Rd., San Antonio, TX 78238-1993	210-523-4681	210-523-4607	Jim_Collum@egginc.com
Riccardo Conti	Mobil Technology Company	Paulsboro Tech. Center, 600 Billingsport Rd., Paulsboro, NJ 08066-0480	609-224-2681	609-224-3628	riccardo_conti@email.mobil.com
Mark Cooper	Chevron Chemical Company	4502 Centerview Dr., Suite 210, San Antonio, TX 78228	210-731-5606	210-731-5699	mawc@chevron.com
Ken Goshorn	Mack Trucks, Inc.	13302 Pennsylvania Ave., Hagerstown, MD 21742	301-790-5848	301-790-5605	kenneth.goshorn@macktrucks.com
Scott Richards	Southwest Research Institute	6220 Culebra Rd., P.O. Drawer 28510, San Antonio, TX 78228-0510	210-522-3567	210-523-6919	srichards@swri.edu
Dino Righi	Lubrizol Corp.	29400 Lakeland Blvd., Wickliffe, OH 44092-2298	440-943-1200 x4436	440-943-9013	dwri@lubrizol.com
Jerry Schaus	AutoResearch Laboratories, Inc.	6735 S. Old Harlem Ave.,Chicago, IL 60638	708-563-4257	708-563-0087	schaus.ali@cwixmail.com
Gary Tietze	Test Engineering, Inc.	12758 Cimarron Path, Suite 102, San Antonio, TX 78249-3417	210-877-0223	210-690-1959	gtietze@testeng.com
Jim Wells	Southwest Research Institute	6220 Culebra Rd., P.O. Drawer 28510, San Antonio, TX 78228-0510	210-522-5918	210-523-6919	jwells@swri.edu

Attachment 2
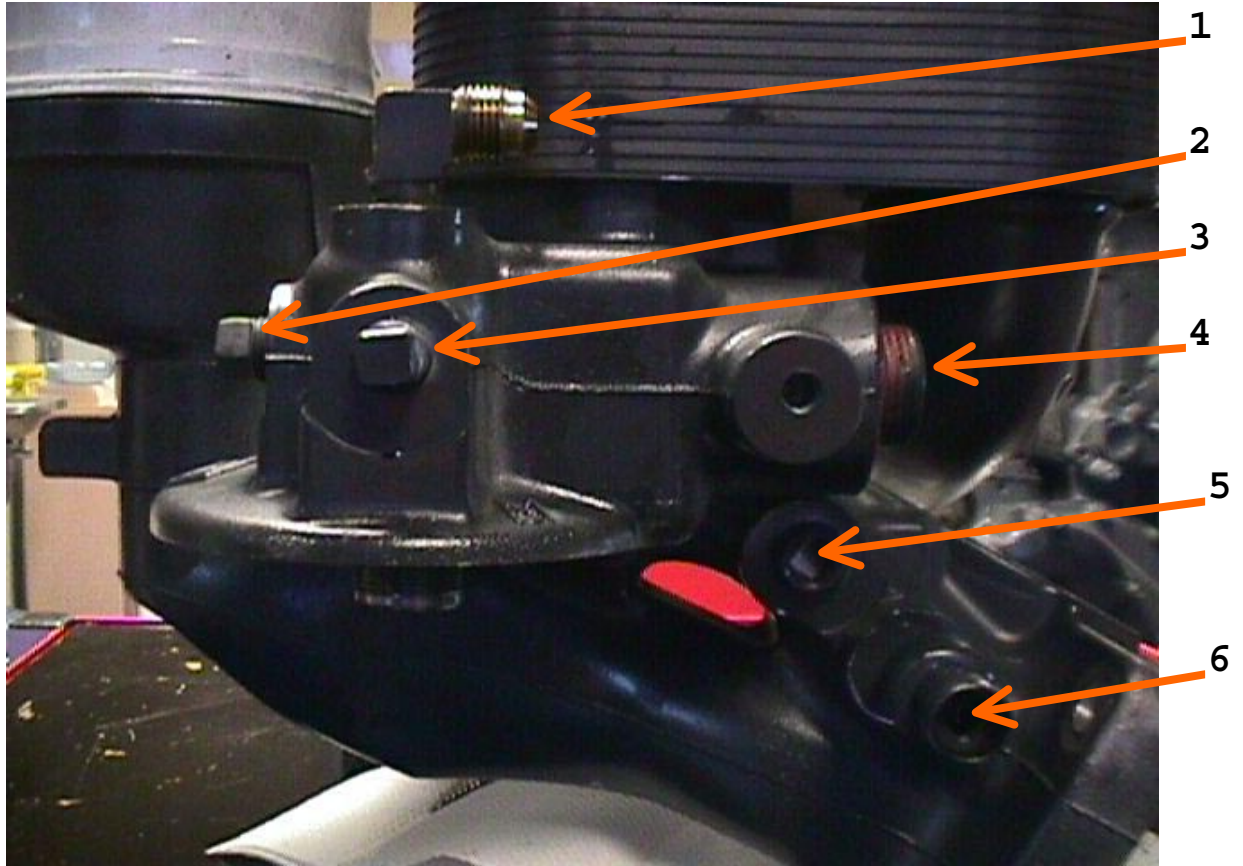
Rear view of oil filter pad

1: Existing oil feed to small turbocharger (Schwitzer)
2: 1/4" NPT port after full-flow filters: "Oil Pressure after Filters"
3: 1/4" NPT port after full-flow filters: oil feed to big turbocharger (Holset)
4: 3/4" NPT port before oil cooler
5: 3/8" NPT port after full-flow filters: "Oil Temperature"
6: Existing oil pressure sensing unit
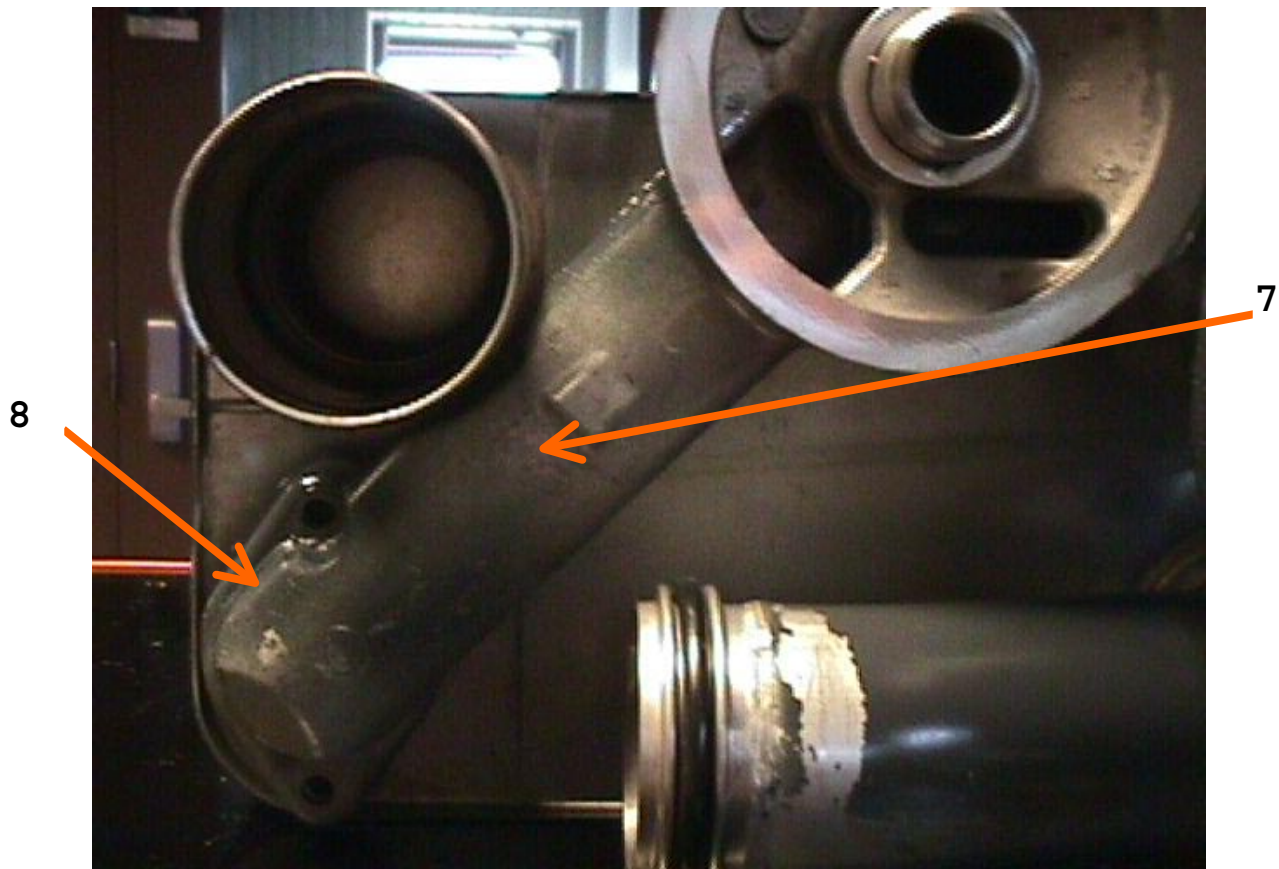
Bottom view of oil filter pad

7: Oil leg from oil cooler to full-flow filters: there are no existing ports on this leg

8: Drill and tap 1/4" NPT port on side flat of flange: "Oil Pressure before Filters"