

TNI	Automobilové palivá Aspekty trhu s motorovou naftou Vyšetrovacía správa k abrazívnym časticiam	TNI CEN/TR 17548 65 6172
------------	---	--

Automotive fuels - Diesel fuel market issues - Abrasive particles investigation report

Táto technická normalizačná informácia obsahuje anglickú verziu CEN/TR 17548:2020.
This Technical standard information includes the English version of CEN/TR 17548:2020.

Táto technická normalizačná informácia bola oznámená vo Vestníku ÚNMS SR č. 02/21

132354

TECHNICAL REPORT

CEN/TR 17548

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

November 2020

ICS 75.160.20

English Version

Automotive fuels - Diesel fuel market issues - Abrasive particles investigation report

Carburants pour automobiles - Problèmes concernant le carburant diesel - Rapport d'enquête sur les particules abrasives

Kraftstoffe - Marktprobleme bei Dieselmotoren - Untersuchungsbericht zu abrasiven Partikeln

This Technical Report was approved by CEN on 2 November 2020. It has been drawn up by the Technical Committee CEN/TC 19.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

CEN/TR 17548:2020 (E)

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols and abbreviations	5
5	Description of fuel injection equipment problems	6
6	Fuel injection system damage investigations	15
7	Fuel quality investigations	22
8	Particle counting	54
9	Filter Blocking Tendency	65
10	Recommended industry practices	67
10.1	Good housekeeping practices	67
10.2	CEN/TR 15367-1	67
10.3	API 1640	67
11	Modern diesel vehicle injection system technology	67
12	Discussion	68
13	Conclusions	74
14	Future work	76
Bibliography		77

European foreword

This document (CEN/TR 17548:2020) has been prepared by Technical Committee CEN/TC 19 “Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin”, the secretariat of which is held by NEN.

This document primarily addresses quality issues that can be associated with abrasive particles in diesel fuel that can cause wear damage to high pressure common rail fuel injection systems.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

CEN/TR 17548:2020 (E)**Introduction**

At the CEN/TC 19/WG 24 meeting on 18 October, 2017 in Zurich, Switzerland there were technical presentations describing serious vehicle fuel injection system wear and damage problems in Northern Germany and the Southeast of the United Kingdom. A CEN task force was formed in January 2018 to investigate these abrasive wear issues in order to establish the root cause and make recommendations.

After a year of investigations of market fuels, refinery product streams and field issues, the task force produced a summary report detailing the findings of the fuel quality investigation and vehicle fuel injection system damage caused by this contamination with respect to the work on European (diesel fuel) standards. CEN/TC 19 requested to have this report published as a CEN/TR, parallel to implementing the advice and recommendations in standardization and the market.

1 Scope

This document describes the investigation into diesel vehicle common rail fuel injection system damage and excessive wear problems in a number of countries across Europe since 2014 carried out by CEN/TC 19/WG 24 Abrasive Particles Task Force.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 590:2013+A1:2017, *Automotive fuels - Diesel - Requirements and test methods*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN