



COUNCIL

C(2003)252
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Council

**DRAFT DECISION OF THE COUNCIL AMENDING THE DECISION OF THE COUNCIL
ESTABLISHING THE OECD STANDARD CODES FOR THE OFFICIAL TESTING OF
AGRICULTURAL AND FORESTRY TRACTORS**

(Note by the Secretary-General)

This document is submitted to the Council for approval under the written procedure.

English - Or. English

JT00156147

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1. The Council adopted on 19 April 2000 a Decision revising the OECD Standard Codes for the Official Testing of Agricultural and Forestry Tractors [C(2000)59/FINAL], subsequently amended.
2. At the Annual Meeting of Representatives of the National Designated Authorities held in Paris on 26-28 February 2003, it was agreed that these OECD Tractor Codes should be subject to some technical amendments [AGR/CA/T/M(2003)1, items 6.1, 6.2, 10, 14 and 17].
3. The present draft amendments relate to the Tractor Performance Codes: "Codes 1 and 2: Proposal for Additional Part Load Measurements at Power Take-Off' (Revised)" [AGR/CA/T(2003)10]; "Proposal to Integrate a Test for 'Economy Power Take-Off' into the Codes 1 and 2" [AGR/CA/T/(2003)19]; "Correction to the 'Braking Tests' Section of the Specimen Test Report of Code 1" [AGR/CA/T(2003)21]; the Safety/Protective Structure Codes: "Rectification of OECD Code 6 -- Specimen Test Report" [AGR/CA/T(2003)7]; and the Noise Code: "Proposal to Process Noise Test Approvals (Code 5) notwithstanding OECD Approval for Protective Structure" [AGR/CA/T(2003)4].
4. On 13 December 2003, the Committee for Agriculture endorsed this proposal under the written procedure [AGR/CA(2003)21] and the Secretary-General consequently invites the Council to adopt the following draft conclusions:

THE COUNCIL

- a) noted document C(2003)252 ;
- b) adopted the draft Decision of the Council set out in the Annex to document C(2003)252 amending the Decision Establishing the OECD Standard Codes for the Official Testing of Agricultural and Forestry Tractors.

ANNEX I

DRAFT DECISION OF THE COUNCIL

amending the Decision of the Council establishing the OECD Standard Codes
for the Official Testing of Agricultural and Forestry Tractors

THE COUNCIL,

Having regard to Article 5 of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

Having regard to the Decision of the Council of 19 April 2000 Establishing the OECD Standard Codes for the Official Testing of Agricultural and Forestry Tractors [C(2000)59/FINAL] as amended;

On the proposal of the Committee for Agriculture;

DECIDES:

Appendix 1 and Annexes I, II, V, and VI (Codes 1, 2, 5 and 6) to the Decision are amended as follows:

(For easy reading, modifications to the text are highlighted in bold. Page numbers refer to the "Red Codes", 2003 edition.)

ANNEX 2

APPENDIX 1 to the Decision, “INTRODUCTION TO THE CODES”

Paragraph 16 shall be deleted.[page 11]

ANNEX I to the Decision (CODE 1)

The TABLE OF CONTENTS shall be revised as follows: [page 26]

Add: “2.3.6 Additional power take-off ratio (“Economy”)

55”

MAIN TEXT

Section 2.2, Compulsory tests, shall read as follows: [page 37]

“ 2.2.1.4 Tests at varying load

The governor control is set for maximum power:

- at rated engine speed;
- at standard power take-off speed [540 or 1 000 min⁻¹(rev/min)]
- **at different engine speeds.**

Torque, engine speed and hourly fuel consumption shall be recorded at the following loads:

- 2.2.1.4.1 the torque corresponding to maximum power available at rated engine speed and at standard power take-off speed;
- 2.2.1.4.2 85 per cent of the torque obtained in 2.2.1.4.1;
- 2.2.1.4.3 75 per cent of the torque defined in 2.2.1.4.2;
- 2.2.1.4.4 50 per cent of the torque defined in 2.2.1.4.2;
- 2.2.1.4.5 25 per cent of the torque defined in 2.2.1.4.2;
- 2.2.1.4.6 Unloaded (with the brake disconnected if the residual torque is greater than 5% of the measured value in 2.2.1.4.2).
- 2.2.1.4.7 maximum power at rated engine speed;**
- 2.2.1.4.8 80 % of power obtained in 2.2.1.4.7 at max. speed setting;**
- 2.2.1.4.9 80 % of power obtained in 2.2.1.4.7 with governor control set to 90 % of rated engine speed;**
- 2.2.1.4.10 40 % of power obtained in 2.2.1.4.7 with governor control set to 90 % of rated engine speed;**
- 2.2.1.4.11 60 % of power obtained in 2.2.1.4.7 with governor control set to 60 % of rated engine speed;**
- 2.2.1.4.12 40 % of power obtained in 2.2.1.4.7 with governor control set to 60 % of rated engine speed.”**

Section 2.3, Optional tests, should be revised as follows: [page 51]

Modify: “These tests can be carried out ~~to supplement~~ **in addition to** the main tests.”

Add: [page 55]

“2.3.6 Additional power take-off ratio (Economy)

2.3.6.1 Where an alternative power take-off gear ratio is available via the main shaft, it is acceptable to measure the power it generates.

2.3.6.2 Test conditions

Maximum power shall be measured at two specific points:

- **a speed equivalent to rated engine speed and**
- **at the engine speed giving the exact power take-off speed specified (e.g. 1000 or 540 rev/min)**

The governor lever shall be set to give maximum power and the tests shall be run at a suitable time during the main power take-off tests. To maintain consistency of measurement for comparison purposes the test conditions shall be matched with those prevailing during the measurement of the equivalent points on the Main Power Take-Off Test (2.2.1).”

SPECIMEN TEST REPORT

The test results table 3.1, Main power take-off, shall read as follows: [page 71]

3. COMPULSORY TESTS RESULTS
- 3.1 Main power take-off
- Date and location of tests:
 - Type of dynamometer bench:

Power	Speed		Fuel consumption			Specific energy
	Engine	P.T.O.	Hourly		specific	
kW	min ⁻¹ (rev/min.)		kg/h	l/h	g/kWh	kWh/l
3.1.1	MAXIMUM POWER – TWO-HOUR TEST					
3.1.2	POWER AT RATED ENGINE SPEED					
3.1.3	STANDARD POWER TAKE-OFF SPEED [1000 ± 25 or 540 ± 10 min⁻¹ (rev/min)]					
3.1.4	PART LOADS					
3.1.4.1	the torque corresponding to maximum power at rated engine speed					
3.1.4.2	85 % of torque obtained in 3.1.4.1					
3.1.4.3	75 % of torque defined in 3.1.4.2					
3.1.4.4	50 % of torque defined in 3.1.4.2					
3.1.4.5	25 % of torque defined in 3.1.4.2					
3.1.4.6	unloaded					
3.1.5	PART LOADS AT STANDARD POWER TAKE-OFF SPEED [1000 ± 25 or 540 ± 10 min⁻¹ (rev/min)]					
3.1.5.1	the torque corresponding to maximum power					
3.1.5.2	85 % of torque obtained in 3.1.5.1					
3.1.5.3	75 % of torque defined in 3.1.5.2					
3.1.5.4	50 % of torque defined in 3.1.5.2					
3.1.5.5	25 % of torque defined in 3.1.5.2					
3.1.5.6	unloaded					
3.1.6	PART LOADS AT DIFFERENT ENGINE SPEEDS					
3.1.6.1	maximum power at rated engine speed					
3.1.6.2	80 % of power obtained in 3.1.6.1 at max. speed setting					
3.1.6.3	80 % of power obtained in 3.1.6.1 with governor control set to 90 % of rated engine speed					
3.1.6.4	40 % of power obtained in 3.1.6.1 with governor control set to 90 % of rated engine speed					
3.1.6.5	60 % of power obtained in 3.1.6.1 with governor control set to 60 % of rated engine speed					
3.1.6.6	40 % of power obtained in 3.1.6.1 with governor control set to 60 % of rated engine speed					

Amendments to sections 3.6.1 and 3.6.2. The new text shall read: [pages 76 and 77]

“3.6.1 Cold service braking device test

	Speed before application of brakes	Braking device control force	Mean deceleration	Minimum stopping distance without locking the wheels
	km/h	KN	m/s ²	m
Ballasted tractor				
Unballasted tractor				

- Maximum deviation of tractor from its original course:
- Abnormal vibration:

3.6.2 Fade test

	Speed before application of brakes	Braking device control force	Mean deceleration	Minimum stopping distance without locking the wheels
	km/h	KN	m/s ²	m
Ballasted tractor (only)				

- Maximum deviation of tractor from its original course:
- Abnormal vibration:
- Brake heating method:"

Section 4 shall be modified as follows: [page 79]

Add: “4.5 Additional power take-off ratio

For the maximum benefit to users coming from easy comparison with the main test results, these tests shall be tabulated immediately following the main power take-off test and using the same format (see below).

Main power take-off (Additional “Economy” ratio)

- **Date and location of tests:**
- **Type of dynamometer bench:**

Power	Speed		Fuel consumption			Specific Energy
	Engine	P.T.O.	Hourly		specific	
kW	min ⁻¹ (rev/min)		kg/h	l/h	g/kWh	kWh/l
4.5.1.1 POWER AT STANDARD ECONOMY POWER TAKE-OFF SPEED						
4.5.1.2 POWER AT RATED ENGINE SPEED						

ANNEX II to the Decision (CODE 2)

The TABLE OF CONTENTS shall be revised as follows: [page 82]

Add: "2.3.6 Additional power take-off ratio ("Economy") 97"

MAIN TEXT

Section 2.2: *Compulsory tests, shall read as follows: [page 91]*

" 2.2.1.4 Tests at varying load

The governor control is set for maximum power:

- at rated engine speed;
- at standard power take-off speed [540 or 1 000 min⁻¹(rev/min)]
- **at different engine speeds.**

Torque, engine speed and hourly fuel consumption shall be recorded at the following loads:

- 2.2.1.4.1 the torque corresponding to maximum power available at rated engine speed and at standard power take-off speed;
- 2.2.1.4.2 85 per cent of the torque obtained in 2.2.1.4.1;
- 2.2.1.4.3 75 per cent of the torque defined in 2.2.1.4.2;
- 2.2.1.4.4 50 per cent of the torque defined in 2.2.1.4.2;
- 2.2.1.4.5 25 per cent of the torque defined in 2.2.1.4.2;
- 2.2.1.4.6 Unloaded (with the brake disconnected if the residual torque is greater than 5% of the measured value in 2.2.1.4.2).
- 2.2.1.4.7 maximum power at rated engine speed;**
- 2.2.1.4.8 80 % of power obtained in 2.2.1.4.7 at max. speed setting;**
- 2.2.1.4.9 80 % of power obtained in 2.2.1.4.7 with governor control set to 90 % of rated engine speed;**
- 2.2.1.4.10 40 % of power obtained in 2.2.1.4.7 with governor control set to 90 % of rated engine speed;**
- 2.2.1.4.11 60 % of power obtained in 2.2.1.4.7 with governor control set to 60 % of rated engine speed;**
- 2.2.1.4.12 40 % of power obtained in 2.2.1.4.7 with governor control set to 60 % of rated engine speed."**

SPECIMEN TEST REPORT

The test results table 3.1, Main power take-off, shall read as follows: [page 117]

- 3. COMPULSORY TESTS RESULTS
- 3.1 Main power take-off
 - Date and location of tests:
 - Type of dynamometer bench:

Power	Speed		Fuel consumption			Specific energy
	Engine	P.T.O.	Hourly		specific	
kW	min ⁻¹ (rev/min.)		kg/h	l/h	g/kWh	kWh/l
3.1.1	MAXIMUM POWER – TWO-HOUR TEST					
3.1.2	POWER AT RATED ENGINE SPEED					
3.1.3	STANDARD POWER TAKE-OFF SPEED [1000 ± 25 or 540 ± 10 min⁻¹ (rev/min)]					
3.1.4	PART LOADS					
3.1.4.1	the torque corresponding to maximum power at rated engine speed					
3.1.4.2	85 % of torque obtained in 3.1.4.1					
3.1.4.3	75 % of torque defined in 3.1.4.2					
3.1.4.4	50 % of torque defined in 3.1.4.2					
3.1.4.5	25 % of torque defined in 3.1.4.2					
3.1.4.6	unloaded					
3.1.5	PART LOADS AT STANDARD POWER TAKE-OFF SPEED [1000 ± 25 or 540 ± 10 min⁻¹ (rev/min)]					
3.1.5.1	the torque corresponding to maximum power					
3.1.5.2	85 % of torque obtained in 3.1.5.1					
3.1.5.3	75 % of torque defined in 3.1.5.2					
3.1.5.4	50 % of torque defined in 3.1.5.2					
3.1.5.5	25 % of torque defined in 3.1.5.2					
3.1.5.6	unloaded					
3.1.6	PART LOADS AT DIFFERENT ENGINE SPEEDS					
3.1.6.1	maximum power at rated engine speed					
3.1.6.2	80 % of power obtained in 3.1.6.1 at max. speed setting					
3.1.6.3	80 % of power obtained in 3.1.6.1 with governor control set to 90 % of rated engine speed					
3.1.6.4	40 % of power obtained in 3.1.6.1 with governor control set to 90 % of rated engine speed					
3.1.6.5	60 % of power obtained in 3.1.6.1 with governor control set to 60 % of rated engine speed					
3.1.6.6	40 % of power obtained in 3.1.6.1 with governor control set to 60 % of rated engine speed					

ANNEX V to the Decision (CODE 5)

SPECIMEN TEST REPORT

Section 1.1 shall be replaced with the following text: [page 214]

"1.1 Reference to the OECD test and approval (where applicable)

- Approval Number:
- Date of Approval:
- Location and country of test of the protective structure: "

Section 3, Specifications of protective structure, shall be modified as follows: [page 217]

The first two sentences shall be replaced with the following text:

"If the protective structure has not been OECD approved, then a complete description must be provided as outlined in paragraphs 2.1 to 2.7 of the specimen test reports in Codes 3, 4, 6, 7 or 8. **In addition, the information requested in paragraphs 3.1 and 3.2 below must be provided.**

If the protective structure has been OECD approved, then the information requested in paragraphs 3.1 and 3.2 below must be provided."

ANNEX VI to the Decision (CODE 6)

SPECIMEN TEST REPORT

Section 2.5.14 shall read as follows: [page 291]

"2.5.14 Maximum outer width of the protective structure (B_b): mm"

Section 3.1.2.2.9 shall read as follows: [page 293]

"3.1.2.2.9 Width of protective structure **between the right and left points of impact** (B_6) m"