

Iowa FFA Agricultural Mechanics Career Development Event
2006

State of Iowa
DEPARTMENT OF EDUCATION
Career Education Division
Grimes State Office Building
Des Moines, IA 50319

CONTESTANT NAME HANNA

CONTESTANT SCHOOL _____

MACHINERY AND EQUIPMENT SYSTEMS
Problem Solving/Skill

Instructions:

You will have 15 minutes to do this exercise. Using the sections from the owner's manual, and your knowledge of tractors, answer the following questions.

I. What are the last five digits of: 2 pts.

- a) Tractor Product Identification Number 46381
b) Engine Serial Number 88029

II. Identify by proper name the machine component or describe its function as specifically as possible 10 pts.

- | Name | Name |
|-------------------------------------|--------------------------------------|
| a) <u>cab air filter</u> | f) <u>intercooler (radiator)</u> |
| b) <u>secondary fuel filter</u> | g) <u>turbocharger</u> |
| c) <u>primary fuel filter</u> | h) <u>engine coolant fill</u> |
| d) <u>engine air filter (cover)</u> | i) <u>remote 3-pt. lift</u> |
| e) <u>alternator</u> | j) <u>CANBUS implement connector</u> |

III. After the break-in period, what are the service intervals (number of hours) for the following: 6 pts.

- Assume generic (not company) oil and oil filter and "normal" (not severe) operating conditions
- | | | | |
|-------------------------|------------|------------------------|-------------|
| a) engine oil | <u>250</u> | e) primary air cleaner | <u>1000</u> |
| b) wheel lug nut torque | <u>100</u> | f) hydraulic oil | <u>1500</u> |
| c) fuel filter | <u>250</u> | g) engine oil filter | <u>250</u> |

IV. This tractor has an IVT transmission. What do the letters stand for? Infinitely Variable Transmission 2 pts.

V. What is the average weight of the tractor? 17,603 lb 4 pts.

What is the engine size (displacement)? 496 cu. in.

What is the maximum pressure and output of the hydraulic system? 3046 psi 32 gal/min

Evaluation Score Sheet

<u>Items</u>	<u>Points</u>	
	<u>Possible</u>	<u>Earned</u>
PIN, ESN.....	2	_____
Part Identification/Function	10	_____
Service Intervals.....	6	_____
IVT	2	_____
Specifications.....	4	_____
Safety	1	_____
Total	25	<div style="border: 1px solid black; width: 100px; height: 40px; display: inline-block;"></div>