

Name \_\_\_\_\_ School \_\_\_\_\_ Contestant Number \_\_\_\_\_

**2016 Cowboy Classic - Agricultural Technology and Mechanical Systems  
Machinery and Equipment Systems  
Equipment Systems Activity- Fork Lift**

Your current employer, the Basin Plains Ranch has recently added inventory management to your list of responsibilities. You will be charged with making sure that all equipment is in satisfactory condition to ensure quick loading and unloading of incoming and outgoing inventory. The ranch currently utilizes a **Nissan Model UGJ02A30PV fork lift**. As you are performing maintenance and inspecting the fork lift you notice some questionable parts for repair. Identify the parts that need to be replaced.

**Match the number, attached to a part on the fork lift, with the corresponding name.**

	Part Number	Part Name		Part Number	Part Name
<b>A</b>	<b>3</b>	1 Lifting Cylinder	<b>F</b>	<b>6</b>	6 Fuel Tank
<b>B</b>	<b>10</b>	2 Hydraulic hoses	<b>G</b>	<b>1</b>	7 Counter weight
<b>C</b>	<b>8</b>	3 Forks	<b>H</b>	<b>7</b>	8 Mast
<b>D</b>	<b>9</b>	4 Mast operating lever	<b>I</b>	<b>5</b>	9 Tilt Cylinder
<b>E</b>	<b>2</b>	5 Engine Compartment	<b>J</b>	<b>4</b>	10 Backrest

**After you have replaced the necessary parts, you further review the capabilities of the fork lift to be prepared for an upcoming shipment.**

**Answer the following questions.** (circle the correct answer)

- What is the load limit for this particular fork lift?
  - 3000 lb.
  - 5425 lb.
  - 8000 lb.
  
- What type of fuel does this particular fork lift operate on?
  - Propane
  - Diesel
  - Gasoline
  
- The basic idea behind any hydraulic system is very simple: Force that is applied at one point is transmitted to another point using \_\_\_\_\_.
 

A) Compressible fluid                      B) Incompressible fluid                      C) A Cold Compress
  
- A very basic piston-driven hydraulic system in your car would be:
 

A) The brake System                      B) The Power Steering System                      C) The Fuel System

Criterion	Points Possible	Points Earned
Questions	20 (2 pts. ea.)	
Selection	8 (2 pts. ea.)	
Safety	2	

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