

MECHANICAL, KNOWLEDGE & DIAGNOSTICS,  
CRITIQUE SHEET 1 - R19  
See Reference Sheet for full description of Criteria  
SAN ANTONIO JAM TRACTOR SHOW

Entry ID \_\_\_\_\_ Class # \_\_\_\_\_

TRACTOR \_\_\_\_\_ YEAR MODEL \_\_\_\_\_

Recorder \_\_\_\_\_ Tractor Ribbon Color \_\_\_\_\_

Evaluation: E = Excellent, G = Good, NI = Needs Improvement, NA = Not Applicable CF \_\_\_\_\_

**Mechanical Points: Restoration = 40, Recondition = 30 (CF Bonus Points may be awarded)**

1. Observations - Driving (worksheet)
2. Fluid Level (worksheet)
3. Inspecting Documentation, Reports and Pictures – see below
  - Evidence of using precision tools – Micrometers, dial gauges, torque wrenches, small hole and telescoping gauges. Evidence that all threads were chased and proper torques applied. Any evidence of sand from sandblasting will result in points being deducted.
  - Mechanical work done by others must be identified as PE in Expense Report

**Knowledge & Presentation – 20 Points**

1. Responses to questions
2. Observations of Exhibitors for Showmanship including Enthusiasm, Articulate, Confident, Dress and Eye contact.

**Diagnostics – Reconditioning = 15 Points**

1. Observations and Questioning
2. Documentation including Dealer Equipment Check-In and Preliminary Service Forms

Mechanical	Eval	Comments
Driving Skills & Function of Components including: <ul style="list-style-type: none"> <li>• Engine</li> <li>• Clutch</li> <li>• Brakes</li> <li>• Governor</li> <li>• Lift &amp; Hydraulics</li> <li>• Steering</li> <li>• Electrical &amp; Lights</li> <li>• PTO</li> <li>• Exhaust and Engine sounds</li> </ul> Identified on <i>Driving Skills Worksheet</i>		
Fluid Level Taken from <i>Fluid Levels Worksheet</i>		

Mechanical

Knowledge

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Mechanical & Knowledge - Evaluated using Documentation and Answers to Questions Details identified in Reference Documents on WEB Site			
Engine Components	Mechanical Eval from Docs	Comments From Documentation & Questioning	Knowledge Eval by Questions
• Crank. Pistons, Rods & Cylinders			
• Cooling System			
• Head & Valve Train			
• Lubrication			
• Fuel System			
• Other Engine Components			
<b>Electrical</b>			
<b>Transmission</b>			
<b>Clutch</b>			
<b>Final Drive</b>			
<b>PTO/ Lift – Hydraulics</b>			
<b>Steering</b>			
<b>Brakes</b>			
<b>Presentation &amp; Display</b>			

<b>Diagnostics 15 Points</b>	<b>Eval</b>	<b>Comments Using Documentation and Questioning Reconditioning Only</b>
Use of Precision Tools Including: PTO Dynamometer, Refrigeration, Hydraulic and Electrical tests equipment Multimeters etc.		
Cooperation with Tractor Dealers – working with Technical Bulletins and Computers & Use of error codes		
Working with Professionals Example testing diesel pump on pump stand etc.		