Grade 1 Mechanical Technologist Study Guide 2023 with Complete Solutions

Which welding process is most commonly used for small pipe maintenance welding? -ANSWER-Oxyacetylene gas welding

What is the proper definition of an engine? - ANSWER-It is a machine designed to convert energy into useful mechanical motion

What is wet stacking and how can it be prevented? - ANSWER-It is unburned fuel collecting in the exhaust due to light or no load conditions.

To check flywheel face runout, where should the dial indicator be positioned? -ANSWER-The base on the bell housing and pointer on the flywheel face.

If a 38-tooth gear running at 360 rpm is driving another gear at 144 rpm, what is the number of teeth on the driven gear? - ANSWER-Solution: driver Gear x Driver RPM=Driven Gear x Driven RPM 38 x 360 = N x 144 13,680 = 144N 13,680 / 144 = 144N / 144 95 = N (95 Tooth Gear

Which of the following is required for a sealed ball bearing? - ANSWER-It does not need to be lubricated under normal use.

A DAFT is an acronym meaning: - ANSWER-Dissolved Air Flotation Thickener.

What is the governing agency that permits odor control systems? - ANSWER-AQMD: Air Quality Management District

At what pressure rating would you use a blower instead of a fan? - ANSWER-7 PSI

Which of the following valves is unsuitable for high-pressure flow? - ANSWER-A needle valve

A sodium hypochlorite tank's full working capacity is 23,000 gallons. Its current level is at 1,200 gallons. How many gallons does the delivery driver need to add to bring it to 70% capacity? - ANSWER-Solution: 23,000 gallons max capacity x 70% desired capacity = 16,100 gallons desired. 16,100 gallons desired - 1,200 gallons current level 14,900 gallons needed to add

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Ian Pickup

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