LESSON PLAN

Date_____ Trade:- Welder

Name_____ Week No:- Ten

Subject :-

Oxygen gas and its properties. Production of oxygen by air liquefaction. Charging process of oxygen and acetylene gases. Oxygen and DA cylinder , color coding for different cylinders. Gas regulator types and uses.

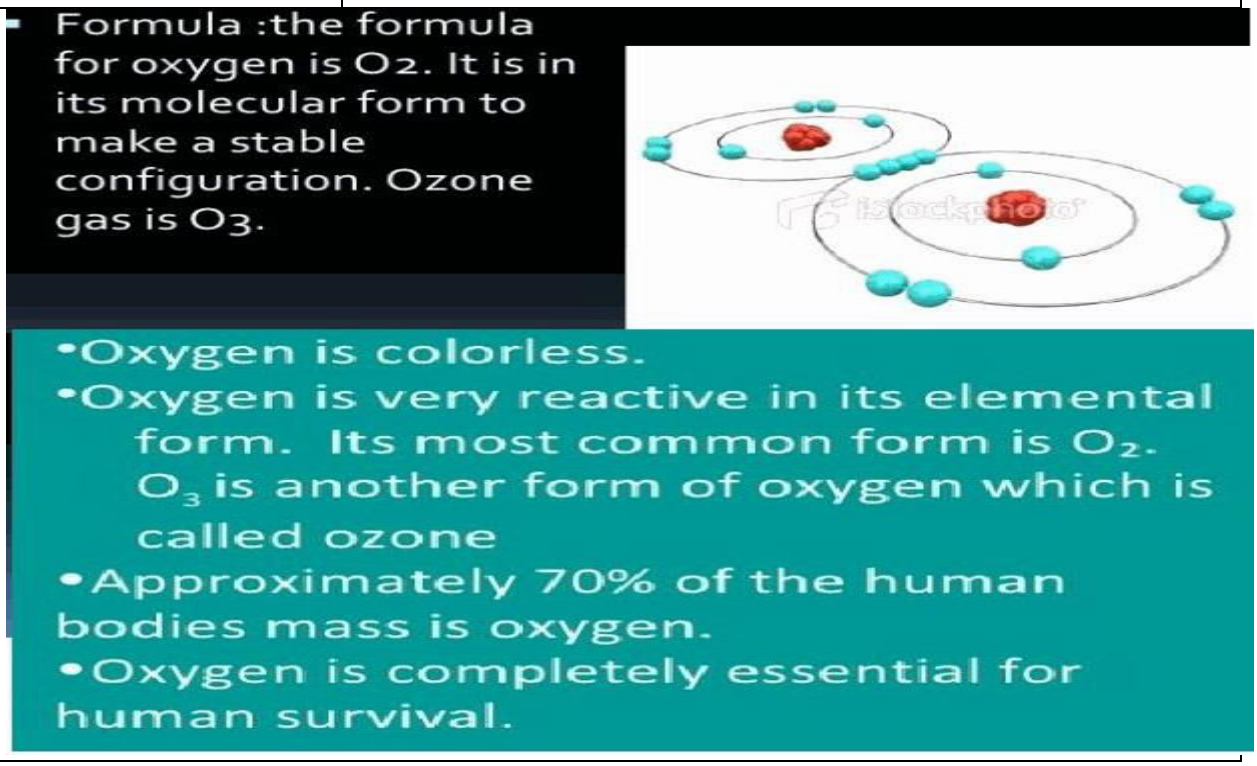
Motivations:- in previous week we learned about Calcium carbide-property and uses. Acetylene gas properties and generating methods. Acetylene gas purifier, hydraulic back pressure valve and flash back arrestor.

PREPARATION: - Teaching Aids:-Chalk, Charts,

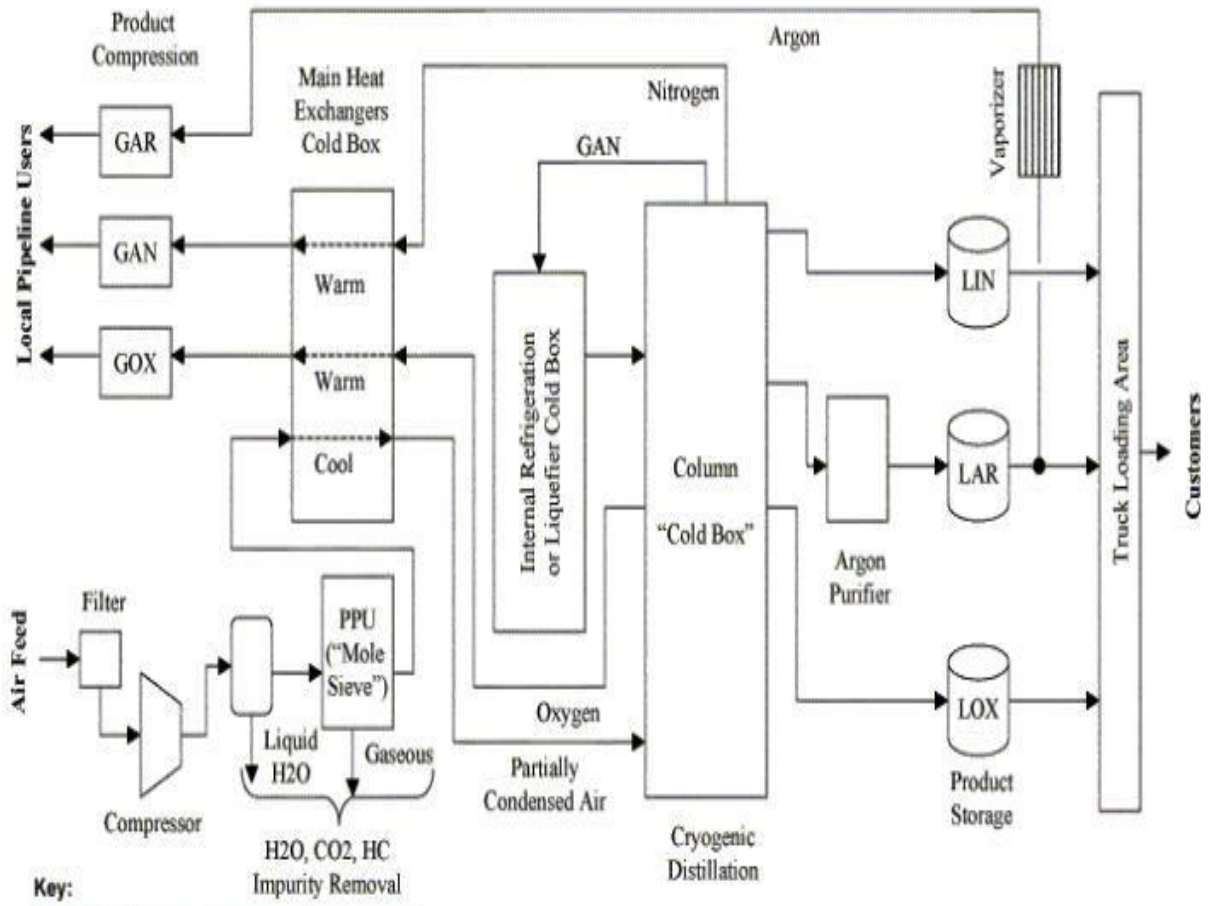
INTRODUCTION: -Oxygen gas are very important gas in world for human being and industry. Each burning process could not done without oxygen.

PRESENTATION:-

Topic	Information Point	Spot Hint
Oxygen	**There are three types of gases.** **1. Combustible.** **2. Support of combustible (only oxygen)** **3. Inret**	



Production of Oxygen



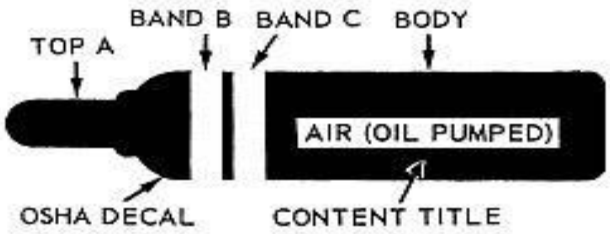
Key:

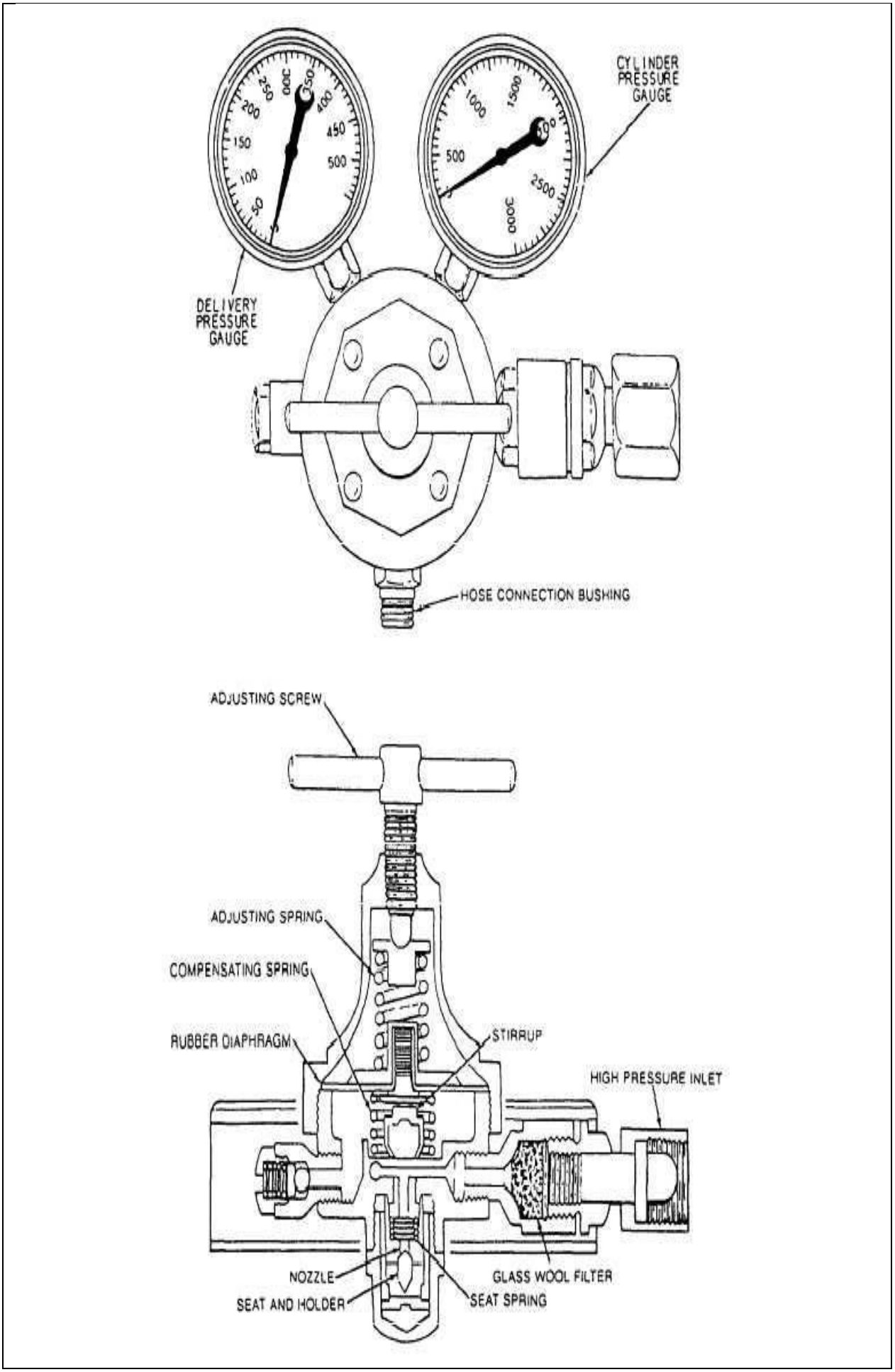
Gaseous	Product	Liquid
GAN	Nitrogen	LIN
GAR	Argon	LAR
GOX	Oxygen	LOX
CO2	Carbon Dioxide	-
H2O	Water	H2O
HC	Hydrocarbons	-

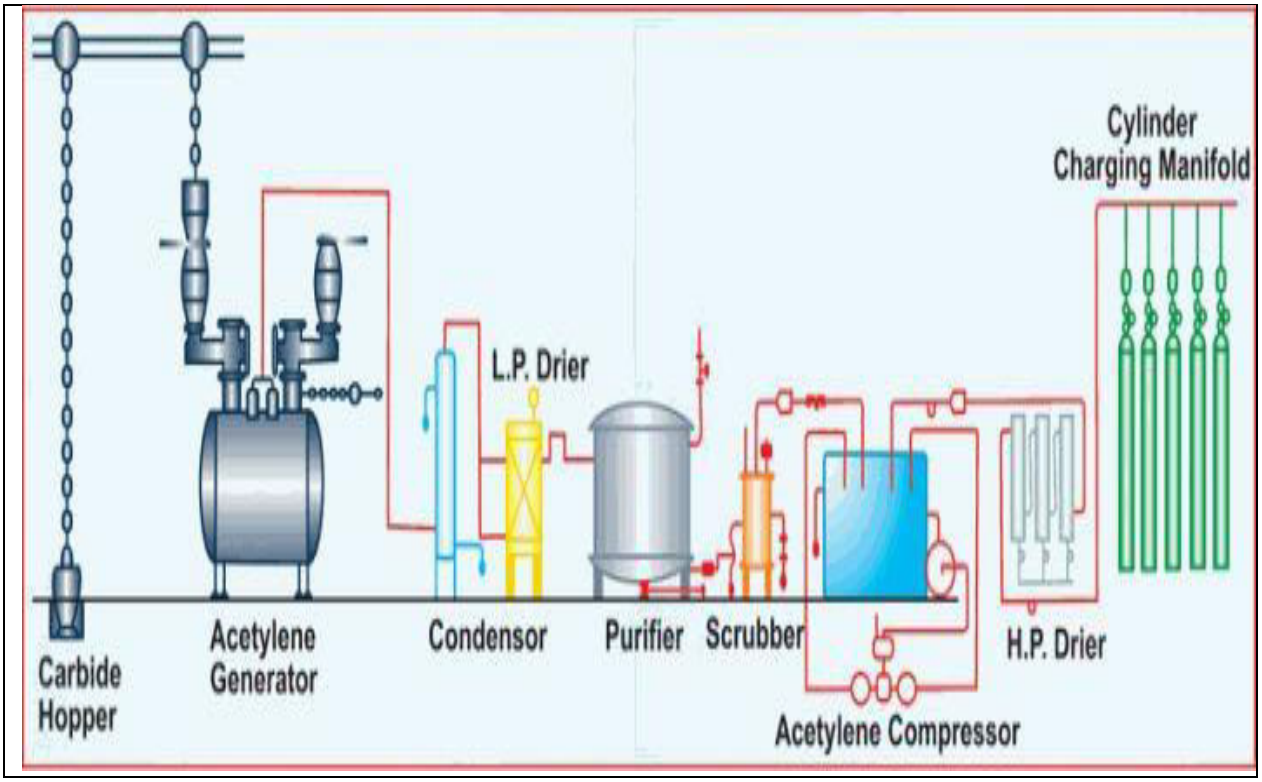
Generic Air Separation Unit (ASU)

- Shows inter-relationship of major components
- Specific plants will vary

TITLE	LOCATION ON CYLINDER			
	TOP A	BAND B	BAND C	BODY
ACETYLENE	YELLOW	YELLOW	YELLOW	YELLOW
ARGON, OIL-FREE	GRAY	WHITE	GRAY	GRAY
CARBON DIOXIDE	GRAY	GRAY	GRAY	GRAY
CARBON DIOXIDE *(Fire only)*	RED	RED	RED	RED
HELIUM, OIL-TOLERANT	GRAY	ORANGE	GRAY	GRAY
METHYLE ACETYLENE PROPADIENE (MAPP) MIXTURE	YELLOW	ORANGE	YELLOW	YELLOW
OXYGEN	GREEN	GREEN	GREEN	GREEN




CYLINDER PRESSURE GAUGE
DELIVERY PRESSURE GAUGE
HOSE CONNECTION BUSHING
ADJUSTING SCREW
ADJUSTING SPRING
COMPENSATING SPRING
RUBBER DIAPHRAGM
STIRRUP
HIGH PRESSURE INLET
NOZZLE
SEAT AND HOLDER
SEAT SPRING
GLASS WOOL FILTER



Questions:-

1. Write oxygen gas properties.
2. What is color coding ?
3. What is Air liquefaction ?

Next week:-Oxy-acetylene gas welding system (low pressure and high pressure)

Difference between gas welding blow pipe(LP and HP) and cutting blow pipe.

Gas welding technique (right ward and left ward.

Assignments :-

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Checked By…… Instructor……..