# **AMEROX® GAS AND GAS CYLINDERS**



Cylinder Type	OX40	OX5	AC40	AC5
Cylinder Capacity (water) - Liters	40.0	5.0	40.0	5.0
Typical Weight/Cylinder Gross Weight - Kg (Lbs) (**) appr. Nominal Tare Weight - Kg (Lbs) appr. TARE S (Acetylene only) (*) appr.	48.3 (106.4) - 61.8 (136.2) 40.0 (88.1) 53.5 (118.0)	11.2 (24.6) 9.2 (20.2)	69.0 (152.1) - 82.9 (182.8) - 62.2 (137.1) 76.1 (167.8)	13.2 (29.0) - 11.3 (25.0)
Nominal Cylinder Dimensions Diameter - mm Height with Cap - mm appr.	229 1180-1350	140 590	229 1180-1350	140 590
Valve Outlet Connection	W21.8mm 1/14 RH Ext		G 3/4" RH-Int	
Valve Type	Forged Brass with Nickel Bursting Disc		Forged Brass	
Cylinder Color	Blue - RAL 5009		Maroon - RAL 3011	
Cylinder Approvals	BS 5045-7 or DOT 3AA o -1, -2, -3, UN-USA	r ISO 9809	Poruos mass to ISO 3807-2 -1 or-3, UN-USA	with ISO 9809
Cylinder Retest Period	5 years or specific countr	y requirement	Visual inspection at each ref mass inspection or specific or requirement	
Acetone Content Acetylene Cylinder Kg (Lbs)	-	-	12.5 (276)	1.6 (3.5)
Cylinder Products Content Standards @15° C, 1ATM (**) Cubic Meters Cubic Feet Kg (Lbs)	6.4 226.0 7.8 (18.2)	0.75 26.0 1.0 (2.2)	5.6 197.7 6.2 (13.6)**	0.73 26.0 0.8 (1.8)
Cylinder Equilibrium Pressure after Filling @15° C (**) Bar Psig Kg/cm <sup>2</sup>	147.0 2132.0 150.0	147.0 2132.0 150.0	15.0 218.0 15.3	15.0 218.0 15.3
Cylinder Test Pressure @15°C - Bar (Psi)	250-300 (4351)		60-75.0 (1088)	
Cylinder Product Code Number	0506016	0720012	0507014	0722018
Gas Charge Product Code Number	0505018	0721010	0504010	0723016
Maximum Recommended Continuous Withdrawal Rate Per Cylinder, Litre/Hour	N/A	N/A	1000	125
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<sup>(\*)</sup> TARE S for acetylene cylinders includes cylinder shell, neck ring, top valve, porous mass, acetone and saturation charge.

<sup>(\*\*)</sup> Filling pressure/content may varies depending on geography.



#### **TECHNICAL SPECIFICATIONS**

The AMEROX® cylinder label has always included the statement "RETURN WITH 1 BAR PRESSURE" as well as "Keep valve closed at all times when not in use." These instructions are not always followed, and occasionally cylinders are returned that have been exposed to salt water with the top valves open. Water inside a cylinder can result in serious internal corrosion, in the case of an oxygen cylinder or a significant reduction in the capacity of an acetylene cylinder. Starting in January 1996, Drew Marine equipped every new permanent gas cylinder and all other cylinders

## **TECHNICAL INFORMATION**

(Some cylinders may vary from these norms. Refer to cylinder shoulder stampings prior to refilling.)

requiring valve replacement with a new, unique top valve that automatically closes when the cylinder pressure has dropped to about 1 bar, thus closing off the inlet and preventing accidental entrance of water or moisture. The AMEROX residual pressure valve is ideally suited to the marine industry since it assures a significant increase in the level of safety of Drew-supplied cylinders and requires no change in the way our customers use gases delivered in cylinders. No special adapters are required, and no special procedures need be followed.

Cylinders are potentially hazardous. Refer to the following safety precaution charts:

Cylinder Safety Smart Chart (Catalog #WRP-65)

Gas Welding and Cutting Safety Precautions (PCN 9076051)

		•	•	
Cylinder Type	N50 (99.5%)	N50 (99.999%)	N10 (99.5%)	A50 Mix (Air 80%/CO2 20%)
Cylinder Capacity (water) - Liters	50.0	50.0	10.0	50.0
Typical Weight/Cylinder Gross Weight - Kg (Lbs) with Valve & Cap Nominal Tare Weight - Kg (Lbs)	64.6 (128.3) - 98.3 (216.7) 47.5 (104.7) - 81.2 (179.0)		23.5 (51.8) - 26.6 (58.6) 12.8 (28.2) - 15.9 (35)	229mm 1655mm
Nominal Cylinder Dimensions Diameter - mm Height with Cap - mm	229 1455 - 1350		140 820 - 950	229 1455 - 1350
Valve Outlet Connection	W24.32mm 1/14 RH Ext		W24.32mm 1/14 RH Ext	W24.32mm 1/14 RH Ext
Valve Type	Forged Brass with Nicke Bursting Disc	ėl –	Forged Brass with Nickel Bursting Disc	Forged Brass with Nickel Bursting Disc
Cylinder Color	Green - RAL 6018		Green - RAL 6018	Body Gray – RAL 7023 / Neck Green – RAL 6018
Cylinder Approvals	BS 5045 , DOT 3AA or S UN-USA	SO 9809-1,-2,-3,	BS 5045 , DOT 3AA or SO 9809-1,-2,-3, UN-USA	BS 5045 , DOT 3AA or SO 9809-1,-2,-3, UN-USA
Cylinder Retest Period	5 years or specific country requirement		5 years or specific country requirement	5 years or specific country requirement
Cylinder Product Content Standards @15° C, 1ATM (*) Cubic meters Cubic Feet Kg (Lbs)	9.3 327.0 10.7 (23.6)		2.0 76.0 2.3 (5.0)	10.3 364.0 17.1 (37.6)
Cylinder Equilibrium Pressure after Filling @15° C (*) Bar Psig Kg/cm <sup>2</sup>	196 2843 200		196 2843 200	196 2843 200
Cylinder Test Pressure @15°C - Bar (Psi)	300 - 357 (5178)		300 - 357 (5178)	300 - 357 (5178)
Cylinder Product Code Number	0724014	0724592	0726119	0726754
Gas Charge Product Code Number	0725012	0725590	0725038	0727752

<sup>(\*)</sup> Filling pressure/content may varies depending on geography.





Cylinder Type	A50	A10	C50
Cylinder Capacity (water) - Liters	50.0	10.0	50.0
Typical Weight/Cylinder Gross Weight - Kg (Lbs) with Valve & Cap Nominal Tare Weight - Kg (Lbs)	64.6 (128.3) - 98.3 (216.7) 47.5 (104.7) - 81.2 (179.0)	23.5 (51.8) - 26.6 (58.6) 12.8 (28.2) - 15.9 (35)	64.6 (128.3) - 98.3(216.7) 47.5 (104.7) - 81.2 (179.0)
Nominal Cylinder Dimensions Diameter - mm Height with Cap - mm	229 1455 - 1655	140 820 - 950	229 1455 - 1655
Valve Outlet Connection	W24.32mm 1/14 RH Ext	W24.32mm 1/14 RH Ext	W24.32mm 1/14 RH Ext
Valve Type	Forged Brass with Nickel Bursting Disc	Forged Brass with Nickel Bursting Disc	Forged Brass with Nickel Bursting Disc
Cylinder Color	Gray - RAL 7023	Gray - RAL 7023	Body Gray – RAL 7023 / Neck Black – RAL 9005
Cylinder Approvals	BS 5045 , DOT 3AA or ISO 9809-1,-2,-3, UN-USA	BS 5045 , DOT 3AA or ISO 9809-1,-2,-3, UN-USA	BS 5045 , DOT 3AA or ISO 9809-1,-2,-3, UN-USA
Cylinder Retest Period	5 years or specific country requirement	5 years or specific country requirement	5 years or specific country requirement
Cylinder Test Pressure @15°C - Bar (Psi)	300 - 357 (5178)	300 - 357 (5178)	300 - 357 (5178)
Cylinder Product Code Number	0726010	0726119	0726762
Gas Charge Product Code Number	0727018	0727117	0727000

<sup>(\*)</sup> Filling pressure/content may varies depending on geography.

#### **APPLICATIONS**

### Nitrogen

Nitrogen gas is inert and does not react with other substances, liquids or gases. It is an inexpensive, exceptionally pure and dry gas, which is excellent for purging tanks and lines, removing moisture from refrigeration systems, blanketing dangerous cargo and cargo that may be ruined by oxidation. Nitrogen is not suitable for use as a shielding gas for welding. It can be used as a plasma gas in special applications of the plasma cutting process where oxidation of the cut surface must be kept to the absolute minimum.

Blanketing of cargo is accomplished by pumping nitrogen into the cargo area and displacing the atmosphere in the voids or vacant spaces. This inert blanket helps to prevent flammable cargo from burning or exploding and non-dangerous cargo, such as wine, fruit juice or vegetable oils, from spoiling due to oxidation.

## **Argon**

Argon is an inert gas, which is used as a shielding gas for the Tungsten Inert Gas (TIG) welding process. TIG welding may be used for welding stainless steel, aluminum and other alloys, such as YORCALBRO<sup>1</sup> and CUNIFER<sup>2</sup> products. Argon produces a smooth, quiet arc and excellent cleaning action when welding aluminum and magnesium with AC high-frequency TIG equipment.

NOTE: Nitrogen and argon are available in most major ports. Consult your local Drew Marine office for details.

## **Argon - CO2 MIXTURES**

Argon 80%/ CO2 20% mixture are used as shielding gas in MIG welding processes. The mixture is suitable for welding unalloyed and low alloyed carbon steels. The mixture provide more desirable combination of arc stability, better molten pool visibility and reduced spatter.

## CO2 (Welding gas)

Carbon Dioxide is a colorless, odourless gas. It is non toxic and non combustible. Carbon Dioxide is a reactive gas to shield the molten pool. Carbon Dioxide is suitable for arc shielding when welding low carbon and low-alloy steel.





### **INERT GAS REGULATOR**

Nitrogen/Argon/ArgonCo2 Regulator

PCN 9002015

Nitrogen/Argon/ArgonCo2 Regulator with Flow Meter

PCN 9079014

Nitrogen Regulator (1 Bar)

PCN 0694076

Nitrogen Regulator (200bar)

PCN 9002072



Nitrogen Regulator (1Bar) (PCN 0694076)



Nitrogen Regulator (200Bar) (PCN 9002072)

# Heavy-Duty Oxygen/Acetylene Regulators

Drew Marine heavy-duty oxygen and acetylene regulators are designed for maximum performance when cutting, welding, heating and brazing. Major features include: a modular capsule seat assembly that simplifies maintenance; a spring-loaded relief valve to protect the operator, as well as downstream equipment; ergonomic pressure adjustment knob with color-coded name plate; and total design simplicity which minimizes failures and reduces maintenance time, fire-resistant TEFLON4 seat, and maximum pressure limiting mechanism.

Heavy Duty Acetylene Regulator Product Code No. 0546053

Heavy Duty Oxygen Regulator Product Code No. 0547051



Nitrogen/Argon/ArgonCo2 Regulator (PCN 9002015)



Nitrogen/Argon/ArgonCo2 Regulator with flow meter (PCN 9079014)





#### **Residual Pressure Valves**

The Drew AMEROX Cylinder label has always included the statement "RETURN WITH 1 BAR PRESSURE" as well as "Keep valve closed at all times when not in use." These instructions are not always followed and occasionally cylinders are returned that have been exposed to salt water with the top valves open. Water inside a cylinder can result in serious internal corrosion, in the case of an oxygen cylinder, or a significant reduction in the capacity of an acetylene cylinder.

Starting in January 1996, Drew Marine has equipped every new permanent gas cylinder, and all other cylinders requiring valve replacement, with a new, unique top valve, that automatically closes when the cylinder pressure has dropped to about 1 bar, thus closing off the inlet and preventing the accidental entrance of water or moisture. The Drew AMEROX Residual Pressure Valve is ideally suited to the marine industry since it assures a significant increase in the level of safety of Drew supplied cylinders and r quires no change in the way our customers use the gases delivered in the cylinders. No special adapters are required, no special procedures need be followed.





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