

ADI 1851-H CONCOA STYLE 759 #10 Heating Tip 8100980-00-1

SAFETY

Install pressure regulators on cylinders (or pipeline branch). Comply with CONCOA manual "Safe Practices in Welding & Cutting" ADE 872, and torch and regulator instruction manuals.

FUEL GAS SUPPLY

To assure proper operation, check that there is ample fuel and that the available pressure is slightly higher than shown on operating data. To provide adequate gas flows, use:

- · Manifolds for cylinders where required;
- Regulators that provide required flow capacity;
- · Hose size as recommended in operating data;
- · Minimum hose lengths with minimum couplings; and
- Fittings (and check valves) with a minimum flow passage diameter of ¼-inch for B size.

IGNITION PROCEDURE

- Avoid ignition delays. Be sure you have a sparklighter in good working order.
- 2. Ignite with average fuel flow and NO oxygen.
- 3. Increase fuel flow substantially.
- Carefully start oxygen flow and increase until flame goes from strongly carburizing to slightly carburizing.
- For large tips, alternately repeat steps 3 and 4 until full flow rate is reached.
- Trim flame to proper ratio by appearance (see guide for fuel being used).

TO PREVENT TIP BURNOUT

Keep the tip cool by using flow rates in guide. Reducing flow rates or allowing flames to backwash over tip (by blind hole, etc.) will raise temperature. Severe backwash will burn tip.

WARNING

A flashback (oxygen-fuel mixture burning inside extension tube) can cause a severe burn hazard. To avoid injury in case of flashback, immediately close both torch valves to extinguish flame. Do not touch mixer, extension tube, or tip until they are cool.

FOR EFFICIENT LOW COST HEATING

- Use proper size tip. Too small takes excessive time to reach desired temperature. Too large wastes fuel and oxygen without substantially reducing heating time. Make trial heats with different tips comparing fuel consumption (cfh x elapsed time) to determine most economical tip.
- Use flow rate recommended in this guide. This rate gives the most efficient flame velocity, an important factor in transferring heat to the work. If heat is too small or too great, do not change flow rate, change to smaller or larger tip.

VISUALLY ADJUSTING FLAME

Experienced operators making frequent tip changes can take advantage of this simple method. See the recommended gas pressure and light torch as outlined above. When torch valves are wide open (1½ to 2 turns), alternately increase gas pressure on delivery regulators until flame cone is in ratio and of recommended length.

ADJUSTING WITH TEST GAUGES

Install test gauges (stock numbers: 803-0503 for oxygen and 803-0504 for fuel) between hose and torch valves. Adjust delivery pressures as recommended in guide. Follow ignition procedure steps 1-4 and then adjust delivery pressures while observing test gauges until recommended levels are reached.

NOTE

The regulator gauges will always show a higher pressure than the test gauges because of loss, or drag, in the hoses. A large disparity results from too small a diameter, too long a hose, or old hose with too many splices.

Make final ratio adjustment while keeping recommended flame cone length and record regulator delivery pressures for future use. After shutdown, remove test gauges and reconnect hoses and check valves.

WARNING

Use in well-ventilated area. Operation in closed area can result in oxygen-deficient atmosphere.



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1	80	1/2	30	14	12	7	15	7	2:1	Natural Gas
З	50	1/2	43	20	15	9	16	10	4:1	Propane
2	50	9/16	45	20	17	11	19	10	4:1	Propylene
2	70	9/16	38	22	16	10	18	11	2.5:1	
3	140	1/2	N/A	N/A	15	12	12	10	1.1:1	Acetylene*
5			охү	FUEL	ОХҮ	FUEL	охү	FUEL		
CONTINUOUS	RATE (CFH)	LENGTH (inch)	cer r 8110890	Mixer 8110881 or 8110890	110891	Mixer 8110891	Mixer 8110899	Mixer 8	FUEL RATIO	FUELS
CYLINDERS	FLOW	PRIMARY	d Below	STYLE 800 TORCH 8190800-01-1 with Mixer Listed Below	00-01-1 wit	CH 819080	E 800 TOR	STYL	70 X	!
20 25 20 18				ORCH INLET PRESSURE (PSIG)†	PRESSU	HINLET	TORC			
Number of Heating Orifices: 7 • Drill Number: 55 (ø.052") • Minimum Hose Size: ø5/16 in • Maximum Hose Length: 25 feet	mum Hos	5/16 in • Maxi	ose Size: ø	Minimum H	ø.052")•	1ber: 55 (Drill Nun	fices: 7 •	eating Ori	Number of H
)980-00-1	#10 HEATING TIP OPERATING DATA: CONCOA STYLE 759 PART NO. 8100980-00-1	YLE 759 PA	ONCOA ST	DATA: C	RATING	TIP OPE	EATING	#10 H	

CAUTION

Use RMA-CGA grade T hose for all fuel gases to prevent hose failure. Use grades R and RM for acetylene only.

FLASHBACK ARRESTORS/CHECK VALVES

Flashback arrestors with integral check valves prevent the reverse flow of mixed gas and flame flashback into the gas supply lines.

For Regulators	Resettable for Regulators	For Torches
801-7003 "B" Size, Fuel 801-7004 "B" Size, Oxygen	801-7001 "B" Size, Fuel 801-7002 "B" Size, Oxygen	801-7007 "B" Size, Fuel 801-7008 "B" Size, Oxygen
Meets OSHA Requirer	ments Compli	es with ISO 5175

CUSTOMER ASSISTANCE

In the event of equipment failure, call the CONCOA Customer Assistance Line: 1-800-225-0473. Please be prepared to provide the model number and serial number of the equipment involved, in addition to details regarding its application.



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	#10 H	EATING	TIP OPE	RATING	DATA: CO	ONCOA ST	YLE 759 PA	#10 HEATING TIP OPERATING DATA: CONCOA STYLE 759 PART NO. 8100980-00-1)980-00-1	
Number of He	ating Ori	fices: 7 • I	Drill Num	ber: 55 (¢	3.052") • N	/linimum H	ose Size: ø	i/16 in • Maxi	mum Hos	Number of Heating Orifices: 7 • Drill Number: 55 (ø.052") • Minimum Hose Size: ø5/16 in • Maximum Hose Length: 25 feet
			TORC	H INLET	PRESSU	TORCH INLET PRESSURE (PSIG)†				
	γχο γχο	STYL	E 800 TOR	СН 819080)0-01-1 wit	STYLE 800 TORCH 8190800-01-1 with Mixer Listed Below	d Below	PRIMARY	FUEL	CYLINDERS
FUELS	FUEL RATIO	Mixer 8110899	110899	Mixer 8110891	110891	Mi 8110881 c	Mixer 8110881 or 8110890	LENGTH (inch)	RATE (CFH)	CONTINUOUS
		FUEL	ОХҮ	FUEL	ОХҮ	FUEL	охү			
Acetylene*	1.1:1	10	12	12	15	N/A	N/A	1/2	140	3
	2.5:1	11	18	10	16	22	38	9/16	70	2
Propylene	4:1	10	19	11	17	20	45	9/16	50	2
Propane	4:1	10	16	9	15	20	43	1/2	50	3
Natural Gas	2:1	7	15	7	12	14	30	1/2	80	1
Withdrawal rate is limited to 10% of the cylinder contents for intermittent withdrawal and 6% for continuous use.	te is limit	ed to 10%	of the cy	linder co	ntents for	intermitter	it withdrawa	and 6% for	continuo	ıs use.
Set the oxygen:fuel ratio to neutral flame with primary cones to length listed.	n:fuel rati	o to neutr	ral flame	with prima	ary cones	to length li	isted.	•		
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	B" Size, Fuel " Size, Oxygen	801-7001 "B" Size, 801-7002 "B" Size,	*	801-7007 "B" Size, Fuel 801-7008 "B" Size, Oxygen
Meets OS	SHA Requirem	nents	Complie	es with ISO 5175

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