Millington, TN > 901-873-5300 Litle Rock, AR > 501-375-9178

# Overhead Crane Classification & Duty Cycle



#### CMAA CLASS C

Controls for CMAA Class C service are based upon ten cycles per hour with an average 50% load.

A typical cycle is defined as follows:

- Raise @ 30 sec with 50% load
- 2 Traverse @ 60 sec with 50% load
- Lower @ 30 sec with 50% load
- 4. Raise @ 30 sec with 10% load
- 5. Traverse @ 30 sec with 10% load

Deceleration time for traverse motions is assumed to be 5 seconds, with a maximum 120% retarding torque.

The total lowering time at full speed should not exceed 60 seconds.\*



#### CMAA CLASS D

Controls for CMAA Class D service are based upon twenty cycles per hour with an average 65% load.

A typical cycle is defined as follows:

- 1. Raise @ 30 sec with 65% load
- Traverse @ 60 sec with 65% load
- Lower @ 30 sec with 65% load
- Raise @ 30 sec with 10% load
- 5. Traverse @ 30 sec with 10% load

Deceleration time for traverse motions is assumed to be 3 seconds, with a maximum 150% retarding torque.

The total lowering time at full speed should not exceed 60 seconds.\*



#### CMAA CLASS!

Controls for CMAA Class E service are based upon twenty five cycles per hour with an average 100% load.

A typical cycle is defined as follows:

- Raise @ 24 sec with 100% load
- 2. Traverse @ 24 sec with 100% load
- 3. Lower @ 24 sec with 100% load
- 4. Raise @ 24 sec with 10% load
- Traverse @ 24 sec with 10% load

Deceleration time for traverse motions is assumed to be 3 seconds, with a maximum 160% retarding torque.

The total lowering time at full speed should not exceed 60 seconds.\*



#### CMAA CLASS I

Controls for CMAA Class F service are based upon continous severe service with loads approaching rated capacity.

A typical cycle is defined as follows:

- 1. Raise with 100% load
- 2. Traverse with 100% load
- 3. Lower with 100% load
- 4. Raise with 50% load
- 5. Traverse with 50% load

Deceleration time for traverse motions is assumed to be two seconds, with a maximum 175% retarding torque.

The total lowering time at full speed should not exceed 60 seconds.\*











# **Overhead Crane Inspection Intervals**

## "Frequent" Inspection Interval Requirements

CMAA	ASME	Number of Shifts Operated Per Day					
Service	B30.2 Service -	Stand-by	1 Shift	2 Shifts	3 Shifts		
Class	Class		Frequency	of Inspection			
Α	Normal	Semi-Annual	Semi-Annual	Semi-Annual	Semi-Annual		
В			Monthly	Monthly	Monthly		
С			Monthly	Monthly	Semi-Monthly to Monthly		
D	Heavy		Monthly	Semi-Monthly to Monthly	Weekly to Semi-Weekly		
E			Weekly	3-5 Days	Daily		
F	Severe		Daily	Daily	 Daily		

CMAA 78, Standards and Guidelines for Professional Service Performed on Overhead and Traveling Cranes and Associated Equipment, 2015
Table 4-3-1

### **Periodic Inspection Interval Requirements**

(Often incorrectly referred to as "the Annual Inspection"

CMAA Service Class	ASME B30.2 Service	Number of Shifts Operated Per Day			
		1 Shift	2 Shifts	3 Shifts	
	Class				
Α	Normal	Annually	Annually	Annually	
В		Annually	Annually	Annually	
С		Annually	Annually	Annually	
D	Heavy	Annually	Semi-Annual to Annually	Semi-Annually	
E	Severe —	Quarterly	Quarterly	Quarterly	
F		Quarterly	Quarterly	Quarterly	

CMAA 78, Standards and Guidelines for Professional Service Performed on Overhead and Traveling Cranes and Associated Equipment, 2015
Table 4-4-1





