## Timing and <br> Position

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Adaptive equipment is available upon request for individuals with disabilities.
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Mount Wachusett Community College

## COMPONENTS OF A MACHINE



## POSITION, STROKE \& TIMING

Position - Where a component is located any point in time, relative to a starting position

Stroke - The linear distance traveled by the slider in one direction from its starting position

Timing - When an action takes place in time, relative to a set start time

## ADJUSTMENTS



## POSITION ADJUSTMENT



## POSITION AND STROKE AJUSTMENT



## POSITION AND STROKE ADJUSTMENT

## Turn-buckle Clevis at Adjustment No. 1



At $0^{\circ}$ angle (start position) Position = 61/64"


At $180^{\circ}$ angle (end position) Position = 1 -62/64"
Stroke = (1-62/64") - 61/64" = 2-1/64"

## POSITION AND STROKE ADJUSTMENT

## Turn-buckle Clevis at Adjustment No. 2



At $0^{\circ}$ angle (start position) Position = 1"

At $180^{\circ}$ angle (end position) Position = 2 - 7/32"
Stroke = (2-7/32") - 1" = 1-7/32"

## POSITION AND STROKE ADJUSTMENT

## Turn-buckle Clevis at Adjustment No. 3



At $0^{\circ}$ angle (start position) Position = 1-13/64"

At $180^{\circ}$ angle (end position) Position = 2 -40/64"
Stroke = (2-40/64") - 1-13/64" = 1-27/64"

## POSITION, STROKE AND TIMING



## POSITION, STROKE AND TIMING

Cam Follower on Pin B


At $0^{\circ}$ angle (start position) Position = 61/64"


At $180^{\circ}$ angle (end position) Position = 1 - 62/64"
Stroke = (1-62/64") - 61/64" = 1-1/64"

## POSITION, STROKE AND TIMING

Cam Follower on Pin A

$15.5^{\circ}$ angle (start position) Position = 26/64"

$195.5^{\circ}$ angle (end position) Position = 1 -62/64"
Stroke = (1-62/64") - 26/64" = 1-36/64" = 1-9/16

## POSITION, STROKE AND TIMING

Cam Follower on Pin C

$345^{\circ}$ angle (start position) Position = 50/64"

$165^{\circ}$ angle (end position)
Position = 1 - 37/64"
Stroke = (1-37/64") - 50/64" = 51/64"

## CAM LIFT AND DWELL



