R0015320 Pneumatic Output Test

Testing procedure for installed pneumatics

Difficulty **Hard** | Duration **1.5 hour(s)**

Contents

Introduction

Tools Required

Standard screwdriver set
Standard grease gun and cartridge

Parts Required

Mains air connection

Step 1 - Caution

Output testing will be carried out under a no-emergency stop situation

ensure pcl coupling is used for ability for quick disconnection

Ensure all colleagues are aware of testing and ensure good working practise is followed

Step 2 - Blank Spare ports

Blank off all unused bulkhead and connection ports not required

Step 3 - Lubrication

All lubrication points should be greased prior to testing

ensure the following are greased

Leadscrews
Z axis leadscrew 2off leadscrews 1 off grease point per leadscrew
Y Axis Leadscrew 1 off grease point
VZ axis leadscrew 1 off grease point
Bearings
4 off Y axis bearings
4 off Z axis bearings
8 off VZ axis bearings

Step 4 - Connect air to Air service unit

Ensure soft start adjuster is fully wound out

Set air service unit to 6 bar

Step 5 - Check Red Permanent feed line Air Gun

Check for audible leaks and correct if required

Check operation of air gun . Ensure pressure is set to maximum of 2 bar

Step 6 - Check Red permanent feed Z axis

Set Z axis support pressure. Set at 5 bar, and adjust to balance. Rotary ring should be held in position under cylinder pressure, but be able able to be moved up and down by turning the leadscrew by hand
If resistance is felt or axis bounces when leadscrew is turned , check air connections for correct piping

Step 7 - Check Red permanent feed VZ axis

Set VZ axis regulator to 5 bar

Step 8 - Manual over Ride air service unit

Manually override air service unit to purge Blue ring main

Caution All cylinders should move to their home positions

Check for audible leaks from ring main and cylinder connections

Check for leaks when all outputs are individually fire also

Step 9 - Test Y269 Ring blow

Home position Blower should be switched off

Fire valve, blower should activate on tool break sensor assembly

Check orientation of in line flow regulator . Fully closed, air feed should stop totally . If not possible, flow regulator is fitted incorrectly

Step 10 - Y270 Clamp hold

Home position is retracted away from bottom rollers

Manually fire valve, cylinder should move toward datum rollers

Step 11 - Y350 Infeed top clamp

Home position should be lifted up

Manually fire valve, set regulator pressure to 2 bar

Clamp should move down when fired

Step 12 - Y351 Infeed side clamp

Home position should be retracted away from datum rollers

Manually fire valve, set regulator pressure to 2 bar

Clamp should move in when fired

Step 13 - Y360 work blowers

Home position Blower should be switched off

Fire valve, blower should activate on infeed datum roller assembly

Check orientation of in line flow regulator . Fully closed, air feed should stop totally . If not possible, flow regulator is fitted incorrectly

Step 14 - Y386 Clamps middle

Shared Output for top and side clamp

Home positions are

side clamp retracted away from datum rollers
Top clamp retracted away from datum rollers

Manually fire valve

Set
Y386 side clamp regulator to 2 bar
Y386 top clamp regulator to 2 bar

Clamps should move towards datum rollers
Check that P0000160 flow regulators are orientated correctly. When fully wound in on adjustment, cylinder stroke should not be possible when the valve is manually fired. If flow regulation is not possible, orientation is incorrect

Step 15 - V389 V Cut output

Ensure all clamps are clear from V notch cut axis

Home position should be up

Manually fire valve

V notch assembly should move down towards the floor

Step 16 - Y395 V clamp

Y395 is a shared output for V top and side clamp

Home positions are

side clamp retracted away from datum rollers
Top clamp retracted away from datum rollers

Manually fire valve

Set

Y395 side clamp regulator to 4 bar
Y395 top clamp regulator to 4 bar

Clamps should move towards datum rollers when fired
Check that P0000160 flow regulators are orientated correctly. When fully wound in on adjustment, cylinder stroke should not be possible when the valve is manually fired. If flow regulation is not possible, orientation is incorrect

Step 17 - Disconnect air

Disconnect air and remove fitted blanks for testing