

## National Acme Preventative Maintenance Check List

### Monthly Maintenance

#### Pneumatic System:

- Air pressure gage settings should be checked.
- Air cylinders should be checked for response and leaks.

#### Hydraulic System:

- Oil pressure gage settings should be checked.

#### Spindle Carrier:

The following should be removed, cleaned, inspected and replaced:

- Collets
- Collet tubes (for cracks)
- Pusher
- Pusher tubes
- Inside of the spindles

Inspect the following:

- Collet seats for cracks and wear
- Collet tubes and nuts
- Pusher tubes
- Stop screws
- End toolslide and gib adjustment
- Clutches, brakes and yokes (or shoes) of spindle stopper
- Operating shoes

#### Rear end

Check for wear and damaged condition of:

- The stock reel and stock reel stand
- Stock reel slide, bushings, rolls and studs
- Stock reel feed pusher plate
- Stock feed slide ring
- Stock feed slide pusher pull back roll
- The spool guard inserts
- Index slots in index disc
- Roll(s) and stud on revolving arm
- Roll and stud on locking pin lever
- Locking pin lever stud to be sure it is locked
- Chucking slide, bushings, roll and stud
- Chucking shoes
- Locking pin spring
- Stock feed shaft

- Finger holders for broken or worn fingers, pins rolls and cams
- Hand chucking shoe alignment with shoe in automatic chucking slide

#### Gearbox

Check for wear, damage and adjusted condition of:

- Spanner nuts
- Bearings
- Clutches
- Roll clutch
- Gears – for tooth wear and mounting
- Shafts and splines
- Pulleys and V-belts
- Brake band and lining
- Clutch operating yokes or shoes
- End toolslide push rod roll nut (nut must have 0.003/0.005" end shake, do not lock solid)
- The end toolslide pusher arm and pusher roll
- Stop pressure for end toolslide
- Check roll clutch shaft
- Large worm and worm gear; small worm and work shaft.
- Constant speed shaft
- Spindle drive shaft.

#### Drum shafts

Inspect for the following:

- Broken arms
- Worn keys or keyways
- Broken taper pins
- Damaged bearings

#### Quarterly Maintenance

- Lube oil filter should be removed and cleaned. Check to be sure the relief valve is operating.
- Remove the coolant from the pan and clean any fine chips or sediment from the pan. Add new coolant.
- Check adjustments on cross slide gib
- On long runs when cams aren't changed frequently, remove cross slide drums and clean drums and drum cavity.

### Semi-Annual Maintenance

General:

Drain clean, flush and refill the following:

- Reservoir for main lube oil. Also check the screen condition.
- Gearboxes on the independent motor driven accessories. Includes conveyor, pump, etc.
- Check the filter screen condition.

#### Spindle Carrier:

Check the following:

- Spindles for excessive end play
- End toolslide may need rebushing. To check for this put magnetic base indicator on the carrier and lift toolslide.
- Check carrier end play – locking pin partially out and carrier free to move, end play may be checked by putting magnetic base on headstock and indicator stylus on carrier. Apply lateral force on the carrier by prying with a 3" X 3" X 6" oak pry bar. Adjust end play per page F13 if necessary.

#### Drum Shafts

- There should be zero backlash in bevel gears between the large drum shaft and the cross slide drum shaft. It may be necessary to remove some shim material from the cross slide drum shaft housing to give zero backlash.

#### Electrical Controls

Inspect the condition of:

- Switches
- Solenoid valves
- Wiring
- Panel box
- Motors