



LUBRICATION CHART (USE ESSO NUTO H44 EXCEPT WHERE OTHERWISE SPECIFIED)

AT REGULAR INTERVALS

1. **Cone Clutch.** With the clutch disengaged apply two or three drops of oil.
2. **Countershaft.** The hardened shaft runs in oil impregnated bronze bearings. The oil cups which are provided should be replenished daily.
3. **Headstock Bearings.** The front bearing is lubricated from the cup mounted on the front bearing housing and this should be replenished twice daily. The rear ball bearings should be lubricated with oil gun via the oil nipple daily.
4. **Headstock Pulley.** Use the oil gun frequently whenever the reduction gear is used (see page 16).
- *5. **Backgears and Change gear teeth.** A small amount of oil (viscosity No. 30) will effectively lubricate the gear teeth.
6. **Changewheel Studs.** Oil frequently.

7. **Tumbler Gears.** These fast running components are arranged for lubrication by oil gun and should be freely lubricated whenever the gears are being used.
8. **Backgear Spindle.** Use the oil gun frequently, whenever the reduction gear is used. The oil nipple is positioned in the end of the spindle, below the mandrel nose.
9. **Apron Reservoir.** Use the oil gun. This supply is distributed to the handwheel and rack pinion shafts, and also feeds the reduction gear.
10. **Saddle.** Use the oil gun on both nipples; one over the front shears, one over the rear.
11. **Topslide Ways.** Clean and apply an oil of No. 30 viscosity.
12. **Cross-slide Ways.** Clean and apply an oil of No. 30 viscosity.

13. **Tailstock Barrel.** Use the oil gun on both nipples.
14. **Tailstock Thrust.** Use the oil gun.

OCCASIONALLY

15. **Leadscrew Brackets.** Use the oil gun on both nipples.
 - *16. **Leadscrew.** Clean with a stiff brush and apply oil of No. 30 viscosity.
 - *17. **Rack.** Apply oil of No. 30 viscosity.
 - *18. **Cross-slide and Topside Feedscrews.** Oil occasionally from underneath, using oil of No. 30 viscosity.
- NOTE.** We supply and recommend Esso Nuto H44 Oil or equivalent for general lubrication. Where No. 30 viscosity oil is specified, any good motor oil of this number will be satisfactory.
- *For starred items Nos. 5, 16, 17, 18 Rocol MTS 1000 grease should be used in those territories where it is available.