EML2322L Example Tapped Hole Quiz #4

Based on the information presented in the lab and lecture, ***explain the exact tools and sequence used to tap a 1/2" thread into a steel workpiece on a manual milling machine.***

THREAD SPECIFICATION (i.e. 10-24, 1/4-20, M6x1.0, etcetera): _____

SEQUENCE & TOOLS (be explicit with regard to tool names and sizes):

1. Find part zeros using a(n) _____ and the DRO to locate the sides of the part and set datums
2. Use a(n) _____ to accurately locate and begin drilling the hole
3. Use a(n) _____ to drill the initial (or pilot) hole through the part
4. Use a(n) _____ (of size _____) to finish drill the hole to final size for threading
5. Load a(n) _____ into the spindle to ensure the hole is tapped normal to the part's surface
6. Thread the hole using a(n) _____ , tap handle and cutting oil

Based on the information presented in the lab and lecture, ***explain the exact tools and sequence used to tap a 1/2" thread into a steel workpiece on a manual milling machine.***

THREAD SPECIFICATION (i.e. 10-24, 1/4-20, M6x1.0, etcetera): *½-20 UNF*

SEQUENCE & TOOLS (be explicit with regard to tool names and sizes):

1. Find part zeros using a(n) _____ and the DRO to locate the sides of the part and set datums
2. Use a(n) _____ to accurately locate and begin drilling the hole
3. Use a(n) _____ to drill the initial (or pilot) hole through the part
4. Use a(n) *tap drill* (of size *Ø15/32" or Ø0.469"*) to finish drill the hole to final size for threading
4. Load a(n) *tap guide* into the spindle to ensure the hole is tapped normal to the part's surface
5. Thread the hole using a(n) *1/2-20 UNF tap*, tap handle and cutting oil