

TOOL EVALUATION CHECKLIST

Basic Principles	Yes	No
1. Does the tool perform the desired function effectively?	"	"
2. Does the tool match the size and strength of the operator?	"	"
3. Can the tool be used without undue fatigue?	"	"
4. Does the tool provide sensory feedback?	"	"
5. Are the tool capital and maintenance costs reasonable?	"	"

Anatomical Concerns	Yes	No
1. If force is required, can the tool be grasped in a power grip (i.e., handshake)?	"	"
2. Can the tool be used without shoulder abduction?	"	"
3. Can the tool be used with a 90° elbow angle (i.e., forearms horizontal)?	"	"
4. Can the tool be used with the wrist straight?	"	"
5. Does the tool handle have large contact surfaces to distribute forces?	"	"
6. Can the tool be used comfortably by a 5th percentile female operator?	"	"
7. Can the tool be used in either hand?	"	"

Handles and Grips	Yes	No
1. For power uses, is the tool grip 1.5 - 2 inches in diameter?	"	"
a. Can the handle be grasped with the thumb and fingers slightly overlapped?	"	"
2. For precision tasks, is the tool grip 5/16 - 5/8 inches in diameter?	"	"
3. Is the grip cross section circular?	"	"
4. Is the grip length at least 4 inches (5 inches if gloves are worn)?	"	"
5. Is the grip surface finely textured and slightly compressible?	"	"
6. Is the handle nonconductive and stain free?	"	"
7. For power uses, does the tool have a pistol grip angled at 78°?	"	"
8. Can a two-handed tool be operated with less than 20 pounds grip force?	"	"
9. Is the span of the tool handles between 2¾ - 3¼ inches?	"	"

Power Tool Considerations	Yes	No
1. Are trigger activation forces less than 1 pound?	"	"
2. For repetitive use, is a finger strip trigger present?	"	"
3. Are less than 10,000 triggering actions required per shift?	"	"
4. Is a reaction bar provided for torques exceeding ...		
a. 50 inch-pounds for in-line tools?	"	"
b. 100 inch-pounds for pistol-grip tools?	"	"
c. 400 inch-pounds for right-angled tools?	"	"
5. Does the tool create less than 85 dBA for a full day of noise exposure?	"	"
6. Does the tool vibrate?	"	"
a. Are the vibrations outside the 2 - 200 Hz range?	"	"

Miscellaneous and General Considerations	Yes	No
1. For general use, is the weight of the tool less than 5 pounds?	"	"
2. For precision tasks, is the weight of the tool less than 1 pound?	"	"
3. For extended use, is the tool suspended?	"	"
4. Is the tool balanced (i.e., center of gravity on the grip axis)?	"	"
5. Can the tool be used without gloves?	"	"
6. Does the tool have stops to limit closure and prevent pinching?	"	"
7. Does the tool have smooth and rounded edges?	"	"