

Read the [Introduction](#) for more information on these standards, including where to direct comments, questions, and recommendations. As new items are introduced, current items are discontinued, and/or health and safety issues arise, these standards will be revised to provide updated information. Sort by Update Date to view recent changes.

## **Tool – Combination Shovel and Grub Hoe**

NFES Status

Active

NFES #

001180

Category

Tools

Updated

Thu, 03/01/2018 - 12:00

Storage and Shelf Life Checks

None

## **Initial Inspection/Disposal Criteria**

1. Inspect for structural damage to pick, hoe blade or both that cannot be repaired or serviced by replacing components.
  - a. Inspect pick for the following:
    - If bent or twisted.
    - If shorter than 4½" long in extended position.
    - If cracks or enlarging exist around hinge leg bolt hole.
  - b. Inspect hoe blade for the following:
    - Cracks or looseness in the area of the hinge leg rivets.
    - If hinge leg bolt hole is enlarged or cracked.
    - If shorter than 6" (measure from turn step to blade tip).
  - c. Inspect handle for the following:
    - Cracked, bent, twisted, or has open grain.
    - Has been shortened (except for detachable handle smokejumper version, which has a 4" shorter handle).
    - Has a nonstandard handle.

2. Return to stock if item passes initial inspection, is clean, sharp and in unused condition.
3. Refurbish if damage is repairable or replaceable, or if handle reconditioning or tool sharpening are required.
4. Dispose of tool if it fails initial inspection or has been modified such that it cannot be return to like new condition.

## Refurbishing Procedures

### A. Cleaning

1. If friction nut does not turn freely, flush with water. Blow clean with air gun. (Wear safety glasses). If the nut does not turn freely after flushing, remove the hinge leg bolt and friction nut and clean the threads inside. Do not use oil on the friction nut threads or hinge bolt, since oil attracts dust and debris.
2. If tool head cannot be tightened, inspect hinge leg surface contact with friction nut. Remove hinge leg bolt; grind hinge legs as needed so they meet flush with friction nut.
3. Clean handle to remove dirt, tree sap, or other foreign debris.
4. Wash tool head with water and mild detergent. Dry completely before storage.

### B. Repair

1. Sharpen both blade and pick at 45 degree angle per hand tool. Refer to tool sharpening gauge NFES #000510.
2. Tighten handle in ferrule by peening rivet head.
3. Sand handle if it is chipped, dinged, rough or has tape residue.
4. Wipe handle with linseed oil after sanding.
5. Apply rust inhibitor to tool head. Local cache option for painting tool head. **Black paint only.**
6. Handle replacement:
  - a. Grind off end of rivet.
  - b. Punch it through the handle. Remove the handle from the ferrule.
  - c. Place the new handle in the ferrule and drill hole through handle.
  - d. Replace the rivet with #6 x 1-13/16 inch long rivet. Tap rivet with a hammer to mushroom the rivet head or until the handle is tightened. Replacement handles are available from DLA (NSN 5120-01-296-3592).

### C. Testing for Performance

1. Extend hoe blade and pick at right angles to tool handle.
2. Tighten friction nut (wear gloves). Move blade and pick up and down and further tighten friction nut.
3. Repeat process to ensure that the blade and pick can be maintained tight by the friction nut.

## **D. Repackaging**

- 10 each in NFES #000384 carton (46" x 11" x 8").

## **Swatter – Fire**

NFES Status

Active

NFES #

001868

Category

Tools

Updated

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Storage and Shelf Life Checks

None

## **Initial Inspection/Disposal Criteria**

1. Inspect handle for cracks and warping. Inspect flapper and metal connection for cracks and broken or loose connection and components.
2. Return to stock if no repair is necessary.
3. Refurbish if damage is to the handle or connection can be repaired.
4. Dispose of item if flapper cannot connect to handle or there is substantial damage to the flapper.

## **Refurbishing Procedures**

### **A. Cleaning**

1. Clean flapper with wire brush.
2. Wash flapper and handle with mild detergent and water.

3. Rinse.

## B. Repair

1. Sand handle until smooth. Replace handle as necessary.
2. Ensure flapper/handle connection is tight.

## C. Testing for Performance

- Check that the connection between handle and flapper is in good condition.

## D. Repackaging

- Local Cache option.

## Shovel – with Plastic Sheath, Size #1

NFES Status

Active

NFES #

000171

Category

Tools

Updated

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Storage and Shelf Life Checks

None

## Initial Inspection/Disposal Criteria

1. Inspect for damage to cutting head, step plate, and handle. Check for loose head and handle. Ensure blade is 3 ¾" from center to the edge at the base of the shovel and the shovel has not been modified, bent or distorted. Handle should be straight and free of cracks, chips, open grain, or residues (tar, sap, paints, etc.).
2. Return to stock if item is clean and has not been used.
3. Refurbish if item is unmodified and is repairable.

4. Dispose of item if blade is less than 7 ½" wide, shows blue or burned edges, or has been welded, cut or otherwise modified and cannot be taken back to original shape and condition.

## ?Refurbishing Procedures

### A. Cleaning

- Wash and wipe dry.

### B. Repair

1. Sand handle if it is chipped, dinged, rough or has tape residue.
2. Wipe handle with linseed oil after sanding.
3. Apply rust inhibitor to tool head. Local cache option for painting tool head. **Black paint only.**
4. Sharpen cutting edge, using tool sharpening gauge NFES #000510.
5. Blade to be at least 7 ½ "wide. USE NFES #000510.

### C. Testing for Performance

- None

### D. Repackaging

1. Install plastic sheath NFES #001853.
2. 10 each in NFES #000337 carton (55" x 12 ½" x 11 ¾").

## Rake – Fire (Council Tool) w/Sheath

NFES Status

Active

NFES #

001807

Category

Tools

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Storage and Shelf Life Checks

Yes

## Storage and Shelf Life Procedure

Per local cache requirements to ensure proper serviceability of tools.

# Initial Inspection/Disposal Criteria

1. Inspect handle for cracks, splinters, and warping.
2. Inspect cutting teeth for cracks, excessive wear, and loose rivets.
3. Inspect mounting head for cracks and loose handle.
4. Return to stock if item is clean and has not been used.
5. Refurbish if item has been used and/or is repairable.
6. Dispose of rake if tool is not repairable and mounting head is cracked.

# Refurbishing Procedures

## A. Cleaning

1. Clean head with fine wire brush.
2. Clean handle with damp cloth.

## B. Repair

1. Sand handle if it is chipped, dinged, rough or has tape residue.
2. Wipe handle with linseed oil after sanding.
3. Apply rust inhibitor to tool head. Local cache option for painting tool head.
4. Replace broken or cracked tooth, flat surface inside.
5. Tighten or replace loose rivets.
6. Grind on even bevel, use sickle stone.
7. Retain square point on cutter teeth. DO NOT ROUND CORNERS.
8. Apply rust inhibitor to tool head. Local cache option for painting tool head. **Black paint only.**
9. Smooth handle with fine sandpaper.
10. Oil cutting edge.

## C. Testing for Performance

- None

## D. Repackaging

1. Sheath with NFES #001854 McLeod sheath.
2. Package 10 each in carton NFES #000305 (56" X 20" X 11").

## **Rack – Collapsible**

NFES Status

Active

NFES #

000659

Category

Tools

Updated

Mon, 05/01/2017 - 12:00

Storage and Shelf Life Checks

None

## **Initial Inspection/Disposal Criteria**

1. Inspect for damaged/missing tines, if so dispose of.
2. Inspect for damage to handle sliding-locking mechanism.
3. Inspect all welds to see if cracked or broken.
4. Inspect grips for tears/loss of grips.
5. Inspect nuts and bolts to make sure they are in place (2 each).
6. Inspect pin in locking mechanism.
7. Return to stock if item passes inspection and shows no sign of use.
8. Dispose of item if it is damaged beyond repair.
9. Refurbish item if economically repairable.

## **Refurbishing Procedures**

### **A. Cleaning**

1. Damp wipe with mild detergent solution to remove dirt, mud, and grease.
2. Let stand and dry.
3. Lubricate slide mechanism with WD 40 or similar solution.

## **B. Repair**

1. Repair/replace nuts, bolts, and pins as needed. Various nuts, bolts, and locking pins may be procured at a local hardware store.
2. Replace rubber handles.

## **C. Testing for Performance**

1. Inspect slide mechanism to see if moves freely and does not bind up when expanding tines of rake.
2. Expand all tines to see if secure and stable.

## **D. Repackaging**

- Place 10 each in carton NFES #000338 (37" x 18" x 7").

## **Pulaski – w/Plastic Sheath**

NFES Status

Active

NFES #

000146

Category

Tools

Updated

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Storage and Shelf Life Checks

None

## **Initial Inspection/Disposal Criteria**

1. Head is within specifications as per gauge (NFES# 000510).
2. Grubbing end is not bent or twisted.



3. Blade or grubbing hoe ends have not been tapered or rounded to point the tool cannot be sharpened to meet gauge standards.
4. Handle is twisted, bent, or open grain.
5. Cracks, or suspect based on sound of hammer rap on end of handle (sharp ringing sound is good; dull thud sound is suspect), or pressure application to side of handle.
6. Head is loose and/or contains metal wedges.
7. Handle has been shortened.
8. Nonstandard handle.
9. Dispose of tool if there is obvious structural damage to cutting edges or head.
10. Dispose of tool if modifications have been made to head, such as rivets through side of head to hold handle.
11. Return to stock if item does not show signs of use and passes inspection.
12. Refurbish if damage and/or use is detected and can be repaired.

## Refurbishing Procedures

### A. Cleaning

1. Remove dirt, rust and grime from head with wire brush or hose.
2. Let dry or wipe dry.
3. Wipe handle with damp cloth.

### B. Repair

1. Sharpen tool to specifications as per tool sharpening gauge NFES #000510.
2. Tool should NEVER be ground to the degree that the metal temperature raises high enough to remove temper, i.e., blue or burned edges.
3. Ensure that blade corners are square.
4. Apply rust inhibitor to tool head. Local cache option for painting tool head. **Black paint only.**
5. Sand handle if it is chipped, dinged, rough or has tape residue.
6. Wipe handle with linseed oil after sanding.
7. For handle replacement utilize NFES #001857 handle with plastic wedge.
8. Metal wedges can be added only in the field as an emergency measure for field refurbishing.

### C. Testing for Performance

- none

## D. Repackaging

1. Install plastic sheath NFES #000257.
2. Package 10 each in carton NFES #000338 carton (37" x 18" x 7").

## McLeod – 11" Wide w/Plastic Sheath

NFES Status

Active

NFES #

000296

Category

Tools

Updated

Thu, 03/01/2018 - 12:00

Storage and Shelf Life Checks

None

## Initial Inspection/Disposal Criteria

1. Inspect for obvious damage to cutting edge, rake fingers, and handle. Inspect for broken blades, loose heads, missing or severely bent fingers, short or nonstandard handles.
  1. Head
    - Blade to be at least 10 to 14 inches wide from handle base. USE TEMPLATE.
    - Handle base not tilted, bent, or distorted.
    - Blade ends have not been rounded or severely tapered so that they cannot be ground to specifications.
    - Proper angle of cutting edge as per tool sharpening gauge NFES #000510.
  2. Handle
    - Handle must be straight.
    - Inspect for cracks, chips, or open grain.
    - Head loose on handle (loose or missing rivets).
    - Inspect for tape residue, or other residue (tar, sap, etc.).

2. Return to stock if item does not show signs of use and passes visual inspection.
3. Refurbish if damage is detected in the inspection process and is repairable or handle is replaceable
4. Dispose of item if cutting edge is severely damaged, rake fingers are cracked or missing, or handle base is cracked or damaged.

## Refurbishing Procedures

### A. Cleaning and Repair

1. Head
  1. Remove dirt, rust and grime from head with wire brush or hose.
  2. Square up blade if necessary.
  3. Sharpen cutting edge 1/8-inch wide at 50° angle. Ensure that blade corners are square.
  4. Check large nut on head and tighten or replace as needed. Sharply strike rivet to tighten head to handle as needed.
  5. Apply rust inhibitor to tool head. Local cache option for painting tool head. **Black paint only.**
  6. Replace as necessary.
2. Handle
  1. Sand handle if it is chipped, dinged, rough or has tape residue.
  2. Wipe handle with linseed oil after sanding.

### B. Test for Performance

1. Ensure tool is properly sharpened with no deficiency to materials or craftsmanship.
2. Ensure head and handle are properly attached with no play caused by a loose head or handle.

### C. Repackaging

1. Install plastic sheath NFES #001854.
2. Package 10 each in NFES #000305 carton (56" x 20" x 11").

## Axe – Single Bit, 4 lb. w/Sheath

NFES Status

Active

NFES #

000707

Category

Tools

Updated

Mon, 05/01/2017 - 12:00

Storage and Shelf Life Checks

None

## Initial Inspection/Disposal Criteria

1. Inspect for obvious damage to head, cutting edges.
2. Inspect for large chips in blade or cracked head eye.
3. Inspect for any modifications to head, such as rivets through side of head to hold handle.
4. Inspect handle for twisted, bent or open grain, if handle has been shortened or is non-standard.
5. Return to stock if item shows no signs of use and passes visual inspection.
6. Refurbish if damage detected in the inspection process is repairable or handle is replaceable.
7. Dispose of item if unable to repair.

## Refurbishing Procedure

### A. Cleaning

1. Wash head and handle.
2. Wipe dry.

### B. Repair

1. Head
  - Sharpen tool to specifications according to tool sharpening gauge NFES# 000510.
  - Tools should never be ground to the degree that the metal temperature raises high enough to remove temper, i.e. blue or burned edges.
  - Ensure that blade corners are square.
  - Paint tool head with rust inhibitor (cache option.)
2. Handle
  - Sand handle if it is rough, chipped, dinged, or has any type of residue that did not come off during sanding.
  - When replacing handle, shape eye for a snug fit. Use high impact plastic or wood-type wedges with appropriate type of epoxy. Metal wedges can be added only in the field as an emergency

measure and should not be used during refurbishment.

- The bottom of the tool head should be within  $\frac{3}{8}$ "-- $\frac{5}{8}$ " of the shoulder of the handle.
- Cut excess off handle make flush with tool head after inserting wedge into handle.
- Wipe handle with rag and linseed oil.

## C. Tests for Performance

1. On the head check that blades have not been tapered or rounded to the point that tools cannot be sharpened.
2. On the handle check that it is not twisted, bent or is open-grain.
3. Grasp the handle of the tool 2- 4" from the end with the head hanging down, but not touching the ground. Using a ball peen or similar hammer give the end of the handle a firm smack. Listen to the sound it makes. If the head is tight and the handle is free of defects, it will make a clear ringing sound. If it is loose or defective you will hear a dull thud, like hitting the end of a 2 x 4.

## D. Repackaging

1. For NFES #[000707](#) install sheath (no NFES)
  - Package 12 each in NFES #000338 carton (37" x 18" x 7").
2. For NFES #[000352](#) install leather sheath NFES #000359, package per local cache requirements
3. For NFES #[000383](#) install sheath NFES #000815
  - Suggested packaging is 6 each in NFES #000385 carton (7.25" x 9.25" x 26").

## Axe – Boy's Single Bit, 24" Handle, w/Sheath

NFES Status

Active

NFES #

000352

Category

Tools

Updated

Mon, 05/01/2017 - 12:00

Storage and Shelf Life Checks

None

## Initial Inspection/Disposal Criteria

1. Inspect for obvious damage to head, cutting edges.
2. Inspect for large chips in blade or cracked head eye.
3. Inspect for any modifications to head, such as rivets through side of head to hold handle.
4. Inspect handle for twisted, bent or open grain, if handle has been shortened or is non-standard.
5. Return to stock if item shows no signs of use and passes visual inspection.
6. Refurbish if damage detected in the inspection process is repairable or handle is replaceable.
7. Dispose of item if unable to repair.

## Refurbishing Procedure

### A. Cleaning

1. Wash head and handle.
2. Wipe dry.

### B. Repair

1. Head
  - Sharpen tool to specifications according to tool sharpening gauge NFES# 000510.
  - Tools should never be ground to the degree that the metal temperature raises high enough to remove temper, i.e. blue or burned edges.
  - Ensure that blade corners are square.
  - Paint tool head with rust inhibitor (cache option.)
2. Handle
  - Sand handle if it is rough, chipped, dinged, or has any type of residue that did not come off during sanding.
  - When replacing handle, shape eye for a snug fit. Use high impact plastic or wood-type wedges with appropriate type of epoxy. Metal wedges can be added only in the field as an emergency measure and should not be used during refurbishment.
  - The bottom of the tool head should be within  $\frac{3}{8}$ "-- $\frac{5}{8}$ " of the shoulder of the handle.
  - Cut excess off handle make flush with tool head after inserting wedge into handle.
  - Wipe handle with rag and linseed oil.

### C. Tests for Performance

1. On the head check that blades have not been tapered or rounded to the point that tools cannot be sharpened.

2. On the handle check that it is not twisted, bent or is open-grain.
3. Grasp the handle of the tool 2- 4" from the end with the head hanging down, but not touching the ground. Using a ball peen or similar hammer give the end of the handle a firm smack. Listen to the sound it makes. If the head is tight and the handle is free of defects, it will make a clear ringing sound. If it is loose or defective you will hear a dull thud, like hitting the end of a 2 x 4.

## D. Repackaging

1. For NFES #[000707](#) install sheath (no NFES).
  - Package 12 each in NFES #000338 carton (37" x 18" x 7").
2. For NFES #[000352](#) install leather sheath NFES #000359, package per local cache requirements.
3. For NFES #[000383](#) install sheath NFES #000815.
  - Suggested packaging is 6 each in NFES #000385 carton (7.25" x 9.25" x 26").

## Axe – 3-5lb., 26" Straight Handle w/Sheath

NFES Status

Active

NFES #

000383

Category

Tools

Updated

Mon, 05/01/2017 - 12:00

Storage and Shelf Life Checks

None

## Initial Inspection/Disposal Criteria

1. Inspect for obvious damage to head, cutting edges.
2. Inspect for large chips in blade or cracked head eye.
3. Inspect for any modifications to head, such as rivets through side of head to hold handle.
4. Inspect handle for twisted, bent or open grain, if handle has been shortened or is non-standard.
5. Return to stock if item shows no signs of use and passes visual inspection.
6. Refurbish if damage detected in the inspection process is repairable or handle is replaceable.

7. Dispose of item if unable to repair.

# Refurbishing Procedure

## A. Cleaning

1. Wash head and handle.
2. Wipe dry.

## B. Repair

1. Head
  - Sharpen tool to specifications according to tool sharpening gauge NFES# 000510.
  - Tools should never be ground to the degree that the metal temperature raises high enough to remove temper, i.e. blue or burned edges.
  - Ensure that blade corners are square.
  - Paint tool head with rust inhibitor (cache option.)
2. Handle
  - Sand handle if it is rough, chipped, dinged, or has any type of residue that did not come off during sanding.
  - When replacing handle, shape eye for a snug fit. Use high impact plastic or wood-type wedges with appropriate type of epoxy. Metal wedges can be added only in the field as an emergency measure and should not be used during refurbishment.
  - The bottom of the tool head should be within  $\frac{3}{8}$ "-- $\frac{5}{8}$ " of the shoulder of the handle.
  - Cut excess off handle make flush with tool head after inserting wedge into handle.
  - Wipe handle with rag and linseed oil.

## C. Tests for Performance

1. On the head check that blades have not been tapered or rounded to the point that tools cannot be sharpened.
2. On the handle check that it is not twisted, bent or is open-grain.
3. Grasp the handle of the tool 2- 4" from the end with the head hanging down, but not touching the ground. Using a ball peen or similar hammer give the end of the handle a firm smack. Listen to the sound it makes. If the head is tight and the handle is free of defects, it will make a clear ringing sound. If it is loose or defective you will hear a dull thud, like hitting the end of a 2 x 4.



## D. Repackaging

1. For NFES #[000707](#) install sheath (no NFES).
  - Package 12 each in NFES #000338 carton (37" x 18" x 7").
2. For NFES #[000352](#) install leather sheath NFES #000359, package per local cache requirements.
3. For NFES #[000383](#) install sheath NFES #000815.
  - Suggested packaging is 6 each in NFES #000385 carton (7.25" x 9.25" x 26").