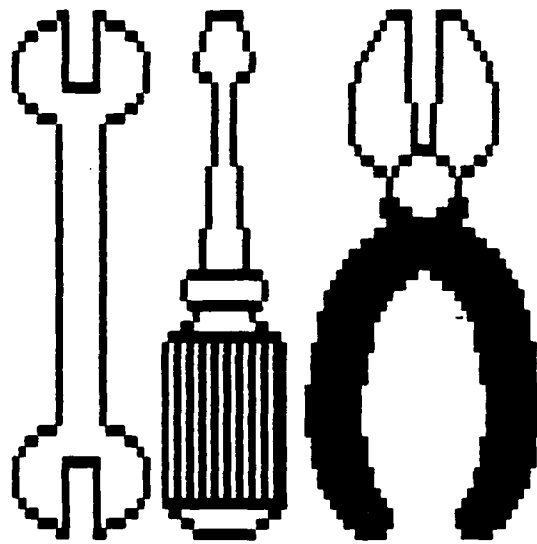




AIR FORCE WARRANTED HAND

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REPORT NUMBER 86 - 0580

TITLE THE AIR FORCE WARRANTED HAND TOOL PROGRAM AT BASE LEVEL

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Submitted to the faculty in partial fulfillment of
requirements for graduation.

AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT STATEMENT "A" Approved for public release; Distribution is unlimited.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE		4. PERFORMING ORGANIZATION REPORT NUMBER(S) 86 - 0580		
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION ACSC/EDCC	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State and ZIP Code) Maxwell AFB AL 36112 - 5542		7b. ADDRESS (City, State and ZIP Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State and ZIP Code)		10. SOURCE OF FUNDING NOS.		
11. TITLE (Include Security Classification) THE AIR FORCE WARRANTED HAND		PROGRAM ELEMENT NO.	PROJECT NO.	
		TASK NO.	WORK UNIT NO.	
12. PERSONAL AUTHOR(S) Connolly, John M., Major, USAF; Gallas, Randolph W., Major, USAF				
13a. TYPE OF REPORT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Yr., Mo., Day) 1986 April	15. PAGE COUNT 57	
16. SUPPLEMENTARY NOTATION ITEM 11: TOOL PROGRAM AT BASE LEVEL				
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP			SUB. GR.
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This study examined the present General Services Administration and Air Force Warranted Hand Tool Program contracting and management practices. The study recommended: multi-year contracting, recycling commercially warranted hand tools, a manpower study, special tool identification markings and Air Force manual updates.				
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input checked="" type="checkbox"/> DTIC USERS <input type="checkbox"/>		21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL ACSC/EDCC Maxwell AFB AL 36112		22b. TELEPHONE NUMBER (Include Area Code) 205-293-2483	22c. OFFICE SYMBOL	

PREFACE

The purpose of this project is to determine if the present General Services Administration and Air Force Warranted Hand Tool Program contracting and management practices will create administrative and inventory problems at base level. This report was prepared based upon interviews and information obtained from many dedicated individuals within the USAF and the General Services Administration. Special recognition and appreciation is extended to Major Norman Wigton and Captain Travis Wheeler (AFLMC) for having retained a very accurate and comprehensive project file on the Air Force Warranted Hand Tool Program.

The Air Force Logistics Management Center (AFLMC) sponsored this study to determine if there were any adverse impacts contained within the Warranted Tool Program Implementation Plan published by AFLMC.

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REPORT NUMBER 86 - 0580

AUTHOR(S) MAJOR JOHN M. CONNOLLY, USAF
MAJOR RANDCLPH W. GALLAS, USAF

TITLE THE AIR FORCE WARRANTED HAND TOOL PROGRAM AT BASE LEVEL

→ *The purpose of this report*

I. Purpose: To determine^S if the present General Services Administration (GSA) and Air Force Warranted Hand Tool Program (AFWHTP) contracting and management practices will create administrative and management problems at base level.

II. Problem: > There is a continuing problem of high breakage rates of Air Force tools in the aircraft, missile, and munitions maintenance shops. Other concerns of the AFWHTP are GSA's method of tool procurement, the new competition in contracting legislation and management of the program at base level. ↙

III. Data: An in-depth feasibility study of the use of lifetime warranted hand tools in Air Force jet engine repair shops was conducted by the Air Force Logistics Management Center (AFLMC) in 1980. Based on the successful test results, the Air Force gradually expanded the program between 1980 and 1985. In 1982 GSA awarded the first AFWHTP contract to the Snap-On Tool Co. and the Fraunholtz Tool Co. Additionally, the program was expanded to all propulsion branches in the CONUS. Within a few months after contract award, the Fraunholtz Tool Co. declared bankruptcy and the contract was terminated. In 1983 the Snap-On Tool Co. received a follow-on purchase contract. This kept the program alive despite problems associated with a DoD/IG audit of the program. In 1984 the USAF extended the program to overseas

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propulsion branches. In 1985 the AFWHTP was expanded to all aircraft and missile maintenance shops worldwide. In June 1985 GSA awarded a six-month contract to the EASCO Tool Co. for 73 tools. A new procurement package for 203 warranted hand tools is under evaluation. A contract award is anticipated in February 1986.

IV. Conclusions: The USAF Warranted Hand Tool Program adds a new dimension to procuring high strength, quality hand tools in the aircraft and missile maintenance complexes. Multi-year contracting along with competition should ensure the USAF will receive an initial lower acquisition cost. However, some problems still exist that detract from a smooth running program. Identical line item tools purchased under the AFWHTP from multiple vendors have the same National Stock Number (NSN). Tools purchased under different contracts will have a different initial purchase price. Base supply computers cannot contain more than one item price per NSN. Additionally, the program will require additional manhours in processing warranty exchanges. Further, tools purchased under previous contracts were not stamped (by the manufacturer) as tools purchased under the warranty contract. This made it impossible for base supply personnel to distinguish between identical warranted and non-warranted tools. Finally, warranty exchange procedures must be included in a permanent and readily available USAF publication.

V. Recommendations: The authors offer the following recommendations to enhance the overall base level management of the AFWHTP. First, GSA should make every effort to procure warranted tools under the multi-year contract concept. Second, since base level computers cannot contain more than one price per NSN, further investigation may be required to solve the problem of identifying the initial purchase price of a warranted tool. Third, with the increase in manhours involved in processing replacement warranted hand tools, HQ USAF/LEYS should monitor the impact the program actually has on base level resources over the next several years. Fourth, GSA should continue to require the manufacturer to stamp special AFWHTP markings on tools purchased under the contract. Finally, individual vendor contract information and exchange procedures must be contained in a permanent USAF publication.

Chapter One

INTRODUCTION AND HISTORY

In the mid-70's the United States Air Force recognized a significant problem existed with a decrease in the quality of hand tools used in aircraft maintenance organizations. In 1978 HQ SAC requested the Air Force Logistics Management Center (AFLMC) to investigate the problem. They conducted an in-depth feasibility study of the use of lifetime warranted hand tools in aircraft maintenance activities. In 1980 AFLMC published the results of the study and concluded the concept would save the USAF millions of dollars per year. The AFLMC recommended a test and evaluation of the concept be accomplished to verify the results.

After three years of test and evaluation, AFLMC verified the results of the study. The published 1983 final test report recommended full implementation of the concept. As a result, HQ USAF/LEY implemented the Air Force Warranted Hand Tool Program (AFWHTP) in June 1985. The implementation included all aircraft, missile, and munitions maintenance activities worldwide. This study was conducted to determine if the General Services Administration's (GSA) current method of procuring warranted hand tools for the Air Force creates control and management problems at base level.

This report summarizes the results of the study. Chapter 2 addresses the pros and cons of lifetime warranties and contract competition versus sole source procurement practices. Chapter 3 describes how the program was managed at base level during the test program and how it will be managed in the future. Chapter 4 provides the results and conclusions, and Chapter 5 outlines the recommendations. The remainder of this chapter will discuss the history of the AFWHTP beginning with the 1980 AFLMC feasibility study.

In January 1980 AFLMC published the warranted hand tool feasibility study final report. The report concluded:

Data collected by the Air Force Logistics Management Center indicated that selected replacement of high failure rate tools with warranted tools will substantially decrease hand tool expenditures. Through

use of warranted tools, the Air Force can realize an estimated savings of 2 million dollars per year after payback (9:1).

In 1980 AFLMC, SAC, and the Productivity, Reliability, Availability, and Maintainability (PRAM) office of the Aeronautical System Division (AFSC/ASD) conducted a six-month high quality hand tool test at four SAC bases. Only the propulsion branch of each field maintenance squadron was involved. The two test bases (19 BMW, Warner Robins AFB and 5 BMW, Minot AFB) were equipped with high quality hand tools. The two control bases (319 BMW, Grand Forks AFB and 68 BMW, Seymour Johnson AFB) were monitored for tool usage under existing conditions. PRAM and SAC jointly published the final report.

The PRAM/SAC final report concluded: "The results of our test make it clearly evident that substantial savings could be realized if our tool inventory consisted of high quality tools. Warranted tools should be put to widespread use in the Air Force. . ." (5:3). After the six-month test period PRAM explored the possibility of achieving the same results by changing military specifications for tool procurement.

Based on the successful test results, the AFLMC gradually expanded the test program between 1980 and 1985. In 1982 GSA awarded the first AFWHTP contract to Snap-On Tool Co. and Fraunholtz Tool Co. Additionally, AFLMC expanded the test to all propulsion branches in the CONUS. Within a few months after contract award, the Fraunholtz Tool Co. declared bankruptcy and the contract was terminated. In 1983 the Snap-On Tool Co. received a follow-on purchase contract. In 1984 the USAF extended the program to overseas propulsion branches, and in 1985 the AFWHTP was expanded worldwide.

In June 1985 GSA awarded a six-month contract to the EASCO Tool Co. for 73 tools with an option to extend beyond December 1985 for another six months. This extension is currently being worked while a new procurement package for 203 warranted hand tools is under evaluation. A contract award is anticipated in February 1986.

The GSA Tool Commodity Center is the purchasing agency for all DoD hand tools. On September 9, 1985, GSA sent out a solicitation to prospective bidders for long term warranted tools. The solicitation was for a two year period covering 203 warranted hand tools, with options to purchase additional hand tools. The solicitation contained six groups of tools each covering a minimum warranty period for 10 years with a negotiated number of additional years (1 to 20) after expiration of contract. Official bidding on the solicitation closed on October 24, 1985 (3:1). An evaluation of the best proposal will be

complete within 90 days of the close of bidding. As part of the selection criteria, GSA identified the following factors in their request for proposal (3:24).

- (1) Ensure the vendor has at least a 10 year warranty provision for each group of tools.
- (2) Ensure the vendor can handle overseas bases in all theaters of operation.
- (3) Ensure the economic benefits of on-base versus off-base tool exchange of unserviceable warranted tools is considered.
- (4) Ensure each tool is permanently marked in some manner to identify them as warranted items and permit identification with the specific vendor. In addition, tools must be marked with the year of warranty expiration.
- (5) Ensure the vendor's method of delivering replacement tools, i.e., hand, postal service, or freight, reach their destination within the required delivery time.

The selection criteria shown above are included in the current contract proposal. This chapter discussed the history of the AFWHTP and how the previous contracts were awarded. Chapter 2 will further investigate GSA's procurement methods.

Chapter Two

GSA PROCUREMENT PRACTICES

The GSA Tool Commodity Center is the responsible procurement agency for all USAF warranted hand tool procurement contracts. The overall contract administration, which includes solicitations, evaluations, negotiations, and contract award, rests with GSA. To understand the procurement methods and contracting strategies involved, an examination of those events leading to contract award are necessary.

Over the past few years there has been an increasing emphasis on reliability, maintainability and supportability of purchased items from industry. This shift of policy toward quality and durability has raised the issue of warranties on items purchased by the Air Force. In April 1981 the Department of Defense Acquisition Improvement Plan, initiated by then Deputy Secretary of Defense Frank Carlucci, emphasized incentives to improve the quality and reliability of items purchased throughout the DoD. In March 1983 Congress required the purchase of warranties in the DoD Appropriation Act (1:9).

For background, prior to the 1984 DoD Appropriation Act, government policy was not to automatically buy a warranty. Normally, the government's liability would be to inspect and test items prior to acceptance. After delivery, the risk related to performance and the responsibility for maintenance would then pass to the government. Today, GSA procurement practice is to purchase a warranty when economically feasible (25:--). The Congressional direction is clear, but the manner and methods used by the contracting agency to comply with warranties can be interpreted in many ways. The warranty can range from simple quality of workmanship to an all encompassing total performance warranty. The possibilities in-between are only limited to the responsible agency drafting the special contractual language for warranties.

Standard contractual language (normally referred to as "boilerplate") is available for buying a warranty. In the case of the AFWHTP, contracting officers are authorized to modify these standard clauses, as appropriate, to fit the particular procurement (25:-). Generally, the warranty must specify the extent of coverage to indicate what components or specifications

are warranted, the time period, the specific responsibilities of the contractor, the replacement agreements, and the procedure for processing warranty notice. With careful planning, a warranty can motivate the contractor to design in less failure so there will be less time fixing or replacing items during the warranty period.

From the contractor's point of view, the contractor has to be concerned about the environment in which the tools will be used. Uncertainty over the skill level of personnel handling the tools makes vendors uneasy. Mishandling or improper use of the tool could cause damage, resulting in replacement and additional cost to the contractor. Contractual language in the AFWHTP states that the warranty is null and void if the tool is misused, abused, or altered from its original design (3:23). Practices such as heating and bending wrenches for special applications, bending screwdrivers by using them as pry bars, and grinding socket walls to increase clearances between surfaces are examples which will void the warranty. As shown, the special clause provisions built into the AFWHT contract can protect both the contractor and the government.

In the first USAF warranted hand tool contract, an incentive was built in the solicitation to reward the vendors who offered longer warranty periods. Normally, the longer the warranty period, the higher the quality of the tool. However, the contractor takes additional risk and makes up the difference by increasing the cost of the tool proportionate with the warranty period.

Five vendors submitted bids for the first contract. After negotiations by GSA, two contracts were awarded for 95 tools. The first contract was awarded in February 1982 to the Snap-On Tool Co. for 83 tools (Appendix A). The Snap-On Tool Co. offered a lifetime warranty with no exclusion clause and replaced broken tools with on-base servicing. A supplemental contract was awarded in April 1982 to the Fraunholtz Tool Co. for 12 tools. The Fraunholtz Tool Co. agreed to guarantee these tools for 15 years with replacement of broken tools through mail exchange (8:5).

However, after one year, problems developed with the Fraunholtz Tool Co. Fraunholtz, a small business company, was unable to make deliveries and failed to comply with tool exchange clauses in the contract. After numerous attempts to get the contractor to comply, the USAF determined the company went bankrupt. At the convenience of the government, GSA terminated the contract to Fraunholtz on 9 May 1983 due to non-compliance with contract requirements. From this situation, the Air Force learned a very valuable lesson, i.e., the vendor must be reliable. In order to prevent this situation from occurring in the future, GSA is requiring a guarantee and a performance bond

from the vendor (3:27). Regardless of the actions taken against Fraunholtz, the Air Force considered the first contract award to the Snap-On Tool Co. a success.

As a result of the initial success, the program was gradually expanded between 1982 and 1985. In June 1985 GSA awarded a six-month contract to the EASCO Tool Co. for 73 tools (Appendix B). Also, the list of tools authorized for purchase in subsequent contracts was expanded to 203 tools (Appendix C). Additionally, consideration was given to other services. In 1984 the Office of the Assistant Secretary of Defense for Logistics and Material authorized the Army and Navy to expand procurement. These service components, along with the Air Force, must insure that the benefits, quantitatively and qualitatively, outweigh the factors dealing with increased initial procurement costs. Also, they must insure full and open competition policies are used (11:1).

The full and open competition versus the non-competition or sole source procurement practice has become a new way of life in selecting contractors for government contract awards. The passage of the Competition In Contracting Act (CICA) in July 1984 has placed new emphasis on the free-enterprise system. The purpose of CICA is to encourage and stimulate contractors to bring about innovation, fair pricing, reliability, and cost savings to the government. On 11 August 1983, in a memorandum to the heads of the Executive Departments and Agencies, President Reagan stated: "Competition is fundamental to our free enterprise system. It is the single most important source of innovation, efficiency, and growth in our economy" (7:F6). He also directed the Administration for Federal Procurement Policy to issue a formal policy directive establishing government wide restrictions on the use of non-competitive procurement. This policy directive contains six objectives (7:F2):

- 1) Communicate to program and procurement personnel a strong commitment to competition.
- 2) Promote advance procurement planning, market research and early communication between program and procurement personnel to identify opportunities for competition early in the acquisition cycle.
- 3) Strictly enforce the requirement for complete justification of non-competitive procurements and careful scrutiny by review officials.
- 4) Take reasonable steps, where competition is impracticable, to remove or overcome barriers to competition for subsequent procurements.

5) Provide appropriate training.

6) Use data systems to track non-competitive procurements and progress toward increasing competition.

However, competition buying does not necessarily imply the lowest bidder, it means the best value for the taxpayers dollar (2:3). In the current GSA solicitation, open competition was used to seek out vendors to compete for the 203 warranted hand tools. A sole source to one vendor could not be justified. Therefore, multiple vendors have submitted proposals to GSA for the current contract. However, if GSA selects multiple vendors problems could develop. For instance, in SAC, TAC, and MAC, supply and maintenance personnel feared that multiple vendors would place demands on accountability and warranty administration procedures (17,21,22,23:--). Further explanation on these procedures will be examined in Chapter 3. One positive outlook from the personnel contacted was that they agreed multi-year contract awards were beneficial. There are several advantages to GSA, the Air Force, and the contractor for multi-year contracts in the AFWHTP. First, it is expected that each contractor will be more price competitive by amortizing start-up and capitalization costs over a longer period of time. Second, a more cohesive contractor/government relationship would develop. As a result of these actions, overall contracting and warranty administration costs would be reduced (6:1). The issue of selecting one or several vendors by GSA will not be known until after the completion of this report.

In summary, this chapter explained the special provisioning clauses that contained warranty requirements and the GSA procurement strategies as they related to competition versus sole source methods. The next chapter examines the base level management procedures once the contract is awarded by GSA.

Chapter Three

BASE LEVEL MANAGEMENT

The intent of this study is to determine what impact the AFWHTP will have on base level managers. To fully understand how the warranted tool program will be managed at base level, this chapter discusses how the program was managed during the test phase. It provides the results of a Department of Defense (DoD) Inspector General (IG) audit of the program, and the impact the audit had on implementing the program. Finally, this chapter addresses the policies and procedures currently in effect to manage the program. Current policies differ slightly from the test program because, with the exception of the few tools from the Fraunholtz Tool Co., all of the tools were supplied by the Snap-On Tool Co.

The Snap-On Tool Co. provides on-site replacement of broken tools. During the test, propulsion branch tool issue sections would exchange broken tools at the base supply service store. As bin quantity levels lowered at the base service store, supply personnel would simply call the local Snap-On dealer, and the representative would come to the base to exchange the broken tools. In accordance with the AFLMC test plan, all over-the-counter tool exchanges were supposed to be entered into the base supply computer for audit and tracking purposes. However, Snap-On tools identical to those purchased under the AFWHTP contract are listed in the GSA catalogue and can be purchased through the USAF supply system. For example, when the 2nd Consolidated Aircraft Maintenance Squadron (CAMS), Barksdale AFB, was formed in 1982, they purchased a large quantity of Snap-On tools. These tools were not purchased under the AFWHTP contract. Utilizing Snap-On's commercial lifetime warranty, the squadron contacted the local Snap-On Tool Co. representative directly for broken tool replacement (19:--). Currently, base supply policies do not exist for commercially warranted hand tool exchange. Although these tools were not purchased under the AFWHTP contract, the Snap-On Tool Co. honored their commercial lifetime warranty provisions. Because the Snap-On Tool Co. provides an easy on-site service, it is conceivable that some shops will exchange AFWHTP tools directly with the vendor and bypass base supply.

Dealing primarily with the Snap-On Tool Co. representative for the last three years made it very easy for base supply personnel to manage the AFWHTP program. But in the future, tools may be supplied from multiple vendors because of the reasons stated in Chapter 2. The majority of these vendors will not provide on-site tool exchange. Off-site tool exchange will require the vendor to provide the base with a prepaid shipping container. This procedure will require additional manhours expended by base supply personnel in preparing and shipping broken tools back to the vendor. Also, base service store personnel will continue (from test procedures) to enter four computer transactions for each on-site tool exchange and five transactions for each off-site tool exchange (4:26). During the test phase, manpower expenditures had little effect on base level resources because the implementation plan was limited to only certain jet engine shops. In 1983 the AFLMC began to expand the program to additional jet engine shops.

However, in March 1983 the Department of Defense Inspector General (DoD/IG) delayed the expanded program. They conducted an audit of hand tool accountability within the DoD. Specifically, the audit was directed at warranted hand tools at Tinker AFB (14:1). Based on the audit findings, in May 1983 the DoD/IG told the Air Force to discontinue the AFWHTP (13:1). However, after an in-depth review of the program, in October 1983 the DoD/IG agreed the program should be continued provided there was a verifiable audit trail and strict controls were placed on tool accountability (12:4).

Since 1973 the USAF has provided for strict tool accountability through the Composite Tool Kit (CTK) program at base level. Sound management of the CTK program in all aircraft, missile, and munitions maintenance squadrons greatly contributed to the DoD/IG's concurrence to continue the program.

The CTK program was designed to reduce tool inventory requirements and to reduce loss rates on tools. Reducing inventory would save money and reducing loss rates would not only save money spent for tool replacements, it would also reduce foreign object damage caused by lost tools (8:1-2).

Strict tool accountability must be established in the maintenance shops and in base supply. Additionally, warranted hand tools must be segregated from non-warranted hand tools. As specified in AFM 67-1 individuals authorized to receive warranted tools must be designated (in writing) by the unit deputy commander for maintenance (4:25). Also, strict accountability and audit practices must be employed at all levels in the program to prevent theft.

Accountability and audit practices were emphasized in the 1984 AFLMC implementation plan (15:5). However, because of the DoD/IG audit, GSA procurement of tools was delayed one year. Because of this delay only 95 of the original 203 line items were purchased (15:1). This delay also led to a partial award of the subsequent contract which resulted in only a six-month contract for 73 line items (16:1). The low quantity of tools purchased, coupled with the possibility of multiple vendors, and off-site tool exchange procedures created concern among base level managers.

MAC was the first command to express concern over base level management of the program. In August 1985 HQ MAC/LGS sent a message to HQ USAF/LEYS which stated:

Our primary concern--GSA involvement in the program. . . . Just since 1984 one contract has been let to Snap-On and another to EASCO. . . . Currently the Snap-On tools are carried under one set of stock numbers and EASCO tools are carried under another (although they are the same tool). . . . It is not unrealistic to assume that we could end up with 5-10 manufacturers supplying us with the same tool, 5-10 stock numbers assigned to one tool, subsequently requiring 5-10 warehouse locations assigned for the same tool, and 5-10 manufacturing companies to return defective tools to (10:1).

Individual tools purchased under AFWHTP contracts will receive the same National Stock Number (NSN) regardless of vendor (24:--). Several vendors will supply warranted tools under these contracts. Each vendor will specify their tool exchange procedure in the contract. Warranted tools will receive a different NSN than identical non-warranted tools and require a separate warehouse location. However, demand for replacement line items will be low. As a result, individual bin stock levels will be low, requiring a minimum amount of additional space.

Although additional space may be a minor problem in some smaller units, a significant impact on the program is the requirement for the manufacturer to permanently identify a tool as purchased under the AFWHTP contract. As a minimum, this identification must include manufacturer, warranty identification (by contract number or other means), and warranty expiration date. This requirement was not specified in the first contract award to the Snap-On Tool Co. and base level managers had difficulty distinguishing between the Snap-On Tool Co. warranted and non-warranted hand tools (20:--). Although today the Snap-On Tool Co. provides a commercial lifetime warranty on all their tools, this warranty could be discontinued in the future. Without a manufacturer's permanent mark on the tool, the vendor is under

no obligation to honor the warranty provisions of the USAF contract.

Tools purchased under the AFWHTP guarantees the USAF that a particular tool has a warranty for a specific time period. Identical non-warranted tools purchased from the same vendor through the normal GSA process does not guarantee the commercial warranty provisions. Because of the way GSA must purchase tools, a steady supply of high quality hand tools cannot be guaranteed in the supply system without the AFWHTP. This is what happened in the mid 70's that prompted the AFLMC study and implementation of this program.

Since the program expanded in 1984, AFM 67-1 has been revised to include warranted tool management within base supply. The procedures outlined in the manual are very specific; however, two significant problems exist. First, the manual does not provide (or reference) the manufacturer's vital contract information or replacement procedures. Base supply managers must have current and readily available processing information for each vendor under contract. This is especially important with multiple vendors, since two distinct exchange procedures are involved.

Second, but more important, individual tool prices will vary with each contract. Since identical tools will be assigned the same NSN, regardless of vendor, multiple tool prices cannot be entered into the supply computer under one NSN. This can lead to the using organization being charged the wrong price for an initial or replenishment issue tool. For example, the year now is 1990. The using organization takes a screwdriver to base supply for warranty exchange. However, the tool was misused and cannot be exchanged under the existing contract. To replace the screwdriver the organization must buy a new tool. In the bin, supply has five screwdrivers with the same NSN, but provided by five different vendors. Each screwdriver also has a different initial purchase price (assumed to escalate with inflation) depending on the year the contract was awarded. A second example could involve the same scenario with a new organization establishing an initial issue. Supply personnel will not have a computerized record of the individual prices.

Price record keeping was only one of the problems identified in this chapter. It also discussed the evolution of the AFWHTP, the problems encountered during the DoD/IG audit, and problems base level managers will encounter in the future. The next chapter will discuss the study results and conclusions.

Chapter Four

STUDY RESULTS AND CONCLUSIONS

Through the efforts of many people who accomplished the studies and tests described in the previous chapters, the AFWHTP has proven to be a very successful and cost effective program. As discussed, some problems still exist that detract from a smooth running program. This chapter summarizes the results and conclusions of this study beginning with multi-year contracting.

Multi-year contracting is a benefit to both the contractor and the government since the contractor can amortize his costs over a longer period of time. The impact of this will be lower acquisition costs to the government.

Competition among hand tool contractors is mandated by government legislation. This condition could result in multiple contract awards with each vendor having different warranty provisions. The complexity and costs to effectively administer several warranty provisions will increase as the number of vendors supplying warranted tools increase.

GSA has purchased and distributed, to all government agencies, a large inventory of tools from multiple vendors that provide a limited or lifetime commercial warranty. However, these tools are not readily identifiable by the brand name, and when they wear out or break they are simply discarded. A tool's brand name can be deceiving. For example, GSA's second AFWHTP contract award went to the EASCO Tool Co. EASCO manufactures all "Craftsman" tools for the Sears and Roebuck Co. Sears offers a lifetime replacement of any "Craftsman" tool that breaks. There are many more manufacturers that provide high quality hand tools with various types of commercial warranties such as Utica, MAC, Cornwell, Armstrong, and S-K Tools (9:23). The US government, as a whole, could achieve a significant cost savings if these broken or defective tools could be exchanged at a reasonable cost.

In contrast to a cost savings, the AFWHTP will increase the manhours involved in processing replacement warranted hand tools. As previously stated, base supply personnel will have to exchange broken tools over-the-counter. However, they will also have to package, ship, and trace the tools to vendors that do not provide on-site warranty exchange. In conclusion, many manhours will be

expended in processing the extra computer transactions required for accountability and audit purposes.

Tools purchased under the AFWHTP must have a special program identification stamped on the tool by the manufacturer. The Snap-On Tool Co. tools purchased under the first contract did not have this special identification. As a result, the tools purchased by the AFWHTP/GSA contract look identical to the Snap-On tools purchased by other GSA contracts. The Air Force is paying additional money under the program to guarantee a specific warranty which will remain in effect for a specific period of time. The increase in initial purchase price for a warranty is justified to ensure high quality hand tools remain in the Air Force supply system (9:1). However, if base level managers cannot specifically identify a warranted tool, the vendor is under no obligation to honor the warranty agreement. Loss of the increased purchase price could jeopardize a valuable program.

Once the tool is identified, base supply personnel must have accurate warranty exchange procedures readily available to process the tool. Individual contract information and vendor replacement procedures must be contained in a permanent USAF publication, such as AFM 67-1. Implementation plans are designed to get a new program started and are not expected to be retained for a long time. A format similar to that used in the AFLMC 1985 implementation plan must be added to a publication readily available to base level managers (16:23-26). The information must also be updated to insure addresses, telephone numbers, and vendor replacement procedures remain current. Without current information, base level managers will not be able to manage the program effectively.

Effective management of the program must also extend to the possible problem of multiple acquisition cost of tools assigned the same NSN. Initial acquisition cost of an individual tool may differ between contracts, but only one price for that tool can be entered into the supply system computer. Base supply will maintain a certain stock level of each line item. A problem could exist in charging a using organization's account the current contract price for a tool that was purchased for a lesser amount under a different contract. Base supply personnel cannot maintain a complete initial purchase price list of all tools purchased under different contracts.

This chapter has summarized the results of the study which discussed multi-year contracting, competition legislation, increased manhours and accountability procedures, special identification stamps, and how multiple prices cannot be assigned to one NSN. The next chapter provides the authors suggested recommendations.

Chapter Five

RECOMMENDATIONS

Based on the conclusions stated in Chapter 4, the authors provide the following recommendations.

When economically feasible, GSA should make every effort to award multi-year contracts. This allows the contractor to amortize his start-up and capitalization costs over a longer period of time which may result in a lower acquisition cost to the government.

Assuming GSA procures a large quantity of commercially warranted hand tools, a government wide feasibility study should be conducted to determine if recycling these tools is cost effective.

With the increase in manhours involved in processing replacement warranted hand tools, HQ USAF/LEYS should monitor the impact the program actually has on base level resources over the next several years. If significant time is expended on the program, then either an additional manpower authorization should be added or the intermediate computer transactions should be streamlined for efficiency.

In order for base supply personnel to identify warranted versus non-warranted tools, GSA must require the manufacturer to stamp special AFWHTP contract markings on tools.

The individual vendor contract information and exchange procedures should be contained in a permanent USAF publication such as AFM 67-1. This information must be continually updated to insure the addresses, telephone numbers, and vendor replacement procedures remain current.

Finally, further study may be warranted to determine if new technology will permit assigning multiple acquisition prices to individual NSN's for strict cost accountability.

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APPENDICES

APPENDIX A

THE SNAP-ON TOOL CO. WARRANTED TOOL LIST

<u>NATIONAL S.N.</u>	<u>VENDOR</u>	<u>PART NO.</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
5120-PWT-0001	SNAP-ON	CP-3A	\$ 5.96	Extractor, Cotter Key, Screwdriver Type Handle, 4-6 inches under the handle with bent point
5120-PWT-0002	SNAP-ON	96CP	\$10.35	Needle Nose Pliers, 6"
5120-PWT-0003	SNAP-ON	91CP	\$10.65	Slip Joint Pliers, 10" Multiple Tongue and Groove
5120-PWT-0004	SNAP-ON	87CP	\$12.83	Diagonal-Cutting Pliers, 7 1/2" without Cushion Throat, Without Stripping Notches

SCREWDRIVERS

5120-PWT-0006	SNAP-ON	SSD-1	\$ 3.56	Common Screwdriver 1 1/2" Straight Tip, 3/16" X .030 tip size
5120-PWT-0007	SNAP-ON	SSD-2	\$ 3.56	Common Screwdriver 3" Flared Tip, 7/32" X .032 tip size
5120-PWT-0008	SNAP-ON	SSD-4	\$ 4.35	Common Screwdriver 4" Flared Tip, 1/4" X .037 tip size
5120-PWT-0009	SNAP-ON	SSD-6	\$ 5.48	Common Screwdriver 6" Flared Tip, 5/16" X .042 tip size
5120-PWT-0010	SNAP-ON	SSD-8	\$ 7.24	Common Screwdriver 8" Flared Tip, 3/8" X .050 tip size
5120-PWT-0011	SNAP-ON	SSDP-22	\$ 3.82	Phillips Screwdriver #2; 1 1/2" Blade Length
5120-PWT-0012	SNAP-ON	SSDP-31	\$ 3.86	Phillips Screwdriver #1; 3" Blade Length
5120-PWT-0013	SNAP-ON	SSDP-42	\$ 5.25	Phillips Screwdriver #2; 4" Blade Length
5120-PWT-0014	SNAP-ON	SSDP-63	\$ 6.86	Phillips Screwdriver #3; 6" Blade Length

<u>NATIONAL S.N.</u>	<u>VENDOR</u>	<u>PART NO.</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
5120-PWT-0015	SNAP-ON	SSDP-64	\$ 8.63	Phillips Screwdriver #4; 8" Blade Length
REVERSIBLE RATCHET WRENCHES - CHROMEPLATED				
5120-PWT-0016	SNAP-ON	TM-75	\$14.55	Ratchet, 1/4" drive
5120-PWT-0017	SNAP-ON	F-730	\$19.01	Ratchet, 3/8" drive
5120-PWT-0018	SNAP-ON	SL-710	\$29.40	Ratchet, 1/2" drive
SPEED HANDLES WITH REVOLVING END HANDLE, CHROMEPLATED				
5120-PWT-0019	SNAP-ON	TMS-4D	\$ 9.45	Speed Handle, 1/4" drive
5120-PWT-0020	SNAP-ON	F4-LA	\$ 9.94	Speed Handle, 3/8" drive
EXTENSIONS, SAME DRIVE SIZE ON MALE AND FEMALE ENDS. CHROMEPLATED				
5120-PWT-0021	SNAP-ON	TMX-60	\$ 4.39	Extension 1/4" drive x 6"
5120-PWT-0022	SNAP-ON	FX-2	\$ 4.69	Extension 3/8" drive x 3"
5120-PWT-0023	SNAP-ON	FX-8	\$ 6.64	Extension 3/8" drive x 9"
5120-PWT-0024	SNAP-ON	FX-11	\$ 7.54	Extension 3/8" drive x 12"
UNIVERSAL JOINTS, SAME SIZE DRIVE ON MALE AND FEMALE ENDS. CHROMEPLATED				
5120-PWT-0025	SNAP-ON	TMU-8	\$ 9.19	Joint, Universal, 1/4"
5120-PWT-0026	SNAP-ON	FU-8A	\$ 9.86	Joint, Universal, 3/8"
UNIVERSAL-JOINT SOCKETS, HIGH STRENGTH, THIN WALL DESIGN. CHROMEPLATED, SOCKET END IS 12 POINT.				
5120-PWT-0027	SNAP-ON	TDHU-81A	\$11.85	Socket Universal, 12 pt., 1/4" drive x 1/4"
5120-PWT-0028	SNAP-ON	TDHU-101A	\$11.85	Socket Universal, 12 pt., 1/4" drive x 5/16"
5120-PWT-0029	SNAP-ON	TDHU-121A	\$11.85	Socket Universal, 12pt, 1/4" drive x 3/8"

<u>NATIONAL S.N.</u>	<u>VENDOR</u>	<u>PART NO.</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
5120-PWT-0030	SNAP-ON	TMU-141	\$ 9.19	Socket Universal, 12 pt, 1/4" drive x 7/16"
5120-PWT-0031	SNAP-ON	TMU-161	\$ 9.75	Socket Universal, 12 pt, 1/4" drive x 1/2"
5120-PWT-0032	SNAP-ON	TMU-181	\$ 9.75	Socket Universal, 12 pt, 1/4" drive x 9/16"
5120-PWT-0033	SNAP-ON	FU-12A	\$ 9.15	Socket Universal, 12 pt, 3/8" drive x 3/8"
5120-PWT-0034	SNAP-ON	FDHU-14A	\$10.46	Socket Universal, 12 pt, 3/8" drive x 7/16"
5120-PWT-0035	SNAP-ON	FDHU-16A	\$10.46	Socket Universal, 12 pt, 3/8" drive x 1/2"
5120-PWT-0036	SNAP-ON	FDHU-18A	\$10.46	Socket Universal, 12 pt, 3/8" drive x 9/16"
5120-PWT-0037	SNAP-ON	FU-20A	\$ 9.34	Socket Universal, 12 pt, 3/8" drive x 5/8"
5120-PWT-0038	SNAP-ON	FU-22A	\$ 9.79	Socket Universal, 12 pt, 3/8" drive x 11/16"
5120-PWT-0039	SNAP-ON	FU-24A	\$ 9.79	Socket Universal, 12 pt, 3/8" drive x 3/4"
5120-PWT-0040	SNAP-ON	FU-28A	\$11.70	Socket Universal, 12 pt, 3/8" drive x 7/8"
5120-PWT-0041	SNAP-ON	TMD-6	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 3/16"
5120-PWT-0042	SNAP-ON	TMD-8	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 1/4"
5120-PWT-0043	SNAP-ON	TMD-10	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 5/16"
5120-PWT-0044	SNAP-ON	TMD-12	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 3/8"
5120-PWT-0045	SNAP-ON	TMD-14	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 7/16"
5120-PWT-0046	SNAP-ON	TMD-16	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 1/2"

<u>NATIONAL S.N.</u>	<u>VENDOR</u>	<u>PART NO.</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
5120-PWT-0047	SNAP-ON	TMD-18	\$ 2.29	Socket, Thin Wall, Reg, 12 pt, 1/4" drive x 9/16"
5120-PWT-0048	SNAP-ON	F-101	\$ 2.66	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 5/16"
5120-PWT-0049	SNAP-ON	F-121	\$ 2.66	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 3/8"
5120-PWT-0050	SNAP-ON	F-141	\$ 2.66	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 7/16"
5120-PWT-0051	SNAP-ON	F-161	\$ 2.66	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 1/2"
5120-PWT-0052	SNAP-ON	F-181	\$ 2.66	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 9/16"
5120-PWT-0053	SNAP-ON	F-201	\$ 2.78	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 5/8"
5120-PWT-0054	SNAP-ON	F-221	\$ 2.85	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 11/16"
5120-PWT-0055	SNAP-ON	F-241	\$ 2.85	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 3/4"
5120-PWT-0056	SNAP-ON	F-281	\$ 3.71	Socket, Thin Wall, Reg, 12 pt, 3/8" drive x 7/8"
LONG LENGTH SOCKETS, HIGH STRENGTH, THIN WALL DESIGN. CHROMEPLATED SOCKET END IS 12 POINT				
5120-PWT-0057	SNAP-ON	STMD-6	\$ 3.71	Socket, Thin Wall, Long 12 pt, 1/4" drive x 3/16"
5120-PWT-0058	SNAP-ON	TDH-8	\$ 3.60	Socket, Thin Wall, Long 12 pt, 1/4" drive x 1/4"
5120-PWT-0059	SNAP-ON	TDH-10	\$ 3.60	Socket, Thin Wall, Long 12 pt, 1/4" drive x 5/16"
5120-PWT-0060	SNAP-ON	STMD-12	\$ 3.71	Socket, Thin Wall, Long 12 pt, 1/4" drive x 3/8"
5120-PWT-0061	SNAP-ON	STMD-14	\$ 3.71	Socket, Thin Wall, Long 12 pt, 1/4" drive x 7/16"
5120-PWT-0062	SNAP-ON	STMD-16	\$ 3.71	Socket, Thin Wall, Long 12 pt, 1/4" drive x 1/2"

<u>NATIONAL S.N.</u>	<u>VENDOR</u>	<u>PART NO.</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
5120-PWT-0063	SNAP-ON	STMD-18	\$ 3.71	Socket, Thin Wall, Long 12 pt, 1/4" drive x 9/16"
5120-PWT-0064	SNAP-ON	FDH-100	\$ 3.90	Socket, Thin Wall, Long 12 pt, 3/8" drive x 5/16"
5120-PWT-0065	SNAP-ON	FDH-120	\$ 3.90	Socket, Thin Wall, Long 12 pt, 3/8" drive x 3/8"
5120-PWT-0066	SNAP-ON	FDH-140	\$ 3.90	Socket, Thin Wall, Long 12 pt, 3/8" drive x 7/16"
5120-PWT-0067	SNAP-ON	FDH-160	\$ 3.90	Socket, Thin Wall, Long 12 pt, 3/8" drive x 1/2"
5120-PWT-0068	SNAP-ON	SF-181	\$ 3.94	Socket, Thin Wall, Long 12 pt, 3/8" drive x 9/16"
5120-PWT-0069	SNAP-ON	SF-201	\$ 4.09	Socket, Thin Wall, Long 12 pt, 3/8" drive x 5/8"
5120-PWT-0070	SNAP-ON	SF-221	\$ 4.84	Socket, Thin Wall, Long 12 pt, 3/8" drive x 11/16"
5120-PWT-0071	SNAP-ON	SF-241	\$ 5.06	Socket, Thin Wall, Long 12 pt, 3/8" drive x 3/4"
5120-PWT-0072	SNAP-ON	SF-261	\$ 5.51	Socket, Thin Wall, Long 12 pt, 3/8" drive x 13/16"
5120-PWT-0073	SNAP-ON	SF-281	\$ 6.49	Socket, Thin Wall, Long 12 pt, 3/8" drive x 7/8"
DOUBLE BOX-END WRENCHES. CHROMEPLATED				
5120-PWT-0074	SNAP-ON	XDH-1214	\$10.31	Double Box Wr., 12 pt, 3/8" x 7/16"
5120-PWT-0075	SNAP-ON	XDH-1618	\$12.15	Double Box Wr., 12 pt, 1/2" x 9/16"
5120-PWT-0076	SNAP-ON	XB-2022	\$10.13	Double Box Wr., 12 pt, 5/8" x 11/16"
5120-PWT-0077	SNAP-ON	XB-2428	\$13.65	Double Box Wr., 12 pt, 3/4" x 7/8"
5120-PWT-0078	SNAP-ON	XB-3032	\$16.76	Double Box Wr., 12 pt, 15/16" x 1"
5120-PWT-0079	SNAP-ON	XSO-810	\$ 6.26	Double Box Wr., Deep Offset, 12 pt, 1/4" x 5/16"

<u>NATIONAL S.N.</u>	<u>VENDOR</u>	<u>PART NO.</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
5120-PWT-0080	SNAP-ON	XSO-1214	\$ 6.60	Double Box Wr., Deep Offset, 12 pt, 3/8" x 7/16"
5120-PWT-0081	SNAP-ON	XS-1416	\$ 6.83	Double Box Wr., Deep Offset, 12 pt, 7/16" x 1/2"
5120-PWT-0082	SNAP-ON	XSO-1618	\$ 7.20	Double Box Wr., Deep Offset, 12 pt, 1/2" x 9/16"
5120-PWT-0083	SNAP-ON	XSO-1820	\$ 7.73	Double Box Wr., Deep Offset, 12 pt, 9/16" x 5/8"
5120-PWT-0084	SNAP-ON	XSO-2024	\$ 8.51	Double Box Wr., Deep Offset, 12 pt, 5/8" x 3/4"

DOUBLE OPEN-END WRENCHES. STANDARD LENGTH. CHROMEPLATED

5120-PWT-0085	SNAP-ON	VO-810	\$ 4.16	Double Open End Wr. 1/4" x 5/16"
5120-PWT-0086	SNAP-ON	VO-1012	\$ 4.54	Double Open End Wr. 5/16" x 3/8"
5120-PWT-0087	SNAP-ON	VO-1214	\$ 4.84	Double Open End Wr. 3/8" x 7/16"
5120-PWT-0088	SNAP-ON	VO-1416	\$ 5.21	Double Open End Wr. 7/16" x 1/2"
5120-PWT-0089	SNAP-ON	VO-1618	\$ 5.51	Double Open End Wr. 1/2" x 9/16"
5120-PWT-0090	SNAP-ON	VO-1820	\$ 6.64	Double Open End Wr. 9/16" x 5/8"
5120-PWT-0091	SNAP-ON	VO-2022	\$ 7.39	Double Open End Wr. 5/8" x 11/16"
5120-PWT-0092	SNAP-ON	VO-2224	\$ 8.63	Double Open End Wr. 11/16" x 3/4"
5120-PWT-0093	SNAP-ON	VO-2426	\$ 9.71	Double Open End Wr. 3/4" x 13/16"
5120-PWT-0094	SNAP-ON	VO-2628	\$11.66	Double Open End Wr. 13/16" x 7/8"
5120-PWT-0095	SNAP-ON	VO-2830	\$12.45	Double Open End Wr. 7/8" x 15/16"
5120-PWT-0096	SNAP-ON	VO-3032	\$16.28	Double Open End Wr. 15/16" x 1"

APPENDICES

APPENDIX B

THE EASCO TOOL CO. WARRANTED TOOL LIST

Regular length sockets; high strength, thin wall design, drive size as shown. Chromeplated. Socket end is 12 point.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0041	45	EASCO	51-3106	\$1.21	1/4" Drive, Regular Socket, 3/16"
5120-00-PWT-0104	46	EASCO	51-3107	\$1.21	1/4" Drive, Regular Socket, 7/32"
5120-00-PWT-0105	48	EASCO	51-3109	\$1.21	1/4" Drive, Regular Socket, 9/32"
5120-00-PWT-0106	50	EASCO	51-3111	\$1.21	1/4" Drive, Regular Socket, 11/32"
5120-00-PWT-0044	51	EASCO	51-3112	\$1.21	1/4" Drive, Regular Socket, 3/8"
5120-00-PWT-0045	52	EASCO	51-3114	\$1.21	1/4" Drive, Regular Socket, 7/16"
5120-00-PWT-0046	53	EASCO	51-3116	\$1.21	1/4" Drive, Regular Socket, 1/2"
5120-00-PWT-0049	54	EASCO	52-3112	\$1.43	3/8" Drive, Regular Socket, 3/8"
5120-00-PWT-0050	55	EASCO	52-3114	\$1.43	3/8" Drive, Regular Socket, 7/16"
5120-00-PWT-0051	56	EASCO	52-3116	\$1.51	3/8" Drive, Regular Socket, 1/2"
5120-00-PWT-0052	57	EASCO	52-3118	\$1.51	3/8" Drive, Regular Socket, 9/16"
5120-00-PWT-0053	58	EASCO	52-3120	\$1.53	3/8" Drive, Regular Socket, 5/8"
5120-00-PWT-0054	59	EASCO	52-3122	\$1.73	3/8" Drive, Regular Socket, 11/16"
5120-00-PWT-0055	60	EASCO	52-3124	\$1.83	3/8" Drive, Regular Socket, 3/4"
5120-00-PWT-0109	61	EASCO	52-3126	\$1.88	3/8" Drive, Regular Socket, 13/16"
5120-00-PWT-0056	62	EASCO	52-3128	\$1.96	3/8" Drive, Regular Socket, 7/8"

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0112	63	EASCO	53-3116	\$2.27	1/2" Drive, Regular Socket, 1/2"
5120-00-PWT-0113	64	EASCO	53-3118	\$2.27	1/2" Drive, Regular Socket, 9/16"
5120-00-PWT-0114	65	EASCO	53-3120	\$2.27	1/2" Drive, Regular Socket, 5/8"
5120-00-PWT-0115	66	EASCO	53-3122	\$2.27	1/2" Drive, Regular Socket, 11/16"
5120-00-PWT-0116	67	EASCO	53-3124	\$2.35	1/2" Drive, Regular Socket, 3/4"
5120-00-PWT-0117	68	EASCO	53-3126	\$2.35	1/2" Drive, Regular Socket, 13/16"
5120-00-PWT-0118	69	EASCO	53-3128	\$2.50	1/2" Drive, Regular Socket, 7/8"
5120-00-PWT-0119	70	EASCO	53-3130	\$2.77	1/2" Drive, Regular Socket, 15/16"
5120-00-PWT-0120	71	EASCO	53-3132	\$3.21	1/2" Drive, Regular Socket, 1"
5120-00-PWT-0121	72	EASCO	53-3134	\$3.38	1/2" Drive, Regular Socket, 1 1/16"
5120-00-PWT-0122	73	EASCO	53-3136	\$3.74	1/2" Drive, Regular Socket, 1 1/8"
5120-00-PWT-0123	74	EASCO	53-3140	\$3.94	1/2" Drive, Regular Socket, 1 1/4"

<p>Long length sockets, high strength, thin wall design, drive size as shown Chromeplated. Socket end is 12 point.</p>
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5120-00-PWT-0065	84	EASCO	52-3212	\$2.45	3/8" Drive, Deep Socket, 3/8"
5120-00-PWT-0066	85	EASCO	52-3214	\$2.45	3/8" Drive, Deep Socket, 7/16"
5120-00-PWT-0067	86	EASCO	52-3216	\$2.95	3/8" Drive, Deep Socket, 1/2"
5120-00-PWT-0068	87	EASCO	52-3218	\$2.95	3/8" Drive, Deep Socket, 9/16"
5120-00-PWT-0069	88	EASCO	52-3220	\$2.95	3/8" Drive, Deep Socket, 5/8"
5120-00-PWT-0070	89	EASCO	52-3222	\$2.95	3/8" Drive, Deep Socket, 11/16"
5120-00-PWT-0071	90	EASCO	52-3224	\$3.44	3/8" Drive, Deep Socket, 3/4"
5120-00-PWT-0072	91	EASCO	52-3226	\$3.44	3/8" Drive, Deep Socket, 13/16"
5120-00-PWT-0073	92	EASCO	52-3228	\$3.44	3/8" Drive, Deep Socket, 7/8"

Long length sockets, high strength, thin wall design, drive size as shown
 Chromeplated. Socket end is 12 point.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0130	93	EASCO	53-3216	\$4.43	1/2" Drive, Deep Socket, 1/2"
5120-00-PWT-0131	94	EASCO	53-3218	\$4.43	1/2" Drive, Deep Socket, 9/16"
5120-00-PWT-0132	95	EASCO	53-3220	\$4.43	1/2" Drive, Deep Socket, 5/8"
5120-00-PWT-0133	96	EASCO	53-3222	\$4.93	1/2" Drive, Deep Socket, 11/16"
5120-00-PWT-0134	97	EASCO	53-3224	\$4.93	1/2" Drive, Deep Socket, 3/4"
5120-00-PWT-0135	98	EASCO	53-3226	\$4.93	1/2" Drive, Deep Socket, 13/16"
5120-00-PWT-0136	99	EASCO	53-3228	\$5.92	1/2" Drive, Deep Socket, 7/8"
5120-00-PWT-0137	100	EASCO	53-3230	\$5.92	1/2" Drive, Deep Socket, 15/16"
5120-00-PWT-0138	101	EASCO	53-3232	\$5.92	1/2" Drive, Deep Socket, 1"
5120-00-PWT-0139	102	EASCO	53-3234	\$5.92	1/2" Drive, Deep Socket, 1 1/16"
5120-00-PWT-0140	103	EASCO	53-3236	\$5.92	1/2" Drive, Deep Socket, 1 1/8"

Speeder handles, with revolving end handle. Chromeplated. High Strength.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0019	107	EASCO	71-1923	\$9.38	Speed Handle, 1/4 inch drive size

Extensions; same drive size on male and female ends. High strength. Chromeplated.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0142	109	EASCO	71-1203	\$3.14	Extension, 1/4 inch x 2 inches long
5120-00-PWT-0021	110	EASCO	71-1206	\$3.64	Extension, 1/4 inch x 6 inches long
5120-00-PWT-0022	111	EASCO	72-1203	\$3.64	Extension, 3/8 inch x 3 inches long
5120-00-PWT-0144	112	EASCO	72-1206	\$4.63	Extension, 3/8 inch x 6 inches long
5120-00-PWT-0023	113	EASCO	72-1210	\$6.11	Extension, 3/8 inch x 8 inches long
5120-00-PWT-0145	115	EASCO	73-1206	\$5.22	Extension, 1/2 inch x 5 inches long
5120-00-PWT-0146	116	EASCO	73-1210	\$7.20	Extension, 1/2 inch x 10 inches long

Socket adapters; Male and female square end size as shown. High strength. Chromeplated.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0150	126	EASCO	72-1508	\$2.47	Adapter, 3/8" female end, 1/4" male end
5120-00-PWT-0151	127	EASCO	71-1512	\$2.47	Adapter, 1/4" female end, 3/8" male end
5120-00-PWT-0152	128	EASCO	72-1516	\$3.24	Adapter, 3/8" female end, 1/2" male end
5120-00-PWT-0153	129	EASCO	73-1512	\$4.23	Adapter, 1/2" female end, 3/8" male end

Handle, hinged, breaker bar, high strength, chromeplated.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0154	120	EASCO	71-1306	\$5.92	Hinge Handle, 1/4 inch drive size, 6" long
5120-00-PWT-0155	121	EASCO	72-1310	\$9.88	Hinge Handle, 3/8 inch drive size, 9" long
5120-00-PWT-0156	122	EASCO	73-1315	\$15.82	Hinge Handle, 1/2 inch drive size, 14 1/2" long
5120-00-PWT-0157	123	EASCO	73-1318	\$17.80	Hinge Handle, 1/2 inch drive size, 18" long

Double box-end wrenches; 12 point. High strength. Chromeplated.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE OFFSET</u>
5120-00-PWT-0165	22	EASCO	63-112	\$4.43		1/4" x 5/16"	Standard
5120-00-PWT-0074	140	EASCO	62-114	\$4.93		3/8" x 7/16"	Standard
5120-00-PWT-0075	141	EASCO	62-118	\$4.93		1/2" x 9/16"	Standard

Double open-end wrenches, standard length. Chromeplated. High strength.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Vendor</u>	<u>Part No.</u>	<u>Unit Price</u>	<u>Description</u>
5120-00-PWT-0085	151	EASCO	61-110	\$3.44	Double Open End Wrench, 1/4" x 5/16"
5120-00-PWT-0086	152	EASCO	61-112	\$3.44	Double Open End Wrench, 5/16" x 3/8"
5120-00-PWT-0087	153	EASCO	61-114	\$3.44	Double Open End Wrench, 3/8" x 7/16"
5120-00-PWT-0088	154	EASCO	61-116	\$4.43	Double Open End Wrench, 7/16" x 1/2"
5120-00-PWT-0089	155	EASCO	61-118	\$4.43	Double Open End Wrench, 1/2" x 9/16"
5120-00-PWT-0090	156	EASCO	61-120	\$4.43	Double Open End Wrench, 9/16" x 5/8"

APPENDICES

APPENDIX C

WARRANTED TOOL LIST

Universal-joint sockets; high strength, thin wall design, drive size as shown. Chromeplated. Socket end shall be 12 point.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0097	1	1/4" Drive, Universal Socket, 3/16"
5120-00-PWT-0098	2	1/4" Drive, Universal Socket, 7/32"
5120-00-PWT-0027	32	1/4" Drive, Universal Socket, 1/4"
5120-00-PWT-0099	3	1/4" Drive, Universal Socket, 9/32"
5120-00-PWT-0028	33	1/4" Drive, Universal Socket, 5/16"
5120-00-PWT-0100	4	1/4" Drive, Universal Socket, 11/32"
5120-00-PWT-0029	34	1/4" Drive, Universal Socket, 3/8"
5120-00-PWT-0030	35	1/4" Drive, Universal Socket, 7/16"
5120-00-PWT-0031	36	1/4" Drive, Universal Socket, 1/2"
5120-00-PWT-0032	37	1/4" Drive, Universal Socket, 9/16"
5120-00-PWT-0101	5	3/8" Drive, Universal Socket, 5/16"
5120-00-PWT-0033	38	3/8" Drive, Universal Socket, 3/8"
5120-00-PWT-0034	39	3/8" Drive, Universal Socket, 7/16"
5120-00-PWT-0035	40	3/8" Drive, Universal Socket, 1/2"
5120-00-PWT-0036	41	3/8" Drive, Universal Socket, 9/16"
5120-00-PWT-0037	42	3/8" Drive, Universal Socket, 5/8"
5120-00-PWT-0038	43	3/8" Drive, Universal Socket, 11/16"
5120-00-PWT-0039	44	3/8" Drive, Universal Socket, 3/4"
5120-00-PWT-0102	6	3/8" Drive, Universal Socket, 13/16"
5120-00-PWT-0040	7	3/8" Drive, Universal Socket, 7/8"
5120-00-PWT-0103	8	3/8" Drive, Universal Socket, 15/16"

Regular length sockets; high strength, thin wall design, drive size as shown. Chromeplated. Socket end is 12 point.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0041	45	1/4" Drive, Regular Socket, 3/16"
5120-00-PWT-0104	46	1/4" Drive, Regular Socket, 7/32"
5120-00-PWT-0042	47	1/4" Drive, Regular Socket, 1/4"
5120-00-PWT-0105	48	1/4" Drive, Regular Socket, 9/32"
5120-00-PWT-0043	49	1/4" Drive, Regular Socket, 5/16"
5120-00-PWT-0106	50	1/4" Drive, Regular Socket, 11/32"
5120-00-PWT-0044	51	1/4" Drive, Regular Socket, 3/8"
5120-00-PWT-0045	52	1/4" Drive, Regular Socket, 7/16"
5120-00-PWT-0046	53	1/4" Drive, Regular Socket, 1/2"
5120-00-PWT-0047	9	1/4" Drive, Regular Socket, 9/16"
5120-00-PWT-0107	10	3/8" Drive, Regular Socket, 1/4"
5120-00-PWT-0048	11	3/8" Drive, Regular Socket, 5/16"
5120-00-PWT-0108	12	3/8" Drive, Regular Socket, 11/32"
5120-00-PWT-0049	54	3/8" Drive, Regular Socket, 3/8"
5120-00-PWT-0050	55	3/8" Drive, Regular Socket, 7/16"
5120-00-PWT-0051	56	3/8" Drive, Regular Socket, 1/2"
5120-00-PWT-0052	57	3/8" Drive, Regular Socket, 9/16"
5120-00-PWT-0053	58	3/8" Drive, Regular Socket, 5/8"
5120-00-PWT-0054	59	3/8" Drive, Regular Socket, 11/16"
5120-00-PWT-0055	60	3/8" Drive, Regular Socket, 3/4"
5120-00-PWT-0109	61	3/8" Drive, Regular Socket, 13/16"
5120-00-PWT-0056	62	3/8" Drive, Regular Socket, 7/8"
5120-00-PWT-0110	13	3/8" Drive, Regular Socket, 15/16"
5120-00-PWT-0111	14	3/8" Drive, Regular Socket, 1"

Regular length sockets; high strength, thin wall design, drive size as shown. Chromeplated. Socket end is 12 point.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0112	63	1/2" Drive, Regular Socket, 1/2"
5120-00-PWT-0113	64	1/2" Drive, Regular Socket, 9/16"
5120-00-PWT-0114	65	1/2" Drive, Regular Socket, 5/8"
5120-00-PWT-0115	66	1/2" Drive, Regular Socket, 11/16"
5120-00-PWT-0116	67	1/2" Drive, Regular Socket, 3/4"
5120-00-PWT-0117	68	1/2" Drive, Regular Socket, 13/16"
5120-00-PWT-0118	69	1/2" Drive, Regular Socket, 7/8"
5120-00-PWT-0119	70	1/2" Drive, Regular Socket, 15/16"
5120-00-PWT-0120	71	1/2" Drive, Regular Socket, 1"
5120-00-PWT-0121	72	1/2" Drive, Regular Socket, 1 1/16"
5120-00-PWT-0122	73	1/2" Drive, Regular Socket, 1 1/8"
5120-00-PWT-0123	74	1/2" Drive, Regular Socket, 1 1/4"

Long length sockets, high strength, thin wall design, drive as shown
 Chromeplated. Socket end is 12 point.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0057	75	1/4" Drive, Deep Socket, 3/16"
5120-00-PWT-0124	76	1/4" Drive, Deep Socket, 7/32"
5120-00-PWT-0058	77	1/4" Drive, Deep Socket, 1/4"
5120-00-PWT-0125	78	1/4" Drive, Deep Socket, 9/32"
5120-00-PWT-0059	79	1/4" Drive, Deep Socket, 5/16"
5120-00-PWT-0126	80	1/4" Drive, Deep Socket, 11/32"
5120-00-PWT-0060	81	1/4" Drive, Deep Socket, 3/8"
5120-00-PWT-0061	82	1/4" Drive, Deep Socket, 7/16"
5120-00-PWT-0062	83	1/4" Drive, Deep Socket, 1/2"
5120-00-PWT-0063	15	1/4" Drive, Deep Socket, 9/16"
5120-00-PWT-0127	16	3/8" Drive, Deep Socket, 1/4"
5120-00-PWT-0064	17	3/8" Drive, Deep Socket, 5/16"
5120-00-PWT-0065	84	3/8" Drive, Deep Socket, 3/8"
5120-00-PWT-0066	85	3/8" Drive, Deep Socket, 7/16"
5120-00-PWT-0067	86	3/8" Drive, Deep Socket, 1/2"
5120-00-PWT-0068	87	3/8" Drive, Deep Socket, 9/16"
5120-00-PWT-0069	88	3/8" Drive, Deep Socket, 5/8"
5120-00-PWT-0070	89	3/8" Drive, Deep Socket, 11/16"
5120-00-PWT-0071	90	3/8" Drive, Deep Socket, 3/4"
5120-00-PWT-0072	91	3/8" Drive, Deep Socket, 13/16"
5120-00-PWT-0073	92	3/8" Drive, Deep Socket, 7/8"
5120-00-PWT-0128	18	3/8" Drive, Deep Socket, 15/16"
5120-00-PWT-0129	19	3/8" Drive, Deep Socket, 1"

Long length sockets, high strength, thin wall design, drive as shown
Chromeplated. Socket end is 12 point.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0130	93	1/2" Drive, Deep Socket, 1/2"
5120-00-PWT-0131	94	1/2" Drive, Deep Socket, 9/16"
5120-00-PWT-0132	95	1/2" Drive, Deep Socket, 5/8"
5120-00-PWT-0133	96	1/2" Drive, Deep Socket, 11/16"
5120-00-PWT-0134	97	1/2" Drive, Deep Socket, 3/4"
5120-00-PWT-0135	98	1/2" Drive, Deep Socket, 13/16"
5120-00-PWT-0136	99	1/2" Drive, Deep Socket, 7/8"
5120-00-PWT-0137	100	1/2" Drive, Deep Socket, 15/16"
5120-00-PWT-0138	101	1/2" Drive, Deep Socket, 1"
5120-00-PWT-0139	102	1/2" Drive, Deep Socket, 1 1/16"
5120-00-PWT-0140	103	1/2" Drive, Deep Socket, 1 1/8"
5120-00-PWT-0141	20	1/2" Drive, Deep Socket, 1 1/4"

Reversible ratchet wrenches. Chromeplated. High Strength.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0016	104	Ratchet, 1/4 inch drive size
5120-00-PWT-0017	105	Ratchet, 3/8 inch drive size
5120-00-PWT-0018	106	Ratchet, 1/2 inch drive size

Speed handles, with revolving end handle. Chromeplated. High Strength.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0019	107	Speed Handle, 1/4 inch drive size
5120-00-PWT-0020	108	Speed Handle, 3/8 inch drive size

Extensions; same drive size on male and female ends. High strength.
Chromeplated.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0142	109	Extension, 1/4 inch x 2 inches long
5120-00-PWT-0021	110	Extension, 1/4 inch x 6 inches long
5120-00-PWT-0143	21	Extension, 1/4 inch x 10 inches long
5120-00-PWT-0022	111	Extension, 3/8 inch x 3 inches long
5120-00-PWT-0144	112	Extension, 3/8 inch x 6 inches long
5120-00-PWT-0023	113	Extension, 3/8 inch x 8 inches long
5120-00-PWT-0024	114	Extension, 3/8 inch x 12 inches long
5120-00-PWT-0145	115	Extension, 1/2 inch x 5 inches long
5120-00-PWT-0146	116	Extension, 1/2 inch x 10 inches long

Flexible extension, same drive size on male and female ends. High strength, chromeplated ends.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0147	124	Flexible Extension, 1/4" x 6" long
5120-00-PWT-0148	125	Flexible Extension, 3/8" x 8" long

Universal joints; same drive size on male and female ends. High strength. Chromeplated.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0025	117	1/4 inch universal joint
5120-00-PWT-0026	118	3/8 inch universal joint
5120-00-PWT-0149	119	1/2 inch universal joint

Socket adapters; Male and female square end size as shown. High strength. Chromeplated.

GSA		
<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0150	126	Adapter, 3/8" female end, 1/4" male end
5120-00-PWT-0151	127	Adapter, 1/4" female end, 3/8" male end
5120-00-PWT-0152	128	Adapter, 3/8" female end, 1/2" male end
5120-00-PWT-0153	129	Adapter, 1/2" female end, 3/8" male end

Handle, hinged, breaker bar, high strength, chromeplated.

GSA		
<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0154	120	Hinge Handle, 1/4 inch drive size, 6" long
5120-00-PWT-0155	121	Hinge Handle, 3/8 inch drive size, 9" long
5120-00-PWT-0156	122	Hinge Handle, 1/2 inch drive size, 14 1/2" long
5120-00-PWT-0157	123	Hinge Handle, 1/2 inch drive size, 18" long

Pliers, type and style as shown, high strength.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0002	130	Pliers, Chain Nose; Size 6 inch with Side Cutters, Jaw Size 1 1/2 inch
5120-00-PWT-0158	131	Pliers, Chain Nose; Size 4 1/2 inch with Side Cutters, Jaw Size 3/4 inch
5120-00-PWT-0159	132	Pliers, Needle Nose; Bent; Size 6 1/2 inch, Jaw Size 3 inch
5120-00-PWT-0160	133	Pliers, Diagonal-cutting; 4 inch size without cushion throat, without stripping notches. Jaw Length 14/32" size
5120-00-PWT-0004	134	Pliers, Diagonal-cutting; 7 inch size without cushion throat, without stripping notches. Jaw Length 3/4" size
5120-00-PWT-0161	135	Pliers, Diagonal-cutting; 6 inch size without cushion throat, without stripping notches. Jaw Length 3/4" size
5120-00-PWT-0003	136	Pliers, Adjustable joint; 10 inch size, multiple tongue and groove. 5 jaw positions.
5120-00-PWT-0162	137	Pliers, Duck Bill; 7 3/4 inch size, finely serrated jaw tip, jaw length 1 5/16" size
5120-00-PWT-0163	138	Pliers, Combination, Regular Straight Nose Two Position Slip Joint, Chromeplated, 6" long, jaw width 24/64"
5120-00-PWT-0164	139	Pliers, Combination, Regular Straight Nose Two Position Slip Joint, Chromeplated, 7 1/2" long, jaw width 13/32"

Double box-end wrenches; 12 point. High strength. Chromeplated.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>	
		<u>SIZE</u>	<u>TYPE OFFSET</u>
5120-00-PWT-0165	22	1/4" x 5/16"	Standard
5120-00-PWT-0166	23	5/16" x 3/8"	Standard
5120-00-PWT-0074	140	3/8" x 7/16"	Standard
5120-00-PWT-0075	141	1/2" x 9/16"	Standard
5120-00-PWT-0076	142	5/8" x 11/16"	Standard
5120-00-PWT-0167	24	11/16" x 3/4"	Standard
5120-00-PWT-0077	143	3/4" x 7/8"	Standard
5120-00-PWT-0168	25	7/8" x 13/16"	Standard
5120-00-PWT-0078	144	15/16" x 1"	Standard
5120-00-PWT-0079	145	1/4" x 5/16"	Deep
5120-00-PWT-0080	146	3/8" x 7/16"	Deep
5120-00-PWT-0081	147	7/16" x 1/2"	Deep
5120-00-PWT-0082	148	1/2" x 9/16"	Deep
5120-00-PWT-0083	149	9/16" x 5/8"	Deep
5120-00-PWT-0084	150	5/8" x 3/4"	Deep

Double open-end wrenches, standard length. Chromeplated. High strength.

GSA

<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0085	151	Double Open End Wrench, 1/4" x 5/16"
5120-00-PWT-0086	152	Double Open End Wrench, 5/16" x 3/8"
5120-00-PWT-0087	153	Double Open End Wrench, 3/8" x 7/16"
5120-00-PWT-0088	154	Double Open End Wrench, 7/16" x 1/2"
5120-00-PWT-0089	155	Double Open End Wrench, 1/2" x 9/16"
5120-00-PWT-0090	156	Double Open End Wrench, 9/16" x 5/8"
5120-00-PWT-0091	157	Double Open End Wrench, 5/8" x 11/16"
5120-00-PWT-0092	158	Double Open End Wrench, 11/16" x 3/4"
5120-00-PWT-0093	159	Double Open End Wrench, 3/4" x 13/16"
5120-00-PWT-0094	160	Double Open End Wrench, 13/16" x 7/8"
5120-00-PWT-0095	161	Double Open End Wrench, 7/8" x 15/16"
5120-00-PWT-0096	162	Double Open End Wrench, 15/16" x 1"
5120-00-PWT-0169	26	Double Open End Wrench, 1 1/16" x 1 1/4"

Combination-end wrenches; 12 point, high strength. Chromeplated.

GSA			
<u>National Stock Number (NSN)</u>	<u>Contract Item No.</u>	<u>Description</u>	
		<u>SIZE</u>	<u>Combination-End Wrench OVERALL LENGTH</u>
5120-00-PWT-0170	163	5/16"	6"
5120-00-PWT-0171	164	11/32"	6 1/2"
5120-00-PWT-0172	165	3/8"	7"
5120-00-PWT-0173	166	7/16"	7 1/4"
5120-00-PWT-0174	167	1/2"	7 1/2"
5120-00-PWT-0175	168	9/16"	8"
5120-00-PWT-0176	169	5/8"	8 1/2"
5120-00-PWT-0177	170	11/16"	9"
5120-00-PWT-0178	171	3/4"	10"
5120-00-PWT-0179	172	13/16"	11"
5120-00-PWT-0180	173	7/8"	11 1/2"
5120-00-PWT-0181	174	15/16"	13"
5120-00-PWT-0182	175	1"	14"

Wrench, open end, adjustable jaw, high-strength, chromeplated.

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>	
		Open-End, Adjustable Jaw Wrench	
		<u>Length</u>	<u>Jaw Cap</u>
5120-00-PWT-0183	176	4 inches	1/2"
5120-00-PWT-0184	177	6 inches	3/4"
5120-00-PWT-0185	178	8 inches	15/16"
5120-00-PWT-0186	179	10 inches	1 1/8"
5120-00-PWT-0187	180	12 inches	1 5/16"

Screwdrivers

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0006	181	Common Screwdriver, 1 1/2" Flared Tip, Tip Width - .037 x 1/4"
5120-00-PWT-0188	182	Common Screwdriver, 3" Straight Tip, Tip Width - .032 x 11/64"
5120-00-PWT-0007	183	Common Screwdriver, 3" Flared Tip, Tip Width - .032 x 3/16"
5120-00-PWT-0008	184	Common Screwdriver, 4" Flared Tip, Tip Width - .037 x 1/4"
5120-00-PWT-0009	185	Common Screwdriver, 6" Flared Tip, Tip Width - .046 x 5/16"
5120-00-PWT-0189	186	Common Screwdriver, 6" Straight Tip, Tip Width - .032 x 11/64"
5120-00-PWT-0190	187	Common Screwdriver, 8" Straight Tip, Tip Width - .032 x 1/4"

Screwdrivers (Cont'd)

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0010	188	Common Screwdriver, 8" Flared Tip, Tip Size - .050 x 3/8"
5120-00-PWT-0191	189	Common Screwdriver, 10" Flared Tip, Tip Size - .055 x 3/8"
5120-00-PWT-0192	190	Common Screwdriver, 10" Straight Tip, Tip Size - .032 x 11/64"
5120-00-PWT-0193	191	Common Screwdriver, 12" Flared Tip, Tip Size - .060 x 15/32"
5120-00-PWT-0011	192	Phillips Screwdriver, #2; 1 1/2" Blade Length
5120-00-PWT-0012	193	Phillips Screwdriver, #1; 3" Blade Length
5120-00-PWT-0013	194	Phillips Screwdriver, #2; 4" Blade Length
5120-00-PWT-0194	195	Phillips Screwdriver, #2; 6" Blade Length
5120-00-PWT-0014	196	Phillips Screwdriver, #3; 6" Blade Length
5120-00-PWT-0015	197	Phillips Screwdriver, #4; 8" Blade Length
5120-00-PWT-0195	198	Offset Screwdriver, Common, Flat Tip, 5/16" x .030", Overall Length 4 1/2"
5120-00-PWT-0196	199	Offset Screwdriver, Phillips #1 and #2 Tip, Overall Length 4 1/2"
5120-00-PWT-0197	200	Offset Screwdriver, Phillips #3 and #4 Tip, Overall Length 6"

Hammers

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0198	27	Ball Peen Hammer, Wood Handle, High Strength, 4 oz Head Weight, 10" Handle
5120-00-PWT-0199	28	Ball Peen Hammer, Wood Handle, High Strength, 16 oz Head Weight, 14" Handle
5120-00-PWT-0200	29	Plastic Tip Hammer, High Strength, 16 oz Head Weight, 11" Handle
5120-00-PWT-0201	30	Bronze Tip Hammer, High Strength, 16 oz Head Weight, 11" Handle

Cotter Key Extractor

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0001	31	Extractor, Cotter Key, Screwdriver Type Handle, 4-6 Inches Under the Handle, with Bent Point

Aviation Snips

<u>National Stock Number (NSN)</u>	<u>GSA Contract Item No.</u>	<u>Description</u>
5120-00-PWT-0202	201	Aviation Snips; 10 inch nominal size, straight cut, compound level, serrated blade.
5120-00-PWT-0203	202	Aviation Snips; 10 1/2 inch nominal size, left cut, compound level, serrated blade.
5120-00-PWT-0204	203	Aviation Snips; 10 1/2 inch nominal size, right cut, compound level, serrated blade.